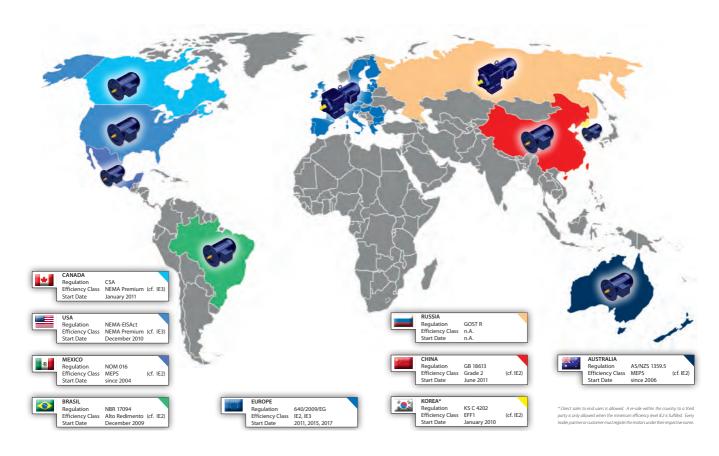
Energy Efficient Geared MotorsCatalogue Edition 03/2012 EN





An Altra Industrial Motion Company

Worldwide Efficiency Regulations



Legend



Efficiency requirements are valid for geared motors and solo motors



Efficiency requirements are valid only for solo motors

Exceptions to regulation (EC) no. 640/2009/EC of 22 July 2009:

Operating conditions

 Motors designed to operate fully submerged in a liquid (IP68)

Construction

 motors that are completely integrated in a product (such as a transmission, pump, fan or compressor) whose energy efficiency cannot be determined independently of this product

Ambient conditions

- at heights above 1,000 metres above sea level
- at ambient temperatures above 40° C
- at maximum operating temperatures above 400 °C
- at ambient temperatures below -15° C (all motors) or ambient temperatures below 0° C (air cooled motors)
- with coolant temperatures at product intake below 5 °C or above 25 °C

Ambient conditions

 in areas with a potentially explosive atmosphere as mentioned in Directive 94/9/EC of the European Parliament and Council

Other

- Brake motors
- Pole changing motors
- 8,10,12 pole motors
- Single phase motors
- DC motors
- Duty cycles other than S1
- Motors exclusively designed for inverter duty

Type Designations

BK 50 Z - 1 1 U W A / D.. 09L A 4 - TF - S / ES 010 A 9 HN / C2

BK 50 Z X - 1 1 A = SSV Cover W = Double Shaft Seals V H = Front and Rear V = Flange A or C or Torque Arm front H = Flange, A or C or screw-on Torque Arm rear U = Foot bottom or screw-on Torque Arm to bottom O = Foot top or Torque Arm angeschraubt in Richtung to top R = Foot right or Torque Arm angeschraubt in Richtung to right Foot left or Torque Arm angeschraubt in Richtung to left 0 = Splined Shaft acc. to DIN 5480 1 = Solid Shaft, front 2 = Solid Shaft, rear 3 = Solid Shaft, front and rear 4 = Hollow Shaft with Keyway 5 = Hollow Shaft for Shrink disk connection, rear (Standard) 6 = Hollow Shaft for Shrink disk connection, front (Special) 7 = Solid Shaft front, flush with Standard-Flange only BG10-BG90 and BS02+BS03 8 = Solid Shaft rear, flush with Standard-Flange only BS02+BS03 9 = Solid Shaft front and rear, flush with Standard-Flange only BS02+BS03 Gear Housing, no surfaces except torque arm bore for BF Gear Housing, Foot 2 = Gear Housing, Standard flange diameter 1 small A-Flange 3 = Gear Housing, Standard flange diameter 2 Standard A-Flange 4 = Gear Housing, Standard flange diameter 3 large A-Flange 5 = Gear Housing, with Torque Arm for BK + BS as screw-on 6 = Gear Housing, Foot-threaded bores 7 = Gear Housing, C - Flange 8 = Gear Housing, completely machined 9 = Gear Housing, with Footplate only BG (Universal housing) - = seperates gear type from gear design X = reinforced bearings (radial) Z = Gearbox with pre-stage = Gear Size (03, 04, 05, 06, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100) Gear type (BG, BF, BK, BS)

D.. 09 LA4-TF-

S = rectifier (see chapter 3)

TF = Motor monitoring (see chapter 3)

4 = No. of pole for motor

LA = Motor core length and design

09 = Motor size

A Aseptic motor

SE Three-Phase Motor with increased efficiency acc. to IE1

HE Three-Phase Motor with increased efficiency acc. to IE2

PE Three-Phase Motor with increased efficiency acc. to IE3

= NF Motor without Gearbox, Motor in flange design

= XE Expl.-Motor with increased safety

= XD Flame Proof

D = Three-Phase Motor

ES 010 A 9 HN

HA = Hand Release (lockable)

HN = Hand Release (none lockable)

9 = Code for setting torque

A = Design

010 = Brake size

ES Single disk brakes - HOLDING BRAKE

ZS Double disk brakes - HOLDING BRAKE

ESX = Single disk brakes - WORKING BRAKE

ZSX = Double disk brakes - WORKING BRAKE

EU-Directive 640/2009/EC

What does the EU directive mean?

EN 60034-30 is an international standard for energy-efficient motors and will in future years be used worldwide in this area.

Electric motors account for approximately 1.07 billion kWh of the total energy demand of the EU. Using energy efficient motors would achieve energy savings of 20 to 30 per cent, thereby reducing the total cost of ownership (TCO) and reducing global warming.

As things stand today

New IE (International Energy Efficiency) efficiency classes were introduced at the beginning of 2009:

IE1 = Standard Efficiency (~ EFF2)

IE2 = High Efficiency (~ EFF1)

IE3 = Premium Efficiency (10-15 % higher efficiency than IE2)

IE4 = Super Premium Efficiency

The IE classes cover the following:

Rated voltage

up to 1,000 V

Power

0.75 kW to 375 kW

Number of poles

2, 4 or 6 (50 and 60 Hz)

Operation

Mains Duty

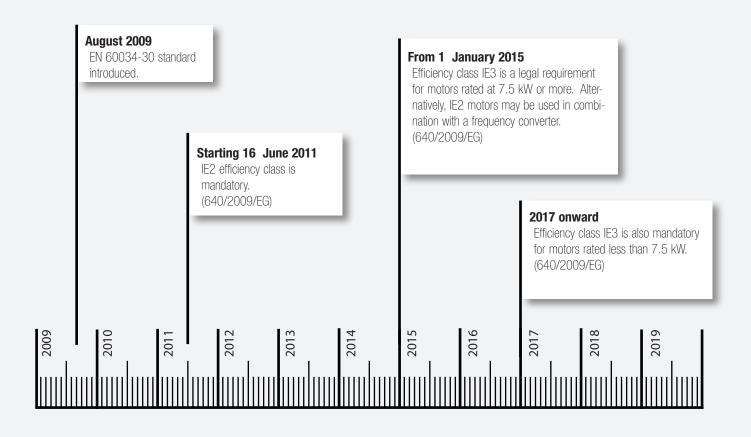
Operating modes

S1

Remarks

A new consideration: geared motors

What happens when?



Edition 03/2012

		Page
General		9-12
Product Description		13-18
Type Designations	Control of the contro	19-28
Gear Motor Selection	Bauer Gear Motor	29-50
Gearboxes and Lubrication		51-76
Helical-Geared Motors Series BG Selection		77-164
Parallel Shaft-Geared Motors Series BF Selection		165-238
Bevel-Geared Motors Series BK Selection		239-298
Worm-Geared Motors Series BS Dimensions		299-336
Helical-Geared Motors Series BG Dimensions		337-390
Parallel Shaft-Geared Motors Series BF Dimensions		391-442
Bevel-Geared Motors Series BK Dimensions		443-496
Worm-Geared Motors Series BS Dimensions		497-534
Motors	M 50 Hz 60 Hz 60 Hz €x	535-586
Motor Mounted Components		587-612
Motor Mounted Components Dimensions		613-632
Electronics		633-648
BAUER global		649-658

Drive solutions by Bauer



... As one of the leading manufacturers of intelligent drive technology, we have lived this motto for more than 80 years.

Innovative products, modern processes and responsible employees realise this motto with the target of conserving resources and the environment together with efficient energy use over our whole field of activity.

The success of our efforts assumes that we know and master our customers applications and the requirements on drive technology.

We do this perfectly - from engineering, design and calculation through procurement, production and logistic to special application knowledge in the most important branch sectors.

CD Rom:



Internet:

WWW.BAUERGEARS.COM

The most recent version of the Terms and Conditions can be found under "www.bauergears.com"

Product Overview

Helical-Geared Motor Series BG



Compact and economical inline helical geared motors for long lifetime under arduous conditions.

- Motor power from 0.03 kW to 75 kW
- 13 gearbox sizes for torques from 20 Nm to 18500 Nm
- New attachment possibilities with low design height
- High efficiency through 2 stage base design
- Enclosure IP 65 as standard
- Service friendly built-on brake

Shaft-Mounted Geared Motor Series BF



Shaft-mounted geared motors with integrated torque arm are easily integrated and economically applied.

- Gearbox housing with integral torque arm
- Motor power from 0.03 kW to 75 kW
- 10 gearbox sizes for torques from 90 Nm to 18500 Nm
- High efficiency through 2 stage base design
- Enclosure IP 65 as standard
- Service friendly built-on brake

Bevel-Geared Motor Series BK



Power-dense, right-angle, bevel-geared motors ensure the highest efficiency especially when used with frequency inverters

- The right angle gearbox with universal attachement possibilities
- Motor power from 0.03 kW to 75 kW
- 10 gearbox sizes for torques from 80 Nm to 18500 Nm
- High efficiency through 2 stage base design
- Enclosure IP 65 as standard
- Service friendly built-on brake

$\textbf{AsepticDrive}^{\text{TM}}$



Geared motors for the food & beverage industry as well as for all applications with high cleaning intensity or ambient conditions such as dust, fluff etc.

- Motor without fan and cooling fins
- Motor power

4

DA08 0.25 kW - 0.55 kW DA09 0.37 kW - 1.5 kW DA11 1.1 kW - 2.2 kW

- Available with helical, parallel shaft, bevel and worm gears
- Motor winding in Iso Class F with thermistors as standard
- Enclosure IP 67 and IP 69K with acid and alkali resistant coating as standard
- Motor connection through standard stainless steel plug connector
- Efficiency Classification IE2 / IE3

CleanDrive[™]



Geared motors for the Food & Beverage industry in enclosure IP 66 with acid and alkali resistant coating as standard.

- Motor without fan and cooling fins
- Motor power 0.12 kW
- Motor winding in Iso Class F with thermistors as standard
- Motor connection through standard terminal box or stainless steel cable gland

CleanConnect⁶



Specially developed for the requirements of the beverage industry: Enclosure IP 67, gold coated contacts and smooth surface for a reliable current and signal transmission in wet environments.

- Cleaning friendly and detergent resistive surface
- Standardised M25 threaded connection
- Connectable without tools, coded for foolproof connection
- EMC conform due to shielding connection
- Available with straight or angular connection

Worm-Geared Motor Series BS



Economical, right-angle, worm-geared motors install easily in the tightest applications.

- Motor power from 0.03 kW to 5.5 kW
- 8 gearbox sizes for torques from 25 Nm to 1000 Nm
- Hollow shaft version already available from 25 Nm
- High loadable worm gearing for long lifetime
- Enclosure IP 65 as standard
- Service friendly built-on brake

Overhead Monorail Geared Motor Series BM



A completely new range of monorail drives for light and heavy load monorail applications.

- Torques from 30 Nm up to 680 Nm
- Radial force up to 6.500 N
- Flexible mounting on the running gear
- Enclosure IP 65 as standard
- Improved efficiency lower energy consumption – ideal as travelling drives
- Reverse motion of the gearbox is possible

Frequency Converter Geared Motor Series Eta-K



Eta-K solutions are combinations of geared motors and frequency converters. They provide compact drive solutions with infinite speed control.

- Saving space and costs
- No shielded motor cables required
- Mechatronic adaption of VLT drive and geared motor
- Motor power range 0.12 kW up to 7.5 kW
- Supply voltage 3 x 380 V 480 V
- Compliance to all EMC standards
- Standard RS485-Interface, optional Profibus-Interface
- Example 2 and 22 possible
- UL approved

CAGE CLAMP®



The use of Bauer geared motors up to 30 kW with CAGE CLAMP* connection technology reduce costs both during installation and in service cases.

- Cost reduction during connection
- Simple handling
- Cable core diameters up to 25 mm² without wire-end sleeves
- Cost saving in material and tooling
- Vibration and shock resistant
- 😉 approved

Explosion-proof BAUER Geared Motors



Geared motors suitable for use in explosive areas: GAS Zones 1, 2

UA3	201163 1, 2				
DUST	Zones 21, 22				
DXD	Zone 1,	II 2G Ex d(e) II C T4,	0,12	90	kW
DXE	Zone 1,	II 2G Ex e II T3,	0,12	11	kW
DXN	Zone 2,	II 3G Ex nA II T3,	0,03	30	kW
DXC	Zone 21,	II 2D Ex tD A21 IP65 T<160°C,	0,03	30	kW
DXC	Zone 21,II 2D Ex t	D A21 IP65 T120°C,	0,03	11	kW
DXS	Zone 22, II 3D Ex t	:D IIT<160°C,	0,03	30	kW
DXD	Zone 1/21,	II 2G Ex d(e) II C T4/II 2D Ex tD A21			
		IP65 T120°C,	0,12	90	kW
DXE	Zone 1/21,	II 2G Ex e II T3/II 2D Ex tD A21 IP65 T12	0°C,0,12	11	kW
DXS	Zone 2/22,	II 3G Ex nA II T3/II 3D Ex tD II T<160°C,	0,03	30	kW

Product Overview

6

Energy Saving Geared Motors



η	Advantages	Your benefits				
Without	 Motor design according to duty Small installation volume and minimum weight Higher motor powers 	 Economical Small installation space Efficient motor utilisation Tailored to customer application Smaller motor frame size 				
IE1	Standard efficiency in continuous operation Small installation volume and minimum weight	 Economical Small installation space For general-purpose use inside or outside Europe 				
IE2	 Higher efficiency in continuous operation Higher start-up torque 	 Economical Small installation space Up to 34% more energy savings compared to IE1 Lower rated motor power than IE1 for dynamic load applications Short amortisation period 				
IE3	 Premium efficiency in continuous operation Higher start-up torque 	 Up to 18% more energy savings compared to IE2 Already meets minimum efficiency requirements for 2015/2017 				
IE4	 Super Premium efficiency Speed control with highest possible efficiency Small installation volume and minimum weight Considerably better efficiency than IE2 motors, even under partial load conditions High torque and power density High overload capacity 	 Up to 39% more energy savings compared to IE2 Short amortisation period Small installation space Compact drive unit More torque with same size motor frame Requires smaller installation space with same power Reduced number of variants thanks to higher efficiency over the entire torque range Design security thanks to spare drive unit capacity Technology leader Already meets the efficiency requirements of future standards 				

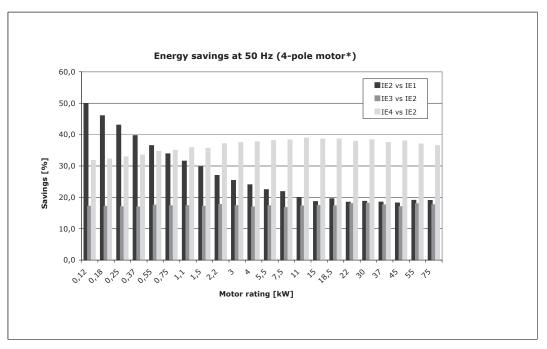
Investment security for the future

Electrically driven machinery accounts for around 70% of overall energy demand for industrial consumption. If existing drives which have already been in service for decades were to be replaced by modern drive systems, energy savings of 135 billion kilowatt-hours per year would be possible within Europe.

The Bauer Gear Motor range of motors offers trend-setting technologies for energy-efficient drives and for motor designs tailored to specific applications.

The latter option enables highly efficient drive solutions without requiring additional space.

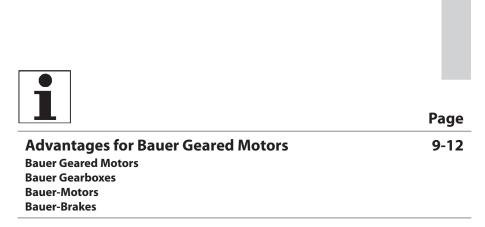
Potential for energy savings in drive technology



P _N [kW]	IE1*	IE2*	IE3*	IE3*	IE4*
0,55	DSE08MA4	DHE08LA4			SU08MA4
0,75	DSE08LA4	DHE08XA4	DPE09LA4		S08MA4
1,1	DSE09SA4	DHE09LA4	DPE09XA4		S08LA4
1,5	DSE09LA4	DHE09XA4	DPE09XA4C	S08LA4	S09SA4
2,2	DSE09XA4	DHE09XA4C	DPE11MA4	S09SA4	S09XA4
3	DSE11SA4	DHE11MA4	DPE11LA4	S09XA4	S11SA6
4	DSE11MA4	DHE11LA4	DPE11LA4C	S11SA6	S11MA6
5,5	DSE11LA4	DHE11LA4C	DPE13LA4	S11MA6	S11LA6
7,5	DSE13MA4	DHE13LA4	DPE16LA4	S11LA6	
9,5	DSE13LA4	DHE16MA4	DPE16XA4		
11	DSE16MA4	DHE16LA4	DPE18LA4		
15	DSE16LA4	DHE16XA4	DPE18XA4		
18,5	DSE16XA4	DHE18LA4			
22	DSE18LA4	DHE18XA4			
30	DSE18XA4	DHENF20LG4			

*at 1,500 rpm

Edition 03/2012



General

Advantages of Bauer-Geared Motors

1

Advantages of Bauer-Geared Motors

Bauer-Gearmotors

- Low operating costs due to a high total efficiency
- 2-stage gearbox concept gives a longer lifetime due to a reduced number of moving parts
- Lower servicing costs due to a modular system
- No additional protective measures (e.g. dusty environment) through the IP65 enclosure as standard
- The electrical design of the motor is aligned to the gearbox
- Quick reaction time in emergency situations (Breakdowns etc.) through Fast Assembly Delivery (within 24 hours

Bauer Gearboxes

- Easy access to the fixation points reduces assembly times and installation costs
- Low servicing costs as the lubrication change results in normal duty with a lubrication temperature of approx. 80°C first after 15.000 operating hours when using CLP 220 or 25.000 operating hours when using PGLP 220 / PGLP 460.
- 2-stage gearbox concept reduces the spare part stocking
- A variety of attachment possibilities (Foot, Flange, Solid and Hollow shafts, Torque arms)
- Sealed housing design reduces the risk of oil leakage and increases the oil lifetime
- The large housing volume allows usage in very harsh environments

Bauer Motors

- Low operating costs due to high motor efficiencies (IE1, IE2 and IE3 as Standard)
- Low installation costs through CAGE CLAMP® instead of the classical terminal block connection
- A variety of additional designs (connectors, brakes, backstops, rain covers, forced cooling, encoders etc.)
- Cost reduction of connection cabling and avoidance of additional protective elements (chokes, filters etc.), through built-on inverters (ETA-K)
- Ideal for frequency inverter duty though insulation class F as standard

Bauer Brakes

- Low servicing costs through long lifetime of the brake discs (without adjustment)
- Brake-Motor correlation tailor made to the application by virtue of on average three brake sizes per motor size
- A variety of designs (lockable and non-lockable hand release, microswitch, heaters)
- Robust design for heavy duty applications
- Enclosure IP65 as Standard
- Very high wear resistance

12

Edition 03/2012





Page

Selection of geared motors

13-18

Safety Information
Cover of Rotating Parts
Contact Protection
Noise Behaviour
Coating and Corrosion Protection
Modular system overview

Product Description

Selection of geared motors

Installed positions of geared motors

Bauer geared motors can be supplied for any type of fitting position. Vertical installation positions (motor-down) place a particularly severe strain on the shaft seal. It is advisable to avoid this arrangement especially at high motor speeds (e.g. above 1800 r/min) and continuous operation

Notes on safety

See the notes on safety regarding installation in Operationg Indstructions.

Guards for rotating parts

The shrink disk (SSV) guards required under the German law relating to technical materials (Law Concerning Industrial Equipment - Equipment safety law GPSG) or by the Accident Prevention Regulations (UVV) are not included in the standard scope of supply because they are fitted by the customer in most cases, or the risk of accident can be eliminated by suitable installation.

See the Operating Instruction.

Protection against accidental contact

The D04LA and D05LA small motors have smooth motor housings. In the textile, pharmaceutical and foodstuffs industries in particular and in plant engineering, this IP54 version has a number of advantages over ribbed housings. In some instances, protection against accidental contact may have to be installed by the customer because for technical reasons, the surface temperatures of motors with smooth housings can be high, especially in continuous operation

Operating noise

The typical operating noise levels of BAUER geared motors are within the limits stipulated by VDI directive 2159 for gears and EN 60034-9, Table 2 for motors.

For physical reasons, low-ratio, high-speed gears produce more noise than medium- and high-ratio gears operating at low speeds.

See BAUER special imprint SD18.. for more information

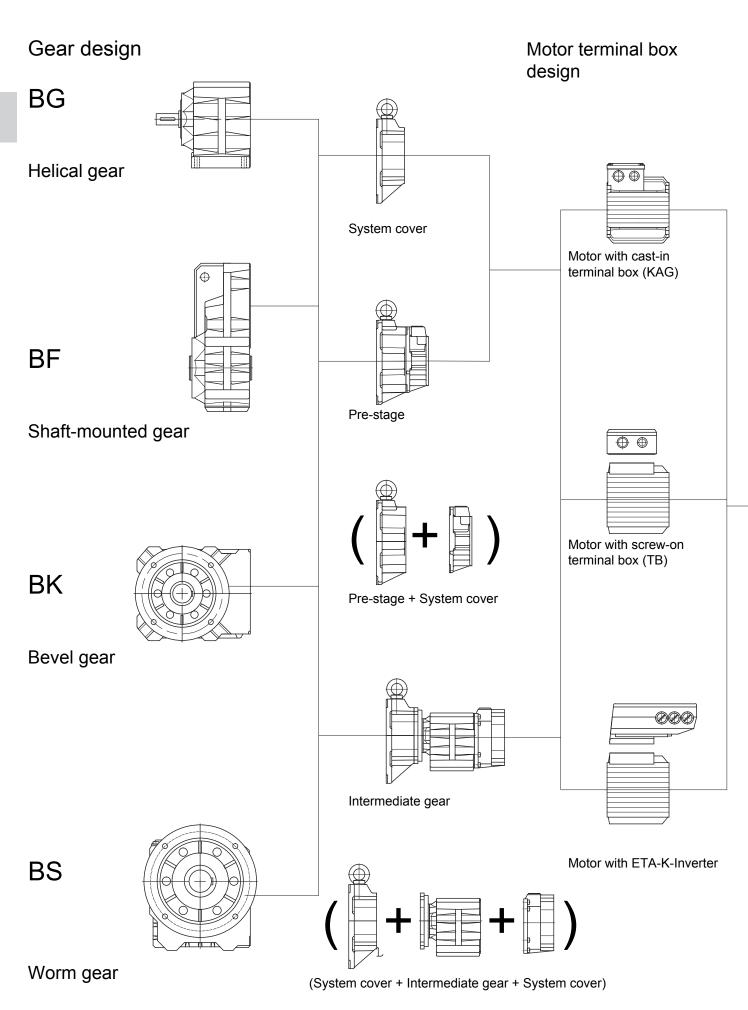
Paint finish and corrosion protection

BAUER geared motors are spray-painted in RAL 7031 to DIN 1843 as standard. Other RAL colours are available at extra cost.

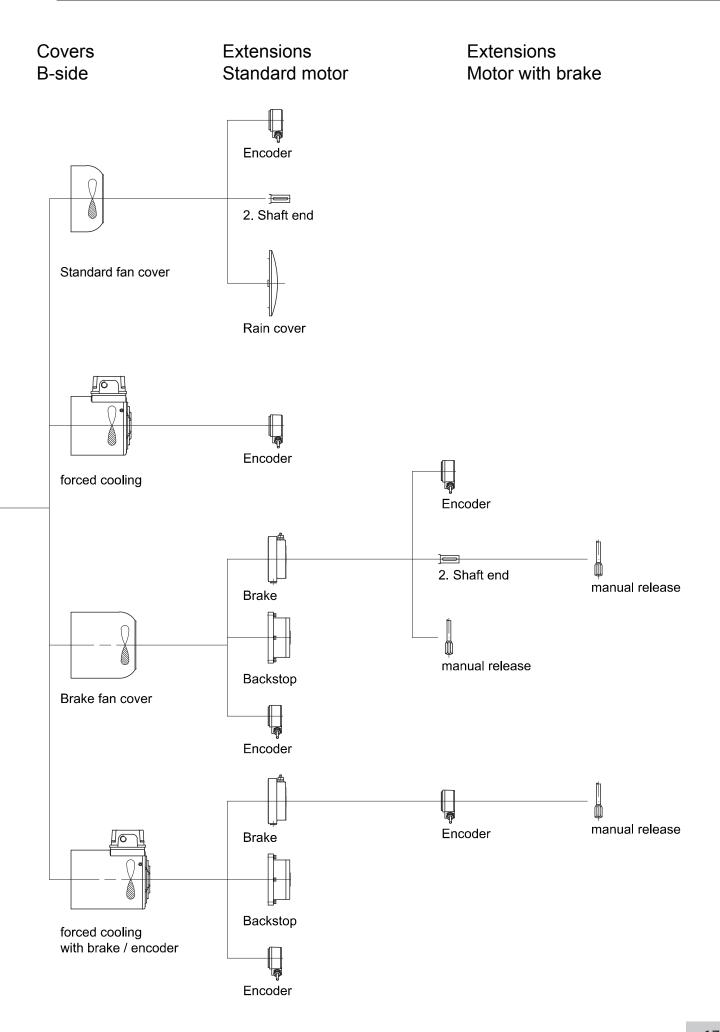
The output shafts are shipped in protective sleeves or with a protective coating to prevent corrosion.

If high requirements for corrosion resistance are required, the drives are available with enhanced corrosion protection: CORO 1, CORO 2, CORO 3 or CORO 4.

Paint finishes up to 200 μ m in thickness are available on request at extra cost. Thicker paint finishes for geared motors are impractical, because the paint tends to flake at the ribs and when the terminal box is opened.



16



18

Edition 03/2012





Page

Type Designations

19-28

Significance of type designation BG-series helical-geared motor BF-series shaft-mounted geared motor BK-series bevel-geared motor BS-series worm-geared motor Description of the Designs General Description

20

Type Designations

Significance of type designation

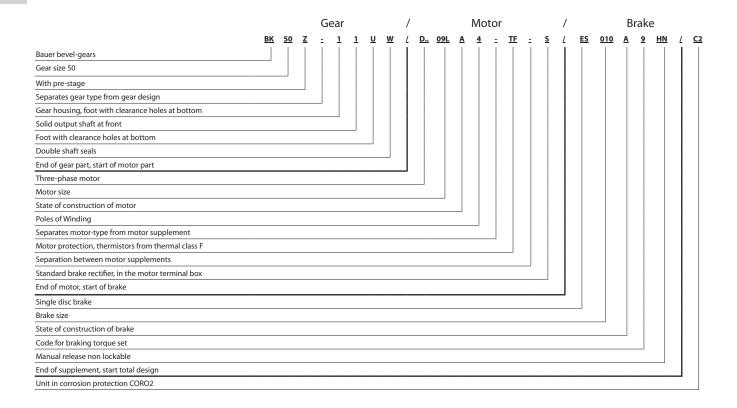
Bauer bevel-geared motor with brake and standard add-ons

Example: Bauer bevel-geared motor with brake and standard add-ons

Significance of type designation

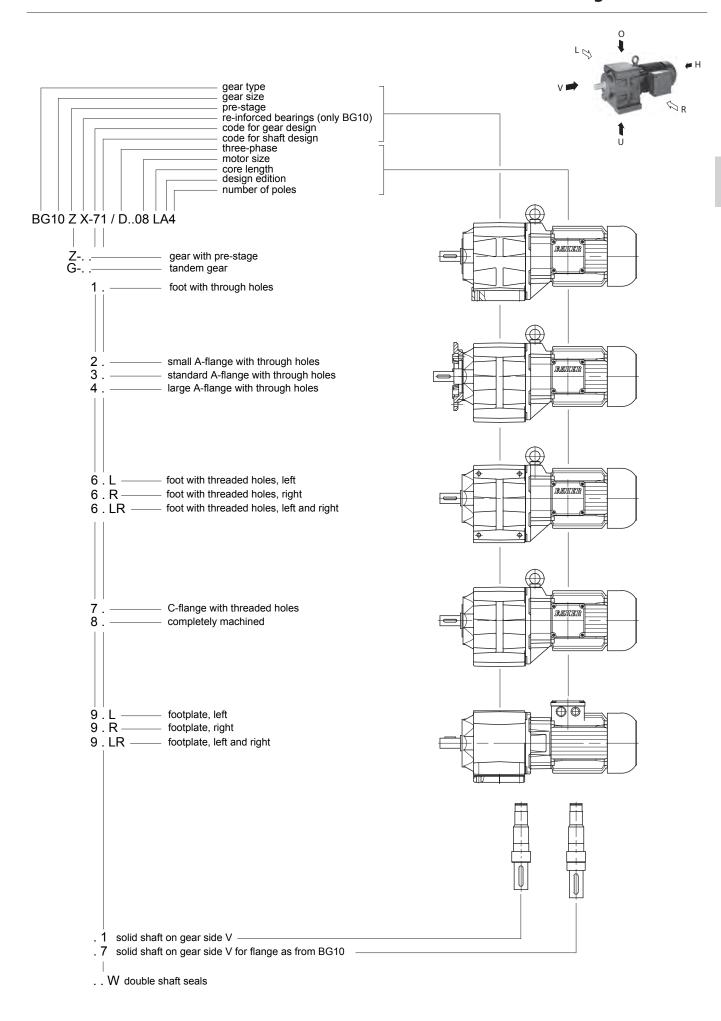
The type designation of a BAUER geared motor is a code designating all the features in the drive configuration.

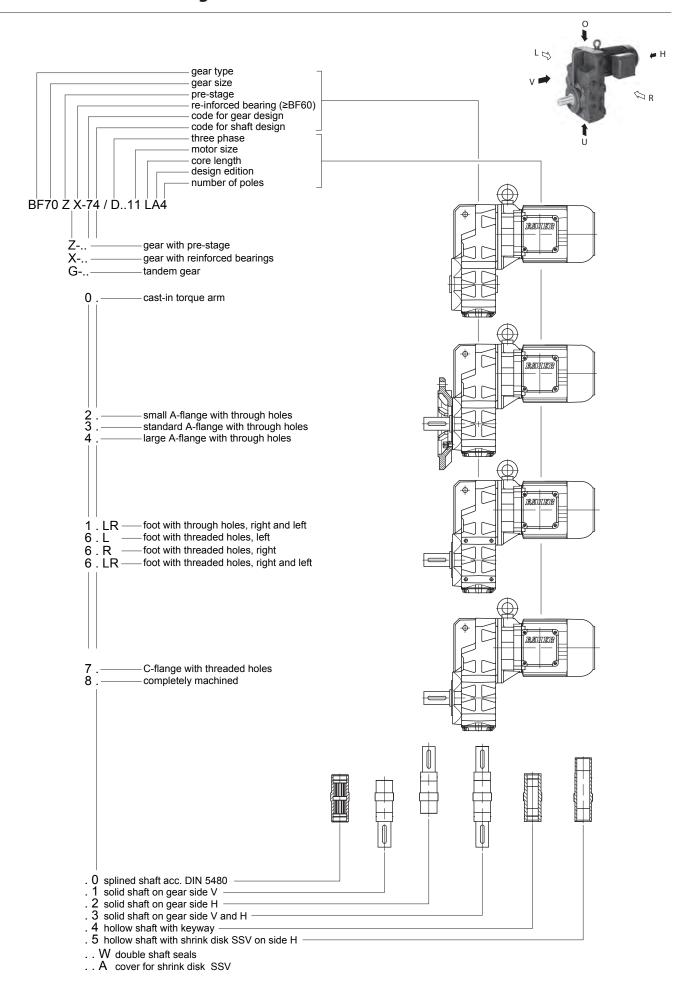
The build-up of the type designation is explained with the help of the following example of a bevel geared motor with brake and series options.



Type Designations

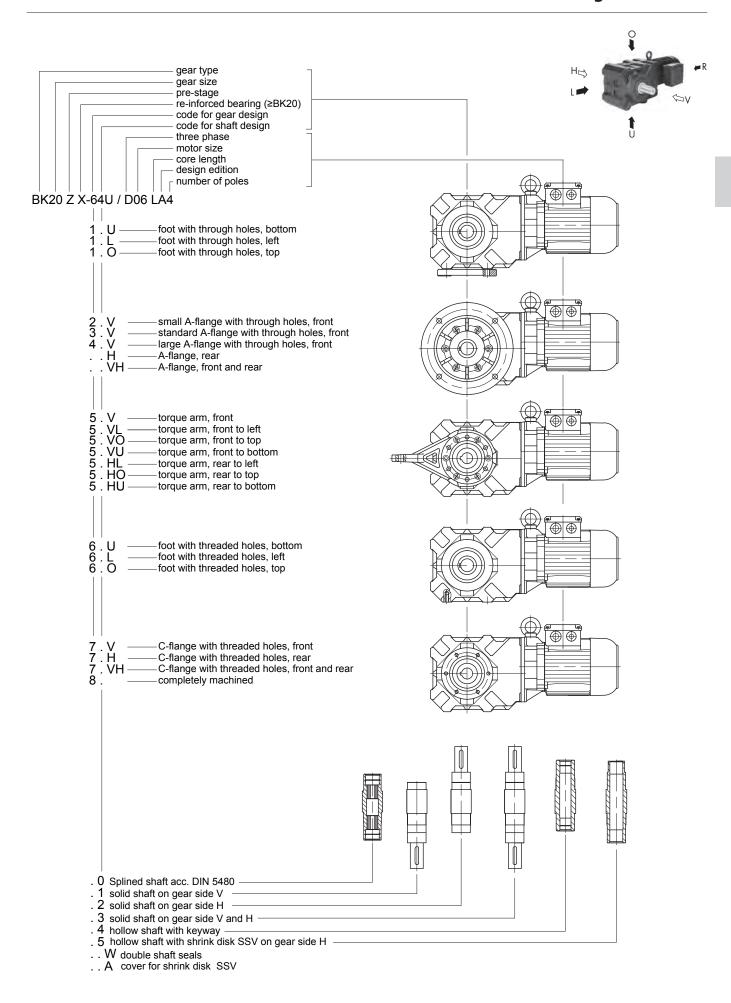
BG-series helical-geared motor

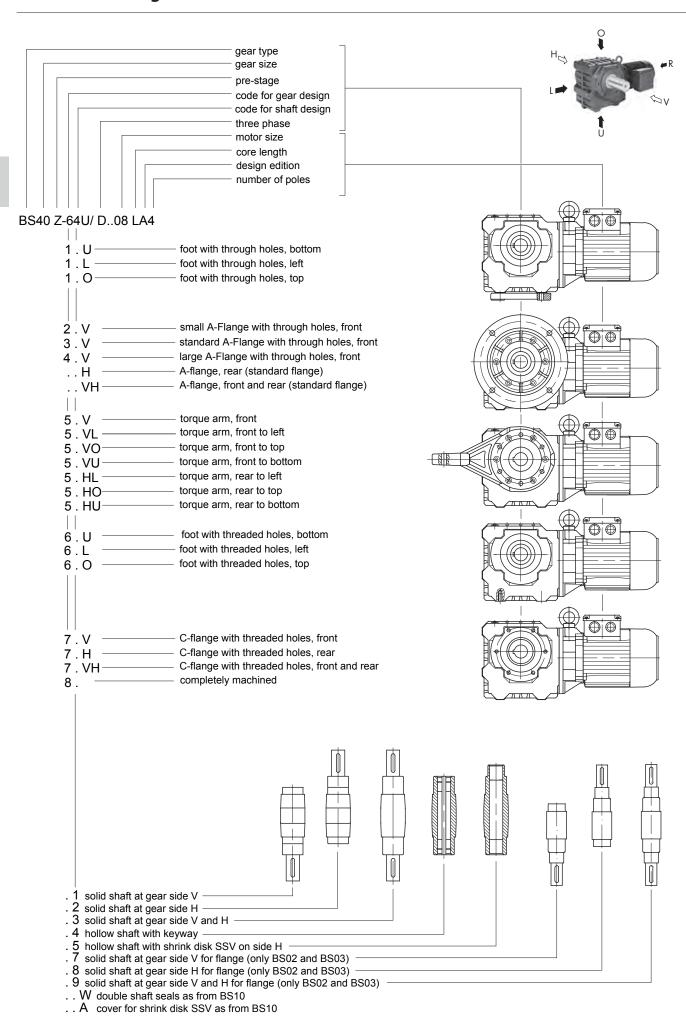




Type Designations

BK-series bevel-geared motor



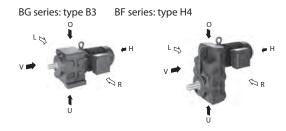


24

Type Designations

Versions and options

BG and **BF** series



V = Front

The side of the gear unit facing away from the motor or the source of motive power

H = Rear

The side of the gear unit facing toward the motor or the source of motive power

L = Left

The left side of the gear unit as viewed from the output shaft side of type B3 for the BG series or type H4 for the BF series

R = Right

The right side of the gear unit as viewed from the output shaft side of type B3 for the BG series or type H4 for the BF series

BK and BS series

BK series: type H1 BS series: type H1



V = Front

The side of the gear unit facing toward the viewer looking toward the type H1 unit

H = Rear

The side of the gear unit facing away from the viewer looking toward the type ${\rm H1}$ unit

L = Links

The left side of the gear unit as viewed from the output shaft side of type H1, or the torque brace oriented to the left

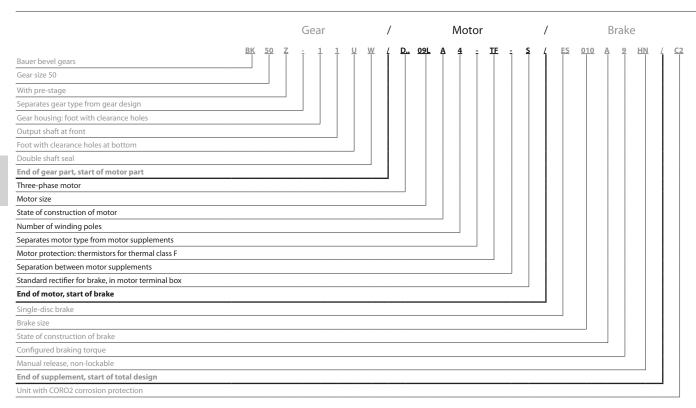
O = Top

The top side of the gear unit as viewed from the output shaft side of type H1, or the torque brace oriented upwards

U = Bottom

The bottom side of the gear unit as viewed from the output shaft side of type H1, or the torque brace oriented downwards

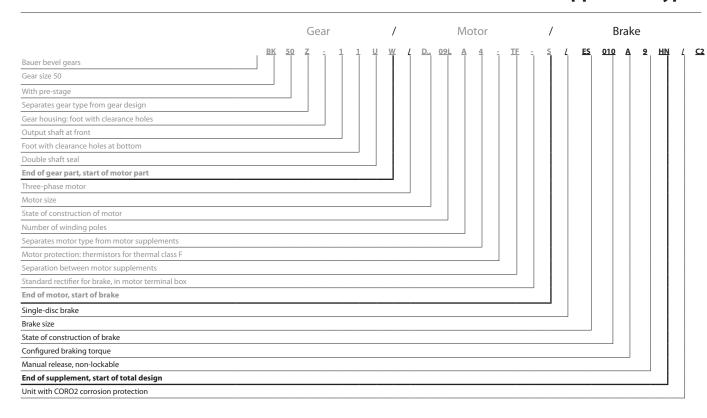
General construction



Three-phase motor	D	=	Three-phase moto	or		
	Е	=	Single-phase motor (Steinmetz circuit)			
	S	=	PM-Synchronous motor			
	. A	=	Aseptic motor (germ-free drive)			
	. SE	=		or with enhanced efficiency compliant with IE1		
	. HE	=		or with enhanced efficiency compliant with IE2		
	. PE	=		or with enhanced efficiency compliant with IE3		
	. N	=		ar unit; foot-mount version		
	. NF	=		ar unit; flange-mount version		
	. R	=	Roller table motor	r		
	. XE	=	Explosion-proof n	notor with increased safety		
	. XD	=	Explosion-proof n	notors		
	. W	=	Torque motor			
	. L	=	Special rotor for to	raction and slewing gear motors		
	. С	=	With main and au	xiliary windings; only with single-phase motors (EC)		
	. V	=	Multiple voltage r	anges (wide voltage range)		
	. U	=	Unventilated (no f	forced ventilation)		
Motor protection	TB	=	Thermistor 140°			
	TF	=	Thermistor 160°			
	TH	=	Thermistor 180°			
	TEB	= Thermistor warning/shutdown 120°/140°				
	TBF	=	Thermistor warnir	ng/shutdown 140°/160°		
	TFH	=		ng/shutdown 160°/180°		
	TOB	=	Thermostatic switch, NC 140°			
	TOF	=	Thermostatic switch, NC 160°			
	TOH	=	Thermostatic swit			
	TSB	=	Thermostatic swit	•		
	TSF	=	Thermostatic swit			
	TSH	=	Thermostatic swit	rch, NO 180°		
	TX	=	Other			
Brake rectifier	S	=	Standard rectifier	SG		
in motor terminal box	Е	=	Special rectifier	ESG		
	M	=	Special rectifier	MSG		
	Plua co	onnector	nnector ST = Harting (other)			
	_	-duty fan	5,000			
	-	tive cover	•			
	Clean[Drive™	CD	= Aseptic drive with cable		

Type Designations

Supplement types



Brake	E ES EH ZS ESX EHX ZSX 010 	A . 9 HN HA	 = Single-disc brake = Single-disc holding brake = Single-disc holding brake in heavy duty = Two-disc holding brake = Single-disc service brake = Single-disc service brake in heavy duty version = Two-disc service brake = Brake size = Construction state = Code for configured braking torque = Manual release (not lockable) = Manual release (lockable)
Reverse rotation block	RR RL		ng direction clockwise ng direction anticlockwise
Digital and analogue encoder	G		
Second shaft end	ZW ZV	= With ke = With so	ey quare shaft
Forced ventilation	FV		
Overall design	AV AM UL CS C1 C2 C3 SP	= USA/Ca = US vers = Canadi = Coro1 = Coro2 = Coro3	anada version with shaft dimensions in inches anada version with metric shaft dimensions sion an version corrosion protection corrosion protection corrosion protection atalogue version

28

Edition 03/2012





Page

Geared Motor Selection

29-50

Specification of geared motors
Drive configuration
Motor configuration
Radial and axial forces on the output shaft
Sizing based on efficiency
Shock loads of machinery

Gear Motor Selection

Selection of geared motors

RFQ data □			Order 🗆			Bauer G	iear Moto	r GmbH		
Order / RFQ no.:	-					Fax: +49	9 (0)711 3	518 381		
Contact data:	_					Email: iı	nfo@bau	ergears.com	1	
Application:	(a a tua ati	مريناه ما	المامة	va vallav sam	vavau faada					
	(e.g. tracti	ion arive,	noist/iiit ariv	e, roller conv	eyor, reeas	crew, etc.)				
	Gearbox	type 🚛								
		200								
		BG [□ BF □] BK □	BS □					
Number of items Efficiency class		not IE 🗆	 IE2 □	IE3 □						
Type	'	HOLIE 🗆								
Power	de		kV							
Output shaft speed Torque	us		1/ Nr		Service	factor f _B =				
Mounting arrange										
Type of installation RAL 7031 or	ı special RA	M shade			Termina	al box posi	tion		_	
Corrosion preventi			CORO1 / COI	RO2 / CORO3						
Rated voltage		_V		pe of busines	SS					
Frequency Thermistors	_ :	 Thermost	_ Hz :ats □							
THETHISTOIS	Ambient t			°℃		Altitude	[m]			
				on site						
				t, chain, gear N at a c						
			ut shaft		iistarice x ii	om the sne	art jurictio	''''	1111	
			 							
Operation with inv		1	/min Cu	toff frequenc	·V	Hz				
Integrated frequer				binet-mount			er 🗆			
Gear unit design			□ Foot with	clearance ho	Jos					
Gear unit design				with clearance		mn	n			
			☐ C-Flange	with tapped	holes					
			•	straining arm			in L/T/B d	irection		
			□ FOOL WILI	tapped hole	S ON L/R/LR,	1/B side		-		
Output shaft				t on F/B/FB e	nd	-				
			☐ Hollow sh	aft aft for shrink	ما المالم ما					
			□ Hollow Sh	iait for Shrink	-on alsk					
Motor-mounted co	mponents	5	□ brake							
			Type		Braking	torque =		Nm		
			manual relea	ge = ase yes 🗆		Hz or		_ V DC		
			Microswitch							
			☐ Encoder incremental							
			absolute							
			Pulse count							
			Output signa	al	HTL 🗆		TTL 🗆			
			☐ Forced ve	ntilation						
				aft reverse ro	otation bloc	k (clockwi	se / anti-c	lockwise)		
Special design feat	TIPES									
Special design real	.u1C3									
	-									

Gear Motor Selection

Drive configuration

Drive configuration

Motions are necessary in production plants and equipment for the manufacture of goods and products. Geared motors are used to implement these motions in stationary production equipment. The objective of drive configuration is to obtain the optimal motor for each type of motion.

Motions in machines and equipment vary considerably. Experienced design engineers reduce the necessary motions to a few standard types:

- · continuous linear motion
- · reciprocating linear motion
- · horizontal linear motion
- vertical or oblique linear motion for lifting and lowering loads
- continuous rotary motion and reciprocating rotary motion

All motions can be divided into:

- an acceleration phase
- a constant-velocity phase
- a braking (deceleration) phase

These motion phases must be examined separately when sizing a drive, in order to determine the phase with the highest load. After the maximum load has been determined, the drive system can be selected.

See our separate "Design Guide" publication for assistance with various use cases.

Required data for drive configuration

In addition to the data on (Specification of geared motors), the following data is necessary for drive configuration:

Designation	Description	Unit
Z	Cycle rate	[1/h]
t d	Operating time per day	[h]
t _a	Deceleration time	[s]
n_2	Output speed	[rpm]
n	Rated rotor shaft speed	[rpm]
J	Moment of inertia	[kgm²]
J _{ext}	External moment of inertia	[kgm²]
J _{ext}	External moment of inertia	[kgm²]
	referred to the rotor shaft	
J _{rot}	Rotor moment of inertia	[kgm²]
F	Force	[N]
m	Mass	[kg]
V	Velocity	[m/s]
a	Acceleration	$[m/s^2]$
g	Earth gravitational constant	$[m/s^2]$
P _{dyn}	Dynamic power	[kW]
P_s	Static power	[kW]
P	Power	[kW]
M ₂	Output torque	[Nm]
M_{2erf}	Required drive torque	[Nm]
M _N	Rated torque at rotor shaft	[Nm]
Ma	Deceleration torque	[Nm]
ML	Braking or driving load torque	[Nm]
Mgr	Specific limiting torque of gearbox at gear ratio i	[Nm]
M _{Br}	Rated braking torque	[Nm]
i	Gear reduction ratio	
FI	Inertia ratio	

Gear Motor Selection

Drive configuration

Drive configuration process

Motor configuration

Determining the motor power

The required power can generally be calculated as follows:

$$P = \frac{F \times v}{\eta}$$

As previously described, all motions are divided into an acceleration phase (dynamic power), a constant-velocity phase (static power), and a braking (deceleration) phase. Depending on the type of motion, the force F necessary to overcome all opposing forces such as rolling friction, linear friction, gravitational force, acceleration and so on arising from the drive train has a strong influence on the required power and must be determined explicitly for each use case.

See Section 15 for assistance in selecting the right motor power.

Determining the required torque

After the motor power has been determined, the required gearbox output torque can be calculated with:

$$M_2 = \frac{P \times 9550}{n_2}$$

Determining the gear reduction ratio

The gear reduction ratio is the ratio of the rated speed of the motor (see the motor data in Section 15) to the desired output speed of the geared motor.

$$i = \frac{n}{n_2}$$

Gearbox size selection

Determining the factor of inertia

The inertia ratio is the ratio of the sum of the moments of inertia of all masses driven by the motor and converted to the motor speed, including the moment of inertia of the motor rotor, to the moment of inertia of the rotor:

$$FI = \frac{J_{ext'} + J_{rot}}{J_{rot}} \qquad \text{where} \qquad J_{ext'} = \frac{J_{ext}}{i^2}$$

Drive configuration

Determining the shock load

Determining the minimum service factor f_{Bmin}

The shock load (see Sections 6, 7, 8 and 9) is determined from the inertia factor, the type of transmission component and the relative moment of acceleration.

Based on the operating time per day, the cycle rate and the ascertained shock load, the service factor f_{Bmin} can be taken from the tables in Sections 6, 7, 8 and 9.

Based on this minimum service factor f_{Bmin}, select a geared motor from the tables that has a higher service factor as well as the required output speed, output torque and motor power.

Note

The service factor relates solely to the required torque for static operation needed by the application, which should be covered by the output torque of the selected geared motor.

The dynamic portion is not taken into consideration here.

The actual service factor of the geared motor with regard to required torque for static operation can therefore be calculated as follows:

$$f_B = \frac{M_{gr}}{M_{2er}}$$

The final step is to specify the accessory options for the geared motor.

Brake specification

Essentially it is necessary to determine, based on the amount of friction energy to be dissipated by the brake, whether the brake is a holding brake or a service brake. See Section 16 for the definitions of holding brakes and service brakes.

Once all the necessary data and requirements are known, the required braking torque can be calculated as follows:

$$M_{br} = M_a \pm M_I$$

$$\mathsf{M_a} = \frac{\mathsf{J} \times \mathsf{n}}{\mathsf{9,55} \times \mathsf{t_a}}$$

If the specific application data is not known, for horizontally driven equipment we recommend selecting a braking torque that is 1.0 to 1.5 times the rated torque of the motor.

In the case of applications with significant external moments of inertia (FI greater than 2) and with operating cycles per hour, the brake size must always be selected on the basis of the thermally allowable braking energy. See Section 16 for detailed information on brake configuration.

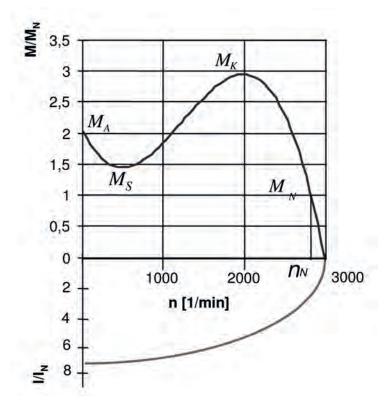
In the case of lifting equipment, for safety reasons a braking torque twice as large as the rated torque of the motor should always be selected.

Motor configuration

Torque-speed characteristic

The torque versus speed curve shows the operating characteristics of the asynchronous motor. The reference points shown schematically on the torque versus speed curve are significant criteria for motor selection.

Torque vs. Speed Curve



The **starting torque M**_A with the rotor stationary, which is also called the locked-rotor torque, determines the acceleration of the equipment or system. If the motor is powered directly from the mains, bear in mind that the starting torque, usually listed in the motor data tables in the form of the ratio M_A/M_N , is a fixed and unalterable quantity. This means that the desired acceleration can only be approximated when the motor is operated directly from the mains. Operation from a frequency converter is discussed separately.

The **pull-up torque** M_s is the least amount of torque developed by the motor while it is coming up to speed. It must always be greater than the effective load torque at the time when the pull-up torque occurs, as otherwise it will not be possible to accelerate the drive.

The **breakdown torque M_K** is the maximum torque the motor is capable of producing. If the load increases above the rated torque M_N , the slip s increases, the speed n decreases, and the motor delivers more torque. This can rise to a maximum level M_K . After this point the motor stalls, which means that it suddenly stops running at this slip value (breakdown slip). If the breakdown torque is exceeded, either the load must be removed or the motor must be switched off immediately. Otherwise the motor will be destroyed as a result of overheating.

The **rated torque M_N** is the torque available in continuous operation at the rated power P_N and rated speed n_N .

Δ

34

35

Gear Motor Selection

Motor configuration

Dynamic power

The dynamic power is the power that accelerates the entire system, which consists of the load, transmission components, gearbox and motor.

$$P_{dyn} = \, \frac{m \times a \times v}{\eta}$$

P_{dyn} Dynamic power [W]

m Mass [kg]

a Acceleration [m/s²] v Velocity [m/s] ŋ Efficiency

Static power

The static power includes all forces present under zero-acceleration conditions. This includes rolling friction, linear friction, lifting force (with lifting) and wind force, among others

$$P_s = \frac{F_F \times V}{\eta}$$

Ps Static power [W] F_F Travel resistance [N]

Total power P_G

$$P_{G} = P_{dyn} + P_{S}$$

$$\boldsymbol{P}_{\scriptscriptstyle{G}} = \frac{\boldsymbol{m} \times \boldsymbol{a} \times \boldsymbol{v}}{\boldsymbol{\eta}} \; + \; \frac{\boldsymbol{F}_{\scriptscriptstyle{F}} \times \boldsymbol{v}}{\boldsymbol{\eta}} \label{eq:pg}$$

Horizontal motion, rotary motion and vertical motion upwards							
Start-up time [s]	$t_{A} = \frac{\left[J_{M} + \frac{J_{ext}}{\eta}\right] \times n_{M}}{9,55 \times \left[M_{A} - \frac{M_{L}}{\eta}\right]}$						
Cycle rate [c/h]	$Z = Z_0 \times \frac{1 - \left[\frac{M_L}{M_A \times \eta}\right]}{\left[\frac{J_S + \frac{J_{ext}}{\eta} + J_M}{J_M}\right]} \times K_L$						
Vertical motion downwards							
Start-up time [s]	$t_{A} = \frac{\left[J_{M} + \frac{J_{ext}}{\eta}\right] \times n_{M}}{9,55 \times \left[M_{A} - (M_{L} \times \eta)\right]}$						
Cycle rate [c/h]	$Z = Z_{o} \times \frac{1 - \left[\frac{M_{L} \times \eta}{M_{A}}\right]}{\left[\frac{J_{S} + J_{M} + (J_{ext} \times \eta)}{J_{M}}\right]} \times K_{L}$						

Motor configuration

Motor selection Example:

Required dynamic torque at motor (for acceleration): 126 Nm

Required static torque at motor 70.0 Nm

Total torque at motor: 196 Nm

IE2

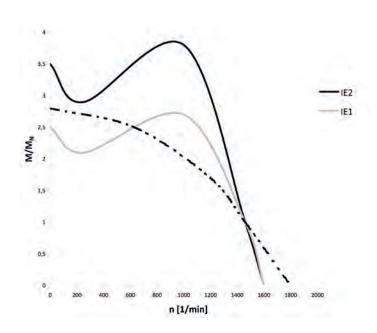
P _N [kW]	Туре	n _N [rpm]	M _N [Nm]	I _N 400 V [A]	cos φ	n (100% load) [%]	n (75% load) [%]) (50% load) [%]	Ia/In	Ma/Mn	Ms/Mn	Mk/Mn	J _{rot} [kgm²]
7,5	DHE13LA4	1460	49	15,1	0,81	88,9	89,2	87,9	7,0	3,3	3,0	3,5	0,0345
9,5	DHE16MA4	1470	62	19,7	0,78	89,4	89,4	86,5	6,8	2,9	2,5	3,2	0,057
11	DHE16LA4	1470	71	22,5	0,78	90,3	90,0	88,3	7,9	3,5	2,9	3,8	0,076
15	DHE16XA4	1470	97	31	0,77	90,6	90,8	88,8	7,2	3,2	2,8	3,5	0,087
18,5	DHE18LA4	1470	120	35	0,83	91,5	91,7	90,0	7,9	3,6	3,0	3,3	0,160

IE1

P _N [kW]	Туре	n _N [rpm]	M _N [Nm]	I _N 400 V [A]	cos φ	n (100% load) [%]	n (75% load) [%]	n (50% load) [%]	Ia/In	Ma/Mn	Ms/Mn	Mĸ/Mn	J _{rot} [kgm²]
7,5	DSE13MA4	1440	50	15,3	0,81	87,5	87,8	87,1	6,2	2,8	2,5	3,2	0,02900
9,5	DSE13LA4	1440	63	19,2	0,82	87,1	87,5	87,5	6,0	2,9	2,6	3,0	0,03450
11	DSE16MA4	1460	72	22,6	0,81	87,7	88,0	87,3	6,0	2,5	2,1	2,7	0,05700
15	DSE16LA4	1460	98	29,5	0,83	88,9	89,2	88,9	6,1	2,5	2,1	2,8	0,07600
18,5	DSE16XA4	1460	121	37,5	0,81	89,3	89,9	88,5	6,1	2,6	2,2	2,8	0,08700

Due to the significantly higher starting torque (Ma) of IE2 motors (Ma/Mn 3.5) compared to IE1 motors (Ma/Mn 2.5), an 11 kW with an IE2 (DHE16LA4) motor can be used in this case. Otherwise the 15 kW IE1 (DSE16LA) should be selected.

Selected motor: 11.0 kW IE2: DHE16LA4



Л

37

No-load cycle rate Zo

If the cycle rate is greater than normal (typically around 60 cycles per hour), the additional thermal load and, depending on the type of power transmission, the additional mechanical load must be taken into account in motor selection.

The no-load cycle rate Z_0 is the number of start cycles per hour with the motor running under no load (no external moments of inertia) in which the allowable winding temperature for the insulating material class F is reached.

No-load cycle rate Z₀:

P _N	Туре	Z _o
[kW]		[c/h]
0,37	DHE08MA4	27000
0,55	DHE08LA4	19000
0,75	DHE08XA4	15000
1,1	DHE09LA4	11000
1,5	DHE09XA4	8700
2,2	DHE09XA4C	6400
3	DHE11MA4	5000
4	DHE11LA4	4000
5,5	DHE11LA4C	3100
7,5	DHE13LA4	2400
9,5	DHE16MA4	2000
11	DHE16LA4	1800
15	DHE16XA4	1400
18,5	DHE18LA4	1200
22	DHE18XA4	1000
30	DHENF20LG4	790
37	DHENF22SG4	670
45	DHENF22MG4	570
55	DHENF25MG4	490
75	DHENF28MG4	380

As a result of external loads, the no-load cycle rate is reduced to the allowable service cycle rate. The effect of the load is expressed by the inertia ratio FI and the load factor K_L .

Load factor K

The load factor reflects the relative load *P/PN* and the duty cycle of the motor in operation between the cycles.

The relative load has a quadratic effect on the allowable cycle rate. The effect of the duty cycle depends on the circumstances. With little or no load, the stress on the motor decreases due to the relatively long cooling periods, while at rated load or heavy loading the stress on the motor increases due to load losses.

The load factor $K_{\!\scriptscriptstyle L}$ for 4-pole motors is determined as follows:

$$K_{L100} = 1 - \left(\frac{P}{P_n}\right)^{1,5}$$

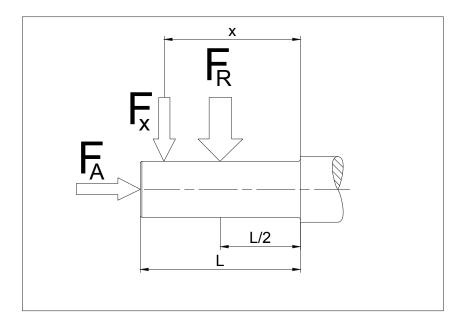
$$K_{L} = 0.35 + (K_{L100} - 0.25) \times ED$$

Radial and axial forces on the output shaft

Radial and axial forces on the output shaft

For each geared motor with a solid shaft, the allowable radial force $F_{R(N,V)}$ referred to the centre of the output shaft, x = I/2, is listed in the selection tables. The listed data applies to both foot-mounted and flange-mounted versions. If the force application point F_X is off centre, the allowable radial force must be recalculated taking into account the bearing lifetime and the shaft strength.

Maximum allowable radial force at force application point X



 $\begin{array}{ll} F_{R(N,\,V)} & \text{Allowable radial force } (x=I/2) \text{ according to the selection tables } [N] \\ X & \text{Distance from shaft junction to the force application point } [mm] \\ F_A & \text{Axial force } [N] \end{array}$

To evaluate the radial force present at the force application point X, the allowable radial forces at position X must be determined with respect to the load limits of the bearings and the shaft strength.

If the calculated allowable radial forces at the force application point X are greater than the radial force that is present, the gearbox may be selected for the application. If the calculated values are not sufficient or the force application point X is not within the stub shaft length I, please consult us.

Bearing load limit

$$F_{XL1} = F_q \times \frac{0.5 + b}{\left[\frac{X}{I} + b\right]}$$

$$F_{XL2} = F_q \times \frac{0.5 + a}{\left[\frac{X}{I} + a\right]}$$

А

Radial and axial forces on the output shaft

Shaft strength

$$F_{XW1} = F_{qmax} \times \frac{0.5}{\left(\frac{X}{I}\right)}$$

$$F_{XW2} = F_{qmax} \times \frac{0.5 + c}{\left[\frac{X}{I} + c\right]}$$

For the selected gear ratio and bearing type (normal or reinforced), F_q is the allowable perpendicular force F_{RN} or F_{RV} from the geared motor selection tables.

 F_{qmax} is the maximum allowable perpendicular force for the selected gearbox size as listed in the geared motor selection tables, independent of the bearing type (normal or reinforced).

The factors a, b and c for the individual gearbox types are listed in the following tables.

Helical gear unit BG series

Frame size	Bearings	Output shaft code	I	a	b	С
BG04	Normal	1	24	0,5625	1,5	-
BG05	Normal	1	28	0,5893	1,3929	-
BG06	Normal	1	30	0,6667	1,4167	-
DC10	Normal	1	40	0,7125	1,6750	-
BG10		7	40	1,1000	2,0625	-
D.C.0.0	N	1	50	0,6100	2,2500	-
BG20	Normal	7	50	0,9400	2,5800	-
BG30	Normal	1	60	0,5917	2,1750	-
	INOrmal	7	60	0,9417	2,5250	-
BG40	Normal	1	60	0,6917	2,3667	-
		7	60	1,0083	2,6833	-
200	Normal	1	00	0,5625	2,0000	-
BG50		7	80	0,8563	2,2938	-
DC 60	Newsel	1	100	0,5300	2,0200	-
BG60	Normal	7	100	0,7650	2,2550	-
DC 70	Name	1	120	0,4750	1,7292	-
BG70	Normal	7	120	0,7292	1,9833	-
BG80	Normal	1	140	0,4286	1,7000	-
BG80	Normai	7	140	0,6000	1,8714	-
DC00	Newsel	1	200	0,3675	1,5300	-
BG90	Normal	7	200	0,5825	1,7450	-
DC100	Nissensel	1	220	0,3477	1,4341	-
BG100	Normal	7	220	0,5386	1,625	-

Radial and axial forces on the output shaft

Shaft-mounted gear unit BF series

Frame size	Bearings	Output shaft code	I	a	b	c
BF06	Normal	1	50	0,4500	1,4100	-
BF10	Normal	1	60	0,5083	1,4833	-
DFIU	NOTITIAL	2	60	0,6500	1,6250	-
BF20	Normal	1	70	0,4286	1,3571	-
DI 20	NOTITIAL	2	/0	0,5571	1,4857	-
DESO	NI - was all	1	00	0,3875	1,2563	-
BF30	Normal	2	80	0,5688	1,4375	-
BF40	Normal	1	100	0,4050	1,2250	-
DF40	Normai	2	100	0,5250	1,3450	-
BF50	Normal	1	120	0,3125	1,0625	-
	NOTITIAL	2	120	0,3959	1,1458	-
	Normal	1		0,3286	1,0821	-
BF60	NOTITIAL	2	140	0,4036	1,1571	-
Ы 00	Reinforced	1	140	-	-	0,2750
	Reillioiced	2		-	-	0,3643
	Normal	1		0,2722	1,0566	-
DEZO	NOTITIAL	2	100	0,3056	1,0889	-
BF70	Reinforced	1	180	-	-	0,2194
	Remnorced	2		-	-	0,2639
	Normal	1	220	0,2878	1,3536	-
BF80	INOTITIAL	2		0,2873	1,3518	-
DFOU	Reinforced	1		-	-	0,2364
	neiiiioiced	2		-	-	0,2268

4

Radial and axial forces on the output shaft

Bevel gear unit BK series

Frame size	Bearings	Output shaft code	I	a	b	c
		1		0,4375	1,9875	-
DIVOC	NI I	2	10	0,4375	1,9875	-
BK06	Normal	7	40	0,9125	2,4625	-
		8		0,9125	2,4625	-
DK10	Name	1	60	0,5917	2,2417	-
BK10	Normal	2	60	0,5917	2,2417	-
	Normal	1		0,5071	2,2357	-
BK20	INOITHAL	2	70	0,5071	2,2357	-
DNZU	D : 6 1	1	70	-	-	0,3929
	Reinforced	2		-	-	0,3929
	N. 1	1		0,5250	2,2750	-
DK20	Normal	2		0,5250	2,2750	-
BK30	D = i = f = =	1	80	-	-	0,4125
	Reinforced	2		-	-	0,4125
	Normal	1		0,4300	2,1700	-
BK40	Normai	2		0,4300	2,1700	-
	5 . 6 .	1	100	-	-	0,3400
	Reinforced	2		-	-	0,3400
	Name	1		0,4083	1,9417	-
DIVEO	Normal	2	120	0,4083	1,417	-
BK50	Reinforced	1	120	-	-	0,3250
	Reinforced	2		-	-	0,3250
	Normal	1		0,3536	1,8036	-
BK60	NOTITIAL	2	140	0,3536	1,0836	-
DKOU	Reinforced	1	140	-	-	0,3121
	Reiniorced	2		-	-	0,2979
	Name	1		0,2861	1,6694	-
BK70	Normal	2	100	0,2861	1,6694	-
BK/U	Reinforced	1	180	-	-	0,2428
	Reinforced	2		-	-	0,2317
	Newsel	1		0,2818	1,5545	-
DIVOO	Normal	2	220	0,2818	1,5545	-
BK80	Reinforced	1	220	-	-	0,2305
	Reinforced	2		-	-	0,2214
	NII	1		0,2519	1,6096	-
PKOO	Normal	2		0,2519	1,6096	-
BK90	Reinforced	1		-	-	0,1989
	reilliorced	2		-	-	0,1912

Radial and axial forces on the output shaft

Worm gear unit BS series

Frame size	Bearings	Output shaft code	I	a	b	c
		1		0,6	2,1	-
DC02	NI - was all	2	70	-	-	-
BS02	Normal	7	30	1,3333	2,8333	-
		8		-	-	-
		1		0,4375	1,9875	-
DC02		2	10	-	-	-
BS03	Normal	7	40	0,9125	2,4625	-
		8		-	-	-
DCO4	Normal	1	40	0,5375	1,7875	-
BS04		2	740	-	-	-
BS06	Normal	1	50	0,4800	1,9400	-
D300	NOTITIAL	2	30	-	-	-
BS10	Normal	1	60	0,5917	2,3083	-
D310	Normal	2	00	-	-	-
BS20	Normal	1	70	0,5500	2,4357	-
D320	NOTITIAL	2	70	-	-	-
DC20	Name	1		0,5312	2,4313	-
BS30	Normal	2	80	-	-	-
BS40	Normal	1	120	0,4292	1,7042	-
D34U	INOTITIAL	2	120	-	-	-

Transmission components

If a transmission component is used (gearwheels, chainwheels, V-belt, etc.), the resulting radial forces can be determined as follows.

$$\boldsymbol{F}_{\boldsymbol{R}} = \ \frac{2000 \times \boldsymbol{M}}{\boldsymbol{D}_{\boldsymbol{T}}} \ \times \boldsymbol{f}_{\boldsymbol{Z}} \! \leq \! \boldsymbol{F}_{\boldsymbol{R}(\boldsymbol{N},\boldsymbol{V})}$$

F_R Radial force [N] M Torque [Nm]

D_T Pitch radius of the transmission component [mm]

fz Safety factor

A safety factor f_Z depending on the type of transmission component attached to the output shaft must be included when determining the value of the radial force FR that is present.

4

Radial and axial forces on the output shaft

Factor f_z for the type of transmission component

Transmission component	Safety factor f _z	Note
Gearwheel	1	=> 17 teeth
Gearwheel	1,15	< 17 teeth
Chainwheel	1	=> 17 teeth
Chainwheel	1,25	< 17 teeth
Toothed rack	1,15	< 17 teeth (pinion)
V-belt	22,5	From tensioning force
Flat belt	23	From tensioning force
Friction wheel	34	

Axial force

The following specification applies to the allowable axial force FA on the output shaft (either tension or compression) for all Bauer geared motors and for foot, flange or hollow-shaft versions:

$$F_A = 0.5 \times F_{R(N,V)}$$

Please consult us in case of larger axial forces.

Sizing based on efficiency

Drive configuration based on efficiency

With the introduction of the IEC 60034-30 standard and the ErP 2009/125/EC EU directive, utilisation of the potential energy savings in industrial environments has been given increased urgency and made legally mandatory.

In the industrial applications area, electric motors consume the vast majority of electrical energy (approximately 70%). They are used in all areas and in many applications, such as fans, pumps, grinders, rolling mills, lifts, transport and conveying equipment, household appliances, and office machines.

Due to this broad range of applications, electrical drive systems are a primary target for energy saving policies. As electric motors consume a large amount of electrical energy, even small improvements in efficiency lead to significant savings.

In many cases, especially in transport and conveying equipment, it is necessary to reduce the speed of a three-phase squirrel-cage motor. This can be done by using external traction gearboxes or by using external or integrated reduction gearboxes. With regard to energy savings, the efficiency of the gear unit and transmission components must not be ignored.

The overall efficiency of a system is calculated as follows:

$$\eta_{System} = \eta_{Motor} \times \eta_{Getriebe} \times \eta_{Anlage}$$

Savings potential Motor: η_{motor}

In accordance with the Motor Regulation 16640/2009/EC, the legally binding EU ErP directive 2009/125/EC specifies IE2 (High Efficiency) as the minimum efficiency for new motors operating in continuous running duty (S1), effective 16 June 2011.

The right motor frame size and motor type should be selected based on environmental and economical aspects based on the new motor regulations for the IE2 series.

Environmental analysis

Motor capacity utilisation is a particularly important factor in the energy utilisation of motors.

Unlike what is often incorrectly assumed, energy consumption cannot be reduced by simply replacing a motor operating at only 50% of its capacity with a smaller motor operating at 100% of its capacity. Partially loaded motors dissipate less heat and therefore achieve higher efficiency.

The following table shows the comparative technical data of 2.2-kW motors with copper and aluminium rotors and a 1.1-kW motor with an aluminium squirrel-cage rotor.

P _N [kW]	Туре	n _N [rpm]	M _N [Nm]	I _N 400 V [A]	cos φ	n (100% load) [%]	n (75% load) [%]	n (50% load) [%]	Ia/In	Ma/Mn	Ms/Mn	Mĸ/Mn	J _{rot} [kgm²]
1.1	DHE09LA4	1440	7.3	2.5	0.75	82.7	82.3	79.8	5.9	2.9	2.7	3.4	0.0032
2.2	DHE09XA4C	1440	14.5	4.75	0.79	84.5	85.0	83.5	5.2	1.8	1.7	2.7	0.0053
2.2	DHE11SA4	1440	14.5	4.6	0.80	86.2	86.0	84.7	7.0	3.1	2.8	3.6	0.0081

Even with 50% capacity utilisation, the two 2.2-kW motors have higher efficiency than the fully utilised (100% load) 1.1-kW motor.

Thanks to the large thermal margins of IE2 motors, there is no need for additional safety margins in design parameters.

However, with very high cycle rates the higher starting torque of IE2

motors, and the associated higher gear acceleration loads, should be taken into account. See separate publication EP34 for additional information.

Δ

Sizing based on efficiency

Calculation of the efficiency under partial load

The motor data sheets list motor efficiency figures according to Motor Regulation 640/2009/EC for operation at several load levels (50%, 75% and 100%).

The efficiency at any partial load point can be calculated approximately from the efficiency figures for 75% and 100% load, and the energy balance of the application can be evaluated accordingly.

$$R_{VL} = \frac{\left[\frac{100}{\eta_{100}} - 1\right] - 0.75 \times \left[\frac{100}{\eta_{75}} - 1\right]}{0.4375}$$

$$R_{vo} = \left[\frac{100}{\eta_{_{100}}} - 1 \right] - R_{vL}$$

$$\eta_{P} = \ \frac{100}{\left[1 + \frac{R_{VO}}{p}\right] + R_{VL} \times p}$$

with

 η_{100} Efficiency at 100% load η_{75} Efficiency at 75% load RVL, RVO Intermediate results

p Partial load (value range: 0 to 1 or overload)

η_p Efficiency at partial load point p

Economic analysis

As described above, the economic analysis does not permit especially large safety factors. The energy savings required by the ErP Directive 2009/125/EC can be achieved very easily with electric motors, but there is a price attached.

With the change from IE1 to IE2 efficiency class (effective 16 June 2011) for mains-powered motors operating in S1 duty, users of electric motors are faced with power-dependent additional costs when purchasing these products.

The drive should essentially be selected based on the investment payback time as a function of the period under consideration.

Operating a 2.2-kW motor constantly at 50% load (as described above) does not make sense from an economic perspective. In this case, an additional amount must be paid for changing to a different frame size or package length and for material expenditures with IE2 motors. As a result, the investment payback time of the motor will extend longer into the lifetime of the system.

Sizing based on efficiency

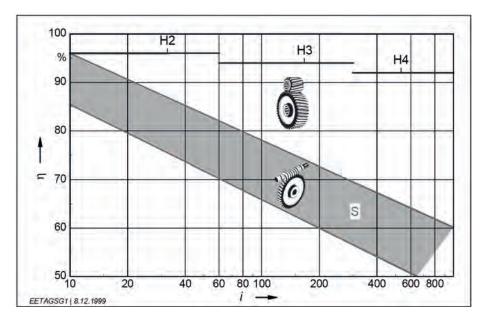
Consequently, the most cost-effective motor selection must be based on the following factors.

- Duty type
 Evaluate the application, since most applications do not operate with S1 duty type.
- Operating time
 The longer the operating time, the shorter the payback time.
- Motor capacity utilisation

 Motor utilisation 75% or higher load.
- Additional financial expenditure
 Safety factors increase the economic overhead.
- Payback time

Comparison of the general savings potential of gearboxes and motors in continuous running duty (S1) shows that the energy savings potential of gearboxes is significantly higher than that of motors. The efficiency of gearboxes is predominantly dependent on the tooth geometry and the friction values of the bearings and seals. At high input speeds and with vertical designs in which the first stage rotates fully immersed in oil, splash losses cannot be neglected. Vertical designs should generally be avoided.

The efficiency of worm gear drives is highly speed dependent (see illustration). Bauer worm gear units are available as two-stage worm gear units for frame sizes BS04 and larger. This enables very high reduction ratios and significantly higher efficiency than with pure worm gear units. A loss of 2% per stage can be assumed for two-stage worm gear units.



Comparison of typical efficiency (ŋ) versus reduction ratio (i) for helical spur gear units (H) with two, three or four stages and two-stage worm gear units (S), relative to the rated power of the gear unit.

4

Gear efficiency ngear

Gear Motor Selection Sizing based on efficiency

System efficiency $\eta_{\text{\tiny System}}$

The drive system provides the highest savings potential in the analysis of the overall efficiency.. Designers and plant engineers should always strive to optimise the transmission components.

Transmission compo- nent	Conditions	Efficiency
Wire rope	Per full turn on the wire drum (with journal or roller bearings)	0.91–0.95
V-belt	Per full turn on the belt pulley (with normal belt tension)	0.88-0.93
Synthetic belts	For each full turn or roll, with roller bearings (normal belt tension)	0.81–0.85
Rubber belts	For each full turn or roll, with roller bearings (normal belt tension)	0.81–0.85
Toothed belts	For each full turn or roll, with roller bearings (normal belt tension)	0.90-0.96
Chains	For each full turn or chainwheel, with roller bearings (depending on chain size)	0.90-0.96
Spindles	Trapezoid-thread spindle	0.30 – 0.70
	Ballscrew spindle	0.70 – 0.95
Gear unit	With spur gears or bevel gears: 2% per stage, with worm gears and other types of toothing, according to manufacturer's data	0.94–0.98

Shock loads of machinery

Shock loads for various types of machinery are listed in standards and guidelines as well as industry-specific documents and manufacturer's documents. If for example a crusher or a press is listed here with an shock load class of III, this is justified. On the other hand, under favourable conditions a belt conveyor could have an shock load class of I, but this could quickly change to III with on/off operation, high speed and overdrive due to a loose chain. Consequently, the classifications in the following table should by no means be taken blindly. They provide a rough point of reference, but the ultimate classification of the shock load should always take into account the factors specified by Bauer, in particular the inertia ratio, the cycle rate and the transmission component(s).

Shock	load
ction machinery	
ction lifts II	
e mixers II	
nstruction machinery II	
al industry	
drums II	
ll II	
light media)	
viscous media) II	
Irums II	
ges (light)	
ges (heavy)	
ort and conveying	
3	
winches II	
ng machines	III
onveyors II	
veyors (bulk material)	
veyors (piece goods)	
pelt conveyors II	
onveyors II	
conveyors II	
ifts II	
cket conveyors I	
er lifts II	
s II	
onveyors II	
ucket conveyors II	
lifts	III
It conveyors II	
onveyors II	
and fans	
owers II	
(axial and radial)	
tower fans II	
blowers II	
conveyors II ifts III cket conveyors I er lifts III s III onveyors III lifts III lifts III cket conveyors III lifts III lifts III conveyors III lifts III conveyors III lifts III conveyors III lifts III conveyors III lifts III	

Drive	S	hock loa	nd
Rubber			
Extruders			III
Calenders		П	
Kneaders			III
Mixers		II	
Rolling mills			III
· J			
Timber processing and			
woodworking			
Debarking drums			Ш
Planers		II	
Woodworking machinery	I		
Saw frames			III
Crane systems			
Luffing mechanisms	I		
Traversing mechanisms			III
Hoisting mechanisms	I		
Slewing mechanisms		II	
Jib mechanisms		Ш	
Plastics		1	
Extruders		II	
Calenders		II	
Mixers		II	
Grinders and pulverisers		II	
Madahara dalam			
Metalworking Plate bending machines		II	T
Plate straightening machines		- 11	III
Hammers			III
Planers			III
Presses			III
Shears		II	(11
		11	III
Forging presses Punches			III
Countershafts and driveshafts	1		111
	ı	- 11	
Machine tools (principal)	1	II	
Machine tools (ancillary)	I		

4

Gear Motor Selection Shock loads of machinery

Drive	Sho	ck load	
Food processing			
Filling machines	1		
Kneading machines	1	П	
Mashing machines			
Packaging machines	1	11	
Sugar cane cutters	I	II.	
Sugar cane mills		11	III
		II.	III
Sugar beet cutters			
Sugar beet washers		II	
Paper			
Couching			III
Smoothing rolls			III
Hollander		II	
Pulp grinder			III
Calender		II	
Wet presses			III
Shredders			III
Suction presses			III
Suction rolls			III
Drying rolls			III
Stone and soil			
Crushers			III
Rotary kilns			III
Hammer mills			III
Tube mills			III
Beating mills			III
Tile and block presses			III
Fabrics			
Winders		II	
Printing and dying machines		II	
Tanning vats		II	
Shredders		II	
Looms		II	

Drive	Shock load	
Rolling mills		
Plate shears		III
Plate turners	II	
Billet presses		III
Billet and slab lines		III
Billet conveyors		III
Wire drawing machines	11	
Descaling machines		III
Sheet metal mills		III
Plate mills		III
Winders (strip and wire)	II	
Cold rolling mills		III
Chain transports	- 11	
Billet shears		III
Cooling beds	11	
Cross transports	II	
Roller tables (light)	11	
Roller tables (heavy)		III
Roll straighteners	II	
Tube welders		III
Trimming shears	- 11	
Cropping shears		III
Continuous casting machines		III
Roll adjustment devices	II	
Manipulators		III
Laundry		
Drum dryers	II	
Washing machines	II	
Water treatment		
Centrifugal aerators	II	
Archimedes screw	II	

Catalogue geared motors

50





Page

Gearboxes and Lubrication

51-76

Standard fitting

- BG and BF
- BK and BS

Position of the terminal box and the cabel entry

- BG and BF
- BK and BS

Radial and axial forces at the output shaft Dimensions and fits of output shafts and keyways

Installing transmission elements

Gear with solid shaft

Gear with hollow shaft

Shrink disc coupling

Torque restraint

Notes for installing shaft mount gears with

hollow shaft and keyway

Gear ventilation

Output shaft seals

Lubricants

Lubricant quantities

- Lubricant quantities, BG-series gears
- Lubricant quantities, BG-20-01R
- Lubricant quantities, BF-series gears
- Lubricant quantities, BK-series gears
- Lubricant quantities, BS-series gears
- Lubricant quantities, pre-stage gears (Z)
- Lubricant quantities, intermediate gears

Additional lubricant quantities,

- gear versions, with externally mounted coupling C
- gear versions with externally mounted coupling K
- gear versions with input shaft SN

Position of threaded plugs

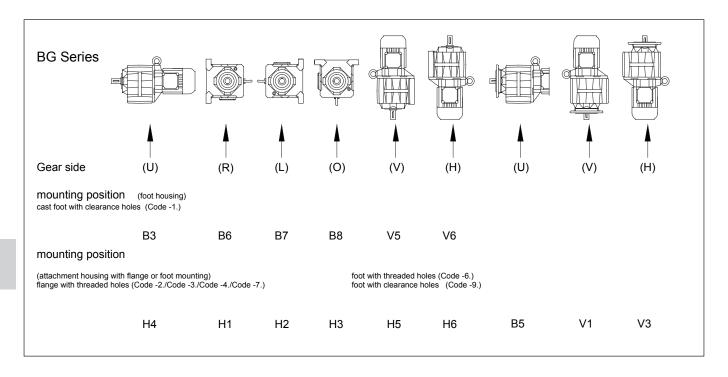
- BG-series gears
- BG-20-01R
- BF-series gears
- BK-series gears
- BS-series gears
- pre-stage gears (Z)

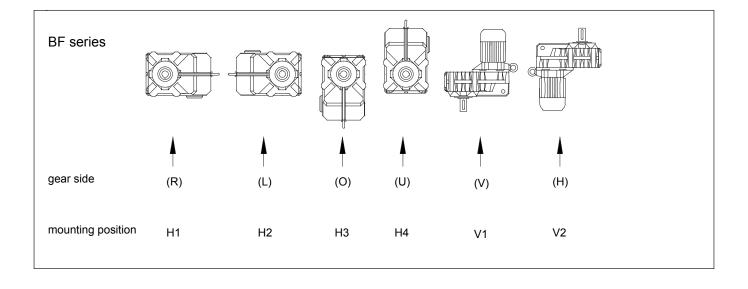
Position of the grease nipple for gearbox designs with

- mounted coupling C
- mounted coupling K
- Input Shaft SN

Position of the drain plugs in the System Cover

Standard fitting positions

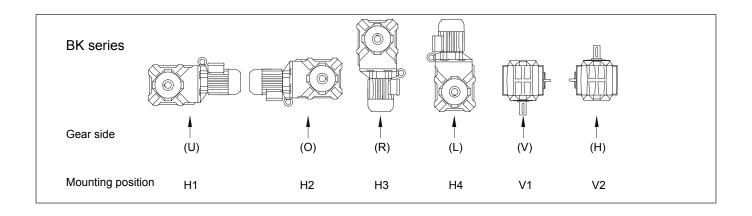


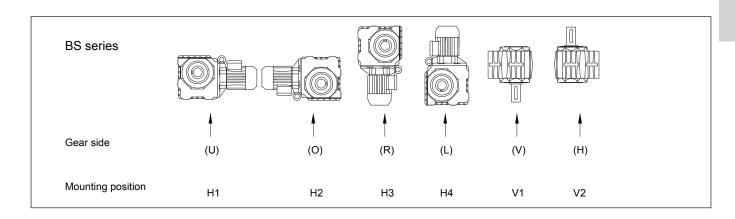


E

Gearboxes & Lubrication

Standard fitting positions

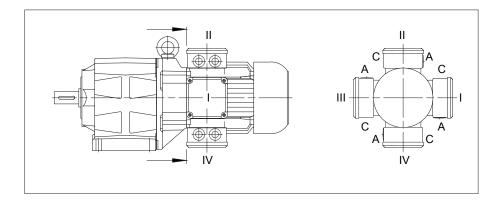


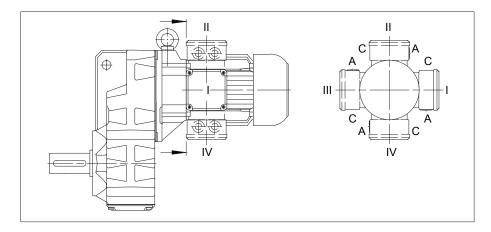


Postion of the terminal box

Position of the terminal box and the cable entry points (BG and BF)

The standard position of the terminal box for helical-gear and shaft- mounted geared motors is position I. Cables may be introduced from side A or C.





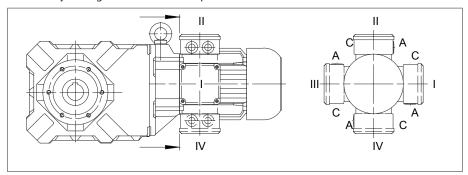
Turning or rotating the gearbox in space in the different mounting positions according to DIN 42950 does not influence the marking as shown. The details of the terminal box always show the position of the terminal box and the cable entry in relation to the gearbox and not in space. The mounting according to DIN 42950 is to be given separately.

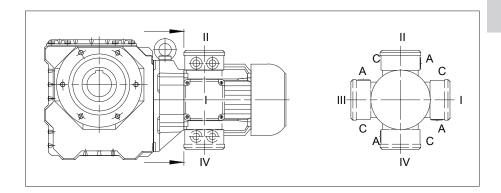
Position of the terminal box

Position of the terminal box and the cable entry points (BK and BS)

The standard position of the terminal box for bevel-geared and worm- geared motors is position II.

Cable entry through side A or side C is possible





Turning or rotating the gearbox in space in the different mounting positions according to DIN 42950 does not influence the marking as shown. The details of the terminal box always show the position of the terminal box and the cable entry in relation to the gearbox and not in space. The mounting according to DIN 42950 is to be given separately.

Gearboxes

Radial and axial forces at the output shaft

The output shafts and output-shaft bearings are matched to the motor torques. It is advisable to locate the drive-transmission element's point of application as close as possible to the shaft collar to ensure that the load imposed by external radial forces is not unnecessarily high. Permissible values for radial forces referred to the output shaft centreline are listed in the selection tables. Please consult us if your application involves extra-high axial loading.

Dimensions and fits of output shafts and keyways

Output shaft and second shaft stub, keyway and key are in compliance with the DIN standards and ISO fits listed below:

Solid shaft

Shaft diameter to D = 50 mm in ISO k6 (DIN 748 Page1)

as of D = 50 mm in ISO m6 (DIN 748 Page 1)

Keyway ISO P9 (DIN 6885 Page 1)

Key, height ISO h9 (DIN 6885 Page 1 and DIN 6880)

Bore - customer ISO H7

Hollow shaft with keyway

Bore diameter ISO H7 (DIN 748) Keyway ISO JS9 (DIN 6885 Page 1)

Key, height ISO h9 (DIN 6885 Page 1 and DIN 6880)

Customer shaft ISO h6

Hollow shaft for shrink-on disc coupling (SSV)

Outside diameter ISO f7 Inside diameter ISO H7 Customer shaft ISO h6

Installing transmission elements

Note:

Gearboxes using torque reaction by means of a flange (Code 2.; 3; 4.; 7.; 8.) or torque arm (Code 5.), must have the side for the torque reaction the same as where the radial force on the output shaft occurs (see rubber buffers for torque arms)! Please consult the factory for other designs.

Gear with solid shaft

Always exercise meticulous care when fitting transmission elements onto output shafts and, whenever possible, use the DIN 332 tapped bore provided for this purpose. Fitting is usually easier if the transmission element can be heated to approximately 100° C for installation. Dimension the locating bore to ISO H7.

Gears with solid shaft at each end (gear code -.3/): alignment of the two keys is subject to the DIN 7168 tolerances, the degree of accuracy is "fine".

Gear with hollow shaft

Hollow shafts usually engage solid shafts of the driven machinery. The gear unit must be mounted such as to be free of constraint and be fixed axially (e.g. by means of assembly help acc. following description "notes for installing shaft mount gears with hollow shaft and keyway"). Special contract provision must be made if the hollow shaft has to guide the solid shaft or, for any other reason, close out-of-round tolerance referenced to a point on the gear housing (such as a flange, for instance) is required.

Shrink disc coupling

A shrink disc coupling (SSV) can transmit high torque from the non- grooved hub to the smooth shaft. The SSV is easily secured and released, using commercially available bolts. SSVs are the ideal supplement for shaft mount gears. The maximum transmittable torque for the selected shrink discs when fitted and mounted according to instructions is above the breakaway torque of the respective motors classified as standard (for classification of shrink disc sizes see chapter 11, 12, 13 "Additional dimensional drawings for Shrink disc coupling)

Gearboxes

Torque restraint

Shaft-mounted geared motors require a suitable torque restraint to resist the reaction torque. Shaft-mounted gears have cast torque arms as standard. Bevel gears and worm gears are available with bolt-on torque arms on request. The torque arm is screwed onto the front "V" on the side of the gear unit. It is always important to ensure that the torque arm does not create excessive constraining forces due to the driven shaft running untrue, for example. Excessive play can result in excessive shock torques in switching or reversing operations. Consequently, we recommend the use of pre-tensioned rubber damping elements. These rubber buffers are part of the scope of supply for designs with a torque arm (see chaper 11, 12., 13 dimensional drawings "Rubber buffer for torque restraint")

Notes for installing shaft mount gears with hollow shaft and keyway

(1) Attaching the hollow shaft to the customer shaft

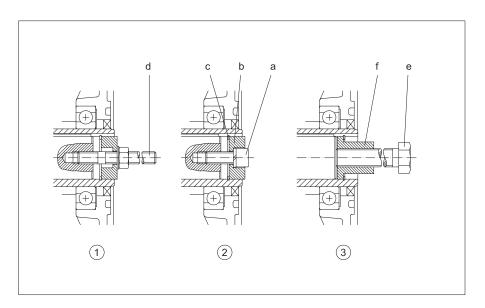
Threaded bolt (d) is screwed into the end thread of the shaft to be driven. By tightening the nut, apply force to thrust plate (b) and locating ring (c) to draw the gear unit onto the shaft.

(2) Axial fastening

Pressure piece (b) is rotated and fitted against retaining ring (c) using fixing screw (a).

(3) Removing

Extractor (f) is fitted between the end face of the shaft and retainer ring (c). Tighten press-off screw (e) against the end of the shaft and pull the gear unit off the shaft. Manufacturing drawings for the required parts are available on request. These parts are not included in the scope of supply.



Detailed information on shaft-mounted gear units, bevel-gear units and worm-gear units is available (see chaper 11, 12., 13 dimensional drawings "Tools for fitting shaft-mounted gear with hollow shaft and keyway").

Gear ventilation

The lifetime of the gearbox lubricant increases the better it is protected from negative environmental influences. Should the oil level or the gearbox ratio cause a very high lubricant temperature, the gearbox will be supplied as standard with a breather plug. Either on request or for corresponding high ambient temperatures, all gearboxes from size 10 can be supplied with a breather plug.

For the position of the threaded plugs see chapter 5 theraded plugs.

Output shaft seals

All size 10 and larger gears are available with double seals for the output shaft on request and at extra cost. Double seals are particularly effective if the output shaft points down and as protection against external influences

Lubricants

Lubricants

The drives are shipped ready-filled with gear lubricant. Lubricated in this way, the gear units are suitable for ambient temperatures in the range -20° C to $+40^{\circ}$ C. The quantity of lubricant is optimised for the desired installed position as is stated on the nameplate. The type of lubricant is stated in the Operating Instructions. Lubricants for other temperature ranges or special applications available on request.

Wear-protective EP gear oils as indicated in the following table have proven particularly effective:

			Lubricant type		
	Mineral Oil		Synthetic Oil		USDA H1 Oil
	ISO VG 220	ISO VG 68	ISO VG 220	ISO VG 460	ISO VG 220
Disposal No.	ASN13 02 05	ASN 13 02 06	ASN 13 02 06	ASN 13 02 06	
Lubricant Manufacturer	Standard oil for gearboxes in the series BF06-BF90 BG04-BG100 BK06-BK90	Low temperature oil for gearboxes in the series BF06-BF90 BG04-BG100 BK60-BK90	Standard oil for gearboxes in the series BS02-BS10 BK06-BK10 High temperature oil for gearboxes in the series BS02-BS10 BK06-BK10 BF06-BF90 BG04-BG100 BK60-BK90	Standard oil for gearboxes in the series BS20-BS40 BK20-BK50 High temperature oil for gearboxes in the series	Food and Beverage Industry Oil for gearboxes in the series BF06-BF90 BG04-BG100 BK06-BK90 BS02-BS40
AGIP	BLASIA 220				
ARAL ARAL	DEGOL BMB220 DEGOL BG220		DEGOL GS220	DEGOL GS460	
BECHEM RHUS	STAROIL SMO220				
ВР	ENERGOL GR-XP220		ENERSYN SG-XP 220	ENERSYN SG-XP 460	
CASTROL GCastrol	ALPHA SP 220 ALPHA BMB 220 OPTIGEAR BM 220 TRIBOL 1100/220		ALPHASYN PG 220 TRIBOL 800/220 ALPHASYN GS 220	ALPHASYN PG 460 TRIBOL 800/460 ALPHASYN 460	CASTROL OPTILEB GT 220 CASTOL TRIBOL FOODFROOF 1800/220
ESSO	see MOBIL				
FUCHS FUCHS	RENOLIN CLP 220 RENOLIN CLPF 220 SUPER	RENOLIN PG 68	RENOLIN PG 220	RENOLIN PG 460	
KLÜBER KLÜBER	KLÜBEROIL GEM 1-220 N	KLÜBERSYNTH GH6-80	KLÜBERSYNTH GH6-220	KLÜBERSYNTH GH6-460	KLÜBEROIL 4UH1-220N KLÜBERSYNTH UH1 6-220
мовіл Морії	MOBILGEAR 600 XP 220 MOBILUBE HD PLUS 80W-90		GLYGOYLE 220 GLYGOYLE 30	GLYGOYLE 460	
OEST	Gearol C-LP 220				
OPTIMOL	OPTIGEAR 220		OPTIFLEX A 220	OPTIFLEX A 460	OPTILEB GT 220
SHELL	OMALA S2 G220 FALCON CLP 220		OMALA S4 WE 220	OMALA S4 WE 460	CASSIDA FLUID GL 220
TEXACO	GEARTEX EP-A SAE 85W-90				
TOTAL	CARTER EP 220				NEVASTANE SL220
WINTERSHALL	SRS ERSOLAN 220				

5

Important:

Synthetic gear oils of a Polyglykol base (e.g. PGLP...) must be disposed of separately to mineral oil as **Special Waste** .

So long as the ambient temperature does not fall below $-20\,^{\circ}\text{C}$ the international definition of the viscosity class at 40 $^{\circ}\text{C}$ according to ISO 3448 and DIN 51519 ISO the viscosity class VG220 (SAE90) is recommended according, in North America AGMA 5EP.

For lower temperatures it is recommended to use oils of a lower nominal viscosity with a corresponding better starting characteristic, for instance a PGLP with a nominal viscosity VG68 (SAE80) or AGMA 2EP respectively. These types of oil can already be necessary at a temperature around the freezing point, if the break away torque of a drive is reduced by some smooth starting device or if the motor has a relatively low power

Lubricant quantities

The preferred quantity of lubricant for the planned type of installation is stated on the motor's rating plate (symbol "oil can"). When topping up care should be taken to ensure that, depending on the fitting position, gearwheels and rolling contact bearings positioned at the top are also properly oiled. In special versions the oil level mark should be noted. Information about the quantity of lubricant required for other types of installation can be obtained from the factory

Lubricants

Lubricant quantities, BG-series gears

Luk	oricatio	on quanti	ty in I									
Gearbox typ	e											
BG04-BG10	0	(gear-housing	g with flange or	foot)	T	<u>v</u>			M			
Flange (Code-2./Code-3./Code-4./Code-7.) Foot with clearance holes (Code-9.) Foot with threads (Code-6.) [Completely machined (Code -8.)]												
Foot with threads	(Code-6.)				[Complet	tely machined (Co	de -8.)]				
		H4	H1	H2	НЗ	H5	H6	B5	V1	V3		
BG04-BG10	0		_	_								
(Gearbox housing)												
cast-on-foot with o	learance	holes (Code	-1.)			0						
		В3	B6	В7	B8	V5	V6					
BG04	*	-	0.03	0.03	0.03	-	-	0.03	0.05	0.05		
	**	0.05	0.05	0.05	0.05	0.1	0.05	_	-	-		
BG05	*	-	0.05	0.05	0.05	-	-	0.05	0.08	0.08		
	**	0.08	0.08	0.08	0.08	0.16	0.08	-	-	-		
BG06	*	-	0.08	0.08	0.08	-	-	0.08	0.15	0.15		
	**	0.12	0.12	0.12	0.12	0.24	0.15	-	-	-		
BG10	* **	0.65	0.65	0.65	0.85	1.05	0.85	0.65	1.05	0.85		
		0.45	0.45	0.45	0.6	0.75	0.6	-	-	-		
BG15	**	0.4	0.4	0.4	0.35	0.62	0.55	-	-	-		
BG20	**	0.8	0.8	0.8	1.1	1.4	1.1	0.8	1.4	1.1		
	*	0.6	0.6	0.6	1.0	1.15	0.9	-	-	-		
BG30	**	1.0	1.0	1.0	1.7	2.2	1.6	1.0	2.2	1.6		
	*	1.0	1.0	1.0	1.7	2.3	1.7	- 4.7	-	- 24		
BG40	**	1.7	1.7	1.7	2.5	3.5	2.1	1.7	3.5	2.1		
	*	1.7	1.7	1.7	2.5	3.5	2.1	- 2.0	-	-		
BG50		3.0	3.0	3.0	4.5	5.5 5.5	3.3	3.0	5.5	3.3		
	*	5.5	5.5	5.5	7.0	10.9	6.4	5.5	10.9	6.4		
BG60	**	5.5	5.5	5.5	7.0	10.9	6.4	-	-	-		
BG70		6.5	6.5	6.5	8.0	13.5	9.0	6.5	13.5	9.0		
BG80		11.0	11.0	11.0	11.0	22.5	15.0	11.0	22.5	15.0		
BG90		19.0	19.0	19.0	19.0	40.0	26.0	19.0	40.0	26.0		
BG100)	35.0	35.0	55.0	50.0	66.0	50.0	35.0	66.0	50.0		
	*	Attachme	ent housing	g		** G	earbox hous	sing				

Lubricants

Lubricant quantities, BG20-01R

	Lubrication	on quantity ir	n l				
Gear type							
	H4	H1	H2	Н3	V5	V6	
BG20-01R	0.8	1.0	0.8	1.4	1.65	1.0	

Lubricants

Lubricant quantities, BF-series gears

Luk	orication qua	ntity in I					
Gear type	H1	H2	Н3	H4	V1	V2	
BF06	0.25	0.25	0.25	0.37	0.35	0.3	
BF10	0.85	0.85	0.85	1.1	1.45	1.5	
BF20	1.3	1.3	1.3	1.7	2.2	2.25	
BF30	1.7	1.7	1.7	2.2	3.2	3.0	
BF40	2.7	2.7	2.7	3.5	4.9	4.8	
BF50	3.8	3.8	3.8	5.0	6.7	6.7	
BF60	6.7	6.7	6.7	9.0	12.3	12.0	
BF70	12.2	12.2	12.2	16.0	24.2	21.8	
BF80	17.0	17.0	17.0	21.0	32.2	27.5	
BF90	32.0	32.0	32.0	41.0	62.0	53.0	

Lubricants

Lubricant quantities, BK-series gears

	Lubrication qual	ntity in I					
Gear box type	H1	H2	H3	H4	V1	V2	
BK06	0.15	0.23	0.29	0.31	0.18	0.23	
BK10	0.83	0.83	0.92	1.75	0.92	0.92	
BK20	1.5	1.5	1.6	2.9	1.65	1.65	
BK30	2.2	2.2	2.3	4.4	2.4	2.4	
BK40	3.5	3.5	3.5	6.7	3.7	3.7	
BK50	5.8	5.8	5.8	11.5	6.0	6.0	
BK60	6.0	8.7	6.9	12.0	8.6	8.6	
BK70	10.2	15.0	11.5	20.5	13.5	14.5	
BK80	18.0	25.5	19.0	37.0	23.5	25.5	
BK90	33.0	48.0	36.0	69.0	45.0	48.0	

64

Gearboxes & Lubrication

Lubricants

Lubricant quantities, BS-series gears

	Lubrication qu	antity in I					
Gear type	H1	H2	НЗ	H4	V1	V2	
BS02	0.06	0.06	0.06	0.06	0.06	0.06	
BS03	0.17	0.17	0.17	0.17	0.17	0.17	
BS04	0.11	0.17	0.11	0.2	0.11	0.11	
BS06	0.24	0.36	0.24	0.45	0.24	0.24	
BS10	0.9	1.3	0.9	1.6	0.9	0.9	
BS20	1.5	2.1	1.5	2.7	1.5	1.5	
BS30	2.2	3.0	2.2	3.8	2.2	2.2	
BS40	3.5	4.7	3.5	6.0	3.5	3.5	

Lubricant quantities, pre-stage gears (Z)

	Lubricatio	on quantity in I				
BG / BF	B3 H4 B5	B6 H1	B7 H2	B8 H3	V5/H5 V1	V6/H6 V3 V2
BK / BS	H1	V1	V2	H2	H4	Н3
Gear type						
BG10Z BF102 BK10Z BS103	0.10	0.05	0.12	0.07	0.16	0.07
BG20Z BF202 BK20Z BS202	0.15	0.07	0.19	0.17	0.27	0.10
BG30Z BF302 BK30Z BS302 BM30Z	0.0+	0.10	0.35	0.22	0.35	0.19
BG40Z BF402 BK40Z BS402 BM40Z		0.17	0.50	0.37	0.6	0.32
BG50Z BF502 BK50Z	0.5	0.3	0.92	0.7	1.15	0.5
BG60Z BF60Z	0.9	0.5	1.55	1.1	2.0	0.7
BG70Z BF702 BK70Z BF802	1.2	0.6	1.8	1.6	2.4	1.4
BG80Z BF902 BK80Z BG100	3.1	1.3	4.0	2.6	5.2	2.0
BG90Z BK90Z	4.2	1.5	5.4	3.5	7.7	3.0

 $[\]ensuremath{^{*}}$: The lubricant of the pre-stage for BM30Z/BM40Z is filled in the main gearbox.

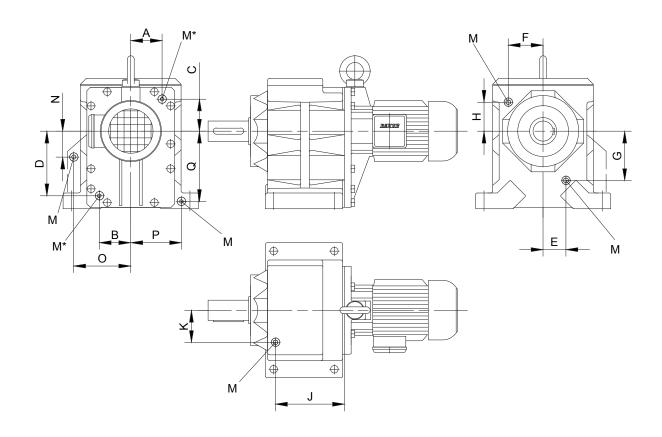
Threaded plugs

Lubrication quantity for intermediate gear

	Definition of the terminal box position Terminal box position for intermediate gear is similar to the main gearbox that means Main gearbox BG,BF terminal box pos. I -> intermediate gearbox terminal box pos. II -> intermediate gearbox terminal box pos. II -> intermediate gearbox terminal box pos. II												
Lubrication quantity in liquid pint													
Mounting position of main gearbox	BG / BF	B3 H4 B5	B6 H1	B7 H2	B8 H3	V5/H5 V1	V6/H6 V3 V2						
Standard position of KLK mounting position H1,H2,H3,	B5,V1,V3 for mounting with screwed resp. casted flange	B5	H1	H2	НЗ	V1	V3						
		Туре	designation of dou	ble gearbox comb	oination								
BG06G04 BK06G04	3S06G04	0.03	0.03	0.03	0.03	0.05	0.05						
BG10G06 E BK10G06 E		0.08	0.08	0.08	0.08	0.15	0.15						
BG20G06 E BK20G06 E		0.08	0.08	0.08	0.08	0.15	0.15						
BG30G06 E BK30G06 E		0.08	0.08	0.08	0.08	0.15	0.15						
BG40G10 E BK40G10 E		0.65	0.65	0.65	0.85	1.05	0.85						
BG50G10 BK50G10	BF50G10	0.65	0.65	0.65	0.85	1.05	0.85						
BG60G20 BK60G20	BF60G20	0.8	0.8	0.8	1.1	1.4	1.1						
BG70G20 B BK70G20	BF70G20	0.8	0.8	0.8	1.1	1.4	1.1						
BG80G40 BK80G40	3F80G40	1.7	1.7	1.7	2.5	3.3	2.1						
BG90G50 E BK90G50 E		3.0	3.0	3.0	4.5	5.5	3.3						

Gearboxes & LubricationThreaded plugs

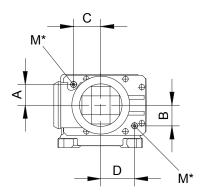
Position of threaded plugs, BG-series gears

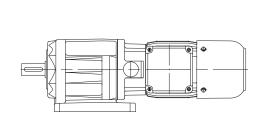


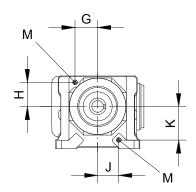
M = Plug according to DIN 908

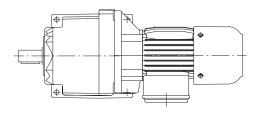
Туре	Α	В	С	D	E	F	G	Н	J	K	N	0	Р	Q	М
BG10 Foot housing		Tab.l-	Tab.III size	e B10	33	42	48	41.5	-	-	-	-	-	-	M10x1
BG10 Attachment housing		Tab.l-	Tab.III size	e B10	27	-	73	-	-	-	-	-	-	-	M10x1
BG15 Foot housing	over	Tab.I-	Tab.III size	e B10	-	-	-	-	-	-	-	-	-	-	-
BG20 Foot housing	oil drain and filler plugs on the system cover	Tab.l-	Tab.III size	e B20	-	47	-	52.5	-	-	-	-	-	-	M10x1
BG20 Attachment housing	syst	Tab.I-	Tab.III size	e B20	-	28	-	68	-	-	-	-	-	-	M10x1
BG30 Foot housing	the	Tab.l-	Tab.III size	e B30	-	54	-	58	-	-	-	-	-	-	M10x1
BG30 Attachment housing	no si	Tab.I-	Tab.III size	e B30	-	58	-	48	-	-	-	-	-	-	M10x1
BG40 Foot housing	ônJd	Tab.l-	Tab.III size	e B40	-	75	-	48	-	-	-	-	-	-	M14x1.5
BG40 Attachment housing	filler	Tab.l-	Tab.III size	e B40	-	75	-	48	-	-	-	-	-	-	M14x1.5
BG50 Foot housing	and	Tab.I-	Tab.III size	e B50	-	53	-	100	-	-	-	-	-	-	M14x1.5
BG50 Attachment housing	rain	Tab.I-	Tab.III size	e B50	-	53	-	100	-	-	-	-	-	-	M14x1.5
BG60 Foot housing	oil d	Tab.I-	Tab.III size	e B60	-	70	-	119	-	-	-	-	-	-	M20x1.5
BG60 Attachment housing	the	Tab.l-	Tab.III size	e B60	-	70	-	119	-	-	-	-	-	-	M20x1.5
BG70	on of	Tab.I-	Tab.III size	e B70	-	103	-	86	204	95	-	-	-	-	M20x1.5
BG80	Position of the	Tab.I-	Tab.III size	e B80	-	133	-	110	237	111	-	-	-	-	M20x1.5
BG90	see P	Tab.I-	Tab.III size	e B90	-	165	-	124	297	140	-	-	-	-	M24x1.5
BG100	ŭ	Tab.I-	Tab.III size	e B80	-	202	-	128	420	165	135	263	202	293	M24x1.5

 M^* =Factor and position of the drain plug see page 73.







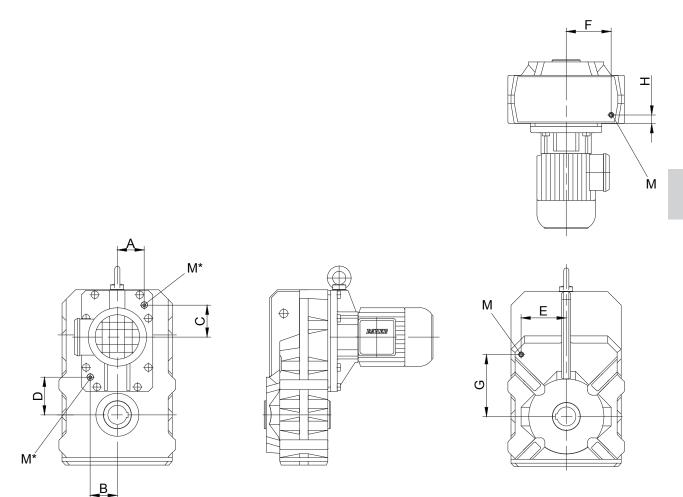


M = Plug according to DIN 908

Туре	Α	В	С	D	G	Н	J	K	М
BG20-01R Rollerbed		on of the oi			48.5	51.5	45	71.5	M10x1

Gearboxes & Lubrication Threaded plugs

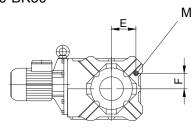
Position of threaded plugs, BF-series gears

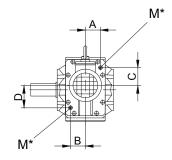


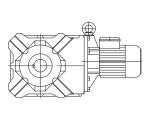
M = Plug according to DIN 908

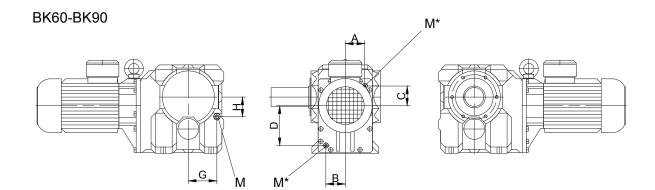
Туре	А	В	С	D	Е	F	G	Н	М
BF06		OI	request						
BF10	and		ab.l - Tab.III	size B.10	64	65	97	28	M10x1
BF20	in ar		ab.l - Tab.III	size B.20	77	70	115	30.5	M10x1
BF30	drain		ab.l - Tab.III	size B.30	88	82	125	36.5	M10x1
BF40	io §		ab.l - Tab.III	size B.40	100	86	141	33	M14x1.5
BF50	of the	<u>"</u> Ta	ab.l - Tab.III	size B.50	120	105	165	42.5	M14x1.5
BF60	⊑ ∂	5 Ta	ab.l - Tab.III	size B.60	140	145	200	50.5	M20x1.5
BF70	Position	r Ta	ab.l - Tab.III	size B.70	165	177	235	52.5	M20x1.5
BF80	see Positio	5. Ta	ab.l - Tab.III	size B.70	145	148	255	123	M20x1.5
BF90	S = S	T:	ab.l - Tab.III	size B.80	155	176	347.5	260	M24x1.5

 M^* =Factor and position of the drain plug see page 73.









M = Plug according to DIN 908

Туре	Α	В	С	D	Е	F	G	Н	М
BK06		on r	equest						
BK10	nd sr	Tab	.l- Tab.III siz	ze B.10	62	32.5	-	-	M10x1
BK20	ain and cover	Tab	.l- Tab.III siz	ze B.20	73.5	37.5	-	-	M10x1
BK30	drain em cov	Tab	.l- Tab.III siz	ze B.30	80	43	-	-	M10x1
BK40	e oil dra system	Tab	.l- Tab.III siz	ze B.40	88	49	-	-	M14x1.5
BK50	of the	Tab	.l- Tab.III siz	ze B.50	118	74	-	-	M14x1.5
BK60		Tab	.l- Tab.III siz	ze B.60	-	-	93	87	M20x1.5
BK70	Position plugs or	Tab	.l- Tab.III siz	ze B.70	-	-	137	95	M20x1.5
BK80	Po Pl	Tab	.l- Tab.III siz	ze B.80	-	-	150	117	M20x1.5
BK90	see F	Tab	.l- Tab.III siz	ze B.90	-	-	208	135	M24x1.5

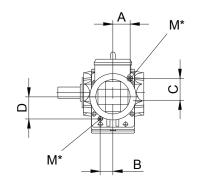
 M^* =Factor and position of the drain plug see page 73.

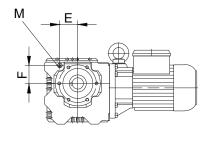
Gearboxes & Lubrication

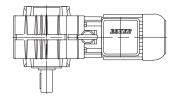
Threaded plugs

Position of threaded plugs, BS-series gears

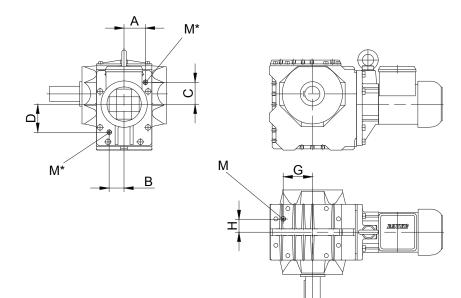
BS10 - BS20







BS30 - BS40

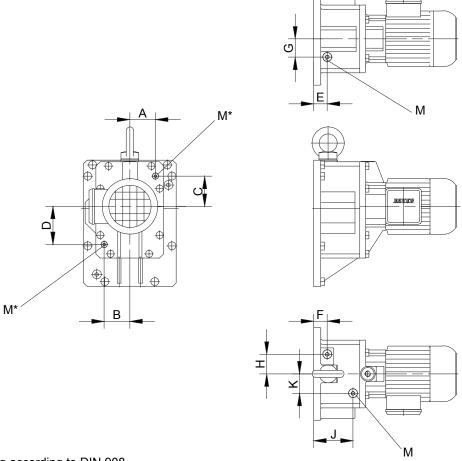


M = Plug according to DIN 908

Туре	А	В	С	D	E	F	G	Н	М
BS10	see position	n of the	the Tab.I-Tab.III size B.10		48	50	-	-	M10x1
BS20	oil drain and		Tab.I-Tab.III size B.20		59	63	-	-	M10x1
BS30	filler plugs	er plugs on the T		Tab.I-Tab.III size B.30		-	79	35	M10x1
BS40	system cover		Tab.I-Tab.III size B.40		-	-	93.5	41.5	M14x1.5

Threaded plugs

Position of threaded plugs, pre-stage gears (Z)



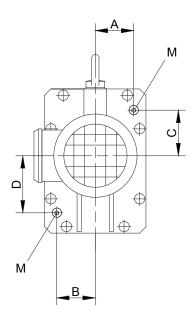
M = Plug according to DIN 908

Gear	Α	В	С	D	E	F	G	Н	J	K	М
BG10(Z);BK10(Z); BF10(Z);BS10(Z)	-	-	-	-	25	-	17.5	-	44	25	M10x1
BG20(Z);BK20(Z); BF20(Z);BS20(Z)	-	-	-	-	49	-	28.5	-	23.5	28	M10x1
BG30(Z);BK30(Z); BF30(Z): BS30(Z)		Tab.l	l u. II size	B.10	-	24	-	30	-	-	M10x1
BG40(Z);BK40(Z); BF40(Z); BS40(Z)	and nover	Tab.l	Tab.I u. II size B.20		-	27.5	-	36.5	_	-	M14x1.5
BG50(Z);BK50(Z); BF50(Z)	e oil drain and system cover	Tab.l	l u. II size	B.30	-		-	-	29	43	M14x1.5
BG60(Z);BK60(Z); BF60(Z)	_ >	Tab.l	l u. II size	B.40	-	33	-	48	-	-	M20x1.5
BG70(Z);BK70(Z); BF70(Z);BF80(Z)	on the	Tab.l	l u. II size	B.50	-	38	-	55	-	-	M20x1.5
BG80(Z);BK80(Z); BF90(Z);BG100(Z)	Position of the plugs on the s	Tab.l	l u. II size	B.60	_	45	-	73	-	ı	M20x1.5
BG90(Z);BK90(Z)	see F	Tab.l	l u. II size	B.70	-	45	-	62	-	-	M24x1.5

 M^* =Factor and position of the drain plug see page 73.

Gearboxes & Lubrication Threaded plugs

Position of the drain plugs in the System Cover Design with Standard Geared Motor



M = Plug according to DIN 908

Table I: Design with standard geared motor

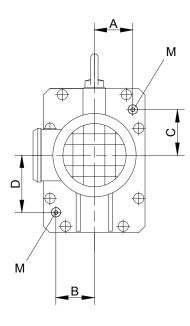
Gear	Size	Α	В	С	D	M
BG10(Z); BK10(Z); BF10(Z); BS10(Z)	D05-D09	36	34	43.5	59	M10x1
BG15;	D05-D09	36	34	43.5	59	M10x1
BG20(Z); BK20(Z); BF20(Z); BS20(Z)	D05-D09	44	44	58	72.5	M10x1
BG30(Z); BK30(Z); BF30(Z); BS30(Z)	D05-D09	56.5	40	58.2	75	M10x1
BG40(Z); BK40(Z); BF40(Z); BS40(Z)	D08-D11	66	71	71	94	M14x1.5
BG50(Z); BK50(Z); BF50(Z)	D08-D11	72	74	85	109	M14x1.5
	D13-D16	78	74	82	109	M14x1.5
BG60(Z); BK60(Z); BF60(Z)	D09-D13	84	81	120	155	M20x1.5
	D16	86	81	120	155	M20x1.5
BG70(Z); BK70(Z); BF70(Z); BF80(Z)	D09-D18	95	85	97	193	M20x1.5
BG80(Z); BK80(Z); BF90(Z); BG100(Z)	D11-D18	118	118	110	245	M20x1.5
BG90(Z); BK90(Z)	D13-D18	145	145	116	294	M24x1.5

Position of the drain plugs for BG, BK, BS and BF gear ranges and pre-stages.

Gearboxes & Lubrication

Threaded plugs

Position of the drain plugs in the System Cover Design with pre-stage Z



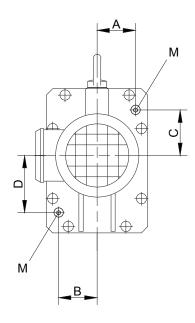
M = Plug according to DIN 908
Table III: Design with pre-stage Z

Gear	А	В	С	D	М
B.10	38	39.5	44	61.5	M10x1
B.20	44	44	58	72	M10x1
B.30	59	42	58.2	77	M10x1
B.40	66	71	71	96	M14x1.5
B.50	72	73	85	111	M14x1.5
B.60	85	81	120	192	M20x1.5
B.70	95	95	97	193	M20x1.5
B.80	118	118	110	245	M20x1.5
B.90	139	139	124	302	M24x1.5

Position of the drain plugs for BG, BK, BS and BF gear ranges and pre-stages.

Gearboxes & LubricationThreaded plugs

Position of the drain plugs in the System Cover Design with foreign motor or as gear design with input shaft



M = Plug according to DIN 908

Table II: Design with foreign motor or gear design with input shaft

Gear	А	В	С	D	M
BG10(Z); BK10(Z); BF10(Z); BS10(Z)	34	34	40.5	57	M10x1
BG15;	34	34	40.5	57	M10x1
BG20(Z); BK20(Z); BF20(Z); BS20(Z)	44	44	57	72	M10x1
BG30(Z); BK30(Z); BF30(Z); BS30(Z)	58.5	41	57.6	77	M10x1
BG40(Z); BK40(Z); BF40(Z); BS40(Z);	69	73	70	97	M14x1.5
BG50(Z); BK50(Z); BF50(Z)	75	75	82	110	M14x1.5
BG60(Z); BK60(Z); BF60(Z)	84	81	119	155	M20x1.5
BG70(Z); BK70(Z); BF70(Z); BF80(Z)	96	95	96	193	M20x1.5
BG80(Z); BK80(Z); BF90(Z); BG100(Z)	118	118	110	245	M20x1.5
BG90(Z); BK90(Z)	145	145	116	294	M24x1.5

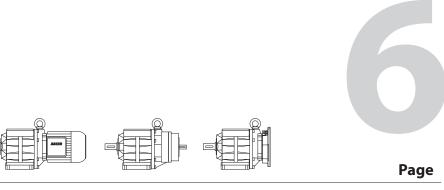
Position of the drain plugs for BG, BK, BS and BF gear ranges and pre-stages.

Catalogue geared motors

76

Catalogue geared motors

Edition 03/2012



BG-series helical-geared motors Selection

77-164

Description of helical-geared units

- Sizes
- Bauer service factors (f_B) for helical-geared motors
- Continuous operation without switching frequency Z \leq 1/h
- Switching duty
- Bauer service factor
- Explanation of shock classification
- Key to abbreviations
- Selection tables, helical-geared motors

Selection - helical geared motors IE1

Selection - helical geared motors IE2

Description of helical-geared units

Sizes

Bauer service factors (f_B) for helical- geared motors

Bauer BG-series helical-geared motors are available in 13 standard sizes with torques from 20 Nm to 18,500 Nm. Higher torques are available on request. The geared unit is accommodated in a sturdy cast housing.

Of the numerous factors influencing the total loading of a geared unit, the most important include:

- Mean torque (rated torque)
- Daily operating hours
- Severity of torque peaks (shock classification)
- Frequency of torque peaks (switching duty)

These factors can be represented in a simplified and practical manner by *service factors*. The tables and explanations below aim to provide an objective description of the *shock classification*, rather than a classification of the driven machinery. Experience has shown that, in addition to the torque shocks caused by the driven machinery (M_x/M_N), above all the power transmission components (clutches, chains etc.) plus the mass ratios play a decisive role in this.

See Bauer special imprint SD32 for more information (available on request).

Factor f₁ for shock classification and operating time

Shock classification	Operating hours per day t _d	>4 h	>8 h	>16 h	
		≤8 h	≤16 h	≤24 h	
I		0,8	1,0	1,2	
II		1,05	1,25	1,45	
III		1,45	1,55	1,7	

Factor f₂ for shock classification and switching frequency

Switching frequency in single-shift operation t_d ≤8 h/d

Shock classification	1 <z th="" ≤100<=""><th>100 <z th="" ≤1000<=""><th>1000 <z< th=""></z<></th></z></th></z>	100 <z th="" ≤1000<=""><th>1000 <z< th=""></z<></th></z>	1000 <z< th=""></z<>
1	0,95	1,1	1,15
II	1,2	1,35	1,4
III	1,55	1,6	1,6

Switching frequency in multiple-shift operation $t_d > 8 \text{ h/d}$

Shock classification	1 <z th="" ≤100<=""><th>100 <z th="" ≤1000<=""><th>1000 <z< th=""></z<></th></z></th></z>	100 <z th="" ≤1000<=""><th>1000 <z< th=""></z<></th></z>	1000 <z< th=""></z<>
I	1,3	1,45	1,5
II	1,5	1,6	1,65
III	1,75	1,8	1,8

Bauer service factor $f_B = f_1$ or $f_B = f_2$

For example: Shock classification II for Z=100 switching operations per hour and multiple-shift operation yields a service factor $f_8=f_2=1.5$

Continuous operation without switchingfrequency $Z \le 1/h$

Switching duty

Bauer service factor

78

Description of helical-geared units

Explanation of shock classification

Shock classification I:

Uniform without shock loads. All the following requirements must be satisfied:

- FI ≤1,3
- $M_x/M_N \le 1.0$
- Shock-absorbing power transmission components (e.g. highly resilient, zero-play coupling, ϕ N \geq 5°)

Shock classification II:

Moderate shock loads. At least one of the following conditions applies:

- 1,3 <Fl ≤4
- $1 < M_x/M_N \le 1,6$
- Shock-neutral power transmission components (e.g. gear wheels, zero- play rigid coupling or resilient coupling with ϕ N <5°)

Shock classification III:

Heavy shock loads. At least one of the following conditions applies:

- FI >4
- $1,6 < M_x/M_N \le 2,0$
- Shock-amplifying power transmission components (e.g. coupling with play or chain drive)

Key to abbreviations

Z Switching duty number of switching operations per hour

t_d Daily operating time in hours (h/d)

FI Factor of inertia $FI = (J_{ext} + J_{rot})/J_{rot}$

 J_{ext} Mass moment of inertia of the machine to be driven, in relation to the motor's rotor shaft (kgm²)

J_{rot} Mass moment of inertia of the motor rotor (kgm²)

 M_x Highest impact torque above the static torque which can occur during normal

operation or in emergency situations Required static load torque for the application

 M_N Required static load torong M_x/M_N Relative torque - Factor

 ϕ_N Torsional offset of the resilient coupling under rated torque

Selection tables, helical-geared motors

Key to abbreviations

P Rated output Power

n₂ Rated speed of the output shaft

i Gear reduction ratio

M₂ Rated torque at the output shaft

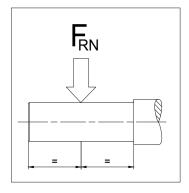
 $f_{\scriptscriptstyle B}$ Bauer service factor

 F_{RN} Maximum permissible radial force with a

standard solid shaft (Code -.1 and -.7)

F_{RV} Maximum permissible radial force with

reinforced bearings in each case with standard solid shaft (Code -.1 and -.7)



Use the selection tables to determine the size of geared motor required. The codes clearly define the Type of gear (see chapter 10 "dimensional drawings, helical-geared motors").

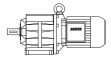
The torques marked (*) are maximum permissible torques for service factor $f_B=1,0$.

Motor power overload protection

Motor-power ratings, particularly in conjunction with four-stage and multi-stage gear units, are more than ample in some instances. Consequently, and in much the same way as with low-power motors, rated current is not a measure of gear loading and cannot be used to protect the gear unit against overloading. It is advisable to provide gears at risk from excessive load or blockage with a protective mechanism (e. g., slip clutch, slip hub, shear pin or an alternative).

Selection helical-geared motors DSE-IE1

P = 0.03 kW

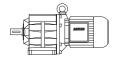


Name		50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
	n ₂		f.	•	1,700		* KN	• RV	n_2		$f_{\scriptscriptstyle B}$
540			•в			ka	N	N			•в
370			7.5	2.51	BG04/D04LA4						9.1
310								-			7.8
255			7.6	4.39	II .	II .		-			9.1
208	255		8.0	5.36	II .	II .	380	-	305	0.93	9.7
180	205	1.39	7.2	6.67	"	II	410	-	245	1.16	8.6
130	158	1.81	6.1	8.58	"	II	410	-	189	1.51	7.3
125	150	1.91	6.3	9.00	TI TI	II .	470	-	180	1.59	7.5
114	137		6.3	9.90				-			7.5
1108	125		6.2	10.82	"		480	-			7.3
93 3.05 5.6 14.52 " 5.0								-			7.3
93 3.05 5.6 14.52 " " 510 - 112 2.55 6.6 14.52 " " 510 - 112 2.55 6.6 14.52 " " 510 - 112 2.55 6.6 14.52 " " 550 - 99 2.85 6.5 6.6 4.45 4.3 21.12 " " 560 - 77 3.7 5.5 6.6 4.45 4.3 21.12 " " 560 - 77 3.7 5.5 5.5 6.4 4.45 4.3 21.12 " " 560 - 77 3.7 5.5 5.5 5.6 3.6 26.89 " " " 600 - 70 4.05 4.5 5.5 5.1 3.9 24.45 " " 610 - 67 4.25 4.5 4.4 4.6 6.5 3.1 30.91 " " 650 - 61 4.65 4.5 4.4 4.4 6.5 3.1 30.91 " " 600 - 50 - 53 5.4 3.3 3.5 5.5 12.1 2.3 3.8 4.7 12.2 4 8 5.9 3.3 5.5 12.2 4.2 4 8 8 9 8 8 9 8 8 9 8 8 9 8 8 9 8 9 8 9								-			6.8
83 3.45 5.2 16.44 " 550 - 99 2.85 6.6 75 3.8 4.7 18.08 " 500 - 90 3.15 5.5 64 4.45 4.3 21.12 " 560 - 77 3.7 5.5 59 4.85 4.1 23.23 " 600 - 70 4.05 4.5 56 5.1 3.9 24.45 " 610 - 67 4.25 4.4 56 5.1 3.9 24.45 " 600 - 70 4.05 4.4 56 6.5 3.1 3.09 1 " 70 600 - 70 4.05 4.4 56 6.5 3.1 3.09 1 " 70 600 - 70 4.25 4.4 56 6.5 3.1 3.09 1 " 70 600 - 70 4.25 4.4 56 6.5 3.1 3.09 1 " 70 600 - 70 4.8 6.5 4.4 50 6.5 3.1 3.09 1 " 70 600 - 70 4.8 6.9 3.2 50 8.1 2.8 38.9 " 70 70 - 48 5.9 3.4 50 8.1 2.5 38.89 " 70 70 - 42 6.8 2.5 51 5.0 2.0 47.52 " 750 - 38.5 8.1 52 8.9 2.2 42.24 " 70 750 - 38.5 8.1 52 8.9 2.2 42.24 " 70 750 - 38.5 8.1 52 8.9 2.2 42.24 " 70 750 - 38.5 8.1 52 8.1 2.5 38.89 " 750 - 34.5 8.3 50 1.1 1.8 52.28 " 750 - 34.5 8.3 50 1.1 1.8 52.28 " 750 - 34.5 8.3 50 1.1 1.8 52.28 " 750 - 34.5 8.3 51 1.1 2.7 1.55 60.47 " 70 750 - 29.5 9.7 52 1.1 4.47 1.7 5 64.97 " 750 - 29.5 9.7 52 1.1 4.7 1.7 5 64.97 " 750 - 29.5 9.7 52 1.1 2.7 1.55 60.47 " 70 750 - 29.5 9.7 52 1.1 2.7 1.55 60.47 " 70 750 - 29.5 9.7 52 1.1 2.7 1.55 60.47 " 70 750 - 29.5 9.7 52 1.1 2.7 1.55 60.47 " 70 750 - 29.5 9.7 52 1.2 2.5 58.30 " 750 - 29.5 9.7 52 1.1 2.7 1.55 60.47 " 70 750 - 24.5 1.5 54 6.5 1.5 2.9 82.89 " 75.99 8606/D04LA4 5.1 900 - 37.5 7.6 3.3 54 1.3 3.9 3.2 66.79 8606/D04LA4 6.1 1070 - 24.5 11.2 3.6 55 1.5 2.9 82.89 8606/D04LA4 6.1 1070 - 12.4 5 11.2 3.6 55 1.5 2.9 82.89 8606/D04LA4 6.1 1070 - 17.5 13.8 3.3 51.5 1.5 1.5 2.9 82.89 8606/D04LA4 6.1 1070 - 17.5 13.8 3.3 51.5 1.5 1.5 2.9 82.89 8606/D04LA4 6.1 1070 - 17.5 13.8 3.3 51.5 1.5 1.5 1.5 1.9 0 " 10 0 " 10 0 1.5 1.5 51.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5								-			7.0
75								-			6.7
79								-			6.3
59 4.85 4.1 23.23 " " 600 - 70 4.05 4.5 56 5.1 3.9 24.45 " " 610 - 67 4.25 4.3 56 5.1 3.9 24.45 " " 650 - 61 4.65 4.3 44 6.5 3.1 30.91 " " 650 - 63 4.8 5.9 44 0 7.1 2.8 34.00 " " 770 - 48 5.9 38.5 7.4 2.7 35.35 " " 730 - 46 6.2 3.3 38.5 7.4 2.7 35.35 " " 750 - 42 6.8 2.5 32 8.9 2.2 42.24 " " 750 - 38.5 7.4 2.3 32 8.9 1.2 5 38.89 " " 750 - 38.5 8.1 2.5 32 8.9 2.2 42.24 " " 750 - 34.5 8.3 2.2 29.5 9.7 2.1 46.47 " " 750 - 34.5 8.3 2.2 28.5 10 2.0 47.52 " " 750 - 34.5 8.3 2.2 28.5 11.4 1.75 54.97 " " 750 - 34.5 8.3 2.2 22.5 11.4 1.75 54.97 " " 750 - 34.5 8.3 2.2 22.5 11.2 1.55 60.47 " " 750 - 34.5 8.3 2.2 22.5 12.7 1.55 60.47 " " 750 - 37.5 7.6 3.3 31 9.2 2.3 3.4 33.57 BG05/D04LA4 5.1 900 - 37.5 7.6 32 9.8 3.1 47.00 " " 930 - 34.5 8.3 3.4 29 9.8 3.1 47.00 " " 930 - 34.5 8.3 3.4 29 9.8 3.1 47.00 " " 930 - 34.5 8.3 3.4 20.5 10.8 2.8 51.27 " " 970 - 32 8.9 3.4 22.5 11.2 2.7 53.44 " " 980 - 30.5 9.3 3.4 23.5 13.5 18.4 2.4 101.5 " " 1070 - 24.5 11.6 33.5 18.1 12.2 2.7 53.44 " " 1070 - 24.5 11.6 33.5 18.4 2.4 101.5 " 1070 - 20 12 3.4 11.5 11.5 2.9 82.89 " 1070 - 31.5 18.3 33.5 13.5 18.4 2.4 101.5 " " 1070 - 18.5 13.5 13.5 13.5 13.5 18.4 2.4 101.5 " " 1070 - 44.5 13.5 13.5 18.4 2.4 101.5 " " 1070 - 45.5 13.8 33.5 13.5 18.4 2.4 101.5 " " 1070 - 45.5 13.8 33.5 13.5 18.5 4 " 1070 - 45.5 14.5 13.5 18.4 2.4 101.5 " " 1070 - 45.5 14.5 14.5 13.5 18.4 2.4 101.5 " " 1070 - 45.5 14.5 13.5 18.5 18.4 2.4 101.5 " " 1070 - 45.5 14.5 13.5 18.5 18.4 2.4 101.5 " " 1070 - 45.5 14.5 14.5 14.5 14.5 14.5 14.5 14.5											5.7
56	-										
51											4.9
31											

38.5 7.4 2.7 35.35 " " 730 - 46 6.2 33. 35 8.1 2.5 38.9 " " 750 - 42 6.8 2.3 32 8.9 2.2 42.4 " " 750 - 38.5 7.4 2.7 29.5 9.7 2.1 46.47 " " 750 - 38.5 7.4 2.7 29.5 9.7 2.1 1.8 52.28 " " 750 - 38.5 8.1 2.5 26 11 1.8 52.28 " " 750 - 31 9.2 2.2 25 11.4 1.75 54.97 " " 750 - 27 10.6 11.9 25 12.5 12.7 1.55 60.47 " " 750 - 27 10.6 11.9 27 22.5 12.7 1.55 60.47 " " 750 - 27 10.6 11.9 28 3.1 9.2 3.3 43.57 BG05/D04LA4 5.1 900 - 37.5 7.6 33. 29 9.8 3.1 47.00 " " 930 - 34.5 8.3 3.4 25.5 11.2 2.7 53.44 " " 980 - 30.5 9.3 3.4 25.5 11.2 2.7 53.44 " " 980 - 30.5 9.3 3.2 25.5 12.1 2.5 58.30 " " 1000 - 28 10.2 26.5 13.9 3.2 66.79 BG06/D04LA4 6.1 1070 - 24.5 11.6 33.5 18.8 13.8 2.9 75.99 BG06G04/D04LA4 8.4 1070 - 21.5 11.2 3.6 16.5 1.5 2.9 82.89 " " 1070 - 10.7 17.5 13.8 33.1 13.5 18.4 2.4 101.5 " " 1070 - 11.5 11.2 3.6 15.1 12.0 " 10.5 " 10.7 1.7 13.5 13.5 18.4 2.4 101.5 " " 1070 - 16.5 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.6 15.1 3.1											
35 8.1 2.5 38.89 " " " 750 - 42 6.8 2.5 32 8.9 2.2 42.24 " " " 750 - 38.5 7.4 2.3 38.5 10 2.0 47.52 " " 750 - 33.5 8.1 2.2 38.5 10 2.0 47.52 " " 750 - 34.5 8.3 2.4 26 11 1.8 52.28 " " 750 - 34.5 8.3 2.4 25 11.4 1.75 54.97 " " 750 - 29.5 9.7 2.1 25 11.4 1.75 56.47 " " 750 - 29.5 9.7 2.1 22.5 12.7 1.55 60.47 " " 750 - 29.5 9.7 2.1 22.5 12.7 1.55 60.47 " " 970 - 32.8 9.3 31 9.2 3.3 43.57 BG05/D04LA4 5.1 900 - 37.5 7.6 3.3 29 9.8 3.1 47.00 " " 990 - 34.5 8.3 3.4 26.5 10.8 2.8 51.27 " 990 - 32 8.9 3.4 25.5 11.2 2.7 53.44 " " 990 - 32 8.9 3.4 25.5 11.2 2.7 53.44 " " 990 - 32 8.9 3.4 23.5 12.1 2.5 58.30 " " 1000 - 28 10.2 2.5 20.5 13.9 3.2 66.79 BG06/D04LA4 6.1 1070 - 24.5 11.6 3.8 18 13.8 2.9 75.99 BG06G04/D04LA4 8.4 1070 - 21.5 11.2 3.4 16.5 15 2.9 82.89 " " 1070 - 17.5 13.8 3.3 13.5 18.4 2.4 101.5 " 1070 - 17.5 13.8 3.3 13.5 18.4 2.4 101.5 " 1070 - 17.5 13.8 3.3 13.5 18.4 2.4 101.5 " 1070 - 17.5 13.8 3.3 13.5 18.4 2.4 101.5 " 1070 - 18.5 13.5 13.5 13.5 18.4 2.4 101.5 " 1070 - 18.5 13.5 13.5 18.4 2.4 101.5 " 1070 - 18.5 13.5 13.5 18.4 2.4 101.5 " 1070 - 18.5 13.5 13.5 18.4 2.4 101.5 " 1070 - 18.5 13.5 13.5 18.4 2.4 101.5 " 1070 - 18.5 13.5 13.5 18.4 2.4 101.5 " 1070 - 18.5 13.5 13.5 18.4 2.4 101.5 " 1070 - 18.5 13.5 13.5 18.4 2.4 101.5 " 1070 - 18.5 2.5 13.5 13.5 18.4 2.4 101.5 " 1070 - 18.5 2.5 13.5 13.5 18.4 2.4 101.5 " 1070 - 18.5 2.5 13.5 13.5 18.4 2.4 101.5 " 1070 - 18.5 2.5 2.5 3.5 13.5 18.5 18.5 18.5 18.5 18.5 18.5 18.5 18											
32 8.9 2.2 42.24 " " " 750 " 38.5 7.4 2.2 29.5 9.7 2.1 46.47 " " " 750 " 35. 8.1 2.5 28.5 10 2.0 47.52 " " " 750 " 31. 9.2 2.2 26 11 1.8 52.28 " " " 750 " 29.5 9.7 2.1 25 11.4 1.75 54.97 " " 750 " 29.5 9.7 2.1 25.5 12.7 1.55 60.47 " " " 750 " 29.5 9.7 2.1 31 9.2 3.3 43.57 BG05/D04LA4 5.1 900 " 37.5 7.6 15. 29 9.8 3.1 47.00 " " " 930 " 34.5 8.3 3.6 29 9.8 3.1 47.00 " " " 990 " 32. 8.9 3.4 26.5 10.8 2.8 51.27 " " 970 " 32. 8.9 3.4 25.5 11.1 2.5 58.30 " " " 900 " 28. 10.2 2.5 25.5 12.1 2.5 58.30 " " " 1000 " 28. 10.2 2.5 26.5 13.9 3.2 66.79 BG06-//D04LA4 6.1 1070 " 24.5 11.6 3.9 18 13.8 2.9 75.99 BG06G04//D04LA4 8.4 1070 " 21.5 11.2 3.0 16.5 15 2.9 82.89 " " 1070 " 17.5 13.8 3.3 11.5 18.4 2.4 101.5 " " 1070 " 17.5 13.8 3.3 11.5 21 2.1 122.0 " " 1070 " 17.5 13.8 3.3 11.5 21 2.1 122.0 " " 1070 " 18.5 13.5 17.3 2.6 9.1 26 1.75 149.0 " " 1070 " 18.5 13.5 17.3 2.6 9.1 46 0.98 250.2 " " 1070 " 8.8 26.5 37 1.2 2.7 45* 1.0 330.8 " " 1070 " 4.9 45 1.0 3.7 45* 1.0 367.0 " " 1070 " 3.8 45 1.0 3.7 45* 1.0 367.0 " " 1070 " 3.8 45 1.0 3.7 45* 1.0 367.0 " " 1070 " 3.6 45 1.0 3.1 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45* 1.0 45*											
29.5 9.7 2.1 4647 " " " 750 - 355 8.1 2.2 28.5 10 2.0 47.52 " " " 750 - 344.5 8.3 2.2 26 11 1.8 52.28 " " " 750 - 311 9.2 2.2 25 11.4 1.75 54.97 " " " 750 - 29.5 9.7 2.1 22.5 12.7 1.55 60.47 " " " 750 - 29.5 9.7 2.1 31.9 31 9.2 33 43.57 8G05/D04LA4 5.1 900 - 37.5 7.6 33. 34.5 8.3 3.6 2.9 9.8 3.1 47.00 " " " 930 - 34.5 8.3 3.6 2.5 10.8 2.8 51.27 " " " 970 - 32 8.9 3.4 25.5 11.2 2.7 53.44 " " " 980 - 30.5 9.3 3.2 8.9 3.4 23.5 12.1 2.5 58.30 " " " 1000 - 28 10.2 25.5 12.1 2.5 58.30 " " " 1000 - 28 10.2 25.5 11.6 3.8 10.2 25.5 11.5 12.2 9 8.89 " " 1000 - 21.5 11.2 3.6 16.5 15 2.9 8.89 " " " 1070 - 21.5 11.2 3.6 16.5 15 2.9 8.89 " " " 1070 - 21.5 11.2 3.6 16.5 15 2.9 8.89 " " " 1070 - 16 15.1 3.8 3.1 11.5 12.1 12.20 " " 1070 - 16 15.1 3.8 3.1 11.5 12.1 12.1 12.20 " " 1070 - 11.5 11.2 11.2 11.5 11.5 11.5 11.5 11.5											
28.5 10 2.0 47.52 " " 750 - 34.5 8.3 2.2 26 11 1 1.8 52.28 " " 750 - 311 9.2 27 11.4 1.75 54.97 " 750 - 29.5 9.7 2.7 28.5 12.7 1.55 60.47 " " 750 - 29.5 9.7 2.7 29. 9.8 3.1 47.00 " 930 - 37.5 7.6 3.9 29 9.8 3.1 47.00 " 930 - 34.5 8.3 3.6 26.5 10.8 2.8 51.27 " 970 - 32 8.9 3.4 25.5 11.2 2.7 53.44 " 980 - 30.5 9.3 3.2 25.5 11.2 2.7 53.44 " 980 - 30.5 9.3 3.2 25.5 11.2 2.7 53.44 " 980 - 30.5 9.3 3.2 26.5 11.3 9.3 3.2 66.79 8G06/D04LA4 6.1 1070 - 24.5 11.6 3.6 18 13.8 2.9 75.99 8G06/D04LA4 8.4 1070 - 24.5 11.6 3.6 18 13.8 2.9 75.99 8G06/D04LA4 8.4 1070 - 24.5 11.2 3.6 15 16.5 2.9 82.89 " " 1070 - 17.5 13.8 3.3 13.5 18.4 2.4 101.5 " 1070 - 17.5 13.8 3.3 13.5 18.4 2.4 101.5 " 1070 - 16 15.1 3.6 11.5 21 2.1 122.0 " 1070 - 16 15.1 3.6 11.5 21 2.1 122.0 " 1070 - 16 15.1 3.6 11.5 26 1.75 149.0 " 1070 - 13.5 17.3 2.6 11.4 45* 1.0 330.8 " 1070 - 65.5 37 1.2 2.7 45* 1.0 330.8 " 1070 - 49.9 45 1.0 3.7 45* 1.0 367.0 " 1070 - 3.3 45 1.0 3.7 45* 1.0 367.0 " 1070 - 2.8 8.8 26.5 1.7 3.7 45* 1.0 367.0 " 1070 - 3.3 45 1.0 3.7 45* 1.0 367.0 " 1070 - 3.3 45 1.0 3.7 45* 1.0 367.0 " 1070 - 3.3 45 1.0 3.7 45* 1.0 367.0 " 1070 - 3.3 45 1.0 3.7 45* 1.0 367.0 " 1070 - 3.3 45 1.0 3.7 45* 1.0 367.0 " 1070 - 3.3 45 1.0 3.7 45* 1.0 367.0 " 1070 - 3.3 45 1.0 3.7 45* 1.0 457.0 " 1070 - 3.3 45 1.0 3.7 45* 1.0 457.0 " 1070 - 3.3 45 1.0 3.7 45* 1.0 367.0 " 1070 - 3.3 45 1.0 3.7 45* 1.0 367.0 " 1070 - 3.3 45 1.0 3.7 45* 1.0 457.0 " 1070 - 3.3 45 1.0 3.7 45* 1.0 457.0 " 1070 - 3.3 45 1.0 3.7 45* 1.0 457.0 " 1070 - 3.8 45 1.0 3.7 45* 1.0 1081 " 1070 - 3.8 45 1.0 3.8 45* 1.0 1081 " 1070 - 3.8 45 1.0 3.9 45* 1.0 1081 " 1070 - 3.8 45 1.0 3.0 45* 1.0 1081 " 1070 - 3.3 45 1.0 3.1 45* 1.0 1081 " 1070 - 3.3 45 1.0 3.3 45* 1.0 1081 " 1070 - 3.3 45 1.0 3.4 5* 1.0 1081 " 1070 - 3.3 45 1.0 3.4 5* 1.0 1081 " 1070 - 3.3 45 1.0 3.4 5* 1.0 1081 " 1070 - 3.3 45 1.0 3.4 5* 1.0 1081 " 1070 - 3.3 45 1.0 3.8 45* 1.0 1081 " 1070 - 3.3 45 1.0 3.8 45* 1.0 1081 " 1070 - 3.3 45 1.0 3.8 45* 1.0 1081 " 1070 - 3.3 45 1.0 3.8 45* 1.0 1081 " 1070 - 3.3 45 1.0 3.8 45* 1.0						"					
26					п	II.					
25. 11.4 1.75 54.97 " " 750 - 29.5 9.7 2.1 22.5 12.7 1.55 60.47 " " 750 - 27 10.6 1.5 31 9.2 3.3 43.57 BG05/D04LA4 5.1 900 - 37.5 7.6 3.9 29 9.8 3.1 47.00 " " 970 - 32 8.9 3.4 26.5 10.8 2.8 51.27 " " 980 - 30.5 9.3 3.2 25.5 11.2 2.7 53.44 " " 980 - 30.5 9.3 3.3 26.5 12.1 2.5 58.30 " " 1000 - 28 10.2 2.5 20.5 13.9 3.2 66.79 BG06/D04LA4 6.1 1070 - 24.5 11.6 3.6 18 13.8 2.9 75.99 BG06G04/D04LA4 8.4 1070 - 21.5 11.2 3.6 16.5 15 2.9 82.89 " " 1070 - 21.5 11.2 3.6 15 16.5 2.7 93.00 " " 1070 - 12.5 13.8 3.3 13.5 18.4 2.4 101.5 " " 1070 - 16 15.1 3.6 11.5 21 2.1 12.0 " " 1070 - 16 15.1 3.6 11.5 21 2.1 12.0 " " 1070 - 11.1 21. 22.7 7.3 33.5 13.5 18.4 2.4 101.5 " " 1070 - 11.1 21. 22.7 7.3 33.5 1.35 185.4 " " 1070 - 15.9 41. 11. 21. 22.7 7.3 33.5 1.35 185.4 " " 1070 - 15.9 41. 11. 21. 22.7 7.3 33.5 1.35 185.4 " " 1070 - 15.9 41. 11. 21. 22.7 3.4 46 0.98 250.2 " " 1070 - 5.9 41. 11. 21. 22. 45. 11. 45. 10. 33.8 " " 1070 - 2. 28. 45. 10. 33.9 33.9 45. 10. 45. 10. 45. 10. 457.0 " " 1070 - 2. 28. 45. 10. 33.9 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 45. 10. 1321 " 1070 - 15. 15. 45. 10. 1321 " 1070 - 15. 15. 45. 10. 1321 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 1081 " 1070 - 15. 15. 45. 10. 10. 1081 " 1070 - 15. 15. 45. 10. 10. 1081 "					n .	II.					
22.5					II	п					
31 9.2 3.3 43.57 BG05/D04LA4 5.1 900 - 37.5 7.6 3.9 29 9.8 3.1 47.00 " " 930 - 34.5 8.3 3.6 26.5 10.8 2.8 51.27 " 970 - 32 8.9 3.4 25.5 11.2 2.7 53.44 " 980 - 30.5 9.3 3.2 25.5 11.2 2.5 58.30 " " 1000 - 28 10.2 2.9 20.5 13.9 3.2 66.79 BG06/D04LA4 6.1 1070 - 28 10.2 2.9 20.5 13.9 3.2 66.79 BG06/D04LA4 8.4 1070 - 21.5 11.2 3.6 18 13.8 2.9 75.99 BG06G04/D04LA4 8.4 1070 - 21.5 11.2 3.6 16.5 15 2.9 82.89 " 1070 - 17.5 13.8 3.3 13.5 18.4 2.4 101.5 " 1070 - 16 15.1 3.8 13.5 13.5 18.4 2.4 101.5 " 1070 - 16 15.1 3.6 11.5 21 2.1 12.0 " 1070 - 16 15.1 3.6 11.5 21 2.1 12.0 " 1070 - 11.5 13.8 3.3 13.5 13.5 18.4 4 8 2.4 101.5 " 1070 - 11.5 13.8 3.3 13.5 13.5 13.5 185.4 " 1070 - 41.5 1.2 26 1.75 149.0 " 1070 - 13.5 17.3 2.6 27.3 33.5 1.35 185.4 " 1070 - 48.8 26.5 1.5 28 25.2 " 1070 - 49.9 45 1.0 3.7 45* 1.0 367.0 " 1070 - 49.9 45 1.0 3.7 45* 1.0 367.0 " 1070 - 3.3 45 1.0 3.7 45* 1.0 502.6 " 1070 - 3.3 45 1.0 2.7 45* 1.0 502.6 " 1070 - 22.4 45 1.0 2.1 45* 1.0 587.1 " 1070 - 22.4 45 1.0 2.1 45* 1.0 587.1 " 1070 - 22.4 45 1.0 2.1 45* 1.0 587.1 " 1070 - 22.4 45 1.0 2.3 45* 1.0 587.1 " 1070 - 22.4 45 1.0 2.1 45* 1.0 588.1 " 1070 - 22.4 45 1.0 2.1 45* 1.0 1081 " 1070 - 22.4 45 1.0 2.1 45* 1.0 1081 " 1070 - 11.8 45 1.0 2.1 45* 1.0 1081 " 1070 - 11.8 45 1.0 2.2 45* 1.0 1081 " 1070 - 11.4 45 1.0 2.3 45* 1.0 1081 " 1070 - 11.4 45 1.0 2.4 45* 1.0 1081 " 1070 - 11.4 45 1.0 2.9 45* 1.0 1081 " 1070 - 11.4 45 1.0 2.9 45* 1.0 1081 " 1070 - 11.4 45 1.0 2.9 45* 1.0 1081 " 1070 - 11.4 45 1.0 2.9 45* 1.0 1528 " 1070 - 11.4 45 1.0 2.9 45* 1.0 1528 " 1070 - 11.4 45 1.0 2.9 45* 1.0 1528 " 1070 - 11.4 45 1.0 2.7 45* 1.0 1681 " 1070 - 11.4 45 1.0 2.8 45* 1.0 1528 " 1070 - 11.4 45 1.0 2.9 45* 1.0 1681 " 1070 - 11.4 45 1.0 2.9 45* 1.0 1681 " 1070 - 11.4 45 1.0 2.9 45* 1.0 1681 " 1070 - 11.4 45 1.0 2.9 45* 1.0 1681 " 1070 - 11.4 45 1.0 2.9 45* 1.0 1681 " 1070 - 11.4 45 1.0 2.9 45* 1.0 1681 " 1070 - 11.4 45 1.0 2.9 45* 1.0 1948 " 1070 - 11.0 0.8 45 1.0 2.1 45* 1.0 1948 " 1070 - 11.0 2.1 45* 1.0 1081 " 1070 - 11.4 45 1.0 2.1 45* 1.0 1081 " 1070 -					n .	ıı					1.9
29 9.8 3.1 47.00 " " 930 - 34.5 8.3 3.6 26.5 10.8 2.8 51.27 " " 970 - 32 8.9 3.4 25.5 11.2 2.7 58.30 " " 1000 - 28 10.2 2.5 20.5 13.9 3.2 66.79 BG06/D04LA4 6.1 1070 - 24.5 11.6 3.3 18 13.8 2.9 75.99 BG06G04/D04LA4 6.1 1070 - 24.5 11.6 3.5 15 1.9 82.89 " " 1070 - 24.5 11.6 3.5 15 1.9 82.89 " " 1070 - 21.5 11.2 3.6 15 1.9 82.89 " " 1070 - 16.5 13.7 13.5 13.5 13.5 13.5 13.5 <		,		00.17			, 50			10.0	1.5
29 9.8 3.1 47.00 " " 930 - 34.5 8.3 3.6 26.5 10.8 2.8 51.27 " " 970 - 32 8.9 3.4 25.5 11.2 2.7 58.30 " " 1000 - 28 10.2 2.5 20.5 13.9 3.2 66.79 BG06/D04LA4 6.1 1070 - 24.5 11.6 3.3 18 13.8 2.9 75.99 BG06G04/D04LA4 6.1 1070 - 24.5 11.6 3.5 15 1.9 82.89 " " 1070 - 24.5 11.6 3.5 15 1.9 82.89 " " 1070 - 21.5 11.2 3.6 15 1.9 82.89 " " 1070 - 16.5 13.7 13.5 13.5 13.5 13.5 13.5 <	31	9.2	3.3	43.57	BG05/D04LA4	5.1	900	-	37.5	7.6	3.9
26.5								-			3.6
25.5 11.2 2.7 53.44 " " 980 - 30.5 9.3 3.2 2.5 58.30 " 1000 - 28 10.2 2.5 2.5 12.1 2.5 58.30 " 1000 - 28 10.2 2.5 2.5 2.5 13.9 3.2 66.79 BG06/D04LA4 6.1 1070 - 24.5 11.6 3.6 18 13.8 2.9 75.99 BG06G04/D04LA4 8.4 1070 - 20 11.5 11.2 3.6 15.5 15. 2.9 82.89 " 1070 - 1070 - 16. 15.1 3.6 15.5 16.5 2.7 93.00 " 1070 - 16. 15.1 3.8 3.3 13.5 18.4 2.4 101.5 " 1070 - 16. 15.1 3.6 11.5 21 2.1 12.0 " 1070 - 16. 15.1 3.6 11.5 21 2.1 12.0 " 1070 - 11. 21 2.7 2.7 3.3 33.5 1.35 185.4 " 1070 - 11.0 70 - 11. 21 2.7 2.7 3.3 33.5 1.35 185.4 " 1070 - 88.8 26.5 1.7 3.5 4.4 6 0.98 250.2 " 1070 - 88.8 26.5 1.7 3.5 1.3 13.5 18.4 1.0 330.8 " 1070 - 4.5 4.5 4.5 1.0 3.7 45* 1.0 367.0 " 1070 - 4.5 4.5 4.5 1.0 3.7 45* 1.0 367.0 " 1070 - 3.6 4.5 4.5 1.0 2.7 45* 1.0 502.6 " 1070 - 2.8 4.5 1.0 2.7 45* 1.0 502.6 " 1070 - 2.8 4.5 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	26.5			51.27	m .	ıı		-			3.4
20.5 13.9 3.2 66.79 BG06/D04LA4 6.1 1070 - 24.5 11.6 3.5 18 13.8 2.9 75.99 BG06G04/D04LA4 8.4 1070 - 21.5 11.2 3.6 15 15 2.9 82.89 " " 1070 - 17.5 13.8 3.3 13.5 18.4 2.4 101.5 " " 1070 - 16 15.1 3.6 11.5 21 2.1 122.0 " " 1070 - 16 15.1 3.6 11.5 21 2.1 122.0 " " 1070 - 11.5 11.2 2.7 13.8 3.3 13.5 13.5 185.4 " " 1070 - 11.5 11 21 2.7 13.8 3.3 13.5 13.5 185.4 " " 1070 - 11.1 21 2.7 13.5 17.3 2.6 17.5 149.0 " " 1070 - 8.8 26.5 17.5 14.4 46 0.98 250.2 " " 1070 - 6.5 37 1.2 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1	25.5			53.44	II .	II .	980	-			3.2
18 13.8 2.9 75.99 BG06G04/D04LA4 8.4 1070 - 21.5 11.2 3.6 16.5 15 2.9 82.89 " " 1070 - 20 12 3.6 15 16.5 2.7 93.00 " " 1070 - 17.5 13.8 3.3 13.5 18.4 2.4 101.5 " " 1070 - 16 15.1 3.6 11.5 21 2.1 122.0 " " 1070 - 16 15.1 3.6 9.1 26 1.75 149.0 " " 1070 - 13.5 17.3 2.6 9.1 26 1.75 149.0 " " 1070 - 18.8 26.5 1.7 5.4 46 0.98 250.2 " " 1070 - 6.5 37 1.2 5.0 50 0.9 275.2 " " 1070 - 4.9 45 1.0 <th>23.5</th> <th>12.1</th> <th>2.5</th> <th>58.30</th> <th>II.</th> <th>ıı</th> <th>1000</th> <th>-</th> <th>28</th> <th>10.2</th> <th>2.9</th>	23.5	12.1	2.5	58.30	II.	ıı	1000	-	28	10.2	2.9
18 13.8 2.9 75.99 BG06G04/D04LA4 8.4 1070 - 21.5 11.2 3.6 16.5 15 2.9 82.89 " " 1070 - 20 12 3.6 15 16.5 2.7 93.00 " " 1070 - 17.5 13.8 3.3 13.5 18.4 2.4 101.5 " " 1070 - 16 15.1 3.6 11.5 21 2.1 122.0 " " 1070 - 16 15.1 3.6 9.1 26 1.75 149.0 " " 1070 - 13.5 17.3 2.6 9.1 26 1.75 149.0 " " 1070 - 18.8 26.5 1.7 5.4 46 0.98 250.2 " " 1070 - 6.5 37 1.2 5.0 50 0.9 275.2 " " 1070 - 4.9 45 1.0 <th></th>											
16.5 15 2.9 82.89 " 1070 - 20 12 3.6 15 16.5 2.7 93.00 " 1070 - 17.5 13.8 3.3 13.5 18.4 2.4 101.5 " 1070 - 16 15.1 3.0 9.1 26 1.75 149.0 " 1070 - 11 21 2.7 7.3 33.5 1.35 185.4 " 1070 - 8.8 26.5 1.7 5.4 46 0.98 250.2 " 1070 - 8.8 26.5 1.7 5.0 50 0.9 275.2 " 1070 - 5.9 41 1.1 4.1 45* 1.0 330.8 " 1070 - 4.9 45 1.0 3.7 45* 1.0 367.0 " 1070 - 4.5 45 1.0 3.7 45* 1.0 457.0 " 1070 - 3.6								-			3.9
15								-			3.6
13.5 18.4 2.4 101.5 " " 1070 - 16 15.1 3.0 11.5 21 2.1 122.0 " " 1070 - 13.5 17.3 2.6 9.1 26 1.75 149.0 " " 1070 - 11 21 2.1 7.3 33.5 1.35 185.4 " " 1070 - 8.8 26.5 1.7 5.4 46 0.98 250.2 " " 1070 - 6.5 37 1.2 5.0 50 0.9 275.2 " " 1070 - 5.9 41 1.1 4.1 45* 1.0 330.8 " " 1070 - 4.9 45 1.0 3.7 45* 1.0 367.0 " " 1070 - 4.5 45 45 1.0 3.0 45* 1.0 457.0 " " 1070 - 3.6 45 1.0 2.7 45* 1.0 587.1 " " 1070 - 2.8 45 1.0 2.3 45* 1.0 587.1 " " 1070 - 2.8 45 1.0 2.1 45* 1.0 645.8 " " 1070 - 2.8 45 1.0 1.9 45* 1.0 859.3 " " 1070 - 2.2 45 1.0 1.6 45* 1.0 859.3 " " 1070 - 1.1 45 1.0 1.5 45* 1.0 1081 " " 1070 - 1.5 45 1.0 1.5 45* 1.0 1081 " " 1070 - 1.5 45 1.0 1.1 45* 1.0 1081 " " 1070 - 1.5 45 1.0 1.1 45* 1.0 1528 " " 1070 - 1.5 45 1.0 0.85 45* 1.0 1528 " " 1070 - 1.1 45 1.0 0.85 45* 1.0 1948 " " 1070 - 1.0 85 45 1.0 0.85 45* 1.0 1948 " " 1070 - 0.85 45 1.0 0.85 45* 1.0 1948 " " 1070 - 0.85 45 1.0 0.7 45* 1.0 1948 " " 1070 - 0.85 45 1.0 0.7 45* 1.0 1948 " " 1070 - 0.85 45 1.0 0.7 45* 1.0 1948 " " 1070 - 0.85 45 1.0 0.7 45* 1.0 1948 " " 1070 - 0.85 45 1.0 0.7 45* 1.0 1948 " " 1070 - 0.85 45 1.0 0.7 45* 1.0 1948 " " 1070 - 0.85 45 1.0 0.7 45* 1.0 1948 " " 1070 - 0.85 45 1.0 0.7 45* 1.0 1948 " " 1070 - 0.85 45 1.0 0.7 45* 1.0 1948 " " 1070 - 0.85 45 1.0								-			3.6
11.5 21 2.1 122.0 " 1070 - 13.5 17.3 2.6 9.1 26 1.75 149.0 " 1070 - 11 21 2.7 7.3 33.5 1.35 185.4 " 1070 - 8.8 26.5 1.7 5.4 46 0.98 250.2 " 1070 - 6.5 37 1.2 5.0 50 0.9 275.2 " 1070 - 6.5 37 1.2 4.1 45* 1.0 330.8 " 1070 - 4.9 45 1.0 3.7 45* 1.0 367.0 " 1070 - 4.5 45 1.0 3.0 45* 1.0 457.0 " 1070 - 3.6 45 1.0 2.7 45* 1.0 502.6 " " 1070 - 3.3 45 1.0 2.1 45* 1.0 645.8 " " 1070 <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>-</th><th></th><th></th><th></th></t<>								-			
9.1 26 1.75 149.0 " 1070 - 11 21 2.7 7.3 33.5 1.35 185.4 " 1070 - 8.8 26.5 1.7 5.4 46 0.98 250.2 " 1070 - 6.5 37 1.2 5.0 50 0.9 275.2 " 1070 - 4.9 45 1.0 3.7 45* 1.0 367.0 " 1070 - 4.5 45 1.0 3.0 45* 1.0 502.6 " 1070 - 3.6 45 1.0 2.1 45* 1.0 587.1 " 1070 - 2.8 45 1.0 2.1 45* 1.0 645.8 " 1070 - 2.8 45 1.0 1.6 45* 1.0 859.3 " 1070 - 2.6 45 1.0 1.5 45* 1.0 1081 " 1070 - 1.8 45 1.0 1.3 45* 1.0 1081 " 1070 - 1.8 45 1.0 1.3 45* 1.0 1081 " 1070 - 1.5 45 1.0 1.1 45* 1.0 1081 " 1070 - 1.3 45 1.0 1.2 45* 1.0 1321 " 1070 - 1.8 45 1.0 1.1 45* 1.0 1081 " 1070 - 1.8 45 1.0 1.2 45* 1.0 1528 " 1070 - 1.3 45 1.0 0.8 45* 1.0 1528 " 1070 - 1.3 45 1.0 0.8 45* 1.0 1528 " 1070 - 1.1 45 1.0 0.8 45* 1.0 1588 " 1070 - 1.1 45 1.0 0.8 45* 1.0 1588 " 1070 - 1.1 45 1.0 0.8 45* 1.0 1588 " 1070 - 1.1 45 1.0 0.8 45* 1.0 1588 " 1070 - 1.1 45 1.0 0.8 45* 1.0 1588 " 1070 - 1.1 45 1.0 0.8 45* 1.0 1588 " 1070 - 1.1 45 1.0 0.8 45* 1.0 1588 " 1070 - 1.1 45 1.0 0.8 45* 1.0 1588 " 1070 - 1.1 45 1.0 0.8 45* 1.0 1588 " 1070 - 1.0 45 1.0 0.7 45* 1.0 1581 " 1070 - 1.0 85 45 1.0 0.7 45* 1.0 1588 " 1070 - 1.0 85 45 1.0 0.7 45* 1.0 1588 " 1070 - 1.0 85 45 1.0 0.7 45* 1.0 1588 " 1070 - 1.0 85 45 1.0 0.7 45* 1.0 1588 " 1070 - 1.0 85 45 1.0 0.7 45* 1.0 1588 " 1070 - 1.0 85 45 1.0								-			
7.3 33.5 1.35 185.4 " 1070 - 8.8 26.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1											
7.5											
5.0 50 0.9 275.2 " 1070 - 5.9 41 1.1 4.1 45* 1.0 330.8 " 1070 - 4.9 45 1.0 3.7 45* 1.0 367.0 " 1070 - 4.5 45 1.0 3.0 45* 1.0 457.0 " 1070 - 3.6 45 1.0 2.7 45* 1.0 502.6 " 1070 - 3.3 45 1.0 2.3 45* 1.0 587.1 " 1070 - 2.8 45 1.0 2.1 45* 1.0 645.8 " 1070 - 2.6 45 1.0 1.9 45* 1.0 645.8 " 1070 - 2.6 45 1.0 1.6 45* 1.0 859.3 " " 1070 - 1.8 45 1.0 1.5 45* 1.0 945.2 " " 1070 - <th></th>											
4.1 45* 1.0 330.8 " "1070 - 4.9 45 1.0 3.7 45* 1.0 367.0 " "1070 - 4.5 45 1.0 3.0 45* 1.0 457.0 " "1070 - 3.6 45 1.0 2.7 45* 1.0 502.6 " "1070 - 3.3 45 1.0 2.3 45* 1.0 587.1 " "1070 - 2.8 45 1.0 2.1 45* 1.0 645.8 " "1070 - 2.6 45 1.0 1.9 45* 1.0 747.5 " "1070 - 2.2 45 1.0 1.6 45* 1.0 859.3 " "1070 - 1.9 45 1.0 1.5 45* 1.0 945.2 " "1070 - 1.8 45 1.0 1.3 45* 1.0 1081 " "1070 - 1.5					n .	II.					
3.7 45* 1.0 367.0 " " 1070 - 4.5 45 1.0 3.0 45* 1.0 457.0 " " 1070 - 3.6 45 1.0 2.7 45* 1.0 502.6 " " 1070 - 3.3 45 1.0 2.3 45* 1.0 587.1 " " 1070 - 2.8 45 1.0 2.1 45* 1.0 645.8 " " 1070 - 2.6 45 1.0 1.9 45* 1.0 747.5 " " 1070 - 2.2 45 1.0 1.6 45* 1.0 859.3 " " 1070 - 1.8 45 1.0 1.5 45* 1.0 945.2 " " 1070 - 1.8 45 1.0 1.2 45* 1.0 1081 " " 1070 - 1.4 45 1.0					11	п					
3.0 45* 1.0 457.0 " " 1070 - 3.6 45 1.0 2.7 45* 1.0 502.6 " " 1070 - 3.3 45 1.0 2.3 45* 1.0 587.1 " " 1070 - 2.8 45 1.0 2.1 45* 1.0 645.8 " " 1070 - 2.6 45 1.0 1.9 45* 1.0 747.5 " " 1070 - 2.2 45 1.0 1.6 45* 1.0 859.3 " " 1070 - 1.9 45 1.0 1.5 45* 1.0 945.2 " " 1070 - 1.8 45 1.0 1.3 45* 1.0 1081 " " 1070 - 1.5 45 1.0 1.1 45* 1.0 1321 " " 1070 - 1.1 45 1.0 0					"	ıı					
2.7 45* 1.0 502.6 " " 1070 - 3.3 45 1.0 2.3 45* 1.0 587.1 " " 1070 - 2.8 45 1.0 2.1 45* 1.0 645.8 " " 1070 - 2.6 45 1.0 1.9 45* 1.0 747.5 " " 1070 - 2.2 45 1.0 1.6 45* 1.0 859.3 " " 1070 - 1.9 45 1.0 1.5 45* 1.0 945.2 " " 1070 - 1.8 45 1.0 1.3 45* 1.0 1081 " " 1070 - 1.5 45 1.0 1.2 45* 1.0 1174 " " 1070 - 1.4 45 1.0 1.1 45* 1.0 1321 " " 1070 - 1.3 45 1.0 0.8 45* 1.0 1681 " " 1070 - 1.0<					п	II .		_			1.0
2.3 45* 1.0 587.1 " " 1070 - 2.8 45 1.0 2.1 45* 1.0 645.8 " " 1070 - 2.6 45 1.0 1.9 45* 1.0 747.5 " " 1070 - 2.2 45 1.0 1.6 45* 1.0 859.3 " " 1070 - 1.9 45 1.0 1.5 45* 1.0 945.2 " " 1070 - 1.8 45 1.0 1.3 45* 1.0 1081 " " 1070 - 1.5 45 1.0 1.2 45* 1.0 1174 " " 1070 - 1.4 45 1.0 1.1 45* 1.0 1321 " " 1070 - 1.3 45 1.0 0.8 45* 1.0 1681 " " 1070 - 1.0 45 1.0 0.8 45* 1.0 1070 - 0.85 45 1.0 <th></th> <th></th> <th></th> <th></th> <th>m .</th> <th>II</th> <th></th> <th>-</th> <th></th> <th></th> <th>1.0</th>					m .	II		-			1.0
2.1 45* 1.0 645.8 " " 1070 - 2.6 45 1.0 1.9 45* 1.0 747.5 " " 1070 - 2.2 45 1.0 1.6 45* 1.0 859.3 " " 1070 - 1.9 45 1.0 1.5 45* 1.0 945.2 " " 1070 - 1.8 45 1.0 1.3 45* 1.0 1081 " " 1070 - 1.5 45 1.0 1.1 45* 1.0 1174 " " 1070 - 1.4 45 1.0 1.1 45* 1.0 1321 " " 1070 - 1.3 45 1.0 0.8 45* 1.0 1681 " " 1070 - 1.0 45 1.0 0.7 45* 1.0 1948 " " 1070 - 0.85 45 1.0 0.6					II .	II .		-			1.0
1.6 45* 1.0 859.3 " " 1070 - 1.9 45 1.0 1.5 45* 1.0 945.2 " " 1070 - 1.8 45 1.0 1.3 45* 1.0 1081 " " 1070 - 1.5 45 1.0 1.1 45* 1.0 1321 " " 1070 - 1.3 45 1.0 0.9 45* 1.0 1528 " " 1070 - 1.1 45 1.0 0.85 45* 1.0 1681 " " 1070 - 1.0 45 1.0 0.65 45* 1.0 2126 " " 1070 - 0.8 45 1.0		45*	1.0		II .	II		-			1.0
1.6 45* 1.0 859.3 " " 1070 - 1.9 45 1.0 1.5 45* 1.0 945.2 " " 1070 - 1.8 45 1.0 1.3 45* 1.0 1081 " " 1070 - 1.5 45 1.0 1.2 45* 1.0 1174 " " 1070 - 1.4 45 1.0 1.1 45* 1.0 1321 " " 1070 - 1.3 45 1.0 0.9 45* 1.0 1528 " " 1070 - 1.1 45 1.0 0.85 45* 1.0 1681 " " 1070 - 1.0 45 1.0 0.65 45* 1.0 2126 " " 1070 - 0.8 45 1.0					m .	ıı		-			1.0
1.3 45* 1.0 1081 " 1070 - 1.5 45 1.0 1.2 45* 1.0 1174 " " 1070 - 1.4 45 1.0 1.1 45* 1.0 1321 " " 1070 - 1.3 45 1.0 0.9 45* 1.0 1528 " " 1070 - 1.1 45 1.0 0.85 45* 1.0 1681 " " 1070 - 0.85 45 1.0 0.65 45* 1.0 2126 " " 1070 - 0.8 45 1.0	1.6						1070	-			1.0
1.2 45* 1.0 1174 " " 1070 - 1.4 45 1.0 1.1 45* 1.0 1321 " " 1070 - 1.3 45 1.0 0.9 45* 1.0 1528 " " 1070 - 1.1 45 1.0 0.85 45* 1.0 1681 " " 1070 - 1.0 45 1.0 0.65 45* 1.0 2126 " " 1070 - 0.8 45 1.0								-			1.0
1.1 45* 1.0 1321 " " 1070 - 1.3 45 1.0 0.9 45* 1.0 1528 " " 1070 - 1.1 45 1.0 0.85 45* 1.0 1681 " " 1070 - 1.0 45 1.0 0.65 45* 1.0 2126 " " 1070 - 0.8 45 1.0								-			1.0
0.9 45* 1.0 1528 " " 1070 - 1.1 45 1.0 0.85 45* 1.0 1681 " " 1070 - 1.0 45 1.0 0.7 45* 1.0 1948 " " 1070 - 0.85 45 1.0 0.65 45* 1.0 2126 " " 1070 - 0.8 45 1.0								-			1.0
0.85 45* 1.0 1681 " " 1070 - 1.0 45 1.0 0.7 45* 1.0 1948 " " 1070 - 0.85 45 1.0 0.65 45* 1.0 2126 " " 1070 - 0.8 45 1.0								-			1.0
0.7 45* 1.0 1948 " " 1070 - 0.85 45 1.0 0.65 45* 1.0 2126 " " 1070 - 0.8 45 1.0								-			1.0
0.65 45* 1.0 2126 " " 1070 - 0.8 45 1.0											1.0
0.03 43 1.0 2120											1.0
0.0 45 ** 1.0 2435											1.0
	0. 0	45*	1.0	2435			10/0	-	0.7	45	1.0

Selection helical-geared motors DSE-IE1

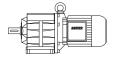
P = 0.03 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		-71-		- MN	- 11.0	n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
7.4	38.5	3.1	184.0	BG10Z/D04LA4	11	2000	2800	8.9	32	3.8
7.0	40.5	3.0	194.6	"	II .	2000	2800	8.4	34	3.5
6.3	45	2.7	215.7	"	II	2000	2800	7.6	37.5	3.2
5.7	50	2.4	240.4	"	II	2000	2800	6.8	42	2.9
5.1	56	2.1	266.3	"	"	2000	2800	6.1	46.5	2.6
4.9	58	2.1	276.0	"	"	2000	2800	5.9	48.5	2.5
4.5	63	1.9	305.8	"	"	2000	2800	5.3	54	2.2
3.6	49	2.7	379.6	BG10G06/D04LA4	14	2000	2800	4.3	36	3.6
3.1	57	2.3	435.9	"	"	2000	2800	3.8	40	3.3
2.7	68	1.9	512.6	"	"	2000	2800	3.2	51	2.5
2.3	83	1.55	613.6	"	"	2000	2800	2.7	65	2.0
1.9	105	1.25	748.9	"	"	2000	2800	2.2	84	1.55
1.6	130	1.0	899.5	"	"	2000	2800	1.9	102	1.25
1.3	130*	1.0	1081	"	"	2000	2800	1.5	130	1.0
1.1	130*	1.0	1272	"	"	2000	2800	1.3	130	1.0
0.9	130*	1.0	1523	 II	"	2000	2800	1.1	130	1.0
0.75	130*	1.0	1863		"	2000	2800	0.9	130	1.0
0.6	130*	1.0	2356		"	2000	2800	0.7	130	1.0
0.55	130*	1.0	2699	"	"	2000	2800	0.65	130	1.0
0.46	130*	1.0	2944	"	"	2000	2800	0.6	130	1.0
0.4 0.37	130* 130*	1.0	3378 3684	u,	"	2000 2000	2800 2800	0.48 0.44	130 130	1.0 1.0
0.37	130*	1.0 1.0	4477	"	"	2000	2800	0.44	130	1.0
0.31	130*	1.0	4884	"	ш	2000	2800	0.37	130	1.0
0.20	130"	1.0	4004			2000	2000	0.54	130	1.0
2.5	77	2.9	550.6	BG20G06/D04LA4	17	5000	-	3.0	58	3.8
2.1	95	2.3	671.9	"	"	5000	-	2.5	73	3.0
1.7	125	1.75	807.1	"	"	5000	-	2.1	93	2.4
1.4	160	1.4	969.9	"	II .	5000	-	1.7	123	1.8
1.2	188	1.15	1142	"	"	5000	-	1.5	141	1.55
1.0	230	0.96	1366	"	II .	5000	-	1.2	186	1.2
0.85	220*	1.0	1672	"	"	5000	-	1.0	220	1.0
0.75	220*	1.0	1824	"	"	5000	-	0.9	220	1.0
0.65	220*	1.0	2114	"	"	5000	-	0.8	220	1.0
0.6	220*	1.0	2422	"	"	5000	-	0.7	220	1.0
0.55	220*	1.0	2642	"	"	5000	-	0.65	220	1.0
0.45	220*	1.0	3031	"	"	5000	-	0.55	220	1.0
0.41	220*	1.0	3306	"	"	5000	-	0.5	220	1.0
0.34	220*	1.0	4017	"	"	5000	-	0.41	220	1.0
0.31	220*	1.0	4383	•		5000	-	0.37	220	1.0
2.0	101	3.2	690.6	BG30G06/D04LA4	21	6000	_	2.4	77	4.2
1.8	116	2.8	760.7	"	"	6000	_	2.2	87	3.7
1.7	124	2.6	829.5	"	11	6000	_	2.0	98	3.3
1.4	158	2.1	996.8	m .	II .	6000	_	1.7	122	2.7
1.3	173	1.9	1088	п	II .	6000	-	1.5	143	2.3
1.1	205	1.6	1280	II .	II .	6000	-	1.3	166	1.95
1.0	230	1.4	1404	II .	II .	6000	-	1.2	184	1.75
0.8	295	1.1	1718	m .	11	6000	-	0.95	240	1.35
0.75	320	1.0	1875	II .	II .	6000	-	0.9	255	1.25
0.65	325*	1.0	2173	II .	II .	6000	-	0.75	325	1.0
0.5	325*	1.0	2715	"	II .	6000	-	0.6	325	1.0
0.44	325*	1.0	3115	"	II .	6000	-	0.55	325	1.0
0.4	325*	1.0	3398	"	II .	6000	-	0.48	325	1.0
0.35	325*	1.0	3867	"	II .	6000	-	0.42	325	1.0
0.3	325*	1.0	4504	II	ıı .	6000	-	0.36	325	1.0

Selection helical-geared motors DSE-IE1

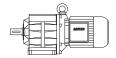
P = 0.04 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	·	.,,,,		• KIN	• KV	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	-в			kg	N	N	1/min	Nm	
540	0.7	5.7	2.51	BG04/D04LA4	4.4	340	-	650	0.58	6.9
370	1.03	4.9	3.65	n n	"	390	_	445	0.85	5.9
310	1.23	5.7	4.39	п	ıı	380	_	370	1.03	6.8
255	1.49	6.0	5.36	п	"	380	_	305	1.25	7.2
205	1.86	5.4	6.67	п	"	410	_	245	1.55	6.5
158	2.4	4.6	8.58	п	"	410	_	189	2.0	5.5
150	2.5	4.8	9.00	TI .	II .	470	_	180	2.1	5.7
137	2.75	4.7	9.90	TI .	II .	480	_	164	2.3	5.7
125	3.05	4.6	10.82	m .	п	480	_	150	2.5	5.6
114	3.35	4.5	11.90	m .	п	490	_	137	2.75	5.5
108	3.5	4.3	12.55	II .	"	490	_	130	2.9	5.2
103	3.7	4.3	13.20	II .	"	500	_	123	3.1	5.2
93	4.1	4.1	14.52	II .	"	510	_	112	3.4	5.0
83	4.6	3.9	16.44	n n	"	530	_	99	3.85	4.7
75				n n	"		-	90		
	5.0	3.6	18.08	"	"	540			4.2	4.3
64	5.9	3.2	21.12	"	"	560	-	77	4.95	3.8
59	6.4	3.1	23.23		"	600	-	70	5.4	3.7
56 51	6.8	2.9	24.45	"	"	610	-	67	5.7	3.5
51	7.4	2.7	26.89	"	"	650	-	61	6.2	3.2
44	8.6	2.3	30.91			690	-	53	7.2	2.8
40	9.5	2.1	34.00		"	720	-	48	7.9	2.5
38.5	9.9	2.0	35.35	"	"	730	-	46	8.3	2.4
35	10.9	1.85	38.89	"	II .	750	-	42	9.0	2.2
32	11.9	1.7	42.24	"	II .	750	-	38.5	9.9	2.0
29.5	12.9	1.55	46.47	"	II .	750	-	35	10.9	1.85
28.5	13.4	1.5	47.52	"	"	750	-	34.5	11	1.8
26	14.6	1.35	52.28	"	"	750	-	31	12.3	1.65
25	15.2	1.3	54.97	"	"	750	-	29.5	12.9	1.55
22.5	16.9	1.2	60.47	11	"	750	-	27	14.1	1.4
39	9.7	3.1	35.00	BG05/D04LA4	5.1	810	-	46.5	8.2	3.7
35.5	10.7	2.8	38.18	"	II .	850	-	42.5	8.9	3.4
34	11.2	2.7	39.94	"	II .	860	-	41	9.3	3.2
31	12.3	2.4	43.57	"	"	900	-	37.5	10.1	3.0
29	13.1	2.3	47.00	"	"	930	-	34.5	11	2.7
26.5	14.4	2.1	51.27	"	"	970	-	32	11.9	2.5
25.5	14.9	2.0	53.44	m m	"	980	-	30.5	12.5	2.4
23.5	16.2	1.85	58.30	11	II .	1000	-	28	13.6	2.2
27	14.1	3.2	50.38	BG06/D04LA4	6.1	940	-	32.5	11.7	3.8
26	14.6	3.1	52.56	n	II .	950	-	31	12.3	3.7
24	15.9	2.8	57.34	II .	II .	1000	-	28.5	13.4	3.4
22.5	16.9	2.7	61.22	II .	II .	1020	-	26.5	14.4	3.1
20.5	18.6	2.4	66.79	II .	II .	1070	-	24.5	15.5	2.9
18	19.1	2.1	75.99	BG06G04/D04LA4	8.4	1070	_	21.5	15.6	2.6
16.5	20.5	2.1	82.89	"	"	1070	_	20	16.8	2.6
15	22.5	2.0	93.00	m .	"	1070	_	17.5	19.2	2.3
13.5	25.5	1.75	101.5	n	II .	1070	_	16	21	2.1
11.5	29	1.55	122.0	m .	ıı	1070	_	13.5	24	1.9
9.1	36.5	1.25	149.0	n	ıı	1070	_	11	29.5	1.55
7.3	46.5	0.97	185.4	п	"	1070	-	8.8	37.5	1.2
10.5	36	3.3	131.8	BG10Z/D04LA4	11	2000	2800	12.5	30.5	3.9
9.3	41	2.9	146.0	"	"	2000	2800	11.5	33	3.6
8.2	46.5	2.6	166.0	m .	ıı	2000	2800	9.8	38.5	3.1
7.4	51	2.4	184.0	п	"	2000	2800	8.9	42.5	2.8
7. 4 7.0	54	2.4	194.6	m .	ıı	2000	2800	8.4	45	2.7
				"	ıı	2000	2800			
6.3 5.7	60 67	2.0	215.7	"	ıı		2800	7.6	50 56	2.4
	67 74	1.8	240.4		"	2000		6.8	56	2.1
5.1	74 77	1.6	266.3	" "	"	2000	2800	6.1	62	1.95
4.0		1.55	276.0	•		2000	2800	5.9	64	1.9
4.9 4.5	77 84	1.45	305.8	II .	п	2000	2800	5.3	72	1.65

Selection helical-geared motors DSE-IE1

P = 0.04 kW



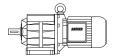
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
4.1	60	2.2	332.0	BG10G06/D04LA4	14	2000	2800	4.9	45.5	2.9
3.6	75	1.75	379.6	"	II .	2000	2800	4.3	58	2.2
3.1	88	1.5	435.9	"	II .	2000	2800	3.8	65	2.0
2.7	103	1.25	512.6	"	II	2000	2800	3.2	81	1.6
2.3	125	1.05	613.6	"	"	2000	2800	2.7	100	1.3
1.9	155	0.84	748.9	"	II	2000	2800	2.2	128	1.0
6.1	62	3.2	222.1	BG20Z/D04LA4	13	5000	-	7.3	52	3.8
3.9	69	3.2	352.1	BG20G06/D04LA4	17	5000	-	4.7	52	4.2
3.5	77	2.9	391.1	"	"	5000	-	4.2	59	3.7
3.0	93	2.4	460.0	"	"	5000	-	3.6	71	3.1
2.5	116	1.9	550.6	"	"	5000	-	3.0	90	2.4
2.1	141	1.55	671.9	"	"	5000	-	2.5	112	1.95
1.7	181	1.2	807.1	"	"	5000	-	2.1	138	1.6
1.4	225	0.98	969.9	"	"	5000	-	1.7	180	1.2
1.2	265	0.83	1142	"	"	5000	-	1.5	200	1.1
2.4	121	2.7	565.8	BG30G06/D04LA4	21	6000	-	2.9	93	3.5
2.0	149	2.2	690.6	"	II	6000	-	2.4	117	2.8
1.8	169	1.9	760.7	"	"	6000	-	2.2	130	2.5
1.7	180	1.8	829.5	"	"	6000	-	2.0	146	2.2
1.4	225	1.45	996.8	"	"	6000	-	1.7	178	1.85
1.3	245	1.35	1088	"	"	6000	-	1.5	205	1.6
1.1	290	1.1	1280	"	"	6000	-	1.3	235	1.4
1.0	325	1.0	1404	"	"	6000	-	1.2	260	1.25

P = 0.06 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	·	.,,,,	• • • • • • • • • • • • • • • • • • • •	· NN	* NV	n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	ا
540	1.06	3.8	2.51	BG04/D04LA4	4.4	340	-	650	0.88	4.5
370	1.54	3.2	3.65	m .	"	390	-	445	1.28	3.9
310	1.84	3.8	4.39	m .	"	380	-	370	1.54	4.5
255	2.2	4.1	5.36	m .	"	380	-	305	1.87	4.8
205	2.75	3.6	6.67	II.	"	410	-	245	2.3	4.3
158	3.6	3.1	8.58	II.	"	410	-	189	3.0	3.7
150	3.8	3.2	9.00	"	"	470	-	180	3.15	3.8
137	4.15	3.1	9.90	"	"	480	-	164	3.45	3.8
125	4.55	3.1	10.82	"	"	480	-	150	3.8	3.7
114	5.0	3.0	11.90	"	"	490	-	137	4.15	3.6
108	5.3	2.8	12.55	"	"	490	-	130	4.4	3.4
103	5.5	2.9	13.20	"	"	500	-	123	4.65	3.4
93	6.1	2.8	14.52	"	"	510	-	112	5.1	3.3
83	6.9	2.6	16.44	"	"	530	-	99	5.7	3.2
75	7.6	2.4	18.08	"	"	540	-	90	6.3	2.9
64	8.9	2.1	21.12	"	"	560	-	77	7.4	2.6
59	9.7	2.1	23.23	"	"	600	-	70	8.1	2.5
56	10.2	1.95	24.45	"	"	610	-	67	8.5	2.4
51	11.2	1.8	26.89	"	"	650	-	61	9.3	2.2
44	13	1.55	30.91	"	"	690	-	53	10.8	1.85
40	14.3	1.4	34.00	"	"	720	-	48	11.9	1.7
38.5	14.8	1.35	35.35	"	"	730	-	46	12.4	1.6
35	16.3	1.25	38.89	"	"	750	-	42	13.6	1.45
32	17.9	1.1	42.24	"	"	750	-	38.5	14.8	1.35
29.5	19.4	1.05	46.47	"	"	750	-	35	16.3	1.25
28.5	20	1.0	47.52	"	II .	750	-	34.5	16.6	1.2
26	22	0.91	52.28	"	"	750	-	31	18.4	1.1
25	22.5	0.89	54.97	"	"	750	-	29.5	19.4	1.05
22.5	25	0.8	60.47	II	II	750	-	27	21	0.95

Selection helical-geared motors DSE-IE1

P = 0.06 kW

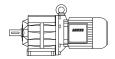


	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	•	.,,,,	•••	· NN	* NV	n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm	-6			kg	N	N	1/min	Nm	- 0
72	7.9	3.3	18.82	BG05/D04LA4	5.1	680	-	87	6.5	4.0
66	8.6	3.1	20.53	m .	ıı	700	_	79	7.2	3.8
57	10	2.8	24.00	u u	II .	740	-	68	8.4	3.3
52	11	2.6	26.18	u u	II .	760	-	62	9.2	3.2
49	11.6	2.6	27.82	II .	II .	770	-	59	9.7	3.1
44.5	12.8	2.3	30.35	u u	II .	760	-	54	10.6	2.8
39	14.6	2.1	35.00	u u	II .	810	-	46.5	12.3	2.4
35.5	16.1	1.85	38.18	m m	II .	850	-	42.5	13.4	2.2
34	16.8	1.8	39.94	m m	II .	860	-	41	13.9	2.2
31	18.4	1.65	43.57	m m	II .	900	-	37.5	15.2	1.95
29	19.7	1.5	47.00	m m	II .	930	-	34.5	16.6	1.8
26.5	21.5	1.4	51.27	u u	II .	970	-	32	17.9	1.7
25.5	22	1.35	53.44	II .	II .	980	-	30.5	18.7	1.6
23.5	24	1.25	58.30	m .	II	1000	_	28	20	1.5
42	13.6	3.3	32.22	BG06/D04LA4	6.1	890	-	51	11.2	4.0
38.5	14.8	3.0	35.15	"	"	880	-	46.5	12.3	3.7
37	15.4	2.9	36.91	m .	II .	890	-	44	13	3.5
34	16.8	2.7	40.26	п	II .	890	_	40.5	14.1	3.2
29.5	19.4	2.3	46.19	п	II .	890	_	35.5	16.1	2.8
27	21	2.1	50.38	II	II .	940	_	32.5	17.6	2.6
26	22	2.0	52.56	m .	ıı .	950	_	31	18.4	2.4
24	23.5	1.9	57.34	п	"	1000	_	28.5	20	2.3
22.5	25	1.8	61.22	п	"	1020	_	26.5	21.5	2.1
20.5	27.5	1.65	66.79	п	II .	1070	_	24.5	23	1.95
18	29.5	1.35	75.99	BG06G04/D04LA4	8.4	1070	_	21.5	24.5	1.65
16.5		II.		BG00G04/D04LA4	0. 4	1070		20		1.65
	32	1.35	82.89	п	ıı .		-		26	
15	35.5	1.25	93.00	п	"	1070	-	17.5	30	1.5
13.5	39.5	1.15	101.5	п	"	1070	-	16	33	1.35
11.5	45.5	0.99	122.0			1070	-	13.5	38.5	1.15
15	38	3.2	92.19	BG10Z/D06LA4	14	2000	2800	18	31.5	3.8
13.5	36 42	2.9	102.19	BG102/D00LA4	1 4	2000	2800		35.5	
				п	ıı .			16		3.4
12.5	45.5	2.6	109.8	п	"	2000	2800	15	38	3.2
11.5	49.5	2.4	121.7	"	"	2000	2800	13.5	42	2.9
10.5	54	2.2	131.8	"	"	2000	2800	12.5	45.5	2.6
9.3	61	1.95	146.0		"	2000	2800	11.5	49.5	2.4
8.2	69	1.75	166.0		"	2000	2800	9.8	58	2.1
7.4	77	1.55	184.0		"	2000	2800	8.9	64	1.9
7.0	81	1.5	194.6		"	2000	2800	8.4	68	1.75
6.3	90	1.35	215.7	" "	"	2000	2800	7.6	75	1.6
5.7	100	1.2	240.4	" "	"	2000	2800	6.8	84	1.45
5.1	112	1.05	266.3	" "	"	2000	2800	6.1	93	1.3
4.9	116	1.05	276.0	" "	"	2000	2800	5.9	97	1.25
4.5	127	0.94	305.8			2000	2800	5.3	108	1.1
4.1	107	1.2	332.0	BG10G06/D06LA4	18	2000	2800	4.9	84	1.55
3.6	128	1.0	379.6		"	2000	2800	4.3	102	1.25
3.1	149	0.87	435.9	"	"	2000	2800	3.8	115	1.15
	4.0		4.000	2007 (2001)	4.6	5000		4.0		2.5
8.4	68	2.9	162.2	BG20Z/D06LA4	16	5000	-	10	57	3.5
7.5	76	2.6	180.1	" "	"	5000	-	9.0	63	3.2
6.8	84	2.4	199.9	" "	"	5000	-	8.2	69	2.9
6.1	93	2.2	222.1			5000	-	7.3	78	2.6
5.5	77	2.9	248.0	BG20G06/D06LA4	20	5000	-	6.6	60	3.7
4.6	95	2.3	297.9			5000	-	5.5	75	2.9
3.9	118	1.85	352.1	"	"	5000	-	4.7	93	2.4
3.5			2011	II .	"	5000	-	4.2	104	2.1
	132	1.65	391.1							
3.0	132 156	1.4	460.0	II	"	5000	-	3.6	125	1.75
3.0 2.5	132 156 192	1.4 1.15	460.0 550.6	II .	ıı .	5000	-	3.0	154	1.45
3.0	132 156	1.4	460.0							
3.0 2.5 2.1	132 156 192 230	1.4 1.15 0.96	460.0 550.6 671.9	n n	"	5000 5000	-	3.0 2.5	154 188	1.45 1.15
3.0 2.5 2.1 6.0	132 156 192 230	1.4 1.15 0.96	460.0 550.6 671.9 225.9	" " BG30Z/D06LA4	22	5000 5000 6000	-	3.0 2.5 7.2	154 188 79	1.45 1.15 3.8
3.0 2.5 2.1	132 156 192 230	1.4 1.15 0.96	460.0 550.6 671.9	n n	"	5000 5000	-	3.0 2.5	154 188	1.45 1.15

6

Selection helical-geared motors DSE-IE1

P = 0.06 kW



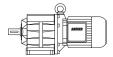
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M ₂	f _B
1/min	Nm				kg	N	N	1/min	Nm	
3.9	118	2.8	346.8	BG30G06/D06LA4	25	6000	-	4.7	93	3.5
3.4	136	2.4	401.9	"	II .	6000	-	4.1	107	3.0
2.9	162	2.0	472.8	"	II .	6000	-	3.5	128	2.5
2.4	200	1.65	565.8	"	"	6000	-	2.9	159	2.0
2.0	240	1.35	690.6	"	"	6000	-	2.4	196	1.65
1.8	275	1.2	760.7	"	"	6000	-	2.2	215	1.5
1.7	290	1.1	829.5	"	"	6000	-	2.0	240	1.35
1.4	360	0.9	996.8	"	"	6000	-	1.7	290	1.1
1.3	390	0.83	1088	"	"	6000	-	1.5	330	0.98
2.2	147	3.2	640.0	BG40G10/D06LA4	43	7000	-	2.6	107	4.3
1.9	176	2.6	710.9	"	"	7000	-	2.3	123	3.8
1.8	179	2.6	789.1	"	"	7000	-	2.1	133	3.5
1.4	255	1.8	965.2	"	"	7000	-	1.7	186	2.5
1.2	315	1.5	1225	"	"	7000	-	1.4	250	1.85
0.95	440	1.05	1459	"	"	7000	-	1.2	315	1.5
1.5	230	3.0	960.2	BG50G10/D06LA4	51	10000	-	1.7	186	3.7
1.2	315	2.2	1219	"	"	10000	-	1.4	250	2.8
0.95	445	1.55	1452	"	"	10000	-	1.2	315	2.2
0.8	550	1.25	1729	"	"	10000	-	0.95	445	1.55
0.7	660	1.05	2076	•	"	10000	-	0.8	550	1.25
0.0	445	2.0	1741	DCCOCOO (DOCLAA	100	16000		0.05	220	2.0
0.8	445	2.9	1741	BG60G20/D06LA4	100	16000	-	0.95	330	3.9
0.75	490	2.7	1880	"	"	16000	-	0.9	365	3.6
0.65	610	2.1	2249	"	"	16000	-	0.75	490	2.7
0.48 0.42	920	1.4	2818	"	"	16000	-	0.6	680 770	1.9
	1090	1.2	3234	"	"	16000	-	0.55		1.7
0.38	1230	1.05	3592			16000	-	0.46	970	1.35
0.40	020	2.7	2774	PC70C20 /D06L44	120	20000		0.6	710	2 -
0.49	930	2.7		BG70G20/D06LA4	130	20000	-	0.6	710	3.5
0.43	1090	2.3	3184	"	"	20000	-	0.55	800	3.1
0.35	1390	1.8	3925	**		20000	-	0.42	1120	2.2

P = 0.09 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
540	1.59	2.5	2.51	BG04/D04LA4	4.4	340	-	650	1.32	3.0
370	2.3	2.2	3.65	"	"	390	-	445	1.93	2.6
310	2.75	2.5	4.39	"	"	380	-	370	2.3	3.0
255	3.35	2.7	5.36	"	"	380	-	305	2.8	3.2
205	4.15	2.4	6.67	"	"	410	-	245	3.5	2.9
158	5.4	2.0	8.58	"	"	410	-	189	4.5	2.4
150	5.7	2.1	9.00	"	"	470	-	180	4.75	2.5
137	6.2	2.1	9.90	"	"	480	-	164	5.2	2.5
125	6.8	2.1	10.82	"	"	480	-	150	5.7	2.5
114	7.5	2.0	11.90	"	"	490	-	137	6.2	2.4
108	7.9	1.9	12.55	"	"	490	-	130	6.6	2.3
103	8.3	1.95	13.20	"	"	500	-	123	6.9	2.3
93	9.2	1.85	14.52	"	"	510	-	112	7.6	2.2
83	10.3	1.75	16.44	"	"	530	-	99	8.6	2.1
75	11.4	1.6	18.08	"	"	540	-	90	9.5	1.9
64	13.4	1.4	21.12	"	"	560	-	77	11.1	1.7
59	14.5	1.4	23.23	"	"	600	-	70	12.2	1.65
56	15.3	1.3	24.45	"	"	610	-	67	12.8	1.55
51	16.8	1.2	26.89	"	"	650	-	61	14	1.45
44	19.5	1.05	30.91	"	"	690	-	53	16.2	1.25
40	21	0.95	34.00	"	"	720	-	48	17.9	1.1
38.5	22	0.91	35.35	"	"	730	-	46	18.6	1.1
35	24.5	0.82	38.89	II .	"	750	-	42	20	1.0

Selection helical-geared motors DSE-IE1

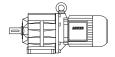
P = 0.09 kW



	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
128	6.7	3.0	10.59	BG05/D04LA4	5.1	590	_	153	5.6	3.6
117	7.3	2.9	11.55	11	"	600	_	141	6.0	3.5
113	7.6	2.8	12.05	m .	"	510	_	135	6.3	3.3
108	7.9	2.8	12.60	"	"	610	_	129	6.6	3.3
99	8.6	2.7	13.75	"	"	630	_	118	7.2	3.2
				п	"					
89	9.6	2.5	15.23		"	640	-	107	8.0	3.0
82	10.4	2.4	16.62		"	660	-	98	8.7	2.9
72	11.9	2.2	18.82	"		680	-	87	9.8	2.7
66	13	2.1	20.53	"	II .	700	-	79	10.8	2.5
57	15	1.85	24.00	"	"	740	-	68	12.6	2.2
52	16.5	1.75	26.18	"	"	760	-	62	13.8	2.1
49	17.5	1.7	27.82	m .	"	770	-	59	14.5	2.1
44.5	19.3	1.55	30.35	m m	"	760	-	54	15.9	1.9
39	22	1.35	35.00	m .	"	810	_	46.5	18.4	1.65
35.5	24	1.25	38.18	n .	"	850	_	42.5	20	1.5
34	25	1.2	39.94	m m	"	860	_	41	20.5	1.45
31	27.5	1.1	43.57	"	"	900		37.5	22.5	1.35
29	29.5	1.0	47.00	"	"	930	_	34.5	24.5	1.33
		I		"	"					I
26.5	32	0.94	51.27		"	970	-	32	26.5	1.15
25.5	33.5	0.9	53.44	" "	"	980	-	30.5	28	1.05
23.5	36.5	0.82	58.30	"	"	1000	-	28	30.5	0.98
65	13.2	3.0	20.82	BG06/D04LA4	6.1	800	-	78	11	3.6
60	14.3	3.0	22.71	"	"	810	-	72	11.9	3.6
53	16.2	2.8	25.48	"	"	850	-	64	13.4	3.4
49	17.5	2.6	27.80	m m	"	840	-	59	14.5	3.1
42	20	2.3	32.22	m m	"	890	-	51	16.8	2.7
38.5	22	2.0	35.15	m m	"	880	_	46.5	18.4	2.4
37	23	1.95	36.91	"	"	890	_	44	19.5	2.3
34	25	1.8	40.26	m m	11	890	_	40.5	21	2.1
29.5	29	1.55	46.19	n n	"	890	_	35.5	24	1.9
27	31.5	1.45	50.38	"	"	940	_	32.5		1.75
				"	"				26 27.5	I
26	33	1.35	52.56	11	"	950	-	31	27.5	1.65
24	35.5	1.25	57.34		11	1000	-	28.5	30	1.5
22.5	38	1.2	61.22		"	1020	-	26.5	32	1.4
20.5	41.5	1.1	66.79			1070	-	24.5	35	1.3
18	45.5	0.88	75.99	BG06G04/D04LA4	8.4	1070	-	21.5	37.5	1.05
16.5	49.5	0.87	82.89	"	II .	1070	-	20	40.5	1.05
15	54	0.83	93.00	"	II .	1070	-	17.5	46.5	0.97
23.5	36.5	3.3	57.48	BG10/D06LA4	13	2000	2800	28.5	30	4.0
21.5	39.5	3.0	63.69	"	"	2000	2800	25.5	33.5	3.6
20.5	41.5	2.9	66.00	m .	"	2000	2800	25	34	3.5
18.5	46	2.6	73.13	m .	"	2000	2800	22.5	38	3.2
17.5	49	2.4	77.40	BG10Z/D06LA4	14	2000	2800	21	40.5	3.0
16	53	2.3	85.76	m .	"	2000	2800	19	45	2.7
15	57	2.1	92.19	"	"	2000	2800	18	47.5	2.5
13.5	63	1.9	102.1	m m	"	2000	2800	16	53	2.3
12.5	68	1.75	109.8	m .	"	2000	2800	15	57	2.1
11.5	74	1.6	121.7	m .	"	2000	2800	13.5	63	1.9
10.5	81	1.5	131.8	m .	"	2000	2800	12.5	68	1.75
9.3	92	1.3	146.0	"	"	2000	2800	11.5	74	1.75
8.2				п	II.		2800		87	1
	104	1.15	166.0	п	"	2000		9.8		1.4
7.4	116	1.05	184.0		"	2000	2800	8.9	96	1.25
7.0	122	0.98	194.6		"	2000	2800	8.4	102	1.2
6.3	136	0.88	215.7	"		2000	2800	7.6	113	1.05
5.7	150	0.8	240.4	"	II .	2000	2800	6.8	126	0.95
4.9	146	0.89	276.4	BG10G06/D06LA4	18	2000	2800	5.9	116	1.1
13	66	3.0	104.7	BG20Z/D06LA4	16	5000	_	15.5	55	3.6
12	71	2.8	112.8	BG202/D00LA4	"	5000	-	14.5	59	3.4
11	71 78			п	"	5000				
		2.6	125.3	п	"		-	13	66 74	3.0
9.6	89	2.2	141.3		"	5000	-	11.5	74	2.7
8.4	102	1.95	162.2	" "	"	5000	-	10	85	2.4
7.5	114	1.75	180.1			5000	-	9.0	95	2.1
6.8	126	1.6	199.9	"	"	5000	-	8.2	104	1.9
6.1	140	1.45	222.1	"	"	5000	-	7.3	117	1.7

Selection helical-geared motors DSE-IE1

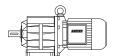
P = 0.09 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
5.5	130	1.7	248.0	BG20G06/D06LA4	20	5000	-	6.6	103	2.1
4.6	157	1.4	297.9	m .	II .	5000	-	5.5	127	1.75
3.9	192	1.15	352.1	m .	II .	5000	-	4.7	154	1.45
3.5	210	1.05	391.1	m .	II .	5000	-	4.2	173	1.25
3.0	250	0.88	460.0	n	II .	5000	-	3.6	200	1.1
9.5	90	3.3	142.5	BG30Z/D06LA4	22	6000	-	11.5	74	4.1
9.0	95	3.2	151.5	"	II .	6000	-	11	78	3.8
8.1	106	2.8	168.1	"	II .	6000	-	9.7	88	3.4
7.4	116	2.6	182.9	"	"	6000	-	8.9	96	3.1
6.7	128	2.3	202.9	"	II .	6000	-	8.0	107	2.8
6.0	143	2.1	225.9	"	II .	6000	-	7.2	119	2.5
5.2	165	1.8	261.9	"	II .	6000	-	6.2	138	2.2
4.7	182	1.65	290.5	"	II .	6000	-	5.6	153	1.95
4.5	161	2.0	306.2	BG30G06/D06LA4	25	6000	-	5.3	132	2.5
3.9	192	1.7	346.8	"	II .	6000	-	4.7	154	2.1
3.4	220	1.5	401.9	n n	"	6000	-	4.1	177	1.85
2.9	260	1.25	472.8	m .	II .	6000	-	3.5	210	1.55
2.4	320	1.0	565.8	m .	II .	6000	-	2.9	255	1.25
2.0	385	0.84	690.6	m .	II .	6000	-	2.4	315	1.05
6.1	140	3.0	221.9	BG40Z/D06LA4	38	7000	-	7.4	116	3.7
5.5	156	2.7	246.5	"	"	7000	-	6.6	130	3.3
5.0	171	2.5	273.6	"	II .	7000	-	6.0	143	3.0
3.1	170	2.7	448.8	BG40G10/D06LA4	43	7000	-	3.7	125	3.7
2.6	210	2.2	534.2	"	II .	7000	-	3.1	160	2.9
2.2	275	1.7	640.0	"	II .	7000	-	2.6	215	2.2
1.9	325	1.45	710.9	"	"	7000	-	2.3	245	1.9
1.8	335	1.4	789.1	"	"	7000	-	2.1	270	1.7
1.4	460	1.0	965.2	"	II .	7000	-	1.7	350	1.35
1.2	550	0.85	1225	"	"	7000	-	1.4	455	1.0
2.6	210	3.3	531.5	BG50G10/D06LA4	51	10000	-	3.1	161	4.3
2.2	280	2.5	621.3	"	"	10000	-	2.7	205	3.4
2.0	300	2.3	708.3	"	"	10000	-	2.3	245	2.8
1.8	335	2.1	785.1	"	"	10000	-	2.1	270	2.6
1.5	420	1.65	960.2	"	"	10000	-	1.7	355	1.95
1.2	550	1.25	1219	•	"	10000	-	1.4	455	1.5
1.3	420	2.1	1051	DCC0C30 /D0CLA4	100	16000		1.0	205	4.4
1.3	420	3.1	1051	BG60G20/D06LA4	100	16000	-	1.6	295	4.4
1.2	465	2.8	1168	"	"	16000	-	1.4	365	3.6
1.1	510 630	2.5	1346	"	"	16000 16000	-	1.3 1.1	395 510	3.3 2.5
0.95 0.8		2.1	1496 1741	n n	ıı	16000	-			
0.8	800 870	1.65	1880	"	"	16000		0.95 0.9	630 680	2.1
0.75	1050	1.5		"	п	16000	-	0.9		1.9
0.05	1050	1.25	2249			16000	-	0.75	870	1.5
0.85	770	3.2	1666	BG70G20/D06LA4	130	20000	_	1.0	620	4.0
0.7	980	2.6	1994	# # # # # # # # # # # # # # # # # # #	"	20000	_	0.85	770	3.2
0.65	1080	2.3	2215	m .	II .	20000	_	0.75	900	2.8
0.49	1510	1.65	2774	m .	II .	20000	_	0.73	1190	2.1
0.43	1750	1.45	3184	m .	ıı	20000	_	0.55	1320	1.9
0.35	2200	1.15	3925	m .	II .	20000	_	0.42	1800	1.4
U.JJ	2200	1.13	フラ ∠フ		-	20000		0.42	1000	1.4

Selection helical-geared motors DSE-IE1

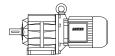
P = 0.12 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
540	2.1	1.9	2.51	BG04/D04LA4	4.4	340	-	650	1.76	2.3
370	3.05	1.65	3.65	"	"	390	-	445	2.55	1.95
310	3.65	1.9	4.39	"	"	380	-	370	3.05	2.3
255	4.45	2.0	5.36	"	"	380	-	305	3.75	2.4
205	5.5	1.8	6.67	"	"	410	-	245	4.65	2.2
158	7.2	1.55	8.58	"	"	410	-	189	6.0	1.85
150	7.6	1.6	9.00	"	"	470	-	180	6.3	1.9
137	8.3	1.55	9.90	"	"	480	-	164	6.9	1.9
125	9.1	1.55	10.82	"	II .	480	-	150	7.6	1.85
114	10	1.5	11.90	"	"	490	-	137	8.3	1.8
108	10.6	1.4	12.55	"	"	490	-	130	8.8	1.7
103	11.1	1.45	13.20	"	"	500	-	123	9.3	1.7
93	12.3	1.4	14.52	"	II .	510	-	112	10.2	1.65
83	13.8	1.3	16.44	"	"	530	-	99	11.5	1.55
75	15.2	1.2	18.08	"	"	540	-	90	12.7	1.4
64	17.9	1.05	21.12	"	"	560	-	77	14.8	1.3
59	19.4	1.05	23.23	"	"	600	-	70	16.3	1.25
56	20	1.0	24.45	"	II .	610	-	67	17.1	1.15
51	22	0.91	26.89	"	"	650	-	61	18.7	1.05
295	3.85	3.1	4.59	BG05/D04LA4	5.1	490	-	355	3.2	3.8
250	4.55	3.1	5.46	II	II .	490	-	300	3.8	3.7
205	5.5	2.9	6.60	"	II	510	-	250	4.55	3.5
174	6.5	2.8	7.80	"	II	530	-	210	5.4	3.3
166	6.9	2.6	8.15	"	"	510	-	199	5.7	3.2
159	7.2	2.6	8.51	"	"	550	-	191	6.0	3.2
128	8.9	2.2	10.59	"	"	590	-	153	7.4	2.7
117	9.7	2.2	11.55	"	"	600	-	141	8.1	2.6
113	10.1	2.1	12.05	"	"	510	-	135	8.4	2.5
108	10.6	2.1	12.60	"	"	610	-	129	8.8	2.5
99	11.5	2.0	13.75	"	II	630	-	118	9.7	2.4
89	12.8	1.9	15.23	"	II	640	-	107	10.7	2.2
82	13.9	1.8	16.62	"	II	660	-	98	11.6	2.2
72	15.9	1.65	18.82	"	II .	680	-	87	13.1	2.0
66	17.3	1.55	20.53	"	II	700	-	79	14.5	1.85
57	20	1.4	24.00	II .	II .	740	-	68	16.8	1.65
52	22	1.3	26.18	"	II	760	-	62	18.4	1.6
49	23	1.3	27.82	"	II .	770	-	59	19.4	1.55
44.5	25.5	1.2	30.35	"	II .	760	-	54	21	1.45
39	29	1.05	35.00	"	II .	810	-	46.5	24.5	1.2
35.5	32	0.94	38.18	II .	II .	850	-	42.5	26.5	1.15
34	33.5	0.9	39.94	II .	II .	860	-	41	27.5	1.1
31	36.5	0.82	43.57	11	"	900	-	37.5	30.5	0.98
110	10.4	3.2	12.30	BG06/D04LA4	6.1	670	-	132	8.6	3.8
105	10.9	3.0	12.98	II .	II .	600	-	125	9.1	3.6
92	12.4	2.7	14.78	"	"	730	-	110	10.4	3.3
84	13.6	2.6	16.13	"	"	740	-	101	11.3	3.1
78	14.6	2.6	17.40	"	"	760	-	94	12.1	3.1
72	15.9	2.5	18.98	"	"	770	-	86	13.3	3.0
65	17.6	2.3	20.82	"	II .	800	-	78	14.6	2.7
60	19.1	2.3	22.71	"	"	810	-	72	15.9	2.7
53	21.5	2.1	25.48	"	"	850	-	64	17.9	2.5
49	23	1.95	27.80	"	"	840	-	59	19.4	2.3
42	27	1.65	32.22	"	"	890	-	51	22	2.0
38.5	29.5	1.55	35.15	"	"	880	-	46.5	24.5	1.85
37		1.5	36.91	"	"	890	-	44	26	1.75
34	30.5				"	890	-	40.5	28	1.6
29.5	33.5	1.35	40.26							
	33.5 38.5	1.35 1.15	46.19	"	"	890	-	35.5	32	1.4
27	33.5 38.5 42	1.35 1.15 1.05	46.19 50.38	11	"	890 940	-	35.5 32.5	32 35	1.4 1.3
27 26	33.5 38.5 42 44	1.35 1.15 1.05 1.0	46.19 50.38 52.56	11 11	"	890 940 950		35.5 32.5 31	32 35 36.5	1.4 1.3 1.25
27 26 24	33.5 38.5 42 44 47.5	1.35 1.15 1.05 1.0 0.95	46.19 50.38 52.56 57.34	" " " "	11 11	890 940 950 1000	-	35.5 32.5 31 28.5	32 35 36.5 40	1.4 1.3 1.25 1.15
27 26	33.5 38.5 42 44	1.35 1.15 1.05 1.0	46.19 50.38 52.56	11 11	"	890 940 950	-	35.5 32.5 31	32 35 36.5	1.4 1.3 1.25 1.15 1.05 0.97

Selection helical-geared motors DSE-IE1

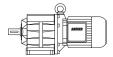
P = 0.12 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
31	36.5	3.3	43.99	BG10/D06LA4	13	1880	2600	37	30.5	3.9
29.5	38.5	3.1	46.55	"		1920	2650	35	32.5	3.7
26.5	43	2.8	51.57	"	"	2000	2800	31.5	36	3.3
23.5	48.5	2.5	57.48	" "	"	2000	2800	28.5	40	3.0
21.5	53	2.3	63.69			2000	2800	25.5	44.5	2.7
20.5	55	2.2	66.00	"	"	2000	2800	25	45.5	2.6
18.5	61	1.95	73.13			2000	2800	22.5	50	2.4
17.5	65	1.85	77.40	BG10Z/D06LA4	14	2000	2800	21	54	2.2
16	71	1.7	85.76	" "	"	2000	2800	19	60	2.0
15	76	1.6	92.19	" "	"	2000	2800	18	63	1.9
13.5	84	1.45	102.1		"	2000	2800	16	71	1.7
12.5	91	1.3	109.8		"	2000	2800	15	76	1.6
11.5	99	1.2	121.7	"	"	2000	2800	13.5	84	1.45
10.5	109	1.1	131.8	"	"	2000	2800	12.5	91	1.3
9.3	123	0.98	146.0	" "	"	2000	2800	11.5	99	1.2
8.2	139	0.86	166.0			2000	2800	9.8	116	1.05
7.0	143	0.91	194.9	BG10G06/D06LA4	18	2000	2800	8.4	115	1.15
17.5	6 F		70.60	DC207 /D26144	1.	F000		21	F.4	2 -
17.5	65 73	3.1	78.60	BG20Z/D06LA4	16	5000	-	21	54	3.7
15.5	73	2.7	87.30		"	5000	-	19	60	3.3
14.5	79	2.5	94.27		"	5000	-	17.5	65 73	3.1
13	88	2.3	104.7		"	5000	-	15.5	73	2.7
12	95	2.1	112.8		"	5000	-	14.5	79	2.5
11	104	1.9	125.3		"	5000	-	13	88	2.3
9.6	119	1.7	141.3	"	"	5000	-	11.5	99	2.0
8.4	136	1.45	162.2		"	5000	-	10	114	1.75
7.5	152	1.3	180.1		"	5000	-	9.0	127	1.55
6.8	168	1.2	199.9		"	5000	-	8.2	139	1.45
6.1	187	1.05	222.1			5000	-	7.3	156	1.3
5.5	182 220	1.2	248.0	BG20G06/D06LA4	20	5000	-	6.6	147	1.5
4.6		1.0	297.9		"	5000	-	5.5	179	1.25
3.9	265	0.83	352.1			5000	-	4.7	215	1.0
12.5	91	3.3	109.6	BG30Z/D06LA4	22	6000	_	15	76	3.9
11.5	99	3.0	121.6	BG302/D00LA4	ZZ "	6000	-	13.5	84	3.6
11.5	104	2.9	121.5	n .	11	6000	_	13.5	88	3.4
9.5	120	2.5	142.5	n .	"	6000	_	11.5	99	3.4
9.0	127	2.4	151.5	m .	11	6000	_	11.5	104	2.9
8.1	141	2.1	168.1	п	II .	6000	_	9.7	118	2.5
7.4	154	1.95	182.9	п	II .	6000	_	8.9	128	2.3
6.7	171	1.75	202.9	п	II.	6000	_	8.0	143	2.1
6.0	191	1.55	225.9	n .	II.	6000	_	7.2	159	1.9
5.2	220	1.35	261.9	n .	ıı	6000	_	6.2	184	1.65
4.7	240	1.25	290.5	m	ıı	6000	_	5.6	200	1.5
4.5	220	1.5	306.2	BG30G06/D06LA4	25	6000	_	5.3	186	1.75
3.9	265	1.25	346.8	"	"	6000	_	4.7	215	1.5
3.4	300	1.1	401.9	n .	II	6000	_	4.1	245	1.35
2.9	360	0.9	472.8	m m	ıı	6000	_	3.5	290	1.1
8.7	131	3.2	156.9	BG40Z/D06LA4	38	7000	_	10.5	109	3.9
8.2	139	3.1	166.1	11	11	7000	_	9.8	116	3.7
7.4	154	2.8	184.4	п	II .	7000	-	8.8	130	3.3
6.8	168	2.5	199.9	m .	II	7000	_	8.2	139	3.1
6.1	187	2.3	221.9	m .	II .	7000	-	7.4	154	2.8
5.5	205	2.1	246.5	m .	II .	7000	-	6.6	173	2.5
5.0	225	1.9	273.6	II .	II .	7000	-	6.0	191	2.2
4.7	153	3.0	288.6	BG40G10/D06LA4	43	7000	-	5.7	111	4.2
3.9	194	2.4	353.5	"	"	7000	-	4.6	149	3.1
3.1	260	1.8	448.8	II .	II .	7000	-	3.7	200	2.3
2.6	320	1.45	534.2	II .	II .	7000	-	3.1	250	1.85
2.2	405	1.15	640.0	m .	II .	7000	-	2.6	325	1.45
1.9	475	0.98	710.9	m .	II .	7000	-	2.3	370	1.25
1.8	495	0.94	789.1	m .	ıı	7000	-	2.1	405	1.15
								1		

Selection helical-geared motors DSE-IE1

P = 0.12 kW



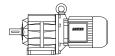
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
6.0	191	3.3	226.9	BG50Z/D06LA4	47	10000	-	7.2	159	4.0
5.3	215	2.9	258.6	II	"	10000	-	6.3	181	3.5
4.8	235	2.7	286.7	II	II .	10000	-	5.7	200	3.2
3.1	260	2.7	446.5	BG50G10/D06LA4	51	10000	-	3.7	200	3.5
2.6	320	2.2	531.5	II	II .	10000	-	3.1	250	2.8
2.2	410	1.7	621.3	II	II .	10000	-	2.7	310	2.2
2.0	445	1.55	708.3	II	"	10000	-	2.3	370	1.85
1.8	495	1.4	785.1	II	"	10000	-	2.1	405	1.7
1.5	610	1.15	960.2	II	"	10000	-	1.7	520	1.35
1.2	790	0.87	1219	п	"	10000	-	1.4	660	1.05
1.7	470	2.8	804.5	BG60G20/D06LA4	100	16000	_	2.1	340	3.8
1.6	490	2.7	891.5	"	"	16000	_	1.9	375	3.5
1.3	640	2.0	1051	n .		16000	_	1.6	475	2.7
1.2	700	1.85	1168	m .	ш	16000	_	1.4	570	2.7
1.1	700 770	1.03	1346	m .	ш	16000	_	1.3	610	2.3
0.95	930	1.4	1496	m .	ш	16000	_	1.1	770	1.7
0.93	1160	1.1	1741	m .	ш	16000	_	0.95	930	1.4
0.75	1250	1.05	1880	п	"	16000	_	0.93	1000	1.3
0.73	1230	1.05	1000			10000		0.9	1000	1.5
1.0	900	2.8	1389	BG70G20/D06LA4	130	20000	-	1.2	710	3.5
0.9	1030	2.4	1543	II	"	20000	-	1.1	800	3.1
0.85	1100	2.3	1666	II	II .	20000	-	1.0	900	2.8
0.7	1390	1.8	1994	m	"	20000	-	0.85	1100	2.3
0.65	1520	1.65	2215	m	"	20000	-	0.75	1280	1.95
0.49	2050	1.2	2774	II	II .	20000	-	0.6	1670	1.5
0.43	2400	1.05	3184	II	"	20000	-	0.55	1840	1.35

P = 0.18 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
520	3.3	2.7	2.64	BG05/D05LA4	7.0	420	-	620	2.75	3.3
400	4.25	2.4	3.38	II	"	460	-	480	3.55	2.8
295	5.8	2.1	4.59	"	"	490	-	355	4.8	2.5
250	6.8	2.1	5.46	II	"	490	-	300	5.7	2.5
205	8.3	1.95	6.60	II	"	510	-	250	6.8	2.4
174	9.8	1.85	7.80	II	"	530	-	210	8.1	2.2
166	10.3	1.75	8.15	II	"	510	-	199	8.6	2.1
159	10.8	1.75	8.51	II	"	550	-	191	9.0	2.1
128	13.4	1.5	10.59	II	"	590	-	153	11.2	1.8
117	14.6	1.45	11.55	"	"	600	-	141	12.1	1.75
113	15.2	1.4	12.05	"	"	510	-	135	12.7	1.65
108	15.9	1.4	12.60	II	"	610	-	129	13.3	1.65
99	17.3	1.35	13.75	II	"	630	-	118	14.5	1.6
89	19.3	1.25	15.23	II	II .	640	-	107	16	1.5
82	20.5	1.2	16.62	II	II .	660	-	98	17.5	1.45
72	23.5	1.1	18.82	"	II .	680	-	87	19.7	1.3
66	26	1.05	20.53	m	II .	700	-	79	21.5	1.25
57	30	0.93	24.00	m	II .	740	-	68	25	1.1
52	33	0.88	26.18	m	II .	760	-	62	27.5	1.05
49	35	0.86	27.82	"	II	770	-	59	29	1.05
230	7.4	3.2	5.96	BG06/D05LA4	8.0	570	_	275	6.2	3.9
193	8.9	2.9	7.01	m .	II .	580	-	235	7.3	3.6
161	10.6	2.6	8.39	m m	II .	600	_	194	8.8	3.2
144	11.9	2.5	9.38	"	"	640	-	173	9.9	3.0
132	13	2.4	10.24	II .	"	640	-	159	10.8	2.9
120	14.3	2.2	11.28	"	"	670	-	144	11.9	2.7
110	15.6	2.1	12.30	"	"	670	-	132	13	2.5
105	16.3	2.0	12.98	"	"	600	-	125	13.7	2.4
92	18.6	1.85	14.78	"	"	730	-	110	15.6	2.2
84	20	1.75	16.13	"	"	740	-	101	17	2.1

Selection helical-geared motors DSE-IE1

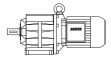
P = 0.18 kW



	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	ı	туре	111	FRN	FRV	n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	■B			kg	N	N	1/min	Nm	I B
78	22	1.75	17.40	BG06/D05LA4	ng "	760	-	94	18.2	2.1
72	23.5	1.7	18.98	"	II .	770	_	86	19.9	2.0
65	26	1.55	20.82	m .	11	800	_	78	22	1.8
60	28.5	1.5	22.71	m .	11	810	_	72	23.5	1.85
53	32	1.4	25.48	п	II .	850	_	64	26.5	1.7
49	35	1.3	27.80	п	II .	840	_	59	29	1.55
42	40.5	1.1	32.22	п	II	890	_	51	33.5	1.35
38.5	44.5	1.0	35.15	m .	II	880	_	46.5	36.5	1.25
37	46	0.98	36.91	m .	II .	890	-	44	39	1.15
34	50	0.9	40.26	m .	II .	890	-	40.5	42	1.05
46.5	36.5	3.3	29.09	BG10/D06LA4	13	1540	2150	56	30.5	3.9
43	39.5	3.0	31.52	"	II .	1600	2200	52	33	3.6
39	44	2.7	34.92	"	II .	1690	2350	46.5	36.5	3.3
34.5	49.5	2.4	39.70	"	II .	1780	2450	41	41.5	2.9
31	55	2.2	43.99	"	"	1880	2600	37	46	2.6
29.5	58	2.1	46.55	"	"	1920	2650	35	49	2.4
26.5	64	1.9	51.57	"	"	2000	2800	31.5	54	2.2
23.5	73	1.65	57.48	"	"	2000	2800	28.5	60	2.0
21.5	79	1.5	63.69	"	"	2000	2800	25.5	67	1.8
20.5	83	1.45	66.00		"	2000	2800	25	68	1.75
18.5	92	1.3	73.13			2000	2800	22.5	76	1.6
17.5 16	98 107	1.2	77.40 85.76	BG10Z/D06LA4	14	2000 2000	2800 2800	21 19	81 90	1.5 1.35
15	107	1.1 1.05	92.19	"	"	2000	2800	18	90 95	1.25
13.5	127	0.94	102.1	"	"	2000	2800	16	107	1.23
12.5	137	0.94	102.1	m .	ш	2000	2800	15	114	1.05
11.5	149	0.81	121.7	п	ш	2000	2800	13.5	127	0.94
11.5	143	0.01	121.7			2000	2000	13.3	127	0.54
36	47.5	3.2	37.90	BG15/D06LA4	13	3000	6000	43	39.5	3.8
28.5	60	3.3	47.92	BG20/D06LA4	16	4750	-	34	50	4.0
25.5	67	3.0	53.22	"	II .	4950	-	30.5	56	3.6
23	74	2.7	59.07	"	II	5000	-	27.5	62	3.2
21	81	2.5	65.62	II .	"	5000	-	25	68	2.9
20	85	2.4	67.53	BG20Z/D06LA4	16	5000	-	24	71	2.8
17.5	98	2.0	78.60	"	"	5000	-	21	81	2.5
15.5	110	1.8	87.30	"	"	5000	-	19	90	2.2
14.5	118	1.7	94.27	"	"	5000	-	17.5	98	2.0
13	132	1.5	104.7		11	5000	-	15.5	110	1.8
12 11	143	1.4	112.8	n	"	5000	-	14.5	118	1.7 1.5
9.6	156 179	1.3 1.1	125.3 141.3	n n	"	5000 5000	-	11.5	132 149	1.35
8.4	200	1.0	162.2	n .	II.	5000	_	10	171	1.15
7.5	225	0.89	180.1	n .	II.	5000	_	9.0	191	1.05
6.8	250	0.8	199.9	II .	II .	5000	_	8.2	205	0.98
		3.0				3000				5.50
21	81	3.3	65.79	BG30Z/D06LA4	22	6000	_	25	68	3.9
18.5	92	3.3	73.51	m .	II .	6000	-	22.5	76	3.9
17	101	3.0	81.55	m m	II	6000	-	20	85	3.5
16	107	2.8	86.13	п	II .	6000	-	19	90	3.3
14.5	118	2.5	95.55	"	"	6000	-	17	101	3.0
12.5	137	2.2	109.6	"	II .	6000	-	15	114	2.6
11.5	149	2.0	121.6	"	II .	6000	-	13.5	127	2.4
11	156	1.9	128.5	"	"	6000	-	13	132	2.3
9.5	180	1.65	142.5	"	"	6000	-	11.5	149	2.0
9.0	191	1.55	151.5	"	"	6000	-	11	156	1.9
8.1	210	1.45	168.1	"	"	6000	-	9.7	177	1.7
7.4	230	1.3	182.9	"	"	6000	-	8.9	193	1.55
6.7	255	1.2	202.9	"	"	6000	-	8.0	210	1.45
6.0	285	1.05	225.9	"	"	6000	-	7.2	235	1.3
5.2	330	0.91	261.9	"	"	6000	-	6.2	275	1.1
4.7	365 350	0.82	290.5			6000	-	5.6 5.3	305	0.98
4.5	350	0.93	306.2	BG30G06/D06LA4	25	6000	-	اد.د	290	1.1

Selection helical-geared motors DSE-IE1

P = 0.18 kW



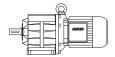
	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
13	132	3.2	107.5	BG40Z/D06LA4	38	7000	-	15.5	110	3.9
11.5	149	2.9	121.3	II	"	7000	-	13.5	127	3.3
10.5	163	2.6	134.6	II .	"	7000	-	12.5	137	3.1
9.6	179	2.4	141.4	"	"	7000	-	11.5	149	2.9
8.7	197	2.2	156.9	"	"	7000	-	10.5	163	2.6
8.2	205	2.1	166.1	"	"	7000	-	9.8	175	2.4
7.4	230	1.85	184.4	"	"	7000	-	8.8	195	2.2
6.8	250	1.7	199.9	"	"	7000	-	8.2	205	2.1
6.1	280	1.5	221.9	"	"	7000	-	7.4	230	1.85
5.5	310	1.35	246.5	"	"	7000	-	6.6	260	1.65
5.0	340	1.25	273.6	"	"	7000	-	6.0	285	1.5
4.7	275	1.7	288.6	BG40G10/D06LA4	43	7000	-	5.7	210	2.2
3.9	340	1.35	353.5	"	"	7000	-	4.6	270	1.7
3.1	445	1.05	448.8	"	"	7000	-	3.7	355	1.3
2.6	540	0.86	534.2	"	II .	7000	-	3.1	435	1.05
8.2	205	3.1	164.9	BG50Z/D06LA4	47	10000	-	9.9	173	3.6
7.4	230	2.7	182.8	n	II .	10000	-	8.9	193	3.3
6.6	260	2.4	204.7	п	II .	10000	-	8.0	210	3.0
6.0	285	2.2	226.9	m .	II .	10000	-	7.2	235	2.7
5.3	320	1.95	258.6	m m	II .	10000	-	6.3	270	2.3
4.8	355	1.75	286.7	m m	II .	10000	-	5.7	300	2.1
3.9	340	2.0	351.7	BG50G10/D06LA4	51	10000	-	4.7	265	2.6
3.1	445	1.55	446.5	m .	II .	10000	-	3.7	355	1.95
2.6	540	1.3	531.5	"	"	10000	-	3.1	435	1.6
2.2	670	1.05	621.3	"	II .	10000	-	2.7	520	1.35
2.0	730	0.95	708.3	m m	"	10000	-	2.3	620	1.1
1.8	810	0.85	785.1	"	II	10000	-	2.1	680	1.0
2.7	485	2.7	504.9	BG60G20/D06LA4	100	16000	-	3.3	370	3.5
2.5	520	2.5	559.5	m m	II .	16000	-	2.9	425	3.1
2.1	650	2.0	651.3	m m	II .	16000	-	2.5	520	2.5
1.7	800	1.65	804.5	m .	II .	16000	-	2.1	610	2.1
1.6	840	1.55	891.5	"	II .	16000	-	1.9	670	1.95
1.3	1080	1.2	1051	"	II .	16000	-	1.6	830	1.55
1.2	1180	1.1	1168	"	"	16000	-	1.4	980	1.35
1.1	1290	1.0	1346	"	II	16000	-	1.3	1050	1.25
1.8	750	3.3	790.2	BG70G20/D06LA4	130	20000	-	2.1	610	4.1
1.6	860	2.9	877.6	m .	II .	20000	-	1.9	690	3.6
1.4	1000	2.5	1035	m .	II .	20000	-	1.6	850	2.9
1.2	1190	2.1	1193	m .	II .	20000	-	1.4	990	2.5
1.0	1470	1.7	1389	m .	II .	20000	-	1.2	1190	2.1
0.9	1670	1.5	1543	m .	II .	20000	-	1.1	1320	1.9
0.85	1780	1.4	1666	m .	"	20000	-	1.0	1470	1.7
0.7	2200	1.15	1994	m .	II .	20000	-	0.85	1780	1.4
0.65	2400	1.05	2215	п	"	20000	_	0.75	2050	1.2

P = 0.25 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
520	4.55	2.0	2.64	BG05/D05LA4	7.0	420	-	620	3.85	2.3
400	5.9	1.7	3.38	m .	"	460	-	480	4.95	2.0
295	8.0	1.5	4.59	m .	"	490	-	355	6.7	1.8
250	9.5	1.45	5.46	m .	"	490	-	300	7.9	1.75
205	11.6	1.4	6.60	m .	"	510	-	250	9.5	1.7
174	13.7	1.3	7.80	m .	"	530	-	210	11.3	1.6
166	14.3	1.25	8.15	m .	"	510	-	199	11.9	1.5
159	15	1.25	8.51	m .	"	550	-	191	12.5	1.5
128	18.6	1.1	10.59	II .	"	590	-	153	15.6	1.3
117	20	1.05	11.55	m m	II .	600	_	141	16.9	1.25

Selection helical-geared motors DSE-IE1

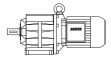
P = 0.25 kW



	50 H-			Turno		г			60 Hz	
n	50 Hz M₂	f	i	Туре	m	F_{RN}	F_{RV}	n	M ₂	$f_{\scriptscriptstyle B}$
n ₂ 1/min	Nm	f _B			kg	N	N	n ₂ 1/min	Nm	I _B
113	21	1.0	12.05	BG05/D05LA4	Kg "	510	-	135	17.6	1.2
108	22	1.0	12.60	# "	"	610	_	129	18.5	1.2
99	24	0.96	13.75	m .	"	630	-	118	20	1.15
89	26.5	0.90	15.23	m .	II .	640	-	107	22	1.13
82	20.5	0.86	16.62	m .	"	660	-	98	24	1.05
02	29	0.80	10.02			000	_	90	24	1.05
360	6.6	3.0	3.78	BG06/D05LA4	8.0	520	_	430	5.5	3.6
300	7.9	2.8	4.54	" "	"	530	_	360	6.6	3.3
230	10.3	2.3	5.96	п	"	570	_	275	8.6	2.8
193	12.3	2.1	7.01	п	"	580	_	235	10.1	2.6
161	14.8	1.9	8.39	m .	"	600	_	194	12.3	2.3
144	16.5	1.8	9.38	m .	"	640	_	173	13.8	2.2
132	18	1.7	10.24	п	"	640	_	159	15.8	2.1
120	19.8	1.6	11.28	n .	"	670	_	144	16.5	1.95
110	21.5	1.55	12.30	m .	"	670	-	132	18	1.85
105	21.5	1.45	12.30	n .	"	600	-	125	19.1	1.75
1	22.5 25.5	1.35	14.78	п	"	730		110		
92				n .	"	730 740	-	101	21.5	1.6
84	28 20 F	1.25	16.13 17.40	"	"		-	94	23.5 25	1.5 1.5
78 72	30.5 33	1.25		п	"	760 770	-		25 27.5	
		1.2	18.98	п	"			86		1.45
65	36.5	1.1	20.82	п	"	800	-	78	30.5	1.3
60	39.5	1.1	22.71	п	"	810	-	72	33	1.3
53	45 40 F	1.0	25.48	п	"	850	-	64	37	1.2
49	48.5	0.93	27.80	п	"	840	-	59 51	40 46.5	1.15
42	56	8.0	32.22			890	-	51	46.5	0.97
66	36	3.3	20.51	BG10/D06LA4	13	1290	1800	79	30	4.0
62	38.5	3.1	22.04	BG10/D00LA4	13	1330	1860	74	32	3.8
56	42.5	2.8	24.42	n .	"	1410	1970	67	35.5	3.4
52	42.5 45.5	2.6	26.26	11	"	1410	2000	62	38.5	3.4
46.5	43.5 51	2.4	29.09	n .	"	1540	2150	56	42.5	2.8
43	55	2.4	31.52	11	"	1600	2200	52	45.5	2.6
39	61	1.95	34.92	11	"	1690	2350	46.5	43.3 51	2.4
34.5	69	1.75	39.70	п	"	1780	2450	41	58	2.4
31	77	1.55	43.99	п	"	1880	2600	37	64	1.9
29.5	80	1.55	46.55	п	"	1920	2650	35	68	1.75
26.5	90	1.35	51.57	п	"	2000	2800	31.5	75	1.73
23.5	101	1.33	57.48	п	"	2000	2800	28.5	83	1.45
21.5	111	1.1	63.69	m .	"	2000	2800	25.5	93	1.43
20.5	116	1.05	66.00	п	"	2000	2800	25.5	95	1.25
l		0.93		m .	"			22.5	106	1.15
18.5 17.5	129 136	0.88	73.13 77.40	BG10Z/D06LA4	14	2000	2800 2800	21	113	1.05
16	149	0.81	85.76	# II	"	2000	2800	19	125	0.96
1.0	142	0.01	03.70			2000	2000	'	123	0.50
50	47.5	3.2	27.08	BG15/D06LA4	13	3000	6000	60	39.5	3.8
45	53	2.8	30.08	11	"	3000	6000	54	44	3.4
39.5	60	2.5	34.20	m m	"	3000	6000	47.5	50	3.0
36	66	2.3	37.90	n .	II .	3000	6000	43	55	2.7
36.5	65	3.1	37.02	BG20/D06LA4	16	4300	-	44	54	3.7
32.5	73	2.7	41.76	II .	"	4500	-	39	61	3.3
29.5	80	2.5	46.38	II .	"	4700	-	35	68	2.9
28.5	83	2.4	47.92	II .	"	4750	-	34	70	2.9
25.5	93	2.2	53.22	II .	"	4950	-	30.5	78	2.6
23	103	1.95	59.07	II .	II .	5000	-	27.5	86	2.3
21	113	1.75	65.62	п	II .	5000	-	25	95	2.1
20	119	1.7	67.53	BG20Z/D06LA4	16	5000	-	24	99	2.0
17.5	136	1.45	78.60	II	II .	5000	-	21	113	1.75
15.5	154	1.3	87.30	II .	II .	5000	-	19	125	1.6
14.5	164	1.2	94.27	II	II .	5000	-	17.5	136	1.45
13	183	1.1	104.7	II	II .	5000	-	15.5	154	1.3
12	198	1.0	112.8	II.	II .	5000	-	14.5	164	1.2
11	215	0.93	125.3	II.	II .	5000	-	13	183	1.1
9.6	245	0.82	141.3	"	II	5000	-	11.5	205	0.98

Selection helical-geared motors DSE-IE1

P = 0.25 kW

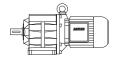


	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
26	91	3.3	52.44	BG30/D06LA4	20	6000	-	31	77	3.9
23.5	101	3.0	58.18	m	"	6000	-	28	85	3.5
22.5	106	2.8	60.79	n n	"	6000	-	27	88	3.4
20.5	116	2.6	67.44	"	"	6000	-	24.5	97	3.1
18.5	129	2.3	73.51	BG30Z/D06LA4	22	6000	-	22.5	106	2.8
17	140	2.1	81.55	"	"	6000	-	20	119	2.5
16	149	2.0	86.13	II	"	6000	-	19	125	2.4
14.5	164	1.85	95.55	"	"	6000	-	17	140	2.1
12.5	191	1.55	109.6	"	"	6000	-	15	159	1.9
11.5	205	1.45	121.6	" "	"	6000	-	13.5	176	1.7
11	215	1.4	128.5	" "	"	6000	-	13	183	1.65
9.5	250	1.2	142.5	" "	"	6000	-	11.5	205	1.45
9.0	265	1.15	151.5	"	"	6000	-	11	215	1.4
8.1	290	1.05	168.1		"	6000	-	9.7	245	1.2
7.4	320	0.94	182.9		"	6000	-	8.9	265	1.15
6.7	355	0.85	202.9			6000	-	8.0	295	1.0
18	132	3.2	75.19	BG40Z/D06LA4	38	7000	_	22	108	3.9
16.5	144	3.0	82.00	"	"	7000	_	20	119	3.6
15	159	2.7	91.02	TI TI	II .	7000	_	18	132	3.2
14	170	2.5	96.86	п	II .	7000	_	17	140	3.0
13	183	2.3	107.5	TI TI	II .	7000	_	15.5	154	2.8
11.5	205	2.1	121.3	п	II .	7000	_	13.5	176	2.4
10.5	225	1.9	134.6	п	II .	7000	_	12.5	191	2.2
9.6	245	1.75	141.4	п	II .	7000	_	11.5	205	2.1
8.7	270	1.55	156.9	п	II .	7000	_	10.5	225	1.9
8.2	290	1.45	166.1	п	"	7000	_	9.8	240	1.75
7.4	320	1.35	184.4	п	II .	7000	_	8.8	270	1.55
6.8	350	1.2	199.9	m .	11	7000	_	8.2	290	1.45
6.1	390	1.1	221.9	m .	11	7000	_	7.4	320	1.35
5.5	430	0.99	246.5	m .	11	7000	_	6.6	360	1.2
5.0	475	0.89	273.6	II .	II .	7000	-	6.0	395	1.1
4.7	415	1.1	288.6	BG40G10/D06LA4	43	7000	-	5.7	325	1.45
3.9	510	0.91	353.5	II	"	7000	-	4.6	415	1.1
10.5	225	2.8	128.9	BG50Z/D06LA4	47	10000	_	13	183	3.4
9.5	250	2.5	142.9	"	T/	10000	_	11.5	205	3.1
8.2	290	2.2	164.9	п	II .	10000	_	9.9	240	2.6
7.4	320	1.95	182.8	п	II .	10000	_	8.9	265	2.4
6.6	360	1.75	204.7	m .	11	10000	_	8.0	295	2.1
6.0	395	1.6	226.9	II .	II .	10000	-	7.2	330	1.9
5.3	450	1.4	258.6	m .	11	10000	-	6.3	375	1.7
4.8	495	1.25	286.7	m m	11	10000	-	5.7	415	1.5
3.9	510	1.35	351.7	BG50G10/D06LA4	51	10000	-	4.7	405	1.7
3.1	660	1.05	446.5	II .	"	10000	-	3.7	530	1.3
2.6	800	0.86	531.5	"	"	10000	-	3.1	650	1.05
4.5	400	3.3	306.1	BG60G20/D06LA4	100	16000	_	5.3	320	4.1
4.1	440	3.0	334.3	"	"	16000	_	4.9	345	3.8
3.7	490	2.7	370.5	n .	II .	16000	_	4.4	385	3.4
3.1	600	2.2	437.3	m	II .	16000	_	3.8	460	2.8
2.7	730	1.8	504.9	m	II .	16000	_	3.3	570	2.3
2.5	790	1.65	559.5	II	II .	16000	_	2.9	650	2.0
2.1	970	1.35	651.3	n .	II .	16000	_	2.5	790	1.65
1.7	1200	1.1	804.5	n .	II .	16000	_	2.1	930	1.4
1.6	1260	1.05	891.5	m .	II .	16000	_	1.9	1030	1.25
1.3	1590	0.82	1051	II .	II .	16000	-	1.6	1250	1.05
2.4	840	3.0	577.3	BG70G20/D06LA4	130	20000	_	2.9	670	3.7
2.1	960	2.6	665.8	BG70G20/D00LA4	"	20000	_	2.5	780	3.2
1.8	1120	2.2	790.2	m .	II .	20000	_	2.1	930	2.7
1.6	1280	1.95	877.6	"	II .	20000	_	1.9	1050	2.4
1.4	1480	1.7	1035	"	II .	20000	_	1.6	1270	1.95
1.2	1750	1.45	1193	п	II .	20000	_	1.4	1470	1.7
1.0	2100	1.2	1389	m .	II .	20000	_	1.2	1750	1.45
0.9	2400	1.05	1543	m .	II .	20000	_	1.1	1930	1.3
0.0						20000		1	1,750	1.5

6

Selection helical-geared motors DSE-IE1

P = 0.3 kW



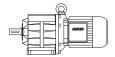
	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
520	5.5	1.65	2.64	BG05/D07LA4	11	420	-	620	4.6	1.95
400	7.1	1.4	3.38		"	460	-	480	5.9	1.7
295 250	9.7 11.4	1.25 1.25	4.59 5.46	"	"	490 490	-	355 300	8.0 9.5	1.5 1.45
205	13.9	1.15	6.60	m .	"	510	-	250	9.5 11.4	1.43
174	16.4	1.1	7.80	m .	11	530	_	210	13.6	1.3
166	17.2	1.05	8.15	"	II .	510	_	199	14.3	1.25
159	18	1.05	8.51	m .	n n	550	_	191	15	1.25
128	22	0.91	10.59	m .	II .	590	_	153	18.7	1.05
117	24	0.88	11.55	II .	"	600	-	141	20	1.05
113	25	0.84	12.05	"	"	510	-	135	21	1.0
108	26.5	0.83	12.60	"	"	610	-	129	22	1.0
99	28.5	0.81	13.75	"	"	630	-	118	24	0.96
360	7.9	2.5	3.78	BG06/D07LA4	12	520	-	430	6.6	3.0
300	9.5	2.3	4.54		"	530	-	360	7.9	2.8
230	12.4	1.95	5.96		"	570	-	275	10.4	2.3
193 161	14.8	1.75	7.01	п	"	580	-	235	12.1	2.1
144	17.7 19.8	1.6 1.5	8.39 9.38	"	"	600 640	-	194 173	14.7 16.5	1.9 1.8
132	21.5	1.45	9.36 10.24	"	"	640	-	159	18	1.7
120	23.5	1.35	11.28	"	"	670	-	144	19.8	1.6
110	26	1.25	12.30	"	"	670	-	132	21.5	1.55
105	27	1.23	12.30	m m	"	600	_	125	22.5	1.45
92	31	1.1	14.78	m m	11	730	_	110	26	1.3
84	34	1.05	16.13	m m	11	740	_	101	28	1.25
78	36.5	1.05	17.40	"	II .	760	_	94	30	1.25
72	39.5	1.0	18.98	"	"	770	_	86	33	1.2
65	44	0.91	20.82	"	"	800	_	78	36.5	1.1
60	47.5	0.91	22.71	"	"	810	_	72	39.5	1.1
53	54	0.83	25.48	n n	II .	850	_	64	44.5	1.0
73	39	3.1	18.51	BG10/D07LA4	15	1210	1690	88	32.5	3.7
66	43	2.8	20.51	"	"	1290	1800	79	36	3.3
62	46	2.6	22.04	"	"	1330	1860	74	38.5	3.1
56	51	2.4	24.42	"	"	1410	1970	67	42.5	2.8
52	55	2.2	26.26	"	"	1460	2000	62	46	2.6
46.5	61	1.95	29.09	" "	"	1540	2150	56	51	2.4
43	66 73	1.8	31.52			1600	2200	52	55	2.2
39 34.5	73 83	1.65 1.45	34.92 39.70	п	"	1690	2350 2450	46.5	61	1.95 1.75
31.3	92	1.43	43.99	"	"	1780 1880	2600	41 37	69 77	1.75
29.5	97	1.25	46.55	m m	"	1920	2650	35	81	1.55
26.5	108	1.1	51.57	m m	11	2000	2800	31.5	90	1.35
23.5	121	0.99	57.48	"	II .	2000	2800	28.5	100	1.2
21.5	133	0.9	63.69	m .	n n	2000	2800	25.5	112	1.05
20.5	139	0.86	66.00	п	II .	2000	2800	25	114	1.05
50	57	2.6	27.08	BG15/D07LA4	15	3000	6000	60	47.5	3.2
45	63	2.4	30.08	"	"	3000	6000	54	53	2.8
39.5	72	2.1	34.20	II	"	3000	6000	47.5	60	2.5
36	79	1.9	37.90	II	"	3000	6000	43	66	2.3
44	65	2.1	20.04	BC30 /D07LA4	10	4000		F2	5 4	2.7
44	65 69	3.1	30.94 33.33	BG20/D07LA4	18	4000 4100	-	53 49	54 58	3.7 3.4
41 36.5	78	2.9 2.6	33.33 37.02	"	"	4300	-	44	56 65	3.4
32.5	88	2.3	41.76	m m	"	4500	_	39	73	2.7
29.5	97	2.1	46.38	m .	"	4700	_	35	81	2.5
28.5	100	2.0	47.92	п	"	4750	_	34	84	2.3
25.5	112	1.8	53.22	"	II .	4950	_	30.5	93	2.7
23	124	1.6	59.07	"	II .	5000	_	27.5	104	1.9
21	136	1.45	65.62	"	II .	5000	_	25	114	1.75
20	143	1.4	67.53	BG20Z/D07LA4	19	5000	-	24	119	1.7
17.5	163	1.25	78.60	"	"	5000	-	21	136	1.45
15.5	184	1.1	87.30	"	II .	5000	-	19	150	1.35
14.5	197	1.0	94.27	m .	II .	5000	-	17.5	163	1.25
13	220	0.91	104.7	"	II	5000	-	15.5	184	1.1
12	235	0.85	112.8	"	"	5000	-	14.5	197	1.0

6

BG-series helical-geared motors

Selection helical-geared motors DSE-IE1

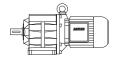
P = 0.3 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B		· ·			***	n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	-			kg	N	N	1/min	Nm	
29	98	3.1	47.11	BG30/D07LA4	22	6000	-	34.5	83	3.6
26	110	2.7	52.44	II .	II .	6000	-	31	92	3.3
23.5	121	2.5	58.18	n	II .	6000	-	28	102	2.9
22.5	127	2.4	60.79	m m	11	6000	-	27	106	2.8
20.5	139	2.2	67.44	m .	II .	6000	-	24.5	116	2.6
18.5	154	1.95	73.51	BG30Z/D07LA4	25	6000	-	22.5	127	2.4
17	168	1.8	81.55	m m	11	6000	-	20	143	2.1
16	179	1.7	86.13	m .	II .	6000	-	19	150	2.0
14.5	197	1.5	95.55	m .	II .	6000	-	17	168	1.8
12.5	225	1.35	109.6	"	"	6000	-	15	191	1.55
11.5	245	1.2	121.6	"	"	6000	-	13.5	210	1.45
11	260	1.15	128.5	"	"	6000	-	13	220	1.35
9.5	300	1.0	142.5	"	"	6000	-	11.5	245	1.2
9.0	315	0.95	151.5	"	"	6000	-	11	260	1.15
8.1	350	0.86	168.1	"	"	6000	-	9.7	295	1.0
20	143	3.0	67.74	BG40Z/D07LA4	40	7000	_	24	119	3.6
18	159	2.7	75.19	m m	II .	7000	-	22	130	3.3
16.5	173	2.5	82.00	m m	II .	7000	-	20	143	3.0
15	191	2.2	91.02	m .	II .	7000	-	18	159	2.7
14	200	2.1	96.86	m .	II .	7000	-	17	168	2.5
13	220	1.95	107.5	m .	II .	7000	-	15.5	184	2.3
11.5	245	1.75	121.3	m .	II .	7000	-	13.5	210	2.0
10.5	270	1.55	134.6	m .	II .	7000	-	12.5	225	1.9
9.6	295	1.45	141.4	m .	II .	7000	-	11.5	245	1.75
8.7	325	1.3	156.9	m .	II .	7000	-	10.5	270	1.55
8.2	345	1.25	166.1	m m	II .	7000	-	9.8	290	1.45
7.4	385	1.1	184.4	m .	II .	7000	-	8.8	325	1.3
6.8	420	1.0	199.9	"	"	7000	-	8.2	345	1.25
6.1	465	0.91	221.9	m .	II .	7000	-	7.4	385	1.1
5.5	520	0.82	246.5	m .	II .	7000	-	6.6	430	0.99
4.7	510	0.91	288.6	BG40G10/D07LA4	46	7000	-	5.7	410	1.15
14.5	197	3.2	95.58	BG50Z/D07LA4	50	10000	-	17	168	3.8
13	220	2.9	106.0	"	"	10000	-	15.5	184	3.4
10.5	270	2.3	128.9	"	"	10000	-	13	220	2.9
9.5	300	2.1	142.9	"	"	10000	-	11.5	245	2.6
8.2	345	1.85	164.9	"	"	10000	-	9.9	285	2.2
7.4	385	1.65	182.8	"	"	10000	-	8.9	320	1.95
6.6	430	1.45	204.7	"	"	10000	-	8.0	355	1.75
6.0	475	1.35	226.9	"	"	10000	-	7.2	395	1.6
5.3	540	1.15	258.6	"	"	10000	-	6.3	450	1.4
4.8	590	1.05	286.7	"	"	10000	-	5.7	500	1.25
3.9	630	1.1	351.7	BG50G10/D07LA4	54	10000	-	4.7	510	1.35
3.1	810	0.85	446.5	"	"	10000	-	3.7	660	1.05
4.9	465	2.8	276.2	BG60G20/D07LA4	102	16000	-	5.9	365	3.6
4.5	500	2.6	306.1	"	"	16000	-	5.3	410	3.2
4.1	550	2.4	334.3	"	"	16000	-	4.9	440	3.0
3.7	610	2.1	370.5	"	"	16000	-	4.4	495	2.6
3.1	750	1.75	437.3	"	II	16000	-	3.8	580	2.2
2.7	910	1.45	504.9	"	II	16000	-	3.3	710	1.85
2.5	980	1.35	559.5	"	"	16000	-	2.9	820	1.6
2.1	1190	1.1	651.3	"	"	16000	-	2.5	980	1.35
1.7	1480	0.88	804.5	"	"	16000	-	2.1	1160	1.1
1.6	1560	0.83	891.5	"	"	16000	-	1.9	1280	1.0
2.8	870	2.9	495.9	BG70G20/D07LA4	132	20000	-	3.3	720	3.5
2.4	1040	2.4	577.3	II .	"	20000	-	2.9	840	3.0
2.1	1190	2.1	665.8	"	"	20000	-	2.5	970	2.6
1.8	1390	1.8	790.2	"	"	20000	-	2.1	1160	2.2
1.6	1580	1.6	877.6		"	20000	-	1.9	1300	1.9
1.4	1820	1.35	1035		"	20000	-	1.6	1570	1.6
1.2	2150	1.15	1193	"	"	20000	-	1.4	1810	1.4
1.0	2600	0.96	1389	"	"	20000	-	1.2	2100	1.2

Selection helical-geared motors DSE-IE1

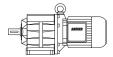
P = 0.37 kW



									Ш	
	50 Hz		i	Type	m	F _{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
520	6.7	1.35	2.64	BG05/D07LA4	11	420	-	620	5.6	1.6
400	8.8	1.15	3.38	m	"	460	-	480	7.3	1.35
295	11.9	1.0	4.59	m	"	490	-	355	9.9	1.2
250	14.1	0.99	5.46	"	"	490	-	300	11.7	1.2
205	17.2	0.93	6.60	"	"	510	-	250	14.1	1.15
174	20	0.9	7.80	m	"	530	-	210	16.8	1.05
166	21	0.86	8.15	m	"	510	-	199	17.7	1.0
159	22	0.86	8.51	m	"	550	-	191	18.5	1.05
360	9.8	2.0	3.78	BG06/D07LA4	12	520	-	430	8.2	2.4
300	11.7	1.9	4.54	"	"	530	-	360	9.8	2.2
230	15.3	1.55	5.96	"	"	570	-	275	12.8	1.9
193	18.3	1.4	7.01	"	"	580	-	235	15	1.75
161	21.5	1.3	8.39	"	"	600	-	194	18.2	1.55
144	24.5	1.2	9.38	"	"	640	-	173	20	1.5
132	26.5	1.15	10.24	"	"	640	-	159	22	1.4
120	29	1.1	11.28	"	"	670	-	144	24.5	1.3
110	32	1.05	12.30	"	"	670	-	132	26.5	1.25
105	33.5	0.99	12.98	"	"	600	-	125	28	1.2
92	38	0.89	14.78	"	"	730	-	110	32	1.05
84	42	0.83	16.13	"	"	740	-	101	34.5	1.0
78	45	0.84	17.40	"	"	760	-	94	37.5	1.0
72	49	0.82	18.98	II .	"	770	-	86	41	0.98
103	34	3.2	13.21	BG10/D07LA4	15	1070	1490	123	28.5	3.9
93	37.5	3.0	14.58	"	"	1100	1540	112	31.5	3.6
84	42	2.8	16.15		"	1140	1590	101	34.5	3.4
73	48	2.5	18.51	"		1210	1690	88	40	3.0
66	53	2.3	20.51	"	"	1290	1800	79	44.5	2.7
62	56	2.1	22.04		"	1330	1860	74	47.5	2.5
56	63	1.9	24.42	"	"	1410	1970	67	52	2.3
52	67	1.8	26.26	"	"	1460	2000	62	56	2.1
46.5	75	1.6	29.09	" "	"	1540	2150	56	63	1.9
43	82	1.45	31.52	 II	"	1600	2200	52	67	1.8
39	90	1.35	34.92		"	1690	2350	46.5	75	1.6
34.5	102	1.2	39.70	11	"	1780	2450	41	86	1.4
31 29.5	113 119	1.05 1.0	43.99 46.55	11	"	1880 1920	2600 2650	37 35	95 100	1.25
26.5	133	0.9	51.57	11	"	2000	2800	31.5	112	1.05
23.5	150	0.9	57.48	11	"	2000	2800	28.5	123	0.98
23.3	150	0.0	37.40			2000	2000	20.3	123	0.90
50	70	2.1	27.08	BG15/D07LA4	15	3000	6000	60	58	2.6
45	78	1.9	30.08	"	"	3000	6000	54	65	2.3
39.5	89	1.7	34.20	n .	"	3000	6000	47.5	74	2.0
36	98	1.55	37.90	n .	II .	3000	6000	43	82	1.85
53	66	3.0	25.79	BG20/D07LA4	18	3700	-	63	56	3.6
48.5	72	2.8	27.85	m	"	3800	-	59	59	3.4
44	80	2.5	30.94	m	"	4000	-	53	66	3.0
41	86	2.3	33.33	II	II .	4100	-	49	72	2.8
36.5	96	2.1	37.02	"	"	4300	-	44	80	2.5
32.5	108	1.85	41.76	"	"	4500	-	39	90	2.2
29.5	119	1.7	46.38	"	"	4700	-	35	100	2.0
28.5	123	1.65	47.92	"	"	4750	-	34	103	1.95
25.5	138	1.45	53.22	"	"	4950	-	30.5	115	1.75
23	153	1.3	59.07	"	II .	5000	-	27.5	128	1.55
21	168	1.2	65.62	II .	"	5000	-	25	141	1.4
20	176	1.15	67.53	BG20Z/D07LA4	19	5000	-	24	147	1.35
17.5	200	1.0	78.60	"	"	5000	-	21	168	1.2
15.5	225	0.89	87.30	"	"	5000	-	19	185	1.1
14.5	240	0.83	94.27	"	"	5000	-	17.5	200	1.0
20 -			25.45	Dene (Denis	2.5	F = 0.5		45 -	75	
38.5	91	3.3	35.17	BG30/D07LA4	22	5500	-	46.5	75	4.0
35	100	3.0	39.02	" "	"	5800	-	42	84	3.6
32	110	2.7	42.46	" "	"	5900	-	38.5	91	3.3
29	121	2.5	47.11		•	6000	-	34.5	102	2.9

Selection helical-geared motors DSE-IE1

P = 0.37 kW

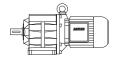


	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
26	135	2.2	52.44	BG30/D07LA4	"	6000	-	31	113	2.7
23.5	150	2.0	58.18	"	"	6000	_	28	126	2.4
22.5	157	1.9	60.79	п	"	6000	_	27	130	2.3
20.5	172	1.75	67.44	II .	"	6000	_	24.5	144	2.1
18.5	191	1.55	73.51	BG30Z/D07LA4	25	6000	_	22.5	157	1.9
17	205	1.45	81.55	BG302/D07LA4	23	6000	_	20.5	176	1.7
16			86.13	п	"	6000	_		185	
14.5	220 240	1.35 1.25	95.55	п	"	6000	-	19 17	205	1.6
				п	"					1.45
12.5	280	1.05	109.6	п	"	6000	-	15	235	1.3
11.5	305	0.98	121.6	11	"	6000	-	13.5	260	1.15
11	320	0.94	128.5		"	6000	-	13	270	1.1
9.5	370	0.81	142.5			6000	-	11.5	305	0.98
20	176	2.4	67.74	DC 407 /D071 4 4	40	7000		2.4	1.47	2.0
20	176	2.4	67.74	BG40Z/D07LA4	40	7000	-	24	147	2.9
18	196	2.2	75.19		"	7000	-	22	160	2.7
16.5	210	2.0	82.00	" "	"	7000	-	20	176	2.4
15	235	1.8	91.02	" "	"	7000	-	18	196	2.2
14	250	1.7	96.86			7000	-	17	205	2.1
13	270	1.55	107.5	II	"	7000	-	15.5	225	1.9
11.5	305	1.4	121.3	"	"	7000	-	13.5	260	1.65
10.5	335	1.25	134.6	"	"	7000	-	12.5	280	1.5
9.6	365	1.15	141.4	"	II .	7000	-	11.5	305	1.4
8.7	405	1.05	156.9	"	"	7000	-	10.5	335	1.25
8.2	430	0.99	166.1	"	II .	7000	-	9.8	360	1.2
7.4	475	0.89	184.4	"	"	7000	-	8.8	400	1.05
6.8	510	0.83	199.9	"	II .	7000	-	8.2	430	0.99
17	205	3.1	79.78	BG50Z/D07LA4	50	10000	-	20.5	172	3.7
14.5	240	2.6	95.58	"	"	10000	-	17	205	3.1
13	270	2.3	106.0	"	II .	10000	-	15.5	225	2.8
10.5	335	1.9	128.9	"	"	10000	-	13	270	2.3
9.5	370	1.7	142.9	"	"	10000	-	11.5	305	2.1
8.2	430	1.45	164.9	II	"	10000	-	9.9	355	1.75
7.4	475	1.35	182.8	m m	"	10000	-	8.9	395	1.6
6.6	530	1.2	204.7	m m	"	10000	-	8.0	440	1.45
6.0	580	1.1	226.9	TI TI	"	10000	-	7.2	490	1.3
5.3	660	0.95	258.6	II .	"	10000	-	6.3	560	1.15
4.8	730	0.86	286.7	II .	m m	10000	-	5.7	610	1.05
3.9	800	0.86	351.7	BG50G10/D07LA4	54	10000	-	4.7	650	1.05
4.9	600	2.2	276.2	BG60G20/D07LA4	102	16000	-	5.9	480	2.7
4.5	650	2.0	306.1	II .	"	16000	-	5.3	530	2.5
4.1	720	1.8	334.3	II .	II .	16000	-	4.9	580	2.2
3.7	790	1.65	370.5	п	11	16000	_	4.4	640	2.0
3.1	970	1.35	437.3	п	n n	16000	-	3.8	760	1.7
2.7	1160	1.1	504.9	п	II .	16000	_	3.3	920	1.4
2.5	1240	1.05	559.5	n .	II .	16000	_	2.9	1050	1.25
2.1	1510	0.86	651.3	n .	"	16000	_	2.5	1240	1.05
		0.00	00.10							
3.5	860	2.9	387.6	BG70G20/D07LA4	132	20000	_	4.2	690	3.6
3.3	940	2.7	417.8	"	"	20000	_	3.9	780	3.2
2.8	1110	2.3	495.9	n .	"	20000	_	3.3	920	2.7
			. , , , ,			_0000		3.3	720	2.7
2.4	1320	1.9	577.3	m .	II .	20000	-	2.9	1070	2.3
2.1	1510	1.65	665.8	п	11	20000	-	2.5	1240	2.0
1.8	1760	1.4	790.2	II .	11	20000	-	2.1	1480	1.7
1.6	2000	1.25	877.6	II .	11	20000	-	1.9	1650	1.5
1.4	2300	1.1	1035	II .	11	20000	-	1.6	1980	1.25
1.2	2700	0.93	1193	п	II .	20000	_	1.4	2250	1.1

O

Selection helical-geared motors DSE-IE1

P = 0.55 kW

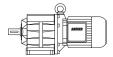


1 Type									_		
				i	Туре	m	F_{RN}	F_{RV}			
500 10.5 1.7 282 8G06/D08MA4 16 470 -			f _B			_					f _B
375											
10											
235											
200											
167					m .	"					
150					п	"					
137					п	ш					
210 25 3.2 6.78 BG10/D08MA4 16 660 920 250 21 3.9 174 30 2.9 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07 8.07					"	п		_			
174	1.07		0.02				0.0			55	0.20
174 30 2.9 8.07 " " 660 920 210 25 3.5 151 34.5 2.8 9.33 " " 950 1330 181 29 3.3 136 38.5 2.6 10.34 " " 1000 1400 163 32 3.1 184 44.5 2.4 11.92 " " 1030 1440 141 37 2.8 106 49.5 2.2 13.21 " " 1030 1440 141 37 2.8 106 49.5 2.2 13.21 " " 1010 1490 128 41 2.7 107 69 1.75 16.15 " " 1100 1490 105 50 2.3 108 2.4 2.5 1.5 " 1100 1490 105 50 2.3 109 76 1.6 20.51 " " 1210 1800 82 64 1.9 109 76 1.6 20.51 " " 1330 1800 76 81.75 108 20 1.35 24.42 " " 1410 1970 69 76 1.6 48.5 108 1.1 29.09 " " 1440 1410 1970 69 76 1.6 48.5 108 1.1 29.09 " " 1440 1410 1970 69 76 1.6 48.5 108 1.1 29.09 " " 1540 2150 38 90 1.35 40.5 129 0.93 34.92 " " 1600 2350 48.5 108 1.1 47 111 1.35 30.08 8G15/DOBMA4 19 3000 6000 6000 64.5 108 1.4 47 111 1.35 30.08 " " 3000 6000 6000 64.5 108 1.4 48 1.1 1.2 1.5 37.90 " " 3500 - 108 48.5 3.6 49 58 3.1 15.58 " " 3100 - 108 48.5 3.6 59 58 3.1 15.58 " " 3300 6000 6000 64.5 118 1.2 50 58 3.1 15.58 " " 3300 6000 6000 64.5 118 1.2 50 58 3.1 15.58 " " 3300 - 108 48.5 3.6 64 2.9 17.31 " " 3500 - 108 48.5 3.6 65 54 3.2 2.7 1.95 2.78 " " 3300 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000 6000	210	25	3.2	6.78	BG10/D08MA4	16	660	920	250	21	3.9
13	174	30	2.9	8.07	"	"	660	920	210	25	
130 34.5 24.5 22.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5 1	151	34.5	2.8	9.33			950	1330	181	29	
106	1										
97 54 2.1 14.58 " " 1100 1540 116 45 2.5 87 60 1.95 16.15 " " 1140 1590 105 50 2.3 76 69 1.75 18.51 " " 1210 1690 91 57 2.1 64 82 1.45 22.04 " " 1290 1800 82 64 1.9 65 90 1.35 24.42 " " 1410 1970 69 76 6.6 1.6 20.51 " " 1400 2000 64 82 1.45 58 90 1.35 24.42 " " 1410 2900 64 82 1.45 64 97 1.25 26.26 " 1460 2000 64 82 1.45 64 97 1.25 26.26 " 1560 2000 64 82 1.45 64.5 118 1.0 31.52 " 1600 2200 54 97 1.25 64.5 118 1.0 31.52 " 1600 2200 54 97 1.25 64.5 118 1.0 31.52 " 1600 2200 54 97 1.25 64.5 118 1.0 31.52 " 1600 2200 54 97 1.25 65 147 0.82 39.70 " 1780 2450 42.5 123 0.98 64 47 111 1.35 30.08 " 3000 6000 63 83 1.8 64 11 128 1.15 34.20 " 3000 6000 600 60 63 83 1.8 64 11 128 1.15 34.20 " 3000 6000 56 93 1.6 64 129 0.93 37.90 " 3000 6000 44.5 118 1.25 66 54 3.2 14.67 8620/DOBMA4 19 3000 6000 44.5 118 1.25 66 54 3.2 14.67 8620/DOBMA4 19 3000 6000 44.5 118 1.25 67 141 1.05 37.90 " 3000 6000 44.5 118 1.25 68 16 4 2.9 17.31 " 3000 6000 6000 600 600 600 600 600 600	1										
87 60 1.95 16.15 " " 1140 1590 105 50 2.3 76 69 1.75 18.51 " " 1210 1690 91 57 2.1 64 82 1.45 22.04 " " 1230 1800 82 64 1.9 64 82 1.45 22.04 " " 1410 1970 69 76 1.6 58 90 1.35 24.42 " " 1410 1970 69 76 1.6 54 97 1.25 26.26 " " 1460 2000 64 82 1.45 64.5 118 1.0 31.52 " " 1600 2200 54 97 1.25 64.5 118 1.0 31.52 " " 1600 2200 54 97 1.25 64.5 129 0.93 34.92 " " 1600 2200 54 97 1.25 65 147 0.82 39.70 " " 1780 2450 42.5 123 0.98 65 101 1.5 27.08 BG15/DOSMA4 16 3000 6000 63 83 1.8 67 111 1.35 30.08 BG15/DOSMA4 16 3000 6000 66 83 83 1.8 67 141 1.05 37.90 " " 3000 6000 49.5 106 1.4 68 1.1 1.28 1.15 34.20 " " 3000 6000 49.5 106 1.4 69 54 3.2 14.67 BG20/DOSMA4 19 3050 - 115 45.5 3.8 69 58 3.1 15.58 " " 3100 - 108 48.5 36.6 64 2.9 17.31 " 3200 - 98 53 3.5 71 73 2.7 19.95 " " 3350 - 108 48.5 118 1.25 64 82 2.4 22.16 " " 3500 - 76 6 9 2.9 65 18 64 2.3 23.22 " " 3350 - 85 61 3.2 64 82 2.4 22.16 " " 3500 - 76 6 9 2.9 65 19 10 1.5 1.5 8 " " 3000 6000 49.5 106 1.4 64 2.9 17.31 " " 3200 - 98 53 3.5 71 73 2.7 19.95 " " 3300 6000 49.5 106 1.4 71 17 3 2.7 19.95 " " 3300 6000 49.5 106 1.4 71 17 3 2.7 19.95 " " 3300 6000 6000 49.5 118 1.25 71 17 3 2.7 19.95 " " 3350 - 115 45.5 3.8 71 17 3 2.7 19.95 " " 3350 - 108 48.5 3.6 71 2.7 19.95 " " 3350 - 108 48.5 3.6 71 3.3 2.7 19.95 " " 3350 - 108 48.5 3.6 71 4.7 3 2.7 19.95 " " 3350 - 108 48.5 3.6 71 4.7 3 2.7 19.95 " " 3550 - 73 71 2.8 71 72 2.8 3 2.7 19.95 " " 3550 - 73 71 2.8 71 72 2.8 3 3.3 " " 4100 - 51 102 1.95 75 10 10 1.95 27.85 " " 4700 - 36.5 143 1.4 71 1.1 1.2 4.5 3.3 3.3 " " 4100 - 51 102 1.95 71 1.1 1.2 4.5 3.3 3.3 " " 4100 - 51 102 1.95 71 1.1 1.2 2.2 3.3 3.3 " " 4100 - 51 102 1.95 71 1.1 1.2 2.3 3.3 " " 4100 - 51 102 1.95 71 1.1 2.2 3.3 3.3 " " 4100 - 51 102 1.95 71 1.1 2.2 3.3 3.3 " " 4100 - 51 102 1.95 71 1.1 2.2 3.3 3.3 " " 4100 - 51 102 1.95 71 2.1 3.5 46.3 " " 5000 - 52 5 210 1.2 71 2.1 4.5 4.5 5.8 BG30/DOSMA4 20 5000 - 25 210 1.0 71 2.1 5.5 6.5 1.15 6.5 3.3 BG30/DOSMA4 20 5000 - 25 210 1.0 71 2.1 5.5 6.5 1.15 6.3 3.3 " " 5000 - 52 5 210 1.0 71 3.1 5.1 5.1 5.1											
Tell	-										
1	-										
64					"	"					
58 90 1.35 24.42 " " 1410 1970 69 76 1.6 54 97 1.25 26.26 " " 1410 1970 69 76 1.6 48.5 108 1.1 29.09 " " 1540 2150 58 90 1.35 44.5 118 1.0 31.52 " " 1600 2200 54 97 1.25 40.5 129 0.93 34.92 " " 1690 2350 48.5 108 1.1 35.5 147 0.02 39.70 " " 1780 2450 42.5 123 0.98 52 101 1.5 27.08 BG15/D08MA4 16 3000 6000 6000 65 93 1.6 41 128 1.15 34.20 " " 3000 6000 56 93 1.6 41 128 1.15 34.20 " " 3000 6000 56 93 1.6 41 1.05 37.90 " " 3000 6000 44.5 118 1.25 96 54 3.2 14.67 BG20/D08MA4 19 3050 - 115 45.5 3.8 90 58 3.1 15.58 " " 3100 - 108 48.5 3.6 81 64 2.9 17.31 " " 33200 - 98 53 3.5 71 73 2.7 1995 " " 33500 - 85 61 3.2 64 82 2.4 22.16 " " 3550 - 76 69 2.9 61 86 2.3 23.22 " " 3550 - 77 71 2.8 55 95 2.1 25.79 " " 3700 - 66 79 2.5 51 102 1.95 27.85 " " 3000 - 40.5 115 1.75 34 154 1.3 41.76 " " 4000 - 51 102 1.95 38 138 1.48 37.02 " " 4000 - 51 102 1.95 38 138 1.48 37.02 " " 4700 - 36.5 143 1.4 24.2 1.15 4.638 " " 4700 - 26 200 1.0 24 215 0.93 59.07 " " 5000 - 26 200 1.0 25 27 1.15 4.638 " " 4700 - 36.5 143 1.4 27 29.83 " " 5000 - 28.5 184 1.1 27 29.83 " " 5000 - 28.5 184 1.1 27 29.83 " " 5000 - 28.5 184 1.1 27 194 1.55 52.44 " " 6000 - 28.5 184 1.1 27 194 1.55 52.44 " " 6000 - 23.25 161 1.85 23.5 220 1.35 60.79 " " 6000 - 21 250 1.15 24.5 210 1.45 58.18 " " 6000 - 21 250 1.15 25 31 50 50.98 61.3					m .	"					
54 97 1.25 26.26 " " 1460 2000 64 82 1.45 48.5 108 1.1 29.99 " " 15.40 215.0 58 90 1.35 44.5 118 1.0 31.52 " " 1600 2250 44 97 1.25 40.5 129 0.93 3492 " " 1600 2250 42.5 123 0.98 52 101 1.5 27.08 BG15/D08MA4 16 3000 6000 60 56 93 1.6 41 128 1.15 34.20 " " 3000 6000 600 49.5 106 1.4 37 141 1.05 37.90 " " 3000 6000 44.5 118 1.25 96 54 3.2 14.67 BG20/D08MA4 19 3050 - 115 45.5	-				n n	"					
48.5 108 1.1 29.09 " " 1540 2150 58 90 1.35 40.5 129 0.93 34.92 " 1600 2250 48.5 108 1.1 35.5 147 0.82 39.70 " " 1780 2450 42.5 123 0.98 52 101 1.5 27.08 BG15/D08MA4 16 3000 6000 56 93 1.6 47 111 1.35 30.08 " " 3000 6000 49.5 106 1.4 37 141 1.05 37.90 " " 3000 6000 44.5 118 1.25 96 54 3.2 14.67 BG20/D08MA4 19 3050 - 115 45.5 3.8 90 58 3.1 15.58 " " 3000 44.5 118 1.25 96 6 4 2.9 17.31 " " 3000 6000 44.5 118 1.25 17 73 2.7 19.95 " " 3350 - 98 53 3.5 71 73 2.7 19.95 " " 3350 - 98 53 3.5 71 73 2.7 19.95 " " 3350 - 85 61 3.2 64 82 2.4 22.16 " " 3550 - 76 69 2.9 61 86 2.3 23.22 " " 3550 - 76 69 2.9 61 86 2.3 23.22 " " 3550 - 76 69 2.9 61 86 2.3 33.3 " " 3700 - 66 79 2.5 55 95 2.1 25.79 " " 3700 - 66 79 2.5 55 95 2.1 25.79 " " 3700 - 51 86 2.3 55. 115 1.75 30.94 " " 4000 - 55 95 2.1 54.5.5 115 1.75 30.94 " " 4000 - 55 95 2.1 54.5.5 115 1.75 30.94 " " 4000 - 55 95 2.1 54.5.5 115 1.75 30.94 " " 4000 - 55 102 1.95 38 138 1.45 37.02 " " 4300 - 36.5 143 1.4 24.25 1.23 1.65 33.33 " " 4100 - 36.5 143 1.4 29.5 178 1.1 47.92 " " 4750 - 36.5 143 1.4 29.5 178 1.1 47.92 " " 4750 - 35.5 15 1.75 30.5 172 1.15 46.38 " " 4750 - 35.5 147 1.35 26.5 198 1.0 53.22 " " 5000 - 25 51 100 1.0 21 250 0.8 67.53 BG202/D08MA4 23 4850 - 67 78 3.8 24.25 1.23 2.65 2.9 3.8 24.25 1.23 2.52 " " 5000 - 25 51 100 0.95 56 93 3.2 25.44 " " 5000 - 25 51 100 2.9 28.5 145 1.55 50.5 175 175 1.75 30.5 172 1.15 46.38 " " 5000 - 25 51 100 0.95 56 93 3.2 2 28.44 " " 5000 - 25 51 100 0.95 56 93 3.2 2 28.44 " " 5000 - 25 51 100 0.95 56 93 3.2 2 28.44 " " 5000 - 25 51 100 0.95 56 93 3.2 2 28.44 " " 5000 - 28.8 187 1.6 21 250 1.2 67.44 " " 5000 - 28.8 187 1.6 21 250 1.2 67.44 " " 5000 - 28.8 187 1.6 21 250 1.2 67.44 " " 5000 - 28.8 187 1.6 21 250 1.2 67.44 " " 6000 - 28.8 187 1.6 21 250 1.5 500 1.0 81.55 175 300 1.0 81.55 175 300 1.0 81.55 175 300 1.0 81.55 175 300 1.0 81.55 18602/D08MA4 26 6000 - 21 250 11.15					II .	п					
44.5 118 1.0 31.52 " " 1600 2200 54 97 1.25 1.25 1.29 0.33 34.92 " " 1600 2200 48.5 108 1.15 35.5 147 0.82 39.70 " " 1780 2450 42.5 123 0.98 52 101 1.5 27.08 BG15/D08MA4 16 3000 6000 63 83 1.8 1.8 1.11 1.35 30.08 " " 3000 6000 49.5 106 1.4 37 141 1.05 37.90 " " 3000 6000 49.5 106 1.4 37 141 1.05 37.90 " " 3000 6000 49.5 116 1.4 37 141 1.05 37.90 " " 3000 6000 49.5 116 1.4 37 141 1.05 37.90 " " 3000 6000 49.5 118 1.25 66 54 3.2 14.67 BG20/D08MA4 19 3050 - 115 45.5 3.8 81 64 2.9 17.31 " " 3000 - 108 48.5 3.6 81 64 2.9 17.31 " " 3000 - 108 48.5 3.6 1.3 2 64 82 2.4 22.16 " " 3350 - 85 61 3.2 64 82 2.4 22.16 " " 3350 - 76 69 2.9 61 86 2.3 23.22 " " 3350 - 76 69 2.9 55 95 2.1 25.79 " " 3700 - 66 79 2.5 51 102 1.95 27.85 " " 3800 - 61 86 2.3 44.55 115 1.75 30.94 " " 44000 - 51 102 1.95 27.85 " " 300.94 " " 44000 - 55 95 2.1 25.79 " " 300.94 " " 44000 - 55 95 2.1 22.78 115 1.75 30.94 " " 44000 - 51 102 1.95 27.85 " " 4500 - 45.5 115 1.75 30.5 172 1.15 47.92 " " 4500 - 45.5 115 1.75 30.5 172 1.15 47.92 " " 4700 - 36.5 129 1.55 30.5 172 1.15 47.92 " " 4700 - 36.5 129 1.55 30.5 172 1.15 47.92 " " 4700 - 36.5 129 1.55 30.5 172 1.15 47.92 " " 4700 - 26 2.0 2.0 1.0 2.5 129 1.55 30.5 172 1.15 47.92 " " 4750 - 35.5 147 1.35 2.4 215 0.93 50.77 " " 5000 - 28.5 184 1.1 1.2 1.5 240 0.83 65.62 " " " 5000 - 26 200 1.0 2.5 129 1.55 30.5 172 1.15 2.20 0.83 65.62 " " " 5000 - 26 200 1.0 2.5 30 1.2 2.9 30 1.55 30.5 172 1.35 30.90 " " 5000 - 26 20 20 1.0 2.5 30 1.5 122 2.9 30 1.55 30.5 172 1.55 30.5 172 1.55 30.5 172 1.55 30.5 172 1.55 30.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30.0 1.0 85.5 172 1.55 30	-				"	п					
190					n .	"					
\$\frac{5}{5}\$ \$147\$ \$\text{0.82}\$ \$39.70\$ " " " " " " " " " " " " "	i				n n	II .				108	
A7	35.5	147	0.82	39.70	m .	"		2450	42.5	123	0.98
A7											
11	1										1.8
37 141 1.05 37.90 " 3000 6000 44.5 118 1.25 96 54 3.2 14.67 BG20/D08MA4 19 3050 - 115 45.5 3.8 90 58 3.1 15.58 " 3100 - 108 48.5 3.6 81 64 2.9 17.31 " 3200 - 98 53 3.5 71 73 2.7 19.95 " 33500 - 76 69 2.9 61 86 2.3 23.22 " 3550 - 77 71 2.8 55 95 2.1 25.79 " 33500 - 76 69 2.9 51 102 1.95 27.85 " 3300 - 66 79 2.5 51 102 1.95 27.85 " 3300 - 61 86 2.3 42.5 123 1.65 33.33 " 4000 - 55 95 2.1 42.5 123 1.65 33.33 " 4100 - 51 102 1.95 38 138 1.45 37.02 " 4100 - 55 95 2.1 42.5 123 1.65 33.33 " 4100 - 55 95 2.1 42.5 123 1.65 33.33 " 4000 - 45.5 115 1.75 30.5 172 1.15 46.38 " 4700 - 36.5 143 1.4 42.9.5 178 1.0 47.92 " 4750 - 35.5 147 1.35 26.5 198 1.0 53.22 " 4750 - 35.5 147 1.35 26.5 198 1.0 53.22 " 4750 - 35.5 147 1.35 26.5 198 1.0 53.22 " 5000 - 26 200 1.0 21 250 0.8 67.53 BG20Z/D08MA4 23 4850 - 67 78 3.8 50 105 2.9 28.24 " 5000 - 28.5 144 1.2 21.5 240 0.83 65.62 " 5000 - 25 210 0.95 56 93 3.2 25.45 BG30/D08MA4 23 4850 - 67 78 3.8 50 105 2.9 28.24 " 5000 - 25 210 0.95 56 93 3.2 25.45 BG30/D08MA4 23 4850 - 67 78 3.8 50 105 2.9 28.24 " 5000 - 25 210 0.95 56 93 3.2 25.45 BG30/D08MA4 23 4850 - 67 78 3.8 50 105 2.9 28.24 " 5000 - 25 210 0.95 56 13 3.2 25.45 BG30/D08MA4 23 4850 - 67 78 3.8 50 105 2.9 28.24 " 5000 - 25 210 0.95 56 33 3.517 " 5500 - 48 109 2.8 36 145 2.1 39.02 " 5500 - 35 0.9 40 131 2.3 37 17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1										1
96 54 3.2 14.67 BG20/D08MA4 19 3000 000 44.3 115 45.5 3.8 80 58 3.1 15.58 " 3200 - 108 48.5 3.6 81 64 2.9 17.31 " 3200 - 98 53 3.5 71 73 2.7 19.95 " 33500 - 76 69 2.9 61 86 2.3 23.22 " 35500 - 76 69 2.9 61 86 2.3 23.22 " 35500 - 76 69 2.9 61 86 2.3 23.22 " 3700 - 66 79 2.5 51 102 1.95 27.85 " 3800 - 61 86 2.3 45.5 115 1.75 30.94 " 4000 - 55 95 2.1 25.79 " 4000 - 55 95 2.1 42.5 115 1.75 30.94 " 4000 - 55 95 2.1 25.79 10 10 10 10 10 10 10 10 10 10 10 10 10	1								i		
90 58 3.1 15.58 " " 3100 - 108 48.5 3.6 81 64 2.9 17.31 " " 3200 - 98 53 3.5 71 73 2.7 19.95 " " 3350 - 85 61 3.2 64 82 2.4 22.16 " " 3550 - 76 69 2.9 61 86 2.3 32.22 " " 3550 - 76 69 2.9 55 95 2.1 25.79 " " 3700 - 66 79 2.5 51 102 1.95 27.85 " " 3800 - 61 86 2.3 45.5 115 1.75 30.94 " " 4000 - 55 95 2.1 42.5 123 1.65 33.33	37	141	1.05	37.90	"	"	3000	6000	44.5	118	1.25
90 58 3.1 15.58 " " 3100 - 108 48.5 3.6 81 64 2.9 17.31 " " 3200 - 98 53 3.5 71 73 2.7 19.95 " " 3350 - 85 61 3.2 64 82 2.4 22.16 " " 3550 - 76 69 2.9 61 86 2.3 32.22 " " 3550 - 76 69 2.9 55 95 2.1 25.79 " " 3700 - 66 79 2.5 51 102 1.95 27.85 " " 3800 - 61 86 2.3 45.5 115 1.75 30.94 " " 4000 - 55 95 2.1 42.5 123 1.65 33.33	06	EA	2.2	1467	PC20 /DOSMA4	10	2050		115	4E E	2.0
81 64 2.9 17.31 " " 3200 - 98 53 3.5 71 73 2.7 19.95 " " 33500 - 76 69 2.9 61 86 2.3 22.16 " " 3550 - 73 71 2.8 55 95 2.1 25.79 " " 3700 - 66 79 2.5 51 102 1.95 27.85 " " 3800 - 61 86 2.3 45.5 115 1.75 30.94 " " 4000 - 55 95 2.1 42.5 123 1.65 33.33 " " 4100 - 55 95 2.1 42.5 123 1.65 33.33 " " 4100 - 45.5 115 1.75 34 154 1.3 41.76 " " 4500 - 40.5 129 1.55 30											
73					"	"					
64 82 2.4 22.16 " " 3500 - 76 69 2.9 61 86 2.3 23.22 " " 3550 - 73 71 2.8 55 95 2.1 25.79 " " 3700 - 66 79 2.5 51 102 1.95 27.85 " " 3800 - 61 86 2.3 45.5 115 1.75 30.94 " " 4000 - 55 95 2.1 42.5 123 1.65 33.33 " " 4100 - 51 102 1.95 38 138 1.45 37.02 " " 4000 - 45.5 115 1.75 34 154 1.3 41.76 " " 4500 - 40.5 129 1.55 30.5 178 1.1	_				"	п					
61 86 2.3 23.22 " " 3550 - 73 71 2.8 55 95 2.1 25.79 " " 3700 - 66 79 2.5 51 102 1.95 27.785 " " 3800 - 61 86 2.3 45.5 115 1.75 30.94 " " 4000 - 55 95 2.1 42.5 123 1.65 33.33 " " 4000 - 55 95 2.1 42.5 123 1.65 33.33 " " 4000 - 45.5 115 1.75 34 1.54 1.3 41.76 " " 4500 - 40.5 129 1.55 30.5 172 1.15 46.38 " " 4700 - 36.5 143 1.4 1.2 29.5 178<					n .	"					
55	1				"	п		-			
\$\frac{45.5}{123}\$ 1.55 30.94	55	95	2.1	25.79	"	"		-		79	
42.5 123 1.65 33.33 " 4100 - 51 102 1.95 38 138 1.45 37.02 " " 4300 - 45.5 115 1.75 34 154 1.3 41.76 " " 4500 - 45.5 119 1.55 30.5 172 1.15 46.38 " " 4700 - 36.5 143 1.4 29.5 178 1.1 47.92 " " 4750 - 35.5 147 1.35 26.5 198 1.0 53.22 " " 4950 - 32 164 1.2 24 215 0.93 59.07 " " 5000 - 28.5 184 1.1 21.5 240 0.83 65.62 " " " 5000 - 26 200 1.0 21.5 240	51	102	1.95	27.85			3800	-			
38 138 1.45 37.02 " 4300 - 45.5 115 1.75 34 154 1.3 41.76 " " 4500 - 40.5 129 1.55 30.5 172 1.15 46.38 " " 4700 - 36.5 143 1.4 29.5 178 1.1 47.92 " " 4750 - 35.5 147 1.35 26.5 198 1.0 53.22 " " 4950 - 32 164 1.2 24 215 0.93 59.07 " " 5000 - 28.5 184 1.1 21 250 0.8 67.53 BG20Z/D08MA4 20 5000 - 26 200 1.0 21 250 0.8 67.53 BG30/D08MA4 23 4850 - 67 78 3.8 50 105 2.9 28.24 " " " 5100 - 67 78 <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>-</th><th></th><th></th><th></th></t<>								-			
34 154 1.3 41.76 " " 4500 - 40.5 129 1.55 30.5 172 1.15 46.38 " " 4700 - 36.5 143 1.4 29.5 178 1.1 47.92 " " 4750 - 35.5 147 1.35 26.5 198 1.0 53.22 " " 4950 - 32 164 1.2 24 215 0.93 59.07 " " 5000 - 28.5 184 1.1 21.5 240 0.83 65.62 " " 5000 - 26 200 1.0 21 250 0.8 67.53 BG20Z/D08MA4 20 5000 - 25 210 0.95 56 93 3.2 25.45 BG30/D08MA4 23 4850 - 67 78 3.8 50 105 2.9 28.24 " " 5100 - 60 87 3.4 47 111 2.7 29.83 " " 5200 - 57 92 3.3 42.5 123 2.4 33.09 " " 5400 - 51 102 2.9 40 131 2.3 35.17 " " 5500 - 48 109 2.8 36 145 2.1 39.02 " " 5800 - 43.5 120 2.5 33 159 1.9 42.46 " " 5900 - 40 131 2.3 30 175 1.7 47.11 " " 6000 - 36 145 2.1 27 194 1.55 52.44 " " 6000 - 29 181 1.65 23.5 220 1.35 60.79 " " 6000 - 25 210 1.45 19.5 265 1.15 73.51 BG30Z/D08MA4 26 6000 - 21 250 1.2 16.5 315 0.95 86.13 " " 6000 - 21 250 1.2 16.5 315 0.95 86.13 " " 6000 - 21 250 1.2 16.5 315 0.95 86.13 " " 6000 - 21 250 1.2 16.5 315 0.95 86.13 " " 6000 - 21 250 1.2								-			
30.5 172 1.15 46.38 " " 4700 - 36.5 143 1.4 29.5 178 1.1 47.92 " " 4750 - 35.5 147 1.35 26.5 198 1.0 53.22 " " 4950 - 32 164 1.2 24 215 0.93 59.07 " " 5000 - 26 200 1.0 21 250 0.8 67.53 BG20Z/D08MA4 20 5000 - 25 210 0.95 56 93 3.2 25.45 BG30/D08MA4 23 4850 - 67 78 3.8 50 105 2.9 28.24 " " 5100 - 60 87 3.4 47 111 2.7 29.83 " " 5200 - 57 92 3.3 42.5 123 2.4 33.09 " " 5400 - 51 102 2.9 40 131 2.3 35.17 " " 5500 - 48 109 2.8 36 145 2.1 39.02 " " 5800 - 43.5 120 2.5 33 159 1.9 42.46 " " 5900 - 40 131 2.3 30 175 1.7 47.11 " " 6000 - 36 145 2.1 27 194 1.55 52.44 " " " 6000 - 28 187 1.6 21 250 1.2 67.44 " " 6000 - 28 187 1.6 21 250 1.2 67.44 " " 6000 - 25 210 1.45 21 250 1.2 66.44 " " 6000 - 25 210 1.45 21 250 1.0 88.15 " " 6000 - 21 255 1.5 17.5 300 1.0 81.55 " " 6000 - 21 255 1.5 17.5 300 1.0 81.55 " " 6000 - 21 255 1.5 18.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1								-			
29.5 178 1.1 47.92 " " 4750 - 35.3 147 1.35 26.5 198 1.0 53.22 " " 4950 - 32 164 1.2 24 215 0.93 59.07 " " 5000 - 28.5 184 1.1 21.5 240 0.83 65.62 " " 5000 - 26 200 1.0 21 250 0.8 67.53 BG20Z/D08MA4 20 5000 - 25 210 0.95 56 93 3.2 25.45 BG30/D08MA4 23 4850 - 67 78 3.8 50 105 2.9 28.24 " " 5100 - 60 87 3.4 47 111 2.7 29.83 " " 5200 - 57 92 3.3 42.5 123 2.4 33.09 " " 5400 - 51 102 2.9 40 131 2.3 35.17 " " 5500 - 48 109 2.8 36 145 2.1 39.02 " " 5800 - 43.5 120 2.5 33 159 1.9 42.46 " " 5900 - 40 131 2.3 30 175 1.7 47.11 " " 6000 - 36 145 2.1 27 194 1.55 52.44 " " " 6000 - 29 181 1.65 23.5 220 1.35 60.79 " " 6000 - 22 21 250 1.2 17.5 300 1.0 81.55 " " 6000 - 23 225 1.35 17.5 300 1.0 81.55 " " 6000 - 23 225 1.35 17.5 300 1.0 81.55 " " 6000 - 21 250 1.2 16.5 315 0.95 86.13 " " 6000 - 20 260 1.15								-			
26.5 198 1.0 53.22 " " 4950 - 32 164 1.2 24 215 0.93 59.07 " " 5000 - 28.5 184 1.1 21.5 240 0.83 65.62 " " 5000 - 26 200 1.0 21 250 0.8 67.53 BG20Z/D08MA4 20 5000 - 26 200 1.0 56 93 3.2 25.45 BG30/D08MA4 23 4850 - 67 78 3.8 50 105 2.9 28.24 " " 5100 - 60 87 3.4 47 111 2.7 29.83 " " 5200 - 57 92 3.3 42.5 123 2.4 33.09 " " 5500 - 48 109 2.8 36 145 2.1 39.02 " " 5800 - 43.5 120 2.5											
24 215 0.93 59.07 " " 5000 - 28.5 184 1.1 21.5 240 0.83 65.62 " " 5000 - 26 200 1.0 21 250 0.8 67.53 BG20Z/D08MA4 20 5000 - 25 210 0.95 56 93 3.2 25.45 BG30/D08MA4 23 4850 - 67 78 3.8 50 105 2.9 28.24 " " 5100 - 60 87 3.4 47 111 2.7 29.83 " " 5200 - 57 92 3.3 42.5 123 2.4 33.09 " " 5400 - 51 102 2.9 40 131 2.3 35.17 " " 5500 - 48 109 2.8 36 145 2.1 39.02 " " 5800 - 43.5 120 2.5					п	"					
21.5 240 0.83 65.62 " " 5000 - 26 200 1.0 21 250 0.8 67.53 BG20Z/D08MA4 20 5000 - 25 210 0.95 56 93 3.2 25.45 BG30/D08MA4 23 4850 - 67 78 3.8 50 105 2.9 28.24 " " 5100 - 60 87 3.4 47 111 2.7 29.83 " " 5200 - 57 92 3.3 42.5 123 2.4 33.09 " " 5400 - 51 102 2.9 40 131 2.3 35.17 " " 5500 - 48 109 2.8 36 145 2.1 39.02 " " 5800 - 43.5 120 2.5 33 159 1.9 42.46 " " 5900 - 40 131 2.3					u u	п					
21 250 0.8 67.53 BG20Z/D08MA4 20 5000 - 25 210 0.95 56 93 3.2 25.45 BG30/D08MA4 23 4850 - 67 78 3.8 50 105 2.9 28.24 " " 5100 - 60 87 3.4 47 111 2.7 29.83 " " 5200 - 57 92 3.3 42.5 123 2.4 33.09 " " 5400 - 51 102 2.9 40 131 2.3 35.17 " " 5500 - 48 109 2.8 36 145 2.1 39.02 " " 5800 - 43.5 120 2.5 33 159 1.9 42.46 " " " 5900 - 40 131 2.3 30 175 1.7 47.11 " " 6000 - 32.5 161 <					п	"		_			
56 93 3.2 25.45 BG30/D08MA4 23 4850 - 67 78 3.8 50 105 2.9 28.24 " " 5100 - 60 87 3.4 47 111 2.7 29.83 " " 5200 - 57 92 3.3 42.5 123 2.4 33.09 " " 5400 - 51 102 2.9 40 131 2.3 35.17 " " 5500 - 48 109 2.8 36 145 2.1 39.02 " " 5800 - 43.5 120 2.5 33 159 1.9 42.46 " " 5900 - 40 131 2.3 30 175 1.7 47.11 " " 6000 - 36 145 2.1 27 194 1.55 52.44 " " " 6000 - 32.5 161 1.85					BG20Z/D08MA4	20		-			
50 105 2.9 28.24 " 5100 - 60 87 3.4 47 111 2.7 29.83 " " 5200 - 57 92 3.3 42.5 123 2.4 33.09 " " 5400 - 51 102 2.9 40 131 2.3 35.17 " " 5500 - 48 109 2.8 36 145 2.1 39.02 " " 5800 - 43.5 120 2.5 33 159 1.9 42.46 " " 5900 - 40 131 2.3 30 175 1.7 47.11 " " 6000 - 36 145 2.1 27 194 1.55 52.44 " " 6000 - 32.5 161 1.85 24.5 210 1.45 58.18 " " 6000 - 29 181 1.65 23.5											
47 111 2.7 29.83 " " 5200 - 57 92 3.3 42.5 123 2.4 33.09 " " 5400 - 51 102 2.9 40 131 2.3 35.17 " " 5500 - 48 109 2.8 36 145 2.1 39.02 " " 5800 - 43.5 120 2.5 33 159 1.9 42.46 " " 5900 - 40 131 2.3 30 175 1.7 47.11 " " 6000 - 36 145 2.1 27 194 1.55 52.44 " " 6000 - 32.5 161 1.85 24.5 210 1.45 58.18 " " 6000 - 29 181 1.65 23.5 220 1.35 60.79 " " 6000 - 28 187 1.6	56	93		25.45			4850	-		78	3.8
42.5 123 2.4 33.09 " " 5400 - 51 102 2.9 40 131 2.3 35.17 " " 5500 - 48 109 2.8 36 145 2.1 39.02 " " 5800 - 43.5 120 2.5 33 159 1.9 42.46 " " 5900 - 40 131 2.3 30 175 1.7 47.11 " " 6000 - 36 145 2.1 27 194 1.55 52.44 " " 6000 - 32.5 161 1.85 24.5 210 1.45 58.18 " " 6000 - 29 181 1.65 23.5 220 1.35 60.79 " " 6000 - 28 187 1.6 21 250 1.2 67.44 " " 6000 - 25 210 1.45 19.5 265 1.15 73.51 BG30Z/D08MA4 26 <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>-</th><th></th><th></th><th></th></t<>								-			
42.5 123 2.4 35.09 3400 - 31 102 2.9 40 131 2.3 35.17 " " 5500 - 48 109 2.8 36 145 2.1 39.02 " " 5800 - 43.5 120 2.5 33 159 1.9 42.46 " " 5900 - 40 131 2.3 30 175 1.7 47.11 " " 6000 - 36 145 2.1 27 194 1.55 52.44 " " 6000 - 32.5 161 1.85 24.5 210 1.45 58.18 " " 6000 - 29 181 1.65 23.5 220 1.35 60.79 " " 6000 - 28 187 1.6 21 250 1.2 67.44 " " 6000 - 25 210 1.45 19.5 265 <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th> <th></th>								-			
36 145 2.1 39.02 " " 5800 - 43.5 120 2.5 33 159 1.9 42.46 " " 5900 - 40 131 2.3 30 175 1.7 47.11 " " 6000 - 36 145 2.1 27 194 1.55 52.44 " " 6000 - 32.5 161 1.85 24.5 210 1.45 58.18 " " 6000 - 29 181 1.65 23.5 220 1.35 60.79 " " 6000 - 28 187 1.6 21 250 1.2 67.44 " " 6000 - 25 210 1.45 19.5 265 1.15 73.51 BG30Z/D08MA4 26 6000 - 23 225 1.35 17.5 300 1.0 81.55 " " 6000 - 21 250 1.2 16.5 315 0.95 86.1	1							-			
33								-			
30 175 1.7 47.11 " " 6000 - 36 145 2.1 27 194 1.55 52.44 " " 6000 - 32.5 161 1.85 24.5 210 1.45 58.18 " " 6000 - 29 181 1.65 23.5 220 1.35 60.79 " " 6000 - 28 187 1.6 21 250 1.2 67.44 " " 6000 - 25 210 1.45 19.5 265 1.15 73.51 BG30Z/D08MA4 26 6000 - 23 225 1.35 17.5 300 1.0 81.55 " " 6000 - 21 250 1.2 16.5 315 0.95 86.13 " " 6000 - 20 260 1.15	1										
27 194 1.55 52.44 " " 6000 - 32.5 161 1.85 24.5 210 1.45 58.18 " " 6000 - 29 181 1.65 23.5 220 1.35 60.79 " " 6000 - 28 187 1.6 21 250 1.2 67.44 " " 6000 - 25 210 1.45 19.5 265 1.15 73.51 BG30Z/D08MA4 26 6000 - 23 225 1.35 17.5 300 1.0 81.55 " " 6000 - 21 250 1.2 16.5 315 0.95 86.13 " " 6000 - 20 260 1.15											
24.5 210 1.45 58.18 " " 6000 - 29 181 1.65 23.5 220 1.35 60.79 " " 6000 - 28 187 1.6 21 250 1.2 67.44 " " 6000 - 25 210 1.45 19.5 265 1.15 73.51 BG30Z/D08MA4 26 6000 - 23 225 1.35 17.5 300 1.0 81.55 " " 6000 - 21 250 1.2 16.5 315 0.95 86.13 " " 6000 - 20 260 1.15											
23.5 220 1.35 60.79 " " 6000 - 28 187 1.6 21 250 1.2 67.44 " " 6000 - 25 210 1.45 19.5 265 1.15 73.51 BG30Z/D08MA4 26 6000 - 23 225 1.35 17.5 300 1.0 81.55 " " 6000 - 21 250 1.2 16.5 315 0.95 86.13 " " 6000 - 20 260 1.15	1										
21 250 1.2 67.44 " " 6000 - 25 210 1.45 19.5 265 1.15 73.51 BG30Z/D08MA4 26 6000 - 23 225 1.35 17.5 300 1.0 81.55 " " 6000 - 21 250 1.2 16.5 315 0.95 86.13 " 6000 - 20 260 1.15					II	п					
19.5 265 1.15 73.51 BG30Z/D08MA4 26 6000 - 23 225 1.35 17.5 300 1.0 81.55 " " 6000 - 21 250 1.2 16.5 315 0.95 86.13 " " 6000 - 20 260 1.15					п	п					
17.5 300 1.0 81.55 " " 6000 - 21 250 1.2 16.5 315 0.95 86.13 " " 6000 - 20 260 1.15	1				BG30Z/D08MA4	26					
16.5 315 0.95 86.13 " " 6000 - 20 260 1.15								-			
								-			
	15	350	0.86	95.55	II	"	6000	-		290	1.05

Selection helical-geared motors DSE-IE1

BG-series helical-geared motors

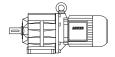




	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
41	128	3.3	34.20	BG40/D08MA4	38	7000	-	49.5	106	4.0
37	141	3.0	37.96	II	II .	7000	-	44.5	118	3.6
35	150	2.8	40.19	II	"	7000	-	42	125	3.4
31.5	166	2.6	44.62	m	"	7000	-	38	138	3.1
29	181	2.3	48.36	"	II .	7000	-	35	150	2.8
26.5	198	2.1	53.69	"	II .	7000	-	31.5	166	2.6
23.5	220	1.95	59.64	"	II .	7000	-	28.5	184	2.3
21.5	240	1.75	66.20	"	II .	7000	-	25.5	205	2.1
21	250	1.7	67.74	BG40Z/D08MA4	42	7000	-	25	210	2.0
19	275	1.55	75.19	"	"	7000	-	22.5	230	1.85
17.5	300	1.4	82.00	"	"	7000	-	20.5	255	1.65
15.5	335	1.25	91.02	"	"	7000	-	18.5	280	1.5
14.5	360	1.2	96.86	"	"	7000	-	17.5	300	1.4
13.5	385	1.1	107.5	"	"	7000	-	16	325	1.3
12	435	0.98	121.3	" "	"	7000	-	14	375	1.15
10.5	500	0.85	134.6	" "	"	7000	-	12.5	420	1.0
10	520	0.82	141.4		"	7000	-	12	435	0.98
27	104	2.2	F2 12	BCEO /DOOMAA	16	10000		22.5	161	2.0
27 24	194 215	3.2 2.9	52.12 59.42	BG50/D08MA4	46	10000 10000	-	32.5 28.5	161 184	3.9 3.4
21.5	240	2.6	65.86	"	"	10000	-	26.3	200	3.4
19.5	240 265	2.4	71.97	BG50Z/D08MA4	51	10000	-	23.5	220	2.9
18	290	2.4	71.97	BG302/D08WA4	J I	10000	-	21.5	240	2.6
15	350	1.8	95.58	"	"	10000	-	18	290	2.0
13.5	385	1.65	106.0	"	"	10000	_	16	325	1.95
11	475	1.35	128.9	n .	"	10000	_	13.5	385	1.65
9.8	530	1.2	142.9	n .	"	10000	_	12	435	1.45
8.5	610	1.05	164.9	п	"	10000	_	10.5	500	1.25
7.7	680	0.93	182.8	п	11	10000	_	9.2	570	1.1
6.9	760	0.83	204.7	n .	"	10000	_	8.3	630	1.0
14	375	3.2	101.0	BG60Z/D08MA4	96	16000	-	17	305	3.9
12	435	2.8	119.2	m m	11	16000	-	14.5	360	3.3
11	475	2.5	132.1	"	"	16000	-	13	400	3.0
8.9	590	2.0	158.0	"	II .	16000	-	11	475	2.5
8.0	650	1.85	175.1	"	II .	16000	-	9.6	540	2.2
6.9	760	1.6	204.6	"	II .	16000	-	8.3	630	1.9
6.2	840	1.45	226.7		"	16000	-	7.5	700	1.7
5.7	920	1.3	247.7	"	"	16000	-	6.8	770	1.55
5.2	1010	1.2	274.5		"	16000	-	6.2	840	1.45
5.1	910	1.45	276.2	BG60G20/D08MA4	103	16000	-	6.1	740	1.75
4.6	1010	1.3	306.1		"	16000	-	5.5	820	1.6
4.2	1110	1.15	334.3		"	16000	-	5.1	880	1.5
3.8	1220	1.05	370.5	"	"	16000 16000	-	4.6 3.9	980	1.35
3.3	1420	0.92	437.3			10000	-	3.9	1180	1.1
7.3	710	3.2	194.4	BG70Z/D08MA4	136	20000	_	8.7	600	3.8
6.7	780	2.9	210.5	"	"	20000	_	8.0	650	3.5
5.7	920	2.5	249.8	m .	II .	20000	-	6.8	770	3.0
5.5	840	3.0	255.5	BG70G20/D08MA4	133	20000	-	6.6	680	3.7
5.1	910	2.7	276.7	m m	II .	20000	-	6.1	740	3.4
4.3	1080	2.3	328.4	"	II .	20000	-	5.2	870	2.9
3.7	1270	1.95	387.6	"	II .	20000	-	4.4	1040	2.4
3.4	1420	1.75	417.8	"	"	20000	-	4.1	1150	2.2
2.9	1660	1.5	495.9	"	"	20000	-	3.4	1390	1.8
2.5	1950	1.3	577.3	"	"	20000	-	3.0	1600	1.55
2.2	2200	1.15	665.8	"	II .	20000	-	2.6	1850	1.35
1.8	2700	0.93	790.2	"	II .	20000	-	2.2	2150	1.15
1.6	3050	0.82	877.6	II	II .	20000	-	2.0	2400	1.05
2.6	4.55		40.4.5	DC00C10 (D00011	24-	24265		2.5	4400	
2.9	1430	3.2	484.3	BG80G40/D08MA4	215	26000	-	3.5	1120	4.1
2.5	1720	2.7	572.0	" "	"	26000	-	3.0	1370	3.4
2.2	1900	2.4	657.8	" "	"	26000	-	2.6	1540	3.0
2.0	2100	2.2	730.3			26000	-	2.4	1690 1070	2.7
1.8 1.6	2350 2700	1.95 1.7	817.4 907.6	"	"	26000 26000	-	2.1 1.9	1970 2200	2.3 2.1
1.0	2/00	1./	907.0			20000	-	1.5	2200	∠. I

Selection helical-geared motors DSE-IE1

P = 0.55 kW



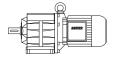
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
1.4	3200	1.45	1042	BG80G40/D08MA4	"	26000	-	1.7	2500	1.85
1.2	3800	1.2	1261	m .	II .	26000	-	1.4	3200	1.45
1.0	4700	0.98	1400	11	"	26000	-	1.2	3800	1.2
1.2	3700	2.5	1174	BG90G50/D08MA4	324	65000	-	1.5	2800	3.3
1.1	4100	2.2	1301	"	"	65000	-	1.3	3350	2.7
0.9	5100	1.8	1583	"	"	65000	-	1.1	4100	2.2
0.8	5800	1.6	1756	"	"	65000	-	1.0	4550	2.0
0.7	6800	1.35	2026	"	"	65000	-	0.85	5500	1.65
0.6	8000	1.15	2514	"	"	65000	-	0.7	6800	1.35
0.55	8800	1.05	2786	"	"	65000	-	0.65	7400	1.25
0.65	6000	3.1	2154	BG100G50/D08MA4	512	90000	-	0.8	4500	4.1
0.55	7100	2.6	2656	"	"	90000	-	0.65	5700	3.2
0.48	8600	2.2	2952	"	"	90000	-	0.6	6500	2.8
0.43	9700	1.9	3286	n n	"	90000	-	0.55	7000	2.6
0.39	10900	1.7	3644	n n	"	90000	-	0.47	8600	2.2
0.33	13400	1.4	4366	n n	"	90000	-	0.39	10900	1.7
0.29	15600	1.2	4839	II.	"	90000	-	0.35	12500	1.5

P = 0.75 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		21				n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
500	14.3	1.25	2.82	BG06/DSE08LA4	18	470	-	600	11.9	1.5
375	19.1	1.05	3.78	m .	11	520	-	445	16	1.25
310	23	0.96	4.54	m .	"	530	-	375	19.1	1.15
235	30	0.8	5.96	II	"	570	-	285	25	0.96
325	22	3.1	4.36	BG10/DSE08LA4	18	650	910	390	18.3	3.7
265	27	2.8	5.34	"	"	620	910	315	22.5	3.3
210	34	2.4	6.78	"	"	660	920	250	28.5	2.8
174	41	2.1	8.07	"	"	660	920	210	34	2.6
151	47	2.1	9.33	· ·	"	950	1330	181	39.5	2.5
136	52	1.9	10.34	"	"	1000	1400	163	43.5	2.3
118	60	1.75	11.92	· ·	"	1030	1440	141	50	2.1
106	67	1.65	13.21	"	"	1070	1490	128	55	2.0
97	73	1.55	14.58	"	"	1100	1540	116	61	1.85
87	82	1.45	16.15	"	"	1140	1590	105	68	1.7
76	94	1.3	18.51	"	"	1210	1690	91	78	1.55
69	103	1.15	20.51	"	II .	1290	1800	82	87	1.4
64	111	1.1	22.04	· ·	"	1330	1860	77	93	1.3
58	123	0.98	24.42	"	"	1410	1970	69	103	1.15
54	132	0.91	26.26	"	"	1460	2000	64	111	1.1
48.5	147	0.82	29.09	п	"	1540	2150	58	123	0.98
52	137	1.1	27.08	BG15/DSE08LA4	18	3000	6000	63	113	1.35
47	152	0.99	30.08	"	"	3000	6000	56	127	1.2
41	174	0.86	34.20	II	"	3000	6000	49.5	144	1.05
169	42	2.9	8.29	BG20/DSE08LA4	20	2250	-	205	34.5	3.5
158	45	3.2	8.91	II	"	2600	-	189	37.5	3.8
146	49	2.5	9.65	"	"	2250	-	175	40.5	3.0
133	53	2.9	10.54	"	"	2700	-	160	44.5	3.5
120	59	2.7	11.71	"	"	2800	-	144	49.5	3.2
106	67	2.5	13.21	"	"	2900	-	128	55	3.0
96	74	2.3	14.67	"	"	3050	-	115	62	2.8
90	79	2.2	15.58	"	"	3100	-	108	66	2.7
81	88	2.1	17.31	II .	II .	3200	-	98	73	2.5
71	100	1.95	19.95		"	3350	-	85	84	2.3
64	111	1.8	22.16	"	"	3500	-	76	94	2.1
61	117	1.7	23.22	II .	"	3550	-	73	98	2.0
55	130	1.55	25.79	"	"	3700	-	66	108	1.85
51	140	1.45	27.85	"	II .	3800	-	61	117	1.7

Selection helical-geared motors DSE-IE1

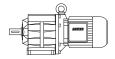
P = 0.75 kW



No.		50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
	n.		fo	'	туре	111	I RN	I RV	n.		fo
44.5 157 1.25 30.94 BG20-,/DSE08LA4 4000 55 130 1.55 41.6 1.2 33.33 41.00 55 140 1.44 43.5 168 1.2 33.33 41.00 55 140 1.44 43.6 108 1.2 33.33 41.00 55 140 1.44 43.6 100 0.95 47.6 43.6 210 0.95 47.6			■B			ka	N	N			I B
### ### ### ### ### ### ### ### ### ##			1.25	30 94	BG20- /DSF08I A4						1 55
38						II .			51		
34					m .	11		_			
230.5 230 0.87 46.38 " " " 4700 - 36.5 196 11.7 240 0.83 47.92 " " 4750 - 35.5 200 11.7 241 96 3.1 18.93 BG30/DSE08LA4 25 4100 - 88 80 33.8 244 1100 3.0 19.99 " " 4200 - 88 84 84 84 84 84 84 84 84 84 84 84 84	34				"	11		_			1.15
74 96 3.1 18.93 BG30-"/DSE08LA4 25 4100 - 89 80 3.5 200 1.0 1.0 1.0 3.0 19.99 "	30.5				II .	II .		_			1.0
71 100 3.0 19.99 " " 4200 - 85 84 3.6 64 111 2.7 22.18 " " 4600 - 76 94 3.2 65 115 2.4 25.45 " " 4850 - 67 106 2.8 65 127 2.4 25.45 " " 4850 - 67 106 2.8 65 143 2.1 195 29.83 " " 5100 - 60 119 2.5 67 152 1.95 29.83 " " 5200 - 57 125 2.4 68 1.8 3.0.99 " " 5200 - 57 125 2.4 60 178 1.7 35.17 " 520 - 57 125 2.4 60 178 1.7 35.17 " 520 - 48 1.49 2.6 60 179 1.7 35.17 " 520 - 48 1.49 2.6 60 179 1.7 35.17 " 520 - 48 1.49 2.6 60 179 1.7 35.17 " 6000 - 48.5 1.49 2.6 61 1.8 1.8 3.19 4.11 " " 6000 - 48.5 1.49 1.5 61 1.8 1.8 1.4 4.8 6.6 " " 8000 - 48.5 1.49 1.5 61 1.8 1.8 1.4 4.8 6.6 " " 6000 - 28 2.5 1.5 61 1.5 52.44 " " 6000 - 28 2.5 1.5 62.5 1.15 52.44 " " 6000 - 28 2.5 1.5 61 1.8 1.8 1.9 " 6000 - 28 2.5 1.5 61 1.9 5.0 8.8 67.44 " " 6000 - 28 2.5 1.5 61 1.9 5.0 8.8 67.44 " " 6000 - 28 2.5 1.5 61 1.9 5.0 8.8 67.44 " " 6000 - 28 2.5 1.0 61 1.9 5.0 8.8 67.4 " " 6000 - 28 2.5 1.0 61 1.9 5.0 8.8 67.4 " " 6000 - 28 2.5 1.0 61 1.9 5.0 8.8 67.4 " " 6000 - 28 2.5 1.0 61 1.9 5.0 8.8 67.4 " " 6000 - 28 2.5 1.0 61 1.9 5.0 8.8 67.4 " " 6000 - 28 2.5 1.0 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 67.4 " " 6000 - 28 2.5 1.0 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 6.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9	29.5				II .	II .		-			1.0
71 100 3.0 19.99 " " 4200 - 85 84 3.6 64 111 2.7 22.18 " " 4600 - 76 94 3.2 65 115 2.4 25.45 " " 4850 - 67 106 2.8 65 127 2.4 25.45 " " 4850 - 67 106 2.8 65 143 2.1 195 29.83 " " 5100 - 60 119 2.5 67 152 1.95 29.83 " " 5200 - 57 125 2.4 68 1.8 3.0.99 " " 5200 - 57 125 2.4 60 178 1.7 35.17 " 520 - 57 125 2.4 60 178 1.7 35.17 " 520 - 48 1.49 2.6 60 179 1.7 35.17 " 520 - 48 1.49 2.6 60 179 1.7 35.17 " 520 - 48 1.49 2.6 60 179 1.7 35.17 " 6000 - 48.5 1.49 2.6 61 1.8 1.8 3.19 4.11 " " 6000 - 48.5 1.49 1.5 61 1.8 1.8 1.4 4.8 6.6 " " 8000 - 48.5 1.49 1.5 61 1.8 1.8 1.4 4.8 6.6 " " 6000 - 28 2.5 1.5 61 1.5 52.44 " " 6000 - 28 2.5 1.5 62.5 1.15 52.44 " " 6000 - 28 2.5 1.5 61 1.8 1.8 1.9 " 6000 - 28 2.5 1.5 61 1.9 5.0 8.8 67.44 " " 6000 - 28 2.5 1.5 61 1.9 5.0 8.8 67.44 " " 6000 - 28 2.5 1.5 61 1.9 5.0 8.8 67.44 " " 6000 - 28 2.5 1.0 61 1.9 5.0 8.8 67.4 " " 6000 - 28 2.5 1.0 61 1.9 5.0 8.8 67.4 " " 6000 - 28 2.5 1.0 61 1.9 5.0 8.8 67.4 " " 6000 - 28 2.5 1.0 61 1.9 5.0 8.8 67.4 " " 6000 - 28 2.5 1.0 61 1.9 5.0 8.8 67.4 " " 6000 - 28 2.5 1.0 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 67.4 " " 6000 - 28 2.5 1.0 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 5.0 8.8 1.3 1.0 9.9 61 1.9 6.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9.9 1.0 9											
64 111 2.7 2.4 22.18 " " 4600 - 76 94 3.3 656 127 2.4 2545 " " 4850 - 67 106 2.8 650 143 2.1 28.24 " " 5100 - 60 119 2.5 650 143 2.1 28.24 " " 5100 - 60 119 2.5 67 106 2.8 680 177 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7	74				BG30/DSE08LA4			-			3.8
56 127 2.4 2545 " " 4850 - 67 106 2.8 570 143 2.1 28.24 " " 500 - 60 119 2.5 570 143 2.1 28.24 " " 500 - 60 119 2.5 571 152 1.95 29.83 " " 500 - 57 125 2.4 572 152 1.95 29.83 " " 500 - 57 125 2.4 573 174 175 2 1.7 35.17 " " 5500 - 48 149 2.0 586 18 1.8 33.09 " " 5500 - 48.5 140 2.1 586 18 1.8 39.92 " " 5500 - 48.5 140 2.1 586 18 1.8 39.92 " " 5500 - 48.5 140 2.2 583 215 1.4 42.46 " " 5900 - 40 179 1.7 580 235 1.3 47.11 " " 6000 - 32 5 220 1.3 572 265 1.15 52.44 " 6000 - 32 5 220 1.3 572 265 1.15 52.44 " 6000 - 28 255 1.2 573 340 0.88 67.44 " 6000 - 28 255 1.2 574 312 3.2 2.601 8G30Z-,/DSE08LA4 40 6500 - 28 255 1.2 575 365 0.82 73.51 8G30Z-,/DSE08LA4 40 6500 - 28 255 1.2 584 132 3.2 2.601 8G40-,/DSE08LA4 40 6500 - 28 255 1.3 584 149 2.9 2.34 584 149 2.9 2.34 584 149 2.9 2.34 585 10.9 2.34 585 10.9 2.34 586 149 2.9 2.34 587 10.9 2.9 2.34 587 10.9 2.9 2.34 588 149 2.9 2.34 589 149 2.9 2.34 589 149 2.9 2.34 580 149 2.9 2.34 581 160 2.6 3.257 581 8600 - 44.5 160 2.5 581 160 2.6 3.257 581 8600 - 28 255 1.3 581 160 2.6 3.257 581 8600 - 28 255 1.3 581 160 2.6 3.257 581 8600 - 28 255 1.3 581 160 2.6 3.257 581 8600 - 28 255 1.3 581 160 2.6 3.257 581 8600 - 28 255 1.3 581 160 2.6 3.257 581 8600 - 28 255 1.3 581 160 2.6 3.257 581 8600 - 28 255 1.3 581 160 2.6 3.257 581 160 2.6 3.257 581 160 2.7 3.255 581 160 2.6 3.257 581 160 2.7 3.255 581 160 2.6 3.257 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 160 2.7 3.255 581 175 180 2.7 3.255 581 180 2.7 3.255 581 180 2.7 3.255 581 180 2.7 3.255 581 180 2.7 3.255 581 180 2.7 3.255 581 180 2.7	71				"			-			3.6
143	64							-			3.2
472 152 1.95 29.83 " " 5200 - 57 125 2.4 42.5 168 1.8 33.09 " " 5500 - 51 140 2.1 40 179 1.7 35.17 " " 5500 - 48 149 2.0 36 198 1.5 39.02 " " 5500 - 48 149 2.0 383 215 1.4 42.46 " " 5500 - 40 179 1.7 383 215 1.4 42.46 " " 5500 - 40 179 1.7 380 235 1.3 47.11 " " 6000 - 36 199 1.5 27 265 1.15 52.44 " " 6000 - 32 5 220 1.33 24.5 290 1.05 58.18 " " 6000 - 29 245 1.2 23.5 300 1.0 60.79 " " 6000 - 29 245 1.2 23.1 340 0.88 67.44 " " 6000 - 25 282 1.3 341 149 2.9 23.4 " " 6000 - 25 282 1.0 342 1.3 40 0.88 67.44 " " 6000 - 25 282 1.0 348 149 2.9 23.4 " " 6000 - 23 25 220 1.3 348 149 2.9 23.4 " " 6000 - 23 25 28 1.0 348 149 2.9 23.4 " " 6000 - 23 25 28 1.0 348 149 2.9 23.4 " " 6000 - 25 28 1.0 348 149 2.9 23.4 " " 6000 - 25 28 1.0 349 114 2.4 32.70 " " 7000 - 40.5 110 3.3 35 200 2.1 40.19 " " 7000 - 40.5 110 3.3 35 200 2.1 40.19 " " 7000 - 40.5 110 3.3 35 200 2.1 40.19 " " 7000 - 40.5 110 3.3 35 200 2.1 40.19 " " 7000 - 42.5 110 3.3 35 200 2.1 40.19 " " 7000 - 42.5 110 3.3 35 200 2.1 40.19 " " 7000 - 52.5 280 1.2 36 5.5 7.7 1.5 53.69 " " 7000 - 52.5 280 1.2 37 79 30 1.4 59.64 " " 7000 - 52.5 280 1.7 38 1.5 225 1.9 44.62 " " 7000 - 52.5 280 1.7 38 1.5 53.0 1.3 66.20 " " 7000 - 25.5 280 1.7 37 1.5 53.0 1.3 66.20 " " 7000 - 25.5 280 1.7 38 1.5 54 60 0.92 91.02 " " 7000 - 25.5 280 1.7 38 1.5 54 60 0.92 91.02 " " 7000 - 25.5 280 1.5 39 1.5 54 60 0.92 91.02 " " 7000 - 25.5 285 1.5 30 1.3 66.20 " " " 7000 - 25.5 285 1.5 31 1.5 53.0 0.8 10.75 " " 7000 - 25.5 285 1.5 31 1.5 53.0 0.8 10.75 " " 7000 - 25.5 285 1.5 31 1.5 53.0 0.8 10.75 " " 7000 - 25.5 285 1.5 31 1.5 53.0 0.8 10.75 " " 7000 - 25.5 285 1.5 31 1.5 53.0 0.8 10.75 " " 7000 - 18.5 385 1.1 31.5 53.0 0.8 10.75 " " " 7000 - 18.5 385 1.1 31.5 53.0 0.8 10.75 " " " 7000 - 18.5 385 1.1 31.5 53.0 0.8 10.75 " " " 7000 - 18.5 385 1.1 31.5 53.0 0.8 10.75 " " " 7000 - 18.5 385 1.1 31.5 53.0 0.8 10.75 " " " 10000 - 18.5 385 1.1 31.5 53.0 0.8 10.75 " " " 10000 - 18.5 385 1.1 31.5 53.0 0.8 10.75 " " " 10000 - 18.5 385 1.1 31.5 53.0 0.8 10.75 " " " 10000 - 18.5 385 1.1 31.5 53.0 0.8 10.											
### ### ### ### ### ### ### ### ### ##											
14.1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1								-			
36								-			
33											
30						"		-			
27			i		п	"		-			
24.5 290 1.05 581.8 " " 6000 - 29 245 1.2 23.5 300 1.0 60.79 " " 6000 - 25 285 1.5 21 340 0.88 67.44 " " 6000 - 25 285 1.0 21 340 0.88 67.44 " " 6000 - 25 285 1.0 25 365 0.82 73.51 BG30Z/DSE08LA4 28 6000 - 25 285 1.0 26 4 132 3.2 26.01 BG40/DSE08LA4 40 6500 - 65 110 3.9 48 149 2.9 29.34 " " 6800 - 52 137 3.1 41 174 2.4 34.20 " " 7000 - 52 137 3.1 41 174 2.4 34.20 " " 7000 - 49.5 144 3.0 37 193 2.2 3796 " " 7000 - 49.5 144 3.0 31 15 225 1.9 44.62 " " 7000 - 44.5 160 2.7 31 1.5 225 1.9 44.62 " " 7000 - 38 188 2.3 29 245 1.75 48.36 " " 7000 - 38 188 2.3 29 245 1.75 58.36 " " 7000 - 31.5 225 1.9 20.5 2.1 40.19 " " 7000 - 31.5 225 1.9 21 340 1.25 67.74 BG40Z/DSE08LA4 43 7000 - 25.5 280 1.5 21 340 1.25 67.74 BG40Z/DSE08LA4 43 7000 - 25.5 280 1.5 17.5 405 1.05 82.00 " " 7000 - 22.5 385 1.3 17.5 405 1.05 82.00 " " 7000 - 18.5 385 1.1 18.5 490 0.87 96.86 " " 7000 - 18.5 385 1.1 18.5 385 1.0 4.0 0.87 96.86 " " 7000 - 18.5 385 1.1 18.5 490 0.87 96.86 " " 7000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 7000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 7000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 7000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 7000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 7000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 7000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 7000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 7000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 7000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 7000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 10000 - 28.5 2.20 2.2 2.1 59.0 2.2 1.5 59.42 " " 10000 - 28.5 2.20 2.2 2.2 2.3 59.0 1.5 59.0 1.2 2.4 2.5 2.1 59.42 " " 10000 - 28.5 2.20 2.2 2.5 315 3.0 1.9 68.86 " " 10000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 10000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 10000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 10000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 10000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 10000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 10000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 10000 - 18.5 385 1.1 18.5 380 1.9 68.86 " " 10000 - 18.5 385 1.1 18.5 385 3.1 75.1 BG60Z/DSE08LA4 97 16000 - 18.5 385 3.1 18.					m .	"		_			
23.5 300 1.0 60.79 " " 6000 - 28 255 1.2 21 340 0.88 6744 " 6000 - 25 285 1.0 19.5 365 0.82 73.51 BG30Z/DSE08LA4 28 6000 - 23 310 0.99 54 132 3.2 26.01 BG40/DSE08LA4 40 6500 - 58 123 31.0 33 166 2.6 32.57 " " 7000 - 52 137 31.1 343 166 2.6 32.57 " " 7000 - 44.5 160 2.7 357 193 2.2 37.96 " " 7000 - 44.5 160 2.7 358 200 2.1 40.19 " " 7000 - 44.5 160 2.7 35. 200 2.1 40.19 " " 7000 - 44.5 160 2.7 36. 52 1.5 53.69 " " 7000 - 38 8188 2.3 31.5 20 1.1 54.62 " " 7000 - 38 8188 2.3 32.2 37.96 " " 7000 - 38 8188 2.3 32.2 37.96 " " 7000 - 38 8188 2.3 35. 300 1.1 55.67 48.36 " " 7000 - 38.5 200 2.1 31.5 330 1.3 66.20 " " 7000 - 28.5 250 1.7 31.5 330 1.3 66.20 " " 7000 - 28.5 250 1.7 31.5 330 1.3 66.20 " " 7000 - 28.5 250 1.7 31.5 330 1.3 66.20 " " 7000 - 28.5 250 1.7 31.5 35.0 1.3 66.20 " " 7000 - 28.5 250 1.7 31.5 35.0 1.3 66.20 " " 7000 - 28.5 250 1.7 31.5 35.0 1.3 66.20 " " 7000 - 28.5 250 1.7 31.5 35.0 1.3 66.20 " " 7000 - 28.5 250 1.7 31.5 35.0 1.8 50.00 " " 7000 - 25.5 280 1.5 31.5 25.5 1.0 1.5 82.00 " " 7000 - 25.5 285 1.5 31.5 35.0 1.8 10.5 82.00 " " 7000 - 18.5 385 1.1 31.5 530 0.8 107.5 " " 7000 - 18.5 385 1.1 31.5 530 0.8 107.5 " " 7000 - 18.5 385 1.1 31.5 530 0.8 107.5 " " 7000 - 18.5 385 1.1 31.5 530 0.8 107.5 " " 7000 - 18.5 385 1.1 31.5 530 0.8 107.5 " " 7000 - 18.5 385 1.1 31.5 530 0.8 107.5 " " 7000 - 18.5 385 1.1 31.5 530 0.8 107.5 " " 7000 - 18.5 385 1.1 31.5 530 0.8 107.5 " " 10000 - 28.5 220 2.5 31.5 33.0 1.9 65.86 " " 7000 - 18.5 385 1.1 31.5 530 0.8 107.5 " " 10000 - 28.5 250 3.5 30 1.2 31.5 330 1.9 65.86 " " 10000 - 28.5 250 3.5 30 1.2 31.5 330 1.9 65.86 " " 10000 - 28.5 250 3.5 30 1.2 31.5 330 1.9 65.86 " " 10000 - 28.5 250 3.5 30 1.2 31.5 330 1.9 65.86 " " 10000 - 28.5 250 3.5 30 1.2 31.5 330 1.9 65.86 " " 10000 - 18.5 385 1.1 31.5 530 0.8 107.5 " " 10000 - 18.5 385 1.1 31.5 530 0.8 107.5 " " 10000 - 18.5 385 1.1 31.5 530 0.8 107.5 " " 10000 - 18.5 385 1.1 31.5 530 0.8 107.5 " " 10000 - 18.5 385 1.1 31.5 530 0.8 107.5 " " 10000 - 18.5 385 1.1 31.5 530 0.8 10.5 18.0 " " 10000 - 18.5 385 1.1 31.					"	11		_			
21	23.5				п	"		_			
19.5 365 0.82 73.51 BG30Z/DSE08LA4 28 6000 - 23 310 0.97 54 132 3.2 26.01 BG40/DSE08LA4 40 6500 - 65 110 3.5 88 149 2.9 29.34 " " 6800 - 58 123 3.5 43 166 2.6 32.57 " " 7000 - 52 137 3.1 411 174 2.4 34.20 " " 7000 - 49.5 144 3.0 517 193 2.2 37.96 " " 7000 - 44.5 160 2.7 515 200 2.1 40.19 " " 7000 - 42.5 144 510 2.5 1.9 44.62 " " 7000 - 38 188 2.3 511.5 225 1.9 44.62 " " 7000 - 38 188 2.3 512.5 300 1.4 59.64 " " 7000 - 31.5 225 1.9 523.5 300 1.4 59.64 " " 7000 - 28.5 250 1.7 521 340 1.25 67.74 BG40Z/DSE08LA4 43 7000 - 25.5 285 1.5 19 375 1.15 75.19 " " 7000 - 22.5 285 1.5 19 375 1.15 75.19 " " 7000 - 22.5 315 1.35 17.5 405 1.05 82.00 " " " 7000 - 22.5 315 1.35 17.5 405 0.92 91.02 " " 7000 - 22.5 315 1.35 17.5 405 0.92 91.02 " " 7000 - 18.5 385 1.1 14.5 490 0.87 96.86 " " 7000 - 18.5 385 1.1 14.5 490 0.87 96.86 " " 7000 - 18.5 385 1.1 14.5 490 0.87 96.86 " " 7000 - 18.5 385 1.1 14.5 490 0.87 96.86 " " 7000 - 18.5 385 1.1 13.5 530 0.8 107.5 " " 7000 - 16 44.5 160 3.3 33.5 210 3.0 42.00 " " " 7000 - 18.5 385 1.1 14.5 490 0.87 96.86 " " 7000 - 18.5 385 1.1 14.5 490 0.87 96.86 " " 7000 - 18.5 385 1.1 14.5 490 0.87 96.86 " " 7000 - 18.5 385 1.1 15.5 400 0.92 91.02 " " " 10000 - 44.5 160 3.3 33.5 210 3.0 42.00 " " " 7000 - 28.5 220 2.9 244 295 2.1 59.42 " " 10000 - 44.5 160 3.3 33.5 210 3.0 42.00 " " " 10000 - 18.5 385 1.1 15.5 460 2.25 1.9 94.2 " " 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " " " 10000 - 18.5 385 1.1 15.5 460 2.6 91.09 " " " 10000 - 18.5 385 3.1 15.5 460 2.6 91.09 " " " 10000 - 18.5 385 3.1 15.5 460 2.6 91.09 " " " 10000 - 18.5 385 3.1 15.5 460 2.6 91.09 " " " 10000 - 18.5 385 3.1 15.5 530 1.2 10 0.8 64 14.9 " " 10000 - 18.5 385 3.1 15.5 530 1.2 10 0.8 64 14.9 " " 10000 - 18.5 385 3.1 15.5 530 1.2 10 0.8 64 14.9 " " 10000 - 18.5 385 3.1 15.5 530 1.2 10 0.8 64 14.9 " " 10000 - 18.5 385 3.1 16.6 17.7 17.9 17.9 18.6 1.0 " " 10000 - 18.5 385 3.1 17.5 18.5 385 3.1 7.7 1.9 86002/DSE08LA4 97 16000 - 18.5 385 3.1 18.5 385 3.1 7.7 1.9 86002/DSE08LA4 97 16000 -	21				п	"		_			
132 3.2 26.01 BG40/DSE08LA4 40 6500 - 665 110 3.9	19.5		i		BG30Z/DSE08LA4	28		-			
### 149	_					-	-			-	
141 174 2.4 34.20 " " 7000 - 52 137 3.1 141 174 2.4 34.20 " " 7000 - 49.5 144 3.0 37 193 2.2 37.96 " " 7000 - 44.5 160 2.7 38 185 200 2.1 40.19 " " 7000 - 42 170 2.5 31.5 205 1.9 44.62 " " 7000 - 38 188 2.3 29 245 1.75 48.36 " " 7000 - 35 200 2.1 26.5 270 1.55 53.69 " " 7000 - 35 200 2.1 21.3 30 1.4 59.64 " " 7000 - 28.5 250 1.7 21.5 330 1.4 59.64 " " 7000 - 28.5 250 1.7 21.5 330 1.3 66.20 " " 7000 - 25.5 280 1.5 21 340 1.25 67.74 8G40Z/DSE08LA4 43 7000 - 25.5 285 1.5 17.5 405 1.05 82.00 " " 7000 - 20.5 345 1.35 15.5 460 0.92 91.02 " " 7000 - 18.5 385 1.1 44.5 490 0.87 96.86 " " 7000 - 18.5 385 1.1 44.5 490 0.87 96.86 " " 7000 - 16 445 0.96 37 193 3.3 37.89 8G50/DSE08LA4 48 10000 - 44.5 160 3.5 33.5 210 3.0 0.8 107.5 " " 7000 - 36 198 3.3 33.5 210 3.0 42.00 " " 10000 - 36 198 3.3 33.5 210 3.0 42.00 " " 10000 - 36 198 3.3 33.5 210 3.0 6.8 107.5 " " 10000 - 28.5 220 2.5 21.5 330 1.9 65.86 " " 10000 - 28.5 200 2.5 315 335 2.7 47.02 " 10000 - 36 198 3.3 32.7 265 2.4 52.12 " " 10000 - 32.5 200 2.5 318 395 1.6 79.78 8G50Z/DSE08LA4 52 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " " 10000 - 28.5 250 2.5 21.5 330 1.9 12.0 " " 10000 - 28.5 200 2.5 318 395 1.6 79.78 8G50Z/DSE08LA4 52 10000 - 21.5 330 1.9 318.5 530 1.2 106.0 " " 10000 - 18.5 385 1.1 31.5 530 1.2 106.0 " " 10000 - 12.5 330 1.9 31.5 530 1.2 106.0 " " 10000 - 12.5 330 1.9 31.5 530 1.2 106.0 " " 10000 - 13.5 530 1.2 31.5 530 1.2 106.0 " " 10000 - 13.5 530 1.2 31.5 530 1.2 106.0 " " 10000 - 14.5 490 2.5 31.5 460 2.6 91.09 " " 10000 - 13.5 530 1.2 31.5 530 1.2 106.0 " " 10000 - 14.5 490 2.5 31.5 530 1.2 106.0 " " 10000 - 14.5 490 2.5 31.5 530 1.2 106.0 " " 10000 - 15.5 315 3.8 31.5 530 1.2 106.0 " " 10000 - 15.5 315 3.8 31.5 530 1.2 106.0 " " 10000 - 15.5 315 3.8 31.5 530 1.2 106.0 " " 10000 - 15.5 315 3.8 31.5 530 1.2 106.0 " " 10000 - 15.5 315 3.8 31.5 530 1.2 106.0 " " 10000 - 15.5 315 3.8 31.5 530 1.2 106.0 " " 10000 - 15.5 315 3.8 31.5 530 1.2 106.0 " " 10000 - 15.5 315 3.8 31.5 530 1.2 106.0 " " 10000 - 15.5 315 3.8 31.5 530 1.2 106.0 " " 10000 - 15.5	54	132	3.2	26.01	BG40/DSE08LA4	40	6500	-		110	3.9
41	48	149	2.9	29.34	п	II .	6800	-		123	3.5
37	43	166	2.6				7000	-			3.1
37 193 3.3 37.89 BG50/DSE08LA4 48 10000 - 44.5 160 3.5 15.5 530 0.8 107.5 "" " 70000 - 18.5 385 11.5 13.5 530 0.8 107.5 "" " 100000 - 16 44.5 160 3.5 13.5 530 1.9 65.86 "" " 100000 - 22.5 315 13.5 13.5 13.5 13.5 13.5 13.5 13.	41							-			3.0
31.5	37							-			
1919 245 1.75 48.36 " " 7000 - 35 200 2.1 26.5 270 1.55 53.69 " " 7000 - 31.5 225 1.9 26.5 270 1.55 53.69 " " 7000 - 31.5 225 1.9 21.5 330 1.4 59.64 " " 7000 - 28.5 250 1.7 21.5 330 1.3 66.20 " " 7000 - 28.5 250 1.7 21.5 330 1.3 66.20 " " 7000 - 25.5 280 1.5 21 340 1.25 67.74 BG402/DSE08LA4 43 7000 - 25.5 280 1.5 219 375 1.15 75.19 " " 7000 - 25.5 280 1.5 219 375 1.55 75.19 " " 7000 - 25.5 280 1.5 210 3.0 0.8 10.5 82.00 " " 7000 - 25.5 385 1.5 210 3.0 0.8 107.5 " " 7000 - 18.5 385 1.1 21.5 530 0.8 107.5 " " 7000 - 18.5 385 1.2 21.5 530 0.8 107.5 " " 7000 - 17.5 405 1.0 22.5 315 1.35 23.3 37.89 BG50/DSE08LA4 48 1000 - 44.5 160 3.9 23.3 2.7 47.02 " " 10000 - 40 17.9 3.5 23.0 23.5 2.7 47.02 " " 10000 - 32.5 220 2.9 244 295 2.1 59.42 " " 10000 - 32.5 220 2.9 244 295 2.1 59.42 " " 10000 - 32.5 220 2.9 244 295 2.1 59.42 " " 10000 - 32.5 220 2.9 245 295 2.1 59.42 " " 10000 - 28.5 350 2.5 210.5 330 1.9 65.86 " " " 10000 - 28.5 350 2.5 210.5 365 1.75 71.97 BG502/DSE08LA4 52 10000 - 21.5 330 2.1 21.5 530 1.2 106.0 " " 10000 - 18.5 330 1.9 21.5 475 1.35 95.58 " " 10000 - 21.5 330 1.9 21.5 530 1.2 106.0 " " 10000 - 18.5 330 1.9 21.5 530 1.2 106.0 " " 10000 - 18.5 330 1.9 21.5 530 1.2 106.0 " " 10000 - 18.5 330 1.9 21.5 530 1.2 106.0 " " 10000 - 18.5 330 1.9 21.5 530 1.2 106.0 " " 10000 - 18.5 330 1.9 21.5 530 1.2 106.0 " " 10000 - 18.5 330 1.9 21.5 530 1.2 106.0 " " 10000 - 18.5 330 1.9 21.5 530 1.2 106.0 " " 10000 - 18.5 330 1.9 21.5 530 1.2 106.0 " " 10000 - 18.5 330 1.9 21.5 530 1.2 106.0 " " 10000 - 18.5 385 3.1 21.5 530 1.2 106.0 " " 10000 - 18.5 385 3.1 21.5 530 1.2 106.0 " " 10000 - 18.5 385 3.1 21.5 530 1.2 106.0 " " 10000 - 18.5 385 3.1 21.5 530 1.2 106.0 " " 10000 - 18.5 385 3.1 21.5 530 1.2 106.0 " " 10000 - 18.5 385 3.1 21.5 530 1.2 106.0 " " 10000 - 18.5 385 3.1 21.5 530 1.2 106.0 " " 10000 - 18.5 385 3.1 21.5 530 1.2 106.0 " " 10000 - 18.5 385 3.1 21.5 530 1.2 106.0 " " 10000 - 18.5 385 3.1 21.5 530 1.2 106.0 " " 10000 - 18.5 385 3.1 21.5 530 1.2 106.0 " 10000 - 18.5 385 3.1 21.5 530 1.2 106.0 " 10000 -	35							-			
26.5								-			
270 1.55 33.00 1.4 59.64 " " 7000 - 31.5 225 1.9 21.5 330 1.3 66.20 " " 7000 - 25.5 285 1.5 21 340 1.25 67.74 BG40Z/DSE08LA4 43 7000 - 25.5 285 1.5 17.5 405 1.05 82.00 " " 7000 - 22.5 315 1.35 17.5 405 1.05 82.00 " " 7000 - 22.5 315 1.35 15.5 460 0.92 91.02 " " 7000 - 18.5 385 1.1 14.5 490 0.87 96.86 " " 7000 - 18.5 385 1.1 14.5 490 0.87 96.86 " " 7000 - 16.4 445 0.96 37 193 3.3 37.89 BG50/DSE08LA4 48 10000 - 44.5 160 3.9 33.5 210 3.0 42.00 " " 10000 - 44.5 160 3.9 33.5 210 3.0 42.00 " " 10000 - 32.5 220 2.5 27 265 2.4 52.12 " " 10000 - 32.5 220 2.5 24 295 2.1 59.42 " " 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " " 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " " 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " " 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " " 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " " 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " " 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " " 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " " 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " " 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " " 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " " 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " " 10000 - 18.5 330 1.9 21.5 475 1.35 95.58 " " 10000 - 18.5 330 1.9 21.5 475 1.35 95.58 " " 10000 - 18.5 330 1.9 21.5 365 1.75 71.97 BG60Z/DSE08LA4 97 10000 - 18.5 385 3.1 21.5 500 1.2 106.0 " " 10000 - 18.5 385 3.1 21.5 5460 2.6 91.09 " " 10000 - 18.5 385 3.1 21.5 590 2.0 119.2 " " 10000 - 18.5 385 3.1 22.5 590 2.0 119.2 " " 10000 - 18.5 385 3.1 23.5 15.5 15.0 " " 10000 - 18.5 385 3.1 24.5 15.5 15.0 " " 10000 - 18.5 385 3.1 25.7 1250 0.96 247.7 " " 16000 - 8.3 860 1.4 25.7 1250 0.96 247.7 " " 16000 - 8.3 860 1.4 26.2 1150 1.05 226.7 " " 16000 - 8.3 860 1.4 276.2 1370 0.88 274.5 " " 16000 - 6.2 1150 1.05 276.2 1370 0.88 274.5 " " 16000 - 6.2 1150 1.05 276.2 1370 0.88 274.5 " " 16000 - 6.2 1150 1.05 276.2 1370 0.88 1274.5 " " 16000 - 6.2 1150 1.05 276.2 1370 0.88 1274.5 " " 16000 - 6.2 1150 1.05 276.2 1370 0.88 1274.5 " " 16000 - 6.5 1170 1.1											
21.5 330 1.3 66.20 " " 7000 - 25.5 280 1.5 21 340 1.25 67.74 BG40Z/DSE08LA4 43 7000 - 25.5 285 1.5 219 375 1.15 75.19 " " 7000 - 22.5 315 1.35 217.5 405 1.05 82.00 " " 7000 - 20.5 345 1.25 215.5 406 0.92 91.02 " " 7000 - 18.5 385 1.1 214.5 490 0.87 96.86 " " 7000 - 17.5 405 1.05 23.3 37. 193 3.3 37.89 BG50/DSE08LA4 48 10000 - 44.5 160 3.9 235 2.7 47.02 " " 10000 - 40 179 3.5 236 2.4 52.12 " " 10000 - 32.5 220 2.5 24 295 2.1 5942 " " 10000 - 28.5 220 2.5 21.5 330 1.9 65.86 " " 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " " 10000 - 26 275 2.3 21.5 330 1.9 65.86 " " 10000 - 21.5 330 1.5 21.5 475 1.35 95.58 " " 10000 - 21.5 330 1.5 21.5 475 1.35 95.58 " " 10000 - 18.5 395 1.6 21.5 475 1.35 95.58 " " 10000 - 18.5 395 1.6 21.5 530 0.8 142.9 " " 10000 - 18.5 395 1.6 21.5 530 0.8 142.9 " " 10000 - 18.5 395 1.6 21.5 530 1.2 106.0 " " 10000 - 18.5 395 1.6 21.5 530 1.2 106.0 " " 10000 - 18.5 395 1.6 21.5 530 1.2 106.0 " " 10000 - 18.5 395 1.6 21.5 530 1.2 106.0 " " 10000 - 18.5 395 1.6 21.5 530 1.2 106.0 " " 10000 - 18.5 395 1.6 21.5 530 1.2 106.0 " " 10000 - 18.5 395 1.6 21.5 530 1.2 106.0 " " 10000 - 18.5 385 3.1 21.5 530 1.2 106.0 " " 10000 - 18.5 385 3.1 21.5 530 1.2 106.0 " " 10000 - 18.5 385 3.1 21.5 590 2.0 119.2 " " 10000 - 18.5 385 3.1 21.5 590 2.0 119.2 " " 10000 - 18.5 385 3.1 21.5 590 2.0 119.2 " " 10000 - 18.5 385 3.1 21.5 590 2.0 119.2 " " 10000 - 18.5 385 3.1 21.5 590 2.0 119.2 " " 10000 - 18.5 385 3.1 21.5 590 2.0 119.2 " " 10000 - 18.5 385 3.1 21.5 590 2.0 119.2 " " 10000 - 18.5 385 3.1 21.5 590 2.0 119.2 " " 10000 - 18.5 385 3.1 21.5 590 2.0 119.2 " " 10000 - 18.5 385 3.1 22.5 590 2.0 119.2 " " 10000 - 18.5 385 3.1 23.5 590 2.0 119.2 " " 10000 - 18.5 385 3.1 24.5 590 2.0 119.2 " " 10000 - 18.5 385 3.1 25.5 7 7 1250 0.96 2477 " " 10000 - 18.5 385 3.1 25.5 7 1250 0.96 2477 " " 10000 - 15.5 1170 1.5 24.6 1420 0.92 306.1 " " 16000 - 6.5 11500 - 5.5 1170 1.5								-			
21								-			
19					BG407- /DSE08LA4	13					
17.5 405 1.05 82.00 " " 7000 - 20.5 345 1.25 15.5 460 0.92 91.02 " 7000 - 18.5 385 1.1 14.5 490 0.87 96.86 " " 7000 - 17.5 405 1.05 13.5 530 0.8 107.5 " " 7000 - 16 445 0.96 37 193 3.3 37.89 BG50/DSE08LA4 48 10000 - 44.5 160 3.9 33.5 210 3.0 42.00 " " 10000 - 40 179 3.5 30 235 2.7 47.02 " 10000 - 36 198 3.2 27 265 2.4 52.12 " 10000 - 32.5 220 2.9 24 295 2.1 59.42 " 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " " 10000 - 28.5 250 2.5 19.5 365 1.75 71.97 BG50Z/DSE08LA4 52 10000 - 23.5 300 2.1 18 395 1.6 79.78 " 10000 - 21.5 330 1.9 15 475 1.35 95.58 " 10000 - 21.5 330 1.9 15.5 475 1.35 95.58 " 10000 - 21.5 330 1.9 18.6 395 1.6 79.78 " 10000 - 21.5 330 1.9 18.7 300 1.2 106.0 " " 10000 - 18 395 1.6 13.5 530 1.2 106.0 " " 10000 - 18 395 1.6 14.5 1.5 450 0.97 128.9 " 10000 - 13.5 530 1.2 18.6 50 0.97 128.9 " 10000 - 13.5 530 1.2 18.7 30 1.2 106.0 " " 10000 - 13.5 530 1.2 18.8 395 1.6 0.97 128.9 " " 10000 - 13.5 530 1.2 18.9 " " 10000 - 13.5 530 1.2 18.9 " " 10000 - 13.5 530 1.2 18.9 " " 10000 - 11.5 500 1.05 18.5 385 3.1 75.71 BG60Z/DSE08LA4 97 16000 - 12.5 335 1.2 590 2.0 119.2 " " 16000 - 11.5 490 2.4 11 650 1.85 132.1 " " 16000 - 14.5 490 2.4 11 650 1.85 132.1 " " 16000 - 14.5 490 2.4 11 650 1.85 132.1 " " 16000 - 14.5 490 2.4 11 650 1.85 132.1 " " 16000 - 14.5 490 2.4 11 650 1.85 132.1 " " 16000 - 14.5 490 2.4 11 650 1.85 132.1 " " 16000 - 14.5 490 2.4 11 650 1.85 132.1 " " 16000 - 15.5 490 2.4 11 650 1.85 132.1 " " 16000 - 17.5 950 1.25 12 1370 0.88 274.5 " " 16000 - 6.8 1050 1.15 15.1 1280 1.0 266.7 " " 16000 - 6.2 1150 1.05 15.1 1280 1.0 266.8 BG60G20/DSE08LA4 105 16000 - 6.1 1050 1.25 14.6 1420 0.92 306.1 " " 16000 - 5.5 1170 1.15											
15.5					TI .	II .		_			
14.5	15.5				"	11		_			1.1
13.5 530 0.8 107.5 " " 7000 - 16 445 0.96	14.5				"	ıı		_			1.05
37 193 3.3 37.89 BG50/DSE08LA4 48 10000 - 44.5 160 3.9 33.5 210 3.0 42.00 " " 10000 - 40 179 3.5 30 235 2.7 47.02 " 10000 - 36 198 3.2 27 265 2.4 52.12 " 10000 - 32.5 220 2.5 24 295 2.1 59.42 " 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " 10000 - 26 275 2.3 19.5 365 1.75 71.97 BG50Z/DSE08LA4 52 10000 - 23.5 300 2.1 18 395 1.6 79.78 " 10000 - 21.5 330 1.9 15 475 1.35 95.58 " 10000 - 21.5 330 1.9 15 475 1.35 95.88 " 10000 - 18 395 1.6 11.6 50 0.97 128.9 " 10000 - 16 445 1.4 11 650 0.97 128.9 " 10000 - 13.5 530 1.2 18.5 385 3.1 75.71 BG60Z/DSE08LA4 97 16000 - 12.5 90 1.05 18.5 385 3.1 75.71 BG60Z/DSE08LA4 97 16000 - 18.5 385 3.1 14.5 510 2.4 101.0 " 16000 - 18.5 385 3.1 14.5 510 2.4 101.0 " 16000 - 18.5 385 3.1 14.5 510 2.4 101.0 " 16000 - 17 420 2.9 12 590 2.0 119.2 " 16000 - 14.5 490 2.4 11 650 1.85 132.1 " 16000 - 17 420 2.9 11 650 1.85 132.1 " 16000 - 17 420 2.9 11 650 1.85 132.1 " 16000 - 17 420 2.9 11 650 1.85 132.1 " 16000 - 17 7 420 2.9 11 650 1.85 132.1 " 16000 - 17 7 420 2.9 11 650 1.85 132.1 " 16000 - 17 7 420 2.9 11 650 1.85 132.1 " 16000 - 17 7 420 2.9 11 650 1.85 132.1 " 16000 - 17 7 420 2.9 11 650 1.85 132.1 " 16000 - 17 7 420 2.9 11 650 1.85 132.1 " 16000 - 17 7 420 2.9 11 650 1.85 132.1 " 16000 - 17 7 420 2.9 11 650 1.85 132.1 " 16000 - 17 7 420 2.9 11 650 1.85 132.1 " 16000 - 17 7 5 950 1.25 11 650 1.95 158.0 " 16000 - 7.5 950 1.25 11 150 1.05 26.7 " 16000 - 7.5 950 1.25 11 150 1.05 26.7 " 16000 - 6.2 1150 1.05 11 150 1.05 11 1280 1.0 276.2 BG60G20/DSE08LA4 105 16000 - 6.1 1050 1.25 11 180 1.0 276.2 BG60G20/DSE08LA4 105 16000 - 6.1 1050 1.25 11 180 1.0 276.2 BG60G20/DSE08LA4 105 16000 - 5.5 1170 1.1	13.5		i i		m .	II .		-			0.96
33.5											
30	37		3.3		BG50/DSE08LA4		10000	-	44.5		3.9
27								-			3.5
24 295 2.1 59.42 " " 10000 - 28.5 250 2.5 21.5 330 1.9 65.86 " " 10000 - 26 275 2.3 18 395 1.6 79.78 " " 10000 - 23.5 300 2.1 15 475 1.35 95.58 " " 10000 - 18 395 1.6 13.5 530 1.2 106.0 " " 10000 - 18 395 1.6 13.5 530 1.2 106.0 " " 10000 - 16 445 1.4 11 650 0.97 128.9 " " 10000 - 13.5 530 1.2 9.8 730 0.86 142.9 " " 10000 - 13.5 530 1.2 18.5 385	30										3.2
21.5 330 1.9 65.86 " " 10000 - 26 275 2.3 19.5 365 1.75 71.97 BG50Z/DSE08LA4 52 10000 - 23.5 300 2.1 18 395 1.6 79.78 " " 10000 - 21.5 330 1.9 15 475 1.35 95.58 " " 10000 - 18 395 1.6 13.5 530 1.2 106.0 " " 10000 - 16 445 1.4 11 650 0.97 128.9 " " 10000 - 13.5 530 1.2 18.5 385 3.1 75.71 BG60Z/DSE08LA4 97 16000 - 12.5 315 3.8 15.5 460 2.6 91.09 " " 16000 - 18.5 385 3.1 14 510 2.4 101.0 " " 16000 - 17 420 2.9 12 590 2.0 119.2 " " 16000 - 14.5 490 2.4 11 650 1.85 132.1 " " 16000 - 13 550 2.2 11 650 1.85 132.1 " " 16000 - 13 550 2.2 11 650 1.85 132.1 " " 16000 - 13 550 2.2 11 650 1.85 132.1 " " 16000 - 13 550 2.2 11 650 1.85 132.1 " " 16000 - 18.5 386 1.5 15.5 15.0 0 " " 16000 - 17 420 2.9 16.0 1.5 158.0 " " 16000 - 17 420 2.9 17 16000 - 18.5 490 2.4 18.5 15.5 158.0 " " 16000 - 18.5 386 1.5 18.6 890 1.35 175.1 " " 16000 - 11 650 1.85 18.7 1250 0.96 247.7 " " 16000 - 8.3 860 1.4 18.5 1320 0.96 247.7 " " 16000 - 6.8 1050 1.5 18.5 1320 0.88 274.5 " " 16000 - 6.2 1150 1.05 18.5 1320 0.88 1050 1.15 18.5 1320 0.88 1050 1.15 18.5 1320 0.96 247.7 " " 16000 - 6.2 1150 1.05 18.5 1320 0.98 274.5 " " 16000 - 6.2 1150 1.05 18.5 1320 0.92 306.1 " " 16000 - 6.1 1050 1.25											
19.5 365 1.75 71.97 BG50Z/DSE08LA4 52 10000 - 23.5 300 2.1											
18 395 1.6 79.78 " " 10000 - 21.5 330 1.9 15 475 1.35 95.58 " " 10000 - 18 395 1.6 13.5 530 1.2 106.0 " " 10000 - 16 445 1.4 11 650 0.97 128.9 " " 10000 - 13.5 530 1.2 9.8 730 0.86 142.9 " " 10000 - 13.5 530 1.2 18.5 385 3.1 75.71 860Z/DSE08LA4 97 16000 - 22.5 315 3.8 15.5 460 2.6 91.09 " " 16000 - 18.5 385 3.1 15.5 460 2.6 91.09 " " 16000 - 18.5 385 3.1 12 590 2.0 119.2 " " 16000 - 14.5 490											
15 475 1.35 95.58 " " 10000 - 18 395 1.6 13.5 530 1.2 106.0 " " 10000 - 16 445 1.4 11 650 0.97 128.9 " " 10000 - 13.5 530 1.2 9.8 730 0.86 142.9 " " 10000 - 13.5 530 1.2 9.8 730 0.86 142.9 " " 10000 - 12.5 590 1.05 18.5 385 3.1 75.71 BG60Z/DSE08LA4 97 16000 - 22.5 315 3.8 15.5 460 2.6 91.09 " " 16000 - 18.5 385 3.1 14 510 2.4 101.0 " " 16000 - 17.4 420 2.9 12 590 2.0 119.2 " " 16000 - 14.5 490 2.4 11 650											
13.5 530 1.2 106.0 " " 10000 - 16 445 1.4 11 650 0.97 128.9 " " 10000 - 13.5 530 1.2 9.8 730 0.86 142.9 " " 10000 - 12 590 1.05 18.5 385 3.1 75.71 BG60Z/DSE08LA4 97 16000 - 22.5 315 3.8 15.5 460 2.6 91.09 " " 16000 - 18.5 385 3.1 14 510 2.4 101.0 " " 16000 - 17 420 2.9 12 590 2.0 119.2 " " 16000 - 14.5 490 2.4 11 650 1.85 132.1 " " 16000 - 14.5 490 2.2 11 650 1.85 132.1 " " 16000 - 11 650 <t< th=""><th>15</th><th></th><th></th><th></th><th>n .</th><th>II.</th><th></th><th></th><th></th><th></th><th></th></t<>	15				n .	II.					
11 650 0.97 128.9 " " 10000 - 13.5 530 1.2 9.8 730 0.86 142.9 " " 10000 - 12 590 1.05 18.5 385 3.1 75.71 BG60Z/DSE08LA4 97 16000 - 22.5 315 3.8 15.5 460 2.6 91.09 " " 16000 - 18.5 385 3.1 14 510 2.4 101.0 " " 16000 - 17 420 2.9 12 590 2.0 119.2 " " 16000 - 14.5 490 2.4 11 650 1.85 132.1 " " 16000 - 13 550 2.2 8.9 800 1.5 158.0 " " 16000 - 11 650 1.85 8.0 890 1.35 175.1 " " 16000 - 8.3 860 <t< th=""><th></th><th></th><th></th><th></th><th>III</th><th>II .</th><th></th><th></th><th></th><th></th><th></th></t<>					III	II .					
9.8 730 0.86 142.9 " 10000 - 12 590 1.05 18.5 385 3.1 75.71 BG60Z/DSE08LA4 97 16000 - 22.5 315 3.8 15.5 460 2.6 91.09 " " 16000 - 18.5 385 3.1 14 510 2.4 101.0 " " 16000 - 17 420 2.9 12 590 2.0 119.2 " " 16000 - 14.5 490 2.4 11 650 1.85 132.1 " " 16000 - 13 550 2.2 8.9 800 1.5 158.0 " " 16000 - 11 650 1.85 8.0 890 1.35 175.1 " " 16000 - 9.6 740 1.6 6.9 1030 1.15 204.6 " " 16000 - 7.5 950 1.25	11				m .	II .					1.2
18.5 385 3.1 75.71 BG60Z/DSE08LA4 97 16000 - 22.5 315 3.8 15.5 460 2.6 91.09 " " 16000 - 18.5 385 3.1 14 510 2.4 101.0 " " 16000 - 17 420 2.9 12 590 2.0 119.2 " " 16000 - 14.5 490 2.4 11 650 1.85 132.1 " " 16000 - 13 550 2.2 11 650 1.85 132.1 " " 16000 - 11 650 1.85 132.1 " " 16000 - 11 650 1.85 158.0 " " 16000 - 11 650 1.85 158.0 " " 16000 - 11 650 1.85 158.0 " " 16000 - 11 650 1.85 159.1 " " 16000 - 11 650 1.85 159.1 " " 16000 - 9.6 740 1.6 159 159.1 " " 16000 - 8.3 860 1.4 159.1 " " 16000 - 8.3 860 1.4 159.1 " " 16000 - 6.8 1050 1.5 159.1 " " 16000 - 6.8 1050 1.5 159.1 " " 16000 - 6.8 1050 1.5 159.1 " " 16000 - 6.8 1050 1.5 1.5 159.1 " " 16000 - 6.8 1050 1.5 1.5 159.1 " " 16000 - 6.8 1050 1.5 1.5 11 1280 1.0 276.2 BG60G20/DSE08LA4 105 16000 - 6.1 1050 1.25 1.5 1170 1.1 1050 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25	9.8				m .	II .		-			1.05
15.5 460 2.6 91.09 " " 16000 - 18.5 385 3.1 14 510 2.4 101.0 " " 16000 - 17 420 2.9 12 590 2.0 119.2 " " 16000 - 14.5 490 2.4 11 650 1.85 132.1 " " 16000 - 13 550 2.2 8.9 800 1.5 158.0 " " 16000 - 11 650 1.85 8.0 890 1.35 175.1 " " 16000 - 9.6 740 1.6 6.9 1030 1.15 204.6 " " 16000 - 8.3 860 1.4 6.2 1150 1.05 226.7 " " 16000 - 7.5 950 1.25 5.7 1250 0.96 247.7 " " 16000 - 6.2 1150 1.05											
114	18.5							-			3.8
12 590 2.0 119.2 " 16000 - 14.5 490 2.4 111 650 1.85 132.1 " " 16000 - 13 550 2.2 18.9 800 1.5 158.0 " " 16000 - 11 650 1.85 8.0 890 1.35 175.1 " " 16000 - 9.6 740 1.6 6.9 1030 1.15 204.6 " " 16000 - 8.3 860 1.4 6.2 1150 1.05 226.7 " " 16000 - 7.5 950 1.25 6.7 1250 0.96 247.7 " " 16000 - 6.8 1050 1.15 5.2 1370 0.88 274.5 " " 16000 - 6.8 1050 1.15 5.1 1280 1.0 276.2 BG60G20/DSE08LA4 105 16000 - 6.1 1050 1.25 4.6 1420 0.92 306.1 " " 16000 - 5.5 1170 1.1	15.5							-			3.1
11	14										2.9
8.9 800 1.5 158.0 " 16000 - 11 650 1.85 8.0 890 1.35 175.1 " 16000 - 9.6 740 1.6 6.9 1030 1.15 204.6 " 16000 - 8.3 860 1.4 6.2 1150 1.05 226.7 " 16000 - 7.5 950 1.25 6.7 1250 0.96 247.7 " 16000 - 6.8 1050 1.15 6.2 1370 0.88 274.5 " 16000 - 6.2 1150 1.05 6.1 1280 1.0 276.2 BG60G20/DSE08LA4 105 16000 - 6.1 1050 1.25 6.6 1420 0.92 306.1 " 16000 - 5.5 1170 1.1											
8.0 890 1.35 175.1 " 16000 - 11 030 1.65 6.9 1030 1.15 204.6 " " 16000 - 8.3 860 1.4 6.2 1150 1.05 226.7 " " 16000 - 7.5 950 1.25 6.7 1250 0.96 247.7 " " 16000 - 6.8 1050 1.15 6.2 1370 0.88 274.5 " " 16000 - 6.2 1150 1.05 6.1 1280 1.0 276.2 BG60G20/DSE08LA4 105 16000 - 6.1 1050 1.25 6.6 1420 0.92 306.1 " 16000 - 5.5 1170 1.1											
6.9 1030 1.15 204.6 " 16000 - 8.3 860 1.4 6.2 1150 1.05 226.7 " 16000 - 7.5 950 1.25 6.7 1250 0.96 247.7 " 16000 - 6.8 1050 1.15 6.2 1370 0.88 274.5 " 16000 - 6.2 1150 1.05 6.1 1280 1.0 276.2 BG60G20/DSE08LA4 105 16000 - 6.1 1050 1.25 6.6 1420 0.92 306.1 " 16000 - 5.5 1170 1.1											
6.2 1150 1.05 226.7 " " 16000 - 7.5 950 1.25 5.7 1250 0.96 247.7 " " 16000 - 6.8 1050 1.15 5.2 1370 0.88 274.5 " " 16000 - 6.2 1150 1.05 5.1 1280 1.0 276.2 BG60G20/DSE08LA4 105 16000 - 6.1 1050 1.25 4.6 1420 0.92 306.1 " 16000 - 5.5 1170 1.1											
5.7 1250 0.96 247.7 " " 16000 - 6.8 1050 1.15 5.2 1370 0.88 274.5 " " 16000 - 6.2 1150 1.05 5.1 1280 1.0 276.2 BG60G20/DSE08LA4 105 16000 - 6.1 1050 1.25 4.6 1420 0.92 306.1 " " 16000 - 5.5 1170 1.1											
5.2 1370 0.88 274.5 " " 16000 - 6.2 1150 1.05 5.1 1280 1.0 276.2 BG60G20/DSE08LA4 105 16000 - 6.1 1050 1.25 4.6 1420 0.92 306.1 " " 16000 - 5.5 1170 1.1											
5.1 1280 1.0 276.2 BG60G20/DSE08LA4 105 16000 - 6.1 1050 1.25 4.6 1420 0.92 306.1 " " 16000 - 5.5 1170 1.1											
4.6 1420 0.92 306.1 " " 16000 - 5.5 1170 1.1											
					BGOOGZO/DJEUOLA4						
					m .	"					
	***	.500	0.05	JJ7.J			10000		ا . د	1200	1.05

Selection helical-geared motors DSE-IE1

P = 0.75 kW



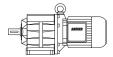
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
9.6	740	3.1	147.2	BG70Z/DSE08LA4	137	20000	-	11.5	620	3.7
8.6	830	2.8	163.8	"	"	20000	-	10.5	680	3.4
7.3	980	2.3	194.4	"	"	20000	-	8.7	820	2.8
6.7	1060	2.2	210.5	"	"	20000	-	8.0	890	2.6
5.7	1250	1.85	249.8	m m	"	20000	-	6.8	1050	2.2
5.5	1190	2.1	255.5	BG70G20/DSE08LA4	135	20000	-	6.6	970	2.6
5.1	1280	1.95	276.7	"	"	20000	-	6.1	1050	2.4
4.3	1520	1.65	328.4	"	"	20000	-	5.2	1230	2.0
3.7	1780	1.4	387.6	"	II	20000	-	4.4	1480	1.7
3.4	1980	1.25	417.8	"	"	20000	-	4.1	1620	1.55
2.9	2300	1.1	495.9	"	"	20000	-	3.4	1960	1.3
2.5	2700	0.93	577.3	"	"	20000	-	3.0	2200	1.15
2.2	3050	0.82	665.8	11	"	20000	-	2.6	2550	0.98
3.9	1490	3.1	360.0	BG80G40/DSE08LA4	216	26000	_	4.7	1180	3.9
3.6	1610	2.9	399.8	п	"	26000	-	4.3	1290	3.6
3.3	1830	2.5	436.2	п	"	26000	-	3.9	1490	3.1
2.9	2050	2.2	484.3	п	"	26000	-	3.5	1670	2.8
2.5	2450	1.9	572.0	m .	11	26000	-	3.0	2000	2.3
2.2	2750	1.65	657.8	m .	"	26000	-	2.6	2250	2.0
2.0	3050	1.5	730.3	m .	"	26000	-	2.4	2450	1.9
1.8	3450	1.35	817.4	m .	"	26000	-	2.1	2850	1.6
1.6	3900	1.2	907.6	"	"	26000	-	1.9	3200	1.45
1.4	4550	1.0	1042	· ·	"	26000	-	1.7	3650	1.25
1.2	5400	0.85	1261	II	"	26000	-	1.4	4550	1.0
2.0	2900	3.2	714.2	BG90G50/DSE08LA4	326	65000	_	2.4	2300	4.0
1.6	3800	2.4	883.7	п	"	65000	-	2.0	2900	3.2
1.2	5200	1.75	1174	п	"	65000	-	1.5	4100	2.2
1.1	5800	1.6	1301	п	"	65000	-	1.3	4800	1.9
0.9	7200	1.3	1583	п	"	65000	-	1.1	5800	1.6
0.8	8200	1.1	1756	II	II .	65000	-	1.0	6400	1.45
1.0	5700	3.2	1444	BG100G50/DSE08LA4	513	90000	_	1.2	4550	4.1
0.85	6800	2.7	1678	II .	"	90000	-	1.1	4900	3.8
0.75	7700	2.4	1867	II .	II .	90000	_	0.9	6100	3.0
0.65	8900	2.1	2154	II .	11	90000	-	0.8	6800	2.7
0.55	10600	1.75	2656	II .	II .	90000	-	0.65	8600	2.2
0.48	12600	1.45	2952	"	II .	90000	-	0.6	9600	1.95
0.43	14100	1.3	3286	II .	II .	90000	-	0.55	10500	1.75
0.39	15800	1.15	3644	II .	II .	90000	-	0.47	12700	1.45

P = 1.1 kW

	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	Ν	N	1/min	Nm	
500	21	0.86	2.82	BG06/DSE08XA4	19	470	-	600	17.5	1.05
560	18.7	3.0	2.52	BG10/DSE08XA4	19	560	790	670	15.6	3.6
410	25.5	2.4	3.42	"	"	630	880	495	21	3.0
325	32	2.1	4.36	II	"	650	910	390	26.5	2.6
265	39.5	1.9	5.34	II	"	620	910	315	33	2.3
210	50	1.6	6.78	II	"	660	920	250	42	1.95
174	60	1.45	8.07	II	"	660	920	210	50	1.75
151	69	1.4	9.33	II	"	950	1330	181	58	1.65
136	77	1.3	10.34	II	"	1000	1400	163	64	1.55
118	89	1.2	11.92	II	"	1030	1440	141	74	1.4
106	99	1.1	13.21	II	"	1070	1490	128	82	1.35
97	108	1.05	14.58	"	"	1100	1540	116	90	1.25
87	120	0.98	16.15	m	"	1140	1590	105	100	1.15
76	138	0.87	18.51	n n	"	1210	1690	91	115	1.05

BG-series helical-geared motors Selection helical-geared motors DSE-IE1

P = 1.1 kW

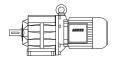


	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	•	.,,,,,	•••	· NN	- NV	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	-в			kg	N	Ν	1/min	Nm	
320	32.5	3.2	4.38	BG20/DSE08XA4	22	1990		385	27	3.9
260	40	2.9	5.49	"	"	2100	_	310	33.5	3.4
220	47.5	2.6	6.48	п	"	2250	_	260	40	3.1
175	60	2.3	8.02	п	"	2500	_	210	50	2.7
169	62	1.95	8.29	п	"	2250	_	205	51	2.4
158	66	2.2	8.91	п	"	2600	_	189	55	2.6
146	71	1.7	9.65	"	"	2250	_	175	60	2.0
133	71 78	1.95	10.54	"	"	2700	_	160	65	2.4
120	87		11.71	11	"	2800		144		
106	99	1.8 1.7	13.21	11	"	2900	-	128	72 82	2.2
96	109		14.67	11	"	3050	-	115	91	2.0
90		1.6		п	"					1.9
	116	1.55	15.58	п	"	3100	-	108	97 107	1.8
81	129	1.4	17.31	п	"	3200	-	98	107	1.7
71	147	1.35	19.95		"	3350	-	85	123	1.6
64	164	1.2	22.16		"	3500	-	76	138	1.45
61	172	1.15	23.22		"	3550	-	73	143	1.4
55	191	1.05	25.79	" "	"	3700	-	66	159	1.25
51	205	0.98	27.85			3800	-	61	172	1.15
45.5	230	0.87	30.94	"	"	4000	-	55	191	1.05
42.5	245	0.82	33.33	"	II .	4100	-	51	205	0.98
			11.00	Dena /Dena	2.5	2222		1.13	70	
119	88	3.1	11.82	BG30/DSE08XA4	26	3200	-	143	73	3.8
102	102	2.9	13.77	" "	"	3150	-	123	85	3.5
92	114	2.6	15.27			3450	-	111	94	3.2
83	126	2.4	17.06	"	"	3700	-	99	106	2.8
74	141	2.1	18.93	"	"	4100	-	89	118	2.5
71	147	2.0	19.99	"	"	4200	-	85	123	2.4
64	164	1.85	22.18	"	II .	4600	-	76	138	2.2
56	187	1.6	25.45	"	II .	4850	-	67	156	1.9
50	210	1.45	28.24	"	II .	5100	-	60	175	1.7
47	220	1.35	29.83	"	"	5200	-	57	184	1.65
42.5	245	1.2	33.09	"	"	5400	-	51	205	1.45
40	260	1.15	35.17	"	"	5500	-	48	215	1.4
36	290	1.05	39.02	II	"	5800	-	43.5	240	1.25
33	315	0.95	42.46	II .	II .	5900	-	40	260	1.15
30	350	0.86	47.11	"	"	6000	-	36	290	1.05
77	136	3.1	18.19	BG40/DSE08XA4	41	5600	-	93	112	3.8
71	147	2.9	19.84	"	"	5800	-	85	123	3.5
64	164	2.6	22.02	"	"	6000	-	77	136	3.1
60	175	2.4	23.43	"	"	6200	-	72	145	2.9
54	194	2.2	26.01	"	"	6500	-	65	161	2.6
48	215	2.0	29.34	"	"	6800	-	58	181	2.3
43	240	1.75	32.57	"	II .	7000	-	52	200	2.1
41	255	1.65	34.20	"	"	7000	-	49.5	210	2.0
37	280	1.5	37.96	II	"	7000	-	44.5	235	1.8
35	300	1.4	40.19	II	"	7000	-	42	250	1.7
31.5	330	1.3	44.62	"	"	7000	-	38	275	1.55
29	360	1.2	48.36	m	"	7000	-	35	300	1.4
26.5	395	1.1	53.69	II .	"	7000	-	31.5	330	1.3
23.5	445	0.96	59.64	m .	"	7000	-	28.5	365	1.15
21.5	485	0.88	66.20	II .	"	7000	-	25.5	410	1.05
21	500	0.85	67.74	BG40Z/DSE08XA4	44	7000	-	25	420	1.0
47.5	220	2.9	29.62	BG50/DSE08XA4	48	8000	-	57	184	3.4
43	240	2.6	32.84	"	"	8700	-	52	200	3.2
37	280	2.3	37.89	TI TI	II .	10000	-	44.5	235	2.7
33.5	310	2.0	42.00	II	"	10000	-	40	260	2.4
30	350	1.8	47.02	TI TI	II .	10000	-	36	290	2.2
27	385	1.65	52.12	m m	II .	10000	-	32.5	320	1.95
24	435	1.45	59.42	m m	II .	10000	-	28.5	365	1.75
21.5	485	1.3	65.86	m .	II .	10000	-	26	400	1.6
19.5	530	1.2	71.97	BG50Z/DSE08XA4	53	10000	_	23.5	445	1.4
18	580	1.1	79.78	"	"	10000	_	21.5	485	1.3
15	700	0.9	95.58	п	II .	10000	_	18	580	1.1
13.5	770	0.82	106.0	m .	II .	10000	_	16	650	0.97
13.3	//0	0.02	100.0			10000	-	10	050	0.97

6

Selection helical-geared motors DSE-IE1

P = 1.1 kW



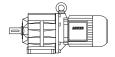
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
20.5	510	2.4	68.32	BG60Z/DSE08XA4	98	16000	-	25	420	2.9
18.5	560	2.1	75.71	"	II .	16000	-	22.5	465	2.6
15.5	670	1.8	91.09	"	II .	16000	-	18.5	560	2.1
14	750	1.6	101.0	"	"	16000	-	17	610	1.95
12	870	1.4	119.2	"	"	16000	-	14.5	720	1.65
11	950	1.25	132.1	"	"	16000	-	13	800	1.5
8.9	1180	1.0	158.0	"	"	16000	-	11	950	1.25
8.0	1310	0.92	175.1	п	"	16000	-	9.6	1090	1.1
15	700	3.3	95.74	BG70Z/DSE08XA4	138	20000	-	18	580	4.0
12.5	840	2.7	113.6	"	"	20000	-	15	700	3.3
11.5	910	2.5	124.0	"	"	20000	-	14	750	3.1
9.6	1090	2.1	147.2	"	"	20000	-	11.5	910	2.5
8.6	1220	1.9	163.8	"	"	20000	-	10.5	1000	2.3
7.3	1430	1.6	194.4		"	20000	-	8.7	1200	1.9
6.7	1560	1.45	210.5	"	"	20000	-	8.0	1310	1.75
5.7	1840	1.25	249.8	"	"	20000	-	6.8	1540	1.5
5.5	1800	1.4	255.5	BG70G20/DSE08XA4	136	20000	-	6.6	1480	1.7
5.1	1940	1.3	276.7	"	"	20000	-	6.1	1600	1.55
4.3	2300	1.1	328.4		"	20000	-	5.2	1880	1.35
3.7	2650	0.94	387.6		"	20000	-	4.4	2200	1.15
3.4	2950	0.85	417.8	"		20000	-	4.1	2400	1.05
6.2	1410	3.3	227.2	BG80G40/DSE08XA4	217	26000	-	7.4	1140	4.0
5.6	1560	2.9	252.3		"	26000	-	6.7	1250	3.7
5.0	1790	2.6	282.8		"	26000	-	6.0	1440	3.2
4.5	1990	2.3	314.0		11	26000	-	5.4	1600	2.9
3.9 3.6	2350 2500	1.95 1.85	360.0 399.8	n n	"	26000 26000	-	4.7 4.3	1890 2050	2.4
3.3	2800	1.65	436.2	п	п	26000	_	3.9	2350	1.95
2.9	3200	1.45	484.3	n .	"	26000	-	3.5	2600	1.75
2.5	3800	1.43	572.0	п	"	26000	_	3.0	3100	1.75
2.2	4250	1.1	657.8	II .	"	26000	_	2.6	3550	1.3
2.0	4750	0.97	730.3	п	11	26000	_	2.4	3850	1.2
1.8	5300	0.87	817.4	п	"	26000	-	2.1	4450	1.05
3.3	2750	3.3	435.8	BG90G50/DSE08XA4	327	65000	_	3.9	2300	4.0
2.8	3250	2.8	504.7	" "	327	65000	_	3.4	2600	3.5
2.4	3800	2.4	588.8	п	11	65000	_	2.9	3050	3.0
2.2	4150	2.2	644.7	TI TI	II .	65000	_	2.7	3250	2.8
2.0	4600	2.0	714.2	TI TI	II .	65000	_	2.4	3700	2.5
1.6	5800	1.6	883.7	m .	II .	65000	_	2.0	4550	2.0
1.2	8000	1.15	1174	m .	II .	65000	_	1.5	6300	1.45
1.1	8800	1.05	1301	II .	II	65000	-	1.3	7400	1.25
1.4	6100	3.0	1043	BG100G50/DSE08XA4	514	90000	_	1.7	4750	3.9
1.2	7100	2.6	1204	"	"	90000	_	1.4	5800	3.2
1.0	9100	2.0	1444	"	II .	90000	_	1.2	7300	2.5
0.85	10700	1.75	1678	"	II .	90000	_	1.1	7900	2.3
0.75	12200	1.5	1867	"	11	90000	_	0.9	9800	1.9
0.65	14100	1.3	2154	п	II .	90000	-	0.8	11000	1.7
0.55	16700	1.1	2656	п	II .	90000	-	0.65	13700	1.35

P = 1.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
570	25	2.2	2.52	BG10/DSE09LA4	26	560	790	680	21	2.7
420	34	1.8	3.42	m m	"	630	880	500	28.5	2.2
330	43	1.6	4.36	m m	"	650	910	395	36	1.9
270	53	1.4	5.34	m m	"	620	910	325	44	1.7
210	68	1.2	6.78	"	"	660	920	255	56	1.45
176	81	1.1	8.07	"	"	660	920	215	66	1.35
153	93	1.05	9.33	"	"	950	1330	184	77	1.25
138	103	0.96	10.34	II .	"	1000	1400	166	86	1.15

Selection helical-geared motors DSE-IE1

P = 1.5 kW

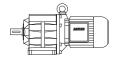


	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
120	119	0.88	11.92	BG10/DSE09LA4	"	1030	1440	144	99	1.05
108	132	0.83	13.21	"		1070	1490	130	110	1.0
430	33	2.8	3.33	BG20/DSE09LA4	28	1830	_	520	27.5	3.3
325	44	2.4	4.38	BG20/D3E09EA4	20	1990	_	395	36	2.9
260	55	2.1	5.49	"	11	2100	_	315	45	2.6
220	65	1.9	6.48	п	"	2250	_	265	54	2.3
178	80	1.7	8.02	11	"	2500	-	215	66	2.1
172	83	1.45	8.29	"	11	2250	-	210	68	1.8
160	89	1.6	8.91	n n	"	2600	-	192	74	1.95
148	96	1.25	9.65	"	"	2250	-	178	80	1.55
135	106	1.45	10.54	"	"	2700	-	163	87	1.75
122	117	1.35	11.71		"	2800	-	147	97	1.65
108 97	132 147	1.25 1.15	13.21 14.67	"	"	2900 3050	-	130 117	110 122	1.5 1.4
97	155	1.15	15.58	п	11	3100	-	110	130	1.35
83	172	1.05	17.31	11	11	3200	_	99	144	1.25
72	198	0.98	19.95	п	"	3350	_	86	166	1.15
65	220	0.91	22.16	п	II .	3500	-	78	183	1.1
62	230	0.87	23.22	"	II .	3550	-	74	193	1.05
215	66	3.3	6.75	BG30/DSE09LA4	33	1760	-	255	56	3.9
180	79	2.7	7.91	"	"	1760	-	220	65	3.3
166	86	2.9	8.60	" "	"	2800	-	199	71	3.5
149 134	96 106	2.6 2.5	9.55 10.65		"	3000 2950	-	180 161	79 88	3.2 3.0
121	118	2.3	11.82	n	п	3200	-	145	98	2.8
104	137	2.1	13.77	п	"	3150	_	125	114	2.6
93	154	1.95	15.27	"	II .	3450	_	112	127	2.4
84	170	1.75	17.06	n	II .	3700	_	101	141	2.1
76	188	1.6	18.93	п	II .	4100	-	91	157	1.9
72	198	1.5	19.99	"	"	4200	-	86	166	1.8
65	220	1.35	22.18	"	"	4600	-	78	183	1.65
56	255	1.2	25.45	"	"	4850	-	68	210	1.45
51	280	1.05	28.24		"	5100	-	61	230	1.3
48 43	295 330	1.0 0.91	29.83 33.09	"	"	5200 5400	-	58 52	245 275	1.2 1.1
40.5	350	0.86	35.17	п	11	5500	_	49	290	1.05
10.5		0.00	33.17			3300		.,	250	1.03
158	90	3.3	9.00	BG40/DSE09LA4	47	2650	-	190	75	3.9
111	129	3.2	12.86	"	"	4500	-	133	107	3.8
100	143	2.9	14.28	"	"	4900	-	120	119	3.5
87	164	2.6	16.39	"	"	5300	-	105	136	3.1
79	181	2.3	18.19	"	"	5600	-	95	150	2.8
72 65	198 220	2.1 1.95	19.84 22.02	"	"	5800 6000	-	87 78	164 183	2.6 2.3
61	230	1.85	23.43	11	"	6200	_	73	196	2.2
55	260	1.65	26.01	n n	"	6500	_	66	215	2.0
48.5	295	1.45	29.34	п	II .	6800	-	59	240	1.75
44	325	1.3	32.57	"	11	7000	-	53	270	1.55
42	340	1.25	34.20	II .	"	7000	-	50	285	1.5
37.5	380	1.1	37.96		"	7000	-	45.5	310	1.35
35.5	400	1.05	40.19	" "	"	7000	-	43	330	1.3
32	445	0.96	44.62	 11	"	7000	-	38.5	370	1.15
29.5	485	0.88	48.36			7000	-	35.5	400	1.05
65	220	2.9	21.96	BG50/DSE09LA4	55	8000	_	78	183	3.4
59	240	2.6	24.34	"	"	8700	_	71	200	3.2
48	295	2.1	29.62	п	"	8000	-	58	245	2.6
43.5	325	1.95	32.84	II .	II .	8700	-	53	270	2.3
37.5	380	1.65	37.89	п	"	10000	-	45.5	310	2.0
34	420	1.5	42.00	"	"	10000	-	41	345	1.85
30.5	465	1.35	47.02	" "	"	10000	-	36.5	390	1.6
27.5	520	1.2	52.12	"	"	10000	-	33	430	1.45
24 22	590 650	1.05	59.42 65.86	"	"	10000	-	29	490 550	1.3 1.15
22	650	0.97	65.86			10000	-	26	550	1.15

6

Selection helical-geared motors DSE-IE1

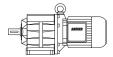
P = 1.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	ı	Туре	111	I RN	ı RV	n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	•в			kg	N	N	1/min	Nm	•в
20	710	0.89	71.97	BG50Z/DSE09LA4	60	10000	-	24	590	1.05
18	790	0.8	79.78	"	"	10000	_	21.5	660	0.95
37	385	3.1	38.85	BG60/DSE09LA4	86	16000	_	44.5	320	3.8
33	430	2.8	43.05	II .	"	16000	-	40	355	3.4
28.5	500	2.4	50.31	II .	II .	16000	-	34	420	2.9
25.5	560	2.1	55.76	II .	"	16000	-	31	460	2.6
23.5	600	2.0	60.90	n .	II .	16000	-	28.5	500	2.4
21.5	660	1.8	67.49	п	II .	16000	-	25.5	560	2.1
21	680	1.75	68.32	BG60Z/DSE09LA4	105	16000	-	25.5	560	2.1
19	750	1.6	75.71	"	"	16000	-	23	620	1.95
16	890	1.35	91.09	n n	"	16000	-	19	750	1.6
14.5	980	1.2	101.0	"	II .	16000	-	17	840	1.45
12	1190	1.0	119.2	"	II .	16000	-	14.5	980	1.2
11	1300	0.92	132.1	n n	"	16000	-	13	1100	1.1
19.5	730	3.2	73.82	BG70Z/DSE09LA4	145	20000	-	23.5	600	3.8
16.5	860	2.7	87.61		"	20000	-	20	710	3.2
15	950	2.4	95.74	"	"	20000	-	18	790	2.9
12.5	1140	2.0	113.6	"	"	20000	-	15.5	920	2.5
11.5	1240	1.85	124.0	"	"	20000	-	14	1020	2.3
9.7	1470	1.55	147.2		"	20000	-	12	1190	1.95
8.7	1640	1.4	163.8	"	"	20000	-	10.5	1360	1.7
7.4	1930	1.2	194.4	"	"	20000	-	8.8	1620	1.4
6.8	2100	1.1	210.5	"	"	20000	-	8.2	1740	1.3
5.7	2500	0.92	249.8			20000	-	6.9	2050	1.1
5.6	2450	1.0	255.5	BG70G20/DSE09LA4	142	20000	-	6.7	2000	1.25
5.2	2600	0.96	276.7	"	"	20000	-	6.2	2150	1.15
4.4	3100	0.81	328.4	"	"	20000	-	5.3	2550	0.98
0.0	1460	2.0	1454	DC007 /DCF001 A 4	212	26000		12	1100	2.5
9.8	1460	2.9	145.4	BG80Z/DSE09LA4	213	26000	-	12	1190	3.5
8.8	1620	2.6	161.5		"	26000	-	11 9.2	1300	3.2 2.7
7.7	1860	2.3	186.8	п	"	26000	-		1550	
6.9 6.3	2050 1990	2.0	207.4 227.2	BG80G40/DSE09LA4	224	26000 26000	-	8.3 7.6	1720 1600	2.4 2.9
5.7	2200	2.3 2.1	252.3	BG80G40/D3E09LA4	22 4 "	26000	-	6.8	1790	2.6
5.1	2500	1.85	282.8	п	"	26000	_	6.1	2000	2.3
4.6	2750	1.65	314.0	п	"	26000	_	5.5	2250	2.0
4.0	3200	1.45	360.0	II .	"	26000	_	4.8	2600	1.75
3.6	3600	1.3	399.8	п	"	26000	_	4.3	2950	1.55
3.3	4000	1.15	436.2	п	"	26000	_	4.0	3200	1.45
3.0	4350	1.05	484.3	II	"	26000	_	3.6	3600	1.3
2.5	5300	0.87	572.0	TI .	11	26000	_	3.0	4350	1.05
	5500	0.07	372.0			20000		3.0	.550	1.05
4.0	3050	3.0	360.3	BG90G50/DSE09LA4	334	65000	-	4.8	2500	3.7
3.3	3950	2.3	435.8	11	11	65000	-	4.0	3150	2.9
2.9	4450	2.1	504.7	II .	II .	65000	-	3.4	3700	2.5
2.5	5100	1.8	588.8	II .	"	65000	-	3.0	4200	2.2
2.3	5600	1.65	644.7	II .	"	65000	-	2.7	4650	2.0
2.0	6500	1.4	714.2	m .	"	65000	-	2.4	5300	1.75
1.7	7700	1.2	883.7	II	"	65000	-	2.0	6400	1.45
1.3	10300	0.89	1174	n .	"	65000	-	1.5	8800	1.05
2.5	5700	3.2	591.1	BG100Z/DSE09LA4	522	90000	-	2.9	4900	3.8
2.2	6500	2.8	658.1	m m	II .	90000	-	2.6	5500	3.4
1.9	7500	2.5	759.0	"	"	90000	-	2.3	6200	3.0
1.7	8400	2.2	845.1	"	"	90000	-	2.1	6800	2.7
1.5	7900	2.3	976.1	BG100G50/DSE09LA4	521	90000	-	1.8	6300	2.9
1.4	8800	2.1	1043	"	"	90000	-	1.7	7000	2.6
1.2	10300	1.8	1204	"	"	90000	-	1.5	7900	2.3
1.0	12900	1.45	1444	"	"	90000	-	1.2	10500	1.75
0.85	15200	1.2	1678	" "	"	90000	-	1.1	11400	1.6
0.8	16100	1.15	1867	"	"	90000	-	0.95	13200	1.4
0.7	18400	1.0	2154	"	"	90000	-	0.8	15800	1.15

BG-series helical-geared motorsSelection helical-geared motors DSE -IE1

P = 2.2 kW

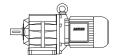


	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B		71		1114	11.4	n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm	-6			kg	N	N	1/min	Nm	- 6
570	36.5	1.55	2.52	BG10/DSE09XA4	30	560	790	680	30.5	1.85
420	50.5	1.25	3.42	" "	"	630	880	500	42	1.5
1		1		п	"					
330	63	1.1	4.36		"	650	910	395	53	1.3
270	77	0.97	5.34			620	910	325	64	1.15
210	100	0.81	6.78	II .	"	660	920	255	82	0.99
F70	26.5	2.2	2.52	DC30 /DCE00VAA	22	1660		600	20.5	2.0
570	36.5	2.3	2.52	BG20/DSE09XA4	32	1660	-	680	30.5	2.8
430	48.5	1.9	3.33			1830	-	520	40	2.3
325	64	1.65	4.38	"	"	1990	-	395	53	1.95
260	80	1.45	5.49	"	"	2100	-	315	66	1.75
220	95	1.3	6.48	"	"	2250	-	265	79	1.55
178	118	1.15	8.02	III	"	2500	-	215	97	1.4
172	122	1.0	8.29	II .	"	2250	_	210	100	1.2
160	131	1.1	8.91	n .	"	2600	_	192	109	1.3
148	141	0.87	9.65	m .	"	2250	_	178	118	1.05
135	155	0.87	10.54	п	"	2700	_	163	128	
				11	"					1.2
122	172	0.92	11.71		"	2800	-	147	142	1.1
108	194	0.86	13.21			2900	-	130	161	1.05
97	215	0.8	14.67	II .	"	3050	-	117	179	0.96
E 4 0	20.5	2.2	2.67	DC20 /DCE00VA4	27	1 4 5 0		650	22	4.0
540	38.5	3.3	2.67	BG30/DSE09XA4	37	1450	-	650	32	4.0
420	50	2.8	3.40	"	"	1580	-	510	41	3.4
340	61	2.8	4.21	"	II .	1630	-	410	51	3.4
265	79	2.5	5.44	"	"	1670	-	315	66	3.0
215	97	2.2	6.75	III	"	1760	-	255	82	2.6
180	116	1.85	7.91	II	II .	1760	_	220	95	2.3
166	126	1.95	8.60	m m	"	2800	_	199	105	2.3
149	141	1.8	9.55	11	"	3000	_	180	116	2.2
				п	"					
134	156	1.7	10.65		"	2950	-	161	130	2.0
121	173	1.6	11.82			3200	-	145	144	1.9
104	200	1.45	13.77	"	II .	3150	-	125	168	1.75
93	225	1.35	15.27	"	"	3450	-	112	187	1.6
84	250	1.2	17.06	III	"	3700	-	101	205	1.45
76	275	1.1	18.93	II	II .	4100	_	91	230	1.3
72	290	1.05	19.99	m m	"	4200	_	86	240	1.25
65	320	0.94	22.18	п	"	4600	_	78	265	1.15
56	375	0.8	25.45	п	"	4850	_	68	305	0.98
30	373	0.0	23.43			4030		00	303	0.50
230	91	3.2	6.29	BG40/DSE09XA4	51	2600	_	275	76	3.9
187	112	2.6	7.62	"	"	2650	_	225	93	3.2
171	122	2.8	8.31	п	"	4100		210	100	3.4
158		2.2	9.00	п	"		_	190		2.7
	132					2650			110	
154	136	2.6	9.23		"	4350	-	186	112	3.2
138	152	2.5	10.35		"	4350	-	166	126	3.0
124	169	2.3	11.49	"		4600	-	149	141	2.8
111	189	2.2	12.86	"	II .	4500	-	133	157	2.6
100	210	2.0	14.28	"	"	4900	-	120	175	2.4
87	240	1.75	16.39	m	"	5300	-	105	200	2.1
79	265	1.6	18.19	II .	"	5600	_	95	220	1.95
72	290	1.45	19.84	п	II .	5800	-	87	240	1.75
65	320	1.35	22.02	TI TI	"	6000	_	78	265	1.6
61	340	1.25	23.43	ıı .	"	6200	_	73	285	1.5
				п	"					
55	380	1.1	26.01		"	6500	-	66	315	1.35
48.5	430	0.99	29.34			6800	-	59	355	1.2
44	475	0.89	32.57	" "	"	7000	-	53	395	1.1
42	500	0.85	34.20	"	"	7000	-	50	420	1.0
110	170	3.3	12.00	DCEO /DCEOOVA	F0	F700		1.42	1.47	3.0
118	178	3.2	12.06	BG50/DSE09XA4	59 "	5700	-	142	147	3.9
107	196	3.0	13.36			6100	-	128	164	3.6
86	240	2.6	16.53	"	"	6500	-	104	200	3.2
78	265	2.4	18.33	"	"	7200	-	94	220	2.9
65	320	1.95	21.96	II .	"	8000	-	78	265	2.4
59	355	1.75	24.34	п	II .	8700	-	71	295	2.1
48	435	1.45	29.62	TI TI	"	8000	_	58	360	1.75
43.5	480	1.43	32.84	ıı .	"	8700	_	53	395	1.75
				n .	"					
37.5	560	1.15	37.89			10000	-	45.5	460	1.35

6

Selection helical-geared motors DSE-IE1

P = 2.2 kW



	50 Hz		:	Tyres	- m	г	г		60 Hz	
n		£	i	Type	m	F_{RN}	F_{RV}	n	M ₂	f
n ₂ 1/min	M ₂ Nm	f _B			l.a	N	NI	n ₂ 1/min		$f_{\scriptscriptstyle B}$
34	610	1.05	42.00	BG50/DSE09XA4	kg "	10000	N	41	Nm 510	1.25
30.5	680	0.93	42.00 47.02	BG50/D3E09XA4	"	10000	-	36.5	570	
				n n	"		-			1.1
27.5	760	0.83	52.12			10000	-	33	630	1.0
58	360	3.3	24.82	BG60/DSE09XA4	90	13800		69	300	4.0
48.5				BG00/D3E09XA4	90		-			
	430	2.8	29.31		"	14800	-	59	355	3.4
44	475	2.5	32.48	"	"	15400	-	53	395	3.0
37	560	2.1	38.85	"	"	16000	-	44.5	470	2.6
33	630	1.9	43.05		"	16000	-	40	520	2.3
28.5	730	1.65	50.31		"	16000	-	34	610	1.95
25.5	820	1.45	55.76		"	16000	-	31	670	1.8
23.5	890	1.35	60.90		"	16000	-	28.5	730	1.65
21.5	970	1.25	67.49			16000	-	25.5	820	1.45
21	1000	1.2	68.32	BG60Z/DSE09XA4	109	16000	-	25.5	820	1.45
19	1100	1.1	75.71		"	16000	-	23	910	1.3
16	1310	0.92	91.09		"	16000	-	19	1100	1.1
14.5	1440	0.83	101.0			16000	-	17	1230	0.98
			F0 40	2000 (2000)	400	20000		2.4		2.0
28.5	730	3.2	50.40	BG70/DSE09XA4	128	20000	-	34	610	3.8
24	870	2.6	59.82			20000	-	29	720	3.2
22	950	2.4	64.85	BG70Z/DSE09XA4	149	20000	-	26.5	790	2.9
19.5	1070	2.1	73.82	"	"	20000	-	23.5	890	2.6
16.5	1270	1.8	87.61	"	"	20000	-	20	1050	2.2
15	1400	1.65	95.74	"	"	20000	-	18	1160	2.0
12.5	1680	1.35	113.6	"	"	20000	-	15.5	1350	1.7
11.5	1820	1.25	124.0	"	"	20000	-	14	1500	1.55
9.7	2150	1.05	147.2	"	"	20000	-	12	1750	1.3
8.7	2400	0.96	163.8	"	II .	20000	-	10.5	2000	1.15
7.4	2800	0.82	194.4	"	"	20000	-	8.8	2350	0.98
15.5	1350	3.1	93.89	BG80Z/DSE09XA4	217	26000	-	18.5	1130	3.7
13	1610	2.6	112.4	"	"	26000	-	15.5	1350	3.1
11.5	1820	2.3	124.8	"	II .	26000	-	14	1500	2.8
9.8	2100	2.0	145.4	"	"	26000	-	12	1750	2.4
8.8	2350	1.8	161.5	"	"	26000	-	11	1910	2.2
7.7	2700	1.55	186.8	"	II .	26000	-	9.2	2250	1.85
6.9	3000	1.4	207.4	"	II .	26000	-	8.3	2500	1.7
6.3	3050	1.5	227.2	BG80G40/DSE09XA4	228	26000	-	7.6	2450	1.9
5.7	3350	1.35	252.3	"	II .	26000	-	6.8	2750	1.65
5.1	3800	1.2	282.8	"	"	26000	-	6.1	3100	1.5
4.6	4200	1.1	314.0	"	"	26000	-	5.5	3450	1.35
4.0	4900	0.94	360.0	"	"	26000	-	4.8	4000	1.15
3.6	5400	0.85	399.8	"	"	26000	-	4.3	4500	1.0
8.0	2600	3.2	178.5	BG90Z/DSE09XA4	327	65000	-	9.6	2150	3.9
6.9	3000	2.8	208.3	"	II .	65000	-	8.3	2500	3.4
6.3	3300	2.5	228.1	"	"	65000	-	7.5	2800	3.0
5.5	3350	2.7	262.5	BG90G50/DSE09XA4	338	65000	-	6.6	2750	3.3
4.8	4050	2.3	298.8	"	"	65000	-	5.8	3300	2.8
4.0	4750	1.95	360.3	"	"	65000	-	4.8	3850	2.4
3.3	5900	1.55	435.8	"	"	65000	-	4.0	4850	1.9
2.9	6700	1.35	504.7	"	"	65000	-	3.4	5600	1.65
2.5	7800	1.2	588.8	"	"	65000	-	3.0	6400	1.45
2.3	8500	1.1	644.7	"	"	65000	-	2.7	7100	1.3
2.0	9800	0.94	714.2	"	"	65000	-	2.4	8100	1.15
3.2	6500	2.8	456.7	BG100Z/DSE09XA4	526	90000	-	3.8	5500	3.4
2.8	7500	2.5	508.5	"	"	90000	-	3.4	6100	3.0
2.5	8400	2.2	591.1	"	"	90000	-	2.9	7200	2.6
2.2	9500	1.95	658.1	"	"	90000	-	2.6	8000	2.3
1.9	11000	1.7	759.0	"	"	90000	-	2.3	9100	2.0
1.7	12300	1.5	845.1	"	"	90000	-	2.1	10000	1.85
1.5	12400	1.5	976.1	BG100G50/DSE09XA4	525	90000	-	1.8	10000	1.85
1.4	13600	1.35	1043	"	"	90000	-	1.7	10900	1.7
1.2	15800	1.15	1204	"	"	90000	-	1.5	12300	1.5
1.0	19600	0.94	1444	II .	"	90000	-	1.2	16100	1.15

P = 3 kW

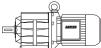
50 Hz

BG-series helical-geared motors Selection helical-geared motors DSE-IE1

Туре

 F_{RN}

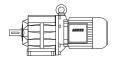
m



1/min N 540 5 420 6 340 8 265 10 215 13 180 15 149 15 134 2 121 23 104 25 93 30 84 34 76 35 360 7 290 9	Nm 53 2 68 2 84 2 08 1.8 33 1.6 59 1.3 72 1.4	6.75	BG30/DSE11SA4	kg 40 "	N 1450 1580	N - -	n ₂ 1/min 650 510	M₂ <u>Nm</u> 44 56	f _B 2.9 2.5
540 5 420 6 340 8 265 10 215 13 180 19 166 17 149 19 134 22 104 22 93 30 84 34 76 33	53 2 58 2 84 2 08 1.8 33 1.6 59 1.3 72 1.4	3.40 4.21 5.44 6.75	11 11	40	1450 1580	-	650	44	
420 6 340 8 265 10 215 13 180 19 166 17 149 19 134 22 104 22 93 30 84 34 76 33	58 2 84 2 08 1.8 33 1.6 59 1.3	3.40 4.21 5.44 6.75	11 11	II .	1580				
340 8 265 10 215 13 180 19 166 17 149 19 134 22 121 23 104 27 93 30 84 34 76 33	84 2 08 1.8 33 1.6 59 1.3 72 1.4	4.21 5.44 6.75	II .			-	510	56	2.5
265 10 215 13 180 19 166 17 149 19 134 2° 121 23 104 27 93 30 84 34 76 33 360 7 290 9	08 1.8 33 1.6 59 1.3 72 1.4	5.44 6.75		"					
215 13 180 19 166 17 149 19 134 22 121 23 104 27 93 36 84 34 76 37 360 7 290 9	33 1.6 59 1.3 72 1.4	6.75	II .		1630	-	410	69	2.5
180 19 166 17 149 19 134 22 121 23 104 27 93 30 84 34 76 37 360 7 290 9	59 1.3 72 1.4			"	1670	-	315	90	2.2
166 17 149 19 134 2° 121 23 104 27 93 30 84 34 76 33 360 7 290 9	72 1.4	7.01	II	"	1760	-	255	112	1.95
166 17 149 19 134 2° 121 23 104 27 93 30 84 34 76 33 360 7 290 9	72 1.4	7.91	m .	II .	1760	-	220	130	1.65
149 19 134 2° 121 23 104 27 93 30 84 34 76 33 360 7 290 9			n .	II .	2800	_	199	143	1.7
134 2° 121 23 104 27 93 30 84 34 76 33 360 7 290 9	97 1	.3 9.55	m .	n n	3000	_	180	159	1.6
121 23 104 27 93 36 84 34 76 33 360 7 290 9			п	"	2950	_	161	177	1.5
104 27 93 30 84 34 76 37 360 7 290 9			n .	"	3200	_	145	197	1.4
93 30 84 34 76 33 360 7 290 9			11	"					
360 7 290 9			п	"	3150	-	125	225	1.3
76 33 360 7 290 9					3450	-	112	255	1.2
360 7 290 9	40 0.8		"	"	3700	-	101	280	1.05
290 9	75 0	.8 18.93	"	"	4100	-	91	310	0.97
290 9	79 3	.1 3.97	BG40/DSE11SA4	59	2400	_	435	65	3.8
		.7 4.94	"	ıı	2450	_	350	81	3.3
		.4 6.29	п	"	2600	_	275	104	2.8
	53 1.9		11	II.	2650	_	225	127	2.3
		.1 8.31	n .	"	4100	_	210	136	2.5
	81 1.6		п	"	2650	-	190	150	1.95
		l l		"					
		.9 9.23		"	4350	-	186	154	2.3
	05 1.8			"	4350	-	166	172	2.2
		.7 11.49			4600	-	149	192	2.0
		.6 12.86	II .	"	4500	-	133	215	1.9
		.5 14.28	"	II .	4900	-	120	235	1.8
		.3 16.39	"	"	5300	-	105	270	1.55
	60 1	.2 18.19	"	"	5600	-	95	300	1.4
72 39	95 1	.1 19.84	п	"	5800	-	87	325	1.3
65 44	40 0.9	22.02	m .	"	6000	-	78	365	1.15
	65 0.9		п	II .	6200	_	73	390	1.1
	20 0.8		II .	II .	6500	-	66	430	0.99
164 17	74 2	.9 8.70	BG50/DSE11SA4	69	5300	_	197	145	3.5
		.7 9.65	"	"	5600	_	178	160	3.3
		.4 12.06	n .	п	5700	_	142	200	2.9
		. 2 13.36	п	"	6100	_	128	220	2.7
		.9 16.53	п	"	6500	_	104	275	2.3
			п	"					
	65 1.7			"	7200	-	94	300	2.1
	40 1.4				8000	-	78	365	1.75
		.3 24.34	"	"	8700	-	71	400	1.6
1	90 1.0	i	II .	"	8000	-	58	490	1.3
	50 0.9		"	"	8700	-	53	540	1.15
37.5	60 0.8	37.89	"	"	10000	-	45.5	620	1.0
85 33	35 3	.3 16.80	BG60/DSE11SA4	101	12000	_	102	280	4.0
77 37	70 3	.1 18.62	II .	II .	12400	-	92	310	3.7
		.7 22.40	II .	II .	13300	_	77	370	3.2
		.4 24.82	n .	"	13800	_	69	415	2.9
		.0 29.31	m .	II .	14800	_	59	485	2.5
	50 1.8		п	"	15400	_	53	540	2.2
	70 1.5		п	"	16000	_	44.5	640	1.9
			п	"	16000		44.5	710	1.7
			11	"		-			
		.2 50.31	п	"	16000	-	34	840	1.45
	120 1.0			"	16000	-	31	920	1.3
	210 0.9		"		16000	-	28.5	1000	1.2
		.9 67.49	"	"	16000	-	25.5	1120	1.05
	360 0.8		BG60Z/DSE11SA4	117	16000	-	25.5	1120	1.05
19 15	500 0	.8 75.71			16000	-	23	1240	0.97
		.3 35.24	BG70/DSE11SA4	132	18300	-	49	580	4.0
		.9 39.22	"	"	19100	-	44	650	3.5
	20 2	.5 46.54	II	II .	20000	-	37	770	3.0
28.5 10	000 2	.3 50.40	II	II .	20000	-	34	840	2.7
	190 1.9		п	II .	20000	-	29	980	2.3

Selection helical-geared motors DSE-IE1

P = 3 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		••				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
22	1300	1.75	64.85	BG70Z/DSE11SA4	158	20000	-	26.5	1080	2.1
19.5	1460	1.6	73.82	m m	II .	20000	-	23.5	1210	1.9
16.5	1730	1.35	87.61	m m	II .	20000	-	20	1430	1.6
15	1910	1.2	95.74	m m	II .	20000	-	18	1590	1.45
12.5	2250	1.0	113.6	m .	II .	20000	-	15.5	1840	1.25
11.5	2450	0.94	124.0	п	"	20000	-	14	2000	1.15
22.5	1270	3.3	63.56	BG80/DSE11SA4	186	26000	-	27	1060	4.0
21.5	1330	3.2	66.40	BG80Z/DSE11SA4	228	26000	-	26	1100	3.8
19.5	1460	2.9	73.73	m m	"	26000	-	23.5	1210	3.5
17	1680	2.5	84.55	m m	II	26000	-	20.5	1390	3.0
15.5	1840	2.3	93.89	"	"	26000	-	18.5	1540	2.7
13	2200	1.9	112.4	"	"	26000	-	15.5	1840	2.3
11.5	2450	1.7	124.8	"	II .	26000	-	14	2000	2.1
9.8	2900	1.45	145.4	"	"	26000	-	12	2350	1.8
8.8	3250	1.3	161.5	"	"	26000	-	11	2600	1.6
7.7	3700	1.15	186.8	"	"	26000	-	9.2	3100	1.35
6.9	4150	1.0	207.4	"	"	26000	-	8.3	3450	1.2
6.3	4250	1.1	227.2	BG80G40/DSE11SA4	236	26000	-	7.6	3450	1.35
5.7	4700	0.98	252.3	"	"	26000	-	6.8	3900	1.2
5.1	5300	0.87	282.8	"	"	26000	-	6.1	4350	1.05
10.5	2700	2.1	120.2	DC007 /DCF11CA4	220	65000		12.5	2250	2.7
10.5	2700 3250	3.1	139.2	BG90Z/DSE11SA4	330	65000	-	12.5 10.5	2250 2700	3.7
8.8 8.0	3250 3550	2.6 2.4	163.0 178.5	п	"	65000 65000	-		2950	3.1
6.9	4150	2.4	208.3	n n	"	65000	-	9.6 8.3	3450	2.8
6.3	4500	1.85	206.3	n n	"	65000	-	7.5	3800	2.4
5.5	4300 4750	1.05	262.5	BG90G50/DSE11SA4	347	65000	-	6.6	3900	2.2
4.8	5600	1.65	298.8	BG90G30/D3E113A4	347	65000	_	5.8	4650	2.4
4.0	6600	1.03	360.3	п	"	65000	_	4.8	5400	1.7
3.3	8200	1.1	435.8	п	"	65000	_	4.0	6700	1.35
2.9	9300	0.99	504.7	п	"	65000	_	3.4	7900	1.15
2.5	10800	0.85	588.8	п	"	65000	_	3.0	8900	1.05
		0.05	300.0			03000		3.0	0,00	1.05
5.5	5200	3.2	259.0	BG100/DSE11SA4	447	90000	-	6.7	4250	4.0
4.8	5900	3.1	300.4	BG100Z/DSE11SA4	537	90000	-	5.7	5000	3.7
4.2	6800	2.7	343.6	п	II .	90000	-	5.0	5700	3.2
3.8	7500	2.5	382.6	п	II .	90000	_	4.5	6300	2.9
3.2	8900	2.1	456.7	п	II .	90000	-	3.8	7500	2.5
2.8	10200	1.8	508.5	II .	"	90000	-	3.4	8400	2.2
2.5	11400	1.6	591.1	II .	"	90000	-	2.9	9800	1.9
2.2	13000	1.4	658.1	m m	II .	90000	-	2.6	11000	1.7
1.9	15000	1.25	759.0	m .	"	90000	-	2.3	12400	1.5
1.7	16800	1.1	845.1	n	II .	90000	-	2.1	13600	1.35
1.5	17500	1.05	976.1	BG100G50/DSE11SA4	534	90000	-	1.8	14300	1.3
1.4	19000	0.97	1043	п	II .	90000	-	1.7	15400	1.2
1.2	22200	0.83	1204	п	"	90000	-	1.5	17400	1.05

P = 4 kW

	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
540	70	1.85	2.67	BG30/DSE11MA4	46	1450	-	650	58	2.2
420	90	1.55	3.40	"	II .	1580	-	510	74	1.9
340	112	1.55	4.21	"	II .	1630	-	410	93	1.85
265	144	1.4	5.44	"	II .	1670	-	315	121	1.65
215	177	1.25	6.75	"	"	1760	-	255	149	1.45
180	210	1.05	7.91	"	II .	1760	-	220	173	1.25
166	230	1.05	8.60	"	II .	2800	-	199	191	1.3
149	255	1.0	9.55	m .	II .	3000	-	180	210	1.2
134	285	0.93	10.65	"	II .	2950	-	161	235	1.15
121	315	0.87	11.82	"	II .	3200	-	145	260	1.05
104	365	0.81	13.77	II	"	3150	-	125	305	0.96

P = 4 kW

50 Hz



Туре

 F_{RN}

F_{RV}

BG-series helical-geared motors



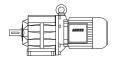
|--|

60 Hz

n ₂	M ₂	f _B	•	.,,,,		* KN	• RV	n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm	•B			kg	N	N	1/min	Nm	,R
580	65	3.1	2.46	BG40/DSE11MA4	65	2150	-	700	54	3.7
450	84	2.7	3.19	"	"	2350	_	540	70	3.2
				п	"		-			
360	106	2.3	3.97		"	2400	-	435	87	2.8
290	131	2.0	4.94			2450	-	350	109	2.5
230	166	1.8	6.29	"	"	2600	-	275	138	2.1
187	200	1.5	7.62	"	"	2650	-	225	169	1.75
171	220	1.55	8.31	"	"	4100	-	210	181	1.9
158	240	1.25	9.00	m .	"	2650	-	190	200	1.5
154	245	1.45	9.23	m m	"	4350	_	186	205	1.75
138	275	1.35	10.35	n .	"	4350	_	166	230	1.65
124	305	1.3	11.49	m .	"	4600	_	149	255	1.55
111	340	1.2	12.86	"	"	4500		133	285	1.45
				"	"		-			
100	380	1.1	14.28		"	4900	-	120	315	1.35
87	435	0.98	16.39		"	5300	-	105	360	1.2
79	480	0.89	18.19			5600	-	95	400	1.05
72	530	0.8	19.84	"	"	5800	-	87	435	0.98
290	131	3.0	4.91	BG50/DSE11MA4	75	3500	-	350	109	3.7
215	177	2.6	6.74	II .	II .	3750	-	255	149	3.0
164	230	2.2	8.70	m .	п	5300	_	197	193	2.6
148	255	2.1	9.65	11	II .	5600	_	178	210	2.5
118	320	1.8	12.06	u u	II .	5700	_	142	265	2.2
107	355	1.65	13.36	"	"	6100	_	128	295	2.0
				"	"		_			
86	440	1.45	16.53	"	"	6500	-	104	365	1.75
78	485	1.3	18.33			7200	-	94	405	1.55
65	580	1.1	21.96	"	II .	8000	-	78	485	1.3
59	640	0.98	24.34	"	II .	8700	-	71	530	1.2
48	790	0.8	29.62	"	II .	8000	-	58	650	0.97
117	325	3.0	12.16	BG60/DSE11MA4	107	10800	-	141	270	3.7
106	360	2.8	13.47	m .	"	11200	_	127	300	3.4
85	445	2.5	16.80	n .	"	12000	_	102	370	3.0
77	495	2.3	18.62	m .	"	12400	_	92	415	2.8
64	590	2.0	22.40	"	"	13300	_	77	495	2.4
				"	"					
58	650	1.85	24.82		"	13800	-	69	550	2.2
48.5	780	1.55	29.31	"		14800	-	59	640	1.9
44	860	1.4	32.48			15400	-	53	720	1.65
37	1030	1.15	38.85		II .	16000	-	44.5	850	1.4
33	1150	1.05	43.05	"	II .	16000	-	40	950	1.25
28.5	1340	0.9	50.31	"	"	16000	-	34	1120	1.05
25.5	1490	0.81	55.76	"	"	16000	-	31	1230	0.98
53	720	3.2	27.21	BG70/DSE11MA4	138	16400	_	63	600	3.8
48	790	2.9	29.69	n n	II .	16900	_	58	650	3.5
40.5	940	2.4	35.24	m m	"	18300	_	49	770	3.0
36.5	1040	2.2	39.22	п	п	19100	_	44	860	2.7
31	1230	1.85	46.54	m m	"	20000	_	37	1030	2.2
28.5	1340	1.7	50.40	"	"	20000	_	34	1120	2.1
				"	"		-			
24	1590	1.45	59.82			20000	-	29	1310	1.75
22	1730	1.35	64.85	BG70Z/DSE11MA4	164	20000	-	26.5	1440	1.6
19.5	1950	1.2	73.82			20000	-	23.5	1620	1.4
16.5	2300	1.0	87.61	"	II .	20000	-	20	1910	1.2
15	2500	0.92	95.74	"	II .	20000	-	18	2100	1.1
29.5	1290	3.3	48.80	BG80/DSE11MA4	192	23800	-	35.5	1070	3.9
25	1520	2.8	57.24	п	II .	25400	_	30	1270	3.3
22.5	1690	2.5	63.56	n n	II .	26000	_	27	1410	3.0
21.5	1770	2.4	66.40	BG80Z/DSE11MA4	234	26000	_	26	1460	2.9
19.5	1950	2.2	73.73	"	231	26000	_	23.5	1620	2.6
17.5		1.9		"	"			20.5	1860	
	2200		84.55		"	26000	-			2.3
15.5	2450	1.7	93.89		"	26000	-	18.5	2050	2.0
13	2900	1.45	112.4	"		26000	-	15.5	2450	1.7
11.5	3300	1.25	124.8	"	II .	26000	-	14	2700	1.55
9.8	3850	1.1	145.4	"	II .	26000	-	12	3150	1.35
8.8	4300	0.98	161.5	"	II .	26000	-	11	3450	1.2
7.7	4950	0.85	186.8	m m	"	26000	-	9.2	4150	1.0
		1						,		

Selection helical-geared motors DSE-IE1

P = 4 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
6.3	5700	0.81	227.2	BG80G40/DSE11MA4	242	26000	-	7.6	4700	0.98
13.5	2800	3.0	105.7	BG90Z/DSE11MA4	336	65000	_	16.5	2300	3.7
11.5	3300	2.5	127.1	п	II .	65000	-	13.5	2800	3.0
10.5	3600	2.3	139.2	II.	"	65000	-	12.5	3050	2.8
8.8	4300	1.95	163.0	n n	"	65000	-	10.5	3600	2.3
8.0	4750	1.75	178.5	n n	"	65000	-	9.6	3950	2.1
6.9	5500	1.55	208.3	n n	"	65000	-	8.3	4600	1.85
6.3	6000	1.4	228.1	"	"	65000	-	7.5	5000	1.7
5.5	6500	1.4	262.5	BG90G50/DSE11MA4	353	65000	-	6.6	5300	1.75
4.8	7600	1.2	298.8	"	"	65000	-	5.8	6300	1.45
4.0	9000	1.0	360.3	n n	"	65000	-	4.8	7400	1.25
3.3	11100	0.83	435.8	"	"	65000	-	4.0	9100	1.0
7.2	5300	3.2	198.8	BG100/DSE11MA4	453	90000	-	8.7	4350	3.9
6.2	6100	2.8	232.6	n n	"	90000	-	7.4	5100	3.3
5.5	6900	2.4	259.0	n n	"	90000	-	6.7	5700	2.9
5.3	7200	2.6	269.8	BG100Z/DSE11MA4	543	90000	-	6.4	5900	3.1
4.8	7900	2.3	300.4	"	"	90000	-	5.7	6700	2.8
4.2	9000	2.1	343.6	"	"	90000	-	5.0	7600	2.4
3.8	10000	1.85	382.6	"	"	90000	-	4.5	8400	2.2
3.2	11900	1.55	456.7	"	"	90000	-	3.8	10000	1.85
2.8	13600	1.35	508.5	"	"	90000	-	3.4	11200	1.65
2.5	15200	1.2	591.1	"	"	90000	-	2.9	13100	1.4
2.2	17300	1.05	658.1	"	"	90000	-	2.6	14600	1.25
1.9	20100	0.92	759.0	n n	"	90000	-	2.3	16600	1.1
1.7	22400	0.83	845.1	"	"	90000	-	2.1	18100	1.0

P = 5.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	1	Туре	111	I RN	I RV	n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	•B			kg	N	Ν	1/min	Nm	
540	97	1.3	2.67	BG30/DSE11LA4	58	1450	-	650	80	1.6
420	125	1.1	3.40	п	II .	1580	-	510	102	1.35
340	154	1.1	4.21	II .	II .	1630	-	410	128	1.35
265	198	1.0	5.44	II .	II .	1670	-	315	166	1.2
215	240	0.9	6.75	11	"	1760	-	255	205	1.05
580	90	2.2	2.46	BG40/DSE11LA4	77	2150	-	700	75	2.7
450	116	1.95	3.19	m .	II .	2350	-	540	97	2.3
360	145	1.7	3.97	"	"	2400	-	435	120	2.0
290	181	1.5	4.94	"	II .	2450	-	350	150	1.8
230	225	1.3	6.29	"	II .	2600	-	275	191	1.55
187	280	1.05	7.62	m .	"	2650	-	225	230	1.3
171	305	1.15	8.31	m .	"	4100	-	210	250	1.4
158	330	0.89	9.00	"	II .	2650	-	190	275	1.05
154	340	1.05	9.23	"	II .	4350	-	186	280	1.3
138	380	0.99	10.35	"	II .	4350	-	166	315	1.2
124	420	0.93	11.49	"	II .	4600	-	149	350	1.1
111	470	0.87	12.86	"	"	4500	-	133	390	1.05
100	520	0.81	14.28	п	"	4900	-	120	435	0.97
400	131	2.6	3.55	BG50/DSE11LA4	86	3300	-	485	108	3.2
290	181	2.2	4.91	"	II .	3500	-	350	150	2.7
215	240	1.9	6.74	"	II .	3750	-	255	205	2.2
164	320	1.6	8.70	"	II .	5300	-	197	265	1.9
148	350	1.5	9.65	"	II .	5600	-	178	295	1.8
118	445	1.3	12.06	"	II .	5700	-	142	365	1.6
107	490	1.2	13.36	"	"	6100	-	128	410	1.45
86	610	1.05	16.53	"	"	6500	-	104	500	1.25
78	670	0.94	18.33	"	"	7200	-	94	550	1.15

P = 5.5 kW

50 Hz

BG-series helical-geared motors Selection helical-geared motors DSE-IE1

Туре

 F_{RN}

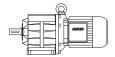
m



n2 M2 f8 R kg N N 1/min 210 250 3.1 6.88 BG60/DSE11LA4 119 8600 - 250 156 335 2.7 9.13 " " 9800 - 188 141 370 2.5 10.12 " " 10200 - 169 117 445 2.2 12.16 " " 10800 - 141 106 495 2.1 13.47 " " 11200 - 127 85 610 1.8 16.80 " " 12000 - 102 77 680 1.7 18.62 " " 12400 - 92 64 820 1.45 22.40 " " 13300 - 77 58 900 1.35 24.82 " " 13800 - 69	M2 fe Nm 5 210 3.7 275 3.2 310 2.9 370 2.7 410 2.5 510 2.2 570 2.0 680 1.75 760 1.6 890 1.35 990 1.2 1180 1.0 640 3.6 700 3.3
210 250 3.1 6.88 BG60/DSE11LA4 119 8600 - 250 156 335 2.7 9.13 " " 9800 - 188 141 370 2.5 10.12 " " 10200 - 169 117 445 2.2 12.16 " " 10800 - 141 106 495 2.1 13.47 " " 11200 - 127 85 610 1.8 16.80 " " 12000 - 102 77 680 1.7 18.62 " " 12400 - 92 64 820 1.45 22.40 " " 13300 - 77 58 900 1.35 24.82 " " 14800 - 59 44 1190 1.0 32.48 " " 15400 -	210 3.7 275 3.2 310 2.9 370 2.7 410 2.5 510 2.2 570 2.0 680 1.75 760 1.6 890 1.35 990 1.2 1180 1.0 640 3.6 700 3.3
156 335 2.7 9.13 " 9800 - 188 141 370 2.5 10.12 " 10200 - 169 117 445 2.2 12.16 " 10800 - 141 106 495 2.1 13.47 " " 11200 - 127 85 610 1.8 16.80 " " 12000 - 102 77 680 1.7 18.62 " " 12400 - 92 64 820 1.45 22.40 " " 13300 - 77 58 900 1.35 24.82 " " 14800 - 59 48.5 1080 1.1 29.31 " " 15400 - 59 44 1190 1.0 32.48 " " 15400 - 53	275 3.2 310 2.9 370 2.7 410 2.5 510 2.2 570 2.0 680 1.75 760 1.6 890 1.35 990 1.2 1180 1.0 640 3.6 700 3.3
141 370 2.5 10.12 " 10200 - 169 117 445 2.2 12.16 " 10800 - 141 106 495 2.1 13.47 " 11200 - 127 85 610 1.8 16.80 " 12000 - 102 77 680 1.7 18.62 " 12400 - 92 64 820 1.45 22.40 " " 13300 - 77 58 900 1.35 24.82 " " 13800 - 69 48.5 1080 1.1 29.31 " " 15400 - 59 44 1190 1.0 32.48 " " 15400 - 53	310 2.9 370 2.7 410 2.5 510 2.2 570 2.0 680 1.75 760 1.6 890 1.35 990 1.2 1180 1.0 640 3.6 700 3.3
141 370 2.3 10.12 10200 - 169 117 445 2.2 12.16 " " 10800 - 141 106 495 2.1 13.47 " " 11200 - 127 85 610 1.8 16.80 " " 12000 - 102 77 680 1.7 18.62 " " 12400 - 92 64 820 1.45 22.40 " " 13800 - 77 58 900 1.35 24.82 " " 13800 - 69 48.5 1080 1.1 29.31 " " 15400 - 59 44 1190 1.0 32.48 " " 15400 - 53	370 2.7 410 2.5 510 2.2 570 2.0 680 1.75 760 1.6 890 1.35 990 1.2 1180 1.0
117 443 2.2 12.16 10800 - 141 106 495 2.1 13.47 " " 11200 - 127 85 610 1.8 16.80 " 12000 - 102 77 680 1.7 18.62 " 12400 - 92 64 820 1.45 22.40 " " 13300 - 77 58 900 1.35 24.82 " " 13800 - 69 48.5 1080 1.1 29.31 " " 14800 - 59 44 1190 1.0 32.48 " " 15400 - 53	410 2.5 510 2.2 570 2.0 680 1.75 760 1.6 890 1.35 990 1.2 1180 1.0 640 3.6 700 3.3
85 610 1.8 16.80 " 1200 - 102 77 680 1.7 18.62 " 12400 - 92 64 820 1.45 22.40 " " 13300 - 77 58 900 1.35 24.82 " " 13800 - 69 48.5 1080 1.1 29.31 " " 15400 - 59 44 1190 1.0 32.48 " " 15400 - 53	510 2.2 570 2.0 680 1.75 760 1.6 890 1.35 990 1.2 1180 1.0 640 3.6 700 3.3
77 680 1.7 18.62 " " 12400 - 92 64 820 1.45 22.40 " " 13300 - 77 58 900 1.35 24.82 " " 13800 - 69 48.5 1080 1.1 29.31 " " 14800 - 59 44 1190 1.0 32.48 " " 15400 - 53	570 2.0 680 1.75 760 1.6 890 1.35 990 1.2 1180 1.0 640 3.6 700 3.3
77 680 1.7 18.62 " 12400 - 92 64 820 1.45 22.40 " 13300 - 77 58 900 1.35 24.82 " " 13800 - 69 48.5 1080 1.1 29.31 " " 14800 - 59 44 1190 1.0 32.48 " " 15400 - 53	570 2.0 680 1.75 760 1.6 890 1.35 990 1.2 1180 1.0 640 3.6 700 3.3
64 820 1.45 22.40 " " 13300 - 77 58 900 1.35 24.82 " " 13800 - 69 48.5 1080 1.1 29.31 " " 14800 - 59 44 1190 1.0 32.48 " " 15400 - 53	680 1.75 760 1.6 890 1.35 990 1.2 1180 1.0 640 3.6 700 3.3
58 900 1.35 24.82 " " 13800 - 69 48.5 1080 1.1 29.31 " " 14800 - 59 44 1190 1.0 32.48 " " 15400 - 53	760 1.6 890 1.35 990 1.2 1180 1.0 640 3.6 700 3.3
48.5 1080 1.1 29.31 " 14800 - 59 44 1190 1.0 32.48 " 15400 - 53	890 1.35 990 1.2 1180 1.0 640 3.6 700 3.3
44 1190 1.0 32.48 " " 15400 - 53	990 1.2 1180 1.0 640 3.6 700 3.3
	1180 1.0 640 3.6 700 3.3
	640 3.6 700 3.3
10000 - 44.5	700 3.3
20 DO DO DO DO DO 1400 1400 1400	700 3.3
68 770 3.0 20.98 BG70/DSE11LA4 149 14600 - 82	
62 640 2.7 22.92	
53 990 2.3 27.21 " 16400 - 63	830 2.8
48 1090 2.1 29.69 " " 16900 - 58	900 2.6
	1070 2.1
36.5 1430 1.6 39.22 " 19100 - 44	1190 1.95
31 1690 1.35 46.54 " " 20000 - 37	1410 1.65
	1540 1.5
	1810 1.25
	1980 1.15
	2200 1.05
75.5	2200 1.03
41.5 1260 3.3 34.22 BG80/DSE11LA4 204 20200 - 50	1050 4.0
	1160 3.6
32.3 1010 2.0 43.54 22000 - 35	1340 3.1
25.5 1780 2.4 40.00 25000 - 55.5	1470 2.9
	1750 2.4
	1940 2.2
	2000 2.1
19.5 2650 1.6 73.73 " 26000 - 23.5	2200 1.9
17 3050 1.4 84.55 " 26000 - 20.5	2550 1.65
	2800 1.5
	3350 1.25
	3750 1.1
25 2100 3.2 57.04 BG90Z/DSE11LA4 348 65000 - 30	1750 3.9
	1910 3.9
	2300 3.7
	2550 3.7 2550 3.3
	2900 2.9
	3150 2.7
11.5 4550 1.65 127.1	3850 2.2
10.5 3000 - 12.5	4200 2.0
	5000 1.7
	5400 1.55
	6300 1.35
6.3 8300 1.0 228.1 " 65000 - 7.5	7000 1.2
5.5 9100 1.0 262.5 BG90G50/DSE11LA4 365 65000 - 6.6	7500 1.25
	8700 1.05
9.2 5700 2.9 154.8 BG100/DSE11LA4 465 90000 - 11.5	4550 3.7
	5400 3.1
	6000 2.8
	7000 2.4
	7800 2.2
	8200 2.3
	9200 2.0
4.8 10900 1.7 300.4	
4.2 12300 1.3 343.0	10500 1.75
3.6 1360 1.33 362.0 90000 - 4.3	11600 1.6
5.2 10400 1.15 430./	13800 1.35
	15400 1.2
2.5 21000 0.88 591.1 " 90000 - 2.9	18100 1.0

Selection helical-geared motors DSE-IE1

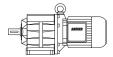
P = 7.5 kW



	50 II-			Time					6011-	
n	50 Hz M ₂	£	i	Type	m	F_{RN}	F_{RV}	n	60 Hz M ₂	f
n ₂ 1/min	Nm	f _B			kg	N	N	n ₂ 1/min	Nm	$f_{\scriptscriptstyle B}$
590	121	2.5	2.47	BG50/DSE13MA4	98	2900	- IN	710	100	3.1
410	174	2.0	3.55	" " " " " " " " " " " " " " " " " " "	"	3300	_	495	144	2.4
295	240	1.65	4.91	п	"	3500	_	355	200	2.0
215	330	1.35	6.74	п	"	3750	_	260	275	1.65
166	430	1.2	8.70	m .	II .	5300	_	200	355	1.45
150	475	1.1	9.65	п	"	5600	_	181	395	1.35
120	590	0.98	12.06	п	"	5700	_	145	490	1.2
108	660	0.9	13.36	II .	"	6100	_	131	540	1.1
100	000	0.5	13.50			0100		131	340	1.1
390	183	3.3	3.74	BG60/DSE13MA4	132	7100	_	470	152	4.0
290	245	2.8	4.98	"	"	7800	_	350	200	3.4
210	340	2.3	6.88	n	"	8600	_	255	280	2.8
158	450	1.95	9.13	n	"	9800	_	191	375	2.4
143	500	1.8	10.12	n	"	10200	_	172	415	2.2
119	600	1.65	12.16	n	"	10800	_	144	495	2.0
107	660	1.55	13.47	n	"	11200	_	130	550	1.85
86	830	1.35	16.80	n	"	12000	_	104	680	1.65
78	910	1.25	18.62	n	"	12400	_	94	760	1.5
65	1100	1.1	22.40	n	"	13300	_	78	910	1.3
59	1210	0.99	24.82	TI TI	II .	13800	_	71	1000	1.2
49.5	1440	0.83	29.31	TI TI	II .	14800	_	60	1190	1.0
13.3		0.05	27.51			1 1000			1150	1.0
93	770	3.0	15.53	BG70/DSE13MA4	162	12700	_	113	630	3.7
82	870	2.6	17.68	п	II .	13400	-	99	720	3.2
69	1030	2.2	20.98	п	II .	14600	_	83	860	2.7
63	1130	2.0	22.92	п	II .	15100	_	76	940	2.4
53	1350	1.7	27.21	п	II .	16400	_	64	1110	2.1
49	1460	1.6	29.69	п	II .	16900	_	59	1210	1.9
41	1740	1.3	35.24	п	II .	18300	_	49.5	1440	1.6
37	1930	1.2	39.22	п	"	19100	_	44.5	1600	1.45
31	2300	1.0	46.54	п	"	20000	_	37.5	1910	1.2
29	2450	0.94	50.40	II .	"	20000	-	35	2000	1.15
55	1300	3.2	26.44	BG80/DSE13MA4	216	17900	-	66	1080	3.9
49.5	1440	2.9	29.36	n n	"	18900	-	60	1190	3.5
42.5	1680	2.5	34.22	n n	"	20200	-	51	1400	3.0
38	1880	2.2	38.00	"	"	21300	-	46	1550	2.7
33	2150	1.95	43.94	"	"	22600	-	40	1790	2.3
30	2350	1.8	48.80	"	"	23800	-	36	1980	2.1
25.5	2800	1.5	57.24	"	II .	25400	-	30.5	2300	1.85
23	3100	1.35	63.56	"	"	26000	-	27.5	2600	1.6
22	3250	1.3	66.40	BG80Z/DSE13MA4	259	26000	-	26.5	2700	1.55
20	3550	1.2	73.73	"	"	26000	-	24	2950	1.4
17.5	4050	1.05	84.55	"	"	26000	-	21	3400	1.25
15.5	4600	0.91	93.89	"	"	26000	-	19	3750	1.1
27	2650	2.2	F2 46	DC00 /DCE13MAA	205	65000		22	2150	2.0
27 25.5	2650 2800	3.2 2.4	53.46 57.04	BG90/DSE13MA4 BG90Z/DSE13MA4	305 361	65000 65000	-	33 31	2150 2300	3.9
23.5				BG902/D3E13WA4	301	65000		28	2550	2.9
19	3000 3750	2.5 2.2	62.47	п	"	65000	-	23	3100	2.9
17.5	4050		76.61	п	"	65000		21	3400	2.7
15.5	4750	2.1 1.75	83.91 96.53	п	"	65000	-	18.5	3850	2.2
14	5100	1.65	105.7	п	"	65000	-	16.5	4300	1.95
11.5	6200	1.35	103.7	п	"	65000	-	14	5100	1.65
10.5		1.25		п	"	65000				
8.9	6800 8000	1.05	139.2 163.0	m .	п	65000	-	12.5 11	5700 6500	1.45
8.1	8800	0.95	178.5	m .	"	65000	-	9.8	7300	1.15
7.0		0.93	208.3	п	"	65000		8.4	8500	0.99
6.6	10200 10500	0.82	208.3	BG90G50/DSE13MA4	377	65000	-	8.0	8600	1.05
3.0	10300	0.00	∠ I ブ.ブ	D370330/D3E13IVIA4	3//	03000	-	0.0	8000	1.03
13.5	5300	3.2	107.5	BG100/DSE13MA4	477	90000	_	16.5	4300	3.9
12.5	5700	2.9	119.7	"	"	90000	-	15	4750	3.5
10.5	6800	2.5	139.1	п	II .	90000	_	13	5500	3.1
9.4	7600	2.2	154.8	п	"	90000	-	11.5	6200	2.7
8.1	8800	1.9	178.6	п	"	90000	_	9.8	7300	2.3
1.7.		1						1		

Selection helical-geared motors DSE-IE1

P = 7.5 kW



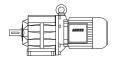
	50 Hz		i	Type	m	F_{RN}	F _{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
7.3	9800	1.7	198.8	ıı .	"	90000	-	8.8	8100	2.1
6.2	11500	1.45	232.6	n n	"	90000	-	7.5	9500	1.75
5.6	12700	1.3	259.0	n n	"	90000	-	6.8	10500	1.6
5.4	13200	1.4	269.8	BG100Z/DSE13MA4	568	90000	-	6.5	11000	1.7
4.8	14900	1.25	300.4	"	"	90000	-	5.8	12300	1.5
4.2	17000	1.1	343.6	"	"	90000	-	5.1	14000	1.3
3.8	18800	0.98	382.6	"	"	90000	-	4.6	15500	1.2
3.2	22300	0.83	456.7	п	II .	90000	-	3.9	18300	1.0

P = 9.5 kW

	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		· ·				n_2	M_2	1
1/min	Nm				kg	N	N	1/min	Nm	
590	153	2.0	2.47	BG50/DSE13LA4	101	2900	-	710	127	2.
410	220	1.6	3.55	п	"	3300	_	495	183	1.
295	305	1.3	4.91	п	"	3500	_	355	255	1.5
215	420	1.1	6.74	п	II .	3750	_	260	345	1.
166	540	0.94	8.70	n n	"	5300	_	200	450	1.1
150	600	0.87	9.65	п	ıı	5600	-	181	500	1.0
390	230	2.7	3.74	BG60/DSE13LA4	135	7100	-	470	193	3.
90	310	2.2	4.98	TI TI	"	7800	-	350	255	2
10	430	1.8	6.88	m .	"	8600	-	255	355	2
58	570	1.55	9.13	II .	II .	9800	-	191	475	1.8
43	630	1.45	10.12	п	II .	10200	-	172	520	1.7
19	760	1.3	12.16	п	"	10800	_	144	630	1.5
07	840	1.2	13.47	п	II .	11200	-	130	690	1
6	1050	1.05	16.80	п	"	12000	_	104	870	1.2
8	1160	0.99	18.62	п	II .	12400	_	94	960	1
5	1390	0.86	22.40	п	ıı	13300	-	78	1160	1.0
21	740	3.1	11.97	BG70/DSE13LA4	165	11200	_	146	620	3
11	810	2.8	13.08	п	"	11600	_	134	670	3
3	970	2.4	15.53	п	"	12700	_	113	800	2
2	1100	2.1	17.68	п	II .	13400	_	99	910	2
9	1310	1.75	20.98	п	"	14600	_	83	1090	2
3	1440	1.6	22.92	п	"	15100	_	76	1190	1.9
3	1710	1.35	27.21	п	"	16400	_	64	1410	1.0
9	1850	1.25	29.69	n n	II .	16900	_	59	1530	1
1	2200	1.05	35.24	n n	"	18300	_	49.5	1830	1.
7	2450	0.94	39.22	п	II .	19100	-	44.5	2000	1.
6	1370	3.1	22.09	BG80/DSE13LA4	219	16500	_	79	1140	3
5	1640	2.6	26.44	II .	"	17900	-	66	1370	3
9.5	1830	2.3	29.36	II .	"	18900	-	60	1510	2
2.5	2100	2.0	34.22	п	"	20200	-	51	1770	2
8	2350	1.8	38.00	п	II .	21300	-	46	1970	2
3	2700	1.55	43.94	п	"	22600	_	40	2250	1.8
0	3000	1.4	48.80	п	"	23800	_	36	2500	1
5.5	3550	1.2	57.24	m .	11	25400	_	30.5	2950	1
3	3900	1.1	63.56	п	"	26000	_	27.5	3250	1
2	4100	1.0	66.40	BG80Z/DSE13LA4	262	26000	_	26.5	3400	1.2
0	4500	0.93	73.73	"	"	26000	_	24	3750	1
7.5	5100	0.82	84.55	II .	ıı	26000	-	21	4300	0.9
34.5	2600	3.2	41.85	BG90/DSE13LA4	308	65000	_	42	2150	3
9.5	3050	2.8	48.82	"	"	65000	_	36	2500	3
27	3350	2.5	53.46	n	II .	65000	_	33	2700	3
25.5	3550	1.9	57.04	BG90Z/DSE13LA4	364	65000	_	31	2900	2
23.5	3850	1.95	62.47	"	301	65000	_	28	3200	2

Selection helical-geared motors DSE-IE1

P = 9.5 kW



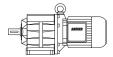
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
19	4750	1.75	76.61	BG90Z/DSE13LA4	"	65000	-	23	3900	2.2
17.5	5100	1.65	83.91	n n	II .	65000	-	21	4300	1.95
15	6000	1.4	96.53	n n	"	65000	-	18.5	4900	1.7
14	6400	1.3	105.7	"	"	65000	-	16.5	5400	1.55
11.5	7800	1.1	127.1	"	"	65000	-	14	6400	1.3
10.5	8600	0.98	139.2	"	"	65000	-	12.5	7200	1.15
8.9	10100	0.83	163.0	"	"	65000	-	11	8200	1.0
18	5000	3.3	80.85	BG100/DSE13LA4	480	90000	-	22	4100	4.0
16	5600	3.0	90.02	"	"	90000	-	19.5	4650	3.6
13.5	6700	2.5	107.5	"	"	90000	-	16.5	5400	3.1
12.5	7200	2.3	119.7	II .	II .	90000	-	15	6000	2.8
10.5	8600	1.95	139.1	II .	II .	90000	-	13	6900	2.4
9.4	9600	1.75	154.8	"	II .	90000	-	11.5	7800	2.2
8.1	11200	1.5	178.6	"	II .	90000	-	9.8	9200	1.85
7.3	12400	1.35	198.8	"	II .	90000	-	8.8	10300	1.65
6.2	14600	1.15	232.6	II .	II .	90000	-	7.5	12000	1.4
5.6	16200	1.05	259.0	II .	II .	90000	-	6.8	13300	1.25
5.4	16800	1.1	269.8	BG100Z/DSE13LA4	571	90000	-	6.5	13900	1.35
4.8	18900	0.98	300.4	n n	"	90000	-	5.8	15600	1.2
4.2	21600	0.86	343.6	п	"	90000	-	5.1	17700	1.05

P = 11 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
600	175	1.75	2.47	BG50/DSE16MA4	146	2900	-	720	145	2.1
415	250	1.4	3.55	II	"	3300	-	500	210	1.65
300	350	1.15	4.91	II	"	3500	-	360	290	1.35
220	475	0.95	6.74	II	"	3750	-	265	395	1.15
168	620	0.82	8.70	"	II	5300	-	205	510	1.0
580	181	3.0	2.52	BG60/DSE16MA4	180	6200	-	700	150	3.6
395	265	2.3	3.74	п	II .	7100	-	475	220	2.8
295	355	1.95	4.98	II	"	7800	-	355	295	2.3
215	485	1.6	6.88	II	"	8600	-	260	400	1.95
160	650	1.35	9.13	II	"	9800	-	193	540	1.65
145	720	1.25	10.12	II	"	10200	-	174	600	1.5
121	860	1.15	12.16	II	"	10800	-	145	720	1.35
109	960	1.05	13.47	m m	"	11200	-	131	800	1.3
87	1200	0.92	16.80	II	"	12000	-	105	1000	1.1
79	1320	0.87	18.62	"	II	12400	-	95	1100	1.05
145	720	3.2	10.09	BG70/DSE16MA4	214	10200	-	175	600	3.8
122	860	2.7	11.97	"	"	11200	-	148	700	3.3
112	930	2.5	13.08	"	"	11600	-	135	770	3.0
95	1100	2.1	15.53	II	"	12700	-	114	920	2.5
83	1260	1.85	17.68	II	"	13400	-	100	1050	2.2
70	1500	1.55	20.98	II	"	14600	-	84	1250	1.85
64	1640	1.4	22.92	"	"	15100	-	77	1360	1.7
54	1940	1.2	27.21	II	"	16400	-	65	1610	1.45
49.5	2100	1.1	29.69	II	"	16900	-	60	1750	1.3
41.5	2500	0.92	35.24	II	"	18300	-	50	2100	1.1
37.5	2800	0.82	39.22	"	"	19100	-	45	2300	1.0
74	1410	3.0	19.89	BG80/DSE16MA4	264	15500	-	89	1180	3.6
67	1560	2.7	22.09	"	11	16500	-	80	1310	3.2
56	1870	2.2	26.44	II	II .	17900	-	67	1560	2.7
50	2100	2.0	29.36	m	II .	18900	-	60	1750	2.4
43	2400	1.75	34.22	m m	II .	20200	-	52	2000	2.1
38.5	2700	1.55	38.00	m m	II .	21300	-	46.5	2250	1.85
33.5	3100	1.35	43.94	II .	II .	22600	-	40.5	2550	1.65

Selection helical-geared motors DSE-IE1

P = 11 kW



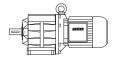
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
30	3500	1.2	48.80	BG80/DSE16MA4	"	23800	-	36.5	2850	1.45
26	4000	1.05	57.24	"	II .	25400	-	31	3350	1.25
23	4550	0.92	63.56	"	II .	26000	-	28	3750	1.1
22	4750	0.88	66.40	BG80Z/DSE16MA4	307	26000	-	27	3850	1.1
20	5200	0.81	73.73	"	"	26000	-	24	4350	0.97
38.5	2700	3.1	38.21	BG90/DSE16MA4	354	65000	-	46.5	2250	3.7
35	3000	2.8	41.85	"	"	65000	-	42.5	2450	3.4
30	3500	2.4	48.82	"	"	65000	-	36.5	2850	2.9
27.5	3800	2.2	53.46	"	"	65000	-	33	3150	2.7
26	4000	1.7	57.04	BG90Z/DSE16MA4	413	65000	-	31	3350	2.0
23.5	4450	1.7	62.47	"	II .	65000	-	28.5	3650	2.1
19.5	5300	1.6	76.61	"	"	65000	-	23	4550	1.85
17.5	6000	1.4	83.91	"	"	65000	-	21	5000	1.7
15.5	6700	1.25	96.53	"	"	65000	-	18.5	5600	1.5
14	7500	1.1	105.7	"	II .	65000	-	17	6100	1.4
11.5	9100	0.92	127.1	"	"	65000	-	14	7500	1.1
10.5	10000	0.84	139.2	"	"	65000	-	13	8000	1.05
21	5000	3.2	70.69	BG100/DSE16MA4	524	90000	-	25	4200	3.8
18.5	5600	3.0	80.85	"	II .	90000	-	22	4750	3.5
16.5	6300	2.7	90.02	"	II .	90000	-	20	5200	3.2
14	7500	2.2	107.5	"	II .	90000	-	16.5	6300	2.7
12.5	8400	2.0	119.7	"	II .	90000	-	15	7000	2.4
10.5	10000	1.7	139.1	"	II .	90000	-	13	8000	2.1
9.5	11000	1.55	154.8	"	II .	90000	-	11.5	9100	1.85
8.2	12800	1.3	178.6	"	II .	90000	-	9.9	10600	1.6
7.4	14100	1.2	198.8	"	II .	90000	-	8.9	11800	1.4
6.3	16600	1.0	232.6	"	"	90000	-	7.6	13800	1.2
5.7	18400	0.91	259.0	"	"	90000	-	6.8	15400	1.1
5.5	19100	0.97	269.8	BG100Z/DSE16MA4	616	90000	-	6.6	15900	1.15
4.9	21400	0.86	300.4	"	II .	90000	-	5.9	17800	1.05

P = 15 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	f_B
1/min	Nm				kg	N	N	1/min	Nm	
600	235	1.3	2.47	BG50/DSE16LA4	159	2900	-	720	198	1.55
415	345	1.0	3.55	II	"	3300	-	500	285	1.2
300	475	0.84	4.91	"	II	3500	-	360	395	1.0
580	245	2.2	2.52	BG60/DSE16LA4	193	6200	-	700	200	2.7
395	360	1.7	3.74	"	"	7100	-	475	300	2.0
295	485	1.4	4.98	"	"	7800	-	355	400	1.7
215	660	1.2	6.88	"	"	8600	-	260	550	1.4
160	890	1.0	9.13	"	"	9800	-	193	740	1.2
145	980	0.93	10.12	m .	"	10200	-	174	820	1.1
121	1180	0.84	12.16	"	"	10800	-	145	980	1.0
205	690	3.1	7.14	BG70/DSE16LA4	228	8800	-	250	570	3.8
173	820	2.8	8.48	"	"	9500	-	210	680	3.4
145	980	2.3	10.09	"	"	10200	-	175	810	2.8
122	1170	1.95	11.97	"	"	11200	-	148	960	2.4
112	1270	1.8	13.08	"	"	11600	-	135	1060	2.2
95	1500	1.55	15.53	"	"	12700	-	114	1250	1.85
83	1720	1.35	17.68	"	"	13400	-	100	1430	1.6
70	2000	1.15	20.98	n n	"	14600	-	84	1700	1.35
64	2200	1.05	22.92	m m	"	15100	-	77	1860	1.25
54	2650	0.87	27.21	m m	"	16400	-	65	2200	1.05
49.5	2850	0.81	29.69	II	II .	16900	-	60	2350	0.98

Selection helical-geared motors DSE-IE1

P = 15 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
94	1520	2.8	15.62	BG80/DSE16LA4	276	13700	-	113	1260	3.3
85	1680	2.5	17.35	"	"	14600	-	102	1400	3.0
74	1930	2.2	19.89	"	"	15500	-	89	1600	2.6
67	2100	2.0	22.09	"	"	16500	-	80	1790	2.3
56	2550	1.65	26.44	"	II .	17900	-	67	2100	2.0
50	2850	1.45	29.36	"	II .	18900	-	60	2350	1.8
43	3300	1.25	34.22	"	"	20200	-	52	2750	1.55
38.5	3700	1.15	38.00	"	II .	21300	-	46.5	3050	1.4
33.5	4250	0.99	43.94	"	"	22600	-	40.5	3500	1.2
30	4750	0.88	48.80	"	"	23800	-	36.5	3900	1.1
49.5	2850	2.9	29.78	BG90/DSE16LA4	367	65000	_	60	2350	3.6
45	3150	2.7	32.62	"	"	65000	_	54	2650	3.2
38.5	3700	2.3	38.21	n n	II .	65000	_	46.5	3050	2.8
35	4050	2.1	41.85	п	II .	65000	_	42.5	3350	2.5
30	4750	1.75	48.82	m .	11	65000	_	36.5	3900	2.2
27.5	5200	1.6	53.46	m .	II .	65000	_	33	4300	1.95
26	5500	1.25	57.04	BG90Z/DSE16LA4	426	65000	-	31	4600	1.5
23.5	6000	1.25	62.47	m m	II .	65000	-	28.5	5000	1.5
19.5	7300	1.15	76.61	m .	II .	65000	-	23	6200	1.35
17.5	8100	1.05	83.91	m .	II .	65000	-	21	6800	1.25
15.5	9200	0.91	96.53	m .	II .	65000	-	18.5	7700	1.1
14	10200	0.82	105.7	"	II .	65000	-	17	8400	1.0
31.5	4500	3.1	46.43	BG100/DSE16LA4	538	90000	_	38	3750	3.8
28.5	5000	2.9	51.70	m .	II .	90000	-	34.5	4150	3.5
23	6200	2.5	63.49	п	II .	90000	-	28	5100	3.0
21	6800	2.3	70.69	II .	II .	90000	-	25	5700	2.8
18.5	7700	2.1	80.85	п	II .	90000	-	22	6500	2.5
16.5	8600	1.95	90.02	TI TI	II .	90000	-	20	7100	2.4
14	10200	1.65	107.5	"	II .	90000	-	16.5	8600	1.95
12.5	11400	1.45	119.7	"	II .	90000	-	15	9500	1.75
10.5	13600	1.25	139.1	"	"	90000	-	13	11000	1.55
9.5	15000	1.1	154.8	"	II .	90000	-	11.5	12400	1.35
8.2	17400	0.97	178.6	"	"	90000	-	9.9	14400	1.15
7.4	19300	0.87	198.8	ıı .	"	90000	-	8.9	16000	1.05

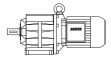
P = 18.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
600	290	1.05	2.47	BG50/DSE16XA4	169	2900	-	720	245	1.25
415	425	0.82	3.55	"	II	3300	-	500	350	0.99
580	300	1.8	2.52	BG60/DSE16XA4	203	6200	-	700	250	2.1
395	445	1.4	3.74	II	"	7100	-	475	370	1.65
295	590	1.15	4.98	II	"	7800	-	355	495	1.4
215	820	0.95	6.88	II	"	8600	-	260	670	1.15
160	1100	0.81	9.13	"	"	9800	-	193	910	0.98
205	860	2.5	7.14	BG70/DSE16XA4	238	8800	-	250	700	3.1
173	1020	2.2	8.48	п	II .	9500	-	210	840	2.7
145	1210	1.9	10.09	п	II .	10200	-	175	1000	2.3
122	1440	1.6	11.97	п	II .	11200	-	148	1190	1.95
112	1570	1.45	13.08	m	"	11600	-	135	1300	1.75
95	1850	1.25	15.53	II	"	12700	-	114	1540	1.5
83	2100	1.1	17.68	II	"	13400	-	100	1760	1.3
70	2500	0.92	20.98	II	"	14600	-	84	2100	1.1
64	2750	0.84	22.92	"	II	15100	-	77	2250	1.0
128	1380	3.0	11.43	BG80/DSE16XA4	286	11600	-	154	1140	3.7
116	1520	2.8	12.69	п	II .	12400	-	139	1270	3.3
94	1870	2.2	15.62	II	"	13700	-	113	1560	2.7

Selection helical-geared motors DSE-IE1

P = 18.5 kW

50 Hz



n ₂	M ₂	f _B				- NN	- 11.0	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	Ν	Ν	1/min	Nm	
85	2050	2.0	17.35	BG80/DSE16XA4	"	14600	-	102	1730	2.4
74	2350	1.8	19.89	"	II .	15500	-	89	1980	2.1
67	2600	1.6	22.09	"	II .	16500	-	80	2200	1.9
56	3150	1.35	26.44	"	II .	17900	-	67	2600	1.6
50	3500	1.2	29.36	"	II .	18900	-	60	2900	1.45
43	4100	1.0	34.22	"	II .	20200	-	52	3350	1.25
38.5	4550	0.92	38.00	"	"	21300	-	46.5	3750	1.1
33.5	5200	0.81	43.94	II	"	22600	-	40.5	4350	0.97
65	2700	3.1	22.62	BG90/DSE16XA4	377	65000	-	78	2250	3.7
59	2950	2.8	24.78	"	II .	65000	-	72	2450	3.4
49.5	3550	2.4	29.78	"	II .	65000	-	60	2900	2.9
45	3900	2.2	32.62	"	"	65000	-	54	3250	2.6
38.5	4550	1.85	38.21	"	"	65000	-	46.5	3750	2.2
35	5000	1.7	41.85	"	"	65000	-	42.5	4150	2.0
30	5800	1.45	48.82	"	II .	65000	-	36.5	4800	1.75
27.5	6400	1.3	53.46	"	II .	65000	-	33	5300	1.6
26	6700	1.0	57.04	BG90Z/DSE16XA4	436	65000	-	31	5600	1.2
23.5	7500	1.0	62.47	"	II .	65000	-	28.5	6100	1.25
19.5	9000	0.93	76.61	"	"	65000	-	23	7600	1.1
17.5	10000	0.84	83.91	II	"	65000	-	21	8400	1.0
31.5	5600	2.5	46.43	BG100/DSE16XA4	548	90000	-	38	4600	3.1
28.5	6100	2.4	51.70	"	II .	90000	-	34.5	5100	2.8
23	7600	2.0	63.49	"	"	90000	-	28	6300	2.4
21	8400	1.9	70.69	"	II .	90000	-	25	7000	2.3
18.5	9500	1.75	80.85	"	"	90000	-	22	8000	2.1
16.5	10700	1.55	90.02	"	II .	90000	-	20	8800	1.9
14	12600	1.35	107.5	"	"	90000	-	16.5	10700	1.55
12.5	14100	1.2	119.7	"	"	90000	-	15	11700	1.45
10.5	16800	1.0	139.1	"	"	90000	-	13	13500	1.25
9.5	18500	0.91	154.8	"	"	90000	-	11.5	15300	1.1

 F_{RN}

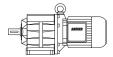
Туре

P = 22 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
295	710	2.1	4.95	BG70/DSE18LA4	294	6900	-	360	580	2.6
250	840	2.1	5.87	m .	"	8200	-	300	700	2.5
205	1020	2.1	7.14	m .	"	8800	-	250	840	2.6
173	1210	1.9	8.48	m .	"	9500	-	210	1000	2.3
145	1440	1.6	10.09	m .	"	10200	-	175	1200	1.9
122	1720	1.35	11.97	m .	"	11200	-	148	1410	1.65
112	1870	1.25	13.08	m .	"	11600	-	135	1550	1.5
95	2200	1.05	15.53	m .	"	12700	-	114	1840	1.25
83	2500	0.92	17.68	"	II	13400	-	100	2100	1.1
250	840	3.2	5.94	BG80/DSE18LA4	348	8300	_	300	700	3.8
225	930	3.2	6.60	m .	"	9100	-	270	770	3.8
176	1190	3.2	8.30	m .	"	10400	-	215	970	3.9
159	1320	3.0	9.21	m .	"	10800	-	192	1090	3.6
128	1640	2.6	11.43	m .	"	11600	-	154	1360	3.1
116	1810	2.3	12.69	m .	"	12400	-	139	1510	2.8
94	2200	1.9	15.62	"	"	13700	-	113	1850	2.3
85	2450	1.7	17.35	"	"	14600	-	102	2050	2.0
74	2800	1.5	19.89	"	"	15500	-	89	2350	1.8
67	3100	1.35	22.09	m .	II .	16500	-	80	2600	1.6
56	3750	1.1	26.44	"	"	17900	-	67	3100	1.35
50	4200	1.0	29.36	"	"	18900	-	60	3500	1.2
43	4850	0.87	34.22	"	"	20200	-	52	4000	1.05

Selection helical-geared motors DSE-IE1

P = 22 kW



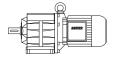
	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
82	2550	3.2	17.96	BG90/DSE18LA4	440	59800	-	98	2100	3.9
75	2800	3.0	19.67	"	"	62400	-	90	2300	3.7
65	3200	2.6	22.62	"	II .	65000	-	78	2650	3.2
59	3550	2.4	24.78	"	"	65000	-	72	2900	2.9
49.5	4200	2.0	29.78	"	"	65000	-	60	3500	2.4
45	4650	1.8	32.62	"	II .	65000	-	54	3850	2.2
38.5	5400	1.55	38.21	"	"	65000	-	46.5	4500	1.85
35	6000	1.4	41.85	"	"	65000	-	42.5	4900	1.7
30	7000	1.2	48.82	"	II .	65000	-	36.5	5700	1.45
27.5	7600	1.1	53.46	"	"	65000	-	33	6300	1.35
26	8000	0.85	57.04	BG90Z/DSE18LA4	493	65000	-	31	6700	1.0
23.5	8900	0.84	62.47	"	"	65000	-	28.5	7300	1.05
61	3400	3.3	23.95	BG100/DSE18LA4	609	87900	-	74	2800	4.0
43.5	4800	2.7	33.71	"	"	88500	-	53	3950	3.3
39	5300	2.5	37.54	"	II .	90000	-	47	4450	3.0
31.5	6600	2.1	46.43	"	II .	90000	-	38	5500	2.6
28.5	7300	2.0	51.70	"	II .	90000	-	34.5	6000	2.4
23	9100	1.7	63.49	"	II .	90000	-	28	7500	2.1
21	10000	1.6	70.69	"	II .	90000	-	25	8400	1.9
18.5	11300	1.45	80.85	"	"	90000	-	22	9500	1.75
16.5	12700	1.3	90.02	"	"	90000	-	20	10500	1.6
14	15000	1.1	107.5	"	"	90000	-	16.5	12700	1.3
12.5	16800	1.0	119.7	"	"	90000	-	15	14000	1.2
10.5	20000	0.84	139.1	"	II .	90000	-	13	16100	1.05

P = 30 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
295	970	1.55	4.95	BG70/DSE18XA4	312	6900	-	360	790	1.9
250	1140	1.55	5.87	m .	"	8200	-	300	950	1.85
205	1390	1.55	7.14	m .	"	8800	-	250	1140	1.9
173	1650	1.4	8.48	m .	"	9500	-	210	1360	1.7
145	1970	1.15	10.09	m .	"	10200	-	175	1630	1.4
122	2300	1.0	11.97	II	"	11200	-	148	1930	1.2
112	2550	0.9	13.08	"	II	11600	-	135	2100	1.1
250	1140	2.3	5.94	BG80/DSE18XA4	366	8300	-	300	950	2.8
225	1270	2.3	6.60	"	"	9100	-	270	1060	2.8
176	1620	2.3	8.30	"	"	10400	-	215	1330	2.8
159	1800	2.2	9.21	"	"	10800	-	192	1490	2.6
128	2200	1.9	11.43	"	"	11600	-	154	1860	2.3
116	2450	1.7	12.69	"	"	12400	-	139	2050	2.0
94	3000	1.4	15.62	"	"	13700	-	113	2500	1.7
85	3350	1.25	17.35	"	"	14600	-	102	2800	1.5
74	3850	1.1	19.89	"	"	15500	-	89	3200	1.3
67	4250	0.99	22.09	"	"	16500	-	80	3550	1.2
56	5100	0.82	26.44	"	"	17900	-	67	4250	0.99
134	2100	3.3	10.90	BG90/DSE18XA4	458	52300	-	162	1760	4.0
110	2600	2.9	13.37	"	"	55000	-	132	2150	3.5
100	2850	2.7	14.64	"	"	57000	-	121	2350	3.3
82	3450	2.4	17.96	"	"	59800	-	98	2900	2.8
75	3800	2.2	19.67	m	II .	62400	-	90	3150	2.7
65	4400	1.9	22.62	m	II .	65000	-	78	3650	2.3
59	4850	1.75	24.78	m	II .	65000	-	72	3950	2.1
49.5	5700	1.45	29.78	II	"	65000	-	60	4750	1.75

Selection helical-geared motors DSE-IE1

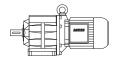
P = 30 kW



	50 Hz		İ	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	f_B
1/min	Nm				kg	N	N	1/min	Nm	
45	6300	1.35	32.62	"	"	65000	-	54	5300	1.6
38.5	7400	1.15	38.21	"	II .	65000	-	46.5	6100	1.4
35	8100	1.05	41.85	"	II .	65000	-	42.5	6700	1.25
30	9500	0.88	48.82	"	II .	65000	-	36.5	7800	1.1
27.5	10400	0.81	53.46	II	"	65000	-	33	8600	0.98
118	2400	3.0	12.45	BG100/DSE18XA4	627	72100	-	142	2000	3.6
84	3400	3.0	17.39	"	II .	82400	-	102	2800	3.6
61	4650	2.4	23.95	"	II .	87900	-	74	3850	2.9
43.5	6500	2.0	33.71	"	II .	88500	-	53	5400	2.4
39	7300	1.8	37.54	"	"	90000	-	47	6000	2.2
31.5	9000	1.55	46.43	"	"	90000	-	38	7500	1.9
28.5	10000	1.45	51.70	"	"	90000	-	34.5	8300	1.75
23	12400	1.25	63.49	"	II .	90000	-	28	10200	1.5
21	13600	1.15	70.69	"	II .	90000	-	25	11400	1.4
18.5	15400	1.05	80.85	"	II .	90000	-	22	13000	1.25
16.5	17300	0.97	90.02	"	II .	90000	-	20	14300	1.15
14	20400	0.82	107.5	"	11	90000	-	16.5	17300	0.97

Selection helical-geared motors DHE - IE2

P = 0.03 kW



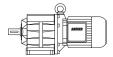
	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B			l. m	NI	NI	n ₂	M ₂	f _B
1/min 540	Nm 0.53	7.5	2.51	BG04/D04LA4	kg 4.4	N 340	N	1/min 650	Nm 0.44	9.1
370	0.53 0.77	6.5	2.5 I 3.65	BG04/D04LA4	4.4	340 390	-	445	0.44	7.8
310	0.77	7.6	4.39	m m	II .	380	_	370	0.04	9.1
255	1.12	8.0	5.36	п	п	380	_	305	0.93	9.7
205	1.39	7.2	6.67	"	ıı	410	_	245	1.16	8.6
158	1.81	6.1	8.58	II .	II .	410	_	189	1.51	7.3
150	1.91	6.3	9.00	n .	II .	470	_	180	1.59	7.5
137	2.05	6.3	9.90	m .	II .	480	_	164	1.74	7.5
125	2.25	6.2	10.82	m .	II .	480	-	150	1.91	7.3
114	2.5	6.0	11.90	m .	II .	490	-	137	2.05	7.3
108	2.65	5.7	12.55	m .	II .	490	-	130	2.2	6.8
103	2.75	5.8	13.20	"	II .	500	-	123	2.3	7.0
93	3.05	5.6	14.52	m	II .	510	-	112	2.55	6.7
83	3.45	5.2	16.44	m	II .	530	-	99	2.85	6.3
75	3.8	4.7	18.08	"	"	540	-	90	3.15	5.7
64	4.45	4.3	21.12	"	"	560	-	77	3.7	5.1
59	4.85	4.1	23.23	"	"	600	-	70	4.05	4.9
56	5.1	3.9	24.45	"	"	610	-	67	4.25	4.7
51	5.6	3.6	26.89	"	"	650	-	61	4.65	4.3
44	6.5	3.1	30.91	"	"	690	-	53	5.4	3.7
40	7.1	2.8	34.00	"	"	720	-	48	5.9	3.4
38.5	7.4	2.7	35.35	" "	"	730	-	46	6.2	3.2
35	8.1	2.5	38.89		"	750 750	-	42	6.8	2.9
32 29.5	8.9 9.7	2.2 2.1	42.24 46.47	"	"	750 750	-	38.5 35	7.4 8.1	2.7
28.5	9.7 10	2.1	40.47	n .	"	750 750	-	34.5	8.3	2.5 2.4
26.5	11	1.8	52.28	"	"	750 750	-	31	9.2	2.4
25	11.4	1.75	54.97	п	п	750 750	_	29.5	9.7	2.2
22.5	12.7	1.55	60.47	п	п	750 750	_	27	10.6	1.9
	12.7	1.55	00.17			750			10.0	1.5
31	9.2	3.3	43.57	BG05/D04LA4	5.1	900	_	37.5	7.6	3.9
29	9.8	3.1	47.00	II .	"	930	-	34.5	8.3	3.6
26.5	10.8	2.8	51.27	п	II .	970	-	32	8.9	3.4
25.5	11.2	2.7	53.44	II	II .	980	-	30.5	9.3	3.2
23.5	12.1	2.5	58.30	II	II .	1000	-	28	10.2	2.9
20.5	13.9	3.2	66.79	BG06/D04LA4	6.1	1070	-	24.5	11.6	3.9
18	13.8	2.9	75.99	BG06G04/D04LA4	8.4	1070	-	21.5	11.2	3.6
16.5	15	2.9	82.89	" "	"	1070	-	20	12	3.6
15	16.5	2.7	93.00		"	1070	-	17.5	13.8	3.3
13.5	18.4	2.4	101.5		11	1070	-	16	15.1	3.0
11.5 9.1	21 26	2.1 1.75	122.0 149.0	11	ш	1070 1070	-	13.5 11	17.3 21	2.6 2.1
7.3	33.5	1.35	185.4	m .	II .	1070	_	8.8	26.5	1.7
5.4	46	0.98	250.2	m .	ш	1070	_	6.5	37	1.2
5.0	50	0.9	275.2	п	п	1070	_	5.9	41	1.1
4.1	45*	1.0	330.8	"	II .	1070	_	4.9	45	1.0
3.7	45*	1.0	367.0	m .	II	1070	-	4.5	45	1.0
3.0	45*	1.0	457.0	m .	II .	1070	_	3.6	45	1.0
2.7	45*	1.0	502.6	m .	II .	1070	-	3.3	45	1.0
2.3	45*	1.0	587.1	"	II	1070	-	2.8	45	1.0
2.1	45*	1.0	645.8	II	II .	1070	-	2.6	45	1.0
1.9	45*	1.0	747.5	"	II .	1070	-	2.2	45	1.0
1.6	45*	1.0	859.3	"	"	1070	-	1.9	45	1.0
1.5	45*	1.0	945.2	"	"	1070	-	1.8	45	1.0
1.3	45*	1.0	1081	"	"	1070	-	1.5	45	1.0
1.2	45*	1.0	1174	"	"	1070	-	1.4	45	1.0
1.1	45*	1.0	1321	"	"	1070	-	1.3	45	1.0
0.9	45*	1.0	1528	"	"	1070	-	1.1	45	1.0
0.85	45*	1.0	1681	"	"	1070	-	1.0	45	1.0
0.7	45* 45*	1.0	1948	"	"	1070	-	0.85	45 45	1.0
0.65	45* 45*	1.0	2126 2435		"	1070 1070	-	0.8	45 45	1.0
0.6	45*	1.0	∠4 33			10/0	-	0.7	40	1.0

6

BG-series helical-geared motors

Selection helical-geared motors DHE - IE2

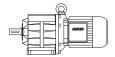
P = 0.03 kW



	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
7.4	38.5	3.1	184.0	BG10Z/D04LA4	11	2000	2800	8.9	32	3.8
7.0	40.5	3.0	194.6	"	II .	2000	2800	8.4	34	3.5
6.3	45	2.7	215.7	"	"	2000	2800	7.6	37.5	3.2
5.7	50	2.4	240.4	"	II .	2000	2800	6.8	42	2.9
5.1	56	2.1	266.3	"	11	2000	2800	6.1	46.5	2.6
4.9	58	2.1	276.0	II .	11	2000	2800	5.9	48.5	2.5
4.5	63	1.9	305.8	п	II .	2000	2800	5.3	54	2.2
3.6	49	2.7	379.6	BG10G06/D04LA4	14	2000	2800	4.3	36	3.6
3.1	57	2.3	435.9	m .	II .	2000	2800	3.8	40	3.3
2.7	68	1.9	512.6	m .	II .	2000	2800	3.2	51	2.5
2.3	83	1.55	613.6	· ·	ıı	2000	2800	2.7	65	2.0
1.9	105	1.25	748.9	u u	II	2000	2800	2.2	84	1.55
1.6	130	1.0	899.5	"	II	2000	2800	1.9	102	1.25
1.3	130*	1.0	1081	TI .	ıı	2000	2800	1.5	130	1.0
1.1	130*	1.0	1272	II .	II	2000	2800	1.3	130	1.0
0.9	130*	1.0	1523	II .	II	2000	2800	1.1	130	1.0
0.75	130*	1.0	1863	II .	"	2000	2800	0.9	130	1.0
0.6	130*	1.0	2356	u u	11	2000	2800	0.7	130	1.0
0.55	130*	1.0	2699	"	II.	2000	2800	0.65	130	1.0
0.35	130*		2099	"	II.	2000	2800	1	130	1.0
		1.0		"	"			0.6		
0.4	130*	1.0	3378	"	"	2000	2800	0.48	130	1.0
0.37	130*	1.0	3684	"	"	2000	2800	0.44	130	1.0
0.31	130*	1.0	4477	"	"	2000	2800	0.37	130	1.0
0.28	130*	1.0	4884			2000	2800	0.34	130	1.0
2.5	77	2.9	550.6	BG20G06/D04LA4	17	5000	_	3.0	58	3.8
2.5	95	2.9	671.9	BG20G06/D04LA4	17	5000	-	2.5	73	3.0
				"	"					
1.7	125	1.75	807.1	"	"	5000	-	2.1	93	2.4
1.4	160	1.4	969.9	"	"	5000	-	1.7	123	1.8
1.2	188	1.15	1142	"	"	5000	-	1.5	141	1.55
1.0	230	0.96	1366	"	"	5000	-	1.2	186	1.2
0.85	220*	1.0	1672	"	"	5000	-	1.0	220	1.0
0.75	220*	1.0	1824	"	"	5000	-	0.9	220	1.0
0.65	220*	1.0	2114	"	"	5000	-	0.8	220	1.0
0.6	220*	1.0	2422	"	"	5000	-	0.7	220	1.0
0.55	220*	1.0	2642	 II	"	5000	-	0.65	220	1.0
0.45	220*	1.0	3031	"	"	5000	-	0.55	220	1.0
0.41	220*	1.0	3306	"	"	5000	-	0.5	220	1.0
0.34	220*	1.0	4017	"	"	5000	-	0.41	220	1.0
0.31	220*	1.0	4383	-		5000	-	0.37	220	1.0
2.0	101	3.2	690.6	BG30G06/D04LA4	21	6000	_	2.4	77	4.2
1.8	116	2.8	760.7	BG30G00/D04LA4	Z I II	6000	_	2.2	87	3.7
1.7	124	2.6	829.5	u u	11	6000	_	2.0	98	3.3
1.4			996.8	"	11	6000		1.7		
	158	2.1 1.9		· ·	11	6000	-	1.5	122 143	2.7
1.3	173		1088	"	11		-			2.3
1.1 1.0	205	1.6	1280	"	"	6000	-	1.3	166	1.95
	230	1.4	1404	"	"	6000	-	1.2	184	1.75
0.8	295	1.1	1718	 II	"	6000	-	0.95	240	1.35
0.75	320	1.0	1875	"	"	6000	-	0.9	255	1.25
0.65	325*	1.0	2173	"	"	6000	-	0.75	325	1.0
0.5	325*	1.0	2715	"	"	6000	-	0.6	325	1.0
0.44	325*	1.0	3115	"	"	6000	-	0.55	325	1.0
0.4	325*	1.0	3398	"	"	6000	-	0.48	325	1.0
0.35	325*	1.0	3867			6000	-	0.42	325	1.0
0.3	325*	1.0	4504	II .		6000	-	0.36	325	1.0

Selection helical-geared motors DHE - IE2

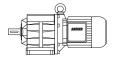
P = 0.04 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	1	Туре	111	I RN	ı RV	n ₂	M ₂	f _B
1/min	Nm	-6			kg	N	N	1/min	Nm	
540	0.7	5.7	2.51	BG04/D04LA4	4.4	340	-	650	0.58	6.9
370	1.03	4.9	3.65	"	II .	390	-	445	0.85	5.9
310	1.23	5.7	4.39	"	"	380	-	370	1.03	6.8
255	1.49	6.0	5.36	"	"	380	-	305	1.25	7.2
205	1.86	5.4	6.67	"	II	410	-	245	1.55	6.5
158	2.4	4.6	8.58	"	"	410	-	189	2.0	5.5
150	2.5	4.8	9.00	"	"	470	-	180	2.1	5.7
137	2.75	4.7	9.90	" "	"	480	-	164	2.3	5.7
125	3.05	4.6	10.82	" "	"	480	-	150	2.5	5.6
114 108	3.35	4.5	11.90		"	490	-	137	2.75	5.5
108	3.5 3.7	4.3 4.3	12.55 13.20	"	"	490 500	-	130 123	2.9 3.1	5.2 5.2
93	4.1	4.1	14.52	"	11	510	-	1123	3.4	5.0
83	4.6	3.9	16.44	"	11	530	_	99	3.85	4.7
75	5.0	3.6	18.08	n n	"	540	_	90	4.2	4.3
64	5.9	3.2	21.12	m m	11	560	_	77	4.95	3.8
59	6.4	3.1	23.23	"	II .	600	_	70	5.4	3.7
56	6.8	2.9	24.45	"	"	610	_	67	5.7	3.5
51	7.4	2.7	26.89	m .	II	650	_	61	6.2	3.2
44	8.6	2.3	30.91	m .	"	690	-	53	7.2	2.8
40	9.5	2.1	34.00	п	II .	720	-	48	7.9	2.5
38.5	9.9	2.0	35.35	"	II .	730	-	46	8.3	2.4
35	10.9	1.85	38.89	"	"	750	-	42	9.0	2.2
32	11.9	1.7	42.24	"	II	750	-	38.5	9.9	2.0
29.5	12.9	1.55	46.47	"	"	750	-	35	10.9	1.85
28.5	13.4	1.5	47.52		"	750	-	34.5	11	1.8
26	14.6	1.35	52.28	" "	"	750	-	31	12.3	1.65
25	15.2	1.3	54.97	"	"	750	-	29.5	12.9	1.55
22.5	16.9	1.2	60.47	-		750	-	27	14.1	1.4
39	9.7	3.1	35.00	BG05/D04LA4	5.1	810	_	46.5	8.2	3.7
35.5	10.7	2.8	38.18	"	"	850	_	42.5	8.9	3.4
34	11.2	2.7	39.94	m .	"	860	-	41	9.3	3.2
31	12.3	2.4	43.57	"	II .	900	-	37.5	10.1	3.0
29	13.1	2.3	47.00	"	"	930	-	34.5	11	2.7
26.5	14.4	2.1	51.27	"	"	970	-	32	11.9	2.5
25.5	14.9	2.0	53.44	"	II	980	-	30.5	12.5	2.4
23.5	16.2	1.85	58.30	"	"	1000	-	28	13.6	2.2
27	14.1	3.2	50.38	BG06/D04LA4	6.1	940	_	32.5	11.7	3.8
26	14.6	3.1	52.56	"	"	950	_	31	12.3	3.7
24	15.9	2.8	57.34	"	11	1000	_	28.5	13.4	3.4
22.5	16.9	2.7	61.22	m .	"	1020	-	26.5	14.4	3.1
20.5	18.6	2.4	66.79	"	II .	1070	-	24.5	15.5	2.9
18	19.1	2.1	75.99	BG06G04/D04LA4	8.4	1070	-	21.5	15.6	2.6
16.5	20.5	2.1	82.89	"	"	1070	-	20	16.8	2.6
15	22.5	2.0	93.00	"	"	1070	-	17.5	19.2	2.3
13.5	25.5	1.75	101.5	" "	"	1070	-	16	21	2.1
11.5	29	1.55	122.0	"	"	1070	-	13.5	24	1.9
9.1	36.5	1.25	149.0	" "	"	1070	-	11	29.5	1.55
7.3	46.5	0.97	185.4			1070	-	8.8	37.5	1.2
10.5	36	3.3	131.8	BG10Z/D04LA4	11	2000	2800	12.5	30.5	3.9
9.3	41	2.9	146.0	"	II .	2000	2800	11.5	33	3.6
8.2	46.5	2.6	166.0	п	II .	2000	2800	9.8	38.5	3.1
7.4	51	2.4	184.0	II	II .	2000	2800	8.9	42.5	2.8
7.0	54	2.2	194.6	"	"	2000	2800	8.4	45	2.7
6.3	60	2.0	215.7	"	"	2000	2800	7.6	50	2.4
5.7	67	1.8	240.4	" "	"	2000	2800	6.8	56	2.1
5.1	74	1.6	266.3	"	"	2000	2800	6.1	62	1.95
4.9	77	1.55	276.0	" "	"	2000	2800	5.9	64	1.9
4.5	84	1.45 2.2	305.8	 BG10G06/D04LA4		2000 2000	2800	5.3	72 45 5	1.65
4.1 3.6	60 75	1.75	332.0 379.6	BG10G06/D04LA4	14	2000	2800 2800	4.9 4.3	45.5 58	2.9
3.0	75	1./5	3/3.0			2000	2000	4.5	30	2.2

Selection helical-geared motors DHE - IE2

P = 0.04 kW



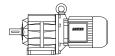
	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
3.1	88	1.5	435.9	BG10G06/D04LA4	"	2000	2800	3.8	65	2.0
2.7	103	1.25	512.6	"	"	2000	2800	3.2	81	1.6
2.3	125	1.05	613.6	"	"	2000	2800	2.7	100	1.3
1.9	155	0.84	748.9	"	"	2000	2800	2.2	128	1.0
6.1	62	3.2	222.1	BG20Z/D04LA4	13	5000	-	7.3	52	3.8
3.9	69	3.2	352.1	BG20G06/D04LA4	17	5000	-	4.7	52	4.2
3.5	77	2.9	391.1	n n	"	5000	-	4.2	59	3.7
3.0	93	2.4	460.0	n n	"	5000	-	3.6	71	3.1
2.5	116	1.9	550.6	n n	"	5000	-	3.0	90	2.4
2.1	141	1.55	671.9	"	"	5000	-	2.5	112	1.95
1.7	181	1.2	807.1	"	"	5000	-	2.1	138	1.6
1.4	225	0.98	969.9	"	"	5000	-	1.7	180	1.2
1.2	265	0.83	1142	"	"	5000	-	1.5	200	1.1
2.4	121	2.7	565.8	BG30G06/D04LA4	21	6000	-	2.9	93	3.5
2.0	149	2.2	690.6	"	"	6000	-	2.4	117	2.8
1.8	169	1.9	760.7	"	"	6000	-	2.2	130	2.5
1.7	180	1.8	829.5	"	"	6000	-	2.0	146	2.2
1.4	225	1.45	996.8	"	"	6000	-	1.7	178	1.85
1.3	245	1.35	1088	"	"	6000	-	1.5	205	1.6
1.1	290	1.1	1280	"	"	6000	-	1.3	235	1.4
1.0	325	1.0	1404	"	"	6000	-	1.2	260	1.25

P = 0.06 kW

	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B		7.				n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
540	1.06	3.8	2.51	BG04/D04LA4	4.4	340	-	650	0.88	4.5
370	1.54	3.2	3.65	m m	"	390	-	445	1.28	3.9
310	1.84	3.8	4.39	m m	"	380	-	370	1.54	4.5
255	2.2	4.1	5.36	m m	"	380	-	305	1.87	4.8
205	2.75	3.6	6.67	m m	"	410	-	245	2.3	4.3
158	3.6	3.1	8.58	m m	"	410	-	189	3.0	3.7
150	3.8	3.2	9.00	m .	"	470	-	180	3.15	3.8
137	4.15	3.1	9.90	m .	"	480	-	164	3.45	3.8
125	4.55	3.1	10.82	m .	"	480	-	150	3.8	3.7
114	5.0	3.0	11.90	m .	"	490	-	137	4.15	3.6
108	5.3	2.8	12.55	m .	"	490	-	130	4.4	3.4
103	5.5	2.9	13.20	m .	"	500	-	123	4.65	3.4
93	6.1	2.8	14.52	m .	"	510	-	112	5.1	3.3
83	6.9	2.6	16.44	m .	"	530	-	99	5.7	3.2
75	7.6	2.4	18.08	m .	"	540	-	90	6.3	2.9
64	8.9	2.1	21.12	m .	"	560	-	77	7.4	2.6
59	9.7	2.1	23.23	m .	"	600	-	70	8.1	2.5
56	10.2	1.95	24.45	m .	"	610	-	67	8.5	2.4
51	11.2	1.8	26.89	m .	"	650	-	61	9.3	2.2
44	13	1.55	30.91	m .	"	690	-	53	10.8	1.85
40	14.3	1.4	34.00	m .	"	720	-	48	11.9	1.7
38.5	14.8	1.35	35.35	m m	"	730	-	46	12.4	1.6
35	16.3	1.25	38.89	"	"	750	-	42	13.6	1.45
32	17.9	1.1	42.24	"	"	750	-	38.5	14.8	1.35
29.5	19.4	1.05	46.47	"	"	750	-	35	16.3	1.25
28.5	20	1.0	47.52	"	"	750	-	34.5	16.6	1.2
26	22	0.91	52.28	m .	"	750	-	31	18.4	1.1
25	22.5	0.89	54.97	п	"	750	-	29.5	19.4	1.05
22.5	25	0.8	60.47	"	"	750	-	27	21	0.95

Selection helical-geared motors DHE - IE2

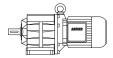
P = 0.06 kW



	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	Ν	N	1/min	Nm	
72	7.9	3.3	18.82	BG05/D04LA4	5.1	680	-	87	6.5	4.0
66	8.6	3.1	20.53	II .	II .	700	-	79	7.2	3.8
57	10	2.8	24.00	II .	II .	740	-	68	8.4	3.3
52	11	2.6	26.18	II .	II .	760	_	62	9.2	3.2
49	11.6	2.6	27.82	п	"	770	_	59	9.7	3.1
44.5	12.8	2.3	30.35	n .	"	760	_	54	10.6	2.8
39	14.6	2.1	35.00	n .	"	810	_	46.5	12.3	2.4
35.5	16.1	1.85	38.18	n .	"	850	_	42.5	13.4	2.2
34	16.8	1.8	39.94	m .	II .	860	_	41	13.9	2.2
31	18.4	1.65	43.57	m .	"	900	_	37.5	15.2	1.95
29	19.7	1.5	47.00	m .	"	930	_	34.5	16.6	1.8
26.5	21.5	1.4	51.27	m .	"	970	_	32	17.9	1.7
25.5	22	1.35	53.44	n .		980	_	30.5	18.7	1.6
23.5	24	1.25	58.30	II .	"	1000	_	28	20	1.5
23.3	24	1.23	30.30			1000		20	20	1.5
42	13.6	3.3	32.22	BG06/D04LA4	6.1	890		51	11.2	4.0
38.5	14.8	3.0	35.15	BG06/D04LA4	0.1	880	-	46.5	12.3	3.7
37	14.8	2.9	35.15 36.91	m .	"	880 890	-	46.5	12.3	3.7
	15.4 16.8				11	890 890	-	44 40.5		3.5
34		2.7	40.26		"				14.1	
29.5 27	19.4 21	2.3	46.19 50.38		"	890 940	-	35.5 32.5	16.1	2.8
1		2.1		"	"				17.6	2.6
26	22	2.0	52.56	"	"	950	-	31	18.4	2.4
24	23.5	1.9	57.34		"	1000	-	28.5	20	2.3
22.5	25	1.8	61.22		"	1020	-	26.5	21.5	2.1
20.5	27.5	1.65	66.79			1070	-	24.5	23	1.95
18	29.5	1.35	75.99	BG06G04/D04LA4	8.4	1070	-	21.5	24.5	1.65
16.5	32	1.35	82.89			1070	-	20	26	1.65
15	35.5	1.25	93.00		"	1070	-	17.5	30	1.5
13.5	39.5	1.15	101.5	"	"	1070	-	16	33	1.35
11.5	45.5	0.99	122.0	"	II .	1070	-	13.5	38.5	1.15
15	38	3.2	92.19	BG10Z/D06LA4	14	2000	2800	18	31.5	3.8
13.5	42	2.9	102.1	"	" "	2000	2800	16	35.5	3.4
12.5	45.5	2.6	109.8	"	"	2000	2800	15	38	3.2
11.5	49.5	2.4	121.7	"	"	2000	2800	13.5	42	2.9
10.5	54	2.2	131.8	"		2000	2800	12.5	45.5	2.6
9.3	61	1.95	146.0		"	2000	2800	11.5	49.5	2.4
8.2	69	1.75	166.0		"	2000	2800	9.8	58	2.1
7.4	77	1.55	184.0	"	"	2000	2800	8.9	64	1.9
7.0	81	1.5	194.6	"	"	2000	2800	8.4	68	1.75
6.3	90	1.35	215.7	"	"	2000	2800	7.6	75	1.6
5.7	100	1.2	240.4		"	2000	2800	6.8	84	1.45
5.1	112	1.05	266.3	"	"	2000	2800	6.1	93	1.3
4.9	116	1.05	276.0	"	II	2000	2800	5.9	97	1.25
4.5	127	0.94	305.8	"	"	2000	2800	5.3	108	1.1
4.1	107	1.2	332.0	BG10G06/D06LA4	18	2000	2800	4.9	84	1.55
3.6	128	1.0	379.6	"	"	2000	2800	4.3	102	1.25
3.1	149	0.87	435.9	II .	II .	2000	2800	3.8	115	1.15
8.4	68	2.9	162.2	BG20Z/D06LA4	16	5000	-	10	57	3.5
7.5	76	2.6	180.1	" "	"	5000	-	9.0	63	3.2
6.8	84	2.4	199.9	"	"	5000	-	8.2	69	2.9
6.1	93	2.2	222.1			5000	-	7.3	78	2.6
5.5	77	2.9	248.0	BG20G06/D06LA4	20	5000	-	6.6	60	3.7
4.6	95	2.3	297.9	"	"	5000	-	5.5	75	2.9
3.9	118	1.85	352.1	"	"	5000	-	4.7	93	2.4
3.5	132	1.65	391.1	"	"	5000	-	4.2	104	2.1
3.0	156	1.4	460.0		"	5000	-	3.6	125	1.75
2.5	192	1.15	550.6	"	"	5000	-	3.0	154	1.45
2.1	230	0.96	671.9	"	II .	5000	-	2.5	188	1.15
		_								_
6.0	95	3.2	225.9	BG30Z/D06LA4	22	6000	-	7.2	79	3.8
5.2	110	2.7	261.9	"	"	6000	-	6.2	92	3.3
4.7	121	2.5	290.5	"	II .	6000	-	5.6	102	2.9

Selection helical-geared motors DHE - IE2

P = 0.06 kW



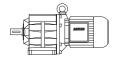
	50 Hz		İ	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
3.9	118	2.8	346.8	BG30G06/D06LA4	25	6000	-	4.7	93	3.5
3.4	136	2.4	401.9	II	"	6000	-	4.1	107	3.0
2.9	162	2.0	472.8	II	II .	6000	-	3.5	128	2.5
2.4	200	1.65	565.8	II	II .	6000	-	2.9	159	2.0
2.0	240	1.35	690.6	II	II .	6000	-	2.4	196	1.65
1.8	275	1.2	760.7	II	II .	6000	-	2.2	215	1.5
1.7	290	1.1	829.5	II	II .	6000	-	2.0	240	1.35
1.4	360	0.9	996.8	II	II .	6000	-	1.7	290	1.1
1.3	390	0.83	1088	"	II .	6000	-	1.5	330	0.98
2.2	147	3.2	640.0	BG40G10/D06LA4	43	7000	-	2.6	107	4.3
1.9	176	2.6	710.9	"	II .	7000	-	2.3	123	3.8
1.8	179	2.6	789.1	"	II .	7000	-	2.1	133	3.5
1.4	255	1.8	965.2	"	II .	7000	-	1.7	186	2.5
1.2	315	1.5	1225	"	II .	7000	-	1.4	250	1.85
0.95	440	1.05	1459	"	"	7000	-	1.2	315	1.5
1.5	230	3.0	960.2	BG50G10/D06LA4	51	10000	-	1.7	186	3.7
1.2	315	2.2	1219	"	II .	10000	-	1.4	250	2.8
0.95	445	1.55	1452	"	II .	10000	-	1.2	315	2.2
0.8	550	1.25	1729	"	II .	10000	-	0.95	445	1.55
0.7	660	1.05	2076	"	"	10000	-	8.0	550	1.25
0.8	445	2.9	1741	BG60G20/D06LA4	100	16000	-	0.95	330	3.9
0.75	490	2.7	1880	"	II .	16000	-	0.9	365	3.6
0.65	610	2.1	2249	"	II .	16000	-	0.75	490	2.7
0.48	920	1.4	2818	"	II .	16000	-	0.6	680	1.9
0.42	1090	1.2	3234	"	II .	16000	-	0.55	770	1.7
0.38	1230	1.05	3592	"	"	16000	-	0.46	970	1.35
0.49	930	2.7	2774	BG70G20/D06LA4	130	20000	-	0.6	710	3.5
0.43	1090	2.3	3184	m m	"	20000	-	0.55	800	3.1
0.35	1390	1.8	3925	II .	"	20000	-	0.42	1120	2.2

P = 0.09 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
540	1.59	2.5	2.51	BG04/D04LA4	4.4	340	-	650	1.32	3.0
370	2.3	2.2	3.65	п	"	390	-	445	1.93	2.6
310	2.75	2.5	4.39	m	"	380	-	370	2.3	3.0
255	3.35	2.7	5.36	m	"	380	-	305	2.8	3.2
205	4.15	2.4	6.67	m	"	410	-	245	3.5	2.9
158	5.4	2.0	8.58	m	"	410	-	189	4.5	2.4
150	5.7	2.1	9.00	m	"	470	-	180	4.75	2.5
137	6.2	2.1	9.90	n n	"	480	-	164	5.2	2.5
125	6.8	2.1	10.82	n n	"	480	-	150	5.7	2.5
114	7.5	2.0	11.90	n n	"	490	-	137	6.2	2.4
108	7.9	1.9	12.55	n n	"	490	-	130	6.6	2.3
103	8.3	1.95	13.20	m	"	500	-	123	6.9	2.3
93	9.2	1.85	14.52	n n	"	510	-	112	7.6	2.2
83	10.3	1.75	16.44	n n	"	530	-	99	8.6	2.1
75	11.4	1.6	18.08	n n	"	540	-	90	9.5	1.9
64	13.4	1.4	21.12	n n	"	560	-	77	11.1	1.7
59	14.5	1.4	23.23	"	"	600	-	70	12.2	1.65
56	15.3	1.3	24.45	"	"	610	-	67	12.8	1.55
51	16.8	1.2	26.89	"	"	650	-	61	14	1.45
44	19.5	1.05	30.91	"	"	690	-	53	16.2	1.25
40	21	0.95	34.00	n n	"	720	-	48	17.9	1.1
38.5	22	0.91	35.35	"	"	730	-	46	18.6	1.1
35	24.5	0.82	38.89	II	II	750	-	42	20	1.0

Selection helical-geared motors DHE - IE2

P = 0.09 kW



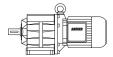
									Шть	
	50 Hz		i	Type	m	F _{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
128	6.7	3.0	10.59	BG05/D04LA4	5.1	590	-	153	5.6	3.6
117	7.3	2.9	11.55	"	"	600	-	141	6.0	3.5
113	7.6	2.8	12.05	" "	"	510	-	135	6.3	3.3
108	7.9	2.8	12.60	" "	"	610	-	129	6.6	3.3
99	8.6	2.7	13.75		"	630	-	118	7.2	3.2
89	9.6	2.5	15.23		"	640	-	107	8.0	3.0
82 72	10.4 11.9	2.4	16.62 18.82	п	"	660 680	-	98 87	8.7 9.8	2.9 2.7
66	13	2.2 2.1	20.53	п	"	700	-	79	9.8 10.8	2.7
57	15 15	1.85	24.00	п	"	700 740	-	68	12.6	2.3
52	16.5	1.75	26.18	m .	II .	760	_	62	13.8	2.2
49	17.5	1.7	27.82	n .	ш	770	_	59	14.5	2.1
44.5	19.3	1.55	30.35	"	II .	760	_	54	15.9	1.9
39	22	1.35	35.00	п	II .	810	_	46.5	18.4	1.65
35.5	24	1.25	38.18	п	II .	850	_	42.5	20	1.5
34	25	1.2	39.94	п	II .	860	_	41	20.5	1.45
31	27.5	1.1	43.57	m .	II .	900	_	37.5	22.5	1.35
29	29.5	1.0	47.00	TI TI	II .	930	-	34.5	24.5	1.2
26.5	32	0.94	51.27	"	II .	970	-	32	26.5	1.15
25.5	33.5	0.9	53.44	"	II .	980	-	30.5	28	1.05
23.5	36.5	0.82	58.30	п	II .	1000	-	28	30.5	0.98
65	13.2	3.0	20.82	BG06/D04LA4	6.1	800	-	78	11	3.6
60	14.3	3.0	22.71	"	"	810	-	72	11.9	3.6
53	16.2	2.8	25.48	"	"	850	-	64	13.4	3.4
49	17.5	2.6	27.80	"	"	840	-	59	14.5	3.1
42	20	2.3	32.22	"	"	890	-	51	16.8	2.7
38.5	22	2.0	35.15	"	"	880	-	46.5	18.4	2.4
37	23	1.95	36.91	" "	"	890	-	44	19.5	2.3
34	25	1.8	40.26	" "	"	890	-	40.5	21	2.1
29.5	29	1.55	46.19		"	890	-	35.5	24	1.9
27	31.5	1.45	50.38	"	11	940	-	32.5 31	26 27.5	1.75
26 24	33 35.5	1.35 1.25	52.56 57.34	11	"	950 1000	-	28.5	27.5 30	1.65 1.5
22.5	38	1.23	61.22	п	"	1020	-	26.5	32	1.4
20.5	41.5	1.1	66.79	п	"	1020	_	24.5	35	1.3
18	45.5	0.88	75.99	BG06G04/D04LA4	8.4	1070	_	21.5	37.5	1.05
16.5	49.5	0.87	82.89	"	"	1070	_	20	40.5	1.05
15	54	0.83	93.00	II .	II .	1070	-	17.5	46.5	0.97
23.5	36.5	3.3	57.48	BG10/D06LA4	13	2000	2800	28.5	30	4.0
21.5	39.5	3.0	63.69	"	II	2000	2800	25.5	33.5	3.6
20.5	41.5	2.9	66.00	II	"	2000	2800	25	34	3.5
18.5	46	2.6	73.13	II .	"	2000	2800	22.5	38	3.2
17.5	49	2.4	77.40	BG10Z/D06LA4	14	2000	2800	21	40.5	3.0
16	53	2.3	85.76	"	"	2000	2800	19	45	2.7
15	57	2.1	92.19		"	2000	2800	18	47.5	2.5
13.5	63	1.9	102.1	п		2000	2800	16	53 57	2.3
12.5 11.5	68 74	1.75 1.6	109.8 121.7	п	"	2000 2000	2800 2800	15 13.5	57 63	2.1 1.9
10.5	81	1.5	131.8	п	"	2000	2800	12.5	68	1.75
9.3	92	1.3	146.0	п	"	2000	2800	11.5	74	1.73
8.2	104	1.15	166.0	m .	II .	2000	2800	9.8	87	1.4
7.4	116	1.05	184.0	n .	ш	2000	2800	8.9	96	1.25
7.0	122	0.98	194.6	"	II .	2000	2800	8.4	102	1.23
6.3	136	0.88	215.7	m	п	2000	2800	7.6	113	1.05
5.7	150	0.8	240.4	п	II .	2000	2800	6.8	126	0.95
4.9	146	0.89	276.4	BG10G06/D06LA4	18	2000	2800	5.9	116	1.1
13	66	3.0	104.7	BG20Z/D06LA4	16	5000	-	15.5	55	3.6
12	71	2.8	112.8	"	"	5000	-	14.5	59	3.4
11	78	2.6	125.3	n	II .	5000	-	13	66	3.0
9.6	89	2.2	141.3	II .	II .	5000	-	11.5	74	2.7
8.4	102	1.95	162.2	II	"	5000	-	10	85	2.4
7.5	114	1.75	180.1	m m	II .	5000	-	9.0	95	2.1
6.8	126	1.6	199.9	"	II .	5000	-	8.2	104	1.9

6

BG-series helical-geared motors

Selection helical-geared motors DHE - IE2

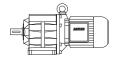
P = 0.09 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
6.1	140	1.45	222.1	BG20Z/D06LA4	II .	5000	-	7.3	117	1.7
5.5	130	1.7	248.0	BG20G06/D06LA4	20	5000	-	6.6	103	2.1
4.6	157	1.4	297.9	"	II .	5000	-	5.5	127	1.75
3.9	192	1.15	352.1	"	"	5000	-	4.7	154	1.45
3.5	210	1.05	391.1	II	II .	5000	-	4.2	173	1.25
3.0	250	0.88	460.0	п	"	5000	-	3.6	200	1.1
9.5	90	3.3	142.5	BG30Z/D06LA4	22	6000	_	11.5	74	4.1
9.0	95	3.2	151.5	"		6000	_	11	78	3.8
8.1	106	2.8	168.1	II	"	6000	_	9.7	88	3.4
7.4	116	2.6	182.9	m	II .	6000	_	8.9	96	3.1
6.7	128	2.3	202.9	п	"	6000	_	8.0	107	2.8
6.0	143	2.1	225.9	п	"	6000	_	7.2	119	2.5
5.2	165	1.8	261.9	n .	п	6000	_	6.2	138	2.2
4.7	182		290.5	п	"	6000		5.6	153	1.95
		1.65					-			
4.5	161	2.0	306.2	BG30G06/D06LA4	25	6000	-	5.3	132	2.5
3.9	192	1.7	346.8		"	6000	-	4.7	154	2.1
3.4	220	1.5	401.9		"	6000	-	4.1	177	1.85
2.9	260	1.25	472.8	" "	"	6000	-	3.5	210	1.55
2.4	320	1.0	565.8			6000	-	2.9	255	1.25
2.0	385	0.84	690.6	"	"	6000	-	2.4	315	1.05
6.1	140	3.0	221.9	BG40Z/D06LA4	38	7000	-	7.4	116	3.7
5.5	156	2.7	246.5	"	II .	7000	-	6.6	130	3.3
5.0	171	2.5	273.6	II	II .	7000	-	6.0	143	3.0
3.1	170	2.7	448.8	BG40G10/D06LA4	43	7000	-	3.7	125	3.7
2.6	210	2.2	534.2	II .	"	7000	-	3.1	160	2.9
2.2	275	1.7	640.0	II .	"	7000	-	2.6	215	2.2
1.9	325	1.45	710.9	II .	"	7000	-	2.3	245	1.9
1.8	335	1.4	789.1	п	"	7000	_	2.1	270	1.7
1.4	460	1.0	965.2	п	"	7000	_	1.7	350	1.35
1.2	550	0.85	1225	II .	II	7000	-	1.4	455	1.0
2.6	210	3.3	531.5	BG50G10/D06LA4	51	10000	_	3.1	161	4.3
2.2	280	2.5	621.3	"	"	10000	_	2.7	205	3.4
2.0	300	2.3	708.3	n .	"	10000	_	2.3	245	2.8
1.8	335	2.1	785.1	п	II .	10000	_	2.1	270	2.6
1.5	420	1.65	960.2	п	II.	10000	_	1.7	355	1.95
1.2	550	1.25	1219	II .	п	10000	-	1.4	455	1.5
1 2	420	3.1	1051	BG60G20/D06LA4	100	16000	_	1.6	205	1 1
1.3		1		BG00G20/D00LA4	100		-	1.6	295	4.4
1.2	465	2.8	1168	 II	"	16000	-	1.4	365 305	3.6
1.1	510	2.5	1346	п	"	16000	-	1.3	395	3.3
0.95	630	2.1	1496	п	"	16000	-	1.1	510	2.5
0.8	800	1.65	1741	 II	"	16000	-	0.95	630	2.1
0.75	870	1.5	1880			16000	-	0.9	680	1.9
0.65	1050	1.25	2249	II	"	16000	-	0.75	870	1.5
0.85	770	3.2	1666	BG70G20/D06LA4	130	20000	-	1.0	620	4.0
0.7	980	2.6	1994	п	"	20000	-	0.85	770	3.2
0.65	1080	2.3	2215	п	II .	20000	-	0.75	900	2.8
0.49	1510	1.65	2774	TI TI	II .	20000	-	0.6	1190	2.1
0.43	1750	1.45	3184	II .	"	20000	-	0.55	1320	1.9
0.35	2200	1.15	3925	п	II .	20000	_	0.42	1800	1.4

Selection helical-geared motors DHE - IE2

P = 0.12 kW



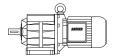
Type	f _B 2.3 1.95 2.3 2.4 2.2 1.85 1.9 1.9 1.85 1.7 1.7 1.65 1.55 1.4 1.3 1.25 1.15 1.05 3.8 3.7
1/min Nm	2.3 1.95 2.3 2.4 2.2 1.85 1.9 1.9 1.85 1.7 1.7 1.65 1.55 1.4 1.3 1.25 1.15 1.05
S40	1.95 2.3 2.4 2.2 1.85 1.9 1.9 1.85 1.7 1.7 1.65 1.55 1.4 1.3 1.25 1.15 1.05
310 3.65 1.9 4.39 " 380 - 370 3.05 255 4.45 2.0 5.36 " 380 - 370 3.05 255 4.45 2.0 5.36 " 410 - 245 4.65 158 7.2 1.55 8.58 " 410 - 189 6.0 150 7.6 1.6 9.00 " 470 - 180 6.3 137 8.3 1.55 9.90 " 480 - 164 6.9 125 9.1 1.55 10.82 " 480 - 164 6.9 125 9.1 1.55 10.82 " 480 - 150 7.6 114 10 1.5 11.90 " 490 - 137 8.3 108 10.6 1.4 12.55 " 490 - 130 8.8 103 11.1 1.45 13.20 " 500 - 123 9.3 93 12.3 1.4 14.52 " 500 - 123 9.3 93 13.8 1.3 16.44 " 500 - 100 - 112 10.2 83 13.8 1.3 16.44 " 500 - 100 - 112 10.2 84 17.9 1.05 21.12 " 560 - 77 14.8 59 19.4 1.05 23.23 " 600 - 70 16.3 56 20 1.0 24.45 " 600 - 70 16.3 56 20 1.0 24.45 " 600 - 70 16.3 56 20 1.0 24.45 " 600 - 70 16.3 57 14 6.5 2.8 7.80 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 500 - 133 7.4 117 9.7 2.2 11.55 " 600 - 133 7.4 118 10.1 2.1 12.05 " 500 - 133 7.4 119 1.15 1.20 " 500 - 135 7.4 117 9.7 2.2 11.55 " 600 - 135 7.4 118 10.1 2.1 12.05 " 500 - 131 8.4 108 10.6 2.1 12.00 " 500 - 133 7.4 117 9.7 2.2 11.55 " 600 - 135 8.4 108 10.6 2.1 12.00 " 500 - 133 7.4 117 9.7 2.2 11.55 " 600 - 133 7.4 117 9.7 2.2 11.55 " 600 - 133 7.4 117 9.7 2.2 11.55 " 600 - 133 7.4 117 9.7 2.2 11.55 " 600 - 133 7.4 118 10.1 2.1 12.05 " 70 - 139 8.8 10.8 10.6 2.1 12.00 " 70 - 139 8.8 11.6 10.6 2.1 12.00 " 70 - 130 8.8 11.6 10.6 2.1 12.00 " 70 - 130 8.8 13.8 13.9 1.8 16.62 " 70 - 70 - 133 8.4 108 10.6 2.1 12.00 " 70 - 70 - 70 - 70 1.5 119 1.5 2.0 13.75 " 70 - 130 8.8 13.8 13.9 1.8 16.62 " 70 - 70 - 70 - 70 1.5 15 22 13.9 1.8 16.62 " 70 - 70 - 70 - 70 1.5 18 22 13.9 1.8 16.62 " 70 - 70 - 70 - 70 1.5 18 22 13.9 1.8 16.62 " 70 - 70 - 70 - 70 1.5 19 11.5 2.0 13.75 " 70 - 70 - 70 - 70 1.5 19 11.5 2.0 13.75 " 70 - 70 - 70 - 70 1.5 19 11.5 2.0 13.75 " 70 - 70 - 70 - 70 1.5 19 11.5 2.0 13.75 " 70 - 70 - 70 - 70 1.5 19 11.5 2.0 13.50 " 70 - 70 - 70 - 70 1.5 19 11.5 2.0 13.50 " 70 - 70 - 70 - 70 1.5 19 11.5 2.0 13.50 " 70 - 70 - 70 - 70 1.5 19 11.5 2.0 13.50 " 70 - 70 - 70 - 70 1.5 19 11.5 2.0 13.50 " 70 - 70 - 70 - 70 1.5 19 11.5 2.0 13.50 " 70 - 70 - 70 - 70 - 70 1.5 19 11.5 2.0 13.5	2.3 2.4 2.2 1.85 1.9 1.9 1.85 1.7 1.7 1.65 1.55 1.4 1.3 1.25 1.15 1.05
\$10 \$3.00 \$1.9 \$4.39 \$1.50 \$3.60 \$1.50 \$3.75\$ \$205 \$5.5 \$1.8 \$6.67 \$1 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1.00 \$1	2.4 2.2 1.85 1.9 1.9 1.85 1.7 1.7 1.65 1.55 1.4 1.3 1.25 1.15 1.05
205 5.5 1.8 6.67 " 410 - 245 4.65 158 7.2 1.55 8.58 " 410 - 189 6.0 150 7.6 1.6 9.00 " 470 - 180 6.3 137 8.3 1.55 9.90 " 480 - 164 6.9 125 9.1 1.55 10.82 " 480 - 150 7.6 114 10 1.5 11.90 " 490 - 137 8.3 108 10.6 1.4 12.55 " 490 - 130 8.8 103 11.1 1.45 13.20 " 500 - 123 9.3 12.3 1.4 14.52 " 500 - 112 10.2 83 13.8 1.3 16.44 " 530 - 99 11.5 75 15.2 1.2 18.08 " 510 - 112 10.2 84 17.9 1.05 21.12 " 560 - 70 16.3 56 20 1.0 24.45 " 600 - 70 16.3 56 20 1.0 24.45 " 600 - 70 16.3 56 20 1.0 24.45 " 600 - 70 16.3 56 6 20 1.0 54.55 " 600 - 61 18.7 51 22 0.91 26.89 " 650 - 61 18.7 51 4.50 4.55 3.1 5.46 " 490 - 355 3.2 255 4.55 3.1 5.46 " 490 - 355 3.2 250 4.55 3.1 5.46 " 490 - 300 3.8 205 5.5 2.9 6.60 " 510 - 120 300 3.8 205 5.5 2.9 6.60 " 510 - 250 4.55 174 6.5 2.8 7.80 " 510 - 250 4.55 174 6.5 2.8 7.80 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 5.7 159 7.2 2.6 8.51 " 510 - 199 8.8 103 10.6 2.1 12.60 " 500 - 100 - 107 10.7 107 82 13.9 1.8 16.62 " 600 - 100 - 107 10.7 108 10.6 17.3 1.55 20.53 " 700 - 700 - 79 14.5 109 128 13.9 1.8 16.62 " 600 - 100 - 107 10.7 107 82 13.9 1.8 16.62 " 600 - 100 - 107 10.7 108 10.6 17.3 1.55 20.53 " 700 - 700 - 79 14.5 109 128 13.9 1.8 16.62 " 700 - 700 - 79 14.5 109 129 139 129 1.05 35.00 " 700 - 700 - 79 14.5 109 129 139 129 1.05 35.00 " 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 - 700 -	2.2 1.85 1.9 1.9 1.85 1.7 1.7 1.65 1.55 1.4 1.3 1.25 1.15 1.05
158	1.85 1.9 1.85 1.8 1.7 1.65 1.55 1.4 1.3 1.25 1.15 1.05
150	1.9 1.85 1.8 1.7 1.7 1.65 1.55 1.4 1.3 1.25 1.15 1.05
137	1.9 1.85 1.8 1.7 1.7 1.65 1.55 1.4 1.3 1.25 1.15 1.05
125 9.1 1.55 10.82 " "480 - 150 7.6 114 10 1.5 11.90 " "490 - 137 8.3 108 10.6 1.4 12.55 " "490 - 130 8.8 103 11.1 1.45 13.20 " "500 - 123 9.3 93 12.3 1.4 14.52 " "510 - 112 10.2 83 13.8 1.3 16.44 " "530 - 99 11.5 75 15.2 1.2 18.08 " "540 - 90 12.7 64 17.9 1.05 21.12 " "540 - 90 12.7 64 17.9 1.05 22.33 " "600 - 77 14.8 59 19.4 1.05 23.23 " "600 - 70 16.3 56 20 1.0 24.45 " "610 - 67 17.1 51 22 0.91 26.89 " "650 - 61 18.7 295 3.85 3.1 4.59 BG05/D04LA4 5.1 490 - 355 3.2 250 4.55 3.1 5.46 " " 490 - 300 3.8 205 5.5 2.9 6.60 " "510 - 250 4.55 174 6.5 2.8 7.80 " "530 - 210 5.4 166 6.9 2.6 8.15 " "530 - 210 5.4 176 6.9 2.6 8.51 " "530 - 210 5.4 177 9.7 2.2 11.55 " "600 - 113 8.4 178 9.9 12.8 1.9 15.23 " "600 - 114 8.1 189 10.6 2.1 12.05 " "550 - 191 6.0 180 10.1 2.1 12.05 " "550 - 193 6.0 180 10.1 2.1 12.05 " "550 - 135 8.4 108 10.6 2.1 12.60 " "550 - 153 7.4 117 9.7 2.2 11.55 " "600 - 113 8.4 118 10.1 2.1 12.05 " "550 - 191 6.0 189 11.5 2.0 13.75 " "600 - 141 8.1 113 10.1 2.1 12.05 " "550 - 191 6.0 180 10.6 2.1 12.60 " "600 - 141 8.1 113 10.1 2.1 12.60 " "600 - 141 8.1 115 10.1 2.1 12.60 " "600 - 141 8.1 116 10.6 2.1 12.60 " "600 - 141 8.1 117 9.7 2.2 11.55 " "600 - 183 8.4 118 10.6 2.1 12.60 " "600 - 79 14.5 119 1.5 2.0 13.75 " "600 - 79 14.5 110 1.5 1.55 2.5 1.2 1.55 " "600 - 79 14.5 110 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	1.85 1.8 1.7 1.7 1.65 1.55 1.4 1.3 1.25 1.15 1.05
114 10 1.5 11.90 " " 490 - 137 8.3 108 10.6 1.4 12.55 " " 490 - 130 8.8 103 11.1 1.45 13.20 " " 500 - 123 9.3 93 12.3 1.4 14.52 " " 510 - 112 10.2 83 13.8 1.3 16.44 " " 530 - 99 11.5 75 15.2 1.2 18.08 " " 540 - 90 12.7 64 17.9 1.05 23.23 " " 600 - 77 14.8 59 19.4 1.05 23.23 " " 610 - 67 17.1 151 22 0.91 26.89 " " 610 - 67 17.1	1.8 1.7 1.65 1.55 1.4 1.3 1.25 1.15 1.05
108 10.6 1.4 12.55 " " 490 - 130 8.8 103 11.1 1.45 13.20 " " 500 - 123 9.3 93 12.3 1.4 14.52 " " 510 - 112 10.2 83 13.8 1.3 16.44 " " 530 - 99 11.5 75 15.2 1.2 18.08 " " 560 - 90 12.7 64 17.9 1.05 221.12 " " 560 - 77 14.8 59 19.4 1.05 221.12 " " 600 - 70 16.3 56 20 1.0 24.45 " " 610 - 67 17.1 51 22 0.91 26.89 " " 490 - 355 3.2	1.7 1.65 1.55 1.4 1.3 1.25 1.15 1.05
103	1.7 1.65 1.55 1.4 1.3 1.25 1.15 1.05
93 12.3 1.4 14.52 " " 510 - 112 10.2 83 13.8 1.3 16.44 " " 530 - 99 11.5 75 15.2 1.2 18.08 " " 540 - 90 12.7 64 17.9 1.05 23.23 " " 600 - 70 16.3 59 19.4 1.05 23.23 " " 610 - 67 17.1 51 22 0.91 26.89 " " 610 - 67 17.1 51 22 0.91 26.89 " " 650 - 61 18.7 295 3.85 3.1 4.59 BG05/D04LA4 5.1 490 - 355 3.2 250 4.55 3.1 5.46 " " 9 300 3.8 205<	1.65 1.55 1.4 1.3 1.25 1.15 1.05
83 13.8 1.3 16.44 " " 530 - 99 11.5 75 15.2 1.2 18.08 " " 540 - 90 12.7 64 17.9 1.05 23.12 " " 560 - 77 14.8 59 19.4 1.05 23.23 " " 600 - 70 16.3 56 20 1.0 24.45 " " 610 - 67 17.1 51 22 0.91 26.89 " " 650 - 61 18.7 295 3.85 3.1 4.59 BG05/D04LA4 5.1 490 - 355 3.2 250 4.55 3.1 5.46 " " 490 - 355 3.2 250 4.55 3.1 5.46 " " 510 - 250 4.55 174 6.5 2.8 7.80 " " 510 - 210	1.55 1.4 1.3 1.25 1.15 1.05 3.8 3.7
75 15.2 1.2 18.08 " " 540 - 90 12.7 64 17.9 1.05 21.12 " " 560 - 77 14.8 59 19.4 1.05 23.23 " " 600 - 70 16.3 56 20 1.0 24.45 " " 610 - 67 17.1 51 22 0.91 26.89 " " 650 - 61 18.7 295 3.85 3.1 4.59 BG05/D04LA4 5.1 490 - 355 3.2 250 4.55 3.1 5.46 " " 490 - 300 3.8 205 5.5 2.9 6.60 " " 510 - 250 4.55 174 6.5 2.8 7.80 " " 510 - 190 5.7 210<	1.4 1.3 1.25 1.15 1.05 3.8 3.7
64 17.9 1.05 21.12 " " 560 - 77 14.8 59 19.4 1.05 23.23 " " 600 - 70 16.3 56 20 1.0 24.45 " " 610 - 67 17.1 51 22 0.91 26.89 " " 650 - 61 18.7 295 3.85 3.1 4.59 BG05/D04LA4 5.1 490 - 355 3.2 250 4.55 3.1 5.46 " " 490 - 300 3.8 205 5.5 2.9 6.60 " " 510 - 250 4.55 174 6.5 2.8 7.80 " " 530 - 210 5.4 166 6.9 2.6 8.15 " " 550 - 191 6.0 128 8.9 2.2 10.59 " " 550 - 191	1.3 1.25 1.15 1.05 3.8 3.7
59 19.4 1.05 23.23 " " 600 - 70 16.3 56 20 1.0 24.45 " " 610 - 67 17.1 51 22 0.91 26.89 " " 650 - 61 18.7 295 3.85 3.1 4.59 BG05/D04LA4 5.1 490 - 355 3.2 250 4.55 3.1 5.46 " " 490 - 300 3.8 205 5.5 2.9 6.60 " " 510 - 250 4.55 174 6.5 2.8 7.80 " " 530 - 210 5.4 166 6.9 2.6 8.15 " " 550 - 191 6.0 128 8.9 2.2 10.59 " " 590 - 153 7.4	1.25 1.15 1.05 3.8 3.7
56 20 1.0 24.45 " " 610 - 67 17.1 51 22 0.91 26.89 " " 650 - 61 18.7 295 3.85 3.1 4.59 BG05/D04LA4 5.1 490 - 355 3.2 250 4.55 3.1 5.46 " " 490 - 300 3.8 205 5.5 2.9 6.60 " " 510 - 250 4.55 174 6.5 2.8 7.80 " " 510 - 250 4.55 174 6.5 2.8 7.80 " " 510 - 199 5.7 159 7.2 2.6 8.51 " " 550 - 191 6.0 128 8.9 2.2 10.59 " " 590 - 153 7.4	1.15 1.05 3.8 3.7
295	3.8 3.7
250 4.55 3.1 5.46 " 490 - 300 3.8 205 5.5 2.9 6.60 " " 510 - 250 4.55 174 6.5 2.8 7.80 " " 530 - 210 5.4 166 6.9 2.6 8.15 " " 510 - 199 5.7 159 7.2 2.6 8.51 " " 550 - 191 6.0 128 8.9 2.2 10.59 " " 590 - 153 7.4 117 9.7 2.2 11.55 " " 600 - 141 8.1 117 9.7 2.2 11.55 " " 600 - 141 8.1 113 10.1 2.1 12.05 " " 510 - 135 8.4 108 10.6 2.1 12.60 " " 610 - 129 8.8	3.7
250 4.55 3.1 5.46 " 490 - 300 3.8 205 5.5 2.9 6.60 " " 510 - 250 4.55 174 6.5 2.8 7.80 " " 530 - 210 5.4 166 6.9 2.6 8.15 " " 510 - 199 5.7 159 7.2 2.6 8.51 " " 550 - 191 6.0 128 8.9 2.2 10.59 " " 590 - 153 7.4 117 9.7 2.2 11.55 " " 600 - 141 8.1 117 9.7 2.2 11.55 " " 600 - 141 8.1 113 10.1 2.1 12.05 " " 510 - 135 8.4 108 10.6 2.1 12.60 " " 610 - 129 8.8	3.7
205 5.5 2.9 6.60 " " 510 - 250 4.55 174 6.5 2.8 7.80 " " 530 - 210 5.4 166 6.9 2.6 8.15 " " 550 - 191 6.0 128 8.9 2.2 10.59 " " 590 - 153 7.4 117 9.7 2.2 11.55 " " 600 - 141 8.1 113 10.1 2.1 12.05 " " 510 - 135 8.4 108 10.6 2.1 12.60 " " 510 - 129 8.8 99 11.5 2.0 13.75 " " 630 - 118 9.7 89 12.8 1.9 15.23 " " 640 - 107 10.7 82 13.9 1.8 16.62 " " 660 - 98 11.6 72 15.9 1.65 18.82 " " 680 - 87 13.1 66 17.3 1.55 20.53 " " 700 - 79 14.5 57 20 1.4 24.00 " " 740 - 68 16.8 52 22 1.3 26.18 " " 760 - 62 18.4 49 23 1.3 27.82 " " 770 - 59 19.4 44.5 25.5 1.2 30.35 " " 760 - 54 21 39 29 1.05 35.00 " " 810 - 46.5 24.5	
174	
174 6.3 2.6 7.80 3.34 166 6.9 2.6 8.15 " " 510 - 199 5.7 159 7.2 2.6 8.51 " " 550 - 191 6.0 128 8.9 2.2 10.59 " " 590 - 153 7.4 117 9.7 2.2 11.55 " " 600 - 141 8.1 113 10.1 2.1 12.05 " " 510 - 135 8.4 108 10.6 2.1 12.60 " " 610 - 129 8.8 99 11.5 2.0 13.75 " " 630 - 118 9.7 89 12.8 1.9 15.23 " " 640 - 107 10.7 82 13.9 1.8 16.62 " " 660 - 98 11.6 72 15.9 1.65 18.82	3.5
159 7.2 2.6 8.51 " " 550 - 191 6.0 128 8.9 2.2 10.59 " " 590 - 153 7.4 117 9.7 2.2 11.55 " " 600 - 141 8.1 113 10.1 2.1 12.05 " " 510 - 135 8.4 108 10.6 2.1 12.60 " " 610 - 129 8.8 99 11.5 2.0 13.75 " " 630 - 118 9.7 89 12.8 1.9 15.23 " " 640 - 107 10.7 82 13.9 1.8 16.62 " " 660 - 98 11.6 72 15.9 1.65 18.82 " " 680 - 87 13.1 66 17.3 1.55 20.53 " " 700 - 79	3.3
128 8.9 2.2 10.59 " " 590 - 153 7.4 117 9.7 2.2 11.55 " " 600 - 141 8.1 113 10.1 2.1 12.05 " " 510 - 135 8.4 108 10.6 2.1 12.60 " " 610 - 129 8.8 99 11.5 2.0 13.75 " " 630 - 118 9.7 89 12.8 1.9 15.23 " " 640 - 107 10.7 82 13.9 1.8 16.62 " " 660 - 98 11.6 72 15.9 1.65 18.82 " " 680 - 87 13.1 66 17.3 1.55 20.53 " " 700 - 79 14.5 57 20 1.4 24.00 " " 760 - 62 1	3.2
117 9.7 2.2 11.55 " " 600 - 141 8.1 113 10.1 2.1 12.05 " " 510 - 135 8.4 108 10.6 2.1 12.60 " " 610 - 129 8.8 99 11.5 2.0 13.75 " " 630 - 118 9.7 89 12.8 1.9 15.23 " " 640 - 107 10.7 82 13.9 1.8 16.62 " " 660 - 98 11.6 72 15.9 1.65 18.82 " " 680 - 87 13.1 66 17.3 1.55 20.53 " " 700 - 79 14.5 57 20 1.4 24.00 " " 740 - 68 16.8 52 22 1.3 26.18 " " 770 - 59 19.	3.2 2.7
113 10.1 2.1 12.05 " " 510 - 135 8.4 108 10.6 2.1 12.60 " " 610 - 129 8.8 99 11.5 2.0 13.75 " " 630 - 118 9.7 89 12.8 1.9 15.23 " " 640 - 107 10.7 82 13.9 1.8 16.62 " " 660 - 98 11.6 72 15.9 1.65 18.82 " " 680 - 87 13.1 66 17.3 1.55 20.53 " " 700 - 79 14.5 57 20 1.4 24.00 " " 740 - 68 16.8 52 22 1.3 26.18 " " 760 - 62 18.4 49 23 1.3 27.82 " " 760 - 54 21 <th>2.7</th>	2.7
108 10.6 2.1 12.60 " " 610 - 129 8.8 99 11.5 2.0 13.75 " " 630 - 118 9.7 89 12.8 1.9 15.23 " " 640 - 107 10.7 82 13.9 1.8 16.62 " " 660 - 98 11.6 72 15.9 1.65 18.82 " " 680 - 87 13.1 66 17.3 1.55 20.53 " " 700 - 79 14.5 57 20 1.4 24.00 " " 740 - 68 16.8 52 22 1.3 26.18 " " 760 - 62 18.4 49 23 1.3 27.82 " " 770 - 59 19.4 44.5 25.5 1.2 30.35 " " 760 - 54 21 </th <th>2.5</th>	2.5
99 11.5 2.0 13.75 " " 630 - 118 9.7 89 12.8 1.9 15.23 " " 640 - 107 10.7 82 13.9 1.8 16.62 " " 660 - 98 11.6 72 15.9 1.65 18.82 " " 680 - 87 13.1 66 17.3 1.55 20.53 " " 700 - 79 14.5 57 20 1.4 24.00 " " 740 - 68 16.8 52 22 1.3 26.18 " " 760 - 62 18.4 49 23 1.3 27.82 " " 770 - 59 19.4 44.5 25.5 1.2 30.35 " " 760 - 54 21 39 29 1.05 35.00 " " 810 - 46.5 24.5 </th <th>2.5</th>	2.5
89 12.8 1.9 15.23 " " 640 - 107 10.7 82 13.9 1.8 16.62 " " 660 - 98 11.6 72 15.9 1.65 18.82 " " 680 - 87 13.1 66 17.3 1.55 20.53 " " 700 - 79 14.5 57 20 1.4 24.00 " " 740 - 68 16.8 52 22 1.3 26.18 " " 760 - 62 18.4 49 23 1.3 27.82 " " 770 - 59 19.4 44.5 25.5 1.2 30.35 " " 760 - 54 21 39 29 1.05 35.00 " " 810 - 46.5 24.5	2.4
82 13.9 1.8 16.62 " " 660 - 98 11.6 72 15.9 1.65 18.82 " " 680 - 87 13.1 66 17.3 1.55 20.53 " " 700 - 79 14.5 57 20 1.4 24.00 " " 740 - 68 16.8 52 22 1.3 26.18 " " 760 - 62 18.4 49 23 1.3 27.82 " " 770 - 59 19.4 44.5 25.5 1.2 30.35 " " 760 - 54 21 39 29 1.05 35.00 " " 810 - 46.5 24.5	2.2
66 17.3 1.55 20.53 " " 700 - 79 14.5 57 20 1.4 24.00 " " 740 - 68 16.8 52 22 1.3 26.18 " " 760 - 62 18.4 49 23 1.3 27.82 " " 770 - 59 19.4 44.5 25.5 1.2 30.35 " " 760 - 54 21 39 29 1.05 35.00 " 810 - 46.5 24.5	2.2
57 20 1.4 24.00 " " 740 - 68 16.8 52 22 1.3 26.18 " 760 - 62 18.4 49 23 1.3 27.82 " 770 - 59 19.4 44.5 25.5 1.2 30.35 " 760 - 54 21 39 29 1.05 35.00 " 810 - 46.5 24.5	2.0
52 22 1.3 26.18 " " 760 - 62 18.4 49 23 1.3 27.82 " 770 - 59 19.4 44.5 25.5 1.2 30.35 " 760 - 54 21 39 29 1.05 35.00 " 810 - 46.5 24.5	1.85
49 23 1.3 27.82 " " 770 - 59 19.4 44.5 25.5 1.2 30.35 " " 760 - 54 21 39 29 1.05 35.00 " 810 - 46.5 24.5	1.65
44.5 25.5 1.2 30.35 " " 760 - 54 21 39 29 1.05 35.00 " 810 - 46.5 24.5	1.6
39 29 1.05 35.00 " " 810 - 46.5 24.5	1.55
	1.45
153.3 57 U.94 58 18 85U - 1473 703	1.2
	1.15
34 33.5 0.9 39.94 " " 860 - 41 27.5 31 36.5 0.82 43.57 " " 900 - 37.5 30.5	1.1 0.98
31.3 30.3 5.02 43.37 30.3	0.90
110 10.4 3.2 12.30 BG06/D04LA4 6.1 670 - 132 8.6	3.8
105 10.9 3.0 12.98 " " 600 - 125 9.1	3.6
92 12.4 2.7 14.78 " 730 - 110 10.4	3.3
84 13.6 2.6 16.13 " 740 - 101 11.3	3.1
78 14.6 2.6 17.40 " " 760 - 94 12.1	3.1
72 15.9 2.5 18.98 " " 770 - 86 13.3	3.0
65 17.6 2.3 20.82 " " 800 - 78 14.6 60 19.1 2.3 22.71 " 810 - 72 15.9	2.7
00 19.1 2.3 22.71	2.7
33 21.3 2.1 25.40	2.5
23 1.93 27.00 640 - 39 19.4	2.3 2.0
42 27 1.65 32.22 " 890 - 51 22 38.5 29.5 1.55 35.15 " 880 - 46.5 24.5	1.85
37 30.5 1.5 36.91 " 890 - 44 26	1.75
34 33.5 1.35 4 0.26 " 890 - 40.5 28	1.73
29.5 38.5 1.15 46.19 " 890 - 35.5 32	1.4
27 42 1.05 50.38 " 940 - 32.5 35	1.3
26 44 1.0 52.56 " " 950 - 31 36.5	1.25
24 47.5 0.95 57.34 " 1000 - 28.5 40	
22.5 50 0.9 61.22 " 1020 - 26.5 43	1.15
20.5 55 0.82 66.79 " 1070 - 24.5 46.5	1.15

6

BG-series helical-geared motors

Selection helical-geared motors DHE - IE2

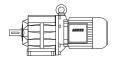
P = 0.12 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
31	36.5	3.3	43.99	BG10/D06LA4	13	1880	2600	37	30.5	3.9
29.5	38.5	3.1	46.55	II	"	1920	2650	35	32.5	3.7
26.5	43	2.8	51.57	m	"	2000	2800	31.5	36	3.3
23.5	48.5	2.5	57.48	II .	II .	2000	2800	28.5	40	3.0
21.5	53	2.3	63.69	m .	"	2000	2800	25.5	44.5	2.7
20.5	55	2.2	66.00	n .	"	2000	2800	25	45.5	2.6
18.5	61	1.95	73.13	п	"	2000	2800	22.5	50	2.4
17.5	65	1.85	77.40	BG10Z/D06LA4	14	2000	2800	21	54	2.2
16	71	1.03	85.76	DG102/D00LA4	"	2000	2800	19	60	2.0
15	71 76	1.6	92.19	п	ш	2000	2800	18	63	1.9
				п	"					
13.5	84	1.45	102.1	11	"	2000	2800	16	71	1.7
12.5	91	1.3	109.8	п	"	2000	2800	15	76	1.6
11.5	99	1.2	121.7			2000	2800	13.5	84	1.45
10.5	109	1.1	131.8	"	"	2000	2800	12.5	91	1.3
9.3	123	0.98	146.0	"	"	2000	2800	11.5	99	1.2
8.2	139	0.86	166.0	"	II .	2000	2800	9.8	116	1.05
7.0	143	0.91	194.9	BG10G06/D06LA4	18	2000	2800	8.4	115	1.15
17.5	65	3.1	78.60	BG20Z/D06LA4	16	5000	-	21	54	3.7
15.5	73	2.7	87.30	m m	II .	5000	-	19	60	3.3
14.5	79	2.5	94.27	"	"	5000	-	17.5	65	3.1
13	88	2.3	104.7	"	"	5000	-	15.5	73	2.7
12	95	2.1	112.8	m .	"	5000	-	14.5	79	2.5
11	104	1.9	125.3	II .	m m	5000	-	13	88	2.3
9.6	119	1.7	141.3	п	"	5000	-	11.5	99	2.0
8.4	136	1.45	162.2	m m	m m	5000	_	10	114	1.75
7.5	152	1.3	180.1	п	"	5000	_	9.0	127	1.55
6.8	168	1.2	199.9	п	"	5000	_	8.2	139	1.45
6.1	187	1.05	222.1	11	"	5000	_	7.3	156	1.43
5.5	182		248.0	BG20G06/D06LA4	20	5000	-	6.6	147	
		1.2		BG20G06/D06LA4	20		-			1.5
4.6	220	1.0	297.9	n	"	5000	-	5.5	179	1.25
3.9	265	0.83	352.1			5000	-	4.7	215	1.0
12.5	91	3.3	109.6	BG30Z/D06LA4	22	6000	_	15	76	3.9
11.5	99	3.0	121.6	BG302/D00LA4	ZZ "	6000	_	13.5	84	
1		1		п	"					3.6
11	104	2.9	128.5	"	"	6000	-	13	88	3.4
9.5	120	2.5	142.5		"	6000	-	11.5	99	3.0
9.0	127	2.4	151.5		"	6000	-	11	104	2.9
8.1	141	2.1	168.1			6000	-	9.7	118	2.5
7.4	154	1.95	182.9	"	"	6000	-	8.9	128	2.3
6.7	171	1.75	202.9	"	"	6000	-	8.0	143	2.1
6.0	191	1.55	225.9	"	"	6000	-	7.2	159	1.9
5.2	220	1.35	261.9	п	II .	6000	-	6.2	184	1.65
4.7	240	1.25	290.5	"	"	6000	-	5.6	200	1.5
4.5	220	1.5	306.2	BG30G06/D06LA4	25	6000	-	5.3	186	1.75
3.9	265	1.25	346.8	"	"	6000	-	4.7	215	1.5
3.4	300	1.1	401.9	II	"	6000	-	4.1	245	1.35
2.9	360	0.9	472.8	II	II .	6000	-	3.5	290	1.1
8.7	131	3.2	156.9	BG40Z/D06LA4	38	7000	-	10.5	109	3.9
8.2	139	3.1	166.1	m	"	7000	-	9.8	116	3.7
7.4	154	2.8	184.4	m .	"	7000	-	8.8	130	3.3
6.8	168	2.5	199.9	п	II .	7000	-	8.2	139	3.1
6.1	187	2.3	221.9	m .	"	7000	-	7.4	154	2.8
5.5	205	2.1	246.5	п	II .	7000	_	6.6	173	2.5
5.0	225	1.9	273.6	11	II .	7000	_	6.0	191	2.2
4.7	153	3.0	288.6	BG40G10/D06LA4	43	7000	_	5.7	111	4.2
3.9	194	2.4	353.5	BG40G10/D00LA4	43	7000	-	4.6	149	3.1
	260		333.3 448.8	п	"	7000		3.7	200	
3.1		1.8			"		-			2.3
2.6	320	1.45	534.2	" "	"	7000	-	3.1	250	1.85
2.2	405	1.15	640.0			7000	-	2.6	325	1.45
1.9	475	0.98	710.9	"	"	7000	-	2.3	370	1.25
1.8	495	0.94	789.1	II .	"	7000	-	2.1	405	1.15

Selection helical-geared motors DHE - IE2

P = 0.12 kW



	50 Hz		i	Туре	m	F _{RN}	F_{RV}		60 Hz	
n ₂	M_2	f_{B}						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
6.0	191	3.3	226.9	BG50Z/D06LA4	47	10000	-	7.2	159	4.0
5.3	215	2.9	258.6	"	II .	10000	-	6.3	181	3.5
4.8	235	2.7	286.7	"	II .	10000	-	5.7	200	3.2
3.1	260	2.7	446.5	BG50G10/D06LA4	51	10000	-	3.7	200	3.5
2.6	320	2.2	531.5	"	II .	10000	-	3.1	250	2.8
2.2	410	1.7	621.3	"	II .	10000	-	2.7	310	2.2
2.0	445	1.55	708.3	"	"	10000	-	2.3	370	1.85
1.8	495	1.4	785.1	"	"	10000	-	2.1	405	1.7
1.5	610	1.15	960.2	"	"	10000	-	1.7	520	1.35
1.2	790	0.87	1219	II	"	10000	-	1.4	660	1.05
1.7	470	2.8	804.5	BG60G20/D06LA4	100	16000	_	2.1	340	3.8
1.6	490	2.7	891.5	m .	II .	16000	-	1.9	375	3.5
1.3	640	2.0	1051	п	II .	16000	-	1.6	475	2.7
1.2	700	1.85	1168	II .	II .	16000	-	1.4	570	2.3
1.1	770	1.7	1346	m .	II	16000	-	1.3	610	2.1
0.95	930	1.4	1496	TI TI	II .	16000	-	1.1	770	1.7
0.8	1160	1.1	1741	TI TI	II .	16000	-	0.95	930	1.4
0.75	1250	1.05	1880	"	II .	16000	-	0.9	1000	1.3
1.0	900	2.8	1389	BG70G20/D06LA4	130	20000	_	1.2	710	3.5
0.9	1030	2.4	1543	II .	II .	20000	-	1.1	800	3.1
0.85	1100	2.3	1666	m .	ıı	20000	-	1.0	900	2.8
0.7	1390	1.8	1994	п	II .	20000	-	0.85	1100	2.3
0.65	1520	1.65	2215	II .	II .	20000	-	0.75	1280	1.95
0.49	2050	1.2	2774	II .	"	20000	-	0.6	1670	1.5
0.43	2400	1.05	3184	п	11	20000	-	0.55	1840	1.35

P = 0.18 kW

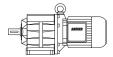
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
520	3.3	2.7	2.64	BG05/D05LA4	7.0	420	-	620	2.75	3.3
400	4.25	2.4	3.38	II	"	460	-	480	3.55	2.8
295	5.8	2.1	4.59	II	"	490	-	355	4.8	2.5
250	6.8	2.1	5.46	II	"	490	-	300	5.7	2.5
205	8.3	1.95	6.60	II	"	510	-	250	6.8	2.4
174	9.8	1.85	7.80	II	"	530	-	210	8.1	2.2
166	10.3	1.75	8.15	II	"	510	-	199	8.6	2.1
159	10.8	1.75	8.51	"	"	550	-	191	9.0	2.1
128	13.4	1.5	10.59	II	"	590	-	153	11.2	1.8
117	14.6	1.45	11.55	II	"	600	-	141	12.1	1.75
113	15.2	1.4	12.05	"	"	510	-	135	12.7	1.65
108	15.9	1.4	12.60	II	"	610	-	129	13.3	1.65
99	17.3	1.35	13.75	II	"	630	-	118	14.5	1.6
89	19.3	1.25	15.23	II	"	640	-	107	16	1.5
82	20.5	1.2	16.62	"	"	660	-	98	17.5	1.45
72	23.5	1.1	18.82	II	"	680	-	87	19.7	1.3
66	26	1.05	20.53	m	II .	700	-	79	21.5	1.25
57	30	0.93	24.00	II	"	740	-	68	25	1.1
52	33	0.88	26.18	II	"	760	-	62	27.5	1.05
49	35	0.86	27.82	"	II .	770	-	59	29	1.05
230	7.4	3.2	5.96	BG06/D05LA4	8.0	570	-	275	6.2	3.9
193	8.9	2.9	7.01	m	II .	580	-	235	7.3	3.6
161	10.6	2.6	8.39	II	"	600	-	194	8.8	3.2
144	11.9	2.5	9.38	"	"	640	-	173	9.9	3.0
132	13	2.4	10.24	m	II .	640	-	159	10.8	2.9
120	14.3	2.2	11.28	"	"	670	-	144	11.9	2.7
110	15.6	2.1	12.30	II	"	670	-	132	13	2.5
105	16.3	2.0	12.98	"	"	600	-	125	13.7	2.4
92	18.6	1.85	14.78	"	II .	730	-	110	15.6	2.2
84	20	1.75	16.13	"	"	740	-	101	17	2.1

6

BG-series helical-geared motors

Selection helical-geared motors DHE - IE2

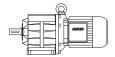
P = 0.18 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	•	.,,,,		• KN	• KV	n ₂	M ₂	f _B
1/min	Nm	-6			kg	N	N	1/min	Nm	
78	22	1.75	17.40	п	"	760		94	18.2	2.1
72	23.5	1.7	18.98	m .	"	770	_	86	19.9	2.0
65	26	1.55	20.82	m .	"	800	_	78	22	1.8
60	28.5	1.5	22.71	m .	11	810	-	72	23.5	1.85
53	32	1.4	25.48	m .	11	850	-	64	26.5	1.7
49	35	1.3	27.80	m .	"	840	-	59	29	1.55
42	40.5	1.1	32.22	m .	"	890	-	51	33.5	1.35
38.5	44.5	1.0	35.15	"	"	880	-	46.5	36.5	1.25
37	46	0.98	36.91	"	"	890	-	44	39	1.15
34	50	0.9	40.26	TI .	II .	890	-	40.5	42	1.05
46.5	36.5	3.3	29.09	BG10/D06LA4	13	1540	2150	56	30.5	3.9
43	39.5	3.0	31.52	"	"	1600	2200	52	33	3.6
39	44	2.7	34.92	II .	II .	1690	2350	46.5	36.5	3.3
34.5	49.5	2.4	39.70	m .	11	1780	2450	41	41.5	2.9
31	55	2.2	43.99	II	II .	1880	2600	37	46	2.6
29.5	58	2.1	46.55	II	II .	1920	2650	35	49	2.4
26.5	64	1.9	51.57	n .	"	2000	2800	31.5	54	2.2
23.5	73	1.65	57.48	"	II .	2000	2800	28.5	60	2.0
21.5	79	1.5	63.69	"	II .	2000	2800	25.5	67	1.8
20.5	83	1.45	66.00	"	II .	2000	2800	25	68	1.75
18.5	92	1.3	73.13	II .	"	2000	2800	22.5	76	1.6
17.5	98	1.2	77.40	BG10Z/D06LA4	14	2000	2800	21	81	1.5
16	107	1.1	85.76	"	"	2000	2800	19	90	1.35
15	114	1.05	92.19	"	"	2000	2800	18	95	1.25
13.5	127	0.94	102.1	"	"	2000	2800	16	107	1.1
12.5	137	0.88	109.8	" "	"	2000	2800	15	114	1.05
11.5	149	0.81	121.7		"	2000	2800	13.5	127	0.94
36	47.5	3.2	37.90	BG15/D06LA4	13	3000	6000	43	39.5	3.8
28.5	60	3.3	47.92	BG20/D06LA4	16	4750	-	34	50	4.0
25.5	67	3.0	53.22	m	"	4950	-	30.5	56	3.6
23	74	2.7	59.07	"	"	5000	-	27.5	62	3.2
21	81	2.5	65.62	"	"	5000	-	25	68	2.9
20	85	2.4	67.53	BG20Z/D06LA4	16	5000	-	24	71	2.8
17.5	98	2.0	78.60	"	"	5000	-	21	81	2.5
15.5	110	1.8	87.30	"	"	5000	-	19	90	2.2
14.5	118	1.7	94.27	" "	"	5000	-	17.5	98	2.0
13	132	1.5	104.7	" "	"	5000	-	15.5	110	1.8
12	143	1.4	112.8		"	5000	-	14.5	118	1.7
11 9.6	156 179	1.3	125.3		"	5000 5000	-	13 11.5	132 149	1.5 1.35
8.4	200	1.1 1.0	141.3 162.2	"	11	5000	-	10	171	1.15
7.5	225	0.89	180.1	m m	11	5000	-	9.0	191	1.15
6.8	250	0.8	199.9	п	II	5000	-	8.2	205	0.98
21	81	3.3	65.79	BG30Z/D06LA4	22	6000	_	25	68	3.9
18.5	92	3.3	73.51	# II	"	6000	_	22.5	76	3.9
17	101	3.0	81.55	"	11	6000	_	20	85	3.5
16	107	2.8	86.13	II .	"	6000	_	19	90	3.3
14.5	118	2.5	95.55	n n	11	6000	_	17	101	3.0
12.5	137	2.2	109.6	m .	11	6000	-	15	114	2.6
11.5	149	2.0	121.6	m .	"	6000	-	13.5	127	2.4
11	156	1.9	128.5	II	"	6000	-	13	132	2.3
9.5	180	1.65	142.5	II .	ıı	6000	-	11.5	149	2.0
9.0	191	1.55	151.5	11	11	6000	-	11	156	1.9
8.1	210	1.45	168.1	11	11	6000	-	9.7	177	1.7
7.4	230	1.3	182.9	II	"	6000	-	8.9	193	1.55
6.7	255	1.2	202.9	II	"	6000	-	8.0	210	1.45
6.0	285	1.05	225.9	II	"	6000	-	7.2	235	1.3
5.2	330	0.91	261.9	II	"	6000	-	6.2	275	1.1
4.7	365	0.82	290.5	"	"	6000	-	5.6	305	0.98
4.5	350	0.93	306.2	BG30G06/D06LA4	25	6000	-	5.3	290	1.1

Selection helical-geared motors DHE - IE2

P = 0.18 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7.				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	-
13	132	3.2	107.5	BG40Z/D06LA4	38	7000	-	15.5	110	3.9
11.5	149	2.9	121.3	n	ıı	7000	-	13.5	127	3.3
10.5	163	2.6	134.6	n	ıı	7000	-	12.5	137	3.1
9.6	179	2.4	141.4	n	ıı	7000	-	11.5	149	2.9
8.7	197	2.2	156.9	m .	II .	7000	-	10.5	163	2.6
8.2	205	2.1	166.1	"	II .	7000	-	9.8	175	2.4
7.4	230	1.85	184.4	"	II .	7000	-	8.8	195	2.2
6.8	250	1.7	199.9	n n	II .	7000	-	8.2	205	2.1
6.1	280	1.5	221.9	"	II .	7000	-	7.4	230	1.85
5.5	310	1.35	246.5	"	II .	7000	-	6.6	260	1.65
5.0	340	1.25	273.6	"	II .	7000	-	6.0	285	1.5
4.7	275	1.7	288.6	BG40G10/D06LA4	43	7000	-	5.7	210	2.2
3.9	340	1.35	353.5	"	II .	7000	-	4.6	270	1.7
3.1	445	1.05	448.8	"	II .	7000	-	3.7	355	1.3
2.6	540	0.86	534.2	II .	II .	7000	-	3.1	435	1.05
8.2	205	3.1	164.9	BG50Z/D06LA4	47	10000	_	9.9	173	3.6
7.4	230	2.7	182.8	"	"	10000	_	8.9	193	3.3
6.6	260	2.4	204.7	n	II .	10000	_	8.0	210	3.0
6.0	285	2.2	226.9	m .	II .	10000	_	7.2	235	2.7
5.3	320	1.95	258.6	п	II .	10000	_	6.3	270	2.3
4.8	355	1.75	286.7	п	II.	10000	_	5.7	300	2.1
3.9	340	2.0	351.7	BG50G10/D06LA4	51	10000	_	4.7	265	2.6
3.1	445	1.55	446.5	п	II .	10000	-	3.7	355	1.95
2.6	540	1.3	531.5	m .	II .	10000	-	3.1	435	1.6
2.2	670	1.05	621.3	m .	II .	10000	-	2.7	520	1.35
2.0	730	0.95	708.3	m m	II	10000	-	2.3	620	1.1
1.8	810	0.85	785.1	II	II .	10000	-	2.1	680	1.0
2.7	485	2.7	504.9	BG60G20/D06LA4	100	16000	_	3.3	370	3.5
2.5	520	2.5	559.5	"	"	16000	_	2.9	425	3.1
2.1	650	2.0	651.3	п	II .	16000	_	2.5	520	2.5
1.7	800	1.65	804.5	п	II.	16000	_	2.1	610	2.1
1.6	840	1.55	891.5	m .	II	16000	-	1.9	670	1.95
1.3	1080	1.2	1051	m .	II .	16000	_	1.6	830	1.55
1.2	1180	1.1	1168	п	II .	16000	-	1.4	980	1.35
1.1	1290	1.0	1346	"	ıı	16000	-	1.3	1050	1.25
1.8	750	3.3	790.2	BG70G20/D06LA4	130	20000	_	2.1	610	4.1
1.6	860	2.9	877.6	" " "	"	20000	_	1.9	690	3.6
1.4	1000	2.5	1035	m .	"	20000	_	1.6	850	2.9
1.2	1190	2.1	1193	n	11	20000	_	1.4	990	2.5
1.0	1470	1.7	1389	TT.	ıı	20000	_	1.2	1190	2.1
0.9	1670	1.5	1543	TT.	ıı	20000	_	1.1	1320	1.9
0.85	1780	1.4	1666	"	II .	20000	_	1.0	1470	1.7
0.7	2200	1.15	1994	"	II .	20000	_	0.85	1780	1.4
0.65	2400	1.05	2215	II	II .	20000	-	0.75	2050	1.2

P = 0.25 kW

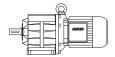
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
520	4.55	2.0	2.64	BG05/D05LA4	7.0	420	-	620	3.85	2.3
400	5.9	1.7	3.38	"	"	460	-	480	4.95	2.0
295	8.0	1.5	4.59	"	"	490	-	355	6.7	1.8
250	9.5	1.45	5.46	"	"	490	-	300	7.9	1.75
205	11.6	1.4	6.60	"	"	510	-	250	9.5	1.7
174	13.7	1.3	7.80	TI TI	"	530	-	210	11.3	1.6
166	14.3	1.25	8.15	п	"	510	-	199	11.9	1.5
159	15	1.25	8.51	"	"	550	-	191	12.5	1.5
128	18.6	1.1	10.59	п	"	590	-	153	15.6	1.3
117	20	1.05	11.55	m m	II .	600	-	141	16.9	1.25

6

BG-series helical-geared motors

Selection helical-geared motors DHE - IE2

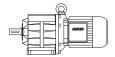
P = 0.25 kW



No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No.		50 Hz		i	Туре	m	F _{RN}	F_{RV}		60 Hz	
	n ₂		f₀	•	.,,,,		• KN	• RV	n ₂		$f_{\scriptscriptstyle B}$
1113	1/min		-6			ka	N	N			- 0
108	113		1.0	12.05	BG05/D05LA4						1.2
999	108					II .		_			1.2
989 26.5 0.91 15.23	99				"	II .		_			1.15
82	89				"	II .		_			
1980	82				n .	II .		_			
	360	6.6	3.0	3.78	BG06/D05LA4	8.0	520	-	430	5.5	3.6
133	300		2.8	4.54	"			-			3.3
14.8 1.9	230	10.3	2.3	5.96	"	"	570	-	275	8.6	2.8
144	193	12.3	2.1	7.01	"	"	580	-	235	10.1	2.6
132	161	14.8	1.9	8.39	"	"	600	-	194	12.3	2.3
132	144	16.5	1.8	9.38	"	ıı ı	640	-	173	13.8	2.2
1105	132	18	1.7	10.24	"	"	640	-	159		2.1
105 22.5 1.45 12.98 " " 600 - 125 19.1 1.79 22.5 1.45 12.98 " " 600 - 125 19.1 1.79 22 25.5 1.35 14.78 " " 730 - 110 23.5 1.5 28 1.25 16.13 " " 740 - 101 23.5 1.5 28 1.25 16.13 " " 760 - 94 25 1.5 28 30.5 1.25 17.40 " " 760 - 94 25 1.5 26 36.5 1.1 20.82 " " 800 - 78 30.5 1.3 55 36.5 1.1 22.71 " " 810 - 72 33 1.2 56 39.5 1.1 22.71 " " 810 - 72 33 1.3 53 45 1.0 25.48 " " 880 - 64 37 1.3 53 45 1.0 25.48 " " 880 - 64 37 1.3 54 22 56 0.8 32.22 " " 890 - 51 46.5 0.9 56 38.5 3.1 22.04 " " 880 - 59 40 1.1 56 2 38.5 3.1 22.04 " " 180 79 30 44.5 56 39.5 1.3 1 22.04 " " 180 79 30 44.5 56 42.5 2.8 24.42 " " 1410 1970 67 35.5 34.5 56 42.5 2.8 24.42 " " 1410 1970 67 35.5 34.5 56 42.5 2.8 24.5 " " 150 200 62 38.5 31.5 56 1.9 9 1.35 39.70 " " 180 200 200 52 45.5 2.6 57 1.9 1.7 1.5 39.70 " " 1780 2450 41 58.2 58 1.1 1 1 1 1 1 63.69 " " 180 200 280 21 113 1.7 58 1.3 1 2.5 46.55 " " 1920 260 37 64 1.5 58 1.3 1 2.5 46.55 " " 1920 260 37 64 1.5 59 1.3 1 1.5 46.55 " " 1920 260 37 64 1.5 50 1.5 46.5 " " 180 260 37 64 1.5 50 1.5 40.55 " " 1920 260 37 64 1.5 50 1.5 40.55 " " 1920 260 37 64 1.5 50 1.5 40.55 " " 1920 260 37 64 1.5 50 1.5 40.55 " " 1920 260 37 64 1.5 50 1.5 40.55 " " 1920 260 37 64 1.5 50 1.7 3.7 39.70 " " 1780 2450 41 58 2.1 50 1.7 3.3 39.00 " " 1880 2600 37 64 1.5 50 1.7 3.3 39.00 " " 1880 2600 37 64 1.5 50 1.7 3.3 39.00 " " 1880 2600 37 64 1.5 50 1.7 4.7 4.7 5 39.70 " " 1780 2450 41 58 2.1 50 1.7 5 39.70 " " 180 260 2800 280 28.5 83 1.4 50 1.7 5 39.70 " " 180 260 2800 28.5 83 1.4 50 1.7 5 39.70 " " 180 260 2800 28.5 5.5 93 1.2 50 1.7 5 39.70 " " 180 260 2800 280 28.5 83 1.4 50 1.7 5 39.70 " " 300 600 47.5 50 30 68 1.7 50 1.7 5 39.70 " " 300 600 47.5 50 30 68 1.7 50 1.7 5 39.70 " " 300 600 47.5 50 30 68 1.7 50 1.7 5 39.70 " " 300 600 47.5 50 30 68 1.7 50 1.7 5 30.7 8 80.5 8 80 80.5 50 80 80.5 8 80 80.5 50 80 80 80 80 80 80 80 80 80 80 80 80 80	120	19.8	1.6	11.28	"	ıı ı	670	-	144	16.5	1.95
22. 25.5 1.35 14.78 " " 730 - 110 21.5 16.4 17.8 18.4 17.5 17.5 17.5 17.5 17.5 17.5 17.5 17.5	110	21.5	1.55	12.30	"	"	670	-	132	18	1.85
28	105			12.98	"			-	125		1.75
78	92	25.5	1.35	14.78	"	ıı ı	730	-	110	21.5	1.6
722 33 1.25 17.40 " " 760 - 94 25 1.5 722 33 1.2 18.98 " " " 770 - 86 27.5 1.44 755 36.5 1.1 20.82 " " 800 - 78 30.5 750 39.5 1.1 22.71 " " 810 - 72 33 1.3 751 39.5 1.1 22.71 " " 850 - 72 33 1.3 752 38.5 0.93 27.80 " " 850 - 64 37 1.2 753 45. 0.93 27.80 " " 890 - 51 46.5 0.99 754 45. 5 0.93 27.80 " " 890 - 51 46.5 0.99 756 38.5 3.1 22.04 " " 890 - 51 46.5 0.99 756 42.5 2.8 24.42 " " 1410 1970 67 35.5 3.4 752 45.5 2.6 26.26 " " 140 2000 62 38.5 3.3 753 45. 51 2.4 29.09 " " 1540 2150 56 42.5 2.6 753 46.5 51 2.4 29.09 " " 1540 2150 56 42.5 2.6 754 55 2.6 34.92 " " 1600 2200 52 45.5 2.6 754 56 9 1.75 39.70 " " 1780 2450 41 58 2.1 756 57 1.2 57.8 " 1200 2800 37 64 1.5 757 1.5 43.99 " " 1880 2600 37 64 1.5 758 59 1.35 15.57 " 1880 2600 37 64 1.5 758 59 1.35 15.57 " 1200 2800 2800 25.5 59 1.2 758 51 1.1 1.1 1.1 63.69 " " 2000 2800 28.5 83 1.4 751 1.2 57.48 " " 2000 2800 28.5 83 1.4 751 1.5 111 1.1 63.69 " " 2000 2800 28.5 83 1.4 751 1.5 116 1.05 66.00 " " 2000 2800 25.5 93 1.3 751 1.5 116 1.05 66.00 " " 2000 2800 25.5 93 1.3 751 1.5 12 3.00 8615/D06LA4 14 2000 2800 25.5 93 1.3 751 1.5 136 0.88 77.40 8G10Z/D06LA4 13 3000 6000 60 43 5.5 2.2 751 2.7 37.90 " " 3000 6000 54 44 34 3.3 752 3.2 27.08 8G10Z/D06LA4 13 3000 6000 60 47.5 50 3.5 752 3.3 1.7 5000 - 25 95 2.2 753 2.7 41.76 " " 3000 6000 54 44 34 3.3 751 3.5 53 2.8 30.08 " " 3000 6000 60 60 47.5 50 3.5 752 3.2 3.2 27.08 8G10Z/D06LA4 13 3000 6000 60 47.5 50 3.5 752 3.2 37.90 " " 3000 6000 54 44 34 3.3 752 5.3 4.5 59 0.7 " " 3000 6000 54 44 34 3.3 752 5.3 4.5 59 0.7 " " 3000 6000 54 44 34 3.3 752 5.3 4.5 59 0.7 " " 3000 6000 54 55 50 3.5 753 2.2 3.2 3.2 2 " " 47.6 " " 3000 6000 54 55 50 3.5 753 2.2 3.2 3.2 3.2 3.0 " " 3000 6000 600 54 55 50 3.5 753 2.2 3.3 2.2 3.0 8G20Z/D06LA4 16 5000 - 25 59 5 2.2 753 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3.3 3	84							-			1.5
55 36.5 1.1 20.82 " " 800 - 78 30.5 1.3 50 39.5 1.1 22.71 " " 850 - 64 37 1.3 53 45 1.0 25.48 " " 850 - 64 37 1.3 42 56 0.8 32.22 " " 840 - 59 40 1.15 66 36 3.3 20.51 BG10/D06LA4 13 1290 1800 79 30 40 56 42.5 2.8 24.42 " " 1410 1970 67 35.5 3.4 52 45.5 2.6 26.26 " " 1460 2000 62 38.5 3.3 46.5 51 2.4 29.09 " " 1460 2250 2.2 45.5 2.2 43 55 <t< th=""><th>78</th><th></th><th>1.25</th><th>17.40</th><th></th><th></th><th></th><th>-</th><th></th><th></th><th>1.5</th></t<>	78		1.25	17.40				-			1.5
305 30.5 1.1 22.71 " " 810 - 72 30.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1	72			18.98				-			1.45
45	65							-			1.3
99	60							-			1.3
1. 1. 1. 1. 1. 1. 1. 1.	53		1.0					-			1.2
\$66	49							-			1.15
62 38.5 3.1 22.04 " " 1330 1860 74 32 3.8 56 42.5 2.8 24.42 " " 14160 2000 67 35.5 3.4 46.5 51 2.4 29.09 " " 1540 2150 56 42.5 2.8 39 61 1.95 34.92 " " 1690 2350 46.5 51 2.4 38.5 69 1.75 39.70 " " 1780 2450 41 58 2.1 31.1 77 1.55 43.99 " " 1880 2600 37 64 1.5 58 2.1 20.5 80 1.5 46.55 " " 1920 2650 35 68 1.7 26.5 90 1.35 1.57 " " 2000 2800 28.5 83 1.45 21.5 111 1.1 63.69 " " 2000 2800 25.5 </th <th>42</th> <th>56</th> <th>0.8</th> <th>32.22</th> <th>"</th> <th>"</th> <th>890</th> <th>-</th> <th>51</th> <th>46.5</th> <th>0.97</th>	42	56	0.8	32.22	"	"	890	-	51	46.5	0.97
62 38.5 3.1 22.04 " " 1330 1860 74 32 3.8 56 42.5 2.8 24.42 " " 14160 2000 67 35.5 3.4 46.5 51 2.4 29.09 " " 1540 2150 56 42.5 2.8 39 61 1.95 34.92 " " 1690 2350 46.5 51 2.4 38.5 69 1.75 39.70 " " 1780 2450 41 58 2.1 31.1 77 1.55 43.99 " " 1880 2600 37 64 1.5 58 2.1 20.5 80 1.5 46.55 " " 1920 2650 35 68 1.7 26.5 90 1.35 1.57 " " 2000 2800 28.5 83 1.45 21.5 111 1.1 63.69 " " 2000 2800 25.5 </th <th>66</th> <th>36</th> <th>3.3</th> <th>20.51</th> <th>BG10/D06LA4</th> <th>13</th> <th>1290</th> <th>1800</th> <th>79</th> <th>30</th> <th>4.0</th>	66	36	3.3	20.51	BG10/D06LA4	13	1290	1800	79	30	4.0
56	62										3.8
52	56		2.8		m m	II .					3.4
43 55 2.2 31.52 " " 1600 2200 52 45.5 2.6 38.9 61 1.95 34.92 " " 1690 2350 46.5 51 2.4 38.1 77 1.55 43.99 " " 1880 2600 37 64 1.5 29.5 80 1.5 46.55 " " 1920 2650 37 64 1.5 26.5 90 1.35 51.57 " " 1920 2650 35 68 1.75 26.5 90 1.35 51.57 " " 2000 2800 28.5 83 1.45 21.5 111 1.1 63.69 " " 2000 2800 28.5 83 1.45 20.5 116 1.05 66.00 " " 2000 2800 22.5 95 1.22 18.5 <t< th=""><th>52</th><th>45.5</th><th>2.6</th><th>26.26</th><th>"</th><th>II .</th><th>1460</th><th>2000</th><th>62</th><th>38.5</th><th>3.1</th></t<>	52	45.5	2.6	26.26	"	II .	1460	2000	62	38.5	3.1
39 61 1.95 34.92 " " 1690 2350 46.5 51 2.4 34.5 69 1.75 39.70 " " 1780 2450 41 58 2.1 31 77 1.55 43.99 " " 1880 2600 37 64 1.9 29.5 80 1.5 46.55 " " 1920 2650 35 68 1.7 26.5 90 1.35 51.57 " " 2000 2800 31.5 75 1.6 21.5 101 1.2 57.48 " " 2000 2800 28.5 83 1.4 21.5 111 1.1 63.69 " " 2000 2800 25.5 93 1.2 20.5 116 1.05 66.00 " " 2000 2800 25.5 93 1.2 21.5 116 1.05 66.00 " " 2000 2800 25.5 93 1.2 21.5 136 0.88 77.40 BG10Z/D06LA4 14 2000 2800 22.5 106 1.1 21.5 136 0.88 77.40 BG10Z/D06LA4 14 2000 2800 22.5 106 1.1 21.5 136 0.88 77.40 BG10Z/D06LA4 14 2000 2800 21 113 1.0 25.0 47.5 3.2 27.08 BG15/D06LA4 13 3000 6000 40 19 125 0.9 25.0 47.5 3.2 37.00 " " 3000 6000 47.5 50 3.6 26.5 66 2.3 37.90 " " 3000 6000 47.5 50 3.6 26.5 65 3.1 37.02 BG20/D06LA4 16 4300 - 44 54 3.5 27.5 80 2.5 46.38 " " 4700 - 35 68 2.5 28.5 83 2.4 47.92 " " 4500 - 39 61 3.2 28.5 83 2.4 47.92 " " 4750 - 34 70 2.5 28.5 83 2.2 53.22 " " 4750 - 34 70 2.5 28.5 83 2.2 53.22 " " 4750 - 34 70 2.5 28.5 93 2.2 53.22 " " 4750 - 34 70 2.5 28.5 93 2.2 53.22 " " 4750 - 34 70 2.5 28.5 93 2.2 53.22 " " 4750 - 34 70 2.5 28.5 136 1.45 78.60 " " 5000 - 27.5 86 2.5 28.1 113 1.75 65.62 " " 5000 - 27.5 86 2.5 29.1 113 1.75 65.62 " " 5000 - 21 113 1.75 15.5 15.4 1.3 87.30 " " 5000 - 17.5 13.6 1.45 15.5 15.4 1.3 87.30 " " 5000 - 14.5 16.4 11.5 11.1 10.47 " " 5000 - 14.5 16.4 11.5 11.1 10.47 " " 5000 - 14.5 16.4 11.5 11.1 11.2 198 1.0 112.8 " " 5000 - 14.5 16.4 11.5 11.1 11.1 11.1 11.1 11.1 11.1 11.1	46.5	51	2.4	29.09	"	"	1540	2150	56	42.5	2.8
34.5 69 1.75 39.70 " " 1780 2450 41 58 2.1 31 77 1.55 43.99 " " 1880 2600 37 64 1.5 229.5 80 1.5 46.55 " " 1920 2650 35 68 1.7 26.5 90 1.35 51.57 " " 2000 2800 28.5 83 1.4 23.5 101 1.2 57.48 " " 2000 2800 28.5 83 1.4 21.5 111 1.1 63.69 " " 2000 2800 25.5 93 1.3 20.5 116 1.05 66.00 " " 2000 2800 25.5 93 1.3 21.5 129 0.93 73.13 " " 2000 2800 25.5 95 1.2 21.5 136 0.88 77.40 BG10z/D06LA4 14 2000 2800 22.5 106 1.15 16 149 0.81 85.76 " " 2000 2800 21 113 1.0 25 47.5 3.2 27.08 BG15/D06LA4 13 3000 6000 60 39.5 3.8 38.5 60 2.5 34.20 " " 3000 6000 43 55 2.3 36.6 66 2.3 37.90 " " 3000 6000 43 55 2.3 36.5 65 3.1 37.02 BG20/D06LA4 16 4300 - 44 54 3.3 32.5 73 2.7 41.76 " " 4500 - 39 61 33 32.5 73 2.7 41.76 " " 4500 - 39 61 33 32.5 83 2.4 47.92 " " 4750 - 34 70 2.5 32.5 93 2.2 53.22 " " 4950 - 30.5 78 2.6 32.5 93 2.2 53.22 " " 4950 - 27.5 86 2.5 32.5 136 1.45 78.60 " " 5000 - 27.5 86 2.5 32.1 133 1.75 65.62 " " 5000 - 27.5 86 2.5 32.1 133 1.83 1.1 104.7 " " 5000 - 17.5 136 1.45 11.5 164 1.2 94.27 " " 5000 - 17.5 136 1.45 11.5 198 1.0 112.8 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.2 198 1.0 112.8 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3 11.1 104.7 " " 5000 - 15.5 154 1.3	43	55	2.2	31.52	"	"	1600	2200	52	45.5	2.6
31 77 1.55 43.99 " " 1880 2600 37 64 1.5 29.5 80 1.5 46.55 " " 1920 2800 31.5 75 1.6 23.5 101 1.2 57.48 " " 2000 2800 28.5 83 1.45 21.5 111 1.1 63.69 " " 2000 2800 25.5 93 1.2 20.5 116 1.05 66.00 " " 2000 2800 25.5 93 1.2 18.5 129 0.93 73.13 " " 2000 2800 22.5 106 1.15 17.5 136 0.88 77.40 BG10Z/D06LA4 14 2000 2800 21 113 1.05 16 149 0.81 85.76 " " 2000 2800 19 125 0.96 50 47.5 3.2 27.08 BG15/D06LA4 13 3000 6000 60	39	61		34.92	"			2350			2.4
192.5 80 1.5 46.55 " " 1920 2650 35 68 1.75 26.5 90 1.35 51.57 " " 2000 2800 31.5 75 1.8 23.5 101 1.2 57.48 " " 2000 2800 28.5 83 1.4 21.5 111 1.1 63.69 " " 2000 2800 25.5 93 1.3 20.5 116 1.05 66.00 " " 2000 2800 25.5 95 1.2 21.5 129 0.93 73.13 " " 2000 2800 25.5 95 1.2 21.5 136 0.88 77.40 BG10Z/D06LA4 14 2000 2800 21 113 1.0 25.6 47.5 3.2 27.08 BG15/D06LA4 14 2000 2800 19 125 0.96 25.6 47.5 3.2 27.08 BG15/D06LA4 13 3000 6000 60 39.5 3.8 24.5 53 2.8 30.08 " " 3000 6000 54 44 3.4 23.5 60 2.5 34.20 " " 3000 6000 54 44 3.4 23.6 66 2.3 37.90 " " 3000 6000 43 55 2.3 26.5 65 3.1 37.02 BG20/D06LA4 16 4300 - 44 54 3.5 22.5 73 2.7 41.76 " " 4500 - 35 68 2.5 23.5 73 2.7 41.76 " " 4500 - 35 68 2.5 23.5 83 2.4 47.92 " " 4750 - 34 70 2.5 25.5 93 2.2 53.22 " " 4750 - 34 70 2.5 25.5 93 2.2 53.22 " " 4750 - 34 70 2.5 25.5 93 2.2 53.22 " " 4750 - 34 70 2.5 25.5 93 2.2 53.22 " " 4950 - 30.5 78 2.6 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.83 1.1 104.7 " " 5000 - 17.5 136 1.45 21 114 12 198 1.0 112.8 " " 5000 - 17.5 136 1.45 21 198 1.0 112.8 " " 5000 - 17.5 136 1.45 21 198 1.0 112.8 " " 5000 - 18.5 154 21 198 1.0 112.8 " " 5000 - 18.5 154 21 198 1.0 112.8 " " 5000 - 18.5 154 21 198 1.0 112.8 " " 5000 - 18.5 154 21 113 183 1.1	34.5			39.70							2.1
23.5	31										1.9
23.5 101 1.2 57.48 " " 2000 2800 28.5 83 1.45 21.5 111 1.1 63.69 " " 2000 2800 25.5 93 1.3 20.5 116 1.05 66.00 " " 2000 2800 25.5 95 1.2 28.5 129 0.93 73.13 " 2000 2800 25.5 106 1.15 217.5 136 0.88 77.40 BG10Z/D06LA4 14 2000 2800 21 113 1.05 216 149 0.81 85.76 " 2000 2800 19 125 0.96 25 0 47.5 3.2 27.08 BG15/D06LA4 13 3000 6000 60 39.5 3.8 28.5 3 2.8 30.08 " " 3000 6000 54 44 3.2 39.5 60 2.5 34.20 " " 3000 6000 54 44 3.3 39.5 60 2.5 34.20 " " 3000 6000 43 55 2.3 36.5 65 3.1 37.02 BG20/D06LA4 16 4300 - 44 54 3.3 32.5 73 2.7 41.76 " " 4500 - 39 61 3.3 32.5 73 2.7 41.76 " " 4500 - 35 68 2.5 32.5 83 2.4 47.92 " " 4750 - 35 68 2.5 22.5 93 2.2 53.22 " " 4750 - 34 70 2.5 22.5 93 2.2 53.22 " " 4950 - 30.5 78 2.6 23 103 1.95 59.07 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 17.5 136 1.45 11.5 164 1.2 94.27 " " 5000 - 17.5 136 1.45 11.5 164 1.2 94.27 " " 5000 - 17.5 136 1.45 11.5 164 1.2 94.27 " " 5000 - 17.5 136 1.45 11.5 164 1.2 94.27 " " 5000 - 17.5 136 1.45 11.5 198 1.0 112.8 " " 5000 - 15.5 154 1.3 183 1.1 104.7 " " 5000 - 15.5 154 1.3 112 198 1.0 112.8 " " 5000 - 17.5 136 1.45 111 215 0.93 125.3 " " 5000 - 14.5 164 1.3	29.5										1.75
21.5											1.6
20.5											
110 1.05 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00											1.3
16.5											
16 149 0.81 85.76 " " 2000 2800 19 125 0.96 50 47.5 3.2 27.08 BG15/D06LA4 13 3000 6000 60 39.5 3.8 45 53 2.8 30.08 " " 3000 6000 54 44 3.4 39.5 60 2.5 34.20 " " 3000 6000 47.5 50 3.6 36 66 2.3 37.90 " " 3000 6000 43 55 2.7 36.5 65 3.1 37.02 BG20/D06LA4 16 4300 - 44 54 3.7 32.5 73 2.7 41.76 " " 4500 - 39 61 3.3 32.5 83 2.4 47.92 " " 4700 - 35 68 2.5 28.5 83 2.4 47.92 " " 4750 - 34 70 2			i								
149 33.70 35.70 36.50 36.50 36.50 36.50 37.50 36.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50 37.50											
45 53 2.8 30.08 " " 3000 6000 54 44 3.4 39.5 60 2.5 34.20 " " 3000 6000 47.5 50 3.6 36.6 66 2.3 37.90 " " 3000 6000 43 55 2.7 36.5 65 3.1 37.02 BG20/D06LA4 16 4300 - 44 54 3.7 32.5 73 2.7 41.76 " " 4500 - 39 61 3.3 29.5 80 2.5 46.38 " " 4700 - 35 68 2.5 28.5 83 2.4 47.92 " " 4750 - 34 70 2.5 25.5 93 2.2 53.22 " " 4950 - 30.5 78 2.6 23 103 1.95 59.07 " " 5000 - 27.5 86 2.3	16	149	0.81	85./6	"		2000	2800	19	125	0.96
39.5 60 2.5 34.20 " " 3000 6000 47.5 50 3.6 36.6 66 2.3 37.90 " " 3000 6000 43 55 2.7 36.5 65 3.1 37.02 BG20/D06LA4 16 4300 - 44 54 3.3 32.5 73 2.7 41.76 " " 4500 - 39 61 3.3 29.5 80 2.5 46.38 " " 4700 - 35 68 2.9 28.5 83 2.4 47.92 " " 4750 - 34 70 2.9 25.5 93 2.2 53.22 " " 4950 - 30.5 78 2.6 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 25 95 2.1 20 119 1.7 67.53 BG20Z/D06LA4 16 5000 - 24 99 2.6 117.5 136 1.45 78.60 " " 5000 - 11.5 136 1.45 11.5 154 1.3 87.30 " " 5000 - 17.5 136 1.45 11.5 154 1.2 94.27 " " 5000 - 17.5 136 1.45 11.5 198 1.0 112.8 " " 5000 - 15.5 154 1.3 11.5 198 1.0 112.8 " " 5000 - 14.5 164 1.2 11.5 198 1.0 112.8 " " 5000 - 14.5 164 1.2 11.5 198 1.0 112.8 " " 5000 - 14.5 164 1.2 11.5 198 1.0 112.8 " " 5000 - 14.5 164 1.2 11.5 198 1.0 112.8 " " 5000 - 14.5 164 1.2 11.5 198 1.0 112.8 " " 5000 - 14.5 164 1.2 11.5 198 1.0 112.8 " " 5000 - 14.5 164 1.2 11.5 198 1.0 112.8 " " 5000 - 14.5 164 1.2 11.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	50	47.5	3.2	27.08	BG15/D06LA4	13	3000	6000	60	39.5	3.8
36.5 65 3.1 37.02 BG20/D06LA4 16 4300 - 44 54 3.7 329.5 80 2.5 46.38 " " 4700 - 35 68 2.9 325.5 93 2.2 53.22 " " 4950 - 30.5 78 2.6 23 103 1.95 59.07 " " 5000 - 27.5 86 2.5 21 113 1.75 65.62 " " 5000 - 25 95 2.1 17.5 136 1.45 78.60 " " 5000 - 24 99 2.6 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " 5000 - 17.5 136 1.45 78.60 " " " " 5000 - 17.5 136 1.45 78.60 " " " " 5000 - 17.5 136 1.45 78.60 " " " "	45			30.08				6000	54		3.4
36.5 65 3.1 37.02 BG20/D06LA4 16 4300 - 44 54 3.7 32.5 73 2.7 41.76 " " 4500 - 39 61 3.3 29.5 80 2.5 46.38 " " 4700 - 35 68 2.9 28.5 83 2.4 47.92 " " 4750 - 34 70 2.9 23 103 1.95 59.07 " " 4950 - 30.5 78 2.6 21 113 1.75 65.62 " " 5000 - 27.5 86 2.3 20 119 1.7 67.53 BG20Z/D06LA4 16 5000 - 24 99 2.0 17.5 136 1.45 78.60 " " 5000 - 21 113 1.75 136 1.45 78.60 " " 5000 - 19 125 1.6 14.5 164 1.2 94.27 " " 5000 - 17.5 136 1.45 1.3 183 1.1 104.7 " " 5000 - 15.5 154 1.3 183 1.1 104.7 " " 5000 - 15.5 154 1.3 183 1.1 104.7 " " 5000 - 14.5 164 1.2 198 1.0 112.8 " " 5000 - 13 183 1.1	39.5	60	2.5	34.20			3000	6000	47.5	50	3.0
32.5 73 2.7 41.76 " " 4500 - 39 61 3.3 29.5 80 2.5 46.38 " " 4700 - 35 68 2.9 28.5 83 2.4 47.92 " " 4750 - 34 70 2.9 25.5 93 2.2 53.22 " " 4950 - 30.5 78 2.6 23 103 1.95 59.07 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 25 95 2.1 20 119 1.7 67.53 BG20Z/D06LA4 16 5000 - 24 99 2.0 17.5 136 1.45 78.60 " " 5000 - 21 113 1.75 15.5 154 1.3 87.30 " " 5000 - 17.5 136 1.45	36	66	2.3	37.90	"	"	3000	6000	43	55	2.7
32.5 73 2.7 41.76 " " 4500 - 39 61 3.3 29.5 80 2.5 46.38 " " 4700 - 35 68 2.9 28.5 83 2.4 47.92 " " 4750 - 34 70 2.9 25.5 93 2.2 53.22 " " 4950 - 30.5 78 2.6 23 103 1.95 59.07 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 25 95 2.1 20 119 1.7 67.53 BG20Z/D06LA4 16 5000 - 24 99 2.0 17.5 136 1.45 78.60 " " 5000 - 21 113 1.75 15.5 154 1.3 87.30 " " 5000 - 17.5 136 1.45	36.5	65	3.1	37.02	BG20/D06LA4	16	4300	-	44	54	3.7
29.5 80 2.5 46.38 " " 4700 - 35 68 2.9 28.5 83 2.4 47.92 " " 4750 - 34 70 2.9 25.5 93 2.2 53.22 " " 4950 - 30.5 78 2.6 23 103 1.95 59.07 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 25 95 2.1 20 119 1.7 67.53 BG20Z/D06LA4 16 5000 - 24 99 2.0 17.5 136 1.45 78.60 " " 5000 - 21 113 1.75 15.5 154 1.3 87.30 " " 5000 - 19 125 1.6 14.5 164 1.2 94.27 " " 5000 - 17.5 136 1.45 <th>32.5</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th> <th>3.3</th>	32.5							-			3.3
28.5 83 2.4 47.92 " " 4750 - 34 70 2.9 25.5 93 2.2 53.22 " " 4950 - 30.5 78 2.6 23 103 1.95 59.07 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 25 95 2.1 20 119 1.7 67.53 BG20Z/D06LA4 16 5000 - 24 99 2.6 17.5 136 1.45 78.60 " " 5000 - 21 113 1.75 15.5 154 1.3 87.30 " " 5000 - 19 125 1.6 14.5 164 1.2 94.27 " " 5000 - 17.5 136 1.45 13 183 1.1 104.7 " " 5000 - 14.5 164 1.2 19 12.5 " " 5000 - 14.5 164 1.2 11 215 0.93 125.3	29.5				II	11					2.9
25.5 93 2.2 53.22 " " 4950 - 30.5 78 2.6 23 103 1.95 59.07 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 25 95 2.1 20 119 1.7 67.53 BG20Z/D06LA4 16 5000 - 24 99 2.6 17.5 136 1.45 78.60 " " 5000 - 21 113 1.75 15.5 154 1.3 87.30 " " 5000 - 19 125 1.6 14.5 164 1.2 94.27 " " 5000 - 17.5 136 1.45 13 183 1.1 104.7 " " 5000 - 14.5 164 1.2 12 198 1.0 112.8 <t< th=""><th>28.5</th><th></th><th></th><th></th><th>II</th><th>"</th><th></th><th>-</th><th></th><th></th><th>2.9</th></t<>	28.5				II	"		-			2.9
23 103 1.95 59.07 " " 5000 - 27.5 86 2.3 21 113 1.75 65.62 " " 5000 - 25 95 2.1 20 119 1.7 67.53 BG20Z/D06LA4 16 5000 - 24 99 2.6 17.5 136 1.45 78.60 " " 5000 - 21 113 1.75 15.5 154 1.3 87.30 " " 5000 - 19 125 1.6 14.5 164 1.2 94.27 " " 5000 - 17.5 136 1.45 13 183 1.1 104.7 " " 5000 - 15.5 154 1.3 12 198 1.0 112.8 " " 5000 - 14.5 164 1.2 11 215 0.93 125.3 " " 5000 - 13 183 1.1	25.5				II .	II .		-			2.6
21 113 1.75 65.62 " " 5000 - 25 95 2.1 20 119 1.7 67.53 BG20Z/D06LA4 16 5000 - 24 99 2.0 17.5 136 1.45 78.60 " " 5000 - 21 113 1.75 15.5 154 1.3 87.30 " " 5000 - 19 125 1.6 14.5 164 1.2 94.27 " " 5000 - 17.5 136 1.45 13 183 1.1 104.7 " " 5000 - 15.5 154 1.3 12 198 1.0 112.8 " " 5000 - 14.5 164 1.2 11 215 0.93 125.3 " " 5000 - 13 183 1.1	23							-	27.5	86	2.3
17.5 136 1.45 78.60 " " 5000 - 21 113 1.75 15.5 154 1.3 87.30 " " 5000 - 19 125 1.6 14.5 164 1.2 94.27 " " 5000 - 17.5 136 1.45 13 183 1.1 104.7 " " 5000 - 15.5 154 1.3 12 198 1.0 112.8 " " 5000 - 14.5 164 1.2 11 215 0.93 125.3 " " 5000 - 13 183 1.1	21		1.75					-			2.1
15.5 154 1.3 87.30 " " 5000 - 19 125 1.6 14.5 164 1.2 94.27 " " 5000 - 17.5 136 1.45 13 183 1.1 104.7 " " 5000 - 15.5 154 1.3 12 198 1.0 112.8 " " 5000 - 14.5 164 1.2 11 215 0.93 125.3 " " 5000 - 13 183 1.1	20							-			2.0
13.5 13.4 1.3 87.50 3000 - 19 12.5 1.6 14.5 164 1.2 94.27 " " 5000 - 17.5 136 1.45 13 183 1.1 104.7 " " 5000 - 15.5 154 1.3 12 198 1.0 112.8 " " 5000 - 14.5 164 1.2 11 215 0.93 125.3 " " 5000 - 13 183 1.1	17.5							-			1.75
14.5 164 1.2 94.27 3000 - 17.5 136 1.4.5 137 138 138 1.1 104.7 " " 5000 - 15.5 154 1.3 12 198 1.0 112.8 " " 5000 - 14.5 164 1.2 11 215 0.93 125.3 " " 5000 - 13 183 1.1	15.5							-			1.6
12 	14.5							-			1.45
11	13							-			1.3
11 213 0.53 123.5 3000 - 13 163 1.1	12										1.2
9.6 245 0.82 141.3 " 5000 - 11.5 205 0.98	11										1.1
	9.6	245	0.82	141.3	"	"	5000	-	11.5	205	0.98

Selection helical-geared motors DHE - IE2

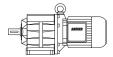
P = 0.25 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	•	.,,,,		• KN	• KV	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	-6			kg	N	N	1/min	Nm	- 6
26	91	3.3	52.44	BG30/D06LA4	20	6000	-	31	77	3.9
23.5	101	3.0	58.18	"	II .	6000	-	28	85	3.5
22.5	106	2.8	60.79	"	II .	6000	-	27	88	3.4
20.5	116	2.6	67.44	"	II .	6000	-	24.5	97	3.1
18.5	129	2.3	73.51	BG30Z/D06LA4	22	6000	-	22.5	106	2.8
17	140	2.1	81.55	"	II .	6000	-	20	119	2.5
16	149	2.0	86.13	"	"	6000	-	19	125	2.4
14.5	164	1.85	95.55	"	"	6000	-	17	140	2.1
12.5	191	1.55	109.6	"	"	6000	-	15	159	1.9
11.5	205	1.45	121.6		"	6000	-	13.5	176	1.7
11 9.5	215 250	1.4 1.2	128.5 142.5	"	"	6000 6000	-	13 11.5	183 205	1.65 1.45
9.0	265	1.15	151.5	"	II.	6000	_	11.5	205	1.45
8.1	290	1.05	168.1	п	II.	6000	_	9.7	245	1.4
7.4	320	0.94	182.9	m .	п	6000	_	8.9	265	1.15
6.7	355	0.85	202.9	n n	II .	6000	_	8.0	295	1.0
		0.00						0.0		
18	132	3.2	75.19	BG40Z/D06LA4	38	7000	-	22	108	3.9
16.5	144	3.0	82.00	m .	II .	7000	-	20	119	3.6
15	159	2.7	91.02	II .	II .	7000	-	18	132	3.2
14	170	2.5	96.86	"	"	7000	-	17	140	3.0
13	183	2.3	107.5	"	"	7000	-	15.5	154	2.8
11.5	205	2.1	121.3	"	"	7000	-	13.5	176	2.4
10.5	225	1.9	134.6	"	"	7000	-	12.5	191	2.2
9.6	245	1.75	141.4	"	"	7000	-	11.5	205	2.1
8.7	270	1.55	156.9		"	7000	-	10.5	225	1.9
8.2 7.4	290 320	1.45 1.35	166.1 184.4	"	"	7000 7000	-	9.8 8.8	240 270	1.75 1.55
6.8	320 350	1.33	199.9	"	II.	7000	_	8.2	290	1.45
6.1	390	1.1	221.9	m .	ıı	7000	_	7.4	320	1.43
5.5	430	0.99	246.5	m .	п	7000	_	6.6	360	1.2
5.0	475	0.89	273.6	n .	II .	7000	_	6.0	395	1.1
4.7	415	1.1	288.6	BG40G10/D06LA4	43	7000	_	5.7	325	1.45
3.9	510	0.91	353.5	II	"	7000	-	4.6	415	1.1
10.5	225	2.8	128.9	BG50Z/D06LA4	47	10000	-	13	183	3.4
9.5	250	2.5	142.9	"	"	10000	-	11.5	205	3.1
8.2	290	2.2	164.9	"	"	10000	-	9.9	240	2.6
7.4 6.6	320 360	1.95	182.8 204.7		"	10000 10000	-	8.9	265 295	2.4 2.1
6.0	395	1.75 1.6	204.7	m .	ıı	10000	_	8.0 7.2	330	1.9
5.3	450	1.4	258.6	m .	п	10000	_	6.3	375	1.7
4.8	495	1.25	286.7	m .	ıı	10000	_	5.7	415	1.5
3.9	510	1.35	351.7	BG50G10/D06LA4	51	10000	_	4.7	405	1.7
3.1	660	1.05	446.5	"	"	10000	-	3.7	530	1.3
2.6	800	0.86	531.5	"	"	10000	-	3.1	650	1.05
4.5	400	3.3	306.1	BG60G20/D06LA4	100	16000	-	5.3	320	4.1
4.1	440	3.0	334.3	"	"	16000	-	4.9	345	3.8
3.7	490	2.7	370.5 437.3		"	16000 16000	-	4.4 3.8	385	3.4
3.1 2.7	600 730	2.2 1.8	504.9	m .	ш	16000	-	3.3	460 570	2.8 2.3
2.7	790	1.65	559.5	п	ıı .	16000	_	2.9	650	2.0
2.1	970	1.35	651.3	m .	ш	16000	_	2.5	790	1.65
1.7	1200	1.1	804.5	m .	ıı	16000	_	2.1	930	1.4
1.6	1260	1.05	891.5	m .	II .	16000	_	1.9	1030	1.25
1.3	1590	0.82	1051	II .	II	16000	-	1.6	1250	1.05
2.4	840	3.0	577.3	BG70G20/D06LA4	130	20000	_	2.9	670	3.7
2.1	960	2.6	665.8	m .	"	20000	-	2.5	780	3.2
1.8	1120	2.2	790.2	"	II	20000	-	2.1	930	2.7
1.6	1280	1.95	877.6	II .	II	20000	-	1.9	1050	2.4
1.4	1480	1.7	1035	"	"	20000	-	1.6	1270	1.95
1.2	1750	1.45	1193	"	"	20000	-	1.4	1470	1.7
1.0	2100	1.2	1389	"	"	20000	-	1.2	1750	1.45
0.9	2400	1.05	1543	ıı .	"	20000	-	1.1	1930	1.3

Selection helical-geared motors DHE - IE2

P = 0.3 kW

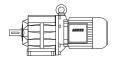


	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		,				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm	-			kg	N	N	1/min	Nm	_
520	5.5	1.65	2.64	BG05/D07LA4	11	420	-	620	4.6	1.95
400	7.1	1.4	3.38	II .	п	460	_	480	5.9	1.7
295	9.7	1.25	4.59	n n	n n	490	_	355	8.0	1.5
250	11.4	1.25	5.46	n	II .	490	_	300	9.5	1.45
205	13.9	1.15	6.60	m m	II .	510	_	250	11.4	1.4
174	16.4	1.1	7.80	m m	II .	530	_	210	13.6	1.3
166	17.2	1.05	8.15	m .	II .	510	_	199	14.3	1.25
159	18	1.05	8.51	m .	II .	550	_	191	15	1.25
128	22	0.91	10.59	m .	II .	590	_	153	18.7	1.05
117	24	0.88	11.55	II .	n n	600	_	141	20	1.05
113	25	0.84	12.05	n .	"	510	_	135	21	1.03
108	26.5	0.83	12.60	n .	"	610	_	129	22	1.0
99	28.5	0.81	13.75	n .	"	630	_	118	24	0.96
	20.5	0.01	13.73			030		110	24	0.50
360	7.9	2.5	3.78	BG06/D07LA4	12	520	_	430	6.6	3.0
300	9.5	2.3	4.54	"	"	530	_	360	7.9	2.8
230	12.4	1.95	5.96	n .	"	570	_	275	10.4	2.3
193	14.8	1.75	7.01	n n	"	580		235	12.1	2.1
161	17.7	1.6	8.39	n n	"	600	_	194	14.7	1.9
144	19.8	1.5		n n	"		-	173	16.5	1.8
132	21.5	1.45	9.38 10.24	"	"	640 640	-	159	18	1.8
120	23.5	1.45		"	"	670	-	144	19.8	1.7
			11.28	"						
110 105	26 27	1.25 1.2	12.30	"		670 600	-	132 125	21.5	1.55
92		1.1	12.98 14.78	"	"	730		110	22.5	1.45
92 84	31 34			"		730 740	-	101	26 28	1.3
78	3 4 36.5	1.05	16.13	"		740 760	-	94	30	1.25 1.25
		1.05	17.40 18.98	"	"	760 770			33	
72	39.5	1.0		"	"	800	-	86		1.2
65	44	0.91	20.82	"	"		-	78	36.5	1.1
60 53	47.5	0.91	22.71	"		810 850	-	72 64	39.5	1.1
33	54	0.83	25.48			630	-	04	44.5	1.0
73	39	3.1	18.51	BG10/D07LA4	15	1210	1690	88	32.5	3.7
66	43	2.8	20.51	BG10/D07EA4	"	1210	1800	79	36	3.3
62	46	2.6	22.04	n .	"	1330	1860	74	38.5	3.1
56	51	2.4	24.42	п	"	1410	1970	67	42.5	2.8
52	55	2.2	26.26	n .	"	1460	2000	62	46	2.6
46.5	61	1.95	29.09	п	"	1540	2150	56	51	2.4
43	66	1.8	31.52	n .	п	1600	2200	52	55	2.2
39	73	1.65	34.92	n .	п	1690	2350	46.5	61	1.95
34.5	83	1.45	39.70	m .	II .	1780	2450	41	69	1.75
31	92	1.3	43.99	m .	II .	1880	2600	37	77	1.55
29.5	97	1.25	46.55	n	II .	1920	2650	35	81	1.5
26.5	108	1.1	51.57	n	II .	2000	2800	31.5	90	1.35
23.5	121	0.99	57.48	n	II .	2000	2800	28.5	100	1.2
21.5	133	0.9	63.69	n n	"	2000	2800	25.5	112	1.05
20.5	139	0.86	66.00	m .	п	2000	2800	25	114	1.05
50	57	2.6	27.08	BG15/D07LA4	15	3000	6000	60	47.5	3.2
45	63	2.4	30.08	m .	"	3000	6000	54	53	2.8
39.5	72	2.1	34.20	m m	"	3000	6000	47.5	60	2.5
36	79	1.9	37.90	"	"	3000	6000	43	66	2.3
44	65	3.1	30.94	BG20/D07LA4	18	4000	-	53	54	3.7
41	69	2.9	33.33	"	II .	4100	-	49	58	3.4
36.5	78	2.6	37.02	"	II .	4300	-	44	65	3.1
32.5	88	2.3	41.76	"	"	4500	-	39	73	2.7
29.5	97	2.1	46.38	"	"	4700	-	35	81	2.5
28.5	100	2.0	47.92	"	"	4750	-	34	84	2.4
25.5	112	1.8	53.22	"	"	4950	-	30.5	93	2.2
23	124	1.6	59.07	"	II	5000	-	27.5	104	1.9
21	136	1.45	65.62	"	II .	5000	-	25	114	1.75
20	143	1.4	67.53	BG20Z/D07LA4	19	5000	-	24	119	1.7
17.5	163	1.25	78.60	"	II	5000	-	21	136	1.45
15.5	184	1.1	87.30	"	II	5000	-	19	150	1.35
14.5	197	1.0	94.27	"	II	5000	-	17.5	163	1.25
13	220	0.91	104.7	"	II	5000	-	15.5	184	1.1
12	235	0.85	112.8	"	"	5000	-	14.5	197	1.0

U

Selection helical-geared motors DHE - IE2

P = 0.3 kW



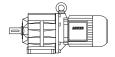
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	·	.,,,,	•••	· NN	- NV	n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
29	98	3.1	47.11	BG30/D07LA4	22	6000	-	34.5	83	3.6
26	110	2.7	52.44	"	"	6000	-	31	92	3.3
23.5	121	2.5	58.18	"	"	6000	-	28	102	2.9
22.5	127	2.4	60.79	"	"	6000	-	27	106	2.8
20.5 18.5	139 154	2.2 1.95	67.44 73.51	BG30Z/D07LA4	25	6000 6000	-	24.5 22.5	116 127	2.6 2.4
17	168	1.93	73.51 81.55	BG30Z/D07LA4	25	6000	-	20.5	143	2.4
16	179	1.7	86.13	II .	ш	6000	_	19	150	2.0
14.5	197	1.5	95.55	"	II .	6000	_	17	168	1.8
12.5	225	1.35	109.6	w .	II .	6000	_	15	191	1.55
11.5	245	1.2	121.6	II .	II .	6000	-	13.5	210	1.45
11	260	1.15	128.5	п	II	6000	-	13	220	1.35
9.5	300	1.0	142.5	"	II .	6000	-	11.5	245	1.2
9.0	315	0.95	151.5	"	"	6000	-	11	260	1.15
8.1	350	0.86	168.1	"	II .	6000	-	9.7	295	1.0
20	142	2.0	6774	BC407 (D07LA4	40	7000		24	110	2.6
20 18	143 159	3.0 2.7	67.74 75.19	BG40Z/D07LA4	40	7000 7000	-	24 22	119 130	3.6 3.3
16.5	173	2.7	82.00	m .	II .	7000	-	20	143	3.0
15	191	2.2	91.02	II .	ш	7000	_	18	159	2.7
14	200	2.1	96.86	"	II .	7000	_	17	168	2.5
13	220	1.95	107.5	TI .	II .	7000	-	15.5	184	2.3
11.5	245	1.75	121.3	II .	II .	7000	-	13.5	210	2.0
10.5	270	1.55	134.6	"	"	7000	-	12.5	225	1.9
9.6	295	1.45	141.4	"	"	7000	-	11.5	245	1.75
8.7	325	1.3	156.9	"	"	7000	-	10.5	270	1.55
8.2	345	1.25	166.1	"	"	7000	-	9.8	290	1.45
7.4	385	1.1	184.4	"	"	7000	-	8.8	325	1.3
6.8 6.1	420 465	1.0 0.91	199.9 221.9	"	11	7000 7000	-	8.2 7.4	345 385	1.25 1.1
5.5	520	0.82	246.5	m .	ш	7000	_	6.6	430	0.99
4.7	510	0.91	288.6	BG40G10/D07LA4	46	7000	_	5.7	410	1.15
14.5	197	3.2	95.58	BG50Z/D07LA4	50	10000	-	17	168	3.8
13	220	2.9	106.0	"	"	10000	-	15.5	184	3.4
10.5 9.5	270 300	2.3 2.1	128.9 142.9	"		10000 10000	-	13 11.5	220 245	2.9
9.5 8.2	345	1.85	164.9	"	"	10000	-	9.9	245	2.6 2.2
7.4	385	1.65	182.8	11	11	10000	_	8.9	320	1.95
6.6	430	1.45	204.7	"	II .	10000	_	8.0	355	1.75
6.0	475	1.35	226.9	· ·	II .	10000	_	7.2	395	1.6
5.3	540	1.15	258.6	II .	II .	10000	-	6.3	450	1.4
4.8	590	1.05	286.7	"	II .	10000	-	5.7	500	1.25
3.9	630	1.1	351.7	BG50G10/D07LA4	54	10000	-	4.7	510	1.35
3.1	810	0.85	446.5	II .	"	10000	-	3.7	660	1.05
4.9	465	2.8	276.2	BG60G20/D07LA4	102	16000	_	5.9	365	3.6
4.5	500	2.6	306.1	II .	"	16000	-	5.3	410	3.2
4.1	550	2.4	334.3	II .	II .	16000	-	4.9	440	3.0
3.7	610	2.1	370.5	"	"	16000	-	4.4	495	2.6
3.1	750	1.75	437.3	"	"	16000	-	3.8	580	2.2
2.7	910	1.45	504.9	"	"	16000	-	3.3	710	1.85
2.5	980	1.35	559.5	"	"	16000	-	2.9	820	1.6
2.1	1190	1.1	651.3	 II	"	16000	-	2.5	980	1.35
1.7 1.6	1480 1560	0.88 0.83	804.5 891.5	"	"	16000 16000	-	2.1 1.9	1160 1280	1.1 1.0
1.0	1300	0.03	071.3			10000	-	1.7	1200	1.0
2.8	870	2.9	495.9	BG70G20/D07LA4	132	20000	-	3.3	720	3.5
2.4	1040	2.4	577.3	II .	"	20000	-	2.9	840	3.0
2.1	1190	2.1	665.8	"	"	20000	-	2.5	970	2.6
1.8	1390	1.8	790.2	n n	"	20000	-	2.1	1160	2.2
1.6	1580	1.6	877.6	"	"	20000	-	1.9	1300	1.9
1.4	1820	1.35	1035	" "	"	20000 20000	-	1.6	1570 1810	1.6 1.4
1.2 1.0	2150 2600	1.15 0.96	1193 1389	u u	II .	20000	-	1.4 1.2	1810 2100	1.4
1.0	2000	0.90	1309			20000		1.4	2100	1.2

6

BG-series helical-geared motors

Selection helical-geared motors DHE - IE2

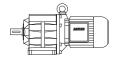
P = 0.37 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
520	6.7	1.35	2.64	BG05/D07LA4	11	420	-	620	5.6	1.6
400	8.8	1.15	3.38	"	II .	460	-	480	7.3	1.35
295	11.9	1.0	4.59	"	"	490	-	355	9.9	1.2
250	14.1	0.99	5.46	II	"	490	-	300	11.7	1.2
205	17.2	0.93	6.60	II	"	510	-	250	14.1	1.15
174	20	0.9	7.80	m .	"	530	-	210	16.8	1.05
166	21	0.86	8.15	m .	11	510	-	199	17.7	1.0
159	22	0.86	8.51	n .	II .	550	_	191	18.5	1.05
		0.00	0.0 .			333			. 0.0	
360	9.8	2.0	3.78	BG06/D07LA4	12	520	_	430	8.2	2.4
300	11.7	1.9	4.54	"	"	530	_	360	9.8	2.2
230	15.3	1.55	5.96	п	"	570	_	275	12.8	1.9
193	18.3	1.4	7.01	II	11	580	_	235	15	1.75
161	21.5	1.3	8.39	m .	11	600	_	194	18.2	1.55
144	24.5	1.2	9.38	п	"	640	_	173	20	1.5
132	26.5	1.15	10.24	n .	"	640	_	159	22	1.4
120	29.3	1.13	11.28	11	"	670	_	144	24.5	1.3
110	32			11	"					
1		1.05	12.30	II .	"	670 600	-	132	26.5	1.25
105	33.5	0.99	12.98		"	600	-	125	28	1.2
92	38	0.89	14.78		"	730	-	110	32	1.05
84	42	0.83	16.13		"	740	-	101	34.5	1.0
78	45	0.84	17.40	" "	"	760	-	94	37.5	1.0
72	49	0.82	18.98			770	-	86	41	0.98
103	34	3.2	13.21	BG10/D07LA4	15	1070	1490	123	28.5	3.9
93	37.5	3.0	14.58	"	"	1100	1540	112	31.5	3.6
84	42	2.8	16.15	II .	"	1140	1590	101	34.5	3.4
73	48	2.5	18.51	"	"	1210	1690	88	40	3.0
66	53	2.3	20.51	"	II .	1290	1800	79	44.5	2.7
62	56	2.1	22.04	"	"	1330	1860	74	47.5	2.5
56	63	1.9	24.42	"	"	1410	1970	67	52	2.3
52	67	1.8	26.26	"	"	1460	2000	62	56	2.1
46.5	75	1.6	29.09	II	II .	1540	2150	56	63	1.9
43	82	1.45	31.52	II	II .	1600	2200	52	67	1.8
39	90	1.35	34.92	m m	II .	1690	2350	46.5	75	1.6
34.5	102	1.2	39.70	m m	II .	1780	2450	41	86	1.4
31	113	1.05	43.99	II .	"	1880	2600	37	95	1.25
29.5	119	1.0	46.55	II .	"	1920	2650	35	100	1.2
26.5	133	0.9	51.57	m .	11	2000	2800	31.5	112	1.05
23.5	150	0.8	57.48	n .	"	2000	2800	28.5	123	0.98
			371.0				2000		5	0.20
50	70	2.1	27.08	BG15/D07LA4	15	3000	6000	60	58	2.6
45	78	1.9	30.08	"	"	3000	6000	54	65	2.3
39.5	89	1.7	34.20	II	11	3000	6000	47.5	74	2.0
36	98	1.55	37.90	m .	11	3000	6000	43	82	1.85
	,,,		37.50			3000	0000	13	02	1.05
53	66	3.0	25.79	BG20/D07LA4	18	3700	_	63	56	3.6
48.5	72	2.8	27.85	"	"	3800	_	59	59	3.4
44	80	2.5	30.94	п	"	4000	_	53	66	3.0
41	86	2.3	33.33	п	"	4100		49	72	2.8
36.5	96	2.1	37.02	п	"	4300	_	44	80	2.5
32.5	108	1.85	41.76	11	"	4500	_	39	90	2.2
				п	"		-			
29.5	119	1.7	46.38	п	"	4700	-	35	100	2.0
28.5	123	1.65	47.92		"	4750	-	34	103	1.95
25.5	138	1.45	53.22	" "	"	4950	-	30.5	115	1.75
23	153	1.3	59.07	"	"	5000	-	27.5	128	1.55
21	168	1.2	65.62			5000	-	25	141	1.4
20	176	1.15	67.53	BG20Z/D07LA4	19	5000	-	24	147	1.35
17.5	200	1.0	78.60	"	"	5000	-	21	168	1.2
15.5	225	0.89	87.30	"	"	5000	-	19	185	1.1
14.5	240	0.83	94.27	"	"	5000	-	17.5	200	1.0
38.5	91	3.3	35.17	BG30/D07LA4	22	5500	-	46.5	75	4.0
35	100	3.0	39.02	"	"	5800	-	42	84	3.6
32	110	2.7	42.46	"	"	5900	-	38.5	91	3.3

Selection helical-geared motors DHE - IE2

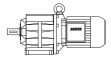
P = 0.37 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	•	.,,,,		* KN	• KV	n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	-Б			kg	N	N	1/min	Nm	
29	121	2.5	47.11	BG30/D07LA4	"	6000	-	34.5	102	2.9
26	135	2.2	52.44	II .	II .	6000	-	31	113	2.7
23.5	150	2.0	58.18	II .	II .	6000	-	28	126	2.4
22.5	157	1.9	60.79	II .	II .	6000	-	27	130	2.3
20.5	172	1.75	67.44	п	11	6000	-	24.5	144	2.1
18.5	191	1.55	73.51	BG30Z/D07LA4	25	6000	-	22.5	157	1.9
17	205	1.45	81.55	II.	II .	6000	-	20	176	1.7
16	220	1.35	86.13	II.	II .	6000	-	19	185	1.6
14.5	240	1.25	95.55	II.	II .	6000	-	17	205	1.45
12.5	280	1.05	109.6	"	"	6000	-	15	235	1.3
11.5	305	0.98	121.6	"	"	6000	-	13.5	260	1.15
11	320	0.94	128.5	"	II	6000	-	13	270	1.1
9.5	370	0.81	142.5	"	"	6000	-	11.5	305	0.98
20	176	2.4	67.74	BG40Z/D07LA4	40	7000	-	24	147	2.9
18	196	2.2	75.19	"	"	7000	-	22	160	2.7
16.5	210	2.0	82.00	"	"	7000	-	20	176	2.4
15	235	1.8	91.02		"	7000	-	18	196	2.2
14	250	1.7	96.86		"	7000	-	17	205	2.1
13	270	1.55	107.5	"	"	7000	-	15.5	225 260	1.9
11.5	305	1.4	121.3	"	"	7000	-	13.5		1.65
10.5 9.6	335 365	1.25 1.15	134.6 141.4	"	"	7000 7000	-	12.5 11.5	280 305	1.5 1.4
8.7	405	1.15	156.9	"	"	7000	-	10.5	335	1.25
8.2	430	0.99	166.1	"	"	7000	-	9.8	360	1.23
7.4	430 475	0.99	184.4	"	"	7000	-	8.8	400	1.05
6.8	510	0.83	199.9	· ·	"	7000	_	8.2	430	0.99
0.0	3.0	0.03	100.0			7000		0.2	150	0.55
17	205	3.1	79.78	BG50Z/D07LA4	50	10000	-	20.5	172	3.7
14.5	240	2.6	95.58	"	II .	10000	-	17	205	3.1
13	270	2.3	106.0	"	"	10000	-	15.5	225	2.8
10.5	335	1.9	128.9	"	"	10000	-	13	270	2.3
9.5	370	1.7	142.9	"	"	10000	-	11.5	305	2.1
8.2	430	1.45	164.9	"	"	10000	-	9.9	355	1.75
7.4	475	1.35	182.8	"	"	10000	-	8.9	395	1.6
6.6	530	1.2	204.7	"	"	10000	-	8.0	440	1.45
6.0	580	1.1	226.9	"	"	10000	-	7.2	490	1.3
5.3	660	0.95	258.6	"	"	10000	-	6.3	560	1.15
4.8	730	0.86	286.7	"	"	10000	-	5.7	610	1.05
3.9	800	0.86	351.7	BG50G10/D07LA4	54	10000	-	4.7	650	1.05
4.9	600	2.2	276.2	BG60G20/D07LA4	102	16000	_	5.9	480	2.7
4.5	650	2.0	306.1	"	"	16000	_	5.3	530	2.5
4.1	720	1.8	334.3	II.	II .	16000	_	4.9	580	2.2
3.7	790	1.65	370.5	"	II .	16000	_	4.4	640	2.0
3.1	970	1.35	437.3	· ·	II .	16000	_	3.8	760	1.7
2.7	1160	1.1	504.9	· ·	11	16000	_	3.3	920	1.4
2.5	1240	1.05	559.5	II .	II .	16000	-	2.9	1050	1.25
2.1	1510	0.86	651.3	TI .	"	16000	-	2.5	1240	1.05
3.5	860	2.9	387.6	BG70G20/D07LA4	132	20000	-	4.2	690	3.6
3.3	940	2.7	417.8	"	"	20000	-	3.9	780	3.2
2.8	1110	2.3	495.9	"	"	20000	-	3.3	920	2.7
2.4	1320	1.9	577.3	"	"	20000	-	2.9	1070	2.3
2.1	1510 1760	1.65	665.8	" "	"	20000	-	2.5	1240	2.0
1.8	1760	1.4	790.2	 II	"	20000	-	2.1	1480	1.7
1.6	2000	1.25	877.6 1035		"	20000 20000	-	1.9	1650 1980	1.5
1.4 1.2	2300 2700	1.1 0.93	1035 1193	m m	"	20000	-	1.6 1.4	2250	1.25 1.1
1.4	2/00	0.93	1193			20000		1.4	2230	1.1

Selection helical-geared motors DHE - IE2

P = 0.55 kW

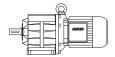


	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		71-		1714	nv.	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
500	10.5	1.7	2.82	BG06/D08MA4	16	470	-	600	8.7	2.1
375	14	1.45	3.78	n n	II .	520	-	445	11.8	1.7
310	16.9	1.3	4.54	"	II .	530	-	375	14	1.55
235	22	1.1	5.96	"	II .	570	-	285	18.4	1.3
200	26	1.0	7.01	" "	"	580	-	240	21.5	1.2
167	31	0.9	8.39	"	"	600	-	205	25.5	1.1
150	35	0.86	9.38	" "	"	640	-	180	29	1.05
137	38	0.82	10.24			640	-	165	31.5	0.98
210	25	3.2	6.78	BG10/D08MA4	16	660	920	250	21	3.9
174	30	2.9	8.07	"	II .	660	920	210	25	3.5
151	34.5	2.8	9.33	"	"	950	1330	181	29	3.3
136	38.5	2.6	10.34	"	"	1000	1400	163	32	3.1
118	44.5	2.4	11.92		"	1030	1440	141	37	2.8
106 97	49.5 54	2.2 2.1	13.21 14.58	"	п	1070 1100	1490 1540	128 116	41 45	2.7 2.5
87	60	1.95	16.15	"	п	1140	1590	105	50	2.3
76	69	1.75	18.51	"	II .	1210	1690	91	57	2.1
69	76	1.6	20.51	п	ıı	1290	1800	82	64	1.9
64	82	1.45	22.04	II .	II	1330	1860	77	68	1.75
58	90	1.35	24.42	II	ıı	1410	1970	69	76	1.6
54	97	1.25	26.26	"	II .	1460	2000	64	82	1.45
48.5	108	1.1	29.09	"	"	1540	2150	58	90	1.35
44.5	118	1.0	31.52	" "	"	1600	2200	54	97	1.25
40.5	129	0.93	34.92	" "	"	1690	2350	48.5	108	1.1
35.5	147	0.82	39.70			1780	2450	42.5	123	0.98
52	101	1.5	27.08	BG15/D08MA4	16	3000	6000	63	83	1.8
47	111	1.35	30.08	"	II .	3000	6000	56	93	1.6
41	128	1.15	34.20	"	"	3000	6000	49.5	106	1.4
37	141	1.05	37.90	"	"	3000	6000	44.5	118	1.25
96	54	3.2	14.67	BG20/D08MA4	19	3050	-	115	45.5	3.8
90	58	3.1	15.58	"	"	3100	-	108	48.5	3.6
81	64	2.9	17.31	" "	"	3200	-	98	53	3.5
71	73	2.7	19.95	"	"	3350	-	85	61	3.2
64 61	82 86	2.4 2.3	22.16 23.22	"	"	3500 3550	-	76 73	69 71	2.9 2.8
55	95	2.3	25.79	m .	"	3700	-	66	79	2.5
51	102	1.95	27.85	n .	"	3800	_	61	86	2.3
45.5	115	1.75	30.94	m .	II .	4000	-	55	95	2.1
42.5	123	1.65	33.33	II	11	4100	-	51	102	1.95
38	138	1.45	37.02	"	II .	4300	-	45.5	115	1.75
34	154	1.3	41.76	"	"	4500	-	40.5	129	1.55
30.5	172	1.15	46.38	" "	"	4700	-	36.5	143	1.4
29.5 26.5	178 198	1.1 1.0	47.92 53.22	 11	"	4750 4950	-	35.5 32	147 164	1.35 1.2
24	215	0.93	55.22 59.07	п	"	5000	-	28.5	184	1.1
21.5	240	0.93	65.62	п	ıı	5000	-	26.5	200	1.0
21	250	0.8	67.53	BG20Z/D08MA4	20	5000	-	25	210	0.95
56	02	2.2	2E 1E	BG30/D08MA4	22	1050		67	70	2.0
50	93 105	3.2 2.9	25.45 28.24	BG30/D08MA4	23	4850 5100	-	60	78 87	3.8 3.4
47	111	2.7	29.83	п	ıı	5200	-	57	92	3.4
42.5	123	2.4	33.09	п	ıı	5400	_	51	102	2.9
40	131	2.3	35.17	п	II .	5500	-	48	109	2.8
36	145	2.1	39.02	п	"	5800	-	43.5	120	2.5
33	159	1.9	42.46	"	"	5900	-	40	131	2.3
30	175	1.7	47.11	" "	"	6000	-	36	145	2.1
27	194	1.55	52.44	"	"	6000	-	32.5	161	1.85
24.5	210	1.45	58.18	" "	"	6000	-	29	181	1.65
23.5	220	1.35	60.79	" "	"	6000	-	28 25	187	1.6
21 19.5	250 265	1.2 1.15	67.44 73.51	BG30Z/D08MA4	26	6000 6000	-	23	210 225	1.45 1.35
17.5	300	1.13	81.55	DUSUZ/DUSINIA4	20	6000	-	21	250	1.33
16.5	315	0.95	86.13	п	II .	6000	_	20	260	1.15
15.5	350	0.86	95.55	11	II .	6000	-	18	290	1.05
	350	5.55	- 5.55			3000		,	270	

0

Selection helical-geared motors DHE - IE2

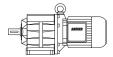
P = 0.55 kW



									40.11	
n	50 Hz		i	Type	m	F_{RN}	F_{RV}	n	60 Hz	£
n ₂ 1/min	M ₂ Nm	f _B			kg	N	N	n ₂ 1/min	$M_{\scriptscriptstyle 2}$ Nm	f_B
41	128	3.3	34.20	BG40/D08MA4	38	7000	-	49.5	106	4.0
37	141	3.0	37.96	" "	"	7000	_	44.5	118	3.6
35	150	2.8	40.19	n .	11	7000	_	42	125	3.4
31.5	166	2.6	44.62	п	II .	7000	_	38	138	3.1
29	181	2.3	48.36	m .	ıı	7000	_	35	150	2.8
26.5	198	2.1	53.69	II .	II .	7000	-	31.5	166	2.6
23.5	220	1.95	59.64	m m	ıı	7000	-	28.5	184	2.3
21.5	240	1.75	66.20	n n	II .	7000	-	25.5	205	2.1
21	250	1.7	67.74	BG40Z/D08MA4	42	7000	-	25	210	2.0
19	275	1.55	75.19	"	"	7000	-	22.5	230	1.85
17.5	300	1.4	82.00	"	"	7000	-	20.5	255	1.65
15.5	335	1.25	91.02		"	7000	-	18.5	280	1.5
14.5 13.5	360 385	1.2	96.86 107.5	"	"	7000	-	17.5 16	300 325	1.4
12.5	365 435	1.1 0.98	107.3	п	"	7000 7000	-	14	325 375	1.3 1.15
10.5	500	0.85	134.6	п	"	7000	_	12.5	420	1.13
10.5	520	0.82	141.4	u u	11	7000	_	12.5	435	0.98
	320	0.02				7000		12	133	0.50
27	194	3.2	52.12	BG50/D08MA4	46	10000	-	32.5	161	3.9
24	215	2.9	59.42	"	"	10000	-	28.5	184	3.4
21.5	240	2.6	65.86	m .	ıı	10000	-	26	200	3.2
19.5	265	2.4	71.97	BG50Z/D08MA4	51	10000	-	23.5	220	2.9
18	290	2.2	79.78	"	II .	10000	-	21.5	240	2.6
15	350	1.8	95.58	"	"	10000	-	18	290	2.2
13.5	385	1.65	106.0	"	"	10000	-	16	325	1.95
11	475	1.35	128.9	" "	"	10000	-	13.5	385	1.65
9.8	530	1.2	142.9		"	10000	-	12	435	1.45
8.5 7.7	610 680	1.05 0.93	164.9 182.8	п	"	10000 10000	-	10.5 9.2	500 570	1.25
6.9	760	0.93	204.7	m .	II .	10000	_	8.3	630	1.0
0.5	700	0.03	204.7			10000		0.5	030	1.0
14	375	3.2	101.0	BG60Z/D08MA4	96	16000	_	17	305	3.9
12	435	2.8	119.2	II .	"	16000	-	14.5	360	3.3
11	475	2.5	132.1	"	II	16000	-	13	400	3.0
8.9	590	2.0	158.0	"	II .	16000	-	11	475	2.5
8.0	650	1.85	175.1	"	"	16000	-	9.6	540	2.2
6.9	760	1.6	204.6	"	"	16000	-	8.3	630	1.9
6.2	840	1.45	226.7	" "	"	16000	-	7.5	700	1.7
5.7	920	1.3	247.7		"	16000	-	6.8	770	1.55
5.2 5.1	1010 910	1.2 1.45	274.5 276.2	BG60G20/D08MA4	103	16000 16000	-	6.2 6.1	840 740	1.45 1.75
4.6	1010	1.43	306.1	BG00G20/D08WA4	103	16000	_	5.5	820	1.73
4.2	1110	1.15	334.3	II .	п	16000	_	5.1	880	1.5
3.8	1220	1.05	370.5	n .	II .	16000	_	4.6	980	1.35
3.3	1420	0.92	437.3	п	II .	16000	-	3.9	1180	1.1
7.3	710	3.2	194.4	BG70Z/D08MA4	136	20000	-	8.7	600	3.8
6.7	780	2.9	210.5	"	"	20000	-	8.0	650	3.5
5.7	920	2.5	249.8			20000	-	6.8	770	3.0
5.5	840	3.0	255.5	BG70G20/D08MA4	133	20000	-	6.6	680	3.7
5.1 4.3	910 1080	2.7 2.3	276.7 328.4	п	ш	20000 20000	-	6.1 5.2	740 870	3.4 2.9
3.7	1270	1.95	387.6	m .	п	20000	_	4.4	1040	2.4
3.4	1420	1.75	417.8	"	II .	20000	_	4.1	1150	2.2
2.9	1660	1.5	495.9	II.	II .	20000	_	3.4	1390	1.8
2.5	1950	1.3	577.3	II	ıı	20000	-	3.0	1600	1.55
2.2	2200	1.15	665.8	п	"	20000	-	2.6	1850	1.35
1.8	2700	0.93	790.2	11	ıı	20000	-	2.2	2150	1.15
1.6	3050	0.82	877.6	II	"	20000	-	2.0	2400	1.05
2.9	1430	3.2	484.3	BG80G40/D08MA4	215	26000	-	3.5	1120	4.1
2.5	1720	2.7	572.0	" "	"	26000	-	3.0	1370	3.4
2.2	1900	2.4	657.8	" "	"	26000	-	2.6	1540	3.0
2.0 1.8	2100 2350	2.2 1.95	730.3 817.4		"	26000 26000	-	2.4	1690 1970	2.7
1.6	2330 2700	1.93	907.6	п	"	26000	-	1.9	2200	2.3
11.0	2700	1.7	207.0			20000	_	11.5	2200	2.1

Selection helical-geared motors DHE - IE2

P = 0.55 kW



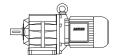
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
1.4	3200	1.45	1042	BG80G40/D08MA4	"	26000	-	1.7	2500	1.85
1.2	3800	1.2	1261	II	"	26000	-	1.4	3200	1.45
1.0	4700	0.98	1400	m .	"	26000	-	1.2	3800	1.2
1.2	3700	2.5	1174	BG90G50/D08MA4	324	65000	-	1.5	2800	3.3
1.1	4100	2.2	1301	II	"	65000	-	1.3	3350	2.7
0.9	5100	1.8	1583	m .	"	65000	-	1.1	4100	2.2
0.8	5800	1.6	1756	"	"	65000	-	1.0	4550	2.0
0.7	6800	1.35	2026	"	"	65000	-	0.85	5500	1.65
0.6	8000	1.15	2514	II	"	65000	-	0.7	6800	1.35
0.55	8800	1.05	2786	"	"	65000	-	0.65	7400	1.25
0.65	6000	3.1	2154	BG100G50/D08MA4	512	90000	-	0.8	4500	4.1
0.55	7100	2.6	2656	"	"	90000	-	0.65	5700	3.2
0.48	8600	2.2	2952	"	"	90000	-	0.6	6500	2.8
0.43	9700	1.9	3286	II	"	90000	-	0.55	7000	2.6
0.39	10900	1.7	3644	n .	"	90000	-	0.47	8600	2.2
0.33	13400	1.4	4366	n .	"	90000	-	0.39	10900	1.7
0.29	15600	1.2	4839	m	II .	90000	-	0.35	12500	1.5

P = 0.75 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		··				n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	Ν	1/min	Nm	-
510	14	1.3	2.82	BG06/DHE08XA4	19	470	-	610	11.7	1.55
380	18.8	1.05	3.78	m .	II	520	-	455	15.7	1.25
315	22.5	0.98	4.54	m .	II	530	-	380	18.8	1.15
240	29.5	0.81	5.96	11	"	570	-	290	24.5	0.98
330	21.5	3.2	4.36	BG10/DHE08XA4	19	650	910	395	18.1	3.8
270	26.5	2.8	5.34	"	"	620	910	325	22	3.4
210	34	2.4	6.78	"	"	660	920	255	28	2.9
176	40.5	2.2	8.07	"	II .	660	920	215	33	2.7
153	46.5	2.1	9.33	"	"	950	1330	184	38.5	2.5
138	51	1.95	10.34	"	II .	1000	1400	166	43	2.3
120	59	1.8	11.92	"	"	1030	1440	144	49.5	2.1
108	66	1.65	13.21	"	"	1070	1490	130	55	2.0
98	73	1.55	14.58	"	II .	1100	1540	118	60	1.9
88	81	1.45	16.15	"	"	1140	1590	106	67	1.75
77	93	1.3	18.51	m .	"	1210	1690	93	77	1.55
70	102	1.2	20.51	m .	"	1290	1800	84	85	1.4
65	110	1.1	22.04	m .	"	1330	1860	78	91	1.3
59	121	0.99	24.42	m .	"	1410	1970	71	100	1.2
55	130	0.92	26.26	m .	"	1460	2000	66	108	1.1
49	146	0.82	29.09	"	II	1540	2150	59	121	0.99
53	135	1.1	27.08	BG15/DHE08XA4	19	3000	6000	64	111	1.35
47.5	150	1.0	30.08	"	II .	3000	6000	57	125	1.2
42	170	0.88	34.20	"	II	3000	6000	50	143	1.05
172	41.5	2.9	8.29	BG20/DHE08XA4	22	2250	-	210	34	3.6
160	44.5	3.2	8.91	"	"	2600	-	192	37	3.9
148	48	2.5	9.65	II	"	2250	-	178	40	3.1
135	53	2.9	10.54	II	"	2700	-	163	43.5	3.5
122	58	2.7	11.71	"	"	2800	-	147	48.5	3.3
108	66	2.5	13.21	"	"	2900	-	130	55	3.0
97	73	2.4	14.67	"	"	3050	-	117	61	2.8
92	77	2.3	15.58	"	II .	3100	-	110	65	2.7
83	86	2.1	17.31	"	II .	3200	-	99	72	2.5
72	99	1.95	19.95		"	3350	-	86	83	2.3
65	110	1.8	22.16	"	"	3500	-	78	91	2.2
62	115	1.75	23.22	II .	II .	3550	-	74	96	2.1
56	127	1.55	25.79		"	3700	-	67	106	1.9
51	140	1.45	27.85	"	"	3800	-	62	115	1.75
46	155	1.3	30.94	II.	II	4000	-	56	127	1.55

Selection helical-geared motors DHE - IE2

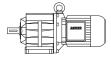
P = 0.75 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		Type	111	I RN	I RV	n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	•в			kg	N	N	1/min	Nm	ı,B
43	166	1.2	33.33	BG20/DHE08XA4	"	4100	-	52	137	1.45
38.5	186	1.1	37.02	"	11	4300	_	46.5	154	1.3
34.5	205	0.98	41.76	п	"	4500	-	41	174	1.15
31	230	0.87	46.38	п	"	4700	-	37	193	1.05
30	235	0.85	47.92	II .	II .	4750	-	36	198	1.0
76	94	3.2	18.93	BG30/DHE08XA4	26	4100	-	91	78	3.8
72	99	3.0	19.99	"	"	4200	-	86	83	3.6
65	110	2.7	22.18	"	"	4600	-	78	91	3.3
56	127	2.4	25.45	"	"	4850	-	68	105	2.9
51	140	2.1	28.24	"	"	5100	-	61	117	2.6
48	149	2.0	29.83		"	5200	-	58	123	2.4
43	166	1.8	33.09		"	5400	-	52	137	2.2
40.5	176	1.7	35.17	"	"	5500	-	49	146	2.1
36.5	196	1.55	39.02	"	"	5800	-	44	162	1.85
33.5	210	1.45	42.46	"	"	5900	-	40.5	176	1.7
30.5	230	1.3	47.11		"	6000	-	36.5	196	1.55
27.5	260	1.15	52.44	" "	"	6000	-	33	215	1.4
24.5	290	1.05	58.18	" "	"	6000	-	29.5	240	1.25
23.5	300	1.0	60.79	"	"	6000	-	28.5	250	1.2
21.5	330	0.91	67.44			6000	-	25.5	280	1.05
19.5	365	0.82	73.51	BG30Z/DHE08XA4	28	6000	-	23.5	300	1.0
55	130	3.3	26.01	BG40/DHE08XA4	41	6500	_	66	108	3.9
48.5	147	2.9	29.34	"	"	6800	_	59	121	3.5
44	162	2.6	32.57	II .	"	7000	_	53	135	3.1
42	170	2.5	34.20	II	11	7000	_	50	143	3.0
37.5	191	2.2	37.96	II	11	7000	_	45.5	157	2.7
35.5	200	2.1	40.19	TI .	11	7000	_	43	166	2.6
32	220	1.95	44.62	n .	11	7000	_	38.5	186	2.3
29.5	240	1.75	48.36	n .	11	7000	_	35.5	200	2.1
26.5	270	1.55	53.69	п	11	7000	_	32	220	1.95
24	295	1.45	59.64	п	"	7000	_	29	245	1.75
21.5	330	1.3	66.20	п	"	7000	_	26	275	1.55
21	340	1.25	67.74	BG40Z/DHE08XA4	44	7000	-	25.5	280	1.5
19	375	1.15	75.19	m .	"	7000	-	23	310	1.35
17.5	405	1.05	82.00	n .	"	7000	-	21	340	1.25
16	445	0.96	91.02	"	"	7000	-	19	375	1.15
15	475	0.89	96.86	"	"	7000	-	18	395	1.1
13.5	530	0.8	107.5	II .	"	7000	-	16	445	0.96
27 5	191	2.2	27.00	DCEO /DUEONA	48	10000		45.5	157	4.0
37.5 34	210	3.3 3.0	37.89 42.00	BG50/DHE08XA4	40	10000 10000	_	41	157 174	3.6
30.5	230	2.7	47.02	п	"	10000	_	36.5	196	3.2
27.5	260	2.4	52.12	m .	11	10000	_	33	215	2.9
24	295	2.1	59.42	п	"	10000	_	29	245	2.6
22	325	1.95	65.86	п	11	10000	_	26	275	2.3
20	355	1.75	71.97	BG50Z/DHE08XA4	53	10000	_	24	295	2.1
18	395	1.6	79.78	п	11	10000	_	21.5	330	1.9
15	475	1.35	95.58	п	II .	10000	-	18	395	1.6
13.5	530	1.2	106.0	n .	II .	10000	-	16.5	430	1.45
11.5	620	1.0	128.9	II	II .	10000	-	13.5	530	1.2
10	710	0.89	142.9	m .	"	10000	-	12	590	1.05
19	375	3.2	75.71	BG60Z/DHE08XA4	98	16000	-	23	310	3.9
16	445	2.7	91.09	" "	"	16000	-	19	375	3.2
14.5	490	2.4	101.0	" "	"	16000	-	17	420	2.9
12	590 650	2.0	119.2		"	16000	-	14.5	490	2.4
11	650 700	1.85	132.1		"	16000	-	13	550 650	2.2
9.0	790 870	1.5	158.0		"	16000 16000	-	11 9.8	650 730	1.85
8.2 7.0	870 1020	1.4 1.2	175.1 204.6	m .	11	16000	-	9.8 8.4	850	1.65 1.4
6.3	1130	1.05	204.6 226.7	m .	"	16000	-	7.6	940	1.4
5.8	1230	0.98	247.7	n .	"	16000	-	7.0	1020	1.2
5.2	1370	0.98	274.5	n .	"	16000	_	6.3	1130	1.05
4.7	1370	0.88	306.1	BG60G20/DHE08XA4	106	16000	_	5.6	1150	1.15
4.3	1520	0.86	334.3	"	"	16000	_	5.2	1230	1.05
1-7.5	1320	5.00	JJ7.J			10000	-	J.2	1230	1.05

Selection helical-geared motors DHE - IE2

P = 0.75 kW



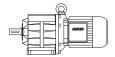
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
9.7	730	3.2	147.2	BG70Z/DHE08XA4	138	20000	-	12	590	3.9
8.7	820	2.8	163.8	"	"	20000	-	10.5	680	3.4
7.4	960	2.4	194.4	п	"	20000	-	8.8	810	2.8
6.8	1050	2.2	210.5	"	"	20000	-	8.2	870	2.6
5.7	1250	1.85	249.8	п	"	20000	-	6.9	1030	2.2
5.6	1170	2.1	255.5	BG70G20/DHE08XA4	136	20000	-	6.7	960	2.6
5.2	1260	2.0	276.7	n n	"	20000	-	6.2	1030	2.4
4.4	1490	1.7	328.4	п	"	20000	-	5.3	1210	2.1
3.7	1780	1.4	387.6	"	"	20000	-	4.5	1440	1.75
3.4	1980	1.25	417.8	n n	"	20000	-	4.1	1620	1.55
2.9	2300	1.1	495.9	n n	"	20000	-	3.5	1900	1.3
2.5	2700	0.93	577.3	"	"	20000	-	3.0	2200	1.15
2.2	3050	0.82	665.8	"	II .	20000	-	2.6	2550	0.98
4.0	1450	3.2	360.0	BG80G40/DHE08XA4	217	26000	_	4.8	1150	4.0
3.6	1610	2.9	399.8	"	Z 17	26000	_	4.3	1290	3.6
3.3	1830	2.5	436.2	п	"	26000	_	4.0	1450	3.2
3.0	2000	2.3	484.3	п	II .	26000	_	3.6	1610	2.9
2.5	2450	1.9	572.0	n .	II .	26000	_	3.0	2000	2.3
2.2	2750	1.65	657.8	II	II .	26000	_	2.6	2250	2.0
2.0	3050	1.5	730.3	II	II .	26000	_	2.4	2450	1.9
1.8	3450	1.35	817.4	II	II .	26000	_	2.1	2850	1.6
1.6	3900	1.2	907.6	II	II .	26000	_	1.9	3200	1.45
1.4	4550	1.0	1042	II	II .	26000	_	1.7	3650	1.25
1.2	5400	0.85	1261	"	"	26000	-	1.4	4550	1.0
2.0	2900	3.2	714.2	BG90G50/DHE08XA4	327	65000	_	2.4	2300	4.0
1.7	3500	2.6	883.7	"	327	65000	_	2.0	2900	3.2
1.3	4800	1.9	1174	п	"	65000	_	1.5	4100	2.2
1.1	5800	1.6	1301	п	II .	65000	_	1.4	4400	2.1
0.9	7200	1.3	1583	n .	II .	65000	_	1.1	5800	1.6
0.85	7700	1.2	1756	n .	II .	65000	_	1.0	6400	1.45
0.75	8800	1.05	2026	п	"	65000	-	0.85	7700	1.2
1.0	5700	3.2	1444	BG100G50/DHE08XA4	514	90000	_	1.2	4550	4.1
				" "	31 4 "					
0.85 0.8	6800 7100	2.7 2.6	1678 1867	п	"	90000 90000	-	1.1 0.95	4900 5700	3.8 3.2
0.8	7100 8100	2.6	2154	п	"	90000	-	0.95	6800	3.2 2.7
0.7				"	"			1		2.7
0.55	10600	1.75	2656 2952	"	"	90000	-	0.65 0.6	8600	
	12300	1.5		п	"	90000	-		9600	1.95
0.44	13700	1.35	3286		"	90000	-	0.55	10500	1.75
0.39	15800	1.15	3644			90000	-	0.47	12700	1.45

P = 1.1 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
580	18.1	3.1	2.52	BG10/DHE09LA4	26	560	790	700	15	3.7
425	24.5	2.5	3.42	II	"	630	880	510	20.5	3.0
335	31	2.2	4.36	II	"	650	910	400	26	2.6
270	38.5	1.95	5.34	"	"	620	910	330	31.5	2.4
215	48.5	1.65	6.78	II	"	660	920	260	40	2.0
179	58	1.5	8.07	II	"	660	920	220	47.5	1.85
155	67	1.45	9.33	II	"	950	1330	187	56	1.75
140	75	1.3	10.34	"	"	1000	1400	169	62	1.6
121	86	1.2	11.92	"	"	1030	1440	146	71	1.5
110	95	1.15	13.21	"	"	1070	1490	132	79	1.4
99	106	1.1	14.58	II	"	1100	1540	120	87	1.3
90	116	1.0	16.15	II	"	1140	1590	108	97	1.2
78	134	0.9	18.51	II	"	1210	1690	95	110	1.1
71	147	0.82	20.51	II	"	1290	1800	85	123	0.98

Selection helical-geared motors DHE - IE2

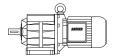
P = 1.1 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
330	31.5	3.3	4.38	BG20/DHE09LA4	28	1990	-	400	26	4.0
265	39.5	2.9	5.49		"	2100	-	320	32.5	3.5
225	46.5	2.6	6.48	"	"	2250	-	270	38.5	3.2 2.9
180 174	58 60	2.4 2.0	8.02 8.29	"	"	2500 2250	-	220 210	47.5 50	2.9
162	64	2.0	8.91	n n	"	2600	-	196	53	2.4
150	70	1.75	9.65	n	"	2250	-	181	58	2.7
137	76	2.0	10.54	п	"	2700	_	166	63	2.1
123	85	1.85	11.71	m m	II .	2800	_	149	70	2.3
110	95	1.75	13.21	n n	II .	2900	_	132	79	2.1
99	106	1.6	14.67	n n	"	3050	_	119	88	1.95
93	112	1.6	15.58	n	II .	3100	-	112	93	1.9
84	125	1.45	17.31	п	II .	3200	-	101	104	1.75
73	143	1.35	19.95	п	II .	3350	-	88	119	1.65
65	161	1.25	22.16	п	II .	3500	-	79	132	1.5
63	166	1.2	23.22	"	II .	3550	-	75	140	1.45
56	187	1.05	25.79	"	II .	3700	-	68	154	1.3
52	200	1.0	27.85	"	"	3800	-	63	166	1.2
47	220	0.91	30.94	"	"	4000	-	57	184	1.1
43.5	240	0.83	33.33	n n	"	4100	-	53	198	1.0
122	86	3.2	11.82	BG30/DHE09LA4	33	3200	-	148	70	3.9
105	100	2.9	13.77	"	"	3150	-	127	82	3.6
95	110	2.7	15.27		"	3450	-	114	92	3.3
85	123	2.4	17.06		"	3700	-	102	102	2.9
77	136	2.2	18.93	" "	"	4100	-	92	114	2.6
73	143	2.1	19.99	"	"	4200	-	88	119	2.5
65	161	1.85	22.18	"	"	4600	-	79	132	2.3
57	184	1.65	25.45	"	"	4850	-	69	152	1.95
51	205	1.45	28.24	"	"	5100	-	62	169	1.8
48.5 44	215 235	1.4 1.3	29.83 33.09	"	"	5200 5400	-	59 53	178 198	1.7 1.5
41	255 255	1.2	35.09 35.17	"	"	5500	-	49.5	210	1.45
37	280	1.05	39.02	n .	"	5800	-	45.5	230	1.43
34	305	0.98	42.46	п	"	5900	_	41	255	1.2
31	335	0.90	47.11	п	"	6000	_	37	280	1.05
	333	0.5	.,			0000		37	200	1.03
80	131	3.2	18.19	BG40/DHE09LA4	47	5600	-	96	109	3.9
73	143	3.0	19.84	"	II .	5800	-	88	119	3.6
66	159	2.7	22.02	"	"	6000	-	80	131	3.2
62	169	2.5	23.43	"	II .	6200	-	75	140	3.0
56	187	2.3	26.01	"	II .	6500	-	67	156	2.7
49.5	210	2.0	29.34	"	II .	6800	-	60	175	2.4
44.5	235	1.8	32.57	"	"	7000	-	54	194	2.2
42.5	245	1.75	34.20	"	"	7000	-	51	205	2.1
38	275	1.55	37.96	" "	"	7000	-	46	225	1.9
36	290	1.45	40.19		"	7000	-	43.5	240	1.75
32.5	320	1.35	44.62	"	"	7000	-	39	265	1.6
30	350	1.2	48.36	"	"	7000 7000	-	36	290	1.45
27 24.5	385 425	1.1 1.0	53.69 59.64	n	"	7000	-	32.5 29.5	320 355	1.35 1.2
22	475	0.89	66.20	п	"	7000	_	26.5	395	1.1
21.5	485	0.88	67.74	BG40Z/DHE09LA4	51	7000	_	26	400	1.05
19.5	530	0.8	75.19	"	"	7000	_	23.5	445	0.96
	330	0.0	, 3.17			, 000		23.3	3	0.50
49	210	3.0	29.62	BG50/DHE09LA4	55	8000	-	59	178	3.5
44	235	2.7	32.84	"	"	8700	-	53	198	3.2
38.5	270	2.3	37.89	"	"	10000	-	46	225	2.8
34.5	300	2.1	42.00	"	II .	10000	-	41.5	250	2.5
31	335	1.9	47.02	"	II .	10000	-	37.5	280	2.3
28	375	1.7	52.12		"	10000	-	33.5	310	2.0
24.5	425	1.5	59.42		"	10000	-	29.5	355	1.75
22	475	1.35	65.86	"	"	10000	-	26.5	395	1.6
20.5	510	1.25	71.97	BG50Z/DHE09LA4	60	10000	-	24.5	425	1.5
18.5	560	1.15	79.78	"	"	10000	-	22	475	1.35
15.5	670	0.94	95.58	II II	"	10000	-	18.5	560	1.15
14	750	0.84	106.0	••		10000	-	16.5	630	1.0

Selection helical-geared motors DHE - IE2

P = 1.1 kW



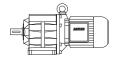
n ₂ M ₂ 1/min Nm 29 360 26 400 24 435 21.5 485	3.3 50 3.0 55) 21		kg	N	N	n ₂ 1/min	M_2 Nm	$f_{\scriptscriptstyle B}$
29 360 26 400 24 435) 21		kg		N	1/min	Nm	
26 400 24 435		121							
24 435	3.0 55	J.3 I	BG60/DHE09LA4	86	16000	-	35	300	4.0
	3.0	5.76	TI TI	II .	16000	-	31.5	330	3.6
	2.8 60).90	п	II .	16000	_	29	360	3.3
		7.49	n .	II .	16000	_	26	400	3.0
19.5 530		5.71	BG60Z/DHE09LA4	105	16000	_	23	455	2.6
	1	1.09	BG002/DITE09LA4	105	16000	_	19.5	530	2.3
			n n	"					
14.5 720		01.0	п	"	16000	-	17.5	600	2.0
12.5 840		19.2		"	16000	-	15	700	1.7
11 950		32.1	"		16000	-	13.5	770	1.55
9.2 1140		58.0	"	"	16000	-	11.5	910	1.3
8.3 1260	0.95 17	75.1	"	"	16000	-	10	1050	1.15
7.1 1470	0.82 20)4.6	"	"	16000	-	8.6	1220	0.98
13 800	2.9 11	13.6	BG70Z/DHE09LA4	145	20000	_	15.5	670	3.4
12 870		24.0	II .	"	20000	_	14.5	720	3.2
9.8 1070		17.2	II	"	20000	_	12	870	2.6
8.8 1190		53.8	m .	"	20000	_	11	950	2.4
7.5 1400		94.4	п	"	20000	_	9.0	1160	2.0
6.9 1520		10.5	n .	"	20000		8.3	1260	1.85
			11	"		-			
5.8 1810		19.8			20000	-	7.0	1500	1.55
5.7 1730		55.5	BG70G20/DHE09LA4	142	20000	-	6.9	1410	1.75
5.3 1860		76.7			20000	-	6.3	1550	1.6
4.4 2200		28.4	"	"	20000	-	5.3	1840	1.35
3.8 2600		37.6	"	"	20000	-	4.5	2150	1.15
3.5 2850	0.88 41	7.8	II	"	20000	-	4.2	2350	1.05
7.8 1340	3.1 18	36.8	BG80Z/DHE09LA4	213	26000	-	9.4	1110	3.8
7.0 1500	2.8 20	7.4	II .	II .	26000	-	8.4	1250	3.4
5.8 1500	3.1 25	52.3	BG80G40/DHE09LA4	224	26000	_	6.9	1210	3.8
5.1 1750		32.8	п	II .	26000	_	6.2	1380	3.3
4.6 1940	1	4.0	n .	II .	26000	_	5.6	1530	3.0
4.0 2250		50.0	II .	II .	26000	_	4.9	1800	2.6
3.7 2450		99.8	п	"	26000	_	4.4	2000	2.3
		36.2	n .	"			4.0	2250	2.0
			"	"	26000	-			
3.0 3100		34.3	"	"	26000	-	3.6	2500	1.85
2.6 3650		72.0	"	"	26000	-	3.1	3000	1.55
2.2 4250		57.8		"	26000	-	2.7	3400	1.35
2.0 4750		30.3	"		26000	-	2.4	3850	1.2
1.8 5300	0.87 81	7.4	II	"	26000	-	2.2	4250	1.1
2.9 3100	3.0 50)4.7	BG90G50/DHE09LA4	334	65000	_	3.5	2500	3.7
2.5 3600		38.8	" " " " " " " " " " " " " " " " " " "	334	65000	_	3.0	2900	3.7
2.3 3950			n .	"		-	2.7		2.8
		14.7	11	"	65000	-		3250	
2.1 4350		4.2	п	"	65000	-	2.5	3550	2.6
1.7 5500		33.7		"	65000	-	2.0	4550	2.0
1.3 7400		174			65000	-	1.5	6300	1.45
1.2 8000	1.15 13	301	"	"	65000	-	1.4	6800	1.35
1.8 5800		15.1	BG100Z/DHE09LA4	522	90000	-	2.1	5000	3.7
1.4 6100		043	BG100G50/DHE09LA4	521	90000	-	1.7	4750	3.9
1.2 7100	2.6 12	204	"	II .	90000	-	1.5	5300	3.5
1.0 9100	2.0 14	144	п	II .	90000	-	1.3	6700	2.8
0.9 10000	1.85 16	578	п	"	90000	-	1.1	7900	2.3
0.8 11300	i i	367	II .	II .	90000	-	0.95	9200	2.0
0.7 12900	1	154	m .	II .	90000	_	0.85	10300	1.8
0.55 16700		556	п	п	90000	_	0.7	12600	1.45

P = 1.5 kW

	50 Hz		i	Туре	m	F_{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
580	24.5	2.3	2.52	BG10/DHE09XA4	30	560	790	700	20	2.8
425	33.5	1.85	3.42	II	"	630	880	510	28	2.2
335	42.5	1.6	4.36	II	II .	650	910	400	35.5	1.9

Selection helical-geared motors DHE - IE2

P = 1.5 kW

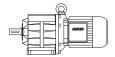


	50 Hz		i	Turno		г	г		60 Hz	
n		f _B	ı	Type	m	F_{RN}	F_{RV}	n	М ₂	$f_{\scriptscriptstyle B}$
n ₂	M ₂	IВ			l.a	NI	NI	n ₂		IB
1/min	Nm	1.4	F 2.4	DC10 /DUE00VA4	kg "	N (20)	N 010	1/min	Nm	1 75
270	53	1.4	5.34	BG10/DHE09XA4	"	620	910	330	43	1.75
215	66	1.25	6.78		"	660	920	260	55	1.45
179	80	1.1	8.07		"	660	920	220	65	1.35
155	92	1.05	9.33		"	950	1330	187	76	1.3
140	102	0.97	10.34		"	1000	1400	169	84	1.2
121	118	0.89	11.92		"	1030	1440	146	98	1.05
110	130	0.85	13.21	-		1070	1490	132	108	1.0
425	22.5	2.0	2 22	DC20 /DUE00VA4	22	1020		F20	27	2.4
435 330	32.5 43	2.8 2.4	3.33 4.38	BG20/DHE09XA4	32	1830 1990	-	530 400	27 35.5	3.4 2.9
265	43 54	2.4	4.36 5.49	m .	II.					2.9
205	63		5.49 6.48	m .	II.	2100 2250	-	320 270	44.5	2.3
180	79	1.95 1.75	8.02	m .	II.	2500	-	220	53 65	2.3
174	79 82	1.75	8.29	m .	II.	2250	-	210	68	1.8
162	88	1.65	8.91	m .	II.	2600	-	196	73	1.95
150	95	1.03	9.65	m .	II.	2250	-	181	73 79	1.55
137	95 104	1.5	10.54	m .	II.	2700	-	166	86	1.8
123	116	1.35	11.71	п	II.	2800	_	149	96	1.65
110	130	1.33	13.21	п	II.	2900	-	132	108	1.55
99	144	1.2	14.67	п	II.	3050	_	119	120	1.45
93	154		15.58	п	"	3100	-	112	127	
84	170	1.15 1.1	17.31	п	"		-	101	141	1.4
73	170	0.99	17.51	п	ıı	3200 3350	-	88	162	1.3 1.2
65	220	0.99	22.16	п	ıı	3500	-	79	181	1.2
63	225	1	23.22	п	ıı	3550	-	75	191	1.05
03	223	0.89	23.22			3330	-	/5	191	1.05
215	66	3.3	6.75	BG30/DHE09XA4	37	1760	_	260	55	3.9
183	78	2.8	7.91	BG30/DHE09XA4	3/	1760	-	220	65	3.3
168	85	2.9	8.60	п	II.	2800	-	205	69	3.6
151	94	2.7	9.55	п	II.	3000	-	183	78	3.3
136	105	2.5	10.65	п	II.	2950	-	164	87	3.1
122	117	2.3	11.82	п	II.	3200	-	148	96	2.9
105	136	2.2	13.77	п	II.	3150	-	127	112	2.9
95	150	2.2	15.77	п	II.	3450	-	114	125	2.4
85	168	1.8	17.06	п	"	3700	_	102	140	2.4
77	186	1.6	18.93	п	"	4100	_	92	155	1.95
73	196	1.55	19.99	п	"	4200	_	88	162	1.85
65	220	1.35	22.18	п	"	4600	_	79	181	1.65
57	250	1.2	25.45	п	"	4850	_	69	205	1.45
51	280	1.05	28.24	II .	11	5100	_	62	230	1.3
48.5	295	1.0	29.83	п	"	5200	_	59	240	1.25
44	325	0.92	33.09	II .	11	5400	_	53	270	1.1
41	345	0.87	35.17	TT.	11	5500	_	49.5	285	1.05
	5.5	0.07	33.17			3300		15.5	203	1.05
160	89	3.3	9.00	BG40/DHE09XA4	51	2650	_	194	73	4.0
112	127	3.2	12.86	"	"	4500	-	136	105	3.9
101	141	3.0	14.28	m .	II .	4900	_	122	117	3.6
88	162	2.6	16.39	m .	II .	5300	_	107	133	3.2
80	179	2.4	18.19	II .	II .	5600	-	96	149	2.9
73	196	2.2	19.84	II .	II .	5800	-	88	162	2.6
66	215	2.0	22.02	II .	11	6000	-	80	179	2.4
62	230	1.85	23.43	II .	11	6200	-	75	191	2.2
56	255	1.65	26.01	II .	11	6500	-	67	210	2.0
49.5	285	1.5	29.34	II .	11	6800	-	60	235	1.8
44.5	320	1.35	32.57	II .	11	7000	-	54	265	1.6
42.5	335	1.25	34.20	II .	11	7000	-	51	280	1.5
38	375	1.15	37.96	m .	"	7000	-	46	310	1.35
36	395	1.1	40.19	II .	"	7000	-	43.5	325	1.3
32.5	440	0.97	44.62	II .	"	7000	-	39	365	1.15
30	475	0.89	48.36	II .	"	7000	-	36	395	1.1
27	530	0.8	53.69	II .	"	7000	-	32.5	440	0.97
						-			-	
66	215	2.9	21.96	BG50/DHE09XA4	59	8000	-	80	179	3.5
60	235	2.7	24.34	"	"	8700	-	72	198	3.2
49	290	2.2	29.62	II .	"	8000	-	59	240	2.6
44	325	1.95	32.84	II .	II .	8700	-	53	270	2.3
38.5	370	1.7	37.89	II .	II .	10000	-	46	310	2.0
34.5	415	1.5	42.00	· ·	11	10000	_	41.5	345	1.85
	-									

BG-series helical-geared motors

Selection helical-geared motors DHE - IE2

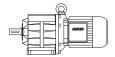
P = 1.5 kW



n ₂ 1/min 31	M ₂	f _B	i	Туре	m	F_{RN}	F_{RV}		60 Hz	
1/min 31								n_2	M_2	$f_{\scriptscriptstyle B}$
31	Nm	- 6			kg	N	N	1/min	Nm	.0
		.35	47.02	BG50/DHE09XA4	"	10000	-	37.5	380	1.65
			52.12	"	II .	10000	-	33.5	425	1.5
	580		59.42	II .	II .	10000	-	29.5	485	1.3
	650 0	.97	65.86	II .	II .	10000	-	26.5	540	1.15
20.5	690 0	.91	71.97	BG50Z/DHE09XA4	64	10000	-	24.5	580	1.1
18.5	770 0	.82	79.78	"	"	10000	-	22	650	0.97
37.5	380	3.2	38.85	BG60/DHE09XA4	90	16000	_	45	315	2.0
			43.05	BG00/DHE09XA4	90	16000	-	40.5	350	3.8 3.4
		I	50.31	п	"	16000	_	35	405	3.0
			55.76	п	"	16000	_	31.5	450	2.7
			60.90	TI TI	"	16000	_	29	490	2.4
			67.49	· ·	II .	16000	_	26	550	2.2
		1	75.71	BG60Z/DHE09XA4	109	16000	-	23	620	1.95
			91.09	"	"	16000	-	19.5	730	1.65
		1.2	101.0	II .	"	16000	-	17.5	810	1.5
12.5	1140 1	.05	119.2	TI TI	II .	16000	-	15	950	1.25
11 1	1300 0	.92	132.1	II	"	16000	-	13.5	1060	1.15
20	710	3.2	73.82	BG70Z/DHE09XA4	149	20000	_	24	590	3.9
			87.61	"	"	20000	_	20	710	3.2
			95.74	п	"	20000	_	18.5	770	3.0
		i	113.6	п	"	20000	_	15.5	920	2.5
			124.0	"	"	20000	_	14.5	980	2.3
			147.2	п	II .	20000	-	12	1190	1.95
	1620	I	163.8	п	II .	20000	-	11	1300	1.75
			194.4	II .	"	20000	-	9.0	1590	1.45
	2050	1.1	210.5	II .	"	20000	-	8.3	1720	1.35
5.8	2450 0	.94	249.8	"	"	20000	-	7.0	2000	1.15
5.7	2400 1	.05	255.5	BG70G20/DHE09XA4	146	20000	-	6.9	1960	1.3
			276.7	"	"	20000	-	6.3	2150	1.15
4.4	3100 0	.81	328.4	II	"	20000	-	5.3	2550	0.98
10 1	1430	2.9	145.4	BG80Z/DHE09XA4	217	26000	_	12	1190	3.5
9.0	1590	2.6	161.5	"	II .	26000	-	11	1300	3.2
7.8 1	1830	2.3	186.8	"	"	26000	-	9.4	1520	2.8
7.0	2000	2.1	207.4	"	"	26000	-	8.4	1700	2.5
			227.2	BG80G40/DHE09XA4	228	26000	-	7.7	1580	2.9
			252.3	"	"	26000	-	6.9	1760	2.6
			282.8	"	"	26000	-	6.2	2000	2.3
		I	314.0	"	"	26000	-	5.6	2200	2.1
			360.0	"	"	26000	-	4.9	2550	1.8
			399.8		"	26000	-	4.4	2850	1.6
			436.2		"	26000	-	4.0	3200	1.45
			484.3 572.0	11	"	26000 26000	-	3.6 3.1	3600 4200	1.3
2.0	5100	0.9	372.0			20000	-	3.1	4200	1.1
			360.3	BG90G50/DHE09XA4	338	65000	-	4.9	2400	3.8
			435.8	" "	"	65000	-	4.0	3150	2.9
			504.7		"	65000	-	3.5	3600	2.6
			588.8	"	"	65000	-	3.0	4200	2.2
			644.7	"	"	65000	-	2.7	4650	2.0
			714.2		"	65000	-	2.5	5000	1.85
			883.7	"	"	65000	-	2.0	6400	1.45
			1174 1301	п	ıı	65000 65000	-	1.5 1.4	8800 9500	1.05 0.97
			591.1 658.1	BG100Z/DHE09XA4	526	90000 90000	-	3.0 2.7	4750 5300	3.9 3.5
			759.0	п	II.	90000	_	2.7	6200	3.0
			845.1	II .	п	90000	-	2.3	6800	2.7
			976.1	BG100G50/DHE09XA4	525	90000	-	1.8	6300	2.7
			1043	" "	"	90000	_	1.7	7000	2.6
			1204	n .	II .	90000	_	1.5	7900	2.3
			1444	n .	II .	90000	_	1.3	9600	1.95
			1678	n n	II .	90000	_	1.1	11400	1.6
			1867	"	II .	90000	_	0.95	13200	1.4
			2154	"	II .	90000	_	0.85	14700	1.25

Selection helical-geared motors DHE - IE2

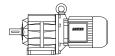
P = 2.2 kW



									40.11	
	50 Hz		i	Type	m	F_{RN}	F_{RV}	n	60 Hz	£
n ₂ 1/min	M₂ Nm	f _B			kg	N	N	n ₂ 1/min	$M_{\scriptscriptstyle 2}$ Nm	$f_{\scriptscriptstyle B}$
580	36	1.55	2.52	BG10/DHE09XA4C	32	560	790	700	30	1.85
425	49	1.25	3.42	"	"	630	880	510	41	1.5
335	62	1.1	4.36	п	II .	650	910	400	52	1.3
270	77	0.97	5.34	II .	II .	620	910	330	63	1.2
215	97	0.84	6.78	II .	II .	660	920	260	80	1.0
580	36	2.3	2.52	BG20/DHE09XA4C	35	1660	-	700	30	2.8
435	48	1.9	3.33		"	1830	-	530	39.5	2.3
330	63	1.65	4.38	"	"	1990	-	400	52	2.0
265	79	1.45	5.49	"	"	2100	-	320	65	1.75
225	93	1.3	6.48		"	2250	-	270	77	1.6
180 174	116 120	1.2	8.02 8.29	11	"	2500 2250	-	220 210	95 100	1.45
162	120	1.0 1.1	8.29 8.91	п	11	2600	-	196	100	1.2 1.35
150	140	0.87	9.65	II .	II .	2250	_	181	116	1.05
137	153	1.0	10.54	TI .	II .	2700	_	166	126	1.2
123	170	0.93	11.71	п	II .	2800	_	149	141	1.1
110	191	0.87	13.21	m .	II	2900	-	132	159	1.05
99	210	0.82	14.67	m .	II .	3050	-	119	176	0.98
540	38.5	3.3	2.67	BG30/DHE09XA4C	39	1450	-	660	31.5	4.1
425	49	2.8	3.40		"	1580	-	520	40	3.5
345	60	2.9	4.21	"	"	1630	-	415	50	3.4
265	79	2.5	5.44	"	"	1670	-	320	65	3.1
215	97	2.2	6.75		"	1760	-	260	80	2.7
183	114	1.9	7.91		"	1760	-	220	95 103	2.3
168 151	125 139	1.95 1.85	8.60 9.55	m .	11	2800 3000	-	205 183	102 114	2.4
136	154	1.75	10.65	п	"	2950	_	164	128	2.2
122	172	1.6	11.82	m .	11	3200	_	148	141	1.95
105	200	1.45	13.77	n n	"	3150	_	127	165	1.8
95	220	1.35	15.27	п	II .	3450	-	114	184	1.65
85	245	1.2	17.06	п	ıı	3700	-	102	205	1.45
77	270	1.1	18.93	n n	II .	4100	-	92	225	1.35
73	285	1.05	19.99	"	II .	4200	-	88	235	1.3
65	320	0.94	22.18	"	"	4600	-	79	265	1.15
57	365	0.82	25.45	"	"	4850	-	69	300	1.0
220	01	2.2	6.20	BG40/DHE09XA4C	Γ.4	2600		200	7.5	2.0
230 189	91 111	3.2 2.7	6.29 7.62	BG40/DHE09XA4C	54	2600 2650	-	280 230	75 91	3.9
174	120	2.7	8.31	п	11	4100	-	210	100	3.4
157	133	2.7	9.23	n .	II .	4350	_	189	111	3.2
140	150	2.5	10.35	п	II .	4350	_	169	124	3.0
126	166	2.3	11.49	II .	II .	4600	-	152	138	2.8
112	187	2.2	12.86	II .	II .	4500	-	136	154	2.7
101	205	2.1	14.28	"	"	4900	-	122	172	2.4
88	235	1.8	16.39	"	"	5300	-	107	196	2.2
80	260	1.65	18.19	"	"	5600	-	96	215	2.0
73	285	1.5	19.84		"	5800	-	88	235	1.8
66	315 335	1.35	22.02		"	6000 6200	-	80	260	1.65
62 56	335 375	1.25 1.15	23.43 26.01	п	ıı	6500	-	75 67	280 310	1.5 1.35
49.5	420	1.13	29.34	m .	11	6800	_	60	350	1.2
44.5	470	0.9	32.57	n n	"	7000	_	54	385	1.1
42.5	490	0.87	34.20	m .	ıı	7000	_	51	410	1.05
120	175	3.3	12.06	BG50/DHE09XA4C	62	5700	-	145	144	4.0
108	194	3.1	13.36		"	6100	-	131	160	3.7
88	235	2.7	16.53	"	"	6500	-	106	198	3.2
79	265	2.4	18.33	"	"	7200	-	95	220	2.9
66	315	2.0	21.96	"	"	8000	-	80	260	2.4
60 49	350 425	1.8 1.5	24.34 29.62		"	8700 8000	-	72 59	290 355	2.2 1.75
49	425 475	1.35	29.62 32.84	· ·	"	8700	_	53	395	1./5
38.5	473 540	1.15	32.8 4 37.89	· ·	"	10000	-	46	455	1.6
34.5	600	1.05	42.00	"	II .	10000	_	41.5	500	1.25
			.2.50					15	500	25

Selection helical-geared motors DHE - IE2

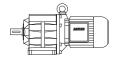
P = 2.2 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
31	670	0.94	47.02	BG50/DHE09XA4C	ıı ı	10000	-	37.5	560	1.15
28	750	0.84	52.12	11	II .	10000	_	33.5	620	1.0
	700	0.0.	022						020	
49.5	420	2.9	29.31	BG60/DHE09XA4C	92	14800	_	60	350	3.4
44.5	470	2.6	32.48	"	"	15400	_	54	385	3.1
37.5	560	2.1	38.85	п		16000	_	45	465	2.6
1				п	"					
33.5	620	1.95	43.05	п	"	16000	-	40.5	510	2.4
29	720	1.65	50.31		"	16000	-	35	600	2.0
26	800	1.5	55.76		"	16000	-	31.5	660	1.8
24	870	1.4	60.90			16000	-	29	720	1.65
21.5	970	1.25	67.49	"	"	16000	-	26	800	1.5
19.5	1070	1.1	75.71	BG60Z/DHE09XA4C	112	16000	-	23	910	1.3
16	1310	0.92	91.09	"	"	16000	-	19.5	1070	1.1
14.5	1440	0.83	101.0	"	"	16000	-	17.5	1200	1.0
29	720	3.2	50.40	BG70/DHE09XA4C	130	20000	_	35	600	3.8
24.5	850	2.7	59.82	11	"	20000	_	29.5	710	3.2
22.5	930	2.5	64.85	BG70Z/DHE09XA4C	151	20000	_	27	770	3.0
20	1050	2.2	73.82	"	"	20000	_	24	870	2.6
16.5	1270	1.8	87.61	п	"	20000	_	20	1050	2.2
15.5	1350	1.7	95.74	п		20000	_	18.5		2.0
				п					1130	
13	1610	1.45	113.6			20000	-	15.5	1350	1.7
12	1750	1.3	124.0		"	20000	-	14.5	1440	1.6
9.8	2100	1.1	147.2			20000	-	12	1750	1.3
8.8	2350	0.98	163.8	"	"	20000	-	11	1910	1.2
7.5	2800	0.82	194.4	"	"	20000	-	9.0	2300	1.0
15.5	1350	3.1	93.89	BG80Z/DHE09XA4C	219	26000	-	19	1100	3.8
13	1610	2.6	112.4	m m	"	26000	-	15.5	1350	3.1
12	1750	2.4	124.8	II .	"	26000	_	14	1500	2.8
10	2100	2.0	145.4	n .	"	26000	_	12	1750	2.4
9.0	2300	1.85	161.5	II	"	26000	_	11	1910	2.2
7.8	2650	1.6	186.8	II .	"	26000	_	9.4	2200	1.9
7.0	3000	1.4	207.4	п	"	26000	_	8.4	2500	1.7
6.4	3000	1.55	207.4	BG80G40/DHE09XA4C	231	26000		7.7	2400	
5.8	3300		252.3	В В В В В В В В В В В В В В В В В В В	231		-		2700	1.9 1.7
		1.4		п	"	26000	-	6.9		
5.1	3800	1.2	282.8	п	"	26000	-	6.2	3050	1.5
4.6	4200	1.1	314.0			26000	-	5.6	3400	1.35
4.0	4900	0.94	360.0	"	"	26000	-	4.9	3950	1.15
3.7	5300	0.87	399.8	"	"	26000	-	4.4	4350	1.05
8.1	2550	3.3	178.5	BG90Z/DHE09XA4C	329	65000	-	9.8	2100	4.0
7.0	3000	2.8	208.3	"	"	65000	-	8.4	2500	3.4
6.4	3250	2.6	228.1	"	"	65000	-	7.7	2700	3.1
5.5	3350	2.7	262.5	BG90G50/DHE09XA4C	340	65000	-	6.7	2700	3.4
4.9	4000	2.3	298.8	m m	II .	65000	-	5.9	3250	2.8
4.0	4750	1.95	360.3	п	II .	65000	_	4.9	3800	2.4
3.4	5700	1.6	435.8	n .	II .	65000	_	4.0	4850	1.9
2.9	6700	1.35	504.7	n .	"	65000	_	3.5	5500	1.65
2.5	7800	1.2	588.8	II .	"	65000	_	3.0	6400	1.45
2.3	8500	1.1	644.7	m .	"	65000		2.7	7100	1.3
				11	"		-			
2.1	9300	0.99	714.2			65000	-	2.5	7700	1.2
	4=44		4567	DG4007 /DUITOOVA46				2.0	5300	2.5
3.2	6500	2.8	456.7	BG100Z/DHE09XA4C	528	90000	-	3.9	5300	3.5
2.9	7200	2.6	508.5			90000	-	3.5	6000	3.1
2.5	8400	2.2	591.1	"	"	90000	-	3.0	7000	2.6
2.2	9500	1.95	658.1	"	"	90000	-	2.7	7700	2.4
1.9	11000	1.7	759.0	п	"	90000	-	2.3	9100	2.0
1.8	11600	1.6	845.1	п	"	90000	-	2.1	10000	1.85
1.5	12400	1.5	976.1	BG100G50/DHE09XA4C	527	90000	-	1.8	10000	1.85
1.4	13600	1.35	1043	"	"	90000	_	1.7	10900	1.7
1.2	15800	1.15	1204	п	"	90000	_	1.5	12300	1.5
1.0	19600	0.94	1444	II .	"	90000	_	1.3	14700	1.25
		J. 27	1777			20000		1.5	17/00	1.43

Selection helical-geared motors DHE - IE2

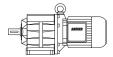
P = 3 kW



	5011-			T					6011-	
	50 Hz		i	Type	m	F_{RN}	F_{RV}	n	60 Hz	£
n ₂ 1/min	M₂ Nm	f _B			ka	N	N	n ₂ 1/min	M ₂	f _B
540	53	2.4	2.67	BG30/DHE11MA4	kg 46	N 1450	N	660	Nm 43	3.0
425	67	2.4	3.40	BG30/DHETTWA4	40	1580	_	520	55	2.5
345	83	2.1	4.21	m .	"	1630	_	415	69	2.5
265	108	1.85	5.44	п	"	1670	_	320	89	2.2
215	133	1.65	6.75	m .	II .	1760	_	260	110	1.95
183	156	1.4	7.91	II	II .	1760	_	220	130	1.65
168	170	1.45	8.60	n .	"	2800	_	205	139	1.75
151	189	1.35	9.55	n .	"	3000	_	183	156	1.65
136	210	1.25	10.65	"	II .	2950	_	164	174	1.55
122	230	1.2	11.82	m .	II .	3200	-	148	193	1.4
105	270	1.1	13.77	"	11	3150	-	127	225	1.3
95	300	1.0	15.27	II	II .	3450	-	114	250	1.2
85	335	0.9	17.06	II	II .	3700	-	102	280	1.05
77	370	0.81	18.93	II	"	4100	-	92	310	0.97
365	78	3.1	3.97	BG40/DHE11MA4	65	2400	-	440	65	3.8
295	97	2.8	4.94	"	"	2450	-	355	80	3.4
230	124	2.4	6.29	"	"	2600	-	280	102	2.9
189	151	1.95	7.62	"	"	2650	-	230	124	2.4
174	164	2.1	8.31	"	"	4100	-	210	136	2.5
157	182	1.95	9.23	"	"	4350	-	189	151	2.4
140	200	1.9	10.35		"	4350	-	169	169	2.2
126	225	1.75	11.49		"	4600	-	152	188	2.1
112	255	1.6	12.86		"	4500	-	136	210	1.95
101	280	1.5	14.28	п	"	4900	-	122	230	1.85
88 80	325 355	1.3 1.2	16.39 18.19	п	"	5300 5600	-	107 96	265 295	1.6 1.45
73	390	1.1	19.84	n .	"	5800	-	88	325	1.43
66	430	0.99	22.02	п	ıı .	6000	_	80	355	1.2
62	460	0.92	23.43	п	ıı .	6200	_	75	380	1.1
56	510	0.83	26.01	п	ш	6500	_	67	425	1.0
	5.0	0.05	20.01			0300		0,	123	
166	172	3.0	8.70	BG50/DHE11MA4	75	5300	_	200	143	3.6
150	191	2.7	9.65	п	II .	5600	-	181	158	3.3
120	235	2.5	12.06	II .	II .	5700	-	145	197	2.9
108	265	2.2	13.36	II	"	6100	-	131	215	2.8
88	325	1.95	16.53	"	"	6500	-	106	270	2.3
79	360	1.75	18.33	"	"	7200	-	95	300	2.1
66	430	1.45	21.96	"	"	8000	-	80	355	1.75
60	475	1.35	24.34	"	"	8700	-	72	395	1.6
49	580	1.1	29.62	"	"	8000	-	59	485	1.3
44	650	0.97	32.84	" "	"	8700	-	53	540	1.15
38.5	740	0.85	37.89			10000	-	46	620	1.0
78	365	3.1	18.62	BG60/DHE11MA4	107	12400	_	94	300	3.8
65	440	2.7	22.40	BG00/DHETTWA4	"	13300	-	78	365	3.3
59	485	2.5	24.82	п	"	13800	_	71	400	3.0
49.5	570	2.1	29.31	II .	"	14800	_	60	475	2.5
44.5	640	1.9	32.48	"	11	15400	_	54	530	2.3
37.5	760	1.6	38.85	m m	II .	16000	_	45	630	1.9
33.5	850	1.4	43.05	"	II .	16000	_	40.5	700	1.7
29	980	1.2	50.31	m .	II .	16000	-	35	810	1.5
26	1100	1.1	55.76	"	11	16000	-	31.5	900	1.35
24	1190	1.0	60.90	"	II .	16000	-	29	980	1.2
21.5	1330	0.9	67.49	"	"	16000	-	26	1100	1.1
19.5	1460	0.82	75.71	BG60Z/DHE11MA4	123	16000	-	23	1240	0.97
41	690	3.3	35.24	BG70/DHE11MA4	138	18300	-	49.5	570	4.0
37	770	3.0	39.22	"	"	19100	-	44.5	640	3.6
31	920	2.5	46.54	" "	"	20000	-	37.5	760	3.0
29	980	2.3	50.40	" "	"	20000	-	35	810	2.8
24.5	1160	2.0	59.82			20000	-	29.5	970	2.4
22.5 20	1270 1430	1.8 1.6	64.85 73.82	BG70Z/DHE11MA4	164	20000 20000	-	27 24	1060 1190	2.2 1.95
16.5	1730	1.35	73.82 87.61	"	"	20000	-	20	1430	1.95
10.5	1/30	1.33	07.01			20000	-	20	1430	1.0

Selection helical-geared motors DHE - IE2

P = 3 kW



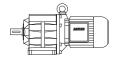
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
15.5	1840	1.25	95.74	BG70Z/DHE11MA4	"	20000	-	18.5	1540	1.5
13	2200	1.05	113.6	TI TI	"	20000	-	15.5	1840	1.25
12	2350	0.98	124.0	II .	"	20000	-	14.5	1970	1.15
22	1300	3.2	66.40	BG80Z/DHE11MA4	234	26000	_	26.5	1080	3.9
20	1430	2.9	73.73	BG002/DHETTWA4	23 4	26000	_	24	1190	3.5
17.5	1630	2.9	73.73 84.55	п	"	26000	-	21	1360	3.5 3.1
15.5				11	"		-		1500	
	1840	2.3	93.89	"	"	26000	-	19		2.8
13	2200	1.9	112.4	"		26000	-	15.5	1840	2.3
12	2350	1.8	124.8	"	11	26000	-	14	2000	2.1
10	2850	1.45	145.4	"	"	26000	-	12	2350	1.8
9.0	3150	1.35	161.5		"	26000	-	11	2600	1.6
7.8	3650	1.15	186.8		"	26000	-	9.4	3000	1.4
7.0	4050	1.05	207.4			26000	-	8.4	3400	1.25
6.4	4150	1.1	227.2	BG80G40/DHE11MA4	242	26000	-	7.7	3400	1.35
5.8	4600	1.0	252.3		"	26000	-	6.9	3800	1.2
5.1	5300	0.87	282.8	"	"	26000	-	6.2	4300	1.05
10.5	2700	3.1	139.2	BG90Z/DHE11MA4	336	65000	_	12.5	2250	3.7
8.9	3200	2.6	163.0	m .	II .	65000	-	11	2600	3.2
8.1	3500	2.4	178.5	m .	II .	65000	_	9.8	2900	2.9
7.0	4050	2.1	208.3	m m	11	65000	_	8.4	3400	2.5
6.4	4450	1.9	228.1	m .	II .	65000	_	7.7	3700	2.3
5.5	4750	1.95	262.5	BG90G50/DHE11MA4	353	65000	_	6.7	3850	2.4
4.9	5500	1.65	298.8	m .	II .	65000	_	5.9	4550	2.0
4.0	6600	1.4	360.3	m .	11	65000	_	4.9	5300	1.75
3.4	8000	1.15	435.8	m .	II .	65000	_	4.0	6700	1.35
2.9	9300	0.99	504.7	m .	II .	65000	_	3.5	7700	1.2
2.5	10800	0.85	588.8	II .	"	65000	-	3.0	8900	1.05
5.6	5100	3.3	259.0	BG100/DHE11MA4	453	90000		6.8	4200	4.0
4.8	5900	3.1	300.4	BG100Z/DHE11MA4	543	90000	_	5.8	4900	3.8
4.2	6800	2.7	343.6	" "	J T J	90000	_	5.1	5600	3.3
3.8	7500	2.5	382.6	"	"	90000		4.6	6200	3.0
3.2	8900	2.1	456.7	"	"	90000	_	3.9	7300	2.5
2.9	9800	1.9	508.5	"	"	90000	-	3.5	8100	2.3
2.5	11400	1.6	591.1	"	"	90000	-	3.0	9500	2.3 1.95
2.2				"	"			2.7		
	13000	1.4	658.1	11	"	90000	-		10600	1.75
1.9	15000	1.25	759.0		"	90000	-	2.3	12400	1.5
1.8	15900	1.15	845.1			90000	-	2.1	13600	1.35
1.5	17500	1.05	976.1	BG100G50/DHE11MA4	540	90000	-	1.8	14300	1.3
1.4	19000	0.97	1043	"	"	90000	-	1.7	15400	1.2
1.2	22200	0.83	1204	"	"	90000	-	1.5	17400	1.05

P = 4 kW

	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B		. .				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
540	70	1.85	2.67	BG30/DHE11LA4	58	1450	-	660	57	2.2
425	89	1.55	3.40	"	II .	1580	-	520	73	1.9
345	110	1.55	4.21	"	II .	1630	-	415	92	1.85
265	144	1.4	5.44	"	"	1670	-	320	119	1.7
215	177	1.25	6.75	"	"	1760	-	260	146	1.5
183	205	1.05	7.91	"	II .	1760	-	220	173	1.25
168	225	1.1	8.60	"	"	2800	-	205	186	1.3
151	250	1.0	9.55	"	"	3000	-	183	205	1.25
136	280	0.95	10.65	"	"	2950	-	164	230	1.15
122	310	0.88	11.82	"	"	3200	-	148	255	1.05
105	360	0.82	13.77	11	"	3150	-	127	300	0.98
590	64	3.2	2.46	BG40/DHE11LA4	77	2150	-	710	53	3.8
455	83	2.7	3.19	"	II .	2350	-	550	69	3.2
365	104	2.3	3.97	"	"	2400	-	440	86	2.8

Selection helical-geared motors DHE - IE2

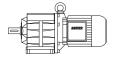
P = 4 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	ı	туре	m	F _{RN}	F _{RV}	n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	-6			kg	N	N	1/min	Nm	- 6
295	129	2.1	4.94	BG40/DHE11LA4	"	2450	-	355	107	2.5
230	166	1.8	6.29	n n	"	2600	-	280	136	2.2
189	200	1.5	7.62	n n	"	2650	-	230	166	1.8
174	215	1.6	8.31	"	"	4100	-	210	181	1.9
157	240	1.5	9.23	"	"	4350	-	189	200	1.8
140	270	1.4	10.35	"	"	4350	-	169	225	1.65
126	300	1.3	11.49	"	"	4600	-	152	250	1.55
112	340	1.2	12.86	"	"	4500	-	136	280	1.45
101	375	1.1	14.28	"	"	4900	-	122	310	1.35
88	430	0.99	16.39	"	"	5300	-	107	355	1.2
80	475	0.89	18.19	"	"	5600	-	96	395	1.1
73	520	0.82	19.84	"	"	5800	-	88	430	0.99
295	129	3.1	4.91	BG50/DHE11LA4	86	3500	_	355	107	3.7
215	177	2.6	6.74	II .	II .	3750	_	260	146	3.1
166	230	2.2	8.70	II .	II .	5300	-	200	191	2.7
150	250	2.1	9.65	II .	II .	5600	_	181	210	2.5
120	315	1.85	12.06	II .	II .	5700	-	145	260	2.2
108	350	1.7	13.36	m m	II .	6100	-	131	290	2.0
88	430	1.45	16.53	m m	II .	6500	-	106	360	1.75
79	480	1.3	18.33	m m	II .	7200	-	95	400	1.6
66	570	1.1	21.96	"	II .	8000	-	80	475	1.35
60	630	1.0	24.34	m m	"	8700	-	72	530	1.2
49	770	0.82	29.62	"	"	8000	-	59	640	0.98
119	320	3.1	12.16	BG60/DHE11LA4	119	10800	_	144	265	3.7
107	355	2.9	13.47	"	"	11200	_	130	290	3.5
86	440	2.5	16.80	п	II .	12000	_	104	365	3.0
78	485	2.4	18.62	п	II .	12400	_	94	405	2.8
65	580	2.1	22.40	п	II .	13300	_	78	485	2.5
59	640	1.9	24.82	п	II .	13800	-	71	530	2.3
49.5	770	1.55	29.31	п	II .	14800	-	60	630	1.9
44.5	850	1.4	32.48	п	II .	15400	-	54	700	1.7
37.5	1010	1.2	38.85	m .	II .	16000	-	45	840	1.45
33.5	1140	1.05	43.05	m .	II .	16000	-	40.5	940	1.3
29	1310	0.92	50.31	"	II .	16000	-	35	1090	1.1
26	1460	0.82	55.76	II	II .	16000	-	31.5	1210	0.99
53	720	3.2	27.21	BG70/DHE11LA4	149	16400	_	64	590	3.9
49	770	3.0	29.69	"	"	16900	_	59	640	3.6
41	930	2.5	35.24	TI .	11	18300	_	49.5	770	3.0
37	1030	2.2	39.22	п	11	19100	_	44.5	850	2.7
31	1230	1.85	46.54	II .	II .	20000	_	37.5	1010	2.3
29	1310	1.75	50.40	TI TI	"	20000	-	35	1090	2.1
24.5	1550	1.5	59.82	II	II .	20000	-	29.5	1290	1.8
22.5	1690	1.35	64.85	BG70Z/DHE11LA4	176	20000	-	27	1410	1.65
20	1910	1.2	73.82	п	"	20000	-	24	1590	1.45
16.5	2300	1.0	87.61	п	"	20000	-	20	1910	1.2
15.5	2450	0.94	95.74	"	"	20000	-	18.5	2050	1.1
30	1270	3.3	48.80	BG80/DHE11LA4	204	23800	_	36	1060	4.0
25.5	1490	2.8	57.24	II .	"	25400	-	30.5	1250	3.4
23	1660	2.5	63.56	п	II .	26000	-	27.5	1380	3.0
22	1730	2.4	66.40	BG80Z/DHE11LA4	246	26000	-	26.5	1440	2.9
20	1910	2.2	73.73	n n	II .	26000	-	24	1590	2.6
17.5	2150	1.95	84.55	n	11	26000	-	21	1810	2.3
15.5	2450	1.7	93.89	п	II .	26000	-	19	2000	2.1
13	2900	1.45	112.4	m .	II .	26000	-	15.5	2450	1.7
12	3150	1.35	124.8	n n	"	26000	-	14	2700	1.55
10	3800	1.1	145.4	"	"	26000	-	12	3150	1.35
9.0	4200	1.0	161.5	"	"	26000	-	11	3450	1.2
7.8	4850	0.87	186.8	"	"	26000	-	9.4	4050	1.05
6.4	5600	0.82	227.2	BG80G40/DHE11LA4	254	26000	-	7.7	4650	0.99

Selection helical-geared motors DHE - IE2

P = 4 kW



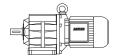
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
14	2700	3.1	105.7	BG90Z/DHE11LA4	348	65000	-	16.5	2300	3.7
11.5	3300	2.5	127.1	II	"	65000	-	14	2700	3.1
10.5	3600	2.3	139.2	"	"	65000	-	12.5	3050	2.8
8.9	4250	2.0	163.0	"	"	65000	-	11	3450	2.4
8.1	4700	1.8	178.5	"	"	65000	-	9.8	3850	2.2
7.0	5400	1.55	208.3	"	"	65000	-	8.4	4500	1.85
6.4	5900	1.4	228.1	"	"	65000	-	7.7	4950	1.7
5.5	6500	1.4	262.5	BG90G50/DHE11LA4	365	65000	-	6.7	5200	1.75
4.9	7500	1.25	298.8	"	"	65000	-	5.9	6100	1.5
4.0	9000	1.0	360.3	"	"	65000	-	4.9	7300	1.25
3.4	10800	0.85	435.8	"	II .	65000	-	4.0	9100	1.0
7.3	5200	3.2	198.8	BG100/DHE11LA4	465	90000	-	8.8	4300	3.9
6.2	6100	2.8	232.6	"	II .	90000	-	7.5	5000	3.4
5.6	6800	2.5	259.0	"	II .	90000	-	6.8	5600	3.0
5.4	7000	2.6	269.8	BG100Z/DHE11LA4	555	90000	-	6.5	5800	3.2
4.8	7900	2.3	300.4	"	"	90000	-	5.8	6500	2.8
4.2	9000	2.1	343.6	"	"	90000	-	5.1	7400	2.5
3.8	10000	1.85	382.6	"	"	90000	-	4.6	8300	2.2
3.2	11900	1.55	456.7	"	II .	90000	-	3.9	9700	1.9
2.9	13100	1.4	508.5	"	II .	90000	-	3.5	10900	1.7
2.5	15200	1.2	591.1	"	II .	90000	-	3.0	12700	1.45
2.2	17300	1.05	658.1	"	II .	90000	-	2.7	14100	1.3
1.9	20100	0.92	759.0	"	II .	90000	-	2.3	16600	1.1
1.8	21200	0.87	845.1		"	90000	-	2.1	18100	1.0

P = 5.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
550	95	1.35	2.67	BG30/DHE11LA4C	62	1450	-	660	79	1.6
430	122	1.15	3.40	"	"	1580	-	520	101	1.4
350	150	1.15	4.21	"	"	1630	-	420	125	1.35
270	194	1.05	5.44	"	"	1670	-	325	161	1.25
220	235	0.92	6.75	"	"	1760	-	265	198	1.1
170	305	0.81	8.60	"	"	2800	-	205	255	0.96
600	87	2.3	2.46	BG40/DHE11LA4C	81	2150	-	720	72	2.8
460	114	1.95	3.19	"	"	2350	-	560	93	2.4
370	141	1.75	3.97	m m	"	2400	-	445	118	2.1
300	175	1.55	4.94	m m	"	2450	-	360	145	1.85
235	220	1.35	6.29	"	"	2600	-	280	187	1.6
192	270	1.1	7.62	"	"	2650	-	235	220	1.35
176	295	1.15	8.31	"	"	4100	-	215	240	1.45
163	320	0.92	9.00	"	"	2650	-	196	265	1.1
159	330	1.1	9.23	"	"	4350	-	191	275	1.3
142	365	1.05	10.35	"	"	4350	-	171	305	1.25
128	410	0.95	11.49	"	"	4600	-	154	340	1.15
114	460	0.89	12.86	"	"	4500	-	137	380	1.1
103	500	0.84	14.28	II	"	4900	-	124	420	1.0
415	126	2.8	3.55	BG50/DHE11LA4C	90	3300	-	500	105	3.3
300	175	2.3	4.91	"	"	3500	-	360	145	2.7
220	235	1.9	6.74	"	"	3750	-	265	198	2.3
168	310	1.65	8.70	TI TI	II .	5300	-	205	255	2.0
152	345	1.5	9.65	TI TI	"	5600	-	183	285	1.85
122	430	1.35	12.06	TI TI	"	5700	-	146	355	1.6
110	475	1.25	13.36	п	"	6100	-	132	395	1.5
89	590	1.05	16.53	n n	"	6500	-	107	490	1.3
80	650	0.97	18.33	n n	"	7200	-	97	540	1.15
67	780	0.81	21.96	n	"	8000	-	81	640	0.98

Selection helical-geared motors DHE - IE2

P = 5.5 kW

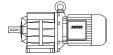


	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	'	Type	111	I RN	I RV	n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	•в			kg	N	N	1/min	Nm	ı,B
215	240	3.3	6.88	BG60/DHE11LA4C	123	8600	-	260	200	3.9
160	325	2.7	9.13	"	"	9800	_	193	270	3.3
145	360	2.5	10.12	п	"	10200	_	174	300	3.0
121	430	2.3	12.16	п	II .	10800	_	145	360	2.7
109	480	2.1	13.47	II .	"	11200	-	131	400	2.6
87	600	1.85	16.80	II .	"	12000	-	105	500	2.2
79	660	1.75	18.62	"	II .	12400	-	95	550	2.1
66	790	1.5	22.40	"	II .	13300	-	79	660	1.8
59	890	1.35	24.82	п	"	13800	-	71	730	1.65
50	1050	1.15	29.31	"	"	14800	-	61	860	1.4
45	1160	1.05	32.48	"	"	15400	-	55	950	1.25
38	1380	0.87	38.85	"	"	16000	-	45.5	1150	1.05
70	750	3.1	20.98	BG70/DHE11LA4C	153	14600	-	84	620	3.7
64	820	2.8	22.92	" "	"	15100	-	77	680	3.4
54	970	2.4	27.21	"	"	16400	-	65	800	2.9
49.5	1060	2.2	29.69		"	16900	-	60	870	2.6
41.5	1260	1.85	35.24	п		18300	-	50	1050	2.2
37.5	1400	1.65	39.22	п		19100	-	45	1160	2.0
31.5 29	1660 1810	1.4 1.25	46.54 50.40	п	"	20000 20000	-	38 35	1380 1500	1.65 1.55
24.5	2100	1.23	59.82	п	"	20000	-	29.5	1780	1.33
23	2250	1.0	64.85	BG70Z/DHE11LA4C	180	20000	_	27.5	1910	1.2
20	2600	0.88	73.82	"	"	20000	_	24	2150	1.05
20	2000	0.00	75.02			20000		24	2130	1.05
38.5	1360	3.1	38.00	BG80/DHE11LA4C	208	21300	_	46.5	1120	3.8
33.5	1560	2.7	43.94	"	"	22600	_	40.5	1290	3.3
30	1750	2.4	48.80	п	"	23800	_	36.5	1430	2.9
26	2000	2.1	57.24	п	II .	25400	_	31	1690	2.5
23	2250	1.85	63.56	II .	II .	26000	-	28	1870	2.2
22	2350	1.8	66.40	BG80Z/DHE11LA4C	250	26000	-	27	1940	2.2
20	2600	1.6	73.73	II .	"	26000	-	24	2150	1.95
17.5	3000	1.4	84.55	п	"	26000	-	21	2500	1.7
16	3250	1.3	93.89	п	"	26000	-	19	2750	1.55
13	4000	1.05	112.4	"	II	26000	-	16	3250	1.3
12	4350	0.97	124.8	"	"	26000	-	14.5	3600	1.15
10.5	5000	0.84	145.4	"	"	26000	-	12.5	4200	1.0
10.5	2450		76.61	DC007 /DUE111 A4C	252	65000		22	2250	2.7
19.5	2650	3.2	76.61	BG90Z/DHE11LA4C	352	65000	-	23	2250	3.7
17.5	3000	2.8	83.91			65000	-	21	2500	3.4
15.5 14	3350 3750	2.5	96.53 105.7	п	"	65000 65000	-	18.5 17	2800 3050	3.0 2.8
11.5	4550	1.85	127.1	II .	"	65000	_	14	3750	2.2
10.5	5000	1.7	139.2	II .	"	65000	_	13	4000	2.1
9.0	5800	1.45	163.0	п	II .	65000	_	11	4750	1.75
8.2	6400	1.3	178.5	m .	11	65000	-	9.9	5300	1.6
7.1	7300	1.15	208.3	II .	II .	65000	-	8.5	6100	1.4
6.5	8000	1.05	228.1	"	II .	65000	-	7.8	6700	1.25
5.6	8900	1.05	262.5	BG90G50/DHE11LA4C	369	65000	-	6.8	7200	1.3
4.9	10400	0.88	298.8	m m	"	65000	-	5.9	8600	1.05
9.5	5500	3.1	154.8	BG100/DHE11LA4C	469	90000	-	11.5	4550	3.7
8.2	6400	2.6	178.6		"	90000	-	9.9	5300	3.2
7.4	7000	2.4	198.8		"	90000	-	8.9	5900	2.8
6.3	8300	2.0	232.6		"	90000	-	7.6	6900 7700	2.4
5.7 5.5	9200 9500	1.85 1.95	259.0 269.8	BG100Z/DHE11LA4C	559	90000 90000	-	6.8 6.6	7700 7900	2.2 2.3
4.9	9500 10700	1.75	269.8 300.4	BG1002/DHE11LA4C	559 "	90000	-	5.9	8900	2.3
4.3	12200	1.75	343.6	m .	II .	90000	-	5.9	10100	1.85
3.9	13400	1.4	382.6	m m	ш	90000	_	4.7	11100	1.65
3.2	16400	1.15	456.7	m .	II .	90000	_	3.9	13400	1.4
2.9	18100	1.0	508.5	m .	II .	90000	_	3.5	15000	1.25
2.5	21000	0.88	591.1	"	II .	90000	_	3.0	17500	1.05
2.3	22800	0.81	658.1	n .	II .	90000	_	2.7	19400	0.95
		0.01	550.1			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			12100	0.73

BG-series helical-geared motors

Selection helical-geared motors DHE - IE2

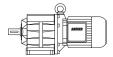
P = 7.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	'	Type	111	I RN	I RV	n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	•в			kg	N	N	1/min	Nm	ı,B
600	119	2.6	2.47	BG50/DHE13LA4	101	2900	-	720	99	3.1
415	172	2.0	3.55	"	101	3300	_	500	143	2.4
300	235	1.7	4.91	n .	11	3500	_	360	198	2.4
220	325	1.4	6.74	"	11	3750	_	265	270	1.65
168	425	1.2	8.70	n .	11	5300	_	205	345	1.45
152	470	1.1	9.65	"	11	5600	_	183	390	1.35
122	580	0.99	9.65 12.06	п	"	5700		146	490	
110	650	0.99	13.36	n n	"	6100	-	132	540	1.2 1.1
110	030	0.91	13.30			6100	-	132	340	1.1
295	240	2.9	4.98	BG60/DHE13LA4	135	7800	_	355	200	3.4
215	330	2.4	6.88	" "	"	8600	_	260	275	2.8
160	445	2.0	9.13	"	11	9800	_	193	370	2.4
145	490	1.85	10.12	п	"	10200	_	174	410	2.7
121	590	1.7	12.16	"	11	10200		145	490	2.0
109	650	1.55	13.47	"	"	11200	_	131	540	1.9
87	820	1.35	16.80	п	"	12000		105	680	1.65
79	900		18.62	п	"		-	95	750	1.55
		1.25	22.40	п	"	12400				
66	1080	1.1		п	"	13300	-	79 71	900	1.35
59	1210	0.99	24.82	п	"	13800	-	71	1000	1.2
50	1430	0.84	29.31			14800	-	61	1170	1.05
O.F.	750	2 1	15 52	PG70 /DHE131 A4	165	12700		114	620	27
95 83	750 860	3.1 2.7	15.53 17.68	BG70/DHE13LA4	165	12700 13400	-	114 100	620 710	3.7 3.2
70	1020		20.98	п	"	14600		84	850	2.7
		2.3		11	"	15100	-			
64	1110	2.1	22.92	п	"		-	77	930	2.5
54	1320	1.75	27.21	п	"	16400	-	65	1100	2.1
49.5	1440	1.6	29.69	"	"	16900	-	60	1190	1.95
41.5	1720	1.35	35.24	п	"	18300	-	50	1430	1.6
37.5	1910	1.2	39.22		"	19100	-	45	1590	1.45
31.5	2250	1.0	46.54		"	20000	-	38	1880	1.2
29	2450	0.94	50.40			20000	-	35	2000	1.15
56	1270	2.2	26.44	BG80/DHE13LA4	210	17900	_	67	1060	4.0
50	1430	3.3 2.9	26.44 29.36	BG60/DHE13LA4	219	18900	-	60	1190	4.0 3.5
43	1660	1	34.22	п	"	20200		52	1370	3.1
		2.5		п	"		-			
38.5	1860	2.3	38.00	п	"	21300	-	46.5	1540	2.7
33.5	2100	2.0	43.94	11	"	22600	-	40.5	1760	2.4
30	2350	1.8	48.80	п	"	23800	-	36.5	1960	2.1
26	2750	1.55	57.24	п	"	25400	-	31	2300	1.85
23	3100	1.35	63.56			26000	-	28	2550	1.65
22	3250	1.3	66.40	BG80Z/DHE13LA4	262	26000	-	27	2650	1.6
20	3550	1.2	73.73	п	"	26000	-	24	2950	1.4
17.5	4050	1.05	84.55		"	26000	-	21	3400	1.25
16	4450	0.94	93.89			26000	-	19	3750	1.1
27.5	2600	3.2	53.46	BG90/DHE13LA4	308	65000		33	2150	3.9
26	2750	2.5	55.46 57.04	BG90Z/DHE13LA4	364	65000	-	31	2300	3.9
23.5	3000	2.5	62.47	BG902/DHE13LA4	30 4	65000	_	28.5	2500	3.0
19.5	3650	2.3	76.61	n .	"	65000		23	3100	2.7
				n n	"		-	21		
17.5	4050	2.1	83.91	11	"	65000	-		3400	2.5
15.5	4600	1.85	96.53	п	"	65000	-	18.5	3850	2.2
14	5100	1.65	105.7	" "	"	65000	-	17	4200	2.0
11.5	6200	1.35	127.1	п	"	65000	-	14	5100	1.65
10.5	6800	1.25	139.2	п	"	65000	-	13	5500	1.55
9.0	7900	1.05	163.0	" "	"	65000	-	11	6500	1.3
8.2	8700	0.97	178.5	" "	"	65000	-	9.9	7200	1.15
7.1	10000	0.84	208.3			65000	-	8.5	8400	1.0
6.7	10300	0.89	219.9	BG90G50/DHE13LA4	380	65000	-	8.1	8500	1.1
14	5100	3.3	107.5	BG100/DHE13LA4	480	90000	_	16.5	4300	3.9
12.5				BG100/DHE13LA4	480	90000		15.5		3.5
	5700 6800	2.9	119.7	п	"		-		4750	
10.5	6800	2.5	139.1	" "	"	90000	-	13	5500	3.1
9.5	7500	2.2	154.8	" "	"	90000	-	11.5	6200	2.7
8.2	8700	1.95	178.6	" "	"	90000	-	9.9	7200	2.3
7.4	9600	1.75	198.8		**	90000	-	8.9	8000	2.1

Selection helical-geared motors DHE - IE2

P = 7.5 kW



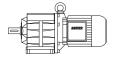
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
6.3	11300	1.5	232.6	BG100/DHE13LA4	"	90000	-	7.6	9400	1.8
5.7	12500	1.35	259.0	"	"	90000	-	6.8	10500	1.6
5.5	13000	1.4	269.8	BG100Z/DHE13LA4	571	90000	-	6.6	10800	1.7
4.9	14600	1.25	300.4	"	"	90000	-	5.9	12100	1.55
4.3	16600	1.1	343.6	"	"	90000	-	5.2	13700	1.35
3.9	18300	1.0	382.6	"	"	90000	-	4.7	15200	1.2
3.2	22300	0.83	456.7	· ·	II .	90000	-	3.9	18300	1.0

P = 9.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	•	.,,,,		• KN	• KV	n ₂	M ₂	f _B
1/min	Nm	•в			kg	N	N	1/min	Nm	ı,B
600	151	2.0	2.47	BG50/DHE16MA4	146	2900	-	720	126	2.4
415	215	1.6	3.55	"	"	3300	_	500	181	1.9
300	300	1.35	4.91	п	ш	3500	_	365	245	1.6
220	410	1.1	6.74	п	ш	3750	_	265	340	1.35
169	530	0.96	8.70	п	ш	5300	_	205	440	1.15
153	590	0.89	9.65	п	II .	5600	_	184	490	1.05
133	330	0.05	7.05			3000		104	430	1.05
395	225	2.7	3.74	BG60/DHE16MA4	180	7100	-	475	191	3.2
300	300	2.3	4.98	"	"	7800	-	360	250	2.8
215	420	1.85	6.88	"	"	8600	-	260	345	2.3
162	560	1.6	9.13	"	"	9800	-	194	465	1.9
146	620	1.45	10.12	"	II .	10200	-	175	510	1.8
121	740	1.35	12.16	"	II .	10800	-	146	620	1.6
110	820	1.25	13.47	"	"	11200	-	132	680	1.5
88	1030	1.1	16.80	"	II .	12000	-	106	850	1.3
79	1140	1.0	18.62	"	II .	12400	-	96	940	1.2
66	1370	0.88	22.40	"	"	13300	-	80	1130	1.05
123	730	3.2	11.97	BG70/DHE16MA4	214	11200	_	148	610	3.8
113	800	2.9	13.08	"	Z 1 T	11600	_	136	660	3.5
95	950	2.4	15.53	п	11	12700	_	114	790	2.9
84	1080	2.1	17.68	п	11	13400	_	101	890	2.6
71	1270	1.8	20.98	п	II .	14600	_	85	1060	2.2
65	1390	1.65	22.92	п	11	15100	_	78	1160	2.0
55	1640	1.4	27.21	п	II .	16400	_	66	1370	1.7
50	1810	1.25	29.69	п	II .	16900	_	60	1510	1.5
42	2150	1.05	35.24	п	II .	18300	_	51	1770	1.3
37.5	2400	0.96	39.22	п	II .	19100	_	45.5	1990	1.15
32	2800	0.82	46.54	m .	ıı .	20000	-	38.5	2350	0.98
67	1350	3.1	22.09	BG80/DHE16MA4	264	16500	-	81	1120	3.8
56	1620	2.6	26.44	"	"	17900	-	67	1350	3.1
51	1770	2.4	29.36	"	"	18900	-	61	1480	2.8
43	2100	2.0	34.22	"	"	20200	-	52	1740	2.4
39	2300	1.85	38.00	"	"	21300	-	47	1930	2.2
33.5	2700	1.55	43.94	"	"	22600	-	40.5	2200	1.9
30.5	2950	1.4	48.80	"	"	23800	-	36.5	2450	1.7
26	3450	1.2	57.24	"	"	25400	-	31	2900	1.45
23.5	3850	1.1	63.56	"	II .	26000	-	28	3200	1.3
22.5	4000	1.05	66.40	BG80Z/DHE16MA4	307	26000	-	27	3350	1.25
20	4500	0.93	73.73			26000	-	24.5	3700	1.15
17.5	5100	0.82	84.55	"	"	26000	-	21	4300	0.98
35.5	2550	3.3	41.85	BG90/DHE16MA4	354	65000	_	42.5	2100	4.0
30.5	2950	2.8	48.82	II .	II.	65000	-	36.5	2450	3.4
27.5	3250	2.6	53.46	m .	II .	65000	-	33.5	2700	3.1
26	3450	1.95	57.04	BG90Z/DHE16MA4	413	65000	-	31.5	2850	2.4
24	3750	2.0	62.47	"	"	65000	_	28.5	3150	2.4
124	3/30	2.0	02.47			03000	-	20.3	2130	2.4

Selection helical-geared motors DHE - IE2

P = 9.5 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
19.5	4650	1.8	76.61	BG90Z/DHE16MA4	"	65000	-	23.5	3850	2.2
18	5000	1.7	83.91	"	"	65000	-	21.5	4200	2.0
15.5	5800	1.45	96.53	"	"	65000	-	18.5	4900	1.7
14	6400	1.3	105.7	"	"	65000	-	17	5300	1.6
12	7500	1.1	127.1	"	"	65000	-	14	6400	1.3
11	8200	1.0	139.2	"	"	65000	-	13	6900	1.2
9.1	9900	0.85	163.0	II	"	65000	-	11	8200	1.0
16.5	5400	3.1	90.02	BG100/DHE16MA4	524	90000	-	20	4500	3.7
14	6400	2.6	107.5	"	"	90000	-	16.5	5400	3.1
12.5	7200	2.3	119.7	"	"	90000	-	15	6000	2.8
11	8200	2.0	139.1	"	"	90000	-	13	6900	2.4
9.5	9500	1.75	154.8	"	"	90000	-	11.5	7800	2.2
8.3	10900	1.55	178.6	"	"	90000	-	10	9000	1.85
7.4	12200	1.4	198.8	"	"	90000	-	9.0	10000	1.7
6.4	14100	1.2	232.6	"	"	90000	-	7.7	11700	1.45
5.7	15900	1.05	259.0	"	"	90000	-	6.9	13100	1.3
5.5	16400	1.15	269.8	BG100Z/DHE16MA4	616	90000	-	6.6	13700	1.35
4.9	18500	1.0	300.4	"	"	90000	-	5.9	15300	1.2
4.3	21000	0.88	343.6	"	"	90000	-	5.2	17400	1.05
3.9	23200	0.8	382.6		"	90000	-	4.7	19300	0.96

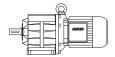
P = 11 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B					***	n ₂	M ₂	f _B
1/min	Nm	-			kg	N	N	1/min	Nm	_
600	175	1.75	2.47	BG50/DHE16LA4	159	2900	-	720	145	2.1
415	250	1.4	3.55	II .	II .	3300	-	500	210	1.65
300	350	1.15	4.91	II .	"	3500	-	365	285	1.4
220	475	0.95	6.74	II .	II .	3750	-	265	395	1.15
169	620	0.82	8.70	п	"	5300	-	205	510	1.0
590	178	3.0	2.52	BG60/DHE16LA4	193	6200	-	710	147	3.6
395	265	2.3	3.74	"	"	7100	-	475	220	2.8
300	350	1.95	4.98	"	"	7800	-	360	290	2.4
215	485	1.6	6.88	"	"	8600	-	260	400	1.95
162	640	1.4	9.13	TI .	"	9800	-	194	540	1.65
146	710	1.3	10.12	II .	"	10200	-	175	600	1.5
121	860	1.15	12.16	II .	II .	10800	-	146	710	1.4
110	950	1.05	13.47	II .	II .	11200	-	132	790	1.3
88	1190	0.93	16.80	II .	II .	12000	-	106	990	1.1
79	1320	0.87	18.62	п	"	12400	-	96	1090	1.05
146	710	3.2	10.09	BG70/DHE16LA4	228	10200	-	176	590	3.9
123	850	2.7	11.97	"	"	11200	-	148	700	3.3
113	920	2.5	13.08	u u	"	11600	-	136	770	3.0
95	1100	2.1	15.53	· ·	"	12700	-	114	920	2.5
84	1250	1.85	17.68	"	"	13400	-	101	1040	2.2
71	1470	1.55	20.98	II .	"	14600	-	85	1230	1.85
65	1610	1.45	22.92	"	"	15100	-	78	1340	1.7
55	1910	1.2	27.21	"	"	16400	-	66	1590	1.45
50	2100	1.1	29.69	II .	"	16900	-	60	1750	1.3
42	2500	0.92	35.24	"	"	18300	-	51	2050	1.1
37.5	2800	0.82	39.22	II	II	19100	-	45.5	2300	1.0
74	1410	3.0	19.89	BG80/DHE16LA4	276	15500	-	89	1180	3.6
67	1560	2.7	22.09	"	II .	16500	-	81	1290	3.3
56	1870	2.2	26.44	11	II	17900	-	67	1560	2.7
51	2050	2.0	29.36	11	II	18900	-	61	1720	2.4
43	2400	1.75	34.22	11	II	20200	-	52	2000	2.1
39	2650	1.6	38.00	II .	II .	21300	-	47	2200	1.9
33.5	3100	1.35	43.94	II .	II	22600	-	40.5	2550	1.65
30.5	3400	1.25	48.80	II .	II	23800	-	36.5	2850	1.45
26	4000	1.05	57.24	II .	II .	25400	-	31	3350	1.25
23.5	4450	0.94	63.56	"	II .	26000	_	28	3750	1.1



Selection helical-geared motors DHE - IE2

P = 11 kW



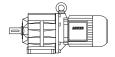
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
22.5	4650	0.9	66.40	BG80Z/DHE16LA4	320	26000	-	27	3850	1.1
20	5200	0.81	73.73	"	"	26000	-	24.5	4250	0.99
38.5	2700	3.1	38.21	BG90/DHE16LA4	367	65000	-	46.5	2250	3.7
35.5	2950	2.8	41.85	"	"	65000	-	42.5	2450	3.4
30.5	3400	2.5	48.82	"	II .	65000	-	36.5	2850	2.9
27.5	3800	2.2	53.46	"	II .	65000	-	33.5	3100	2.7
26	4000	1.7	57.04	BG90Z/DHE16LA4	426	65000	-	31.5	3300	2.1
24	4350	1.7	62.47	"	"	65000	-	28.5	3650	2.1
19.5	5300	1.6	76.61	"	"	65000	-	23.5	4450	1.9
18	5800	1.45	83.91	"	"	65000	-	21.5	4850	1.75
15.5	6700	1.25	96.53	m .	"	65000	-	18.5	5600	1.5
14	7500	1.1	105.7	"	"	65000	-	17	6100	1.4
12	8700	0.97	127.1	m .	"	65000	-	14	7500	1.1
11	9500	0.88	139.2	"	"	65000	-	13	8000	1.05
21	5000	3.2	70.69	BG100/DHE16LA4	538	90000	-	25.5	4100	3.9
18.5	5600	3.0	80.85	"	II .	90000	-	22	4750	3.5
16.5	6300	2.7	90.02	"	II .	90000	-	20	5200	3.2
14	7500	2.2	107.5	"	II .	90000	-	16.5	6300	2.7
12.5	8400	2.0	119.7	"	II .	90000	-	15	7000	2.4
11	9500	1.75	139.1	"	II .	90000	-	13	8000	2.1
9.5	11000	1.55	154.8	"	II .	90000	-	11.5	9100	1.85
8.3	12600	1.35	178.6	"	II .	90000	-	10	10500	1.6
7.4	14100	1.2	198.8	"	"	90000	-	9.0	11600	1.45
6.4	16400	1.0	232.6	"	"	90000	-	7.7	13600	1.25
5.7	18400	0.91	259.0	"	"	90000	-	6.9	15200	1.1
5.5	19100	0.97	269.8	BG100Z/DHE16LA4	629	90000	-	6.6	15900	1.15
4.9	21400	0.86	300.4	"	II .	90000	-	5.9	17800	1.05

P = 15 kW

	50 Hz		i	Туре	m	F _{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B		• •				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
600	235	1.3	2.47	BG50/DHE16XA4	169	2900	-	720	198	1.55
415	345	1.0	3.55	II	"	3300	-	500	285	1.2
300	475	0.84	4.91	"	II	3500	-	365	390	1.0
590	240	2.2	2.52	BG60/DHE16XA4	203	6200	-	710	200	2.7
395	360	1.7	3.74	"	"	7100	-	475	300	2.0
300	475	1.45	4.98	"	"	7800	-	360	395	1.75
215	660	1.2	6.88	"	"	8600	-	260	550	1.4
162	880	1.0	9.13	"	"	9800	-	194	730	1.2
146	980	0.93	10.12	"	"	10200	-	175	810	1.15
121	1180	0.84	12.16	"	"	10800	-	146	980	1.0
210	680	3.2	7.14	BG70/DHE16XA4	238	8800	-	250	570	3.8
174	820	2.8	8.48	"	"	9500	-	210	680	3.4
146	980	2.3	10.09	"	"	10200	-	176	810	2.8
123	1160	2.0	11.97	"	"	11200	-	148	960	2.4
113	1260	1.85	13.08	"	"	11600	-	136	1050	2.2
95	1500	1.55	15.53	"	"	12700	-	114	1250	1.85
84	1700	1.35	17.68	"	"	13400	-	101	1410	1.65
71	2000	1.15	20.98	"	"	14600	-	85	1680	1.35
65	2200	1.05	22.92	"	"	15100	-	78	1830	1.25
55	2600	0.88	27.21	"	"	16400	-	66	2150	1.05
50	2850	0.81	29.69	"	"	16900	-	60	2350	0.98
95	1500	2.8	15.62	BG80/DHE16XA4	286	13700	-	114	1250	3.4
85	1680	2.5	17.35	m	II .	14600	-	103	1390	3.0
74	1930	2.2	19.89	m	II .	15500	-	89	1600	2.6
67	2100	2.0	22.09	п	II .	16500	-	81	1760	2.4

Selection helical-geared motors DHE - IE2

P = 15 kW



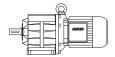
	50 HZ		Į	Type	m	⊢ _{RN}	⊢ _{RV}		60 HZ	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
56	2550	1.65	26.44	BG80/DHE16XA4	"	17900	-	67	2100	2.0
51	2800	1.5	29.36	"	II .	18900	-	61	2300	1.85
43	3300	1.25	34.22	n n	II .	20200	-	52	2750	1.55
39	3650	1.15	38.00	n n	II .	21300	-	47	3000	1.4
33.5	4250	0.99	43.94	"	II .	22600	-	40.5	3500	1.2
30.5	4650	0.9	48.80	II	"	23800	-	36.5	3900	1.1
49.5	2850	2.9	29.78	BG90/DHE16XA4	377	65000	-	60	2350	3.6
45.5	3100	2.7	32.62	ıı .	II .	65000	-	55	2600	3.2
38.5	3700	2.3	38.21	"	"	65000	-	46.5	3050	2.8
35.5	4000	2.1	41.85	"	"	65000	-	42.5	3350	2.5
30.5	4650	1.8	48.82	"	"	65000	-	36.5	3900	2.2
27.5	5200	1.6	53.46	"	II .	65000	-	33.5	4250	2.0
26	5500	1.25	57.04	BG90Z/DHE16XA4	436	65000	-	31.5	4500	1.5
24	5900	1.25	62.47	"	II .	65000	-	28.5	5000	1.5
19.5	7300	1.15	76.61	"	"	65000	-	23.5	6000	1.4
18	7900	1.05	83.91	"	"	65000	-	21.5	6600	1.25
15.5	9200	0.91	96.53	"	"	65000	-	18.5	7700	1.1
14	10200	0.82	105.7	II	"	65000	-	17	8400	1.0
32	4450	3.2	46.43	BG100/DHE16XA4	548	90000	-	38.5	3700	3.8
28.5	5000	2.9	51.70	"	II .	90000	-	34.5	4150	3.5
23.5	6000	2.6	63.49	"	"	90000	-	28	5100	3.0
21	6800	2.3	70.69	"	"	90000	-	25.5	5600	2.8
18.5	7700	2.1	80.85	"	"	90000	-	22	6500	2.5
16.5	8600	1.95	90.02	"	"	90000	-	20	7100	2.4
14	10200	1.65	107.5	"	"	90000	-	16.5	8600	1.95
12.5	11400	1.45	119.7	"	"	90000	-	15	9500	1.75
11	13000	1.3	139.1	"	"	90000	-	13	11000	1.55
9.5	15000	1.1	154.8	"	"	90000	-	11.5	12400	1.35
8.3	17200	0.98	178.6	"	"	90000	-	10	14300	1.15
7.4	19300	0.87	198.8	"	"	90000	-	9.0	15900	1.05

P = 18.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
600	290	1.05	2.47	BG50/DHE18LA4	237	2900	-	720	245	1.25
415	425	0.82	3.55	"	"	3300	-	500	350	0.99
590	295	1.8	2.52	BG60/DHE18LA4	266	6200	-	710	245	2.2
395	445	1.4	3.74	II	"	7100	-	475	370	1.65
300	580	1.2	4.98	II	"	7800	-	360	490	1.4
215	820	0.95	6.88	"	"	8600	-	260	670	1.15
162	1090	0.81	9.13	"	II .	9800	-	194	910	0.98
300	580	2.6	4.95	BG70/DHE18LA4	294	6900	-	360	490	3.1
255	690	2.5	5.87	II	"	8200	-	305	570	3.1
210	840	2.6	7.14	"	"	8800	-	250	700	3.1
174	1010	2.3	8.48	"	"	9500	-	210	840	2.7
146	1210	1.9	10.09	"	"	10200	-	176	1000	2.3
123	1430	1.6	11.97	"	"	11200	-	148	1190	1.95
113	1560	1.45	13.08	"	"	11600	-	136	1290	1.8
95	1850	1.25	15.53	"	"	12700	-	114	1540	1.5
84	2100	1.1	17.68	"	"	13400	-	101	1740	1.3
71	2450	0.94	20.98	"	"	14600	-	85	2050	1.1
65	2700	0.85	22.92	"	"	15100	-	78	2250	1.0
129	1360	3.1	11.43	BG80/DHE18LA4	348	11600	-	155	1130	3.7
116	1520	2.8	12.69	II .	"	12400	-	140	1260	3.3
95	1850	2.3	15.62	п	II .	13700	-	114	1540	2.7
85	2050	2.0	17.35	п	II .	14600	-	103	1710	2.5
74	2350	1.8	19.89	п	II .	15500	-	89	1980	2.1
67	2600	1.6	22.09	II .	"	16500	-	81	2150	1.95

Selection helical-geared motors DHE - IE2

P = 18.5 kW



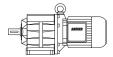
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$		• •				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
56	3150	1.35	26.44	BG80/DHE18LA4	"	17900	-	67	2600	1.6
51	3450	1.2	29.36	"	"	18900	-	61	2850	1.45
43	4100	1.0	34.22	"	"	20200	-	52	3350	1.25
39	4500	0.93	38.00	"	"	21300	-	47	3750	1.1
33.5	5200	0.81	43.94	"	"	22600	-	40.5	4350	0.97
65	2700	3.1	22.62	BG90/DHE18LA4	440	65000	-	79	2200	3.8
60	2900	2.9	24.78			65000	-	72	2450	3.4
49.5	3550	2.4	29.78		"	65000	-	60	2900	2.9
45.5	3850	2.2	32.62		"	65000	-	55	3200	2.6
38.5	4550	1.85	38.21		"	65000	-	46.5	3750	2.2
35.5	4950	1.7	41.85		"	65000	-	42.5	4150	2.0
30.5	5700	1.45	48.82		"	65000	-	36.5	4800	1.75
27.5	6400	1.3	53.46	"	"	65000	-	33.5	5200	1.6
26	6700	1.0	57.04	BG90Z/DHE18LA4	493	65000	-	31.5	5600	1.2
24	7300	1.05	62.47	"	II .	65000	-	28.5	6100	1.25
19.5	9000	0.93	76.61	"	"	65000	-	23.5	7500	1.1
18	9800	0.86	83.91	"	"	65000	-	21.5	8200	1.0
44	4000	3.2	33.71	BG100/DHE18LA4	609	88500	_	53	3300	3.9
39.5	4450	3.0	37.54	"	"	90000	_	47.5	3700	3.6
32	5500	2.6	46.43	"	"	90000	_	38.5	4550	3.1
28.5	6100	2.4	51.70	u u	II .	90000	_	34.5	5100	2.8
23.5	7500	2.1	63.49	II .	II .	90000	-	28	6300	2.4
21	8400	1.9	70.69	II .	II	90000	-	25.5	6900	2.3
18.5	9500	1.75	80.85	II .	"	90000	-	22	8000	2.1
16.5	10700	1.55	90.02	II .	II	90000	-	20	8800	1.9
14	12600	1.35	107.5	· ·	II .	90000	-	16.5	10700	1.55
12.5	14100	1.2	119.7	II .	II	90000	-	15	11700	1.45
11	16000	1.05	139.1	11	ıı	90000	-	13	13500	1.25
9.5	18500	0.91	154.8	II .	"	90000	-	11.5	15300	1.1

P = 22 kW

	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
300	700	2.1	4.95	BG70/DHE18XA4	312	6900	-	360	580	2.6
255	820	2.1	5.87	m .	"	8200	-	305	680	2.6
210	1000	2.2	7.14	m .	"	8800	-	250	840	2.6
174	1200	1.9	8.48	m .	"	9500	-	210	1000	2.3
146	1430	1.6	10.09	"	"	10200	-	176	1190	1.95
123	1700	1.35	11.97	m .	"	11200	-	148	1410	1.65
113	1850	1.25	13.08	"	"	11600	-	136	1540	1.5
95	2200	1.05	15.53	"	"	12700	-	114	1840	1.25
84	2500	0.92	17.68	"	"	13400	-	101	2050	1.1
250	840	3.2	5.94	BG80/DHE18XA4	366	8300	-	300	700	3.8
225	930	3.2	6.60	m .	"	9100	-	270	770	3.8
178	1180	3.2	8.30	п	"	10400	-	215	970	3.9
160	1310	3.0	9.21	m .	"	10800	-	193	1080	3.6
129	1620	2.6	11.43	"	"	11600	-	155	1350	3.1
116	1810	2.3	12.69	m .	"	12400	-	140	1500	2.8
95	2200	1.9	15.62	"	"	13700	-	114	1840	2.3
85	2450	1.7	17.35	"	"	14600	-	103	2000	2.1
74	2800	1.5	19.89	"	"	15500	-	89	2350	1.8
67	3100	1.35	22.09	"	"	16500	-	81	2550	1.65
56	3750	1.1	26.44	m m	II .	17900	-	67	3100	1.35
51	4100	1.0	29.36	m .	II .	18900	-	61	3400	1.25
43	4850	0.87	34.22	II .	"	20200	-	52	4000	1.05

Selection helical-geared motors DHE - IE2

P = 22 kW

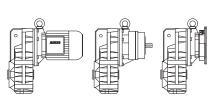


	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
82	2550	3.2	17.96	BG90/DHE18XA4	458	59800	-	99	2100	3.9
75	2800	3.0	19.67	"	"	62400	-	90	2300	3.7
65	3200	2.6	22.62	"	"	65000	-	79	2650	3.2
60	3500	2.4	24.78	"	"	65000	-	72	2900	2.9
49.5	4200	2.0	29.78	"	"	65000	-	60	3500	2.4
45.5	4600	1.85	32.62	"	"	65000	-	55	3800	2.2
38.5	5400	1.55	38.21	"	"	65000	-	46.5	4500	1.85
35.5	5900	1.4	41.85	"	"	65000	-	42.5	4900	1.7
30.5	6800	1.25	48.82	"	"	65000	-	36.5	5700	1.45
27.5	7600	1.1	53.46	"	"	65000	-	33.5	6200	1.35
26	8000	0.85	57.04	BG90Z/DHE18XA4	511	65000	-	31.5	6600	1.05
24	8700	0.86	62.47	II	"	65000	-	28.5	7300	1.05
44	4750	2.7	33.71	BG100/DHE18XA4	627	88500	-	53	3950	3.3
39.5	5300	2.5	37.54	"	"	90000	-	47.5	4400	3.0
32	6500	2.2	46.43	"	"	90000	-	38.5	5400	2.6
28.5	7300	2.0	51.70	"	"	90000	-	34.5	6000	2.4
23.5	8900	1.75	63.49	"	"	90000	-	28	7500	2.1
21	10000	1.6	70.69	"	"	90000	-	25.5	8200	1.95
18.5	11300	1.45	80.85	"	"	90000	-	22	9500	1.75
16.5	12700	1.3	90.02	"	"	90000	-	20	10500	1.6
14	15000	1.1	107.5	"	"	90000	-	16.5	12700	1.3
12.5	16800	1.0	119.7	"	"	90000	-	15	14000	1.2
11	19100	0.88	139.1	"	"	90000	-	13	16100	1.05

6

Catalogue geared motors

Edition 03/2012



Page

BF-series shaft-mounted geared motors Selection

165-238

Description of shaft mounted-geared units

- Sizes
- Bauer service factors (f_B) for shaft-mounted geared motors
- Continuous operation without switching frequency $Z \le 1/h$
- Switching duty
- Bauer service factor
- Explanation of shock classification
- Key to abbreviations
- Selection tables, shaft mounted-geared motors

Description of shaft-mounted gear units

Sizes

Bauer service factors (f_B) for shaft-mounted geared motors

Bauer BF-series shaft-mounted geared motors are normally supplied in ten frame sizes and with torques of 90 to 18,500 Nm. Higher torques are available on request. The gear unit is accommodated in a sturdy cast housing

Of the numerous factors influencing the total loading of a gear unit, the most important include:

- Mean torque (rated torque)
- Daily operating hours
- Severity of torque peaks (shock classification)
- Frequency of torque peaks (switching duty)

These factors can be represented in a simplified and practical manner by **service factors**. The tables and explanations below attempt to provide an objective description of the **shock classification**, rather than a classification of the driven machinery. Experience has shown that, in addition to the torque shocks caused by the driven machinery (M_x/M_N), above all the power transmission components (clutches, chains etc.) plus the mass ratios play a decisive role in this.

See Bauer special imprint SD32 for more information.

Continuous operation without switching frequency Z ≤1/h

Factor f₁ for shock classification and operating time

Shock classification	Operating hours per day $t_{\scriptscriptstyle d}$	>4 h	>8 h	>16 h
		≤8 h	≤16 h	≤24 h
I		0,8	1,0	1,2
II		1,05	1,25	1,45
III		1,45	1,55	1,7

Switching duty

Factor f₂ for shock classification and switching frequency

Switching frequency in single- shift operation $t_d \le 8 \text{ h/d}$

Shock classification	1 <z th="" ≤100<=""><th>100 <z th="" ≤1000<=""><th>1000 <z< th=""></z<></th></z></th></z>	100 <z th="" ≤1000<=""><th>1000 <z< th=""></z<></th></z>	1000 <z< th=""></z<>
1	0,95	1,1	1,15
II	1,2	1,35	1,4
III	1,55	1,6	1,6

Switching frequency in multiple-shift operation t_d >8 h/d

Shock classification	1 <z th="" ≤100<=""><th>100 <z th="" ≤1000<=""><th>1000 <z< th=""></z<></th></z></th></z>	100 <z th="" ≤1000<=""><th>1000 <z< th=""></z<></th></z>	1000 <z< th=""></z<>
1	1,3	1,45	1,5
II	1,5	1,6	1,65
III	1,75	1,8	1,8
•			

Bauer service factor

Bauer Service factor $f_B = f_1$ or $f_B = f_2$

For example: Shock classification II for Z=100 switching operations per hour and multiple-shift operation yields a service factor $f_B=f_2=1.5$

Explanation of shock classification

Shock classification I:

Uniform without shock loads. All the following requirements must be satisfied:

- FI ≤1,3
- $M_x/M_N \leq 1,0$
- Shock-absorbing power transmission components (e.g. highly resilient, zero-play coupling, ϕ N ${\ge}5^{\circ})$

166

Description of shaft-mounted gear units

Shock classification II:

Moderate shock loads. At least one of the following conditions applies:

- 1,3 <FI ≤4
- $1 < M_x/M_N \le 1,6$
- Shock-neutral power transmission components (e.g. gear wheels, zero- play rigid coupling or resilient coupling with ϕ N <5°)

Shock classification III:

Heavy shock loads. At least one of the following conditions applies:

- FI >4
- $1.6 < M_x/M_N \le 2.0$
- Shock-amplifying power transmission components (e.g. coupling with play or chain drive)

Key to abbreviations

Z Switching duty number of switching operations per hour

 t_d Daily operating time in hours (h/d) FI Factor of inertia FI = $(J_{ext} + J_{rot})/J_{rot}$

 J_{ext} Mass moment of inertia of the machine to be driven, in relation to the motor's rotor shaft (kgm²)

J_{rot} Mass moment of inertia of the motor rotor (kgm²)

M_x Highest impact torque above the static torque which can occur during normal

operation or in emergency situations

M_N Required static load torque for the application

 M_x/M_N Relative torque - Factor

 ϕ_N Torsional offset of the resilient coupling under rated torque

Selection tables, shaft-mounted geared motors

Key to abbreviations

P Rated output

n₂ Rated speed of the output shaft

i Gear reduction ratio

M₂ Rated torque at the output shaft

f_B Bauer service factor

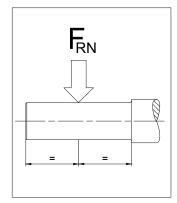
F_{RN} Maximum permissible radial force

with normal bearings

F_{RV} Maximum permissible radial force

with reinforced bearings in each case

with standard solid shaft (Code -.1 und -.2)



Use the selection tables to determine the size of geared motor required. The codes clearly define the Type of gear unit and output shaft (see chapter 11 "dimensional drawings shaftmounted gear motors").

The torques marked (*) are maximum permissible torques for service factor $f_B=1,0$.

Motor power overload protection

Motor-power ratings, particularly in conjunction with four-stage and multi-stage gear units, are more than ample in some instances. Consequently, and in much the same way as with low-power motors, rated current is not a measure of gear loading and cannot be used to protect the gear unit against overloading. It is advisable to provide gears at risk from excessive load or blockage with a protective mechanism (e. g., sliding clutch, sliding hub, shear pin or an alternative).

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 0.03 kW



	50 Hz		i	Type	m	F _{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B	·	.,,,,	•••	· NN	• NV	n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm	-6			kg	N	N	1/min	Nm	- 0
9.0	31.5	7.6	151.2	BF10Z/D04LA4	21	6400	-	11	26	9.2
8.2	34.5	7.0	166.2	п	II .	6400	_	9.8	29	8.3
7.5	38	6.3	180.1	m .	II	6400	_	9.0	31.5	7.6
6.9	41.5	5.8	198.0	п	II .	6400	_	8.2	34.5	7.0
6.3	45	5.3	214.5	п	II .	6400	_	7.6	37.5	6.4
5.8	49	4.9	235.8	п	II .	6400	_	6.9	41.5	5.8
5.3	54	4.4	257.4	п	II .	6400	_	6.3	45	5.3
4.8	59	4.1	283.1	п	II .	6400	_	5.8	49	4.9
4.2	68	3.5	324.3	TI .	II .	6400	_	5.0	57	4.2
3.8	75	3.2	356.6	п	II .	6400	_	4.6	62	3.9
3.6	79	3.0	380.2	TI TI	"	6400	_	4.3	66	3.6
3.3	86	2.8	418.0	п	II .	6400	_	3.9	73	3.3
2.9	98	2.4	469.5	TI TI	"	6400	_	3.5	81	3.0
2.6	110	2.2	539.1	m .	II.	6400	_	3.1	92	2.6
2.3	124	1.95	592.8	m .	II.	6400	_	2.8	102	2.4
1.8	97	2.7	768.2	BF10G06/D04LA4	25	6400	_	2.2	68	3.8
1.6	110	2.4	845.1	"	"	6400	_	2.0	75	3.5
1.4	130	2.0	994.0	m .	II .	6400	_	1.7	94	2.8
1.2	159	1.65	1190	m .	II .	6400	_	1.4	125	2.1
0.95	210	1.25	1452	m .	II.	6400	_	1.2	150	1.75
0.8	260*	1.0	1744	m .	II.	6400	_	0.95	260	1.0
0.65	260*	1.0	2096	m .	II.	6400	_	0.8	260	1.0
0.55	260*	1.0	2467	m .	II.	6400	_	0.7	260	1.0
0.46	260*	1.0	2952	m .	II.	6400	_	0.55	260	1.0
0.42	260*	1.0	3220	m .	II.	6400	_	0.55	260	1.0
0.35	260*	1.0	3942	m .	II.	6400	_	0.42	260	1.0
0.3	260*	1.0	4569	п	"	6400	_	0.36	260	1.0
0.24	260*	1.0	5709	п	"	6400	_	0.30	260	1.0
0.21	260*	1.0	6550	m .	ш	6400	_	0.25	260	1.0
0.19	260*	1.0	7144	m .	ш	6400	_	0.23	260	1.0
0.16	260*	1.0	8681	п	II .	6400	_	0.23	260	1.0
0.15	260*	1.0	9471	m .	II .	6400	_	0.19	260	1.0
0.15	200	1.0	2 1 71			0400		0.10	200	1.0
1.2	162	2.8	1140	BF20G06/D04LA4	31	7900	_	1.5	114	4.0
1.0	200	2.3	1392	"	"	7900	_	1.2	154	3.0
0.9	230	2.0	1533	TI TI	II .	7900	_	1.1	173	2.7
0.8	265	1.75	1764	II.	II .	7900	_	0.95	210	2.2
0.65	345	1.35	2192	п	II .	7900	_	0.75	285	1.6
0.55	410	1.1	2579	TI .	II .	7900	_	0.65	330	1.4
0.48	460*	1.0	2829	TI .	II .	7900	_	0.6	460	1.0
0.44	460*	1.0	3086	TI .	II .	7900	_	0.55	460	1.0
0.36	460*	1.0	3778	п	II .	7900	_	0.43	460	1.0
0.31	460*	1.0	4379	п	II .	7900	_	0.37	460	1.0
0.25	460*	1.0	5471	п	II .	7900	-	0.3	460	1.0
0.2	460*	1.0	6847	п	II .	7900	_	0.24	460	1.0
0.17	460*	1.0	8320	п	II .	7900	_	0.2	460	1.0
0.15	460*	1.0	9077	n	II .	7900	-	0.18	460	1.0
1.0	200	3.2	1404	BF30G06/D04LA4	41	7400	_	1.2	153	4.1
0.85	245	2.6	1686	II .	II	7400	_	1.0	196	3.2
0.7	315	2.0	2026	п	"	7400	_	0.8	260	2.4
0.6	370	1.7	2386	п	II .	7400	_	0.7	305	2.1
0.48	485	1.3	2854	m .	II .	7400	-	0.6	365	1.75
0.39	610	1.05	3493	II .	"	7400	-	0.47	485	1.3
0.36	630*	1.0	3811	m .	"	7400	-	0.43	630	1.0
0.31	630*	1.0	4417	m .	"	7400	-	0.37	630	1.0
0.27	630*	1.0	5060	m .	"	7400	-	0.33	630	1.0
0.22	630*	1.0	6333	m .	"	7400	-	0.26	630	1.0
0.19	630*	1.0	7206	n n	II .	7400	_	0.23	630	1.0
0.18	630*	1.0	7861	TI .	"	7400	_	0.23	630	1.0
0.15	630*	1.0	9157	m .	II .	7400	_	0.21	630	1.0
U. 13	030"	1.0	213/			7400		0.10	030	1.0

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 0.04 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		· ·				n ₂	M ₂	f _B
1/min	Nm				kg	N	N	1/min	Nm	
9.0	42	5.7	151.2	BF10Z/D04LA4	21	6400	-	11	34.5	7.0
8.2	46.5	5.2	166.2	II.	II .	6400	-	9.8	38.5	6.2
7.5	50	4.8	180.1	"	II .	6400	-	9.0	42	5.7
6.9	55	4.4	198.0	"	II .	6400	-	8.2	46.5	5.2
6.3	60	4.0	214.5	· ·	II .	6400	-	7.6	50	4.8
5.8	65	3.7	235.8	· ·	II .	6400	-	6.9	55	4.4
5.3	72	3.3	257.4	"	II .	6400	-	6.3	60	4.0
4.8	79	3.0	283.1	"	II .	6400	-	5.8	65	3.7
4.2	90	2.7	324.3	"	II .	6400	-	5.0	76	3.2
3.8	100	2.4	356.6	"	II .	6400	-	4.6	83	2.9
3.6	106	2.3	380.2	"	II .	6400	-	4.3	88	2.7
3.3	115	2.1	418.0	"	II .	6400	-	3.9	97	2.5
2.9	131	1.85	469.5	"	II .	6400	-	3.5	109	2.2
2.6	146	1.65	539.1	"	II .	6400	-	3.1	123	1.95
2.3	166	1.45	592.8	"	II .	6400	-	2.8	136	1.75
2.1	119	2.2	643.8	BF10G06/D04LA4	25	6400	-	2.6	84	3.1
1.8	150	1.75	768.2	"	II .	6400	-	2.2	111	2.3
1.6	170	1.55	845.1	"	II .	6400	-	2.0	122	2.1
1.4	199	1.3	994.0	"	II .	6400	-	1.7	150	1.75
1.2	235	1.1	1190	"	II .	6400	-	1.4	193	1.35
3.0	127	3.3	460.0	BF20Z/D04LA4	28	7900	-	3.6	106	4.0
1.9	141	3.3	736.1	BF20G06/D04LA4	31	7900	-	2.3	106	4.3
1.7	159	2.9	810.0	"	II .	7900	-	2.0	125	3.7
1.5	183	2.5	952.7	"	II .	7900	-	1.8	141	3.3
1.2	240	1.9	1140	"	II .	7900	-	1.5	178	2.6
1.0	295	1.55	1392	"	II .	7900	-	1.2	230	2.0
0.9	335	1.35	1533	"	II .	7900	-	1.1	260	1.75
0.8	385	1.2	1764	II	II .	7900	-	0.95	310	1.5
1.2	240	2.6	1150	BF30G06/D04LA4	41	7400	_	1.5	177	3.6
1.1	265	2.4	1286	" "	"	7400	_	1.3	210	3.0
1.0	295	2.1	1404	· ·	ıı .	7400	_	1.2	230	2.7
0.85	355	1.75	1686	· ·	ıı .	7400	_	1.0	290	2.7
0.83	450	1.73	2026	· ·	ıı .	7400	_	0.8	380	1.65
0.6	530	1.2	2386	· ·	ıı	7400	_	0.8	440	1.45
0.0	220	1.2	2300			/400		U./	440	1.40

P = 0.06 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
24	23.5	10	56.39	BF10/D06LA4	23	4550	-	29	19.7	12
22	26	9.2	61.55	m	"	4700	-	26.5	21.5	11
20	28.5	8.4	67.69	m	"	4900	-	24	23.5	10
17.5	32.5	7.4	77.55	m	"	5100	-	21	27	8.9
16	35.5	6.8	85.27	m	"	5300	-	19	30	8.0
15	38	6.3	90.91	п	"	5400	-	18	31.5	7.6
14	40.5	5.9	99.97	п	"	5600	-	16.5	34.5	7.0
12.5	45.5	5.3	112.3	п	"	5900	-	14.5	39.5	6.1
11	52	4.6	123.5	m	"	6100	-	13.5	42	5.7
10.5	54	4.4	128.9	"	"	6200	-	13	44	5.5
9.6	59	4.1	141.8	"	"	6400	-	11.5	49.5	4.8
7.5	76	3.2	180.1	BF10Z/D06LA4	24	6400	-	9.0	63	3.8
6.9	83	2.9	198.0	"	"	6400	-	8.2	69	3.5
6.3	90	2.7	214.5	"	"	6400	-	7.6	75	3.2
5.8	98	2.4	235.8	"	II .	6400	-	6.9	83	2.9
5.3	108	2.2	257.4	"	II .	6400	-	6.3	90	2.7
4.8	119	2.0	283.1	"	II .	6400	-	5.8	98	2.4

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 0.06 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm	4 75	2242	DE107 (D06) A4	kg "	N	N	1/min	Nm	2.1
4.2	136	1.75	324.3	BF10Z/D06LA4	"	6400	-	5.0	114	2.1
3.8	150	1.6	356.6	"	"	6400	-	4.6	124	1.95
3.6 3.3	159	1.5	380.2	"	"	6400	-	4.3	133	1.8
2.9	173 197	1.4 1.2	418.0 469.5	"	"	6400 6400	-	3.9 3.5	146 163	1.65 1.45
2.6	220	1.1	539.1	m .	"	6400	-	3.1	184	1.43
2.3	245	0.98	592.8	m .	"	6400	-	2.8	200	1.3
2.1	210	1.25	643.8	BF10G06/D06LA4	28	6400	_	2.6	157	1.65
1.8	255	1.0	768.2	" "	"	6400	_	2.2	198	1.03
1.6	290	0.9	845.1	п	"	6400	_	2.0	215	1.2
1.0	2,0	0.5	0 15.1			0100		2.0	213	1,2
4.2	136	3.1	325.2	BF20Z/D06LA4	31	7900	-	5.0	114	3.7
4.0	143	2.9	339.1	"	"	7900	-	4.8	119	3.5
3.7	154	2.7	373.1	"	"	7900	-	4.4	130	3.2
3.3	173	2.4	418.1	"	"	7900	-	3.9	146	2.9
3.0	191	2.2	460.0	II	"	7900	-	3.6	159	2.6
2.7	157	2.9	513.7	BF20G06/D06LA4	34	7900	-	3.2	124	3.7
2.2	200	2.3	617.0	"	"	7900	-	2.7	152	3.0
1.9	240	1.9	736.1	"	"	7900	-	2.3	189	2.4
1.7	270	1.7	810.0	"	"	7900	-	2.0	220	2.1
1.5	310	1.5	952.7	"	"	7900	-	1.8	245	1.9
1.2	400	1.15	1140		"	7900	-	1.5	305	1.5
1.0	485	0.95	1392	-		7900	-	1.2	390	1.2
3.3	173	3.3	412.6	BF30Z/D06LA4	42	7400	-	4.0	143	4.0
3.0	191	3.0	463.3	m .	II .	7400	-	3.5	163	3.5
2.6	220	2.6	537.0	m m	II .	7400	-	3.1	184	3.1
2.3	245	2.3	590.7	m m	"	7400	-	2.8	200	2.9
2.2	200	3.2	622.4	BF30G06/D06LA4	45	7400	-	2.7	151	4.2
2.0	225	2.8	705.1	"	"	7400	-	2.3	192	3.3
1.7	270	2.3	817.1	II .	II	7400	-	2.0	220	2.9
1.5	310	2.0	961.1	"	"	7400	-	1.7	265	2.4
1.2	400	1.6	1150	"	"	7400	-	1.5	305	2.1
1.1	435	1.45	1286	"	"	7400	-	1.3	355	1.75
1.0	485	1.3	1404		"	7400	-	1.2	390	1.6
0.85	580	1.1	1686			7400	-	1.0	480	1.3
0.95	340	2.9	1484	BF40G10/D06LA4	58	10600	-	1.1	255	3.9
0.75	460	2.2	1810	m m	II .	10600	-	0.9	335	3.0
0.7	500	2.0	1997	n	II .	10600	-	0.85	360	2.8
0.55	710	1.4	2536	"	"	10600	-	0.65	550	1.8
0.49	840	1.2	2810	"	"	10600	-	0.6	620	1.6
0.7	520	2.7	2059	BF50G10/D06LA4	86	13600	_	0.8	415	3.4
0.6	640	2.7	2360	"	"	13600	_	0.7	510	2.7
0.49	860	1.65	2810	п	"	13600	_	0.6	640	2.7
0.41	1090	1.3	3348	II .	II .	13600	_	0.49	860	1.65
0.34	1370	1.0	4019	II .	"	13600	-	0.41	1090	1.3
0.43	060	2.0	2227	DECOCOO /DOCLAS	124	15300	42200	0.55	F30	4 7
0.42	860	2.9	3237	BF60G20/D06LA4	134	15300	43300	0.55	530	4.7
0.35	1130	2.2	3883	"	"	15300	43300	0.42	860	2.9
0.3 0.26	1400	1.8	4646 5241			15300 15300	43300 43300	0.35	1130	2.2 1.85
0.26	1700 1980	1.45 1.25	5241 6014		11	15300	43300	0.31 0.27	1340 1620	1.85
0.23	2200	1.25	6679	II .	11	15300	43300	0.27	1790	1.55
0.24	1890	3.0	5691	BF70G20/D06LA4	212	16100	47700	0.29	1480	3.9
0.21	2200	2.6	6530	"	"	16100	47700	0.25	1800	3.2
0.19	2500	2.3	7248		"	16100	47700	0.23	2000	2.9
0.17	2850	2.0	8052	ıı .	"	16100	47700	0.21	2200	2.6

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 0.09 kW



Type	f ₁
34. 25 9.6 39.75 BF10/D06LA4 23 3950 - 41 20.5 31.5 27 8.9 43.06 " " 4100 - 3 34.5 22.5 29 29.5 8.1 47.35 " " 4250 - 34.5 24.5 26.5 32 7.5 51.28 " " 4400 - 32 26.5 24 35.5 6.8 56.39 " " 4700 - 26.5 32 20 42.5 5.6 67.69 " " 4700 - 26.5 32 20 42.5 5.6 67.69 " " 4700 - 26.5 32 21 39 6.2 61.55 " " 5100 - 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40.5 21 40	12
31.5	11
29 29.5 8.1 47.35	
29. 29. 36. 1 47.3 47.5 51.28 " 4400 - 32 26.5 24 35.5 6.8 56.39 " 4550 - 29 29.5 22 39 6.2 61.55 " 4700 - 26.5 32 20 42.5 5.6 67.69 " 4900 - 24 35.5 17.5 49 4.9 77.55 " 5100 - 21 40.5 16 53 4.5 85.27 " 5500 - 19 45 16 53 4.5 85.27 " 5500 - 19 45 15 57 4.2 90.91 " 5400 - 18 47.5 14 61 3.9 99.97 " 5600 - 16.5 52 12.5 68 3.5 112.3 " 5900 - 14.5 59 11 78 3.1 123.5 " 6100 - 13.5 63 10.5 81 3.0 128.9 " 6600 - 13.5 63 10.5 81 3.0 128.9 " 6600 - 13.5 63 10.5 81 3.0 166.2 " 6400 - 11.5 74 9.0 95 2.5 151.2 BF10Z/D06LA4 24 6400 - 11. 78 8.2 104 2.3 166.2 " 6400 - 9.8 87 7.5 114 2.1 180.1 " 6400 - 9.8 87 7.5 114 2.1 180.1 " 6400 - 8.2 104 6.3 136 1.75 214.5 " 6400 - 7.6 113 5.8 148 1.6 235.8 " 6400 - 7.6 113 5.8 148 1.6 235.8 " 6400 - 5.0 171 3.8 225 1.05 356.6 " 6400 - 5.0 171 3.8 225 1.05 356.6 " 6400 - 4.6 186 3.6 235 1.0 380.2 " 6400 - 3.3 199 2.9 295 0.81 469.5 " 6400 - 3.5 240 2.9 295 0.81 469.5 " 6400 - 3.5 240 2.9 295 0.81 469.5 " 7900 - 5.5 114 5.8 148 2.8 235.9 " 6400 - 3.5 240 2.9 295 0.81 469.5 " 7900 - 6.3 136 4.6 186 2.3 295.5 " 7900 - 6.3 136 4.6 186 2.3 295.5 " 7900 - 6.3 136 4.6 186 2.3 295.5 " 7900 - 6.3 136 4.7 230 1.85 373.1 " 7900 - 6.3 136 4.8 179 3.3 260 0.92 418.0 " 7900 - 6.9 124 4.0 210 2.0 339.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 3.2 220 3.0 285 1.45 460.0 " 7900 - 3.2 220	11
24 35.5 6.8 56.39 " " 4550 - 29 29.5 22 39 6.2 61.55 " " 4700 - 26.5 32 20 42.5 5.6 67.69 " " 4700 - 26.5 32 17.5 49 4.9 77.55 " " 5100 - 21 40.5 16 53 4.5 85.27 " " 5300 - 19 45 15 57 4.2 90.91 " " 5400 - 18. 47.5 14 61 3.9 99.97 " " 5600 - 16.5 52 12.5 68 3.5 112.3 " " 5900 - 14.5 59 11. 78 3.1 123.5 " " 6100 - 13.5 63 10.5 81 3.0 128.9 " " 6200 - 13.5 63 10.5 81 3.0 128.9 " " 6400 - 11.5 74 8.2 104 2.3 166.2 " " 6400 - 9.8 87 7.5 114 2.1 180.1 " " 6400 - 9.8 87 7.5 114 2.1 180.1 " " 6400 - 9.0 95 6.9 124 1.95 198.0 " " 6400 - 8.2 104 6.3 136 1.75 214.5 " " 6400 - 6.3 136 4.8 179 1.35 283.1 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 6.9 124 5.3 136 3.1 216.9 BF10G06/D06LA4 31 7900 - 7.5 114 5.8 148 2.8 235.9 " " 7900 - 6.3 136 6.4 186 2.3 295.5 " 7900 - 5.5 156 6.3 136 3.1 216.9 BF20Z/D06LA4 31 7900 - 7.5 114 5.8 148 2.8 335.9 " " 7900 - 6.3 136 6.6 186 2.3 295.5 " 7900 - 6.9 124 5.3 162 2.6 259.6 " " 7900 - 6.9 124 5.8 148 2.8 335.9 " " 7900 - 6.9 124 5.8 148 2.8 335.9 " " 7900 - 5.5 156 6.9 124 1.9 " 7900 - 6.9 124 5.3 162 2.6 259.6 " " 7900 - 6.9 124 5.8 148 2.8 335.9 " " 7900 - 6.9 124 5.8 148 2.8 335.9 " " 7900 - 6.9 124 5.8 148 2.8 335.9 " " 7900 - 6.9 124 5.8 148 2.8 335.9 " " 7900 - 6.9 124 5.8 148 2.8 335.9 " " 7900 - 6.9 124 5.8 148 2.8 335.9 " " 7900 - 6.9 124 5.8 148 2.8 335.9 " " 7900 - 6.9 124 5.8 148 2.8 335.9 " " 7900 - 6.9 124 5.8 148 2.8 335.9 " " 7900 - 6.9 124 5.8 148 2.8 335.9 " " 7900 - 6.9 124 5.8 148 2.8 335.9 " " 7900 - 6.9 124 5.9 295 0.81 49.5 " " 7900 - 6.3 3.6 235 2.7 260 1.75 513.7 BF20G06/D06LA4 34 7900 - 2.7 255	9.8
22 39 6.2 61.55 " " 4700 - 26.5 32 20 42.5 5.6 67.69 " " 4900 - 24 35.5 17.5 49 4.9 77.55 " " 5300 - 19 45 16 53 4.5 85.27 " " 5300 - 19 45 15 57 4.2 90.91 " " 5400 - 16.5 52 11.4 61 3.9 99.97 " " 5600 - 16.5 52 11.5 68 3.5 112.3 " " 5900 - 14.5 59 11 78 3.1 123.5 " " 6100 - 13.5 63 10.5 81 3.0 128.9 " " 6100 - 13.5 63 10.5 81 3.0 128.9 " " 6400 - 11.5 74 9.0 95 2.5 151.2 BF10Z/D06LA4 24 6400 - 11.5 74 9.0 95 2.5 151.2 BF10Z/D06LA4 24 6400 - 11. 78 8.2 104 2.3 166.2 " " 6400 - 9.8 87 7.5 114 2.1 180.1 " 6400 - 9.8 87 7.5 114 1.95 198.0 " 6400 - 8.2 104 6.3 136 1.75 214.5 " " 6400 - 6.9 124 5.3 162 1.5 257.4 " 6400 - 6.9 124 4.8 179 1.35 283.1 " 6400 - 6.9 124 4.8 179 1.35 283.1 " 6400 - 5.0 171 3.8 225 1.05 356.6 " 6400 - 6.3 136 3.6 235 1.0 380.2 " " 6400 - 5.0 171 3.8 225 1.05 356.6 " 6400 - 3.9 220 2.9 295 0.81 469.5 " " 6400 - 3.1 220 6.3 136 3.1 216.9 BF10GO6/D06LA4 28 6400 - 3.1 220 6.3 136 3.1 216.9 BF20Z/D06LA4 28 6400 - 3.1 220 6.3 136 3.1 216.9 BF20Z/D06LA4 28 6400 - 5.5 114 5.8 148 2.2 200 3.3 126.9 BF20Z/D06LA4 28 6400 - 3.1 220 6.3 136 3.1 216.9 BF20Z/D06LA4 28 6400 - 5.5 114 5.8 148 2.2 200 3.3 126.9 BF20Z/D06LA4 28 6400 - 3.5 245 5.3 162 2.6 259.6 " " 7900 - 6.9 124 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.8 148 2.8 235.9 " " 7900 - 5.5 156 6.9 124 1.9 1 125 257.4 " " 7900 - 6.9 124 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.8 148 2.8 235.9 " " 7900 - 6.3 3.5 245 5.9 200 2.9 255 0.8 14 69.5 " " 7900 - 6.3 3.6 235 2.7 2.8 146 46.0 " " 7900 - 2.7 255	9.1
20	8.1
77.5	7.5
16 53 4.5 49 4.9 7/.35	6.8
15 57 4.2 90.91 " 5400 - 18 47.5 14 61 3.9 99.97 " 5600 - 16.5 52 12.5 68 3.5 112.3 " " 5900 - 14.5 59 11 78 3.1 123.5 " " 6100 - 13.5 63 10.5 81 3.0 128.9 " " 6200 - 13.5 63 9.6 89 2.7 141.8 " " 6400 - 11.5 74 9.0 95 2.5 151.2 BF10Z/D06LA4 24 6400 - 11. 78 8.2 104 2.3 166.2 " " 6400 - 9.0 95 6.9 124 1.95 198.0 " " 6400 - 7.6 113 56 8.7 <td< th=""><th>5.9</th></td<>	5.9
14 61 3.9 99.97 " 5600 - 16.5 52 12.5 68 3.5 112.3 " 5600 - 16.5 52 11. 78 3.1 123.5 " 6200 - 14.5 59 11 78 3.1 123.5 " 6200 - 13.5 63 10.5 81 3.0 128.9 " 6200 - 13.5 63 9.6 89 2.7 141.8 " 6400 - 11.5 74 9.0 95 2.5 151.2 BF10Z/D06LA4 24 6400 - 11. 78 8.2 104 2.3 166.2 " 6400 - 9.8 87 7.5 114 2.1 180.1 " 6400 - 9.8 87 7.5 114 2.1 180.1 " 6400 - 9.0 95 6.9 124 1.95 198.0 " " 6400 - 7.6 113 5.8 148 1.6 235.8 " 6400 - 7.6 113 5.8 148 1.6 235.8 " 6400 - 6.9 124 5.3 162 1.5 257.4 " 6400 - 6.9 124 5.3 162 1.5 257.4 " 6400 - 5.8 148 4.2 200 1.2 2324.3 " 6400 - 5.8 148 4.2 200 1.2 324.3 " 6400 - 5.8 148 4.2 200 1.2 324.3 " 6400 - 5.0 171 3.8 225 1.05 356.6 " 6400 - 5.0 171 3.8 225 1.05 356.6 " 6400 - 3.5 220 2.9 295 0.81 469.5 " 6400 - 3.5 220 6.3 136 3.1 216.9 BF20Z/D06LA4 28 6400 - 3.5 220 6.3 136 3.1 216.9 BF20Z/D06LA4 31 7900 - 7.5 114 5.8 148 2.8 235.9 " 7900 - 6.9 124 5.3 162 2.6 259.6 " 7900 - 6.9 124 5.3 162 2.6 259.6 " 7900 - 6.9 124 5.3 162 2.6 259.6 " 7900 - 5.5 156 4.2 200 2.1 325.2 " 7900 - 6.9 124 5.3 162 2.6 259.6 " 7900 - 6.9 124 5.3 162 2.6 259.6 " 7900 - 6.9 124 5.3 162 3.1 216.9 BF20Z/D06LA4 31 7900 - 7.5 114 5.8 148 2.8 235.9 " 7900 - 6.3 136 4.6 186 2.3 295.5 " 7900 - 6.3 136 4.7 230 1.85 373.1 " 7900 - 5.5 156 4.2 200 2.1 325.2 " 7900 - 6.3 136 3.3 260 1.6 418.1 " 7900 - 4.4 195 3.3 260 1.6 418.1 " 7900 - 4.4 195 3.3 260 1.6 418.1 " 7900 - 4.4 195 3.3 260 1.6 418.1 " 7900 - 4.4 195 3.3 260 1.6 418.1 " 7900 - 4.4 195 3.3 260 1.6 418.1 " 7900 - 3.2 210 3.0 285 1.45 460.0 " 7900 - 3.2 210 3.0 285 1.45 460.0 " 7900 - 3.2 210 3.0 285 1.45 460.0 " 7900 - 3.2 210 3.0 285 1.45 460.0 " 7900 - 3.2 210 3.0 285 1.45 460.0 " 7900 - 3.2 210	5.3
12.5 68 3.5 112.3 " 5900 - 14.5 59 11 78 3.1 123.5 " " 6100 - 13.5 63 10.5 81 3.0 128.9 " " 6200 - 13.6 63 9.6 89 2.7 141.8 " " 6400 - 11.5 74 9.0 95 2.5 151.2 BF10Z/D06LA4 24 6400 - 11.7 78 8.2 104 2.3 166.2 " " 6400 - 9.8 87 7.5 114 2.1 180.1 " " 6400 - 9.0 95 6.9 124 1.95 198.0 " " 6400 - 8.2 104 6.3 136 1.75 214.5 " " 6400 - 7.6 113 5.8 148 1.6 235.8 " " 6400 - 6.9 124 5.3 162 1.5 257.4 " " 6400 - 6.3 136 4.8 179 1.35 283.1 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.0 171 3.8 225 1.05 356.6 " " 6400 - 4.3 199 3.3 260 0.92 418.0 " " 6400 - 3.9 220 2.9 295 0.81 469.5 " " 6400 - 3.9 220 2.9 295 0.81 469.5 " " 6400 - 3.5 245 2.6 270 0.96 536.0 BF10G06/D06LA4 28 6400 - 5.5 136 4.6 186 2.3 295.5 " " 7900 - 6.3 136 4.6 186 2.3 295.5 " " 7900 - 6.3 136 4.6 186 2.3 295.5 " " 7900 - 6.3 136 4.6 186 2.3 295.5 " " 7900 - 6.9 124 5.3 162 2.6 259.6 " " 7900 - 6.3 136 4.6 186 2.3 295.5 " " 7900 - 6.3 136 4.6 186 2.3 295.5 " " 7900 - 6.9 124 5.3 162 2.6 259.6 " " 7900 - 6.3 136 4.6 186 2.3 295.5 " " 7900 - 6.3 136 4.7 200 2.1 325.2 " " 7900 - 6.3 136 4.8 179 3.7 230 1.85 373.1 " " 7900 - 4.8 179 3.7 230 1.85 373.1 " " 7900 - 4.8 179 3.7 230 1.85 373.1 " " 7900 - 4.8 179 3.7 230 1.85 373.1 " " 7900 - 4.8 179 3.7 230 1.85 373.1 " " 7900 - 3.2 210 3.0 285 1.45 460.0 " " 7900 - 3.2 210 3.0 285 1.45 460.0 " " 7900 - 3.2 210 3.0 285 1.45 460.0 " " 7900 - 3.2 210	5.1
11 78 3.1 123.5 " " 6100 - 13.5 63 10.5 81 3.0 128.9 " " 6200 - 13 66 9.6 89 2.7 141.8 " " 6400 - 11.5 74 9.0 95 2.5 151.2 BF10Z/D06LA4 24 6400 - 11. 78 8.2 104 2.3 166.2 " " 6400 - 9.8 87 7.5 114 2.1 180.1 " " 6400 - 9.0 95 6.9 124 1.95 198.0 " " 6400 - 8.2 104 6.3 136 1.75 214.5 " " 6400 - 7.6 113 5.8 148 1.6 235.8 " " 6400 - 6.9 124 5.3 162 1.5 257.4 " " 6400 - 6.3 136 4.8 179 1.35 283.1 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 4.6 186 3.6 235 1.0 380.2 " " 6400 - 4.6 186 3.6 235 1.0 380.2 " " 6400 - 3.9 220 2.9 295 0.81 469.5 " " 6400 - 3.9 220 2.9 295 0.81 469.5 " " 6400 - 3.5 245 2.6 270 0.96 536.0 BF10G06/D06LA4 31 7900 - 7.5 114 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.3 162 2.6 259.6 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 4.8 179 3.7 230 1.85 373.1 " " 7900 - 4.4 195 3.3 260 1.6 418.1 " " 7900 - 4.4 195 3.3 260 1.6 418.1 " " 7900 - 4.4 195 3.3 260 1.6 418.1 " " 7900 - 4.4 195 3.3 260 1.6 418.1 " " 7900 - 4.4 195 3.3 260 1.6 418.1 " " 7900 - 3.2 210 2.2 330 1.4 617.0 " " 7900 - 3.2 210	4.6
10.5 81 3.0 128.9 " " 6200 - 13 66 9.6 89 2.7 141.8 " " 6400 - 11.5 74 9.0 95 2.5 151.2 BF10Z/D06LA4 24 6400 - 11.78 8.2 104 2.3 166.2 " " 6400 - 9.8 87 7.5 114 2.1 180.1 " " 6400 - 9.0 95 6.9 124 1.95 198.0 " " 6400 - 8.2 104 6.3 136 1.75 214.5 " " 6400 - 6.9 124 5.3 162 1.5 257.4 " " 6400 - 6.3 136 4.8 179 1.35 283.1 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 4.6 <td< th=""><th>4.1</th></td<>	4.1
9.6 89 2.7 141.8 " " 6400 - 11.5 74 9.0 95 2.5 151.2 BF10Z/D06LA4 24 6400 - 11. 78 8.2 104 2.3 166.2 " " 6400 - 9.8 87 7.5 114 2.1 180.1 " 6400 - 9.0 95 6.9 124 1.95 198.0 " 6400 - 8.2 104 6.3 136 1.75 214.5 " " 6400 - 6.9 124 5.8 148 1.6 235.8 " " 6400 - 6.9 124 5.3 162 1.5 257.4 " " 6400 - 6.9 124 4.2 200 1.2 324.3 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.8 148 4.2 200 1.3 356.6 " " 6400 - 5.0 171 3.8 225 1.05 356.6 " " 6400 - 4.6 186 3.6 235 1.0 380.2 " " 6400 - 4.3 199 3.3 260 0.92 418.0 " " 6400 - 3.5 245 2.6 270 0.96 536.0 BF10G06/D06LA4 28 6400 - 3.5 245 2.6 270 0.96 536.0 BF10G06/D06LA4 31 7900 - 7.5 114 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.8 148 2.8 235.9 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 6.9 124 5.3 162 2.6 259.6 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 6.9 124 5.3 3 260 1.6 418.1 " " 7900 - 3.9 220 3.0 285 1.45 460.0 " " 7900 - 3.6 235 2.7 260 1.75 513.7 BF20G06/D06LA4 34 7900 - 3.2 210 2.2 330 1.4 617.0 " " 7900 - 3.2 215	3.8
9.0 95 2.5 151.2 BF10Z/D6LA4 24 6400 - 11. 78 8.2 104 2.3 166.2 " " 6400 - 9.8 87 7.5 114 2.1 180.1 " " 6400 - 9.0 95 6.9 124 1.95 198.0 " " 6400 - 7.6 113 5.8 148 1.6 235.8 " " 6400 - 6.9 124 5.3 162 1.5 257.4 " " 6400 - 6.3 136 4.8 179 1.35 283.1 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.8 148 3.6 235 1.0 380.2 " " 6400 - 4.6 186 3.6 235 1.0 380.2 " " 6400 - 4.3 199 3.3 260 0.92 418.0 " " 6400 - 3.5 245 2.6 270 0.96 536.0 BF10G06/D06LA4 28 6400 - 3.1 220 6.3 136 2.3 295.5 " " 7900 - 6.9 124 5.3 162 2.6 259.6 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 5.5 156 4.2 200 3.1 325.2 " " 7900 - 4.4 195 3.7 230 1.85 373.1 " " 7900 - 3.9 220 3.0 285 1.45 460.0 " " 7900 - 4.4 195 3.3 260 1.6 418.1 " " 7900 - 4.4 195 3.3 260 1.6 418.1 " " 7900 - 3.6 235 3.0 285 1.45 460.0 " " 7900 - 3.6 235 3.0 285 1.45 460.0 " " 7900 - 3.6 235 3.0 285 1.45 460.0 " " 7900 - 3.6 235 3.0 285 1.45 460.0 " " 7900 - 3.6 235 3.0 285 1.45 460.0 " " 7900 - 3.6 235 3.0 285 1.45 460.0 " " 7900 - 3.6 235 3.0 285 1.45 460.0 " " 7900 - 3.2 210 3.0 2.0 339.1 " " 7900 - 3.6 235 3.0 2.2 2.0 330 1.4 617.0 " " 7900 - 3.2 2.7 255	3.6
8.2 104 2.3 166.2 " " 6400 - 9.8 87 7.5 114 2.1 180.1 " " 6400 - 9.0 95 6.9 124 1.95 198.0 " " 6400 - 9.6 104 6.3 136 1.75 214.5 " " 6400 - 7.6 113 5.8 148 1.6 235.8 " " 6400 - 6.9 124 5.3 162 1.5 257.4 " " 6400 - 6.3 136 4.8 179 1.35 283.1 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 4.6 186 3.6 235 1.0 380.2 " " 6400 - 3.9	3.2
7.5	3.1
6.9	2.8
6.3	2.5
5.8 148 1.6 235.8 " 6400 - 6.9 124 5.3 162 1.5 257.4 " 6400 - 6.9 124 5.3 162 1.5 257.4 " 6400 - 6.3 136 4.8 179 1.35 283.1 " 6400 - 5.8 148 4.2 200 1.2 324.3 " 6400 - 5.0 171 3.8 225 1.05 356.6 " 6400 - 4.6 186 3.6 235 1.0 380.2 " 6400 - 4.3 199 3.3 260 0.92 418.0 " 6400 - 3.5 245 2.6 270 0.96 536.0 BF10G06/D06LA4 28 6400 - 3.1 220 6.3 136 3.1 216.9 BF20Z/D06LA4 28 6400 - 3.1 220 6.3 148 2.8 235.9 " 7900 - 6.9 124 5.8 148 2.8 235.9 " 7900 - 6.3 136 4.6 186 2.3 295.5 " 7900 - 6.3 136 4.6 186 2.3 295.5 " 7900 - 5.5 156 4.2 200 2.1 325.2 " 7900 - 5.5 156 4.2 200 2.1 325.2 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " 7900 - 4.4 195 3.3 260 1.6 418.1 " 7900 - 3.9 220 2.7 260 1.75 513.7 BF20G06/D06LA4 34 7900 - 3.2 210 2.2 330 1.4 617.0 " 7900 - 3.2 210 2.2 330 1.4 617.0 " 7900 - 3.2 210	2.3
5.3 162 1.5 257.4 " " 6400 - 6.3 136 4.8 179 1.35 283.1 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.0 171 3.8 225 1.05 356.6 " " 6400 - 4.6 186 3.6 235 1.0 380.2 " " 6400 - 3.9 220 2.9 295 0.81 469.5 " " 6400 - 3.5 245 2.6 270 0.96 536.0 BF10G06/D06LA4 28 6400 - 3.1 220 6.3 136 3.1 216.9 BF20Z/D06LA4 28 6400 - 3.1 220 6.3 136 3.1 216.9 BF20Z/D06LA4 31 7900 - 7.5 114 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.3 162 2.6 259.6 " " 7900 - 6.3 136 4.6 186 2.3 295.5 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 5.5 156 4.2 200 339.1 " " 7900 - 4.8 179 3.7 230 339.1 " " 7900 - 4.8 179 3.7 230 1.85 373.1 " " 7900 - 4.4 195 3.3 260 1.6 418.1 " " 7900 - 3.9 220 3.0 285 1.45 460.0 " " 7900 - 3.2 230 3.0 285 1.45 460.0 " " 7900 - 3.2 230 2.7 260 1.75 513.7 BF20G06/D06LA4 34 7900 - 3.2 255	2.1
4.8 179 1.35 283.1 " " 6400 - 5.8 148 4.2 200 1.2 324.3 " " 6400 - 5.0 171 3.8 225 1.05 356.6 " " 6400 - 4.6 186 3.6 235 1.0 380.2 " " 6400 - 4.3 199 3.3 260 0.92 418.0 " " 6400 - 3.9 220 2.9 295 0.81 469.5 " " 6400 - 3.5 245 2.6 270 0.96 536.0 BF10G06/D06LA4 28 6400 - 3.1 220 6.3 136 3.1 216.9 BF20Z/D06LA4 31 7900 - 7.5 114 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.3 162 2.6 259.6 " " 7900	1.95
4.2 200 1.2 324.3 " " 6400 - 5.0 171 3.8 225 1.05 356.6 " " 6400 - 4.6 186 3.6 235 1.0 380.2 " " 6400 - 4.3 199 3.3 260 0.92 418.0 " " 6400 - 3.9 220 2.9 295 0.81 469.5 " " 6400 - 3.5 245 2.6 270 0.96 536.0 BF10G06/D06LA4 28 6400 - 3.1 220 6.3 136 3.1 216.9 BF20Z/D06LA4 31 7900 - 7.5 114 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.3 162 2.6 259.6 " " 7900 - 6.3 136 4.6 186 2.3 295.5 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 4.8 179 3.7 230 1.85 373.1 " " 7900 - 4.8 179 3.3 260 1.6 418.1 " " 7900 - 3.9 220 3.0 285 1.45 460.0 " " 7900 - 3.6 235 2.7 260 1.75 513.7 BF20G06/D06LA4 34 7900 - 3.2 210 2.2 330 1.4 617.0 " 7900 - 3.2 255	1.75
3.8 225 1.05 356.6 " " 6400 - 4.6 186 3.6 235 1.0 380.2 " " 6400 - 4.3 199 3.3 260 0.92 418.0 " " 6400 - 3.9 220 2.9 295 0.81 469.5 " " 6400 - 3.5 245 2.6 270 0.96 536.0 BF10G06/D06LA4 28 6400 - 3.1 220 6.3 136 3.1 216.9 BF20Z/D06LA4 31 7900 - 7.5 114 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.3 162 2.6 259.6 " " 7900 - 6.3 136 4.6 186 2.3 295.5 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900	1.6
3.6	1.4
3.3 260 0.92 418.0 " " 6400 - 3.9 220 2.9 295 0.81 469.5 " " 6400 - 3.5 245 2.6 270 0.96 536.0 BF10G06/D06LA4 28 6400 - 3.1 220 6.3 136 3.1 216.9 BF20Z/D06LA4 31 7900 - 7.5 114 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.3 162 2.6 259.6 " " 7900 - 6.3 136 4.6 186 2.3 295.5 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 5.5 156 4.2 200 339.1 " " 7900 - 4.8 179 3.7 230 1.85 373.1 " " 7900 - 4.8 179 3.7 230 1.85 373.1 " " 7900 - 3.9 220 3.0 285 1.45 460.0 " " 7900 - 3.6 235 2.7 260 1.75 513.7 BF20G06/D06LA4 34 7900 - 3.2 210 2.2 330 1.4 617.0 " 7900 - 2.7 255	1.3
2.9	1.2
2.6 270 0.96 536.0 BF10G06/D06LA4 28 6400 - 3.1 220 6.3 136 3.1 216.9 BF20Z/D06LA4 31 7900 - 7.5 114 5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.3 162 2.6 259.6 " " 7900 - 6.3 136 4.6 186 2.3 295.5 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 5.0 171 4.0 210 2.0 339.1 " " 7900 - 4.8 179 3.7 230 1.85 373.1 " " 7900 - 4.4 195 3.3 260 1.6 418.1 " " 7900 - 3.6 235 2.7 260 1.75 513.7 BF20G06/D06LA4 34 <	1.1
6.3	0.98
5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.3 162 2.6 259.6 " " 7900 - 6.3 136 4.6 186 2.3 295.5 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 5.0 171 4.0 210 2.0 339.1 " " 7900 - 4.8 179 3.7 230 1.85 373.1 " " 7900 - 4.4 195 3.3 260 1.6 418.1 " " 7900 - 3.9 220 3.0 285 1.45 460.0 " " 7900 - 3.6 235 2.7 260 1.75 513.7 BF20G06/D06LA4 34 7900 - 3.2 210 2.2 330 1.4 617.0 " " 7900 - 2.7 255	1.2
5.8 148 2.8 235.9 " " 7900 - 6.9 124 5.3 162 2.6 259.6 " " 7900 - 6.3 136 4.6 186 2.3 295.5 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 5.0 171 4.0 210 2.0 339.1 " " 7900 - 4.8 179 3.7 230 1.85 373.1 " " 7900 - 4.4 195 3.3 260 1.6 418.1 " " 7900 - 3.9 220 3.0 285 1.45 460.0 " " 7900 - 3.6 235 2.7 260 1.75 513.7 BF20G06/D06LA4 34 7900 - 3.2 210 2.2 330 1.4 617.0 " " 7900 - 2.7 255	3.7
5.3 162 2.6 259.6 " " 7900 - 6.3 136 4.6 186 2.3 295.5 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 5.0 171 4.0 210 2.0 339.1 " " 7900 - 4.8 179 3.7 230 1.85 373.1 " " 7900 - 4.4 195 3.3 260 1.6 418.1 " " 7900 - 3.9 220 3.0 285 1.45 460.0 " " 7900 - 3.6 235 2.7 260 1.75 513.7 BF20G06/D06LA4 34 7900 - 3.2 210 2.2 330 1.4 617.0 " " 7900 - 2.7 255	3.4
4.6 186 2.3 295.5 " " 7900 - 5.5 156 4.2 200 2.1 325.2 " " 7900 - 5.0 171 4.0 210 2.0 339.1 " " 7900 - 4.8 179 3.7 230 1.85 373.1 " " 7900 - 4.4 195 3.3 260 1.6 418.1 " " 7900 - 3.9 220 3.0 285 1.45 460.0 " " 7900 - 3.6 235 2.7 260 1.75 513.7 BF20G06/D06LA4 34 7900 - 3.2 210 2.2 330 1.4 617.0 " 7900 - 2.7 255	3.1
4.2 200 2.1 325.2 " " 7900 - 5.0 171 4.0 210 2.0 339.1 " " 7900 - 4.8 179 3.7 230 1.85 373.1 " " 7900 - 4.4 195 3.3 260 1.6 418.1 " " 7900 - 3.9 220 3.0 285 1.45 460.0 " " 7900 - 3.6 235 2.7 260 1.75 513.7 BF20G06/D06LA4 34 7900 - 3.2 210 2.2 330 1.4 617.0 " " 7900 - 2.7 255	2.7
4.0 210 2.0 339.1 " 7900 - 4.8 179 3.7 230 1.85 373.1 " " 7900 - 4.4 195 3.3 260 1.6 418.1 " " 7900 - 3.9 220 3.0 285 1.45 460.0 " " 7900 - 3.6 235 2.7 260 1.75 513.7 BF20G06/D06LA4 34 7900 - 3.2 210 2.2 330 1.4 617.0 " " 7900 - 2.7 255	2.5
3.7 230 1.85 373.1 " " 7900 - 4.4 195 3.3 260 1.6 418.1 " " 7900 - 3.9 220 3.0 285 1.45 460.0 " " 7900 - 3.6 235 2.7 260 1.75 513.7 BF20G06/D06LA4 34 7900 - 3.2 210 2.2 330 1.4 617.0 " " 7900 - 2.7 255	2.3
3.3 260 1.6 418.1 " " 7900 - 3.9 220 3.0 285 1.45 460.0 " " 7900 - 3.6 235 2.7 260 1.75 513.7 BF20G06/D06LA4 34 7900 - 3.2 210 2.2 330 1.4 617.0 " " 7900 - 2.7 255	2.2
3.0 285 1.45 460.0 " " 7900 - 3.6 235 2.7 260 1.75 513.7 BF20G06/D06LA4 34 7900 - 3.2 210 2.2 330 1.4 617.0 " 7900 - 2.7 255	1.9
2.7 260 1.75 513.7 BF20G06/D06LA4 34 7900 - 3.2 210 2.2 330 1.4 617.0 " 7900 - 2.7 255	1.8
2.2 330 1.4 617.0 " 7900 - 2.7 255	2.2
	1.8
1700 - 120 1700 - 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1700 1	1.5
1.7 440 1.05 810.0 " 7900 - 2.0 360	1.3
1.5 500 0.92 952.7 " 7900 - 1.8 405	1.15
4.7 182 3.2 289.8 BF30Z/D06LA4 42 7400 - 5.6 153	2 (
	3.8
4.4 	3.5
4.0 210 2.7 341.0 7400 - 4.8 179	3.2
3.0 233 2.4 373.1 7400 - 4.4 193	2.9
3.3 200 2.2 412.0 7400 - 4.0 210	2.7
3.0 263 2.0 403.3 7400 - 3.3 243	2.3
2.0 330 1.73 337.0 7400 - 3.1 273	2.1
2.3 370 1.33 390.7 7400 - 2.8 303	1.9
2.2 330 1.9 622.4 BF30G06/D06LA4 45 7400 - 2.7 255	2.5
2.0 3/0 1.7 /03.1 /400 - 2.3 313	2.0
1.7 433 1.43 617.1 7400 - 2.0 300	1.75
1.5 300 1.23 901.1 7400 - 1.7 430	1.45
1.2 030 1.0 1130 7400 - 11.5 493	1.25
11.1 090 0.91 1280 7400 - 11.3 370	1.1
1.0 770 0.82 1404 " 7400 - 1.2 630	1.0

Selection - shaft-mounted geared motors DSE -IE1

P = 0.09 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
3.0	285	3.2	459.1	BF40Z/D06LA4	53	10600	-	3.6	235	3.8
2.7	315	2.9	514.6	"	II .	10600	-	3.2	265	3.4
2.4	355	2.5	566.1	"	II .	10600	-	2.9	295	3.1
1.5	350	2.9	928.9	BF40G10/D06LA4	58	10600	-	1.8	255	3.9
1.3	420	2.4	1106	"	II .	10600	-	1.5	330	3.0
1.1	540	1.85	1324	"	II .	10600	-	1.3	425	2.4
0.95	640	1.55	1484	"	"	10600	-	1.1	510	1.95
0.75	840	1.2	1810	"	"	10600	-	0.9	650	1.55
0.7	910	1.1	1997	"	"	10600	-	0.85	690	1.45
1.2	500	2.8	1203	BF50G10/D06LA4	86	13600	-	1.4	400	3.5
1.0	620	2.3	1359	"	"	13600	-	1.2	475	2.9
0.9	680	2.1	1520			13600	-	1.1	510	2.7
0.85	730	1.9	1684	"	"	13600	-	1.0	570	2.5
0.7	920	1.5	2059	"	"	13600	-	8.0	770	1.8
0.6	1120	1.25	2360	"	"	13600	-	0.7	920	1.5
0.7	780	3.2	1955	BF60G20/D06LA4	134	15300	43300	0.85	560	4.5
0.65	860	2.9	2172	BF00G20/D00LA4	134	15300	43300	0.83	680	3.7
0.03	1250	2.9	2781	· ·	11	15300	43300	0.73	930	2.7
0.49	1540	1.6	3237	· ·	11	15300	43300	0.55	1060	2.4
0.35	1950	1.3	3883	п	II .	15300	43300	0.42	1540	1.6
0.33	2350	1.05	4646	п	II .	15300	43300	0.42	1950	1.3
0.5	2330	1.03	4040			15500	43300	0.55	1330	1.5
0.34	2000	2.9	4090	BF70G20/D06LA4	212	16100	47700	0.4	1650	3.5
0.3	2350	2.4	4542	· ·	II	16100	47700	0.36	1890	3.0
0.27	2650	2.2	5124	II .	II .	16100	47700	0.32	2150	2.7
0.24	3050	1.85	5691	II .	II .	16100	47700	0.29	2450	2.3
0.21	3600	1.6	6530	II .	II .	16100	47700	0.25	2900	1.95
0.19	4000	1.45	7248	II .	II .	16100	47700	0.23	3200	1.8
0.17	4550	1.25	8052	TI .	ıı .	16100	47700	0.21	3600	1.6

P = 0.12 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
47.5	24	10	28.47	BF10/D06LA4	23	3450	-	57	20	12
43.5	26	9.2	31.31	п	"	3600	-	52	22	11
37.5	30.5	7.9	36.15	m	II .	3800	-	45	25	9.6
34	33.5	7.2	39.75	m	II .	3950	-	41	27.5	8.7
31.5	36	6.7	43.06	m	"	4100	-	38	30	8.0
29	39.5	6.1	47.35	n n	"	4250	-	34.5	33	7.3
26.5	43	5.6	51.28	n n	"	4400	-	32	35.5	6.8
24	47.5	5.1	56.39	n n	"	4550	-	29	39.5	6.1
22	52	4.6	61.55	"	"	4700	-	26.5	43	5.6
20	57	4.2	67.69	"	"	4900	-	24	47.5	5.1
17.5	65	3.7	77.55	"	"	5100	-	21	54	4.4
16	71	3.4	85.27	"	"	5300	-	19	60	4.0
15	76	3.2	90.91	"	"	5400	-	18	63	3.8
14	81	3.0	99.97	"	"	5600	-	16.5	69	3.5
12.5	91	2.6	112.3	"	"	5900	-	14.5	79	3.0
11	104	2.3	123.5	"	"	6100	-	13.5	84	2.9
10.5	109	2.2	128.9	"	"	6200	-	13	88	2.7
9.6	119	2.0	141.8	"	"	6400	-	11.5	99	2.4
9.0	127	1.9	151.2	BF10Z/D06LA4	24	6400	-	11	104	2.3
8.2	139	1.75	166.2	"	"	6400	-	9.8	116	2.1
7.5	152	1.6	180.1	"	"	6400	-	9.0	127	1.9
6.9	166	1.45	198.0	"	"	6400	-	8.2	139	1.75
6.3	181	1.35	214.5	"	"	6400	-	7.6	150	1.6
5.8	197	1.2	235.8	m m	II .	6400	-	6.9	166	1.45

Selection - shaft-mounted geared motors DSE -IE1

P = 0.12 kW



No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No.		50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
	n ₂		f _R	•	.,,,,		· KN	· KV	n_2		$f_{\scriptscriptstyle B}$
1.5			-6			kg	N	N			- 0
4.2 270 0.89 3243 " " 6400 - 5.8 197 1 1 1			1.1	257.4	BF10Z/D06LA4		6400		6.3		1.35
1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	1					II		_			1.2
3.6					п	II		_			1.05
3.6 275 0.95 377.9 BF10G06/D06LA4 28 6400 - 4.3 225 1.1 3.2 215 1.0 0.84 424.5 " 6400 - 4.3 225 1.0 0.8					п	II		_			0.98
3.2 310			1		BF10G06/D06LA4	28		_			1.15
8.7 131 3.2 1554 BF20Z/D06LA4 31 7900 - 10.5 10.9 3 8.3 138 3.0 1643 " 7900 - 9.9 115 3 7.5 152 2.8 180.8 " 7900 - 9.9 115 3 6.9 166 2.5 197.1 " 7900 - 8.3 138 3 6.3 138 2.3 216.9 " 7900 - 8.3 138 3 6.3 138 2.3 216.9 " 7900 - 6.6 152 2 5.8 197 2.1 235.9 " 7900 - 6.9 166 2 5.3 215 1.95 259.6 " 7900 - 6.9 166 2 6.4 245 1.7 295.5 " 7900 - 5.5 205 2 6.6 245 1.7 295.5 " 7900 - 5.5 205 2 6.6 245 1.7 295.5 " 7900 - 5.5 205 2 6.7 1.5 33.7 305 1.4 373.1 " 7900 - 5.5 205 2 7. 2 2 2 2 2 2 1.5 1.9 3 2.5 2 " 7900 - 5.5 205 2 7. 3 30 345 1.2 418.1 " 7900 - 4.8 235 1.3 7. 30.3 345 1.2 418.1 " 7900 - 3.6 3.3 15 3.3 2.7 370 1.25 513.7 BF20G06/D06LA4 34 7900 - 3.2 300 1.5 2.2 460 1.0 617.0 " 7900 - 2.7 300 1.5 5.5 205 2.8 247.3 " 7900 - 2.7 300 1.5 5.5 205 2.8 247.3 " 7900 - 2.7 300 1.5 5.5 205 2.8 247.3 " 7400 - 6.6 173 3.3 5.2 205 2.8 247.3 " 7400 - 6.2 184 6.1 187 2.4 2.2 310.7 " 7400 - 6.2 184 6.2 2.3 315 1.85 37.1 " 7400 - 6.2 184 6.3 3.3 345 1.5 418.5 " 7400 - 5.3 215 7. 206 2.2 310.7 " 7400 - 5.3 215 7. 207 2.4 289.8 " 7400 - 5.3 215 7. 208 341.5 " 7400 - 5.3 215 7. 209 341.5 " 7400 - 5.3 215 7. 209 341.5 " 7400 - 5.3 215 7. 209 341.5 " 7400 - 5.3 215 7. 209 341.5 " 7400 - 5.3 215 7. 209 341.5 " 7400 - 5.3 215 7. 209 341.5 " 7400 - 3.5 325 7. 309 1.5 325 7. 309 1.5 325 7. 309 345 1.5 " 7400 - 5.3 215 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 325 7. 309 345 1.5 " 7400 - 3.5 " 7400 - 3.5 " 7400 7. 309 345 1.5 " 7400 - 3.5 " 7400 7. 309 345 1.5 " 7400 - 3.5 " 7400 7. 3			0.84		II .	II .		-			1.05
8.3											
7.5	8.7	131	3.2	155.4	BF20Z/D06LA4	31	7900	-	10.5	109	3.9
1.5	8.3	138	3.0	164.3	m .	II .	7900	-	9.9	115	3.7
19	7.5	152	2.8	180.8	m .	II .	7900	-	9.0	127	3.3
5.8	6.9	166	2.5	197.1			7900	-			3.0
5.3 215 1.95 259.6 " " 7900 - 6.3 181 22 4.6 245 1.7 295.5 " " 7900 - 5.5 205 2 4.2 270 1.55 325.2 " " 7900 - 5.5 205 2 4.3 393 1 " " 7900 - 5.5 205 2 4.4 373.1 " " 7900 - 4.4 260 1.1 3.3 345 1.2 418.1 " " 7900 - 4.4 260 1.1 3.3 345 1.2 418.1 " " 7900 - 3.9 290 1.4 3.0 380 1.1 460.0 " " 7900 - 3.6 315 1.3 2.7 370 1.25 513.7 BF20G06/D06LA4 34 7900 - 3.2 300 1.5 2.7 370 1.25 513.7 BF20G06/D06LA4 34 7900 - 3.2 300 1.5 1.9 540 0.85 736.1 " " 7900 - 2.3 435 1.0 6.1 187 3.1 224.8 BF30Z//D06LA4 42 7400 - 7.3 156 3.5 5.5 205 2.8 247.3 " " 7400 - 6.6 173 3.6 5.5 205 2.8 247.3 " " 7400 - 6.6 173 3.6 5.2 220 2.6 263.5 " " 7400 - 6.2 184 3.4 7. 240 2.4 289.8 " " 7400 - 6.2 184 3.3 3.6 315 1.85 375.1 " " 7400 - 6.2 184 3.3 3.6 315 1.85 375.1 " " 7400 - 4.4 260 2.2 3.3 345 1.65 412.6 " " 7400 - 4.4 260 2.2 3.3 345 1.65 412.6 " " 7400 - 4.3 235 2.2 3.0 380 1.5 463.3 " " 7400 - 4.4 260 2.2 3.3 345 1.65 412.6 " " 7400 - 4.4 260 2.2 3.3 345 1.65 412.6 " " 7400 - 4.4 260 2.2 3.3 345 1.65 412.6 " " 7400 - 4.3 235 2.2 3.3 345 1.65 412.6 " " 7400 - 2.3 440 2.3 525 2.2 3.4 35 1.65 412.6 " " 7400 - 2.3 440 2.3 525 2.2 3.6 315 1.85 375.1 " " 7400 - 4.4 260 2.2 3.7 380 1.5 560 412.6 " " 7400 - 2.3 440 2.3 525 2.2 3.6 315 1.85 375.1 " " 7400 - 2.2 340 2.2 525 2.2 460 1.3 565 1.1 " " 7400 - 2.2 340 2.2 525 2.2 460 1.3 565 1.1 " " 7400 - 2.2 526 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2.2 54 2		181	2.3					-			2.8
4.6				235.9				-			2.5
4.0 285 1.45 339.1 " " 7900 -								-			2.3
4.0 285 1.45 339.1 "								-			2.0
3.7 305 1.4 373.1 " " 7900 - 4.4 260 1.1 3.3 3.4 373.1 " " 7900 - 3.9 290 1.4 373.1 " " 7900 - 3.9 290 1.4 373.1 " " 7900 - 3.9 290 1.4 373.1 3.0 380 1.1 460.0 " " 7900 - 3.9 3.6 315 1.3 3.0 380 1.1 460.0 " " 7900 - 3.2 360 1.5 1.3 1.2 2.2 460 1.0 617.0 617.0 " " 7900 - 3.2 300 1.5 1.5 1.0 1.9 540 0.85 736.1 " " 7900 - 2.2 7 360 1.5 1.0 1.9 540 0.85 736.1 " " 7900 - 2.3 435 1.0 1.5 1.5 205 2.8 247.3 " " 7400 - 6.6 173 3.								-			1.85
3.3 345 1.2 418.1 " " 7900 - 3.3 9 290 1.4 3.0 380 1.1 460.0 " " 7900 - 3.6 315 1.3 3.2 7370 1.25 513.7 BF20G06/D06LA4 34 7900 - 3.2 300 1.5 2.2 460 1.0 617.0 " " 7900 - 2.7 360 1.0 1.9 540 0.85 736.1 " " 7900 - 2.3 435 1.0 6.1 187 3.1 224.8 BF30Z/D06LA4 42 7400 - 7.3 156 3. 5.5 205 2.8 247.3 " " 7400 - 6.6 173 3. 5.2 220 2.6 263.5 " " 7400 - 6.2 184 3. 4.7 240 2.4 289.8 " " 7400 - 6.2 184 3. 4.4 260 2.2 310.7 " " 7400 - 5.6 200 2. 3.6 315 1.85 375.1 " " 7400 - 4.8 235 2.2 3.6 315 1.85 375.1 " " 7400 - 4.8 235 2.2 3.6 333 345 1.65 463.3 " " 7400 - 4.4 260 2.2 3.6 3.0 380 1.5 463.3 " " 7400 - 4.0 285 2.0 3.1 380 1.5 590.7 " " 7400 - 2.0 5.0 1.0 2.2 460 1.3 587.0 " " 7400 - 3.1 365 1. 2.3 495 1.15 590.7 " " 7400 - 3.1 365 1. 2.4 740 1.3 537.0 " " 7400 - 3.1 365 1. 2.5 2.5 2.5 70.1 " " 7400 - 2.7 360 1.0 2.6 6 400 1.3 587.0 " " 7400 - 2.7 360 1.0 2.7 360 1.0 2.8 405 1.3 345 1.5 590.7 " " 7400 - 3.1 365 1.0 2.3 495 1.15 590.7 " " 7400 - 2.7 360 1.7 2.3 495 1.15 590.7 " " 7400 - 2.7 360 1.7 2.4 4.7 2.7 3.3 324.7 BF30G6/D06LA4 45 7400 - 2.7 360 1.7 2.9 510 1.25 705.1 " " 7400 - 2.0 500 1.2 3.9 290 3.1 346.8 " " " 7400 - 2.3 440 1.4 3.6 315 2.9 381.5 " " " 7400 - 2.3 440 1.4 3.6 315 2.9 381.5 " " " 7400 - 2.0 500 1.2 3.9 290 3.1 346.8 " " " 7400 - 2.3 440 1.4 3.9 290 3.1 346.8 " " " 7400 - 2.3 440 1.4 3.9 290 3.1 346.8 " " " 7400 - 2.3 440 1.4 3.9 290 3.1 346.8 " " " 7400 - 2.3 440 1.4 3.9 290 3.1 346.8 " " " 10600 - 3.2 355 2.2 3.1 310 3.2 597.3 BF40G10/D06LA4 53 10600 - 5.0 2.5 4. 3.3 345 2.6 417.3 " " 10600 - 1.7 600 1.0 3.1 360 1.5 510.6 " " 10600 - 1.8 200 1.7 3.1 540 1.85 98.9 " " 10600 - 1.8 200 1.7 3.1 540 1.85 98.9 " " 10600 - 1.8 200 1.7 3.1 540 1.85 98.9 " " 10600 - 1.8 200 1.7 3.1 540 1.85 98.9 " " 10600 - 1.8 200 1.7 3.1 540 1.85 98.9 " " 10600 - 1.8 200 1.7 3.1 540 1.85 98.9 " " 10600 - 1.8 200 1.7 3.1 540 1.85 98.9 " " 10600 - 1.8 200 1.7 3.1 540 1.85 98.9 " " 10600 - 1.8 200 1.7 3.1 540 1.85 98.9 " " 10600 - 1.8 200 1.7 3.1 540 1.85 98.9 " " 10600 - 1.8 200 1.7 3.1 540 1.85 98.9 " " 10600 - 1.8			1					-			1.8
3.0 380 1.1 460.0 " " 7900 - 3.6 315 13.7 2.2 460 1.0 617.0 " " 7900 - 3.2 300 15.5 2.2 460 1.0 617.0 " " 7900 - 2.7 360 1.1 1.9 540 0.85 736.1 " " 7900 - 2.3 435 1.0 6.1 187 3.1 224.8 BF30Z/D06LA4 42 7400 - 7.3 156 3. 5.5 205 2.8 247.3 " " 7400 - 6.6 173 3. 5.2 220 2.6 263.5 " " 7400 - 6.2 184 3. 4.7 240 2.4 289.8 " " 7400 - 5.6 200 2. 4.4 260 2.2 310.7 " " 7400 - 5.6 200 2. 4.4 260 2.2 310.7 " " 7400 - 4.8 235 2. 3.6 315 1.85 375.1 " " 7400 - 4.8 235 2. 3.3 345 1.65 412.6 " " 7400 - 4.0 285 2. 3.3 345 1.55 433.3 " " 7400 - 4.0 285 2. 3.3 345 1.55 433.3 " " 7400 - 3.1 365 1. 2.3 495 1.15 590.7 " " 7400 - 3.1 365 1. 2.3 495 1.15 590.7 " " 7400 - 2.8 405 1. 2.0 510 1.25 705.1 " " 7400 - 2.8 405 1. 2.1 7600 1.05 817.1 " " 7400 - 2.8 405 1. 2.2 460 1.35 622.4 BF30G06/D06LA4 45 7400 - 2.3 440 1.4 2.0 510 1.25 705.1 " " 7400 - 2.8 405 1. 2.7 460 1.35 622.4 BF30G06/D06LA4 45 7400 - 2.3 440 1.4 3.9 290 3.1 346.8 " " 10600 - 4.7 240 3. 3.9 390 0.91 961.1 " " 7400 - 2.0 500 1.2 2.7 420 2.1 514.6 " " 10600 - 4.7 240 3. 3.9 390 0.5 817.1 " " 7400 - 2.3 440 1.4 3.9 290 3.1 346.8 " " 10600 - 4.7 240 3. 3.9 390 0.5 817.1 " " 7400 - 2.3 440 1.4 3.9 290 3.1 346.8 " " 10600 - 2.9 395 2. 3.1 366 315 2.9 381.5 " " 10600 - 2.8 20 355 2. 3.3 310 3.2 597.3 BF40G10/D06LA4 58 10600 - 5.0 225 44 3.9 290 3.1 346.8 " " 10600 - 2.8 20 355 2. 3.1 360 3.2 597.3 BF40G10/D06LA4 58 10600 - 2.8 20 40 3. 3.1 3645 3.2 597.3 BF40G10/D06LA4 58 10600 - 2.8 20 4.7 240 3. 3.1 3640 1.55 1324 " " 10600 - 1.5 520 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 780 1.1 7								-			1.6
2.7 370 1.25 513.7 BF20G06/D06LA4 34 7900 - 3.2 300 1.5 2.2 460 1.0 617.0 " " 7900 - 2.7 360 1.5 1.9 540 0.85 736.1 " " 7900 - 2.7 360 1.5 6.1 187 3.1 224.8 BF30Z/D06LA4 42 7400 - 7.3 156 3.5 5.5 205 2.8 247.3 " " 7400 - 6.6 173 3.5 5.2 220 2.6 263.5 " " 7400 - 6.6 184 3.3 4.7 240 2.4 289.8 " " 7400 - 5.6 200 2.2 4.4 260 2.2 310.7 " " 7400 - 5.6 200 2.2 4.4 260 2.2 310.7 " " 7400 - 4.8 235 2.5 3.6 315 1.85 375.1 " " 7400 - 4.8 235 2.5 3.6 315 1.85 375.1 " " 7400 - 4.4 260 2.3 3.0 380 1.5 463.3 " " 7400 - 4.4 260 2.3 3.0 380 1.5 463.3 " " 7400 - 3.1 365 1.2 2.2 460 1.3 5370. " " 7400 - 3.1 365 1.2 2.3 495 1.15 590.7 " " 7400 - 2.8 405 1.1 2.3 495 1.15 590.7 " " 7400 - 2.8 405 1.1 2.4 2 270 3.3 324.7 BF30G06/D06LA4 45 7400 - 2.7 360 1.7 4.2 270 3.3 324.7 BF40Z/D06LA4 53 10600 - 2.0 500 1.2 4.5 270 3.3 345.8 " " " 10600 - 4.7 240 3.3 3.6 315 2.9 381.5 " " 10600 - 4.7 240 3.3 3.9 290 3.1 346.8 " " 10600 - 4.7 240 3.3 3.9 290 3.1 346.8 " " 10600 - 4.7 240 3.3 3.9 395 2.5 131.4 " " 10600 - 4.7 240 3.3 3.9 390 3.1 346.8 " " 10600 - 2.8 405 1.1 2.7 420 2.1 514.6 " " 10600 - 2.9 395 2.2 2.3 310 3.2 597.3 BF40G10/D06LA4 58 10600 - 2.8 220 4.1 2.7 420 2.1 514.6 " " 10600 - 2.8 220 4.1 2.7 420 2.1 514.6 " " 10600 - 2.8 220 4.1 2.7 420 2.1 514.6 " " 10600 - 2.9 395 2.2 2.8 405 1.3 640 1.55 1106 " " 10600 - 2.9 395 2.2 2.3 310 3.2 597.3 BF40G10/D06LA4 58 10600 - 2.8 220 4.1 2.4 475 1.9 566.1 " " 10600 - 2.8 220 4.1 2.5 540 1.85 928.9 " " 10600 - 2.8 220 4.1 2.5 540 1.85 928.9 " " 10600 - 1.8 410 2.2 2.5 545 2.9 555.2 " " 10600 - 1.8 410 2.2 2.5 455 2.9 555.2 " " 10600 - 1.8 410 2.2 2.7 420 2.1 514.6 " " 10600 - 1.8 410 2.2 2.5 455 2.9 555.2 " " 10600 - 1.9 395 3.3 1.6 500 2.8 864.5 BF50G10/D06LA4 82 13600 - 1.9 395 3.3 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3.3 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3.3 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3.3 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3.3 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395								-			1.45
1.9			1					-			1.35
1.9 540 0.85 736.1 " " 7900 - 2.3 435 1.0 6.1 187 3.1 224.8 BF30Z/D06LA4 42 7400 - 7.3 156 3. 5.5 205 2.8 247.3 " 7400 - 6.6 173 3. 5.5 205 2.8 247.3 " 7400 - 6.6 173 3. 4.7 240 2.4 289.8 " 7400 - 5.6 200 2. 4.4 260 2.2 310.7 " 7400 - 5.6 200 2. 4.0 285 2.0 341.8 " 7400 - 4.8 235 2. 3.6 315 1.85 375.1 " 7400 - 4.8 235 2. 3.3 345 1.65 412.6 " " 7400 - 4.4 260 2. 3.0 380 1.5 463.3 " " 7400 - 4.4 260 2. 3.0 380 1.5 463.3 " " 7400 - 3.5 325 17. 2.6 440 1.3 537.0 " " 7400 - 3.5 325 17. 2.2 460 1.35 622.4 BF30G06/D06LA4 45 7400 - 2.8 405 1. 1.7 600 1.05 817.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.3 440 1.4 1.5 690 0.91 961.1 " " 7400 - 2.0 500 1.2 3.0 380 2.4 459.1 " " 7400 - 2.3 440 1.4 3.6 315 2.9 381.5 " " 10600 - 4.7 240 3. 3.6 315 2.9 381.5 " " 10600 - 4.7 240 3. 3.6 315 2.9 381.5 " " 10600 - 4.3 265 3. 3.0 380 2.4 459.1 " " 10600 - 3.9 290 3. 3.1 346.8 " " " 10600 - 3.9 290 3. 3.0 380 2.4 459.1 " " 10600 - 4.3 265 3. 3.0 380 2.4 459.1 " " 10600 - 1.5 4.7 240 3. 3.9 390 31. 346.8 " " " 10600 - 2.9 395 22 2.7 420 2.1 5146 " " " 10600 - 2.8 220 4. 475 1.9 566.1 " " " 10600 - 2.8 220 4. 475 1.9 566.1 " " " 10600 - 1.8 410 2.2 500 1.2 2.8 405 1.5 500 " " " 10600 - 1.8 410 2.1 500 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1								-			1.55
6.1 187 3.1 224.8 BF30Z/D06LA4 42 7400 - 7.3 156 3.5 5.5 205 2.8 247.3 " " 7400 - 6.6 173 3.5 5.2 220 2.6 263.5 " " 7400 - 5.6 200 2.4 4.4 260 2.2 310.7 " " 7400 - 5.6 200 2.2 310.7 " " 7400 - 4.8 235 2.0 341.8 " " 7400 - 4.8 235 2.0 341.8 " " 7400 - 4.8 235 2.0 341.8 " " 7400 - 4.8 235 2.0 3.3 315 1.85 375.1 " " 7400 - 4.8 235 2.0 3.3 345 1.65 412.6 " " 7400 - 4.0 285 2.2 3.3 345 1.65 412.6 " " 7400 - 4.0 285 2.2 3.3 345 1.65 412.6 " " 7400 - 3.1 365 1.7 2.6 440 1.3 537.0 " " 7400 - 3.1 365 1.2 2.4 400 1.3 537.0 " " 7400 - 3.1 365 1.1 2.2 460 1.35 622.4 BF30G06/D06LA4 45 7400 - 2.7 360 1.7 2.0 510 1.25 705.1 " " 7400 - 2.8 405 1.1 1.5 690 0.91 961.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " " 10600 - 4.7 240 3.3 3.3 345 2.6 417.3 " " 10600 - 4.7 240 3.3 3.3 345 2.6 417.3 " " 10600 - 4.7 240 3.3 3.3 345 2.6 417.3 " " 10600 - 4.7 240 3.3 3.3 345 2.6 417.3 " " 10600 - 4.7 240 3.3 3.3 345 2.6 417.3 " " 10600 - 4.7 240 3.3 3.3 345 2.6 417.3 " " 10600 - 4.7 240 3.3 3.3 345 2.6 417.3 " " 10600 - 1.5 5.0 225 4.5 3.5 3.5 3.5 5.2 3.5 3.5 5.2 3.5 3.5 5.2 3.5 3.5 5.2 3.5 3.5 5.2 3.5 3.5 5.2 3.5 3.5 3.5 5.2 3.5 3.5 5.2 3.5 3.5 3.5 5.2 3.5 3.5 3.5 5.2 3.5 3.5 3.5 3.5 3.5 5.2 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5								-			1.3
5.5 205 2.8 247.3 " " 7400 - 6.6 173 3. 5.2 220 2.6 263.5 " " 7400 - 6.2 184 3. 4.7 240 2.4 289.8 " " 7400 - 5.6 200 2.2 4.4 260 2.2 310.7 " " 7400 - 5.3 215 2 4.0 285 2.0 341.8 " " 7400 - 4.8 235 2 3.6 315 1.85 375.1 " " 7400 - 4.4 260 2 3.3 345 1.65 412.6 " " 7400 - 4.4 260 2 3.0 380 1.5 4633 " " " 7400 - 3.3 3.1 365 1.7 2.2	1.9	540	0.85	736.1	"	"	7900	-	2.3	435	1.05
5.5 205 2.8 247.3 " " 7400 - 6.6 173 3. 5.2 220 2.6 263.5 " " 7400 - 6.2 184 3. 4.7 240 2.4 289.8 " " 7400 - 5.6 200 2.2 4.4 260 2.2 310.7 " " 7400 - 5.3 215 2 4.0 285 2.0 341.8 " " 7400 - 4.8 235 2 3.6 315 1.85 375.1 " " 7400 - 4.4 260 2 3.3 345 1.65 412.6 " " 7400 - 4.4 260 2 3.0 380 1.5 563.3 " " 7400 - 3.1 365 1.7 2.6 440 1.3		40=		2240	D=20= /D04144	40	7400		7.0	456	2 7
S.2 220 2.6 263.5 " " 7400 - 6.2 184 3 4.7 240 2.4 289.8 " " 7400 - 5.6 200 2 2 4.4 260 2.2 310.7 " " 7400 - 5.3 215 2 2 4.0 285 2.0 341.8 " " 7400 - 4.8 235 2 3.6 315 1.85 375.1 " " 7400 - 4.4 260 2 2 3.3 345 1.65 412.6 " " 7400 - 4.0 285 2 3.3 345 1.65 412.6 " " 7400 - 4.0 285 2 3.0 380 1.5 463.3 " " 7400 - 3.5 325 1.7 2 2 460 1.3 537.0 " " 7400 - 2.8 405 1. 2 2 460 1.35 622.4 BF30G06/D06LA4 45 7400 - 2.7 360 1.7 410 1.5 690 0.91 961.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.0 500 1.2 1.5 690 0.91 961.1 " " 7400 - 2.0 500 1.2 3.3 345 2.6 417.3 " " 10600 - 4.7 240 3.3 3.3 345 2.6 417.3 " " 10600 - 4.7 240 3.3 3.3 345 2.6 417.3 " " 10600 - 3.6 315 2.9 33.5 2.7 420 2.1 514.6 " " 10600 - 3.6 315 2.2 355 2.2 2.4 475 1.9 566.1 " " 10600 - 2.8 220 4.4 475 1.9 566.1 " " 10600 - 2.8 220 4.4 475 1.9 566.1 " " 10600 - 2.8 220 4.4 475 1.9 566.1 " " 10600 - 2.8 220 4.1 1.1 800 1.25 1324 " " 10600 - 1.3 640 1.5 500 1.8 49.9 " " 10600 - 1.1 780 1.5 1.5 520 1.1 1.1 800 1.25 1324 " " 10600 - 1.3 640 1.5 1324 " " 10600 - 1.1 780 1.5 1.5 520 1.1 1.1 800 1.25 1324 " " 10600 - 1.3 640 1.5 1324 " " 10600 - 1.3 640 1.5 1324 " " 10600 - 1.1 780 1.5 1.5 520 1.5 1.5 520 1.5 1.5 520 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5											3.7
4.7 240 2.4 289.8 " " 7400 - 5.6 200 2 4.4 260 2.2 310.7 " " 7400 - 5.3 215 2 3.6 285 2.0 341.8 " " 7400 - 4.8 235 2 3.6 315 1.85 375.1 " " 7400 - 4.0 285 2 3.3 345 1.65 412.6 " " 7400 - 4.0 285 2 3.0 380 1.5 463.3 " " 7400 - 3.5 325 1.7 2.6 440 1.3 537.0 " " 7400 - 3.5 325 1.7 2.6 440 1.3 537.0 " " 7400 - 3.5 325 1.7 2.3 495 1.15 590.7 " " 7400 - 2.8 405 1. 2.2 460 1.35 622.4 BF30G6/D06LA4 45 7400 - 2.7 360 1.7 2.0 510 1.25 705.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.0 500 1.2 1.5 690 0.91 961.1 " " 7400 - 1.7 600 1.0 4.2 270 3.3 324.7 BF40Z/D06LA4 53 10600 - 5.0 225 4 3.9 290 3.1 346.8 " " 10600 - 4.7 240 3. 3.6 315 2.9 381.5 " 10600 - 4.3 265 3. 3.3 345 2.6 417.3 " " 10600 - 4.3 265 3. 3.3 345 2.6 417.3 " " 10600 - 3.9 290 3. 3.0 380 2.4 459.1 " " 10600 - 3.2 355 2. 2.4 475 1.9 566.1 " " 10600 - 2.9 395 2. 2.3 310 3.2 597.3 BF40G10/D06LA4 58 10600 - 2.8 220 4. 1.9 395 2.5 731.6 " " 10600 - 2.3 290 3.1 1.5 540 1.85 928.9 " " 10600 - 1.8 410 2. 2.8 405 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.3 640 1.5 1.1 800 1.25 1324 " " 10600 - 1.3 640 1.5 1.1 800 1.25 1324 " " 10600 - 1.3 640 1.5 1.1 780 1.2 1.3 640 1.55 106 " " 10600 - 1.3 640 1.5 1.1 780 1.2 1.3 640 1.5 106 " " 10600 - 1.3 640 1.5 1.5 540 1.85 928.9 " " 10600 - 1.3 640 1.5 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.2 710 1.9 395 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.2 710 1.9 395 3. 1.6 500 2.8 10.5 1359 " 13600 - 1.2 710 1.9 395 3. 1.7 1000 1.4 1520 " 13600 - 1.2 710 1.9 395 3.											3.3
A.4 260 2.2 310.7 " " 7400 - 5.3 215 2 2 2 3.6 315 1.85 375.1 " " 7400 - 4.8 235 2.0 341.8 " " 7400 - 4.8 235 2.0 3.3 345 1.65 412.6 " " 7400 - 4.0 2.85 2 2 3.0 380 1.5 463.3 " " 7400 - 3.5 325 1.7 3.5 325 1.7 3.5 325 1.7 3.5 325 1.7 3.5 325 1.7 3.5 325 1.7 3.5 325 1.7 3.6 3.1 3.65 1.1 3.65 1.1 3.65 1.1 3.65 1.1 3.65 1.1 3.65 1.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.65 3.1 3.1 3.65 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3											3.1
4.0 285 2.0 341.8 " " 7400 - 4.8 235 2.3 341.8 " " 7400 - 4.8 235 2.3 3.6 315 1.85 375.1 " " 7400 - 4.0 285 2.3 3.3 345 1.65 412.6 " " 7400 - 3.5 3.5 3.5 1.7 2.6 40.0 1.3 537.0 " " 7400 - 3.5 3.5 3.5 1.7 2.3 495 1.15 590.7 " " 7400 - 2.8 405 1. 3.1 365 1. 3.2 460 1.35 622.4 BF30G06/D06LA4 45 7400 - 2.7 360 1.7 2.0 510 1.25 705.1 " " 7400 - 2.3 440 1.4 1.7 600 1.0 817.1 " " 7400 - 2.3 440 1.4 1.5 600 0.91 961.1 " " 7400 - 2.3 440 1.4 1.5 600 1.5 817.1 " " 7400 - 2.3 440 1.4 1.5 600 0.91 961.1 " " 7400 - 2.3 440 1.4 1.5 600 0.91 961.1 " " 7400 - 2.0 500 1.2 1.7 600 1.0 817.1 " " 7400 - 2.0 500 1.2 1.5 690 0.91 961.1 " " 7400 - 1.7 600 1.0 817.1 " " 7400 - 1.7 600 1.0 817.1 " " 7400 - 1.7 600 1.0 817.1 " " 7400 - 1.7 600 1.0 817.1 " " 7400 - 1.7 600 1.0 817.1 " " 10600 - 4.7 240 3.1 3.3 324.7 BF40Z/D06LA4 53 10600 - 5.0 225 4.1 3.9 290 3.1 346.8 " " 10600 - 4.3 265 3.3 3.3 345 2.9 381.5 " " 10600 - 4.3 265 3.3 3.3 345 2.6 417.3 " " 10600 - 3.2 355 2.2 4.2 4.2 459.1 " " 10600 - 3.2 355 2.2 4.2 4.2 459.1 " " 10600 - 3.2 355 2.2 4.2 4.2 459.1 " " 10600 - 2.9 395 2.2 355 2.2 4.2 4.4 475 1.9 566.1 " " 10600 - 2.9 395 2.2 355 2.2 4.1 9.3 395 2.5 731.6 " " 10600 - 2.3 290 3.1 3.5 400 1.55 1106 " " 10600 - 2.3 290 3.1 3.5 400 1.55 1106 " " 10600 - 1.8 410 2.3 290 3.1 3.5 400 1.25 1324 " " 10600 - 1.3 640 1.5 500 1.3 640 1.5 500 1.8 840 1.5 500 1.8 840 1.5 500 1.3 640 1.5 500 1.3 640 1.5 500 1.3 640 1.5 500 1.3 640 1.5 500 1.3 640 1.5 500 1.3 640 1.5 500 2.8 864.5 BF50G10/D06LA4 82 13600 - 1.3 640 1.5 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3.3 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3.3 1.6 500 2.8 864.5 BF50G10//D06LA4 86 13600 - 1.9 395 3.3 1.6 500 2.8 864.5 BF50G10//D06LA4 86 13600 - 1.9 395 3.3 1.6 500 2.8 864.5 BF50G10//D06LA4 86 13600 - 1.9 395 3.3 1.6 640 1.5 500 2.8 864.5 BF50G10//D06LA4 86 13600 - 1.9 395 3.3 1.6 640 1.5 500 2.8 864.5 BF50G10//D06LA4 86 13600 - 1.2 710 1.9 395 3.3 1.6 640 1.5 500 2.8 864.5 BF50G10//D06LA4 86 13600 - 1.2 710 1.9 395 3.3 1.6 640 1.5 500 2											2.9
3.6 315 1.85 375.1 " " 7400 - 4.6 253 2.2 33 3.3 345 1.65 412.6 " " 7400 - 4.0 285 2.2 3.3 380 1.5 463.3 " " " 7400 - 3.5 325 1.7 2.6 440 1.3 537.0 " " 7400 - 3.1 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1. 365 1.											
3.3 345 1.65 412.6 " " 7400 - 4.0 285 2. 3.0 380 1.5 463.3 " " 7400 - 3.5 325 1.7 2.6 440 1.3 537.0 " " 7400 - 3.1 365 1. 2.3 495 1.15 590.7 " " 7400 - 2.8 405 1. 2.2 460 1.35 622.4 BF30G06/D06LA4 45 7400 - 2.7 360 1.7 2.0 510 1.25 705.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.3 440 1.4 1.7 600 0.91 961.1 " " 7400 - 2.3 440 1.4 1.5 690 0.91 961.1 " " 7400 - 1.7 600 1.0 4.2 270 3.3 324.7 BF40Z/D06LA4 53 10600 - 5.0 225 4. 3.9 290 3.1 346.8 " " 10600 - 4.7 240 3. 3.6 315 2.9 381.5 " " 10600 - 4.7 240 3. 3.6 315 2.9 381.5 " " 10600 - 4.3 265 3. 3.0 380 2.4 459.1 " " 10600 - 3.6 315 2. 2.7 420 2.1 514.6 " " 10600 - 3.2 355 2. 2.4 475 1.9 566.1 " " 10600 - 2.9 395 2. 2.4 475 1.9 566.1 " " 10600 - 2.9 395 2. 2.1 514.6 " " 10600 - 2.9 395 2. 2.2 3310 3.2 597.3 BF40G10/D06LA4 58 10600 - 2.8 220 4. 1.9 395 2.5 731.6 " " 10600 - 1.8 410 2.9 395 1.5 135 40 1.85 928.9 " " 10600 - 1.8 410 1.5 1060 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.8 410 1.5 1060 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.8 410 1.5 1060 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.8 410 1.5 1060 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.8 410 1.5 10600 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.8 410 1.5 10600 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.8 410 1.5 10600 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.8 410 1.5 10600 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.8 410 1.5 10600 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.8 410 1.5 10600 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.9 395 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 82 13600 - 1.9 395 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.4 600 2. 1.2 740 1.9 1203 " " 13600 - 1.4 600 2. 1.0 900 1.55 1359 " " 13600 - 1.4 600 1.2 710 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9			1								
3.0 380 1.5 463.3 " " 7400 - 3.5 325 1.7 2.6 440 1.3 537.0 " " 7400 - 3.1 365 1. 2.2 460 1.35 590.7 " " 7400 - 2.8 405 1. 2.2 460 1.35 622.4 BF30G06/D06LA4 45 7400 - 2.7 360 1.7 2.0 510 1.25 705.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " 7400 - 2.3 440 1.4 1.5 690 0.91 961.1 " " 7400 - 1.7 600 1.0 1.5 690 0.91 961.1 " " 7400 - 1.7 600 1.0 4.2 270 3.3 324.7 BF40Z/D06LA4 53 10600 - 5.0 225 4. 3.9 290 3.1 346.8 " " 10600 - 4.7 240 3. 3.6 315 2.9 381.5 " " 10600 - 4.3 265 3. 3.3 345 2.6 417.3 " " 10600 - 3.6 315 2. 3.3 345 2.6 417.3 " " 10600 - 3.6 315 2. 2.7 420 2.1 514.6 " " 10600 - 3.6 315 2. 2.7 420 2.1 514.6 " " 10600 - 2.9 395 2. 2.4 475 1.9 566.1 " " 10600 - 2.9 395 2. 2.4 475 1.9 566.1 " " 10600 - 2.8 220 4. 1.9 395 2.5 731.6 " " 10600 - 2.8 220 4. 1.9 395 2.5 731.6 " " 10600 - 1.8 410 2. 1.1 800 1.25 1324 " " 10600 - 1.8 410 2. 1.1 800 1.25 1324 " " 10600 - 1.8 410 2. 1.1 800 1.25 1324 " " 10600 - 1.8 410 2. 1.1 800 1.25 1324 " " 10600 - 1.8 410 2. 1.1 800 1.25 1324 " " 10600 - 1.8 410 2. 1.2 8 405 3.2 496.4 BF50Z/D06LA4 82 13600 - 1.3 640 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.8 410 2. 1.2 740 1.9 1203 " " 13600 - 1.6 490 2. 1.2 740 1.9 1203 " " 13600 - 1.6 490 2. 1.2 740 1.9 1203 " " 13600 - 1.6 490 2. 1.2 740 1.9 1203 " " 13600 - 1.4 600 2. 1.0 900 1.55 1359 " " 13600 - 1.1 770 1.9											
2.6					п	11					
2.3					п	"					1.6
2.2 460 1.35 622.4 BF30G06/D06LA4 45 7400 - 2.7 360 1.7 2.0 510 1.25 705.1 " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " 7400 - 2.0 500 1.2 1.5 690 0.91 961.1 " 7400 - 1.7 600 1.0 4.2 270 3.3 324.7 BF40Z/D06LA4 53 10600 - 5.0 225 4. 3.9 290 3.1 346.8 " " 10600 - 4.7 240 3. 3.6 315 2.9 381.5 " 10600 - 4.3 265 3. 3.3 345 2.6 417.3 " 10600 - 4.3 265 3. 3.3 345 2.6 417.3 " 10600 - 3.6 315 2.7 420 2.1 514.6 " 10600 - 3.2 355 2. 2.7 420 2.1 514.6 " 10600 - 3.2 355 2. 2.4 475 1.9 566.1 " 10600 - 2.9 395 2. 2.3 310 3.2 597.3 BF40G10/D06LA4 58 10600 - 2.8 220 4. 1.9 395 2.5 731.6 " 10600 - 2.3 290 3. 1.5 540 1.85 928.9 " 10600 - 2.3 290 3. 1.5 540 1.85 928.9 " 10600 - 1.8 410 2. 1.3 640 1.55 1106 " " 10600 - 1.8 410 2. 1.3 640 1.55 1324 " 10600 - 1.3 640 1.5 1.1 800 1.25 1324 " 10600 - 1.3 640 1.5 1.1 800 1.25 1324 " 10600 - 1.3 640 1.5 1.1 800 1.25 1324 " 10600 - 1.3 640 1.5 1.1 800 1.25 1324 " 10600 - 1.3 640 1.5 1.1 800 1.25 1324 " 10600 - 1.3 640 1.5 1.1 800 1.25 1324 " 10600 - 1.3 640 1.5 1.1 800 1.25 1324 " 10600 - 1.3 640 1.5 1.1 800 1.25 1324 " 10600 - 1.3 640 1.5 1.1 800 1.25 1324 " 10600 - 1.3 640 1.5 1.1 800 1.25 1324 " 10600 - 1.3 640 1.5 1.1 800 1.25 1324 " 10600 - 1.3 640 1.5 1.1 800 1.25 1324 " 10600 - 1.3 640 1.5 1.1 800 1.25 1324 " 10600 - 1.3 640 1.5 1.1 800 1.25 1324 " 10600 - 1.4 600 2. 1.2 740 1.9 1203 " 13600 - 1.6 490 2. 1.2 740 1.9 1203 " 13600 - 1.6 490 2. 1.2 740 1.9 1203 " 13600 - 1.4 600 2. 1.0 900 1.55 1359 " 13600 - 1.4 600 2. 1.0 900 1.55 1359 " 13600 - 1.4 600 2. 1.0 900 1.55 1359 " 13600 - 1.1 770 1.5					n .	"					1.4
2.0 510 1.25 705.1 " " 7400 - 2.3 440 1.4 1.7 600 1.05 817.1 " " 7400 - 2.0 500 1.2 1.5 690 0.91 961.1 " " 7400 - 1.7 600 1.0 4.2 270 3.3 324.7 BF40Z/D06LA4 53 10600 - 5.0 225 4. 3.9 290 3.1 346.8 " " 10600 - 4.7 240 3. 3.6 315 2.9 381.5 " 10600 - 4.3 265 3. 3.3 345 2.6 417.3 " " 10600 - 3.9 290 3. 3.0 380 2.4 459.1 " " 10600 - 3.6 315 2. 2.7 420 2.1 514.6 " " 10600 - 3.2 355 2. 2.4 475 1.9 566.1 " " 10600 - 2.9 395 2. 2.4 475 1.9 566.1 " " 10600 - 2.9 395 2. 1.5 540 1.85 928.9 " " 10600 - 2.8 220 4. 1.9 395 2.5 731.6 " " 10600 - 2.8 220 4. 1.9 395 325 150 1106 " " 10600 - 1.8 410 2. 1.3 640 1.55 1106 " " 10600 - 1.8 410 2. 1.3 640 1.55 1106 " " 10600 - 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.3 640 1.5 0.95 940 1.05 1484 " " 10600 - 1.3 640 1.5 0.95 940 1.05 1484 " " 10600 - 1.1 780 1. 2.8 405 3.2 496.4 BF50Z/D06LA4 82 13600 - 3.3 345 3. 1.4 590 2.4 1029 " " 13600 - 1.6 490 2. 1.2 740 1.9 1203 " " 13600 - 1.4 600 2. 1.0 900 1.4 1520 " " 13600 - 1.4 600 2. 1.1 13600 - 1.4 600 2. 1.0 900 1.55 1359 " " 13600 - 1.4 600 2. 1.0 900 1.55 1359 " " 13600 - 1.4 600 2. 1.1 170 1.9 1000 1.4 1520 " " 13600 - 1.1 770 1.9 1.9 1000 1.4 1520 " " 13600 - 1.1 770 1.9 1.9 1000 1.4 1520 " " 13600 - 1.1 770 1.9 1.9 1000 1.4 1520 " " 13600 - 1.1 1.7 770 1.9 1.9 1000 1.4 1520 " " 13600 - 1.1 1.1 770 1.9 1.9 1000 1.4 1520 " " 13600 - 1.1 1.1 770 1.9 1.9 1000 1.4 1520 " " 13600 - 1.1 1.1 770 1.9 1.9 1.9 1000 1.4 1520 " " 13600 - 1.1 1.1 770 1.9 1.9 1000 1.4 1520 " " 13600 - 1.1 1.1 770 1.9 1.9 1000 1.4 1520 " " 13600 - 1.1 1.1 770 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9					BE30G06- /D06LA4	45		_			1.75
1.7 600 1.05 817.1 " " 7400 - 2.0 500 1.2 1.5 690 0.91 961.1 " " 7400 - 1.7 600 1.0 4.2 270 3.3 324.7 BF40Z/D06LA4 53 10600 - 5.0 225 4. 3.9 290 3.1 346.8 " " 10600 - 4.7 240 3. 3.6 315 2.9 381.5 " " 10600 - 4.7 240 3. 3.0 380 2.4 459.1 " " 10600 - 3.6 315 2. 2.7 420 2.1 514.6 " " 10600 - 3.2 355 2. 2.4 475 1.9 566.1 " " 10600 - 2.8 220 4. 1.9 395 2.5 731.6 " " 10600 - 2.8 220 4.								_			1.45
1.5 690 0.91 961.1 " " 7400 - 1.7 600 1.0 4.2 270 3.3 324.7 BF40Z/D06LA4 53 10600 - 5.0 225 4. 3.9 290 3.1 346.8 " " 10600 - 4.7 240 3. 3.6 315 2.9 381.5 " " 10600 - 4.3 265 3. 3.0 380 2.4 459.1 " " 10600 - 3.6 315 2. 2.7 420 2.1 514.6 " " 10600 - 3.2 355 2. 2.4 475 1.9 566.1 " " 10600 - 2.9 395 2. 2.3 310 3.2 597.3 BF40G10/D06LA4 58 10600 - 2.8 220 4. 1.9 395 2.5 731.6 " " 10600 - 1.8 410	1				n .	п					1.25
4.2 270 3.3 324.7 BF40Z/D06LA4 53 10600 - 5.0 225 4. 3.9 290 3.1 346.8 " 10600 - 4.7 240 3. 3.6 315 2.9 381.5 " 10600 - 4.3 265 3. 3.3 345 2.6 417.3 " 10600 - 3.9 290 3. 3.0 380 2.4 459.1 " 10600 - 3.6 315 2. 2.7 420 2.1 514.6 " 10600 - 3.2 355 2. 2.4 475 1.9 566.1 " 10600 - 2.9 395 2. 2.3 310 3.2 597.3 BF40G10/D06LA4 58 10600 - 2.8 220 4. 1.9 395 2.5 731.6 " 10600 - 2.3 290 3. 1.5 540 1.85 928.9 " 10600 - 2.3 290 3. 1.1 800 1.25 1324 " 10600 - 1.5 520 1. 1.1 800 1.25 1324 " 10600 - 1.5 520 1. 2.8 405 3.2 496.4 BF50Z/D06LA4 82 13600 - 1.3 640 1.5 0.95 940 1.05 1484 " 10600 - 1.1 780 1. 2.8 405 3.2 496.4 BF50Z/D06LA4 82 13600 - 3.0 380 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3. 1.4 590 2.4 1029 " 13600 - 1.4 600 2. 1.0 900 1.55 1359 " 13600 - 1.4 600 2. 1.0 900 1.55 1359 " 13600 - 1.4 600 2. 1.1 13600 - 1.2 770 1.9 0.9 1000 1.4 1520 " 13600 - 1.2 770 1.9 0.9 1000 1.4 1520 " 13600 - 1.2 770 1.9 0.9 1000 1.4 1520 " 13600 - 1.2 770 1.9 0.9 1000 1.4 1520 " " 13600 - 1.2 770 1.9 0.9 1000 1.4 1520 " " 13600 - 1.2 770 1.9 0.9 1000 1.4 1520 " " 13600 - 1.2 770 1.9 0.9 1000 1.4 1520 " " 13600 - 1.2 770 1.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.9 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.9 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.9 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.9 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.7 770 1.9 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.7 770 1.9 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.7 770 1.9 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.7 770 1.9 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.7 770 1.9 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.7 770 1.9 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.7 770 1.9 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.7 770 1.9 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.9 1.9 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.9 1.9 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.9 1.9 0.9 0.9 1.9 1000 1.4 1520 " " 13600 - 1.1 1.9 1.9 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.9 1.9 0.9 0.9 1.9 1000 1.4 1520 " " 13600 - 1.1 1.9 0.9 0.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.					п	II .		_			1.05
3.9		020		,,,,,,			,				
3.9	4.2	270	3.3	324.7	BF40Z/D06LA4	53	10600	-	5.0	225	4.0
3.6	3.9			346.8				-			3.8
3.3 345 2.6 417.3 " " 10600 - 3.9 290 3. 3.0 380 2.4 459.1 " " 10600 - 3.6 315 2. 2.7 420 2.1 514.6 " " 10600 - 3.2 355 2. 2.4 475 1.9 566.1 " " 10600 - 2.9 395 2. 2.3 310 3.2 597.3 BF40G10/D06LA4 58 10600 - 2.8 220 4. 1.9 395 2.5 731.6 " " 10600 - 2.3 290 3. 1.5 540 1.85 928.9 " " 10600 - 1.8 410 2. 1.3 640 1.55 1106 " " 10600 - 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.3 640 1.5 0.95 940 1.05 1484 " " 10600 - 1.1 780 1. 2.8 405 3.2 496.4 BF50Z/D06LA4 82 13600 - 3.3 345 3. 2.5 455 2.9 555.2 " " 13600 - 1.9 395 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3. 1.4 590 2.4 1029 " " 13600 - 1.6 490 2. 1.0 900 1.55 1359 " " 13600 - 1.2 710 1.9 0.9 1000 1.4 1520 " " 13600 - 1.2 710 1.9 0.9 1000 1.4 1520 " " 13600 - 1.2 710 1.9 0.9 1000 1.4 1520 " " 13600 - 1.2 710 1.9 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.7 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.7 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.7 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.7 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.7 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.1 770 1.5 0.9 0.9 1000 1.4 1520 " " 13600 - 1.1 1.1 770 1.5 0.9 0.9 1000 1.5 1.5 1.5 0.9 0.9 0.9 0.9 0.9 0.9 0.	3.6	315	2.9	381.5	n .	II	10600	-	4.3	265	3.4
2.7 420 2.1 514.6 " " 10600 - 3.2 355 2. 2.4 475 1.9 566.1 " " 10600 - 2.9 395 2. 2.3 310 3.2 597.3 BF40G10/D06LA4 58 10600 - 2.8 220 4. 1.9 395 2.5 731.6 " " 10600 - 2.3 290 3. 1.5 540 1.85 928.9 " " 10600 - 1.8 410 2. 1.3 640 1.55 1106 " " 10600 - 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.3 640 1.5 0.95 940 1.05 1484 " " 10600 - 1.1 780 1 2.8 405 3.2 496.4 BF50Z/D06LA4 82 13600 - 3.0 380	3.3	345	2.6	417.3	п	II .	10600	-	3.9	290	3.1
2.4 475 1.9 566.1 " " 10600 - 2.9 395 2. 2.3 310 3.2 597.3 BF40G10/D06LA4 58 10600 - 2.8 220 4. 1.9 395 2.5 731.6 " " 10600 - 2.3 290 3. 1.5 540 1.85 928.9 " " 10600 - 1.8 410 2. 1.3 640 1.55 1106 " " 10600 - 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.3 640 1.5 0.95 940 1.05 1484 " " 10600 - 1.1 780 1. 2.8 405 3.2 496.4 BF50Z/D06LA4 82 13600 - 1.1 780 1. 2.8 405 3.2 496.4 BF50Z/D06LA4 82 13600 - 3.0 380 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3. 1.4 590 2.4 1029 " " 13600 - 1.6 490 2. 1.2 740 1.9 1203 " " 13600 - 1.4 600 2. 1.0 900 1.55 1359 " " 13600 - 1.2 710 1.9 0.9 1000 1.4 1520 " " 13600 - 1.2 710 1.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.9 0.9			2.4	459.1	m			-			2.9
2.3 310 3.2 597.3 BF40G10/D06LA4 58 10600 - 2.8 220 4. 1.9 395 2.5 731.6 " 10600 - 2.3 290 3. 1.5 540 1.85 928.9 " 10600 - 1.8 410 2. 1.3 640 1.55 1106 " 10600 - 1.5 520 1. 1.1 800 1.25 1324 " 10600 - 1.3 640 1.5 0.95 940 1.05 1484 " 10600 - 1.1 780 1. 2.8 405 3.2 496.4 BF50Z/D06LA4 82 13600 - 1.1 780 1. 2.8 405 3.2 496.4 BF50Z/D06LA4 82 13600 - 3.0 380 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3. 1.4 590 2.4 1029 " 13600 - 1.6 490 2. 1.2 740 1.9 1203 " 13600 - 1.4 600 2. 1.0 900 1.55 1359 " 13600 - 1.2 710 1.9 0.9 1000 1.4 1520 " 13600 - 1.1 770 1.9			2.1	514.6			10600	-		355	2.5
1.9 395 2.5 731.6 " " 10600 - 2.3 290 3. 1.5 540 1.85 928.9 " " 10600 - 1.8 410 2. 1.3 640 1.55 1106 " " 10600 - 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.3 640 1.5 0.95 940 1.05 1484 " " 10600 - 1.1 780 1 2.8 405 3.2 496.4 BF50Z/D06LA4 82 13600 - 3.3 345 3. 2.5 455 2.9 555.2 " " 13600 - 3.0 380 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3. 1.4 590 2.4 1029 " " 13600 - 1.6 490								-			2.3
1.5 540 1.85 928.9 " " 10600 - 1.8 410 2. 1.3 640 1.55 1106 " " 10600 - 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.3 640 1.5 0.95 940 1.05 1484 " " 10600 - 1.1 780 1. 2.8 405 3.2 496.4 BF50Z/D06LA4 82 13600 - 3.3 345 3. 2.5 455 2.9 555.2 " " 13600 - 1.9 395 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3. 1.4 590 2.4 1029 " " 13600 - 1.6 490 2. 1.2 740 1.9 1203 " " 13600 - 1.2 710								-			4.5
1.3 640 1.55 1106 " " 10600 - 1.5 520 1. 1.1 800 1.25 1324 " " 10600 - 1.3 640 1.5 0.95 940 1.05 1484 " " 10600 - 1.1 780 1 2.8 405 3.2 496.4 BF50Z/D06LA4 82 13600 - 3.3 345 3. 2.5 455 2.9 555.2 " " 13600 - 3.0 380 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3. 1.4 590 2.4 1029 " " 13600 - 1.6 490 2. 1.2 740 1.9 1203 " " 13600 - 1.2 710 1.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770								-			3.4
1.1 800 1.25 1324 " " 10600 - 1.3 640 1.5 0.95 940 1.05 1484 " " 10600 - 1.1 780 1 2.8 405 3.2 496.4 BF50Z/D06LA4 82 13600 - 3.3 345 3. 2.5 455 2.9 555.2 " " 13600 - 3.0 380 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3. 1.4 590 2.4 1029 " " 13600 - 1.6 490 2. 1.2 740 1.9 1203 " " 13600 - 1.4 600 2. 1.0 900 1.55 1359 " " 13600 - 1.1 770 1.5 0.9 1000 1.4 1520 " " 13600 - 1.1 770								-			2.4
0.95 940 1.05 1484 " " 10600 - 1.3 040 1.3 2.8 405 3.2 496.4 BF50Z/D06LA4 82 13600 - 3.3 345 3. 2.5 455 2.9 555.2 " " 13600 - 3.0 380 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3. 1.4 590 2.4 1029 " " 13600 - 1.6 490 2. 1.2 740 1.9 1203 " " 13600 - 1.4 600 2. 1.0 900 1.55 1359 " " 13600 - 1.1 770 1.5 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.5								-			1.9
2.8 405 3.2 496.4 BF50Z/D06LA4 82 13600 - 3.3 345 3.2 2.5 455 2.9 555.2 " " 13600 - 3.0 380 3. 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3. 1.4 590 2.4 1029 " " 13600 - 1.6 490 2. 1.2 740 1.9 1203 " " 13600 - 1.4 600 2. 1.0 900 1.55 1359 " " 13600 - 1.2 710 1.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1								-			1.55
2.5 455 2.9 555.2 " " 13600 - 3.0 380 3.1 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3.0 1.4 590 2.4 1029 " " 13600 - 1.6 490 2.0 1.2 740 1.9 1203 " " 13600 - 1.4 600 2.0 1.0 900 1.55 1359 " " 13600 - 1.2 710 1.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.5	0.95	940	1.05	1484	"	"	10600	-	1.1	780	1.3
2.5 455 2.9 555.2 " " 13600 - 3.0 380 3.1 1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3.0 1.4 590 2.4 1029 " " 13600 - 1.6 490 2.0 1.2 740 1.9 1203 " " 13600 - 1.4 600 2.0 1.0 900 1.55 1359 " " 13600 - 1.2 710 1.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.5	2.0	405	3.0	106.4	DEE07 /DOCLAR	0.3	12600		2.2	245	3.0
1.6 500 2.8 864.5 BF50G10/D06LA4 86 13600 - 1.9 395 3.0 1.4 590 2.4 1029 " " 13600 - 1.6 490 2. 1.2 740 1.9 1203 " " 13600 - 1.4 600 2. 1.0 900 1.55 1359 " " 13600 - 1.2 710 1.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.5											3.8
1.4 590 2.4 1029 " " 13600 - 1.6 490 2. 1.2 740 1.9 1203 " " 13600 - 1.4 600 2. 1.0 900 1.55 1359 " " 13600 - 1.2 710 1.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.			1								3.4
1.4 390 2.4 1029 13000 - 1.6 490 2. 1.2 740 1.9 1203 " " 13600 - 1.4 600 2. 1.0 900 1.55 1359 " " 13600 - 1.2 710 1.9 0.9 1000 1.4 1520 " " 13600 - 1.1 770 1.											3.5
1.0 900 1.55 1359 " 13600 - 1.2 710 1.9 0.9 1000 1.4 1520 " 13600 - 1.1 770 1.1											2.9
0.9 1000 1.4 1520 " 13600 - 1.1 770 1.9											2.3
13000 - 1.1 //0 1.											1.95
וו - 1,000 בסיסו בסיסו בסיסו (און - 1,000 בסיסו											1.65
											1.05
1.0000 - 0.00 1130 1.2	U./	1330	1.05	2039			13000	-	0.0	1130	1.23

Selection - shaft-mounted geared motors DSE -IE1

P = 0.12 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
0.95	820	3.0	1494	BF60G20/D06LA4	134	15300	43300	1.1	660	3.8
0.85	920	2.7	1658	"	II .	15300	43300	1.0	720	3.5
0.7	1190	2.1	1955	"	II .	15300	43300	0.85	900	2.8
0.65	1300	1.9	2172	"	II .	15300	43300	0.75	1060	2.4
0.49	1830	1.35	2781	"	II .	15300	43300	0.6	1400	1.8
0.42	2200	1.15	3237	"	II .	15300	43300	0.55	1580	1.6
0.48	1890	3.0	2849	BF70G20/D06LA4	212	16100	47700	0.6	1410	4.0
0.4	2350	2.4	3417	"	II .	16100	47700	0.48	1890	3.0
0.34	2850	2.0	4090	ıı .	II .	16100	47700	0.4	2350	2.4
0.3	3300	1.75	4542	ıı .	II .	16100	47700	0.36	2650	2.2
0.27	3750	1.5	5124	ıı .	II .	16100	47700	0.32	3050	1.85
0.24	4250	1.35	5691	"	II .	16100	47700	0.29	3450	1.65
0.21	4950	1.15	6530	"	II .	16100	47700	0.25	4050	1.4
0.19	5500	1.05	7248	TI .	"	16100	47700	0.23	4450	1.3

P = 0.18 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		· ·				n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
177	9.7	7.0	7.66	BF06/D05LA4	10	1800	-	215	7.9	8.6
147	11.6	6.0	9.21	n	"	1900	-	176	9.7	7.2
112	15.3	4.9	12.07	m m	11	2000	-	135	12.7	5.9
96	17.9	4.7	14.21	m m	11	2100	-	115	14.9	5.7
80	21	4.5	16.99	m m	11	2500	-	96	17.9	5.3
67	25.5	3.7	20.42	TI TI	"	2700	-	80	21	4.5
51	33.5	2.8	26.76	TI TI	"	3000	-	61	28	3.4
43	39.5	2.4	31.50	n	"	3200	-	52	33	2.9
36	47.5	2.0	37.69	n	"	3500	-	43	39.5	2.4
29.5	58	1.65	46.14	m .	"	3800	-	35.5	48	2.0
23.5	73	1.3	58.33	II .	"	4000	-	28	61	1.55
20.5	83	1.15	66.82	II .	"	4000	-	24.5	70	1.35
16.5	104	0.91	83.61	II .	"	4000	-	19.5	88	1.1
14.5	118	0.81	95.16	II .	"	4000	-	17.5	98	0.97
22	78	3.1	61.55	BF10/D06LA4	23	4700	_	26.5	64	3.8
20	85	2.8	67.69	п	"	4900	-	24	71	3.4
17.5	98	2.4	77.55	п	"	5100	-	21	81	3.0
16	107	2.2	85.27	II .	"	5300	-	19	90	2.7
15	114	2.1	90.91	п	"	5400	-	18	95	2.5
14	122	1.95	99.97	п	"	5600	-	16.5	104	2.3
12.5	137	1.75	112.3	II .	"	5900	-	14.5	118	2.0
11	156	1.55	123.5	п	"	6100	-	13.5	127	1.9
10.5	163	1.45	128.9	п	II .	6200	-	13	132	1.8
9.6	179	1.35	141.8	II .	"	6400	-	11.5	149	1.6
9.0	191	1.25	151.2	BF10Z/D06LA4	24	6400	-	11	156	1.55
8.2	205	1.15	166.2	II .	"	6400	-	9.8	175	1.35
7.5	225	1.05	180.1	II .	"	6400	-	9.0	191	1.25
6.9	245	0.98	198.0	II .	"	6400	-	8.2	205	1.15
6.3	270	0.89	214.5	II .	"	6400	-	7.6	225	1.05
5.8	295	0.81	235.8	п	"	6400	-	6.9	245	0.98
13.5	127	3.3	100.2	BF20/D06LA4	30	7000	_	16.5	104	4.0
12.5	137	3.1	110.2	m .	II .	7300	-	15	114	3.7
11	156	2.7	123.5	m .	II .	7600	-	13.5	127	3.3
10	171	2.5	135.9	· ·	II .	7900	_	12	143	2.9
9.6	179	2.3	141.2	BF20Z/D06LA4	31	7900	_	11.5	149	2.8
8.7	197	2.1	155.4	"	"	7900	_	10.5	163	2.6
8.3	205	2.0	164.3	n	II .	7900	_	9.9	173	2.4

Selection - shaft-mounted geared motors DSE -IE1

P = 0.18 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		-71-				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
7.5	225	1.85	180.8	BF20Z/D06LA4	"	7900	-	9.0	191	2.2
6.9	245	1.7	197.1	"	"	7900	-	8.3	205	2.0
6.3	270	1.55	216.9	"	"	7900	-	7.5	225	1.85
5.8	295	1.4	235.9	"	"	7900	-	6.9	245	1.7
5.3	320	1.3	259.6	"	"	7900	-	6.3	270	1.55
4.6	370	1.15	295.5	"	"	7900	-	5.5	310	1.35
4.2	405	1.05	325.2	"	"	7900	-	5.0	340	1.25
4.0	425	0.99	339.1	"	"	7900	-	4.8	355	1.2
3.7	460	0.91	373.1		"	7900	-	4.4	390	1.1
3.3	520	0.81	418.1			7900	-	3.9	440	0.95
9.9	173	3.3	137.1	BF30/D06LA4	40	7400	-	12	143	4.0
9.0	191	3.0	150.7	BF30Z/D06LA4	42	7400	-	11	156	3.7
8.2	205	2.8	165.8	n	II .	7400	-	9.8	175	3.3
7.7	220	2.6	176.6	m m	"	7400	-	9.2	186	3.1
7.0	245	2.3	194.3	m m	"	7400	-	8.4	200	2.9
6.1	280	2.1	224.8	"	II .	7400	-	7.3	235	2.4
5.5	310	1.85	247.3	"	"	7400	-	6.6	260	2.2
5.2	330	1.75	263.5	"	"	7400	-	6.2	275	2.1
4.7	365	1.6	289.8	"	"	7400	-	5.6	305	1.9
4.4	390	1.45	310.7	"	"	7400	-	5.3	320	1.8
4.0	425	1.35	341.8	"	"	7400	-	4.8	355	1.6
3.6	475	1.2	375.1	"	"	7400	-	4.4	390	1.45
3.3	520	1.1	412.6	"	"	7400	-	4.0	425	1.35
3.0	570	1.0	463.3		"	7400	-	3.5	490	1.15
2.6	660 720	0.87 0.88	537.0 622.4	BF30G06/D06LA4	45	7400	-	3.1 2.7	550 570	1.05
2.2	720	0.00	022.4	DF30000/D00LA4	43	7400	-	2.7	370	1.1
6.1	280	3.2	222.4	BF40Z/D06LA4	53	10600	-	7.3	235	3.8
5.4	315	2.9	253.2	"	"	10600	-	6.4	265	3.4
4.9	350	2.6	278.5	"	"	10600	-	5.9	290	3.1
4.6	370	2.4	295.1	"	"	10600	-	5.5	310	2.9
4.2	405	2.2	324.7	"	"	10600	-	5.0	340	2.6
3.9	440	2.0	346.8	"	"	10600	-	4.7	365	2.5
3.6	475	1.9	381.5	" "	"	10600	-	4.3	395	2.3
3.3	520	1.75	417.3	"	"	10600	-	3.9	440	2.0
3.0	570	1.6	459.1			10600	-	3.6	475	1.9
2.7 2.4	630 710	1.45	514.6 566.1		"	10600	-	3.2 2.9	530	1.7 1.55
2.4	560	1.25 1.8	597.3	BF40G10/D06LA4	58	10600 10600	-	2.9	590 425	2.4
1.9	690	1.45	731.6	BF40G10/D00LA4	J0 "	10600	-	2.3	540	1.85
1.5	920	1.43	928.9	m .	II.	10600	_	1.8	730	1.35
1.3	1080	0.93	1106	u u	II .	10600	-	1.5	900	1.1
4.3	395	3.3	316.6	BF50Z/D06LA4	82	13600	-	5.2	330	3.9
3.9	440	3.0	354.0	"	"	13600	-	4.6	370	3.5
3.5	490	2.7	392.8	"	"	13600	-	4.2	405	3.2
3.1	550	2.4	439.3	"	"	13600	-	3.7	460	2.8
2.8	610	2.1	496.4		"	13600	-	3.3	520	2.5
2.5	680	1.9	555.2			13600	-	3.0	570	2.3
2.0	660	2.1	680.9	BF50G10/D06LA4	86	13600	-	2.4	520	2.7
1.6 1.4	860 1000	1.65 1.4	864.5 1029		11	13600 13600	-	1.9 1.6	690 840	2.0 1.65
1.4	1220	1.15	1203	u u	ш	13600	-	1.4	1010	1.03
1.0	1470	0.95	1359	u u	II .	13600	-	1.2	1190	1.2
				BB4446- (B			400			
1.5	870	2.9	937.6	BF60G20/D06LA4	134	15300	43300	1.8	670	3.7
1.2	1120	2.2	1211	"	"	15300	43300	1.4	920	2.7
0.95	1430	1.75	1494	" "	"	15300	43300	1.1	1180	2.1
0.85 0.7	1600 2000	1.55 1.25	1658 1955		"	15300 15300	43300 43300	1.0 0.85	1290 1570	1.95 1.6
0.7	2150	1.15	2172	II.	ıı	15300	43300	0.85	1830	1.35
JU.03	2130	1.13	Z1/Z			13300	43300	0.73	1030	1.33

Selection - shaft-mounted geared motors DSE -IE1

P = 0.18 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
0.75	1850	3.1	1912	BF70G20/D06LA4	212	16100	47700	0.85	1580	3.6
0.6	2350	2.4	2448	"	II .	16100	47700	0.7	1970	2.9
0.48	3050	1.85	2849	"	II .	16100	47700	0.6	2350	2.4
0.4	3800	1.5	3417	"	II .	16100	47700	0.48	3050	1.85
0.34	4550	1.25	4090	"	II .	16100	47700	0.4	3800	1.5
0.3	5200	1.1	4542	"	II .	16100	47700	0.36	4250	1.35

P = 0.25kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n,	M ₂	f _B	•	.,,,,	•••	· NN	- NV	n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm	-в			kg	N	N	1/min	Nm	
177	13.4	5.1	7.66	BF06/D05LA4	10	1800	-	215	11.1	6.1
147	16.2	4.3	9.21	"	"	1900	_	176	13.5	5.2
112	21	3.6	12.07	· ·	"	2000	_	135	17.6	4.3
96	24.5	3.5	14.21	u u	"	2100	_	115	20.5	4.1
80	29.5	3.2	16.99	u u	"	2500	_	96	24.5	3.9
67	35.5	2.7	20.42	II .	11	2700	_	80	29.5	3.2
51	46.5	2.0	26.76	II .	11	3000	_	61	39	2.4
43	55	1.75	31.50	II .	11	3200	_	52	45.5	2.1
36	66	1.45	37.69	II .	"	3500	_	43	55	1.75
29.5	80	1.43	46.14	m .	"	3800	_	35.5	67	1.73
23.5	101	0.94	58.33	n .	"	4000	_	28	85	1.1
20.5	116	0.94	66.82	n .	"	4000	_	24.5	97	0.98
20.5	110	0.62	00.02			4000	-	24.3	97	0.90
31.5	75	3.2	43.06	BF10/D06LA4	23	4100	-	38	62	3.9
29	82	2.9	47.35	"	"	4250	-	34.5	69	3.5
26.5	90	2.7	51.28	"	"	4400	-	32	74	3.2
24	99	2.4	56.39	п	"	4550	-	29	82	2.9
22	108	2.2	61.55	II .	"	4700	-	26.5	90	2.7
20	119	2.0	67.69	II .	"	4900	-	24	99	2.4
17.5	136	1.75	77.55	II .	"	5100	_	21	113	2.1
16	149	1.6	85.27	п	"	5300	_	19	125	1.9
15	159	1.5	90.91	· ·	"	5400	_	18	132	1.8
14	170	1.4	99.97	··	"	5600	_	16.5	144	1.65
12.5	191	1.25	112.3	· ·	"	5900	_	14.5	164	1.45
11	215	1.1	123.5	· ·	"	6100	_	13.5	176	1.35
10.5	225	1.05	128.9	"	"	6200	_	13	183	1.3
9.6	245	0.98	141.8	"	"	6400	_	11.5	205	1.15
9.0	265	0.91	151.2	BF10Z/D06LA4	24	6400	_	11	215	1.1
8.2	290	0.83	166.2	"	"	6400	-	9.8	240	1.0
18	132	3.2	76.69	BF20/D06LA4	30	6300	-	21.5	111	3.8
15.5	154	2.7	87.31	II .	II .	6600	-	19	125	3.4
14.5	164	2.6	96.08	II .	"	6900	-	17	140	3.0
13.5	176	2.4	100.2	II	"	7000	-	16.5	144	2.9
12.5	191	2.2	110.2	"	II .	7300	-	15	159	2.6
11	215	1.95	123.5	"	II .	7600	-	13.5	176	2.4
10	235	1.8	135.9	"	"	7900	-	12	198	2.1
9.6	245	1.7	141.2	BF20Z/D06LA4	31	7900	-	11.5	205	2.0
8.7	270	1.55	155.4	II.	II .	7900	-	10.5	225	1.85
8.3	285	1.45	164.3	II.	II .	7900	-	9.9	240	1.75
7.5	315	1.35	180.8	II.	II .	7900	-	9.0	265	1.6
6.9	345	1.2	197.1	m .	II .	7900	-	8.3	285	1.45
6.3	375	1.1	216.9	m .	II .	7900	-	7.5	315	1.35
5.8	410	1.0	235.9	· ·	II	7900	_	6.9	345	1.2
5.3	450	0.93	259.6	m .	II .	7900	_	6.3	375	1.1
4.6	510	0.82	295.5	· ·	II .	7900	_	5.5	430	0.98

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 0.25 kW



	50 Hz			Time					6011-	
n ₂	M ₂	f _B	i	Туре	m	F_{RN}	F_{RV}	n ₂	60 Hz M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	■B			kg	N	N	1/min	Nm	ı,B
13	183	3.1	107.6	BF30/D06LA4	40	6700	-	15.5	154	3.7
11.5	205	2.8	118.3	"	"	7000	_	14	170	3.4
11	215	2.7	124.7	m .	11	7100	-	13	183	3.1
9.9	240	2.4	137.1	m .	11	7400	-	12	198	2.9
9.0	265	2.2	150.7	BF30Z/D06LA4	42	7400	_	11	215	2.7
8.2	290	2.0	165.8	п	II .	7400	-	9.8	240	2.4
7.7	310	1.85	176.6	II .	II .	7400	-	9.2	255	2.3
7.0	340	1.7	194.3	п	11	7400	-	8.4	280	2.1
6.1	390	1.45	224.8	"	II .	7400	-	7.3	325	1.75
5.5	430	1.35	247.3	"	"	7400	-	6.6	360	1.6
5.2	455	1.25	263.5	"	"	7400	-	6.2	385	1.5
4.7	500	1.15	289.8	"	"	7400	-	5.6	425	1.35
4.4	540	1.05	310.7	"	"	7400	-	5.3	450	1.3
4.0	590	0.97	341.8	"	"	7400	-	4.8	495	1.15
3.6	660	0.87	375.1	"	"	7400	-	4.4	540	1.05
3.3	720	0.8	412.6	"	"	7400	-	4.0	590	0.97
8.7	270	3.3	155.6	BF40Z/D06LA4	53	10600	_	10.5	225	4.0
7.9	300	3.0	171.2	"	"	10600	-	9.5	250	3.6
7.2	330	2.7	188.3	m .	11	10600	-	8.7	270	3.3
6.7	355	2.5	202.2	"	11	10600	-	8.1	290	3.1
6.1	390	2.3	222.4	m .	II .	10600	_	7.3	325	2.8
5.4	440	2.0	253.2	m .	II .	10600	-	6.4	370	2.4
4.9	485	1.85	278.5	m .	II .	10600	-	5.9	400	2.3
4.6	510	1.75	295.1	m m	II .	10600	-	5.5	430	2.1
4.2	560	1.6	324.7	m .	II .	10600	-	5.0	475	1.9
3.9	610	1.5	346.8	m .	II .	10600	-	4.7	500	1.8
3.6	660	1.35	381.5	m m	"	10600	-	4.3	550	1.65
3.3	720	1.25	417.3	m m	"	10600	-	3.9	610	1.5
3.0	790	1.15	459.1	"	"	10600	-	3.6	660	1.35
2.7	880	1.0	514.6	"	"	10600	-	3.2	740	1.2
2.4	990	0.91	566.1	"	"	10600	-	2.9	820	1.1
2.3	850	1.2	597.3	BF40G10/D06LA4	58	10600	-	2.8	660	1.5
1.9	1050	0.95	731.6	II	"	10600	-	2.3	830	1.2
5.5	430	3.0	247.5	BF50Z/D06LA4	82	13600	-	6.6	360	3.6
4.9	485	2.7	276.8	ıı .	II.	13600	_	5.9	400	3.3
4.3	550	2.4	316.6	m .	II .	13600	_	5.2	455	2.9
3.9	610	2.1	354.0	п	II .	13600	-	4.6	510	2.5
3.5	680	1.9	392.8	II .	II .	13600	-	4.2	560	2.3
3.1	770	1.7	439.3	п	11	13600	-	3.7	640	2.0
2.8	850	1.55	496.4	m .	II .	13600	-	3.3	720	1.8
2.5	950	1.35	555.2	m m	"	13600	-	3.0	790	1.65
2.0	1000	1.4	680.9	BF50G10/D06LA4	86	13600	-	2.4	800	1.75
1.6	1280	1.1	864.5	"	II	13600	-	1.9	1050	1.35
1.4	1480	0.95	1029	"	"	13600	-	1.6	1260	1.1
2.4	750	3.3	569.3	BF60G20/D06LA4	134	15300	43300	2.9	580	4.3
2.0	900	2.8	689.0	"	"	15300	43300	2.4	700	3.6
1.7	1090	2.3	813.2	II .	"	15300	43300	2.0	880	2.8
1.5	1310	1.9	937.6	· ·	II .	15300	43300	1.8	1050	2.4
1.2	1680	1.5	1211	II .	"	15300	43300	1.4	1390	1.8
0.95	2100	1.2	1494	II .	"	15300	43300	1.1	1790	1.4
0.85	2350	1.05	1658	п	II .	15300	43300	1.0	1960	1.3
1.0	2000	2.9	1390	BF70G20/D06LA4	212	16100	47700	1.2	1630	3.5
0.85	2350	2.9	1621	BF70G20/D00LA4	212	16100	47700	1.0	1970	2.9
0.85	2700	2.4	1912	II.	II .	16100	47700	0.85	2350	2.9
0.75	3500	1.65	2448	u u	"	16100	47700	0.83	2900	1.95
0.48	4450	1.3	2849	II .	II .	16100	47700	0.6	3450	1.65
				II .	II .					1.03
0.4	5400	1.05	3417	п	ıı .	16100	47700	0.48	4450	

/

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 0.3 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂ 1/min	M₂ Nm	f _B			kg	N	N	n ₂ 1/min	$M_{\scriptscriptstyle 2}$ Nm	$f_{\scriptscriptstyle B}$
177	16.1	4.2	7.66	BF06/D07LA4	14	1800	-	215	13.3	5.1
147	19.4	3.6	9.21	"	''	1900	_	176	16.2	4.3
112	25.5	2.9	12.07	n .	п	2000	_	135	21	3.6
96	29.5	2.9	14.21	n n	"	2100	_	115	24.5	3.5
80	35.5	2.7	16.99	m .	ıı .	2500	-	96	29.5	3.2
67	42.5	2.2	20.42	m .	ıı .	2700	-	80	35.5	2.7
51	56	1.7	26.76	m m	n n	3000	-	61	46.5	2.0
43	66	1.45	31.50	m .	m m	3200	-	52	55	1.75
36	79	1.2	37.69	II .	"	3500	-	43	66	1.45
29.5	97	0.98	46.14	II	II	3800	-	35.5	80	1.2
37.5	76	3.2	36.15	BF10/D07LA4	26	3800	-	45	63	3.8
34	84	2.9	39.75	"	"	3950	-	41	69	3.5
31.5	90	2.7	43.06	"	"	4100	-	38	75	3.2
29	98	2.4	47.35	"	"	4250	-	34.5	83	2.9
26.5	108	2.2	51.28	"	"	4400	-	32	89	2.7
24	119	2.0	56.39	"	"	4550	-	29	98	2.4
22	130	1.85	61.55	"	"	4700	-	26.5	108	2.2
20	143	1.7	67.69	" "	"	4900	-	24	119	2.0
17.5	163	1.45	77.55	 II	"	5100	-	21	136	1.75
16	179	1.35	85.27	 II	"	5300	-	19	150	1.6
15	191	1.25	90.91	11	"	5400	-	18	159	1.5
14 12.5	200 225	1.2 1.05	99.97 112.3	"	"	5600 5900	-	16.5 14.5	173 197	1.4
11	260	0.92	123.5	11	п	6100	-	13.5	210	1.2 1.15
10.5	270	0.92	123.3	11	п	6200	-	13.5	220	1.13
9.6	270	0.89	141.8	п	п	6400	-	11.5	245	0.98
				DE00 (D0E) 4.4	22					
21.5	133	3.2	64.08	BF20/D07LA4	32	5900	-	25.5	112	3.8
19.5	146	2.9	69.70	 II	"	6100	-	23.5	121	3.5
18 15.5	159 184	2.6 2.3	76.69 87.31	11	"	6300 6600	-	21.5 19	133 150	3.2 2.8
14.5	18 4 197	2.3	96.08	"	"	6900	-	17	168	2.8
13.5	210	2.1	100.2	"	"	7000	_	16.5	173	2.3
12.5	225	1.85	110.2	m m	"	7300	_	15.5	191	2.4
11	260	1.6	123.5	п	"	7600	_	13.5	210	2.0
10	285	1.45	135.9	п	п	7900	_	12	235	1.8
9.6	295	1.4	141.2	BF20Z/D07LA4	34	7900	_	11.5	245	1.7
8.7	325	1.3	155.4	"	"	7900	_	10.5	270	1.55
8.3	345	1.2	164.3	n n	"	7900	_	9.9	285	1.45
7.5	380	1.1	180.8	m .	ıı .	7900	-	9.0	315	1.35
6.9	415	1.0	197.1	m .	ıı .	7900	-	8.3	345	1.2
6.3	450	0.93	216.9	m m	n n	7900	_	7.5	380	1.1
5.8	490	0.86	235.9	п	"	7900	-	6.9	415	1.0
16	179	3.2	87.08	BF30/D07LA4	42	6200	-	19	150	3.8
14.5	197	2.9	95.79	"	II .	6400	-	17	168	3.4
13	220	2.6	107.6	"	II .	6700	-	15.5	184	3.1
11.5	245	2.3	118.3	II .	II .	7000	-	14	200	2.9
11	260	2.2	124.7	"	"	7100	-	13	220	2.6
9.9	285	2.0	137.1	"	"	7400	-	12	235	2.4
9.0	315	1.85	150.7	BF30Z/D07LA4	45	7400	-	11	260	2.2
8.2	345	1.65	165.8	"	"	7400	-	9.8	290	2.0
7.7	370	1.55	176.6	"	"	7400	-	9.2	310	1.85
7.0	405	1.4	194.3	"	"	7400	-	8.4	340	1.7
6.1	465	1.25	224.8	"	"	7400	-	7.3	390	1.45
5.5	520	1.1	247.3	" "	"	7400	-	6.6	430	1.35
5.2	550	1.05	263.5	" "	"	7400	-	6.2	460	1.25
4.7	600 650	0.96	289.8	" "	"	7400	-	5.6	510	1.15
4.4	650 710	0.88	310.7	 II	"	7400	-	5.3	540 500	1.05
4.0	710	0.81	341.8		•	7400	-	4.8	590	0.97

Selection - shaft-mounted geared motors DSE -IE1

P = 0.3 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		71		1114	11.0	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	Ν	N	1/min	Nm	
9.6	295	3.1	141.4	BF40Z/D07LA4	55	10600	-	11.5	245	3.7
8.7	325	2.8	155.6	m .	II	10600	-	10.5	270	3.3
7.9	360	2.5	171.2	m .	II	10600	-	9.5	300	3.0
7.2	395	2.3	188.3	m .	II .	10600	-	8.7	325	2.8
6.7	425	2.1	202.2	m .	II .	10600	-	8.1	350	2.6
6.1	465	1.95	222.4	m m	II .	10600	-	7.3	390	2.3
5.4	530	1.7	253.2	"	"	10600	-	6.4	445	2.0
4.9	580	1.55	278.5	"	"	10600	-	5.9	485	1.85
4.6	620	1.45	295.1	"	"	10600	-	5.5	520	1.75
4.2	680	1.3	324.7	"	"	10600	-	5.0	570	1.6
3.9	730	1.25	346.8	"	"	10600	-	4.7	600	1.5
3.6	790	1.15	381.5	"	"	10600	-	4.3	660	1.35
3.3	860	1.05	417.3	"	"	10600	-	3.9	730	1.25
3.0	950	0.95	459.1	"	"	10600	-	3.6	790	1.15
2.7	1060	0.85	514.6	"	"	10600	-	3.2	890	1.0
2.3	1050	0.95	597.3	BF40G10/D07LA4	61	10600	-	2.8	830	1.2
6.6	430	3.0	205.2	BF50Z/D07LA4	85	13600	-	7.9	360	3.6
5.5	520	2.5	247.5	"	"	13600	-	6.6	430	3.0
4.9	580	2.2	276.8	"	"	13600	-	5.9	485	2.7
4.3	660	1.95	316.6	"	"	13600	-	5.2	550	2.4
3.9	730	1.8	354.0	II .	"	13600	-	4.6	620	2.1
3.5	810	1.6	392.8	"	"	13600	-	4.2	680	1.9
3.1	920	1.4	439.3	II .	"	13600	-	3.7	770	1.7
2.8	1020	1.25	496.4	"	"	13600	-	3.3	860	1.5
2.5	1140	1.15	555.2	"	ıı	13600	-	3.0	950	1.35
2.0	1240	1.15	680.9	BF50G10/D07LA4	89	13600	-	2.4	1000	1.4
1.6	1580	0.89	864.5	"	"	13600	-	1.9	1300	1.1
2.4	950	2.6	569.3	BF60G20/D07LA4	126	15300	43300	2.9	740	3.4
2.4	1140	2.6 2.2	689.0	BF00G20/D07LA4	136	15300	43300	2.4	900	2.8
1.7	1370	1.8	813.2	m .	"	15300	43300	2.4	1120	2.0
1.5	1630	1.55	937.6	"	ш	15300	43300	1.8	1310	1.9
1.2	2050	1.33	937.6 1211	"	"	15300	43300	1.4	1740	1.45
1.2	2030	1.2	1211			13300	43300	1.4	1740	1.43
1.4	1740	3.3	1017	BF70G20/D07LA4	215	16100	47700	1.6	1490	3.8
1.0	2500	2.3	1390	"	"	16100	47700	1.2	2000	2.9
0.85	2950	1.95	1621	n	II .	16100	47700	1.0	2450	2.3
0.75	3350	1.7	1912	n	II .	16100	47700	0.85	2900	1.95
0.6	4250	1.35	2448	m .	II .	16100	47700	0.7	3600	1.6
0.48	5400	1.05	2849	m .	II .	16100	47700	0.6	4250	1.35

P = 0.37 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
177	19.9	3.4	7.66	BF06/D07LA4	14	1800	-	215	16.4	4.1
147	24	2.9	9.21	m .	"	1900	-	176	20	3.5
112	31.5	2.4	12.07	m .	"	2000	-	135	26	2.9
96	36.5	2.3	14.21	m .	"	2100	-	115	30.5	2.8
80	44	2.2	16.99	m m	"	2500	-	96	36.5	2.6
67	52	1.85	20.42	m m	"	2700	-	80	44	2.2
51	69	1.4	26.76	"	"	3000	-	61	57	1.65
43	82	1.15	31.50	"	"	3200	-	52	67	1.4
36	98	0.97	37.69	"	"	3500	-	43	82	1.15
29.5	119	0.8	46.14	II	"	3800	-	35.5	99	0.96
47.5	74	3.2	28.47	BF10/D07LA4	26	3450	-	57	61	3.9
43.5	81	3.0	31.31	"	"	3600	-	52	67	3.6
37.5	94	2.6	36.15	"	"	3800	-	45	78	3.1
34	103	2.3	39.75	II	II	3950	-	41	86	2.8

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 0.37 kW



	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg "	N	N	1/min	Nm	
31.5	112	2.1	43.06	BF10/D07LA4	"	4100	-	38	92	2.6
29	121	2.0	47.35	"	"	4250	-	34.5	102	2.4
26.5	133	1.8	51.28	"	"	4400	-	32	110	2.2
24	147	1.65	56.39		"	4550	-	29	121	2.0
22	160	1.5	61.55		"	4700	-	26.5	133	1.8
20 17.5	176 200	1.35 1.2	67.69 77.55	"	"	4900 5100	-	24 21	147 168	1.65 1.45
16	220	1.1	85.27	m .	11	5300	-	19	185	1.43
15	235	1.0	90.91	m .	11	5400	_	18	196	1.2
14	250	0.96	99.97	m .	ıı	5600	_	16.5	210	1.15
12.5	280	0.86	112.3	"	"	5900	_	14.5	240	1.0
1 - 10										
28	126	3.3	48.56	BF20/D07LA4	32	5200	-	33.5	105	4.0
25.5	138	3.0	53.43	"	II .	5500	-	30.5	115	3.7
23.5	150	2.8	58.24	"	II .	5600	-	28	126	3.3
21.5	164	2.6	64.08	II .	II .	5900	-	25.5	138	3.0
19.5	181	2.3	69.70	"	"	6100	-	23.5	150	2.8
18	196	2.1	76.69	"	"	6300	-	21.5	164	2.6
15.5	225	1.85	87.31	"	"	6600	-	19	185	2.3
14.5	240	1.75	96.08	"	"	6900	-	17	205	2.0
13.5	260	1.6	100.2		"	7000	-	16.5	210	2.0
12.5 11	280 320	1.5 1.3	110.2 123.5	"	"	7300 7600	-	15 13.5	235 260	1.8 1.6
10	350 350	1.2	135.9	m .	11	7900	-	12.5	290	1.45
9.6	365	1.15	141.2	BF20Z/D07LA4	34	7900	_	11.5	305	1.43
8.7	405	1.05	155.4	" ZOZ/DO/ LA4	J-T	7900	_	10.5	335	1.25
8.3	425	0.99	164.3	TT TT	11	7900	_	9.9	355	1.23
7.5	470	0.89	180.8	"	"	7900	_	9.0	390	1.1
6.9	510	0.82	197.1	II .	"	7900	-	8.3	425	0.99
20.5	172	2.2	67.20	BF30/D07LA4	42	5500	_	24.5	144	4.0
19	185	3.3 3.1	67.28 72.13	BF3U/DU/LA4	42	5500 5700	-	24.5 22.5	144 157	4.0 3.7
17.5	200	2.9	72.13 79.34	"	"	5900	-	20.5	172	3.7
16	220	2.6	79.34 87.08	m .	11	6200	-	19	185	3.1
14.5	240	2.4	95.79	m .	11	6400	_	17	205	2.8
13	270	2.1	107.6	n .	ıı	6700	_	15.5	225	2.6
11.5	305	1.9	118.3	· ·	ıı	7000	_	14	250	2.3
11	320	1.8	124.7	m .	11	7100	_	13	270	2.1
9.9	355	1.6	137.1	II .	II .	7400	-	12	290	2.0
9.0	390	1.45	150.7	BF30Z/D07LA4	45	7400	-	11	320	1.8
8.2	430	1.35	165.8	"	II .	7400	-	9.8	360	1.6
7.7	455	1.25	176.6	II .	II .	7400	-	9.2	380	1.5
7.0	500	1.15	194.3	"	"	7400	-	8.4	420	1.35
6.1	570	1.0	224.8	"	"	7400	-	7.3	480	1.2
5.5	640	0.9	247.3	"	"	7400	-	6.6	530	1.1
5.2	670	0.86	263.5			7400	-	6.2	560	1.05
9.6	365	2.5	141.4	BF40Z/D07LA4	55	10600	-	11.5	305	3.0
8.7	405	2.2	155.6	"	II .	10600	-	10.5	335	2.7
7.9	445	2.0	171.2	II	II .	10600	-	9.5	370	2.4
7.2	490	1.85	188.3	II .	II .	10600	-	8.7	405	2.2
6.7	520	1.75	202.2	"	"	10600	-	8.1	435	2.1
6.1	570	1.6	222.4	" "	"	10600	-	7.3	480	1.9
5.4	650	1.4	253.2	"	"	10600	-	6.4	550	1.65
4.9	720	1.25	278.5	"	"	10600	-	5.9	590	1.55
4.6	760 840	1.2	295.1	" "	"	10600	-	5.5	640 700	1.4
4.2 3.9	840 900	1.05 1.0	324.7 346.8	 II	"	10600 10600	-	5.0 4.7	700 750	1.3 1.2
3.6	980	0.92	346.8 381.5	II .	ıı	10600	-	4.7	750 820	1.2
3.3	1070	0.92	417.3	ıı .	"	10600	-	3.9	900	1.0
13.3	1070	J.04	717.5			10000	_	3.7	200	1.0

Selection - shaft-mounted geared motors DSE -IE1

P = 0.37 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
8.8	400	3.3	154.5	BF50Z/D07LA4	85	13600	-	10.5	335	3.9
7.4	475	2.7	183.5	m .	"	13600	-	8.9	395	3.3
6.6	530	2.5	205.2	m .	"	13600	-	7.9	445	2.9
5.5	640	2.0	247.5	"	II .	13600	-	6.6	530	2.5
4.9	720	1.8	276.8	"	"	13600	-	5.9	590	2.2
4.3	820	1.6	316.6	m m	"	13600	-	5.2	670	1.95
3.9	900	1.45	354.0	m m	"	13600	-	4.6	760	1.7
3.5	1000	1.3	392.8	m m	"	13600	-	4.2	840	1.55
3.1	1130	1.15	439.3	m .	II .	13600	-	3.7	950	1.35
2.8	1260	1.05	496.4	"	"	13600	-	3.3	1070	1.2
2.5	1410	0.92	555.2	m m	"	13600	-	3.0	1170	1.1
2.0	1570	0.89	680.9	BF50G10/D07LA4	89	13600	-	2.4	1280	1.1
2.4	1230	2.0	569.3	BF60G20/D07LA4	136	15300	43300	2.9	970	2.6
2.0	1470	1.7	689.0	n	"	15300	43300	2.4	1180	2.1
1.7	1770	1.4	813.2	n	"	15300	43300	2.0	1460	1.7
1.5	2050	1.2	937.6	m .	"	15300	43300	1.8	1680	1.5
1.2	2600	0.96	1211	"	II	15300	43300	1.4	2200	1.15
1.6	1950	2.9	872.1	BF70G20/D07LA4	215	16100	47700	1.9	1600	3.6
1.4	2200	2.6	1017	m .	"	16100	47700	1.6	1900	3.0
1.0	3150	1.8	1390	m .	"	16100	47700	1.2	2550	2.2
0.85	3700	1.55	1621	"	II .	16100	47700	1.0	3100	1.85
0.75	4250	1.35	1912	"	II .	16100	47700	0.85	3700	1.55
0.6	5400	1.05	2448	"	"	16100	47700	0.7	4550	1.25

P = 0.55 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7.				n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
245	21	3.0	5.72	BF06/D08MA4	16	1630	-	295	17.8	3.5
183	28.5	2.4	7.66	TI TI	"	1800	-	220	23.5	2.9
153	34	2.1	9.21	m .	"	1900	-	183	28.5	2.5
116	45	1.65	12.07	TI TI	"	2000	-	140	37.5	2.0
99	53	1.6	14.21	"	ıı .	2100	-	119	44	1.95
83	63	1.5	16.99	TI .	II .	2500	-	99	53	1.8
69	76	1.25	20.42	m .	II .	2700	-	83	63	1.5
53	99	0.96	26.76	"	II .	3000	-	63	83	1.15
44.5	118	0.81	31.50	"	"	3200	-	54	97	0.98
94	55	3.3	15.04	BF10/D08MA4	27	2800	-	112	46.5	3.9
70	75	3.2	20.05	TI .	II .	3000	-	84	62	3.9
61	86	2.8	23.28	TI .	II .	3200	-	73	71	3.4
55	95	2.5	25.60	"	ıı .	3350	-	66	79	3.0
49.5	106	2.3	28.47	"	ıı .	3450	-	60	87	2.8
45	116	2.1	31.31	"	ıı .	3600	-	54	97	2.5
39	134	1.8	36.15	"	ıı .	3800	-	46.5	112	2.1
35.5	147	1.65	39.75	"	ıı .	3950	-	42.5	123	1.95
33	159	1.5	43.06	"	ıı .	4100	-	39.5	132	1.8
30	175	1.35	47.35	"	ıı .	4250	-	35.5	147	1.65
27.5	191	1.25	51.28	TI .	II .	4400	-	33	159	1.5
25	210	1.15	56.39	TI .	II .	4550	-	30	175	1.35
23	225	1.05	61.55	TI .	II .	4700	-	27.5	191	1.25
21	250	0.96	67.69	TI .	II .	4900	-	25	210	1.15
18.5	280	0.86	77.55	"	II	5100	-	22	235	1.0
39.5	132	3.2	35.85	BF20/D08MA4	33	4650	-	47	111	3.8
34	154	2.7	41.72	"	"	4950	-	40.5	129	3.3
31	169	2.5	45.90	II.	II .	5100	-	37	141	3.0
29	181	2.3	48.56	II .	II .	5200	-	35	150	2.8

Selection - shaft-mounted geared motors DSE -IE1

P = 0.55 kW



Name		50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
26.5 198 2.1 53.43 BF20/DOBMA4 " 5500 - 31.5 166 2.5 24.5 210 2.0 56.24 " " " 5500 - 29 181 2.3 25.5 1.65 66.70 " " 6.600 - 26.5 198 2.1 25.5 1.65 68.70 " " 6.600 - 24.5 210 2.0 18.5 280 1.5 76.69 " " 6.600 - 24.5 210 2.0 18.5 315 1.35 37.31 " " 6.600 - 22 235 1.65 18.5 315 1.35 37.31 " " 6.600 - 19.5 26.5 1.6 18.5 315 1.35 37.31 " " " 7700 - 17.5 300 1.4 18.3 400 1.08 110.2 " " " 7700 - 15.5 305 1.4 18.3 400 1.08 110.2 " " " 7700 - 15.5 305 1.4 18.3 400 1.08 110.2 " " " 7700 - 15.5 305 1.4 18.3 500 0.81 141.2 BF202/DOBMA4 35 7900 - 12.5 420 101 10.5 500 0.81 141.2 BF202/DOBMA4 35 7900 - 12.5 420 102 27 194 3.0 52.20 BF30/DOBMA4 35 5000 - 32.5 161 3.6 24.5 210 2.7 57.41 " " " " 5200 - 29.5 178 3.2 24.5 210 2.7 57.41 " " " " 5200 - 25 210 2.7 19.5 265 2.3 67.28 " " " 5700 - 25 25 210 2.7 19.5 265 2.2 72.13 " " " 5700 - 25 200 2.6 18. 290 2.0 79.34 " " " 5700 - 25 25 210 2.7 19.5 265 315 1.65 87.99 " " " 6400 - 18 290 2.0 18. 290 2.0 79.34 " " " " 7000 - 16 3.25 1.7 11.5 459 1.3 13.7 1.7 " " " " 7000 - 16 3.25 1.7 11.5 459 1.3 13.7 " " " " 7000 - 15 5 265 2.2 2.1 12.5 385 1.5 107.6 " " " " " " 7000 - 15 5 200 2.0 13.5 385 1.5 107.6 " " " " " " " " "	n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
24.5 210 2.0 58.24 " " 5000 - 29 181 2.3 22 235 1.8 64.08 " " 5000 - 26.5 198 2.1 20.5 255 1.65 69.70 " " " 6100 - 24.5 210 2.2 18.5 280 1.5 76.69 " " 6000 - 19.5 225 18 18.5 280 1.5 76.69 " " 6000 - 19.5 225 18 18.5 350 1.2 96.08 " " 6000 - 19.5 265 1.8 11.5 350 1.2 96.08 " " 7000 - 17.5 300 1.4 14 375 1.1 100.2 " " 7700 - 17.5 300 1.4 13 400 1.05 110.2 " " 7700 - 17.5 300 1.4 11.5 455 0.92 123.5 " " 7700 - 11.5 350 1.2 11.5 500 0.81 135.9 " " 7700 - 11.5 350 1.2 27 194 3.0 52.0 6.81 141.2 BF20Z/DO8MA4 43 55 7900 - 12 435 0.97 21 225 2.6 61.17 " " 5200 - 25 178 32.2 23 225 2.6 61.17 " " 5200 - 25 178 32.2 21 225 2.6 61.17 " " 5200 - 25 178 32.2 21 225 2.6 61.17 " " 5200 - 25 179 32.2 21 225 2.6 61.17 " " 5200 - 25 179 32.2 21 225 2.6 61.17 " " 5200 - 25 179 32.2 21 225 2.6 61.17 " " 5200 - 25 179 32.2 21 225 2.6 61.17 " " 5200 - 25 179 32.2 21 225 2.6 61.17 " " 5200 - 25 179 32.2 21 225 2.6 61.17 " " 5200 - 25 179 32.2 21 225 2.6 61.17 " " 5200 - 25 179 32.2 21 225 2.5 65.1 1.3 18.3 " " 5000 - 25 178 32.2 21 225 2.6 61.17 " " 5200 - 25 179 32.2 21 225 2.6 61.17 " " 5200 - 25 179 32.2 21 225 2.6 61.17 " " 5200 - 25 179 32.2 21 225 2.6 61.17 " " 5200 - 25 179 32.2 21 225 2.6 61.17 " " 5200 - 25 179 32.2 21 225 2.6 61.17 " " 5200 - 25 120 2.2 21 225 2.6 61.17 " " 5200 - 25 120 2.2 21 225 2.6 61.17 " " 5200 - 25 120 2.2 21 225 2.6 61.17 " " 5200 - 25 120 2.2 22 2.6 62 2.2 " 13 " " 5000 - 25 125 240 2.4 24.5 15 350 1.5 19.5 19.5 19.5 19.5 19.5 19.5 19.5	1/min	Nm				kg		N		Nm	
22	26.5	198	2.1	53.43	BF20/D08MA4		5500	-	31.5	166	2.5
205 295 1.65 69.70 "	24.5	210	2.0	58.24	"	"	5600	-	29	181	2.3
18.5 280	22	235	1.8	64.08	"	"	5900	-	26.5	198	2.1
16.5 315 1.35 87.31 " " 6600 - 19.5 265 1.6	20.5	255	1.65	69.70	m .	"	6100	-	24.5	210	2.0
1.53 359 1.2 96.08 .	18.5	280	1.5	76.69	m .	"	6300	-	22	235	1.8
15				87.31	m .	"		-			
14 375 1.1 100.2 " " 7000 - 17 305 1.4 13 400 1.05 10.2 " " 7000 - 17 305 335 1.25 11.5 455 0.92 123.5 " " 7600 - 14 375 1.1 10.5 500 0.84 135.9 " " 7600 - 12 435 0.97 10 520 0.81 141.2 BF20Z/DOBMA4 35 7900 - 12 435 0.97 27 194 3.0 52.20 BF30Z/DOBMA4 43 5000 - 22.5 161 3.6 24.5 210 2.7 57.41 " " 5200 - 29.5 178 3.2 23 225 2.6 61.17 " " 5300 - 27.5 191 3.0 21 250 2.3 67.28 " " 5500 - 27.5 191 3.0 21 250 2.3 67.28 " " 5500 - 25.5 164 3.6 24.5 210 2.7 79.34 " " 5500 - 25.5 120 2.7 19.5 265 2.2 72.13 " " 5700 - 23.5 200 2.6 18 290 2.0 79.34 " " 5700 - 23.5 200 2.6 18 290 2.0 79.34 " " 5700 - 23.5 200 2.6 18 230 1.05 95.79 " " 6400 - 19.5 265 2.2 13.5 335 1.5 107.6 " " 6400 - 19.5 265 2.2 13.5 345 1.5 107.6 " " 6400 - 16 325 1.75 12 435 1.3 18.3 " " 7000 - 16.5 325 1.75 12 435 1.3 18.3 " " 7000 - 16.5 325 1.75 13.5 455 1.25 1247 " " 7100 - 13.5 385 1.5 10.5 500 1.15 137.1 " " 7400 - 12.5 420 1.35 3.5 610 0.94 168.8 " " 7400 - 12.5 420 1.35 3.5 610 0.94 168.8 " " 7400 - 12.5 420 1.35 3.5 3.0 3.0 8.31 194.3 " " 7400 - 1.5 500 1.3 18 200 3.1 134.3 " " " 7400 - 1.5 500 1.3 18 200 3.1 134.3 " " " " 7400 - 1.5 500 1.3 15.5 335 3.0 8.31 " " " " " " " " "	15			96.08	m .	"		-	17.5		1.4
13	14	375		100.2	m .	"		-	17		1.4
11.5	13	400	1.05	110.2	m .	"		-	15.5		1.25
10.5 500 0.84 135.9 "					m .	II .		-			
10					m .	II .		-			
245 210 2.7 57.41 " " 5200 - 29.5 178 3.2 2 23 225 2.6 61.17 " " 5500 - 27.5 191 3.0 21 250 65 2.2 72.13 " " 5500 - 27.5 191 3.0 2.1 250 2.3 67.28 " " 5500 - 27.5 191 3.0 2.1 250 2.3 67.28 " " 5500 - 27.5 191 3.0 2.6 18 290 2.0 79.34 " " 5900 - 21.5 240 2.4 16.5 315 1.85 87.08 " " 6400 - 18 290 2.0 18 290 2.0 18.5 350 1.65 95.79 " " 6400 - 18 290 2.0 13.5 385 1.5 107.6 " " 6700 - 16 235 1.75 385 1.5 107.6 " " 6700 - 16 235 1.75 385 1.5 107.6 " " 6700 - 16 235 1.75 385 1.5 107.6 " " 7000 - 14.5 360 1.6 11.5 455 1.25 124.7 " " 7100 - 13.5 385 1.5 10.5 10.5 500 1.15 137.1 " 7100 - 13.5 385 1.5 10.7 BF30Z/D08MA4 46 7400 - 11.5 455 1.25 12.8 420 1.35 1.5 10.5 500 1.8 194.3 " " 7400 - 10.5 500 1.15 10.5 10.5 10.5 10.5 10.5		520	0.81		BF20Z/D08MA4	35	7900	-			0.97
245 210 2.7 57.41 " " 5200 - 29.5 178 3.2 2 23 225 2.6 61.17 " " 5500 - 27.5 191 3.0 21 250 65 2.2 72.13 " " 5500 - 27.5 191 3.0 2.1 250 2.3 67.28 " " 5500 - 27.5 191 3.0 2.1 250 2.3 67.28 " " 5500 - 27.5 191 3.0 2.6 18 290 2.0 79.34 " " 5900 - 21.5 240 2.4 16.5 315 1.85 87.08 " " 6400 - 18 290 2.0 18 290 2.0 18.5 350 1.65 95.79 " " 6400 - 18 290 2.0 13.5 385 1.5 107.6 " " 6700 - 16 235 1.75 385 1.5 107.6 " " 6700 - 16 235 1.75 385 1.5 107.6 " " 6700 - 16 235 1.75 385 1.5 107.6 " " 7000 - 14.5 360 1.6 11.5 455 1.25 124.7 " " 7100 - 13.5 385 1.5 10.5 10.5 500 1.15 137.1 " 7100 - 13.5 385 1.5 10.7 BF30Z/D08MA4 46 7400 - 11.5 455 1.25 12.8 420 1.35 1.5 10.5 500 1.8 194.3 " " 7400 - 10.5 500 1.15 10.5 10.5 10.5 10.5 10.5	27	10/	3.0	52.20	BESU /DOSMA/	13	5000		22.5	161	3.6
23											
250			1		"	"					
19.5					"	"					
18 290 2.0 79.34 " " 5900 - 21.5 240 2.4 16.5 315 1.85 87.08 " " 6200 - 19.5 265 2.2 15 350 1.65 95.79 " " 6700 - 18 290 2.0 13.5 385 1.5 1076 " " 6700 - 16 325 1.75 11.5 455 1.25 1247 " " 77000 - 14.5 360 1.6 11.5 455 1.25 1247 " " 7700 - 13.5 385 1.5 9.3 560 1.05 500 1.15 345 1.5 455 12.5 420 13.5 485 1.5 12.5 420 13.5 485 1.2 48.0 12.5 420 13.5 43.0 10.5 50.0 <					"	"					
16.5 315					"	"					
15					m .	"					
13.5 385 1.5 107.6 "					m .	"					
12					m .	"					
11.5			1		m .	"					
10.5 500					m .	"					
9.3 560 1.05 150.7 BF30Z/D08MA4 46 7400 - 11.5 455 1.25 8.5 610 0.94 165.8 " 7400 - 10.5 500 1.15 8.0 650 0.88 176.6 " 7400 - 9.6 540 1.05 7.3 710 0.81 194.3 " 7400 - 9.6 540 1.05 7.3 710 0.81 194.3 " 7400 - 8.7 600 0.96 1.15 8.7 600 0.96 1.15 8.7 600 0.96 1.15 8.7 600 0.96 1.15 8.7 600 0.96 1.15 8.7 600 0.96 1.15 8.7 600 0.96 1.15 8.15 8.15 8.15 8.15 8.15 8.15 8.15					"	"					
8.5 610 0.94 165.8 " " 7400 - 10.5 500 1.15 8.0 650 0.88 176.6 " " 7400 - 9.6 540 1.05 7.3 710 0.81 194.3 " " 7400 - 8.7 600 0.96 1.05 7.3 710 0.81 194.3 " " 7400 - 8.7 600 0.96 1.05 7.3 710 0.81 194.3 " " 7400 - 8.7 600 0.96 1.05 7.0 8.7 600 0.96 1.0 8.1 194.3 " " 8700 - 8.7 600 0.96 1.0 8.1 194.3 " " 8700 - 20.5 255 3.5 15.5 335 2.7 92.31 " " 9100 - 18.5 280 3.2 14 375 2.4 101.0 " " 9400 - 17 305 3.0 13 400 2.3 111.1 " " 9800 - 15.5 335 2.7 11.5 455 2.0 124.5 " " 10200 - 13.5 335 2.7 10.5 500 1.8 137.0 " " 10600 - 15.5 335 2.7 10.5 500 1.8 137.0 " " 10600 - 12.5 420 2.1 10 520 1.75 141.4 BF40Z/D08MA4 56 10600 - 12 435 2.1 10.5 500 1.8 138.3 " " 10600 - 11 475 1.9 8.2 640 1.4 171.2 " " 10600 - 11 475 1.9 8.2 640 1.4 171.2 " " 10600 - 9.9 530 1.7 7.5 7.0 7.3 188.3 " " 10600 - 9.9 530 1.7 7.5 7.0 1.2 202.2 " " 10600 - 9.9 530 1.5 5.6 3.8 30 1.1 222.4 " " 10600 - 7.6 690 1.3 5.6 930 0.97 253.2 " " 10600 - 7.6 690 1.3 5.6 930 0.97 253.2 " " 10600 - 6.7 780 1.15 5.1 1020 0.88 278.5 " " 10600 - 6.7 780 1.15 5.1 1020 0.88 278.5 " " 10600 - 15.7 920 0.98 1.15 5.1 1020 0.88 278.5 " " 10600 - 15.7 920 0.98 1.15 5.7 0.2 3 154.5 " " 13600 - 13.5 385 3.7 1.7 7.7 680 1.9 183.5 " " 13600 - 13.5 385 3.7 1.7 5.7 680 1.9 183.5 " " 13600 - 12.5 420 3.1 1.7 475 2.7 7.7 680 1.9 183.5 " " 13600 - 12.5 420 3.1 1.7 475 2.7 7.7 680 1.9 183.5 " " 13600 - 12.5 420 3.1 1.4 475 2.7 127.5 " " 13600 - 13.5 385 3.4 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 1.4 575 2.7 127.5 " " 13600 - 12.5 420 3.1 1.4 575 2.7 127.5 " " 13600 - 12.5 420 3.1 1.4 575 2.7 127.5 " " 13600 - 13.5 385 3.4 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 1.4 575 2.7 127.5 " " 13600 - 13.5 385 3.4 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 1.4 575 2.7 127.5 " " 13600 - 14.8 1000 1.2 570 2.3 154.5 " " 13600 - 14.8 1000 1.2 570 2.3 154.5 " " 13600 - 14.8 1000 1.2 570 2.3 154.5 " " 13600 - 14.8 1000 1.2 570 2.3 154.5 " " 13600 - 14.8 1000 1.2 570 2.3 154.5 " " 13600 - 14.8 1000 1.2 570 2.3 154.5 " " 13600 - 14.8 1000 1.2 57	1				RESOT /DOSMA/	16					
8.0 650 0.88 176.6 " " 7400 - 9.6 540 1.05 7.3 710 0.81 194.3 " " 7400 - 8.7 600 0.96 18 290 3.1 78.55 BF40/D08MA4 53 8500 - 21.5 240 3.8 17 305 3.0 83.91 " " 8500 - 20.5 255 3.5 15.5 335 2.7 92.31 " " 9100 - 18.5 280 3.2 14 375 2.4 101.0 " " 9400 - 17.5 305 3.0 13 400 2.3 111.1 " " 9800 - 15.5 335 2.7 11.5 455 2.0 124.5 " " 10200 - 13.5 385 2.3 10.5 500 1.8 137.0 " " 10600 - 12 435 2.1<											
7.3 710 0.81 194.3 " " 7400 - 8.7 600 0.96 18 290 3.1 78.55 BF40/D08MA4 53 8500 - 21.5 240 3.8 17 305 3.0 83.91 " " 8700 - 20.5 255 3.5 15.5 335 2.7 92.31 " " 9400 - 18.5 280 3.2 14 375 2.4 101.0 " 9400 - 17 305 3.0 13 400 2.3 111.1 " " 9800 - 15.5 335 2.7 11.5 455 2.0 124.5 " " 10200 - 13.5 385 2.3 10.5 500 1.8 137.0 " " 10600 - 12.5 420 2.1 10 520 1.75 141.4 BF40Z/D08MA4 56 10600 - 12 435 2.1 19.0 580 1.55 155.6 " " 10600 - 11 475 1.9 8.2 640 1.4 171.2 " " 10600 - 9.9 530 1.7 7.5 700 1.3 188.3 " " 10600 - 9.0 580 1.55 7.0 750 1.2 202.2 " " 10600 - 8.4 620 1.45 6.3 830 1.1 222.4 " " 10600 - 6.7 780 1.5 5.6 930 0.97 253.2 " " 10600 - 6.7 780 1.5 5.1 1020 0.88 278.5 " " 10600 - 6.7 780 1.5 5.1 1020 0.88 278.5 " " 10600 - 6.1 860 1.05 4.8 1090 0.83 295.1 " " 10600 - 6.1 860 1.05 4.8 1090 0.83 295.1 " " 10600 - 6.1 860 1.55 7.7 7680 1.9 183.5 " " 13600 - 12.5 420 3.1 10.5 500 2.6 138.1 BF50Z/D08MA4 81 12900 - 15 350 3.7 7.7 680 1.9 183.5 " " 13600 - 12.5 420 3.1 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 10.5 100 1.2 20.2 " " 13600 - 12.5 420 3.1 10.5 500 3.3 187.5 " 13600 - 12.5 420 3.1 10.5 500 3.3 187.5 " 13600 - 12.5 420 3.1 10.5 500 3.4 3400 - 36.8 240 3.1 10.5 500 3.5 4.9 183.5 " 13600 - 12.5 420 3.1 10.5 500 3.6 138.1 BF50Z/D08MA4 81 12900 - 15 350 3.7 11 475 2.7 127.5 " 13600 - 12.5 420 3.1 12.5 420 3.1 114.0 BF50Z/D08MA4 81 12900 - 15 350 3.7 13.6 9.7 60 1.7 205.2 " " 13600 - 6.8 770 1.7 13.6 9.7 60 1.7 205.2 " " 13600 - 6.8 770 1.7 13.6 9.7 600 1.7 205.2 " " 13600 - 6.8 770 1.7 13.6 9.7 60 1.7 205.2 " " 13600 - 6.8 770 1.7 13.6 9.7 60 1.7 205.2 " " 13600 - 6.8 770 1.7 13.6 9.7 60 1.7 205.2 " " 13600 - 6.8 770 1.7 13.6 9.7 60 1.7 205.2 " " 13600 - 6.8 770 1.7 13.7 680 1.9 183.5 " " 13600 - 6.8 770 1.7 13.8 820 2.8 21.4 " " 13600 - 6.8 770 1.7 13.9 13600 - 6.1 860 1.5 13.0 130 0.99 354.0 " " 13600 - 6.8 600 1.5 13.0 130 0.99 354.0 " " 13600 - 6.8 600 1.5 13.0 1300 0.99 354.0 " " 13600 - 6.8 600 1.5 13.0 1300 0.90 3300 0.90 580 4.0 13.0					"	"					
18					"	"					
17	7.3	710	0.61	194.3			7400	_	0.7	000	0.90
15.5			1					-			
14 375 2.4 101.0 " " 9400 - 17 305 3.0 13 400 2.3 111.1 " " 9800 - 15.5 335 2.7 11.5 455 2.0 124.5 " " 10200 - 13.5 385 2.3 10.5 500 1.8 137.0 " " 10600 - 12.5 420 2.1 10 520 1.75 141.4 BF40Z/D08MA4 56 10600 - 12 435 2.1 9.0 580 1.55 155.6 " " 10600 - 12 435 2.1 8.2 640 1.4 171.2 " " 10600 - 9.9 530 1.7 7.5 700 1.3 188.3 " " 10600 - 9.0 580 1.55 6.3 3830 1.1 222.4 " " 10600 - 6.7 780 1.1								-			
13								-			
11.5			2.4	101.0				-			
10.5 500 1.8 137.0 " " 10600 - 12.5 420 2.1 10 520 1.75 141.4 BF40Z/D08MA4 56 10600 - 12 435 2.1 9.0 580 1.55 155.6 " " 10600 - 11 475 1.9 8.2 640 1.4 171.2 " 10600 - 9.9 530 1.7 7.5 700 1.3 188.3 " " 10600 - 9.0 580 1.55 7.0 750 1.2 202.2 " " 10600 - 8.4 620 1.45 6.3 830 1.1 222.4 " " 10600 - 6.7 7.6 690 1.3 5.6 930 0.97 253.2 " " 10600 - 6.7 780 1.15 5.1 1020 0.88 278.5 " " 10600 - 6.7 780 1.15 5.1 1020 0.83 295.1 " " 10600 - 5.7 920 0.98 12.5 420 3.1 114.0 BF50/D08MA4 81 12900 - 15.7 920 0.98 12.5 420 3.1 15.0 BF50Z/D08MA4 81 12900 - 15.5 350 3.7 11 475 2.7 127.5 " " 13600 - 12.5 420 3.1 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 11 475 2.7 127.5 " " 13600 - 12.5 420 3.1 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 13.5 385 3.4 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 10.5 500 3.3 154.5 " " 13600 - 6.8 770 1.7 1.7 680 1.9 183.5 " " 13600 - 6.8 770 1.7 1.7 680 1.9 183.5 " " 13600 - 6.8 770 1.7 1.7 680 1.9 183.5 " " 13600 - 6.1 860 1.5 1.7 920 1.4 247.5 " " 13600 - 6.1 860 1.5 1.5 1160 1.1 316.6 " " 13600 - 6.1 860 1.5 1.5 1160 1.1 316.6 " " 13600 - 6.1 860 1.5 1.5 700 3.3 138.7 BF60Z/D08MA4 130 15300 43300 9.0 580 4.0 1.5 7.5 700 3.3 138.7 BF60Z/D08MA4 130 15300 43300 7.6 690 3.3 1.5 7.5 700 3.3 138.7 BF60Z/D08MA4 130 15300 43300 7.6 690 3.3 1.5 7.5 700 3.3 138.7 BF60Z/D08MA4 130 15300 43300 7.6 690 3.3 1.5 7.5 700 3.3 138.7 BF60Z/D08MA4 130 15300 43300 7.6 690 3.3			2.3					-			
10 520 1.75 141.4 BF40Z/D08MA4 56 10600 - 12.3 420 2.1 9.0 580 1.55 155.6 " " 10600 - 11 475 1.9 8.2 640 1.4 171.2 " " 10600 - 9.9 530 1.7 7.5 700 1.3 188.3 " " 10600 - 9.0 580 1.55 6.3 830 1.1 222.4 " " 10600 - 8.4 620 1.45 6.3 830 1.1 222.4 " " 10600 - 6.7 6 690 1.3 5.6 930 0.97 253.2 " " 10600 - 6.7 780 1.15 5.1 1020 0.88 278.5 " " 10600 - 6.1 860 1.05 4.8 1090 0.83 295.1 " " 10600 - 5.7 920 0.98 11.1 475 2.7 127.5 " " 10600 - 15 350 3.7 11 475 2.7 127.5 " " 13600 - 13.5 385 3.4 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 14.0 570 2.3 154.5 " " 13600 - 11 475 2.7 7.7 680 1.9 183.5 " " 13600 - 11 475 2.7 7.7 680 1.9 183.5 " " 13600 - 8.2 640 2.0 5.7 920 1.4 247.5 " " 13600 - 8.2 640 2.0 5.7 920 1.4 247.5 " " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1.5 4.5 1160 1.1 316.6 " " 13600 - 6.4 8.1 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1.2 3.6 4.8 1090 1.2 3.6 4.8 20 2.8 221.4 " " 13600 - 4.8 1090 1.2 3.6 4.8 20 2.8 221.4 " " 13600 - 4.8 1090 1.2 3.6 4.8 20 2.8 221.4 " " 13500 43300 7.6 690 3.3 5.8 900 2.6 245.6 " " 15300 43300 7.6 690 3.3 5.8 900 2.6 245.6 " " 15300 43300 7.6 690 3.3			1					-			
9.0 580 1.55 155.6 " " 10600 - 11 475 1.9 8.2 640 1.4 171.2 " " 10600 - 9.9 530 1.7 7.5 700 1.3 188.3 " " 10600 - 9.0 580 1.55 7.0 750 1.2 202.2 " " 10600 - 8.4 620 1.45 6.3 830 1.1 222.4 " " 10600 - 7.6 690 1.3 5.6 930 0.97 253.2 " " 10600 - 6.7 780 1.15 5.1 1020 0.88 278.5 " " 10600 - 6.7 780 1.15 4.8 1090 0.83 295.1 " " 13600 - 15 350 3.7 11 475 2.7 127.5 " " 13600 - 15.5 385 3.4								-			
8.2 640 1.4 171.2 " 10600 - 9.9 530 1.7 7.5 700 1.3 188.3 " 10600 - 9.0 580 1.55 7.0 750 1.2 202.2 " 10600 - 8.4 620 1.45 6.3 830 1.1 222.4 " 10600 - 7.6 690 1.3 5.6 930 0.97 253.2 " 10600 - 6.7 780 1.15 5.1 1020 0.88 278.5 " 10600 - 6.7 780 1.15 5.1 1020 0.83 295.1 " 10600 - 5.7 920 0.98 12.5 420 3.1 114.0 BF50/D08MA4 81 12900 - 15 350 3.7 11 475 2.7 127.5 " 13600 - 13.5 385 3.4 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 9.1 570 2.3 154.5 " 13600 - 11 475 2.7 7.7 680 1.9 183.5 " 13600 - 11 475 2.7 7.7 680 1.9 183.5 " 13600 - 11 475 2.7 5.7 920 1.4 247.5 " 13600 - 8.2 640 2.0 5.7 920 1.4 247.5 " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " 13600 - 6.8 770 1.7 5.7 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 9.0 580 4.0 6.4 820 2.8 221.4 " 15300 43300 7.6 690 3.3 5.8 900 2.6 245.6 " 15300 43300 7.6 690 3.3								-			
7.5 700 1.3 188.3 " " 10600 - 9.0 580 1.55 7.0 750 1.2 202.2 " " 10600 - 8.4 620 1.45 6.3 830 1.1 222.4 " " 10600 - 6.7 7.6 690 1.3 5.6 930 0.97 253.2 " " 10600 - 6.7 780 1.15 5.1 1020 0.88 278.5 " " 10600 - 6.1 860 1.05 4.8 1090 0.83 295.1 " " 10600 - 5.7 920 0.98 12.5 420 3.1 114.0 BF50/D08MA4 81 12900 - 15 350 3.7 11 475 2.7 127.5 " 13600 - 13.5 385 3.4 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 7.7 680 1.9 183.5 " " 13600 - 11 475 2.7 7.7 680 1.9 183.5 " " 13600 - 11 475 2.7 5.7 920 1.4 247.5 " " 13600 - 8.2 640 2.0 5.7 920 1.4 247.5 " " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " " 13600 - 6.8 770 1.7 4.5 1160 1.1 316.6 " " 13600 - 6.8 770 1.7 4.5 1160 1.1 316.6 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1.2 5.8 900 2.6 245.6 " " 15300 43300 9.0 580 4.0			1.55	155.6				-			
7.0 750 1.2 202.2 " 10600 - 8.4 620 1.45 6.3 830 1.1 222.4 " " 10600 - 7.6 690 1.3 5.6 930 0.97 253.2 " " 10600 - 6.7 780 1.15 5.1 1020 0.88 278.5 " " 10600 - 6.1 860 1.05 4.8 1090 0.83 295.1 " " 10600 - 5.7 920 0.98 12.5 420 3.1 114.0 BF50/D08MA4 81 12900 - 15 350 3.7 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 13.5 385 3.4 9.1 570 2.3 154.5 " " 13600 - 11 475 2.7 7.7 680 1.9 183.5 " " 13600 - 8.2 640 <		640	1.4	171.2				-			
6.3 830 1.1 222.4 " " 10600 - 7.6 690 1.3 5.6 930 0.97 253.2 " " 10600 - 6.7 780 1.15 5.1 1020 0.88 278.5 " " 10600 - 6.1 860 1.05 4.8 1090 0.83 295.1 " " 10600 - 5.7 920 0.98 12.5 420 3.1 114.0 BF50/D08MA4 81 12900 - 15 350 3.7 11 475 2.7 127.5 " " 13600 - 13.5 385 3.4 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 9.1 570 2.3 154.5 " " 13600 - 11 475 2.7 7.7 680 1.9 183.5 " " 13600 - 9.2 570 2.3 6.9 760 1.7 205.2 " " 13600 - 8.2 640 2.0 5.7 920 1.4 247.5 " " 13600 - 6.1 860 1.5 4.5 1160 1.1 316.6 " " 13600 - 6.1 860 1.5 4.5 1160 1.1 316.6 " " 13600 - 5.4 970 1.35 4.0 1310 0.99 354.0 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 15300 43300 9.0 580 4.0 6.4 820 2.8 221.4 " " 15300 43300 7.6 690 3.3 5.8 900 2.6 245.6 " " 15300 43300 7.6 690 3.3				188.3			10600	-		580	
5.6 930 0.97 253.2 " " 10600 - 6.7 780 1.15 5.1 1020 0.88 278.5 " " 10600 - 6.1 860 1.05 4.8 1090 0.83 295.1 " " 10600 - 6.1 860 1.05 4.8 1090 0.83 295.1 " " 10600 - 5.7 920 0.98 12.5 420 3.1 114.0 BF50/D08MA4 81 12900 - 15 350 3.7 11 475 2.7 127.5 " " 13600 - 13.5 385 3.4 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 9.1 570 2.3 154.5 " " 13600 - 9.2 570 2.3 <								-			
5.1 1020 0.88 278.5 " " 10600 - 6.1 860 1.05 4.8 1090 0.83 295.1 " " 10600 - 5.7 920 0.98 12.5 420 3.1 114.0 BF50/D08MA4 81 12900 - 15 350 3.7 11 475 2.7 127.5 " " 13600 - 13.5 385 3.4 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 9.1 570 2.3 154.5 " " 13600 - 11 475 2.7 7.7 680 1.9 183.5 " " 13600 - 11 475 2.7 7.7 680 1.9 183.5 " " 13600 - 8.2 640 2.0 6.9 760 1.7 205.2 " " 13600 - 8.2 640 2.0 5.7 920 1.4 247.5 " " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1.5 4.5 1160 1.1 316.6 " " 13600 - 5.4 970 1.35 4.0 1310 0.99 354.0 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1.2 5.7 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 9.0 580 4.0 6.4 820 2.8 221.4 " " 15300 43300 7.6 690 3.3 5.8 900 2.6 245.6 " " 15300 43300 7.6 690 3.3								-			
4.8 1090 0.83 295.1 " 10600 - 5.7 920 0.98 12.5 420 3.1 114.0 BF50/D08MA4 81 12900 - 15 350 3.7 11 475 2.7 127.5 " " 13600 - 13.5 385 3.4 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 9.1 570 2.3 154.5 " " 13600 - 12.5 420 3.1 9.1 570 2.3 154.5 " " 13600 - 12.5 420 3.1 9.1 570 2.3 154.5 " " 13600 - 9.2 570 2.3 6.9 760 1.7 205.2 " " 13600 - 8.2 640 2.0 5.7 9								-			
12.5								-			
11 475 2.7 127.5 " " 13600 - 13.5 385 3.4 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 9.1 570 2.3 154.5 " " 13600 - 11 475 2.7 7.7 680 1.9 183.5 " " 13600 - 9.2 570 2.3 6.9 760 1.7 205.2 " " 13600 - 8.2 640 2.0 5.7 920 1.4 247.5 " " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1.5 4.5 1160 1.1 316.6 " " 13600 - 5.4 970 1.35 4.0 1310 0.99 354.0 " " 13600 - 4.8 1090	4.8	1090	0.83	295.1	"	"	10600	-	5.7	920	0.98
11 475 2.7 127.5 " " 13600 - 13.5 385 3.4 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 9.1 570 2.3 154.5 " " 13600 - 11 475 2.7 7.7 680 1.9 183.5 " " 13600 - 9.2 570 2.3 6.9 760 1.7 205.2 " " 13600 - 8.2 640 2.0 5.7 920 1.4 247.5 " " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1.5 4.5 1160 1.1 316.6 " " 13600 - 5.4 970 1.35 4.0 1310 0.99 354.0 " " 13600 - 4.8 1090	12.5	420	3.1	114.0	BF50/D08MA4	81	12900	_	15	350	3.7
10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.1 9.1 570 2.3 154.5 " " 13600 - 11 475 2.7 7.7 680 1.9 183.5 " " 13600 - 9.2 570 2.3 6.9 760 1.7 205.2 " " 13600 - 8.2 640 2.0 5.7 920 1.4 247.5 " " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1.5 4.5 1160 1.1 316.6 " " 13600 - 5.4 970 1.35 4.0 1310 0.99 354.0 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.3 1220					"			_			
9.1 570 2.3 154.5 " " 13600 - 11 475 2.7 7.7 680 1.9 183.5 " " 13600 - 9.2 570 2.3 6.9 760 1.7 205.2 " " 13600 - 8.2 640 2.0 5.7 920 1.4 247.5 " " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1.5 4.5 1160 1.1 316.6 " " 13600 - 5.4 970 1.35 4.0 1310 0.99 354.0 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.3 1220 1.05 7.5 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 7.6 690					BF50Z/D08MA4	86		-			
7.7 680 1.9 183.5 " " 13600 - 9.2 570 2.3 6.9 760 1.7 205.2 " " 13600 - 8.2 640 2.0 5.7 920 1.4 247.5 " " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1.5 4.5 1160 1.1 316.6 " " 13600 - 5.4 970 1.35 4.0 1310 0.99 354.0 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1.2 7.5 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 9.0 580 4.0 6.4 820 2.8 221.4 " " 15300 43300 7.6 690 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>_</th> <th></th> <th></th> <th></th>								_			
6.9 760 1.7 205.2 " " 13600 - 8.2 640 2.0 5.7 920 1.4 247.5 " " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1.5 4.5 1160 1.1 316.6 " " 13600 - 5.4 970 1.35 4.0 1310 0.99 354.0 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.3 1220 1.05 7.5 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 9.0 580 4.0 6.4 820 2.8 221.4 " " 15300 43300 7.6 690 3.3 5.8 900 2.6 245.6 " " 15300 43300 6.9					m .	· ·		_			
5.7 920 1.4 247.5 " " 13600 - 6.8 770 1.7 5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1.5 4.5 1160 1.1 316.6 " " 13600 - 5.4 970 1.35 4.0 1310 0.99 354.0 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.3 1220 1.05 7.5 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 9.0 580 4.0 6.4 820 2.8 221.4 " " 15300 43300 7.6 690 3.3 5.8 900 2.6 245.6 " " 15300 43300 6.9 760 3.0					11	ıı					
5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1.5 4.5 1160 1.1 316.6 " " 13600 - 5.4 970 1.35 4.0 1310 0.99 354.0 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.3 1220 1.05 7.5 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 9.0 580 4.0 6.4 820 2.8 221.4 " " 15300 43300 7.6 690 3.3 5.8 900 2.6 245.6 " " 15300 43300 6.9 760 3.0					m m	ıı		-			
4.5 1160 1.1 316.6 " " 13600 - 5.4 970 1.35 4.0 1310 0.99 354.0 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.3 1220 1.05 7.5 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 9.0 580 4.0 6.4 820 2.8 221.4 " " 15300 43300 7.6 690 3.3 5.8 900 2.6 245.6 " " 15300 43300 6.9 760 3.0					"	II .		-			
4.0 1310 0.99 354.0 " " 13600 - 4.8 1090 1.2 3.6 1450 0.9 392.8 " " 13600 - 4.3 1220 1.05 7.5 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 9.0 580 4.0 6.4 820 2.8 221.4 " " 15300 43300 7.6 690 3.3 5.8 900 2.6 245.6 " " 15300 43300 6.9 760 3.0					п	II .		-			
3.6 1450 0.9 392.8 " 13600 - 4.3 1220 1.05 7.5 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 9.0 580 4.0 6.4 820 2.8 221.4 " " 15300 43300 7.6 690 3.3 5.8 900 2.6 245.6 " 15300 43300 6.9 760 3.0					п	II .					
6.4 820 2.8 221.4 " 15300 43300 7.6 690 3.3 5.8 900 2.6 245.6 " 15300 43300 6.9 760 3.0					TI .	"		-			
6.4 820 2.8 221.4 " 15300 43300 7.6 690 3.3 5.8 900 2.6 245.6 " 15300 43300 6.9 760 3.0	7.5	700	2 2	1977	REGOT- /DORMAA	130	15200	43300	9.0	590	4.0
5.8 900 2.6 245.6 " 15300 43300 6.9 760 3.0											
3.6 900 2.0 243.0 13300 43300 [0.9 700 3.0]											
10300 10300 2.1 253.4 10300 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.	1										
	4.0	1090	2.1	∠∀3.4			13300	43300	٥.د	900	2.0

Selection - shaft-mounted geared motors DSE -IE1

P = 0.55 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7.				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
4.3	1220	1.9	325.6	BF60Z/D08MA4	"	15300	43300	5.2	1010	2.3
3.7	1410	1.65	380.0	m m	II	15300	43300	4.5	1160	2.0
3.4	1540	1.5	421.6	m m	II	15300	43300	4.0	1310	1.75
3.1	1690	1.35	459.9	"	II .	15300	43300	3.7	1410	1.65
2.8	1870	1.25	510.3	m .	II .	15300	43300	3.3	1590	1.45
2.5	1860	1.35	569.3	BF60G20/D08MA4	137	15300	43300	3.0	1510	1.65
2.1	2200	1.15	689.0	m .	II .	15300	43300	2.5	1810	1.4
1.8	2600	0.96	813.2	11	"	15300	43300	2.1	2150	1.15
3.2	1640	3.2	439.2	BF70Z/D08MA4	218	16100	47700	3.9	1340	3.9
2.8	1870	2.8	512.4	"	"	16100	47700	3.3	1590	3.3
2.7	1720	3.3	524.1	BF70G20/D08MA4	216	16100	47700	3.3	1370	4.2
2.5	1850	3.1	577.5	"	"	16100	47700	3.0	1500	3.8
2.1	2200	2.6	673.6	"	"	16100	47700	2.5	1810	3.1
1.7	2800	2.0	872.1	"	"	16100	47700	2.0	2350	2.4
1.4	3450	1.65	1017	"	II	16100	47700	1.7	2750	2.1
1.1	4400	1.3	1390	"	"	16100	47700	1.3	3650	1.55
0.9	5400	1.05	1621	II	"	16100	47700	1.1	4350	1.3
1.5	3500	3.0	990.4	BF80Z/D08MA4	334	39600	75000	1.7	3050	3.4
1.3	4000	2.6	1124	n n	II .	39600	75000	1.5	3500	3.0
1.1	3300	3.2	1329	BF80G40/D08MA4	340	39600	75000	1.3	2550	4.1
0.95	4100	2.6	1491	"	"	39600	75000	1.2	2950	3.6
0.85	4550	2.3	1693	"	"	39600	75000	1.0	3650	2.9
0.7	5900	1.8	2051	"	"	39600	75000	0.85	4550	2.3
0.6	7100	1.5	2422	"	"	39600	75000	0.7	5900	1.8
0.55	7500	1.4	2785	"	"	39600	75000	0.65	6000	1.75
0.46	9300	1.15	3092	II .	"	39600	75000	0.55	7400	1.4
0.65	6000	3.1	2154	BF90G50/D08MA4	610	42800	120000	0.8	4500	4.1
0.55	7100	2.6	2656	"	"	42800	120000	0.65	5700	3.2
0.48	8600	2.2	2952	"	II .	42800	120000	0.6	6500	2.8
0.43	9700	1.9	3286	"	II .	42800	120000	0.55	7000	2.6
0.39	10900	1.7	3644	"	II .	42800	120000	0.47	8600	2.2
0.33	13400	1.4	4366	"	"	42800	120000	0.39	10900	1.7
0.29	15600	1.2	4839	"	ıı .	42800	120000	0.35	12500	1.5

P = 0.75 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
245	29	2.1	5.72	BF06/DSE08LA4	17	1630	-	295	24	2.6
183	39	1.75	7.66	"	"	1800	-	220	32.5	2.1
153	46.5	1.5	9.21	"	"	1900	-	183	39	1.8
116	61	1.25	12.07	"	"	2000	-	140	51	1.45
99	72	1.2	14.21	"	"	2100	-	119	60	1.4
83	86	1.1	16.99	"	II .	2500	-	99	72	1.3
69	103	0.92	20.42	"	II .	2700	-	83	86	1.1
119	60	3.1	11.84	BF10/DSE08LA4	28	2500	-	142	50	3.7
94	76	2.4	15.04	"	II .	2800	-	112	63	2.9
77	93	2.6	18.23	"	II .	2900	-	93	77	3.1
70	102	2.4	20.05	"	II .	3000	-	84	85	2.8
61	117	2.1	23.28	"	II .	3200	-	73	98	2.4
55	130	1.85	25.60	"	II .	3350	-	66	108	2.2
49.5	144	1.65	28.47	"	II .	3450	-	60	119	2.0
45	159	1.5	31.31	"	II .	3600	-	54	132	1.8
39	183	1.3	36.15	"	II .	3800	-	46.5	154	1.55
35.5	200	1.2	39.75	"	II .	3950	-	42.5	168	1.45
33	215	1.1	43.06	п	II .	4100	-	39.5	181	1.35

/

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 0.75 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	'	туре	111	I RN	I RV	n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	I B			kg	N	N	1/min	Nm	I B
30	235	1.0	47.35	BF10/DSE08LA4	Kg "	4250	- IN	35.5	200	1.2
27.5			51.28	BF10/D3E08LA4	"			33.3		
	260	0.92		"	"	4400	-		215	1.1
25	285	0.84	56.39	-		4550	-	30	235	1.0
	422	2.2	24.25	DESC. (DEFOCIAA	25	2050		70	102	4.0
58	123	3.3	24.25	BF20/DSE08LA4	35	3950	-	70	102	4.0
51	140	3.0	27.62	"	"	4150	-	61	117	3.6
46.5	154	2.7	30.40			4400	-	56	127	3.3
43	166	2.5	32.58	"	"	4450	-	52	137	3.1
39.5	181	2.3	35.85	"	"	4650	-	47	152	2.8
34	210	2.0	41.72	"	"	4950	-	40.5	176	2.4
31	230	1.85	45.90	"	"	5100	-	37	193	2.2
29	245	1.7	48.56	"	"	5200	-	35	200	2.1
26.5	270	1.55	53.43	"	"	5500	-	31.5	225	1.85
24.5	290	1.45	58.24	п	"	5600	-	29	245	1.7
22	325	1.3	64.08	m .	11	5900	_	26.5	270	1.55
20.5	345	1.2	69.70	II .	"	6100	_	24.5	290	1.45
18.5	385	1.1	76.69	II .	"	6300	_	22	325	1.3
16.5	430	0.98	87.31	II .	"	6600	_	19.5	365	1.15
15.5	475	0.98	96.08	m .	"	6900	_	17.5	405	1.05
14	510	0.82	100.2	"	"	7000		17.5		1.03
14	310	0.62	100.2			7000	-	17	420	1.0
40	170	2.2	25.00	DECO /DEFORMA	45	4200		40	140	2.0
40	179	3.2	35.00	BF30/DSE08LA4	45 "	4200	-	48	149	3.9
36.5	196	2.9	38.49	 II	"	4400	-	44	162	3.5
34.5	205	2.8	41.01	"	"	4500	-	41	174	3.3
31.5	225	2.6	45.10			4700	-	37.5	191	3.0
27	265	2.2	52.20	"	"	5000	-	32.5	220	2.6
24.5	290	2.0	57.41	"	"	5200	-	29.5	240	2.4
23	310	1.85	61.17	· ·	"	5300	-	27.5	260	2.2
21	340	1.7	67.28	"	"	5500	-	25	285	2.0
19.5	365	1.6	72.13	u u	"	5700	-	23.5	300	1.9
18	395	1.45	79.34	п	"	5900	-	21.5	330	1.75
16.5	430	1.35	87.08	m .	11	6200	_	19.5	365	1.6
15	475	1.2	95.79	II .	"	6400	_	18	395	1.45
13.5	530	1.1	107.6	n n	"	6700	_	16	445	1.3
12	590	0.97	118.3	II.	"	7000	_	14.5	490	1.15
11.5	620	0.93	124.7	II .	11	7100	_	13.5	530	1.1
10.5	680	0.85	137.1	m .	"	7400	_	12.5	570	1.0
10.5	000	0.05	137.1			7 100		12.5	370	1.0
26.5	270	3.3	53.82	BF40/DSE08LA4	54	7200	_	31.5	225	4.0
23	310	2.9	61.25	"	J-T	7600	_	27.5	260	3.5
21	340	2.6	67.38	m .	"	8000		25	285	3.2
20	355	2.5	71.40	m .	"	8100		24	295	3.1
18	395		78.55	m .	"	8500		21.5	330	2.7
		2.3		"	"		-			
17	420	2.1	83.91	"	"	8700	-	20.5	345	2.6
15.5	460	1.95	92.31	"	"	9100	-	18.5	385	2.3
14	510	1.75	101.0	 II	"	9400	-	17	420	2.1
13	550	1.65	111.1			9800	-	15.5	460	1.95
11.5	620	1.45	124.5	"	"	10200	-	13.5	530	1.7
10.5	680	1.3	137.0	"	II .	10600	-	12.5	570	1.6
10	710	1.25	141.4	BF40Z/DSE08LA4	58	10600	-	12	590	1.55
9.0	790	1.15	155.6	"	"	10600	-	11	650	1.4
8.2	870	1.05	171.2	"	"	10600	-	9.9	720	1.25
7.5	950	0.95	188.3	II.	II .	10600	-	9.0	790	1.15
7.0	1020	0.88	202.2	m .	"	10600	-	8.4	850	1.05
6.3	1130	0.8	222.4	m .	II .	10600	-	7.6	940	0.96
17.5	405	3.2	81.33	BF50/DSE08LA4	83	11300	-	21	340	3.8
16	445	2.9	90.24	II .	II .	11800	-	19	375	3.5
14	510	2.5	100.9	m .	II .	12300	_	17	420	3.1
12.5	570	2.3	114.0	m .	II .	12900	_	15	475	2.7
11	650	2.0	127.5	· ·	II .	13600	_	13.5	530	2.5
	030	2.0	121.5			13000	_	15.5	230	۷.5

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 0.75 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
10.5	680	1.9	138.1	BF50Z/DSE08LA4	88	13600	-	12.5	570	2.3
9.1	780	1.65	154.5	п	II .	13600	-	11	650	2.0
7.7	930	1.4	183.5	п	II .	13600	-	9.2	770	1.7
6.9	1030	1.25	205.2	п	II .	13600	-	8.2	870	1.5
5.7	1250	1.05	247.5	п	II .	13600	-	6.8	1050	1.25
5.1	1400	0.93	276.8	m m	II .	13600	_	6.1	1170	1.1
4.5	1590	0.82	316.6	m .	II .	13600	-	5.4	1320	0.98
10	710	3.2	140.8	BF60Z/DSE08LA4	131	15300	43300	12	590	3.9
8.3	860	2.7	169.2	II .	II .	15300	43300	10	710	3.2
7.5	950	2.4	187.7	п	II .	15300	43300	9.0	790	2.9
6.4	1110	2.1	221.4	п	II .	15300	43300	7.6	940	2.4
5.8	1230	1.85	245.6	m m	II .	15300	43300	6.9	1030	2.2
4.8	1490	1.55	293.4	п	II .	15300	43300	5.8	1230	1.85
4.3	1660	1.4	325.6	п	II .	15300	43300	5.2	1370	1.7
3.7	1930	1.2	380.0	п	II .	15300	43300	4.5	1590	1.45
3.4	2100	1.1	421.6	п	II .	15300	43300	4.0	1790	1.3
3.1	2300	1.0	459.9	п	II .	15300	43300	3.7	1930	1.2
2.8	2550	0.9	510.3	п	II .	15300	43300	3.3	2150	1.05
2.5	2600	0.96	569.3	BF60G20/DSE08LA4	139	15300	43300	3.0	2100	1.2
2.1	3100	0.81	689.0	11	11	15300	43300	2.5	2550	0.98
4.1	1740	3.0	341.7	BF70Z/DSE08LA4	220	16100	47700	5.0	1430	3.6
3.6	1980	2.6	398.7	m m	II .	16100	47700	4.3	1660	3.1
3.2	2200	2.4	439.2	m .	II .	16100	47700	3.9	1830	2.8
2.8	2550	2.0	512.4	п	II .	16100	47700	3.3	2150	2.4
2.7	2400	2.4	524.1	BF70G20/DSE08LA4	217	16100	47700	3.3	1950	2.9
2.5	2600	2.2	577.5	"	"	16100	47700	3.0	2100	2.7
2.1	3100	1.85	673.6	m .	II .	16100	47700	2.5	2550	2.2
1.7	3950	1.45	872.1	m .	II .	16100	47700	2.0	3300	1.75
1.4	4800	1.2	1017	п	"	16100	47700	1.7	3900	1.45
1.1	6100	0.93	1390	п	II .	16100	47700	1.3	5100	1.1
2.2	3250	3.2	662.1	BF80Z/DSE08LA4	336	39600	75000	2.6	2750	3.8
1.9	3750	2.8	770.6	II .	"	39600	75000	2.2	3250	3.2
1.7	4200	2.5	874.6	II .	II .	39600	75000	2.0	3550	3.0
1.5	4750	2.2	990.4	TI TI	II .	39600	75000	1.7	4200	2.5
1.3	5500	1.9	1124	II .	"	39600	75000	1.5	4750	2.2
1.1	5000	2.1	1329	BF80G40/DSE08LA4	341	39600	75000	1.3	4050	2.6
0.95	6100	1.7	1491	п	II .	39600	75000	1.2	4550	2.3
0.85	6800	1.55	1693	п	II .	39600	75000	1.0	5500	1.9
0.7	8600	1.2	2051	m m	II .	39600	75000	0.85	6800	1.55
0.6	10300	1.0	2422	n .	II .	39600	75000	0.7	8600	1.2
1.0	5700	3.2	1444	BF90G50/DSE08LA4	612	42800	120000	1.2	4550	4.1
0.85	6800	2.7	1678	II	II .	42800	120000	1.1	4900	3.8
0.75	7700	2.4	1867	n n	II .	42800	120000	0.9	6100	3.0
0.65	8900	2.1	2154	п	II .	42800	120000	0.8	6800	2.7
0.55	10600	1.75	2656	п	II .	42800	120000	0.65	8600	2.2
0.48	12600	1.45	2952	II	"	42800	120000	0.6	9600	1.95
0.43	14100	1.3	3286	n n	II .	42800	120000	0.55	10500	1.75
0.39	15800	1.15	3644	п	"	42800	120000	0.47	12700	1.45

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 1.1 kW



N		50 Hz		i	Туре	m	Е			60 Hz	
	n		ε	ı	туре	m	F_{RN}	F_{RV}	n		$f_{\scriptscriptstyle B}$
245			I _B			ka	N	N			IB
183			1 45	5.72	PEGE /DSEGOVA						1 75
183											
190											
99 106 0.8 14.21 " " 2100 - 119 88 0.9 250 42 3.3 560 BF10/DSE08XA4 30 1980 - 300 35 3. 185 56 2.7 7.58 " 2200 - 225 46.5 3. 145 72 2.5 9.69 " 22500 - 174 60 3. 145 72 2.5 9.69 " 22500 - 174 60 3. 147 73 2. 148 " 2200 - 142 73 2. 149 4 111 1.65 15.04 " 2200 - 142 73 2. 149 111 1.65 15.04 " 2200 - 112 93 112 2. 140 150 150 1.6 20.05 " 3000 - 84 125 12 2. 150 150 1.6 20.05 " 3000 - 84 125 12 2. 151 151 22 2.5 0.0 " 3000 - 84 125 12 2. 151 152 2.5 0.0 " 3000 - 84 125 13 1. 152 2.5 191 1.25 2.5 0.0 " 3350 - 66 159 1. 153 2.5 191 1.25 2.5 0.0 " 3350 - 66 159 1. 153 2.5 295 0.81 39.75 " 3350 - 66 159 1. 154 78 3.3 10.51 8F20/DSE08XA4 36 3100 - 160 65 3. 151 152 2.9 16.77 " 3350 - 128 82 3. 151 152 2.9 16.77 " 3350 - 101 104 3. 152 2.9 16.77 " 3350 - 101 104 3. 153 2.7 15.54 " 3350 - 109 96 3. 154 2.0 1.5 13.18 " 3350 - 109 96 3. 154 2.0 1.5 13.18 " 3350 - 109 96 3. 154 2.0 1.5 13.18 " 3350 - 109 96 3. 156 138 2.7 18.45 " 3350 - 109 96 3. 156 138 2.7 18.45 " 3350 - 101 104 3. 158 151 2.2 2.5 0.0 " 3350 - 101 104 3. 158 151 2.2 2.5 0.0 " 3350 - 101 104 3. 158 151 2.2 2.5 0.0 " 3450 - 109 96 3. 158 151 2.2 2.5 1.0 350 - 70 150 2. 158 151 2.5 2.5 1.5 3. 158 161 3.3 2.7 18.45 " 3350 - 70 150 2. 159 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5											
250 42 3.3 5.60 BF10/DSE08XA4 30 1980 - 300 35 3.8 185 56 2.7 7.58											
185	99	106	0.8	14.21			2100	-	119	88	0.97
185	250	42	2 2	5.60	RE10_ /DSE09YA/	30	1090		300	25	3.0
145											3.3
119 88 2.1 11.84 " 2500 - 142 73 2.9 94 111 1.65 15.04 " 2800 - 112 93 1.9 77 136 1.75 18.23 " 2900 - 93 112 2.7 70 150 1.6 20.05 " 3000 - 93 112 2.7 10 150 1.6 20.05 " 3000 - 73 143 1.5 10 172 1.4 23.28 " 3200 - 73 143 1.5 10 172 1.4 23.28 " 3350 - 66 1.59 1. 1. 49.5 210 1.15 28.47 " 3450 - 60 1.75 1.3 48.5 220 1.05 31.31 " 3600 - 54 1.94 1.2 39 265 0.91 36.15 " 3800 - 46.5 2.25 1.0 39.5 265 0.91 36.15 " 3800 - 46.5 2.25 1.0 39.5 295 0.81 39.75 " 3800 - 46.5 2.25 1.0 3134 78 3.3 10.51 8F20/DSE08XA4 3.6 3100 - 160 6.5 3. 107 98 2.9 13.18 8F20/DSE08XA4 3.6 3100 - 160 6.5 3. 107 98 2.9 13.18 8F20/DSE08XA4 3.6 3100 - 160 6.5 3. 84 125 2.9 16.77 " 3500 - 101 104 3. 76 138 2.7 18.45 " 3500 - 101 104 3. 76 138 2.7 18.45 " 3800 - 77 136 2. 58 181 2.2 24.25 " 3800 - 77 136 2. 58 181 2.2 24.25 " 3800 - 77 136 2. 58 181 2.2 24.25 " 3950 - 70 150 2.2 51 205 2.0 27.62 " 4400 - 56 117.2 2. 46.5 225 1.85 30.40 " 4400 - 55 187.2 2.0 46.5 225 1.85 30.40 " 4400 - 55 187.2 2.0 46.5 225 1.85 30.40 " 4400 - 55 187.2 2.0 46.5 225 1.85 30.40 " 4400 - 55 187.2 2.0 46.5 225 1.85 30.40 " 4400 - 55 187.2 2.0 46.5 225 1.85 30.40 " 4400 - 55 187.2 2.0 51 205 2.0 27.62 " 4450 - 550 - 70 150 2.2 51 205 2.0 36.8 64.08 " 5500 - 315 300 1.2 52 305 1.4 41.22 " 4450 - 550 - 35 300 1.2 53 305 1.4 41.22 " 4450 - 550 - 35 300 1.2 54.5 205 3.95 50.8 64.08 " 5500 - 26.5 395 10.0 55 161 3.3 21.8 8F30/DSE08XA4 46 3500 - 77 136 3. 59 178 3.1 24.03 8F30/DSE08XA4 46 3500 - 70 150 3. 50 170 2.7 28.23 " 4400 - 4400 - 44 2.55 2.25 1.5 50 1.0 8.22 0.0 " 58.24 " 5900 - 26.5 395 10.0 55 161 3.3 21.8 8F30/DSE08XA4 46 3500 - 70 150 3. 50 170 3.3 350 - 1.5 5.20 - 70 150 3. 50 170 3.3 350 - 1.5 5.20 - 70 150 3. 50 170 3.3 350 - 1.5 5.20 - 70 150 3. 50 170 3.3 350 - 70 150 3. 50 170 3.3 350 - 70 150 3. 50 170 3.3 350 - 70 150 3. 50 170 3.3 350 - 70 150 3. 50 170 3.3 350 - 70 150 3. 50 170 3.3 350 - 70 150 3. 50 170 3.3 350 - 70 150 3. 50 170 3.3 350 - 70 150 3. 50 170 3.3 350 - 70 150 3. 50 170 3.3 350 - 70 150 3. 50 170 3.3 350 - 70 150 3. 50 170 3.3					п	"					
94 111 1.65 15.04 " 2800 - 112 93 1.19 77 136 1.75 18.23 " 2900 - 93 112 2.2 70 150 1.6 20.05 " 3000 - 84 125 1.3 55 191 1.25 25.60 " 3350 - 66 159 1.3 55 191 1.25 25.60 " 3350 - 66 159 1.3 48.5 230 1.05 31.31 " 3450 - 66 159 1.3 48.5 230 1.05 31.31 " 3600 - 46.5 225 1.0 39 265 0.91 36.15 " 3800 - 46.5 225 1.0 35.5 295 0.81 39.75 " 3800 - 42.5 225 1.0 35.5 295 0.81 39.75 " 3800 - 160 65 3.3 107 98 2.9 13.18 " 3800 - 160 65 3.3 107 98 2.9 13.18 " 3450 - 109 96 3.3 107 98 2.9 15.54 " 3450 - 109 96 3.3 108 2.7 18.45 " 3450 - 109 96 3.3 108 2.7 18.45 " 3800 - 92 114 3.3 84 125 2.9 16.77 " 3500 - 92 114 3.3 84 125 2.9 16.77 " 3500 - 92 114 3.3 85 2.7 18.45 " 3800 - 92 114 3.3 86 11 2.2 24.25 " 3950 - 70 150 2.5 81 12 2.2 24.25 " 3950 - 70 150 2.5 81 12 2.2 24.25 " 4450 - 92 114 3.3 84 12.5 2.5 1.8 30.40 " 4400 - 56 187 2.2 43 240 1.75 32.58 " 4450 - 52 200 2.5 146.5 2.25 1.8 33.0 1.7 32.58 " 4450 - 52 200 2.5 34 305 1.4 41.72 " 4950 - 405 2.5 200 2.5 34 305 1.4 41.72 " 4950 - 405 2.5 200 2.5 35.5 25 1.6 35.85 " 500 - 92 360 1.1 34 3.3 1.4 41.72 " 4950 - 405 2.2 2.0 2.5 35 1.6 33.8 1.4 41.72 " 4950 - 405 2.2 2.0 2.5 36.5 1.6 35.85 " 500 - 70 150 2.2 2.0 2.5 36.5 1.6 35.85 " 500 - 92 360 1.1 34 3.3 1.4 41.72 " 4950 - 405 2.2 2.0 2.5 35 1.5 35.9 1.0 8.6 4.8 8.9 " 4450 - 52 2.0 0.2 2.5 36.5 1.6 35.85 " 4450 - 47 2.00 1.3 37 280 1.1 44.72 " 4950 - 405 2.2 2.0 2.2 2.0 2.0 2.0 2.0 2.0 2.0 2.0					n .	"					
77					n .	"					
70					n .	"					
61 172 1.4 23.28 " 3200 - 73 143 1.1 55 191 1.25 25.60 " 3350 - 66 159 49.5 210 1.15 28.47 " 3450 - 60 175 1.3 48.5 220 1.05 31.31 " 3600 - 54 194 1.39 265 0.91 36.15 " 3800 - 42.5 225 1.0 35.5 295 0.81 39.75 " 3950 - 42.5 225 1.0 35.5 295 0.81 39.75 " 3950 - 42.5 225 1.0 35.5 295 1.5 29 13.18					n .	"					
55					11	"		-			
49.5 210 1.15 28.47 " " 3450 - 60 175 13. 45 230 1.05 31.31 " " 3600 - 54 194 12. 39 265 0.91 36.15 " " 3800 - 45.5 225 1.0 39.5.5 295 0.81 39.75 " " 3950 - 42.5 225 1.0 35.5 295 0.81 39.75 " " 3950 - 42.5 225 1.0 35.5 295 0.81 39.75 " " 3950 - 42.5 225 1.0 35.5 295 0.81 39.75 " " 3950 - 128 82 3. 107 98 2.9 13.18 " " 3300 - 128 82 3. 107 98 2.9 16.77 " " 33500 - 101 104 3. 384 125 2.9 16.77 " " 3500 - 101 104 3. 386 181 2.2 24.25 " " 3600 - 92 114 3. 58 181 2.2 24.25 " " 3800 - 77 136 2. 58 181 2.2 24.25 " " 3950 - 61 177 2.2 46.5 225 1.85 30.40 " " 4450 - 56 187 2.2 46.5 225 1.85 30.40 " " 4450 - 56 187 2.2 43 240 1.75 32.58 " " 4650 - 47 220 1. 384 305 1.4 41.72 " " 4950 - 40.5 255 1.6 31 335 1.25 45.90 " " 5100 - 37 280 1.3 31 335 1.25 45.90 " " 5500 - 31.5 30.0 1.2 24.5 425 0.99 58.24 " " 5500 - 31.5 30.0 1.2 24.5 425 0.99 58.24 " " 5500 - 29 360 1.1 25.5 395 1.05 69.70 " " 5000 - 22.5 300 1.1 36.5 22.5 38.9 1.05 53.43 " " 5500 - 29 360 1.1 36.5 22.5 3.9 5 1.0 69.70 " " 5000 - 24.5 325 1.6 36.5 285 2.0 38.49 " " 5500 - 29 360 1.1 36.5 285 2.0 38.49 " " 5500 - 29 360 1.1 37.5 280 1.75 45.10 " " 4400 - 55 191 3. 38.49 " " 5500 - 29 360 1.75 3.2 38.5 265 285 1.0 99 18.8 49 " " 5500 - 29 360 1.1 38.5 285 2.0 38.49 " " 5500 - 29 360 1.1 38.5 285 2.0 38.49 " " 5500 - 29 350 1.0 38.5 285 2.0 38.49 " " 5500 - 29 350 1.0 38.5 3.0 1.7 41.0 " " 4400 - 44 235 2.2 38.5 1.5 52.0 1.75 45.10 " " 4400 - 44 235 2.2 38.5 1.5 52.0 1.75 45.10 " " 4400 - 44 235 2.2 38.5 1.5 52.0 1.75 45.10 " " 4400 - 44 235 2.2 38.5 1.5 52.0 1.75 45.10 " " 5000 - 25.5 355 1.1 38.5 1.5 52.0 1.75 45.10 " " 5000 - 25.5 355 1.1 38.5 1.5 52.0 1.75 45.10 " " 5000 - 25.5 355 1.1 38.5 2.7 45.50 " " 5000 - 25.5 350 1.1 38.5 2.8 3.0 1.1 7.5 45.10 " " 5000 - 25.5 350 1.1 39.5 500 1.15 67.8 " " 5000 - 25.5 350 1.1 39.5 500 1.15 67.8 " " 5000 - 25.5 350 1.1 39.5 500 1.15 67.8 " " 5000 - 25.5 350 1.1 30.5 2.0 1.15 67.2 " " 5000 - 25.5 350 1.1 30.5 2.0 1.15 67.2 " " 5000 - 25.5 350 1.1 30.5 2.0 1.15 67.2 " " 5000 - 25.5 350 1.1 30.5 2.0 1.15 67.2 " " 5000 - 2						"		-			
45 230 1.05 31.31 " " 3600 - \$4 194 1.2 39 265 0.91 36.15 " " 38900 - \$4.5 225 1.0 39 265 0.91 36.15 " " 38900 - \$4.5 225 1.0 31.31 " " 38000 - \$4.5 225 1.0 31.31 " " 38000 - \$4.5 225 1.0 31.32 " " 38950 - \$4.5 225 1.0 31.34 78 3.3 10.51 BF20/DSE08XA4 36 3100 - 160 65 3. 107 98 2.9 13.18 " " 3300 - 128 82 3. 107 98 2.9 13.18 " " 3300 - 100 96 3. 84 125 2.9 16.77 " " 3500 - 101 104 3. 76 138 2.7 18.45 " " 3600 - 92 114 3. 76 138 2.7 18.45 " " 38000 - 77 136 2. 76 138 12.2 24.25 " " 38900 - 77 136 2. 76 138 2.2 24.25 " " 3950 - 70 150 2. 77 136 2. 78 46.5 225 1.85 30.40 " " 44400 - \$6 11 72 2. 46.5 225 1.85 30.40 " " 44400 - \$6 187 2. 39.5 265 1.6 35.85 " " 4450 - \$52 200 2. 39.5 265 1.6 35.85 " " 4650 - 47 220 1. 31 335 1.25 45.90 " " 5100 - 37 280 1. 31 335 1.25 45.90 " " 5100 - 37 280 1. 31 335 1.25 45.90 " " 5100 - 37 280 1. 32 9 360 1.15 48.56 " " 5200 - 35 300 1. 32 4.5 425 0.99 \$8.24 " " 5500 - 31.5 330 1.2 24.5 475 0.88 64.08 " " 5900 - 29 360 1.1 25 5. 343 " " 5500 - 29 360 1.1 26.5 395 1.05 \$8.24 " " 5600 - 29 360 1.1 26.5 395 1.05 \$8.24 " " 5600 - 29 360 1.1 27 28.23 " " 3600 - 70 155 3.3 30 1.2 45.5 2.0 38.49 " " 4400 - 55 191 3. 31.5 330 1.75 45.10 " " 5000 - 37 136 3. 35.5 285 2.0 38.49 " " 4400 - 44 235 2. 36.5 285 2.0 38.49 " " 5000 - 25 5 191 3. 36.5 285 2.0 38.49 " " 4400 - 44 235 2. 37.5 280 1.75 45.10 " " 5000 - 37.5 280 2. 38.5 1.25 66.11 " " 5000 - 37.5 280 2. 38.5 1.25 66.11 " " 5000 - 25 5 420 1.3 39.5 5 300 1.1 5 67.28 " " 5000 - 25 5 420 1.3 31.5 330 1.75 45.10 " " 5000 - 25 5 420 1.3 31.5 330 1.75 45.10 " " 5000 - 25 5 420 1.3 31.5 330 1.75 45.10 " " 5000 - 25 5 420 1.3 31.5 330 1.75 45.10 " " 5000 - 25 5 420 1.3 31.5 330 1.75 45.10 " " 5000 - 25 5 420 1.3 31.5 330 1.75 45.10 " " 5000 - 25 5 420 1.3 31.5 330 1.75 45.10 " " 5000 - 25 5 420 1.3 31.5 500 1.15 67.28 " " 5000 - 25 5 420 1.3 31.5 500 1.15 67.28 " " 5000 - 25 5 420 1.3 31.5 500 1.15 67.28 " " 5000 - 25 5 420 1.3 31.5 500 1.15 67.28 " " 5000 - 25 5 420 1.3 31.5 500 1.15 67.28 " " 5000 - 25 5 420 1.3 31.5 500 1.15 67.28 " " 5											
39											
35.5											
33.3											
107 98 2.9 13.18	33.3	293	0.81	39./3			3930	-	42.5	245	0.98
107 98 2.9 13.18	134	79	2 2	10.51	REON- /DSENSYAA	36	3100	_	160	65	3.0
91									1		
84 125 2.9 16.77 " " 3500 - 101 104 3. 76 138 2.7 18.45 " " 3600 - 92 114 3. 64 164 2.4 22.04 " " 3800 - 77 136 2. 58 181 2.2 24.25 " " 3950 - 70 150 2. 51 205 2.0 27.62 " " 4150 - 61 172 2. 46.5 225 1.85 30.40 " " 4450 - 66 187 2. 39.5 265 1.6 35.85 " " 4650 - 47 220 1. 31 33.5 1.25 45.90 " " 5100 - 37 280 1. 26.5 395 1.05 <t< th=""><th></th><th></th><th></th><th></th><th>"</th><th>"</th><th></th><th></th><th></th><th></th><th></th></t<>					"	"					
76						"					
64 164 2.4 2.204 " " 3800 - 77 136 2.2 58 181 2.2 24.25 " " 3950 - 70 150 2. 51 205 2.0 27.62 " " 4150 - 61 172 2. 46.5 225 1.85 30.40 " " 4400 - 56 187 2. 43 240 1.75 32.58 " " 4650 - 47 220 1. 39.5 265 1.6 35.85 " " 4650 - 47 220 1. 34 305 1.4 41.72 " 4950 - 40.5 255 1.6 31 335 1.25 45.90 " " 5100 - 37 280 1. 29 360 1.15 48.56 " " 5200 - 35 300 1. 29 360 1.15 48.56 " " 5500 - 31.5 330 1.2 24.5 425 0.99 58.24 " " 5600 - 29 360 1.1 20.5 510 0.82 69.70 " " 5000 - 26.5 395 1.0 55 161 3.3 21.85 BF30/DSE08XA4 46 3500 - 77 136 3. 55 178 3.1 24.03 " " 3600 - 70 150 3. 50 210 2.7 28.23 " " 3800 - 70 150 3. 45.5 220 2.5 31.05 " " 4000 - 48 215 2. 36.5 285 2.0 38.49 " " 4000 - 44 235 2. 36.5 285 2.0 38.49 " " 4000 - 44 235 2. 37.5 385 1.5 52.20 " " 4000 - 44 235 2. 38.5 1.5 52.20 " " 4000 - 44 235 2. 38.5 1.5 52.20 " " 5000 - 29.5 355 1. 39. 300 1.1 " 4000 - 55 191 3. 40 260 2.2 35.00 " " " 4000 - 44 235 2. 31.5 330 1.75 45.10 " " 4000 - 55 191 3. 40 260 2.2 35.00 " " " 4000 - 55 191 3. 41.5 27 385 1.5 52.20 " " " 4000 - 25 191 3. 42.5 42.5 1.35 57.41 " " 5000 - 29.5 355 1. 31.5 330 1.75 45.10 " " 4700 - 37.5 280 2. 27 385 1.5 52.20 " " " 5000 - 29.5 355 1. 31.5 330 1.75 45.10 " " 4500 - 29.5 355 1. 31.5 330 1.75 45.10 " " 4500 - 29.5 355 1. 31.5 330 1.75 45.10 " " 5000 - 29.5 355 1. 31.5 330 1.75 45.10 " " 5000 - 29.5 355 1. 31.5 330 1.75 45.10 " " 5000 - 29.5 355 1. 31.5 330 1.75 45.10 " " 5000 - 29.5 355 1. 31.5 330 1.75 45.10 " " 5000 - 29.5 355 1. 31.5 330 1.75 45.10 " " 5000 - 29.5 355 1. 31.5 330 1.75 45.10 " " 5000 - 29.5 355 1. 31.5 330 1.75 45.10 " " 5000 - 29.5 355 1. 31.5 330 1.75 45.50 " " 5000 - 29.5 355 1. 31.5 330 1.75 45.50 " " 5000 - 29.5 355 1. 31.5 330 1.75 45.50 " " 5000 - 29.5 355 1. 31.5 330 1.75 45.50 " " 5000 - 29.5 355 1. 31.5 330 1.75 45.50 " " 5000 - 29.5 355 1. 31.5 330 1.75 45.50 " " 5000 - 29.5 355 1. 31.5 330 1.75 45.50 " " 5000 - 29.5 355 1. 31.5 330 1.1 72.13 " " 5000 - 29.5 355 1. 31.5 330 1.1 72.13 " " 5000 - 29.5 355 1. 31.5 330 1.1 72.13 " " 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7					"	"					
58 181 2.2 24.25 " " 3950 - 70 150 2.2 2.46.5 225 1.85 30.40 " " 4450 - 56 187 2.2 44.5 420 1.75 32.58 " " 4450 - 56 187 2.2 20 2.3 28 " " 4450 - 56 187 2.2 20 2.3 34 305 1.6 35.85 " " 4450 - 56 20 2.0 2.3 33 41.2 41.72 " " 4950 - 47 220 1. 33 1.1 41.72 " " 4950 - 47 220 1. 31 335 1.2 45.90 " " 5100 - 37 280 1. 1. 48.56 " " " 5100 - 28 300 1. 1. 48.56 " " " 5500 - 31.5 330 1.2 24.5					"	"					
51 205 2.0 27.62 " " 4150 - 61 172 2 246.5 225 1.85 30.40 " " 4400 - 56 187 2 2 39.5 265 1.6 35.85 " " 4450 - 52 200 2 2 39.5 1.6 187 2 20 2 1.0 39.5 1.6 35.85 " " 4650 - 47 220 1. 34 305 1.4 41.72 " " 4950 - 40.5 255 1.6 31 335 1.25 45.90 " " 5100 - 37 280 1. 1. 29 360 1.1 3.3 1.2 48.56 " " 5200 - 31.5 330 1.2 24.5 425 0.99 58.24 " " 5500 - 29 360 1.1 24.5 425 0.99 360 1.1 3.7 24.5 425 0.99 <td< th=""><th></th><th></th><th></th><th></th><th></th><th>"</th><th></th><th></th><th></th><th></th><th></th></td<>						"					
46.5 225 1.85 30.40 " " 44400 - 56 187 2. 43 240 1.75 32.58 " " 4450 - 52 200 2. 39.5 265 1.6 35.85 " " 4450 - 47 220 1. 34 305 1.4 41.72 " 4950 - 40.5 255 1.6 31 335 1.25 45.90 " " 5100 - 37 280 1. 29 360 1.15 48.56 " " 5200 - 35 300 1. 26.5 395 1.05 53.43 " " 5500 - 31.5 330 1.2 24.5 425 0.99 58.24 " " 5600 - 29 360 1.1 22 475 0.88 64.08 " " 5900 - 26.5 395 1.0 20.5 510 0.82 69.70 " " 6100 - 24.5 425 0.9 65 161 3.3 21.85 BF30/DSE08XA4 46 3500 - 77 136 3. 59 178 3.1 24.03 " " 3600 - 70 150 3. 50 210 2.7 28.23 " " 3800 - 60 175 3. 45.5 230 2.5 31.05 " 4000 - 42 42 35 2. 34.5 300 1.9 41.01 " 4000 - 55 191 3. 40 260 2.2 35.00 " 4000 - 42 42 35 2. 34.5 300 1.9 41.01 " 4400 - 42 235 2. 27 385 1.5 52.20 " " 5000 - 32.5 320 1. 28 455 1.25 61.17 " 5500 - 27.5 380 1. 18 580 0.99 79.34 " 5500 - 27.5 380 1. 18 580 0.99 79.34 " 5500 - 27.5 380 0.9 37.5 280 3.2 37.64 BF40/DSE08XA4 55 6200 - 45 23.5 34.5 1. 18 580 0.99 79.34 " 5000 - 21.5 33.0 1. 38 580 - 37.5 380 1.1 72.13 " 5700 - 21.5 380 0.9 37.5 280 3.2 37.64 BF40/DSE08XA4 55 6200 - 45 23.5 34.5 1. 38 580 0.99 79.34 " 5000 - 21.5 35.0 1. 38 580 0.99 79.34 " 5000 - 21.5 35.0 1. 38 580 0.99 79.34 " 5000 - 21.5 35.0 1. 38 580 0.99 79.34 " 5000 - 21.5 35.0 1. 38 580 0.99 79.34 " 5000 - 21.5 35.0 1. 39 50 0.91 87.08 " 5000 - 21.5 35.0 1. 30 0.91 87.08 " 5000 - 21.5 35.0 1. 31 335 3.7 545.65 " 6000 - 37.50 20. 37.5 300 3. 31 335 2.3 53.82 " 7000 - 37.5 300 3. 32 34.55 3.95 2.3 53.82 " 7000 - 31.5 330 2. 31 335 2.7 45.56 " 6000 - 37.50 300 3. 32 34.55 3.95 2.3 53.82 " 7000 - 31.5 330 2. 34 55 2.0 61.25 " 7000 - 31.5 330 2. 35 34.55 395 2.3 53.82 " 7000 - 31.5 330 2. 36 53 395 2.3 53.82 " 7000 - 31.5 330 2. 37 500 1.5 5000 - 37.50 300 3. 38 30 30 30 30 30 30 30 30 30 30 30 30 30											
43 240 1.75 32.58 " " 4450 - 52 200 2. 34 305 1.6 35.85 " " 4650 - 47 220 1. 31 335 1.25 45.90 " " 5100 - 37 280 1. 29 360 1.15 48.56 " " 5200 - 35 300 1. 26.5 395 1.05 53.43 " " 5500 - 31.5 330 1.2 24.5 425 0.99 58.24 " " 5600 - 29 360 1.1 20.5 510 0.82 69.70 " " 6500 - 29 360 1.1 20.5 510 0.82 69.70 " " 6500 - 29 360 1.1 30.5 1.7 0.82 69.70 " " 600 - 77 136 3.											
39.5 265 1.6 35.85 " " 4550 - 47 220 1. 34 305 1.4 41.72 " " 4950 - 40.5 255 1.6 31 335 1.25 45.90 " " 5100 - 37 280 1. 29 360 1.15 48.56 " " 5200 - 35 300 1. 26.5 395 1.05 53.43 " " 5500 - 31.5 330 1.2 24.5 425 0.99 58.24 " " 5600 - 29 360 1.1 22 475 0.88 64.08 " " 5900 - 26.5 395 1.0 20.5 510 0.82 69.70 " " " 6100 - 24.5 425 0.9 65 161 3.3 21.85 BF30/DSE08XA4 46 3500 - 77 136 3. 59 178 3.1 24.03 " " 3800 - 60 175 3. 45.5 230 2.5 31.05 " 4000 - 55 191 3. 45.5 230 2.5 31.05 " 4000 - 55 191 3. 46.5 265 285 2.0 38.49 " " 4400 - 44 235 2. 36.5 385 1.5 52.20 " " 4400 - 44 235 2. 37.5 380 1.9 41.01 " " 4500 - 41 255 2. 37.5 385 1.5 52.20 " " 5000 - 32.5 320 1. 38.49 " " 4400 - 25 32.5 32.0 1. 38.5 1.5 52.20 " " 5000 - 32.5 32.0 1. 39.5 1.5 52.20 " " 5000 - 32.5 32.0 1. 31.5 330 1.75 45.10 " " 4500 - 41 255 2. 31.5 330 1.75 45.10 " " 5000 - 27.5 380 1.1 31.5 330 1.75 45.10 " " 5000 - 25.5 32.0 1. 38.5 1.5 52.20 " " 5000 - 25.5 32.0 1. 39.5 530 1.1 72.13 " 5500 - 25.5 32.0 1. 39.5 530 1.1 72.13 " 5500 - 25.5 32.0 1. 39.5 530 1.1 72.13 " 5500 - 25.5 42.0 1.3 39.5 530 1.1 72.13 " 5500 - 25.5 42.0 1.3 39.5 530 1.1 72.13 " 5500 - 25.5 42.0 1.3 39.5 530 1.1 72.13 " 5500 - 25.5 42.0 1.3 39.5 530 1.1 72.13 " 5500 - 21.5 485 1. 30.5 500 0.99 79.34 " " 5500 - 41 255 3. 31.5 330 0.99 79.34 " " 5500 - 41 255 3. 31.5 330 3.0 4.4.2 " 5500 - 41 255 3. 31.5 335 3.0 4.4.2 " 5500 - 41 255 3. 31.5 335 3.0 4.4.2 " 5500 - 41 255 3. 31.5 335 3.0 4.4.2 " 5500 - 41 255 3. 31.5 335 3.0 4.4.2 " 5500 - 41 255 3. 31.5 335 3.0 4.4.2 " 5500 - 41 255 3. 31.5 335 3.0 4.4.2 " 5500 - 41 255 3. 31.5 335 3.0 4.4.2 " 5500 - 41 255 3. 31.5 335 3.0 4.4.2 " 5500 - 41 255 3. 31.5 335 3.0 4.4.2 " 5500 - 41 255 3. 31.5 335 3.0 4.4.2 " 7 6600 - 41 255 3. 31.5 335 3.0 4.4.2 " 7 6600 - 41 255 3. 31.5 335 3.0 4.4.2 " 7 6600 - 41 255 3. 31.5 335 3.0 4.4.2 " 7 6600 - 41 255 3. 31.5 335 3.0 4.1.2 " 7 7000 - 31.5 300 3. 32.5 3.5 3.5 3.5 3.5 3.2 " 7 45.5 " 7 7000 - 31.5 300 3. 32.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 " 7 7000 - 31.5 3.5 3.0 3. 32.5 3.5 3.5 3.5 3.5											
34											
31 335 1.25 45.90 " "5100 - 37 280 1. 29 360 1.15 48.56 " " 5200 - 35 300 1. 26.5 395 1.05 53.43 " " 5500 - 31.5 330 1.2 24.5 425 0.99 58.24 " " 5600 - 29 360 1.1 22 475 0.88 64.08 " " 5900 - 26.5 395 1.0 20.5 510 0.82 69.70 " " 6100 - 24.5 425 0.9 65 161 3.3 21.85 BF30/DSE08XA4 46 3500 - 77 136 3. 59 178 3.1 24.03 " " 3600 - 70 150 3. 50 210 2.7 28.23 " " 3800 - 60 175 3. 45.5 230 2.5 31.05 " " 4000 - 55 191 3. 40 260 2.2 35.00 " " 4000 - 55 191 3. 40 260 2.2 35.00 " " 4400 - 48 215 2. 34.5 300 1.9 41.01 " " 4500 - 41 255 2. 31.5 330 1.75 45.10 " " 4500 - 37.5 280 2. 27 385 1.5 52.20 " " 5000 - 32.5 320 1. 28.45 425 1.25 61.17 " " 5000 - 32.5 320 1. 21 500 1.15 67.28 " " 5000 - 27.5 380 1. 21 500 1.15 67.28 " " 5000 - 21.5 485 1. 21 500 1.15 67.28 " " 5000 - 21.5 485 1. 23 455 1.25 61.17 " " 5000 - 21.5 485 1. 25 280 3.2 37.64 BF40/DSE08XA4 55 6200 - 45 230 3. 31 335 2.7 45.56 " " 6800 - 37 280 3. 34 305 3.0 41.42 " " 5000 - 31.5 530 1. 35 29 360 2.5 48.92 " " 6600 - 37 280 3. 26.5 395 2.3 5382 " " " 6800 - 37 280 3. 27 385 3.5 2.3 35.82 " " " 6800 - 37 280 3. 34 305 3.0 41.42 " " 6800 - 37 280 3. 34 305 3.0 3.5 3382 " " " 6800 - 37 280 3. 34 305 3.0 3.0 3.45 68.92 " " 7000 - 34.5 300 3. 34 35 2.3 53.82 " " " 7000 - 34.5 300 3. 35 27 45.56 " " 6800 - 37 280 3. 36 36.5 395 2.3 53.82 " " " 7000 - 34.5 300 3. 36 5.5 395 2.3 53.82 " " " 7000 - 34.5 300 3.			1								
360 1.15 48.56 " " 5200 - 35 300 1. 26.5 395 1.05 53.43 " " 5500 - 31.5 330 1.2 24.5 425 0.99 58.24 " " 5600 - 29 360 1.1 22 475 0.88 64.08 " " 5900 - 26.5 395 1.0 20.5 510 0.82 69.70 " " 6100 - 24.5 425 0.9 65 161 3.3 21.85 BF30/DSE08XA4 46 3500 - 77 136 3. 59 178 3.1 24.03 " " 3600 - 70 150 3. 50 210 2.7 28.23 " " 3800 - 60 175 3. 45.5 230 2.5 31.05 " " 4000 - 55 191 3. 40 260 2.2 35.00 " " 4000 - 55 191 3. 40 260 2.2 35.00 " " 4400 - 48 215 2. 36.5 285 2.0 38.49 " " 4400 - 44 235 2. 36.5 385 1.5 52.20 " " 4500 - 41 255 2. 31.5 330 1.75 45.10 " " 4700 - 37.5 280 2. 27 385 1.5 52.20 " " 5000 - 32.5 320 1. 24.5 425 1.35 57.41 " " 5200 - 25.5 380 1. 25 31.5 530 1.1 7.2 13 " " 5500 - 25.5 380 1. 26 45 425 1.25 61.17 " " 5500 - 25.5 380 1. 27 385 1.5 52.20 " " 5000 - 21.5 385 1. 28 455 1.25 61.17 " " 5300 - 27.5 380 1. 29 360 3.2 37.4 BF40/DSE08XA4 55 6200 - 45 23.5 380 1. 37.5 280 3.2 37.4 BF40/DSE08XA4 55 6200 - 45 23.5 3. 37.5 280 3.2 37.4 BF40/DSE08XA4 55 6200 - 45 23.5 3. 38 30 2.5 48.92 " " 7000 - 34.5 300 3. 39 360 2.5 48.92 " " 7000 - 34.5 300 3. 20.5 395 2.3 53.82 " " 7000 - 37.5 380 2. 31.5 330 3.0 41.42 " " 6600 - 37 280 3. 31 335 2.7 45.56 " " 6800 - 37 280 3. 32 3455 2.0 61.25 " " 7000 - 34.5 300 3. 31.5 330 2. 31.5 330 3.0 41.42 " " 7000 - 34.5 300 3. 32 34.5 395 2.3 53.82 " " 7000 - 34.5 300 3. 31.5 330 3.0 41.42 " " 7000 - 34.5 300 3. 32 34.5 395 2.3 53.82 " " 7000 - 27.5 380 2. 33 34.5 305 3.0 41.42 " " 7000 - 34.5 300 3. 34 305 3.0 41.42 " " 7000 - 34.5 300 3. 34 305 3.0 41.42 " " 7000 - 34.5 300 3. 35 31.5 335 2.7 45.56 " " 6800 - 37 280 3. 36 31.5 335 2.7 45.56 " " 6800 - 37 280 3. 37 38 38 2.7 45.56 " " 6800 - 37 280 3. 38 30 3.5 3.0 41.42 " " 7000 - 34.5 300 3. 39 30 30 31.5 33.5 3.0 41.42 " " 7000 - 34.5 300 3. 30 31.5 335 2.7 45.56 " " 7000 - 34.5 300 3. 31 335 2.7 45.56 " " 7000 - 34.5 300 3. 31 335 2.7 45.56 " " 7000 - 34.5 300 3. 32 34 305 3.0 41.42 " " 7000 - 34.5 300 3. 31 335 2.7 45.56 " " 7000 - 34.5 300 3. 32 34.55 395 2.3 53.82											
26.5 395 1.05 53.43 " " 5500 - 31.5 330 1.2 24.5 425 0.99 58.24 " " 5600 - 29 360 1.1 22 475 0.88 64.08 " " 5600 - 26.5 395 1.0 20.5 510 0.82 69.70 " " 6100 - 24.5 425 0.9 65 161 3.3 21.85 BF30/DSE08XA4 46 3500 - 77 136 3. 59 178 3.1 24.03 " " 3600 - 70 150 3. 50 210 2.7 28.23 " " 3800 - 60 175 3. 45.5 230 2.5 31.05 " " 4000 - 55 191 3. 40 260 2.2 35.00 " " 4000 - 48 215 2. 36.5 285 2.0 38.49 " " 4400 - 44 235 2. 34.5 300 1.9 41.01 " " 4500 - 41 255 2. 34.5 330 1.75 45.10 " " 4700 - 37.5 280 2. 27 385 1.5 52.20 " " 5000 - 32.5 355 1. 24.5 425 1.35 57.41 " " 5200 - 29.5 355 1. 23 455 1.25 61.17 " " 5300 - 27.5 380 1. 21 500 1.15 67.28 " " 5500 - 25 420 1.3 19.5 530 1.1 72.13 " " 5700 - 23.5 445 1. 18 580 0.99 79.34 " " 5900 - 21.5 485 1. 16.5 630 0.91 87.08 " " 5900 - 21.5 485 1. 16.5 630 0.91 87.08 " " 6400 - 18 580 0.9 37.5 280 3.2 37.64 BF40/DSE08XA4 55 6200 - 45 230 3. 31 335 2.7 45.56 " " 6800 - 37 280 3. 29 360 2.5 48.92 " " 7000 - 34.5 300 3. 29 360 2.5 48.92 " " 7000 - 34.5 300 3. 20.5 395 2.3 53.82 " " 7000 - 34.5 300 3. 21 50.5 395 2.3 53.82 " " 7000 - 34.5 300 3. 22.5 395 2.3 53.82 " " 7000 - 31.5 330 2. 23 455 2.0 61.25 " " 7600 - 27.5 380 2.											
24.5 425 0.99 58.24 " " 5600 - 29 360 1.1 22 475 0.88 64.08 " " 5900 - 26.5 395 1.0 20.5 510 0.82 69.70 " " 6100 - 24.5 425 0.9 65 161 3.3 21.85 BF30/DSE08XA4 46 3500 - 77 136 3. 59 178 3.1 24.03 " " 3600 - 70 150 3. 50 210 2.7 28.23 " " 3600 - 60 175 3. 45.5 230 2.5 31.05 " " 4000 - 55 191 3. 45.5 220 38.49 " " 4200 - 48 215 2. 34.5 300 1.9 41.01 " " 4500 - 41 255 2. 3											
22 475 0.88 64.08 " " 5900 - 26.5 395 1.0 20.5 510 0.82 69.70 " " 6100 - 24.5 425 0.9 65 161 3.3 21.85 BF30/DSE08XA4 46 3500 - 77 136 3. 59 178 3.1 24.03 " " 3600 - 70 150 3. 50 210 2.7 28.23 " " 3600 - 60 175 3. 45.5 230 2.5 31.05 " " 4000 - 55 191 3. 40 260 2.2 35.00 " " 4200 - 48 215 2. 36.5 285 2.0 38.49 " " 4400 - 44 235 2. 31.5 330 1.75 45.10 " " 4700 - 37.5 280 2.											
20.5 510 0.82 69.70 " " 6100 - 24.5 425 0.9 65 161 3.3 21.85 BF30/DSE08XA4 46 3500 - 77 136 3. 59 178 3.1 24.03 " " 3600 - 70 150 3. 50 210 2.7 28.23 " " 3800 - 60 175 3. 45.5 230 2.5 31.05 " " 4000 - 55 191 3. 40 260 2.2 35.00 " " 4200 - 48 215 2. 34.5 300 1.9 41.01 " " 4500 - 41 255 2. 31.5 330 1.75 45.10 " " 4700 - 37.5 280 2. 27 385 1.5 52.20 " " 5000 - 32.5 320 1. 24.5 425 1.35 57.41 " " 5200 - 29.5 355 1. 23 455 1.25 61.17 " " 5300 - 27.5 380 1. 21 500 1.15 67.28 " " 5500 - 25 420 1.3 19.5 530 1.1 72.13 " " 5700 - 23.5 445 1. 18 580 0.99 79.34 " " 5900 - 21.5 485 1. 16.5 630 0.91 87.08 " " 5900 - 21.5 485 1. 16.5 630 0.91 87.08 " " 5000 - 18.5 530 1. 15 700 0.82 95.79 " " 6400 - 18 580 0.9 37.5 280 3.2 37.64 BF40/DSE08XA4 55 6200 - 45 230 3. 31 335 2.7 45.56 " " 6800 - 37 280 3. 31 335 2.7 45.56 " " 6800 - 37 280 3. 32 365 395 2.3 53.82 " " 7000 - 34.5 300 3. 28 365 395 2.3 53.82 " " 7000 - 34.5 300 3. 29 360 2.5 48.92 " " 7000 - 34.5 300 3. 20 365 395 2.3 53.82 " " 7000 - 34.5 300 3. 21 " 7000 - 34.5 300 3. 22 3 455 2.0 61.25 " " 7600 - 27.5 380 2.											
65											
59 178 3.1 24.03 " " 3600 - 70 150 3. 50 210 2.7 28.23 " " 3800 - 60 175 3. 45.5 230 2.5 31.05 " " 4000 - 55 191 3. 40 260 2.2 35.00 " " 4200 - 48 215 2. 36.5 285 2.0 38.49 " " 4400 - 44 235 2. 34.5 300 1.9 41.01 " " 4500 - 41 255 2. 31.5 330 1.75 45.10 " " 4700 - 37.5 280 2. 27 385 1.5 52.20 " " 5000 - 32.5 320 1. 24.5 425 1.35 57.41 " " 5300 - 27.5 380 1. <td< th=""><th>20.5</th><th>310</th><th>0.62</th><th>09.70</th><th></th><th></th><th>6100</th><th>-</th><th>24.5</th><th>423</th><th>0.99</th></td<>	20.5	310	0.62	09.70			6100	-	24.5	423	0.99
59 178 3.1 24.03 " " 3600 - 70 150 3. 50 210 2.7 28.23 " " 3800 - 60 175 3. 45.5 230 2.5 31.05 " " 4000 - 55 191 3. 40 260 2.2 35.00 " " 4200 - 48 215 2. 36.5 285 2.0 38.49 " " 4400 - 44 235 2. 34.5 300 1.9 41.01 " " 4500 - 41 255 2. 31.5 330 1.75 45.10 " " 4700 - 37.5 280 2. 27 385 1.5 52.20 " " 5000 - 32.5 320 1. 24.5 425 1.35 57.41 " " 5300 - 27.5 380 1. <td< th=""><th>65</th><th>161</th><th>3 3</th><th>21.85</th><th>RESO- /DSEORYA4</th><th>16</th><th>3500</th><th>_</th><th>77</th><th>136</th><th>3.0</th></td<>	65	161	3 3	21.85	RESO- /DSEORYA4	16	3500	_	77	136	3.0
50 210 2.7 28.23 " " 3800 - 60 175 3. 45.5 230 2.5 31.05 " " 4000 - 55 191 3. 40 260 2.2 35.00 " " 4200 - 48 215 2. 36.5 285 2.0 38.49 " " 4400 - 44 235 2. 34.5 300 1.9 41.01 " " 4500 - 41 255 2. 31.5 330 1.75 45.10 " " 4700 - 37.5 280 2. 27 385 1.5 52.20 " " 5000 - 32.5 320 1. 24.5 4.25 1.35 57.41 " " 5000 - 29.5 355 1. 21 500 1.15 67.28 " " 5500 - 27.5 380 1.					" "			_			3.7
45.5					п	"		_			3.3
40 260 2.2 35.00 " 4200 - 48 215 2. 36.5 285 2.0 38.49 " " 4400 - 44 235 2. 34.5 300 1.9 41.01 " " 4500 - 41 255 2. 31.5 330 1.75 45.10 " " 4700 - 37.5 280 2. 27 385 1.5 52.20 " " 5000 - 32.5 320 1. 24.5 425 1.35 57.41 " " 5000 - 29.5 355 1. 23 455 1.25 61.17 " " 5300 - 27.5 380 1. 21 500 1.15 67.28 " " 5500 - 25 420 1.3 19.5 530 1.1 72.13 " " 5700 - 23.5 445 1. 18			i i		п	"					3.0
36.5 285 2.0 38.49 " " 4400 - 44 235 2. 34.5 300 1.9 41.01 " " 4500 - 41 255 2. 31.5 330 1.75 45.10 " " 4700 - 37.5 280 2. 27 385 1.5 52.20 " " 5000 - 32.5 320 1. 24.5 425 1.35 57.41 " " 5200 - 29.5 355 1. 23 455 1.25 61.17 " " 5300 - 27.5 380 1. 21 500 1.15 67.28 " " 5500 - 25 420 1.3 19.5 530 1.1 72.13 " " 5700 - 23.5 445 1. 18 580 0.99 79.34 " " 5900 - 21.5 485 1.					п	"					2.7
34.5 300 1.9 41.01 " 4500 - 41 255 2. 31.5 330 1.75 45.10 " " 4700 - 37.5 280 2. 27 385 1.5 52.20 " " 5000 - 32.5 320 1. 24.5 425 1.35 57.41 " " 5200 - 29.5 355 1. 23 455 1.25 61.17 " " 5300 - 27.5 380 1. 21 500 1.15 67.28 " " 5500 - 25 420 1.3 19.5 530 1.1 72.13 " " 5700 - 23.5 445 1. 18 580 0.99 79.34 " " 5900 - 21.5 485 1. 15 700 0.82 95.79 " " 6200 - 19.5 530 1. 37.5<					п	"					2.4
31.5 330 1.75 45.10 " " 4700 - 37.5 280 2. 27 385 1.5 52.20 " " 5000 - 32.5 320 1. 24.5 425 1.35 57.41 " " 5200 - 29.5 355 1. 23 455 1.25 61.17 " " 5300 - 27.5 380 1. 21 500 1.15 67.28 " " 5500 - 25 420 1.3 19.5 530 1.1 72.13 " " 5700 - 23.5 445 1. 18 580 0.99 79.34 " " 5900 - 21.5 485 1. 16.5 630 0.91 87.08 " " 6200 - 19.5 530 1. 15 700 0.82 95.79 " " 6400 - 45 230 3. <t< th=""><th></th><th></th><th></th><th></th><th>п</th><th>"</th><th></th><th></th><th></th><th></th><th>2.3</th></t<>					п	"					2.3
27 385 1.5 52.20 " " 5000 - 32.5 320 1. 24.5 425 1.35 57.41 " " 5200 - 29.5 355 1. 23 455 1.25 61.17 " " 5300 - 27.5 380 1. 21 500 1.15 67.28 " " 5500 - 25 420 1.3 19.5 530 1.1 72.13 " " 5700 - 23.5 445 1. 18 580 0.99 79.34 " " 5900 - 21.5 485 1. 16.5 630 0.91 87.08 " " 6200 - 19.5 530 1. 15 700 0.82 95.79 " " 6400 - 45 230 3. 34.5 3.0 41.42 " " 6500 - 45 230 3. 39					п	"					2.1
24.5 425 1.35 57.41 " " 5200 - 29.5 355 1. 23 455 1.25 61.17 " " 5300 - 27.5 380 1. 21 500 1.15 67.28 " " 5500 - 25 420 1.3 19.5 530 1.1 72.13 " " 5700 - 23.5 445 1. 18 580 0.99 79.34 " " 5900 - 21.5 485 1. 16.5 630 0.91 87.08 " " 6200 - 19.5 530 1. 15 700 0.82 95.79 " " 6400 - 18 580 0.9 37.5 280 3.2 37.64 BF40/DSE08XA4 55 6200 - 45 230 3. 34 305 3.0 41.42 " " 6500 - 41 255 3.					п	"					1.8
23 455 1.25 61.17 " " 5300 - 27.5 380 1. 21 500 1.15 67.28 " " 5500 - 25 420 1.3 19.5 530 1.1 72.13 " " 5700 - 23.5 445 1. 18 580 0.99 79.34 " " 5900 - 21.5 485 1. 16.5 630 0.91 87.08 " " 6200 - 19.5 530 1. 15 700 0.82 95.79 " " 6400 - 18 580 0.9 37.5 280 3.2 37.64 BF40/DSE08XA4 55 6200 - 45 230 3. 34 305 3.0 41.42 " " 6500 - 41 255 3. 31 335 2.7 45.56 " " 7000 - 34.5 300 3. <th></th> <th></th> <th></th> <th></th> <th>п</th> <th>"</th> <th></th> <th></th> <th></th> <th></th> <th></th>					п	"					
21 500 1.15 67.28 " " 5500 - 25 420 1.3 19.5 530 1.1 72.13 " " 5700 - 23.5 445 1. 18 580 0.99 79.34 " " 5900 - 21.5 485 1. 16.5 630 0.91 87.08 " " 6200 - 19.5 530 1. 15 700 0.82 95.79 " " 6400 - 18 580 0.9 37.5 280 3.2 37.64 BF40/DSE08XA4 55 6200 - 45 230 3. 34 305 3.0 41.42 " " 6500 - 41 255 3. 31 335 2.7 45.56 " " 6800 - 37 280 3. 29 360 2.5 48.92 " " 7000 - 34.5 300 3.					п	"		_			1.5
19.5 530 1.1 72.13 " " 5700 - 23.5 445 1. 18 580 0.99 79.34 " " 5900 - 21.5 485 1. 16.5 630 0.91 87.08 " " 6200 - 19.5 530 1. 15 700 0.82 95.79 " " 6400 - 18 580 0.9 37.5 280 3.2 37.64 BF40/DSE08XA4 55 6200 - 45 230 3. 34 305 3.0 41.42 " " 6500 - 41 255 3. 31 335 2.7 45.56 " " 6800 - 37 280 3. 29 360 2.5 48.92 " " 7000 - 34.5 300 3. 26.5 395 2.3 53.82 " " 7000 - 31.5 330 2. <th></th> <th></th> <th></th> <th></th> <th>n .</th> <th>11</th> <th></th> <th></th> <th></th> <th></th> <th></th>					n .	11					
18 580 0.99 79.34 " " 5900 - 21.5 485 1. 16.5 630 0.91 87.08 " " 6200 - 19.5 530 1. 15 700 0.82 95.79 " " 6400 - 18 580 0.9 37.5 280 3.2 37.64 BF40/DSE08XA4 55 6200 - 45 230 3. 34 305 3.0 41.42 " " 6500 - 41 255 3. 31 335 2.7 45.56 " " 6800 - 37 280 3. 29 360 2.5 48.92 " " 7000 - 34.5 300 3. 26.5 395 2.3 53.82 " " 7200 - 31.5 330 2. 23 455 2.0 61.25 " " 7600 - 27.5 380 2.					n .	11					
16.5 630 0.91 87.08 " " 6200 - 19.5 530 1. 15 700 0.82 95.79 " " 6400 - 18 580 0.9 37.5 280 3.2 37.64 BF40/DSE08XA4 55 6200 - 45 230 3. 34 305 3.0 41.42 " " 6500 - 41 255 3. 31 335 2.7 45.56 " " 6800 - 37 280 3. 29 360 2.5 48.92 " " 7000 - 34.5 300 3. 26.5 395 2.3 53.82 " " 7200 - 31.5 330 2. 23 455 2.0 61.25 " " 7600 - 27.5 380 2.					11	"					
10.5 030 0.91 87.06 0200 - 19.5 330 1. 15 700 0.82 95.79 " " 6400 - 18 580 0.9 37.5 280 3.2 37.64 BF40/DSE08XA4 55 6200 - 45 230 3. 34 305 3.0 41.42 " " 6500 - 41 255 3. 31 335 2.7 45.56 " " 6800 - 37 280 3. 29 360 2.5 48.92 " " 7000 - 34.5 300 3. 26.5 395 2.3 53.82 " " 7200 - 31.5 330 2. 23 455 2.0 61.25 " " 7600 - 27.5 380 2.					11						
37.5											
34 305 3.0 41.42 " " 6500 - 41 255 3. 31 335 2.7 45.56 " " 6800 - 37 280 3. 29 360 2.5 48.92 " " 7000 - 34.5 300 3. 26.5 395 2.3 53.82 " " 7200 - 31.5 330 2. 23 455 2.0 61.25 " " 7600 - 27.5 380 2.	13	700	0.02	9J./9			0400	-	10	200	0.99
34 305 3.0 41.42 " " 6500 - 41 255 3. 31 335 2.7 45.56 " " 6800 - 37 280 3. 29 360 2.5 48.92 " " 7000 - 34.5 300 3. 26.5 395 2.3 53.82 " " 7200 - 31.5 330 2. 23 455 2.0 61.25 " " 7600 - 27.5 380 2.	37.5	280	3.2	37 64	BF40/DSF08XA4	55	6200	_	45	230	3.9
31 335 2.7 45.56 " " 6800 - 37 280 3. 29 360 2.5 48.92 " " 7000 - 34.5 300 3. 26.5 395 2.3 53.82 " " 7200 - 31.5 330 2. 23 455 2.0 61.25 " " 7600 - 27.5 380 2.											3.5
29 360 2.5 48.92 " " 7000 - 34.5 300 3. 26.5 395 2.3 53.82 " " 7200 - 31.5 330 2. 23 455 2.0 61.25 " " 7600 - 27.5 380 2.					m .	II .					3.2
26.5 395 2.3 53.82 " " 7200 - 31.5 330 2. 23 455 2.0 61.25 " " 7600 - 27.5 380 2.					m .						3.0
28.3 455 2.0 61.25 " 7600 - 31.3 330 2.											2.7
23 433 2.0 01.23 7000 - 27.3 380 2.											
21 300 1.0 07.30 0000 - 23 420 2.								_			2.4
	4 I	300	1.0	07.30			0000	-	23	420	۷.۱

Selection - shaft-mounted geared motors DSE -IE1

P = 1.1 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		•				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
20	520	1.75	71.40	BF40/DSE08XA4	"	8100	-	24	435	2.1
18	580	1.55	78.55	"	"	8500	-	21.5	485	1.85
17	610	1.5	83.91	II	"	8700	-	20.5	510	1.75
15.5	670	1.35	92.31	II	II .	9100	-	18.5	560	1.6
14	750	1.2	101.0	II	II .	9400	-	17	610	1.5
13	800	1.15	111.1	"	"	9800	-	15.5	670	1.35
11.5	910	0.99	124.5	II	"	10200	-	13.5	770	1.15
10.5	1000	0.9	137.0	II	II .	10600	-	12.5	840	1.05
10	1050	0.86	141.4	BF40Z/DSE08XA4	59	10600	-	12	870	1.05
25	420	3.1	56.86	BF50/DSE08XA4	84	9300	-	30	350	3.7
22.5	465	2.8	63.59	"	II .	9800	-	26.5	395	3.3
19.5	530	2.5	72.72	"	II .	10700	-	23.5	445	2.9
17.5	600	2.2	81.33	"	"	11300	-	21	500	2.6
16	650	2.0	90.24	"	"	11800	-	19	550	2.4
14	750	1.75	100.9	"	"	12300	-	17	610	2.1
12.5	840	1.55	114.0	"	"	12900	-	15	700	1.85
11	950	1.35	127.5	"	"	13600	-	13.5	770	1.7
10.5	1000	1.3	138.1	BF50Z/DSE08XA4	88	13600	-	12.5	840	1.55
9.1	1150	1.15	154.5	"	"	13600	-	11	950	1.35
7.7	1360	0.96	183.5	II	"	13600	-	9.2	1140	1.15
6.9	1520	0.86	205.2	TI .	"	13600	-	8.2	1280	1.0
10	1050	2.2	140.8	BF60Z/DSE08XA4	132	15300	43300	12	870	2.6
8.3	1260	1.85	169.2	"	II .	15300	43300	10	1050	2.2
7.5	1400	1.65	187.7	m m	II .	15300	43300	9.0	1160	2.0
6.4	1640	1.4	221.4	II .	II .	15300	43300	7.6	1380	1.65
5.8	1810	1.25	245.6	II .	II .	15300	43300	6.9	1520	1.5
4.8	2150	1.05	293.4	m .	11	15300	43300	5.8	1810	1.25
4.3	2400	0.96	325.6	п	II .	15300	43300	5.2	2000	1.15
3.7	2800	0.82	380.0	п	"	15300	43300	4.5	2300	1.0
6.1	1720	3.0	233.0	BF70Z/DSE08XA4	220	16100	47700	7.3	1430	3.6
5.5	1910	2.7	258.7	II	II .	16100	47700	6.5	1610	3.2
4.7	2200	2.4	301.8	II	II .	16100	47700	5.6	1870	2.8
4.1	2550	2.0	341.7	"	II .	16100	47700	5.0	2100	2.5
3.6	2900	1.8	398.7	II	II .	16100	47700	4.3	2400	2.2
3.2	3250	1.6	439.2	II	II .	16100	47700	3.9	2650	1.95
2.8	3750	1.4	512.4	II	II .	16100	47700	3.3	3150	1.65
2.7	3650	1.55	524.1	BF70G20/DSE08XA4	218	16100	47700	3.3	2950	1.95
2.5	3950	1.45	577.5	II	II .	16100	47700	3.0	3250	1.75
2.1	4700	1.2	673.6	II	II .	16100	47700	2.5	3900	1.45
1.7	5900	0.97	872.1	II	"	16100	47700	2.0	4950	1.15
3.2	3250	3.2	450.4	BF80Z/DSE08XA4	337	39600	75000	3.8	2750	3.8
2.8	3750	2.8	511.2	"	II .	39600	75000	3.3	3150	3.3
2.4	4350	2.4	583.4	"	II .	39600	75000	2.9	3600	2.9
2.2	4750	2.2	662.1	"	II .	39600	75000	2.6	4000	2.6
1.9	5500	1.9	770.6	"	"	39600	75000	2.2	4750	2.2
1.7	6100	1.7	874.6	"	II .	39600	75000	2.0	5200	2.0
1.5	7000	1.5	990.4	п	II .	39600	75000	1.7	6100	1.7
1.3	8000	1.3	1124	п	II .	39600	75000	1.5	7000	1.5
1.1	8100	1.3	1329	BF80G40/DSE08XA4	342	39600	75000	1.3	6600	1.6
0.95	9600	1.1	1491	"	"	39600	75000	1.2	7300	1.45
1.4	6100	3.0	1043	BF90G50/DSE08XA4	613	42800	120000	1.7	4750	3.9
1.2	7100	2.6	1204	"	II .	42800	120000	1.4	5800	3.2
1.0	9100	2.0	1444	"	II .	42800	120000	1.2	7300	2.5
0.85	10700	1.75	1678	"	II .	42800	120000	1.1	7900	2.3
0.75	12200	1.5	1867	"	II .	42800	120000	0.9	9800	1.9
0.65	14100	1.3	2154	"	II .	42800	120000	8.0	11000	1.7
0.55	16700	1.1	2656	"	"	42800	120000	0.65	13700	1.35

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 1.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		71		1114	11.4	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	Ν	N	1/min	Nm	
255	56	2.5	5.60	BF10/DSE09LA4	36	1980	-	310	46	3.0
188	76	2.0	7.58	m .	ıı	2200	_	230	62	2.5
147	97	1.8	9.69	m .	II .	2350	_	177	80	2.2
120	119	1.55	11.84	m .	II .	2500	_	145	98	1.85
95	150	1.2	15.04	m .	II .	2800	_	114	125	1.45
78	183	1.3	18.23	m m	11	2900	_	94	152	1.6
71	200	1.2	20.05	m .	II .	3000	_	86	166	1.45
61	230	1.05	23.28	n .	"	3200	_	74	193	1.25
56	255	0.94	25.60	n .	II .	3350	_	67	210	1.15
50	285	0.84	28.47	III	11	3450	_	61	230	1.05
		0.0.	20.17			3 130			230	1.03
178	80	2.8	8.00	BF20/DSE09LA4	42	2850	_	215	66	3.3
136	105	2.4	10.51	"	"	3100	_	163	87	2.9
108	132	2.2	13.18	m	II	3300	_	130	110	2.6
92	155	2.0	15.54	II	п	3450	_	111	129	2.4
85	168	2.2	16.77	II	п	3500	_	102	140	2.6
77	186	2.0	18.45	п	п	3600	_	93	154	2.4
65	220	1.8	22.04	п	"	3800	_	78	183	2.2
59	240	1.7	24.25	n .	"	3950	_	71	200	2.2
52	275	1.55	27.62	m .	"	4150	-	62	230	1.85
47	300	1.55	30.40	п	"	4400	_	57	250	1.83
44	325			11	ıı	4450	_	53	270	1.55
40	355	1.3	32.58	п	ıı	4650	-	48	270	
		1.2	35.85	п	ıı			41		1.4
34.5	415	1.0	41.72	п	ıı	4950	-		345	1.2
31	460	0.91	45.90	II.	"	5100	-	37.5	380	1.1
29.5	485	0.87	48.56			5200	-	35.5	400	1.05
143	100	3.2	9.99	BF30/DSE09LA4	53	2850	_	172	83	3.9
110	130	1	12.91	BF30/D3E09LA4) "	3050	_	133	65 107	3.4
		2.8		п	ıı					3.4
89 81	160 176	2.6 2.7	16.00 17.65	"	ıı	3250 3300	-	107 97	133 147	3.3
74				п	ıı					
	193	2.6	19.41	п	"	3400	-	89 79	160	3.1 2.9
65	220	2.4	21.85	п	"	3500	-	79	181	2.9
60	235	2.4	24.03	п	ıı	3600	-		198	
51	280	2.1	28.23	п	"	3800	-	61	230	2.5
46	310	1.85	31.05	п	"	4000	-	56	255	2.3
41	345	1.65	35.00	п	"	4200	-	49	290	2.0
37	385	1.5	38.49		"	4400	-	44.5	320	1.8
35	405	1.4	41.01		"	4500	-	42	340	1.7
31.5	450	1.3	45.10		"	4700	-	38	375	1.55
27.5	520	1.1	52.20	 II	"	5000	-	33	430	1.35
25	570	1.0	57.41	 II	"	5200	-	30	475	1.2
23.5	600	0.96	61.17	 II	"	5300	-	28	510	1.15
21.5	660	0.87	67.28	 II	"	5500	-	25.5	560	1.05
20	710	0.81	72.13			5700	-	24	590	0.97
66	215	3.3	21.60	BF40/DSE09LA4	62	5200	_	80	179	3.9
60	235	3.1	23.77	BF40/D3E09LA4	02	5400	-	72	179	3.7
53	233 270	2.9	26.86	п	11	5600	-	64	220	3.5
48.5	295	2.7	29.55	m .	"	5800	_	58	245	3.3
42	340	2.5	34.21	п	11	6000	_	50	285	3.0
38	375			п	11	6200		45.5	310	2.9
34.5	415	2.4 2.2	37.64	п	"	6500	-			
			41.42	п	"		-	41.5	345	2.6
31.5	450 485	2.0	45.56	 II	"	6800	-	38	375 405	2.4
29.5	485 540	1.85	48.92		"	7000	-	35	405	2.2
26.5	540 600	1.65	53.82	 II	"	7200 7600	-	32	445 510	2.0
23.5	600	1.5	61.25	 II	"	7600	-	28	510	1.75
21.5	660	1.35	67.38	 II	"	8000	-	25.5	560	1.6
20	710	1.25	71.40	" "	"	8100	-	24	590	1.55
18.5	770	1.15	78.55	" "	"	8500	-	22	650	1.4
17	840	1.05	83.91	" "	"	8700	-	20.5	690	1.3
15.5	920	0.98	92.31			9100	-	19	750	1.2
14.5	980	0.92	101.0	"	"	9400	-	17	840	1.05
13	1100	0.82	111.1	"	II .	9800	-	15.5	920	0.98

Selection - shaft-mounted geared motors DSE -IE1

P = 1.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	·	.,,,,,		· NN	. NA	n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	-6			kg	N	N	1/min	Nm	
34	420	3.1	42.15	BF50/DSE09LA4	90	8500	-	41	345	3.8
30.5	465	2.8	47.14	11	"	8900	_	36.5	390	3.3
25	570	2.3	56.86	11	"	9300	_	30.5	465	2.8
22.5	630	2.1	63.59	m .	11	9800	_	27	530	2.5
20	710	1.85	72.72	m .	11	10700	_	24	590	2.2
17.5	810	1.6	81.33	п	"	11300	_	21.5	660	1.95
16	890	1.45	90.24	m .	"	11800	_	19	750	1.75
14.5	980	1.35	100.9	п	"	12300	_	17	840	1.55
12.5	1140	1.15	114.0	"	11	12900	_	15	950	1.35
11.5	1240	1.05	127.5	п	"	13600	-	13.5	1060	1.25
10.5	1360	0.96	138.1	BF50Z/DSE09LA4	95	13600	-	12.5	1140	1.15
		1		BF30Z/D3E09LA4	95					
9.2	1550	0.84	154.5			13600	-	11.5	1240	1.05
20	710	3.2	72.15	BF60/DSE09LA4	120	12000	34000	24	590	3.9
18	790	2.9	80.05	"	"	12600	35600	21.5	660	3.5
15.5	920	2.5	93.44	m .	11	13500	38200	18.5	770	3.0
14	1020	2.3	103.7	m .	"	14100	39900	16.5	860	2.7
13	1100	2.1	113.1	"	11	14600	41300	15.5	920	2.5
11.5	1240		125.5	п	"	15300	43300	14	1020	2.3
		1.85								
10.5	1360	1.7	140.8	BF60Z/DSE09LA4	139	15300	43300	12.5	1140	2.0
8.4	1700	1.35	169.2	п	"	15300	43300	10.5	1360	1.7
7.6	1880	1.2	187.7		"	15300	43300	9.2	1550	1.5
6.5	2200	1.05	221.4		"	15300	43300	7.8	1830	1.25
5.8	2450	0.94	245.6	"	"	15300	43300	7.0	2000	1.15
8.0	1790	2.9	179.7	BF70Z/DSE09LA4	227	16100	47700	9.6	1490	3.5
7.2	1980	2.6	199.7	"	"	16100	47700	8.6	1660	3.1
6.1	2300	2.3	233.0	"	11	16100	47700	7.4	1930	2.7
5.5	2600	2.0	258.7	"	"	16100	47700	6.7	2100	2.5
4.8	2950	1.75	301.8	"	11	16100	47700	5.7	2500	2.3
	3400		341.7	"	"	16100	47700	5.1		1.85
4.2		1.55		п	"				2800	
3.6	3950	1.3	398.7	п	"	16100	47700	4.3	3300	1.6
3.3	4300	1.2	439.2	п	"	16100	47700	3.9	3650	1.4
2.8	5100	1.0	512.4			16100	47700	3.4	4200	1.25
2.5	5400	1.05	577.5	BF70G20/DSE09LA4	225	16100	47700	3.0	4500	1.25
2.2	6200	0.92	673.6	"	"	16100	47700	2.6	5200	1.1
4.1	3450	3.0	347.3	BF80Z/DSE09LA4	344	39600	75000	5.0	2850	3.7
3.7	3850	2.7	394.2	"	"	39600	75000	4.4	3250	3.2
3.2	4450	2.4	450.4	11	"	39600	75000	3.8	3750	2.8
2.8	5100	2.1	511.2	m .	11	39600	75000	3.4	4200	2.5
2.5	5700	1.85	583.4	m .	11	39600	75000	3.0	4750	2.2
2.2	6500	1.6	662.1	m .	11	39600	75000	2.6	5500	1.9
1.9	7500	1.4	770.6	m .	"	39600	75000	2.3	6200	1.7
1.7	8400	1.25	874.6	"	11	39600	75000	2.0	7100	1.5
1.5	9500	1.1	990.4	п	11	39600	75000	1.8	7900	1.35
				п	"	39600	75000		8900	
1.3	11000	0.95	1124					1.6		1.2
1.1 1.0	11500 12900	0.91 0.81	1329 1491	BF80G40/DSE09LA4	349	39600 39600	75000 75000	1.3 1.2	9500 10500	1.1 1.0
1.0	12900	0.61	1431			39000	75000	1.2	10300	1.0
2.5	5700	3.2	591.1	BF90Z/DSE09LA4	608	42800	120000	2.9	4900	3.8
2.2	6500	2.8	658.1	II .	"	42800	120000	2.6	5500	3.4
1.9	7500	2.5	759.0	TI TI	II .	42800	120000	2.3	6200	3.0
1.7	8400	2.2	845.1	п	II .	42800	120000	2.1	6800	2.7
1.5	7900	2.3	976.1	BF90G50/DSE09LA4	620	42800	120000	1.8	6300	2.9
1.4	8800	2.1	1043	"	"	42800	120000	1.7	7000	2.6
1.2	10300	1.8	1204	11	"	42800	120000	1.5	7900	2.3
1.0	12900	1.45	1444	m .	"	42800	120000	1.2	10500	1.75
0.85	15200	1.43	1678	m .	"	42800	120000	1.1	11400	1.73
0.85	16100	1.15	1867	п	"	42800	120000	0.95	13200	1.4
				п	ıı .					
0.7	18400	1.0	2154			42800	120000	0.8	15800	1.15

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 2.2 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B			Lea	N	N.I	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min 255	Nm 82	1.7	5.60	BF10/DSE09XA4	kg 40	N 1980	<u>N</u>	1/min 310	<u>Nm</u> 67	2.1
188	02 111	1.7	7.58	BF 10/D3E09XA4	40	2200	-	230	91	1.7
147	142	1.25	7.56 9.69	n .	"	2350	-	177	118	1.5
120	175	1.05	11.84	m .	11	2500	_	145	144	1.25
95	220	0.83	15.04	m .	11	2800	_	114	184	0.99
78	265	0.83	18.23	m .	11	2900	_	94	220	1.1
70 71	295	0.91	20.05	m .	11	3000	_	86	240	1.0
240	87	2.3	6.04	BF20/DSE09XA4	46	2550	-	285	73	2.7
178	118	1.85	8.00	"	"	2850	-	215	97	2.3
136	154	1.65	10.51	"	"	3100	-	163	128	2.0
108	194	1.45	13.18	"	"	3300	-	130	161	1.75
92	225	1.35	15.54			3450	-	111	189	1.65
85	245	1.5	16.77	"	"	3500	-	102	205	1.75
77	270	1.35	18.45	"	"	3600	-	93	225	1.65
65	320	1.25	22.04			3800	-	78	265	1.5
59	355	1.15	24.25	"	"	3950	-	71	295	1.35
52	400	1.05	27.62	"	"	4150	-	62	335	1.25
47	445	0.94	30.40	"	"	4400	-	57	365	1.15
44	475	0.88	32.58	"	"	4450	-	53	395	1.05
40	520	0.81	35.85	"		4650	-	48	435	0.97
225	93	2.8	6.34	BF30/DSE09XA4	57	2400	-	270	77	3.4
176	119	2.4	8.07	"	II .	2650	-	215	97	2.9
143	146	2.2	9.99	"	"	2850	-	172	122	2.6
110	191	1.9	12.91	"	II .	3050	-	133	157	2.3
89	235	1.75	16.00	"	"	3250	-	107	196	2.1
81	255	1.9	17.65	"	"	3300	-	97	215	2.2
74	280	1.8	19.41	"	"	3400	-	89	235	2.1
65	320	1.65	21.85	"	"	3500	-	79	265	2.0
60	350	1.6	24.03	"	"	3600	-	72	290	1.9
51	410	1.4	28.23	"	"	3800	-	61	340	1.7
46	455	1.25	31.05	"	"	4000	-	56	375	1.55
41	510	1.15	35.00	"	"	4200	-	49	425	1.35
37	560	1.05	38.49	"	"	4400	-	44.5	470	1.2
35	600	0.96	41.01	" "	"	4500	-	42	500	1.15
31.5	660	0.87	45.10	·		4700	-	38	550	1.05
187	112	3.3	7.62	BF40/DSE09XA4	66	3900	-	225	93	4.0
150	140	3.0	9.48	"	"	4150	-	181	116	3.6
121	173	2.7	11.79	"	"	4450	-	146	143	3.3
95	220	2.4	15.02	"	"	4800	-	114	184	2.8
82	255	2.5	17.35	" "	"	4950	-	99	210	3.0
75	280	2.4	19.09	" "	"	5100	-	90	230	2.9
66	315	2.2	21.60	" "	"	5200	-	80	260	2.7
60	350	2.1	23.77		"	5400	-	72	290	2.5
53	395	1.95	26.86		"	5600	-	64	325	2.4
48.5	430	1.9	29.55		"	5800	-	58	360	2.2
42	500	1.7	34.21	n	"	6000	-	50	420	2.0
38 34 F	550	1.6	37.64		"	6200	-	45.5	460	1.95
34.5	600	1.5	41.42		"	6500	-	41.5	500 550	1.8
31.5	660 710	1.35	45.56		"	6800	-	38	550	1.65
29.5	710 700	1.25	48.92		"	7000	-	35	600 650	1.5
26.5	790	1.15	53.82		"	7200 7600	-	32	650 750	1.4
23.5	890 070	1.0	61.25		"	7600	-	28	750 820	1.2
21.5	970 1050	0.93	67.38		"	8000	-	25.5	820	1.1
20 10 5	1050	0.86	71.40		"	8100	-	24	870	1.05
18.5	1130	8.0	78.55			8500	-	22	950	0.95

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 2.2 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
62	335	3.3	23.14	BF50/DSE09XA4	94	6800	-	74	280	4.0
55	380	3.1	25.88	"	"	7100	-	67	310	3.8
45	465	2.7	31.73	"	"	7500	-	54	385	3.3
40.5	510	2.5	35.49	II	II .	7800	-	48.5	430	3.0
34	610	2.1	42.15	"	II .	8500	-	41	510	2.5
30.5	680	1.9	47.14	II	II .	8900	-	36.5	570	2.3
25	840	1.55	56.86	m m	ıı	9300	-	30.5	680	1.9
22.5	930	1.4	63.59	"	11	9800	-	27	770	1.7
20	1050	1.25	72.72	m m	ıı	10700	-	24	870	1.5
17.5	1200	1.1	81.33	m .	11	11300	-	21.5	970	1.35
16	1310	0.99	90.24	m m	ıı	11800	-	19	1100	1.2
14.5	1440	0.9	100.9	II .	II .	12300	-	17	1230	1.05
31	670	3.3	46.16	BF60/DSE09XA4	124	9900	28000	37.5	560	4.0
26.5	790	2.9	54.44	п	II .	10500	29700	31.5	660	3.5
24	870	2.6	60.40	m .	ıı	11100	31400	28.5	730	3.2
20	1050	2.2	72.15	m m	II .	12000	34000	24	870	2.6
18	1160	2.0	80.05	m .	ıı	12600	35600	21.5	970	2.4
15.5	1350	1.7	93.44	п	11	13500	38200	18.5	1130	2.0
14	1500	1.55	103.7	n .	11	14100	39900	16.5	1270	1.8
13	1610	1.45	113.1	n .	11	14600	41300	15.5	1350	1.7
11.5	1820	1.25	125.5	n .	11	15300	43300	14	1500	1.55
10.5	2000	1.15	140.8	BF60Z/DSE09XA4	143	15300	43300	12.5	1680	1.35
8.4	2500	0.92	169.2	"	"	15300	43300	10.5	2000	1.15
7.6	2750	0.84	187.7	n .	"	15300	43300	9.2	2250	1.0
12	1750	3.0	122.7	BF70/DSE09XA4	210	16100	47700	14	1500	3.5
11	1910	2.7	133.0	BF70Z/DSE09XA4	231	16100	47700	13	1610	3.2
9.3	2250	2.3	154.0	"	231	16100	47700	11.5	1820	2.9
8.0	2600	2.0	179.7	m .	II	16100	47700	9.6	2150	2.4
7.2	2900	1.8	199.7	п	ıı	16100	47700	8.6	2400	2.2
6.1	3400	1.55	233.0	п	ıı	16100	47700	7.4	2800	1.85
5.5	3800	1.35	258.7	п	ıı	16100	47700	6.7	3100	1.7
4.8	4350	1.2	301.8	п	ıı	16100	47700	5.7	3650	1.4
4.2	5000	1.05	341.7	п	ıı	16100	47700	5.1	4100	1.25
3.6	5800	0.9	398.7	п	ıı	16100	47700	4.3	4850	1.05
3.3	6300	0.83	439.2	п	II.	16100	47700	3.9	5300	0.98
3.3	0300	0.03	737.2			10100	47700	3.5	3300	0.50
6.8	3050	3.1	209.4	BF80/DSE09XA4	307	34300	75000	8.2	2550	3.7
6.0	3500	2.7	237.1	"	"	36900	75000	7.3	2850	3.3
5.3	3950	2.4	269.1	m m	11	39600	75000	6.4	3250	2.9
4.9	4250	2.5	291.7	BF80Z/DSE09XA4	348	39600	75000	5.9	3550	3.0
4.1	5100	2.1	347.3	"	"	39600	75000	5.0	4200	2.5
3.7	5600	1.9	394.2	II .	11	39600	75000	4.4	4750	2.2
3.2	6500	1.6	450.4	"	ıı	39600	75000	3.8	5500	1.9
2.8	7500	1.4	511.2	II .	11	39600	75000	3.4	6100	1.7
2.5	8400	1.25	583.4	II .	11	39600	75000	3.0	7000	1.5
2.2	9500	1.1	662.1	II .	11	39600	75000	2.6	8000	1.3
1.9	11000	0.95	770.6	II .	11	39600	75000	2.3	9100	1.15
1.7	12300	0.85	874.6	II .	11	39600	75000	2.0	10500	1.0
1.,,	12300	0.03	07 1.0			37000	75000	2.0	10500	1.0
3.2	6500	2.8	456.7	BF90Z/DSE09XA4	612	42800	120000	3.8	5500	3.4
2.8	7500	2.5	508.5	U 302/D3203XA4	"	42800	120000	3.4	6100	3.0
2.5	8400	2.2	591.1	п	II.	42800	120000	2.9	7200	2.6
2.2	9500	1.95	658.1	п	II.	42800	120000	2.6	8000	2.3
1.9	11000	1.7	759.0	n .	II.	42800	120000	2.3	9100	2.0
1.7	12300	1.5	759.0 845.1	m .	п	42800	120000	2.3	10000	1.85
1.5	12300	1.5	976.1	BF90G50/DSE09XA4	624	42800	120000	1.8	10000	1.85
1.4	13600	1.35	1043	BF90G50/D5E09XA4	024	42800 42800	120000	1.8	10900	1.85
			1043	п	"		120000	1.7		1.7
1.2	15800	1.15		п	ıı	42800			12300	
1.0	19600	0.94	1444			42800	120000	1.2	16100	1.15

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 3 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		71		1114	11.0	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	-			kg	N	N	1/min	Nm	-
225	127	2.1	6.34	BF30/DSE11SA4	60	2400	-	270	106	2.5
176	162	1.75	8.07	11	"	2650	-	215	133	2.2
143	200	1.6	9.99	"	"	2850	-	172	166	1.95
110	260	1.4	12.91	n n	II .	3050	-	133	215	1.7
89	320	1.3	16.00	"	"	3250	-	107	265	1.55
81	350	1.35	17.65	"	II	3300	-	97	295	1.6
74	385	1.3	19.41	"	II	3400	-	89	320	1.55
65	440	1.2	21.85	n n	II	3500	-	79	360	1.45
60	475	1.15	24.03	n n	"	3600	-	72	395	1.4
51	560	1.05	28.23	n n	"	3800	-	61	465	1.25
46	620	0.93	31.05	II	"	4000	-	56	510	1.15
41	690	0.83	35.00	"	"	4200	-	49	580	0.99
245	116	2.9	5.87	BF40/DSE11SA4	74	3550	-	295	97	3.5
187	153	2.4	7.62	"	"	3900	-	225	127	2.9
150	191	2.2	9.48	"	"	4150	-	181	158	2.6
121	235	2.0	11.79	"	"	4450	-	146	196	2.4
95	300	1.75	15.02	"	"	4800	-	114	250	2.1
82	345	1.85	17.35			4950	-	99	285	2.2
75	380	1.75	19.09	" "	"	5100	-	90	315	2.1
66	430	1.65	21.60	"	"	5200	-	80	355	2.0
60	475	1.55	23.77	" "	"	5400	-	72	395	1.85
53	540	1.45	26.86	"	"	5600	-	64	445	1.75
48.5	590	1.35	29.55	"	"	5800	-	58	490	1.65
42	680	1.25	34.21	 II	"	6000	-	50	570	1.5
38	750	1.2	37.64	"	"	6200	-	45.5	620	1.45
34.5	830	1.1	41.42	"	"	6500	-	41.5	690 750	1.3
31.5 29.5	900	1.0	45.56	"	"	6800	-	38	750	1.2
29.5 26.5	970	0.93 0.83	48.92 53.82	"	"	7000 7200	-	35 32	810 890	1.1 1.0
20.5	1080	0.63	33.02			7200	-	32	690	1.0
133	215	3.1	10.68	BF50/DSE11SA4	104	5600	_	161	177	3.8
97	295	2.7	14.65	"	"	6100	_	117	240	3.3
86	330	2.9	16.70	n n	II .	6200	_	103	275	3.5
77	370	2.7	18.68	n	11	6400	-	92	310	3.2
62	460	2.4	23.14	п	ıı	6800	_	74	385	2.9
55	520	2.2	25.88	п	II .	7100	-	67	425	2.7
45	630	2.0	31.73	п	II .	7500	-	54	530	2.4
40.5	700	1.85	35.49	п	11	7800	-	48.5	590	2.2
34	840	1.55	42.15	m m	II	8500	-	41	690	1.9
30.5	930	1.4	47.14	n n	II .	8900	-	36.5	780	1.65
25	1140	1.15	56.86	"	II .	9300	-	30.5	930	1.4
22.5	1270	1.0	63.59	"	II	9800	-	27	1060	1.25
20	1430	0.91	72.72	n n	"	10700	-	24	1190	1.1
17.5	1630	0.8	81.33	"	"	11300	-	21.5	1330	0.98
46	620	3.1	31.20	BF60/DSE11SA4	135	8800	24900	55	520	3.7
41.5	690	2.9	34.62	"	"	9100	25700	49.5	570	3.5
34.5	830	2.6	41.60	"	"	9600	27100	41.5	690	3.1
31	920	2.4	46.16	"	"	9900	28000	37.5	760	2.9
26.5	1080	2.1	54.44	"	"	10500	29700	31.5	900	2.6
24	1190	1.95	60.40	"	"	11100	31400	28.5	1000	2.3
20	1430	1.6	72.15	"	11	12000 12600	34000	24	1190	1.95
18 15.5	1590 1840	1.45 1.25	80.05 93.44	II .	11	13500	35600 38200	21.5 18.5	1330 1540	1.75 1.5
14	2000	1.25	93. 44 103.7	II .	11	14100	39900	16.5	1730	1.35
13	2200	1.15	113.7	II .	ıı	14600	41300	15.5	1840	1.25
11.5	2450	0.94	125.5	II .	ıı	15300	43300	14	2000	1.15
10.5	2700	0.94	140.8	BF60Z/DSE11SA4	151	15300	43300	12.5	2250	1.13
10.5	2,00	5.05	1 10.0	J: 002 DJE : 13/17	131	15500	15500	12.5	2230	1.0
17.5	1630	3.2	81.82	BF70/DSE11SA4	214	12800	41300	21	1360	3.8
15	1910	2.7	95.46	" " " " " " " " " " " " " " " " " " "	"	14000	43700	18	1590	3.3
13.5	2100	2.5	105.2	m .	II .	14700	45100	16.5	1730	3.0
12	2350	2.2	122.7	II .	ıı	16100	47700	14	2000	2.6
			,				,00	1	_500	2.0

Selection - shaft-mounted geared motors DSE -IE1

P = 3 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		••				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
11	2600	2.0	133.0	BF70Z/DSE11SA4	241	16100	47700	13	2200	2.4
9.3	3050	1.7	154.0	n n	II .	16100	47700	11.5	2450	2.1
8.0	3550	1.45	179.7	"	"	16100	47700	9.6	2950	1.75
7.2	3950	1.3	199.7	"	"	16100	47700	8.6	3300	1.6
6.1	4650	1.1	233.0	"	"	16100	47700	7.4	3850	1.35
5.5	5200	1.0	258.7	"	"	16100	47700	6.7	4250	1.2
4.8	5900	0.88	301.8	"	"	16100	47700	5.7	5000	1.05
9.0	3150	3.0	158.5	BF80/DSE11SA4	310	29000	75000	11	2600	3.7
7.7	3700	2.6	184.5	"	"	31800	75000	9.3	3050	3.1
6.8	4200	2.3	209.4	"	"	34300	75000	8.2	3450	2.8
6.0	4750	2.0	237.1	"	"	36900	75000	7.3	3900	2.4
5.3	5400	1.75	269.1	"	"	39600	75000	6.4	4450	2.1
4.9	5800	1.8	291.7	BF80Z/DSE11SA4	357	39600	75000	5.9	4850	2.2
4.1	6900	1.5	347.3	"	II .	39600	75000	5.0	5700	1.85
3.7	7700	1.35	394.2	"	"	39600	75000	4.4	6500	1.6
3.2	8900	1.2	450.4	"	"	39600	75000	3.8	7500	1.4
2.8	10200	1.05	511.2	"	"	39600	75000	3.4	8400	1.25
2.5	11400	0.92	583.4	"	"	39600	75000	3.0	9500	1.1
2.2	13000	0.81	662.1	"	"	39600	75000	2.6	11000	0.95
5.5	5200	3.2	259.0	BF90/DSE11SA4	563	42800	120000	6.7	4250	4.0
4.8	5900	3.1	300.4	BF90Z/DSE11SA4	623	42800	120000	5.7	5000	3.7
4.2	6800	2.7	343.6	"	II .	42800	120000	5.0	5700	3.2
3.8	7500	2.5	382.6	"	"	42800	120000	4.5	6300	2.9
3.2	8900	2.1	456.7	"	"	42800	120000	3.8	7500	2.5
2.8	10200	1.8	508.5	"	"	42800	120000	3.4	8400	2.2
2.5	11400	1.6	591.1	"	"	42800	120000	2.9	9800	1.9
2.2	13000	1.4	658.1	"	II .	42800	120000	2.6	11000	1.7
1.9	15000	1.25	759.0	"	"	42800	120000	2.3	12400	1.5
1.7	16800	1.1	845.1	"	II .	42800	120000	2.1	13600	1.35
1.5	17500	1.05	976.1	BF90G50/DSE11SA4	633	42800	120000	1.8	14300	1.3
1.4	19000	0.97	1043	"	"	42800	120000	1.7	15400	1.2
1.2	22200	0.83	1204	"	"	42800	120000	1.5	17400	1.05

P = 4 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
225	169	1.55	6.34	BF30/DSE11MA4	66	2400	-	270	141	1.85
176	215	1.35	8.07	II.	II .	2650	-	215	177	1.6
143	265	1.2	9.99	II.	II .	2850	-	172	220	1.45
110	345	1.05	12.91	II.	II .	3050	-	133	285	1.3
89	425	0.96	16.00	II.	II .	3250	-	107	355	1.15
81	470	1.0	17.65	II.	II .	3300	-	97	390	1.25
74	510	0.98	19.41	m .	11	3400	-	89	425	1.2
65	580	0.91	21.85	m .	11	3500	-	79	480	1.1
60	630	0.88	24.03	"	ıı	3600	-	72	530	1.05
245	155	2.2	5.87	BF40/DSE11MA4	80	3550	-	295	129	2.6
187	200	1.85	7.62	"	II .	3900	-	225	169	2.2
150	250	1.65	9.48	"	"	4150	-	181	210	2.0
121	315	1.5	11.79	"	"	4450	-	146	260	1.8
95	400	1.3	15.02	"	"	4800	-	114	335	1.55
82	465	1.35	17.35	"	"	4950	-	99	385	1.65
75	500	1.35	19.09	"	"	5100	-	90	420	1.6
66	570	1.25	21.60	"	"	5200	-	80	475	1.5
60	630	1.15	23.77	"	II .	5400	-	72	530	1.4
53	720	1.1	26.86	"	II .	5600	-	64	590	1.3
48.5	780	1.05	29.55	II.	II .	5800	-	58	650	1.25

Selection - shaft-mounted geared motors DSE -IE1

P = 4 kW



50 Hz i Type m F _{RN} F _{RV} n ₂ M N 1/min 42 900 0.95 34.21 BF40/DSE11MA4 " 6000 - 50 38 1000 0.89 37.64 " " 6200 - 45.5 34.5 1100 0.82 41.42 " 6500 - 41.5	M ₂ Nm 760 830	$f_{\scriptscriptstyle B}$
1/min Nm kg N N 1/min 42 900 0.95 34.21 BF40/DSE11MA4 " 6000 - 50 38 1000 0.89 37.64 " 6200 - 45.5	Nm 760	
42 900 0.95 34.21 BF40/DSE11MA4 " 6000 - 50 38 1000 0.89 37.64 " 6200 - 45.5	760	
38 1000 0.89 37.64 " 6200 - 45.5		1.15
		1.13
34.3 1100 0.02 41.42	920	0.98
	720	0.50
185 205 2.8 7.71 BF50/DSE11MA4 110 5100 - 225	169	3.3
133 285 2.4 10.68 " " 5600 - 161	235	2.9
97 390 2.0 14.65 " " 6100 - 117	325	2.4
86 440 2.2 16.70 " " 6200 - 103	370	2.6
77 495 2.0 18.68 " " 6400 - 92	415	2.4
62 610 1.8 23.14 " " 6800 - 74	510	2.7
55 690 1.7 25.88 " " 7100 - 67	570	2.2
45 840 1.5 31.73 " " 7500 - 54	700	1.8
40.5 940 1.4 35.49 " " 7800 - 48.5	780	1.65
	930	1.4
30.3 1230 1.03 47.14	1040	1.25
25 1520 0.86 56.86 " 9300 - 30.5	1250	1.05
100 200 21 1424 PECO /DEF11MAA 141 7100 20000 121	215	2.0
100 380 3.1 14.24 BF60/DSE11MA4 141 7100 20000 121	315	3.8
3.2 10.90 7300 20000 101	375	3.9
7000 21300 91	415	3.7
2.8 22.36	500	3.3
37 670 2.0 23.03 8200 23200 09	550	3.2
2.5 31.20 8600 24900 33	690	2.8
41.5 920 2.2 34.02 9100 23700 49.3	770	2.6
34.3 1100 1.93 41.00 9000 27100 41.3	920	2.3
31 1230 1.8 46.16 " 9900 28000 37.5	1010	2.2
26.5 1440 1.6 54.44 " 10500 29700 31.5	1210	1.9
24 1590 1.45 60.40 " 11100 31400 28.5	1340	1.7
20 1910 1.2 72.15 " 12000 34000 24	1590	1.45
18 2100 1.1 80.05 " 12600 35600 21.5	1770	1.3
15.5 2450 0.94 93.44 " 13500 38200 18.5	2050	1.1
14 2700 0.85 103.7 " 14100 39900 16.5	2300	1.0
22 4660 24 6104 PETO (DEFIAMA) 220 10000 27400 20	1260	2.0
23 1660 3.1 61.94 BF70/DSE11MA4 220 10800 37400 28	1360	3.8
20 1910 2.7 /2.20 12000 39000 24	1590	3.3
17.3 2130 2.4 01.02 12000 41300 21	1810	2.9
15 2500 2.1 95.40 14000 45700 18	2100	2.5
13.3 200 1.03 103.2	2300	2.3
12 3130 1.03 122.7 10100 47700 14	2700	1.95
11 3450 1.5 133.0 BF70Z/DSE11MA4 247 16100 47700 13	2900	1.8
9.5 4100 1.25 134.0 10100 47/00 11.5	3300	1.6
8.0 47.50 1.1 179.7	3950	1.3
7.2 3300 0.38 199.7	4400	1.2
6.1 6200 0.84 233.0 " " 16100 47700 7.4	5100	1.0
12 3150 3.0 122.4 BF80/DSE11MA4 316 24500 75000 14	2700	3.5
10.5 3600 2.6 139.7 " 26700 75000 12.5	3050	3.1
9.0 4200 2.3 158.5 " 29000 75000 11	3450	2.8
7.7 4950 1.9 184.5 " " 31800 75000 9.3	4100	2.3
		2.0
6.6 3600 1.7 209.4 34300 73000 8.2	4650	
1.5 237. 1 30900 73000 [7.3	5200	1.85
3.3 7200 1.3 209.1 39000 73000 0.4	5900	1.6
4.9 7700 1.35 291.7 BF80Z/DSE11MA4 363 39600 75000 5.9	6400	1.65
4.1 9300 1.13 347.3	7600	1.4
3.7 10300 1.0 394.2 39000 73000 4.4	8600	1.2
3.2 11900 0.88 450.4 " " 39600 75000 3.8	10000	1.05
7.2 5300 3.2 198.8 BF90/DSE11MA4 569 36000 111300 8.7	4350	3.9
6.2 6100 2.8 232.6 " 39900 118300 7.4	5100	3.3
6.2 6100 2.6 232.0 39900 116300 7.4	5700	3.3 2.9
2.4 239.0 42800 120000 0.7		
5.3 7200 2.6 269.8 BF90Z/DSE11MA4 629 42800 120000 6.4	5900 6700	3.1
4.6 7900 2.3 300.4 42800 120000 3.7	6700	2.8
4.2 9000 2.1 343.6	7600	2.4

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 4 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	f_B
1/min	Nm				kg	N	N	1/min	Nm	
3.8	10000	1.85	382.6	BF90Z/DSE11MA4	"	42800	120000	4.5	8400	2.2
3.2	11900	1.55	456.7	"	"	42800	120000	3.8	10000	1.85
2.8	13600	1.35	508.5	"	"	42800	120000	3.4	11200	1.65
2.5	15200	1.2	591.1	"	"	42800	120000	2.9	13100	1.4
2.2	17300	1.05	658.1	"	"	42800	120000	2.6	14600	1.25
1.9	20100	0.92	759.0	"	"	42800	120000	2.3	16600	1.1
1.7	22400	0.83	845.1	"	II .	42800	120000	2.1	18100	1.0

P = 5.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
225	230	1.15	6.34	BF30/DSE11LA4	78	2400	-	270	194	1.35
176	295	0.97	8.07	II	"	2650	-	215	240	1.2
143	365	0.88	9.99	n .	II	2850	-	172	305	1.05
245	210	1.6	5.87	BF40/DSE11LA4	92	3550	_	295	178	1.9
187	280	1.3	7.62	"	"	3900	-	225	230	1.6
150	350	1.2	9.48	"	"	4150	-	181	290	1.45
121	430	1.1	11.79	"	"	4450	-	146	355	1.3
95	550	0.95	15.02	"	ıı ı	4800	-	114	460	1.15
82	640	0.99	17.35	"	"	4950	-	99	530	1.2
75	700	0.95	19.09	II	"	5100	-	90	580	1.15
66	790	0.89	21.60	"	ıı ı	5200	-	80	650	1.1
60	870	0.85	23.77	n .	II	5400	-	72	720	1.0
265	198	2.5	5.38	BF50/DSE11LA4	122	4500	-	320	164	3.0
185	280	2.0	7.71	"	ıı ı	5100	-	225	230	2.5
133	390	1.75	10.68	"	ıı ı	5600	-	161	325	2.1
97	540	1.45	14.65	"	"	6100	-	117	445	1.8
86	610	1.55	16.70	"	II .	6200	-	103	500	1.9
77	680	1.5	18.68	"	"	6400	-	92	570	1.75
62	840	1.3	23.14	"	II .	6800	-	74	700	1.6
55	950	1.25	25.88	"	II .	7100	-	67	780	1.5
45	1160	1.1	31.73	"	II .	7500	-	54	970	1.3
40.5	1290	1.0	35.49	"	II .	7800	-	48.5	1080	1.2
34	1540	0.84	42.15	"	"	8500	-	41	1280	1.0
184	285	3.0	7.74	BF60/DSE11LA4	153	6000	16900	225	230	3.8
138	380	2.7	10.31	"	"	6500	18400	166	315	3.2
100	520	2.3	14.24	"	"	7100	20000	121	430	2.8
84	620	2.3	16.96	"	"	7300	20600	101	520	2.8
76	690	2.2	18.81	" "	"	7600	21500	91	570	2.7
63	830	2.0	22.58	" "	"	8000	22600	76	690	2.4
57	920	1.9	25.05	 II	"	8200	23200	69	760	2.3
46	1140	1.65	31.20		"	8800	24900	55	950	2.0
41.5 34.5	1260 1520	1.6	34.62 41.60	11	"	9100 9600	25700 27100	49.5 41.5	1060	1.85 1.7
31	1690	1.4 1.3	46.16	11	"	9900	28000	37.5	1260 1400	1.7
26.5	1980	1.15	54.44	11	"	10500	29700	31.5	1660	1.4
24	2150	1.15	60.40	11	ıı	11100	31400	28.5	1840	1.25
20	2600	0.88	72.15	п	"	12000	34000	24	2150	1.05
			72.13					- 1		1.05
33.5	1560	3.3	43.02	BF70/DSE11LA4	232	8700	32800	40	1310	4.0
30	1750	3.0	47.82	"	"	9100	34000	36	1450	3.6
25.5	2050	2.5	55.79	"	"	10200	36000	31	1690	3.1
23	2250	2.3	61.94	"	"	10800	37400	28	1870	2.8
20	2600	2.0	72.26	"	"	12000	39600	24	2150	2.4
17.5	3000	1.75	81.82	" "	"	12800	41300	21	2500	2.1
15	3500	1.5	95.46	" "	"	14000	43700	18	2900	1.8
13.5	3850	1.35	105.2	"	"	14700	45100	16.5	3150	1.65
12	4350	1.2	122.7	"		16100	47700	14	3750	1.4

Selection - shaft-mounted geared motors DSE -IE1

P = 5.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		•				n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
11	4750	1.1	133.0	BF70Z/DSE11LA4	258	16100	47700	13	4000	1.3
9.3	5600	0.93	154.0	n n	"	16100	47700	11.5	4550	1.15
8.0	6500	0.8	179.7	"	"	16100	47700	9.6	5400	0.96
17.5	3000	3.2	83.16	BF80/DSE11LA4	328	18400	65100	21	2500	3.8
15.5	3350	2.8	94.38	"	"	20300	68500	18.5	2800	3.4
13.5	3850	2.5	107.9		"	22400	72300	16	3250	2.9
12	4350	2.2	122.4	"	"	24500	75000	14	3750	2.5
10.5	5000	1.9	139.7		"	26700	75000	12.5	4200	2.3
9.0	5800	1.65	158.5	"		29000	75000	11	4750	2.0
7.7	6800	1.4	184.5	"	"	31800	75000	9.3	5600	1.7
6.8	7700	1.25	209.4		"	34300	75000	8.2	6400	1.5
6.0	8700	1.1	237.1	"	"	36900	75000	7.3	7100	1.35
5.3	9900	0.96	269.1	"	II .	39600	75000	6.4	8200	1.15
4.9	10700	0.98	291.7	BF80Z/DSE11LA4	375	39600	75000	5.9	8900	1.2
4.1	12800	0.82	347.3	"	"	39600	75000	5.0	10500	1.0
9.2	5700	2.9	154.8	BF90/DSE11LA4	581	30100	100800	11.5	4550	3.7
8.0	6500	2.6	178.6	"	"	33400	106700	9.6	5400	3.1
7.2	7200	2.3	198.8	n	"	36000	111300	8.7	6000	2.8
6.2	8400	2.0	232.6	п	II .	39900	118300	7.4	7000	2.4
5.5	9500	1.75	259.0	п	II .	42800	120000	6.7	7800	2.2
5.3	9900	1.85	269.8	BF90Z/DSE11LA4	641	42800	120000	6.4	8200	2.3
4.8	10900	1.7	300.4	m m	II .	42800	120000	5.7	9200	2.0
4.2	12500	1.5	343.6	п	II .	42800	120000	5.0	10500	1.75
3.8	13800	1.35	382.6	п	II .	42800	120000	4.5	11600	1.6
3.2	16400	1.15	456.7	m .	"	42800	120000	3.8	13800	1.35
2.8	18700	0.99	508.5	п	II .	42800	120000	3.4	15400	1.2
2.5	21000	0.88	591.1	TT	II .	42800	120000	2.9	18100	1.0

P = 7.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
270	265	1.9	5.38	BF50/DSE13MA4	133	4500	-	325	220	2.3
187	380	1.5	7.71	п	II .	5100	-	230	310	1.8
135	530	1.3	10.68	II	"	5600	-	163	435	1.55
99	720	1.1	14.65	m m	"	6100	-	119	600	1.3
87	820	1.15	16.70	m m	"	6200	-	105	680	1.4
78	910	1.1	18.68	II	"	6400	-	94	760	1.3
63	1130	0.98	23.14	m m	"	6800	-	76	940	1.2
56	1270	0.92	25.88	m m	"	7100	-	68	1050	1.1
45.5	1570	0.81	31.73	"	"	7500	-	55	1300	0.98
280	255	3.0	5.22	BF60/DSE13MA4	166	5200	14800	335	210	3.6
187	380	2.3	7.74	"	"	6000	16900	225	315	2.8
140	510	2.0	10.31	"	"	6500	18400	169	420	2.4
102	700	1.7	14.24	"	"	7100	20000	123	580	2.1
85	840	1.75	16.96	"	"	7300	20600	103	690	2.1
77	930	1.65	18.81	"	II	7600	21500	93	770	2.0
64	1110	1.5	22.58	"	II	8000	22600	78	910	1.8
58	1230	1.4	25.05	"	"	8200	23200	70	1020	1.7
46.5	1540	1.25	31.20	"	"	8800	24900	56	1270	1.5
42	1700	1.15	34.62	"	"	9100	25700	51	1400	1.4
35	2000	1.05	41.60	"	"	9600	27100	42	1700	1.25
31.5	2250	0.99	46.16	"	"	9900	28000	38	1880	1.2
26.5	2700	0.85	54.44	"	"	10500	29700	32	2200	1.05
45.5	1570	3.3	31.84	BF70/DSE13MA4	245	7700	30000	55	1300	4.0
39.5	1810	2.9	36.88	"	II .	7900	31100	47.5	1500	3.5
33.5	2100	2.5	43.02	"	II .	8700	32800	40.5	1760	3.0
30.5	2300	2.3	47.82	II .	"	9100	34000	36.5	1960	2.7

Selection - shaft-mounted geared motors DSE -IE1

P = 7.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		· ·				n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm	-			kg	N	N	1/min	Nm	
26	2750	1.9	55.79	BF50/DSE13MA4	"	10200	36000	31.5	2250	2.3
23.5	3000	1.75	61.94	"	II .	10800	37400	28.5	2500	2.1
20	3550	1.45	72.26	"	II .	12000	39600	24.5	2900	1.8
18	3950	1.3	81.82	"	"	12800	41300	21.5	3300	1.6
15.5	4600	1.15	95.46	"	"	14000	43700	18.5	3850	1.35
14	5100	1.0	105.2	"	"	14700	45100	17	4200	1.25
12	5900	0.88	122.7	"	"	16100	47700	14.5	4900	1.05
11	6500	0.8	133.0	BF70Z/DSE13MA4	270	16100	47700	13.5	5300	0.98
23.5	3000	3.1	61.55	BF80/DSE13MA4	341	14800	58100	28.5	2500	3.7
21	3400	2.8	69.86	II .	II .	15900	60600	25	2850	3.3
17.5	4050	2.3	83.16	п	II .	18400	65100	21	3400	2.8
15.5	4600	2.1	94.38	п	II .	20300	68500	18.5	3850	2.5
13.5	5300	1.8	107.9	п	II .	22400	72300	16.5	4300	2.2
12	5900	1.6	122.4	п	II .	24500	75000	14.5	4900	1.95
10.5	6800	1.4	139.7	"	II .	26700	75000	12.5	5700	1.65
9.1	7800	1.2	158.5	"	II .	29000	75000	11	6500	1.45
7.9	9000	1.05	184.5	"	"	31800	75000	9.5	7500	1.25
6.9	10300	0.92	209.4	"	"	34300	75000	8.4	8500	1.1
6.1	11700	0.81	237.1	"	"	36900	75000	7.4	9600	0.99
13.5	5300	3.2	107.5	BF90/DSE13MA4	593	22300	86900	16.5	4300	3.9
12.5	5700	2.9	119.7	п	II .	24500	90800	15	4750	3.5
10.5	6800	2.5	139.1	"	II .	27700	96300	13	5500	3.1
9.4	7600	2.2	154.8	"	II .	30100	100800	11.5	6200	2.7
8.1	8800	1.9	178.6	"	II .	33400	106700	9.8	7300	2.3
7.3	9800	1.7	198.8	"	"	36000	111300	8.8	8100	2.1
6.2	11500	1.45	232.6	"	"	39900	118300	7.5	9500	1.75
5.6	12700	1.3	259.0	"	"	42800	120000	6.8	10500	1.6
5.4	13200	1.4	269.8	BF90Z/DSE13MA4	654	42800	120000	6.5	11000	1.7
4.8	14900	1.25	300.4	"	"	42800	120000	5.8	12300	1.5
4.2	17000	1.1	343.6	"	"	42800	120000	5.1	14000	1.3
3.8	18800	0.98	382.6	"	"	42800	120000	4.6	15500	1.2
3.2	22300	0.83	456.7	"	"	42800	120000	3.9	18300	1.0

P = 9.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
270	335	1.5	5.38	BF50/DSE13LA4	136	4500	-	325	275	1.8
187	485	1.15	7.71	"	"	5100	-	230	390	1.45
135	670	1.0	10.68	"	"	5600	-	163	550	1.25
99	910	0.87	14.65	"	"	6100	-	119	760	1.05
87	1040	0.91	16.70	m	"	6200	-	105	860	1.1
78	1160	0.86	18.68	"	II	6400	-	94	960	1.05
280	320	2.4	5.22	BF60/DSE13LA4	169	5200	14800	335	270	2.8
187	485	1.8	7.74	"	"	6000	16900	225	400	2.2
140	640	1.6	10.31	"	"	6500	18400	169	530	1.9
102	880	1.35	14.24	"	"	7100	20000	123	730	1.65
85	1060	1.35	16.96	"	"	7300	20600	103	880	1.65
77	1170	1.3	18.81	"	"	7600	21500	93	970	1.55
64	1410	1.15	22.58	"	"	8000	22600	78	1160	1.45
58	1560	1.1	25.05	"	"	8200	23200	70	1290	1.35
46.5	1950	0.97	31.20	"	"	8800	24900	56	1620	1.15
42	2150	0.92	34.62	"	"	9100	25700	51	1770	1.1
35	2550	0.84	41.60	"	"	9600	27100	42	2150	0.99
59	1530	3.3	24.55	BF70/DSE13LA4	248	7000	27700	71	1270	4.0
53	1710	3.0	27.29	m	"	7000	28400	64	1410	3.7
45.5	1990	2.6	31.84	II .	"	7700	30000	55	1640	3.2

Selection - shaft-mounted geared motors DSE -IE1

P = 9.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		• •				n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
39.5	2250	2.3	36.88	BF70/DSE13LA4	II .	7900	31100	47.5	1910	2.7
33.5	2700	1.95	43.02	"	II .	8700	32800	40.5	2200	2.4
30.5	2950	1.75	47.82	n n	"	9100	34000	36.5	2450	2.1
26	3450	1.5	55.79	"	"	10200	36000	31.5	2850	1.8
23.5	3850	1.35	61.94	"	"	10800	37400	28.5	3150	1.65
20	4500	1.15	72.26	"	"	12000	39600	24.5	3700	1.4
18	5000	1.05	81.82	"	"	12800	41300	21.5	4200	1.25
15.5	5800	0.9	95.46	II	II .	14000	43700	18.5	4900	1.05
14	6400	0.81	105.2	"	II .	14700	45100	17	5300	0.98
20.5	2050	2.0	47.46	DE00 /DCE131.8.4	244	12400	F2700	37	2450	2.5
30.5 27	2950 3350	2.9	47.46 53.86	BF80/DSE13LA4	344	13400 14000	53700 55800	32.5	2450 2750	3.5 3.3
23.5	3850 3850	2.7 2.4	61.55	"	ıı	14800	58100	28.5	3150	3.0
23.5	4300	2.4	69.86	"	ıı	15900	60600	25.3	3600	2.6
17.5	5100	1.85	83.16	"	ıı	18400	65100	21	4300	2.0
15.5	5800	1.65	94.38	m m	ıı	20300	68500	18.5	4900	1.95
13.5	6700	1.03	107.9	m m	ıı	22400	72300	16.5	5400	1.75
12	7500	1.25	122.4	"	ıı	24500	75000	14.5	6200	1.55
10.5	8600	1.1	139.7	"	ıı	26700	75000	12.5	7200	1.3
9.1	9900	0.96	158.5	"	ıı	29000	75000	11	8200	1.15
7.9	11400	0.83	184.5	"	II .	31800	75000	9.5	9500	1.0
		0.00				3.000	, 5000	7.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
18	5000	3.3	80.85	BF90/DSE13LA4	596	17500	77500	22	4100	4.0
16	5600	3.0	90.02	"	"	18900	80600	19.5	4650	3.6
13.5	6700	2.5	107.5	"	II .	22300	86900	16.5	5400	3.1
12.5	7200	2.3	119.7	"	II .	24500	90800	15	6000	2.8
10.5	8600	1.95	139.1	"	II	27700	96300	13	6900	2.4
9.4	9600	1.75	154.8	"	II .	30100	100800	11.5	7800	2.2
8.1	11200	1.5	178.6	"	II .	33400	106700	9.8	9200	1.85
7.3	12400	1.35	198.8	"	II .	36000	111300	8.8	10300	1.65
6.2	14600	1.15	232.6	"	"	39900	118300	7.5	12000	1.4
5.6	16200	1.05	259.0	II .	II .	42800	120000	6.8	13300	1.25
5.4	16800	1.1	269.8	BF90Z/DSE13LA4	657	42800	120000	6.5	13900	1.35
4.8	18900	0.98	300.4	"	"	42800	120000	5.8	15600	1.2
4.2	21600	0.86	343.6	"	"	42800	120000	5.1	17700	1.05

P = 11 kW

	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
275	380	1.3	5.38	BF50/DSE16MA4	181	4500	-	330	315	1.6
190	550	1.05	7.71	п	"	5100	-	230	455	1.25
137	760	0.89	10.68	п	"	5600	-	165	630	1.05
88	1190	0.8	16.70	"	II .	6200	-	106	990	0.96
280	375	2.0	5.22	BF60/DSE16MA4	214	5200	14800	340	305	2.5
189	550	1.6	7.74	m .	"	6000	16900	230	455	1.9
142	730	1.4	10.31	n n	II .	6500	18400	171	610	1.65
103	1010	1.2	14.24	n n	II .	7100	20000	124	840	1.4
87	1200	1.2	16.96	n n	II .	7300	20600	104	1010	1.45
78	1340	1.15	18.81	n n	II .	7600	21500	94	1110	1.35
65	1610	1.05	22.58	"	"	8000	22600	78	1340	1.25
59	1780	0.97	25.05	"	"	8200	23200	71	1470	1.2
47	2200	0.86	31.20	m .	"	8800	24900	57	1840	1.05
42.5	2450	0.81	34.62	"	II	9100	25700	51	2050	0.97
70	1500	3.1	21.04	BF70/DSE16MA4	297	6400	26300	84	1250	3.7
60	1750	2.9	24.55	n n	II .	7000	27700	72	1450	3.5
54	1940	2.7	27.29	II.	II .	7000	28400	65	1610	3.2
46	2250	2.3	31.84	··	II .	7700	30000	56	1870	2.8
40	2600	2.0	36.88	TI TI	II	7900	31100	48	2150	2.4

Selection - shaft-mounted geared motors DSE -IE1

P = 11 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7.				n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
34	3050	1.7	43.02	BF70/DSE16MA4	"	8700	32800	41	2550	2.0
31	3350	1.55	47.82	m .	II .	9100	34000	37	2800	1.85
26.5	3950	1.3	55.79	"	II .	10200	36000	32	3250	1.6
24	4350	1.2	61.94	"	"	10800	37400	28.5	3650	1.4
20.5	5100	1.0	72.26	"	"	12000	39600	24.5	4250	1.2
18	5800	0.9	81.82	"	"	12800	41300	22	4750	1.1
48.5	2150	3.3	30.21	BF80/DSE16MA4	393	12300	47900	59	1780	4.0
43.5	2400	3.2	33.61	п	II .	11700	48400	53	1980	3.9
38.5	2700	3.0	38.14	п	II .	12200	50300	46.5	2250	3.6
31	3350	2.6	47.46	II.	II .	13400	53700	37.5	2800	3.1
27.5	3800	2.4	53.86	"	II .	14000	55800	33	3150	2.8
24	4350	2.1	61.55	"	"	14800	58100	29	3600	2.6
21	5000	1.9	69.86	II.	II .	15900	60600	25.5	4100	2.3
18	5800	1.65	83.16	"	II .	18400	65100	21.5	4850	1.95
15.5	6700	1.4	94.38	"	"	20300	68500	19	5500	1.75
14	7500	1.25	107.9	"	"	22400	72300	16.5	6300	1.5
12	8700	1.1	122.4	ıı .	"	24500	75000	14.5	7200	1.3
10.5	10000	0.95	139.7	"	"	26700	75000	13	8000	1.2
9.3	11200	0.85	158.5	п	"	29000	75000	11.5	9100	1.05
21	5000	3.2	70.69	BF90/DSE16MA4	640	16800	74700	25	4200	3.8
18.5	5600	3.0	80.85	"	"	17500	77500	22	4750	3.5
16.5	6300	2.7	90.02	"	"	18900	80600	20	5200	3.2
14	7500	2.2	107.5	"	"	22300	86900	16.5	6300	2.7
12.5	8400	2.0	119.7	"	"	24500	90800	15	7000	2.4
10.5	10000	1.7	139.1	"	"	27700	96300	13	8000	2.1
9.5	11000	1.55	154.8	"	"	30100	100800	11.5	9100	1.85
8.2	12800	1.3	178.6	"	"	33400	106700	9.9	10600	1.6
7.4	14100	1.2	198.8	"	"	36000	111300	8.9	11800	1.4
6.3	16600	1.0	232.6	"	"	39900	118300	7.6	13800	1.2
5.7	18400	0.91	259.0	"	"	42800	120000	6.8	15400	1.1
5.5	19100	0.97	269.8	BF90Z/DSE16MA4	702	42800	120000	6.6	15900	1.15
4.9	21400	0.86	300.4	"	"	42800	120000	5.9	17800	1.05

P = 15 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
275	520	0.96	5.38	BF50/DSE16LA4	194	4500	-	330	430	1.15
280	510	1.5	5.22	BF60/DSE16LA4	227	5200	14800	340	420	1.8
189	750	1.15	7.74	"	"	6000	16900	230	620	1.4
142	1000	1.0	10.31	m .	"	6500	18400	171	830	1.2
103	1390	0.86	14.24	m .	"	7100	20000	124	1150	1.05
87	1640	0.88	16.96	"	"	7300	20600	104	1370	1.05
78	1830	0.83	18.81	"	ıı	7600	21500	94	1520	1.0
98	1460	2.5	14.90	BF70/DSE16LA4	310	5900	24000	119	1200	3.0
84	1700	2.5	17.39	"	"	6200	25000	102	1400	3.0
70	2000	2.3	21.04	TI TI	"	6400	26300	84	1700	2.7
60	2350	2.1	24.55	TI TI	"	7000	27700	72	1980	2.5
54	2650	1.95	27.29	II .	"	7000	28400	65	2200	2.4
46	3100	1.7	31.84	II .	"	7700	30000	56	2550	2.0
40	3550	1.45	36.88	II .	"	7900	31100	48	2950	1.75
34	4200	1.25	43.02	II .	"	8700	32800	41	3450	1.5
31	4600	1.15	47.82	II .	"	9100	34000	37	3850	1.35
26.5	5400	0.96	55.79	II .	II .	10200	36000	32	4450	1.15
24	5900	0.88	61.94	п	"	10800	37400	28.5	5000	1.05

Selection - shaft-mounted geared motors DSE -IE1

P = 15 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
89	1600	3.3	16.49	BF80/DSE16LA4	406	11400	41400	107	1330	4.0
63	2250	2.8	23.29	II	II .	11800	44900	76	1880	3.4
48.5	2950	2.4	30.21	II	II .	12300	47900	59	2400	3.0
43.5	3250	2.4	33.61	"	ıı ı	11700	48400	53	2700	2.9
38.5	3700	2.2	38.14	"	ıı ı	12200	50300	46.5	3050	2.6
31	4600	1.85	47.46	"	ıı ı	13400	53700	37.5	3800	2.3
27.5	5200	1.7	53.86	"	ıı ı	14000	55800	33	4300	2.1
24	5900	1.6	61.55	"	ıı ı	14800	58100	29	4900	1.9
21	6800	1.4	69.86	"	ıı ı	15900	60600	25.5	5600	1.7
18	7900	1.2	83.16	"	"	18400	65100	21.5	6600	1.45
15.5	9200	1.05	94.38	II	"	20300	68500	19	7500	1.25
14	10200	0.93	107.9	II	"	22400	72300	16.5	8600	1.1
12	11900	8.0	122.4	II	II .	24500	75000	14.5	9800	0.97
31.5	4500	3.1	46.43	BF90/DSE16LA4	654	13800	65500	38	3750	3.8
28.5	5000	2.9	51.70	"	"	14600	67800	34.5	4150	3.5
23	6200	2.5	63.49	"	"	15800	72000	28	5100	3.0
21	6800	2.3	70.69	"	"	16800	74700	25	5700	2.8
18.5	7700	2.1	80.85	"	"	17500	77500	22	6500	2.5
16.5	8600	1.95	90.02	"	II .	18900	80600	20	7100	2.4
14	10200	1.65	107.5	"	"	22300	86900	16.5	8600	1.95
12.5	11400	1.45	119.7	"	II .	24500	90800	15	9500	1.75
10.5	13600	1.25	139.1	"	"	27700	96300	13	11000	1.55
9.5	15000	1.1	154.8	"	II .	30100	100800	11.5	12400	1.35
8.2	17400	0.97	178.6	"	II .	33400	106700	9.9	14400	1.15
7.4	19300	0.87	198.8	п	ıı .	36000	111300	8.9	16000	1.05

P = 18.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
280	630	1.2	5.22	BF60/DSE16XA4	237	5200	14800	340	510	1.5
189	930	0.93	7.74	II	"	6000	16900	230	760	1.15
142	1240	0.82	10.31	ıı	"	6500	18400	171	1030	0.98
98	1800	2.0	14.90	BF70/DSE16XA4	320	5900	24000	119	1480	2.5
84	2100	2.0	17.39	"	II .	6200	25000	102	1730	2.5
70	2500	1.85	21.04	"	"	6400	26300	84	2100	2.2
60	2900	1.75	24.55	"	II .	7000	27700	72	2450	2.1
54	3250	1.6	27.29	"	II .	7000	28400	65	2700	1.95
46	3800	1.35	31.84	"	"	7700	30000	56	3150	1.65
40	4400	1.2	36.88	"	"	7900	31100	48	3650	1.4
34	5100	1.0	43.02	"	"	8700	32800	41	4300	1.2
31	5600	0.93	47.82	"	"	9100	34000	37	4750	1.1
89	1980	2.7	16.49	BF80/DSE16XA4	416	11400	41400	107	1650	3.2
63	2800	2.3	23.29	"	"	11800	44900	76	2300	2.7
48.5	3600	2.0	30.21	"	"	12300	47900	59	2950	2.4
43.5	4050	1.9	33.61	"	"	11700	48400	53	3300	2.4
38.5	4550	1.75	38.14	"	II .	12200	50300	46.5	3750	2.2
31	5600	1.55	47.46	"	"	13400	53700	37.5	4700	1.85
27.5	6400	1.4	53.86	"	"	14000	55800	33	5300	1.7
24	7300	1.25	61.55	"	"	14800	58100	29	6000	1.55
21	8400	1.15	69.86	"	II .	15900	60600	25.5	6900	1.4
18	9800	0.97	83.16	"	II .	18400	65100	21.5	8200	1.15
15.5	11300	0.84	94.38	"	"	20300	68500	19	9200	1.05
31.5	5600	2.5	46.43	BF90/DSE16XA4	664	13800	65500	38	4600	3.1
28.5	6100	2.4	51.70	"	II .	14600	67800	34.5	5100	2.8
23	7600	2.0	63.49	"	"	15800	72000	28	6300	2.4
21	8400	1.9	70.69	II	"	16800	74700	25	7000	2.3

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 18.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	f_{B}
1/min	Nm				kg	N	N	1/min	Nm	
18.5	9500	1.75	80.85	BF90/DSE16XA4	"	17500	77500	22	8000	2.1
16.5	10700	1.55	90.02	"	II .	18900	80600	20	8800	1.9
14	12600	1.35	107.5	"	II .	22300	86900	16.5	10700	1.55
12.5	14100	1.2	119.7	"	II .	24500	90800	15	11700	1.45
10.5	16800	1.0	139.1	"	II .	27700	96300	13	13500	1.25
9.5	18500	0.91	154.8	11	"	30100	100800	11.5	15300	1.1

P = 22 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
142	1470	1.7	10.32	BF70/DSE18LA4	377	4600	18700	171	1220	2.1
122	1720	1.7	12.04	m	11	4900	19700	147	1420	2.1
98	2100	1.75	14.90	II	"	5900	24000	119	1760	2.1
84	2500	1.7	17.39	II	"	6200	25000	102	2050	2.1
70	3000	1.55	21.04	n .	"	6400	26300	84	2500	1.85
60	3500	1.45	24.55	II .	"	7000	27700	72	2900	1.75
54	3850	1.35	27.29	II .	"	7000	28400	65	3200	1.65
46	4550	1.15	31.84	п	II .	7700	30000	56	3750	1.4
40	5200	1.0	36.88	II .	"	7900	31100	48	4350	1.2
34	6100	0.85	43.02	"	"	8700	32800	41	5100	1.0
128	1640	2.2	11.42	BF80/DSE18LA4	473	8900	32200	155	1350	2.7
89	2350	2.3	16.49	m m	"	11400	41400	107	1960	2.7
63	3300	1.9	23.29	"	II .	11800	44900	76	2750	2.3
48.5	4300	1.65	30.21	m	"	12300	47900	59	3550	2.0
43.5	4800	1.6	33.61	п	"	11700	48400	53	3950	1.95
38.5	5400	1.5	38.14	m .	"	12200	50300	46.5	4500	1.8
31	6700	1.3	47.46	"	"	13400	53700	37.5	5600	1.55
27.5	7600	1.2	53.86	"	"	14000	55800	33	6300	1.4
24	8700	1.05	61.55	m .	"	14800	58100	29	7200	1.3
21	10000	0.95	69.86	m .	"	15900	60600	25.5	8200	1.15
18	11600	0.82	83.16	"	II	18400	65100	21.5	9700	0.98
61	3400	3.3	23.95	BF90/DSE18LA4	725	11100	54300	74	2800	4.0
43.5	4800	2.7	33.71	"	II .	11900	59300	53	3950	3.3
39	5300	2.5	37.54	m	"	12700	61500	47	4450	3.0
31.5	6600	2.1	46.43	m	"	13800	65500	38	5500	2.6
28.5	7300	2.0	51.70	m .	"	14600	67800	34.5	6000	2.4
23	9100	1.7	63.49	m m	"	15800	72000	28	7500	2.1
21	10000	1.6	70.69	m m	"	16800	74700	25	8400	1.9
18.5	11300	1.45	80.85	"	"	17500	77500	22	9500	1.75
16.5	12700	1.3	90.02	п	"	18900	80600	20	10500	1.6
14	15000	1.1	107.5	"	"	22300	86900	16.5	12700	1.3
12.5	16800	1.0	119.7	"	"	24500	90800	15	14000	1.2
10.5	20000	0.84	139.1	II .	"	27700	96300	13	16100	1.05

P = 30 kW

BF-series shaft-mounted geared motors Selection - shaft-mounted geared motors DSE -IE1



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		• •				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
142	2000	1.25	10.32	BF70/DSE18XA4	395	4600	18700	171	1670	1.5
122	2300	1.3	12.04	m	11	4900	19700	147	1940	1.5
98	2900	1.25	14.90	"	II .	5900	24000	119	2400	1.5
84	3400	1.25	17.39	"	II .	6200	25000	102	2800	1.5
70	4050	1.15	21.04	"	"	6400	26300	84	3400	1.35
60	4750	1.05	24.55	"	II .	7000	27700	72	3950	1.25
54	5300	0.98	27.29	"	II .	7000	28400	65	4400	1.2
46	6200	0.84	31.84	II	"	7700	30000	56	5100	1.0
				/2						
128	2200	1.65	11.42	BF80/DSE18XA4	491 "	8900	32200	155	1840	2.0
89	3200	1.65	16.49	" "	"	11400	41400	107	2650	2.0
63	4500	1.4	23.29	" "	"	11800	44900	76	3750	1.7
48.5	5900	1.2	30.21		"	12300	47900	59	4850	1.45
43.5	6500	1.2	33.61	"		11700	48400	53	5400	1.45
38.5	7400	1.1	38.14	"	"	12200	50300	46.5	6100	1.3
31	9200	0.94	47.46	"	"	13400	53700	37.5	7600	1.15
27.5	10400	0.86	53.86	"	"	14000	55800	33	8600	1.05
118	2400	3.0	12.45	BF90/DSE18XA4	743	8000	39700	142	2000	3.6
84	3400	3.0	17.39	II .	11	10000	49500	102	2800	3.6
61	4650	2.4	23.95	m .	II .	11100	54300	74	3850	2.9
43.5	6500	2.0	33.71	m .	II .	11900	59300	53	5400	2.4
39	7300	1.8	37.54	"	II .	12700	61500	47	6000	2.2
31.5	9000	1.55	46.43	"	II .	13800	65500	38	7500	1.9
28.5	10000	1.45	51.70	m .	II .	14600	67800	34.5	8300	1.75
23	12400	1.25	63.49	"	II .	15800	72000	28	10200	1.5
21	13600	1.15	70.69	п	"	16800	74700	25	11400	1.4
18.5	15400	1.05	80.85	m m	II .	17500	77500	22	13000	1.25
16.5	17300	0.97	90.02	m m	II .	18900	80600	20	14300	1.15
14	20400	0.82	107.5	TI .	II .	22300	86900	16.5	17300	0.97

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 0.03 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	_			kg	N	N	1/min	Nm	-
9.0	31.5	7.6	151.2	BF10Z/D04LA4	21	6400	-	11	26	9.2
8.2	34.5	7.0	166.2	"	II .	6400	-	9.8	29	8.3
7.5	38	6.3	180.1	"	II .	6400	-	9.0	31.5	7.6
6.9	41.5	5.8	198.0	"	"	6400	-	8.2	34.5	7.0
6.3	45	5.3	214.5	"	"	6400	-	7.6	37.5	6.4
5.8	49	4.9	235.8	"	"	6400	-	6.9	41.5	5.8
5.3	54	4.4	257.4	"	"	6400	-	6.3	45	5.3
4.8	59	4.1	283.1	" "	"	6400	-	5.8	49	4.9
4.2	68	3.5	324.3		"	6400	-	5.0	57	4.2
3.8 3.6	75 79	3.2 3.0	356.6 380.2	п	"	6400 6400	-	4.6 4.3	62	3.9 3.6
3.3	79 86	2.8	418.0	m .	"	6400	-	3.9	66 73	3.3
2.9	98	2.4	469.5	n .	"	6400	_	3.5	81	3.0
2.6	110	2.2	539.1	n .	"	6400	_	3.1	92	2.6
2.3	124	1.95	592.8	TI TI	II .	6400	_	2.8	102	2.4
1.8	97	2.7	768.2	BF10G06/D04LA4	25	6400	_	2.2	68	3.8
1.6	110	2.4	845.1	"	"	6400	_	2.0	75	3.5
1.4	130	2.0	994.0	m .	II .	6400	_	1.7	94	2.8
1.2	159	1.65	1190	m .	II .	6400	-	1.4	125	2.1
0.95	210	1.25	1452	m .	II .	6400	-	1.2	150	1.75
0.8	260*	1.0	1744	"	II .	6400	-	0.95	260	1.0
0.65	260*	1.0	2096	m m	"	6400	-	0.8	260	1.0
0.55	260*	1.0	2467	m m	"	6400	-	0.7	260	1.0
0.46	260*	1.0	2952	"	II .	6400	-	0.55	260	1.0
0.42	260*	1.0	3220	"	"	6400	-	0.55	260	1.0
0.35	260*	1.0	3942	"	"	6400	-	0.42	260	1.0
0.3	260*	1.0	4569	"	"	6400	-	0.36	260	1.0
0.24	260*	1.0	5709		"	6400	-	0.29	260	1.0
0.21	260*	1.0	6550	"	"	6400	-	0.25	260	1.0
0.19	260*	1.0	7144	"	"	6400	-	0.23	260	1.0
0.16	260*	1.0	8681	"	"	6400	-	0.19	260	1.0
0.15	260*	1.0	9471			6400	-	0.18	260	1.0
1 2	163	2.0	1140	BF20G06/D04LA4	31	7900	_	1 5	11/	4.0
1.2 1.0	162 200	2.8 2.3	1140 1392	BF20G06/D04LA4	31	7900 7900	-	1.5 1.2	114 154	4.0 3.0
0.9	230	2.0	1533	n .	II.	7900	_	1.1	173	2.7
0.8	265	1.75	1764	n	II.	7900	_	0.95	210	2.2
0.65	345	1.35	2192	n .	п	7900	_	0.75	285	1.6
0.55	410	1.1	2579	11	II .	7900	_	0.65	330	1.4
0.48	460*	1.0	2829	n .	II .	7900	_	0.6	460	1.0
0.44	460*	1.0	3086	m m	II .	7900	_	0.55	460	1.0
0.36	460*	1.0	3778	II .	II .	7900	-	0.43	460	1.0
0.31	460*	1.0	4379	II	II .	7900	-	0.37	460	1.0
0.25	460*	1.0	5471	n n	"	7900	-	0.3	460	1.0
0.2	460*	1.0	6847	"	II .	7900	-	0.24	460	1.0
0.17	460*	1.0	8320	"	"	7900	-	0.2	460	1.0
0.15	460*	1.0	9077	"	II	7900	-	0.18	460	1.0
1.0	200	3.2	1404	BF30G06/D04LA4	41 "	7400	-	1.2	153	4.1
0.85	245	2.6	1686	"	"	7400	-	1.0	196	3.2
0.7	315	2.0	2026	" "	"	7400	-	0.8	260	2.4
0.6	370	1.7	2386	"	"	7400	-	0.7	305	2.1
0.48	485	1.3	2854	" "	"	7400	-	0.6	365	1.75
0.39	610 620*	1.05	3493	 II	"	7400	-	0.47	485	1.3
0.36	630* 630*	1.0	3811 4417	 II	"	7400 7400	-	0.43	630 630	1.0
0.31 0.27	630* 630*	1.0 1.0	4417 5060	 II	11	7400 7400	-	0.37 0.33	630 630	1.0 1.0
0.27	630*	1.0	6333	m .	II.	7400 7400	-	0.33	630	1.0
0.22	630*	1.0	7206	II.	II .	7400	-	0.28	630	1.0
0.19	630*	1.0	7200 7861	п	11	7400	_	0.23	630	1.0
0.15	630*	1.0	9157	II .	II .	7400	_	0.21	630	1.0
J		1.0	7131			, 100		0.10		1.0

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 0.04 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		,,				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm	-			kg	N	N	1/min	Nm	
9.0	42	5.7	151.2	BF10Z/D04LA4	21	6400	-	11	34.5	7.0
8.2	46.5	5.2	166.2	"	II .	6400	-	9.8	38.5	6.2
7.5	50	4.8	180.1	"	"	6400	-	9.0	42	5.7
6.9	55	4.4	198.0	"	II .	6400	-	8.2	46.5	5.2
6.3	60	4.0	214.5	"	"	6400	-	7.6	50	4.8
5.8	65	3.7	235.8	"	"	6400	-	6.9	55	4.4
5.3	72	3.3	257.4	"	II .	6400	-	6.3	60	4.0
4.8	79	3.0	283.1	"	II .	6400	-	5.8	65	3.7
4.2	90	2.7	324.3	"	II .	6400	-	5.0	76	3.2
3.8	100	2.4	356.6	"	II .	6400	-	4.6	83	2.9
3.6	106	2.3	380.2	"	II .	6400	-	4.3	88	2.7
3.3	115	2.1	418.0	"	II .	6400	-	3.9	97	2.5
2.9	131	1.85	469.5	"	II .	6400	-	3.5	109	2.2
2.6	146	1.65	539.1	"	II .	6400	-	3.1	123	1.95
2.3	166	1.45	592.8	"	II .	6400	-	2.8	136	1.75
2.1	119	2.2	643.8	BF10G06/D04LA4	25	6400	-	2.6	84	3.1
1.8	150	1.75	768.2	"	II .	6400	-	2.2	111	2.3
1.6	170	1.55	845.1	"	II .	6400	-	2.0	122	2.1
1.4	199	1.3	994.0	"	II .	6400	-	1.7	150	1.75
1.2	235	1.1	1190	"	"	6400	-	1.4	193	1.35
3.0	127	3.3	460.0	BF20Z/D04LA4	28	7900	-	3.6	106	4.0
1.9	141	3.3	736.1	BF20G06/D04LA4	31	7900	-	2.3	106	4.3
1.7	159	2.9	810.0	"	"	7900	-	2.0	125	3.7
1.5	183	2.5	952.7	"	"	7900	-	1.8	141	3.3
1.2	240	1.9	1140	"	"	7900	-	1.5	178	2.6
1.0	295	1.55	1392	"	"	7900	-	1.2	230	2.0
0.9	335	1.35	1533	"	II .	7900	-	1.1	260	1.75
0.8	385	1.2	1764	II	"	7900	-	0.95	310	1.5
1.2	240	2.6	1150	BF30G06/D04LA4	41	7400	_	1.5	177	3.6
1.1	265	2.4	1286	"	"	7400	_	1.3	210	3.0
1.0	295	2.1	1404	"	II .	7400	_	1.2	230	2.7
0.85	355	1.75	1686	"	II .	7400	_	1.0	290	2.2
0.7	450	1.4	2026	"	II .	7400	_	0.8	380	1.65
0.6	530	1.2	2386	"	"	7400	_	0.7	440	1.45

P = 0.06 kW

	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
24	23.5	10	56.39	BF10/D06LA4	23	4550	-	29	19.7	12
22	26	9.2	61.55	n n	"	4700	-	26.5	21.5	11
20	28.5	8.4	67.69	m	II .	4900	-	24	23.5	10
17.5	32.5	7.4	77.55	m	II .	5100	-	21	27	8.9
16	35.5	6.8	85.27	m	II .	5300	-	19	30	8.0
15	38	6.3	90.91	m	II .	5400	-	18	31.5	7.6
14	40.5	5.9	99.97	m	II .	5600	-	16.5	34.5	7.0
12.5	45.5	5.3	112.3	n n	"	5900	-	14.5	39.5	6.1
11	52	4.6	123.5	n n	"	6100	-	13.5	42	5.7
10.5	54	4.4	128.9	"	"	6200	-	13	44	5.5
9.6	59	4.1	141.8	"	"	6400	-	11.5	49.5	4.8
7.5	76	3.2	180.1	BF10Z/D06LA4	24	6400	-	9.0	63	3.8
6.9	83	2.9	198.0	"	"	6400	-	8.2	69	3.5
6.3	90	2.7	214.5	"	"	6400	-	7.6	75	3.2
5.8	98	2.4	235.8	"	ıı .	6400	-	6.9	83	2.9
5.3	108	2.2	257.4	"	"	6400	-	6.3	90	2.7
4.8	119	2.0	283.1	II	"	6400	-	5.8	98	2.4

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 0.06 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
4.2	136	1.75	324.3	BF10Z/D06LA4	II .	6400	-	5.0	114	2.1
3.8	150	1.6	356.6	m	"	6400	-	4.6	124	1.95
3.6	159	1.5	380.2	m	II .	6400	-	4.3	133	1.8
3.3	173	1.4	418.0	п	II .	6400	-	3.9	146	1.65
2.9	197	1.2	469.5	"	"	6400	-	3.5	163	1.45
2.6	220	1.1	539.1	m m	II .	6400	-	3.1	184	1.3
2.3	245	0.98	592.8	m m	II .	6400	-	2.8	200	1.2
2.1	210	1.25	643.8	BF10G06/D06LA4	28	6400	-	2.6	157	1.65
1.8	255	1.0	768.2	m m	II .	6400	-	2.2	198	1.3
1.6	290	0.9	845.1	m m	II .	6400	-	2.0	215	1.2
4.2	136	3.1	325.2	BF20Z/D06LA4	31	7900	-	5.0	114	3.7
4.0	143	2.9	339.1	"	"	7900	-	4.8	119	3.5
3.7	154	2.7	373.1	II .	"	7900	-	4.4	130	3.2
3.3	173	2.4	418.1	II .	"	7900	-	3.9	146	2.9
3.0	191	2.2	460.0	п	II .	7900	-	3.6	159	2.6
2.7	157	2.9	513.7	BF20G06/D06LA4	34	7900	-	3.2	124	3.7
2.2	200	2.3	617.0	"	"	7900	-	2.7	152	3.0
1.9	240	1.9	736.1	m .	II .	7900	_	2.3	189	2.4
1.7	270	1.7	810.0	п	II .	7900	_	2.0	220	2.1
1.5	310	1.5	952.7	п	II .	7900	_	1.8	245	1.9
1.2	400	1.15	1140	п	II .	7900	_	1.5	305	1.5
1.0	485	0.95	1392	п	II .	7900	_	1.2	390	1.2
		0.20				,,,,,			220	
3.3	173	3.3	412.6	BF30Z/D06LA4	42	7400	-	4.0	143	4.0
3.0	191	3.0	463.3	11	"	7400	_	3.5	163	3.5
2.6	220	2.6	537.0	п	II .	7400	_	3.1	184	3.1
2.3	245	2.3	590.7	п	II .	7400	_	2.8	200	2.9
2.2	200	3.2	622.4	BF30G06/D06LA4	45	7400	_	2.7	151	4.2
2.0	225	2.8	705.1	"	"	7400	_	2.3	192	3.3
1.7	270	2.3	817.1	TI TI	II .	7400	_	2.0	220	2.9
1.5	310	2.0	961.1	п	II .	7400	_	1.7	265	2.4
1.2	400	1.6	1150	п	II .	7400	_	1.5	305	2.1
1.1	435	1.45	1286	п	"	7400	_	1.3	355	1.75
1.0	485	1.3	1404	п	II .	7400	_	1.2	390	1.6
0.85	580	1.1	1686	п	II .	7400	_	1.0	480	1.3
0.95	340	2.9	1484	BF40G10/D06LA4	58	10600	-	1.1	255	3.9
0.75	460	2.2	1810	11	11	10600	-	0.9	335	3.0
0.7	500	2.0	1997	п	II .	10600	-	0.85	360	2.8
0.55	710	1.4	2536	m .	II	10600	-	0.65	550	1.8
0.49	840	1.2	2810	п	II .	10600	-	0.6	620	1.6
0.7	520	2.7	2059	BF50G10/D06LA4	86	13600	-	0.8	415	3.4
0.6	640	2.2	2360	"	"	13600	-	0.7	510	2.7
0.49	860	1.65	2810	m .	II .	13600	-	0.6	640	2.2
0.41	1090	1.3	3348	п	"	13600	-	0.49	860	1.65
0.34	1370	1.0	4019	II .	II .	13600	-	0.41	1090	1.3
0.42	860	2.9	3237	BF60G20/D06LA4	134	15300	43300	0.55	530	4.7
0.35	1130	2.2	3883	m .	II .	15300	43300	0.42	860	2.9
0.3	1400	1.8	4646	m .	II .	15300	43300	0.35	1130	2.2
0.26	1700	1.45	5241	m .	II .	15300	43300	0.31	1340	1.85
0.23	1980	1.25	6014	m .	II .	15300	43300	0.27	1620	1.55
0.21	2200	1.15	6679	п	II .	15300	43300	0.25	1790	1.4
0.24	1890	3.0	5691	BF70G20/D06LA4	212	16100	47700	0.29	1480	3.9
0.21	2200	2.6	6530	"	II .	16100	47700	0.25	1800	3.2
0.19	2500	2.3	7248	m .	II .	16100	47700	0.23	2000	2.9
0.17				m .	II .					2.6
0.21 0.19	2200	2.6	6530	11 11	"	16100	47700	0.25	1800	

Selection - parallel shaft geared motors DHE - IE2

BF-series paralle shaft geared motors

P = 0.09 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		· ·				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
34	25	9.6	39.75	BF10/D06LA4	23	3950	-	41	20.5	12
31.5	27	8.9	43.06	m m	II .	4100	-	38	22.5	11
29	29.5	8.1	47.35	"	"	4250	-	34.5	24.5	9.8
26.5	32	7.5	51.28	"	II .	4400	-	32	26.5	9.1
24	35.5	6.8	56.39	"	"	4550	-	29	29.5	8.1
22	39	6.2	61.55	"	"	4700	-	26.5	32	7.5
20	42.5	5.6	67.69	"	"	4900	-	24	35.5	6.8
17.5	49	4.9	77.55	"	"	5100	-	21	40.5	5.9
16	53	4.5	85.27	II II	"	5300	-	19	45	5.3
15	57	4.2	90.91	"	"	5400	-	18	47.5	5.1
14	61	3.9	99.97		"	5600	-	16.5	52	4.6
12.5	68	3.5	112.3		"	5900	-	14.5	59	4.1
11	78	3.1	123.5	 II	"	6100	-	13.5	63	3.8
10.5	81	3.0	128.9		"	6200	-	13	66	3.6
9.6 9.0	89 95	2.7 2.5	141.8 151.2	BF10Z/D06LA4	24	6400 6400	-	11.5 11	74 78	3.2 3.1
9.0 8.2	95 104	2.3	166.2	BF 102/D06LA4	2 4	6400	-	9.8	76 87	2.8
7.5	114	2.3	180.2	"	"	6400	-	9.8	87 95	2.8
6.9	124	1.95	198.0	m .	II .	6400	-	8.2	95 104	2.3
6.3	136	1.75	214.5	m .	II .	6400	_	7.6	113	2.1
5.8	148	1.75	235.8	m .	"	6400	-	6.9	124	1.95
5.3	162	1.5	257.4	m .	II.	6400	_	6.3	136	1.75
4.8	179	1.35	283.1	II .	II.	6400	_	5.8	148	1.6
4.2	200	1.2	324.3	TI TI	II .	6400	_	5.0	171	1.4
3.8	225	1.05	356.6	"	II .	6400	_	4.6	186	1.3
3.6	235	1.0	380.2	"	II .	6400	_	4.3	199	1.2
3.3	260	0.92	418.0	· ·	II .	6400	_	3.9	220	1.1
2.9	295	0.81	469.5	· ·	II .	6400	_	3.5	245	0.98
2.6	270	0.96	536.0	BF10G06/D06LA4	28	6400	-	3.1	220	1.2
6.3	136	3.1	216.9	BF20Z/D06LA4	31	7900	_	7.5	114	3.7
5.8	148	2.8	235.9	п	II .	7900	-	6.9	124	3.4
5.3	162	2.6	259.6	m .	II .	7900	-	6.3	136	3.1
4.6	186	2.3	295.5	п	II .	7900	-	5.5	156	2.7
4.2	200	2.1	325.2	"	II .	7900	-	5.0	171	2.5
4.0	210	2.0	339.1	"	"	7900	-	4.8	179	2.3
3.7	230	1.85	373.1	"	II .	7900	-	4.4	195	2.2
3.3	260	1.6	418.1	"	"	7900	-	3.9	220	1.9
3.0	285	1.45	460.0	"	"	7900	-	3.6	235	1.8
2.7	260	1.75	513.7	BF20G06/D06LA4	34	7900	-	3.2	210	2.2
2.2	330	1.4	617.0		"	7900	-	2.7	255	1.8
1.9	390	1.2	736.1	"	"	7900	-	2.3	310	1.5
1.7	440	1.05	810.0	"	"	7900	-	2.0	360	1.3
1.5	500	0.92	952.7	"		7900	-	1.8	405	1.15
4.7	182	3.2	289.8	BF30Z/D06LA4	42	7400	-	5.6	153	3.8
4.4	195	2.9	310.7	п	"	7400	-	5.3	162	3.5
4.0	210	2.7	341.8	m .	II .	7400	-	4.8	179	3.2
3.6	235	2.4	375.1	m .	II .	7400	-	4.4	195	2.9
3.3	260	2.2	412.6	m m	"	7400	-	4.0	210	2.7
3.0	285	2.0	463.3	m m	"	7400	-	3.5	245	2.3
2.6	330	1.75	537.0	"	"	7400	-	3.1	275	2.1
2.3	370	1.55	590.7	II	"	7400	-	2.8	305	1.9
2.2	330	1.9	622.4	BF30G06/D06LA4	45	7400	-	2.7	255	2.5
2.0	370	1.7	705.1	"	"	7400	-	2.3	315	2.0
1.7	435	1.45	817.1	"	"	7400	-	2.0	360	1.75
1.5	500	1.25	961.1	"	"	7400	-	1.7	430	1.45
1.2	630	1.0	1150	"	"	7400	-	1.5	495	1.25
1.1	690	0.91	1286	"	"	7400	-	1.3	570	1.1
1.0	770	0.82	1404	"	"	7400	-	1.2	630	1.0

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 0.09 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7.				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
3.0	285	3.2	459.1	BF40Z/D06LA4	53	10600	-	3.6	235	3.8
2.7	315	2.9	514.6	"	II .	10600	-	3.2	265	3.4
2.4	355	2.5	566.1	"	II .	10600	-	2.9	295	3.1
1.5	350	2.9	928.9	BF40G10/D06LA4	58	10600	-	1.8	255	3.9
1.3	420	2.4	1106	"	II .	10600	-	1.5	330	3.0
1.1	540	1.85	1324	· ·	"	10600	-	1.3	425	2.4
0.95	640	1.55	1484	· ·	"	10600	-	1.1	510	1.95
0.75	840	1.2	1810	"	"	10600	-	0.9	650	1.55
0.7	910	1.1	1997	"	"	10600	-	0.85	690	1.45
1.2	500	2.8	1203	BF50G10/D06LA4	86	13600	-	1.4	400	3.5
1.0	620	2.3	1359	II .	II .	13600	-	1.2	475	2.9
0.9	680	2.1	1520	II .	II .	13600	-	1.1	510	2.7
0.85	730	1.9	1684	II .	II .	13600	-	1.0	570	2.5
0.7	920	1.5	2059	m .	II .	13600	-	0.8	770	1.8
0.6	1120	1.25	2360	II	II .	13600	-	0.7	920	1.5
0.7	780	3.2	1955	BF60G20/D06LA4	134	15300	43300	0.85	560	4.5
0.65	860	2.9	2172	II .	II .	15300	43300	0.75	680	3.7
0.49	1250	2.0	2781	II .	II .	15300	43300	0.6	930	2.7
0.42	1540	1.6	3237	п	II	15300	43300	0.55	1060	2.4
0.35	1950	1.3	3883	II.	II .	15300	43300	0.42	1540	1.6
0.3	2350	1.05	4646	"	II .	15300	43300	0.35	1950	1.3
0.34	2000	2.9	4090	BF70G20/D06LA4	212	16100	47700	0.4	1650	3.5
0.3	2350	2.4	4542	II .	II .	16100	47700	0.36	1890	3.0
0.27	2650	2.2	5124	п	II .	16100	47700	0.32	2150	2.7
0.24	3050	1.85	5691	II .	II .	16100	47700	0.29	2450	2.3
0.21	3600	1.6	6530	II .	II .	16100	47700	0.25	2900	1.95
0.19	4000	1.45	7248	II .	II .	16100	47700	0.23	3200	1.8
0.17	4550	1.25	8052	TI .	ıı .	16100	47700	0.21	3600	1.6

P = 0.12 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
47.5	24	10	28.47	BF10/D06LA4	23	3450	-	57	20	12
43.5	26	9.2	31.31	m	II .	3600	-	52	22	11
37.5	30.5	7.9	36.15	m	II .	3800	-	45	25	9.6
34	33.5	7.2	39.75	m	II .	3950	-	41	27.5	8.7
31.5	36	6.7	43.06	"	"	4100	-	38	30	8.0
29	39.5	6.1	47.35	"	"	4250	-	34.5	33	7.3
26.5	43	5.6	51.28	"	"	4400	-	32	35.5	6.8
24	47.5	5.1	56.39	"	"	4550	-	29	39.5	6.1
22	52	4.6	61.55	"	"	4700	-	26.5	43	5.6
20	57	4.2	67.69	"	"	4900	-	24	47.5	5.1
17.5	65	3.7	77.55	"	"	5100	-	21	54	4.4
16	71	3.4	85.27	"	"	5300	-	19	60	4.0
15	76	3.2	90.91	"	"	5400	-	18	63	3.8
14	81	3.0	99.97	"	"	5600	-	16.5	69	3.5
12.5	91	2.6	112.3	"	"	5900	-	14.5	79	3.0
11	104	2.3	123.5	"	"	6100	-	13.5	84	2.9
10.5	109	2.2	128.9	"	"	6200	-	13	88	2.7
9.6	119	2.0	141.8	"	"	6400	-	11.5	99	2.4
9.0	127	1.9	151.2	BF10Z/D06LA4	24	6400	-	11	104	2.3
8.2	139	1.75	166.2	"	"	6400	-	9.8	116	2.1
7.5	152	1.6	180.1	"	"	6400	-	9.0	127	1.9
6.9	166	1.45	198.0	"	"	6400	-	8.2	139	1.75
6.3	181	1.35	214.5	"	II .	6400	-	7.6	150	1.6

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 0.12 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		71		1114		n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
5.8	197	1.2	235.8	BF10Z/D06LA4	"	6400	-	6.9	166	1.45
5.3	215	1.1	257.4	m .	II .	6400	_	6.3	181	1.35
4.8	235	1.0	283.1	"	11	6400	_	5.8	197	1.2
4.2	270	0.89	324.3	m m	"	6400	_	5.0	225	1.05
3.8	300	0.8	356.6	m m	"	6400	_	4.6	245	0.98
3.6	275	0.95	377.9	BF10G06/D06LA4	28	6400	_	4.3	225	1.15
3.2	310	0.84	424.5	"	"	6400	-	3.9	245	1.05
8.7	131	3.2	155.4	BF20Z/D06LA4	31	7900	-	10.5	109	3.9
8.3	138	3.0	164.3	"	"	7900	-	9.9	115	3.7
7.5	152	2.8	180.8	II	"	7900	-	9.0	127	3.3
6.9	166	2.5	197.1	"	"	7900	-	8.3	138	3.0
6.3	181	2.3	216.9	"	"	7900	-	7.5	152	2.8
5.8	197	2.1	235.9	"	"	7900	-	6.9	166	2.5
5.3	215	1.95	259.6	"	"	7900	-	6.3	181	2.3
4.6	245	1.7	295.5	"	"	7900	-	5.5	205	2.0
4.2	270	1.55	325.2	"	II .	7900	-	5.0	225	1.85
4.0	285	1.45	339.1	"	II .	7900	-	4.8	235	1.8
3.7	305	1.4	373.1	"	II .	7900	-	4.4	260	1.6
3.3	345	1.2	418.1	m m	"	7900	-	3.9	290	1.45
3.0	380	1.1	460.0	"	"	7900	-	3.6	315	1.35
2.7	370	1.25	513.7	BF20G06/D06LA4	34	7900	-	3.2	300	1.55
2.2	460	1.0	617.0	"	"	7900	-	2.7	360	1.3
1.9	540	0.85	736.1	"	"	7900	-	2.3	435	1.05
6.1	187	3.1	224.8	BF30Z/D06LA4	42	7400	_	7.3	156	3.7
5.5	205	2.8	247.3	" "	"	7400	_	6.6	173	3.3
5.2	220	2.6	263.5	TI .	II .	7400	_	6.2	184	3.1
4.7	240	2.4	289.8	п	п	7400	_	5.6	200	2.9
4.4	260	2.2	310.7	n .	"	7400	_	5.3	215	2.7
4.0	285	2.0	341.8	n .	"	7400	_	4.8	235	2.4
3.6	315	1.85	375.1	n n	"	7400	_	4.4	260	2.2
3.3	345	1.65	412.6	п	II .	7400	_	4.0	285	2.0
3.0	380	1.5	463.3	II .	II .	7400	_	3.5	325	1.75
2.6	440	1.3	537.0	II .	II .	7400	_	3.1	365	1.6
2.3	495	1.15	590.7	m .	II .	7400	_	2.8	405	1.4
2.2	460	1.35	622.4	BF30G06/D06LA4	45	7400	-	2.7	360	1.75
2.0	510	1.25	705.1	m .	"	7400	-	2.3	440	1.45
1.7	600	1.05	817.1	"	II .	7400	-	2.0	500	1.25
1.5	690	0.91	961.1	II	"	7400	-	1.7	600	1.05
4.2	270	3.3	324.7	BF40Z/D06LA4	53	10600		5.0	225	4.0
3.9	290	3.1	346.8	BF402/D00LA4	"	10600	_	4.7	240	3.8
3.6	315	2.9	381.5	m .	"	10600	_	4.7	265	3.4
3.3	345	2.6	417.3	II .	"	10600	_	3.9	290	3.1
3.0	380	2.4	459.1	11	"	10600	_	3.6	315	2.9
2.7	420	2.1	514.6	II .	"	10600	_	3.2	355	2.5
2.4	475	1.9	566.1	11	"	10600	_	2.9	395	2.3
2.3	310	3.2	597.3	BF40G10/D06LA4	58	10600	_	2.8	220	4.5
1.9	395	2.5	731.6	"	"	10600	_	2.3	290	3.4
1.5	540	1.85	928.9	n .	"	10600	_	1.8	410	2.4
1.3	640	1.55	1106	n .	"	10600	_	1.5	520	1.9
1.1	800	1.25	1324	n .	"	10600	-	1.3	640	1.55
0.95	940	1.05	1484	II.	II .	10600	-	1.1	780	1.3
2.0	405	2.5	106.1	DEFO7 /DOC! 5.4	0.3	12600		2.2	245	2.0
2.8	405	3.2	496.4	BF50Z/D06LA4	82	13600	-	3.3	345	3.8
2.5	455 500	2.9	555.2	 PEEOC10 /POCLA4		13600	-	3.0	380	3.4
1.6	500	2.8	864.5	BF50G10/D06LA4	86	13600	-	1.9	395	3.5
1.4	590 740	2.4	1029		"	13600	-	1.6	490	2.9
1.2	740	1.9	1203	" "	"	13600	-	1.4	600	2.3
1.0	900	1.55	1359		"	13600	-	1.2	710 770	1.95
0.9 0.85	1000	1.4	1520	п		13600 13600	-	1.1	770 860	1.8 1.65
0.85 0.7	1060 1330	1.3	1684	п			-	1.0 0.8		1.05
U./	1330	1.05	2059			13600	-	0.0	1130	1.25

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 0.12 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
0.95	820	3.0	1494	BF60G20/D06LA4	134	15300	43300	1.1	660	3.8
0.85	920	2.7	1658	"	"	15300	43300	1.0	720	3.5
0.7	1190	2.1	1955	"	"	15300	43300	0.85	900	2.8
0.65	1300	1.9	2172	"	"	15300	43300	0.75	1060	2.4
0.49	1830	1.35	2781	"	"	15300	43300	0.6	1400	1.8
0.42	2200	1.15	3237	"	II.	15300	43300	0.55	1580	1.6
0.48	1890	3.0	2849	BF70G20/D06LA4	212	16100	47700	0.6	1410	4.0
0.4	2350	2.4	3417	"	"	16100	47700	0.48	1890	3.0
0.34	2850	2.0	4090	"	"	16100	47700	0.4	2350	2.4
0.3	3300	1.75	4542	"	"	16100	47700	0.36	2650	2.2
0.27	3750	1.5	5124	"	"	16100	47700	0.32	3050	1.85
0.24	4250	1.35	5691	"	"	16100	47700	0.29	3450	1.65
0.21	4950	1.15	6530	"	"	16100	47700	0.25	4050	1.4
0.19	5500	1.05	7248	"	"	16100	47700	0.23	4450	1.3
0.19	5500	1.05	7248	"	"	16100	47700	0.23	4450	1.3

P = 0.18 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		• •				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
177	9.7	7.0	7.66	BF06/D05LA4	10	1800	-	215	7.9	8.6
147	11.6	6.0	9.21	"	II .	1900	-	176	9.7	7.2
112	15.3	4.9	12.07	"	II .	2000	-	135	12.7	5.9
96	17.9	4.7	14.21	"	II .	2100	-	115	14.9	5.7
80	21	4.5	16.99	"	II .	2500	-	96	17.9	5.3
67	25.5	3.7	20.42	"	"	2700	-	80	21	4.5
51	33.5	2.8	26.76	"	II .	3000	-	61	28	3.4
43	39.5	2.4	31.50	"	"	3200	-	52	33	2.9
36	47.5	2.0	37.69	"	II .	3500	-	43	39.5	2.4
29.5	58	1.65	46.14	"	"	3800	-	35.5	48	2.0
23.5	73	1.3	58.33	"	"	4000	-	28	61	1.55
20.5	83	1.15	66.82	"	II .	4000	-	24.5	70	1.35
16.5	104	0.91	83.61	"	"	4000	-	19.5	88	1.1
14.5	118	0.81	95.16	"	"	4000	-	17.5	98	0.97
22	78	3.1	61.55	BF10/D06LA4	23	4700	_	26.5	64	3.8
20	85	2.8	67.69	m m	"	4900	-	24	71	3.4
17.5	98	2.4	77.55	"	II .	5100	-	21	81	3.0
16	107	2.2	85.27	"	II .	5300	-	19	90	2.7
15	114	2.1	90.91	"	"	5400	-	18	95	2.5
14	122	1.95	99.97	"	"	5600	-	16.5	104	2.3
12.5	137	1.75	112.3	"	"	5900	-	14.5	118	2.0
11	156	1.55	123.5	"	"	6100	-	13.5	127	1.9
10.5	163	1.45	128.9	"	"	6200	-	13	132	1.8
9.6	179	1.35	141.8	"	"	6400	-	11.5	149	1.6
9.0	191	1.25	151.2	BF10Z/D06LA4	24	6400	-	11	156	1.55
8.2	205	1.15	166.2	"	II .	6400	-	9.8	175	1.35
7.5	225	1.05	180.1	"	II .	6400	-	9.0	191	1.25
6.9	245	0.98	198.0	II .	II .	6400	-	8.2	205	1.15
6.3	270	0.89	214.5	II .	"	6400	-	7.6	225	1.05
5.8	295	0.81	235.8	"	"	6400	-	6.9	245	0.98
13.5	127	3.3	100.2	BF20/D06LA4	30	7000	-	16.5	104	4.0
12.5	137	3.1	110.2	"	"	7300	-	15	114	3.7
11	156	2.7	123.5	m	II .	7600	-	13.5	127	3.3
10	171	2.5	135.9	m	II .	7900	-	12	143	2.9
9.6	179	2.3	141.2	BF20Z/D06LA4	31	7900	-	11.5	149	2.8
8.7	197	2.1	155.4	"	"	7900	-	10.5	163	2.6
8.3	205	2.0	164.3	"	"	7900	-	9.9	173	2.4
7.5	225	1.85	180.8	"	II .	7900	-	9.0	191	2.2
6.9	245	1.7	197.1	"	"	7900	-	8.3	205	2.0
6.3	270	1.55	216.9	п	"	7900	-	7.5	225	1.85

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 0.18 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		,,				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg "	N	N	1/min	Nm	
5.8	295	1.4	235.9	BF20Z/D06LA4	"	7900	-	6.9	245	1.7
5.3 4.6	320 370	1.3 1.15	259.6 295.5	"	"	7900 7900	-	6.3 5.5	270 310	1.55 1.35
4.2	405	1.05	325.2	m .	"	7900	-	5.0	340	1.25
4.0	425	0.99	339.1	m .	II .	7900	_	4.8	355	1.2
3.7	460	0.91	373.1	m .	II .	7900	-	4.4	390	1.1
3.3	520	0.81	418.1	II .	II .	7900	-	3.9	440	0.95
9.9	173	3.3	137.1	BF30/D06LA4	40	7400	_	12	143	4.0
9.0	191	3.0	150.7	BF30Z/D06LA4	42	7400	_	11	156	3.7
8.2	205	2.8	165.8	"	II .	7400	-	9.8	175	3.3
7.7	220	2.6	176.6	"	II .	7400	-	9.2	186	3.1
7.0	245	2.3	194.3	"	"	7400	-	8.4	200	2.9
6.1	280	2.1	224.8		"	7400	-	7.3	235	2.4
5.5 5.2	310 330	1.85 1.75	247.3 263.5		"	7400 7400	-	6.6 6.2	260 275	2.2 2.1
4.7	365	1.75	289.8	m .	II .	7400	-	5.6	305	1.9
4.4	390	1.45	310.7	n .	II .	7400	-	5.3	320	1.8
4.0	425	1.35	341.8	m .	"	7400	-	4.8	355	1.6
3.6	475	1.2	375.1	II .	II .	7400	-	4.4	390	1.45
3.3	520	1.1	412.6	"	"	7400	-	4.0	425	1.35
3.0	570	1.0	463.3	"	"	7400	-	3.5	490	1.15
2.6 2.2	660 720	0.87 0.88	537.0 622.4	BF30G06/D06LA4	45	7400 7400	-	3.1 2.7	550 570	1.05 1.1
2.2	720	0.00	022.4	DI 30000/D00LA4	73	7400		2.7	370	1.1
6.1	280	3.2	222.4	BF40Z/D06LA4	53	10600	-	7.3	235	3.8
5.4	315	2.9	253.2	"	"	10600	-	6.4	265	3.4
4.9	350	2.6	278.5		"	10600	-	5.9	290	3.1
4.6 4.2	370 405	2.4 2.2	295.1 324.7	m .	п	10600 10600	-	5.5 5.0	310 340	2.9 2.6
3.9	440	2.0	346.8	11	II .	10600	_	4.7	365	2.5
3.6	475	1.9	381.5	II .	II .	10600	-	4.3	395	2.3
3.3	520	1.75	417.3	п	II .	10600	-	3.9	440	2.0
3.0	570	1.6	459.1	"	"	10600	-	3.6	475	1.9
2.7	630	1.45	514.6	"	"	10600	-	3.2	530	1.7
2.4 2.3	710 560	1.25 1.8	566.1 597.3	 BF40G10/D06LA4	58	10600 10600	-	2.9 2.8	590 425	1.55 2.4
1.9	690	1.45	731.6	BF40G10/D00LA4	J0 "	10600	-	2.3	540	1.85
1.5	920	1.1	928.9	"	"	10600	_	1.8	730	1.35
1.3	1080	0.93	1106	п	II	10600	-	1.5	900	1.1
4.3	395	3.3	316.6	BF50Z/D06LA4	82	13600	_	5.2	330	3.9
3.9	440	3.0	354.0	"	"	13600	-	4.6	370	3.5
3.5	490	2.7	392.8	"	"	13600	-	4.2	405	3.2
3.1	550	2.4	439.3	" "	"	13600	-	3.7	460	2.8
2.8	610	2.1	496.4	" "	"	13600	-	3.3	520	2.5
2.5 2.0	680 660	1.9 2.1	555.2 680.9	BF50G10/D06LA4	86	13600 13600	-	3.0 2.4	570 520	2.3 2.7
1.6	860	1.65	864.5	"	"	13600	_	1.9	690	2.0
1.4	1000	1.4	1029	"	"	13600	_	1.6	840	1.65
1.2	1220	1.15	1203	"	II .	13600	-	1.4	1010	1.4
1.0	1470	0.95	1359	п	II .	13600	-	1.2	1190	1.2
1.5	870	2.9	937.6	BF60G20/D06LA4	134	15300	43300	1.8	670	3.7
1.2	1120	2.2	1211	"	II .	15300	43300	1.4	920	2.7
0.95	1430	1.75	1494	"	"	15300	43300	1.1	1180	2.1
0.85	1600	1.55	1658	"	"	15300	43300	1.0	1290	1.95
0.7 0.65	2000 2150	1.25 1.15	1955 2172		"	15300 15300	43300 43300	0.85 0.75	1570 1830	1.6 1.35
0.03	2130	1.15	£1/£			13300	75500	0.75	1050	1.33
0.75	1850	3.1	1912	BF70G20/D06LA4	212	16100	47700	0.85	1580	3.6
0.6	2350	2.4	2448	"	"	16100	47700	0.7	1970	2.9
0.48 0.4	3050 3800	1.85 1.5	2849 3417	" "	"	16100 16100	47700 47700	0.6 0.48	2350 3050	2.4 1.85
0.4	4550	1.25	4090	п	"	16100	47700	0.48	3800	1.85
0.3	5200	1.1	4542	п	II .	16100	47700	0.36	4250	1.35

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 0.18 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B			1	N	N	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	1	7.00	DEOC /DOELAA	kg	N 1000	N	1/min	Nm	<i>c</i> 1
177 147	13.4 16.2	5.1 4.3	7.66 9.21	BF06/D05LA4	10	1800 1900	-	215 176	11.1 13.5	6.1 5.2
112	21	3.6	12.07	п	"	2000		135	17.6	4.3
96	24.5	3.5	14.21	п	"	2100	-	115	20.5	
80	24.5 29.5	3.2	16.99	п	"	2500		96	24.5	4.1 3.9
67	29.5 35.5	2.7	20.42	п	"	2700	-	80	24.5 29.5	3.9
51	33.5 46.5	2.7	26.76	11	"	3000	-	61	29.5 39	3.2 2.4
43	55	1.75	31.50	11	"	3200	_	52	45.5	2.4
36	66	1.45	37.69	п	"	3500	-	43	43.3 55	1.75
29.5	80	1.43	46.14	п	"	3800	_	35.5	67	1.73
23.5	101	0.94	58.33	п	"	4000	-	28	85	1.1
20.5	116	0.82	66.82	II .	II .	4000	_	24.5	97	0.98
31.5	75 93	3.2	43.06	BF10/D06LA4	23	4100	-	38	62 69	3.9
29	82	2.9	47.35			4250	-	34.5		3.5
26.5	90	2.7	51.28	"	"	4400	-	32 29	74	3.2 2.9
24	99 108	2.4	56.39	"		4550 4700	-		82 90	
22	108	2.2	61.55			4700	-	26.5		2.7
20 17.5	119 126	2.0	67.69 77.55			4900	-	24	99 112	2.4
16	136 149	1.75	77.55 85.27	"	11	5100 5300	-	21 19	113 125	2.1
15	149 159	1.6 1.5	85.27 90.91	 II		5400 5400	-	18	132	1.9 1.8
14	170	1.4	99.97	m .	"	5600	-	16.5	144	1.65
12.5	170	1.25	112.3	n n	"	5900	-	14.5	164	1.45
11	215	1.23	123.5	n .	"	6100	-	13.5	176	1.43
10.5	215	1.05	123.5	n .	"	6200	_	13.5	183	1.33
9.6	245	0.98	141.8	n .	"	6400	_	11.5	205	1.15
9.0	265	0.98	151.2	BF10Z/D06LA4	24	6400	_	11.5	215	1.13
8.2	290	0.83	166.2	U 102/DOOLAT	"	6400	_	9.8	240	1.0
18	132	3.2	76.69	BF20/D06LA4	30	6300	-	21.5	111	3.8
15.5	154	2.7	87.31		"	6600	-	19	125	3.4
14.5	164	2.6	96.08	 II	"	6900	-	17	140	3.0
13.5	176	2.4	100.2		"	7000	-	16.5	144	2.9
12.5	191	2.2	110.2		"	7300	-	15	159	2.6
11	215	1.95	123.5		"	7600	-	13.5	176	2.4
10	235	1.8	135.9			7900	-	12	198	2.1
9.6 8.7	245 270	1.7 1.55	141.2 155.4	BF20Z/D06LA4	31	7900 7900	-	11.5 10.5	205 225	2.0 1.85
8.3	285	1.45	164.3	п	"	7900 7900		9.9	240	
7.5	265 315	1.45	180.8	11	"	7900	-	9.9	265	1.75 1.6
6.9	345	1.33	197.1	11	"	7900	_	8.3	285	1.45
6.3	3 4 5	1.1	216.9	11	"	7900		7.5	315	
5.8	410	1.0	235.9	п	"	7900	-	6.9	345	1.35 1.2
5.3	450	0.93	259.6	п	"	7900	_	6.3	375	1.1
4.6	510	0.93	295.5	II .	"	7900	-	5.5	430	0.98
				DF20 /2041 5	40					
13	183	3.1	107.6	BF30/D06LA4	40	6700	-	15.5	154	3.7
11.5	205	2.8	118.3	"	"	7000	-	14	170	3.4
11	215	2.7	124.7	" "	"	7100	-	13	183	3.1
9.9	240	2.4	137.1			7400	-	12	198	2.9
9.0	265	2.2	150.7	BF30Z/D06LA4	42	7400	-	11	215	2.7
8.2	290	2.0	165.8	"	"	7400	-	9.8	240	2.4
7.7	310	1.85	176.6	" "	"	7400	-	9.2	255	2.3
7.0	340	1.7	194.3	" "	"	7400	-	8.4	280	2.1
6.1	390	1.45	224.8	"	"	7400	-	7.3	325	1.75
5.5	430	1.35	247.3	"	"	7400	-	6.6	360	1.6
5.2	455	1.25	263.5	"	"	7400	-	6.2	385	1.5
4.7	500	1.15	289.8	" "	"	7400	-	5.6	425	1.35
4.4	540 500	1.05	310.7	 II	"	7400	-	5.3	450 405	1.3
4.0	590 660	0.97	341.8	 II	"	7400	-	4.8	495 540	1.15
3.6 3.3	660 720	0.87 0.8	375.1 412.6	"	"	7400 7400	-	4.4 4.0	540 590	1.05 0.97
ر	120	0.0	412.0			7400	-	4.0	J90	0.97
0.7	270	3.3	155.6	BF40Z/D06LA4	53	10600	_	10.5	225	4.0
8.7 7.9	300	3.0	171.2	"	"	10600		9.5	250	3.6

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 0.25 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
7.2	330	2.7	188.3	BF40Z/D06LA4	"	10600	-	8.7	270	3.3
6.7	355	2.5	202.2	II	"	10600	-	8.1	290	3.1
6.1	390	2.3	222.4	II	"	10600	-	7.3	325	2.8
5.4	440	2.0	253.2	"	II .	10600	-	6.4	370	2.4
4.9	485	1.85	278.5	"	II .	10600	-	5.9	400	2.3
4.6	510	1.75	295.1	"	"	10600	-	5.5	430	2.1
4.2	560	1.6	324.7	п	"	10600	-	5.0	475	1.9
3.9	610	1.5	346.8	"	"	10600	-	4.7	500	1.8
3.6	660	1.35	381.5	"	"	10600	-	4.3	550	1.65
3.3	720	1.25	417.3	"	"	10600	-	3.9	610	1.5
3.0	790	1.15	459.1	"	"	10600	-	3.6	660	1.35
2.7	880	1.0	514.6	"	"	10600	-	3.2	740	1.2
2.4	990	0.91	566.1	m m	II .	10600	-	2.9	820	1.1
2.3	850	1.2	597.3	BF40G10/D06LA4	58	10600	-	2.8	660	1.5
1.9	1050	0.95	731.6	"	II .	10600	-	2.3	830	1.2
5.5	430	3.0	247.5	BF50Z/D06LA4	82	13600	_	6.6	360	3.6
4.9	485	2.7	276.8	II	"	13600	-	5.9	400	3.3
4.3	550	2.4	316.6	II	"	13600	-	5.2	455	2.9
3.9	610	2.1	354.0	II	"	13600	-	4.6	510	2.5
3.5	680	1.9	392.8	"	"	13600	-	4.2	560	2.3
3.1	770	1.7	439.3	"	"	13600	-	3.7	640	2.0
2.8	850	1.55	496.4	n n	"	13600	-	3.3	720	1.8
2.5	950	1.35	555.2	"	II .	13600	-	3.0	790	1.65
2.0	1000	1.4	680.9	BF50G10/D06LA4	86	13600	-	2.4	800	1.75
1.6	1280	1.1	864.5	"	"	13600	-	1.9	1050	1.35
1.4	1480	0.95	1029	"	II.	13600	-	1.6	1260	1.1
2.4	750	3.3	569.3	BF60G20/D06LA4	134	15300	43300	2.9	580	4.3
2.0	900	2.8	689.0	"	"	15300	43300	2.4	700	3.6
1.7	1090	2.3	813.2	"	"	15300	43300	2.0	880	2.8
1.5	1310	1.9	937.6	"	II .	15300	43300	1.8	1050	2.4
1.2	1680	1.5	1211	"	II .	15300	43300	1.4	1390	1.8
0.95	2100	1.2	1494	"	II .	15300	43300	1.1	1790	1.4
0.85	2350	1.05	1658	"	II.	15300	43300	1.0	1960	1.3
1.0	2000	2.9	1390	BF70G20/D06LA4	212	16100	47700	1.2	1630	3.5
0.85	2350	2.4	1621	"	"	16100	47700	1.0	1970	2.9
0.75	2700	2.1	1912	п	II .	16100	47700	0.85	2350	2.4
0.6	3500	1.65	2448	II	II .	16100	47700	0.7	2900	1.95
0.48	4450	1.3	2849	m	II .	16100	47700	0.6	3450	1.65
0.4	5400	1.05	3417	п	"	16100	47700	0.48	4450	1.3

P = 0.3 kW

	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
177	16.1	4.2	7.66	BF06/D07LA4	14	1800	-	215	13.3	5.1
147	19.4	3.6	9.21	"	"	1900	-	176	16.2	4.3
112	25.5	2.9	12.07	"	"	2000	-	135	21	3.6
96	29.5	2.9	14.21	"	"	2100	-	115	24.5	3.5
80	35.5	2.7	16.99	m .	"	2500	-	96	29.5	3.2
67	42.5	2.2	20.42	"	"	2700	-	80	35.5	2.7
51	56	1.7	26.76	"	"	3000	-	61	46.5	2.0
43	66	1.45	31.50	"	"	3200	-	52	55	1.75
36	79	1.2	37.69	"	"	3500	-	43	66	1.45
29.5	97	0.98	46.14	"	II.	3800	-	35.5	80	1.2
37.5	76	3.2	36.15	BF10/D07LA4	26	3800	-	45	63	3.8
34	84	2.9	39.75	"	"	3950	-	41	69	3.5
31.5	90	2.7	43.06	"	"	4100	-	38	75	3.2
29	98	2.4	47.35	"	"	4250	-	34.5	83	2.9
26.5	108	2.2	51.28	"	"	4400	-	32	89	2.7
24	119	2.0	56.39	m .	"	4550	-	29	98	2.4

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 0.3 kW



	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm	1.05		DE40 (DOE144	kg "	N ATOO	N	1/min	Nm	2.2
22	130	1.85	61.55	BF10/D07LA4	"	4700	-	26.5	108	2.2
20	143	1.7	67.69		"	4900	-	24	119	2.0
17.5	163	1.45	77.55		"	5100	-	21	136	1.75
16 15	179	1.35	85.27	"	"	5300	-	19 18	150	1.6
14	191 200	1.25 1.2	90.91 99.97	"	"	5400 5600	-	16.5	159 173	1.5
12.5	225	1.05	112.3	"	ıı .	5900	-	14.5	173	1.4 1.2
11	260	0.92	123.5	"	"	6100	-	13.5	210	1.15
10.5	270	0.92	123.5	n n	"	6200	_	13.5	220	1.13
9.6	295	0.83	141.8	"	"	6400	_	11.5	245	0.98
3.0	273	0.01	141.0			0400		11.5	243	0.50
21.5	133	3.2	64.08	BF20/D07LA4	32	5900	_	25.5	112	3.8
19.5	146	2.9	69.70	m .	II .	6100	-	23.5	121	3.5
18	159	2.6	76.69	m .	II .	6300	-	21.5	133	3.2
15.5	184	2.3	87.31	m m	"	6600	-	19	150	2.8
14.5	197	2.1	96.08	"	"	6900	-	17	168	2.5
13.5	210	2.0	100.2	"	"	7000	-	16.5	173	2.4
12.5	225	1.85	110.2	"	II .	7300	-	15	191	2.2
11	260	1.6	123.5	"	"	7600	-	13.5	210	2.0
10	285	1.45	135.9	"	II .	7900	-	12	235	1.8
9.6	295	1.4	141.2	BF20Z/D07LA4	34	7900	-	11.5	245	1.7
8.7	325	1.3	155.4	"	II	7900	-	10.5	270	1.55
8.3	345	1.2	164.3	"	"	7900	-	9.9	285	1.45
7.5	380	1.1	180.8	II	"	7900	-	9.0	315	1.35
6.9	415	1.0	197.1	"	"	7900	-	8.3	345	1.2
6.3	450	0.93	216.9	" "	"	7900	-	7.5	380	1.1
5.8	490	0.86	235.9		"	7900	-	6.9	415	1.0
16	179	3.2	87.08	BF30/D07LA4	42	6200	_	19	150	3.8
14.5	197	2.9	95.79	BF30/D07EA4	42	6400	_	17	168	3.4
13	220	2.6	107.6	m .	"	6700	_	15.5	184	3.1
11.5	245	2.3	118.3	m .	п	7000	_	14	200	2.9
11	260	2.2	124.7	"	п	7100	_	13	220	2.6
9.9	285	2.0	137.1	m .	n n	7400	_	12	235	2.4
9.0	315	1.85	150.7	BF30Z/D07LA4	45	7400	_	11	260	2.2
8.2	345	1.65	165.8	m .	11	7400	-	9.8	290	2.0
7.7	370	1.55	176.6	m .	II .	7400	-	9.2	310	1.85
7.0	405	1.4	194.3	m .	II .	7400	-	8.4	340	1.7
6.1	465	1.25	224.8	"	"	7400	-	7.3	390	1.45
5.5	520	1.1	247.3	"	"	7400	-	6.6	430	1.35
5.2	550	1.05	263.5	"	II .	7400	-	6.2	460	1.25
4.7	600	0.96	289.8	"	II .	7400	-	5.6	510	1.15
4.4	650	0.88	310.7	"	"	7400	-	5.3	540	1.05
4.0	710	0.81	341.8	II	"	7400	-	4.8	590	0.97
0.5	205	2.4	1.41.4	DE407 /D071 44		10600		11.5	2.45	2.7
9.6	295	3.1	141.4	BF40Z/D07LA4	55 "	10600	-	11.5	245	3.7
8.7	325	2.8	155.6			10600	-	10.5	270	3.3
7.9	360	2.5	171.2	 II	"	10600	-	9.5	300	3.0
7.2	395	2.3	188.3	"	11	10600	-	8.7	325	2.8
6.7	425 465	2.1	202.2	"	"	10600	-	8.1	350	2.6
6.1	465 530	1.95	222.4		"	10600	-	7.3	390 445	2.3
5.4 4.9	530 580	1.7 1.55	253.2 278.5	"		10600 10600	-	6.4 5.9	445 485	2.0 1.85
4.6	620	1.45	278.5 295.1	II .	11	10600	-	5.5	485 520	1.75
4.0	680	1.43	324.7	n .	ıı .	10600	-	5.0	570	1.75
3.9	730	1.25	346.8	n .	ıı .	10600	-	4.7	600	1.5
3.6	730 790	1.15	381.5	II	"	10600	-	4.7	660	1.35
3.3	860	1.05	417.3	II	"	10600	-	3.9	730	1.25
3.0	950	0.95	459.1	п	11	10600	_	3.6	790	1.15
2.7	1060	0.85	514.6	п	II .	10600	_	3.2	890	1.0
2.3	1050	0.95	597.3	BF40G10/D07LA4	61	10600	_	2.8	830	1.2
1		5.75	557.5	J	0.	.0000		0	030	1.2

Selection - parallel shaft geared motors DHE - IE2

P = 0.3 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
6.6	430	3.0	205.2	BF50Z/D07LA4	85	13600	-	7.9	360	3.6
5.5	520	2.5	247.5	II	II .	13600	-	6.6	430	3.0
4.9	580	2.2	276.8	II	II .	13600	-	5.9	485	2.7
4.3	660	1.95	316.6	п	"	13600	-	5.2	550	2.4
3.9	730	1.8	354.0	m	"	13600	-	4.6	620	2.1
3.5	810	1.6	392.8	"	"	13600	-	4.2	680	1.9
3.1	920	1.4	439.3	"	"	13600	-	3.7	770	1.7
2.8	1020	1.25	496.4	"	"	13600	-	3.3	860	1.5
2.5	1140	1.15	555.2	"	"	13600	-	3.0	950	1.35
2.0	1240	1.15	680.9	BF50G10/D07LA4	89	13600	-	2.4	1000	1.4
1.6	1580	0.89	864.5	"	II .	13600	-	1.9	1300	1.1
2.4	950	2.6	569.3	BF60G20/D07LA4	136	15300	43300	2.9	740	3.4
2.0	1140	2.2	689.0	"	II .	15300	43300	2.4	900	2.8
1.7	1370	1.8	813.2	"	"	15300	43300	2.0	1120	2.2
1.5	1630	1.55	937.6	"	II .	15300	43300	1.8	1310	1.9
1.2	2050	1.2	1211	"	"	15300	43300	1.4	1740	1.45
1.4	1740	3.3	1017	BF70G20/D07LA4	215	16100	47700	1.6	1490	3.8
1.0	2500	2.3	1390	"	"	16100	47700	1.2	2000	2.9
0.85	2950	1.95	1621	"	"	16100	47700	1.0	2450	2.3
0.75	3350	1.7	1912	"	"	16100	47700	0.85	2900	1.95
0.6	4250	1.35	2448	"	"	16100	47700	0.7	3600	1.6
0.48	5400	1.05	2849	"	"	16100	47700	0.6	4250	1.35

P = 0.37 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7.				n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
177	19.9	3.4	7.66	BF06/D07LA4	14	1800	-	215	16.4	4.1
147	24	2.9	9.21	m	"	1900	-	176	20	3.5
112	31.5	2.4	12.07	п	II .	2000	-	135	26	2.9
96	36.5	2.3	14.21	п	II .	2100	-	115	30.5	2.8
80	44	2.2	16.99	п	II .	2500	-	96	36.5	2.6
67	52	1.85	20.42	m	"	2700	-	80	44	2.2
51	69	1.4	26.76	m	"	3000	-	61	57	1.65
43	82	1.15	31.50	m m	"	3200	-	52	67	1.4
36	98	0.97	37.69	m m	"	3500	-	43	82	1.15
29.5	119	8.0	46.14	п	"	3800	-	35.5	99	0.96
47.5	74	3.2	28.47	BF10/D07LA4	26	3450	-	57	61	3.9
43.5	81	3.0	31.31	m m	"	3600	-	52	67	3.6
37.5	94	2.6	36.15	m m	"	3800	-	45	78	3.1
34	103	2.3	39.75	m m	"	3950	-	41	86	2.8
31.5	112	2.1	43.06	"	"	4100	-	38	92	2.6
29	121	2.0	47.35	m m	"	4250	-	34.5	102	2.4
26.5	133	1.8	51.28	II .	"	4400	-	32	110	2.2
24	147	1.65	56.39	II .	"	4550	-	29	121	2.0
22	160	1.5	61.55	m m	"	4700	-	26.5	133	1.8
20	176	1.35	67.69	II .	"	4900	-	24	147	1.65
17.5	200	1.2	77.55	II .	"	5100	-	21	168	1.45
16	220	1.1	85.27	II .	"	5300	-	19	185	1.3
15	235	1.0	90.91	II .	"	5400	-	18	196	1.2
14	250	0.96	99.97	II .	"	5600	-	16.5	210	1.15
12.5	280	0.86	112.3	II .	"	5900	-	14.5	240	1.0
28	126	3.3	48.56	BF20/D07LA4	32	5200	_	33.5	105	4.0
25.5	138	3.0	53.43	"	II .	5500	_	30.5	115	3.7
23.5	150	2.8	58.24	m .	II .	5600	_	28	126	3.3
21.5	164	2.6	64.08	n	"	5900	_	25.5	138	3.0

Selection - parallel shaft geared motors DHE - IE2

P = 0.37 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B				N.I.		n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm	2.2	60.70	DE20 (DOZI 8.4	kg "	N	N	1/min	Nm 150	2.0
19.5	181	2.3	69.70	BF20/D07LA4	"	6100	-	23.5	150	2.8
18	196	2.1	76.69		"	6300	-	21.5	164	2.6
15.5	225	1.85	87.31			6600	-	19	185	2.3
14.5 13.5	240 260	1.75 1.6	96.08 100.2	n	"	6900 7000	-	17 16.5	205 210	2.0 2.0
12.5	280	1.5	110.2	n n	"	7300	-	15.5	235	1.8
11	320	1.3	123.5	n n	"	7600 7600	-	13.5	260	1.6
10	350 350	1.2	135.9	m .	II.	7900	-	12.5	290	1.45
9.6	365	1.15	141.2	BF20Z/D07LA4	34	7900	_	11.5	305	1.43
8.7	405	1.05	155.4	" " " " " " " " " " " " " " " " " " "	J -	7900	_	10.5	335	1.25
8.3	425	0.99	164.3	II .	"	7900	_	9.9	355	1.23
7.5	470	0.89	180.8	m .	"	7900	_	9.0	390	1.1
6.9	510	0.82	197.1	m .	п	7900	_	8.3	425	0.99
0.5	5.0	0.02	127.1			,,,,,,		0.5	123	0.55
20.5	172	3.3	67.28	BF30/D07LA4	42	5500	_	24.5	144	4.0
19	185	3.1	72.13	"	"	5700	_	22.5	157	3.7
17.5	200	2.9	79.34	п	"	5900	_	20.5	172	3.3
16	220	2.6	87.08	II .	п	6200	-	19	185	3.1
14.5	240	2.4	95.79	II .	п	6400	-	17	205	2.8
13	270	2.1	107.6	п	II	6700	_	15.5	225	2.6
11.5	305	1.9	118.3	m .	"	7000	_	14	250	2.3
11	320	1.8	124.7	m .	II .	7100	_	13	270	2.1
9.9	355	1.6	137.1	п	II .	7400	-	12	290	2.0
9.0	390	1.45	150.7	BF30Z/D07LA4	45	7400	-	11	320	1.8
8.2	430	1.35	165.8	m m	II	7400	-	9.8	360	1.6
7.7	455	1.25	176.6	m m	II	7400	-	9.2	380	1.5
7.0	500	1.15	194.3	m .	"	7400	-	8.4	420	1.35
6.1	570	1.0	224.8	п	II .	7400	-	7.3	480	1.2
5.5	640	0.9	247.3	m m	"	7400	-	6.6	530	1.1
5.2	670	0.86	263.5	"	II .	7400	-	6.2	560	1.05
				22.02 (2021.4.4		10500		44.5	205	2.0
9.6	365	2.5	141.4	BF40Z/D07LA4	55 "	10600	-	11.5	305	3.0
8.7	405	2.2	155.6		"	10600	-	10.5	335	2.7
7.9	445	2.0	171.2		"	10600	-	9.5	370	2.4
7.2 6.7	490 520	1.85 1.75	188.3 202.2		"	10600	-	8.7 8.1	405 435	2.2 2.1
6.1	520 570	1.75	202.2		"	10600 10600	-	7.3	480	1.9
5.4	650	1.4	253.2		"	10600	-	6.4	550	1.65
4.9	720	1.25	278.5	m .	II.	10600	-	5.9	590	1.55
4.6	760	1.23	276.5	m .	п	10600	-	5.5	640	1.4
4.2	840	1.05	324.7	п	"	10600	_	5.0	700	1.3
3.9	900	1.0	346.8	m .	II .	10600	_	4.7	750	1.2
3.6	980	0.92	381.5	"	п	10600	_	4.3	820	1.1
3.3	1070	0.84	417.3	п	"	10600	-	3.9	900	1.0
8.8	400	3.3	154.5	BF50Z/D07LA4	85	13600	-	10.5	335	3.9
7.4	475	2.7	183.5	II .	"	13600	-	8.9	395	3.3
6.6	530	2.5	205.2	II .	"	13600	-	7.9	445	2.9
5.5	640	2.0	247.5	II.	II .	13600	-	6.6	530	2.5
4.9	720	1.8	276.8	m .	"	13600	-	5.9	590	2.2
4.3	820	1.6	316.6	m .	"	13600	-	5.2	670	1.95
3.9	900	1.45	354.0	m m	"	13600	-	4.6	760	1.7
3.5	1000	1.3	392.8	II	"	13600	-	4.2	840	1.55
3.1	1130	1.15	439.3	II	"	13600	-	3.7	950	1.35
2.8	1260	1.05	496.4	II	"	13600	-	3.3	1070	1.2
2.5	1410	0.92	555.2	"	"	13600	-	3.0	1170	1.1
2.0	1570	0.89	680.9	BF50G10/D07LA4	89	13600	-	2.4	1280	1.1
2.4	1220	2.0	E60.3	DE60630 /D071 4.4	126	15300	42200	2.0	070	3.6
2.4	1230	2.0	569.3	BF60G20/D07LA4	136	15300	43300	2.9	970	2.6
2.0	1470	1.7	689.0	"	"	15300	43300	2.4	1180	2.1
1.7	1770	1.4	813.2		"	15300 15300	43300	2.0	1460 1680	1.7
1.5	2050	1.2	937.6		"		43300	1.8	1680	1.5
1.2	2600	0.96	1211			15300	43300	1.4	2200	1.15

Selection - parallel shaft geared motors DHE - IE2

P = 0.37 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
1.6	1950	2.9	872.1	BF70G20/D07LA4	215	16100	47700	1.9	1600	3.6
1.4	2200	2.6	1017	"	II .	16100	47700	1.6	1900	3.0
1.0	3150	1.8	1390	"	II .	16100	47700	1.2	2550	2.2
0.85	3700	1.55	1621	"	II .	16100	47700	1.0	3100	1.85
0.75	4250	1.35	1912	"	II .	16100	47700	0.85	3700	1.55
0.6	5400	1.05	2448	"	II .	16100	47700	0.7	4550	1.25

P = 0.55 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7.				n ₂	M ₂	f _B
1/min	Nm				kg	N	N	1/min	Nm	
245	21	3.0	5.72	BF06/D08MA4	16	1630	-	295	17.8	3.5
183	28.5	2.4	7.66	m m	"	1800	-	220	23.5	2.9
153	34	2.1	9.21	m .	"	1900	-	183	28.5	2.5
116	45	1.65	12.07	m m	"	2000	-	140	37.5	2.0
99	53	1.6	14.21	m .	"	2100	-	119	44	1.95
83	63	1.5	16.99	II .	"	2500	-	99	53	1.8
69	76	1.25	20.42	II .	"	2700	-	83	63	1.5
53	99	0.96	26.76	m .	"	3000	_	63	83	1.15
44.5	118	0.81	31.50	п	"	3200	-	54	97	0.98
94	55	3.3	15.04	BF10/D08MA4	27	2800	-	112	46.5	3.9
70	75	3.2	20.05	"	II .	3000	-	84	62	3.9
61	86	2.8	23.28	"	II .	3200	-	73	71	3.4
55	95	2.5	25.60	"	II .	3350	-	66	79	3.0
49.5	106	2.3	28.47	II.	"	3450	-	60	87	2.8
45	116	2.1	31.31	m .	"	3600	-	54	97	2.5
39	134	1.8	36.15	m .	"	3800	-	46.5	112	2.1
35.5	147	1.65	39.75	II .	"	3950	-	42.5	123	1.95
33	159	1.5	43.06	m .	"	4100	-	39.5	132	1.8
30	175	1.35	47.35	m .	"	4250	-	35.5	147	1.65
27.5	191	1.25	51.28	II .	"	4400	-	33	159	1.5
25	210	1.15	56.39	m .	"	4550	-	30	175	1.35
23	225	1.05	61.55	m .	"	4700	-	27.5	191	1.25
21	250	0.96	67.69	II .	"	4900	-	25	210	1.15
18.5	280	0.86	77.55	п	"	5100	-	22	235	1.0
39.5	132	3.2	35.85	BF20/D08MA4	33	4650	-	47	111	3.8
34	154	2.7	41.72	"	"	4950	-	40.5	129	3.3
31	169	2.5	45.90	"	"	5100	-	37	141	3.0
29	181	2.3	48.56	"	"	5200	-	35	150	2.8
26.5	198	2.1	53.43	"	"	5500	-	31.5	166	2.5
24.5	210	2.0	58.24	"	"	5600	-	29	181	2.3
22	235	1.8	64.08	"	"	5900	-	26.5	198	2.1
20.5	255	1.65	69.70	"	"	6100	-	24.5	210	2.0
18.5	280	1.5	76.69	"	"	6300	-	22	235	1.8
16.5	315	1.35	87.31	"	"	6600	-	19.5	265	1.6
15	350	1.2	96.08	"	"	6900	-	17.5	300	1.4
14	375	1.1	100.2	"	"	7000	-	17	305	1.4
13	400	1.05	110.2	"	"	7300	-	15.5	335	1.25
11.5	455	0.92	123.5	m m	II .	7600	-	14	375	1.1
10.5	500	0.84	135.9	m m	II .	7900	-	12.5	420	1.0
10	520	0.81	141.2	BF20Z/D08MA4	35	7900	-	12	435	0.97
27	194	3.0	52.20	BF30/D08MA4	43	5000	-	32.5	161	3.6
24.5	210	2.7	57.41	"	II .	5200	-	29.5	178	3.2
23	225	2.6	61.17	"	"	5300	-	27.5	191	3.0
21	250	2.3	67.28	"	"	5500	-	25	210	2.7
19.5	265	2.2	72.13	"	"	5700	-	23.5	220	2.6

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 0.55 kW



No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No.										40.11	
	n	50 Hz	f	i	Type	m	F_{RN}	F_{RV}	n	60 Hz	$f_{\scriptscriptstyle B}$
18			IВ			ka	N	N			IB
16.5			2.0	79 34	BF30/D08MA4						2.4
15						11		_			2.2
13.5 385 1.5 107.6 " " 6700 - 16 325 1.1 11.5 455 1.25 1247 " " 77000 - 13.5 360 1.1 11.5 455 1.25 1247 " " 77000 - 13.5 365 1.1 11.5 455 1.25 1247 " " 77000 - 13.5 365 1.1 11.5 455 1.25 1247 " " 77000 - 12.5 420 1.3 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5 365 1.1 13.5					n	II .					2.0
12					n	II .					1.75
11.5					п	11		-			1.6
10.5 500					п	11		-			1.5
9.3 560 1.05 150.7 8F30Z/DOSMA4 46 7400 - 11.5 455 1.2 8.5 610 0.94 165.8 " " " 7400 - 9.6 540 1.0 8.6 650 0.88 176.6 " " 7400 - 9.6 540 1.0 7.3 710 0.81 194.3 " " 7400 - 8.7 600 0.9 18 290 3.1 78.55 8F40/DOSMA4 53 8500 - 21.5 240 3.1 17 305 3.0 83.91 " " " 9100 - 18.5 280 3.1 18.5 335 2.7 92.31 " " 9100 - 18.5 280 3.3 14 375 2.4 101.0 " 9400 - 17 305 3.3 13 400 2.3 111.1 " " 9800 - 15.5 335 2.1 11.5 455 2.0 124.5 " " 10600 - 12.5 420 2.2 10.5 500 1.8 137.0 " " 10600 - 12.5 420 2.2 10.5 500 1.8 137.0 " " 10600 - 12.4 435 2.2 10.5 508 1.55 155.6 " " 10600 - 12.4 435 2.2 10.5 508 1.55 155.6 " " 10600 - 12.4 435 2.2 10.5 508 1.55 155.6 " " 10600 - 9.9 530 1.5 8.2 640 1.4 171.2 " 10600 - 9.9 9.30 1.5 7.5 700 1.3 188.3 " " 10600 - 9.9 9.30 1.5 7.6 750 1.2 202.2 " " 10600 - 8.4 620 1.4 5.6 930 0.97 253.2 " " 10600 - 6.7 780 1.4 5.6 930 0.97 253.2 " " 10600 - 6.7 780 1.1 5.6 930 0.97 253.2 " " 10600 - 5.7 920 0.5 1.5 1020 0.88 278.5 " " " 10600 - 5.7 920 0.5 1.5 1020 0.88 278.5 " " " 10600 - 6.7 780 1.1 5.7 2.3 154.5 " " " 10600 - 6.7 780 1.1 5.7 2.3 154.5 " " " 10600 - 15.5 385 3.3 3.1 1.5 3.5 3.5 " " " 10600 - 6.7 760 1.4 5.7 7.7 60 1.9 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.				137.1	п	II .		-			1.35
8.0 650 0.88 1766 " " 7400 - 96 540 1.0 7.3 710 0.81 194.3 " " 7400 - 9.7 600 0.9 18 290 3.1 78.55 BF40/D08MA4 53 8500 - 21.5 240 3.1 17 305 3.0 83.91 " " 8700 - 20.5 255 3.1 18 375 2.4 101.0 " 9400 - 177 305 3.1 18 4375 2.4 101.0 " 9400 - 177 305 3.3 14 375 2.4 101.0 " 9800 - 15.5 335 2.7 11.5 455 2.0 124.5 " 10600 - 13.5 335 2.7 11.5 455 2.0 124.5 " 10600 - 12.5 420 2.1 11.5 455 2.0 124.5 " 10600 - 12.5 420 2.2 10 520 1.75 141.4 BF402/D08MA4 56 10600 - 12. 435 2.2 10.5 500 1.8 137.0 " " 10600 - 12. 435 2.2 10.7 5700 1.3 188.3 " " 10600 - 9.9 9.530 1.7 1.5 7.0 750 1.2 202.2 " 10600 - 9.9 9.530 1.7 1.5 7.0 750 1.2 202.2 " 10600 - 8.4 620 1.4 1.5 6.3 830 1.1 222.4 " 10600 - 8.4 620 1.4 1.6 3830 1.1 222.4 " 10600 - 8.4 620 1.4 1.7 1020 0.83 295.1 " 10600 - 6.7 7.6 600 1.4 1.8 1020 0.83 295.1 " 10600 - 5.7 6.6 600 1.1 1.8 1020 0.83 295.1 " 10600 - 15.7 920 0.5 1.8 1020 0.83 295.1 " 10600 - 15.7 920 0.5 1.8 1020 0.83 295.1 " 10600 - 15.7 920 0.5 1.5 1020 0.83 295.1 " 10600 - 15.7 920 0.5 1.5 1020 0.83 295.1 " 10600 - 6.7 7.6 600 1.1 1.5 500 1.8 136.6 " 13600 - 12.5 420 2.2 1.5 6.9 700 1.3 11.4 0 BF50/D08MA4 86 13600 - 12.5 420 2.2 1.5 6.9 700 1.3 13.5 8F50.2 " 13600 - 8.2 640 2.2 1.5 7.7 920 1.5 154.5 " 13600 - 8.2 640 2.2 1.5 1020 0.83 295.1 " 13600 - 15.5 385 3.3 1.0 5 500 2.6 138.1 11.4 0 BF50/D08MA4 86 13600 - 12.5 420 2.3 1.5 500 2.6 138.1 136.6 " 13600 - 8.2 640 2.2 1.7 57 700 3.3 18.7 BF50.2 " 13600 - 8.2 640 2.2 1.7 5.7 700 3.3 18.7 BF50.2 " 13600 - 8.2 640 2.2 1.7 5.7 700 3.3 18.7 BF50.2 " 13600 - 8.2 640 2.2 1.7 5.7 700 3.3 18.7 BF50.2 " 13600 - 8.2 640 2.2 1.7 5.7 700 3.3 18.7 BF50.2 " 13600 - 8.2 640 2.2 1.7 1.8 1000 - 8.2 21.4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	9.3	560	1.05	150.7	BF30Z/D08MA4	46	7400	-	11.5	455	1.25
18	8.5	610	0.94	165.8	m .	II .	7400	-	10.5	500	1.15
18	8.0	650	0.88	176.6	m .	II .	7400	-	9.6	540	1.05
17	7.3	710	0.81	194.3	"	"	7400	-	8.7	600	0.96
15.5 335 2.7 92.31 " " 9100 - 18.5 280 3 3 13 400 2.3 111.1 " " 9800 - 17 305 3 3 13 400 2.3 111.1 " " 9800 - 15.5 335 2.0 124.5 " " 10600 - 15.5 335 2.0 10.5 500 1.75 141.4 BF40Z/D08MA4 56 10600 - 12.5 420 2.2 10.5 580 1.55 155.6 " " 10600 - 12.5 420 2.2 10.5 580 1.55 155.6 " " 10600 - 12.5 420 2.2 10.5 580 1.55 155.6 " " 10600 - 12.5 420 2.2 10.5 580 1.55 155.6 " " 10600 - 12.5 420 2.2 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5	18	290	3.1	78.55	BF40/D08MA4	53	8500	-	21.5	240	3.8
1-1-3	17	305	3.0	83.91	m .	II .	8700	-	20.5	255	3.5
13	15.5	335	2.7	92.31			9100	-	18.5	280	3.2
11.5 455 2.0 124.5 " 10200 - 13.5 385 2 10.5 500 1.8 137.0 " 10600 - 12.5 420 2 2 10 520 1.75 141.4 BF40Z/D08MA4 56 10600 - 12 435 2 2 2 2 3 1.55 155.6 " " 10600 - 11 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1. 475 1.			2.4	101.0				-			3.0
10.5 500 1.8 137.0								-			2.7
10 520			1					-			2.3
9.0 \$80 1.55 155.66 " " 10600 - 11 475 1. 7.5 700 1.3 188.3 " " 10600 - 9.9 530 1.5 7.6 750 1.2 202.2 " " 10600 - 3.4 620 1.4 6.3 830 1.1 222.4 " " 10600 - 7.6 690 1.4 5.6 930 0.97 253.2 " " 10600 - 6.7 780 1.1 5.1 1020 0.88 278.5 " " 10600 - 6.1 860 1.0 4.8 1090 0.83 295.1 " " 10600 - 5.7 920 0.9 12.5 420 3.1 114.0 BF50//D8MA4 81 12900 - 15 355 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351 351								-			2.1
8.2 640 1.4 171.2 " " 10600 - 9.9 530 1.7 7.5 700 1.3 188.3 " " 10600 - 8.4 620 1.4 6.3 830 1.1 222.4 " " 10600 - 6.6 690 1.5 5.6 930 0.97 253.2 " " 10600 - 6.7 680 1.1 5.1 1020 0.88 278.5 " " 10600 - 6.7 780 1.1 4.8 1090 0.83 295.1 " " 10600 - 6.7 780 1.0 1.1 475 2.7 127.5 " " 10600 - 6.7 920 0.9 1.2.5 420 3.1 114.0 BF50/D08MA4 81 12900 - 15 350 3 1.0 5.0 2.6 138.1 BF50/D08MA4 81 12900 - 12.5 420 </td <th></th> <th></th> <th></th> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td>2.1</td>								-			2.1
7.5 700 1.3 188.3 " "10000 - 9.0 580 1.5 7.0 7.0 750 1.2 202.2 " " 10000 - 9.0 580 1.5 7.0 7.0 750 1.2 202.2 " " 10000 - 8.4 620 1.4 6.3 830 1.1 1222.4 " " 10000 - 6.7 6690 1.5 5.6 930 0.97 253.2 " " 10000 - 6.7 780 1.1 1020 0.88 278.5 " " 10000 - 6.1 860 1.0 4.8 1090 0.83 295.1 " " 10000 - 5.7 920 0.9 1.1 10000 - 5.7 920 0.9 1.1 10000 - 5.7 920 0.9 1.1 10000 - 5.7 920 0.9 1.1 10000 - 5.7 920 0.9 1.1 10.5 5.0 2.6 138.1 BF50Z/D08MA4 81 12900 - 15.7 920 0.9 11.1 475 2.7 127.5 " " 13600 - 13.5 385 3.1 11.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 13.5 385 3.3 9.1 570 2.3 154.5 " " 13600 - 11.4 475 2.2 570 2.0 5.7 920 1.4 247.5 " " 13600 - 12.5 420 3.1 1.4 475 2.5 1.0 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1											1.9
7.0 750 1.2 2022 " " " 10600 - 8.4 620 1.4 6.3 830 1.1 222.4 4 " " " 10600 - 7.6 690 1. 5.6 930 0.97 253.2 " " 10600 - 6.7 780 1.1 5.1 1020 0.88 278.5 " " 10600 - 6.7 860 1.0 4.8 1090 0.83 278.5 " " 10600 - 5.7 920 0.9 12.5 420 3.1 114.0 BF50//D08MA4 81 12900 - 15 5350 3 11 475 2.7 127.5 " " 13600 - 13.5 385 3. 11 475 2.7 127.5 " " 13600 - 11.5 420 7.7 680 1.9 183.5 " " 13600 - 11. 475 2. 6.9 760 1.7 205.2 " " 13600 - 9.2 570 2. 6.9 760 1.7 205.2 " " 13600 - 6.8 770 1. 5.1 1020 1.25 276.8 " " 13600 - 6.8 770 1. 5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1. 4.0 1310 0.99 354.0 " " 13600 - 4.8 1090 1. 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1. 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1. 3.6 1450 0.9 328.8 " " 13600 - 4.8 1090 1. 3.6 1450 0.9 328.8 " " 15300 43300 7.6 690 3. 3.7 1410 1.65 380.0 " " 15300 43300 5.2 1010 2. 3.7 1410 1.55 569.3 BF60Z0//D08MA4 137 15300 43300 5.2 1010 2. 3.8 1870 1.25 510.3 BF60Z0//D08MA4 137 15300 43300 5.2 1010 2. 3.8 1870 1.25 510.3 BF60G20//D08MA4 137 15300 43300 2.1 2150 1.1 3.2 1640 3.2 439.2 BF70Z//D08MA4 137 15300 43300 3.0 1510 1.6 3.1 1590 1.35 569.3 BF60G20//D08MA4 137 15300 43300 3.0 1510 1.6 3.2 1640 3.2 439.2 BF70Z//D08MA4 137 15300 43300 3.0 1510 1.6 3.2 1640 3.2 439.2 BF70Z//D08MA4 137 15300 43300 3.0 1510 1.6 3.2 1640 3.2 439.2 BF70Z//D08MA4 137 15300 43300 3.0 1510 1.6 3.2 1640 3.2 439.2 BF70Z//D08MA4 137 15300 43300 2.1 2150 1.1 3.2 1640 3.2 439.2 BF70Z//D08MA4 218 16100 47700 3.9 1340 3. 3.1 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3.3 1590 3											1.7
7.0 730 1.2 202.2											
5.6 930 0.97 253.2 " " 10600 - 6.7 780 1.1 5.1 1020 0.88 278.5 " " 10600 - 6.1 860 1.0 4.8 1090 0.83 295.1 " " 10600 - 5.7 920 0.9 12.5 420 3.1 114.0 BF50/D08MA4 81 12900 - 15 350 3 11 475 2.7 127.5 " " 13600 - 13.5 385 3. 10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.9 9.1 570 2.3 154.5 " " 13600 - 11 475 2.7 7.7 680 1.9 183.5 " " 13600 - 11 475 2.5 6.9 760 1.7 205.2 " " 13600 - 9.2 570 2.6 6.9 760 1.7 205.2 " " 13600 - 6.8 770 1.5 5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1.4 4.5 1160 1.1 316.6 " " 13600 - 6.1 860 1.4 4.5 1160 0.9 354.0 " " 13600 - 6.1 860 1.1 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1.3 3.6 1450 0.9 352.8 " " 13600 - 5.4 970 1.3 5.8 900 2.6 245.6 " " 15300 43300 7.6 690 3.6 4.8 1090 2.1 293.4 " " 15300 43300 5.8 900 2.4 3.1 1220 1.9 325.6 " " 15300 43300 4300 5.8 900 2.4 3.1 1220 1.9 325.6 " " 15300 43300 5.8 900 2.1 3.4 1540 1.5 421.6 " " 15300 43300 4.5 1160 2.3 3.4 1540 1.5 421.6 " " 15300 43300 4.5 1160 2.3 3.4 1540 1.5 421.6 " " 15300 43300 3.3 1590 1.4 2.5 1860 1.35 59.9 " " 15300 43300 3.3 1590 1.4 2.5 1860 1.35 59.9 " " 15300 43300 3.3 1590 1.4 2.5 1860 1.35 59.9 " " 15300 43300 3.3 1590 1.4 2.5 1860 1.35 59.3 BF60G20/D08MA4 137 15300 43300 2.5 1810 1.1 3.2 1640 3.2 439.2 BF70Z/D08MA4 137 15300 43300 3.3 1590 1.4 2.5 1860 3.3 574.1 BF70G20/D08MA4 216 16100 47700 3.9 1340 3.1 2.8 1870 2.8 512.4 " " 15300 43300 3.7 1410 1.6 2.1 2200 1.15 689.0 " " 15300 43300 3.3 1590 1.4 2.5 1860 3.3 574.1 BF70G20/D08MA4 216 16100 47700 3.3 1590 3.4 2.8 1870 2.8 512.4 " " 16100 47700 3.3 1590 3.4 2.1 2200 2.6 673.6 " " 16100 47700 3.3 1590 3.1 2.1 2200 2.6 673.6 " " 16100 47700 3.0 1500 3.1 2.1 1200 2.6 673.6 " " 16100 47700 3.0 1500 3.1 2.1 1400 1.3 1390 " " 16100 47700 1.7 2750 2.2 2.1 1400 1.3 1390 " " 16100 47700 1.7 2750 2.2 2.1 1.1 4400 1.3 1390 " " 16100 47700 1.7 2750 2.2											
5.1 1020 0.88 278.5 " " 10600 - 6.1 860 1.0 4.8 1090 0.83 295.1 " " 10600 - 5.7 920 0.9 12.5 420 3.1 114.0 BF50/D08MA4 81 12900 - 15 350 3 10.5 500 2.6 138.1 BF502/D08MA4 86 13600 - 13.5 385 3. 9.1 570 2.3 154.5 " " 13600 - 12.5 420 3. 9.1 570 2.2 1570 2.3 154.5 " " 13600 - 1.2 420 3. 9.1 570 2.2 1570 2.2 170 2.2 640 2.2 6.9 760 1.7 205.2 " " 13600 - 8.2 640 2.2 5.7<					"						1.3
4.8 1090 0.83 295.1 "					m .	"					
11					II .	ıı .					0.98
11	12.5	420	2.1	1140	PEEO /DOOMAA	01	12000		1.5	250	2.7
10.5 500 2.6 138.1 BF50Z/D08MA4 86 13600 - 12.5 420 3.9 1.7 7.7 680 1.9 183.5 " " 13600 - 11 475 2.5 6.9 760 1.7 205.2 " " 13600 - 8.2 640 2.5 5.7 920 1.4 247.5 " " 13600 - 6.8 770 1.5 5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1.4 4.5 1160 1.1 316.6 " " 13600 - 5.4 970 1.3 4.0 1310 0.99 354.0 " " 13600 - 4.8 1090 1. 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1. 7.5 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 7.6 699 3.4 5.8 900 2.6 245.6 " " 15300 43300 7.6 699 3.4 4.8 1090 2.1 293.4 " " 15300 43300 5.8 900 2.4 4.3 1220 1.9 325.6 " " 15300 43300 5.2 1010 2.4 3.7 1410 1.65 380.0 " " 15300 43300 5.2 1010 2.1 3.7 1410 1.65 380.0 " " 15300 43300 5.2 1010 2.1 3.1 1690 1.35 459.9 " " 15300 43300 3.3 1590 1.4 2.8 1870 1.25 510.3 " " 15300 43300 2.5 1810 1.5 3.2 1640 3.2 439.2 BF60G20/D08MA4 218 16100 47700 3.3 1370 4.2 3.2 1640 3.2 439.2 BF70Z/D08MA4 218 16100 47700 3.3 1370 4.2 3.3 1590 3.1 577.5 " " 16100 47700 3.0 1500 3.3 3.1 77 2800 2.6 673.6 " " 16100 47700 3.0 1500 3.3 3.1 77 2800 2.0 872.1 " " 16100 47700 2.0 2350 2.1 3.1 4400 1.3 1390 " " 16100 47700 1.7 2750 2.1 3.1 4400 4400 1.3 1390 " " 16100 47700 1.3 3650 1.5 3.2 3.3 3.5 3.1 3.7 " " 16100 47700 1.3 3650 1.5 3.3 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4 3.4	1										3.4
9.1 570 2.3 154.5 " " 13600 - 11 475 2. 7.7 680 1.9 183.5 " " 13600 - 9.2 570 2. 6.9 760 1.7 205.2 " " 13600 - 8.2 640 2. 5.7 920 1.4 247.5 " " 13600 - 6.8 770 1. 5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1. 4.5 1160 1.1 316.6 " " 13600 - 6.1 860 1. 4.5 1160 1.1 316.6 " " 13600 - 4.8 1090 1. 3.6 1450 0.9 354.0 " " 13600 - 4.8 1090 1. 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1. 3.6 4820 2.8 221.4 " " 13600 - 4.3 1220 1.0 7.5 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 7.6 690 3. 5.8 900 2.6 245.6 " " 15300 43300 7.6 690 3. 4.8 1090 2.1 293.4 " " 15300 43300 6.9 760 3. 4.8 1090 2.1 293.4 " " 15300 43300 5.2 1010 2. 3.7 1410 1.65 380.0 " " 15300 43300 4.5 1160 2. 3.7 1410 1.55 421.6 " " 15300 43300 4.5 1160 2. 3.7 1410 1.55 421.6 " " 15300 43300 3.7 1410 1.6 2.8 1870 1.25 510.3 " " 15300 43300 3.3 1590 1.4 2.5 1860 1.35 569.3 BF60G20/D08MA4 137 15300 43300 2.1 2150 1.1 3.2 1640 3.2 439.2 BF70Z/D08MA4 218 16100 47700 3.9 1340 3. 2.5 1850 3.1 577.5 " " 16100 47700 3.3 1590 3. 2.1 2200 2.6 673.6 " " 16100 47700 3.3 1590 3. 2.1 2200 2.6 673.6 " " 16100 47700 2.5 1810 3. 2.1 2200 2.6 673.6 " " 16100 47700 2.0 2350 2. 1.1 4400 1.3 1390 " " 16100 47700 1.7 2750 2.0 1.1 4400 1.3 1390 " " 16100 47700 1.7 2750 2.0					RE507- /D08MA4	86					3.4
7.7 680 1.9 183.5 " " 13600 - 9.2 570 2. 6.9 760 1.7 205.2 " " 13600 - 8.2 640 2. 5.7 920 1.4 247.5 " " 13600 - 6.8 770 1. 5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1. 4.5 1160 1.1 316.6 " " 13600 - 5.4 970 1. 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1. 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1. 3.6 4820 2.8 221.4 " " 15300 43300 7.6 690 3. 5.8 900 2.6 245.6 " " 15300 43300 7.6 690 3. 5.8 900 2.1 293.4 " " 15300 43300 5.8 900 2. 4.3 1220 1.9 325.6 " " 15300 43300 5.2 1010 2. 3.7 1410 1.65 380.0 " " 15300 43300 4.5 1160 2. 3.4 1540 1.5 421.6 " " 15300 43300 4.0 1310 1.7 3.1 1690 1.35 459.9 " " 15300 43300 4.0 1310 1.7 3.1 1690 1.35 569.3 BF60G20/D08MA4 137 15300 43300 2.1 2150 1.4 1.8 2600 0.96 813.2 " " 15300 43300 2.5 1810 1. 3.2 1640 3.2 439.2 BF70Z/D08MA4 218 16100 47700 3.9 1340 3. 2.8 1870 2.8 512.4 " " 15300 43300 2.5 1810 1. 3.2 1640 3.2 439.2 BF70Z/D08MA4 218 16100 47700 3.3 1370 4. 2.5 1850 3.1 577.5 " " 16100 47700 3.3 1370 4. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.											2.7
6.9 760 1.7 205.2 " " 13600 - 8.2 640 2. 5.7 920 1.4 247.5 " " 13600 - 6.8 770 1. 5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1. 4.5 1160 1.1 316.6 " " 13600 - 5.4 970 1.3 4.0 1310 0.99 354.0 " " 13600 - 4.8 1090 1. 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1. 3.6 1450 0.9 392.8 " " 13600 - 4.3 1220 1.0 7.5 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 9.0 580 4. 6.4 820 2.8 221.4 " " 15300 43300 7.6 690 3. 5.8 900 2.6 245.6 " " 15300 43300 6.9 760 3. 4.8 1090 2.1 293.4 " " 15300 43300 5.8 900 2. 4.3 1220 1.9 325.6 " " 15300 43300 5.2 1010 2. 3.7 1410 1.65 380.0 " " 15300 43300 5.2 1010 2. 3.4 1540 1.5 421.6 " " 15300 43300 4.5 1160 2. 3.4 1540 1.5 550.3 " " 15300 43300 3.7 1410 1.6 2. 3.8 1870 1.25 510.3 " " 15300 43300 3.7 1410 1.6 2. 2.8 1870 1.25 569.3 BF60G20/D08MA4 137 15300 43300 2.5 1810 1.6 2.1 2200 1.15 689.0 " " 15300 43300 2.5 1810 1.6 2.1 2200 1.15 689.0 " " 15300 43300 2.5 1810 1.6 2.1 2200 1.5 689.0 " " 15300 43300 2.5 1810 1.6 2.1 2200 1.5 689.0 " " 15300 43300 2.5 1810 1.6 2.1 2200 1.5 689.0 " " 15300 43300 2.5 1810 1.6 2.1 2200 1.5 689.0 " " 15300 43300 2.5 1810 1.6 2.1 2200 1.5 689.0 " " 15300 43300 2.5 1810 1.6 2.1 2200 1.5 689.0 " " 15300 43300 2.5 1810 1.6 2.1 2200 1.5 689.0 " " 15300 43300 2.5 1810 3. 3.2 1640 3.2 439.2 BF70Z/D08MA4 218 16100 47700 3.9 1340 3. 2.8 1870 2.8 512.4 " " 16100 47700 3.3 1590 3. 2.7 1720 3.3 524.1 BF70G20/D08MA4 218 16100 47700 3.0 1500 3. 2.1 2200 2.6 673.6 " " 16100 47700 2.5 1810 3. 3.1 4400 1.3 1390 " " 16100 47700 1.7 2750 2.					m .	II .					2.3
5.7 920 1.4 247.5 " " 13600 - 6.8 770 1. 5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1. 4.5 1160 1.1 316.6 " " 13600 - 5.4 970 1.3 4.0 1310 0.99 354.0 " " 13600 - 4.8 1090 1. 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1. 5.7 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 9.0 580 4. 6.4 820 2.8 221.4 " " 15300 43300 7.6 690 3. 5.8 900 2.6 245.6 " " 15300 43300 5.8 900 2. 4.3					п	II .		_			2.0
5.1 1020 1.25 276.8 " " 13600 - 6.1 860 1. 4.5 1160 1.1 316.6 " " 13600 - 5.4 970 1.3 4.0 1310 0.99 354.0 " " 13600 - 4.8 1090 1.3 3.6 1450 0.99 392.8 " " 13600 - 4.8 1090 1.0 7.5 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 9.0 580 4. 6.4 820 2.8 221.4 " " 15300 43300 7.6 690 3. 5.8 900 2.6 245.6 " " 15300 43300 6.9 760 3. 4.3 1220 1.9 325.6 " " 15300 43300 5.2 1010 2. 3				247.5	m .	II .		-			1.7
4.0 1310 0.99 354.0 " " 13600 - 4.8 1090 1.0 3.6 1450 0.9 392.8 " " 13600 - 4.8 1090 1.0 7.5 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 9.0 580 4.6 6.4 820 2.8 221.4 " " 15300 43300 7.6 690 3. 5.8 900 2.6 245.6 " " 15300 43300 5.8 900 2. 4.3 1220 1.9 325.6 " " 15300 43300 5.8 900 2. 4.3 1220 1.9 325.6 " " 15300 43300 5.2 1010 2. 3.7 1410 1.65 380.0 " " " 15300 43300 4.5 1160 2. 3.4 1540 1.5 421.6 " " 15300 43300	5.1	1020	1.25	276.8	"	II .	13600	-	6.1	860	1.5
3.6 1450 0.9 392.8 " " 13600 - 4.3 1220 1.0 7.5 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 9.0 580 4.6.4 820 2.8 221.4 " " 15300 43300 6.9 766 690 3. 5.8 900 2.6 245.6 " " 15300 43300 5.8 900 2.6 4.8 1090 2.1 293.4 " " 15300 43300 5.8 900 2.6 245.6 " " 15300 43300 5.2 1010 2.3 3.7 1410 1.65 380.0 " " 15300 43300 4.5 1160 2.3 3.4 1540 1.5 421.6 " " 15300 43300 4.5 1160 2.3 3.1 1690 1.35 459.9 " " 15300 43300 3.7 1410 1.6 2.8 1870 1.25 510.3 " " 15300 43300 3.7 1410 1.6 2.8 1870 1.25 569.3 BF60G20/D08MA4 137 15300 43300 3.0 1510 1.6 2.1 2200 1.15 689.0 " " 15300 43300 2.5 1810 1.3 2600 0.96 813.2 " " 15300 43300 2.5 1810 1.3 3.2 1640 3.2 439.2 BF70Z/D08MA4 218 16100 47700 3.9 1340 3.2 2.8 1870 2.8 1870 2.8 512.4 " " 16100 47700 3.3 1590 3.2 1.1 2200 2.6 673.6 " " 16100 47700 3.0 1500 3.2 1.1 2200 2.5 1850 3.1 577.5 " " 16100 47700 3.0 1500 3.2 1.1 2200 2.6 673.6 " " 16100 47700 2.5 1810 3.1 1.7 2800 2.0 2.6 673.6 " " 16100 47700 1.3 3650 1.5 1.1 4400 1.3 1390 " " 16100 47700 1.3 3650 1.5	4.5	1160	1.1	316.6	"	II .	13600	-	5.4	970	1.35
7.5 700 3.3 187.7 BF60Z/D08MA4 130 15300 43300 9.0 580 4.6 6.4 820 2.8 221.4 " " 15300 43300 7.6 690 3. 6.8 900 2.6 245.6 " " 15300 43300 6.9 760 3. 6.8 1090 2.1 293.4 " " 15300 43300 5.8 900 2. 6.3 1220 1.9 325.6 " " 15300 43300 5.2 1010 2. 6.3 1410 1.65 380.0 " " 15300 43300 4.5 1160 2. 6.4 1540 1.5 421.6 " " 15300 43300 4.5 1160 2. 6.8 1870 1.25 510.3 " " 15300 43300 3.7 1410 1.6 6.8 1870 1.25 510.3 " " 15300 43300 3.7 1410 1.6 6.1 1.5 569.3 BF60G20/D08MA4 137 15300 43300 3.0 1510 1.6 6.1 1.5 689.0 " " 15300 43300 2.5 1810 1. 6.1 1.8 2600 0.96 813.2 " " 15300 43300 2.1 2150 1.1 6.2 1 1 2200 1.15 689.0 " " 15300 43300 2.1 2150 1.1 6.8 1870 2.8 512.4 " " 16100 47700 3.9 1340 3. 6.7 1720 3.3 524.1 BF70G20/D08MA4 218 16100 47700 3.3 1590 3. 6.7 1720 3.3 524.1 BF70G20/D08MA4 216 16100 47700 3.3 1370 4. 6.8 1850 3.1 577.5 " " 16100 47700 3.0 1500 3. 6.1 2200 2.6 673.6 " " 16100 47700 2.5 1810 3. 6.1 2800 2.0 872.1 " " 16100 47700 2.5 1810 3. 6.1 2800 2.0 872.1 " " 16100 47700 1.7 2750 2. 6.1 3450 1.55 1017 " " 16100 47700 1.7 2750 2. 6.1 4400 1.3 1390 " " 16100 47700 1.3 3650 1.5	4.0	1310	0.99	354.0				-	4.8	1090	1.2
6.4 820 2.8 221.4 " 15300 43300 7.6 690 3.5 5.8 900 2.6 245.6 " 15300 43300 6.9 760 3.4 4.8 1090 2.1 293.4 " " 15300 43300 5.8 900 2. 4.3 1220 1.9 325.6 " " 15300 43300 5.2 1010 2. 3.7 1410 1.65 380.0 " " 15300 43300 4.5 1160 2. 3.4 1540 1.5 421.6 " " 15300 43300 4.5 1160 2. 3.1 1690 1.35 459.9 " " 15300 43300 3.7 1410 1.6 2.8 1870 1.25 510.3 " " 15300 43300 3.0 1510 1.6 2.1 2200 1.15 689.0 " " 15300 43300 2.5 1810 1. </td <th>3.6</th> <th>1450</th> <th>0.9</th> <td>392.8</td> <td>"</td> <td>"</td> <td>13600</td> <td>-</td> <td>4.3</td> <td>1220</td> <td>1.05</td>	3.6	1450	0.9	392.8	"	"	13600	-	4.3	1220	1.05
5.8 900 2.6 245.6 " " 15300 43300 6.9 760 3.4 4.8 1090 2.1 293.4 " " 15300 43300 5.8 900 2.4 4.3 1220 1.9 325.6 " " 15300 43300 5.2 1010 2.5 3.7 1410 1.65 380.0 " " 15300 43300 4.5 1160 2.5 3.4 1540 1.5 421.6 " " 15300 43300 4.0 1310 1.7 2.8 1870 1.25 510.3 " " 15300 43300 3.7 1410 1.6 2.5 1860 1.35 569.3 BF60G20/D08MA4 137 15300 43300 3.0 1510 1.6 2.1 2200 1.15 689.0 " " " 15300 43300 2.5 1810 1. 1.8 2600 0.96 813.2 " " 15300	7.5		3.3	187.7							4.0
4.8 1090 2.1 293.4 " " 15300 43300 5.8 900 2. 4.3 1220 1.9 325.6 " " 15300 43300 5.2 1010 2. 3.7 1410 1.65 380.0 " " 15300 43300 4.5 1160 2. 3.4 1540 1.5 421.6 " " 15300 43300 4.0 1310 1.7 3.1 1690 1.35 459.9 " " 15300 43300 3.7 1410 1.6 2.8 1870 1.25 510.3 " " 15300 43300 3.7 1410 1.6 2.5 1860 1.35 569.3 BF60G20/D08MA4 137 15300 43300 3.0 1510 1.6 2.1 2200 1.15 689.0 " " 15300 43300 2.5 1810 1. 1.8 2600 0.96 813.2 " " 15300 43300<											3.3
4.3 1220 1.9 325.6 " " 15300 43300 5.2 1010 2. 3.7 1410 1.65 380.0 " " 15300 43300 4.5 1160 2. 3.4 1540 1.5 421.6 " " 15300 43300 4.0 1310 1.7 3.1 1690 1.35 459.9 " " 15300 43300 3.7 1410 1.6 2.8 1870 1.25 510.3 " " 15300 43300 3.3 1590 1.4 2.5 1860 1.35 569.3 BF60G20/D08MA4 137 15300 43300 3.0 1510 1.6 2.1 2200 1.15 689.0 " " 15300 43300 2.5 1810 1. 1.8 2600 0.96 813.2 " " 15300 43300 2.1 2150 1.1 3.2 1640 3.2 439.2 BF70Z/D08MA4 218 16100 <th></th> <th></th> <th></th> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3.0</td>											3.0
3.7 1410 1.65 380.0 " " 15300 43300 4.5 1160 2.5 3.4 1540 1.5 421.6 " " 15300 43300 4.0 1310 1.7 3.1 1690 1.35 459.9 " " 15300 43300 3.7 1410 1.6 2.8 1870 1.25 510.3 " " 15300 43300 3.7 1410 1.6 2.1 2200 1.15 689.0 " " 15300 43300 3.0 1510 1.6 2.1 2200 1.15 689.0 " " 15300 43300 2.5 1810 1.1 1.8 2600 0.96 813.2 " " 15300 43300 2.1 2150 1.1 2.8 1870 2.8 512.4 " " 16100 47700 3.3 1590 3.2 2.7 1720 3.3 524.1 BF70G20/D08MA4 218 16100 47700 3.3 1590 3.2 2.5 1850 3.1 577.5 " " 16100 47700 3.0 1500 3.0 1510 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 1500 3.1 150											2.6
3.4 1540 1.5 421.6 " 15300 43300 4.0 1310 1.7 3.1 1690 1.35 459.9 " 15300 43300 3.7 1410 1.6 2.8 1870 1.25 510.3 " 15300 43300 3.3 1590 1.4 2.5 1860 1.35 569.3 BF60G20/D08MA4 137 15300 43300 3.0 1510 1.6 2.1 2200 1.15 689.0 " 15300 43300 2.5 1810 1.6 1.8 2600 0.96 813.2 " 15300 43300 2.1 2150 1.1 3.2 1640 3.2 439.2 BF70Z/D08MA4 218 16100 47700 3.9 1340 3. 2.8 1870 2.8 512.4 " 16100 47700 3.3 1590 3. 2.7 1720 3.3 524.1 BF70G20/D08MA4 216 16100 47700 3.3 1370 4. 2.5 1850 3.1 577.5 " 16100 47700 3.0 1500 3. 2.1 2200 2.6 673.6 " 16100 47700 2.5 1810 3. 1.7 2800 2.0 872.1 " 16100 47700 2.5 1810 3. 1.7 2800 2.0 872.1 " 16100 47700 2.0 2350 2.1 1.4 3450 1.65 1017 " 16100 47700 1.7 2750 2.1 1.1 4400 1.3 1390 " 16100 47700 1.3 3650 1.5											2.3
3.1 1690 1.35 459.9 " " 15300 43300 3.7 1410 1.6 2.8 1870 1.25 510.3 " " 15300 43300 3.3 1590 1.4 2.5 1860 1.35 569.3 BF60G20/D08MA4 137 15300 43300 3.0 1510 1.6 2.1 2200 1.15 689.0 " " 15300 43300 2.5 1810 1. 1.8 2600 0.96 813.2 " " 15300 43300 2.1 2150 1.1 3.2 1640 3.2 439.2 BF70Z/D08MA4 218 16100 47700 3.9 1340 3. 2.8 1870 2.8 512.4 " " 16100 47700 3.3 1590 3. 2.7 1720 3.3 524.1 BF70G20/D08MA4 216 16100 47700 3.3 1370 4. 2.5 1850 3.1 577.5 " "											2.0
2.8 1870 1.25 510.3 " " 15300 43300 3.3 1590 1.4 2.5 1860 1.35 569.3 BF60G20/D08MA4 137 15300 43300 3.0 1510 1.6 2.1 2200 1.15 689.0 " " 15300 43300 2.5 1810 1. 1.8 2600 0.96 813.2 " " 15300 43300 2.1 2150 1.1 3.2 1640 3.2 439.2 BF70Z/D08MA4 218 16100 47700 3.9 1340 3. 2.8 1870 2.8 512.4 " " 16100 47700 3.3 1590 3. 2.7 1720 3.3 524.1 BF70G20/D08MA4 216 16100 47700 3.3 1370 4. 2.5 1850 3.1 577.5 " " 16100 47700 3.0 1500 3. 2.1 2200 2.6 673.6 " "											
2.5 1860 1.35 569.3 BF60G20/D08MA4 137 15300 43300 3.0 1510 1.6 2.1 2200 1.15 689.0 " " 15300 43300 2.5 1810 1. 1.8 2600 0.96 813.2 " " 15300 43300 2.1 2150 1.1 3.2 1640 3.2 439.2 BF70Z/D08MA4 218 16100 47700 3.9 1340 3. 2.8 1870 2.8 512.4 " " 16100 47700 3.3 1590 3. 2.7 1720 3.3 524.1 BF70G20/D08MA4 216 16100 47700 3.3 1370 4. 2.5 1850 3.1 577.5 " " 16100 47700 3.0 1500 3. 2.1 2200 2.6 673.6 " " 16100 47700 2.5 1810 3. 1.7 2800 2.0 872.1 " " <											
2.1 2200 1.15 689.0 " " 15300 43300 2.5 1810 1.1 1.8 2600 0.96 813.2 " " 15300 43300 2.1 2150 1.1 3.2 1640 3.2 439.2 BF70Z/D08MA4 218 16100 47700 3.9 1340 3. 2.8 1870 2.8 512.4 " " 16100 47700 3.3 1590 3. 2.7 1720 3.3 524.1 BF70G20/D08MA4 216 16100 47700 3.3 1370 4. 2.5 1850 3.1 577.5 " " 16100 47700 3.0 1500 3. 2.1 2200 2.6 673.6 " " 16100 47700 2.5 1810 3. 1.7 2800 2.0 872.1 " " 16100 47700 2.0 2350 2. 1.4 3450 1.65 1017 " " 16100					PEGOGOO /DOSMAA						
1.8 2600 0.96 813.2 " 15300 43300 2.1 2150 1.1 3.2 1640 3.2 439.2 BF70Z/D08MA4 218 16100 47700 3.9 1340 3. 2.8 1870 2.8 512.4 " " 16100 47700 3.3 1590 3. 2.7 1720 3.3 524.1 BF70G20/D08MA4 216 16100 47700 3.3 1370 4. 2.5 1850 3.1 577.5 " " 16100 47700 3.0 1500 3. 2.1 2200 2.6 673.6 " " 16100 47700 2.5 1810 3. 1.7 2800 2.0 872.1 " " 16100 47700 2.0 2350 2. 1.4 3450 1.65 1017 " " 16100 47700 1.3 3650 1.5 1.1 4400 1.3 1390 " " 16100 47700											1.03
2.8 1870 2.8 512.4 " " 16100 47700 3.3 1590 3.2 2.7 1720 3.3 524.1 BF70G20/D08MA4 216 16100 47700 3.3 1370 4.4 2.5 1850 3.1 577.5 " " 16100 47700 3.0 1500 3. 2.1 2200 2.6 673.6 " " 16100 47700 2.5 1810 3. 1.7 2800 2.0 872.1 " " 16100 47700 2.0 2350 2. 1.4 3450 1.65 1017 " " 16100 47700 1.7 2750 2. 1.1 4400 1.3 1390 " " 16100 47700 1.3 3650 1.5					п	ıı					1.15
2.8 1870 2.8 512.4 " " 16100 47700 3.3 1590 3.2 2.7 1720 3.3 524.1 BF70G20/D08MA4 216 16100 47700 3.3 1370 4.4 2.5 1850 3.1 577.5 " " 16100 47700 3.0 1500 3. 2.1 2200 2.6 673.6 " " 16100 47700 2.5 1810 3. 1.7 2800 2.0 872.1 " " 16100 47700 2.0 2350 2. 1.4 3450 1.65 1017 " " 16100 47700 1.7 2750 2. 1.1 4400 1.3 1390 " " 16100 47700 1.3 3650 1.5	3.2	1640	3 2	439 2	BF707- /D08M44	218	16100	47700	3 9	1340	3.9
2.7 1720 3.3 524.1 BF70G20/D08MA4 216 16100 47700 3.3 1370 4. 2.5 1850 3.1 577.5 " " 16100 47700 3.0 1500 3. 2.1 2200 2.6 673.6 " " 16100 47700 2.5 1810 3. 1.7 2800 2.0 872.1 " " 16100 47700 2.0 2350 2. 1.4 3450 1.65 1017 " " 16100 47700 1.7 2750 2. 1.1 4400 1.3 1390 " " 16100 47700 1.3 3650 1.5											3.3
2.5 1850 3.1 577.5 " " 16100 47700 3.0 1500 3.2 2.1 2200 2.6 673.6 " " 16100 47700 2.5 1810 3.2 1.7 2800 2.0 872.1 " " 16100 47700 2.0 2350 2.0 1.4 3450 1.65 1017 " " 16100 47700 1.7 2750 2.0 1.1 4400 1.3 1390 " 16100 47700 1.3 3650 1.5					BF70G20/D08MA4	216					4.2
2.1 2200 2.6 673.6 " " 16100 47700 2.5 1810 3.6 1.7 2800 2.0 872.1 " 16100 47700 2.0 2350 2.0 1.4 3450 1.65 1017 " 16100 47700 1.7 1.7 2750 2.0 1.1 4400 1.3 1390 " 16100 47700 1.3 3650 1.5											3.8
1.7 2800 2.0 872.1 " 16100 47700 2.0 2350 2.0 1.4 3450 1.65 1017 " 16100 47700 1.7 2750 2.0 1.1 4400 1.3 1390 " 16100 47700 1.3 3650 1.5					u u	II .					3.1
1.4 3450 1.65 1017 " " 16100 47700 1.7 2750 2.7 1.1 4400 1.3 1390 " 16100 47700 1.3 3650 1.5					II .	II					2.4
1.1 4400 1.3 1390 " " 16100 47700 1.3 3650 1.5					II .	ıı					2.1
					II .	II .					1.55
	0.9	5400	1.05	1621	"	II .	16100	47700	1.1	4350	1.3

Selection - parallel shaft geared motors DHE - IE2

P = 0.55 kW



	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
1.5	3500	3.0	990.4	BF80Z/D08MA4	334	39600	75000	1.7	3050	3.4
1.3	4000	2.6	1124	m .	II .	39600	75000	1.5	3500	3.0
1.1	3300	3.2	1329	BF80G40/D08MA4	340	39600	75000	1.3	2550	4.1
0.95	4100	2.6	1491	m .	II .	39600	75000	1.2	2950	3.6
0.85	4550	2.3	1693	"	"	39600	75000	1.0	3650	2.9
0.7	5900	1.8	2051	"	II .	39600	75000	0.85	4550	2.3
0.6	7100	1.5	2422	"	II .	39600	75000	0.7	5900	1.8
0.55	7500	1.4	2785	"	II .	39600	75000	0.65	6000	1.75
0.46	9300	1.15	3092	II	"	39600	75000	0.55	7400	1.4
0.65	6000	3.1	2154	BF90G50/D08MA4	610	42800	120000	0.8	4500	4.1
0.55	7100	2.6	2656	"	II .	42800	120000	0.65	5700	3.2
0.48	8600	2.2	2952	"	II .	42800	120000	0.6	6500	2.8
0.43	9700	1.9	3286	m m	II .	42800	120000	0.55	7000	2.6
0.39	10900	1.7	3644	m m	II .	42800	120000	0.47	8600	2.2
0.33	13400	1.4	4366	m m	II .	42800	120000	0.39	10900	1.7
0.29	15600	1.2	4839	II	ıı .	42800	120000	0.35	12500	1.5

P = 0.75 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		21		1114		n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	, ,
250	28.5	2.2	5.72	BF06/DHE08XA4	18	1630	-	300	23.5	2.6
186	38.5	1.75	7.66	m .	II .	1800	-	225	31.5	2.2
155	46	1.5	9.21	m .	II .	1900	-	186	38.5	1.8
118	60	1.25	12.07	m .	II .	2000	-	142	50	1.5
100	71	1.2	14.21	m .	II .	2100	-	121	59	1.45
84	85	1.1	16.99	m .	II .	2500	-	101	70	1.35
70	102	0.93	20.42	п	"	2700	-	84	85	1.1
120	59	3.1	11.84	BF10/DHE08XA4	30	2500	-	145	49	3.7
95	75	2.4	15.04	"	"	2800	-	114	62	3.0
78	91	2.6	18.23	"	"	2900	-	94	76	3.2
71	100	2.4	20.05	"	"	3000	-	86	83	2.9
61	117	2.1	23.28	"	"	3200	-	74	96	2.5
56	127	1.9	25.60	"	"	3350	-	67	106	2.3
50	143	1.7	28.47	"	"	3450	-	61	117	2.1
45.5	157	1.55	31.31	"	"	3600	-	55	130	1.85
39.5	181	1.35	36.15	"	"	3800	-	47.5	150	1.6
36	198	1.2	39.75	"	"	3950	-	43.5	164	1.45
33	215	1.1	43.06	"	"	4100	-	40	179	1.35
30	235	1.0	47.35	"	"	4250	-	36.5	196	1.2
28	255	0.94	51.28	"	"	4400	-	33.5	210	1.15
25.5	280	0.86	56.39	"	"	4550	-	30.5	230	1.05
23.5	300	8.0	61.55	II	II	4700	-	28	255	0.94
59	121	3.3	24.25	BF20/DHE08XA4	36	3950	-	71	100	4.0
52	137	3.1	27.62	"	"	4150	-	62	115	3.7
47	152	2.8	30.40	"	"	4400	-	57	125	3.4
44	162	2.6	32.58	"	"	4450	-	53	135	3.1
40	179	2.3	35.85	"	"	4650	-	48	149	2.8
34.5	205	2.0	41.72	"	"	4950	-	41	174	2.4
31	230	1.85	45.90	"	II .	5100	-	37.5	191	2.2
29.5	240	1.75	48.56	"	II .	5200	-	35.5	200	2.1
27	265	1.6	53.43	"	"	5500	-	32.5	220	1.9
24.5	290	1.45	58.24	"	"	5600	-	29.5	240	1.75
22.5	315	1.35	64.08	"	"	5900	-	27	265	1.6
20.5	345	1.2	69.70	"	"	6100	-	25	285	1.45
19	375	1.1	76.69	"	"	6300	-	22.5	315	1.35
16.5	430	0.98	87.31	п	II .	6600	-	20	355	1.2

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 0.75 kW



Type											
No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No.		50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
	n ₂	M ₂	f _B		••				n ₂	M_2	f _B
14.5	1/min		-			kg	N	N			-
37	14.5	490	0.86	100.2	BF20/DHE08XA4		7000	-	17.5	405	1.05
37											
35	41	174	3.3	35.00	BF30/DHE08XA4	46	4200	-	49	146	3.9
35	37	193	3.0	38.49	m .	II .	4400	-	44.5	160	3.6
31.5	35	200	2.9	41.01	m .	II .	4500	-	42	170	
27.5 260 2.2 52.20 "	31.5	225	2.6	45.10	m .	II .	4700	-		188	
25. 285		260	2.2	52.20	m .	II .		-			
23.5 300 1.9 61.17 " " 5300 - 28 255 23 20 355 1.6 72.13 " " 5700 - 24 295 195 18 395 1.45 79.34 " " 5700 - 24 295 195 18 395 1.45 79.34 " " 5700 - 24 295 195 16.5 430 1.35 87.08 " " 600 - 20 355 1.6 15 475 1.2 95.79 " " 6400 - 18 395 1.45 13.5 530 1.1 107.6 " " 6700 - 16 445 1.3 13.5 530 1.1 107.6 " " 6700 - 16 445 1.3 13.5 570 1.0 118.3 " " 7000 - 14 5 490 1.15 11.5 620 0.93 124.7 " " " 7100 - 14 5 510 1.15 11.5 680 0.85 137.1 " " 7000 - 14 5 510 1.15 11.5 680 0.85 137.1 " " 7000 - 125 570 1.0 10.5 680 0.85 137.1 " " 7600 - 28 22 220 4.1 23.5 300 3.0 61.25 " " 7600 - 28 255 3.5 21.5 330 2.7 67.38 " " 8000 - 255 280 3.2 21.5 330 2.7 67.38 " " 8000 - 255 280 3.2 21.5 330 2.7 67.38 " " 8000 - 255 280 3.2 21.5 385 2.3 78.55 " " 8000 - 22 325 28 18.7 420 2.1 83.91 " " 8000 - 22 325 28 18.7 420 2.1 83.91 " " 8700 - 21 32 220 4.1 13.5 500 1.65 111.1 " " 9900 - 19 375 2.4 13.5 500 1.65 111.1 " " 9900 - 155 460 1.95 13.5 460 1.95 92.31 " " 9100 - 155 460 1.95 13.5 680 1.3 137.0 " " 10000 - 155 400 1.95 13.5 680 1.3 137.0 " " 10000 - 155 400 1.95 13.5 680 1.3 137.0 " " 10000 - 155 400 1.95 14.5 490 2.7 10.15 15.5 680 1.3 137.0 " " 10000 - 170 1.25 17.6 940 0.96 188.3 " " 10000 - 155 400 1.95 18.5 880 2.2 8133 8F50//DHE08XA4 84 11300 - 21.5 330 3.9 18.5 500 1.65 111.1 " " 10000 - 10 710 1.25 17.5 405 1.2 12.5 " " 10000 - 10 710 1.25 17.5 405 1.2 12.5 " " 10000 - 155 400 1.95 18.3 860 1.05 17.1 18.5 8F402//DHE08XA4 84 11300 - 15.5 400 1.95 18.3 860 1.05 17.1 18.5 8F402//DHE08XA4 88 13000 - 15.5 400 1.95 18.5 405 1.9 138.1 BF502//DHE08XA4 88 13000 - 15.5 500 1.55 18.5 1300 1.05 247.5 " " 13000 - 10 710 1.25 18.5 1300 1.05 247.5 " " 13000 - 17.7 10.0 1.25 18.5 1300 1.05 247.5 " " 13000 - 17.7 10.0 1.25 18.5 1300 1.05 247.5 " " 13000 - 17.7 10.0 1.25 18.6 1230 1.05 247.5 " " 13000 - 17.5 1300 1.05 18.5 1300 1.05 247.5 " " 13000 - 17.5 1300 1.05 18.4 1310 1.15 1.2 " " 13000 - 17.5 1300 1.05 18.5 1300 1.05 247.5 " " 13000 - 17.5 1300 1.05 18.5 1300 1.05 247.5 " " 13000 - 17.5 1300 1.05 18.4 1310 1.15 1.15 1.15 1.15 1.		285	2.0	57.41	n n	n .		_			
21.5 330			1		m .	11		_			
20 355 1.6 72,13 " " 5700 - 24 295 195 18 395 1.45 79,34 " " 5900 - 20 355 1.6 15 475 1.2 95.79 " " 6400 - 2 10 355 1.6 15 475 1.2 95.79 " " 6400 - 2 16 445 1.3 13.5 530 1.1 107.6 " " 7000 - 1 16 445 1.3 13.5 530 1.1 107.6 " " 7000 - 1 14 510 1.15 11.5 620 0.93 124.7 " " 7100 - 1 14 510 1.15 10.5 680 0.85 137.1 " " 7600 - 2 12 570 1.0 26.5 270 3.3 53.82 BF40/DHE08XA4 55 7200 - 2 2 220 4.1 23.5 300 3.0 61.25 " " " 7600 - 2 28 255 3.5 21.5 330 2.7 67.38 " " 8800 - 2 25 280 3.2 21.5 330 2.7 67.38 " " 8800 - 2 25 280 3.2 18.5 385 2.3 78.55 " " 8800 - 2 2 22 25 28 17. 420 2.1 83.91 " " 8700 - 2 20 355 2.5 15.5 460 1.95 92.31 " " 9100 - 1 9 375 2.4 18.5 500 1.65 111.1 " " 9800 - 15.5 460 1.95 18.3 860 1.3 137.0 " " 10600 - 1 1.5 500 1.6 18.3 860 1.3 137.0 " " 10600 - 1 1.5 500 1.6 18.3 860 1.05 17.1 " " 10600 - 1 1.5 500 1.6 18.3 860 1.05 17.1 " " 10600 - 1 1.5 500 1.6 18.3 860 1.05 17.1 " " 10600 - 1 1.5 500 1.6 18.4 1110 0.81 222.4 " " 10600 - 1 1.5 500 1.5 18.5 405 3.2 81.33 BF402/DHE08XA4 84 11300 - 2 1.5 330 3.9 17.5 405 3.2 81.33 BF502/DHE08XA4 84 11300 - 2 1.5 330 3.9 17.5 405 3.2 81.33 BF502/DHE08XA4 84 11300 - 3 1.5 400 1.5 18.4 800 1.8 3.5 " " 13600 - 3 1.5 400 1.5 18.5 400 1.8 3.5 " " 13600 - 3 1.5 400 1.5 18.4 800 1.2 1.25 " " 13600 - 3 1.5 400 1.5 18.5 400 1.45 183.5 " " 13600 - 3 1.5 400 1.5 18.5 400 1.3 1.3 " " 1.3 1.3			1		n n	"		_			
18	1		1		n n	"		_			
16.5	1				n n	"		_			
15					m .	"		_			I .
13.5 530					m m	11		_			
12.5 570 1.0 118.3 " " 7000 - 14.5 490 1.15 10.5 680 0.85 137.1 " " 7400 - 12.5 570 1.0 26.5 270 3.3 53.82 BF40/DHE08XA4 55 7200 - 32 220 4.1 23.5 300 3.0 61.25 " " 76000 - 28 255 3.5 21.5 330 2.7 67.38 " " 8000 - 25.5 280 3.2 20 355 2.5 71.40 " " 8100 - 24 295 3.1 81.5 385 2.3 78.55 " " 8500 - 22 325 2.8 17 420 2.1 83.91 " " 9800 - 19 375 2.4 14.5 490 1.85 101.0 " " 9400 - 19 375 2.4 14.5 490 1.85 101.0 " " 9800 - 15.5 460 1.95 11.5 620 1.45 124.5 " " 10200 - 14 510 1.75 10.5 680 1.3 137.0 " " 10600 - 12.5 570 1.6 8.3 860 1.05 171.2 " " 10600 - 12.5 570 1.6 8.3 860 1.05 171.2 " " 10600 - 11 650 1.4 8.3 860 1.05 171.2 " " 10600 - 1.5 570 1.6 8.4 1110 0.81 222.4 " " 10600 - 17.7 420 2.7 17.5 405 3.2 81.33 8F50/DHE08XA4 84 11300 - 21.5 330 3.9 16.4 445 2.9 90.24 " " 10600 - 15.5 570 2.3 17.5 405 3.2 81.33 8F50/DHE08XA4 84 11300 - 21.5 530 0.97 17.5 405 3.2 81.33 8F50/DHE08XA4 84 11300 - 15.5 570 2.3 18.5 405 2.7 10.9 " " 10600 - 15.5 570 2.3 18.5 405 2.7 10.9 " " 10600 - 15.5 570 2.3 18.5 405 2.7 10.9 " " 10600 - 15.5 570 2.3 18.5 405 2.7 10.9 " " 10600 - 15.5 570 2.3 18.5 405 2.7 10.9 " " 10600 - 15.5 570 2.3 18.5 405 2.7 10.9 " " 10600 - 15.5 570 2.3 18.5 405 2.7 10.9 " " 10600 - 15.5 570 2.3 18.5 405 2.7 10.9 " " 10600 - 15.5 570 2.3 18.5 405 2.7 10.9 " " 10600 - 15.5 570 2.3 18.5 405 2.7 10.9 " " 10600 - 15.5 570 2.3 18.5 405 2.7 10.9 " " 10600 - 15.5 570 2.3 18.5 405 2.7 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	_				m .	11		_			
11.5 620 0.93 124.7 " " 7100 - 14 510 1.15 10.5 680 0.85 137.1 " " 7400 - 12.5 570 1.0 10.5 680 0.85 137.1 " " 7400 - 12.5 570 1.0 26.5 270 3.3 53.82 BF40/DHE08XA4 55 7200 - 32 220 4.1 23.5 300 3.0 61.25 " " 8000 - 28 255 3.5 21.5 330 2.7 67.38 " " 8000 - 25.5 280 3.2 21.5 330 2.7 67.38 " " 8000 - 25.5 280 3.2 21.5 385 2.3 78.55 " " 8500 - 22 325 28 17. 420 2.1 83.91 " " 8700 - 20.5 345 2.6 15.5 460 1.95 92.31 " " 9100 - 19 375 2.4 14.5 490 1.65 101.0 " " 9400 - 17 420 2.1 13 550 1.65 111.1 " " 9900 - 15.5 460 1.95 11.5 620 1.45 124.5 " " 10000 - 14 510 1.75 10.5 680 1.3 137.0 " " 10000 - 11.5 50 1.5 11.6 9.2 770 1.15 155.6 BF40Z/DHE08XA4 59 10600 - 11.5 50 1.4 8.3 860 1.05 171.2 " " 10600 - 10 710 1.25 7.6 940 0.96 1883 " " 10600 - 10 710 1.25 7.6 110 0.81 222.4 " " 10600 - 10 710 1.25 7.6 140 - 1110 0.81 222.4 " " 10600 - 17,7 930 0.97 17.5 405 3.2 81.33 BF50/DHE08XA4 84 11300 - 21.5 330 3.9 16 445 2.9 90.24 " " 11800 - 19 375 3.5 16.5 405 3.2 81.33 BF50/DHE08XA4 88 13600 - 11.5 50 2.5 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.5 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.5 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.5 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.5 11.5 620 2.1 127.5 " " 11800 - 15.5 50 2.5 11.5 620 2.1 127.5 " " 11800 - 15.5 50 2.5 11.5 620 2.1 127.5 " " 11800 - 15.5 50 2.5 11.5 620 2.1 127.5 " " 11800 - 15.5 50 2.5 11.5 620 2.1 127.5 " " 11800 - 15.5 50 2.5 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.5 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.5 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.7 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.7 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.7 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.7 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.7 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.7 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.7 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.7 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.7 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.7 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.7 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.7 11.5 620 2.1 127.5 " " 13600 - 15.5 50 2.7 11.					п	11		_			I .
10.5 680 0.85 137.1 " " 7400 - 12.5 570 1.0 26.5 270 3.3 58.2 BF40//DHE08XA4 55 7200 - 32 220 4.1 23.5 300 3.0 61.25 " 767.38 " 28000 - 28 255 280 3.2 20 355 2.5 71.40 " 88000 - 25.5 280 3.2 20 355 2.5 71.40 " 88000 - 22 325 280 3.2 21 38.5 3.3 78.55 " 88000 - 22 325 280 3.2 22 32 78.55 " 88000 - 22 325 280 3.2 23 78.55 " 88000 - 22 325 280 3.2 24 295 3.1 25 406 1.95 92.31 " 87000 - 20.5 345 2.6 17 420 2.1 83.91 " 88700 - 20.5 345 2.6 18.5 460 1.95 92.31 " 94000 - 19 375 2.4 18.5 490 1.85 101.0 " 94000 - 17 420 2.1 13 550 1.65 111.1 " 98000 - 15.5 460 1.95 11.5 620 1.45 124.5 " 10.00 - 15.5 460 1.95 10.5 680 1.3 13.5 15.6 BF402//DHE08XA4 59 10600 - 11.5 570 1.6 8.3 860 1.05 171.2 " 10600 - 11 650 1.4 8.3 860 1.05 171.2 " 10600 - 11 650 1.4 8.3 860 1.05 171.2 " 10600 - 11 710 1.25 7.6 940 0.96 188.3 " 10600 - 11 710 1.25 7.6 440 1.98 222.4 " 10600 - 11 770 1.25 7.6 440 1.98 222.4 " 10600 - 15 300 3.9 17.5 405 3.2 8133 8F50//DHE08XA4 84 11300 - 21.5 330 3.9 17.5 405 3.2 8133 8F50//DHE08XA4 84 11300 - 19 375 3.5 14.5 490 2.7 100.9 " 125 570 2.3 14.5 490 2.7 100.9 " 125 570 2.3 14.5 490 2.7 150.9 138.1 8F50//DHE08XA4 88 13600 - 11.5 475 2.7 11.5 620 2.1 127.5 " 13660 - 15.5 570 2.3 14.5 490 2.7 100.9 " 115000 - 15 475 2.7 15.5 620 2.1 127.5 " 13600 - 15.5 570 2.3 14.5 490 2.7 100.9 " 115000 - 15 475 2.7 15.5 620 2.1 127.5 " 13600 - 15.5 570 2.3 14.5 490 2.7 100.9 " 115000 - 15 475 2.7 15.5 620 2.1 127.5 " 13600 - 15.5 570 2.3 16.4 110 0.81 222.4 " 13600 - 15.5 570 2.3 17.6 940 2.4 187.7 " 13600 - 6.2 1150 1.5 18.4 850 2.7 169.2 BF602//DHE08XA4 132 15300 43300 10.5 680 3.4 15.8 1230 1.05 247.5 " 13600 - 6.2 1150 1.5 15.8 1230 1.05 247.5 " 13600 - 15.5 1300 1.0 1.0 4.4 1620 1.4 325.6 " 15.5 1300 43300 5.3 1350 1.7 3.8 1880 1.2 29.3 4 " 15300 43300 5.3 1350 1.7 3.8 1880 1.2 29.4 " 15300 43300 5.3 1350 1.7 3.8 1880 1.2 28.5 0.9 50.9 8600.0 " 15.5 1530 43300 3.4 1100 1.1 3.8 1880 1.2 300 1.0 4599 " 11.5 15300 43300 3.1 1.0050 1.1					п	11					
26.5 270 3.3 53.82 BF40/DHE08XA4 55 7200 - 32 220 4.1 23.5 300 3.0 61.25 " 7600 - 28 255 3.5 21.5 330 2.7 67.38 " 8000 - 25.5 280 3.2 20 355 2.5 71.40 " 8100 - 24 295 3.1 18.5 385 2.3 78.55 " 8800 - 22 325 2.8 17 420 2.1 83.91 " 8800 - 22 325 2.8 15.5 460 1.95 92.31 " 88700 - 20.5 345 2.6 15.5 460 1.95 92.31 " 9400 - 19 375 2.4 14.5 490 1.85 101.0 " 9400 - 17 420 2.1 13 550 1.65 111.1 " 9800 - 15.5 460 1.95 11.5 620 1.45 124.5 " 10000 - 14 510 1.75 10.5 680 1.3 137.0 " 10600 - 12.5 570 1.6 19.2 770 1.15 155.6 BF402/DHE08XA4 59 10600 - 11 650 1.4 8.3 860 1.05 171.2 " 10600 - 10 770 1.25 7.6 940 0.96 188.3 " 10600 - 9.1 780 1.15 7.1 1000 0.9 20.22 " 10600 - 11 650 1.4 1110 0.81 222.4 " 10600 - 8.5 840 1.05 6.4 1110 0.81 222.4 " 10600 - 7.7 930 0.97 17.5 405 3.2 81.33 BF50/DHE08XA4 84 11300 - 2 1.5 330 3.9 16 445 2.9 90.24 " 11800 - 19 375 3.5 11.5 620 2.3 1140 " 12900 - 15 475 2.7 11.5 620 2.1 127.5 " 13600 - 15 475 2.7 11.5 620 2.3 1140 " 13600 - 15 475 2.7 11.5 620 2.3 1140 " 12900 - 15 475 2.7 11.5 620 2.3 1140 " 13600 - 15 475 2.7 11.5 620 2.3 1140 " 154.5 " 13600 - 15 475 2.7 11.5 620 2.3 1140 " 154.5 " 13600 - 15 475 2.7 11.5 620 2.3 1140 " 154.5 " 13600 - 15 5 475 2.7 11.5 620 2.3 1140 " 154.5 " 13600 - 15 5 475 2.7 12.5 570 2.3 1140 " 13600 - 15 5 570 2.3 12.5 570 2.3 1140 " 154.5 " 13600 - 15 5 570 2.3 12.5 570 2.3 1140 " 154.5 " 13600 - 5 5.5 1300 1.0 8.4 850 2.7 169.2 BF60Z/DHE08XA4 88 13600 - 12.5 570 2.3 12.5 570 2.3 150.3 BF60GZ/DHE08XA4 132 15300 43300 7.0 1020 2.5 13.8 1230 1.5 24.5 " 13600 - 5 5.5 1300 1.0 1.4 4216 " 15300 43300 3.4 2100 1.1 2.8 2550 0.9 510.3 BF60G20/DHE08XA4 140 15300 43300 3.1 1055 10.2 2.5 2600 0.96 563 BF60G20/DHE08XA4 140 15300 43300 3.1 1055 10.2	1				п	11		_	1		
23.5 300 3.0 61.25 " " 7600 - 28 255 3.5 21.5 330 2.7 67.38 " " 8000 - 25.5 280 3.2 20 355 2.5 71.40 " " 8100 - 24 295 3.1 18.5 385 2.3 78.55 " " 8500 - 22 325 2.8 17 420 2.1 83.91 " " 8700 - 20.5 345 2.6 15.5 460 1.95 92.31 " " 9400 - 17 420 2.1 13 550 1.65 111.1 " " 9800 - 15.5 460 1.95 11.5 620 1.45 124.5 " " 10200 - 14 510 1.75 10.5 680 1.3 137.0 " " 10600 - 12.5 570 1.6 18.3 860 1.05 171.2 " " 10600 - 11 650 1.4 8.3 860 1.05 171.2 " " 10600 - 9.1 760 1.5 7.1 1000 0.9 20.2 " " 10600 - 9.1 780 1.15 6.4 1110 0.81 2224 " " 10600 - 8.5 840 1.05 6.4 1110 0.81 2224 " " 10600 - 7.7 930 0.97 17.5 405 3.2 81.33 BF50/DHE08XA4 84 11300 - 12.5 570 2.3 14.5 490 2.7 100.9 " " 12300 - 17 420 3.1 12.5 570 2.3 1140 " " 12900 - 15 530 2.5 14.5 490 2.7 100.9 " " 12300 - 17 420 3.1 12.5 570 2.3 1140 " " 13600 - 15 530 2.5 14.5 490 2.7 100.9 " " 13600 - 15 530 2.5 14.5 490 2.7 100.9 " " 13600 - 15 530 2.5 14.5 490 2.7 100.9 " " 13600 - 15 530 2.5 14.5 490 2.7 100.9 " " 13600 - 15 530 2.5 14.5 490 2.7 100.9 " " 13600 - 15 475 2.7 11.5 620 2.1 127.5 " " 13600 - 15 570 2.3 14.5 490 2.7 100.9 " " 13600 - 15 570 2.3 14.5 490 2.7 100.9 " " 13600 - 15 570 2.3 14.5 490 2.7 100.9 " " 13600 - 15 570 2.3 14.5 490 2.7 100.9 " " 13600 - 15 570 2.3 14.5 490 2.7 100.9 " " 13600 - 15 570 2.3 14.5 490 2.7 100.9 " " 13600 - 15 570 2.3 14.5 490 2.7 100.9 " " 13600 - 5.5 1300 2.5 15.5 80 1.9 138.5 " " 13600 - 6.2 1150 1.5 5.8 1230 1.05 247.5 " " 13600 - 6.2 1150 1.5 5.8 1230 1.05 247.5 " " 13600 - 5.5 1300 1.0 8.4 850 2.7 169.2 BF602/DHE08XA4 132 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.0 1020 2.3 4.9 1460 1.6 293.4 " " 15300 43300 7.0 1020 2.3 5.8 1220 1.85 245.6 " " 15300 43300 7.0 1020 2.3 5.8 1220 1.85 245.6 " " 15300 43300 7.0 1020 2.3 5.8 1220 1.10 459.9 " " 15300 43300 7.0 1020 2	10.5	000	0.03	137.1			7-100		12.5	370	1.0
23.5 300 3.0 61.25 " " 7600 - 28 255 3.5 21.5 330 2.7 67.38 " " 8000 - 25.5 280 3.2 20 355 2.5 71.40 " " 8100 - 24 295 3.1 18.5 385 2.3 78.55 " " 8500 - 22 325 2.8 17 420 2.1 83.91 " " 8700 - 20.5 345 2.6 15.5 460 1.95 92.31 " " 9400 - 17 420 2.1 13 550 1.65 111.1 " " 9800 - 15.5 460 1.95 11.5 620 1.45 124.5 " " 10200 - 14 510 1.75 10.5 680 1.3 137.0 " " 10600 - 12.5 570 1.6 18.3 860 1.05 171.2 " " 10600 - 11 650 1.4 8.3 860 1.05 171.2 " " 10600 - 9.1 760 1.5 7.1 1000 0.9 20.2 " " 10600 - 9.1 780 1.15 6.4 1110 0.81 2224 " " 10600 - 8.5 840 1.05 6.4 1110 0.81 2224 " " 10600 - 7.7 930 0.97 17.5 405 3.2 81.33 BF50/DHE08XA4 84 11300 - 12.5 570 2.3 14.5 490 2.7 100.9 " 12300 - 17 420 3.1 12.5 570 2.3 1140 " " 12900 - 15 530 2.5 14.5 490 2.7 100.9 " " 12300 - 17 420 3.1 12.5 570 2.3 1140 " " 13600 - 15 530 2.5 14.5 490 2.7 100.9 " " 13600 - 15 530 2.5 14.5 490 2.7 100.9 " " 13600 - 15 530 2.5 14.5 490 2.7 100.9 " " 13600 - 15 530 2.5 14.5 490 2.7 100.9 " " 13600 - 15 530 2.5 14.5 490 2.7 100.9 " " 13600 - 15 530 2.5 14.5 490 2.7 100.9 " " 13600 - 15 530 2.5 14.5 490 2.7 100.9 " " 13600 - 15 530 2.5 14.5 490 2.7 100.9 " " 13600 - 15 530 2.5 14.5 490 2.7 100.9 " " 13600 - 15 530 2.5 14.5 490 2.7 100.9 " " 13600 - 15 530 2.5 14.5 490 2.7 100.9 " " 13600 - 15 530 2.5 14.5 490 2.7 100.9 " " 13600 - 15 530 2.5 15.5 80 1.9 138.5 " " 13600 - 5.5 1300 1.0 1.5 680 1.9 138.5 " " 13600 - 6.2 1150 1.5 1.5 5.8 1230 1.05 247.5 " " 13600 - 6.2 1150 1.5 1.5 5.8 1230 1.85 245.6 " " 13600 - 5.5 1300 7.8 910 2.5 1.8 1230 1.85 245.6 " " 15300 43300 7.8 910 2.5 1.8 1230 1.85 245.6 " " 15300 43300 7.8 910 2.5 1.8 1230 1.85 245.6 " " 15300 43300 7.0 1020 2.3 1.9 1460 1.6 293.4 " " 15300 43300 7.0 1020 2.3 1.9 1460 1.6 293.4 " " 15300 43300 7.0 1020 2.3 1.9 1460 1.6 293.4 " " 15300 43300 7.0 1020 2.3 1.9 1460 1.6 293.4 " " 15300 43300 7.0 1020 2.3 1.9 1460 1.6 293.4 " " 15300 43300 7.0 1020 2.3 1.9 1460 1.6 293.4 " " 15300 43300 7.0 1020 1.25 1.8 125 500 0.9 510.3 BF60G20/DHE08XA4 140 15300 43300 3.1 1005 1.2	26.5	270	3 3	53.82	RE40- /DHE08YA4	55	7200	_	32	220	4 1
21.5 330 2.7 67.38 " " 8000 - 25.5 280 3.2 20 355 2.5 71.40 " " 8500 - 24 295 3.1 18.5 385 2.3 78.55 " " 8500 - 22 325 2.8 17 420 2.1 83.91 " " 8700 - 20.5 345 2.6 15.5 460 1.95 92.31 " " 9100 - 19 375 2.4 14.5 490 1.85 101.0 " " 9400 - 17 420 2.1 13 550 1.65 111.1 " " 9800 - 15.5 460 1.95 11.5 620 1.45 124.5 " " 10200 - 14 510 1.75 10.5 680 1.3 137.0 " " 10600 - 12.5 570 1.6 9.2 770 1.15 155.6 BF40Z/DHE08XA4 59 10600 - 11.0 710 1.25 7.6 940 0.96 1883 " " 10600 - 9.1 78 80 1.15 7.1 1000 0.9 202.2 " " 10600 - 9.1 78 80 1.15 7.1 1100 0.9 202.2 " " 10600 - 9.1 78 80 1.15 7.1 1000 0.9 100.2 " 100.9 1.15 11.5 405 3.2 81.33 BF50/DHE08XA4 84 11300 - 21.5 330 3.9 16 445 2.9 90.24 " " 11800 - 19 375 3.5 14.5 490 2.7 100.9 " " 12900 - 15 475 2.7 11.5 620 2.1 127.5 " " 13600 - 12.5 570 2.3 14.5 490 2.7 100.9 " " 13800 - 17 420 3.1 12.5 570 2.3 114.0 " " 13600 - 15 475 2.7 7.8 910 1.45 183.5 " " 13600 - 12.5 570 2.3 14.5 490 2.7 100.9 " " 13800 - 17 420 3.1 12.5 570 2.3 114.0 " " 13600 - 15 475 2.7 7.8 910 1.45 183.5 " " 13600 - 12.5 570 2.3 10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 12.5 570 2.3 10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 12.5 570 2.3 10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 12.5 570 2.3 10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 12.5 570 2.3 10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 12.5 570 2.3 10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 12.5 570 2.3 10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 15.5 570 2.3 10.5 680 1.9 138.1 BF50Z/DHE08XA4 132 15300 43300 10.5 680 3.4 1.5 1590 0.82 316.6 " " 13600 - 5.5 1300 1.0 1.0 1.0 1.1 1.2 1.2 1.4 " " 15300 43300 7.0 1020 1.2 1.5 1.5 1.1 1.5 1.1 1.1 1.1 1.1 1.1 1.1	1		1								
20 355 2.5 71.40 " " 8100 - 24 295 3.1 18.5 385 2.3 78.55 " " 8700 - 20.5 345 2.6 17 420 2.1 83.91 " " 8700 - 20.5 345 2.6 15.5 460 1.95 92.31 " " 9100 - 19 375 2.4 14.5 490 1.85 101.0 " " 9800 - 15.5 460 1.95 11.5 620 1.45 111.1 " " 9800 - 15.5 460 1.95 11.5 620 1.45 124.5 " " 10200 - 14 510 1.75 10.5 680 1.3 137.0 " " 10600 - 12.5 570 1.6 9.2 770 1.15 155.6 BF40Z/DHE08XA4 59 10600 - 11 650 1.4 8.3 860 1.05 171.2 " " 10600 - 10 710 1.25 7.6 940 0.96 188.3 " " 10600 - 9.1 780 1.15 7.1 1000 0.9 202.2 " " 10600 - 8.5 840 1.05 6.4 1110 0.81 222.4 " " 10600 - 7.7 930 0.97 17.5 405 3.2 81.33 BF50/DHE08XA4 84 11300 - 21.5 330 3.9 16 445 2.9 90.24 " " 11800 - 19 375 3.5 14.5 490 2.7 100.9 " " 12900 - 15 475 2.7 11.5 620 2.1 127.5 " " 13600 - 11.5 620 2.1 10.5 680 1.9 138.1 BF502/DHE08XA4 84 11300 - 12.5 570 2.3 14.5 490 2.7 100.9 " " 13600 - 11.5 620 2.1 10.5 680 1.9 138.1 BF502/DHE08XA4 88 13600 - 12.5 570 2.3 14.5 490 2.7 100.9 " " 13600 - 15.5 570 2.3 15.5 500 2.3 116.6 " " 13600 - 5.5 1300 1.0 8.4 850 2.7 169.2 BF60Z/DHE08XA4 132 15300 43300 10.5 680 3.4 7.6 940 2.4 187.7 " " 13600 - 5.5 1300 1.0 8.4 850 2.7 169.2 BF60Z/DHE08XA4 132 15300 43300 7.0 1020 2.3 1.5 1590 0.82 316.6 " " 13500 43300 4.5 1590 1.1 8.5 800 1.0 459.9 " " 15300 43300 4.5 1590 1.4 8.8 880 1.2 380.0 " " 15300 43300 4.5 1590 1.4 8.8 880 1.2 380.0 " " 15300 433	1		1		m .	"					
18.5 385 2.3 78.55 " " 8500 - 22 325 2.8 17 420 2.1 83.91 " " 8700 - 20.5 345 2.6 15.5 460 1.95 92.31 " " 9400 - 19 375 2.4 14.5 490 1.85 101.0 " " 9400 - 15.5 460 1.95 11.5 620 1.45 124.5 " " 10200 - 14 510 1.75 10.5 680 1.3 137.0 " " 10600 - 11 650 1.4 8.3 860 1.05 171.2 " " 10600 - 10 710 1.25 7.6 940 0.96 188.3 " " 10600 - 9.1 780 1.15 7.1 1000	1				n n	"					
17	1		1		m .	"					
15.5	1		1		m .	"					
14.5					"	11					II.
13					"	"					
11.5 620					"	"					
10.5 680											
9.2 770 1.15 155.6 BF40Z/DHE08XA4 59 10600 - 12.5 370 1.5 1.5 155.6 940 0.96 188.3 " 10600 - 10 710 1.25 7.6 940 0.96 188.3 " 10600 - 9.1 780 1.15 1.5 1.5 1.0 1.5 1.10 0.9 202.2 " 10600 - 9.1 780 1.15 1.5 1.15 1.10 0.81 222.4 " 10600 - 8.5 840 1.05 1.4 1.11 0.81 222.4 " 10600 - 7.7 930 0.97 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5					,,	"					
8.3 860 1.05 171.2 " " 10600 - 10 710 1.25 7.6 940 0.96 188.3 " " 10600 - 9.1 780 1.15 6.4 1110 0.81 222.4 " " 10600 - 9.5 840 1.05 6.4 1110 0.81 222.4 " " 10600 - 7.7 930 0.97 17.5 405 3.2 81.33 BF50/DHE08XA4 84 11300 - 21.5 330 3.9 16 445 2.9 90.24 " " 11800 - 19 375 3.5 14.5 490 2.7 100.9 " " 12300 - 17 420 3.1 12.5 570 2.3 114.0 " " 12900 - 15 475 2.7 11.5 620 2.1 127.5 " " 13600 - 12.5 530											
7.6 940 0.96 188.3 " " 10600 - 9.1 780 1.15 7.1 1000 0.9 202.2 " " 10600 - 9.1 780 1.15 7.1 1100 0.81 222.4 " " 10600 - 8.5 840 1.05 6.4 1110 0.81 222.4 " " 10600 - 7.7 930 0.97 17.5 405 3.2 81.33 BF50/DHE08XA4 84 11300 - 21.5 330 3.9 16 445 2.9 90.24 " " 11800 - 19 375 3.5 14.5 490 2.7 100.9 " 12300 - 17 420 3.1 12.5 570 2.3 114.0 " " 12900 - 15 475 2.7 11.5 620 2.1 127.5 " " 13600 - 13.5 530 2.5 10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 12.5 570 2.3 19.2 770 1.7 154.5 " " 13600 - 11.5 620 2.1 7.8 910 1.45 183.5 " " 13600 - 11.5 620 2.1 7.8 910 1.45 183.5 " " 13600 - 11.5 620 2.1 7.0 1020 1.25 205.2 " " 13600 - 8.4 850 1.55 5.8 1230 1.05 247.5 " " 13600 - 7.0 1020 1.25 5.2 1370 0.95 276.8 " " 13600 - 5.5 1300 1.0 8.4 850 2.7 169.2 BF60Z/DHE08XA4 132 15300 43300 9.2 770 3.0 6.5 1100 2.1 221.4 " " 15300 43300 7.8 910 1.5 5.8 1230 1.85 245.6 " " 15300 43300 7.0 1020 2.3 4.9 1460 1.6 293.4 " " 15300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300 5.9 1210 1.9 4.8 2550 0.9 510.3 " " 15300 43300 3.4 2100 1.1 2.5 2600 0.96 5693 BF60G20/DHE08XA4 140 15300 43300 3.1 2050 1.2			1								
7.1 1000 0.9 202.2 " " 10600 - 8.5 840 1.05 6.4 1110 0.81 222.4 " " 10600 - 8.5 840 1.05 6.4 1110 0.81 222.4 " " 10600 - 7.7 930 0.97 17.5 405 3.2 81.33 BF50/DHE08XA4 84 11300 - 21.5 330 3.9 16 445 2.9 90.24 " " 11800 - 19 375 3.5 14.5 490 2.7 100.9 " " 12300 - 17 420 3.1 12.5 570 2.3 114.0 " " 12900 - 15 475 2.7 11.5 620 2.1 127.5 " " 13600 - 13.5 530 2.5 10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 12.5 570 2.3 10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 12.5 570 2.3 12.5 10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 11.5 620 2.1 7.8 910 1.45 183.5 " " 13600 - 11.5 620 2.1 7.5 570 2.3 14.5 13600 - 11.5 620 2.1 15.5 570 2.3 14.5 13600 - 13.5 530 2.5 55 1300 1.05 247.5 " " 13600 - 8.4 850 1.55 58 1230 1.05 247.5 " " 13600 - 8.4 850 1.55 58 1230 1.05 247.5 " " 13600 - 6.2 1150 1.15 4.5 1590 0.82 316.6 " " 13600 - 5.5 1300 10.5 680 3.4 7.6 940 2.4 187.7 " " 15300 43300 9.2 770 3.0 6.5 1100 2.1 221.4 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.8 910 2.5 5.8 1230 1.6 293.4 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300 4.5 1590 1.45 3.4 2100 1.1 421.6 " " 15300 43300 4.5 1590 1.45 3.4 2100 1.1 421.6 " " 15300 43300 43300 4.5 1590 1.45 3.4 2100 1.1 421.6 " " 15300 43300 3.4 2100 1.1 2.8 2550 0.9 510.3 " " 15300 43300 3.4 2100 1.1 2.5 5200 0.9 569.3 BF60G20/DHE08XA4 140 15300 43300 3.1 2050 1.2			1								1
6.4 1110 0.81 222.4 " " 10600 - 7.7 930 0.97 17.5 405 3.2 81.33 BF50/DHE08XA4 84 11300 - 21.5 330 3.9 16 445 2.9 90.24 " " 11800 - 19 375 3.5 14.5 490 2.7 100.9 " " 12300 - 17 420 3.1 12.5 570 2.3 114.0 " " 12900 - 15 475 2.7 10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 12.5 570 2.3 9.2 770 1.7 154.5 " " 13600 - 12.5 570 2.3 9.2 770 1.7 154.5 " " 13600 - 12.5 570 2.3 <td< th=""><th>1</th><th></th><th>1</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<>	1		1								
17.5	1		1								
16 445 2.9 90.24 " " 11800 - 19 375 3.5 14.5 490 2.7 100.9 " " 12300 - 17 420 3.1 12.5 570 2.3 114.0 " " 12900 - 15 475 2.7 11.5 620 2.1 127.5 " " 13600 - 13.5 530 2.5 10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 12.5 570 2.3 9.2 770 1.7 154.5 " " 13600 - 11.5 620 2.1 7.0 1020 1.25 205.2 " " 13600 - 9.4 760 1.7 7.0 1020 1.25 205.2 " " 13600 - 8.4 850 1.55 5.8 1230 1.05 247.5 " " 13600 - 6.2 1150	0.4	1110	0.81	222.4			10600	-	7.7	930	0.97
16 445 2.9 90.24 " " 11800 - 19 375 3.5 14.5 490 2.7 100.9 " " 12300 - 17 420 3.1 12.5 570 2.3 114.0 " " 12900 - 15 475 2.7 11.5 620 2.1 127.5 " " 13600 - 13.5 530 2.5 10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 12.5 570 2.3 9.2 770 1.7 154.5 " " 13600 - 11.5 620 2.1 7.0 1020 1.25 205.2 " " 13600 - 9.4 760 1.7 7.0 1020 1.25 205.2 " " 13600 - 8.4 850 1.55 5.8 1230 1.05 247.5 " " 13600 - 6.2 1150	17.5	405	2.2	01.22	DEED /DUEDOVA	0.4	11200		21.5	220	2.0
14.5 490 2.7 100.9 " " 12300 - 17 420 3.1 12.5 570 2.3 114.0 " " 12900 - 15 475 2.7 11.5 620 2.1 127.5 " " 13600 - 13.5 530 2.5 10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 12.5 570 2.3 9.2 770 1.7 154.5 " " 13600 - 11.5 620 2.1 7.8 910 1.45 183.5 " " 13600 - 9.4 760 1.7 7.0 1020 1.25 205.2 " " 13600 - 8.4 850 1.55 5.8 1230 1.05 247.5 " " 13600 - 6.2 1150 1.15 4.5 1590 0.82 316.6 " " 13600 - 5.5 1300 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>											
12.5 570 2.3 114.0 " " 12900 - 15 475 2.7 11.5 620 2.1 127.5 " " 13600 - 13.5 530 2.5 10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 12.5 570 2.3 9.2 770 1.7 154.5 " " 13600 - 11.5 620 2.1 7.8 910 1.45 183.5 " " 13600 - 9.4 760 1.7 7.0 1020 1.25 205.2 " " 13600 - 8.4 850 1.55 5.8 1230 1.05 247.5 " " 13600 - 7.0 1020 1.25 5.2 1370 0.95 276.8 " " 13600 - 6.2 1150 1.15 4.5 1590 0.82 316.6 " " 13600 - 5.5 1300 1.0 8.4 850 2.7 169.2 BF60Z/DHE08XA4 132 15300 43300 10.5 680 3.4 7.6 940 2.4 187.7 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.0 1020 2.3 4.9 1460 1.6 293.4 " " 15300 43300 7.0 1020 2.3 4.9 1460 1.6 293.4 " " 15300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300 5.9 1210 1.9 4.5 1880 1.2 380.0 " " 15300 43300 5.3 1350 1.7 3.8 1880 1.2 380.0 " " 15300 43300 4.5 1590 1.45 3.4 2100 1.1 421.6 " " 15300 43300 4.5 1590 1.45 3.4 2100 1.1 421.6 " " 15300 43300 3.8 1880 1.2 2.8 2550 0.9 510.3 " " 15300 43300 3.4 2100 1.1 2.5 2600 0.96 569.3 BF60G20/DHE08XA4 140 15300 43300 3.1 2050 1.2											
11.5 620 2.1 127.5 " 13600 - 13.5 530 2.5 10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 12.5 570 2.3 9.2 770 1.7 154.5 " " 13600 - 11.5 620 2.1 7.8 910 1.45 183.5 " " 13600 - 9.4 760 1.7 7.0 1020 1.25 205.2 " " 13600 - 8.4 850 1.55 5.8 1230 1.05 247.5 " " 13600 - 7.0 1020 1.25 5.2 1370 0.95 276.8 " " 13600 - 6.2 1150 1.15 4.5 1590 0.82 316.6 " " 13600 - 5.5 1300 1.0 8.4 850 2.7 169.2 BF60Z/DHE08XA4 132 15300 43300 10.5	1					"					
10.5 680 1.9 138.1 BF50Z/DHE08XA4 88 13600 - 12.5 570 2.3 9.2 770 1.7 154.5 " 13600 - 11.5 620 2.1 7.8 910 1.45 183.5 " 13600 - 9.4 760 1.7 7.0 1020 1.25 205.2 " 13600 - 8.4 850 1.55 5.8 1230 1.05 247.5 " 13600 - 7.0 1020 1.25 5.2 1370 0.95 276.8 " 13600 - 6.2 1150 1.15 4.5 1590 0.82 316.6 " 13600 - 5.5 1300 1.0 8.4 850 2.7 169.2 BF60Z/DHE08XA4 132 15300 43300 10.5 680 3.4 7.6 940 2.4 187.7 " 15300 43300 9.2 770 3.0 6.5 1100 2.1 221.4 " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " 15300 43300 7.0 1020 2.3 4.9 1460 1.6 293.4 " 15300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " 15300 43300 5.3 1350 1.7 3.8 1880 1.2 380.0 " 15300 43300 4.5 1590 1.45 3.4 2100 1.1 421.6 " 15300 43300 3.8 1880 1.2 3800 1.0 459.9 " 15300 43300 3.8 1880 1.2 2.8 2550 0.9 510.3 " 15300 43300 3.4 2100 1.1 2.5 2600 0.96 569.3 BF60G20/DHE08XA4 140 15300 43300 3.1 2050 1.2						"					
9.2 770 1.7 154.5 " " 13600 - 11.5 620 2.1 7.8 910 1.45 183.5 " " 13600 - 9.4 760 1.7 7.0 1020 1.25 205.2 " " 13600 - 8.4 850 1.55 5.8 1230 1.05 247.5 " " 13600 - 7.0 1020 1.25 5.2 1370 0.95 276.8 " " 13600 - 6.2 1150 1.15 4.5 1590 0.82 316.6 " " 13600 - 6.2 1150 1.15 4.5 1590 0.82 316.6 " " 13600 - 5.5 1300 1.0 8.4 850 2.7 169.2 BF60Z/DHE08XA4 132 15300 43300 10.5 680 3.4 7.6 940 2.4 187.7 " " 15300 43300 7.8											
7.8 910 1.45 183.5 " " 13600 - 9.4 760 1.7 7.0 1020 1.25 205.2 " " 13600 - 8.4 850 1.55 5.8 1230 1.05 247.5 " " 13600 - 7.0 1020 1.25 5.2 1370 0.95 276.8 " " 13600 - 6.2 1150 1.15 4.5 1590 0.82 316.6 " " 13600 - 5.5 1300 1.0 8.4 850 2.7 169.2 BF60Z/DHE08XA4 132 15300 43300 10.5 680 3.4 7.6 940 2.4 187.7 " " 15300 43300 9.2 770 3.0 6.5 1100 2.1 221.4 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.0 1020 2.3 4.9 1460 1.6 293.4 " " 15300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300 5.3 1350 1.7 3.8 1880 1.2 380.0 " " 15300 43300 4.5 1590 1.45 3.4 2100 1.1 421.6 " " 15300 43300 4.5 1590 1.45 3.1 2300 1.0 459.9 " " 15300 43300 3.8 1880 1.2 2.8 2550 0.9 510.3 " " 15300 43300 3.4 2100 1.1 2.5 2600 0.96 569.3 BF60G20/DHE08XA4 140 15300 43300 3.1 2050 1.2								-			
7.0 1020 1.25 205.2 " " 13600 - 8.4 850 1.55 5.8 1230 1.05 247.5 " " 13600 - 6.2 1150 1.15 4.5 1590 0.82 316.6 " " 13600 - 5.5 1300 1.0 8.4 850 2.7 169.2 BF60Z/DHE08XA4 132 15300 43300 10.5 680 3.4 7.6 940 2.4 187.7 " " 15300 43300 9.2 770 3.0 6.5 1100 2.1 221.4 " " 15300 4300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.0 1020 2.3 4.9 1460 1.6 293.4 " " 15300 4300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300 5.3 1350 1.7 3.8 1880 1.2 380.0 " " 15300 43300 4.5 1590 1.45 3.4 2100 1.1 421.6 " " 15300 43300 3.8 1880 1.2 3800 1.0 459.9 " " 15300 43300 3.8 1880 1.2 2.8 2550 0.9 510.3 " " 15300 43300 3.4 2100 1.1 2.5 2600 0.96 569.3 BF60G20/DHE08XA4 140 15300 43300 3.1 2050 1.2					"			-			
5.8 1230 1.05 247.5 " " 13600 - 7.0 1020 1.25 5.2 1370 0.95 276.8 " " 13600 - 6.2 1150 1.15 4.5 1590 0.82 316.6 " " 13600 - 5.5 1300 1.0 8.4 850 2.7 169.2 BF60Z/DHE08XA4 132 15300 43300 10.5 680 3.4 7.6 940 2.4 187.7 " " 15300 43300 9.2 770 3.0 6.5 1100 2.1 221.4 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.0 1020 2.3 4.9 1460 1.6 293.4 " " 15300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300											
5.2 1370 0.95 276.8 " " 13600 - 6.2 1150 1.15 4.5 1590 0.82 316.6 " " 13600 - 6.2 1150 1.15 8.4 850 2.7 169.2 BF60Z/DHE08XA4 132 15300 43300 10.5 680 3.4 7.6 940 2.4 187.7 " " 15300 43300 9.2 770 3.0 6.5 1100 2.1 221.4 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.8 910 2.5 5.8 1230 1.6 293.4 " " 15300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300 5.3 1350 1.7 3.8 1880 1.2 380.0 " " 15300 43300								-			
4.5 1590 0.82 316.6 " " 13600 - 5.5 1300 1.0 8.4 850 2.7 169.2 BF60Z/DHE08XA4 132 15300 43300 10.5 680 3.4 7.6 940 2.4 187.7 " " 15300 43300 9.2 770 3.0 6.5 1100 2.1 221.4 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.0 1020 2.3 4.9 1460 1.6 293.4 " " 15300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300 5.3 1350 1.7 3.8 1880 1.2 380.0 " " 15300 43300 4.5 1590 1.45 3.4 2100 1.1 421.6 " " 15300 43300								-			
8.4 850 2.7 169.2 BF60Z/DHE08XA4 132 15300 43300 10.5 680 3.4 7.6 940 2.4 187.7 " " 15300 43300 9.2 770 3.0 6.5 1100 2.1 221.4 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.0 1020 2.3 4.9 1460 1.6 293.4 " " 15300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300 5.3 1350 1.7 3.8 1880 1.2 380.0 " " 15300 43300 4.5 1590 1.45 3.4 2100 1.1 421.6 " " 15300 43300 4.1 1740 1.3 3.1 2300 1.0 459.9 " " 15300 43300 <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>											
7.6 940 2.4 187.7 " " 15300 43300 9.2 770 3.0 6.5 1100 2.1 221.4 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.0 1020 2.3 4.9 1460 1.6 293.4 " " 15300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300 5.3 1350 1.7 3.8 1880 1.2 380.0 " " 15300 43300 4.5 1590 1.45 3.4 2100 1.1 421.6 " " 15300 43300 4.1 1740 1.3 3.1 2300 1.0 459.9 " " 15300 43300 3.8 1880 1.2 2.8 2550 0.9 510.3 " " 15300 43300 3.1 </th <th>4.5</th> <th>1390</th> <th>0.02</th> <th>310.0</th> <th></th> <th></th> <th>13000</th> <th>-</th> <th>5.5</th> <th>1300</th> <th>1.0</th>	4.5	1390	0.02	310.0			13000	-	5.5	1300	1.0
7.6 940 2.4 187.7 " " 15300 43300 9.2 770 3.0 6.5 1100 2.1 221.4 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.0 1020 2.3 4.9 1460 1.6 293.4 " " 15300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300 5.3 1350 1.7 3.8 1880 1.2 380.0 " " 15300 43300 4.5 1590 1.45 3.4 2100 1.1 421.6 " " 15300 43300 4.1 1740 1.3 3.1 2300 1.0 459.9 " " 15300 43300 3.8 1880 1.2 2.8 2550 0.9 510.3 " " 15300 43300 3.1 </th <th>0 /</th> <th>950</th> <th>2.7</th> <th>160.2</th> <th>DE607 /DHE00VA/</th> <th>122</th> <th>15200</th> <th>12200</th> <th>10.5</th> <th>600</th> <th>2.4</th>	0 /	950	2.7	160.2	DE607 /DHE00VA/	122	15200	12200	10.5	600	2.4
6.5 1100 2.1 221.4 " " 15300 43300 7.8 910 2.5 5.8 1230 1.85 245.6 " " 15300 43300 7.0 1020 2.3 4.9 1460 1.6 293.4 " " 15300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300 5.3 1350 1.7 3.8 1880 1.2 380.0 " " 15300 43300 4.5 1590 1.45 3.4 2100 1.1 421.6 " " 15300 43300 4.1 1740 1.3 3.1 2300 1.0 459.9 " " 15300 43300 3.8 1880 1.2 2.8 2550 0.9 510.3 " " 15300 43300 3.4 2100 1.1 2.8 2550 0.9 569.3 BF60G20/DHE08XA4 140 15300 4330	1										
5.8 1230 1.85 245.6 " " 15300 43300 7.0 1020 2.3 4.9 1460 1.6 293.4 " " 15300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300 5.3 1350 1.7 3.8 1880 1.2 380.0 " " 15300 43300 4.5 1590 1.45 3.4 2100 1.1 421.6 " " 15300 43300 4.1 1740 1.3 3.1 2300 1.0 459.9 " " 15300 43300 3.8 1880 1.2 2.8 2550 0.9 510.3 " " 15300 43300 3.4 2100 1.1 2.5 2600 0.96 569.3 BF60G20/DHE08XA4 140 15300 43300 3.1 2050 1.2											
4.9 1460 1.6 293.4 " " 15300 43300 5.9 1210 1.9 4.4 1620 1.4 325.6 " " 15300 43300 5.3 1350 1.7 3.8 1880 1.2 380.0 " " 15300 43300 4.5 1590 1.45 3.4 2100 1.1 421.6 " " 15300 43300 4.1 1740 1.3 3.1 2300 1.0 459.9 " " 15300 43300 3.8 1880 1.2 2.8 2550 0.9 510.3 " " 15300 43300 3.4 2100 1.1 2.5 2600 0.96 569.3 BF60G20/DHE08XA4 140 15300 43300 3.1 2050 1.2											
4.4 1620 1.4 325.6 " " 15300 43300 5.3 1350 1.7 3.8 1880 1.2 380.0 " " 15300 43300 4.5 1590 1.45 3.4 2100 1.1 421.6 " " 15300 43300 4.1 1740 1.3 3.1 2300 1.0 459.9 " " 15300 43300 3.8 1880 1.2 2.8 2550 0.9 510.3 " " 15300 43300 3.4 2100 1.1 2.5 2600 0.96 569.3 BF60G20/DHE08XA4 140 15300 43300 3.1 2050 1.2											
3.8 1880 1.2 380.0 " " 15300 43300 4.5 1590 1.45 3.4 2100 1.1 421.6 " " 15300 43300 4.1 1740 1.3 3.1 2300 1.0 459.9 " " 15300 43300 3.8 1880 1.2 2.8 2550 0.9 510.3 " " 15300 43300 3.4 2100 1.1 2.5 2600 0.96 569.3 BF60G20/DHE08XA4 140 15300 43300 3.1 2050 1.2											
3.4 2100 1.1 421.6 " " 15300 43300 4.1 1740 1.3 3.1 2300 1.0 459.9 " " 15300 43300 3.8 1880 1.2 2.8 2550 0.9 510.3 " " 15300 43300 3.4 2100 1.1 2.5 2600 0.96 569.3 BF60G20/DHE08XA4 140 15300 43300 3.1 2050 1.2											
3.1 2300 1.0 459.9 " " 15300 43300 3.8 1880 1.2 2.8 2550 0.9 510.3 " " 15300 43300 3.4 2100 1.1 2.5 2600 0.96 569.3 BF60G20/DHE08XA4 140 15300 43300 3.1 2050 1.2											
2.8 2550 0.9 510.3 " " 15300 43300 3.4 2100 1.1 2.5 2600 0.96 569.3 BF60G20/DHE08XA4 140 15300 43300 3.1 2050 1.2			1								
2.5 2600 0.96 569.3 BF60G20/DHE08XA4 140 15300 43300 3.1 2050 1.2											
2.1 3100 0.81 689.0 " 15300 43300 2.5 2550 0.98											
	2.1	3100	0.81	689.0		•	15300	43300	2.5	2550	0.98

Selection - parallel shaft geared motors DHE - IE2

P = 0.75 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
4.2	1700	3.1	341.7	BF70Z/DHE08XA4	220	16100	47700	5.1	1400	3.7
3.6	1980	2.6	398.7	"	"	16100	47700	4.3	1660	3.1
3.3	2150	2.4	439.2	n n	"	16100	47700	3.9	1830	2.8
2.8	2550	2.0	512.4	ıı .	"	16100	47700	3.4	2100	2.5
2.5	2600	2.2	577.5	BF70G20/DHE08XA4	218	16100	47700	3.0	2100	2.7
2.2	2950	1.95	673.6	ıı .	"	16100	47700	2.6	2450	2.3
1.7	3950	1.45	872.1	ıı .	"	16100	47700	2.0	3300	1.75
1.4	4800	1.2	1017	ıı .	"	16100	47700	1.7	3900	1.45
1.1	6100	0.93	1390	· ·	"	16100	47700	1.3	5100	1.1
2.2	3250	3.2	662.1	BF80Z/DHE08XA4	337	39600	75000	2.6	2750	3.8
1.9	3750	2.8	770.6	"	"	39600	75000	2.3	3100	3.4
1.7	4200	2.5	874.6	"	"	39600	75000	2.0	3550	3.0
1.5	4750	2.2	990.4	"	"	39600	75000	1.8	3950	2.7
1.3	5500	1.9	1124	"	"	39600	75000	1.6	4450	2.4
1.1	5000	2.1	1329	BF80G40/DHE08XA4	342	39600	75000	1.3	4050	2.6
1.0	5700	1.85	1491	"	"	39600	75000	1.2	4550	2.3
0.85	6800	1.55	1693	"	"	39600	75000	1.1	4900	2.1
0.7	8600	1.2	2051	"	II .	39600	75000	0.85	6800	1.55
0.6	10300	1.0	2422	"	"	39600	75000	0.75	7900	1.35
1.0	5700	3.2	1444	BF90G50/DHE08XA4	613	42800	120000	1.2	4550	4.1
0.85	6800	2.7	1678	"	"	42800	120000	1.1	4900	3.8
0.8	7100	2.6	1867	"	"	42800	120000	0.95	5700	3.2
0.7	8100	2.3	2154	"	"	42800	120000	0.8	6800	2.7
0.55	10600	1.75	2656	"	"	42800	120000	0.65	8600	2.2
0.49	12300	1.5	2952	"	"	42800	120000	0.6	9600	1.95
0.44	13700	1.35	3286	"	"	42800	120000	0.55	10500	1.75
0.39	15800	1.15	3644		"	42800	120000	0.47	12700	1.45

P = 1.1 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7.				n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
260	40	3.5	5.60	BF10/DHE09LA4	36	1980	-	315	33	4.2
190	55	2.8	7.58	"	"	2200	-	230	45.5	3.4
149	70	2.5	9.69	"	"	2350	-	180	58	3.1
122	86	2.1	11.84	"	"	2500	-	147	71	2.6
96	109	1.7	15.04	"	"	2800	-	116	90	2.0
79	132	1.8	18.23	"	"	2900	-	96	109	2.2
72	145	1.65	20.05	"	"	3000	-	87	120	2.0
62	169	1.4	23.28	"	"	3200	-	75	140	1.7
57	184	1.3	25.60	"	"	3350	-	68	154	1.55
51	205	1.15	28.47	"	"	3450	-	62	169	1.4
46	225	1.05	31.31	"	"	3600	-	56	187	1.3
40	260	0.92	36.15	"	"	3800	-	48.5	215	1.1
36.5	285	0.84	39.75	II	"	3950	-	44	235	1.0
110	95	3.0	13.18	BF20/DHE09LA4	42	3300	_	133	78	3.7
93	112	2.8	15.54	m .	"	3450	-	112	93	3.3
86	122	3.0	16.77	II .	II .	3500	-	104	101	3.6
79	132	2.8	18.45	m .	"	3600	-	95	110	3.4
66	159	2.5	22.04	II .	II .	3800	-	79	132	3.0
60	175	2.3	24.25	m m	II .	3950	-	72	145	2.8
53	198	2.1	27.62	m m	II .	4150	-	63	166	2.5
47.5	220	1.9	30.40	TI TI	II .	4400	-	58	181	2.3
44.5	235	1.8	32.58	п	II .	4450	-	54	194	2.2
40.5	255	1.65	35.85	п	II .	4650	-	49	210	2.0
35	300	1.4	41.72	п	II .	4950	-	42	250	1.7
31.5	330	1.25	45.90	п	II .	5100	-	38	275	1.55

Selection - parallel shaft geared motors DHE - IE2

P = 1.1 kW



	50 Hz		i	Туре	m	F _{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B	•	1,700	•••	• KN	• KV	n_2	M ₂	f _B
1/min	Nm	•в			kg	N	N	1/min	Nm	,R
30	350	1.2	48.56	BF20/DHE09LA4	ıı	5200	-	36	290	1.45
27	385	1.1	53.43	"	II .	5500	_	33	315	1.35
25	420	1.0	58.24	m	II .	5600	_	30	350	1.2
22.5	465	0.9	64.08	n .	II .	5900	_	27.5	380	1.1
21	500	0.84	69.70	п	"	6100	_	25	420	1.0
	300	0.04	02.70			0100		23	720	1.0
66	159	3.3	21.85	BF30/DHE09LA4	53	3500	_	80	131	4.0
60	175	3.2	24.03	"	"	3600	_	73	143	3.9
52	200	2.9	28.23	n .	11	3800	-	62	169	3.4
46.5	225	2.6	31.05	п	"	4000	-	57	184	3.1
41.5	250	2.3	35.00	п	"	4200	-	50	210	2.7
37.5	280	2.3	38.49	п	"	4400	_	45.5	230	2.7
35.5	295	1.95	41.01	п	"	4500	-	42.5		2.3
1				п	"				245	
32	325	1.75	45.10		"	4700	-	39	265	2.2
28	375	1.55	52.20		"	5000	-	33.5	310	1.85
25.5	410	1.4	57.41		"	5200	-	30.5	340	1.7
24	435	1.3	61.17	" "	"	5300	-	28.5	365	1.6
21.5	485	1.2	67.28		"	5500	-	26	400	1.45
20	520	1.1	72.13	"		5700	-	24.5	425	1.35
18.5	560	1.05	79.34	"	"	5900	-	22	475	1.2
17	610	0.94	87.08	"	"	6200	-	20	520	1.1
15.5	670	0.86	95.79	"	"	6400	-	18.5	560	1.05
38.5	270	3.3	37.64	BF40/DHE09LA4	62	6200	-	46.5	225	4.0
35	300	3.0	41.42	"	"	6500	-	42.5	245	3.7
32	325	2.8	45.56	"	II .	6800	-	38.5	270	3.3
29.5	355	2.5	48.92	"	"	7000	-	36	290	3.1
27	385	2.3	53.82	"	"	7200	-	32.5	320	2.8
24	435	2.1	61.25	II	"	7600	-	28.5	365	2.5
21.5	485	1.85	67.38	II	"	8000	-	26	400	2.3
20.5	510	1.75	71.40	m	"	8100	-	24.5	425	2.1
18.5	560	1.6	78.55	m	"	8500	-	22.5	465	1.95
17.5	600	1.5	83.91	m m	II .	8700	-	21	500	1.8
16	650	1.4	92.31	II .	"	9100	-	19	550	1.65
14.5	720	1.25	101.0	II .	"	9400	-	17.5	600	1.5
13	800	1.15	111.1	II .	II .	9800	-	16	650	1.4
12	870	1.05	124.5	II .	"	10200	-	14	750	1.2
11	950	0.95	137.0	m .	II	10600	_	13	800	1.15
10.5	1000	0.9	141.4	BF40Z/DHE09LA4	66	10600	_	12.5	840	1.05
9.3	1120	0.8	155.6	II .	11	10600	_	11.5	910	0.99
25.5	410	3.2	56.86	BF50/DHE09LA4	90	9300	-	31	335	3.9
23	455	2.9	63.59	II .	"	9800	-	27.5	380	3.4
20	520	2.5	72.72	II .	"	10700	-	24	435	3.0
18	580	2.2	81.33	II .	II .	11300	-	21.5	485	2.7
16	650	2.0	90.24	II .	"	11800	-	19.5	530	2.5
14.5	720	1.8	100.9	m .	11	12300	_	17.5	600	2.2
13	800	1.65	114.0	m .	"	12900	_	15.5	670	1.95
11.5	910	1.45	127.5	m .	"	13600	_	14	750	1.75
10.5	1000	1.3	138.1	BF50Z/DHE09LA4	95	13600	_	13	800	1.65
9.4	1110	1.15	154.5	"	"	13600	_	11.5	910	1.45
7.9	1320	0.98	183.5	11	"	13600	_	9.5	1100	1.2
7.1	1470	0.88	205.2	п	II .	13600	_	8.5	1230	1.05
		3.33				.5000		0.0	50	
14	750	3.1	103.7	BF60/DHE09LA4	120	14100	39900	17	610	3.8
13	800	2.9	113.1	"	"	14600	41300	15.5	670	3.4
11.5	910	2.5	125.5	п	II .	15300	43300	14	750	3.1
10.5	1000	2.3	140.8	BF60Z/DHE09LA4	139	15300	43300	12.5	840	2.7
8.6	1220	1.9	169.2	"	"	15300	43300	10.5	1000	2.3
7.7	1360	1.7	187.7	m m	п	15300	43300	9.3	1120	2.1
6.6	1590	1.45	221.4	m .	II .	15300	43300	7.9	1320	1.75
5.9	1780	1.3	245.6	m .	II .	15300	43300	7.1	1470	1.55
13.5	1730	1.5	273.0			15500	75500	17.1	17/0	1.55

Selection - parallel shaft geared motors DHE - IE2

P = 1.1 kW



1/min Nm		50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
5.0 2100 1.1 293.4 BF60Z/DHE09LA4 " 15300 43300 6.0 1750 4.5 2300 1.0 325.6 " " 15300 43300 5.4 1940 3.8 2750 0.84 380.0 " " 15300 43300 4.6 2250 6.2 1690 3.1 233.0 BF70Z/DHE09LA4 227 16100 47700 7.5 1400 4.8 2150 2.4 301.8 " " 16100 47700 6.8 1540 4.3 2400 2.2 341.7 " " 16100 47700 5.1 2050 3.7 280 1.85 398.7 " " 16100 47700 4.4 2350 3.3 3150 1.65 439.2 " " 16100 47700 3.4 3850 2.8 3500 1.45 572.4 BF70G20/DHE09LA4 <t< th=""><th>n₂</th><th>M₂</th><th>f_B</th><th></th><th></th><th></th><th></th><th></th><th>n₂</th><th>M_2</th><th>$f_{\scriptscriptstyle B}$</th></t<>	n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
4.5 2300 1.0 325.6 " " 15300 43300 5.4 1940 3.8 2750 0.84 380.0 " " 15300 43300 5.4 1940 3.8 2750 0.84 380.0 " " 15300 43300 4.6 2250 6.2 1690 3.1 233.0 BF70Z/DHE09LA4 227 16100 47700 6.8 1540 5.6 1870 2.8 258.7 " " 16100 47700 6.8 1540 4.8 2150 2.4 301.8 " " 16100 47700 5.8 1810 4.3 2400 2.2 341.7 " " 16100 47700 5.1 2050 3.7 2800 1.85 398.7 " " 16100 47700 4.4 2350 2.9 3600 1.45 571.4 BF70G20/DHE09LA4 225 16100 47700 3.4 3050 2.5 3950 1.45 <	1/min	Nm				kg	N	N	1/min	Nm	
3.8 2750 0.84 380.0 " 15300 43300 4.6 2250 6.2 1690 3.1 233.0 BF70Z/DHE09LA4 227 16100 47700 7.5 1400 5.6 1870 2.8 258.7 " " 16100 47700 6.8 1540 4.8 2150 2.4 301.8 " 16100 47700 5.8 1810 4.3 2400 2.2 341.7 " 16100 47700 5.8 1810 3.7 2800 1.85 398.7 " 16100 47700 4.4 2350 3.3 3150 1.65 398.7 " 16100 47700 4.4 2350 2.9 3600 1.45 512.4 " 16100 47700 4.0 2600 2.8 3500 1.65 524.1 BF70G20/DHE09LA4 225 16100 47700 3.4 3050 2.8 3500 1.65 577.5 " 16100 47700 3.4 2850 2.5 3950 1.3 673.6 " 16100 47700 3.1 3100 1. 2.2 4450 1.3 673.6 " 16100 47700 2.6 3750 1.7 5900 0.97 872.1 " 16100 47700 2.6 3750 1.5 6700 0.85 1017 " 16100 47700 1.8 5500 1. 3.2 3250 3.2 450.4 BF80Z/DHE09LA4 344 39600 75000 3.5 3000 2.5 583.4 " 39600 75000 3.5 3000 2.6 4200 2.5 583.4 " 39600 75000 3.5 3000 2.7 3850 1.9 5500 1.9 770.6 " 39600 75000 2.7 3850 1.9 5500 1.9 770.6 " 39600 75000 2.7 3850 1.1 8100 1.3 1329 BF80G40/DHE09LA4 349 39600 75000 1.8 5800 1.1 8100 1.3 1329 BF80G40/DHE09LA4 349 39600 75000 1.8 5800 1.1 8100 1.3 1329 BF80G40/DHE09LA4 349 39600 75000 1.2 7300 1.1 7900 1.1 1.8 5800 3.2 845.1 BF90Z/DHE09LA4 608 42800 12000 2.1 5000	5.0	2100	1.1				15300	43300			1.3
6.2 1690 3.1 233.0 BF70Z/DHE09LA4 227 16100 47700 7.5 1400 5.6 1870 2.8 258.7 " " 16100 47700 6.8 1540 4.8 2150 2.4 301.8 " 16100 47700 5.1 2050 3.7 2800 1.85 398.7 " " 16100 47700 4.4 2350 3.3 3150 1.65 439.2 " 16100 47700 4.0 2600 2.9 3600 1.45 577.5 " " 16100 47700 3.4 3050 2.8 3500 1.65 524.1 BF70G20/DHE09LA4 225 16100 47700 3.4 2850 2.5 3950 1.45 577.5 " " 16100 47700 3.1 3100 1.2 2.2 4450 1.3 673.6 " " 16100 47700 2.6 3750 1.5 6700 0.85 1017 " " 16100 47700 1.8 5500 1. 3 22 3250 3.2 450.4 BF80Z/DHE09LA4 344 39600 75000 3.5 3000 2.9 511.2 " " 39600 75000 3.5 3000 2.5 583.4 " " 39600 75000 3.5 3000 2.7 3850 1.7 6100 1.7 874.6 " " 39600 75000 2.7 3850 1.7 6100 1.7 874.6 " " 39600 75000 2.3 4550 1.7 6100 1.7 874.6 " " 39600 75000 2.3 4550 1.7 6100 1.7 874.6 " " 39600 75000 2.3 4550 1.7 6100 1.3 1329 BF80G40/DHE09LA4 349 39600 75000 1.8 5800 1.3 1329 BF80G40/DHE09LA4 349 39600 75000 1.8 5800 1.3 1329 BF80G40/DHE09LA4 349 39600 75000 1.8 5800 1.3 1329 BF80G40/DHE09LA4 349 39600 75000 1.2 7300 1.1 7900 1.1 8100 1.3 1329 BF80G40/DHE09LA4 349 39600 75000 1.2 7300 1.1 7900 1.1 8100 1.3 1329 BF80G40/DHE09LA4 349 39600 75000 1.2 7300 1.1 7900 1.1 8100 1.3 1329 BF80G40/DHE09LA4 608 42800 12000 2.1 5000	4.5	2300	1.0	325.6	II	"	15300	43300	5.4	1940	1.2
5.6 1870 2.8 258.7 " 16100 47700 6.8 1540 4.8 2150 2.4 301.8 " 16100 47700 5.8 1810 4.3 2400 2.2 341.7 " " 16100 47700 5.1 2050 3.7 2800 1.85 398.7 " " 16100 47700 4.4 2350 3.3 3150 1.65 439.2 " " 16100 47700 3.4 3050 2.9 3600 1.45 512.4 " " 16100 47700 3.4 2850 2.5 3950 1.65 524.1 BF70G20/DHE09LA4 225 16100 47700 3.4 2850 2.5 3950 1.45 577.5 " " 16100 47700 3.1 3100 1. 1.7 5900 0.97 872.1 " " 16100 477	3.8	2750	0.84	380.0	II	"	15300	43300	4.6	2250	1.0
5.6 1870 2.8 258.7 " 16100 47700 6.8 1540 4.8 2150 2.4 301.8 " 16100 47700 5.8 1810 4.3 2400 2.2 341.7 " " 16100 47700 5.1 2050 3.7 2800 1.85 398.7 " " 16100 47700 4.4 2350 3.3 3150 1.65 439.2 " " 16100 47700 3.4 3050 2.9 3600 1.45 512.4 " " 16100 47700 3.4 2850 2.5 3950 1.65 524.1 BF70G20/DHE09LA4 225 16100 47700 3.4 2850 2.5 3950 1.45 577.5 " " 16100 47700 3.1 3100 1. 1.7 5900 0.97 872.1 " " 16100 477	6.2	1600	2 1	222 N	PE707 /DHE001 A /	227	16100	47700	7.5	1400	3.7
4.8	1										3.4
4.3 2400 2.2 341.7 " " 16100 47700 5.1 2050 3.7 2800 1.85 398.7 " " 16100 47700 4.4 2350 3.3 3150 1.65 439.2 " " 16100 47700 4.0 2600 2.9 3600 1.45 512.4 " " 16100 47700 3.4 3050 2.8 3500 1.65 524.1 BF70G20/DHE09LA4 225 16100 47700 3.4 2850 2.5 3950 1.45 577.5 " " 16100 47700 3.1 3100 1. 2.2 4450 1.3 673.6 " " 16100 47700 2.6 3750 1.7 5900 0.97 872.1 " " 16100 47700 2.6 3750 1. 5 6700 0.85 1017 " " 16100 47700 1.8 5500 1. 3.2 3250 3.2 450.4 BF80Z/DHE09LA4 344 39600 75000 3.5 3000 2.9 511.2 " " 39600 75000 3.5 3000 2.5 583.4 " " 39600 75000 3.5 3000 2.2 4750 2.2 662.1 " " 39600 75000 2.7 3850 1.9 5500 1.9 770.6 " " 39600 75000 2.3 4550 1. 5 7000 1.5 990.4 " " 39600 75000 1.8 5800 1. 3 1124 " " 39600 75000 1.8 5800 1. 3 1124 " " 39600 75000 1.8 5800 1. 3 1124 " " 39600 75000 1.8 5800 1. 3 1124 " " 39600 75000 1.6 6500 1. 3 1124 " " 39600 75000 1.6 6500 1. 3 100 1. 3 1329 BF80G40/DHE09LA4 349 39600 75000 1.4 6000 1. 1. 1 1. 15 1491 " " 39600 75000 1.2 7300 1. 1 1. 10 9100 1.15 1491 " " 39600 75000 1.2 7300 1. 1 1. 1 1. 1 1. 1 1. 1 1. 1 1. 1 1			1		п	11					2.9
3.7 2800 1.85 398.7 " " 16100 47700 4.4 2350 2.9 3600 1.65 512.4 " " 16100 47700 4.0 2600 2.9 3600 1.45 512.4 " " 16100 47700 3.4 3050 2.8 3500 1.65 524.1 BF70G20/DHE09LA4 225 16100 47700 3.1 3100 1. 3.4 2850 2.5 3950 1.45 577.5 " " 16100 47700 3.1 3100 1. 3.1 3100 1. 3.1 3100 1. 3.1 3100 1. 3.1 3100 1. 3.1 3100 1. 3.1 3100 1. 3.1 3100 1. 3.2 3250 3.2 450.4 BF80Z/DHE09LA4 344 39600 75000 3.9 2650 3.2 450.4 BF80Z/DHE09LA4 344 39600 75000 3.5 3000 2.9 511.2 " " 39600 75000 3.0 3500 2.5 583.4 " " 39600 75000 3.0 3500 2.5 583.4 " " 39600 75000 2.7 3850 3.0 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.					п	"					2.5
3.3 3150 1.65 439.2 " " 16100 47700 4.0 2600 2.9 3600 1.45 512.4 " " 16100 47700 3.4 3050 2.8 3500 1.65 524.1 BF70G20/DHE09LA4 225 16100 47700 3.4 2850 2.5 3950 1.45 577.5 " " 16100 47700 2.6 3750 1.7 5900 0.97 872.1 " " 16100 47700 2.6 3750 1.5 6700 0.85 1017 " " 16100 47700 1.8 5500 1. 3 3.2 3250 3.2 450.4 BF80Z/DHE09LA4 344 39600 75000 3.9 2650 2.9 3600 2.9 511.2 " " 39600 75000 3.0 3500 2.5 4200 2.5 583.4 " " 39600 75000 3.0 3500 2.2 4750 2.2 662.1 " " 39600 75000 2.7 3850 1.9 5500 1.9 770.6 " " 39600 75000 2.3 4550 1.7 6100 1.7 874.6 " " 39600 75000 1.8 5800 1.3 1124 " " 39600 75000 1.8 5800 1.3 1124 " " 39600 75000 1.8 5800 1.3 1124 " " 39600 75000 1.8 5800 1.3 1124 " " 39600 75000 1.8 5800 1.0 9100 1.3 1329 BF80G40/DHE09LA4 349 39600 75000 1.4 6000 1.7 1.5 1491 " " 39600 75000 1.2 7300 1.0 0.9 10000 1.05 1693 " " 39600 75000 1.0 1.2 7300 1.			1		п	11			1		2.2
2.9 3600 1.45 512.4 " " 16100 47700 3.4 3050 2.8 3500 1.65 524.1 BF70G20/DHE09LA4 225 16100 47700 3.4 2850 3.2 2.5 3950 1.45 577.5 " " 16100 47700 3.1 3100 1. 2.2 4450 1.3 673.6 " " 16100 47700 2.6 3750 1.7 5900 0.97 872.1 " " 16100 47700 2.0 4950 1. 1.5 6700 0.85 1017 " " 16100 47700 1.8 5500 1. 3.2 3250 3.2 450.4 BF80Z/DHE09LA4 344 39600 75000 3.9 2650 2.9 3000 2.9 511.2 " " 39600 75000 3.5 3000 3500 3500 3.5 3000 3.5 3000 3.0 3500 3.5 3000 3.0 3500 <td< th=""><th></th><th></th><th></th><th></th><th>п</th><th>"</th><th></th><th></th><th></th><th></th><th>2.2</th></td<>					п	"					2.2
2.8 3500 1.65 524.1 BF70G20/DHE09LA4 225 16100 47700 3.4 2850 2.5 3950 1.45 577.5 " " 16100 47700 3.1 3100 1. 2.2 4450 1.3 673.6 " " 16100 47700 2.6 3750 1.7 5900 0.97 872.1 " " 16100 47700 2.0 4950 1. 1.5 6700 0.85 1017 " " 16100 47700 1.8 5500 1. 3.2 3250 3.2 450.4 BF80Z/DHE09LA4 344 39600 75000 3.9 2650 2.9 3600 2.9 511.2 " " 39600 75000 3.5 3000 3500 3500 3.5 3000 3.5 3000 3.5 3000 3.5 3000 3.5 3000 3.5 3000 3.5 3000 3.5 3000 3.5 3000 3.5 3000 3.5 3000 <t< th=""><th></th><th></th><th></th><th></th><th>п</th><th>"</th><th></th><th></th><th></th><th></th><th>1.7</th></t<>					п	"					1.7
2.5 3950 1.45 577.5 " " 16100 47700 3.1 3100 1. 2.2 4450 1.3 673.6 " " 16100 47700 2.6 3750 1.7 5900 0.97 872.1 " " 16100 47700 2.0 4950 1. 1.5 6700 0.85 1017 " " 16100 47700 1.8 5500 1. 3.2 3250 3.2 450.4 BF80Z/DHE09LA4 344 39600 75000 3.9 2650 2.9 3600 2.9 511.2 " " 39600 75000 3.5 3000 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 35					REZOGROU /DUEDOL A/A	225					2.0
2.2 4450 1.3 673.6 " " 16100 47700 2.6 3750 1.7 5900 0.97 872.1 " " 16100 47700 2.0 4950 1. 1.5 6700 0.85 1017 " " 16100 47700 1.8 5500 1. 3.2 3250 3.2 450.4 BF80Z/DHE09LA4 344 39600 75000 3.9 2650 4. 2.9 3600 2.9 511.2 " " 39600 75000 3.5 3000 3500 2.5 4200 2.5 583.4 " " 39600 75000 3.0 3500 2.2 4750 2.2 662.1 " " 39600 75000 2.7 3850 1.9 5500 1.9 770.6 " " 39600 75000 2.3 4550 1.5 7000 1.5 990.4 " " 39600 75000 1.8 5800 1.3 </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>1.85</th>											1.85
1.7 5900 0.97 872.1 " " 16100 47700 2.0 4950 1. 1.5 6700 0.85 1017 " " 16100 47700 1.8 5500 1. 3.2 3250 3.2 450.4 BF80Z/DHE09LA4 344 39600 75000 3.9 2650 2.2 2.9 3600 2.9 511.2 " " 39600 75000 3.5 3000 3500 3500 3500 3.2 3500 3.2 3500 3.2 3500 3.2 3500 3.2 3500 3.0 3500 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.0 3500 3.2 3850 3.2 3850 3.2 3850 3.2 3850 3.2 3850 3.2 3850 3.2 3850 3.2 3850 3.2 3850 3.2 3850 3.2 39600 75000 1.8 5800 3.8					п	II.					1.5
1.5 6700 0.85 1017 " 16100 47700 1.8 5500 1. 3.2 3250 3.2 450.4 BF80Z/DHE09LA4 344 39600 75000 3.9 2650 4200 2.9 511.2 " " 39600 75000 3.5 3000 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500					п	II.					1.15
3.2 3250 3.2 450.4 BF80Z/DHE09LA4 344 39600 75000 3.9 2650 4.0 2.9 3600 2.9 511.2 " " 39600 75000 3.5 3000 2.5 4200 2.5 583.4 " " 39600 75000 3.0 3500 2.2 4750 2.2 662.1 " " 39600 75000 2.7 3850 1.9 5500 1.9 770.6 " " 39600 75000 2.3 4550 1.7 6100 1.7 874.6 " " 39600 75000 2.0 5200 1.5 7000 1.5 990.4 " " 39600 75000 1.8 5800 1.3 8000 1.3 1124 " " 39600 75000 1.6 6500 1.1 8100 1.3 1329 BF80G40/DHE09LA4 349 39600 75000 1.4 6000 1. 1.0 9100 1.15 1491 " " 39600 75000 1.2 7300 1. 0.9 10000 1.05 1693 " " 39600 75000 1.1 7900 1. 1.8 5800 3.2 845.1 BF90Z/DHE09LA4 608 42800 120000 2.1 5000					п	II.					1.13
2.9 3600 2.9 511.2 " " 39600 75000 3.5 3000 2.5 4200 2.5 583.4 " " 39600 75000 3.0 3500 2.2 4750 2.2 662.1 " " 39600 75000 2.7 3850 1.9 5500 1.9 770.6 " " 39600 75000 2.3 4550 1.7 6100 1.7 874.6 " " 39600 75000 2.0 5200 1.5 7000 1.5 990.4 " " 39600 75000 1.8 5800 1.3 8000 1.3 1124 " " 39600 75000 1.6 6500 1.1 8100 1.3 1329 BF80G40/DHE09LA4 349 39600 75000 1.4 6000 1. 1.0 9100 1.15 1491 " " 39600 75000 1.1 7900 1. 1.8 5800 3.2 </th <th>1.5</th> <th>0700</th> <th>0.65</th> <th>1017</th> <th></th> <th></th> <th>10100</th> <th>47700</th> <th>1.0</th> <th>3300</th> <th>1.03</th>	1.5	0700	0.65	1017			10100	47700	1.0	3300	1.03
2.5 4200 2.5 583.4 " " 39600 75000 3.0 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 3500 2.7 3850 3500 3500 3500 2.7 3850 3500 3500 3500 2.7 3850 3500 3500 3500 3500 2.7 3850 3500 3500 3500 3500 2.0 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 </th <th></th> <th></th> <th>3.2</th> <th>450.4</th> <th></th> <th></th> <th>39600</th> <th></th> <th></th> <th></th> <th>4.0</th>			3.2	450.4			39600				4.0
2.2 4750 2.2 662.1 " " 39600 75000 2.7 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3850 3	2.9	3600	2.9	511.2			39600	75000	3.5	3000	3.5
1.9 5500 1.9 770.6 " " 39600 75000 2.3 4550 1.7 1.7 6100 1.7 874.6 " " 39600 75000 2.0 5200 1.5 1.5 7000 1.5 990.4 " " 39600 75000 1.8 5800 1.3 8000 1.3 1124 " " 39600 75000 1.6 6500 1.1 8100 1.3 1329 BF80G40/DHE09LA4 349 39600 75000 1.4 6000 1. 1.0 9100 1.15 1491 " " 39600 75000 1.2 7300 1. 0.9 10000 1.05 1693 " " 39600 75000 1.1 7900 1. 1.8 5800 3.2 845.1 BF90Z/DHE09LA4 608 42800 120000 2.1 5000	2.5	4200	2.5	583.4			39600	75000	3.0	3500	3.0
1.7 6100 1.7 874.6 " " 39600 75000 2.0 5200 75000 1.8 5800 75000 1.8 5800 1.8 5800 1.8 5800 1.8 5800 1.8 5800 1.8 5800 1.8 5800 1.8 5800 1.8 5800 1.6 6500 1.6 6500 1.6 6500 1.1 1.0 1.1 1.3 1329 BF80G40/DHE09LA4 349 39600 75000 1.4 6000 1. 1.0 1.2 7300 1. 1.2 7300 1. 1.2 7300 1. 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.2 7300 1. 1.0 1.1 7900 1. 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 <		4750	2.2	662.1			39600	75000			2.7
1.5 7000 1.5 990.4 " " 39600 75000 1.8 5800 1.3 8000 1.3 1124 " " 39600 75000 1.6 6500 1.1 8100 1.3 1329 BF80G40/DHE09LA4 349 39600 75000 1.4 6000 1. 1.0 9100 1.15 1491 " " 39600 75000 1.2 7300 1. 0.9 10000 1.05 1693 " " 39600 75000 1.1 7900 1. 1.8 5800 3.2 845.1 BF90Z/DHE09LA4 608 42800 120000 2.1 5000		5500	1.9	770.6			39600	75000			2.3
1.3 8000 1.3 1124 " " 39600 75000 1.6 6500 1.1 8100 1.3 1329 BF80G40/DHE09LA4 349 39600 75000 1.4 6000 1. 1.0 9100 1.15 1491 " " 39600 75000 1.2 7300 1. 0.9 10000 1.05 1693 " " 39600 75000 1.1 7900 1. 1.8 5800 3.2 845.1 BF90Z/DHE09LA4 608 42800 120000 2.1 5000		6100	1.7	874.6			39600	75000	2.0	5200	2.0
1.1 8100 1.3 1329 BF80G40/DHE09LA4 349 39600 75000 1.4 6000 1. 1.0 9100 1.15 1491 " " 39600 75000 1.2 7300 1. 0.9 10000 1.05 1693 " " 39600 75000 1.1 7900 1. 1.8 5800 3.2 845.1 BF90Z/DHE09LA4 608 42800 120000 2.1 5000		7000	1.5	990.4			39600	75000	1.8	5800	1.8
1.0 9100 1.15 1491 " " 39600 75000 1.2 7300 1. 0.9 10000 1.05 1693 " " 39600 75000 1.1 7900 1. 1.8 5800 3.2 845.1 BF90Z/DHE09LA4 608 42800 120000 2.1 5000	1.3	8000	1.3	1124	"	II .	39600	75000	1.6	6500	1.6
0.9 10000 1.05 1693 " 39600 75000 1.2 7500 1.2 1.8 5800 3.2 845.1 BF90Z/DHE09LA4 608 42800 120000 2.1 5000		8100	1.3	1329			39600	75000			1.75
1.8 5800 3.2 845.1 BF90Z/DHE09LA4 608 42800 120000 2.1 5000	1.0	9100	1.15	1491	m .	"	39600	75000	1.2	7300	1.45
	0.9	10000	1.05	1693	"	"	39600	75000	1.1	7900	1.35
	1.8	5800	3.2	845 1	RF907- /DHF09I A4	608	42800	120000	2 1	5000	3.7
11.4 6100 5.0 1043 KF90G50-/DHF091AA 6/0 4/800 1/0000 1/ 4/50	1.4	6100	3.0	1043	BF90G50/DHE09LA4	620	42800	120000	1.7	4750	3.9
											3.5
					II .	"					2.8
			1		II .	"					2.3
					II .	"					2.0
	1				II .	"					1.8
					п	"					1.45

P = 1.5 kW

	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$		7-				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
260	55	2.5	5.60	BF10/DHE09XA4	40	1980	-	315	45	3.1
190	75	2.0	7.58	"	II .	2200	-	230	62	2.5
149	96	1.85	9.69	"	II .	2350	-	180	79	2.2
122	117	1.55	11.84	"	II .	2500	-	147	97	1.9
96	149	1.25	15.04	"	II .	2800	-	116	123	1.5
79	181	1.35	18.23	"	II .	2900	-	96	149	1.6
72	198	1.2	20.05	"	II .	3000	-	87	164	1.45
62	230	1.05	23.28	"	II .	3200	-	75	191	1.25
57	250	0.96	25.60	"	II .	3350	-	68	210	1.15
51	280	0.86	28.47	"	II	3450	-	62	230	1.05
180	79	2.8	8.00	BF20/DHE09XA4	46	2850	-	220	65	3.4
138	103	2.5	10.51	"	"	3100	-	166	86	3.0
110	130	2.2	13.18	"	"	3300	-	133	107	2.7
93	154	2.0	15.54	"	"	3450	-	112	127	2.4
86	166	2.2	16.77	"	"	3500	-	104	137	2.6
79	181	2.0	18.45	"	"	3600	-	95	150	2.5
66	215	1.85	22.04	"	"	3800	-	79	181	2.2

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 1.5 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂ 1/min	M ₂	f _B			l.a	N	NI	n ₂ 1/min	M ₂	$f_{\scriptscriptstyle B}$
60	Nm 235	1.7	24.25	BF20/DHE09XA4	kg "	3950	N	72	<u>Nm</u> 198	2.0
53	270	1.55	27.62	" "	11	4150	_	63	225	1.85
47.5	300	1.4	30.40	п	"	4400	_	58	245	1.83
44.5	320	1.3	32.58	n	"	4450	_	54	265	1.6
40.5	350	1.2	35.85	n .	"	4650	_	49	290	1.45
35	405	1.05	41.72	m .	"	4950	_	42	340	1.25
31.5	450	0.93	45.90	m .	11	5100	_	38	375	1.1
30	475	0.88	48.56	II .	II	5200	_	36	395	1.05
145	98	3.3	9.99	BF30/DHE09XA4	57	2850	-	175	81	4.0
112	127	2.9	12.91	"	"	3050	-	135	106	3.5
90	159	2.6	16.00	"	"	3250	-	109	131	3.1
82	174	2.8	17.65		"	3300	-	99	144	3.3
75	191	2.6	19.41		"	3400	-	90	159	3.2
66 60	215	2.5 2.4	21.85 24.03	"	"	3500	-	80 73	179 196	3.0 2.8
52	235 275	2.4	28.23	n n	"	3600 3800	-	62	230	2.6
46.5	305	1.9	31.05	n .	"	4000	-	57	250	2.3
41.5	345	1.65	35.00	m .	11	4200	_	50	285	2.0
37.5	380	1.5	38.49	n .	"	4400	_	45.5	310	1.85
35.5	400	1.45	41.01	m .	"	4500	_	42.5	335	1.7
32	445	1.3	45.10	m .	11	4700	_	39	365	1.6
28	510	1.15	52.20	п	II .	5000	_	33.5	425	1.35
25.5	560	1.05	57.41	п	"	5200	_	30.5	465	1.25
24	590	0.97	61.17	m .	II .	5300	_	28.5	500	1.15
21.5	660	0.87	67.28	m .	II .	5500	_	26	550	1.05
20	710	0.81	72.13	п	"	5700	-	24.5	580	0.99
67	210	3.3	21.60	BF40/DHE09XA4	66	5200	-	81	176	4.0
61	230	3.2	23.77	"	"	5400	-	74	193	3.8
54	265	2.9	26.86	"	"	5600	-	65	220	3.5
49	290	2.8	29.55		"	5800	-	59	240	3.4
42.5	335	2.6	34.21	"	"	6000	-	51	280	3.1
38.5	370	2.4	37.64	"	"	6200	-	46.5	305	2.9
35	405	2.2	41.42	 II	"	6500	-	42.5	335	2.7
32	445	2.0	45.56		"	6800	-	38.5	370	2.4
29.5 27	485 530	1.85	48.92 53.82	"	"	7000 7200	-	36 32.5	395 440	2.3 2.0
24	590	1.7 1.55	61.25	n n	"	7200 7600	-	28.5	500	1.8
21.5	660	1.35	67.38	m .	11	8000	_	26.5	550	1.65
20.5	690	1.3	71.40	n	"	8100	_	24.5	580	1.55
18.5	770	1.15	78.55	n	11	8500	_	22.5	630	1.45
17.5	810	1.1	83.91	m .	II .	8700	_	21	680	1.3
16	890	1.0	92.31	п	"	9100	_	19	750	1.2
14.5	980	0.92	101.0	m .	II .	9400	_	17.5	810	1.1
13	1100	0.82	111.1	"	11	9800	-	16	890	1.0
24.5	44.5	2.4	42.45	DEED /DUEDOVAA	0.4	0500		44.5	2.45	2.0
34.5	415	3.1	42.15	BF50/DHE09XA4	94	8500	-	41.5	345	3.8
31	460	2.8	47.14	"	"	8900	-	37	385	3.4
25.5 23	560 630	2.3	56.86	 II	11	9300 9800	-	31 27.5	460 530	2.8
23	620 710	2.1 1.85	63.59 72.72		"	10700	-	27.5	520 590	2.5 2.2
18	710 790	1.65	72.72 81.33	m .	"	11300	-	21.5	660	1.95
16	890	1.65	90.24	m .	II .	11800	-	19.5	730	1.8
14.5	980	1.45	100.9	п	"	12300	-	17.5	810	1.6
13	1100	1.2	114.0	n	"	12900	_	15.5	920	1.4
11.5	1240	1.05	127.5	n	"	13600	_	14	1020	1.25
10.5	1360	0.96	138.1	BF50Z/DHE09XA4	99	13600	_	13	1100	1.23
9.4	1520	0.86	154.5	"	"	13600	-	11.5	1240	1.05
1200		3.03						,		1.03

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 1.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
20	710	3.2	72.15	BF60/DHE09XA4	124	12000	34000	24.5	580	4.0
18	790	2.9	80.05	n .	"	12600	35600	22	650	3.5
15.5	920	2.5	93.44	п	"	13500	38200	19	750	3.1
14	1020	2.3	103.7	п	"	14100	39900	17	840	2.7
13	1100	2.1	113.1	п	"	14600	41300	15.5	920	2.5
11.5	1240	1.85	125.5	п	"	15300	43300	14	1020	2.3
10.5	1360	1.7	140.8	BF60Z/DHE09XA4	143	15300	43300	12.5	1140	2.0
8.6	1660	1.4	169.2	п	"	15300	43300	10.5	1360	1.7
7.7	1860	1.25	187.7	п	"	15300	43300	9.3	1540	1.5
6.6	2150	1.05	221.4	п	"	15300	43300	7.9	1810	1.25
5.9	2400	0.96	245.6	n .	"	15300	43300	7.1	2000	1.15
5.0	2850	0.81	293.4	п	"	15300	43300	6.0	2350	0.98
8.1	1760	3.0	179.7	BF70Z/DHE09XA4	231	16100	47700	9.7	1470	3.5
7.3	1960	2.7	199.7	"	"	16100	47700	8.8	1620	3.2
6.2	2300	2.3	233.0	п	"	16100	47700	7.5	1910	2.7
5.6	2550	2.0	258.7	п	"	16100	47700	6.8	2100	2.5
4.8	2950	1.75	301.8	п	"	16100	47700	5.8	2450	2.1
4.3	3300	1.6	341.7	п	"	16100	47700	5.1	2800	1.85
3.7	3850	1.35	398.7	п	"	16100	47700	4.4	3250	1.6
3.3	4300	1.2	439.2	п	II .	16100	47700	4.0	3550	1.45
2.9	4900	1.05	512.4	п	II .	16100	47700	3.4	4200	1.25
2.8	4850	1.2	524.1	BF70G20/DHE09XA4	229	16100	47700	3.4	3950	1.45
2.5	5400	1.05	577.5	11	"	16100	47700	3.1	4350	1.3
2.2	6200	0.92	673.6	II .	"	16100	47700	2.6	5200	1.1
4.2	3400	3.1	347.3	BF80Z/DHE09XA4	348	39600	75000	5.1	2800	3.8
3.7	3850	2.7	394.2	11	"	39600	75000	4.5	3150	3.3
3.2	4450	2.4	450.4	п	II .	39600	75000	3.9	3650	2.9
2.9	4900	2.1	511.2	II .	II .	39600	75000	3.5	4050	2.6
2.5	5700	1.85	583.4	II .	II .	39600	75000	3.0	4750	2.2
2.2	6500	1.6	662.1	"	"	39600	75000	2.7	5300	2.0
1.9	7500	1.4	770.6	п	II .	39600	75000	2.3	6200	1.7
1.7	8400	1.25	874.6	m .	"	39600	75000	2.0	7100	1.5
1.5	9500	1.1	990.4	m .	"	39600	75000	1.8	7900	1.35
1.3	11000	0.95	1124	"	"	39600	75000	1.6	8900	1.2
1.1	11500	0.91	1329	BF80G40/DHE09XA4	353	39600	75000	1.4	8700	1.2
1.0	12900	0.81	1491	"	"	39600	75000	1.2	10500	1.0
2.5	5700	3.2	591.1	BF90Z/DHE09XA4	612	42800	120000	3.0	4750	3.9
2.2	6500	2.8	658.1	II	"	42800	120000	2.7	5300	3.5
1.9	7500	2.5	759.0	II	"	42800	120000	2.3	6200	3.0
1.8	7900	2.3	845.1	II	"	42800	120000	2.1	6800	2.7
1.5	7900	2.3	976.1	BF90G50/DHE09XA4	624	42800	120000	1.8	6300	2.9
1.4	8800	2.1	1043	п	II .	42800	120000	1.7	7000	2.6
1.2	10300	1.8	1204	п	"	42800	120000	1.5	7900	2.3
1.0	12900	1.45	1444	п	"	42800	120000	1.3	9600	1.95
0.9	14300	1.3	1678	п	"	42800	120000	1.1	11400	1.6
0.8	16100	1.15	1867	п	"	42800	120000	0.95	13200	1.4
0.7	18400	1.0	2154	п	"	42800	120000	0.85	14700	1.25

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 2.2 kW



Type N											
No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No.		50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
	n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
260	1/min					kg	N	N			-[
141	260	80	1.75	5.60	BF10/DHE09XA4C		1980	-	315	66	2.1
149	190	110	1.4	7.58	II .	II .	2200	-	230	91	1.7
122	149	141			II .	II .	2350	-		116	
96 215 0.85 15.04 " 2800	122	172		11.84	n .	II		-			
79					п	II .		_	i i		
240					п	п		_			
240 87 2.3 6.04 BF20/DHE09XA4C 49 2550 - 290 72 2.8 180 116 1.9 8.00 " " 2850 - 220 95 2.3 181 152 1.7 10.51 13.18 " " 3100 - 166 126 2.0 110 191 1.5 13.18 " " 3300 - 1133 157 1.8 18 " " 3450 - 112 187 1.65 186 240 1.5 16.77 " " 3550 - 104 200 1.8 79 265 1.4 18.45 " " 3600 - 95 220 1.7 166 315 1.25 22.04 " " 3600 - 95 220 1.7 166 315 1.25 22.04 " " 3800 - 79 265 1.5 14.7 18.5 18.5 1.25 22.04 " " 3800 - 79 265 1.5 14.7 18.5 18.5 18.5 1.25 22.04 " " 3800 - 79 265 1.5 14.7 18.5 18.5 18.5 19.5 19.5 19.5 19.5 19.5 19.5 19.5 19	i				II	ш		_			
180	1 -		0.00	20.03			3000		07	2.10	
180	240	87	2.3	6.04	RE20- /DHE09XA4C	49	2550	_	290	72	2.8
138								_			
110 191 1.5 13.18 " " 3300 - 133 157 1.8 8					II	п		_			
93	1				II	ш		_	i i		
86 240 1.5 16.77 " " 3500 - 104 200 1.8 79 265 1.4 18.45 " " 3600 - 95 220 1.7 66 315 1.25 22.04 " " 3800 - 79 265 1.5 53 395 1.05 24.25 " " 3950 - 72 290 1.4 47.5 440 0.95 30.40 " " 4400 - 58 360 1.15 40.5 510 0.82 35.85 " " 4650 - 49 425 0.99 230 91 2.9 3.34 8F30//DHE09XA4C 59 2400 2 275 76 3.5 179 17 2.4 8.07 " " 2650 2 220 95 3.0 145 144					II .	п					
79					п	"		_			
66 315 1.25 22.04 " " 3800 - 79 265 1.5 60 355 1.5 60 355 1.5 22.04 " " 38950 - 72 290 1.4 53 395 1.05 27.62 " " 4150 - 63 330 1.25 47.5 440 0.95 3.258 " " 4450 - 58 360 1.15 42.5 " 4450 - 58 360 1.15 42.5 " 4450 - 510 0.82 35.85 " " 4650 - 49 425 0.99 425 0.99 120 0.82 35.85 " " 4650 - 49 425 0.99 117 2.4 8.07 " 2650 - 220 95 3.0 145 144 2.2 99.99 " 2650 - 720 95 3.0 145 144 2.2 99.99 " 2850 - 75 76 3.5 120 2.7 112 187 1.95 12.91 " " 3050 - 135 155 2.4 90 230 1.75 16.00 " " 33250 - 109 192 2.1 82 255 1.9 17.65 " " 3300 - 99 210 2.3 466 315 1.7 21.85 " " 3500 - 90 230 2.2 66 315 1.7 21.85 " " 3500 - 73 285 1.95 1.9 16.5 " 3500 - 73 285 1.95 1.9 16.5 " " 3500 - 73 285 1.95 1.9 16.5 " " 3500 - 73 285 1.95 1.9 16.5 " " 3600 - 73 285 1.95 1.9 16.5 " " 3600 - 73 285 1.95 1.9 16.5 " " 3600 - 73 285 1.95 1.9 16.5 " " 3600 - 73 285 1.95 1.9 16.5 " " 3600 - 73 285 1.95 1.9 16.5 " " 3600 - 73 285 1.95 1.9 16.5 " " 3600 - 73 285 1.95 1.9 16.5 " " 3600 - 73 285 1.95 1.9 16.5 " " 3600 - 73 285 1.95 1.9 16.5 " " 3600 - 73 285 1.95 1.9 16.5 " " 3600 - 73 285 1.95 1.9 16.5 " " 3600 - 73 285 1.95 1.9 16.5 " " 3600 - 73 285 1.95 1.9 16.5 " " 3600 - 73 285 1.95 1.9 16.5 " " 3600 - 73 285 1.95 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9					п	п					
60 350 1.15 24.25 " " 3950 - 72 290 1.4 53 395 1.05 27.62 " " 44100 - 58 3030 1.25 47.5 440 0.95 30.40 " " 4400 - 58 360 1.15 44.5 470 0.89 32.58 " " 4650 - 54 385 1.1 40.5 510 0.82 35.85 " " 4650 - 49 425 0.99 230 91 2.9 6.34 BF30/DHE09XA4C 59 2400 - 275 76 3.5 179 117 2.4 8.07 " 2650 - 220 95 3.0 145 144 2.2 9.99 " 2850 - 175 120 2.7 112 187 1.95 12.91 " " 3050 - 135 155 2.4 90 230 1.75 16.00 " " 3250 - 109 192 2.1 82 255 1.9 17.65 " " 3300 - 99 210 2.3 75 280 1.8 19.41 " " 3400 - 90 230 2.2 66 315 1.7 21.85 " " 3500 - 80 260 2.0 60 350 1.6 24.03 " " 3500 - 73 285 1.9 60 350 1.6 24.03 " " 3800 - 73 285 1.9 46.5 450 1.3 31.05 " " 3800 - 73 285 1.7 46.5 450 1.3 31.05 " " 4000 - 57 365 1.6 41.5 500 1.15 35.00 " " 4000 - 57 365 1.6 41.5 500 1.15 35.00 " " 4000 - 45.5 460 1.25 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 38.5 5.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1					п	п					
\$\frac{53}{47.5}\$ \$\frac{40}{40}\$ \$0.59\$ \$30.40 \text{"} \text{"} \text{"} \text{"} \text{"} \qu					"	"					
47.5 440 0.95 30.40 " " 4400 - 58 360 1.15 44.5 470 0.89 32.58 " " 4450 - 54 385 1.1 40.5 510 0.82 35.85 " " 4650 - 49 425 0.99 230 91 2.9 6.34 BF30/DHE09XA4C 59 2400 - 275 76 3.5 179 117 2.4 8.07 " " 2650 - 220 95 3.0 145 144 2.2 9.99 " 2880 - 175 120 2.7 112 187 1.95 12.91 " " 3050 - 135 155 2.4 90 230 1.75 16.00 " " 3350 - 109 192 2.1 82 255 1.9 17.65 " " 3300 - 99 210 2.3 75 280 1.8 19.41 " " 3400 - 90 230 2.2 66 315 1.7 21.85 " " 3500 - 80 260 2.0 60 350 1.6 24.03 " " 3500 - 73 285 1.95 52 400 1.45 28.23 " " 3800 - 62 335 1.7 46.5 450 1.3 31.05 " " 4000 - 57 365 1.6 41.5 500 1.15 35.00 " " 4400 - 57 365 1.6 41.5 500 1.5 38.49 " " 4400 - 50 42.5 450 1.25 33.5 590 0.97 41.01 " " 4500 - 42.5 450 1.5 33.6 50 0.88 45.10 " " 4400 - 142.5 450 1.5 34.6 215 2.4 15.02 " " 4450 - 148 114 3.6 36 215 2.4 15.02 " " 4450 - 148 114 3.6 37.6 275 2.4 19.99 " " 4450 - 118 114 3.6 38 250 2.5 17.35 " " 4500 - 116 181 2.9 38 250 2.5 17.35 " " 4500 - 92 222 25 3.0 67 310 2.3 21.60 " " 4450 - 118 114 3.6 37.6 275 2.4 19.99 " " 5000 - 81 255 2.8 61 340 2.3 21.60 " " 4450 - 118 114 3.6 37.5 560 1.5 38.89 " " 4450 - 118 114 3.6 38 250 2.5 17.35 " " 4450 - 118 114 3.6 39 6 215 2.4 15.02 " " 4850 - 110 205 3.1 37.6 275 2.4 19.99 " " 5000 - 81 255 2.8 61 340 2.2 23.77 " " 4450 - 118 114 114 3.6 31 2.9 83 250 2.5 17.35 " " 4950 - 110 205 3.1 38.5 540 1.65 37.64 " " 5000 - 8500 - 92 225 3.0 67 310 2.3 21.60 " " 5000 - 81 255 2.8 61 340 2.2 23.77 " " 5400 - 42.5 490 1.55 38.5 540 1.65 37.64 " " 5000 - 42.5 490 1.55 38.5 540 1.65 37.64 " " 5000 - 42.5 490 1.55 39 500 1.5 38.2 " " 7000 - 32.5 640 1.4 24 870 1.5 58.8 BF50/DHE09XA4C 97 7100 - 68 305 3.8											
44.5											
40.5 510 0.82 35.85 " " 4450 - 49 425 0.99 230 91 2.9 6.34 BF30/DHE09XA4C 59 2400 - 275 76 3.5 179 117 2.4 8.07 " " 2650 - 220 95 3.0 145 144 2.2 99 " " 3050 - 135 155 2.4 90 230 1.75 16.00 " " 3050 - 135 155 2.4 90 230 1.75 16.00 " " 3050 - 109 192 2.1 82 255 1.9 17.65 " " 3300 - 99 210 2.3 75 280 1.8 19.41 " " 3400 - 90 230 2.2 66 315 1.7 21.85 " " 3500 - 80 260 2.0 60 350 1.6 24.03 " " 3600 - 73 285 1.95 52 400 1.45 28.23 " " 3600 - 62 335 1.7 46.5 450 1.3 31.05 " " 4000 - 57 365 1.6 41.5 500 1.15 35.00 " " 4000 - 57 365 1.6 41.5 500 1.15 38.49 " " 4400 - 50 425 460 1.25 33.5 560 0.88 45.10 " " 4400 - 45.5 460 1.25 35.5 590 0.97 41.01 " " 4500 - 42.5 490 1.15 32 650 0.88 51.0 " " 4400 - 10 1.45 32 650 0.88 81.0 " " 4450 - 184 114 3.6 123 170 2.7 11.79 " " 4450 - 184 114 3.6 123 170 2.7 11.79 " " 4450 - 184 114 3.6 123 170 2.7 11.79 " " 4450 - 184 114 3.6 123 170 2.7 11.79 " " 4450 - 184 114 3.6 123 170 2.7 11.79 " " 4450 - 184 114 3.6 123 170 2.7 11.79 " " 4450 - 184 114 3.6 123 170 2.7 11.79 " " 4450 - 184 114 3.6 124 370 2.5 17.35 " " 5000 - 59 355 2.3 67 310 2.3 21.60 " " 5000 - 50 81 255 3.0 67 310 2.3 21.60 " " 5000 - 50 81 255 2.3 68 255 2.5 17.35 " " 5000 - 59 355 2.3 42.5 490 1.75 38.2 " " 5000 - 59 355 2.3 38.5 540 1.65 37.64 " " 5000 - 185 500 - 59 355 2.3 38.5 540 1.55 38.2 " " 7000 - 32.5 640 1.45 24.5 490 1.75 38.2 " " 7000 - 32.5 640 1.5 24.7 770 1.15 53.82 " " 7000 - 32.5 640 1.5 24.8 70 1.05 61.25 " " 7000 - 32.5 640 1.5 24.8 70 1.05 61.25 " " 7000 - 32.5 640 1.5 24.8 70 1.05 61.25 " " 7000 - 32.5 640 1.5 25.5 1020 0.88 71.40 " " 8000 - 22.5 930 0.97								-			1
230 91 2.9 6.34 BF30/DHE09XA4C 59 2400 - 275 76 3.5 179 117 2.4 8.07 " " 2650 - 220 95 3.0 145 144 2.2 9.99 " " 2850 - 175 120 2.7 112 187 1.95 12.91 " " 3050 - 135 155 2.4 90 230 1.75 16.00 " " 3250 - 109 192 2.1 82 255 1.9 17.65 " " 3300 - 99 210 2.3 75 280 1.8 19.41 " " 3400 - 90 230 2.2 66 315 1.7 21.85 " " 3500 - 80 260 2.0 60 350 1.6 24.03 " " 3500 - 80 260 2.0 60 350 1.6 24.03 " " 3600 - 62 335 1.7 46.5 450 1.3 31.05 " " 4000 - 57 365 1.6 41.5 500 1.15 35.00 " " 4200 - 50 420 1.35 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 37.5 560 0.88 45.10 " " 4700 - 39 530 1.1 189 111 3.3 7.62 BF40/DHE09XA4C 69 3900 - 230 91 4.0 152 138 3.0 9.48 " " 4450 - 148 141 3.3 96 215 2.4 15.02 " " 4850 - 116 181 2.9 83 250 2.5 17.35 " " 4850 - 116 181 2.9 83 250 2.5 17.35 " " 4850 - 116 181 2.9 83 250 2.5 17.35 " " 4850 - 116 181 2.9 83 250 2.5 17.35 " " 4850 - 116 181 2.5 84 255 2.4 19.99 " " 5500 - 92 225 3.0 86 275 2.4 19.99 " " 5500 - 92 225 3.0 86 275 2.4 19.99 " " 5500 - 92 225 3.0 87 66 275 2.4 19.99 " " 5500 - 92 225 3.0 88 36 26 26 26 385 - 20 26.86 " 5500 - 50 3.5 3.5 85 600 1.5 34.21 " " 5600 - 65 320 2.4 83 250 2.5 17.35 " " 5800 - 74 25 400 1.5 83 25 650 1.5 34.21 " " 5600 - 65 320 2.4 84 385 2.0 26.86 " " 5600 - 65 320 2.4 84 385 2.0 26.86 " " 5600 - 65 320 2.4 84 385 2.0 26.86 " " 5600 - 65 320 2.4 84 385 2.0 26.86 " " 5600 - 65 320 2.4 84 385 2.0 26.86 " " 5600 - 65 320 2.4 85 580 1.5 580 - 15 582 " " 7000 - 36 580 1.55 87 770 1.5 582 " " 7000 - 36 580 1.55 87 770 1.5 582 " " 7000 - 385 5.5 40 1.65 87 770 1.5 582 " " 7000 - 385 5.5 40 1.65 88 500 - 22.5 930 0.97	1							-			
179	40.5	510	0.82	35.85	"	"	4650	-	49	425	0.99
179											
145 144 2.2 9.99 " 2850 - 175 120 2.7 112 187 1.95 12.91 " 3050 - 135 155 2.4 90 230 1.75 16.00 " 3250 - 109 192 2.1 82 255 1.9 17.65 " 3300 - 99 210 2.3 75 280 1.8 19.41 " 3400 - 90 230 2.2 66 315 1.7 21.85 " 3500 - 80 260 2.0 60 350 1.6 24.03 " 3600 - 73 285 1.95 52 400 1.45 28.23 " 3600 - 62 335 1.7 46.5 450 1.3 31.05 " 4000 - 57 365 1.6 41.5 500 1.15 35.00 " 4200 - 57 365 1.6 41.5 500 1.15 35.00 " 4200 - 50 420 1.35 37.5 560 1.05 38.49 " 4400 - 45.5 460 1.25 37.5 560 0.88 45.10 " 4500 - 42.5 490 1.15 32 650 0.88 45.10 " 4700 - 39 530 1.1 89 111 3.3 7.62 BF40/DHE09XA4C 69 3900 - 230 91 4.0 152 138 3.0 9.48 " 4150 - 184 114 3.6 152 138 3.0 9.48 " 4450 - 1148 141 3.6 163 250 2.5 17.35 " 4800 - 116 181 2.9 83 250 2.5 17.35 " 4950 - 116 181 1.4 3.6 475 2.7 17.35 " 4950 - 116 181 1.4 3.6 475 2.2 1.3 1.3 2.6 1.3 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0								-			
112	1							-			
112 167 1.93 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91 12.91	_	144		9.99			2850	-	175	120	
82 255 1.9 17.65 " 3300 - 99 210 2.3 75 280 1.8 1941 " 3300 - 90 230 2.2 66 315 1.7 21.85 " 3500 - 80 260 2.0 60 350 1.6 24.03 " 3600 - 73 285 1.95 52 400 1.45 28.23 " 3800 - 62 335 1.7 46.5 450 1.3 31.05 " 4000 - 57 365 1.6 41.5 500 1.15 35.00 " 4200 - 50 420 1.35 37.5 560 1.05 38.49 " 4400 - 45.5 460 1.25 35.5 590 0.97 41.01 " 4500 - 42.5 490 1.15 32 650 0.88 45.10 " 4700 - 39 530 1.1 189 111 3.3 7.62 BF40/DHE09XA4C 69 3900 - 230 91 4.0 152 138 3.0 9.48 " 4150 - 184 114 3.6 123 170 2.7 11.79 " 4450 - 184 114 3.6 123 170 2.7 11.79 " 4450 - 116 18 12.9 83 250 2.5 17.35 " 4800 - 116 18 12.9 83 250 2.5 17.35 " 4950 - 116 18 12.9 83 250 2.5 17.35 " 4950 - 116 18 12.9 83 250 2.5 17.35 " 500 - 116 18 12.9 83 250 2.5 17.35 " 500 - 116 18 12.9 84 25 490 1.5 540 1.6 53.6 " 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5000 - 5	112	187	1.95	12.91	"		3050	-	135	155	
75 280 1.8 19.41 " 3400 - 90 230 2.2 66 315 1.7 21.85 " " 3500 - 80 260 2.0 60 350 1.6 24.03 " " 3500 - 73 285 1.95 52 400 1.45 28.23 " " 3800 - 62 335 1.7 46.5 450 1.3 31.05 " " 4000 - 57 365 1.6 41.5 500 1.15 35.00 " " 4200 - 50 420 1.35 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 32 650 0.88 45.10 " " 4700 - 230 91 4.0 152 138 3.0 9.48	90	230	1.75	16.00	"	"	3250	-	109	192	2.1
66 315 1.7 21.85 " " 3500 - 80 260 2.0 60 350 1.6 24.03 " " 3600 - 73 285 1.95 52 400 1.45 28.23 " " 3800 - 62 335 1.7 46.5 450 1.3 31.05 " " 4000 - 57 365 1.6 41.5 500 1.15 35.00 " " 4200 - 50 420 1.35 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 35.5 590 0.97 41.01 " " 4500 - 42.5 490 1.15 32 650 0.88 45.10 " " 4700 - 39 530 1.1 189 111 3.3 7.62 BF40/DHE09XA4C 69 3900 - 230 91 4.0 152 138 3.0 9.48 " " 4450 - 184 114 3.6 123 170 2.7 11.79 " " 4450 - 184 114 3.6 123 170 2.7 11.79 " " 4450 - 116 181 2.9 83 250 2.5 17.35 " " 4800 - 116 181 2.9 83 250 2.5 17.35 " " 4800 - 116 181 2.9 83 250 2.5 17.35 " " 4950 - 92 225 3.0 67 310 2.3 21.60 " " 5100 - 92 225 3.0 67 310 2.3 21.60 " " 5000 - 74 280 2.6 61 340 2.2 23.77 " " 5400 - 74 280 2.6 64 385 2.0 26.86 " " 5600 - 65 320 2.4 49 425 1.9 29.55 " " 5800 - 59 355 2.3 42.5 490 1.75 34.21 " " 6000 - 51 410 2.1 38.5 540 1.65 37.64 " " 6200 - 46.5 450 2.0 35 600 1.5 41.42 " " 6000 - 51 410 2.1 38.5 540 1.65 37.64 " " 6200 - 42.5 490 1.85 32 650 1.4 45.56 " " 6800 - 38.5 540 1.65 37.64 " " 7000 - 36 580 1.55 29.5 710 1.25 48.92 " " 7000 - 32.5 640 1.55 29.5 710 1.25 48.92 " " 7000 - 32.5 640 1.55 29.5 710 1.25 48.92 " " 7000 - 26.85 730 1.25 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.55 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.55 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 20.5 1020 0.88 871.40 " " 8100 - 24.5 850 1.05 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 20.5 1020 0.88 871.40 " " 8100 - 24.5 850 1.05 20.5 1020 0.88 871.40 " " 8100 - 24.5 850 1.05 20.5 1020 0.88 871.40 " " 8100 - 24.5 850 1.05 20.5 1020 0.88 871.40 " " 8100 - 24.5 850 1.05 20.5 1020 0.88 871.40 " " 8100 - 24.5 850 1.05 20.5 1020	82	255	1.9	17.65	п	"	3300	-	99	210	2.3
60 350 1.6 24.03 " " 3600 - 73 285 1.95 52 400 1.45 28.23 " " 3800 - 62 335 1.7 46.5 450 1.3 31.05 " " 4000 - 57 365 1.6 41.5 500 1.15 35.00 " " 4200 - 50 420 1.35 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 35.5 590 0.97 41.01 " " 4500 - 42.5 490 1.15 32 650 0.88 45.10 " " 4700 - 39 530 1.1 189 111 3.3 7.62 BF40/DHE09XA4C 69 3900 - 230 91 4.0 152 138 3.0 9.48 " " 4150 - 184 114 3.6 123 170 2.7 11.79 " " 4450 - 148 114 3.6 123 170 2.7 11.79 " " 4450 - 148 114 3.3 96 215 2.4 15.02 " " 4800 - 116 181 2.9 83 250 2.5 17.35 " " 4950 - 101 205 3.1 76 275 2.4 19.09 " " 5100 - 92 225 3.0 67 310 2.3 21.60 " " 5200 - 81 255 2.8 61 340 2.2 23.77 " " 5400 - 74 280 2.6 54 385 2.0 26.86 " " 5600 - 65 320 2.4 49 425 1.9 29.55 " " 5800 - 59 355 2.3 42.5 490 1.75 34.21 " " 6000 - 51 410 2.1 38.5 540 1.65 37.64 " " 6200 - 46.5 450 2.0 35 600 1.5 41.42 " " 6600 - 42.5 490 1.85 32 650 1.4 45.56 " " 6800 - 38.5 540 1.65 29.5 710 1.25 48.92 " " 7000 - 36 580 1.55 27 777 1.15 53.82 " " 7000 - 32.5 640 1.45 28.5 1130 0.8 78.55 " " 8000 - 26.8 800 1.55 21.5 970 0.93 67.38 " " 8000 - 26.8 800 1.55 21.5 970 0.93 67.38 " " 8000 - 22.5 930 0.97 56 375 3.1 25.88 BF50/DHE09XA4C 97 7100 - 68 305 3.8	75	280	1.8	19.41	"	II .	3400	-	90	230	2.2
60 350 1.6 24.03 " " 3600 - 73 285 1.95 52 400 1.45 28.23 " " 3800 - 62 335 1.7 46.5 450 1.3 31.05 " " 4000 - 57 365 1.6 41.5 500 1.15 35.00 " " 4200 - 50 420 1.35 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 35.5 590 0.97 41.01 " " 4500 - 42.5 490 1.15 32 650 0.88 45.10 " " 4700 - 39 530 1.1 189 111 3.3 7.62 BF40/DHE09XA4C 69 3900 - 230 91 4.0 152 138 3.0 9.48 " " 4150 - 184 114 3.6 123 170 2.7 11.79 " " 4450 - 184 114 3.6 123 170 2.7 11.79 " " 4450 - 118 114 114 3.6 123 170 2.7 11.79 " " 4450 - 118 114 114 3.6 126 215 2.4 15.02 " " 4800 - 116 181 2.9 83 250 2.5 17.35 " " 4950 - 101 205 3.1 76 275 2.4 19.09 " " 5100 - 92 225 3.0 67 310 2.3 21.60 " " 5200 - 81 255 2.8 61 340 2.2 23.77 " " 5400 - 74 280 2.6 54 385 2.0 26.86 " " 5600 - 65 320 2.4 49 425 1.9 29.55 " " 5800 - 59 355 2.3 42.5 490 1.75 34.21 " " 6000 - 51 410 2.1 38.5 540 1.65 37.64 " " 6200 - 46.5 450 2.0 35 600 1.5 41.42 " " 6600 - 38.5 540 1.65 29.5 710 1.25 48.92 " " 7000 - 36 580 1.55 27 770 1.15 53.82 " " 7000 - 36 580 1.55 27 770 1.15 53.82 " " 7000 - 32.5 640 1.4 24 870 1.05 61.25 " " 7000 - 22.5 930 0.97 56 375 3.1 25.88 BF50/DHE09XA4C 97 7100 - 68 305 3.8	66	315	1.7	21.85	TI TI	"	3500	-	80	260	2.0
52 400 1.45 28.23 " " 3800 - 62 335 1.7 46.5 450 1.3 31.05 " " 4000 - 57 365 1.6 41.5 500 1.15 38.49 " " 4200 - 50 420 1.35 37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 35.5 590 0.97 41.01 " " 4500 - 42.5 490 1.15 32 650 0.88 45.10 " " 4700 - 39 530 1.1 189 111 3.3 7.62 BF40/DHE09XA4C 69 3900 - 230 91 4.0 152 138 3.0 9.48 " " 4150 - 184 114 3.6 123 170 2.7 11.79 " " 4450 - 148 141 3.3 <th>60</th> <th>350</th> <th>1.6</th> <th>24.03</th> <th>II .</th> <th>II .</th> <th></th> <th>-</th> <th>73</th> <th>285</th> <th>1.95</th>	60	350	1.6	24.03	II .	II .		-	73	285	1.95
46.5	52	400	1.45	28.23	II .	II .	3800	-	62	335	
37.5 560 1.05 38.49 " " 4400 - 45.5 460 1.25 35.5 590 0.97 41.01 " " 4500 - 42.5 490 1.15 32 650 0.88 45.10 " " 4700 - 39 530 1.1 189 111 3.3 7.62 BF40/DHE09XA4C 69 3900 - 230 91 4.0 152 138 3.0 9.48 " " 4150 - 184 114 3.6 123 170 2.7 11.79 " " 4450 - 148 141 3.3 96 215 2.4 15.02 " " 4800 - 116 181 2.9 83 250 2.5 17.35 " " 4950 - 101 205 3.1 76 275 2.4 19.09 " " 5100 - 92 225 3.0	46.5	450	1.3	31.05	II .	II .	4000	-	57	365	1.6
35.5 590 0.97 41.01 " " 4500 - 42.5 490 1.15 32 650 0.88 45.10 " " 4700 - 39 530 1.11 189 111 3.3 7.62 BF40/DHE09XA4C 69 3900 - 230 91 4.0 152 138 3.0 9.48 " " 4150 - 184 114 3.6 123 170 2.7 11.79 " " 4450 - 148 141 3.3 96 215 2.4 15.02 " " 4800 - 116 181 2.9 83 250 2.5 17.35 " " 4950 - 101 205 3.1 76 275 2.4 19.09 " " 5100 - 92 225 3.0 67 310 2.3 21.60 " " 5200 - 81 255 2.8 <th>41.5</th> <th>500</th> <th>1.15</th> <th>35.00</th> <th>II .</th> <th>II .</th> <th>4200</th> <th>-</th> <th>50</th> <th>420</th> <th>1.35</th>	41.5	500	1.15	35.00	II .	II .	4200	-	50	420	1.35
35.5 590 0.97 41.01 " " 4500 - 42.5 490 1.15 32 650 0.88 45.10 " " 4700 - 39 530 1.11 189 111 3.3 7.62 BF40/DHE09XA4C 69 3900 - 230 91 4.0 152 138 3.0 9.48 " " 4150 - 184 114 3.6 123 170 2.7 11.79 " " 4450 - 148 141 3.3 96 215 2.4 15.02 " " 4800 - 116 181 2.9 83 250 2.5 17.35 " " 4950 - 101 205 3.1 76 275 2.4 19.09 " " 5100 - 92 225 3.0 67 310 2.3 21.60 " " 5200 - 81 255 2.8 <th>37.5</th> <th>560</th> <th>1.05</th> <th>38.49</th> <th>II .</th> <th>II .</th> <th>4400</th> <th>-</th> <th>45.5</th> <th>460</th> <th>1.25</th>	37.5	560	1.05	38.49	II .	II .	4400	-	45.5	460	1.25
32 650 0.88 45.10 " 4700 - 39 530 1.1 189 111 3.3 7.62 BF40/DHE09XA4C 69 3900 - 230 91 4.0 152 138 3.0 9.48 " " 4150 - 184 114 3.6 123 170 2.7 11.79 " 4450 - 148 141 3.3 96 215 2.4 15.02 " 4800 - 116 181 2.9 83 250 2.5 17.35 " 4950 - 101 205 3.1 76 275 2.4 19.09 " " 5100 - 92 225 3.0 67 310 2.3 21.60 " " 5200 - 81 255 2.8 61 340 2.2 23.77 " " 5400 - 74 280 2.6 54 385 2.0 <	1	590			п	II .		_			
189					m .	II .		-			
152 138 3.0 9.48 " 4150 - 184 114 3.6 123 170 2.7 11.79 " 4450 - 148 141 3.3 96 215 2.4 15.02 " 4800 - 116 181 2.9 83 250 2.5 17.35 " " 4950 - 101 205 3.1 76 275 2.4 19.09 " " 5100 - 92 225 3.0 67 310 2.3 21.60 " " 5200 - 81 255 2.8 61 340 2.2 23.77 " " 5400 - 74 280 2.6 54 385 2.0 26.86 " " 5600 - 65 320 2.4 49 425 1.9 29.55 " " 5800 - 59 355 2.3 42.5 490 1.75	-										
152 138 3.0 9.48 " 4150 - 184 114 3.6 123 170 2.7 11.79 " 4450 - 148 141 3.3 96 215 2.4 15.02 " 4800 - 116 181 2.9 83 250 2.5 17.35 " 4950 - 101 205 3.1 76 275 2.4 19.09 " " 5100 - 92 225 3.0 67 310 2.3 21.60 " " 5200 - 81 255 2.8 61 340 2.2 23.77 " " 5400 - 74 280 2.6 54 385 2.0 26.86 " " 5600 - 65 320 2.4 49 425 1.9 29.55 " " 5800 - 59 355 2.3 42.5 490 1.75 34.21	189	111	3.3	7.62	BF40/DHE09XA4C	69	3900	-	230	91	4.0
123 170 2.7 11.79 " 4450 - 148 141 3.3 96 215 2.4 15.02 " 4800 - 116 181 2.9 83 250 2.5 17.35 " 4950 - 101 205 3.1 76 275 2.4 19.09 " 5100 - 92 225 3.0 67 310 2.3 21.60 " " 5200 - 81 255 2.8 61 340 2.2 23.77 " 5400 - 74 280 2.6 54 385 2.0 26.86 " 5600 - 65 320 2.4 49 425 1.9 29.55 " " 5600 - 65 320 2.4 49.5 1.9 29.55 " " 6000 - 51 410 2.1 38.5 540 1.65 7.64 " " 6000	152	138		9.48	п			_		114	I
96 215 2.4 15.02 " 4800 - 116 181 2.9 83 250 2.5 17.35 " " 4950 - 101 205 3.1 76 275 2.4 19.09 " " 5100 - 92 225 3.0 67 310 2.3 21.60 " " 5200 - 81 255 2.8 61 340 2.2 23.77 " " 5400 - 74 280 2.6 54 385 2.0 26.86 " " 5600 - 65 320 2.4 49 425 1.9 29.55 " " 5800 - 59 355 2.3 42.5 490 1.75 34.21 " " 6000 - 51 410 2.1 38.5 540 1.65 37.64 " " 6200 - 46.5 450 2.0 35 <		170	2.7	11.79	n .	II		_	148	141	3.3
83 250 2.5 17.35 " 4950 - 101 205 3.1 76 275 2.4 19.09 " " 5100 - 92 225 3.0 67 310 2.3 21.60 " " 5200 - 81 255 2.8 61 340 2.2 23.77 " " 5400 - 74 280 2.6 54 385 2.0 26.86 " " 5600 - 65 320 2.4 49 425 1.9 29.55 " " 5800 - 59 355 2.3 42.5 490 1.75 34.21 " " 6000 - 51 410 2.1 38.5 540 1.65 37.64 " " 6200 - 46.5 450 2.0 35 600 1.5 41.42 " " 6500 - 42.5 490 1.85 32					п	II .		_			2.9
76 275 2.4 19.09 " " 5100 - 92 225 3.0 67 310 2.3 21.60 " " 5200 - 81 255 2.8 61 340 2.2 23.77 " " 5400 - 74 280 2.6 54 385 2.0 26.86 " " 5600 - 65 320 2.4 49 425 1.9 29.55 " " 5800 - 59 355 2.3 42.5 490 1.75 34.21 " " 6000 - 51 410 2.1 38.5 540 1.65 37.64 " " 6200 - 46.5 450 2.0 35 600 1.5 41.42 " " 6500 - 42.5 490 1.85 29.5 710 1.25 48.92 " " 7000 - 36 580 1.55	83				II .	II .		-			
67	i				п	II .		_			
61 340 2.2 23.77 " " 5400 - 74 280 2.6 54 385 2.0 26.86 " " 5600 - 65 320 2.4 49 425 1.9 29.55 " " 5800 - 59 355 2.3 42.5 490 1.75 34.21 " " 6000 - 51 410 2.1 38.5 540 1.65 37.64 " " 6200 - 46.5 450 2.0 35 600 1.5 41.42 " " 6500 - 42.5 490 1.85 32 650 1.4 45.56 " " 6800 - 38.5 540 1.65 29.5 710 1.25 48.92 " " 7000 - 36 580 1.55 27 770 1.15 53.82 " " 7200 - 32.5 640 1.4 24 870 1.05 61.25 " " 7600 - 28.5 730 1.25 21.5 970 0.93 67.38 " " 8000 - 26 800 1.15 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 18.5 1130 0.8 78.55 " " 8500 - 22.5 930 0.97	1				n .	"		_			
54 385 2.0 26.86 " " 5600 - 65 320 2.4 49 425 1.9 29.55 " " 5800 - 59 355 2.3 42.5 490 1.75 34.21 " " 6000 - 51 410 2.1 38.5 540 1.65 37.64 " " 6200 - 46.5 450 2.0 35 600 1.5 41.42 " " 6500 - 42.5 490 1.85 32 650 1.4 45.56 " " 6800 - 38.5 540 1.65 29.5 710 1.25 48.92 " " 7000 - 36 580 1.55 27 770 1.15 53.82 " " 7200 - 32.5 640 1.4 24 870 1.05 61.25 " " 7600 - 28.5 730 1.25	1				п	п		_			
49 425 1.9 29.55 " " 5800 - 59 355 2.3 42.5 490 1.75 34.21 " " 6000 - 51 410 2.1 38.5 540 1.65 37.64 " " 6200 - 46.5 450 2.0 35 600 1.5 41.42 " " 6500 - 42.5 490 1.85 32 650 1.4 45.56 " " 6800 - 38.5 540 1.65 29.5 710 1.25 48.92 " " 7000 - 36 580 1.55 27 770 1.15 53.82 " " 7200 - 32.5 640 1.4 24 870 1.05 61.25 " " 7600 - 28.5 730 1.25 21.5 970 0.93 67.38 " " 8000 - 26 800 1.15 <th></th> <th></th> <th></th> <th></th> <th>m m</th> <th>m m</th> <th></th> <th>_</th> <th></th> <th></th> <th></th>					m m	m m		_			
42.5 490 1.75 34.21 " " 6000 - 51 410 2.1 38.5 540 1.65 37.64 " " 6200 - 46.5 450 2.0 35 600 1.5 41.42 " " 6500 - 42.5 490 1.85 32 650 1.4 45.56 " " 6800 - 38.5 540 1.65 29.5 710 1.25 48.92 " " 7000 - 36 580 1.55 27 770 1.15 53.82 " " 7200 - 32.5 640 1.4 24 870 1.05 61.25 " " 7600 - 28.5 730 1.25 21.5 970 0.93 67.38 " " 8000 - 26 800 1.15 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05	1				II	ш		_			
38.5 540 1.65 37.64 " " 6200 - 46.5 450 2.0 35 600 1.5 41.42 " " 6500 - 42.5 490 1.85 32 650 1.4 45.56 " " 6800 - 38.5 540 1.65 29.5 710 1.25 48.92 " " 7000 - 36 580 1.55 27 770 1.15 53.82 " " 7200 - 32.5 640 1.4 24 870 1.05 61.25 " " 7600 - 28.5 730 1.25 21.5 970 0.93 67.38 " " 8000 - 26 800 1.15 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 18.5 1130 0.8 78.55 " " 8500 - 22.5 930 0.97 <th></th> <th></th> <th></th> <th></th> <th>II .</th> <th>11</th> <th></th> <th>_</th> <th></th> <th></th> <th></th>					II .	11		_			
35 600 1.5 41.42 " " 6500 - 42.5 490 1.85 32 650 1.4 45.56 " " 6800 - 38.5 540 1.65 29.5 710 1.25 48.92 " " 7000 - 36 580 1.55 27 770 1.15 53.82 " " 7200 - 32.5 640 1.4 24 870 1.05 61.25 " " 7600 - 28.5 730 1.25 21.5 970 0.93 67.38 " " 8000 - 26 800 1.15 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 18.5 1130 0.8 78.55 " " 8500 - 22.5 930 0.97 56 375 3.1 25.88 BF50/DHE09XA4C 97 7100 - 68 305					II .	"		_			
32 650 1.4 45.56 " " 6800 - 38.5 540 1.65 29.5 710 1.25 48.92 " " 7000 - 36 580 1.55 27 770 1.15 53.82 " " 7200 - 32.5 640 1.4 24 870 1.05 61.25 " " 7600 - 28.5 730 1.25 21.5 970 0.93 67.38 " " 8000 - 26 800 1.15 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 18.5 1130 0.8 78.55 " " 8500 - 22.5 930 0.97 56 375 3.1 25.88 BF50/DHE09XA4C 97 7100 - 68 305 3.8					п	"					I
29.5 710 1.25 48.92 " " 7000 - 36 580 1.55 27 770 1.15 53.82 " " 7200 - 32.5 640 1.4 24 870 1.05 61.25 " " 7600 - 28.5 730 1.25 21.5 970 0.93 67.38 " " 8000 - 26 800 1.15 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 18.5 1130 0.8 78.55 " " 8500 - 22.5 930 0.97					п	"					
27 770 1.15 53.82 " " 7200 - 32.5 640 1.4 24 870 1.05 61.25 " " 7600 - 28.5 730 1.25 21.5 970 0.93 67.38 " " 8000 - 26 800 1.15 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 18.5 1130 0.8 78.55 " " 8500 - 22.5 930 0.97 56 375 3.1 25.88 BF50/DHE09XA4C 97 7100 - 68 305 3.8											
24 870 1.05 61.25 " " 7600 - 28.5 730 1.25 21.5 970 0.93 67.38 " " 8000 - 26 800 1.15 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 18.5 1130 0.8 78.55 " " 8500 - 22.5 930 0.97 56 375 3.1 25.88 BF50/DHE09XA4C 97 7100 - 68 305 3.8											
21.5 970 0.93 67.38 " " 8000 - 26 800 1.15 20.5 1020 0.88 71.40 " " 8100 - 24.5 850 1.05 18.5 1130 0.8 78.55 " " 8500 - 22.5 930 0.97 56 375 3.1 25.88 BF50/DHE09XA4C 97 7100 - 68 305 3.8	1										1
20.5 1020 0.88 71.40 " 8100 - 24.5 850 1.05 18.5 1130 0.8 78.55 " 8500 - 22.5 930 0.97 56 375 3.1 25.88 BF50/DHE09XA4C 97 7100 - 68 305 3.8	1							-			
18.5 1130 0.8 78.55 " 8500 - 22.5 930 0.97 56 375 3.1 25.88 BF50/DHE09XA4C 97 7100 - 68 305 3.8								-			
56 375 3.1 25.88 BF50/DHE09XA4C 97 7100 - 68 305 3.8											
	18.5	1130	0.8	78.55	"	"	8500	-	22.5	930	0.97
				25.00	DEED (DIEDON'S	~ =	7400		66	205	
45.5 	1										
	45.5	460	2.8	31.73		"	7500	-	55	380	3.3

Selection - parallel shaft geared motors DHE - IE2

P = 2.2 kW



No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No.		60 Hz		F_{RV}	F_{RN}	m	Type	i		50 Hz	
	f _e		n_2	• NV	· NN	•••	-76-	·	f _R		n ₂
41 510 2.5 35.49 BF50/DHE09XA4C " 7800 - 49.5 420 31 670 1.95 47.14 " 88900 - 37 560 25.5 820 1.6 56.86 " 9300 - 37 560 23 910 1.45 63.59 " 9800 - 27.5 760 20 1050 1.25 72.72 " 10700 - 24 870 18 1160 1.1 81.33 " 11300 - 21.5 970 16 1310 0.99 90.24 " 11800 - 19.5 1070 14.5 1440 0.9 100.9 " 12900 - 15.5 1070 14.5 1440 0.9 100.9 " 12900 - 15.5 1070 26.5 790 2.9 54.44 BF60/DHE09XA4C 126 10500 2970 32 650 20 1050 2.2 72.15 " 111000 34000 24 850				N	N	kg					
34.5 600 2.2 42,15 " 8500 - 41,5 500 37 560 25.5 820	3.1	420		-	7800		BF50/DHE09XA4C	35.49	2.5	510	41
31 670 1.95 47.14 " " 8900 - 37 560 23 910 1.45 63.59 " " 9300 - 31 670 24 910 1.45 63.59 " " 9800 - 27.5 760 25 18 1160 1.1 81.33 " 11300 - 21.5 970 16 1310 0.99 90.24 " " 11800 - 19.5 1070 14.5 1440 0.9 100.9 " " 12300 - 17.5 1070 13 1610 0.81 114.0 " " 12900 - 15.5 1350 26.5 790 2.9 54.44 8F60/DHE09XA4C 126 10500 29700 32 650 24 870 2.6 60.40 " " 11100 3400 24.5 850 26 18 1160 2.0 80.05 " 12000 34000 24.5 850 27 18 1160 2.1 50 3.7 " 12000 35600 22 950 28 18 1160 2.0 80.05 " 12000 35600 22 950 29 18 1160 1.55 103.7 " 14100 39900 17 1230 18 1160 1.55 103.7 " 14100 39900 17 1230 18 150 1.55 1350 1.7 93.44 " " 13500 3800 19 1100 18 150 1.55 1380 1.7 93.44 " " 13500 3800 19 1100 18 1610 1.85 131.1 " 14000 41000 15.5 1350 18 150 1.55 1350 1.7 93.44 " " 13500 3800 19 1100 14 1500 1.55 103.7 " " 14100 39900 17 1230 18 160 1.55 1820 1.25 125.5 " 15300 43300 14 1500 18 160 1.45 131.1 " " 14000 41300 15.5 1350 11.5 1820 1.25 125.5 " " 15300 43300 12.5 1680 18.6 2400 0.96 169.2 " " 15300 43300 10.5 2000 7.7 2700 0.85 187.7 " " 15300 43300 10.5 2000 1.15 140.8 BF60Z/DHE09XA4C 213 16100 47700 13.5 1550 18 11 2550 2.0 179.7 " 16100 47700 13.5 1550 18 12 1550 3.0 187.7 " " 16100 47700 13.5 1550 18 13 610 4350 1.5 333.0 187.7 " " 16100 47700 13.5 1550 18 14 2550 2.0 179.7 " 16100 47700 13.5 1550 18 14 2550 2.0 179.7 " 16100 47700 13.5 1550 18 13 6300 0.83 439.2 " " 16100 47700 1.5 8 3600 18 13 6300 0.83 439.2 " " 16100 47700 1.5 8 3600 18 13 6300 0.83 439.2 " " 16100 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8 3600 18 10 47700 1.5 8	2.6			-		11					34.5
25.5 820 1.6 56.86 " " 9300 - 31 670 23 910 1.45 63.59 " " 9800 - 27.5 760 20 1050 1.25 72.72 " 10700 - 24 870 18 1160 1.1 81.33 " 11300 - 21.5 970 16 1310 0.99 90.24 " " 11300 - 21.5 970 14.5 1440 0.9 100.9 " " 12300 - 17.5 1200 14.5 1440 0.9 100.9 " " 12300 - 17.5 1200 15.5 790 2.9 54.44 BF60/DHE09XA4C 126 10500 29700 32 650 24 870 2.6 60.40 " " 11100 31400 29 720 20 1050 2.2 72.15 " " 1200 34000 24.5 850 18 1160 2.0 80.05 " " 1200 34000 24.5 850 18 1160 2.0 80.05 " " 1200 34000 24.5 850 15.5 1350 1.7 93.44 " " 13500 38200 19 1100 14 1500 1.55 103.7 " " 14100 39900 17 1230 13 1610 1.45 113.1 " " 14600 41300 15.5 1350 11.5 1820 1.25 125.5 " " 14600 43300 15.5 1350 11.5 1820 1.25 125.5 " " 15300 43300 10.5 2000 17.7 2700 0.85 187.7 " " 15300 43300 10.5 2000 17.7 2700 0.85 187.7 " " 15300 43300 10.5 2000 12.7 1700 0.85 187.7 " " 15300 43300 10.5 2000 12.7 1700 0.85 187.7 " " 16100 47700 11.5 1820 1.2 1750 3.0 122.7 BF70/DHE09XA4C 213 16100 47700 13.5 1550 18.1 2550 2.0 179,7 " " 16100 47700 11.5 1820 1.5 2550 2.0 179,7 " " 16100 47700 9.7 2150 1.2 1750 3.0 12.2 33.0 " " 16100 47700 7.7 25800 1.5 3350 1.5 3350 1.5 3350 1.5 3050 1.5 341.7 " " 16100 47700 7.5 880 1.6 3750 1.4 258.7 " " " 16100 47700 7.5 880 1.8 4850 1.5 3341.7 " " 16100 47700 7.5 880 1.8 4850 1.5 3341.7 " " 16100 47700 7.5 880 1.8 4850 1.5 3341.7 " " 16100 47700 7.5 880 1.5 5600 1.5 341.7 " " 16100 47700 7.5 880 1.5 5600 0.93 398.7 " " 16100 47700 7.5 880 1.5 5600 1.5 341.7 " " 16100 47700 7.5 880 1.5 5600 1.5 341.7 " " 16100 47700 7.5 880 1.5 5600 1.5 341.7 " " 16100 47700 7.5 880 1.5 5600 1.5 341.7 " " 16100 47700 7.5 880 1.5 5600 1.5 341.7 " " 16100 47700 7.5 880 1.5 5600 1.5 341.7 " " 16100 47700 7.5 880 1.5 5600 1.5 341.7 " " 16100 47700 7.5 880 1.5 5600 1.5 341.7 " " 16100 47700 7.5 880 1.5 5600 1.5 341.7 " " 16100 47700 7.5 880 1.5 5600 1.5 341.7 " " 16100 47700 7.5 880 1.5 5600 1.5 341.7 " " 16100 47700 7.5 880 1.5 5600 1.5 341.7 " " 16100 47700 7.5 880 1.5 5600 1.5 341.7 " " 16100 47700 7.5 880 1.5 5600 1.5 341.7 " " 16100 47700 7.5	2.3			-		11	· ·				
20	1.95			-		11	"				-
1050	1.7			_		11	m .				
18 116 1.1 81.33 " " 11300 - 21.5 970 14.5 1440 0.9 90.24 " " 11800 - 19.5 1070 13 1610 0.81 114.0 " " 12300 - 17.5 1200 26.5 790 2.9 54.44 BF60/DHE09XA4C 126 10500 2970 32 650 24 870 2.6 60.40 " " 11100 31400 29 720 20 1050 2.2 72.15 " 12000 34000 24.5 850 18 1160 2.0 80.05 " " 12600 35600 22 950 15.5 1350 1.7 93.44 " " 13500 38200 19 1100 14 1500 1.55 103.7 " " 14100 39900 17	1.5			_		"	n .				
16	1.35					11	II .				
14.5	1.2			_		11	II .				
13	1.1			_		11	II .				
26.5 790 2.9 54.44 BF60/DHE09XA4C 126 10500 29700 32 650 24 870 2.6 60.40 " " 111100 31400 29 720 20 1050 2.2 72.15 " 12000 34000 24.5 850 18 1160 2.0 80.05 " 12600 35600 22 950 115.5 1350 1.7 93.44 " 13500 35600 22 950 110.5 1350 1.7 93.44 " 13500 38200 19 1100 14 1500 1.55 103.7 " 14100 39900 17 1230 13 1610 1.45 113.1 " 1400 41300 15.5 1350 11.5 1820 1.25 125.5 " 1500 1.55 103.7 " 15300 43300 14 1500 15.5 103.7 " 15300 43300 12.5 1680 10.5 2000 1.15 140.8 BF60Z/DHE09XA4C 146 15300 43300 12.5 1680 8.6 2400 0.96 169.2 " 15300 43300 10.5 2000 7.7 2700 0.85 187.7 " 15300 43300 10.5 2000 7.7 2700 0.85 187.7 " 15300 43300 10.5 2000 1.15 140.8 BF60Z/DHE09XA4C 213 16100 47700 11.5 140.8 140 11 1910 2.7 133.0 BF70Z/DHE09XA4C 234 16100 47700 13.5 1550 1550 1550 1550 1550 1550 1550 15	0.96		1			"	п				
24	0.50	1330	13.3		12300			114.0	0.01	1010	
20 1050 2.2 72.15 " 11000 34000 24.5 850 18 1160 2.0 80.05 " 12600 34000 24.5 850 18 1160 2.0 80.05 " 12600 34000 24.5 850 18 1160 2.0 80.05 " 12600 34000 24.5 850 18 1150 1.7 93.44 " 13500 38200 19 1100 14 1500 1.55 103.7 " 14100 39900 17 1230 13 1610 1.45 113.1 " 14600 41300 15.5 1350 11.5 1820 1.25 125.5 " 150.7 " 15300 43300 14 1500 10.5 2000 1.15 140.8 BF60Z/DHE09XA4C 146 15300 43300 12.5 1680 8.6 2400 0.96 169.2 " 15300 43300 10.5 2000 7.7 2700 0.85 187.7 " 15300 43300 10.5 2000 7.7 2700 0.85 187.7 " 15300 43300 10.5 2000 11 1910 2.7 133.0 BF70Z/DHE09XA4C 213 16100 47700 13.5 1550 9.4 2200 2.4 154.0 " 16100 47700 13.5 1550 9.4 2200 2.4 154.0 " 16100 47700 13.5 1550 7.3 2850 1.8 199.7 " 16100 47700 8.8 2350 6.2 3350 1.55 233.0 " 16100 47700 8.8 2350 6.2 3350 1.55 233.0 " 16100 47700 7.5 2800 6.3 3750 1.4 258.7 " 16100 47700 6.8 3050 4.8 4350 1.05 341.7 " 16100 47700 5.1 4100 3.7 5600 0.93 398.7 " 16100 47700 5.1 4100 3.7 5600 0.93 398.7 " 16100 47700 5.1 4100 3.7 5600 0.93 398.7 " 16100 47700 5.1 4100 3.7 5600 0.93 398.7 " 16100 47700 4.4 4750 3.3 6300 0.83 439.2 " 16100 47700 4.4 2800 6.9 3000 3.2 209.4 BF80/DHE09XA4C 309 34300 75000 8.4 2500 6.1 3400 2.8 237.1 " 36900 75000 6.5 3200 6.9 3000 3.2 209.4 BF80/DHE09XA4C 309 34300 75000 8.4 2500 6.1 3400 2.8 237.1 " 39600 75000 6.5 3200 6.9 3000 1.9 394.2 " 39600 75000 6.5 3200 6.9 3000 1.9 394.2 " 39600 75000 6.5 3200 6.9 3000 1.9 394.2 " 39600 75000 6.5 3200 6.9 3000 1.9 394.2 " 39600 75000 6.5 3200 6.9 3000 1.5 583.4 " 39600 75000 6.5 3200 6.9 3000 1.5 583.4 " 39600 75000 6.5 3200 6.9 3000 1.5 583.4 " 39600 75000 6.5 3200 6.9 3000 1.5 583.4 " 39600 75000 3.9 5300 6.9 3000 1.5 583.4 " 39600 75000 3.9 5300 6.9 3000 1.5 583.4 " 39600 75000 3.9 5300 6.9 3000 1.5 662.1 " 39600 75000 3.9 5300 6.9 3000 1.5 662.1 " 39600 75000 3.9 5300 6.9 3000 1.6 450.4 " 39600 75000 3.9 5300 6.9 3000 1.6 590.7 " 39600 75000 3.9 5300 6.9 3000 1.1 662.1 " 39600 75000 3.9 5300 6.9 3000 1.1 662.1 " 39600 75000 3.9 5300	3.5	650	32	29700	10500	126	BF60/DHE09XA4C	54.44	2.9	790	26.5
18	3.2	720	29	31400	11100	"	TI .	60.40	2.6	870	24
18	2.7	850	24.5	34000	12000	II .	II .	72.15	2.2	1050	20
15.5	2.4		22			"	m .	80.05	2.0		
14	2.1					"	m .	93.44	1.7	1350	
13	1.85					11	· ·	103.7			
11.5	1.7					11	II .				
10.5 2000	1.55		i i			11	"				
8.6 2400 0.96 169.2 " " 15300 43300 10.5 2000 7.7 2700 0.85 187.7 " " 15300 43300 9.3 2250 12 1750 3.0 122.7 BF702/DHE09XA4C 213 16100 47700 14.5 1440 11 1910 2.7 133.0 BF70Z/DHE09XA4C 234 16100 47700 13.5 1550 9.4 2200 2.4 154.0 " " 16100 47700 11.5 1820 8.1 2550 2.0 179.7 " " 16100 47700 9.7 2150 7.3 2850 1.8 199.7 " " 16100 47700 9.7 2150 6.2 3350 1.55 233.0 " " 16100 47700 7.5 2800 5.6 3750 1.4 258.7 " " 16100 47700 5.8 3600 4.3 4850 1.05	1.35		1			146	BF60Z/DHE09XA4C				
7.7 2700 0.85 187.7 " 15300 43300 9.3 2250 12 1750 3.0 122.7 BF70/DHE09XA4C 213 16100 47700 14.5 1440 11 1910 2.7 133.0 BF70Z/DHE09XA4C 234 16100 47700 13.5 1550 9.4 2200 2.4 154.0 " " 16100 47700 13.5 1820 8.1 2550 2.0 179.7 " " 16100 47700 9.7 2150 7.3 2850 1.8 199.7 " " 16100 47700 8.8 2350 6.2 3350 1.55 233.0 " " 16100 47700 8.8 2350 5.6 3750 1.4 258.7 " " 16100 47700 5.8 3600 4.3 4850 1.05 341.7 " " 16100	1.15		1								
12	1.0					ıı	· ·				
11 1910 2.7 133.0 BF70Z/DHE09XA4C 234 16100 47700 13.5 1550 9.4 2200 2.4 154.0 " " 16100 47700 11.5 1820 8.1 2550 2.0 179.7 " " 16100 47700 9.7 2150 7.3 2850 1.8 199.7 " " 16100 47700 8.8 2350 6.2 3350 1.55 233.0 " " 16100 47700 7.5 2800 5.6 3750 1.4 258.7 " " 16100 47700 6.8 3050 4.8 4350 1.2 301.8 " " 16100 47700 5.8 3600 4.3 4850 1.05 341.7 " " 16100 47700 5.1 4100 3.7 5600 0.93 398.7 " " 16100											
9.4 2200 2.4 154.0 " " 16100 47700 11.5 1820 8.1 2550 2.0 179.7 " " 16100 47700 9.7 2150 7.3 2850 1.8 199.7 " " 16100 47700 8.8 2350 6.2 3350 1.55 233.0 " " 16100 47700 7.5 2800 5.6 3750 1.4 258.7 " " 16100 47700 6.8 3050 4.8 4350 1.05 341.7 " " 16100 47700 5.8 3600 4.3 4850 1.05 341.7 " " 16100 47700 5.1 4100 3.7 5600 0.93 398.7 " " 16100 47700 4.4 4750 3.3 6300 0.83 439.2 " " 16100 47700 4.0 5200 6.9 3000 3.2 209.4 BF80/DHE09	3.6	1440	14.5	47700	16100	213	BF70/DHE09XA4C		3.0	1750	12
134.0 179.7	3.4	1550	13.5	47700	16100		BF70Z/DHE09XA4C	133.0	2.7	1910	11
7.3 2850 1.8 199.7 " 16100 47700 8.8 2350 6.2 3350 1.55 233.0 " 16100 47700 7.5 2800 5.6 3750 1.4 258.7 " 16100 47700 5.8 3600 4.8 4350 1.2 301.8 " 16100 47700 5.8 3600 4.3 4850 1.05 341.7 " 16100 47700 5.1 4100 3.7 5600 0.93 398.7 " 16100 47700 4.4 4750 3.3 6300 0.83 439.2 " 16100 47700 4.0 5200 6.9 3000 3.2 209.4 BF80/DHE09XA4C 309 34300 75000 8.4 2500 6.1 3400 2.8 237.1 " 36900 75000 7.4 2800 5.4 3850 2.5 269.1 " 39600 75000 6.5 3200 5.0 4200 2.5 291.7 BF80Z/DHE09XA4C 350 39600 75000 6.0 3500 4.2 5000 1.9 394.2 " 39600 75000 5.1 4100 3.7 5600 1.9 394.2 " 39600 75000 5.1 4100 3.7 5600 1.9 394.2 " 39600 75000 6.5 3200 5.2 558400 1.5 511.2 " 39600 75000 3.5 6000 6.7 7200 1.45 511.2 " 39600 75000 3.5 6000 6.7 7200 1.45 511.2 " 39600 75000 3.9 5300 6.9 39600 75000 1.1 662.1 " 39600 75000 2.7 7700 6.1 11000 0.95 770.6 " 39600 75000 2.3 9100	2.9		11.5	47700	16100	II .		154.0	2.4		9.4
6.2 3350 1.5 199.7 16100 47700 8.8 2330 6.2 3350 1.55 233.0 " 16100 47700 7.5 2800 6.3 3750 1.4 258.7 " 16100 47700 6.8 3050 6.8 3350 1.2 301.8 " 16100 47700 5.8 3600 6.1 3400 2.8 237.1 " 16100 47700 4.0 5200 6.9 3000 3.2 209.4 BF80/DHE09XA4C 309 34300 75000 8.4 2500 6.1 3400 2.8 237.1 " 36900 75000 7.4 2800 6.1 3400 2.5 269.1 " 39600 75000 6.5 3200 6.9 3000 3.1 347.3 " 39600 75000 6.0 3500 6.1 3400 2.5 291.7 BF80Z/DHE09XA4C 350 39600 75000 6.0 3500 6.1 3400 2.5 291.7 BF80Z/DHE09XA4C 350 39600 75000 6.0 3500 6.1 3400 2.5 291.7 BF80Z/DHE09XA4C 350 39600 75000 6.0 3500 6.1 3400 2.5 291.7 BF80Z/DHE09XA4C 350 39600 75000 6.0 3500 6.1 3400 2.5 291.7 BF80Z/DHE09XA4C 350 39600 75000 6.9 3500 6.1 347.3 " 39600 75000 5.1 4100 6.2 5000 1.9 394.2 " 39600 75000 3.9 5300 6.9 7200 1.45 511.2 " 39600 75000 3.5 6000 6.9 39600 75000 3.5 6000 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0 3500 6.0	2.4	2150	9.7	47700	16100	II	"	179.7	2.0	2550	8.1
5.6 3750 1.4 258.7 " " 16100 47700 6.8 3050 4.8 4350 1.2 301.8 " " 16100 47700 5.8 3600 4.3 4850 1.05 341.7 " " 16100 47700 5.1 4100 3.7 5600 0.93 398.7 " " 16100 47700 4.4 4750 3.3 6300 0.83 439.2 " " 16100 47700 4.4 4750 3.3 6300 0.83 439.2 " " 16100 47700 4.4 4750 3.3 6300 3.2 209.4 BF80/DHE09XA4C 309 34300 75000 8.4 2500 6.1 3400 2.8 237.1 " " 36900 75000 7.4 2800 5.4 3850 2.5 269.1 " " 39600 75000 6.5 3200 5.0 4200 2.5 291.7 <	2.2	2350	8.8	47700	16100	II .	"	199.7	1.8	2850	7.3
4.8 4350 1.2 301.8 " " 16100 47700 5.8 3600 4.3 4850 1.05 341.7 " " 16100 47700 5.1 4100 3.7 5600 0.93 398.7 " " 16100 47700 4.4 4750 3.3 6300 0.83 439.2 " " 16100 47700 4.0 5200 6.9 3000 3.2 209.4 BF80/DHE09XA4C 309 34300 75000 8.4 2500 6.1 3400 2.8 237.1 " " 36900 75000 7.4 2800 5.4 3850 2.5 269.1 " " 39600 75000 6.5 3200 5.0 4200 2.5 291.7 BF80Z/DHE09XA4C 350 39600 75000 6.0 3500 4.2 5000 2.1 347.3 " " 39600 75000 5.1 4100 3.7 5600 1.9	1.85	2800	7.5	47700	16100	II .	TI TI	233.0	1.55	3350	6.2
4.3	1.7	3050	6.8	47700	16100	II .	TI TI	258.7	1.4	3750	5.6
3.7 5600 0.93 398.7 " " 16100 47700 4.4 4750 3.1 4100 47700 3.3 6300 0.83 439.2 " " 16100 47700 4.0 5200 6.9 3000 3.2 209.4 BF80/DHE09XA4C 309 34300 75000 8.4 2500 6.1 3400 2.8 237.1 " " 36900 75000 6.5 3200 5.4 3850 2.5 269.1 " " 39600 75000 6.5 3200 5.0 4200 2.5 291.7 BF80Z/DHE09XA4C 350 39600 75000 6.0 3500 4.2 5000 2.1 347.3 " " 39600 75000 5.1 4100 3.7 5600 1.9 394.2 " " 39600 75000 4.5 4650 3.2 6500 1.6 450.4 " " 39600 75000 3.9 5300 2.9 7200 1.45 511.2 " " 39600 75000 3.5 6000 2.5 8400 1.25 583.4 " " 39600 75000 3.5 6000 2.5 8400 1.25 583.4 " " 39600 75000 3.0 7000 2.2 9500 1.1 662.1 " " 39600 75000 2.7 7700 1.9 11000 0.95 770.6 " " 39600 75000 2.3 9100	1.45	3600	5.8	47700	16100	II .	II .	301.8	1.2	4350	4.8
3.7 5600 0.93 398.7 " " 16100 47700 4.4 4750 3.3 6300 0.83 439.2 " 16100 47700 4.0 5200 6.9 3000 3.2 209.4 BF80/DHE09XA4C 309 34300 75000 8.4 2500 6.1 3400 2.8 237.1 " " 36900 75000 7.4 2800 5.4 3850 2.5 269.1 " " 39600 75000 6.5 3200 5.0 4200 2.5 291.7 BF80Z/DHE09XA4C 350 39600 75000 6.0 3500 4.2 5000 2.1 347.3 " " 39600 75000 5.1 4100 3.7 5600 1.9 394.2 " " 39600 75000 3.9 5300 2.9 7200 1.45 511.2 " " 39600 75000 3.5 6000 2.5 8400 1.25 583.4	1.25	4100	5.1	47700	16100	II	II .	341.7	1.05	4850	4.3
6.9 3000 3.2 209.4 BF80/DHE09XA4C 309 34300 75000 8.4 2500 6.1 3400 2.8 237.1 " " 36900 75000 7.4 2800 5.4 3850 2.5 269.1 " " 39600 75000 6.5 3200 5.0 4200 2.5 291.7 BF80Z/DHE09XA4C 350 39600 75000 6.0 3500 4.2 5000 2.1 347.3 " " 39600 75000 5.1 4100 3.7 5600 1.9 394.2 " " 39600 75000 4.5 4650 3.2 6500 1.6 450.4 " " 39600 75000 3.9 5300 2.9 7200 1.45 511.2 " " 39600 75000 3.5 6000 2.5 8400 1.25 583.4 " " 39600 75000 3.0 7000 2.2 9500 1.1 662.1 " " 39600 75000 2.7 7700 1.9 11000 0.95 770.6 " " 39600 75000 2.3 9100	1.1	4750	4.4	47700	16100	II .	II .	398.7	0.93	5600	3.7
6.1 3400 2.8 237.1 " " 36900 75000 7.4 2800 5.4 3850 2.5 269.1 " " 39600 75000 6.5 3200 5.0 4200 2.5 291.7 BF80Z/DHE09XA4C 350 39600 75000 6.0 3500 4.2 5000 2.1 347.3 " " 39600 75000 5.1 4100 3.7 5600 1.9 394.2 " " 39600 75000 4.5 4650 3.2 6500 1.6 450.4 " " 39600 75000 3.9 5300 2.9 7200 1.45 511.2 " " 39600 75000 3.5 6000 2.5 8400 1.25 583.4 " " 39600 75000 2.7 7700 2.2 9500 1.1 662.1 " " 39600 75000 2.3 9100	1.0	5200	4.0	47700	16100	"	п	439.2	0.83	6300	3.3
6.1 3400 2.8 237.1 " " 36900 75000 7.4 2800 5.4 3850 2.5 269.1 " " 39600 75000 6.5 3200 5.0 4200 2.5 291.7 BF80Z/DHE09XA4C 350 39600 75000 6.0 3500 4.2 5000 2.1 347.3 " " 39600 75000 5.1 4100 3.7 5600 1.9 394.2 " " 39600 75000 4.5 4650 3.2 6500 1.6 450.4 " " 39600 75000 3.9 5300 2.9 7200 1.45 511.2 " " 39600 75000 3.5 6000 2.5 8400 1.25 583.4 " " 39600 75000 2.7 7700 2.2 9500 1.1 662.1 " " 39600 75000 2.3 9100	2.0	2500	0.4	75000	24200	200	DEGO /DUEGOVAAC	200.4	2.2	2000	6.0
5.4 3850 2.5 269.1 " 39600 75000 6.5 3200 5.0 4200 2.5 291.7 BF80Z/DHE09XA4C 350 39600 75000 6.0 3500 4.2 5000 2.1 347.3 " " 39600 75000 5.1 4100 3.7 5600 1.9 394.2 " " 39600 75000 4.5 4650 3.2 6500 1.6 450.4 " " 39600 75000 3.9 5300 2.9 7200 1.45 511.2 " " 39600 75000 3.5 6000 2.5 8400 1.25 583.4 " " 39600 75000 3.0 7000 2.2 9500 1.1 662.1 " " 39600 75000 2.7 7700 1.9 11000 0.95 770.6 " " 39600 75000 2.3 9100	3.8										1
5.0 4200 2.5 291.7 BF80Z/DHE09XA4C 350 39600 75000 6.0 3500 4.2 5000 2.1 347.3 " " 39600 75000 5.1 4100 3.7 5600 1.9 394.2 " " 39600 75000 4.5 4650 3.2 6500 1.6 450.4 " " 39600 75000 3.9 5300 2.9 7200 1.45 511.2 " " 39600 75000 3.5 6000 2.5 8400 1.25 583.4 " " 39600 75000 3.0 7000 2.2 9500 1.1 662.1 " " 39600 75000 2.7 7700 1.9 11000 0.95 770.6 " 39600 75000 2.3 9100	3.4										1
4.2 5000 2.1 347.3 " " 39600 75000 5.1 4100 3.7 5600 1.9 394.2 " " 39600 75000 4.5 4650 3.2 6500 1.6 450.4 " " 39600 75000 3.9 5300 2.9 7200 1.45 511.2 " " 39600 75000 3.5 6000 2.5 8400 1.25 583.4 " " 39600 75000 3.0 7000 2.2 9500 1.1 662.1 " " 39600 75000 2.7 7700 1.9 11000 0.95 770.6 " " 39600 75000 2.3 9100	3.0										
3.7 5600 1.9 394.2 " " 39600 75000 4.5 4650 3.2 6500 1.6 450.4 " " 39600 75000 3.9 5300 2.9 7200 1.45 511.2 " 39600 75000 3.5 6000 2.5 8400 1.25 583.4 " 39600 75000 3.0 7000 2.2 9500 1.1 662.1 " 39600 75000 2.7 7700 1.9 11000 0.95 770.6 " 39600 75000 2.3 9100	3.0										
3.2 6500 1.6 450.4 " " 39600 75000 3.9 5300 2.9 7200 1.45 511.2 " 39600 75000 3.5 6000 2.5 8400 1.25 583.4 " " 39600 75000 3.0 7000 2.2 9500 1.1 662.1 " " 39600 75000 2.7 7700 1.9 11000 0.95 770.6 " 39600 75000 2.3 9100	2.6						"				
2.9 7200 1.45 511.2 " 39600 75000 3.5 6000 2.5 8400 1.25 583.4 " 39600 75000 3.0 7000 2.2 9500 1.1 662.1 " 39600 75000 2.7 7700 1.9 11000 0.95 770.6 " 39600 75000 2.3 9100	2.3										
2.5 8400 1.25 583.4 " " 39600 75000 3.0 7000 2.2 9500 1.1 662.1 " 39600 75000 2.7 7700 1.9 11000 0.95 770.6 " 39600 75000 2.3 9100	2.0										
2.2 9500 1.1 662.1 " " 39600 75000 2.7 7700 1.9 11000 0.95 770.6 " 39600 75000 2.3 9100	1.75										
1.9 11000 0.95 770.6 " 39600 75000 2.3 9100	1.5										
1.9 11000 0.95 770.0 39000 73000 [2.5 9100	1.35										
1.7 12300 0.83 8/4.0 39000 /3000 2.0 10300	1.15 1.0										
	1.0	10300	2.0	75000	39000			6/4.0	0.65	12300	1.7
3.2 6500 2.8 456.7 BF90Z/DHE09XA4C 614 42800 120000 3.9 5300	3.5	5300	3.9	120000	42800	614	BF90Z/DHE09XA4C	456.7	2.8	6500	3.2
2.9 7200 2.6 508.5 " 42800 120000 3.5 6000	3.1	6000		120000	42800	II .	II .			7200	
2.5 8400 2.2 591.1 " 42800 120000 3.0 7000	2.6					ıı	· ·				
2.2 9500 1.95 658.1 " 42800 120000 2.7 7700	2.4					II .	II .				
1.9 11000 1.7 759.0 " 42800 120000 2.3 9100	2.0					II .	II .				
1.8 11600 1.6 845.1 " 42800 120000 2.1 10000	1.85					ıı	"		i i		
1.5 12400 1.5 976.1 BF90G50/DHE09XA4C 626 42800 120000 1.8 10000	1.85					626	BF90G50/DHE09XA4C				
1.4 13600 1.35 1043 " 42800 120000 1.7 10900	1.7		1						i		
1.2 15800 1.15 1204 " 42800 120000 1.5 12300	1.5					II .	"				
1.0 19600 0.94 1444 " " 42800 120000 1.3 14700	1.25					II .	"				

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 3 kW



	50 Hz		i	Туре	m	F _{RN}	F_{RV}		60 Hz	
n ₂ 1/min	M ₂ Nm	f _B			kg	N	N	n ₂ 1/min	$M_{\scriptscriptstyle 2}$ Nm	$f_{\scriptscriptstyle B}$
230	124	2.1	6.34	BF30/DHE11MA4	66	2400	- 11	275	104	2.5
179	160	1.8	8.07	BF30/DHE11MA4	"	2650	-	220	130	2.2
145	197	1.6	9.99	п	"	2850	_	175	163	1.95
112	255	1.45	12.91	п	"	3050	-	135	210	1.75
90	255 315	1	16.00	п	"	3250	-	109	260	
		1.3		п	"					1.55
82 75	345	1.4	17.65	11	"	3300	-	99	285	1.7
	380	1.3	19.41	п	"	3400	-	90	315	1.6
66	430	1.25	21.85	п	"	3500		80 73	355	1.5
60 52	475 550	1.15 1.05	24.03 28.23	п	"	3600 3800	-	62	390 460	1.4 1.25
46.5	610	0.94	31.05	п	"	4000	-	57	500	1.15
1				п	"					
41.5	690	0.83	35.00			4200	-	50	570	1.0
250	114	2.9	5.87	BF40/DHE11MA4	80	3550	-	300	95	3.5
189	151	2.4	7.62	"		3900	-	230	124	3.0
152	188	2.2	9.48	" "	"	4150	-	184	155	2.7
123	230	2.0	11.79	"	"	4450	-	148	193	2.4
96	295	1.75	15.02	"	"	4800	-	116	245	2.1
83	345	1.85	17.35	"	"	4950	-	101	280	2.3
76	375	1.75	19.09	"	"	5100	-	92	310	2.1
67	425	1.65	21.60	"	"	5200	-	81	350	2.0
61	465	1.6	23.77	" "	"	5400	-	74	385	1.9
54	530	1.45	26.86	"	"	5600	-	65	440	1.75
49	580	1.4	29.55	"	"	5800	-	59	485	1.65
42.5	670	1.3	34.21		"	6000	-	51	560	1.55
38.5	740	1.2	37.64		"	6200	-	46.5	610	1.45
35	810	1.1	41.42		"	6500	-	42.5	670	1.35
32	890	1.0	45.56		"	6800	-	38.5	740	1.2
29.5	970	0.93	48.92		"	7000	-	36	790	1.15
27	1060	0.85	53.82			7200	-	32.5	880	1.0
135	210	3.2	10.68	BF50/DHE11MA4	110	5600	-	163	175	3.9
99	285	2.8	14.65	"	"	6100	-	119	240	3.3
87	325	2.9	16.70	"	"	6200	-	105	270	3.5
78	365	2.7	18.68	"	"	6400	-	94	300	3.3
63	450	2.5	23.14	"	"	6800	-	76	375	3.0
56	510	2.3	25.88	"	"	7100	-	68	420	2.8
45.5	620	2.0	31.73	"	"	7500	-	55	520	2.4
41	690	1.9	35.49	"	"	7800	-	49.5	570	2.3
34.5	830	1.55	42.15	" "	"	8500	-	41.5	690	1.9
31	920	1.4	47.14			8900	-	37	770	1.7
25.5	1120	1.15	56.86	"	"	9300	-	31	920	1.4
23	1240	1.05	63.59	" "	"	9800	-	27.5	1040	1.25
20	1430	0.91	72.72	" "	"	10700	-	24	1190	1.1
18	1590	0.82	81.33	-		11300	-	21.5	1330	0.98
46.5	610	3.1	31.20	BF60/DHE11MA4	141	8800	24900	56	510	3.7
42	680	2.9	34.62	"	"	9100	25700	51	560	3.5
35	810	2.6	41.60	"	"	9600	27100	42	680	3.1
31.5	900	2.5	46.16	"	"	9900	28000	38	750	3.0
26.5	1080	2.1	54.44	"	"	10500	29700	32	890	2.6
24	1190	1.95	60.40		"	11100	31400	29	980	2.3
20	1430	1.6	72.15	"	"	12000	34000	24.5	1160	2.0
18	1590	1.45	80.05	"	"	12600	35600	22	1300	1.75
15.5	1840	1.25	93.44	"	"	13500	38200	19	1500	1.55
14	2000	1.15	103.7	" "	"	14100	39900	17	1680	1.35
13	2200	1.05	113.1	" "	"	14600	41300	15.5	1840	1.25
11.5 10.5	2450 2700	0.94 0.85	125.5 140.8	" BF60Z/DHE11MA4	157	15300 15300	43300 43300	14 12.5	2000 2250	1.15 1.0
18	1590	3.3	81.82	BF70/DHE11MA4	220	12800	41300	21.5	1330	3.9
15.5 14	1840 2000	2.8 2.6	95.46 105.2		11	14000 14700	43700 45100	18.5 17	1540 1680	3.4 3.1
12	2350	2.0	105.2	m .	II .	16100	47700	14.5	1970	2.6
14	∠ 330	2.2	122./			10100	4//00	14.5	19/0	2.0

Selection - parallel shaft geared motors DHE - IE2

P = 3 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		• •				n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
11	2600	2.0	133.0	BF70Z/DHE11MA4	247	16100	47700	13.5	2100	2.5
9.4	3000	1.75	154.0	II	"	16100	47700	11.5	2450	2.1
8.1	3500	1.5	179.7	II	"	16100	47700	9.7	2950	1.75
7.3	3900	1.35	199.7	"	"	16100	47700	8.8	3250	1.6
6.2	4600	1.15	233.0	"	"	16100	47700	7.5	3800	1.35
5.6	5100	1.0	258.7	"	"	16100	47700	6.8	4200	1.25
4.8	5900	0.88	301.8	"	"	16100	47700	5.8	4900	1.05
9.1	3100	3.1	158.5	BF80/DHE11MA4	316	29000	75000	11	2600	3.7
7.9	3600	2.6	184.5	"	"	31800	75000	9.5	3000	3.2
6.9	4150	2.3	209.4	"	"	34300	75000	8.4	3400	2.8
6.1	4650	2.0	237.1	"	"	36900	75000	7.4	3850	2.5
5.4	5300	1.8	269.1	"	II .	39600	75000	6.5	4400	2.2
5.0	5700	1.85	291.7	BF80Z/DHE11MA4	363	39600	75000	6.0	4750	2.2
4.2	6800	1.55	347.3	"	II .	39600	75000	5.1	5600	1.9
3.7	7700	1.35	394.2	"	"	39600	75000	4.5	6300	1.65
3.2	8900	1.2	450.4	"	"	39600	75000	3.9	7300	1.45
2.9	9800	1.05	511.2	"	"	39600	75000	3.5	8100	1.3
2.5	11400	0.92	583.4	"	"	39600	75000	3.0	9500	1.1
2.2	13000	0.81	662.1	"	"	39600	75000	2.7	10600	0.99
5.6	5100	3.3	259.0	BF90/DHE11MA4	569	42800	120000	6.8	4200	4.0
4.8	5900	3.1	300.4	BF90Z/DHE11MA4	629	42800	120000	5.8	4900	3.8
4.2	6800	2.7	343.6	"	"	42800	120000	5.1	5600	3.3
3.8	7500	2.5	382.6	"	"	42800	120000	4.6	6200	3.0
3.2	8900	2.1	456.7	"	"	42800	120000	3.9	7300	2.5
2.9	9800	1.9	508.5	"	"	42800	120000	3.5	8100	2.3
2.5	11400	1.6	591.1	"	"	42800	120000	3.0	9500	1.95
2.2	13000	1.4	658.1	"	"	42800	120000	2.7	10600	1.75
1.9	15000	1.25	759.0		"	42800	120000	2.3	12400	1.5
1.8	15900	1.15	845.1	"	"	42800	120000	2.1	13600	1.35
1.5	17500	1.05	976.1	BF90G50/DHE11MA4	639	42800	120000	1.8	14300	1.3
1.4	19000	0.97	1043	" -	"	42800	120000	1.7	15400	1.2
1.2	22200	0.83	1204	"	II .	42800	120000	1.5	17400	1.05

P = 4 kW

	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
230	166	1.6	6.34	BF30/DHE11LA4	78	2400	-	275	138	1.9
179	210	1.35	8.07	m m	"	2650	-	220	173	1.65
145	260	1.25	9.99	m m	"	2850	-	175	215	1.5
112	340	1.1	12.91	"	"	3050	-	135	280	1.3
90	420	0.97	16.00	"	"	3250	-	109	350	1.15
82	465	1.05	17.65	"	"	3300	-	99	385	1.25
75	500	1.0	19.41	"	"	3400	-	90	420	1.2
66	570	0.93	21.85	"	"	3500	-	80	475	1.1
60	630	0.88	24.03	II	II	3600	-	73	520	1.05
250	152	2.2	5.87	BF40/DHE11LA4	92	3550	-	300	127	2.6
189	200	1.85	7.62	"	"	3900	-	230	166	2.2
152	250	1.65	9.48	"	II .	4150	-	184	205	2.0
123	310	1.5	11.79	"	II .	4450	-	148	255	1.8
96	395	1.3	15.02	"	II .	4800	-	116	325	1.6
83	460	1.4	17.35	"	"	4950	-	101	375	1.7
76	500	1.35	19.09	"	"	5100	-	92	415	1.6
67	570	1.25	21.60	"	"	5200	-	81	470	1.5
61	620	1.2	23.77	"	"	5400	-	74	510	1.45
54	700	1.1	26.86	"	"	5600	-	65	580	1.35

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 4 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm	1.05	20.55	DE40 /DUE441.44	kg "	N	N	1/min	Nm	1.25
49	770	1.05	29.55	BF40/DHE11LA4	"	5800	-	59	640	1.25
42.5	890	0.96	34.21	"	"	6000	-	51	740	1.15
38.5	990	0.9	37.64	"	"	6200	-	46.5	820	1.1
35	1090	0.83	41.42	"		6500	-	42.5	890	1.0
187	200	2.8	7.71	BF50/DHE11LA4	122	5100	-	230	166	3.4
135	280	2.4	10.68	II .	II .	5600	-	163	230	2.9
99	385	2.1	14.65	II .	II .	6100	-	119	320	2.5
87	435	2.2	16.70	II .	II .	6200	-	105	360	2.6
78	485	2.1	18.68	m m	II	6400	-	94	405	2.5
63	600	1.85	23.14	m	II .	6800	-	76	500	2.2
56	680	1.7	25.88	m	II .	7100	-	68	560	2.1
45.5	830	1.55	31.73	m m	II	7500	-	55	690	1.85
41	930	1.4	35.49	II .	II .	7800	-	49.5	770	1.7
34.5	1100	1.2	42.15	II .	II .	8500	-	41.5	920	1.4
31	1230	1.05	47.14	п	II .	8900	_	37	1030	1.25
25.5	1490	0.87	56.86	m .	"	9300	-	31	1230	1.05
		_								
102	370	3.2	14.24	BF60/DHE11LA4	153	7100	20000	123	310	3.8
85	445	3.3	16.96	"	"	7300	20600	103	370	3.9
77	495	3.1	18.81	"	"	7600	21500	93	410	3.7
64	590	2.8	22.58	"	"	8000	22600	78	485	3.4
58	650	2.7	25.05	"	"	8200	23200	70	540	3.2
46.5	820	2.3	31.20	"	"	8800	24900	56	680	2.8
42	900	2.2	34.62	"	"	9100	25700	51	740	2.7
35	1090	1.95	41.60	"	II .	9600	27100	42	900	2.4
31.5	1210	1.85	46.16	"	II .	9900	28000	38	1000	2.2
26.5	1440	1.6	54.44	"	II .	10500	29700	32	1190	1.95
24	1590	1.45	60.40	"	II .	11100	31400	29	1310	1.75
20	1910	1.2	72.15	"	II .	12000	34000	24.5	1550	1.5
18	2100	1.1	80.05	"	II .	12600	35600	22	1730	1.35
15.5	2450	0.94	93.44	"	II .	13500	38200	19	2000	1.15
14	2700	0.85	103.7	"	"	14100	39900	17	2200	1.05
23.5	1620	3.2	61.94	BF70/DHE11LA4	232	10800	37400	28.5	1340	3.9
20.5	1910	2.7	72.26	" "	232	12000	39600	24.5	1550	3.4
18	2100	2.5	81.82	n .	11	12800	41300	21.5	1770	2.9
15.5	2450	2.3	95.46	n .	"	14000	43700	18.5	2050	2.5
14	2700		105.2	п	"		45100	17	2200	2.3
12	3150	1.95 1.65		11	"	14700	47700	14.5		2.4
11		i i	122.7	BF70Z/DHE11LA4	250	16100			2600	
	3450 4050	1.5	133.0	BF/UZ/DHETTLA4	258	16100	47700 47700	13.5	2800 3300	1.85
9.4		1.3	154.0	11	"	16100		11.5		1.6
8.1	4700	1.1	179.7	п	"	16100	47700	9.7	3900	1.35
7.3 6.2	5200 6100	1.0 0.85	199.7 233.0	n .	"	16100 16100	47700 47700	8.8 7.5	4300 5000	1.2 1.05
0.2	6100	0.65	233.0			10100	4//00	7.5	3000	1.05
12	3150	3.0	122.4	BF80/DHE11LA4	328	24500	75000	14.5	2600	3.7
10.5	3600	2.6	139.7	II .	II .	26700	75000	12.5	3050	3.1
9.1	4150	2.3	158.5	II .	"	29000	75000	11	3450	2.8
7.9	4800	2.0	184.5	m .	II .	31800	75000	9.5	4000	2.4
6.9	5500	1.75	209.4	m .	II .	34300	75000	8.4	4500	2.1
6.1	6200	1.55	237.1	m .	II .	36900	75000	7.4	5100	1.85
5.4	7000	1.35	269.1	m .	II .	39600	75000	6.5	5800	1.65
5.0	7600	1.4	291.7	BF80Z/DHE11LA4	375	39600	75000	6.0	6300	1.65
4.2	9000	1.15	347.3	"	"	39600	75000	5.1	7400	1.4
3.7	10300	1.0	394.2	"	II .	39600	75000	4.5	8400	1.25
3.2	11900	0.88	450.4	"	II .	39600	75000	3.9	9700	1.1
2.9	13100	0.8	511.2	II .	"	39600	75000	3.5	10900	0.96
					_					
7.3	5200	3.2	198.8	BF90/DHE11LA4	581	36000	111300	8.8	4300	3.9
6.2 5.6	6100 6800	2.8 2.5	232.6 259.0	"	"	39900 42800	118300 120000	7.5	5000 5600	3.4 3.0
				"		4.1000	1 10000	6.8		

Selection - parallel shaft geared motors DHE - IE2

P = 4 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
5.4	7000	2.6	269.8	BF90Z/DHE11LA4	641	42800	120000	6.5	5800	3.2
4.8	7900	2.3	300.4	"	II .	42800	120000	5.8	6500	2.8
4.2	9000	2.1	343.6	"	II .	42800	120000	5.1	7400	2.5
3.8	10000	1.85	382.6	"	II .	42800	120000	4.6	8300	2.2
3.2	11900	1.55	456.7	"	II .	42800	120000	3.9	9700	1.9
2.9	13100	1.4	508.5	"	II .	42800	120000	3.5	10900	1.7
2.5	15200	1.2	591.1	"	II .	42800	120000	3.0	12700	1.45
2.2	17300	1.05	658.1	"	II .	42800	120000	2.7	14100	1.3
1.9	20100	0.92	759.0	"	II .	42800	120000	2.3	16600	1.1
1.8	21200	0.87	845.1	"		42800	120000	2.1	18100	1.0

P = 5.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		71			***	n ₂	M_2	f
1/min	Nm				kg	N	N	1/min	Nm	
235	220	1.2	6.34	BF30/DHE11LA4C	82	2400	-	280	187	1.4
181	290	0.99	8.07	"	"	2650	_	220	235	1.2
147	355	0.9	9.99	n .	II .	2850	_	177	295	1.1
114	460	0.8	12.91	II .	"	3050	-	137	380	0.96
250	210	1.6	5.87	BF40/DHE11LA4C	96	3550	-	300	175	1.9
192	270	1.35	7.62	"	II .	3900	-	235	220	1.65
155	335	1.25	9.48	"	"	4150	-	186	280	1.5
124	420	1.1	11.79	"	"	4450	-	150	350	1.35
98	530	0.98	15.02	II	II .	4800	-	118	445	1.15
85	610	1.05	17.35	II	II .	4950	-	102	510	1.25
77	680	0.98	19.09	II	II .	5100	-	93	560	1.2
68	770	0.91	21.60	II	II .	5200	-	82	640	1.1
62	840	0.88	23.77	II	II .	5400	-	75	700	1.05
55	950	0.82	26.86	"	II .	5600	-	66	790	0.98
275	191	2.6	5.38	BF50/DHE11LA4C	126	4500	-	330	159	3.1
190	275	2.1	7.71	"	II .	5100	-	230	225	2.5
137	380	1.8	10.68	II	II .	5600	-	165	315	2.1
100	520	1.5	14.65	II	II .	6100	-	121	430	1.85
88	590	1.6	16.70	II	II .	6200	-	106	495	1.9
79	660	1.5	18.68	II	II .	6400	-	95	550	1.8
64	820	1.35	23.14	II	II .	6800	-	77	680	1.65
57	920	1.25	25.88	II	II .	7100	-	69	760	1.55
46.5	1120	1.15	31.73	II	II .	7500	-	56	930	1.35
41.5	1260	1.05	35.49	II	II .	7800	-	50	1050	1.25
35	1500	0.87	42.15	"	II .	8500	-	42	1250	1.05
189	275	3.2	7.74	BF60/DHE11LA4C	157	6000	16900	230	225	3.9
142	365	2.8	10.31	"	"	6500	18400	171	305	3.3
103	500	2.4	14.24	"	"	7100	20000	124	420	2.8
87	600	2.4	16.96	"	II .	7300	20600	104	500	2.9
78	670	2.3	18.81	"	II .	7600	21500	94	550	2.8
65	800	2.1	22.58	II .	II .	8000	22600	78	670	2.5
59	890	1.95	25.05	II .	II .	8200	23200	71	730	2.4
47	1110	1.7	31.20	TI TI	II .	8800	24900	57	920	2.1
42.5	1230	1.6	34.62	"	II .	9100	25700	51	1020	1.95
35.5	1470	1.45	41.60	TI TI	II .	9600	27100	42.5	1230	1.75
32	1640	1.35	46.16	TI TI	II .	9900	28000	38.5	1360	1.65
27	1940	1.2	54.44	m .	II	10500	29700	32.5	1610	1.45
24.5	2100	1.1	60.40	II .	II .	11100	31400	29.5	1780	1.3
20.5	2550	0.9	72.15	II .	II .	12000	34000	24.5	2100	1.1
18.5	2800	0.82	80.05	m .	II .	12600	35600	22	2350	0.98

Selection - parallel shaft geared motors DHE - IE2

P = 5.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	•	-71-		- KIN	- 11.0	n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
31	1690	3.1	47.82	BF70/DHE11LA4C	236	9100	34000	37	1410	3.7
26.5	1980	2.6	55.79	II .	II .	10200	36000	32	1640	3.2
24	2150	2.4	61.94	II .	II .	10800	37400	28.5	1840	2.8
20.5	2550	2.0	72.26	m m	11	12000	39600	24.5	2100	2.5
18	2900	1.8	81.82	II	"	12800	41300	22	2350	2.2
15.5	3350	1.55	95.46	II	"	14000	43700	18.5	2800	1.85
14	3750	1.4	105.2	II	"	14700	45100	17	3050	1.7
12	4350	1.2	122.7	II	"	16100	47700	14.5	3600	1.45
11	4750	1.1	133.0	BF70Z/DHE11LA4C	262	16100	47700	13.5	3850	1.35
9.5	5500	0.95	154.0	"	"	16100	47700	11.5	4550	1.15
8.2	6400	0.81	179.7	m .	"	16100	47700	9.8	5300	0.98
18	2900	3.3	83.16	BF80/DHE11LA4C	332	18400	65100	21.5	2400	4.0
15.5	3350	2.8	94.38	"	"	20300	68500	19	2750	3.5
14	3750	2.5	107.9	"	"	22400	72300	16.5	3150	3.0
12	4350	2.2	122.4	"	"	24500	75000	14.5	3600	2.6
10.5	5000	1.9	139.7	"	"	26700	75000	13	4000	2.4
9.3	5600	1.7	158.5	"	"	29000	75000	11.5	4550	2.1
8.0	6500	1.45	184.5	"	"	31800	75000	9.6	5400	1.75
7.0	7500	1.25	209.4	"	"	34300	75000	8.5	6100	1.55
6.2	8400	1.15	237.1	"	"	36900	75000	7.5	7000	1.35
5.5	9500	1.0	269.1	"	"	39600	75000	6.6	7900	1.2
5.1	10200	1.05	291.7	BF80Z/DHE11LA4C	379	39600	75000	6.1	8600	1.2
4.3	12200	0.86	347.3	II .	"	39600	75000	5.1	10200	1.05
9.5	5500	3.1	154.8	BF90/DHE11LA4C	585	30100	100800	11.5	4550	3.7
8.2	6400	2.6	178.6	"	"	33400	106700	9.9	5300	3.2
7.4	7000	2.4	198.8	n .	"	36000	111300	8.9	5900	2.8
6.3	8300	2.0	232.6	TI .	II .	39900	118300	7.6	6900	2.4
5.7	9200	1.85	259.0	TI .	II .	42800	120000	6.8	7700	2.2
5.5	9500	1.95	269.8	BF90Z/DHE11LA4C	645	42800	120000	6.6	7900	2.3
4.9	10700	1.75	300.4	"	"	42800	120000	5.9	8900	2.1
4.3	12200	1.5	343.6	п	"	42800	120000	5.2	10100	1.85
3.9	13400	1.4	382.6	п	II .	42800	120000	4.7	11100	1.65
3.2	16400	1.15	456.7	п	II .	42800	120000	3.9	13400	1.4
2.9	18100	1.0	508.5	п	II .	42800	120000	3.5	15000	1.25
2.5	21000	0.88	591.1	m .	II .	42800	120000	3.0	17500	1.05
2.3	22800	0.81	658.1	m .	II .	42800	120000	2.7	19400	0.95

P = 7.5 kW

	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
275	260	1.9	5.38	BF50/DHE13LA4	136	4500	-	330	215	2.3
190	375	1.5	7.71	m .	"	5100	-	230	310	1.8
137	520	1.3	10.68	m .	"	5600	-	165	430	1.55
100	710	1.1	14.65	m .	"	6100	-	121	590	1.35
88	810	1.15	16.70	m .	"	6200	-	106	670	1.4
79	900	1.1	18.68	m .	"	6400	-	95	750	1.35
64	1110	1.0	23.14	m .	"	6800	-	77	930	1.2
57	1250	0.93	25.88	m .	"	7100	-	69	1030	1.15
46.5	1540	0.82	31.73	"	II	7500	-	56	1270	1.0
280	255	3.0	5.22	BF60/DHE13LA4	169	5200	14800	340	210	3.6
189	375	2.3	7.74	"	"	6000	16900	230	310	2.8
142	500	2.0	10.31	"	"	6500	18400	171	415	2.4
103	690	1.75	14.24	m .	"	7100	20000	124	570	2.1
87	820	1.75	16.96	n n	"	7300	20600	104	680	2.1
78	910	1.65	18.81	n n	"	7600	21500	94	760	2.0
65	1100	1.5	22.58	m .	"	8000	22600	78	910	1.8

Selection - parallel shaft geared motors DHE - IE2

P = 7.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7.				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
59	1210	1.45	25.05	BF60/DHE13LA4	II .	8200	23200	71	1000	1.75
47	1520	1.25	31.20	п	11	8800	24900	57	1250	1.5
42.5	1680	1.2	34.62	II.	II .	9100	25700	51	1400	1.4
35.5	2000	1.05	41.60	m .	II .	9600	27100	42.5	1680	1.25
32	2200	1.0	46.16	m .	II .	9900	28000	38.5	1860	1.2
27	2650	0.87	54.44	п	II .	10500	29700	32.5	2200	1.05
40	1790	2.9	36.88	BF70/DHE13LA4	248	7900	31100	48	1490	3.5
34	2100	2.5	43.02	"	II .	8700	32800	41	1740	3.0
31	2300	2.3	47.82	"	II .	9100	34000	37	1930	2.7
26.5	2700	1.95	55.79	"	II .	10200	36000	32	2200	2.4
24	2950	1.75	61.94	"	II .	10800	37400	28.5	2500	2.1
20.5	3450	1.5	72.26	"	II	12000	39600	24.5	2900	1.8
18	3950	1.3	81.82	"	"	12800	41300	22	3250	1.6
15.5	4600	1.15	95.46	"	"	14000	43700	18.5	3850	1.35
14	5100	1.0	105.2	"	"	14700	45100	17	4200	1.25
12	5900	0.88	122.7	"	"	16100	47700	14.5	4900	1.05
11	6500	8.0	133.0	BF70Z/DHE13LA4	273	16100	47700	13.5	5300	0.98
24	2950	3.2	61.55	BF80/DHE13LA4	344	14800	58100	29	2450	3.8
21	3400	2.8	69.86	"	II .	15900	60600	25.5	2800	3.4
18	3950	2.4	83.16	"	"	18400	65100	21.5	3300	2.9
15.5	4600	2.1	94.38	"	"	20300	68500	19	3750	2.5
14	5100	1.85	107.9	"	II .	22400	72300	16.5	4300	2.2
12	5900	1.6	122.4	"	II .	24500	75000	14.5	4900	1.95
10.5	6800	1.4	139.7	"	II .	26700	75000	13	5500	1.75
9.3	7700	1.25	158.5	II	II .	29000	75000	11.5	6200	1.55
8.0	8900	1.05	184.5	"	"	31800	75000	9.6	7400	1.3
7.0	10200	0.93	209.4	"	"	34300	75000	8.5	8400	1.15
6.2	11500	0.83	237.1	"	"	36900	75000	7.5	9500	1.0
14	5100	3.3	107.5	BF90/DHE13LA4	596	22300	86900	16.5	4300	3.9
12.5	5700	2.9	119.7	"	II .	24500	90800	15	4750	3.5
10.5	6800	2.5	139.1	"	"	27700	96300	13	5500	3.1
9.5	7500	2.2	154.8	"	"	30100	100800	11.5	6200	2.7
8.2	8700	1.95	178.6	"	"	33400	106700	9.9	7200	2.3
7.4	9600	1.75	198.8	"	"	36000	111300	8.9	8000	2.1
6.3	11300	1.5	232.6	"	"	39900	118300	7.6	9400	1.8
5.7	12500	1.35	259.0	II	II	42800	120000	6.8	10500	1.6
5.5	13000	1.4	269.8	BF90Z/DHE13LA4	657	42800	120000	6.6	10800	1.7
4.9	14600	1.25	300.4	"	"	42800	120000	5.9	12100	1.55
4.3	16600	1.1	343.6	II .	"	42800	120000	5.2	13700	1.35
3.9	18300	1.0	382.6	II .	"	42800	120000	4.7	15200	1.2
3.2	22300	0.83	456.7	"	"	42800	120000	3.9	18300	1.0

P = 9.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f₃						n_2	M_2	f_{B}
1/min	Nm				kg	N	N	1/min	Nm	
275	325	1.55	5.38	BF50/DHE16MA4	181	4500	-	330	270	1.85
191	475	1.2	7.71	m	"	5100	-	230	390	1.45
138	650	1.05	10.68	m	"	5600	-	166	540	1.25
101	890	0.89	14.65	m	"	6100	-	121	740	1.05
89	1010	0.94	16.70	m	"	6200	-	106	850	1.1
79	1140	0.88	18.68	"	11	6400	-	95	950	1.05
285	315	2.4	5.22	BF60/DHE16MA4	214	5200	14800	340	265	2.8
190	475	1.85	7.74	п	II .	6000	16900	230	390	2.2
143	630	1.6	10.31	п	II .	6500	18400	172	520	1.95
104	870	1.35	14.24	n n	II .	7100	20000	125	720	1.65

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 9.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7.				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	-
104	870	1.35	14.24	BF60/DHE16MA4	"	7100	20000	125	720	1.65
87	1040	1.4	16.96	II .	II .	7300	20600	105	860	1.7
79	1140	1.35	18.81	п	II .	7600	21500	95	950	1.6
66	1370	1.2	22.58	п	II .	8000	22600	79	1140	1.45
59	1530	1.15	25.05	п	II .	8200	23200	71	1270	1.35
47.5	1910	0.99	31.20	п	II .	8800	24900	57	1590	1.2
42.5	2100	0.95	34.62	II .	II .	9100	25700	52	1740	1.15
35.5	2550	0.84	41.60	TI .	II .	9600	27100	43	2100	1.0
32	2800	0.8	46.16	II	II .	9900	28000	38.5	2350	0.95
60	1510	3.3	24.55	BF70/DHE16MA4	297	7000	27700	73	1240	4.1
54	1680	3.1	27.29	II .	II .	7000	28400	65	1390	3.7
46.5	1950	2.7	31.84	II .	II .	7700	30000	56	1620	3.2
40	2250	2.3	36.88	II .	II .	7900	31100	48	1890	2.8
34.5	2600	2.0	43.02	II .	II .	8700	32800	41.5	2150	2.4
31	2900	1.8	47.82	II .	II .	9100	34000	37.5	2400	2.2
26.5	3400	1.55	55.79	II .	II .	10200	36000	32	2800	1.85
24	3750	1.4	61.94	"	II .	10800	37400	29	3100	1.7
20.5	4400	1.2	72.26	"	"	12000	39600	24.5	3700	1.4
18	5000	1.05	81.82	"	"	12800	41300	22	4100	1.25
15.5	5800	0.9	95.46	"	"	14000	43700	19	4750	1.1
14	6400	0.81	105.2	"	"	14700	45100	17	5300	0.98
31	2900	3.0	47.46	BF80/DHE16MA4	393	13400	53700	37.5	2400	3.6
27.5	3250	2.8	53.86	II .	"	14000	55800	33	2700	3.3
24	3750	2.5	61.55	"	"	14800	58100	29	3100	3.0
21.5	4200	2.3	69.86	"	"	15900	60600	25.5	3550	2.7
18	5000	1.9	83.16	"	"	18400	65100	21.5	4200	2.3
16	5600	1.7	94.38	"	II .	20300	68500	19	4750	2.0
14	6400	1.5	107.9	"	"	22400	72300	16.5	5400	1.75
12.5	7200	1.3	122.4		"	24500	75000	14.5	6200	1.55
11	8200	1.15	139.7	"	"	26700	75000	13	6900	1.4
9.3	9700	0.98	158.5	"	"	29000	75000	11.5	7800	1.2
8.0	11300	0.84	184.5			31800	75000	9.6	9400	1.0
16.5	5400	3.1	90.02	BF90/DHE16MA4	640	18900	80600	20	4500	3.7
14	6400	2.6	107.5	"	"	22300	86900	16.5	5400	3.1
12.5	7200	2.3	119.7	u u	11	24500	90800	15	6000	2.8
11	8200	2.0	139.1	· ·	11	27700	96300	13	6900	2.4
9.5	9500	1.75	154.8	· ·	11	30100	100800	11.5	7800	2.2
8.3	10900	1.55	178.6	· ·	11	33400	106700	10	9000	1.85
7.4	12200	1.4	198.8	· ·	II .	36000	111300	9.0	10000	1.7
6.4	14100	1.2	232.6	II .	II .	39900	118300	7.7	11700	1.45
5.7	15900	1.05	259.0	· ·	ıı	42800	120000	6.9	13100	1.3
5.5	16400	1.15	269.8	BF90Z/DHE16MA4	702	42800	120000	6.6	13700	1.35
4.9	18500	1.0	300.4	II .	"	42800	120000	5.9	15300	1.2
4.3	21000	0.88	343.6	· ·	"	42800	120000	5.2	17400	1.05
3.9	23200	0.8	382.6	II .	"	42800	120000	4.7	19300	0.96

Selection - parallel shaft geared motors DHE - IE2

P = 11 kW



	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
275	380	1.3	5.38	BF50/DHE16LA4	194	4500	-	330	315	1.6
191	550	1.05	7.71	II	II .	5100	-	230	455	1.25
138	760	0.89	10.68	II	II .	5600	-	166	630	1.05
89	1180	0.81	16.70	"	"	6200	-	106	990	0.96
285	365	2.1	5.22	BF60/DHE16LA4	227	5200	14800	340	305	2.5
190	550	1.6	7.74	II	"	6000	16900	230	455	1.9
143	730	1.4	10.31	II	"	6500	18400	172	610	1.65
104	1010	1.2	14.24	II	II .	7100	20000	125	840	1.4
87	1200	1.2	16.96	"	"	7300	20600	105	1000	1.45
79	1320	1.15	18.81	"	"	7600	21500	95	1100	1.4
66	1590	1.05	22.58	"	"	8000	22600	79	1320	1.25
59	1780	0.97	25.05	"	"	8200	23200	71	1470	1.2
47.5	2200	0.86	31.20	II	II .	8800	24900	57	1840	1.05
42.5	2450	0.81	34.62	"	"	9100	25700	52	2000	0.99
70	1500	3.1	21.04	BF70/DHE16LA4	310	6400	26300	85	1230	3.7
60	1750	2.9	24.55	п	II .	7000	27700	73	1430	3.5
54	1940	2.7	27.29	п	II .	7000	28400	65	1610	3.2
46.5	2250	2.3	31.84	II .	II .	7700	30000	56	1870	2.8
40	2600	2.0	36.88	m	"	7900	31100	48	2150	2.4
34.5	3000	1.75	43.02	m .	II .	8700	32800	41.5	2500	2.1
31	3350	1.55	47.82	m .	II .	9100	34000	37.5	2800	1.85
26.5	3950	1.3	55.79	m .	II .	10200	36000	32	3250	1.6
24	4350	1.2	61.94	m .	II .	10800	37400	29	3600	1.45
20.5	5100	1.0	72.26	m	"	12000	39600	24.5	4250	1.2
18	5800	0.9	81.82	"	II	12800	41300	22	4750	1.1
44	2350	3.3	33.61	BF80/DHE16LA4	406	11700	48400	53	1980	3.9
39	2650	3.0	38.14	"	"	12200	50300	46.5	2250	3.6
31	3350	2.6	47.46	"	II .	13400	53700	37.5	2800	3.1
27.5	3800	2.4	53.86	"	"	14000	55800	33	3150	2.8
24	4350	2.1	61.55	"	II .	14800	58100	29	3600	2.6
21.5	4850	1.95	69.86	"	II .	15900	60600	25.5	4100	2.3
18	5800	1.65	83.16	"	II .	18400	65100	21.5	4850	1.95
16	6500	1.45	94.38	"	II .	20300	68500	19	5500	1.75
14	7500	1.25	107.9	"	II .	22400	72300	16.5	6300	1.5
12.5	8400	1.15	122.4	"	II .	24500	75000	14.5	7200	1.3
11	9500	1.0	139.7	"	"	26700	75000	13	8000	1.2
9.3	11200	0.85	158.5	"	"	29000	75000	11.5	9100	1.05
21	5000	3.2	70.69	BF90/DHE16LA4	654	16800	74700	25.5	4100	3.9
18.5	5600	3.0	80.85	"	"	17500	77500	22	4750	3.5
16.5	6300	2.7	90.02	"	"	18900	80600	20	5200	3.2
14	7500	2.2	107.5	"	"	22300	86900	16.5	6300	2.7
12.5	8400	2.0	119.7	"	"	24500	90800	15	7000	2.4
11	9500	1.75	139.1	"	"	27700	96300	13	8000	2.1
9.5	11000	1.55	154.8	"	"	30100	100800	11.5	9100	1.85
8.3	12600	1.35	178.6	"	"	33400	106700	10	10500	1.6
7.4	14100	1.2	198.8	"	"	36000	111300	9.0	11600	1.45
6.4	16400	1.0	232.6	"	"	39900	118300	7.7	13600	1.25
5.7	18400	0.91	259.0	"	"	42800	120000	6.9	15200	1.1
5.5	19100	0.97	269.8	BF90Z/DHE16LA4	715	42800	120000	6.6	15900	1.15
4.9	21400	0.86	300.4	"	ıı .	42800	120000	5.9	17800	1.05

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 15 kW



	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	•	.,,,,	• • • • • • • • • • • • • • • • • • • •	· KIN	* NV	n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm	-6			kg	N	N	1/min	Nm	
275	520	0.96	5.38	BF50/DHE16XA4	204	4500		330	430	1.15
	520	0.50	3.30	5.50,5.12.0,011	201	1300		330	130	1113
285	500	1.5	5.22	BF60/DHE16XA4	237	5200	14800	340	420	1.8
190	750	1.15	7.74	"		6000	16900	230	620	1.4
143	1000	1.0	10.31	TI .	"	6500	18400	172	830	1.2
104	1370	0.87	14.24	п	"	7100	20000	125	1140	1.05
87	1640	0.88	16.96	п	"	7300	20600	105	1360	1.05
79	1810	0.84	18.81	п	"	7600	21500	95	1500	1.0
99	1440	2.5	14.90	BF70/DHE16XA4	320	5900	24000	119	1200	3.0
85	1680	2.5	17.39	II .	"	6200	25000	102	1400	3.0
70	2000	2.3	21.04	II .	"	6400	26300	85	1680	2.7
60	2350	2.1	24.55	II .	"	7000	27700	73	1960	2.6
54	2650	1.95	27.29	m .	"	7000	28400	65	2200	2.4
46.5	3050	1.7	31.84	m .	"	7700	30000	56	2550	2.0
40	3550	1.45	36.88	m .	"	7900	31100	48	2950	1.75
34.5	4150	1.25	43.02	п	"	8700	32800	41.5	3450	1.5
31	4600	1.15	47.82	п	"	9100	34000	37.5	3800	1.35
26.5	5400	0.96	55.79	m .	"	10200	36000	32	4450	1.15
24	5900	0.88	61.94	п	"	10800	37400	29	4900	1.05
90	1590	3.3	16.49	BF80/DHE16XA4	416	11400	41400	108	1320	4.0
64	2200	2.9	23.29	m .	"	11800	44900	76	1880	3.4
49	2900	2.5	30.21	m .	"	12300	47900	59	2400	3.0
44	3250	2.4	33.61	"	"	11700	48400	53	2700	2.9
39	3650	2.2	38.14	m .	"	12200	50300	46.5	3050	2.6
31	4600	1.85	47.46	· ·	II .	13400	53700	37.5	3800	2.3
27.5	5200	1.7	53.86	"	"	14000	55800	33	4300	2.1
24	5900	1.6	61.55	"	"	14800	58100	29	4900	1.9
21.5	6600	1.45	69.86	"	"	15900	60600	25.5	5600	1.7
18	7900	1.2	83.16	"	"	18400	65100	21.5	6600	1.45
16	8900	1.05	94.38	"	"	20300	68500	19	7500	1.25
14	10200	0.93	107.9	"	"	22400	72300	16.5	8600	1.1
12.5	11400	0.83	122.4	"	"	24500	75000	14.5	9800	0.97
32	4450	3.2	46.43	BF90/DHE16XA4	664	13800	65500	38.5	3700	3.8
28.5	5000	2.9	51.70	"	II	14600	67800	34.5	4150	3.5
23.5	6000	2.6	63.49	"	"	15800	72000	28	5100	3.0
21	6800	2.3	70.69	II .	"	16800	74700	25.5	5600	2.8
18.5	7700	2.1	80.85	"	"	17500	77500	22	6500	2.5
16.5	8600	1.95	90.02	"	II .	18900	80600	20	7100	2.4
14	10200	1.65	107.5	"	II .	22300	86900	16.5	8600	1.95
12.5	11400	1.45	119.7	"	II .	24500	90800	15	9500	1.75
11	13000	1.3	139.1	"	II .	27700	96300	13	11000	1.55
9.5	15000	1.1	154.8	II .	II .	30100	100800	11.5	12400	1.35
8.3	17200	0.98	178.6	"	"	33400	106700	10	14300	1.15
7.4	19300	0.87	198.8	ıı .	"	36000	111300	9.0	15900	1.05

P = 18.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f_{B}						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
285	610	1.25	5.22	BF60/DHE18LA4	300	5200	14800	340	510	1.5
190	920	0.94	7.74	п	"	6000	16900	230	760	1.15
143	1230	0.82	10.31	"	ıı	6500	18400	172	1020	0.99
143	1230	2.0	10.32	BF70/DHE18LA4	377	4600	18700	172	1020	2.5
123	1430	2.1	12.04	"	"	4900	19700	148	1190	2.5

Selection - parallel shaft geared motors DHE - IE2

P = 18.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
99	1780	2.1	14.90	BF70/DHE18LA4	II .	5900	24000	119	1480	2.5
85	2050	2.1	17.39	"	II .	6200	25000	102	1730	2.5
70	2500	1.85	21.04	"	"	6400	26300	85	2050	2.2
60	2900	1.75	24.55	"	"	7000	27700	73	2400	2.1
54	3250	1.6	27.29	"	"	7000	28400	65	2700	1.95
46.5	3750	1.4	31.84	"	II .	7700	30000	56	3150	1.65
40	4400	1.2	36.88	"	II .	7900	31100	48	3650	1.4
34.5	5100	1.0	43.02	"	II .	8700	32800	41.5	4250	1.2
31	5600	0.93	47.82	II	"	9100	34000	37.5	4700	1.1
129	1360	2.7	11.42	BF80/DHE18LA4	473	8900	32200	155	1130	3.2
90	1960	2.7	16.49	п	II .	11400	41400	108	1630	3.3
64	2750	2.3	23.29	п	II .	11800	44900	76	2300	2.7
49	3600	2.0	30.21	II .	II .	12300	47900	59	2950	2.4
44	4000	1.95	33.61	п	II .	11700	48400	53	3300	2.4
39	4500	1.8	38.14	"	II .	12200	50300	46.5	3750	2.2
31	5600	1.55	47.46	"	II .	13400	53700	37.5	4700	1.85
27.5	6400	1.4	53.86	"	"	14000	55800	33	5300	1.7
24	7300	1.25	61.55	"	"	14800	58100	29	6000	1.55
21.5	8200	1.15	69.86	"	"	15900	60600	25.5	6900	1.4
18	9800	0.97	83.16	"	"	18400	65100	21.5	8200	1.15
16	11000	0.86	94.38	II	"	20300	68500	19	9200	1.05
44	4000	3.2	33.71	BF90/DHE18LA4	725	11900	59300	53	3300	3.9
39.5	4450	3.0	37.54	"	II .	12700	61500	47.5	3700	3.6
32	5500	2.6	46.43	"	II .	13800	65500	38.5	4550	3.1
28.5	6100	2.4	51.70	"	II .	14600	67800	34.5	5100	2.8
23.5	7500	2.1	63.49	"	"	15800	72000	28	6300	2.4
21	8400	1.9	70.69	"	"	16800	74700	25.5	6900	2.3
18.5	9500	1.75	80.85	"	"	17500	77500	22	8000	2.1
16.5	10700	1.55	90.02	"	II .	18900	80600	20	8800	1.9
14	12600	1.35	107.5	"	"	22300	86900	16.5	10700	1.55
12.5	14100	1.2	119.7	"	"	24500	90800	15	11700	1.45
11	16000	1.05	139.1	"	II .	27700	96300	13	13500	1.25
9.5	18500	0.91	154.8	"		30100	100800	11.5	15300	1.1

P = 22 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
143	1460	1.7	10.32	BF70/DHE18XA4	395	4600	18700	172	1220	2.1
123	1700	1.75	12.04	II	"	4900	19700	148	1410	2.1
99	2100	1.75	14.90	II	"	5900	24000	119	1760	2.1
85	2450	1.75	17.39	II	"	6200	25000	102	2050	2.1
70	3000	1.55	21.04	II	"	6400	26300	85	2450	1.9
60	3500	1.45	24.55	II .	"	7000	27700	73	2850	1.75
54	3850	1.35	27.29	m	"	7000	28400	65	3200	1.65
46.5	4500	1.15	31.84	m	"	7700	30000	56	3750	1.4
40	5200	1.0	36.88	"	"	7900	31100	48	4350	1.2
34.5	6000	0.87	43.02	"	"	8700	32800	41.5	5000	1.05
129	1620	2.3	11.42	BF80/DHE18XA4	491	8900	32200	155	1350	2.7
90	2300	2.3	16.49	II .	"	11400	41400	108	1940	2.7
64	3250	1.95	23.29	m	"	11800	44900	76	2750	2.3
49	4250	1.65	30.21	m .	"	12300	47900	59	3550	2.0
44	4750	1.65	33.61	m .	II .	11700	48400	53	3950	1.95
39	5300	1.5	38.14	п	II .	12200	50300	46.5	4500	1.8
31	6700	1.3	47.46	II	"	13400	53700	37.5	5600	1.55

BF-series paralle shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 22 kW



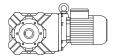
	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
27.5	7600	1.2	53.86	BF80/DHE18XA4	"	14000	55800	33	6300	1.4
24	8700	1.05	61.55	"	II .	14800	58100	29	7200	1.3
21.5	9700	0.98	69.86	"	"	15900	60600	25.5	8200	1.15
18	11600	0.82	83.16	II	II	18400	65100	21.5	9700	0.98
44	4750	2.7	33.71	BF90/DHE18XA4	743	11900	59300	53	3950	3.3
39.5	5300	2.5	37.54	"	"	12700	61500	47.5	4400	3.0
32	6500	2.2	46.43	"	"	13800	65500	38.5	5400	2.6
28.5	7300	2.0	51.70	"	"	14600	67800	34.5	6000	2.4
23.5	8900	1.75	63.49	"	"	15800	72000	28	7500	2.1
21	10000	1.6	70.69	"	"	16800	74700	25.5	8200	1.95
18.5	11300	1.45	80.85	II .	"	17500	77500	22	9500	1.75
16.5	12700	1.3	90.02	"	"	18900	80600	20	10500	1.6
14	15000	1.1	107.5	"	"	22300	86900	16.5	12700	1.3
12.5	16800	1.0	119.7	"	"	24500	90800	15	14000	1.2
11	19100	0.88	139.1	п	ıı .	27700	96300	13	16100	1.05

Catalogue geared motors

Catalogue geared motors

Edition 03/2012





Page

BK-series bevel-geared motors Selection

239-298

Description of bevel-geared units

- Sizes
- Bauer service factors (f_B) for bevel-geared motors
- Continuous operation without switching frequency $Z \le 1/h$
- Switching duty
- Bauer service factor
- Explanation of shock classification
- Key to abbreviations
- Selection tables, bevel-geared motors

Selection - bevel geared motors IE1

Selection - bevel geared motors IE2

Description of bevel-gear units

Sizes

Bauer BK-series bevel-geared motors are normally supplied in ten frame sizes and with torques of 80 to 18,500 Nm. Higher torques are available on request. The gear unit is accommodated in a sturdy cast housing

Bauer service factors (f_B) for bevelgeared motors

Of the numerous factors influencing the total loading of a gear unit, the most important include:

- Mean torque (rated torque)
- Daily operating hours
- Severity of torque peaks (shock classification)
- Frequency of torque peaks (switching duty)

These factors can be represented in a simplified and practical manner by **service factors**. The tables and explanations below attempt to provide an objective description of the **shock classification**, rather than a classification of the driven machinery. Experience has shown that, in addition to the torque shocks caused by the driven machinery (M_x/M_N), above all the power transmission components (clutches, chains etc.) plus the mass ratios play a decisive role in this.

See Bauer special imprint SD32 for more information.

Continuous operation without switching frequency Z ≤1/h

Factor f_1 for shock classification and operating time

Shock classification	Operating hours per day t _d	>4 h	>8 h	>16 h
		≤8 h	≤16 h	≤24 h
1		0,8	1,0	1,2
II		1,05	1,25	1,45
III		1,45	1,55	1,7

Switching duty

Factor f₂ for shock classification and switching frequency

Switching frequency in single-shift operation $t_d \le 8 \text{ h/d}$

Shock classification	1 <z th="" ≤100<=""><th>100 <z th="" ≤1000<=""><th>1000 <z< th=""></z<></th></z></th></z>	100 <z th="" ≤1000<=""><th>1000 <z< th=""></z<></th></z>	1000 <z< th=""></z<>
1	0,95	1,1	1,15
II	1,2	1,35	1,4
III	1,55	1,6	1,6

Switching frequency in multiple-shift operation $t_d > 8 h/d$

Shock classification	1 <z th="" ≤100<=""><th>100 <z th="" ≤1000<=""><th>1000 <z< th=""></z<></th></z></th></z>	100 <z th="" ≤1000<=""><th>1000 <z< th=""></z<></th></z>	1000 <z< th=""></z<>
I	1,3	1,45	1,5
II	1,5	1,6	1,65
III	1,75	1,8	1,8

Bauer Service factor

Bauer service factor $f_B = f_1$ or $f_B = f_2$

For example: Shock classification II for Z=100 switching operations per hour and multiple-shift operation yields a service factor $f_B=f_2=1,5$

Explanation of shock classification

Shock classification I:

Uniform without shock loads. All the following requirements must be satisfied:

• FI ≤1,3

240

Description of bevel-gear units

- $M_x/M_N \le 1.0$
- Shock-absorbing power transmission components (e.g. highly resilient, zero-play coupling, φ N ≥5°)

Shock classification II:

Moderate shock loads. At least one of the following conditions applies:

- 1,3 <Fl ≤4
- $1 < M_x/M_N \le 1.6$
- Shock-neutral power transmission components (e.g. gear wheels, zero- play rigid coupling or resilient coupling with ϕ N <5°)

Shock classification III:

Heavy shock loads. At least one of the following conditions applies:

- FI >4
- $1,6 < M_x/M_N \le 2,0$
- Shock-amplifying power transmission components (e.g. coupling with play or chain drive)

Key to abbreviations

Z Switching duty number of switching operations per hour

t_d Daily operating time in hours (h/d) FI Factor of inertia FI = $(J_{ext} + J_{rot})/J_{rot}$

J_{ext} Mass moment of inertia of the machine to be driven, in relation to the motor's rotor shaft (kgm²)

J_{rot} Mass moment of inertia of the motor rotor (kgm²)

 $\ensuremath{\text{M}_{x}}$ Highest impact torque above the static torque which can occur during normal

operation or in emergency situations
Required static load torque for the application

 M_N Required static load torqu M_x/M_N Relative torque - Factor

 ϕ_N Torsional offset of the resilient coupling under rated torque

Selection tables, bevel-geared motors

Key to abbreviations

P Rated output

n₂ Rated speed of the output shaft

i Gear reduction ratio

M₂ Rated torque at the output shaft

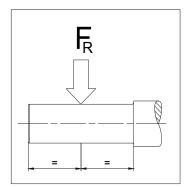
f_B Bauer service factor

 F_{RN} Maximum permissible radial force with

normal bearings

 F_{RV} Maximum permissible radial force with

reinforced bearings in each case with standard solid shaft (Code -.1 and -.2)



Use the selection tables to determine the size of geared motor required. The codes clearly define the Type of gear unit and output shaft (see chapter 12 "dimensional drawing bevelgeared motors").

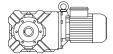
The torques marked (*) are maximum permissible torques for service factor $f_B = 1,0$.

Motor power overload protection

Motor-power ratings, particularly in conjunction with four-stage and multi-stage gear units, are more than ample in some instances. Consequently, and in much the same way as with low-power motors, rated current is not a measure of gear loading and cannot be used to protect the gear unit against overloading. It is advisable to provide gears at risk from excessive load or blockage with a protective mechanism (e. g., slip clutch, slip hub, shear pin or an alternative)

Selection - bevel geared motors DSE -IE1

P = 0.03 kW



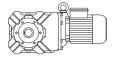
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
28.5	8.9	9.0	47.78	BK06/D04LA4	7.6	1500	-	34	7.4	11
25	10.1	6.7	54.38	"	"	1600	-	30	8.4	8.1
21.5	11.8	5.4	63.33	"	"	1700	-	26	9.8	6.5
3.7	62	2.7	373.4	BK10Z/D04LA4	21	7000	-	4.4	52	3.2
3.2	71	2.1	428.8	"	"	7000	-	3.8	60	2.5
2.5	66	3.3	552.3	BK10G06/D04LA4	25	7000	-	3.0	51	4.3
2.2	77	2.9	635.5	"	"	7000	-	2.6	62	3.5
1.8	98	2.2	789.7	"	"	7000	-	2.1	80	2.8
1.5	118	1.85	929.3	"	"	7000	-	1.8	94	2.3
1.3	139	1.6	1112	"	"	7000	-	1.5	116	1.9
1.0	184	1.2	1361	"	"	7000	-	1.2	149	1.5
0.9	205	1.05	1577	"	"	7000	-	1.1	167	1.3
0.7	220*	1.0	1971	"	"	7000	-	0.85	220	1.0
0.6	220*	1.0	2261	"	"	7000	-	0.75	220	1.0
0.55	220*	1.0	2467	"	"	7000	-	0.7	220	1.0
0.48	220*	1.0	2849	"	"	7000	-	0.6	220	1.0
0.44	220*	1.0	3107	"	"	7000	-	0.55	220	1.0
0.39	220*	1.0	3537	"	"	7000	-	0.46	220	1.0
0.33	220*	1.0	4120	II	"	7000	-	0.4	220	1.0
1.6	110	3.3	891.2	BK20G06/D04LA4	34	8700	9000	1.9	88	4.1
1.3	138	2.6	1066	II .	11	8700	9000	1.6	108	3.3
1.1	165	2.2	1305	п	II .	8700	9000	1.3	135	2.7
0.95	193	1.85	1424	п	II .	8700	9000	1.2	149	2.4
0.85	220	1.65	1650	· ·	II .	8700	9000	1.0	183	1.95
0.7	270	1.35	2062	п	II .	8700	9000	0.8	235	1.55
0.6	320	1.15	2366	II .	II .	8700	9000	0.7	270	1.35
0.55	350	1.05	2580	II .	II .	8700	9000	0.65	295	1.2
0.48	360*	1.0	2831	m .	II .	8700	9000	0.6	360	1.0
0.44	360*	1.0	3088	"	II .	8700	9000	0.55	360	1.0
0.39	360*	1.0	3515	"	II .	8700	9000	0.47	360	1.0
0.33	360*	1.0	4094	"	"	8700	9000	0.4	360	1.0
1.2	150	3.3	1142	BK30G06/D04LA4	40	11200	12000	1.5	116	4.2
1.1	165	3.0	1281	"	"	11200	12000	1.3	135	3.6
0.85	220	2.2	1620	II .	ш	11200	12000	1.0	183	2.7
0.8	235	2.1	1767	II .	II .	11200	12000	0.95	195	2.5
0.7	270	1.8	2024	TI TI	m m	11200	12000	0.85	220	2.2
0.55	350	1.4	2533	II.	11	11200	12000	0.65	295	1.65
0.5	380	1.3	2738	II.	11	11200	12000	0.6	315	1.55
0.46	415	1.2	2986	II.	11	11200	12000	0.55	345	1.4
0.4	480	1.0	3399	ıı .	II .	11200	12000	0.48	400	1.25
0.35	490*	1.0	3959	II .	II	11200	12000	0.41	490	1.0

P = 0.04 kW

	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f₃						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
41	8.3	9.6	33.33	BK06/D04LA4	7.6	1320	-	49	7.0	11
35.5	9.6	8.3	38.18	"	"	1380	-	42.5	8.0	10
28.5	11.9	6.7	47.78	"	"	1500	-	34	9.9	8.1
25	13.5	5.0	54.38	"	"	1600	-	30	11.3	6.0
21.5	15.8	4.0	63.33	II	"	1700	-	26	13	4.9
4.5	68	2.7	302.4	BK10Z/D04LA4	21	7000	-	5.4	57	3.2
3.7	83	2.0	373.4	"	II .	7000	-	4.4	70	2.4
3.2	95	1.55	428.8	"	"	7000	-	3.8	80	1.85
3.0	78	2.8	459.2	BK10G06/D04LA4	25	7000	-	3.6	62	3.5
2.7	88	2.5	501.4	"	II .	7000	-	3.3	68	3.2
2.5	96	2.3	552.3	"	II .	7000	-	3.0	77	2.9
2.2	112	1.95	635.5	"	II .	7000	-	2.6	91	2.4
1.8	140	1.55	789.7	"	II .	7000	-	2.1	116	1.9
1.5	167	1.3	929.3	"	II .	7000	-	1.8	135	1.65

Selection - bevel geared motors DSE -IE1

P = 0.04 kW



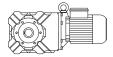
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
1.3	195	1.15	1112	BK10G06/D04LA4	"	7000	-	1.5	165	1.35
1.0	255	0.86	1361	II	"	7000	-	1.2	210	1.05
2.2	110	3.3	630.0	BK20G06/D04LA4	34	8700	9000	2.6	89	4.0
1.8	138	2.6	757.0	"	"	8700	9000	2.2	109	3.3
1.6	156	2.3	891.2	"	"	8700	9000	1.9	128	2.8
1.3	195	1.85	1066	"	"	8700	9000	1.6	155	2.3
1.1	230	1.55	1305	"	"	8700	9000	1.3	192	1.9
0.95	270	1.35	1424	"	"	8700	9000	1.2	210	1.7
0.85	305	1.2	1650	II	"	8700	9000	1.0	255	1.4
1.7	147	3.3	810.9	BK30G06/D04LA4	40	11200	12000	2.0	122	4.0
1.5	167	2.9	954.1	"	"	11200	12000	1.7	143	3.4
1.2	210	2.3	1142	"	"	11200	12000	1.5	165	3.0
1.1	230	2.1	1281	"	"	11200	12000	1.3	192	2.6
0.85	305	1.6	1620	"	"	11200	12000	1.0	255	1.9
0.8	325	1.5	1767	"	"	11200	12000	0.95	270	1.8
0.7	375	1.3	2024	"	"	11200	12000	0.85	305	1.6
0.55	480	1.0	2533	"	"	11200	12000	0.65	405	1.2

P = 0.06 kW

	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		•			***	n ₂	M_2	f _e
1/min	Nm				kg	N	N	1/min	Nm	
63	8.1	9.9	21.54	BK06/D04LA4	7.6	1150	-	76	6.7	12
52	9.9	8.1	26.36	II .	II .	1230	-	62	8.3	9.6
41	12.5	6.4	33.33	m .	II .	1320	-	49	10.5	7.6
35.5	14.5	5.5	38.18	m .	II .	1380	-	42.5	12.1	6.6
28.5	17.8	4.5	47.78	II .	II .	1500	-	34	14.9	5.4
25	20	3.4	54.38	II .	II .	1600	-	30	16.9	4.0
21.5	23.5	2.7	63.33	11	"	1700	-	26	19.6	3.2
11.5	42	3.3	120.3	BK10Z/D06LA4	24	7000	-	13.5	36	3.8
9.5	50	3.3	143.2	n n	"	7000	-	11.5	41.5	3.9
6.6	71	2.8	204.7	"	"	7000	-	8.0	58	3.4
5.3	88	2.3	257.9	"	"	7000	-	6.3	74	2.7
4.5	103	1.8	302.4	"	"	7000	-	5.4	85	2.2
3.7	125	1.3	373.4	m m	II .	7000	-	4.4	105	1.55
3.2	143	1.05	428.8	TI TI	II .	7000	-	3.8	120	1.25
3.0	129	1.7	459.2	BK10G06/D06LA4	28	7000	-	3.6	104	2.1
2.7	144	1.55	501.4	m m	II .	7000	-	3.3	115	1.9
2.5	157	1.4	552.3	m m	II .	7000	-	3.0	127	1.75
2.2	180	1.2	635.5	m m	II .	7000	-	2.6	149	1.5
1.8	220	1.0	789.7	m m	II .	7000	-	2.1	187	1.2
1.5	265	0.83	929.3	II	"	7000	-	1.8	215	1.0
4.6	100	3.1	298.2	BK20Z/D06LA4	34	8700	9000	5.5	84	3.7
3.7	123	2.4	367.7	n n	"	8700	9000	4.5	101	2.9
3.2	120	3.0	429.7	BK20G06/D06LA4	38	8700	9000	3.8	98	3.7
2.9	133	2.7	480.4	"	"	8700	9000	3.4	110	3.3
2.6	149	2.4	524.5	"	"	8700	9000	3.1	122	3.0
2.2	178	2.0	630.0	"	"	8700	9000	2.6	148	2.4
1.8	220	1.65	757.0	TI TI	II .	8700	9000	2.2	178	2.0
1.6	245	1.45	891.2	TI TI	II .	8700	9000	1.9	205	1.75
1.3	305	1.2	1066	TI TI	II .	8700	9000	1.6	245	1.45
1.1	360	1.0	1305	II	"	8700	9000	1.3	305	1.2
3.6	128	3.1	380.7	BK30Z/D06LA4	41	11200	12000	4.3	107	3.8
3.1	147	2.6	441.3	"	"	11200	12000	3.7	123	3.1
2.4	163	3.0	567.0	BK30G06/D06LA4	44	11200	12000	2.9	132	3.7
2.1	188	2.6	652.5	п	II .	11200	12000	2.5	155	3.2
1.9	210	2.3	743.0	m .	"	11200	12000	2.2	178	2.8

Selection - bevel geared motors DSE -IE1

P = 0.06 kW



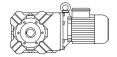
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		•				n ₂	M ₂	f _B
1/min	Nm				kg	N	N	1/min	Nm	
1.7	235	2.1	810.9	BK30G06/D06LA4	"	11200	12000	2.0	196	2.5
1.5	265	1.85	954.1	"	"	11200	12000	1.7	230	2.1
1.2	330	1.5	1142	"	"	11200	12000	1.5	260	1.9
1.1	360	1.35	1281	"	"	11200	12000	1.3	305	1.6
0.85	475	1.05	1620	"	"	11200	12000	1.0	400	1.25
1.2	290	2.9	1189	BK40G10/D06LA4	68	11700	17000	1.4	240	3.5
0.95	380	2.2	1428	"	"	11700	17000	1.2	290	2.9
0.8	465	1.85	1798	n n	"	11700	17000	0.95	385	2.2
0.65	580	1.45	2108	n n	"	11700	17000	0.8	465	1.85
0.6	640	1.35	2350	n n	"	11700	17000	0.7	540	1.55
0.55	700	1.2	2604	"	"	11700	17000	0.65	580	1.45
1.0	370	3.1	1398	BK50G10/D06LA4	96	14100	26000	1.2	300	3.8
0.9	415	2.8	1549	n n	"	14100	26000	1.1	335	3.4
0.75	510	2.3	1816	II .	"	14100	26000	0.9	415	2.8
0.7	550	2.1	2024	II .	"	14100	26000	0.85	445	2.6
0.6	630	1.85	2450	"	"	14100	26000	0.7	530	2.2
0.5	760	1.5	2730	n n	"	14100	26000	0.6	620	1.85
0.45	850	1.35	3025	II .	"	14100	26000	0.55	680	1.7
0.39	960	1.2	3492	n n	"	14100	26000	0.47	790	1.45
0.35	1080	1.05	3870	"	"	14100	26000	0.42	890	1.3
0.39	920	2.7	3533	BK60G20/D06LA4	123	16600	34000	0.46	690	3.6
0.32	1240	2.0	4239	"	"	16600	34000	0.39	920	2.7
0.27	1570	1.6	5072	n n	"	16600	34000	0.32	1240	2.0
0.24	1830	1.35	5721	"	"	16600	34000	0.29	1420	1.75
0.21	2150	1.15	6565	"	"	16600	34000	0.25	1740	1.45
0.19	2450	1.0	7291	"	"	16600	34000	0.23	1940	1.3
0.21	2000	2.9	6504	BK70G20/D06LA4	201	24100	50000	0.25	1580	3.6
0.17	2650	2.2	8149	"	II .	24100	50000	0.2	2150	2.7
0.15	3100	1.85	9351	II	"	24100	50000	0.18	2450	2.3

P = 0.09 kW

. – 0.	USKW									
	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	f_{B}
1/min	Nm				kg	N	N	1/min	Nm	
89	8.7	9.2	15.29	BK06/D04LA4	7.6	1020	-	106	7.3	11
75	10.3	7.8	18.00	m .	"	1080	-	90	8.5	9.4
63	12.2	6.6	21.54	m .	II .	1150	-	76	10.1	7.9
52	14.8	5.4	26.36	"	II .	1230	-	62	12.4	6.5
41	18.8	4.3	33.33	m m	II	1320	-	49	15.7	5.1
35.5	21.5	3.7	38.18	m .	II .	1380	-	42.5	18.2	4.4
28.5	26.5	3.0	47.78	m .	II .	1500	-	34	22	3.6
25	30.5	2.2	54.38	m .	II .	1600	-	30	25	2.7
21.5	35.5	1.8	63.33	n n	"	1700	-	26	29	2.2
13.5	54	2.9	102.5	BK10/D06LA4	23	7000	-	16	45.5	3.5
11.5	63	2.2	120.3	BK10Z/D06LA4	24	7000	-	13.5	54	2.5
9.5	75	2.2	143.2	"	"	7000	-	11.5	62	2.6
8.0	89	2.2	170.6	"	"	7000	-	9.5	75	2.7
6.6	106	1.9	204.7	"	"	7000	-	8.0	88	2.3
5.3	132	1.5	257.9	"	"	7000	-	6.3	111	1.8
4.5	154	1.2	302.4	"	"	7000	-	5.4	128	1.45
3.7	188	0.88	373.4	"	"	7000	-	4.4	158	1.05
3.3	186	1.2	410.8	BK10G06/D06LA4	28	7000	-	4.0	151	1.45
3.0	205	1.05	459.2	"	"	7000	-	3.6	168	1.3
2.7	225	0.98	501.4	"	"	7000	-	3.3	184	1.2
2.5	245	0.9	552.3	II .	"	7000	-	3.0	200	1.1
6.6	106	3.1	207.5	BK20Z/D06LA4	34	8700	9000	7.9	89	3.7
5.2	135	2.4	259.9	# U	J T	8700	9000	6.3	111	3.0
4.6	151	2.1	298.2	п	п	8700	9000	5.5	126	2.5
3.7	185	1.6	367.7	п	II .	8700	9000	4.5	152	1.9
3.7	103	1.0	507.7			0700	2000	т.Э	132	1.5

Selection - bevel geared motors DSE -IE1

P = 0.09 kW



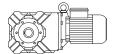
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
3.2	192	1.9	429.7	BK20G06/D06LA4	38	8700	9000	3.8	159	2.3
2.9	210	1.7	480.4	m .	II	8700	9000	3.4	178	2.0
2.6	235	1.55	524.5	m .	II	8700	9000	3.1	196	1.85
2.2	280	1.3	630.0	m m	II	8700	9000	2.6	235	1.55
1.8	345	1.05	757.0	II .	II .	8700	9000	2.2	280	1.3
1.6	385	0.94	891.2	II .	II .	8700	9000	1.9	320	1.15
4.4	160	2.4	308.3	BK30Z/D06LA4	41	11200	12000	5.3	122	2.0
3.6	193	2.4 2.1	380.7	BK302/D00LA4	41	11200	12000	4.3	132 161	2.9 2.5
3.1	220	1.75	441.3	n .	11	11200	12000	3.7	185	2.3
2.9	210	2.3	471.5	BK30G06/D06LA4	44	11200	12000	3.5	173	2.1
2.4	255	1.9	567.0	BK30G00/D00LA4	44	11200	12000	2.9	210	2.3
2.1	295 295	1.65	652.5	п	"	11200	12000	2.5	245	2.3
1.9	325	1.05	743.0	п	"	11200	12000	2.2	280	1.75
1.7	365	1.35	810.9	п	"	11200	12000	2.0	305	1.73
1.5	410	1.33	954.1	п	"	11200	12000	1.7	360	1.35
1.2	510	0.96	1142	п	"	11200	12000	1.5	410	1.33
1.1	560	0.98	1281	m .	"	11200	12000	1.3	470	1.05
1.1	300	0.00	1201			11200	12000	1.5	470	1.03
3.9	178	3.3	348.7	BK40Z/D06LA4	64	11700	17000	4.7	148	3.9
3.2	210	2.7	430.0	m m	II .	11700	17000	3.8	180	3.2
1.8	295	2.9	756.7	BK40G10/D06LA4	68	11700	17000	2.2	230	3.7
1.7	320	2.7	838.4	m m	II .	11700	17000	2.0	260	3.3
1.4	400	2.1	998.3	"	II .	11700	17000	1.7	320	2.7
1.2	475	1.8	1189	п	II .	11700	17000	1.4	395	2.2
0.95	610	1.4	1428	п	II .	11700	17000	1.2	475	1.8
0.8	730	1.15	1798	II	"	11700	17000	0.95	610	1.4
1.6	350	3.3	859.8	BK50G10/D06LA4	96	14100	26000	1.9	285	4.0
1.4	410	2.8	1024	n .	"	14100	26000	1.6	350	3.3
1.1	530	2.2	1230	п	II .	14100	26000	1.4	410	2.8
1.0	590	1.95	1398	п	II .	14100	26000	1.2	485	2.4
0.9	660	1.75	1549	п	II .	14100	26000	1.1	530	2.2
0.75	790	1.45	1816	m .	II .	14100	26000	0.9	650	1.75
0.7	850	1.35	2024	п	II .	14100	26000	0.85	700	1.65
0.6	980	1.15	2450	II .	II .	14100	26000	0.7	830	1.4
0.7	750	2 2	2010	PK60G20 /D06LA4	122	16600	34000	0.85	520	4.7
0.7	930	3.3	2010 2371	BK60G20/D06LA4	123	16600 16600	34000	0.83	530 720	3.5
0.6	1180	2.7 2.1	2733	n n	"		34000	0.7		2.8
0.5		1.85	3036	n n	"	16600	34000		890	2.6
	1360			m .	"	16600		0.55 0.46	1010	2.5 1.9
0.39 0.32	1650 2100	1.5 1.2	3533 4239	m .	"	16600 16600	34000 34000	0.46	1320 1650	1.5
0.32	2100	1.2	4239			10000	34000	0.39	1030	1.3
0.35	1750	3.3	3894	BK70G20/D06LA4	201	24100	50000	0.42	1340	4.3
0.3	2150	2.7	4531	n	II .	24100	50000	0.36	1680	3.4
0.25	2700	2.1	5436	m .	II .	24100	50000	0.3	2150	2.7
0.21	3350	1.7	6504	TI TI TI TI TI TI TI TI TI TI TI TI TI T	II .	24100	50000	0.25	2700	2.1
0.17	4350	1.3	8149	"	II .	24100	50000	0.2	3550	1.6
0.15	5000	1.15	9351	ıı .	"	24100	50000	0.18	4050	1.4

P = 0.12 kW

$I - V_i$	IZRVV									
	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
116	9.0	8.9	11.67	BK06/D04LA4	7.6	930	-	139	7.5	11
89	11.7	6.8	15.29	"	ıı ı	1020	-	106	9.8	8.2
75	13.7	5.8	18.00	"	ıı ı	1080	-	90	11.4	7.0
63	16.3	4.9	21.54	"	ıı ı	1150	-	76	13.5	5.9
52	19.8	4.0	26.36	"	ıı ı	1230	-	62	16.6	4.8
41	25	3.2	33.33	m .	II .	1320	-	49	21	3.8
35.5	29	2.8	38.18	m .	II .	1380	-	42.5	24	3.3
28.5	35.5	2.3	47.78	"	ıı ı	1500	-	34	29.5	2.7
25	40.5	1.7	54.38	n	"	1600	-	30	33.5	2.0
21.5	47	1.35	63.33	II .	"	1700	-	26	39	1.65

Selection - bevel geared motors DSE -IE1

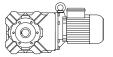
P = 0.12 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	1	туре	111	F _{RN}	FRV	n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	I B			kg	N	N	1/min	Nm	IB
15.5	64	2.8	89.30	BK10/D06LA4	23	7000		18.5	53	3.4
13.5	72	2.2	102.5	BK10/D00LA4	۱۱	7000	-	16.5	60	2.6
11.5	84	1.65	120.3	BK10Z/D06LA4	24	7000	-	13.5	72	1.9
9.5	0 4 101		143.2	BK102/D00LA4	2 4 "	7000		11.5	83	1.95
		1.6		11	"		-	9.5		
8.0	118	1.7	170.6	11	"	7000	-		100	2.0
6.6	142	1.4	204.7		"	7000	-	8.0	117	1.7
5.3	177	1.15	257.9		"	7000	-	6.3	149	1.35
4.5	205	0.9	302.4			7000	-	5.4	171	1.1
4.0	210	1.05	343.2	BK10G06/D06LA4	28	7000	-	4.8	173	1.25
3.3	255	0.86	410.8		"	7000	-	4.0	205	1.05
14	70	3.3	96.99	BK20Z/D06LA4	34	8700	9000	17	57	4.1
9.4	102	3.2	144.5	### ##################################	J .	8700	9000	11.5	83	4.0
7.8	102	2.7	173.4	"	ıı	8700	9000	9.4	101	3.3
6.6	142	2.7	207.5	"	ıı	8700	9000	7.9	118	2.8
				"	"					
5.2	180	1.85	259.9	"	"	8700	9000	6.3	149	2.2
4.6	200	1.55	298.2		"	8700	9000	5.5	168	1.85
3.7	245	1.2	367.7			8700	9000	4.5	200	1.45
3.2	260	1.4	429.7	BK20G06/D06LA4	38	8700	9000	3.8	215	1.65
2.9	290	1.25	480.4	"	"	8700	9000	3.4	245	1.45
2.6	320	1.15	524.5			8700	9000	3.1	265	1.35
2.2	380	0.95	630.0	"	"	8700	9000	2.6	320	1.15
6.3	140	2.0	216 5	BK30Z/D06LA4	41	11200	12000	7.5	125	26
6.3	149	3.0	216.5	BK3UZ/DU0LA4	41	11200	12000	7.5	125	3.6
5.3	177	2.5	255.3	 II	"	11200	12000	6.4	146	3.1
4.4	210	1.85	308.3	" "	"	11200	12000	5.3	177	2.2
3.6	255	1.6	380.7	" "	"	11200	12000	4.3	215	1.85
3.1	295	1.3	441.3			11200	12000	3.7	245	1.55
2.9	290	1.7	471.5	BK30G06/D06LA4	44	11200	12000	3.5	235	2.1
2.4	350	1.4	567.0	"	II .	11200	12000	2.9	285	1.7
2.1	400	1.25	652.5	"	II .	11200	12000	2.5	335	1.45
1.9	445	1.1	743.0	"	II .	11200	12000	2.2	380	1.3
1.7	495	0.99	810.9	"	II .	11200	12000	2.0	420	1.15
1.5	560	0.88	954.1	"	"	11200	12000	1.7	490	1.0
2.0	225	2.5	240.7	DV407 /D06144	<i>C</i> 4	11700	17000	4.7	107	2.0
3.9	235	2.5	348.7	BK40Z/D06LA4	64	11700	17000	4.7	197	2.9
3.2	285	2.0	430.0			11700	17000	3.8	240	2.4
2.8	255	3.3	487.3	BK40G10/D06LA4	68	11700	17000	3.4	200	4.3
2.5	290	2.9	540.0	" "	"	11700	17000	3.0	230	3.7
2.1	355	2.4	660.2			11700	17000	2.5	285	3.0
1.8	420	2.0	756.7	"	"	11700	17000	2.2	330	2.6
1.7	450	1.9	838.4	"	"	11700	17000	2.0	370	2.3
1.4	550	1.55	998.3	"	"	11700	17000	1.7	450	1.9
1.2	660	1.3	1189	II	"	11700	17000	1.4	550	1.55
0.95	840	1.0	1428	"	"	11700	17000	1.2	660	1.3
2.2	275	2.1	4140	DVEOZ (DOCLAA	02	14100	26000	4.0	225	2.0
3.3	275	3.1	414.8	BK50Z/D06LA4	92	14100	26000	4.0	225	3.8
2.1	360	3.2	651.7	BK50G10/D06LA4	96 "	14100	26000	2.5	295	3.9
1.9	405	2.8	722.2	"	"	14100	26000	2.3	325	3.5
1.6	490	2.3	859.8	" "	"	14100	26000	1.9	405	2.8
1.4	560	2.1	1024			14100	26000	1.6	490	2.3
1.1	730	1.6	1230	"	"	14100	26000	1.4	570	2.0
1.0	800	1.45	1398	"	"	14100	26000	1.2	660	1.75
0.9	900	1.3	1549	"	"	14100	26000	1.1	730	1.6
0.75	1080	1.05	1816	"	"	14100	26000	0.9	900	1.3
0.05	020	2 7	1610	PV60G20 /P06LA#	122	16600	24000	1 1	620	4.0
0.85	930	2.7	1618	BK60G20/D06LA4	123	16600	34000	1.1	630	4.0
0.75	1070	2.3	1810	"	"	16600	34000	0.9	810	3.1
0.7	1160	2.2	2010	" "	"	16600	34000	0.85	870	2.9
0.6	1400	1.8	2371	"	"	16600	34000	0.7	1130	2.2
0.5	1750	1.45	2733			16600	34000	0.6	1370	1.8
0.45	1990	1.25	3036	"	"	16600	34000	0.55	1530	1.65
0.39	2350	1.05	3533	"	"	16600	34000	0.46	1940	1.3
0.45	1000	3.0	2044	DV70C30 /D05144	201	24100	F0000	0.55	1440	4.0
0.45	1900	3.0	3041	BK70G20/D06LA4	201	24100	50000	0.55	1440	4.0
0.39	2250	2.5	3505			24100	50000	0.47	1750	3.3

Selection - bevel geared motors DSE -IE1

P = 0.12 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
0.35	2550	2.2	3894	BK70G20/D06LA4	"	24100	50000	0.42	2000	2.9
0.3	3100	1.85	4531	"	"	24100	50000	0.36	2450	2.3
0.25	3850	1.5	5436	"	"	24100	50000	0.3	3100	1.85
0.21	4750	1.2	6504	II .	"	24100	50000	0.25	3850	1.5

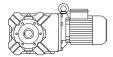
P = 0.18 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M ₂	f _B
1/min	Nm				kg	N	N	1/min	Nm	
140	11.2	7.1	9.71	BK06/D05LA4	9.5	880	-	167	9.4	8.5
116	13.6	5.9	11.67	"	II	930	-	139	11.3	7.1
89	17.5	4.6	15.29	m	II .	1020	-	106	14.7	5.4
75	20.5	3.9	18.00	m	II .	1080	-	90	17.1	4.7
63	24.5	3.3	21.54	II .	II .	1150	-	76	20	4.0
52	29.5	2.7	26.36	II .	II .	1230	_	62	24.5	3.3
41	37.5	2.1	33.33	II .	II .	1320	_	49	31.5	2.5
35.5	43.5	1.85	38.18	п	II .	1380	_	42.5	36	2.2
28.5	53	1.5	47.78	m .	п	1500	_	34	44.5	1.8
25	61	1.1	54.38	m .	п	1600	_	30	50	1.35
21.5	71	0.89	63.33	II .	"	1700	-	26	58	1.1
22	69	2.9	61.68	BK10/D06LA4	23	7000	_	26.5	57	3.5
19	79	2.5	72.31	TI TI	II .	7000	-	22.5	67	3.0
15.5	96	1.85	89.30	TI TI	II .	7000	-	18.5	80	2.2
13.5	108	1.45	102.5	II .	"	7000	-	16	91	1.75
11.5	127	1.1	120.3	BK10Z/D06LA4	24	7000	-	13.5	108	1.25
9.5	151	1.1	143.2	II .	"	7000	-	11.5	125	1.3
8.0	178	1.1	170.6	II .	"	7000	-	9.5	150	1.35
6.6	210	0.95	204.7	п	"	7000	-	8.0	176	1.15
12.5	118	2.7	108.6	BK20/D06LA4	33	8700	9000	15	98	3.2
11	132	2.5	124.2	BK20Z/D06LA4	34	8700	9000	13.5	108	3.1
9.4	153	2.2	144.5	TI TI	II .	8700	9000	11.5	125	2.6
7.8	182	1.8	173.4	TI TI	II .	8700	9000	9.4	151	2.2
6.6	210	1.55	207.5	TI TI	"	8700	9000	7.9	178	1.85
5.2	270	1.2	259.9	m .	II .	8700	9000	6.3	220	1.5
4.6	300	1.05	298.2	m .	II .	8700	9000	5.5	250	1.25
3.8	340	1.05	359.1	BK20G06/D06LA4	38	8700	9000	4.6	280	1.3
3.2	405	0.89	429.7	m .	II .	8700	9000	3.8	340	1.05
2.9	445	0.81	480.4	п	"	8700	9000	3.4	380	0.95
9.4	153	2.9	145.1	BK30Z/D06LA4	41	11200	12000	11.5	125	3.6
7.4	192	2.3	184.8	п	II .	11200	12000	8.8	162	2.8
6.3	220	2.0	216.5	п	II .	11200	12000	7.5	187	2.4
5.3	265	1.7	255.3	п	II .	11200	12000	6.4	220	2.0
4.4	320	1.2	308.3	п	II .	11200	12000	5.3	265	1.45
3.6	385	1.05	380.7	"	"	11200	12000	4.3	320	1.25
3.1	440	0.87	441.3	"	"	11200	12000	3.7	370	1.05
2.9	445	1.1	471.5	BK30G06/D06LA4	44	11200	12000	3.5	370	1.3
2.4	540	0.91	567.0	n n	II .	11200	12000	2.9	445	1.1
2.1	610	8.0	652.5	"	"	11200	12000	2.5	510	0.96
5.5	250	3.1	246.6	BK40Z/D06LA4	64	11700	17000	6.6	210	3.7
4.7	295	2.3	289.8	"	II .	11700	17000	5.6	245	2.8
3.9	355	1.65	348.7	п	II .	11700	17000	4.7	295	1.95
3.2	425	1.35	430.0	п	"	11700	17000	3.8	360	1.6
2.8	420	2.0	487.3	BK40G10/D06LA4	68	11700	17000	3.4	335	2.5
2.5	470	1.8	540.0	п	"	11700	17000	3.0	385	2.2
2.1	560	1.5	660.2	п	"	11700	17000	2.5	465	1.85
1.8	660	1.3	756.7	TI .	II .	11700	17000	2.2	530	1.6
1.7	710	1.2	838.4	TI .	II .	11700	17000	2.0	590	1.45
1.4	870	0.98	998.3	TI .	II .	11700	17000	1.7	710	1.2
1.2	1020	0.83	1189	m m	II .	11700	17000	1.4	870	0.98

BK-series bevel geared motors

Selection - bevel geared motors DSE -IE1

P = 0.18 kW



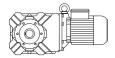
	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
4.2	330	3.1	328.2	BK50Z/D06LA4	92	14100	26000	5.0	275	3.7
3.3	415	2.0	414.8	n n	"	14100	26000	4.0	340	2.5
3.0	395	2.9	465.1	BK50G10/D06LA4	96	14100	26000	3.5	330	3.5
2.7	440	2.6	513.4	"	II .	14100	26000	3.2	365	3.2
2.4	500	2.3	568.6	"	II .	14100	26000	2.9	405	2.8
2.1	570	2.0	651.7	"	II .	14100	26000	2.5	475	2.4
1.9	640	1.8	722.2	"	"	14100	26000	2.3	520	2.2
1.6	760	1.5	859.8	"	"	14100	26000	1.9	640	1.8
1.4	880	1.3	1024	"	II .	14100	26000	1.6	760	1.5
1.1	1120	1.05	1230	"	II .	14100	26000	1.4	880	1.3
1.0	1240	0.93	1398	"	II .	14100	26000	1.2	1030	1.1
1.4	920	2.7	1016	BK60G20/D06LA4	123	16600	34000	1.6	770	3.2
1.1	1220	2.0	1322	"	II .	16600	34000	1.3	980	2.6
0.85	1610	1.55	1618	"	II .	16600	34000	1.1	1150	2.2
0.75	1830	1.35	1810	"	II .	16600	34000	0.9	1450	1.7
0.7	1980	1.25	2010	"	II .	16600	34000	0.85	1550	1.6
0.6	2350	1.05	2371	"	II .	16600	34000	0.7	1950	1.3
0.8	1720	3.3	1696	BK70G20/D06LA4	201	24100	50000	1.0	1290	4.4
0.7	1940	2.9	2040	"	II .	24100	50000	0.8	1630	3.5
0.55	2500	2.3	2578	"	"	24100	50000	0.65	2000	2.9
0.45	3150	1.8	3041	"	"	24100	50000	0.55	2450	2.3
0.39	3700	1.55	3505	"	"	24100	50000	0.47	2950	1.95
0.35	4200	1.35	3894	"	"	24100	50000	0.42	3350	1.7
0.3	5000	1.15	4531		"	24100	50000	0.36	4050	1.4

$P = 0.25 \, kW$

P = U	25 KW									
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
140	15.6	5.1	9.71	BK06/D05LA4	9.5	880	-	167	13.1	6.1
116	18.9	4.2	11.67	"	"	930	-	139	15.8	5.1
89	24	3.3	15.29	"	II .	1020	-	106	20	4.0
75	28.5	2.8	18.00	"	II .	1080	-	90	23.5	3.4
63	34	2.4	21.54	"	"	1150	-	76	28	2.9
52	41	1.95	26.36	"	"	1230	-	62	34.5	2.3
41	52	1.55	33.33	"	"	1320	-	49	43.5	1.85
35.5	60	1.35	38.18	"	II .	1380	-	42.5	50	1.6
28.5	74	1.1	47.78	m m	II .	1500	-	34	62	1.3
25	84	0.81	54.38	"	п	1600	-	30	70	0.97
33.5	64	3.1	40.79	BK10/D06LA4	23	6000	_	40	53	3.8
28	75	2.7	48.96	m m	"	6400	-	33.5	63	3.2
22	96	2.1	61.68	m m	"	7000	-	26.5	80	2.5
19	110	1.8	72.31	m m	"	7000	-	22.5	93	2.2
15.5	134	1.35	89.30	m m	"	7000	-	18.5	112	1.6
13.5	150	1.05	102.5	m m	"	7000	-	16	126	1.25
8.0	245	0.82	170.6	BK10Z/D06LA4	24	7000	-	9.5	205	0.98
18	116	2.8	76.79	BK20/D06LA4	33	7500	9000	21.5	97	3.4
15.5	134	2.5	88.12	TI TI	II .	8000	9000	18.5	112	2.9
12.5	164	1.9	108.6	m m	"	8700	9000	15	136	2.3
11	184	1.8	124.2	BK20Z/D06LA4	34	8700	9000	13.5	150	2.2
9.4	210	1.55	144.5	TI .	II .	8700	9000	11.5	174	1.9
7.8	250	1.3	173.4	TI .	II .	8700	9000	9.4	210	1.55
6.6	295	1.1	207.5	m m	"	8700	9000	7.9	245	1.35
5.2	375	0.88	259.9	"	II	8700	9000	6.3	310	1.05
13.5	150	3.0	102.4	BK30/D06LA4	39	11200	12000	16	126	3.6
11	184	2.4	123.9	BK30Z/D06LA4	41	11200	12000	13.5	150	3.0
9.4	210	2.1	145.1	m .	II .	11200	12000	11.5	174	2.6
7.4	265	1.7	184.8	m .	II .	11200	12000	8.8	225	2.0
6.3	310	1.45	216.5	m .	II .	11200	12000	7.5	260	1.75

Selection - bevel geared motors DSE -IE1

P = 0.25 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		••				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
5.3	365	1.25	255.3	BK30Z/D06LA4	"	11200	12000	6.4	305	1.5
4.4	440	0.88	308.3	II	II .	11200	12000	5.3	365	1.05
			4600	DV407 (D04) 44	- 4	44700	47000		205	2.0
8.0	245	3.2	169.0	BK40Z/D06LA4	64	11700	17000	9.6	205	3.8
6.4	305	2.6	211.5	" "	"	11700	17000	7.7	250	3.1
5.5	350	2.2	246.6	" "	"	11700	17000	6.6	290	2.7
4.7	410	1.65	289.8		"	11700	17000	5.6	345	2.0
3.9	495	1.15	348.7		"	11700	17000	4.7	410	1.4
3.2	590	0.97	430.0			11700	17000	3.8	500	1.15
2.8	610	1.4	487.3	BK40G10/D06LA4	68	11700	17000	3.4	495	1.7
2.5	680	1.25	540.0	" "	"	11700	17000	3.0	560	1.5
2.1	810	1.05	660.2	" "	"	11700	17000	2.5	680	1.25
1.8	950	0.89	756.7	" "	"	11700	17000	2.2	770	1.1
1.7	1020	0.83	838.4	"	"	11700	17000	2.0	860	0.99
5.2	370	2.8	264.5	BK50Z/D06LA4	92	14100	26000	6.2	310	3.4
4.2	460	2.2	328.2	"	"	14100	26000	5.0	385	2.6
3.3	570	1.5	414.8	m .	n n	14100	26000	4.0	475	1.8
3.0	570	2.0	465.1	BK50G10/D06LA4	96	14100	26000	3.5	485	2.4
2.7	630	1.85	513.4	II .	"	14100	26000	3.2	530	2.2
2.4	720	1.6	568.6	m .	II .	14100	26000	2.9	590	1.95
2.1	820	1.4	651.7	m .	"	14100	26000	2.5	680	1.7
1.9	910	1.25	722.2	m .	"	14100	26000	2.3	750	1.55
1.6	1090	1.05	859.8	"	п	14100	26000	1.9	910	1.25
1.4	1250	0.92	1024	п	II .	14100	26000	1.6	1090	1.05
2.2	820	3.0	621.5	BK60G20/D06LA4	123	16600	34000	2.7	620	4.0
1.8	1010	2.5	752.1	# U U U U U U U U U U U U U U U U U U U	123	16600	34000	2.2	770	3.2
1.6	1150	2.2	887.8	"	"	16600	34000	1.9	920	2.7
1.4	1400	1.8	1016	m .	"	16600	34000	1.6	1190	2.1
1.1	1830	1.35	1322	"	"	16600	34000	1.3	1500	1.65
0.85	2350	1.05	1618	m .	"	16600	34000	1.1	1760	1.03
0.05	2330	1.05	1010			10000	34000	1.1	1700	1
1.1	1790	3.2	1280	BK70G20/D06LA4	201	24100	50000	1.3	1450	3.9
0.95	2050	2.8	1457	"	"	24100	50000	1.2	1560	3.7
0.8	2550	2.2	1696	"	"	24100	50000	1.0	1950	2.9
0.7	2850	2.0	2040	m	II	24100	50000	0.8	2450	2.3
0.55	3700	1.55	2578	m	II	24100	50000	0.65	3050	1.85
0.45	4650	1.25	3041	II	II .	24100	50000	0.55	3650	1.55
0.39	5400	1.05	3505	II	II .	24100	50000	0.47	4350	1.3

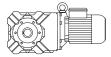
P = 0.3 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		21		1114	***	n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	Ν	N	1/min	Nm	
140	18.8	4.3	9.71	BK06/D07LA4	14	880	-	167	15.7	5.1
116	22.5	3.6	11.67	"	ıı ı	930	-	139	18.9	4.2
89	29	2.8	15.29	"	"	1020	-	106	24.5	3.3
75	34	2.4	18.00	m .	II .	1080	-	90	28.5	2.8
63	40.5	2.0	21.54	"	ıı ı	1150	-	76	33.5	2.4
52	49.5	1.6	26.36	"	"	1230	-	62	41.5	1.95
41	62	1.3	33.33	m .	II .	1320	-	49	52	1.55
35.5	72	1.1	38.18	"	ıı ı	1380	-	42.5	60	1.35
28.5	89	0.9	47.78	"	"	1500	-	34	74	1.1
39.5	65	3.1	34.25	BK10/D07LA4	26	5600	-	47.5	54	3.7
33.5	76	2.6	40.79	"	"	6000	-	40	64	3.1
28	91	2.2	48.96	m .	II .	6400	-	33.5	76	2.6
22	115	1.75	61.68	"	"	7000	-	26.5	96	2.1
19	132	1.5	72.31	"	"	7000	-	22.5	112	1.8
15.5	160	1.1	89.30	"	"	7000	-	18.5	134	1.35
13.5	180	0.87	102.5	"	"	7000	-	16	152	1.05
22.5	113	2.9	61.30	BK20/D07LA4	35	6500	9000	26.5	96	3.4
18	140	2.4	76.79	"	"	7500	9000	21.5	117	2.8
15.5	160	2.1	88.12	"	II .	8000	9000	18.5	134	2.5

Selection - bevel geared motors DSE -IE1

BK-series bevel geared motors

P = 0.3 kW



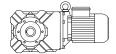
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		· ·			***	n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	, i
12.5	197	1.6	108.6	BK20/D07LA4	"	8700	9000	15	164	1.9
11	220	1.5	124.2	BK20Z/D07LA4	37	8700	9000	13.5	180	1.85
9.4	255	1.3	144.5	11	"	8700	9000	11.5	205	1.6
7.8	300	1.1	173.4	n .	"	8700	9000	9.4	250	1.3
6.6	355	0.93	207.5	n .	"	8700	9000	7.9	295	1.1
15.5	158	2.8	88.38	BK30/D07LA4	41	10600	12000	18.5	133	3.4
13.5	180	2.5	102.4	"	"	11200	12000	16	152	3.0
11	220	2.0	123.9	BK30Z/D07LA4	44	11200	12000	13.5	180	2.5
9.4	255	1.75	145.1	"	"	11200	12000	11.5	205	2.2
7.4	320	1.4	184.8	n .	"	11200	12000	8.8	270	1.65
6.3	370	1.2	216.5	n .	"	11200	12000	7.5	310	1.45
5.3	440	1.0	255.3	п	II .	11200	12000	6.4	365	1.25
							.2000			5
9.5	250	3.1	143.0	BK40Z/D07LA4	66	11700	17000	11.5	205	3.8
8.0	295	2.6	169.0	"	"	11700	17000	9.6	245	3.2
6.4	365	2.1	211.5	п	"	11700	17000	7.7	305	2.6
5.5	420	1.85	246.6	TI .	II .	11700	17000	6.6	350	2.2
4.7	490	1.4	289.8	TI .	II .	11700	17000	5.6	410	1.65
3.9	590	0.98	348.7	TI .	II .	11700	17000	4.7	490	1.2
3.2	710	0.81	430.0	TI .	II .	11700	17000	3.8	600	0.96
2.8	740	1.15	487.3	BK40G10/D07LA4	71	11700	17000	3.4	600	1.4
2.5	830	1.0	540.0	"	"	11700	17000	3.0	680	1.25
2.1	990	0.86	660.2	TI TI	II .	11700	17000	2.5	830	1.0
		0.00	000.2			, 00	.,			
6.6	355	3.0	206.8	BK50Z/D07LA4	95	14100	26000	7.9	295	3.6
5.2	445	2.4	264.5	"	"	14100	26000	6.2	370	2.8
4.2	550	1.85	328.2	m .	II .	14100	26000	5.0	460	2.2
3.3	690	1.2	414.8	п	II .	14100	26000	4.0	570	1.5
3.0	700	1.65	465.1	BK50G10/D07LA4	99	14100	26000	3.5	590	1.95
2.7	780	1.45	513.4	п	II .	14100	26000	3.2	650	1.75
2.4	870	1.3	568.6	п	II .	14100	26000	2.9	720	1.6
2.1	1000	1.15	651.7	п	II .	14100	26000	2.5	830	1.4
1.9	1110	1.05	722.2	II .	II .	14100	26000	2.3	910	1.25
1.6	1320	0.87	859.8	II .	II .	14100	26000	1.9	1110	1.05
2.2	1040	2.4	621.5	BK60G20/D07LA4	125	16600	34000	2.7	800	3.1
1.8	1270	1.95	752.1	m .	II .	16600	34000	2.2	980	2.6
1.6	1450	1.7	887.8	m m	II	16600	34000	1.9	1170	2.1
1.4	1740	1.45	1016	m m	II	16600	34000	1.6	1490	1.7
1.1	2250	1.1	1322	m .	11	16600	34000	1.3	1860	1.35
1.2	1950	2.9	1139	BK70G20/D07LA4	204	24100	50000	1.5	1480	3.9
1.1	2200	2.6	1280	m m	II .	24100	50000	1.3	1820	3.1
0.95	2550	2.2	1457	m .	"	24100	50000	1.2	1950	2.9
0.8	3150	1.8	1696	m m	II .	24100	50000	1.0	2400	2.4
0.7	3550	1.6	2040	m .	"	24100	50000	0.8	3050	1.85
0.55	4600	1.25	2578	m .	II .	24100	50000	0.65	3800	1.5

P = 0.37 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f_{B}						n_2	M_2	f_{B}
1/min	Nm				kg	N	N	1/min	Nm	
140	23	3.5	9.71	BK06/D07LA4	14	880	-	167	19.4	4.1
116	28	2.9	11.67	"	II .	930	-	139	23	3.5
89	36	2.2	15.29	"	ıı ı	1020	-	106	30	2.7
75	42	1.9	18.00	"	II .	1080	-	90	35	2.3
63	50	1.6	21.54	"	II .	1150	-	76	41.5	1.95
52	61	1.3	26.36	"	II .	1230	-	62	51	1.55
41	77	1.05	33.33	"	II .	1320	-	49	64	1.25
35.5	89	0.9	38.18	TI TI	II .	1380	-	42.5	74	1.1

Selection - bevel geared motors DSE -IE1

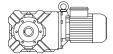
P = 0.37 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	•	.,,,,,	•••	* KIN	* KV	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
47	67	3.0	28.76	BK10/D07LA4	26	5200	-	57	55	3.6
39.5	80	2.5	34.25	m m	II .	5600	-	47.5	66	3.0
33.5	94	2.1	40.79	п	II .	6000	-	40	79	2.5
28	112	1.8	48.96	п	II .	6400	-	33.5	93	2.2
22	142	1.4	61.68	m	II .	7000	-	26.5	118	1.7
19	163	1.25	72.31	m	II .	7000	-	22.5	138	1.45
15.5	198	0.9	89.30	п	II .	7000	-	18.5	166	1.05
32	99	3.3	42.70	BK20/D07LA4	35	5800	9000	38	83	4.0
26.5	118	2.8	51.22	"	II .	6300	9000	32	98	3.4
22.5	139	2.4	61.30	"	II .	6500	9000	26.5	118	2.8
18	172	1.9	76.79	"	"	7500	9000	21.5	144	2.3
15.5	198	1.65	88.12	"	"	8000	9000	18.5	166	2.0
12.5	240	1.3	108.6	"	"	8700	9000	15	200	1.6
11	270	1.2	124.2	BK20Z/D07LA4	37	8700	9000	13.5	220	1.5
9.4	315	1.05	144.5			8700	9000	11.5	255	1.3
7.8	375	0.88	173.4	"	"	8700	9000	9.4	310	1.05
22	135	2.2	FO 27	DV20 /D0=1 * *	A 4	0000	12000	27.5	113	4.0
23	135	3.3	59.27	BK30/D07LA4	41	8900	12000	27.5	113	4.0
19	161	2.8	71.56		"	9700	12000	23	133	3.4
15.5	196	2.3	88.38	п	"	10600	12000	18.5	164	2.7
13.5 11	220 270	2.0 1.65	102.4 123.9	BK30Z/D07LA4	44	11200 11200	12000 12000	16 13.5	187 220	2.4
9.4	315	1.65	145.1	BK3UZ/DU/LA4	44	11200	12000	11.5	255	1.75
7.4	395	1.15	184.8	n .	"	11200	12000	8.8	330	1.73
6.3	455	0.99	216.5	n .	"	11200	12000	7.5	385	1.15
5.3	540	0.93	255.3	ıı .	II .	11200	12000	6.4	450	1.13
3.3	340	0.05	233.3			11200	12000	0.4	430	1.0
11.5	260	3.0	118.2	BK40Z/D07LA4	66	11700	17000	14	210	3.7
9.5	310	2.5	143.0	"	"	11700	17000	11.5	255	3.1
8.0	365	2.1	169.0	п	II .	11700	17000	9.6	305	2.6
6.4	450	1.75	211.5	п	II .	11700	17000	7.7	375	2.1
5.5	520	1.5	246.6	II .	II .	11700	17000	6.6	430	1.8
4.7	600	1.15	289.8	II .	II .	11700	17000	5.6	510	1.35
3.9	730	0.8	348.7	"	II .	11700	17000	4.7	600	0.97
2.8	930	0.91	487.3	BK40G10/D07LA4	71	11700	17000	3.4	760	1.1
2.5	1040	0.82	540.0	II	II .	11700	17000	3.0	860	0.99
8.9	325	3.2	153.3	BK50Z/D07LA4	95	14100	26000	11	265	4.0
6.6	435	2.4	206.8	"	"	14100	26000	7.9	365	2.9
5.2	550	1.9	264.5	"		14100	26000	6.2	460	2.3
4.2	680	1.5	328.2	"	"	14100	26000	5.0	570	1.75
3.3	850	0.99	414.8	"	"	14100	26000	4.0	700	1.2
3.0	870	1.3	465.1	BK50G10/D07LA4	99 "	14100	26000	3.5	740	1.55
2.7	970	1.2	513.4			14100	26000	3.2	810	1.4
2.4	1090	1.05	568.6	 II	"	14100 14100	26000 26000	2.9	900 1050	1.3
2.1 1.9	1250 1380	0.92 0.83	651.7 722.2	n .	"	14100	26000	2.5 2.3	1140	1.1 1.0
1.5	1300	0.65	122.2			14100	20000	2.3	1140	1.0
2.2	1340	1.85	621.5	BK60G20/D07LA4	125	16600	34000	2.7	1040	2.4
1.8	1640	1.5	752.1	"	"	16600	34000	2.2	1290	1.95
1.6	1870	1.35	887.8	n .	"	16600	34000	1.9	1520	1.65
1.4	2200	1.15	1016	"	11	16600	34000	1.6	1900	1.3
1.1	2850	0.88	1322	m .	II .	16600	34000	1.3	2350	1.05
		3.00				. 5000	2.000			
1.6	1850	3.1	847.7	BK70G20/D07LA4	204	24100	50000	2.0	1410	4.0
1.4	2100	2.7	964.6	II	"	24100	50000	1.7	1670	3.4
1.2	2500	2.3	1139	II	"	24100	50000	1.5	1920	3.0
1.1	2800	2.0	1280	II .	"	24100	50000	1.3	2300	2.5
0.95	3250	1.75	1457	II .	"	24100	50000	1.2	2500	2.3
0.8	3950	1.45	1696	II	II .	24100	50000	1.0	3100	1.85
0.7	4500	1.25	2040	II.	"	24100	50000	0.8	3900	1.45
3.,	.500	: .23	2010			_ 1100	20000	, 0.0	3,00	1.73

Selection - bevel geared motors DSE -IE1

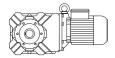
P = 0.55 kW



n ₂ M ₂ f _B 1/min Nm 194 24.5 3.0					F_{RV}	n_2	M_2	£
								$f_{\scriptscriptstyle B}$
194 24.5 3.0			kg	N	N	1/min	Nm	
	7.25	BK06/D08MA4	15	790	-	235	20.5	3.6
145 33 2.4	9.71	"	II .	880	-	174	27.5	2.9
120 40 2.0	11.67	"	II .	930	-	144	33.5	2.4
92 51 1.55	15.29	"	"	1020	-	110	43	1.85
78 60 1.35	18.00	II .	"	1080	-	94	50	1.6
65 72 1.1	21.54	II .	II .	1150	_	78	60	1.35
54 87 0.92	26.36	u u	II .	1230	_	64	73	1.1
118 40.5 2.8	11.93	BK10/D08MA4	27	3100	_	141	34	3.4
83 56 2.4	16.92	u u	II .	3700	_	100	47	2.9
76 62 3.2	18.52	"	"	4300	_	91	51	3.9
62 76 2.6	22.65	"	п	4650	_	75	63	3.2
49 96 2.1	28.76	11	п	5200	_	59	80	2.5
41 115 1.75	34.25	m .	"	5600	_	49.5	95	2.1
34.5 137 1.45	40.79	u u	"	6000	_	41.5	113	1.75
29 161 1.25	48.96	"	ıı .	6400	-	34.5	135	1.75
		"	"	7000	-		169	
	61.68	"	"			27.5 23.5		1.2
19.5 235 0.85	72.31			7000	-	23.5	196	1.0
20 5 122 2.7	26.60		26	E400	0000	16	102	2.2
38.5 122 2.7	36.69	BK20/D08MA4	36	5400	9000	46	102	3.2
33 143 2.3	42.70		"	5800	9000	39.5	119	2.8
27.5 169 1.95	51.22	"	"	6300	9000	33	141	2.3
23 200 1.65	61.30		"	6500	9000	27.5	169	1.95
18.5 245 1.35	76.79	"	"	7500	9000	22	210	1.55
16 285 1.15	88.12			8000	9000	19.5	230	1.45
13 345 0.91	108.6	"	"	8700	9000	15.5	290	1.1
11.5 385 0.86	124.2	BK20Z/D08MA4	38	8700	9000	14	315	1.05
33 141 3.2	42.89	BK30/D08MA4	42	7800	12000	39.5	118	3.8
28 165 2.7	50.27	"	II	8300	12000	33.5	137	3.3
24 192 2.3	59.27	"	"	8900	12000	28.5	162	2.8
20 225 2.0	71.56	"	"	9700	12000	23.5	194	2.3
16 280 1.6	88.38	"	"	10600	12000	19.5	230	1.95
14 315 1.45	102.4	"	"	11200	12000	16.5	270	1.65
11.5 385 1.15	123.9	BK30Z/D08MA4	45	11200	12000	14	315	1.45
9.7 450 1.0	145.1	"	II .	11200	12000	12	365	1.25
17 265 2.9	84.36	BK40/D08MA4	63	10700	17000	20	225	3.5
13.5 330 2.4	104.0	11	II	11700	17000	16.5	270	2.9
12 370 2.1	118.2	BK40Z/D08MA4	67	11700	17000	14.5	305	2.6
9.8 450 1.75	143.0	II .	"	11700	17000	12	365	2.1
8.3 520 1.5	169.0	II .	II .	11700	17000	10	435	1.8
6.7 640 1.2	211.5	II .	II .	11700	17000	8.0	530	1.45
5.7 740 1.05	246.6	п	II .	11700	17000	6.9	610	1.3
4.9 860 0.8	289.8	· ·	II .	11700	17000	5.8	730	0.94
12.5 355 3.0	115.4	BK50Z/D08MA4	96	14100	26000	15	295	3.6
9.2 470 2.2	153.3	II .	II .	14100	26000	11	395	2.7
6.8 630 1.65	206.8	п	II .	14100	26000	8.2	520	2.0
5.3 800 1.3	264.5	· ·	"	14100	26000	6.4	660	1.6
4.3 980 1.05	328.2	· ·	"	14100	26000	5.2	810	1.25
3.1 1290 0.89	465.1	BK50G10/D08MA4	100	14100	26000	3.7	1080	1.05
2.8 1420 0.81	513.4	"	"	14100	26000	3.3	1210	0.95
2.0	313.1			11100	20000	3.3	1210	0.55
6.9 760 3.0	205.0	BK60Z/D08MA4	119	16600	34000	8.2	640	3.6
5.9 890 2.6	239.7	"	"	16600	34000	7.1	730	3.2
5.3 990 2.3	268.2	"	II .	16600	34000	6.3	830	2.8
4.5 1160 2.0	317.7	11	II .	16600	34000	5.3	990	2.3
4.0 1310 1.75	355.5	11	II .	16600	34000	4.8	1090	2.1
3.5 1500 1.55	411.5	II .	II .	16600	34000	4.1	1280	1.8
3.1 1690 1.35	460.4	· ·	II .	16600	34000	3.7	1410	1.65
		"	"	16600	34000			
	498.0	 II	"			3.4	1540	1.5
2.6 2000 1.15	557.2			16600	34000	3.1	1690	1.35
2.3 2000 1.25	621.5	BK60G20/D08MA4	126	16600	34000	2.8	1610	1.55
1.9 2400 1.05	752.1		"	16600	34000	2.3	1960	1.3
1.6 2900 0.86	887.8			16600	34000	1.9	2400	1.05

Selection - bevel geared motors DSE -IE1

P = 0.55 kW



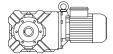
	50 Hz		i	Туре	m	F_{RN}	F _{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
3.3	1590	3.3	432.1	BK70Z/D08MA4	207	24100	50000	3.9	1340	3.9
2.8	1870	2.8	501.8	"	"	24100	50000	3.4	1540	3.4
2.5	2100	2.5	570.8	"	"	24100	50000	3.0	1750	3.0
2.2	2350	2.2	644.9	"	"	24100	50000	2.7	1940	2.7
2.0	2600	2.0	733.6	"	"	24100	50000	2.3	2250	2.3
1.7	2700	2.1	847.7	BK70G20/D08MA4	205	24100	50000	2.0	2250	2.5
1.5	3050	1.85	964.6	"	"	24100	50000	1.8	2500	2.3
1.3	3600	1.6	1139	"	"	24100	50000	1.5	3050	1.85
1.1	4350	1.3	1280	"	"	24100	50000	1.4	3350	1.7
1.0	4800	1.2	1457	"	"	24100	50000	1.2	3900	1.45
1.1	3750	3.1	1307	BK80G40/D08MA4	347	30000	75000	1.3	3000	3.8
1.0	4050	2.8	1425	"	"	30000	75000	1.2	3150	3.7
0.9	4600	2.5	1583	"	"	30000	75000	1.1	3550	3.2
0.8	5200	2.2	1775	"	"	30000	75000	0.95	4200	2.7
0.65	6600	1.75	2205	"	"	30000	75000	0.8	5100	2.3
0.6	7300	1.6	2449	"	"	30000	75000	0.7	6000	1.9
0.5	9000	1.3	2811	"	"	30000	75000	0.6	7200	1.6
0.45	10200	1.15	3120	"	"	30000	75000	0.55	8000	1.45
0.55	7400	2.5	2764	BK90G50/D08MA4	620	49400	120000	0.65	5900	3.1
0.46	9300	2.0	3065	"	"	49400	120000	0.55	7400	2.5
0.39	11300	1.65	3672	"	"	49400	120000	0.46	9300	2.0
0.35	12900	1.45	4070	"	"	49400	120000	0.42	10300	1.8
0.29	16000	1.15	4952	"	"	49400	120000	0.34	13300	1.4
0.26	18000	1.05	5491	"	"	49400	120000	0.31	14800	1.25

P = 0.75 kW

	50 Hz		i	Туре	m	F_{RN}	F _{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
194	33.5	2.2	7.25	BK06/DSE08LA4	16	790	-	235	28	2.6
145	45	1.8	9.71	"	"	880	-	174	37.5	2.1
120	54	1.5	11.67	"	"	930	-	144	45.5	1.75
92	70	1.15	15.29	"	II .	1020	-	110	59	1.35
78	82	0.98	18.00	"	II .	1080	-	94	68	1.2
65	99	0.81	21.54	II	"	1150	-	78	82	0.98
183	36	3.2	7.68	BK10/DSE08LA4	28	2400	-	220	29.5	3.9
149	44	2.6	9.40	"	"	2700	-	179	36.5	3.2
118	55	2.1	11.93	"	"	3100	-	141	46.5	2.5
97	66	3.0	14.50	"	"	3900	-	116	55	3.6
83	77	1.75	16.92	"	"	3700	-	100	64	2.1
76	84	2.4	18.52	"	"	4300	-	91	70	2.9
62	103	1.95	22.65	"	"	4650	-	75	85	2.4
49	131	1.55	28.76	"	"	5200	-	59	109	1.85
41	157	1.25	34.25	"	"	5600	-	49.5	130	1.55
34.5	186	1.1	40.79	"	"	6000	-	41.5	155	1.3
29	215	0.93	48.96	II	II.	6400	-	34.5	184	1.1
81	80	2.9	17.42	BK20/DSE08LA4	38	3250	9000	97	67	3.4
58	111	3.0	24.29	· ·	"	4500	9000	70	92	3.6
49	131	2.5	28.66	· ·	"	4850	9000	59	109	3.0
38.5	167	2.0	36.69	"	"	5400	9000	46	140	2.4
33	195	1.7	42.70	"	"	5800	9000	39.5	163	2.0
27.5	230	1.45	51.22	"	"	6300	9000	33	193	1.7
23	275	1.2	61.30	"	"	6500	9000	27.5	230	1.45
18.5	340	0.97	76.79	"	"	7500	9000	22	285	1.15
16	385	0.86	88.12	п	"	8000	9000	19.5	315	1.05
42	153	2.9	33.70	BK30/DSE08LA4	44	7000	12000	50	128	3.5
33	193	2.3	42.89	"	"	7800	12000	39.5	161	2.8
28	225	2.0	50.27	"	"	8300	12000	33.5	188	2.4
24	260	1.75	59.27	"	"	8900	12000	28.5	220	2.0
20	310	1.45	71.56	"	II .	9700	12000	23.5	265	1.7
P-7112-BG/	M-EN-A4							www.bau	ergears.com	253

Selection - bevel geared motors DSE -IE1

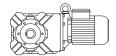
P = 0.75 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
16	380	1.2	88.38	BK30/DSE08LA4	"	10600	12000	19.5	315	1.45
14	430	1.05	102.4	"	II .	11200	12000	16.5	365	1.25
11.5	520	0.87	123.9	BK30Z/DSE08LA4	46	11200	12000	14	430	1.05
23.5	265	2.9	59.66	BK40/DSE08LA4	64	9100	17000	28.5	220	3.5
20	310	2.5	70.11	n .	II .	9800	17000	24	255	3.1
17	365	2.1	84.36	II .	II .	10700	17000	20	310	2.5
13.5	450	1.75	104.0	m .	II .	11700	17000	16.5	365	2.1
12	500	1.55	118.2	BK40Z/DSE08LA4	69	11700	17000	14.5	415	1.9
9.8	610	1.3	143.0	m .	II .	11700	17000	12	500	1.55
8.3	710	1.1	169.0	m .	II .	11700	17000	10	590	1.3
6.7	870	0.9	211.5	п	II .	11700	17000	8.0	730	1.05
19	325	3.2	75.40	BK50/DSE08LA4	93	12600	26000	22.5	275	3.8
15	410	2.6	95.29	"	"	14100	26000	18	340	3.1
12.5	485	2.2	115.4	BK50Z/DSE08LA4	98	14100	26000	15	405	2.6
9.2	640	1.65	153.3	"	"	14100	26000	11	540	1.95
6.8	860	1.2	206.8	п	II .	14100	26000	8.2	710	1.5
5.3	1090	0.96	264.5	п	II .	14100	26000	6.4	900	1.15
		0.20	20						700	
9.2	770	3.0	153.7	BK60Z/DSE08LA4	120	16600	34000	11	650	3.5
7.7	930	2.5	183.2	"	"	16600	34000	9.2	770	3.0
6.9	1030	2.2	205.0	n .	II .	16600	34000	8.2	870	2.6
5.9	1210	1.9	239.7	п	"	16600	34000	7.1	1000	2.3
5.3	1350	1.7	268.2	п	"	16600	34000	6.3	1130	2.0
4.5	1590	1.45	317.7	"	II.	16600	34000	5.3	1350	1.7
4.0	1790	1.43	355.5	п	"	16600	34000	4.8	1490	1.55
3.5	2000	1.15	411.5	п	"	16600	34000	4.1	1740	1.33
3.1	2300	1.13	460.4	п	"	16600	34000	3.7	1930	1.2
2.9	2450	0.94	498.0	п	"	16600	34000	3.4	2100	1.1
2.6	2 4 50 2750	0.94	557.2	п	"	16600	34000	3.1	2300	1.0
2.3	2850	0.88	621.5	BK60G20/DSE08LA4	128	16600	34000	2.8	2250	1.0
2.3	2030	0.00	021.3	BR00020/D3E00LA4	120	10000	34000	2.0	2230	1.1
4.2	1700	3.1	333.6	BK70Z/DSE08LA4	208	24100	50000	5.1	1400	3.7
3.7	1930	2.7	379.9	BR702/D3E00EA4	200	24100	50000	4.5	1590	3.3
3.3	2150	2.4	432.1	п	"	24100	50000	3.9	1830	2.8
2.8	2550	2.4	501.8	п	"	24100	50000	3.4	2100	2.5
2.5	2850	1.8	570.8	п	"	24100	50000	3.0	2350	2.3
2.2	3250	1.6	644.9			24100	50000	2.7	2650	1.95
2.0	3550 3550	1.45	733.6	п	"	24100	50000	2.3	3100	1.7
1.7	3850	1.45	847.7	BK70G20/DSE08LA4	206	24100	50000	2.0	3200	1.7
1.5	4350	1.3	964.6	BK/0G20/D3E06LA4	200	24100	50000	1.8	3550	1.6
1.3	5000	1.15	1139	п	"	24100	50000	1.5	4300	1.35
1.1	6100	0.93	1280	п	"	24100	50000	1.4	4700	1.2
	6700			ıı .	"	24100	50000	1.4		1.05
1.0	0/00	0.85	1457			24100	20000	1.2	5500	1.05
1.5	3850	3.0	963.0	BK80G40/DSE08LA4	348	30000	75000	1.8	3050	3.8
1.3	4450	2.6	1079	BROUGHU/DJEUGEAH	J 4 0	30000	75000	1.6	3450	3.3
1.1	5400	2.0	1307	п	ıı .	30000	75000	1.3	4450	2.6
1.0	5900	1.95	1425	m .	п	30000	75000	1.2	4750	
0.9	6700		1583	п	ıı	30000	75000 75000	1.1		2.4 2.2
0.9	7600	1.7 1.5	1583		"	30000	75000 75000	0.95	5200 6200	
0.8	7600 9600				"	30000	75000 75000		7500	1.85 1.55
	10400	1.2	2205 2449	п	ıı		75000 75000	0.8		
0.6	10400	1.1	2 44 9			30000	/5000	0.7	8700	1.3
0.0	6400	3.0	1570	PVOOCEO /DCEOOL A 4	621	40400	120000	1 1	E000	ר כ
0.9	6400	2.9	1579	BK90G50/DSE08LA4	621	49400	120000	1.1	5000	3.7
0.8	7200	2.6	1803	" "	"	49400	120000	0.95	5800	3.2
0.7	8300	2.2	2016	"	"	49400	120000	0.85	6500	2.8
0.55	10900	1.7	2764	"	"	49400	120000	0.65	8900	2.1
0.46	13400	1.4	3065	"	"	49400	120000	0.55	10900	1.7
0.39	16200	1.15	3672			49400	120000	0.46	13400	1.4
0.35	18300	1.0	4070		"	49400	120000	0.42	14900	1.25

Selection - bevel geared motors DSE -IE1

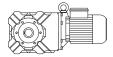
P = 1.1 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	1	Type	111	I RN	I RV	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	*B			kg	N	N	1/min	Nm	ıB
194	49.5	1.45	7.25	BK06/DSE08XA4	18	790	-	235	41	1.8
145	66	1.2	9.71	"	"	880	_	174	55	1.45
120	80	1.0	11.67	п	"	930	_	144	67	1.43
120	00	1.0	11.07			930		177	07	1.2
320	30	3.2	4.44	BK10/DSE08XA4	30	1890	_	380	25	3.8
235	41	2.6	6.02	BK 10/D3E00XA4	30	2100	_	280	34.5	3.0
183	52	2.2	7.68	n n	II.	2400	-	220	43.5	2.6
149	64	1.8	9.40	11	"	2700	-			2.0
				п	"			179	53	
131	72	2.5	10.70	п	"	3500	-	158	59	3.1
118	81	1.4	11.93	п	"	3100	-	141	68	1.7
97	97	2.1	14.50	п	"	3900	-	116	81	2.5
83	113	1.2	16.92		"	3700	-	100	94	1.45
76	124	1.6	18.52	" "		4300	-	91	103	1.95
62	152	1.3	22.65		"	4650	-	75	126	1.6
49	192	1.05	28.76	"	II .	5200	-	59	160	1.25
41	230	0.87	34.25	"	II .	5600	-	49.5	191	1.05
120	80	2.9	11.69	BK20/DSE08XA4	39	2400	8800	144	67	3.4
95	99	3.3	14.75	п	II .	3650	9000	114	82	4.0
81	118	1.95	17.42	m .	II .	3250	9000	97	98	2.4
73	129	2.6	19.39	m m	II .	4050	9000	87	108	3.1
58	163	2.0	24.29	п	II .	4500	9000	70	135	2.4
49	192	1.7	28.66	n .	"	4850	9000	59	160	2.1
38.5	245	1.35	36.69	n .	"	5400	9000	46	205	1.6
33	285	1.15	42.70	11	"	5800	9000	39.5	235	1.4
27.5	335	0.99	51.22	п	"	6300	9000	33	280	1.2
23	405	0.81	61.30	п	"	6500	9000	27.5	335	0.99
23	403	0.01	01.50			0300	9000	27.5	333	0.55
68	140	2.3	20.85	BK30/DSE08XA4	45	5000	12000	81	118	2.7
61	154	1	23.20	BK30/D3E08XA4	43	5900	12000	73	129	3.5
-		2.9		п	"					
49	192	2.3	28.76	п	"	6500	12000	59	160	2.8
42	225	2.0	33.70		"	7000	12000	50	189	2.4
33	280	1.6	42.89	" "	"	7800	12000	39.5	235	1.9
28	330	1.35	50.27			8300	12000	33.5	275	1.65
24	385	1.15	59.27	II .	II .	8900	12000	28.5	320	1.4
20	455	0.99	71.56	"	"	9700	12000	23.5	385	1.15
16	560	0.8	88.38	"	"	10600	12000	19.5	460	0.98
34.5	270	2.9	40.88	BK40/DSE08XA4	65	7600	17000	41.5	225	3.5
27.5	335	2.3	51.18	"	II .	8400	17000	33	280	2.8
23.5	390	2.0	59.66	"	"	9100	17000	28.5	320	2.4
20	455	1.7	70.11	"	II .	9800	17000	24	380	2.1
17	530	1.45	84.36	"	II .	10700	17000	20	455	1.7
13.5	660	1.2	104.0	"	"	11700	17000	16.5	540	1.45
12	740	1.05	118.2	BK40Z/DSE08XA4	70	11700	17000	14.5	610	1.3
9.8	900	0.87	143.0	n n	"	11700	17000	12	730	1.05
29.5	315	3.3	47.50	BK50/DSE08XA4	94	10100	25700	35.5	260	4.0
23.5	390	2.7	60.76	II	II .	11400	26000	28	330	3.2
19	480	2.2	75.40	"	II .	12600	26000	22.5	405	2.6
15	600	1.75	95.29	II .	"	14100	26000	18	500	2.1
12.5	710	1.5	115.4	BK50Z/DSE08XA4	98	14100	26000	15	590	1.8
9.2	940	1.1	153.3	"	"	14100	26000	11	790	1.35
6.8	1260	0.83	206.8	n n	"	14100	26000	8.2	1050	1.0
			200.0					0.2		
9.2	1140	2.0	153.7	BK60Z/DSE08XA4	121	16600	34000	11	950	2.4
7.7	1360	1.7	183.2	"		16600	34000	9.2	1140	2.0
6.9	1520	1.5	205.0	n .	II .	16600	34000	8.2	1280	1.8
5.9	1780	1.3	239.7	m .	II .	16600	34000	7.1	1470	1.55
5.3	1980	1.15	268.2	n .	"	16600	34000	6.3	1660	1.4
4.5	2300	1.13	317.7	п	"	16600	34000	5.3	1980	1.15
	2600			п	"	16600	34000			1.15
4.0	2000	0.88	355.5			10000	34000	4.8	2150	1.05
6.2	1690	3.1	226.2	BK70Z/DSE08XA4	210	24100	50000	7.5	1400	3.7
5.5	1910	2.7	257.3	BK/UZ/D3EU8XA4	210	24100	50000	6.6	1590	3.3
4.8		i i		п	11	24100	50000			
4.0	2150	2.4	293.3			24100	50000	5.8	1810	2.9

Selection - bevel geared motors DSE -IE1

P = 1.1 kW



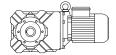
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
4.2	2500	2.1	333.6	BK70Z/DSE08XA4	"	24100	50000	5.1	2050	2.5
3.7	2800	1.85	379.9	ıı .	"	24100	50000	4.5	2300	2.3
3.3	3150	1.65	432.1	ıı .	"	24100	50000	3.9	2650	1.95
2.8	3750	1.4	501.8	"	"	24100	50000	3.4	3050	1.7
2.5	4200	1.25	570.8	"	"	24100	50000	3.0	3500	1.5
2.2	4750	1.1	644.9	"	"	24100	50000	2.7	3850	1.35
2.0	5200	1.0	733.6	"	"	24100	50000	2.3	4550	1.15
1.7	5800	0.98	847.7	BK70G20/DSE08XA4	207	24100	50000	2.0	4850	1.2
1.5	6500	0.88	964.6	"	"	24100	50000	1.8	5400	1.05
				DV00G40 /DGT00V44	2.40	20000	75000	2.0	2000	2.0
2.4	3600	3.2	607.8	BK80G40/DSE08XA4	349	30000	75000	2.8	3000	3.8
2.1	4150	2.8	680.9	"	"	30000	75000	2.5	3350	3.4
1.9	4700	2.4	756.3			30000	75000	2.3	3700	3.1
1.7	5200	2.2	847.2	"	"	30000	75000	2.0	4300	2.7
1.5	6100	1.9	963.0	"	"	30000	75000	1.8	4900	2.3
1.3	7000	1.65	1079		"	30000	75000	1.6	5500	2.1
1.1	8500	1.35	1307	"	"	30000	75000	1.3	7000	1.65
1.0	9300	1.25	1425	"	"	30000	75000	1.2	7500	1.55
0.9	10400	1.1	1583	II .	"	30000	75000	1.1	8300	1.4
1.4	6100	2.0	1000	BK00CE0 /DCE00VAA	622	40400	120000	1 7	4000	2.0
1.4	6100	3.0	1008	BK90G50/DSE08XA4	622	49400	120000	1.7	4800	3.9
1.3	6500	2.8	1127	"	"	49400	120000	1.5	5400	3.4
1.1	8300	2.2	1363		"	49400	120000	1.3	6800	2.7
0.9	10100	1.85	1579		"	49400	120000	1.1	8000	2.3
0.8	11400	1.6	1803	"	"	49400	120000	0.95	9300	2.0
0.7	13000	1.4	2016	"	"	49400	120000	0.85	10400	1.8
0.55	16900	1.1	2764	"	"	49400	120000	0.65	14000	1.3

P = 1.5 kW

P = 1.	<u> SKW</u>									
	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
320	41	2.3	4.44	BK10/DSE09LA4	36	1890	-	390	33.5	2.8
240	54	1.95	6.02	ıı .	II .	2100	-	285	46	2.3
185	71	1.6	7.68	ıı .	II .	2400	-	225	58	2.0
152	86	1.35	9.40	"	"	2700	-	182	72	1.6
133	96	1.9	10.70	"	"	3500	-	160	80	2.3
120	109	1.05	11.93	"	II .	3100	-	144	91	1.25
98	131	1.55	14.50	"	"	3900	-	118	109	1.85
84	153	0.89	16.92	ıı .	"	3700	-	102	126	1.1
77	167	1.2	18.52	ıı .	"	4300	-	93	138	1.45
63	200	1.0	22.65	II	"	4650	-	76	169	1.2
180	73	3.2	7.91	BK20/DSE09LA4	46	1330	7600	220	59	3.9
144	91	2.5	9.91	"	"	1910	8300	173	76	3.0
128	100	3.0	11.14	"	"	3300	8100	154	83	3.6
122	108	2.1	11.69	"	"	2400	8800	147	89	2.6
97	132	2.5	14.75	· ·	"	3650	9000	116	111	3.0
82	158	1.45	17.42	"	"	3250	9000	99	131	1.75
74	174	1.9	19.39	ıı .	"	4050	9000	89	144	2.3
59	215	1.55	24.29	"	"	4500	9000	71	181	1.8
50	255	1.3	28.66	ıı .	II .	4850	9000	60	210	1.55
39	330	1.0	36.69	ıı .	II .	5400	9000	47	270	1.2
33.5	380	0.87	42.70	II	"	5800	9000	40.5	315	1.05
120	109	2.9	11.93	BK30/DSE09LA4	52	3650	12000	144	91	3.5
102	127	2.5	13.98	ıı .	"	4050	12000	123	105	3.0
80	161	2.8	17.95	"	"	5300	12000	96	134	3.4
69	188	1.7	20.85	"	"	5000	12000	83	157	2.0
62	205	2.2	23.20	ıı .	II .	5900	12000	74	174	2.6
49.5	260	1.75	28.76	"	II .	6500	12000	60	210	2.1
42.5	300	1.5	33.70	"	II .	7000	12000	51	250	1.8
33.5	380	1.2	42.89	п	II .	7800	12000	40	315	1.45
28.5	440	1.0	50.27	"	II .	8300	12000	34.5	365	1.25
24	520	0.87	59.27	II .	"	8900	12000	29	430	1.05

Selection - bevel geared motors DSE -IE1

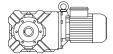
P = 1.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		71		1114	11.0	n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm	-			kg	N	N	1/min	Nm	
50	255	3.1	28.59	BK40/DSE09LA4	72	6300	17000	60	210	3.7
41.5	310	2.5	34.61	п	"	6900	17000	49.5	260	3.0
35	365	2.1	40.88	n n	"	7600	17000	42	305	2.6
28	450	1.75	51.18	n n	"	8400	17000	33.5	375	2.1
24	520	1.5	59.66	"	"	9100	17000	29	430	1.8
20.5	600	1.3	70.11	n n	"	9800	17000	24.5	500	1.55
17	730	1.05	84.36	"	"	10700	17000	20.5	600	1.3
14	860	0.91	104.0	"	"	11700	17000	16.5	730	1.05
12.5	970	0.8	118.2	BK40Z/DSE09LA4	76	11700	17000	14.5	830	0.94
40.5	315	3.3	35.21	BK50/DSE09LA4	100	8700	23100	49	260	4.0
30	420	2.5	47.50	"	"	10100	25700	36	350	3.0
23.5	530	2.0	60.76	"	"	11400	26000	28.5	440	2.4
19	650	1.6	75.40		"	12600	26000	23	540	1.95
15	820	1.3	95.29			14100	26000	18	680	1.55
12.5	970	1.1	115.4	BK50Z/DSE09LA4	105	14100	26000	15	810	1.3
9.3	1270	0.83	153.3	-		14100	26000	11.5	1030	1.0
18.5	770	3.0	78.13	BK60/DSE09LA4	109	11900	34000	22	650	3.5
16.5	860	2.7	87.41	"	"	12900	34000	20	710	3.2
14.5	980	2.3	101.2	m .	ıı	13900	34000	17	840	2.7
13	1100	2.1	113.2	TI .	II .	15000	34000	15.5	920	2.5
12	1190	1.95	122.5	m .	"	15500	34000	14	1020	2.3
10.5	1360	1.7	137.0	n .	"	16600	34000	12.5	1140	2.0
9.3	1540	1.5	153.7	BK60Z/DSE09LA4	128	16600	34000	11.5	1240	1.85
7.8	1830	1.25	183.2	" "	120	16600	34000	9.4	1520	1.55
7.0	2000	1.15	205.0	п	"	16600	34000	8.4	1700	1.35
6.0	2350	0.98	239.7	m .	"	16600	34000	7.2	1980	1.15
5.3	2700	0.85	268.2	m .	11	16600	34000	6.4	2200	1.05
	2,00	0.05	200.2			10000	3 1000	0.1	2200	1.05
8.1	1760	3.0	175.7	BK70/DSE09LA4	195	24100	50000	9.8	1460	3.6
7.5	1910	2.7	190.4	BK70Z/DSE09LA4	216	24100	50000	9.0	1590	3.3
6.3	2250	2.3	226.2	n n	"	24100	50000	7.6	1880	2.8
5.6	2550	2.0	257.3	"	"	24100	50000	6.7	2100	2.5
4.9	2900	1.8	293.3	"	"	24100	50000	5.9	2400	2.2
4.3	3300	1.6	333.6	"	"	24100	50000	5.2	2750	1.9
3.8	3750	1.4	379.9	"	"	24100	50000	4.6	3100	1.7
3.3	4300	1.2	432.1		"	24100	50000	4.0	3550	1.45
2.9	4900	1.05	501.8	"	"	24100	50000	3.5	4050	1.3
2.5	5700	0.91	570.8	"	"	24100	50000	3.0	4750	1.1
2.3	6200	0.84	644.9		"	24100	50000	2.7	5300	0.98
3.7	3850	3.0	389.0	BK80Z/DSE09LA4	345	30000	75000	4.4	3250	3.5
3.3	4300	2.7	435.7	BR802/D3L09LA4	J4J	30000	75000	4.0	3550	3.2
2.9	4900	2.3	499.5	п	"	30000	75000	3.5	4050	2.8
2.6	5500	2.1	559.5	n .	11	30000	75000	3.1	4600	2.5
2.4	5200	2.2	607.8	BK80G40/DSE09LA4	356	30000	75000	2.9	4150	2.8
2.1	5900	1.95	680.9	"	"	30000	75000	2.6	4650	2.5
1.9	6700	1.7	756.3	m .	11	30000	75000	2.3	5400	2.1
1.7	7500	1.55	847.2	II.	11	30000	75000	2.1	5900	1.95
1.5	8600	1.35	963.0	n	"	30000	75000	1.8	7000	1.65
1.4	9200	1.25	1079	n n	"	30000	75000	1.6	7900	1.45
1.1	12000	0.96	1307	п	II	30000	75000	1.4	9200	1.25
1.0	13100	0.88	1425	"	II .	30000	75000	1.2	10700	1.05
2.3	6200	3.0	637.7	BK90Z/DSE09LA4	618	49400	120000	2.7	5300	3.5
2.0	7100	2.6	713.5	"	"	49400	120000	2.4	5900	3.1
1.8	6600	2.8	821.0	BK90G50/DSE09LA4	629	49400	120000	2.1	5400	3.4
1.7	7200	2.6	882.3	"	"	49400	120000	2.0	5900	3.1
1.5	8100	2.3	1008	"	"	49400	120000	1.7	7000	2.6
1.3	9500	1.95	1127	"	"	49400	120000	1.6	7400	2.5
1.1	11800	1.55	1363	"	"	49400	120000	1.3	9800	1.9
0.9	14400	1.3	1579	"	"	49400	120000	1.1	11500	1.6
0.8	16100	1.15	1803	"	"	49400	120000	0.95	13300	1.4
0.75	17100	1.1	2016	II .	"	49400	120000	0.85	14900	1.25

Selection - bevel geared motors DSE -IE1

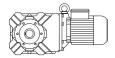
P = 2.2 kW



No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No.		50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
200 60	n ₂	M ₂	f _B								$f_{\scriptscriptstyle B}$
186	1/min	Nm				kg		N		Nm	
185								-			
182								-			
133								-			
98 192 1.05 14.50 " " 3900 - 118 1600 1.25 " 300 1.0 1315 61 3.2 4.54 8K20/DSE99X44 50 50 520 6100 380 50 3.9 130 180 107 2.2 7.91 " " 580 6800 285 67 3.3 140 177 2.2 17.91 " " 1910 8300 173 111 2.1 128 147 2.0 11.14 " " 33300 8100 154 122 2.5 122 158 1.45 11.69 " " 2.400 8800 173 111 2.2 1.5 122 158 1.45 11.69 " " 2.400 8800 173 111 2.2 1.5 122 158 1.3 13.0 8100 174 122 2.5 122 158 1.3 13.0 8100 174 122 2.5 122 158 1.3 13.0 8100 174 122 2.5 122 158 1.3 13.0 8100 174 122 2.5 122 158 1.3 13.0 8100 174 122 2.5 122 158 1.3 13.0 8100 174 122 2.5 122 158 1.3 13.0 8100 180 180 187 187 187 187 187 187 187 187 187 187											
77 245 0.62 1852 " " 4300 - 93 100 1.0 315 61 3.2 4.54 BK20/DSE09XA4 50 50 520 6100 380 67 3.3 316 01 107 2.2 7.91 " " 580 6800 285 67 3.3 180 107 2.2 7.91 " " 1330 7600 220 87 2.7 181 134 1.7 9.91 " " 1910 8300 173 111 2.1 122 158 1.45 11.69 " " 2400 8800 147 131 1.7 123 124 158 1.45 11.69 " " 2400 8800 147 131 1.7 32 230 1.0 17.42 " " 3500 900 116 163 2.0 32 30 1.0 17.42 " " 3250 9000 99 193 1.2 35 320 1.0 5 24.29 " " 4050 9000 88 210 153 1.25 35 320 1.0 5 24.29 " " 4050 9000 71 265 1.25 35 35 30 1.0 5 24.29 " " 4050 9000 71 265 1.25 30 375 0.88 28.66 " 4850 9000 71 265 1.25 30 375 0.88 28.66 " " 4850 9000 00 116 163 2.0 315 10 2.7 745 " " 1690 9600 285 67 3.2 181 101 2.7 745 " " 1550 880 365 50 000 123 15 1.05 312 101 2.7 745 " " 1520 110 12.7 745 113 150 180 150 180 150 150 180 150 150 150 150 150 150 150 150 150 15											
15											
240	//	245	0.82	18.52	-		4300	-	93	200	1.0
240	215	61	2.2	151	BK30- /DSE00XA4	50	520	6100	380	50	3.0
180											
144					m .	ш					
128					n .	II .					
122 158 1.45 11.69 " " 2400 8800 147 131 1.75 174 125 1.75 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82 1.82					· ·	"					
97 194 1.7 14.75 " " 3650 9000 116 163 2.0 74 255 1.3 19.39 " " 4500 9000 89 210 1.55 75 320 1.0 5 24.29 " " 4500 9000 89 210 1.55 75 320 1.0 5 24.29 " " 4500 9000 60 315 1.55 75 320 1.0 5 24.29 " " 4850 9000 60 315 1.05 805 63 3.1 4.73 BK30/DSE09XA4 56 1550 8800 365 52 3.7 191 101 2.7 7.45 " " 1690 9600 285 67 3.2 191 101 2.7 7.45 " " 1500 1400 230 84 3.2 112 151 2.7 11.39 " " 3150 11500 1150 178 112 151 2.7 11.39 " " 4150 1100 151 125 3.3 1120 161 2.0 11.93 " " 4150 1100 151 125 3.3 1120 161 2.0 11.93 " " 4450 1200 143 142 2.3 1120 187 1.7 13.98 " " 4900 1200 118 160 2.8 80 235 1.9 17.95 " " 5300 12000 96 196 2.3 80 235 1.9 17.95 " " 5300 12000 96 196 2.3 80 235 1.9 17.95 " " 5300 12000 174 255 1.75 80 235 1.9 1.2 2.2 3 1.3 1.5 2.8 " " 5000 12000 120 131 150 125 80 235 1.9 1.75 20.85 " " 5000 12000 120 131 150 124 84.5 380 1.2 2.876 " " 5000 12000 174 255 1.75 84.5 380 1.2 2.876 " " 5000 12000 174 255 1.75 84.5 380 1.2 2.876 " " 5000 12000 174 255 1.75 84.5 380 1.2 2.876 " " 5000 12000 151 370 1.2 120 161 3.1 11.86 BK40/DSE09XA4 76 1770 12200 145 133 3.7 79 235 3.3 18.05 " " 5000 12000 60 315 1.45 42.5 440 1.0 33.70 " " 7800 12000 151 370 1.2 120 161 3.1 11.86 BK40/DSE09XA4 76 1770 12200 145 133 3.7 84 295 2.6 22.44 " " 5500 12000 60 315 1.55 120 3.5 550 0.82 42.89 " " 7800 12000 42 45 0.97 120 161 3.1 17.92 BK50/DSE09XA4 76 1770 12200 145 133 3.7 120 161 3.1 1.86 BK40/DSE09XA4 76 1770 12200 145 133 3.7 120 161 3.1 1.86 BK40/DSE09XA4 104 4600 16800 96 199 3.9 120 120 120 120 120 120 120 120 120 120					п	II .					
220			1.7	14.75	п	II .			116		
59 320 1.05 24.29 " " 4500 9000 71 265 1.25 305 63 3.1 473 BK30/DSE09XA4 56 1550 8800 365 52 3.7 240 80 2.7 602 " " 1690 9600 265 67 3.2 191 101 2.7 745 " " 2200 10400 230 84 3.2 188 130 2.5 9.63 " " 3150 11500 178 108 3.0 120 161 2.0 11.39 " " 4150 11000 151 125 3.3 102 187 1.7 13.39 " " 4150 1200 124 13.2 102 187 1.7 13.39 " " 4050 1200 123 155 2.1 80 2.2	82	230	1.0	17.42	m .	"	3250	9000	99	193	1.2
50 375 0.88 28.66 " " 4850 9000 60 315 1.05 305 63 3.1 4.73 BK30-,/DSE09XA4 56 1550 8800 365 52 3.7 191 101 2.7 745 " " 1690 9600 285 67 3.2 191 101 2.7 745 " " 2200 10400 230 84 3.2 148 130 2.5 963 " " 3150 1150 178 108 3.0 120 161 2.0 11.39 " 4150 11000 151 125 3.3 120 161 2.0 11.39 " 4050 12000 124 418 2.4 102 187 3.8 " " 4050 12000 123 155 2.1 80 235 1.9 1.75			1.3	19.39				9000			1.55
305 63 3.1 4.73 BK30/DSE09XA4 56 1550 8800 365 52 3.7 240 80 2.7 6.02 " " 1690 9600 285 67 3.2 191 101 2.7 7.45 " " 2200 10400 230 884 3.2 1188 130 2.5 9.63 " " 3150 11500 178 108 3.0 1125 151 2.7 11.39 " " 4150 11000 151 125 3.3 1120 161 2.0 11.93 " " 4050 12000 144 134 2.4 1102 187 1.7 13.98 " " 4050 12000 123 185 2.1 1102 187 1.7 13.98 " " 4050 12000 123 155 2.1 1103 187 1.7 13.98 " " 4050 12000 123 155 2.1 1104 187 1.7 13.98 " " 5000 12000 183 160 2.8 1105 235 1.9 17.95 " " 5300 12000 96 196 2.3 1106 23 300 1.5 23.20 " " 5500 12000 60 31 5 1.45 1105 42.5 440 1.0 33.70 " " 5000 12000 183 230 1.4 1105 142.5 440 1.0 33.70 " " 7000 12000 10 33 23 1.4 1106 161 3.1 11.86 BK40/DSE09XA4 76 1770 12200 145 133 3.7 1106 161 3.1 11.86 BK40/DSE09XA4 76 1770 12200 145 133 3.7 1107 120 161 3.1 11.86 BK40/DSE09XA4 76 1770 12200 145 133 3.7 1105 161 3.1 11.86 BK40/DSE09XA4 104 4600 1600 1500 1700 1700 1700 1700 1700 1700 17		320	1.05	24.29			4500	9000		265	1.25
240 80 2.7 6.02 " " 1690 9600 285 67 3.2 191 101 2.7 7.45 " " 2200 10400 230 84 3.2 148 130 2.5 9.63 " " 3150 11500 178 108 3.0 125 151 2.7 11.39 " " 4150 11000 151 125 3.3 120 161 2.0 11.93 " " 4050 12000 124 134 2.4 102 187 1.7 13.98 " " 4050 12000 1200 123 155 2.1 198 192 2.3 14.50 " " 4900 12000 181 160 2.8 80 235 1.9 17.95 " " 5300 12000 96 196 2.3 69 275 1.15 20.85 " " 5000 12000 83 230 1.4 62 300 1.5 23.20 " " 5900 12000 60 315 145 42.5 440 1.0 33.70 " " 7000 1200 60 315 145 42.5 440 1.0 33.70 " " 7000 12000 51 370 1.2 33.5 550 0.82 42.89 " " 7000 12000 60 315 145 42.5 440 1.0 33.70 " " 7000 12000 51 370 1.2 33.5 550 0.82 42.89 " " 7800 12000 60 315 145 42.5 440 1.0 33.70 " " 7000 12000 60 315 145 42.5 440 1.0 33.70 " " 7000 12000 60 315 145 42.5 440 1.0 33.70 " " 7000 12000 60 315 145 42.5 440 1.0 33.70 " " 7000 12000 60 315 145 42.5 440 1.0 33.70 " " 7800 12000 60 315 145 42.5 440 1.0 33.70 " " 7800 12000 60 315 145 42.5 440 1.0 33.70 " " 9000 12000 60 315 145 42.5 440 1.0 33.70 " " 9000 12000 60 60 315 145 42.5 440 1.0 33.70 " " 9000 12000 60 315 145 42.5 440 1.0 33.70 " " 9000 12000 60 315 145 42.5 440 1.0 33.70 " " 9000 12000 60 315 145 42.5 440 1.0 33.70 " " 9000 12000 60 315 145 42.5 440 1.0 33.70 " " 9000 12000 60 315 145 42.5 440 1.0 50.6 " " 9000 17000 49.5 380 2.1 42.7 455 1.7 34.61 " " 9000 17000 49.5 380 2.1 42.7 70 1.0 59.66 " " 9100 17000 49.5 380 2.1 42.7 70 1.0 59.66 " " 9100 17000 49.5 380 2.1 42.7 70 1.0 59.66 " " 9100 17000 49.5 380 2.1 42.7 70 1.0 59.66 " " 11400 26000 8.5 640 1.65 54 350 3.0 26.51 " " 9800 17000 24.5 740 1.05 54 350 3.0 26.51 " " 9800 17000 24.5 740 1.05 54 350 30.0 26.51 " " 9800 17000 24.5 740 1.05 54 350 30.0 26.51 " " 14100 26000 88 5.27 58 550 2.7 88.95 " " 11400 26000 88 5.27 58 550 2.7 88.95 " " 11400 26000 88 5.27 58 550 2.7 88.95 " " 11400 26000 18 1000 1.55 18.5 1200 1.8 87.41 " " 1200 34000 15.5 1350 1.7 18.5 1200 1.8 87.41 " " 1200 34000 15.5 1350 1.7 18.5 1200 1.8 87.41 " " 15000 34000 15.5 1350 1.7 18.5 1200 1.8 87.41 " " 15000 34000 15.5 1350 1.7 18.5	50	375	0.88	28.66	"	"	4850	9000	60	315	1.05
240 80 2.7 6.02 " " 1690 9600 285 67 3.2 191 101 2.7 7.45 " " 2200 10400 230 84 3.2 148 130 2.5 9.63 " " 3150 11500 178 108 3.0 125 151 2.7 11.39 " " 4150 11000 151 125 3.3 120 161 2.0 11.93 " " 4050 12000 124 134 2.4 102 187 1.7 13.98 " " 4050 12000 1200 123 155 2.1 198 192 2.3 14.50 " " 4900 12000 181 160 2.8 80 235 1.9 17.95 " " 5300 12000 96 196 2.3 69 275 1.15 20.85 " " 5000 12000 83 230 1.4 62 300 1.5 23.20 " " 5900 12000 60 315 145 42.5 440 1.0 33.70 " " 7000 1200 60 315 145 42.5 440 1.0 33.70 " " 7000 12000 51 370 1.2 33.5 550 0.82 42.89 " " 7000 12000 60 315 145 42.5 440 1.0 33.70 " " 7000 12000 51 370 1.2 33.5 550 0.82 42.89 " " 7800 12000 60 315 145 42.5 440 1.0 33.70 " " 7000 12000 60 315 145 42.5 440 1.0 33.70 " " 7000 12000 60 315 145 42.5 440 1.0 33.70 " " 7000 12000 60 315 145 42.5 440 1.0 33.70 " " 7000 12000 60 315 145 42.5 440 1.0 33.70 " " 7800 12000 60 315 145 42.5 440 1.0 33.70 " " 7800 12000 60 315 145 42.5 440 1.0 33.70 " " 9000 12000 60 315 145 42.5 440 1.0 33.70 " " 9000 12000 60 60 315 145 42.5 440 1.0 33.70 " " 9000 12000 60 315 145 42.5 440 1.0 33.70 " " 9000 12000 60 315 145 42.5 440 1.0 33.70 " " 9000 12000 60 315 145 42.5 440 1.0 33.70 " " 9000 12000 60 315 145 42.5 440 1.0 33.70 " " 9000 12000 60 315 145 42.5 440 1.0 50.6 " " 9000 17000 49.5 380 2.1 42.7 455 1.7 34.61 " " 9000 17000 49.5 380 2.1 42.7 70 1.0 59.66 " " 9100 17000 49.5 380 2.1 42.7 70 1.0 59.66 " " 9100 17000 49.5 380 2.1 42.7 70 1.0 59.66 " " 9100 17000 49.5 380 2.1 42.7 70 1.0 59.66 " " 11400 26000 8.5 640 1.65 54 350 3.0 26.51 " " 9800 17000 24.5 740 1.05 54 350 3.0 26.51 " " 9800 17000 24.5 740 1.05 54 350 30.0 26.51 " " 9800 17000 24.5 740 1.05 54 350 30.0 26.51 " " 14100 26000 88 5.27 58 550 2.7 88.95 " " 11400 26000 88 5.27 58 550 2.7 88.95 " " 11400 26000 88 5.27 58 550 2.7 88.95 " " 11400 26000 18 1000 1.55 18.5 1200 1.8 87.41 " " 1200 34000 15.5 1350 1.7 18.5 1200 1.8 87.41 " " 1200 34000 15.5 1350 1.7 18.5 1200 1.8 87.41 " " 15000 34000 15.5 1350 1.7 18.5 1200 1.8 87.41 " " 15000 34000 15.5 1350 1.7 18.5											
191	1										
148											
125											
120											
102											
98 192 2.3 14.50 " 4900 12000 118 160 2.8 80 235 1.9 17.95 " 5000 12000 96 196 2.3 69 275 1.15 20.85 " 5000 12000 96 196 2.3 3.0 1.4 62 300 1.5 23.20 " 5000 12000 74 255 1.75 49.5 380 1.2 28.76 " 5000 12000 60 315 1.45 42.5 440 1.0 33.70 " 7000 12000 51 370 1.2 33.5 550 0.82 42.89 " 7000 12000 51 370 1.2 33.5 550 0.82 42.89 " 7000 12000 51 370 1.2 33.5 550 0.82 42.89 " 7000 12000 51 370 1.2 33.5 550 0.82 42.89 " 7000 12000 51 370 1.2 33.5 550 0.82 42.89 " 7000 12000 51 370 1.2 33.5 550 0.82 42.89 " 7000 12000 51 370 1.2 33.5 550 0.82 42.89 " 7000 12000 51 370 1.2 33.5 550 0.82 42.89 " 7000 12000 51 3300 95 199 3.9 64 295 2.6 22.44 " 700 1500 1500 95 199 3.9 164 295 2.6 22.44 " 700 1500 1500 97 245 3.2 41.5 455 1.7 34.61 " 7500 16500 77 245 3.2 50 375 2.1 28.59 " 7500 16500 77 245 3.2 50 375 2.1 28.59 " 7500 16500 77 245 3.2 50 375 2.1 28.59 " 7500 16500 77 245 3.2 50 375 2.1 28.59 " 7500 1000 1000 1000 1000 1000 1000 1000	1										
80	1				n .	"					
69					п	"					
62 300 1.5 23.20 " " 5900 12000 74 255 1.75 49.5 380 1.2 28.76 " " 6500 12000 60 315 1.45 42.5 440 1.0 33.70 " " 7800 12000 40 465 0.97 120 161 3.1 11.86 BK40/DSE09XA4 76 1770 12200 145 133 3.7 79 235 3.3 18.05 " " 4900 15300 95 199 3.9 64 295 2.6 2.244 " " 5500 16500 77 245 3.2 50 375 2.1 28.59 " " 6300 17000 495 380 2.1 41.5 45.5 1.7 34.61 " " 900 17000 495 380 2.1 24					m .	II .					i
49.5 380 1.2 28.76 " " 6500 12000 60 315 1.45 42.5 440 1.0 33.70 " " 7000 12000 51 370 1.2 33.5 550 0.82 42.89 " " 7800 12000 40 465 0.97 120 161 3.1 11.86 BK40/DSE09XA4 76 1770 12200 145 133 3.7 79 235 3.3 18.05 " " 4900 15300 95 199 3.9 64 295 2.6 22.44 " " 5500 16500 77 245 3.2 50 375 2.1 28.59 " " 6300 17000 60 315 2.5 41.5 455 1.7 34.61 " " 6900 17000 49.5 380 2.1 35 540 1.45 40.88 " " 7600 17000 49.5 380 2.1 35 540 1.45 40.88 " " 7600 17000 42 450 1.75 28 660 1.2 51.18 " " 8400 17000 33.5 550 1.4 24 770 1.0 59.66 " " 9100 17000 29 630 1.25 20.5 890 0.88 70.11 " " 9800 17000 24.5 740 1.05 80 235 3.1 17.92 BK50/DSE09XA4 104 4600 16800 96 199 3.6 54 350 3.0 26.51 " " 7800 2100 65 290 3.6 40.5 465 2.3 35.21 " 8700 2100 65 290 3.6 40.5 465 2.3 35.21 " 8700 2100 65 290 3.6 40.5 465 2.3 35.21 " 8700 2100 65 290 3.6 40.5 465 2.3 35.21 " 8700 2100 28.5 640 1.65 19 960 1.1 75.40 " 11400 26000 28.5 640 1.65 19 960 1.1 75.40 " 11400 26000 28.5 640 1.65 19 960 1.1 75.40 " 11400 26000 28.5 640 1.65 19 960 1.1 75.40 " 11400 26000 28.5 640 1.65 19 960 1.1 75.40 " 11400 26000 29 70 1.35 15 1200 0.88 95.29 " 11900 33000 26 800 2.9 18.5 130 2.0 78.13 " 1900 34000 12 955 710 3.2 24.5 850 2.7 58.95 " 1900 34000 17 1230 1.85 15 1200 0.88 87.41 " 1900 34000 15.5 1350 1.7 12 1750 1.3 122.5 " 1500 34000 17.5 1350 1.7 12 1750 1.3 122.5 " 1500 34000 17.5 1350 1.7 12 1750 3.0 120.2 BK70/DSE09XA4 199 18600 5000 14.5 1440 3.6					m .	ш					
42.5 440 1.0 33.70 " " 7000 12000 51 370 1.2 33.5 550 0.82 42.89 " " 7800 12000 40 465 0.97 120 161 3.1 11.86 BK40/DSE09XA4 76 1770 12200 145 133 3.7 79 235 3.3 18.05 " " 4900 15300 95 199 3.9 64 295 2.6 22.44 " " 5550 16500 77 245 3.2 50 375 2.1 28.59 " " 6300 17000 60 315 2.5 41.5 455 1.7 34.61 " " 6900 17000 49.5 380 2.1 35 540 1.45 40.88 " " 7600 17000 49.5 380 2.1 35 660 1.2 51.18 " " 8400 17000 33.5 550 1.4 24 770 1.0 59.66 " " 9100 17000 29 630 1.25 20.5 890 0.88 70.11 " " 9800 17000 24.5 740 1.05 80 235 3.1 17.92 BK50/DSE09XA4 104 4600 16800 96 199 3.6 40.5 465 2.3 35.21 " 8700 2100 65 290 3.6 40.5 465 2.3 35.21 " 8700 2100 65 290 3.6 40.5 465 2.3 35.21 " 8700 2100 65 290 3.6 40.5 465 2.3 35.21 " 8700 23100 49 385 2.7 30 620 1.7 47.50 " 1010 25700 36 510 2.1 31.7 5.40 " 11.7 5.40 " 11.00 26000 28.5 640 1.65 19 960 1.1 75.40 " 11.00 26000 28.5 640 1.65 19 960 1.1 75.40 " 11.00 26000 28.5 640 1.65 19 960 1.1 75.40 " 11.00 26000 28.5 640 1.65 19 960 1.1 75.40 " 11.00 26000 28.5 640 1.65 19 960 1.1 75.40 " 11.00 26000 28.5 640 1.65 19 960 1.1 75.40 " 11.00 26000 28.5 640 1.65 19 960 1.1 75.40 " 11.00 26000 28.5 640 1.65 19 960 1.1 75.40 " 11.00 26000 29.5 710 3.2 24.5 850 2.7 58.95 " 11.00 34000 22 950 2.4 18.5 1130 2.0 78.13 " 11.00 34000 22 950 2.4 18.5 1130 2.0 78.13 " 11.00 34000 12.5 1350 1.7 18.5 1130 1.0 1.8 87.41 " 11.00 34000 12.5 1350 1.7 19.1 1500 3.0 120.2 BK602/DSE09XA4 132 16600 34000 17.5 1350 1.7 10.5 2000 1.15 137.0 " 15000 34000 15.5 1350 1.7 10.5 2000 1.15 137.0 " 15000 34000 15.5 1350 1.7 10.5 2000 1.15 137.0 " 15000 34000 15.5 1350 1.7 12 1750 3.0 120.2 BK70/DSE09XA4 199 18600 50000 14.5 1440 3.6					· ·	"					
33.5 550 0.82 42.89 " " 7800 12000 40 465 0.97			1		m .	II .					
120					п	ıı					
79											
19	1		3.1	11.86							
\$\begin{array}{c c c c c c c c c c c c c c c c c c c											
41.5	-										
1.5											
28 660 1.2 51.18 " " 8400 17000 33.5 550 1.4 24 770 1.0 59.66 " " 9100 17000 29 630 1.25 20.5 890 0.88 70.11 " " 9800 17000 24.5 740 1.05 80 235 3.1 17.92 BK50/DSE09XA4 104 4600 16800 96 199 3.6 54 350 3.0 26.51 " " 7800 21200 65 290 3.6 40.5 465 2.3 35.21 " " 8700 23100 49 385 2.7 30 620 1.7 47.50 " " 10100 25700 36 510 2.1 23.5 780 1.35 60.76 " " 11400 26000 28.5 640 1.65 19 960 1.1 75.40 " " 12600 26000 23											
24 770 1.0 59.66 " " 9100 17000 29 630 1.25 20.5 890 0.88 70.11 " " 9800 17000 24.5 740 1.05 80 235 3.1 17.92 BK50/DSE09XA4 104 4600 16800 96 199 3.6 54 350 3.0 26.51 " " 7800 21200 65 290 3.6 40.5 465 2.3 35.21 " " 8700 23100 49 385 2.7 30 620 1.7 47.50 " " 10100 25700 36 510 2.1 23.5 780 1.35 60.76 " " 11400 26000 28.5 640 1.65 19 960 1.1 75.40 " " 12600 26000 23 790 1.35 15 1200 0.88 95.29 " " 14100 26000 18											
20.5 890 0.88 70.11 " 9800 17000 24.5 740 1.05 80 235 3.1 17.92 BK50/DSE09XA4 104 4600 16800 96 199 3.6 54 350 3.0 26.51 " 7800 21200 65 290 3.6 40.5 465 2.3 35.21 " 8700 23100 49 385 2.7 30 620 1.7 47.50 " 10100 25700 36 510 2.1 23.5 780 1.35 60.76 " 11400 26000 28.5 640 1.65 19 960 1.1 75.40 " 12600 26000 23 790 1.35 15 1200 0.88 95.29 " 14100 26000 18 1000 1.05 28.5 730 3.2 50.40 BK60/DSE09XA4 113 9100 29800 34 610 3.8 24.5 850 2.7 58.95 " 9900 31500 29.5 710 3.2 22 950 2.4 65.95 " 10900 33000 26 800 2.9 18.5 1130 2.0 78.13 " 11900 34000 22 950 2.4 16.5 1270 1.8 87.41 " 12900 34000 20 1050 2.2 14.5 1440 1.6 101.2 " 13900 34000 15.5 1350 1.7 12 1750 1.3 122.5 " 15500 34000 14 1500 1.55 10.5 2000 1.15 137.0 " 15500 34000 12.5 1680 1.35 9.3 2250 1.0 153.7 BK602/DSE09XA4 132 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " 16600 34000 11.5 1820 1.25											1
80 235 3.1 17.92 BK50/DSE09XA4 104 4600 16800 96 199 3.6 54 350 3.0 26.51 " " 7800 21200 65 290 3.6 40.5 465 2.3 35.21 " 8700 23100 49 385 2.7 30 620 1.7 47.50 " " 10100 25700 36 510 2.1 23.5 780 1.35 60.76 " " 11400 26000 28.5 640 1.65 19 960 1.1 75.40 " " 12600 26000 28.5 640 1.65 15 1200 0.88 95.29 " " 14100 26000 18 1000 1.05 28.5 730 3.2 50.40 BK60/DSE09XA4 113 9100 29800 34 610 3.8 24.5 850 2.7 58.95											
54 350 3.0 26.51 " " 7800 21200 65 290 3.6 40.5 465 2.3 35.21 " " 8700 23100 49 385 2.7 30 620 1.7 47.50 " " 10100 25700 36 510 2.1 23.5 780 1.35 60.76 " " 11400 26000 28.5 640 1.65 19 960 1.1 75.40 " " 12600 26000 23 790 1.35 15 1200 0.88 95.29 " " 14100 26000 18 1000 1.05 28.5 730 3.2 50.40 BK60/DSE09XA4 113 9100 29800 34 610 3.8 24.5 850 2.7 58.95 " " 9900 31500 29.5 710 3.2 22 950 2.4 65.95 " " 10900 33000 26 <th>20.5</th> <th>890</th> <th>0.00</th> <th>70.11</th> <th></th> <th></th> <th>9600</th> <th>17000</th> <th>24.3</th> <th>740</th> <th>1.03</th>	20.5	890	0.00	70.11			9600	17000	24.3	740	1.03
54 350 3.0 26.51 " " 7800 21200 65 290 3.6 40.5 465 2.3 35.21 " " 8700 23100 49 385 2.7 30 620 1.7 47.50 " " 10100 25700 36 510 2.1 23.5 780 1.35 60.76 " " 11400 26000 28.5 640 1.65 19 960 1.1 75.40 " " 12600 26000 23 790 1.35 15 1200 0.88 95.29 " " 14100 26000 18 1000 1.05 28.5 730 3.2 50.40 BK60/DSE09XA4 113 9100 29800 34 610 3.8 24.5 850 2.7 58.95 " " 9900 31500 29.5 710 3.2 22 950 2.4 65.95 " " 10900 33000 26 <th>80</th> <th>235</th> <th>3.1</th> <th>17 92</th> <th>BK50- /DSF09XA4</th> <th>104</th> <th>4600</th> <th>16800</th> <th>96</th> <th>199</th> <th>3.6</th>	80	235	3.1	17 92	BK50- /DSF09XA4	104	4600	16800	96	199	3.6
40.5 465 2.3 35.21 " " 8700 23100 49 385 2.7 30 620 1.7 47.50 " " 10100 25700 36 510 2.1 23.5 780 1.35 60.76 " " 11400 26000 28.5 640 1.65 19 960 1.1 75.40 " " 12600 26000 23 790 1.35 15 1200 0.88 95.29 " " 14100 26000 18 1000 1.05 28.5 730 3.2 50.40 BK60/DSE09XA4 113 9100 29800 34 610 3.8 24.5 850 2.7 58.95 " " 9900 31500 29.5 710 3.2 22 950 2.4 65.95 " " 10900 33000 26 800 2.9 18.5 1130 2.0 78.13 " " 11900 34000 20											
30 620 1.7 47.50 " " 10100 25700 36 510 2.1 23.5 780 1.35 60.76 " " 11400 26000 28.5 640 1.65 19 960 1.1 75.40 " " 12600 26000 23 790 1.35 15 1200 0.88 95.29 " " 14100 26000 18 1000 1.05 28.5 730 3.2 50.40 BK60/DSE09XA4 113 9100 29800 34 610 3.8 24.5 850 2.7 58.95 " " 9900 31500 29.5 710 3.2 22 950 2.4 65.95 " " 10900 33000 26 800 2.9 18.5 1130 2.0 78.13 " " 11900 34000 22 950 2.4 16.5 1270 1.8 87.41 " " 12900 34000					m .	II .					2.7
23.5 780 1.35 60.76 " " 11400 26000 28.5 640 1.65 19 960 1.1 75.40 " " 12600 26000 23 790 1.35 15 1200 0.88 95.29 " " 14100 26000 18 1000 1.05 28.5 730 3.2 50.40 BK60/DSE09XA4 113 9100 29800 34 610 3.8 24.5 850 2.7 58.95 " " 9900 31500 29.5 710 3.2 22 950 2.4 66.95 " " 10900 33000 26 800 2.9 18.5 1130 2.0 78.13 " " 11900 34000 22 950 2.4 16.5 1270 1.8 87.41 " " 12900 34000 17 1230 1.85 13 1610 1.45 113.2 " " 13900 34000					· ·	"					
19 960 1.1 75.40 " " 12600 26000 23 790 1.35 15 1200 0.88 95.29 " " 14100 26000 18 1000 1.05 28.5 730 3.2 50.40 BK60/DSE09XA4 113 9100 29800 34 610 3.8 24.5 850 2.7 58.95 " " 9900 31500 29.5 710 3.2 22 950 2.4 65.95 " " 10900 33000 26 800 2.9 18.5 1130 2.0 78.13 " " 11900 34000 22 950 2.4 16.5 1270 1.8 87.41 " " 12900 34000 20 1050 2.2 14.5 1440 1.6 101.2 " " 13900 34000 17 1230 1.85 12 1750 1.3 122.5 " " " 15000 340					п	"					
28.5 730 3.2 50.40 BK60/DSE09XA4 113 9100 29800 34 610 3.8 24.5 850 2.7 58.95 " 9900 31500 29.5 710 3.2 22 950 2.4 65.95 " 10900 33000 26 800 2.9 18.5 1130 2.0 78.13 " 11900 34000 22 950 2.4 16.5 1270 1.8 87.41 " 12900 34000 20 1050 2.2 14.5 1440 1.6 101.2 " 13900 34000 17 1230 1.85 13 1610 1.45 113.2 " 15000 34000 15.5 1350 1.7 12 1750 1.3 122.5 " 15500 34000 14 1500 1.55 10.5 2000 1.15 137.0 " 16600 34000 12.5 1680 1.35 9.3 2250 1.0 153.7 BK60Z/DSE09XA4 132 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " 16600 34000 9.4 2200 1.05	19	960		75.40	n n	"	12600	26000	23	790	1.35
24.5 850 2.7 58.95 " " 9900 31500 29.5 710 3.2 22 950 2.4 65.95 " " 10900 33000 26 800 2.9 18.5 1130 2.0 78.13 " " 11900 34000 22 950 2.4 16.5 1270 1.8 87.41 " " 12900 34000 20 1050 2.2 14.5 1440 1.6 101.2 " " 13900 34000 17 1230 1.85 13 1610 1.45 113.2 " " 15000 34000 15.5 1350 1.7 12 1750 1.3 122.5 " " 15500 34000 14 1500 1.55 10.5 2000 1.15 137.0 " " 16600 34000 12.5 1680 1.35 9.3 2250 1.0 153.7 BK60Z/DSE09XA4 132 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " " 16600 34000 9.4 <td< th=""><th>15</th><th>1200</th><th>0.88</th><th>95.29</th><th>"</th><th>II .</th><th>14100</th><th>26000</th><th>18</th><th>1000</th><th>1.05</th></td<>	15	1200	0.88	95.29	"	II .	14100	26000	18	1000	1.05
24.5 850 2.7 58.95 " " 9900 31500 29.5 710 3.2 22 950 2.4 65.95 " " 10900 33000 26 800 2.9 18.5 1130 2.0 78.13 " " 11900 34000 22 950 2.4 16.5 1270 1.8 87.41 " " 12900 34000 20 1050 2.2 14.5 1440 1.6 101.2 " " 13900 34000 17 1230 1.85 13 1610 1.45 113.2 " " 15000 34000 15.5 1350 1.7 12 1750 1.3 122.5 " " 15500 34000 14 1500 1.55 10.5 2000 1.15 137.0 " " 16600 34000 12.5 1680 1.35 9.3 2250 1.0 153.7 BK60Z/DSE09XA4 132 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " " 16600 34000 9.4 <td< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<>											
22 950 2.4 65.95 " " 10900 33000 26 800 2.9 18.5 1130 2.0 78.13 " " 11900 34000 22 950 2.4 16.5 1270 1.8 87.41 " " 12900 34000 20 1050 2.2 14.5 1440 1.6 101.2 " " 13900 34000 17 1230 1.85 13 1610 1.45 113.2 " " 15000 34000 15.5 1350 1.7 12 1750 1.3 122.5 " " 15500 34000 14 1500 1.55 10.5 2000 1.15 137.0 " " 16600 34000 12.5 1680 1.35 9.3 2250 1.0 153.7 BK60Z/DSE09XA4 132 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " " 16600 34000 9.4 2200 1.05 12											
18.5 1130 2.0 78.13 " " 11900 34000 22 950 2.4 16.5 1270 1.8 87.41 " " 12900 34000 20 1050 2.2 14.5 1440 1.6 101.2 " " 13900 34000 17 1230 1.85 13 1610 1.45 113.2 " " 15000 34000 15.5 1350 1.7 12 1750 1.3 122.5 " " 15500 34000 14 1500 1.55 10.5 2000 1.15 137.0 " " 16600 34000 12.5 1680 1.35 9.3 2250 1.0 153.7 BK60Z/DSE09XA4 132 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " " 16600 34000 9.4 2200 1.05 12 1750 3.0 120.2 BK70/DSE09XA4 199 18600 50000 14.5 1440 3.6											
16.5 1270 1.8 87.41 " " 12900 34000 20 1050 2.2 14.5 1440 1.6 101.2 " " 13900 34000 17 1230 1.85 13 1610 1.45 113.2 " " 15000 34000 15.5 1350 1.7 12 1750 1.3 122.5 " " 15500 34000 14 1500 1.55 10.5 2000 1.15 137.0 " " 16600 34000 12.5 1680 1.35 9.3 2250 1.0 153.7 BK60Z/DSE09XA4 132 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " " 16600 34000 9.4 2200 1.05 12 1750 3.0 120.2 BK70/DSE09XA4 199 18600 50000 14.5 1440 3.6											
14.5 1440 1.6 101.2 " " 13900 34000 17 1230 1.85 13 1610 1.45 113.2 " " 15000 34000 15.5 1350 1.7 12 1750 1.3 122.5 " " 15500 34000 14 1500 1.55 10.5 2000 1.15 137.0 " " 16600 34000 12.5 1680 1.35 9.3 2250 1.0 153.7 BK60Z/DSE09XA4 132 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " " 16600 34000 9.4 2200 1.05 12 1750 3.0 120.2 BK70/DSE09XA4 199 18600 50000 14.5 1440 3.6											
13 1610 1.45 113.2 " " 15000 34000 15.5 1350 1.7 12 1750 1.3 122.5 " " 15500 34000 14 1500 1.55 10.5 2000 1.15 137.0 " " 16600 34000 12.5 1680 1.35 9.3 2250 1.0 153.7 BK60Z/DSE09XA4 132 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " " 16600 34000 9.4 2200 1.05 12 1750 3.0 120.2 BK70/DSE09XA4 199 18600 50000 14.5 1440 3.6											
12 1750 1.3 122.5 " " 15500 34000 14 1500 1.55 10.5 2000 1.15 137.0 " " 16600 34000 12.5 1680 1.35 9.3 2250 1.0 153.7 BK60Z/DSE09XA4 132 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " " 16600 34000 9.4 2200 1.05 12 1750 3.0 120.2 BK70/DSE09XA4 199 18600 50000 14.5 1440 3.6											
10.5 2000 1.15 137.0 " " 16600 34000 12.5 1680 1.35 9.3 2250 1.0 153.7 BK60Z/DSE09XA4 132 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " 16600 34000 9.4 2200 1.05 12 1750 3.0 120.2 BK70/DSE09XA4 199 18600 50000 14.5 1440 3.6											
9.3 2250 1.0 153.7 BK60Z/DSE09XA4 132 16600 34000 11.5 1820 1.25 7.8 2650 0.87 183.2 " 16600 34000 9.4 2200 1.05 12 1750 3.0 120.2 BK70/DSE09XA4 199 18600 50000 14.5 1440 3.6											
7.8 2650 0.87 183.2 " 16600 34000 9.4 2200 1.05 12 1750 3.0 120.2 BK70/DSE09XA4 199 18600 50000 14.5 1440 3.6											
12 1750 3.0 120.2 BK70/DSE09XA4 199 18600 50000 14.5 1440 3.6											
	7.0	2030	0.07	103.2			10000	J-1000	J. T	2200	1.05
	12	1750	3.0	120.2	BK70/DSE09XA4	199	18600	50000	14.5	1440	3.6
		-	1							- -	

Selection - bevel geared motors DSE -IE1

P = 2.2 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
9.2	2250	2.3	154.4	BK70/DSE09XA4	II .	21900	50000	11.5	1820	2.9
8.1	2550	2.0	175.7	n .	"	24100	50000	9.8	2100	2.5
7.5	2800	1.85	190.4	BK70Z/DSE09XA4	220	24100	50000	9.0	2300	2.3
6.3	3300	1.6	226.2	n n	"	24100	50000	7.6	2750	1.9
5.6	3750	1.4	257.3	"	"	24100	50000	6.7	3100	1.7
4.9	4250	1.2	293.3	n n	"	24100	50000	5.9	3550	1.45
4.3	4850	1.05	333.6	"	"	24100	50000	5.2	4000	1.3
3.8	5500	0.95	379.9	"	II .	24100	50000	4.6	4550	1.15
3.3	6300	0.83	432.1	"	"	24100	50000	4.0	5200	1.0
5.7	3650	3.2	253.3	BK80Z/DSE09XA4	349	30000	75000	6.8	3050	3.8
4.8	4350	2.6	300.6	m .	II .	30000	75000	5.7	3650	3.2
4.3	4850	2.4	336.7	m .	II .	30000	75000	5.1	4100	2.8
3.7	5600	2.1	389.0	"	II .	30000	75000	4.4	4750	2.4
3.3	6300	1.85	435.7	"	II .	30000	75000	4.0	5200	2.2
2.9	7200	1.6	499.5	"	II .	30000	75000	3.5	6000	1.9
2.6	8000	1.45	559.5	"	"	30000	75000	3.1	6700	1.7
2.4	8000	1.45	607.8	BK80G40/DSE09XA4	360	30000	75000	2.9	6400	1.8
2.1	9100	1.25	680.9	"	II .	30000	75000	2.6	7200	1.6
1.9	10200	1.15	756.3	"	II .	30000	75000	2.3	8300	1.4
1.7	11400	1.0	847.2	"	"	30000	75000	2.1	9000	1.3
1.5	13100	0.88	963.0	"	"	30000	75000	1.8	10700	1.05
1.4	13900	0.83	1079	II	"	30000	75000	1.6	12100	0.95
3.7	5600	3.3	389.1	BK90Z/DSE09XA4	622	49400	120000	4.4	4750	3.9
3.3	6300	2.9	435.3	"	II .	49400	120000	4.0	5200	3.6
2.9	7200	2.6	499.2	"	II .	49400	120000	3.5	6000	3.1
2.6	8000	2.3	558.5	"	"	49400	120000	3.1	6700	2.8
2.3	9100	2.0	637.7	"	"	49400	120000	2.7	7700	2.4
2.0	10500	1.75	713.5	"	"	49400	120000	2.4	8700	2.1
1.8	10300	1.8	821.0	BK90G50/DSE09XA4	633	49400	120000	2.1	8600	2.2
1.7	11100	1.65	882.3	"	"	49400	120000	2.0	9300	2.0
1.5	12600	1.45	1008	"	"	49400	120000	1.7	11000	1.7
1.3	14600	1.25	1127	" -	"	49400	120000	1.6	11600	1.6
1.1	17800	1.05	1363		"	49400	120000	1.3	14900	1.25

P = 3 kW

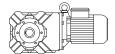
$\Gamma - J$	IZ V V									
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
305	86	2.3	4.73	BK30/DSE11SA4	59	1550	8800	365	72	2.7
240	109	1.95	6.02	n .	"	1690	9600	285	92	2.3
191	138	1.95	7.45	"	"	2200	10400	230	114	2.4
148	178	1.8	9.63	n .	"	3150	11500	178	148	2.2
125	205	2.0	11.39	"	"	4150	11000	151	170	2.4
120	215	1.5	11.93	"	"	3650	12000	144	183	1.75
102	255	1.25	13.98	"	"	4050	12000	123	210	1.5
98	260	1.75	14.50	"	"	4900	12000	118	215	2.1
80	320	1.4	17.95	"	"	5300	12000	96	265	1.7
62	415	1.1	23.20	"	"	5900	12000	74	345	1.3
49.5	520	0.87	28.76	"	"	6500	12000	60	425	1.05
153	172	2.9	9.31	BK40/DSE11SA4	84	1040	11200	184	143	3.4
120	215	2.3	11.86	II	"	1770	12200	145	181	2.7
98	260	3.0	14.50	II	"	4500	14300	118	215	3.6
79	325	2.4	18.05	II	"	4900	15300	95	270	2.9
64	400	1.95	22.44	n .	"	5500	16500	77	330	2.4
50	510	1.55	28.59	"	"	6300	17000	60	425	1.85
41.5	620	1.25	34.61	"	"	6900	17000	49.5	520	1.5
35	730	1.05	40.88	II	"	7600	17000	42	610	1.3
80	325	2.2	17.92	BK50/DSE11SA4	114	4600	16800	96	270	2.7
74	345	3.0	19.33	m m	"	6900	19200	89	285	3.7
54	475	2.2	26.51	n n	"	7800	21200	65	395	2.7
40.5	630	1.65	35.21	II .	II .	8700	23100	49	520	2.0

O

BK-series bevel geared motors

Selection - bevel geared motors DSE -IE1

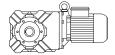
P = 3 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	•	.,,,,		· KIN	• KV	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	•в			kg	N	N	1/min	Nm	'в
30	840	1.25	47.50	BK50/DSE11SA4	ıı	10100	25700	36	700	1.5
23.5	1070	0.98	60.76	"	"	11400	26000	28.5	880	1.2
19	1310	0.98	75.40	п	11	12600	26000	23	1080	0.97
פו	1310	0.0	73.40			12000	20000	23	1000	0.97
38	750	3.1	37.80	BK60/DSE11SA4	124	7300	26500	45.5	620	3.7
32	890	2.6	45.05	"	127	8200	28300	38	750	3.1
28.5	1000	1	50.40	п	"	9100	29800	34	840	2.7
24.5	1160	2.3	58.95	п	"	9900	31500	29.5	970	
1		2.0		п	"			i i		2.4
22	1300	1.75	65.95	п	"	10900	33000	26	1100	2.1
18.5	1540	1.5	78.13	п	"	11900	34000	22	1300	1.75
16.5	1730	1.35	87.41	"	"	12900	34000	20	1430	1.6
14.5	1970	1.15	101.2		"	13900	34000	17	1680	1.35
13	2200	1.05	113.2		"	15000	34000	15.5	1840	1.25
12	2350	0.98	122.5	" "	"	15500	34000	14	2000	1.15
10.5	2700	0.85	137.0	"	"	16600	34000	12.5	2250	1.0
18	1590	3.3	79.89	BK70/DSE11SA4	203	14300	47600	21.5	1330	3.9
16	1790	2.9	90.96	"	203	15300	49900	19	1500	3.5
14	2000	2.6	103.5	m .	"	17200	50000	17	1680	3.1
12	2350	2.2	120.2	"	II.	18600	50000	14.5	1970	2.6
10.5	2700	1.95	136.7	"	II.	20700	50000	13	2200	2.4
9.2	3100	1.93	154.4	п	II.	21900	50000	11.5	2450	2.4
8.1	3500	1.5	175.7	п	II.	24100	50000	9.8	2900	1.8
7.5	3800		173.7	BK70Z/DSE11SA4	220	24100	50000	9.0	3150	1.65
		1.35		BK/UZ/D3E113A4	230					
6.3	4500	1.15	226.2	п	"	24100	50000	7.6	3750	1.4
5.6	5100	1.0	257.3	п	"	24100	50000	6.7	4250	1.2
4.9	5800	0.9	293.3			24100	50000	5.9	4850	1.05
8.3	3450	3.0	171.5	BK80/DSE11SA4	318	30000	75000	10	2850	3.7
8.0	3550	3.2	177.6	BK80Z/DSE11SA4	360	30000	75000	9.7	2950	3.9
7.2	3950	2.9	198.9	"	"	30000	75000	8.6	3300	3.5
6.3	4500	2.6	226.1	m .	II .	30000	75000	7.6	3750	3.1
5.7	5000	2.3	253.3	n .	II .	30000	75000	6.8	4200	2.7
4.8	5900	1.95	300.6	II .	II .	30000	75000	5.7	5000	2.3
4.3	6600	1.75	336.7	п	II.	30000	75000	5.1	5600	2.1
3.7	7700	1.5	389.0	m .	II .	30000	75000	4.4	6500	1.75
3.3	8600	1.35	435.7	n .	II .	30000	75000	4.0	7100	1.6
2.9	9800	1.15	499.5	n .	II .	30000	75000	3.5	8100	1.4
2.6	11000	1.05	559.5	TI .	II .	30000	75000	3.1	9200	1.25
2.4	11100	1.05	607.8	BK80G40/DSE11SA4	368	30000	75000	2.9	9100	1.25
2.1	12800	0.9	680.9	"	"	30000	75000	2.6	10100	1.15
1.9	14200	0.81	756.3	п	11	30000	75000	2.3	11600	0.99
4.9	5800	3.2	295.6	BK90Z/DSE11SA4	626	49400	120000	5.8	4900	3.8
4.3	6600	2.8	330.7	"	"	49400	120000	5.2	5500	3.4
3.7	7700	2.4	389.1	"	"	49400	120000	4.4	6500	2.8
3.3	8600	2.2	435.3	"	"	49400	120000	4.0	7100	2.6
2.9	9800	1.9	499.2	"	"	49400	120000	3.5	8100	2.3
2.6	11000	1.7	558.5	"	"	49400	120000	3.1	9200	2.0
2.3	12400	1.5	637.7	m .	II .	49400	120000	2.7	10600	1.75
2.0	14300	1.3	713.5	п	"	49400	120000	2.4	11900	1.55
1.8	14500	1.3	821.0	BK90G50/DSE11SA4	642	49400	120000	2.1	12300	1.5
1.7	15600	1.2	882.3	II	II .	49400	120000	2.0	13100	1.4
1.5	17700	1.05	1008	п	II .	49400	120000	1.7	15500	1.2
1.3	20500	0.9	1127	п	"	49400	120000	1.6	16300	1.15

Selection - bevel geared motors DSE -IE1

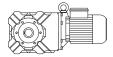
P = 4 kW



									40.11	
n	50 Hz M ₂	f _B	i	Type	m	F_{RN}	F_{RV}	n	60 Hz	$f_{\scriptscriptstyle B}$
n ₂ 1/min	Nm	IВ			kg	N	N	n ₂ 1/min	$M_{\scriptscriptstyle 2}$ Nm	IB
305	115	1.7	4.73	BK30/DSE11MA4	65	1550	8800	365	96	2.0
240	146	1.45	6.02	"	"	1690	9600	285	123	1.7
191	184	1.45	7.45	"	"	2200	10400	230	152	1.75
148	235	1.35	9.63	"	11	3150	11500	178	197	1.6
125	275	1.5	11.39	m m	"	4150	11000	151	225	1.85
120	290	1.1	11.93	m m	"	3650	12000	144	240	1.35
102	340	0.94	13.98	"	11	4050	12000	123	280	1.15
98	350	1.3	14.50	"	"	4900	12000	118	290	1.55
80	425	1.05	17.95	"	"	5300	12000	96	355	1.25
62	550	0.82	23.20	II	II .	5900	12000	74	460	0.98
240	146	3.2	6.02	BK40/DSE11MA4	90	470	9800	285	123	3.9
190	184	2.7	7.49	"	"	750	10500	230	152	3.2
153	225	2.2	9.31	"	"	1040	11200	184	191	2.6
128	265	2.7	11.17	"	11	4100	13100	154	220	3.3
120	290	1.7	11.86	m m	II .	1770	12200	145	240	2.1
98	350	2.2	14.50	m .	II .	4500	14300	118	290	2.7
79	435	1.8	18.05	"	II .	4900	15300	95	360	2.2
64	530	1.45	22.44	"	II .	5500	16500	77	445	1.75
50	680	1.15	28.59	"	"	6300	17000	60	570	1.35
41.5	820	0.95	34.61	"	"	6900	17000	49.5	690	1.15
35	980	0.8	40.88	II	II .	7600	17000	42	810	0.96
142	245	3.3	10.00	BK50/DSE11MA4	120	1220	13200	171	205	4.0
102	335	3.1	13.95	"	"	6100	17400	123	275	3.8
94	365	2.9	15.19	"	II .	6300	18000	113	300	3.5
80	430	1.7	17.92	"	II .	4600	16800	96	360	2.0
74	460	2.3	19.33	"	II .	6900	19200	89	385	2.7
54	630	1.65	26.51	m m	II .	7800	21200	65	520	2.0
40.5	840	1.25	35.21	m .	II .	8700	23100	49	700	1.5
30	1130	0.93	47.50	II .	"	10100	25700	36	940	1.1
52	730	3.2	27.36	BK60/DSE11MA4	130	5600	23200	63	600	3.8
42.5	890	2.6	33.78	"	"	6500	25200	51	740	3.1
38	1000	2.3	37.80	"	"	7300	26500	45.5	830	2.8
32	1190	1.95	45.05	"	11	8200	28300	38	1000	2.3
28.5	1340	1.7	50.40	m m	"	9100	29800	34	1120	2.1
24.5	1550	1.5	58.95	"	II .	9900	31500	29.5	1290	1.8
22	1730	1.35	65.95	"	"	10900	33000	26	1460	1.6
18.5	2050	1.1	78.13	"	"	11900	34000	22	1730	1.35
16.5	2300	1.0	87.41	"	"	12900	34000	20	1910	1.2
14.5	2600	0.88	101.2	"	"	13900	34000	17	2200	1.05
23.5	1620	3.2	61.60	BK70/DSE11MA4	209	11500	42800	28	1360	3.8
20.5	1860	2.8	70.23	"	"	12500	44800	24.5	1550	3.4
18	2100	2.5	79.89	m .	II .	14300	47600	21.5	1770	2.9
16	2350	2.2	90.96	m m	11	15300	49900	19	2000	2.6
14	2700	1.95	103.5	"	11	17200	50000	17	2200	2.4
12	3150	1.65	120.2	"	II .	18600	50000	14.5	2600	2.0
10.5	3600	1.45	136.7	"	"	20700	50000	13	2900	1.8
9.2	4150	1.25	154.4	"	"	21900	50000	11.5	3300	1.6
8.1	4700	1.1	175.7	"	"	24100	50000	9.8	3850	1.35
7.5	5000	1.05	190.4	BK70Z/DSE11MA4	236	24100	50000	9.0	4200	1.25
6.3	6000	0.87	226.2	"	"	24100	50000	7.6	5000	1.05
11	3450	3.0	131.6	BK80/DSE11MA4	324	24900	75000	13	2900	3.6
9.3	4100	2.6	153.1	"	"	27200	75000	11.5	3300	3.2
8.3	4600	2.3	171.5	m .	II .	30000	75000	10	3800	2.8
8.0	4750	2.4	177.6	BK80Z/DSE11MA4	366	30000	75000	9.7	3900	2.9
7.2	5300	2.2	198.9	"	"	30000	75000	8.6	4400	2.6
6.3	6000	1.9	226.1	"	"	30000	75000	7.6	5000	2.3
5.7	6700	1.7	253.3	"	"	30000	75000	6.8	5600	2.1
4.8	7900	1.45	300.6	"	"	30000	75000	5.7	6700	1.7
4.3	8800	1.3	336.7	"	"	30000	75000	5.1	7400	1.55
3.7	10300	1.1	389.0	"	"	30000	75000	4.4	8600	1.35
3.3	11500	1.0	435.7	"	"	30000	75000	4.0	9500	1.2
2.9	13100	0.88	499.5			30000	75000	3.5	10900	1.05

Selection - bevel geared motors DSE -IE1

P = 4 kW



	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
6.1	6200	3.0	234.6	BK90Z/DSE11MA4	632	49400	120000	7.3	5200	3.6
5.5	6900	2.7	262.5	n n	II .	49400	120000	6.6	5700	3.2
4.9	7700	2.4	295.6	n n	II .	49400	120000	5.8	6500	2.8
4.3	8800	2.1	330.7	n n	II .	49400	120000	5.2	7300	2.5
3.7	10300	1.8	389.1	n n	II .	49400	120000	4.4	8600	2.2
3.3	11500	1.6	435.3	n n	II .	49400	120000	4.0	9500	1.95
2.9	13100	1.4	499.2	n n	II .	49400	120000	3.5	10900	1.7
2.6	14600	1.25	558.5	n n	II .	49400	120000	3.1	12300	1.5
2.3	16600	1.1	637.7	"	II .	49400	120000	2.7	14100	1.3
2.0	19100	0.97	713.5	"	II .	49400	120000	2.4	15900	1.15
1.8	19800	0.93	821.0	BK90G50/DSE11MA4	648	49400	120000	2.1	16800	1.1
1.7	21200	0.87	882.3	п	II .	49400	120000	2.0	17900	1.05

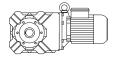
P = 5.5 kW

	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B		. •				n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
305	158	1.25	4.73	BK30/DSE11LA4	76	1550	8800	365	132	1.45
240	200	1.05	6.02	m .	"	1690	9600	285	169	1.25
191	250	1.05	7.45	m .	"	2200	10400	230	210	1.3
148	325	0.98	9.63	п	II .	3150	11500	178	270	1.2
125	375	1.1	11.39	m .	n n	4150	11000	151	310	1.35
120	400	0.8	11.93	II .	n n	3650	12000	144	335	0.96
98	480	0.94	14.50	п	II .	4900	12000	118	400	1.15
310	155	2.8	4.63	BK40/DSE11LA4	102	430	8900	370	130	3.3
240	200	2.4	6.02	m .	"	470	9800	285	169	2.8
190	250	1.95	7.49	m .	"	750	10500	230	210	2.3
153	315	1.55	9.31	m .	"	1040	11200	184	260	1.9
128	365	1.95	11.17	m .	"	4100	13100	154	305	2.3
120	400	1.25	11.86	п	II .	1770	12200	145	330	1.5
98	480	1.65	14.50	п	"	4500	14300	118	400	1.95
79	590	1.3	18.05	п	"	4900	15300	95	495	1.6
64	730	1.05	22.44	m .	"	5500	16500	77	610	1.3
50	940	0.83	28.59	п	ıı	6300	17000	60	780	1.0
195	245	3.3	7.29	BK50/DSE11LA4	132	620	11900	235	205	4.0
146	320	2.9	9.73	m .	"	5400	15400	176	265	3.5
142	340	2.4	10.00	m .	"	1220	13200	171	280	2.9
102	460	2.3	13.95	m .	"	6100	17400	123	380	2.8
94	500	2.1	15.19	п	II .	6300	18000	113	415	2.5
80	590	1.25	17.92	п	II .	4600	16800	96	495	1.45
74	630	1.65	19.33	п	"	6900	19200	89	530	2.0
54	870	1.2	26.51	п	"	7800	21200	65	720	1.45
40.5	1160	0.91	35.21	п	"	8700	23100	49	960	1.1
89	590	3.3	16.05	BK60/DSE11LA4	142	4050	18800	107	490	4.0
78	670	3.3	18.36	"	"	4000	19900	94	550	4.0
70	750	3.0	20.54	II.	"	4400	20600	84	620	3.6
59	890	2.6	24.45	II.	"	4850	22000	70	750	3.1
52	1010	2.3	27.36	n n	"	5600	23200	63	830	2.8
42.5	1230	1.85	33.78	II.	"	6500	25200	51	1020	2.3
38	1380	1.65	37.80	m .	"	7300	26500	45.5	1150	2.0
32	1640	1.4	45.05	m .	"	8200	28300	38	1380	1.65
28.5	1840	1.25	50.40	II .	"	9100	29800	34	1540	1.5
24.5	2100	1.1	58.95	m .	"	9900	31500	29.5	1780	1.3
22	2350	0.98	65.95	m .	"	10900	33000	26	2000	1.15
18.5	2800	0.82	78.13	п	"	11900	34000	22	2350	0.98
35.5	1470	3.3	40.08	BK70/DSE11LA4	221	8300	36300	43	1220	4.0
31.5	1660	3.1	45.59	II .	"	9000	37900	38	1380	3.7
26.5	1980	2.6	54.15	m .	II .	9900	40200	32	1640	3.2
23.5	2200	2.4	61.60	· ·	11	11500	42800	28	1870	2.8
20.5	2550	2.0	70.23	· ·	11	12500	44800	24.5	2100	2.5
18	2900	1.8	79.89	n .	II .	14300	47600	21.5	2400	2.2

262 www.bauergears.com

Selection - bevel geared motors DSE -IE1

P = 5.5 kW



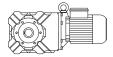
	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
16	3250	1.6	90.96	BK70/DSE11LA4	II .	15300	49900	19	2750	1.9
14	3750	1.4	103.5	m m	"	17200	50000	17	3050	1.7
12	4350	1.2	120.2	"	II .	18600	50000	14.5	3600	1.45
10.5	5000	1.05	136.7	"	II .	20700	50000	13	4000	1.3
9.2	5700	0.91	154.4	"	II .	21900	50000	11.5	4550	1.15
8.1	6400	0.81	175.7	II	"	24100	50000	9.8	5300	0.98
16	3250	3.2	91.53	BK80/DSE11LA4	336	18300	74200	19	2750	3.8
14	3750	2.8	102.5	"	II .	20500	75000	17	3050	3.4
12.5	4200	2.5	117.5	"	II .	22300	75000	15	3500	3.0
11	4750	2.2	131.6	"	"	24900	75000	13	4000	2.6
9.3	5600	1.9	153.1	"	"	27200	75000	11.5	4550	2.3
8.3	6300	1.65	171.5	"	"	30000	75000	10	5200	2.0
8.0	6500	1.75	177.6	BK80Z/DSE11LA4	378	30000	75000	9.7	5400	2.1
7.2	7200	1.6	198.9	"	"	30000	75000	8.6	6100	1.9
6.3	8300	1.4	226.1	"	"	30000	75000	7.6	6900	1.65
5.7	9200	1.25	253.3		"	30000	75000	6.8	7700	1.5
4.8	10900	1.05	300.6	"	"	30000	75000	5.7	9200	1.25
4.3	12200	0.94	336.7	"	"	30000	75000	5.1	10200	1.15
3.7	14100	0.82	389.0	II	"	30000	75000	4.4	11900	0.97
8.2	6400	2.9	174.7	BK90Z/DSE11LA4	643	49400	120000	9.8	5300	3.5
7.3	7100	2.6	195.4	"	"	49400	120000	8.8	5900	3.1
6.1	8600	2.2	234.6	"	II .	49400	120000	7.3	7100	2.6
5.5	9500	1.95	262.5	"	"	49400	120000	6.6	7900	2.3
4.9	10700	1.75	295.6	"	II .	49400	120000	5.8	9000	2.1
4.3	12200	1.5	330.7	"	II .	49400	120000	5.2	10100	1.85
3.7	14100	1.3	389.1	"	II .	49400	120000	4.4	11900	1.55
3.3	15900	1.15	435.3	"	"	49400	120000	4.0	13100	1.4
2.9	18100	1.0	499.2	"	"	49400	120000	3.5	15000	1.25
2.6	20200	0.92	558.5	"	"	49400	120000	3.1	16900	1.1
2.3	22800	0.81	637.7	"	II .	49400	120000	2.7	19400	0.95

P = 7.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		-71		- 1014	- 114	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
395	166	4.3	3.67	BK50/DSE13MA4	143	115	9400	475	138	5.2
275	235	3.5	5.26	п	II .	130	10700	335	196	4.1
198	330	2.5	7.29	II	"	620	11900	240	270	3.0
148	435	2.1	9.73	II	"	5400	15400	179	360	2.6
144	455	1.8	10.00	n n	II .	1220	13200	174	375	2.2
104	610	1.7	13.95	"	"	6100	17400	125	510	2.1
95	670	1.55	15.19	"	"	6300	18000	115	560	1.9
81	800	0.91	17.92	n n	II .	4600	16800	98	660	1.1
75	850	1.25	19.33	n n	II .	6900	19200	91	700	1.5
55	1170	0.9	26.51	"	"	7800	21200	66	970	1.1
134	530	3.2	10.82	BK60/DSE13MA4	155	3200	17000	161	440	3.8
104	680	2.9	13.85	"	"	3850	18000	126	560	3.5
100	710	2.7	14.41	"	"	3650	18600	121	590	3.3
90	790	2.5	16.05	"	"	4050	18800	109	650	3.0
79	900	2.4	18.36	"	"	4000	19900	95	750	2.9
71	1000	2.3	20.54	"	"	4400	20600	85	840	2.7
59	1210	1.9	24.45	"	"	4850	22000	72	990	2.3
53	1350	1.7	27.36	"	"	5600	23200	64	1110	2.1
43	1660	1.4	33.78	"	"	6500	25200	52	1370	1.7
38.5	1860	1.25	37.80	"	"	7300	26500	46.5	1540	1.5
32	2200	1.05	45.05	"	"	8200	28300	39	1830	1.25
29	2450	0.94	50.40	"	"	9100	29800	35	2000	1.15
47	1520	3.0	30.90	BK70/DSE13MA4	234	7500	33600	57	1250	3.6
41	1740	2.7	35.15	m .	II .	8000	35000	50	1430	3.3
36	1980	2.5	40.08	II .	"	8300	36300	43.5	1640	3.0

Selection - bevel geared motors DSE -IE1

P = 7.5 kW



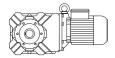
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
32	2200	2.3	45.59	BK70/DSE13MA4	"	9000	37900	38.5	1860	2.8
27	2650	1.95	54.15	"	"	9900	40200	32.5	2200	2.4
23.5	3000	1.75	61.60	· ·	"	11500	42800	28.5	2500	2.1
21	3400	1.55	70.23	ıı .	"	12500	44800	25	2850	1.8
18.5	3850	1.35	79.89	"	II .	14300	47600	22	3250	1.6
16	4450	1.15	90.96	"	II .	15300	49900	19.5	3650	1.4
14	5100	1.0	103.5	"	II .	17200	50000	17	4200	1.25
12	5900	0.88	120.2	"	"	18600	50000	14.5	4900	1.05
11	6500	0.8	136.7	"	"	20700	50000	13	5500	0.95
24.5	2900	3.2	59.60	BK80/DSE13MA4	348	15700	65500	29.5	2400	3.8
20.5	3450	2.8	70.72	II .	"	16600	68700	25	2850	3.4
18.5	3850	2.6	79.22	п	II .	17600	71300	22	3250	3.1
16	4450	2.3	91.53	п	II .	18300	74200	19.5	3650	2.8
14.5	4900	2.1	102.5	п	II .	20500	75000	17	4200	2.5
12.5	5700	1.85	117.5	"	II .	22300	75000	15	4750	2.2
11	6500	1.6	131.6	"	II .	24900	75000	13.5	5300	2.0
9.5	7500	1.4	153.1	"	"	27200	75000	11.5	6200	1.7
8.4	8500	1.25	171.5	"	"	30000	75000	10.5	6800	1.55
8.2	8700	1.3	177.6	BK80Z/DSE13MA4	391	30000	75000	9.8	7300	1.6
7.3	9800	1.15	198.9	"	"	30000	75000	8.8	8100	1.4
6.4	11100	1.05	226.1	"	"	30000	75000	7.7	9300	1.25
5.7	12500	0.92	253.3	п	"	30000	75000	6.9	10300	1.1
12.5	5700	2.9	117.0	BK90/DSE13MA4	600	39200	113000	15	4750	3.5
11.5	6200	2.7	130.9	п	II .	42700	119400	13.5	5300	3.2
9.7	7300	2.3	149.5	п	II .	45600	120000	12	5900	2.8
8.7	8200	2.0	167.2	"	"	49400	120000	10.5	6800	2.5
8.3	8600	2.2	174.7	BK90Z/DSE13MA4	656	49400	120000	10	7100	2.6
7.4	9600	1.95	195.4	"	"	49400	120000	9.0	7900	2.3
6.2	11500	1.6	234.6	"	"	49400	120000	7.5	9500	1.95
5.5	13000	1.4	262.5	"	"	49400	120000	6.7	10600	1.75
4.9	14600	1.25	295.6	"	"	49400	120000	5.9	12100	1.55
4.4	16200	1.15	330.7	"	"	49400	120000	5.3	13500	1.35
3.8	18800	0.98	389.1	"	"	49400	120000	4.5	15900	1.15
3.4	21000	0.88	435.3	ıı .	"	49400	120000	4.0	17900	1.05

P = 9.5 kW

. – ,	JKW									
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
395	210	3.4	3.67	BK50/DSE13LA4	146	115	9400	475	175	4.1
275	300	2.7	5.26	n n	"	130	10700	335	245	3.3
198	420	1.95	7.29	n n	"	620	11900	240	345	2.4
148	550	1.7	9.73	n n	"	5400	15400	179	455	2.0
144	570	1.4	10.00	n n	"	1220	13200	174	475	1.7
104	780	1.35	13.95	"	"	6100	17400	125	650	1.6
95	850	1.25	15.19	"	"	6300	18000	115	710	1.5
75	1080	0.97	19.33	"	II	6900	19200	91	890	1.2
198	455	3.2	7.29	BK60/DSE13LA4	158	2800	14900	240	375	3.9
134	670	2.5	10.82	"	"	3200	17000	161	560	3.0
104	870	2.3	13.85	n n	"	3850	18000	126	720	2.7
100	900	2.1	14.41	n n	"	3650	18600	121	740	2.6
90	1000	1.95	16.05	"	"	4050	18800	109	830	2.4
79	1140	1.9	18.36	"	"	4000	19900	95	950	2.3
71	1270	1.75	20.54	"	"	4400	20600	85	1060	2.1
59	1530	1.5	24.45	"	"	4850	22000	72	1260	1.85
53	1710	1.35	27.36	n n	"	5600	23200	64	1410	1.65
43	2100	1.1	33.78	m m	"	6500	25200	52	1740	1.3
38.5	2350	0.98	37.80	m m	"	7300	26500	46.5	1950	1.2
32	2800	0.82	45.05	"	II .	8200	28300	39	2300	1.0
95	950	3.2	15.16	BK70/DSE13LA4	237	5600	25800	115	780	3.9
84	1080	3.2	17.24	II .	II .	6500	29200	101	890	3.9

Selection - bevel geared motors DSE -IE1

P = 9.5 kW



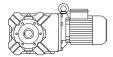
	50 Hz		i	Туре	m	F_{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M ₂	f _B
1/min	Nm				kg	N	N	1/min	Nm	
66	1370	3.0	21.88	BK70/DSE13LA4	"	6500	30200	80	1130	3.6
58	1560	2.7	24.89	II .	II .	7000	31500	70	1290	3.3
47	1930	2.3	30.90	II .	II .	7500	33600	57	1590	2.8
41	2200	2.2	35.15	m .	II	8000	35000	50	1810	2.6
36	2500	1.95	40.08	m .	II	8300	36300	43.5	2050	2.4
32	2800	1.85	45.59	m .	II	9000	37900	38.5	2350	2.2
27	3350	1.55	54.15	m m	II	9900	40200	32.5	2750	1.9
23.5	3850	1.35	61.60	m m	II	11500	42800	28.5	3150	1.65
21	4300	1.2	70.23	m .	II .	12500	44800	25	3600	1.45
18.5	4900	1.05	79.89	m .	II .	14300	47600	22	4100	1.25
16	5600	0.93	90.96	"	II .	15300	49900	19.5	4650	1.1
14	6400	0.81	103.5	II .	"	17200	50000	17	5300	0.98
34.5	2600	3.2	41.78	BK80/DSE13LA4	351	13500	58700	42	2150	3.8
31	2900	3.0	46.80	" "	וככ	14300	60900	37.5	2400	3.6
27.5	3250	2.7	53.21	n .	"	14800	63100	33	2700	3.3
24.5	3700	2.5	59.60	n .	"	15700	65500	29.5	3050	3.0
20.5	4400	2.2	70.72	п	"	16600	68700	25	3600	2.7
18.5	4900	2.1	79.22	п	"	17600	71300	22	4100	2.5
16	5600	1.85	91.53	m .	"	18300	74200	19.5	4650	2.2
14.5	6200	1.7	102.5	m .	п	20500	75000	17	5300	2.0
12.5	7200	1.45	117.5	TT.	п	22300	75000	15	6000	1.75
11	8200	1.3	131.6	m ·	II .	24900	75000	13.5	6700	1.55
9.5	9500	1.1	153.1	m .	II .	27200	75000	11.5	7800	1.35
8.4	10800	0.97	171.5	m .	II .	30000	75000	10.5	8600	1.2
8.2	11000	1.05	177.6	BK80Z/DSE13LA4	394	30000	75000	9.8	9200	1.25
7.3	12400	0.93	198.9	"	"	30000	75000	8.8	10300	1.1
6.4	14100	0.82	226.1	II .	II .	30000	75000	7.7	11700	0.98
16	5600	3.0	91.19	BK90/DSE13LA4	603	33300	101000	19.5	4650	3.6
14.5	6200	2.7	102.0	"	"	36600	107000	17.5	5100	3.3
12.5	7200	2.3	117.0	TT.	п	39200	113000	15	6000	2.8
11.5	7800	2.2	130.9	m ·	II .	42700	119400	13.5	6700	2.5
9.7	9300	1.8	149.5	m .	II .	45600	120000	12	7500	2.2
8.7	10400	1.6	167.2	m .	II .	49400	120000	10.5	8600	1.95
8.3	10900	1.7	174.7	BK90Z/DSE13LA4	659	49400	120000	10	9000	2.1
7.4	12200	1.5	195.4	m .	II .	49400	120000	9.0	10000	1.85
6.2	14600	1.25	234.6	II .	II .	49400	120000	7.5	12000	1.55
5.5	16400	1.15	262.5	m .	II .	49400	120000	6.7	13500	1.35
4.9	18500	1.0	295.6	m .	II .	49400	120000	5.9	15300	1.2
4.4	20600	0.9	330.7	II .	II .	49400	120000	5.3	17100	1.1

P = 11 kW

	50 Hz		i	Туре	m	F _{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
400	240	3.0	3.67	BK50/DSE16MA4	191	115	9400	480	200	3.6
280	345	2.4	5.26	"	"	130	10700	335	285	2.8
205	470	1.75	7.29	"	II .	620	11900	245	390	2.1
151	620	1.5	9.73	"	II .	5400	15400	181	520	1.8
146	660	1.25	10.00	"	II .	1220	13200	176	540	1.5
105	900	1.15	13.95	"	"	6100	17400	127	740	1.4
97	970	1.1	15.19	"	"	6300	18000	116	810	1.3
76	1240	0.85	19.33	"	II .	6900	19200	92	1020	1.05
205	510	2.9	7.29	BK60/DSE16MA4	203	2800	14900	245	425	3.4
135	770	2.2	10.82	"	"	3200	17000	163	640	2.6
106	990	2.0	13.85	"	II .	3850	18000	128	820	2.4
102	1020	1.9	14.41	"	"	3650	18600	123	850	2.3
91	1150	1.7	16.05	"	"	4050	18800	110	950	2.1
80	1310	1.65	18.36	"	"	4000	19900	96	1090	2.0
72	1450	1.55	20.54	"	"	4400	20600	86	1220	1.85
60	1750	1.3	24.45	"	II .	4850	22000	72	1450	1.6
54	1940	1.2	27.36	"	II .	5600	23200	65	1610	1.45

Selection - bevel geared motors DSE -IE1

P = 11 kW



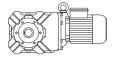
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
43.5	2400	0.96	33.78	BK60/DSE16MA4	"	6500	25200	53	1980	1.15
39	2650	0.87	37.80	II	"	7300	26500	47	2200	1.05
107	980	3.1	13.70	BK70/DSE16MA4	286	5400	24800	129	810	3.8
97	1080	2.8	15.16	"	"	5600	25800	117	890	3.4
85	1230	2.8	17.24	II	II .	6500	29200	103	1010	3.5
67	1560	2.6	21.88	"	"	6500	30200	81	1290	3.2
59	1780	2.4	24.89	"	"	7000	31500	71	1470	2.9
47.5	2200	2.1	30.90	"	"	7500	33600	57	1840	2.5
42	2500	1.9	35.15	"	"	8000	35000	51	2050	2.3
36.5	2850	1.7	40.08	"	"	8300	36300	44	2350	2.1
32.5	3200	1.6	45.59	"	"	9000	37900	39	2650	1.95
27	3850	1.35	54.15	"	"	9900	40200	33	3150	1.65
24	4350	1.2	61.60	"	"	11500	42800	29	3600	1.45
21	5000	1.05	70.23	"	"	12500	44800	25.5	4100	1.25
18.5	5600	0.93	79.89	m .	"	14300	47600	22.5	4650	1.1
16.5	6300	0.83	90.96	"	II .	15300	49900	19.5	5300	0.98
43	2400	3.3	34.22	BK80/DSE16MA4	396	12600	55400	52	2000	3.9
35	3000	2.7	41.78	BR60/D3E16WIA4	390	13500	58700	42.5	2450	3.4
31.5	3300	2.6	46.80	п	"	14300	60900	38	2750	3.4
27.5	3800	2.3	53.21	п	"	14800	63100	33.5	3100	2.9
24.5	4250	2.3	59.60	п	"	15700	65500	30	3500	2.6
21	5000	1.95	70.72	п	"	16600	68700	25	4200	2.3
18.5	5600	1.8	70.72	п	"	17600	71300	22.5	4650	2.2
16.5	6500	1.6	91.53	п	"	18300	74200	19.5	5300	1.95
14.5	7200	1.45	102.5	п	"	20500	75000	17.5	6000	1.75
12.5	8400	1.25	117.5	п	"	22300	75000	15	7000	1.75
11.5	9100	1.15	131.6	п	"	24900	75000	13.5	7700	1.35
9.6	10900	0.96	153.1	п	"	27200	75000	11.5	9100	1.15
8.6	12200	0.86	171.5	n .	"	30000	75000	10.5	10000	1.05
8.3	12600	0.91	177.6	BK80Z/DSE16MA4	439	30000	75000	10	10500	1.1
7.4	14100	0.82	198.9	"	"	30000	75000	8.9	11800	0.97
		0.02				30000	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.5		0.27
19	5500	3.1	77.51	BK90/DSE16MA4	649	30300	94400	23	4550	3.7
16.5	6300	2.7	91.19	II	"	33300	101000	19.5	5300	3.2
14.5	7200	2.3	102.0	II .	"	36600	107000	17.5	6000	2.8
12.5	8400	2.0	117.0	II	"	39200	113000	15.5	6700	2.5
11.5	9100	1.85	130.9	II .	"	42700	119400	13.5	7700	2.2
9.8	10700	1.55	149.5	II	"	45600	120000	12	8700	1.95
8.8	11900	1.4	167.2	II	"	49400	120000	11	9500	1.75
8.4	12500	1.5	174.7	BK90Z/DSE16MA4	708	49400	120000	10.5	10000	1.85
7.5	14000	1.3	195.4	II	11	49400	120000	9.1	11500	1.6
6.3	16600	1.1	234.6	II	"	49400	120000	7.6	13800	1.35
5.6	18700	0.99	262.5	m	"	49400	120000	6.8	15400	1.2
5.0	21000	0.88	295.6	"	ıı .	49400	120000	6.0	17500	1.05

P = 15 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
400	325	2.2	3.67	BK50/DSE16LA4	204	115	9400	480	270	2.7
280	470	1.75	5.26	II	"	130	10700	335	390	2.1
205	640	1.25	7.29	"	"	620	11900	245	530	1.55
151	850	1.1	9.73	"	"	5400	15400	181	710	1.3
146	900	0.9	10.00	II	"	1220	13200	176	740	1.1
105	1220	0.86	13.95	II	"	6100	17400	127	1010	1.05
97	1320	0.8	15.19	"	"	6300	18000	116	1110	0.95
205	690	2.1	7.29	BK60/DSE16LA4	216	2800	14900	245	580	2.5
135	1060	1.6	10.82	II	"	3200	17000	163	870	1.95
106	1350	1.45	13.85	II	"	3850	18000	128	1110	1.8
102	1400	1.4	14.41	II	"	3650	18600	123	1160	1.65
91	1570	1.25	16.05	II	"	4050	18800	110	1300	1.5
80	1790	1.2	18.36	m	"	4000	19900	96	1490	1.45
72	1980	1.15	20.54	III	"	4400	20600	86	1660	1.35

Selection - bevel geared motors DSE -IE1

P = 15 kW



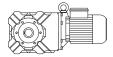
	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
60	2350	0.98	24.45	BK60/DSE16LA4	II .	4850	22000	72	1980	1.15
54	2650	0.87	27.36	"	II .	5600	23200	65	2200	1.05
107	1330	2.3	13.70	BK70/DSE16LA4	299	5400	24800	129	1110	2.7
97	1470	2.1	15.16	" "	299	5600	25800	117	1220	2.5
85	1680	2.1	17.24	n .	"	6500	29200	103	1390	2.5
67	2100	1.95	21.88	11	"	6500	30200	81	1760	2.3
59	2400	1.8	24.89	п	"	7000	31500	71	2000	2.3
47.5	3000	1.5	30.90	п	"	7500	33600	57	2500	1.8
47.5	3400	1.4	35.15	п	"	8000	35000	51	2800	1.7
36.5	3900	1.25	40.08	п	"	8300	36300	44	3250	1.5
32.5	4400	1.15	45.59	п	"	9000	37900	39	3650	1.4
27	5300	0.98	54.15	n .	"	9900	40200	33	4300	1.4
24	5900	0.98	61.60	п	"	11500	42800	29	4900	1.05
24	3900	0.00	01.00			11300	42000	29	4900	1.05
48	2950	2.5	30.56	BK80/DSE16LA4	408	11900	53400	58	2450	3.1
43	3300	2.4	34.22	"	"	12600	55400	52	2750	2.8
35	4050	2.0	41.78	m m	"	13500	58700	42.5	3350	2.5
31.5	4500	1.9	46.80	"	"	14300	60900	38	3750	2.3
27.5	5200	1.7	53.21	"	"	14800	63100	33.5	4250	2.1
24.5	5800	1.6	59.60	"	"	15700	65500	30	4750	1.95
21	6800	1.4	70.72	"	"	16600	68700	25	5700	1.7
18.5	7700	1.3	79.22	"	"	17600	71300	22.5	6300	1.6
16	8900	1.15	91.53	"	"	18300	74200	19.5	7300	1.4
14.5	9800	1.05	102.5	"	"	20500	75000	17.5	8100	1.3
12.5	11400	0.92	117.5	"	"	22300	75000	15	9500	1.1
11.5	12400	0.85	131.6	"	II .	24900	75000	13.5	10600	0.99
27	5300	3.0	54.98	BK90/DSE16LA4	662	24000	81000	32.5	4400	3.7
24	5900	2.8	61.52	"	"	25500	84600	29	4900	3.4
21.5	6600	2.5	69.27	п	"	27200	88900	25.5	5600	3.0
19	7500	2.2	77.51	m .	"	30300	94400	23	6200	2.7
16.5	8600	1.95	91.19	m .	II .	33300	101000	19.5	7300	2.3
14.5	9800	1.7	102.0	п	"	36600	107000	17.5	8100	2.1
12.5	11400	1.45	117.0	п	"	39200	113000	15.5	9200	1.85
11.5	12400	1.35	130.9	m .	II .	42700	119400	13.5	10600	1.6
9.8	14600	1.15	149.5	п	II .	45600	120000	12	11900	1.4
8.8	16200	1.05	167.2	п	II .	49400	120000	11	13000	1.3
8.4	17000	1.1	174.7	BK90Z/DSE16LA4	721	49400	120000	10.5	13600	1.35
7.5	19100	0.97	195.4	"	"	49400	120000	9.1	15700	1.2
6.3	22700	0.81	234.6	п	II .	49400	120000	7.6	18800	0.98

P = 18.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
400	405	1.75	3.67	BK50/DSE16XA4	214	115	9400	480	335	2.1
280	580	1.4	5.26	II	"	130	10700	335	485	1.65
205	790	1.05	7.29	"	"	620	11900	245	660	1.25
151	1050	0.89	9.73	"	"	5400	15400	181	870	1.05
205	860	1.7	7.29	BK60/DSE16XA4	226	2800	14900	245	720	2.0
135	1300	1.3	10.82	"	"	3200	17000	163	1080	1.55
106	1660	1.2	13.85	"	"	3850	18000	128	1380	1.45
102	1730	1.1	14.41	"	"	3650	18600	123	1430	1.35
91	1940	1.0	16.05	"	"	4050	18800	110	1600	1.25
80	2200	0.99	18.36	"	"	4000	19900	96	1840	1.2
72	2450	0.92	20.54	"	"	4400	20600	86	2050	1.1
107	1650	1.85	13.70	BK70/DSE16XA4	309	5400	24800	129	1360	2.2
97	1820	1.7	15.16	"	"	5600	25800	117	1510	2.0
85	2050	1.7	17.24	"	"	6500	29200	103	1710	2.0
67	2600	1.55	21.88	"	"	6500	30200	81	2150	1.9
59	2950	1.45	24.89	"	"	7000	31500	71	2450	1.75

Selection - bevel geared motors DSE -IE1

P = 18.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
47.5	3700	1.2	30.90	BK70/DSE16XA4	"	7500	33600	57	3050	1.5
42	4200	1.15	35.15	"	II .	8000	35000	51	3450	1.35
36.5	4800	1.0	40.08	"	II .	8300	36300	44	4000	1.2
32.5	5400	0.95	45.59	"	II .	9000	37900	39	4500	1.15
27	6500	0.8	54.15	"	II	9900	40200	33	5300	0.98
48	3650	2.1	30.56	BK80/DSE16XA4	418	11900	53400	58	3000	2.5
43	4100	1.9	34.22	ıı .	"	12600	55400	52	3350	2.3
35	5000	1.65	41.78	ıı .	"	13500	58700	42.5	4150	2.0
31.5	5600	1.55	46.80	"	"	14300	60900	38	4600	1.85
27.5	6400	1.4	53.21	"	"	14800	63100	33.5	5200	1.7
24.5	7200	1.3	59.60	ıı .	"	15700	65500	30	5800	1.6
21	8400	1.15	70.72	ıı .	"	16600	68700	25	7000	1.4
18.5	9500	1.05	79.22	ıı .	"	17600	71300	22.5	7800	1.3
16	11000	0.95	91.53	ıı .	"	18300	74200	19.5	9000	1.15
14.5	12100	0.87	102.5	п	"	20500	75000	17.5	10000	1.05
36	4900	3.0	40.94	BK90/DSE16XA4	672	21400	73100	43	4100	3.6
32	5500	2.8	45.80	"	"	22700	76300	38.5	4550	3.4
27	6500	2.5	54.98	"	"	24000	81000	32.5	5400	3.0
24	7300	2.3	61.52	"	II .	25500	84600	29	6000	2.8
21.5	8200	2.0	69.27	"	II .	27200	88900	25.5	6900	2.4
19	9200	1.85	77.51	"	II .	30300	94400	23	7600	2.2
16.5	10700	1.55	91.19	"	II .	33300	101000	19.5	9000	1.85
14.5	12100	1.4	102.0	"	II .	36600	107000	17.5	10000	1.7
12.5	14100	1.2	117.0	"	II .	39200	113000	15.5	11300	1.5
11.5	15300	1.1	130.9	"	II .	42700	119400	13.5	13000	1.3
9.8	18000	0.93	149.5	"	II .	45600	120000	12	14700	1.15
8.8	20000	0.84	167.2	"	"	49400	120000	11	16000	1.05
8.4	21000	0.88	174.7	BK90Z/DSE16XA4	731	49400	120000	10.5	16800	1.1

P = 22 kW

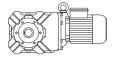
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
97	2150	1.45	15.16	BK70/DSE18LA4	366	5600	25800	117	1790	1.7
85	2450	1.45	17.24	"	"	6500	29200	103	2000	1.75
67	3100	1.3	21.88	"	"	6500	30200	81	2550	1.6
59	3550	1.2	24.89	"	"	7000	31500	71	2950	1.45
47.5	4400	1.05	30.90	"	"	7500	33600	57	3650	1.25
42	5000	0.95	35.15	"	"	8000	35000	51	4100	1.15
36.5	5700	0.86	40.08	"	"	8300	36300	44	4750	1.05
32.5	6400	0.8	45.59	"	II .	9000	37900	39	5300	0.97
			4424	DV-00 /DC-101-1	400	7000	2.000	400	4700	2.5
102	2050	2.1	14.34	BK80/DSE18LA4	480	7900	36200	123	1700	2.5
92	2250	2.1	15.88	"		8400	38600	111	1890	2.5
83	2500	2.1	17.79		"	9400	42100	99	2100	2.5
76	2750	2.1	19.35	"	"	9500	44000	91	2300	2.5
66	3150	2.2	22.19	"	"	10500	48500	80	2600	2.6
59	3550	2.0	24.85		"	11200	50400	71	2950	2.4
48	4350	1.7	30.56		"	11900	53400	58	3600	2.1
43	4850	1.6	34.22	"	"	12600	55400	52	4000	1.95
35	6000	1.35	41.78	"	"	13500	58700	42.5	4900	1.7
31.5	6600	1.3	46.80	"	"	14300	60900	38	5500	1.55
27.5	7600	1.15	53.21	"	"	14800	63100	33.5	6200	1.45
24.5	8500	1.1	59.60	"	"	15700	65500	30	7000	1.3
21	10000	0.96	70.72	"	"	16600	68700	25	8400	1.15
18.5	11300	0.89	79.22	"	"	17600	71300	22.5	9300	1.1
48	4350	3.1	30.47	BK90/DSE18LA4	734	19100	65900	58	3600	20
48	4350 4850		34.09	BK90/DSE18LA4	/34		68800	52	4000	3.8
_		2.9				20300		i		3.5
36	5800	2.5	40.94			21400	73100	43	4850	3.0

8

BK-series bevel geared motors

Selection - bevel geared motors DSE -IE1

P = 22 kW



	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
32	6500	2.4	45.80	BK90/DSE18LA4	"	22700	76300	38.5	5400	2.9
27	7700	2.1	54.98	"	"	24000	81000	32.5	6400	2.5
24	8700	1.95	61.52	"	"	25500	84600	29	7200	2.3
21.5	9700	1.75	69.27	"	"	27200	88900	25.5	8200	2.0
19	11000	1.55	77.51	"	"	30300	94400	23	9100	1.85
16.5	12700	1.3	91.19	"	"	33300	101000	19.5	10700	1.55
14.5	14400	1.15	102.0	"	"	36600	107000	17.5	12000	1.4
12.5	16800	1.0	117.0	"	"	39200	113000	15.5	13500	1.25
11.5	18200	0.92	130.9	"	"	42700	119400	13.5	15500	1.1

P = 30 kW

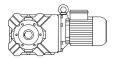
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B					***	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
97	2950	1.05	15.16	BK70/DSE18XA4	384	5600	25800	117	2400	1.3
85	3350	1.05	17.24	m	"	6500	29200	103	2750	1.25
67	4250	0.96	21.88	II	"	6500	30200	81	3500	1.15
59	4850	0.88	24.89	"	"	7000	31500	71	4000	1.05
102	2800	1.55	14.34	BK80/DSE18XA4	498	7900	36200	123	2300	1.85
92	3100	1.55	15.88	"	II .	8400	38600	111	2550	1.9
83	3450	1.5	17.79	"	II .	9400	42100	99	2850	1.85
76	3750	1.55	19.35	"	"	9500	44000	91	3100	1.85
66	4300	1.6	22.19	"	"	10500	48500	80	3550	1.9
59	4850	1.45	24.85	"	"	11200	50400	71	4000	1.75
48	5900	1.25	30.56	"	"	11900	53400	58	4900	1.55
43	6600	1.2	34.22	m .	"	12600	55400	52	5500	1.4
35	8100	1.0	41.78	m .	"	13500	58700	42.5	6700	1.25
31.5	9000	0.95	46.80	m .	"	14300	60900	38	7500	1.15
27.5	10400	0.85	53.21	m .	"	14800	63100	33.5	8500	1.05
24.5	11600	0.8	59.60	"	"	15700	65500	30	9500	0.97
101	2800	3.3	14.49	BK90/DSE18XA4	752	14500	50400	122	2300	4.0
91	3100	3.3	16.21	"	II .	15400	52400	109	2600	4.0
81	3500	3.3	18.07	m m	"	15600	54400	98	2900	4.0
73	3900	3.1	20.21	m m	"	16600	56700	88	3250	3.7
66	4300	2.9	22.29	m m	"	16900	59100	79	3600	3.4
59	4850	2.6	24.94	m m	"	18000	61700	71	4000	3.2
48	5900	2.3	30.47	"	"	19100	65900	58	4900	2.8
43	6600	2.1	34.09	m m	"	20300	68800	52	5500	2.6
36	7900	1.85	40.94	m m	"	21400	73100	43	6600	2.2
32	8900	1.75	45.80	m m	"	22700	76300	38.5	7400	2.1
27	10600	1.5	54.98	"	"	24000	81000	32.5	8800	1.85
24	11900	1.4	61.52	"	II .	25500	84600	29	9800	1.7
21.5	13300	1.25	69.27	m m	II .	27200	88900	25.5	11200	1.5
19	15000	1.1	77.51	m m	II .	30300	94400	23	12400	1.35
16.5	17300	0.97	91.19	m m	II .	33300	101000	19.5	14600	1.15
14.5	19700	0.85	102.0	m .	II .	36600	107000	17.5	16300	1.05

8

BK-series bevel geared motors

Selection - bevel geared motors DHE - IE2

P = 0.03 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
28.5	8.9	9.0	47.78	BK06/D04LA4	7.6	1500	-	34	7.4	11
25	10.1	6.7	54.38	n n	"	1600	-	30	8.4	8.1
21.5	11.8	5.4	63.33	II .	"	1700	-	26	9.8	6.5
3.7	62	2.7	373.4	BK10Z/D04LA4	21	7000		4.4	52	3.2
3.2	71	2.7	428.8	BK102/D04LA4	Z I "	7000	-	3.8	60	2.5
2.5	66	3.3	552.3	BK10G06/D04LA4	25	7000	-	3.0	51	4.3
2.2		2.9		BK10G06/D04LA4	25	7000	-			3.5
1.8	77 98	2.9	635.5 789.7	п	"	7000	-	2.6 2.1	62 80	2.8
1.5	98 118		789.7 929.3	n	"	7000	-	1.8	94	2.8
1.3		1.85		n n	"		-			
	139	1.6	1112		"	7000	-	1.5	116	1.9
1.0	184	1.2	1361			7000	-	1.2	149	1.5
0.9	205	1.05	1577		"	7000	-	1.1	167	1.3
0.7	220*	1.0	1971	"	"	7000	-	0.85	220	1.0
0.6	220*	1.0	2261	"	" "	7000	-	0.75	220	1.0
0.55	220*	1.0	2467			7000	-	0.7	220	1.0
0.48	220*	1.0	2849		"	7000	-	0.6	220	1.0
0.44	220*	1.0	3107			7000	-	0.55	220	1.0
0.39	220*	1.0	3537	"	"	7000	-	0.46	220	1.0
0.33	220*	1.0	4120	"	"	7000	-	0.4	220	1.0
1.6	110	3.3	891.2	BK20G06/D04LA4	34	8700	9000	1.9	88	4.1
1.3	138	2.6	1066	"	"	8700	9000	1.6	108	3.3
1.1	165	2.2	1305	TI TI	II .	8700	9000	1.3	135	2.7
0.95	193	1.85	1424	m .	II .	8700	9000	1.2	149	2.4
0.85	220	1.65	1650	m m	II .	8700	9000	1.0	183	1.95
0.7	270	1.35	2062	"	"	8700	9000	0.8	235	1.55
0.6	320	1.15	2366	m .	II .	8700	9000	0.7	270	1.35
0.55	350	1.05	2580	m .	II .	8700	9000	0.65	295	1.2
0.48	360*	1.0	2831	m .	II .	8700	9000	0.6	360	1.0
0.44	360*	1.0	3088	m m	"	8700	9000	0.55	360	1.0
0.39	360*	1.0	3515	m .	II .	8700	9000	0.47	360	1.0
0.33	360*	1.0	4094	п	"	8700	9000	0.4	360	1.0
1.2	150	3.3	1142	BK30G06/D04LA4	40	11200	12000	1.5	116	4.2
1.1	165	3.0	1281	"	"	11200	12000	1.3	135	3.6
0.85	220	2.2	1620	m .	"	11200	12000	1.0	183	2.7
0.83	235	2.1	1767	п	"	11200	12000	0.95	195	2.5
0.7	270	1.8	2024	п	"	11200	12000	0.85	220	2.2
0.7	350	1.4	2533	ıı .	п	11200	12000	0.65	295	1.65
0.55	380	1.4	2738	ıı .	п	11200	12000	0.63	315	1.55
0.46	415	1.2	2986	ıı .	п	11200	12000	0.55	345	1.4
0.46	480	1.0	3399	m .	п	11200	12000	0.33	400	1.25
0.4	480 490*	1.0	3959 3959	п	"	11200	12000	0.48	490	1.25
U.33	490"	1.0	3939			11200	12000	U.4 I	490	1.0

P = 0.04 kW

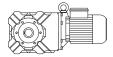
	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
41	8.3	9.6	33.33	BK06/D04LA4	7.6	1320	-	49	7.0	11
35.5	9.6	8.3	38.18	m .	"	1380	-	42.5	8.0	10
28.5	11.9	6.7	47.78	m .	"	1500	-	34	9.9	8.1
25	13.5	5.0	54.38	m .	"	1600	-	30	11.3	6.0
21.5	15.8	4.0	63.33	"	"	1700	-	26	13	4.9
4.5	68	2.7	302.4	BK10Z/D04LA4	21	7000	-	5.4	57	3.2
3.7	83	2.0	373.4	п	II .	7000	-	4.4	70	2.4
3.2	95	1.55	428.8	п	II .	7000	-	3.8	80	1.85
3.0	78	2.8	459.2	BK10G06/D04LA4	25	7000	-	3.6	62	3.5
2.7	88	2.5	501.4	п	II .	7000	-	3.3	68	3.2
2.5	96	2.3	552.3	п	II .	7000	-	3.0	77	2.9
2.2	112	1.95	635.5	п	II .	7000	-	2.6	91	2.4
1.8	140	1.55	789.7	п	II .	7000	-	2.1	116	1.9
1.5	167	1.3	929.3	n n	"	7000	-	1.8	135	1.65

O

BK-series bevel geared motors

Selection - bevel geared motors DHE - IE2

P = 0.04 kW



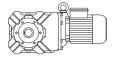
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
1.3	195	1.15	1112	BK10G06/D04LA4	"	7000	-	1.5	165	1.35
1.0	255	0.86	1361	m	"	7000	-	1.2	210	1.05
2.2	110	3.3	630.0	BK20G06/D04LA4	34	8700	9000	2.6	89	4.0
1.8	138	2.6	757.0	"	"	8700	9000	2.2	109	3.3
1.6	156	2.3	891.2	"	"	8700	9000	1.9	128	2.8
1.3	195	1.85	1066	"	"	8700	9000	1.6	155	2.3
1.1	230	1.55	1305	"	"	8700	9000	1.3	192	1.9
0.95	270	1.35	1424	"	"	8700	9000	1.2	210	1.7
0.85	305	1.2	1650	II .	II .	8700	9000	1.0	255	1.4
1.7	147	3.3	810.9	BK30G06/D04LA4	40	11200	12000	2.0	122	4.0
1.5	167	2.9	954.1	"	"	11200	12000	1.7	143	3.4
1.2	210	2.3	1142	m .	"	11200	12000	1.5	165	3.0
1.1	230	2.1	1281	"	"	11200	12000	1.3	192	2.6
0.85	305	1.6	1620	"	"	11200	12000	1.0	255	1.9
0.8	325	1.5	1767	"	"	11200	12000	0.95	270	1.8
0.7	375	1.3	2024	"	"	11200	12000	0.85	305	1.6
0.55	480	1.0	2533	"	"	11200	12000	0.65	405	1.2

P = 0.06 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		-71-		- KIN	- 11.0	n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
63	8.1	9.9	21.54	BK06/D04LA4	7.6	1150	-	76	6.7	12
52	9.9	8.1	26.36	п	II .	1230	-	62	8.3	9.6
41	12.5	6.4	33.33	m	II .	1320	-	49	10.5	7.6
35.5	14.5	5.5	38.18	"	II .	1380	-	42.5	12.1	6.6
28.5	17.8	4.5	47.78	"	II .	1500	-	34	14.9	5.4
25	20	3.4	54.38	п	II .	1600	-	30	16.9	4.0
21.5	23.5	2.7	63.33	"	II	1700	-	26	19.6	3.2
11.5	42	3.3	120.3	BK10Z/D06LA4	24	7000	-	13.5	36	3.8
9.5	50	3.3	143.2	"	"	7000	-	11.5	41.5	3.9
6.6	71	2.8	204.7	m m	"	7000	-	8.0	58	3.4
5.3	88	2.3	257.9	"	"	7000	-	6.3	74	2.7
4.5	103	1.8	302.4	"	"	7000	-	5.4	85	2.2
3.7	125	1.3	373.4	"	II .	7000	-	4.4	105	1.55
3.2	143	1.05	428.8	"	"	7000	-	3.8	120	1.25
3.0	129	1.7	459.2	BK10G06/D06LA4	28	7000	-	3.6	104	2.1
2.7	144	1.55	501.4	"	"	7000	-	3.3	115	1.9
2.5	157	1.4	552.3	"	"	7000	-	3.0	127	1.75
2.2	180	1.2	635.5	"	"	7000	-	2.6	149	1.5
1.8	220	1.0	789.7	"	II .	7000	-	2.1	187	1.2
1.5	265	0.83	929.3	II	"	7000	-	1.8	215	1.0
4.6	100	3.1	298.2	BK20Z/D06LA4	34	8700	9000	5.5	84	3.7
3.7	123	2.4	367.7	"	II	8700	9000	4.5	101	2.9
3.2	120	3.0	429.7	BK20G06/D06LA4	38	8700	9000	3.8	98	3.7
2.9	133	2.7	480.4	"	"	8700	9000	3.4	110	3.3
2.6	149	2.4	524.5	"	"	8700	9000	3.1	122	3.0
2.2	178	2.0	630.0	"	"	8700	9000	2.6	148	2.4
1.8	220	1.65	757.0	"	"	8700	9000	2.2	178	2.0
1.6	245	1.45	891.2	"	"	8700	9000	1.9	205	1.75
1.3	305	1.2	1066	"	"	8700	9000	1.6	245	1.45
1.1	360	1.0	1305	II .	"	8700	9000	1.3	305	1.2
3.6	128	3.1	380.7	BK30Z/D06LA4	41	11200	12000	4.3	107	3.8
3.1	147	2.6	441.3	"	"	11200	12000	3.7	123	3.1
2.4	163	3.0	567.0	BK30G06/D06LA4	44	11200	12000	2.9	132	3.7
2.1	188	2.6	652.5	"	"	11200	12000	2.5	155	3.2
1.9	210	2.3	743.0	II .	"	11200	12000	2.2	178	2.8
1.7	235	2.1	810.9	m m	"	11200	12000	2.0	196	2.5

Selection - bevel geared motors DHE - IE2

P = 0.06 kW



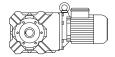
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	Ν	N	1/min	Nm	
1.5	265	1.85	954.1	BK30G06/D06LA4	"	11200	12000	1.7	230	2.1
1.2	330	1.5	1142	"	II .	11200	12000	1.5	260	1.9
1.1	360	1.35	1281	"	"	11200	12000	1.3	305	1.6
0.85	475	1.05	1620	II	II .	11200	12000	1.0	400	1.25
1.2	290	2.9	1189	BK40G10/D06LA4	68	11700	17000	1.4	240	3.5
0.95	380	2.2	1428	n n	"	11700	17000	1.2	290	2.9
0.8	465	1.85	1798	"	"	11700	17000	0.95	385	2.2
0.65	580	1.45	2108	"	"	11700	17000	0.8	465	1.85
0.6	640	1.35	2350	"	"	11700	17000	0.7	540	1.55
0.55	700	1.2	2604	"	"	11700	17000	0.65	580	1.45
1.0	370	3.1	1398	BK50G10/D06LA4	96	14100	26000	1.2	300	3.8
0.9	415	2.8	1549	n n	"	14100	26000	1.1	335	3.4
0.75	510	2.3	1816	"	"	14100	26000	0.9	415	2.8
0.7	550	2.1	2024	"	"	14100	26000	0.85	445	2.6
0.6	630	1.85	2450	"	"	14100	26000	0.7	530	2.2
0.5	760	1.5	2730	"	"	14100	26000	0.6	620	1.85
0.45	850	1.35	3025	"	"	14100	26000	0.55	680	1.7
0.39	960	1.2	3492	"	"	14100	26000	0.47	790	1.45
0.35	1080	1.05	3870	"	"	14100	26000	0.42	890	1.3
0.39	920	2.7	3533	BK60G20/D06LA4	123	16600	34000	0.46	690	3.6
0.32	1240	2.0	4239	n n	"	16600	34000	0.39	920	2.7
0.27	1570	1.6	5072	n n	"	16600	34000	0.32	1240	2.0
0.24	1830	1.35	5721	n n	"	16600	34000	0.29	1420	1.75
0.21	2150	1.15	6565	"	"	16600	34000	0.25	1740	1.45
0.19	2450	1.0	7291	"	"	16600	34000	0.23	1940	1.3
0.21	2000	2.9	6504	BK70G20/D06LA4	201	24100	50000	0.25	1580	3.6
0.17	2650	2.2	8149	"	"	24100	50000	0.2	2150	2.7
0.15	3100	1.85	9351	II	II .	24100	50000	0.18	2450	2.3

P = 0.09 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		71		1114	11.0	n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
89	8.7	9.2	15.29	BK06/D04LA4	7.6	1020	-	106	7.3	11
75	10.3	7.8	18.00	n	11	1080	-	90	8.5	9.4
63	12.2	6.6	21.54	n	11	1150	-	76	10.1	7.9
52	14.8	5.4	26.36	m .	II .	1230	-	62	12.4	6.5
41	18.8	4.3	33.33	m .	11	1320	-	49	15.7	5.1
35.5	21.5	3.7	38.18	n	11	1380	-	42.5	18.2	4.4
28.5	26.5	3.0	47.78	m m	11	1500	-	34	22	3.6
25	30.5	2.2	54.38	m .	II .	1600	-	30	25	2.7
21.5	35.5	1.8	63.33	"	"	1700	-	26	29	2.2
13.5	54	2.9	102.5	BK10/D06LA4	23	7000	_	16	45.5	3.5
11.5	63	2.2	120.3	BK10Z/D06LA4	24	7000	-	13.5	54	2.5
9.5	75	2.2	143.2	TI TI	II .	7000	-	11.5	62	2.6
8.0	89	2.2	170.6	"	II .	7000	-	9.5	75	2.7
6.6	106	1.9	204.7	"	II .	7000	-	8.0	88	2.3
5.3	132	1.5	257.9	"	II .	7000	-	6.3	111	1.8
4.5	154	1.2	302.4	TI TI	II .	7000	-	5.4	128	1.45
3.7	188	0.88	373.4	TI TI	II .	7000	-	4.4	158	1.05
3.3	186	1.2	410.8	BK10G06/D06LA4	28	7000	-	4.0	151	1.45
3.0	205	1.05	459.2	"	II .	7000	-	3.6	168	1.3
2.7	225	0.98	501.4	n n	II .	7000	-	3.3	184	1.2
2.5	245	0.9	552.3	"	"	7000	-	3.0	200	1.1
6.6	106	3.1	207.5	BK20Z/D06LA4	34	8700	9000	7.9	89	3.7
5.2	135	2.4	259.9	п	II	8700	9000	6.3	111	3.0
4.6	151	2.1	298.2	II .	ıı	8700	9000	5.5	126	2.5
3.7	185	1.6	367.7	II .	II	8700	9000	4.5	152	1.9

Selection - bevel geared motors DHE - IE2

P = 0.09 kW



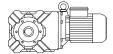
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
3.2	192	1.9	429.7	BK20G06/D06LA4	38	8700	9000	3.8	159	2.3
2.9	210	1.7	480.4	m	"	8700	9000	3.4	178	2.0
2.6	235	1.55	524.5	"	"	8700	9000	3.1	196	1.85
2.2	280	1.3	630.0	m .	"	8700	9000	2.6	235	1.55
1.8	345	1.05	757.0	m .	"	8700	9000	2.2	280	1.3
1.6	385	0.94	891.2	II .	"	8700	9000	1.9	320	1.15
4.4	160	2.4	308.3	BK30Z/D06LA4	41	11200	12000	5.3	132	2.9
3.6	193	2.1	380.7	II .	"	11200	12000	4.3	161	2.5
3.1	220	1.75	441.3	II .	"	11200	12000	3.7	185	2.1
2.9	210	2.3	471.5	BK30G06/D06LA4	44	11200	12000	3.5	173	2.8
2.4	255	1.9	567.0	п	п	11200	12000	2.9	210	2.3
2.1	295	1.65	652.5	п	п	11200	12000	2.5	245	2.0
1.9	325	1.5	743.0	п	п	11200	12000	2.2	280	1.75
1.7	365	1.35	810.9	п	II .	11200	12000	2.0	305	1.6
1.5	410	1.2	954.1	п	II .	11200	12000	1.7	360	1.35
1.2	510	0.96	1142	п	II .	11200	12000	1.5	410	1.2
1.1	560	0.88	1281	"	II .	11200	12000	1.3	470	1.05
3.9	178	3.3	348.7	BK40Z/D06LA4	64	11700	17000	4.7	148	3.9
3.2	210	2.7	430.0	II .	"	11700	17000	3.8	180	3.2
1.8	295	2.9	756.7	BK40G10/D06LA4	68	11700	17000	2.2	230	3.7
1.7	320	2.7	838.4	II .	II .	11700	17000	2.0	260	3.3
1.4	400	2.1	998.3	п	п	11700	17000	1.7	320	2.7
1.2	475	1.8	1189	п	II .	11700	17000	1.4	395	2.2
0.95	610	1.4	1428	п	II .	11700	17000	1.2	475	1.8
0.8	730	1.15	1798	II .	"	11700	17000	0.95	610	1.4
1.6	350	3.3	859.8	BK50G10/D06LA4	96	14100	26000	1.9	285	4.0
1.4	410	2.8	1024	II	"	14100	26000	1.6	350	3.3
1.1	530	2.2	1230	m m	"	14100	26000	1.4	410	2.8
1.0	590	1.95	1398	II	"	14100	26000	1.2	485	2.4
0.9	660	1.75	1549	"	"	14100	26000	1.1	530	2.2
0.75	790	1.45	1816	II	"	14100	26000	0.9	650	1.75
0.7	850	1.35	2024	"	"	14100	26000	0.85	700	1.65
0.6	980	1.15	2450	"	"	14100	26000	0.7	830	1.4
0.7	750	3.3	2010	BK60G20/D06LA4	123	16600	34000	0.85	530	4.7
0.6	930	2.7	2371	"	"	16600	34000	0.7	720	3.5
0.5	1180	2.1	2733	"	"	16600	34000	0.6	890	2.8
0.45	1360	1.85	3036	m .	"	16600	34000	0.55	1010	2.5
0.39	1650	1.5	3533	"	"	16600	34000	0.46	1320	1.9
0.32	2100	1.2	4239	"	II	16600	34000	0.39	1650	1.5
0.35	1750	3.3	3894	BK70G20/D06LA4	201	24100	50000	0.42	1340	4.3
0.3	2150	2.7	4531	m m	"	24100	50000	0.36	1680	3.4
0.25	2700	2.1	5436	m m	"	24100	50000	0.3	2150	2.7
0.21	3350	1.7	6504	m m	"	24100	50000	0.25	2700	2.1
0.17	4350	1.3	8149	m m	II .	24100	50000	0.2	3550	1.6
0.15	5000	1.15	9351	п	"	24100	50000	0.18	4050	1.4

P = 0.12 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
116	9.0	8.9	11.67	BK06/D04LA4	7.6	930	-	139	7.5	11
89	11.7	6.8	15.29	TI TI	"	1020	-	106	9.8	8.2
75	13.7	5.8	18.00	m .	"	1080	-	90	11.4	7.0
63	16.3	4.9	21.54	m .	"	1150	-	76	13.5	5.9
52	19.8	4.0	26.36	TI TI	"	1230	-	62	16.6	4.8
41	25	3.2	33.33	m .	"	1320	-	49	21	3.8
35.5	29	2.8	38.18	m .	"	1380	-	42.5	24	3.3
28.5	35.5	2.3	47.78	TI TI	"	1500	-	34	29.5	2.7
25	40.5	1.7	54.38	TI TI	"	1600	-	30	33.5	2.0
21.5	47	1.35	63.33	m	"	1700	-	26	39	1.65

Selection - bevel geared motors DHE - IE2

P = 0.12 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	'	Type	111	I RN	I RV	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	∎ _B			kg	N	N	1/min	Nm	IB I
15.5	64	2.8	89.30	BK10/D06LA4	23	7000	-	18.5	53	3.4
13.5	72		102.5	BK 10/DUOLA4	23	7000	-	16.5	60	2.6
		2.2								
11.5	84	1.65	120.3	BK10Z/D06LA4	24	7000	-	13.5	72	1.9
9.5	101	1.6	143.2		"	7000	-	11.5	83	1.95
8.0	118	1.7	170.6		"	7000	-	9.5	100	2.0
6.6	142	1.4	204.7			7000	-	8.0	117	1.7
5.3	177	1.15	257.9	"	"	7000	-	6.3	149	1.35
4.5	205	0.9	302.4	"	"	7000	-	5.4	171	1.1
4.0	210	1.05	343.2	BK10G06/D06LA4	28	7000	-	4.8	173	1.25
3.3	255	0.86	410.8	"	"	7000	-	4.0	205	1.05
14	70	3.3	96.99	BK20Z/D06LA4	34	8700	9000	17	57	4.1
9.4	102	3.2	144.5	"	"	8700	9000	11.5	83	4.0
7.8	121	2.7	173.4	"	"	8700	9000	9.4	101	3.3
6.6	142	2.3	207.5	II .	II .	8700	9000	7.9	118	2.8
5.2	180	1.85	259.9	n	11	8700	9000	6.3	149	2.2
4.6	200	1.55	298.2	n n	"	8700	9000	5.5	168	1.85
3.7	245	1.2	367.7	п	n n	8700	9000	4.5	200	1.45
3.2	260	1.4	429.7	BK20G06/D06LA4	38	8700	9000	3.8	215	1.65
				BR20000/D00LA4	30					
2.9	290	1.25	480.4		"	8700	9000	3.4	245	1.45
2.6	320	1.15	524.5		"	8700	9000	3.1	265	1.35
2.2	380	0.95	630.0			8700	9000	2.6	320	1.15
	4.40	2.0	2165	DV207 /D06144	4.1	11200	12000	7.5	125	2.6
6.3	149	3.0	216.5	BK30Z/D06LA4	41	11200	12000	7.5	125	3.6
5.3	177	2.5	255.3			11200	12000	6.4	146	3.1
4.4	210	1.85	308.3	"	"	11200	12000	5.3	177	2.2
3.6	255	1.6	380.7	"	"	11200	12000	4.3	215	1.85
3.1	295	1.3	441.3	"	II .	11200	12000	3.7	245	1.55
2.9	290	1.7	471.5	BK30G06/D06LA4	44	11200	12000	3.5	235	2.1
2.4	350	1.4	567.0	"	"	11200	12000	2.9	285	1.7
2.1	400	1.25	652.5	II .	m m	11200	12000	2.5	335	1.45
1.9	445	1.1	743.0	II .	m m	11200	12000	2.2	380	1.3
1.7	495	0.99	810.9	m .	II .	11200	12000	2.0	420	1.15
1.5	560	0.88	954.1	"	II	11200	12000	1.7	490	1.0
3.9	235	2.5	348.7	BK40Z/D06LA4	64	11700	17000	4.7	197	2.9
3.2	285	2.0	430.0	II .	m m	11700	17000	3.8	240	2.4
2.8	255	3.3	487.3	BK40G10/D06LA4	68	11700	17000	3.4	200	4.3
2.5	290	2.9	540.0	II .	11	11700	17000	3.0	230	3.7
2.1	355	2.4	660.2	n n	"	11700	17000	2.5	285	3.0
1.8	420	2.0	756.7	"	"	11700	17000	2.2	330	2.6
1.7	450	1.9	838.4	"	"	11700	17000	2.0	370	2.3
1.4	550	1.55	998.3	n .	"	11700	17000	1.7	450	1.9
1.2	660	1.3	1189	II .	"	11700	17000	1.4	550	1.55
0.95	840	1.0	1428	n n	п	11700	17000	1.2	660	1.33
0.93	040	1.0	1420			11700	17000	1.2	000	1.5
3.3	275	3.1	414.8	BK50Z/D06LA4	92	14100	26000	4.0	225	3.8
2.1	360		651.7	BK50G10/D06LA4	96	14100	26000	2.5	295	3.9
		3.2		BK30G10/D00LA4	90					
1.9	405	2.8	722.2	"	ıı	14100	26000	2.3	325	3.5
1.6	490	2.3	859.8	"	ıı	14100	26000	1.9	405	2.8
1.4	560	2.1	1024	"	"	14100	26000	1.6	490	2.3
1.1	730	1.6	1230		"	14100	26000	1.4	570	2.0
1.0	800	1.45	1398		"	14100	26000	1.2	660	1.75
0.9	900	1.3	1549	" "	"	14100	26000	1.1	730	1.6
0.75	1080	1.05	1816		"	14100	26000	0.9	900	1.3
0.05	030	2.7	1610	BV60C30 /D06LA4	122	16600	24000	1 1	620	4.0
0.85	930	2.7	1618	BK60G20/D06LA4	123	16600	34000	1.1	630	4.0
0.75	1070	2.3	1810		"	16600	34000	0.9	810	3.1
0.7	1160	2.2	2010	" "	"	16600	34000	0.85	870	2.9
0.6	1400	1.8	2371			16600	34000	0.7	1130	2.2
0.5	1750	1.45	2733	"	"	16600	34000	0.6	1370	1.8
0.45	1990	1.25	3036	"	"	16600	34000	0.55	1530	1.65
0.39	2350	1.05	3533	II	"	16600	34000	0.46	1940	1.3
0.5-	4000		2016	DV-10-COA (PC-C)	201	0.44.00	F0000	0 ==	4.4.6	
0.45	1900	3.0	3041	BK70G20/D06LA4	201	24100	50000	0.55	1440	4.0
0.39	2250	2.5	3505	"	"	24100	50000	0.47	1750	3.3

Selection - bevel geared motors DHE - IE2

P = 0.12 kW

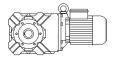
	50 Hz		i	Туре	m	F_{RN}	F _{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
0.35	2550	2.2	3894	BK70G20/D06LA4	"	24100	50000	0.42	2000	2.9
0.3	3100	1.85	4531	"	"	24100	50000	0.36	2450	2.3
0.25	3850	1.5	5436	"	"	24100	50000	0.3	3100	1.85
0.21	4750	1.2	6504	11	"	24100	50000	0.25	3850	1.5

P = 0.18 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		71		100	11.0	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
140	11.2	7.1	9.71	BK06/D05LA4	9.5	880	-	167	9.4	8.5
116	13.6	5.9	11.67	m .	II .	930	_	139	11.3	7.1
89	17.5	4.6	15.29	m .	II .	1020	_	106	14.7	5.4
75	20.5	3.9	18.00	п	II .	1080	_	90	17.1	4.7
63	24.5	3.3	21.54	II	"	1150	_	76	20	4.0
52	29.5	2.7	26.36	II	"	1230	_	62	24.5	3.3
41	37.5	2.1	33.33	n .	"	1320	_	49	31.5	2.5
35.5	43.5	1.85	38.18	n .	11	1380	_	42.5	36	2.2
28.5	53	1.5	47.78	п	"	1500	_	34	44.5	1.8
25	61	1.1	54.38	п	"	1600	_	30	50	1.35
21.5	71	0.89	63.33	п	"	1700	_	26	58	1.1
21.5	71	0.09	05.55			1700		20	30	1.1
22	69	2.9	61.68	BK10/D06LA4	23	7000	-	26.5	57	3.5
19	79	2.5	72.31	m .	II	7000	-	22.5	67	3.0
15.5	96	1.85	89.30	п	II .	7000	-	18.5	80	2.2
13.5	108	1.45	102.5	п	II .	7000	_	16	91	1.75
11.5	127	1.1	120.3	BK10Z/D06LA4	24	7000	_	13.5	108	1.25
9.5	151	1.1	143.2	"	- "	7000	_	11.5	125	1.3
8.0	178	1.1	170.6	II	"	7000	_	9.5	150	1.35
6.6	210	0.95	204.7	II	"	7000	_	8.0	176	1.15
0.0	210	0.55	204.7			7000		0.0	170	1.13
12.5	118	2.7	108.6	BK20/D06LA4	33	8700	9000	15	98	3.2
11	132	2.5	124.2	BK20Z/D06LA4	34	8700	9000	13.5	108	3.1
9.4	153	2.2	144.5	II .	"	8700	9000	11.5	125	2.6
7.8	182	1.8	173.4	II .	"	8700	9000	9.4	151	2.2
6.6	210	1.55	207.5	п	"	8700	9000	7.9	178	1.85
5.2	270	1.2	259.9	n .	"	8700	9000	6.3	220	1.5
4.6	300	1.05	298.2	п	II .	8700	9000	5.5	250	1.25
3.8	340	1.05	359.1	BK20G06/D06LA4	38	8700	9000	4.6	280	1.3
3.2	405	0.89	429.7	"	"	8700	9000	3.8	340	1.05
2.9	445	0.81	480.4	п	"	8700	9000	3.4	380	0.95
9.4	153	2.9	145.1	BK30Z/D06LA4	41	11200	12000	11.5	125	3.6
7.4	192	2.3	184.8	п	"	11200	12000	8.8	162	2.8
6.3	220	2.0	216.5	m .	II .	11200	12000	7.5	187	2.4
5.3	265	1.7	255.3	m .	II .	11200	12000	6.4	220	2.0
4.4	320	1.2	308.3	п	II .	11200	12000	5.3	265	1.45
3.6	385	1.05	380.7	TI TI	II .	11200	12000	4.3	320	1.25
3.1	440	0.87	441.3	TI TI	II .	11200	12000	3.7	370	1.05
2.9	445	1.1	471.5	BK30G06/D06LA4	44	11200	12000	3.5	370	1.3
2.4	540	0.91	567.0	m m	11	11200	12000	2.9	445	1.1
2.1	610	0.8	652.5	II .	II .	11200	12000	2.5	510	0.96
	250	2.1	246.6	DV407 /D061 A4	<i>C</i> 1	11700	17000		210	2.7
5.5	250	3.1	246.6	BK40Z/D06LA4	64	11700	17000	6.6	210	3.7
4.7	295	2.3	289.8	 II	"	11700	17000	5.6	245	2.8
3.9	355	1.65	348.7	" "	"	11700	17000	4.7	295	1.95
3.2	425	1.35	430.0			11700	17000	3.8	360	1.6
2.8	420	2.0	487.3	BK40G10/D06LA4	68 "	11700	17000	3.4	335	2.5
2.5	470	1.8	540.0	" "	"	11700	17000	3.0	385	2.2
2.1	560	1.5	660.2			11700	17000	2.5	465	1.85
1.8	660	1.3	756.7	"	"	11700	17000	2.2	530	1.6
1.7	710	1.2	838.4	"	"	11700	17000	2.0	590	1.45
1.4	870	0.98	998.3	"	"	11700	17000	1.7	710	1.2
1.2	1020	0.83	1189	"	II .	11700	17000	1.4	870	0.98

Selection - bevel geared motors DHE - IE2

P = 0.18 kW



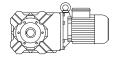
	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
4.2	330	3.1	328.2	BK50Z/D06LA4	92	14100	26000	5.0	275	3.7
3.3	415	2.0	414.8	m .	II .	14100	26000	4.0	340	2.5
3.0	395	2.9	465.1	BK50G10/D06LA4	96	14100	26000	3.5	330	3.5
2.7	440	2.6	513.4	"	"	14100	26000	3.2	365	3.2
2.4	500	2.3	568.6	"	II .	14100	26000	2.9	405	2.8
2.1	570	2.0	651.7	"	II .	14100	26000	2.5	475	2.4
1.9	640	1.8	722.2	"	"	14100	26000	2.3	520	2.2
1.6	760	1.5	859.8	"	"	14100	26000	1.9	640	1.8
1.4	880	1.3	1024	"	"	14100	26000	1.6	760	1.5
1.1	1120	1.05	1230	"	"	14100	26000	1.4	880	1.3
1.0	1240	0.93	1398	"	"	14100	26000	1.2	1030	1.1
1.4	920	2.7	1016	BK60G20/D06LA4	123	16600	34000	1.6	770	3.2
1.1	1220	2.0	1322	"	II .	16600	34000	1.3	980	2.6
0.85	1610	1.55	1618	"	II .	16600	34000	1.1	1150	2.2
0.75	1830	1.35	1810	"	II .	16600	34000	0.9	1450	1.7
0.7	1980	1.25	2010	"	II .	16600	34000	0.85	1550	1.6
0.6	2350	1.05	2371	"	II .	16600	34000	0.7	1950	1.3
0.8	1720	3.3	1696	BK70G20/D06LA4	201	24100	50000	1.0	1290	4.4
0.7	1940	2.9	2040	"	II .	24100	50000	0.8	1630	3.5
0.55	2500	2.3	2578	"	"	24100	50000	0.65	2000	2.9
0.45	3150	1.8	3041	"	II .	24100	50000	0.55	2450	2.3
0.39	3700	1.55	3505	"	II .	24100	50000	0.47	2950	1.95
0.35	4200	1.35	3894	"	II .	24100	50000	0.42	3350	1.7
0.3	5000	1.15	4531	II	"	24100	50000	0.36	4050	1.4

P = 0.25 kW

<u> </u>	ZJKW									
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M ₂	f_B
1/min	Nm				kg	N	N	1/min	Nm	
140	15.6	5.1	9.71	BK06/D05LA4	9.5	880	-	167	13.1	6.1
116	18.9	4.2	11.67	II .	"	930	-	139	15.8	5.1
89	24	3.3	15.29	"	II .	1020	-	106	20	4.0
75	28.5	2.8	18.00	"	II .	1080	-	90	23.5	3.4
63	34	2.4	21.54	"	II .	1150	-	76	28	2.9
52	41	1.95	26.36	"	"	1230	-	62	34.5	2.3
41	52	1.55	33.33	"	"	1320	-	49	43.5	1.85
35.5	60	1.35	38.18	"	II .	1380	-	42.5	50	1.6
28.5	74	1.1	47.78	m .	"	1500	-	34	62	1.3
25	84	0.81	54.38	"	II	1600	-	30	70	0.97
33.5	64	3.1	40.79	BK10/D06LA4	23	6000	-	40	53	3.8
28	75	2.7	48.96	TI TI	"	6400	-	33.5	63	3.2
22	96	2.1	61.68	m .	"	7000	-	26.5	80	2.5
19	110	1.8	72.31	II .	II .	7000	-	22.5	93	2.2
15.5	134	1.35	89.30	m .	II .	7000	-	18.5	112	1.6
13.5	150	1.05	102.5	m .	п	7000	-	16	126	1.25
8.0	245	0.82	170.6	BK10Z/D06LA4	24	7000	-	9.5	205	0.98
18	116	2.8	76.79	BK20/D06LA4	33	7500	9000	21.5	97	3.4
15.5	134	2.5	88.12	m .	II .	8000	9000	18.5	112	2.9
12.5	164	1.9	108.6	m .	"	8700	9000	15	136	2.3
11	184	1.8	124.2	BK20Z/D06LA4	34	8700	9000	13.5	150	2.2
9.4	210	1.55	144.5	"	"	8700	9000	11.5	174	1.9
7.8	250	1.3	173.4	п	II .	8700	9000	9.4	210	1.55
6.6	295	1.1	207.5	n .	"	8700	9000	7.9	245	1.35
5.2	375	0.88	259.9	II .	п	8700	9000	6.3	310	1.05
13.5	150	3.0	102.4	BK30/D06LA4	39	11200	12000	16	126	3.6
11	184	2.4	123.9	BK30Z/D06LA4	41	11200	12000	13.5	150	3.0
9.4	210	2.1	145.1	"	"	11200	12000	11.5	174	2.6
7.4	265	1.7	184.8	n	II .	11200	12000	8.8	225	2.0
6.3	310	1.45	216.5	m m	ıı	11200	12000	7.5	260	1.75
0.5	310	1.75	210.5			11200	12000	1,.5	200	1./ 5

Selection - bevel geared motors DHE - IE2

P = 0.25 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
5.3	365	1.25	255.3	BK30Z/D06LA4	"	11200	12000	6.4	305	1.5
4.4	440	0.88	308.3	"	II	11200	12000	5.3	365	1.05
8.0	245	3.2	169.0	BK40Z/D06LA4	64	11700	17000	9.6	205	3.8
6.4	305	2.6	211.5	"	"	11700	17000	7.7	250	3.1
5.5	350	2.2	246.6	"	"	11700	17000	6.6	290	2.7
4.7	410	1.65	289.8	"	"	11700	17000	5.6	345	2.0
3.9	495	1.15	348.7	"	"	11700	17000	4.7	410	1.4
3.2	590	0.97	430.0	"	"	11700	17000	3.8	500	1.15
2.8	610	1.4	487.3	BK40G10/D06LA4	68	11700	17000	3.4	495	1.7
2.5	680	1.25	540.0	II .	"	11700	17000	3.0	560	1.5
2.1	810	1.05	660.2	II .	"	11700	17000	2.5	680	1.25
1.8	950	0.89	756.7	II .	"	11700	17000	2.2	770	1.1
1.7	1020	0.83	838.4	II .	"	11700	17000	2.0	860	0.99
5.2	370	2.8	264.5	BK50Z/D06LA4	92	14100	26000	6.2	310	3.4
4.2	460	2.2	328.2	"	"	14100	26000	5.0	385	2.6
3.3	570	1.5	414.8			14100	26000	4.0	475	1.8
3.0	570	2.0	465.1	BK50G10/D06LA4	96	14100	26000	3.5	485	2.4
2.7	630	1.85	513.4	"	"	14100	26000	3.2	530	2.2
2.4	720	1.6	568.6	"	"	14100	26000	2.9	590	1.95
2.1	820	1.4	651.7		"	14100	26000	2.5	680	1.7
1.9	910	1.25	722.2	"	"	14100	26000	2.3	750	1.55
1.6	1090	1.05	859.8	"	"	14100	26000	1.9	910	1.25
1.4	1250	0.92	1024	-		14100	26000	1.6	1090	1.05
2.2	820	3.0	621.5	BK60G20/D06LA4	123	16600	34000	2.7	620	4.0
1.8	1010	2.5	752.1	" "	"	16600	34000	2.2	770	3.2
1.6	1150	2.2	887.8	m .	II .	16600	34000	1.9	920	2.7
1.4	1400	1.8	1016	m .	II .	16600	34000	1.6	1190	2.1
1.1	1830	1.35	1322	TT.	II .	16600	34000	1.3	1500	1.65
0.85	2350	1.05	1618	TT.	II .	16600	34000	1.1	1760	1.4
0.05			1010			10000	3 1000		1,700	
1.1	1790	3.2	1280	BK70G20/D06LA4	201	24100	50000	1.3	1450	3.9
0.95	2050	2.8	1457	п	II .	24100	50000	1.2	1560	3.7
0.8	2550	2.2	1696	II .	II .	24100	50000	1.0	1950	2.9
0.7	2850	2.0	2040	II .	II .	24100	50000	0.8	2450	2.3
0.55	3700	1.55	2578	II .	II .	24100	50000	0.65	3050	1.85
0.45	4650	1.25	3041	II .	II .	24100	50000	0.55	3650	1.55
0.39	5400	1.05	3505	II .	ıı .	24100	50000	0.47	4350	1.3

P = 0.3 kW

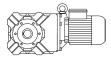
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
140	18.8	4.3	9.71	BK06/D07LA4	14	880	-	167	15.7	5.1
116	22.5	3.6	11.67	"	"	930	-	139	18.9	4.2
89	29	2.8	15.29	"	"	1020	-	106	24.5	3.3
75	34	2.4	18.00	"	"	1080	-	90	28.5	2.8
63	40.5	2.0	21.54	"	"	1150	-	76	33.5	2.4
52	49.5	1.6	26.36	m m	II .	1230	-	62	41.5	1.95
41	62	1.3	33.33	"	"	1320	-	49	52	1.55
35.5	72	1.1	38.18	"	"	1380	-	42.5	60	1.35
28.5	89	0.9	47.78	"	"	1500	-	34	74	1.1
39.5	65	3.1	34.25	BK10/D07LA4	26	5600	-	47.5	54	3.7
33.5	76	2.6	40.79	"	"	6000	-	40	64	3.1
28	91	2.2	48.96	TI TI	"	6400	-	33.5	76	2.6
22	115	1.75	61.68	TI TI	"	7000	-	26.5	96	2.1
19	132	1.5	72.31	TI TI	"	7000	-	22.5	112	1.8
15.5	160	1.1	89.30	"	"	7000	-	18.5	134	1.35
13.5	180	0.87	102.5	"	II.	7000	-	16	152	1.05
22.5	113	2.9	61.30	BK20/D07LA4	35	6500	9000	26.5	96	3.4
18	140	2.4	76.79	II .	II	7500	9000	21.5	117	2.8

8

BK-series bevel geared motors

Selection - bevel geared motors DHE - IE2

P = 0.3 kW



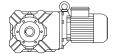
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
15.5	160	2.1	88.12	BK20/D07LA4	"	8000	9000	18.5	134	2.5
12.5	197	1.6	108.6	m	II .	8700	9000	15	164	1.9
11	220	1.5	124.2	BK20Z/D07LA4	37	8700	9000	13.5	180	1.85
9.4	255	1.3	144.5	II	II .	8700	9000	11.5	205	1.6
7.8	300	1.1	173.4	II	II .	8700	9000	9.4	250	1.3
6.6	355	0.93	207.5	m m	II	8700	9000	7.9	295	1.1
15.5	158	2.8	88.38	BK30/D07LA4	41	10600	12000	18.5	133	3.4
13.5	180	2.5	102.4	II	II .	11200	12000	16	152	3.0
11	220	2.0	123.9	BK30Z/D07LA4	44	11200	12000	13.5	180	2.5
9.4	255	1.75	145.1	II	II .	11200	12000	11.5	205	2.2
7.4	320	1.4	184.8	II	II .	11200	12000	8.8	270	1.65
6.3	370	1.2	216.5	"	II .	11200	12000	7.5	310	1.45
5.3	440	1.0	255.3	II .	"	11200	12000	6.4	365	1.25
9.5	250	3.1	143.0	BK40Z/D07LA4	66	11700	17000	11.5	205	3.8
8.0	295	2.6	169.0	"	II .	11700	17000	9.6	245	3.2
6.4	365	2.1	211.5	"	II .	11700	17000	7.7	305	2.6
5.5	420	1.85	246.6	"	II .	11700	17000	6.6	350	2.2
4.7	490	1.4	289.8	"	II .	11700	17000	5.6	410	1.65
3.9	590	0.98	348.7	"	II .	11700	17000	4.7	490	1.2
3.2	710	0.81	430.0	"	II .	11700	17000	3.8	600	0.96
2.8	740	1.15	487.3	BK40G10/D07LA4	71	11700	17000	3.4	600	1.4
2.5	830	1.0	540.0	"	II .	11700	17000	3.0	680	1.25
2.1	990	0.86	660.2	"	II	11700	17000	2.5	830	1.0
6.6	355	3.0	206.8	BK50Z/D07LA4	95	14100	26000	7.9	295	3.6
5.2	445	2.4	264.5	"	II .	14100	26000	6.2	370	2.8
4.2	550	1.85	328.2	"	II .	14100	26000	5.0	460	2.2
3.3	690	1.2	414.8	"	II .	14100	26000	4.0	570	1.5
3.0	700	1.65	465.1	BK50G10/D07LA4	99	14100	26000	3.5	590	1.95
2.7	780	1.45	513.4	m	"	14100	26000	3.2	650	1.75
2.4	870	1.3	568.6	"	"	14100	26000	2.9	720	1.6
2.1	1000	1.15	651.7	"	"	14100	26000	2.5	830	1.4
1.9	1110	1.05	722.2	"	II .	14100	26000	2.3	910	1.25
1.6	1320	0.87	859.8	"	II .	14100	26000	1.9	1110	1.05
2.2	1040	2.4	621.5	BK60G20/D07LA4	125	16600	34000	2.7	800	3.1
1.8	1270	1.95	752.1	"	"	16600	34000	2.2	980	2.6
1.6	1450	1.7	887.8	"	"	16600	34000	1.9	1170	2.1
1.4	1740	1.45	1016	"	II .	16600	34000	1.6	1490	1.7
1.1	2250	1.1	1322	"	II .	16600	34000	1.3	1860	1.35
1.2	1950	2.9	1139	BK70G20/D07LA4	204	24100	50000	1.5	1480	3.9
1.1	2200	2.6	1280	"	"	24100	50000	1.3	1820	3.1
0.95	2550	2.2	1457	"	II .	24100	50000	1.2	1950	2.9
0.8	3150	1.8	1696	"	II .	24100	50000	1.0	2400	2.4
0.7	3550	1.6	2040	"	II .	24100	50000	0.8	3050	1.85
0.55	4600	1.25	2578	п	"	24100	50000	0.65	3800	1.5

P = 0.37 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
140	23	3.5	9.71	BK06/D07LA4	14	880	-	167	19.4	4.1
116	28	2.9	11.67	"	ıı ı	930	-	139	23	3.5
89	36	2.2	15.29	"	ıı ı	1020	-	106	30	2.7
75	42	1.9	18.00	"	ıı ı	1080	-	90	35	2.3
63	50	1.6	21.54	"	ıı ı	1150	-	76	41.5	1.95
52	61	1.3	26.36	"	II .	1230	-	62	51	1.55
41	77	1.05	33.33	n n	II .	1320	-	49	64	1.25
35.5	89	0.9	38.18	m .	II .	1380	-	42.5	74	1.1

Selection - bevel geared motors DHE - IE2

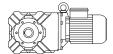
P = 0.37 kW



								_		
	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
47	67	3.0	28.76	BK10/D07LA4	26	5200	-	57	55	3.6
39.5	80	2.5	34.25	II	"	5600	-	47.5	66	3.0
33.5	94	2.1	40.79	"	II .	6000	-	40	79	2.5
28	112	1.8	48.96	"	II .	6400	-	33.5	93	2.2
22	142	1.4	61.68	"	II .	7000	-	26.5	118	1.7
19	163	1.25	72.31	"	II .	7000	-	22.5	138	1.45
15.5	198	0.9	89.30	"	"	7000	-	18.5	166	1.05
32	99	3.3	42.70	BK20/D07LA4	35	5800	9000	38	83	4.0
26.5	118	2.8	51.22	"	"	6300	9000	32	98	3.4
22.5	139	2.4	61.30	m .	"	6500	9000	26.5	118	2.8
18	172	1.9	76.79	m .	II .	7500	9000	21.5	144	2.3
15.5	198	1.65	88.12	m .	"	8000	9000	18.5	166	2.0
12.5	240	1.3	108.6	II .	11	8700	9000	15	200	1.6
11	270	1.2	124.2	BK20Z/D07LA4	37	8700	9000	13.5	220	1.5
9.4	315	1.05	144.5	"	"	8700	9000	11.5	255	1.3
7.8	375	0.88	173.4	n	"	8700	9000	9.4	310	1.05
	-	3.33				5. 50	2000		3.0	
23	135	3.3	59.27	BK30/D07LA4	41	8900	12000	27.5	113	4.0
19	161	2.8	71.56	"	"	9700	12000	23	133	3.4
15.5	196	2.3	88.38	п	"	10600	12000	18.5	164	2.7
13.5	220	2.0	102.4	m .	"	11200	12000	16	187	2.4
11	270	1.65	123.9	BK30Z/D07LA4	44	11200	12000	13.5	220	2.0
9.4	315	1.45	145.1	"	"	11200	12000	11.5	255	1.75
7.4	395	1.15	184.8	II .	"	11200	12000	8.8	330	1.35
6.3	455	0.99	216.5	п	"	11200	12000	7.5	385	1.15
5.3	540	0.99	255.3	m .	"	11200	12000	6.4	450	1.13
5.5	340	0.65	233.3			11200	12000	0.4	430	1.0
11.5	260	3.0	118.2	BK40Z/D07LA4	66	11700	17000	14	210	3.7
9.5	310	2.5	143.0	" "	"	11700	17000	11.5	255	3.1
8.0	365	2.5	169.0	n n	"	11700	17000	9.6	305	2.6
6.4			211.5	n n	"	11700	17000	7.7	375	2.0
5.5	450 520	1.75 1.5	211.5	n n	"	11700	17000	6.6		1.8
4.7	600	1.15	289.8	n n	"	11700	17000	5.6	430 510	1.35
1				n n	"					
3.9	730	0.8	348.7			11700	17000	4.7	600	0.97
2.8	930	0.91	487.3	BK40G10/D07LA4	71 "	11700	17000	3.4	760	1.1
2.5	1040	0.82	540.0			11700	17000	3.0	860	0.99
8.9	325	3.2	153.3	BK50Z/D07LA4	95	14100	26000	11	265	4.0
6.6	435	2.4	206.8	BK302/D07LA4	93	14100	26000	7.9	365	2.9
1				n .	"					
5.2	550 680	1.9	264.5	m .	"	14100	26000	6.2 5.0	460 570	2.3
4.2	680	1.5	328.2	n n	"	14100	26000 26000		570	1.75
3.3	850	0.99	414.8			14100		4.0	700	1.2
3.0	870	1.3	465.1	BK50G10/D07LA4	99 "	14100	26000	3.5	740	1.55
2.7	970	1.2	513.4	 II	"	14100	26000	3.2	810	1.4
2.4	1090	1.05	568.6		"	14100	26000	2.9	900	1.3
2.1	1250	0.92	651.7		"	14100	26000	2.5	1050	1.1
1.9	1380	0.83	722.2			14100	26000	2.3	1140	1.0
2.2	1240	1.05	631 F	DV60630 /D071 A4	125	16600	34000	2.7	1040	2.4
2.2	1340	1.85	621.5	BK60G20/D07LA4	125	16600		2.7	1040	2.4
1.8	1640	1.5	752.1		"	16600	34000	2.2	1290	1.95
1.6	1870	1.35	887.8		"	16600	34000	1.9	1520	1.65
1.4	2200	1.15	1016		"	16600	34000	1.6	1900	1.3
1.1	2850	0.88	1322	"		16600	34000	1.3	2350	1.05
1.6	1850	3.1	847.7	BK70G20/D07LA4	204	24100	50000	2.0	1410	4.0
				BK/UG2U/DU/LA4	204					
1.4	2100	2.7	964.6		"	24100	50000	1.7	1670	3.4
1.2	2500	2.3	1139	" "	"	24100	50000	1.5	1920	3.0
1.1	2800	2.0	1280	"	"	24100	50000	1.3	2300	2.5
0.95	3250	1.75	1457	"	"	24100	50000	1.2	2500	2.3
0.8	3950 4500	1.45 1.25	1696 2040	"	"	24100 24100	50000	1.0 0.8	3100 3900	1.85 1.45
0.7		4 2 5	2040	"	- 11	24100	50000	0.0		

Selection - bevel geared motors DHE - IE2

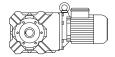
P = 0.55 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	'	Type	111	I RN	I RV	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	■B			kg	N	N	1/min	Nm	I B
194	24.5	3.0	7.25	BK06/D08MA4	15	790	-	235	20.5	3.6
145				BK00/D08NIA4	"					
	33	2.4	9.71	п	"	880	-	174	27.5	2.9
120	40	2.0	11.67		"	930	-	144	33.5	2.4
92	51	1.55	15.29			1020	-	110	43	1.85
78	60	1.35	18.00	"	II .	1080	-	94	50	1.6
65	72	1.1	21.54	"	"	1150	-	78	60	1.35
54	87	0.92	26.36	II	"	1230	-	64	73	1.1
118	40.5	2.8	11.93	BK10/D08MA4	27	3100	-	141	34	3.4
83	56	2.4	16.92	m m	"	3700	-	100	47	2.9
76	62	3.2	18.52	II .	"	4300	_	91	51	3.9
62	76	2.6	22.65	m .	"	4650	_	75	63	3.2
49	96	2.1	28.76	m m	"	5200		59	80	2.5
				11	"		-			
41	115	1.75	34.25	п	"	5600	-	49.5	95	2.1
34.5	137	1.45	40.79	" "		6000	-	41.5	113	1.75
29	161	1.25	48.96		"	6400	-	34.5	135	1.5
23	200	1.0	61.68	"	"	7000	-	27.5	169	1.2
19.5	235	0.85	72.31	"	"	7000	-	23.5	196	1.0
38.5	122	2.7	36.69	BK20/D08MA4	36	5400	9000	46	102	3.2
33	143	2.3	42.70	"	"	5800	9000	39.5	119	2.8
27.5	169	1.95	51.22	m .	"	6300	9000	33	141	2.3
23	200	1.65	61.30	m .	"	6500	9000	27.5	169	1.95
18.5	245	1.35	76.79	m m	"	7500	9000	22	210	1.55
16.5	285		88.12	п	"	8000	9000	19.5	230	
		1.15		п	"					1.45
13	345	0.91	108.6			8700	9000	15.5	290	1.1
11.5	385	0.86	124.2	BK20Z/D08MA4	38	8700	9000	14	315	1.05
33	141	3.2	42.89	BK30/D08MA4	42	7800	12000	39.5	118	3.8
28	165	2.7	50.27	"	"	8300	12000	33.5	137	3.3
24	192	2.3	59.27	II	"	8900	12000	28.5	162	2.8
20	225	2.0	71.56	m .	"	9700	12000	23.5	194	2.3
16	280	1.6	88.38	m m	"	10600	12000	19.5	230	1.95
14	315	1.45	102.4	m .	"	11200	12000	16.5	270	1.65
11.5	385	1.15	123.9	BK30Z/D08MA4	45	11200	12000	14	315	1.45
9.7	450	1.0	145.1	"	"	11200	12000	12	365	1.25
3.7	430	1.0	175.1			11200	12000	12	303	1.23
17	265	2.0	0436	BK40 /DOOMA4	63	10700	17000	20	225	2.5
17	265	2.9	84.36	BK40/D08MA4	63	10700	17000	20	225	3.5
13.5	330	2.4	104.0			11700	17000	16.5	270	2.9
12	370	2.1	118.2	BK40Z/D08MA4	67	11700	17000	14.5	305	2.6
9.8	450	1.75	143.0	"	"	11700	17000	12	365	2.1
8.3	520	1.5	169.0	"	II .	11700	17000	10	435	1.8
6.7	640	1.2	211.5	"	II .	11700	17000	8.0	530	1.45
5.7	740	1.05	246.6	"	"	11700	17000	6.9	610	1.3
4.9	860	0.8	289.8	II	"	11700	17000	5.8	730	0.94
12.5	355	3.0	115.4	BK50Z/D08MA4	96	14100	26000	15	295	3.6
9.2	470	2.2	153.3	m m	"	14100	26000	11	395	2.7
6.8	630	1.65	206.8	"	"	14100	26000	8.2	520	2.0
5.3	800	1.3	264.5	m m	"	14100	26000	6.4	660	1.6
4.3	980	1.05	328.2	m m	"	14100	26000	5.2	810	1.25
				BK50G10/D08MA4	100	14100	26000			
3.1	1290	0.89	465.1	BK30G10/D08WA4	100			3.7	1080	1.05
2.8	1420	0.81	513.4			14100	26000	3.3	1210	0.95
			205.5	DV.co= (Doctor	44-	1	24000	0.3	- 40	
6.9	760	3.0	205.0	BK60Z/D08MA4	119	16600	34000	8.2	640	3.6
5.9	890	2.6	239.7	"	"	16600	34000	7.1	730	3.2
5.3	990	2.3	268.2	"	"	16600	34000	6.3	830	2.8
4.5	1160	2.0	317.7	"	II .	16600	34000	5.3	990	2.3
4.0	1310	1.75	355.5	II	II .	16600	34000	4.8	1090	2.1
3.5	1500	1.55	411.5	"	II .	16600	34000	4.1	1280	1.8
3.1	1690	1.35	460.4	"	II .	16600	34000	3.7	1410	1.65
2.9	1810	1.25	498.0	II .	п	16600	34000	3.4	1540	1.5
2.6	2000	1.15	557.2	п	II .	16600	34000	3.1	1690	1.35
2.3	2000	1.25	621.5	BK60G20/D08MA4	126	16600	34000	2.8	1610	1.55
1.9	2400	1.05	752.1	" "	"	16600	34000	2.3	1960	1.3
1.6	2900	0.86	887.8	"	"	16600	34000	1.9	2400	1.05

Selection - bevel geared motors DHE - IE2

P = 0.55 kW



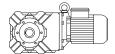
	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
3.3	1590	3.3	432.1	BK70Z/D08MA4	207	24100	50000	3.9	1340	3.9
2.8	1870	2.8	501.8	"	"	24100	50000	3.4	1540	3.4
2.5	2100	2.5	570.8	"	"	24100	50000	3.0	1750	3.0
2.2	2350	2.2	644.9	"	"	24100	50000	2.7	1940	2.7
2.0	2600	2.0	733.6	"	"	24100	50000	2.3	2250	2.3
1.7	2700	2.1	847.7	BK70G20/D08MA4	205	24100	50000	2.0	2250	2.5
1.5	3050	1.85	964.6	"	"	24100	50000	1.8	2500	2.3
1.3	3600	1.6	1139	"	"	24100	50000	1.5	3050	1.85
1.1	4350	1.3	1280	"	II	24100	50000	1.4	3350	1.7
1.0	4800	1.2	1457	"	II	24100	50000	1.2	3900	1.45
1.1	3750	3.1	1307	BK80G40/D08MA4	347	30000	75000	1.3	3000	3.8
1.0	4050	2.8	1425	"	"	30000	75000	1.2	3150	3.7
0.9	4600	2.5	1583	"	"	30000	75000	1.1	3550	3.2
0.8	5200	2.2	1775	"	"	30000	75000	0.95	4200	2.7
0.65	6600	1.75	2205	"	"	30000	75000	0.8	5100	2.3
0.6	7300	1.6	2449	"	"	30000	75000	0.7	6000	1.9
0.5	9000	1.3	2811	"	"	30000	75000	0.6	7200	1.6
0.45	10200	1.15	3120	"	"	30000	75000	0.55	8000	1.45
0.55	7400	2.5	2764	BK90G50/D08MA4	620	49400	120000	0.65	5900	3.1
0.46	9300	2.0	3065	"	"	49400	120000	0.55	7400	2.5
0.39	11300	1.65	3672	"	"	49400	120000	0.46	9300	2.0
0.35	12900	1.45	4070	"	"	49400	120000	0.42	10300	1.8
0.29	16000	1.15	4952	"	"	49400	120000	0.34	13300	1.4
0.26	18000	1.05	5491	"		49400	120000	0.31	14800	1.25

P = 0.75 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		71			***	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
196	33.5	2.2	7.25	BK06/DHE08XA4	18	790	-	240	27	2.7
147	44.5	1.8	9.71	"	II .	880	-	177	37	2.2
122	54	1.5	11.67	"	II .	930	-	147	44.5	1.8
93	70	1.15	15.29	"	II .	1020	-	112	58	1.4
79	81	0.99	18.00	"	II .	1080	-	95	67	1.2
66	97	0.82	21.54	II	"	1150	-	80	80	1.0
185	35.5	3.2	7.68	BK10/DHE08XA4	30	2400	-	225	29	4.0
152	43	2.7	9.40	"	II .	2700	-	182	36	3.2
120	54	2.1	11.93	"	"	3100	-	144	45.5	2.5
98	65	3.1	14.50	"	"	3900	-	118	54	3.7
84	76	1.8	16.92	"	"	3700	-	102	63	2.2
77	83	2.4	18.52	"	"	4300	-	93	69	2.9
63	102	1.95	22.65	"	"	4650	-	76	84	2.4
49.5	130	1.55	28.76	"	"	5200	-	60	107	1.85
41.5	155	1.3	34.25	"	"	5600	-	50	128	1.55
35	184	1.1	40.79	"	"	6000	-	42	153	1.3
29.5	215	0.93	48.96	"	"	6400	-	35	182	1.1
82	79	2.9	17.42	BK20/DHE08XA4	39	3250	9000	99	65	3.6
59	109	3.0	24.29	"	II .	4500	9000	71	90	3.7
50	128	2.6	28.66	"	II .	4850	9000	60	107	3.1
39	165	2.0	36.69	"	II .	5400	9000	47	137	2.4
33.5	192	1.7	42.70	"	II .	5800	9000	40.5	159	2.1
28	225	1.45	51.22	II .	II .	6300	9000	33.5	190	1.75
23.5	270	1.2	61.30	II .	II .	6500	9000	28	225	1.45
18.5	340	0.97	76.79	II .	II .	7500	9000	22.5	280	1.2
16.5	375	0.88	88.12	"	"	8000	9000	19.5	315	1.05
42.5	151	3.0	33.70	BK30/DHE08XA4	45	7000	12000	51	126	3.6
33.5	190	2.4	42.89	II .	II .	7800	12000	40	159	2.8
28.5	220	2.0	50.27	II .	II .	8300	12000	34.5	182	2.5
24	260	1.75	59.27	"	"	8900	12000	29	215	2.1

Selection - bevel geared motors DHE - IE2

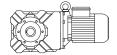
P = 0.75 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	•	1,700	•••	• KN	• KV	n ₂	M ₂	f _B
1/min	Nm				kg	N	N	1/min	Nm	
20	310	1.45	71.56	BK30/DHE08XA4	"	9700	12000	24	255	1.75
16.5	370	1.2	88.38	"	"	10600	12000	19.5	315	1.45
14	430	1.05	102.4			11200	12000	17	355	1.25
11.5	520	0.87	123.9	BK30Z/DHE08XA4	48	11200	12000	14	430	1.05
24	260	3.0	59.66	BK40/DHE08XA4	65	9100	17000	29	215	3.6
20.5	300	2.6	70.11	"	"	9800	17000	24.5	250	3.1
17	365	2.1	84.36	II .	II .	10700	17000	20.5	300	2.6
14	430	1.8	104.0	TI TI	"	11700	17000	16.5	365	2.1
12.5	485	1.6	118.2	BK40Z/DHE08XA4	70	11700	17000	14.5	415	1.9
10	600	1.3	143.0	m .	"	11700	17000	12	500	1.55
8.5	690	1.15	169.0	"	II .	11700	17000	10.5	560	1.4
6.8	860	0.91	211.5	"	"	11700	17000	8.1	720	1.1
19	325	3.2	75.40	BK50/DHE08XA4	94	12600	26000	23	270	3.9
15	410	2.6	95.29	п	"	14100	26000	18	340	3.1
12.5	485	2.2	115.4	BK50Z/DHE08XA4	98	14100	26000	15	405	2.6
9.3	630	1.65	153.3	п	"	14100	26000	11.5	510	2.1
6.9	850	1.25	206.8	"	II .	14100	26000	8.3	700	1.5
5.4	1070	0.98	264.5	"	"	14100	26000	6.5	890	1.2
9.3	770	3.0	153.7	BK60Z/DHE08XA4	121	16600	34000	11.5	620	3.7
7.8	910	2.5	183.2	II	"	16600	34000	9.4	760	3.0
7.0	1020	2.3	205.0	п	"	16600	34000	8.4	850	2.7
6.0	1190	1.95	239.7	"	"	16600	34000	7.2	990	2.3
5.3	1350	1.7	268.2	"	"	16600	34000	6.4	1110	2.1
4.5	1590	1.45	317.7		"	16600	34000	5.4	1320	1.75
4.0	1790	1.3	355.5	"	"	16600	34000	4.9	1460	1.6
3.5	2000	1.15	411.5	"	"	16600	34000	4.2	1700	1.35
3.1	2300	1.0	460.4		"	16600	34000	3.8	1880	1.2
2.9 2.6	2450 2750	0.94 0.84	498.0 557.2	п	"	16600	34000 34000	3.5 3.1	2000 2300	1.15
2.3	2850	0.84	621.5	BK60G20/DHE08XA4	129	16600 16600	34000	2.8	2250	1.0 1.1
4.3	1660	3.1	333.6	BK70Z/DHE08XA4	210	24100	50000	5.2	1370	3.8
3.8	1880	2.8	379.9	BR702/DHE08XA4	210	24100	50000	4.6	1550	3.4
3.3	2150	2.4	432.1	п	"	24100	50000	4.0	1790	2.9
2.9	2450	2.1	501.8	II .	"	24100	50000	3.5	2000	2.6
2.5	2850	1.8	570.8	п	"	24100	50000	3.0	2350	2.2
2.3	3100	1.7	644.9	п	"	24100	50000	2.7	2650	1.95
2.0	3550	1.45	733.6	II .	"	24100	50000	2.4	2950	1.75
1.7	3850	1.5	847.7	BK70G20/DHE08XA4	207	24100	50000	2.1	3050	1.85
1.5	4350	1.3	964.6	п	"	24100	50000	1.8	3550	1.6
1.3	5000	1.15	1139	"	"	24100	50000	1.6	4000	1.45
1.2	5500	1.05	1280	"	"	24100	50000	1.4	4700	1.2
1.0	6700	0.85	1457	"	II	24100	50000	1.2	5500	1.05
1.5	3850	3.0	963.0	BK80G40/DHE08XA4	349	30000	75000	1.8	3050	3.8
1.4	4100	2.8	1079	"	II .	30000	75000	1.6	3450	3.3
1.1	5400	2.1	1307	"	"	30000	75000	1.4	4100	2.8
1.0	5900	1.95	1425	"	"	30000	75000	1.2	4750	2.4
0.9	6700	1.7	1583	"	"	30000	75000	1.1	5200	2.2
0.8	7600	1.5	1775	" "	"	30000	75000	1.0	5800	2.0
0.65 0.6	9600 10400	1.2 1.1	2205 2449	"	"	30000 30000	75000 75000	0.8 0.7	7500 8700	1.55 1.3
0.9	6400	2.9	1579	BK90G50/DHE08XA4	622	49400	120000	1.1	5000	3.7
0.8	7200	2.6	1803	"	"	49400	120000	0.95	5800	3.2
0.75	7600	2.4	2016	"	"	49400	120000	0.85	6500	2.8
0.55	10900	1.7	2764	" "	"	49400	120000	0.65	8900	2.1
0.47 0.39	13100 16200	1.4	3065 3672		"	49400 49400	120000 120000	0.6 0.47	9800 13100	1.9
	16200 18300	1.15		"					13100 14500	1.4
0.35	18300	1.0	4070		"	49400	120000	0.43	14500	1.3

Selection - bevel geared motors DHE - IE2

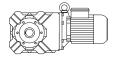
P = 1.1 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	'	туре	111	I RN	i RV	n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	•в			kg	N	N	1/min	Nm	•в
325	29.5	3.2	4.44	BK10/DHE09LA4	36	1890	-	395	24	4.0
240	40	2.6	6.02	"	"	2100	_	290	33	3.2
188	51	2.3	7.68	n .	II .	2400	_	230	42	2.7
154	62	1.85	9.40	n .	II .	2700	_	186	51	2.3
135	70	2.6	10.70	n .	II.	3500	_	163	58	3.1
121	79	1.45	11.93	п	"	3100	_	146	66	1.75
100	94	2.1	14.50	п	"	3900	_	120	78	2.6
86	109	1.25	16.92	п	"	3700	_	103	91	1.5
78	121	1.65	18.52	п	"	4300	_	94	100	2.0
64	147	1.35	22.65	п	"	4650	_	77	122	1.65
51	185	1.1	28.76	п	"	5200	_	61	154	1.3
42.5	220	0.91	34.25	п	"	5600	_	51	185	1.1
72.5	220	0.51	54.25			3000		31	103	1.1
124	77	3.0	11.69	BK20/DHE09LA4	46	2400	8800	149	64	3.6
83	115	2.0	17.42	" "	40	3250	9000	100	95	2.4
75	126	2.6	19.39	п	"	4050	9000	90	105	3.1
60	157	2.1	24.29	п	"	4500	9000	72	131	2.5
51	185	1.8	28.66	п	"	4850	9000	61	154	2.1
39.5	235	1.4	36.69	п	"	5400	9000	47.5	199	1.65
34	235 275	1	42.70	п	"		9000		230	
28.5	325	1.2 1.0	42.70 51.22	"	"	5800 6300	9000	41 34	230	1.45 1.2
		1	61.30	п	"		9000	28.5		1.2
23.5	395	0.84	01.30			6500	9000	26.5	325	1.0
70	136	2.4	20.05	BK30 /DHE00LA4	F2	E000	12000	0.4	112	2.8
70 63	136	2.4	20.85	BK30/DHE09LA4	52 "	5000	12000 12000	84 75	113	3.6
	150	3.0	23.20	"	"	5900			126	
51 43	185	2.4	28.76 33.70	п	"	6500	12000 12000	61 52	154	2.9 2.5
34	215 270	2.1 1.65	42.89	п	"	7000 7800	12000	41	181 225	2.0
		1		п	"			35		
29	315	1.45	50.27	п	"	8300	12000		260	1.75
24.5 20.5	375 445	1.2 1.0	59.27 71.56	"	"	8900 9700	12000 12000	29.5	310 370	1.45 1.2
		1	88.38	п	"	10600		24.5		1.0
16.5	540	0.83	00.30			10000	12000	20	450	1.0
35.5	265	2.9	40.88	BK40/DHE09LA4	72	7600	17000	43	215	3.6
28.5	320	2.4	51.18	"	"	8400	17000	34	270	2.9
24.5	375	2.1	59.66	II	II.	9100	17000	29.5	310	2.5
21	435	1.8	70.11	п	"	9800	17000	25	365	2.1
17.5	520	1.5	84.36	II	II.	10700	17000	21	435	1.8
14	630	1.25	104.0	II	II.	11700	17000	17	520	1.5
12.5	710	1.1	118.2	BK40Z/DHE09LA4	76	11700	17000	15	590	1.3
10.5	840	0.93	143.0	"	"	11700	17000	12.5	700	1.1
								1.2.0		
24	385	2.7	60.76	BK50/DHE09LA4	100	11400	26000	29	315	3.3
19.5	465	2.3	75.40	m m	II	12600	26000	23.5	385	2.7
15.5	580	1.8	95.29	m m	II	14100	26000	18.5	485	2.2
12.5	710	1.5	115.4	BK50Z/DHE09LA4	105	14100	26000	15.5	570	1.85
9.4	920	1.15	153.3	II	"	14100	26000	11.5	750	1.4
7.0	1230	0.85	206.8	п	"	14100	26000	8.5	1010	1.05
14.5	720	3.2	101.2	BK60/DHE09LA4	109	13900	34000	17.5	600	3.8
13	800	2.9	113.2	"	II .	15000	34000	15.5	670	3.4
12	870	2.6	122.5	"	II .	15500	34000	14.5	720	3.2
11	950	2.4	137.0	"	II .	16600	34000	13	800	2.9
9.4	1110	2.1	153.7	BK60Z/DHE09LA4	128	16600	34000	11.5	910	2.5
7.9	1320	1.75	183.2	"	"	16600	34000	9.5	1100	2.1
7.1	1470	1.55	205.0	"	"	16600	34000	8.5	1230	1.85
6.1	1720	1.35	239.7	"	"	16600	34000	7.3	1430	1.6
5.4	1940	1.2	268.2		"	16600	34000	6.5	1610	1.45
4.6	2250	1.0	317.7	"	"	16600	34000	5.5	1910	1.2
4.1	2550	0.9	355.5	"	II	16600	34000	4.9	2100	1.1
	4		00	BU					4	
6.4	1640	3.2	226.2	BK70Z/DHE09LA4	216	24100	50000	7.7	1360	3.8
5.6	1870	2.8	257.3	"	"	24100	50000	6.8	1540	3.4
5.0	2100	2.5	293.3	"	"	24100	50000	6.0	1750	3.0
4.4	2350	2.2	333.6	"	"	24100	50000	5.3	1980	2.6
3.8	2750	1.9	379.9	"	II .	24100	50000	4.6	2250	2.3

Selection - bevel geared motors DHE - IE2

P = 1.1 kW



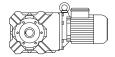
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
3.4	3050	1.7	432.1	BK70Z/DHE09LA4	"	24100	50000	4.1	2550	2.0
2.9	3600	1.45	501.8	m .	"	24100	50000	3.5	3000	1.75
2.6	4000	1.3	570.8	п	"	24100	50000	3.1	3350	1.55
2.3	4550	1.15	644.9	n n	"	24100	50000	2.7	3850	1.35
2.0	5200	1.0	733.6	n n	"	24100	50000	2.4	4350	1.2
1.7	5800	0.98	847.7	BK70G20/DHE09LA4	214	24100	50000	2.1	4600	1.25
1.5	6500	0.88	964.6	"	II .	24100	50000	1.9	5100	1.1
2.9	3600	3.2	499.5	BK80Z/DHE09LA4	345	30000	75000	3.5	3000	3.8
2.6	4000	2.9	559.5	II .	11	30000	75000	3.2	3250	3.5
2.4	3600	3.2	607.8	BK80G40/DHE09LA4	356	30000	75000	2.9	2850	4.0
2.2	3900	2.9	680.9	II .	II .	30000	75000	2.6	3200	3.6
2.0	4400	2.6	756.3	m .	II .	30000	75000	2.4	3550	3.2
1.7	5200	2.2	847.2	m .	II .	30000	75000	2.1	4050	2.8
1.5	6100	1.9	963.0	m .	"	30000	75000	1.9	4600	2.5
1.4	6400	1.8	1079	m .	II .	30000	75000	1.7	5100	2.3
1.2	7700	1.5	1307	п	"	30000	75000	1.4	6400	1.8
1.1	8300	1.4	1425	п	"	30000	75000	1.3	6900	1.65
0.95	9800	1.15	1583	n n	"	30000	75000	1.1	8300	1.4
0.85	11000	1.05	1775	"	II .	30000	75000	1.0	9200	1.25
1.5	5600	3.3	1008	BK90G50/DHE09LA4	629	49400	120000	1.8	4450	4.2
1.3	6500	2.8	1127	п	II .	49400	120000	1.6	5000	3.7
1.1	8300	2.2	1363	п	II .	49400	120000	1.3	6800	2.7
0.95	9500	1.95	1579	m .	II .	49400	120000	1.2	7200	2.6
0.8	11400	1.6	1803	m .	"	49400	120000	1.0	8700	2.1
0.75	12000	1.55	2016	II .	"	49400	120000	0.9	9700	1.9
0.55	16900	1.1	2764	"	II .	49400	120000	0.65	14000	1.3

P = 1.5 kW

$\Gamma - 1.$	JKW									
	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
325	40.5	2.3	4.44	BK10/DHE09XA4	40	1890	-	395	33	2.9
240	54	1.95	6.02	II	II .	2100	-	290	45	2.3
188	70	1.65	7.68	"	"	2400	-	230	57	2.0
154	85	1.35	9.40	II	"	2700	-	186	70	1.65
135	95	1.9	10.70	II	"	3500	-	163	79	2.3
121	108	1.05	11.93	"	"	3100	-	146	90	1.3
100	128	1.55	14.50	II	"	3900	-	120	107	1.85
86	149	0.91	16.92	II	"	3700	-	103	125	1.1
78	165	1.2	18.52	II	II .	4300	-	94	137	1.45
64	200	1.0	22.65	II	"	4650	-	77	167	1.2
51	250	0.8	28.76	n n	II	5200	-	61	210	0.95
183	72	3.2	7.91	BK20/DHE09XA4	50	1330	7600	220	59	3.9
146	90	2.6	9.91	II .	"	1910	8300	176	74	3.1
130	99	3.0	11.14	"	"	3300	8100	157	82	3.7
124	106	2.2	11.69	"	"	2400	8800	149	88	2.6
98	131	2.5	14.75	"	II .	3650	9000	118	109	3.0
83	157	1.45	17.42	"	"	3250	9000	100	130	1.8
75	171	1.95	19.39	"	"	4050	9000	90	143	2.3
60	210	1.55	24.29	"	"	4500	9000	72	179	1.85
51	250	1.3	28.66	"	"	4850	9000	61	210	1.55
39.5	325	1.0	36.69	"	"	5400	9000	47.5	270	1.2
34	375	0.88	42.70	"	"	5800	9000	41	310	1.05
121	108	3.0	11.93	BK30/DHE09XA4	56	3650	12000	146	90	3.6
104	125	2.6	13.98	II	II .	4050	12000	125	104	3.1
81	159	2.8	17.95	II	II .	5300	12000	97	132	3.4
70	186	1.7	20.85	II	"	5000	12000	84	155	2.1
63	200	2.3	23.20	II	"	5900	12000	75	171	2.6
51	250	1.8	28.76	п	II .	6500	12000	61	210	2.1
43	295	1.55	33.70	п	"	7000	12000	52	245	1.85
34	370	1.2	42.89	II .	"	7800	12000	41	310	1.45

Selection - bevel geared motors DHE - IE2

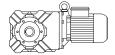
P = 1.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	'	Турс	""	I RN	• RV	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	•в			kg	N	N	1/min	Nm	•в
29	430	1.05	50.27	BK30/DHE09XA4	ıı	8300	12000	35	360	1.25
24.5	510	0.88	59.27	"	11	8900	12000	29.5	425	1.05
		0.00	07.27			0200			5	
51	250	3.1	28.59	BK40/DHE09XA4	76	6300	17000	61	210	3.7
42	305	2.6	34.61	"	"	6900	17000	51	250	3.1
35.5	360	2.2	40.88	n .	II .	7600	17000	43	295	2.6
28.5	440	1.75	51.18	п	"	8400	17000	34	370	2.1
24.5	510	1.55	59.66	m .	11	9100	17000	29.5	425	1.85
21	590	1.3	70.11	п	"	9800	17000	25	495	1.6
17.5	710	1.1	84.36	m .	11	10700	17000	21	590	1.3
14	860	0.91	104.0	п	II .	11700	17000	17	710	1.1
12.5	970	0.8	118.2	BK40Z/DHE09XA4	80	11700	17000	15	810	0.96
30.5	415	2.5	47.50	BK50/DHE09XA4	104	10100	25700	37	340	3.1
24	520	2.0	60.76	"	"	11400	26000	29	430	2.4
19.5	630	1.65	75.40	"	"	12600	26000	23.5	530	2.0
15.5	790	1.35	95.29	"	"	14100	26000	18.5	660	1.6
12.5	970	1.1	115.4	BK50Z/DHE09XA4	109	14100	26000	15.5	780	1.35
9.4	1260	0.83	153.3	"	II .	14100	26000	11.5	1030	1.0
										_
18.5	770	3.0	78.13	BK60/DHE09XA4	113	11900	34000	22.5	630	3.7
16.5	860	2.7	87.41		"	12900	34000	20	710	3.2
14.5	980	2.3	101.2		"	13900	34000	17.5	810	2.8
13	1100	2.1	113.2		"	15000	34000	15.5	920	2.5
12	1190	1.95	122.5	"	"	15500	34000	14.5	980	2.3
11	1300	1.75	137.0		"	16600	34000	13	1100	2.1
9.4	1520	1.5	153.7	BK60Z/DHE09XA4	132	16600	34000	11.5	1240	1.85
7.9	1810	1.25	183.2	"	"	16600	34000	9.5	1500	1.55
7.1	2000	1.15	205.0	"	"	16600	34000	8.5	1680	1.35
6.1	2300	1.0	239.7		"	16600	34000	7.3	1960	1.15
5.4	2650	0.87	268.2		"	16600	34000	6.5	2200	1.05
8.2	1740	3.0	175.7	BK70/DHE09XA4	199	24100	50000	10	1430	3.6
7.6	1880	2.8	190.4	BK70Z/DHE09XA4	220	24100	50000	9.2	1550	3.4
6.4	2200	2.4	226.2	"	"	24100	50000	7.7	1860	2.8
5.6	2550	2.0	257.3	п	"	24100	50000	6.8	2100	2.5
5.0	2850	1.8	293.3	п	"	24100	50000	6.0	2350	2.2
4.4	3250	1.6	333.6	п	"	24100	50000	5.3	2700	1.95
3.8	3750	1.4	379.9	II .	11	24100	50000	4.6	3100	1.7
3.4	4200	1.25	432.1	II .	11	24100	50000	4.1	3450	1.5
2.9	4900	1.05	501.8	II .	II .	24100	50000	3.5	4050	1.3
2.6	5500	0.95	570.8	II .	II .	24100	50000	3.1	4600	1.15
2.3	6200	0.84	644.9	II .	"	24100	50000	2.7	5300	0.98
3.8	3750	3.1	389.0	BK80Z/DHE09XA4	349	30000	75000	4.5	3150	3.7
3.4	4200	2.7	435.7	"	"	30000	75000	4.0	3550	3.2
2.9	4900	2.3	499.5	m m	"	30000	75000	3.5	4050	2.8
2.6	5500	2.1	559.5	"	"	30000	75000	3.2	4450	2.6
2.4	5200	2.2	607.8	BK80G40/DHE09XA4	360	30000	75000	2.9	4150	2.8
2.2	5600	2.1	680.9	"	"	30000	75000	2.6	4650	2.5
2.0	6300	1.85	756.3	"	II .	30000	75000	2.4	5100	2.3
1.7	7500	1.55	847.2		"	30000	75000	2.1	5900	1.95
1.5	8600	1.35	963.0	"	"	30000	75000	1.9	6600	1.75
1.4	9200	1.25	1079		"	30000	75000	1.7	7400	1.55
1.2	10900	1.05	1307	"	"	30000	75000	1.4	9200	1.25
1.1	11800	0.97	1425			30000	75000	1.3	9800	1.15
2.3	6200	3.0	637.7	BK90Z/DHE09XA4	622	49400	120000	2.8	5100	3.6
2.1	6800	2.7	713.5	"	"	49400	120000	2.5	5700	3.2
1.8	6600	2.8	821.0	BK90G50/DHE09XA4	633	49400	120000	2.2	5100	3.6
1.7	7200	2.6	882.3	"	"	49400	120000	2.0	5900	3.1
1.5	8100	2.3	1008	TT.	II .	49400	120000	1.8	6600	2.8
1.3	9500	1.95	1127	n n	II .	49400	120000	1.6	7400	2.5
1.1	11800	1.55	1363	n n	II .	49400	120000	1.3	9800	1.9
	13500	1.35	1579	TT TT	II .	49400	120000	1.2	10400	1.8
0.95										
0.95 0.8	16100	1.15	1803	m m	"	49400	120000	1.0	12600	1.45

Selection - bevel geared motors DHE - IE2

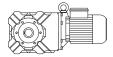
P = 2.2 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		• •				n ₂	M ₂	f _B
1/min	Nm				kg	N	N	1/min	Nm	
325	59	1.6	4.44	BK10/DHE09XA4C	43	1890	-	395	48.5	1.95
240	80	1.3	6.02	п	"	2100	-	290	66	1.6
188	102	1.15	7.68	п	"	2400	_	230	84	1.35
154	125	0.92	9.40	u u	"	2700	_	186	103	1.1
135	140	1.3	10.70	11	"	3500	_	163	116	1.55
100	189	1.05	14.50	11	11	3900	_	120	157	1.25
78	240	0.83	18.52	п	"	4300	_	94	200	1.0
70	240	0.03	10.52			4300		74	200	1.0
320	60	3.3	4.54	BK20/DHE09XA4C	52	520	6100	385	50	3.9
240	80	2.7	6.02	" "	J2 "	580	6800	290	66	3.3
183	105	2.7	7.91	"	"	1330	7600	220	87	2.7
146	132	1.75	9.91	n	"	1910	8300	176	109	2.7
				"	"					
130	145	2.1	11.14	"	"	3300	8100	157	120	2.5
124	155	1.5	11.69	"	"	2400	8800	149	129	1.8
98	192	1.7	14.75		"	3650	9000	118	160	2.1
83	230	1.0	17.42			3250	9000	100	191	1.2
75	250	1.3	19.39		"	4050	9000	90	210	1.55
60	315	1.05	24.29	"	II .	4500	9000	72	260	1.25
51	370	0.89	28.66	n n	II .	4850	9000	61	305	1.1
305	63	3.1	4.73	BK30/DHE09XA4C	58	1550	8800	370	52	3.7
240	80	2.7	6.02	"	II .	1690	9600	290	66	3.2
194	99	2.7	7.45	"	"	2200	10400	235	82	3.3
150	128	2.5	9.63	"	"	3150	11500	181	106	3.0
127	148	2.8	11.39	11	"	4150	11000	153	123	3.4
121	159	2.0	11.93	11	"	3650	12000	146	132	2.4
104	183	1.75	13.98	II .	"	4050	12000	125	152	2.1
100	189	2.4	14.50	u u	"	4900	12000	120	157	2.9
81	230	1.95	17.95	"	"	5300	12000	97	194	2.3
70	270	1.2	20.85	11	"	5000	12000	84	225	1.4
63	300	1.5	23.20	II .	"	5900	12000	75	250	1.8
51	370	1.2	28.76	II .	"	6500	12000	61	305	1.5
43	435	1.05	33.70	п	"	7000	12000	52	360	1.25
34	540		42.89	"	"	7800	12000	41	455	0.99
34	340	0.83	42.09			7800	12000	41	433	0.99
122	158	3.1	11.86	BK40/DHE09XA4C	79	1770	12200	147	131	3.8
80	235	3.3	18.05	" "	"	4900	15300	97	194	4.0
65	290	2.7	22.44	п	п	5500	16500	78	240	3.3
51	370			n	"		17000			2.6
42	450	2.1	28.59 34.61	"	"	6300		61 51	305	
		1.75		"	"	6900	17000		370 425	2.1
35.5	530	1.45	40.88	"	"	7600	17000	43	435	1.8
28.5	640	1.2	51.18	"	"	8400	17000	34	540	1.45
24.5	750	1.05	59.66		"	9100	17000	29.5	620	1.25
21	870	0.9	70.11	.		9800	17000	25	730	1.05
0.4	225	2.4	17.00	DVEQ /DUEQOVA46	107	4600	1.0000	00	105	2.7
81	235	3.1	17.92	BK50/DHE09XA4C	107	4600	16800	98	195	3.7
55	340	3.1	26.51		"	7800	21200	66	285	3.7
41	460	2.3	35.21	"	"	8700	23100	49.5	380	2.8
30.5	610	1.7	47.50	"	"	10100	25700	37	500	2.1
24	770	1.35	60.76	"		11400	26000	29	630	1.65
19.5	930	1.15	75.40		"	12600	26000	23.5	770	1.35
15.5	1160	0.91	95.29	"	II .	14100	26000	18.5	970	1.1
29	720	3.2	50.40	BK60/DHE09XA4C	115	9100	29800	35	600	3.8
24.5	850	2.7	58.95	n n	II .	9900	31500	30	700	3.3
22	950	2.4	65.95	"	"	10900	33000	26.5	790	2.9
18.5	1130	2.0	78.13	n n	II .	11900	34000	22.5	930	2.5
16.5	1270	1.8	87.41	n n	II .	12900	34000	20	1050	2.2
14.5	1440	1.6	101.2	n n	II .	13900	34000	17.5	1200	1.9
13	1610	1.45	113.2	"	"	15000	34000	15.5	1350	1.7
12	1750	1.3	122.5	"	II	15500	34000	14.5	1440	1.6
11	1910	1.2	137.0	п	II .	16600	34000	13	1610	1.45
9.4	2200	1.05	153.7	BK60Z/DHE09XA4C	135	16600	34000	11.5	1820	1.25
7.9	2650	0.87	183.2	"	"	16600	34000	9.5	2200	1.05
12	1750	3.0	120.2	BK70/DHE09XA4C	202	18600	50000	14.5	1440	3.6
11	1910	2.7	136.7	II	"	20700	50000	13	1610	3.2
								1 1		

Selection - bevel geared motors DHE - IE2

P = 2.2 kW



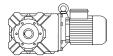
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
9.4	2200	2.4	154.4	BK70/DHE09XA4C	"	21900	50000	11.5	1820	2.9
8.2	2550	2.0	175.7	n n	"	24100	50000	10	2100	2.5
7.6	2750	1.9	190.4	BK70Z/DHE09XA4C	223	24100	50000	9.2	2250	2.3
6.4	3250	1.6	226.2	"	"	24100	50000	7.7	2700	1.95
5.6	3750	1.4	257.3	"	"	24100	50000	6.8	3050	1.7
5.0	4200	1.25	293.3	"	"	24100	50000	6.0	3500	1.5
4.4	4750	1.1	333.6	"	"	24100	50000	5.3	3950	1.3
3.8	5500	0.95	379.9	"	"	24100	50000	4.6	4550	1.15
3.4	6100	0.85	432.1	"	"	24100	50000	4.1	5100	1.0
5.7	3650	3.2	253.3	BK80Z/DHE09XA4C	351	30000	75000	6.9	3000	3.8
4.8	4350	2.6	300.6	n n	"	30000	75000	5.8	3600	3.2
4.3	4850	2.4	336.7	n n	"	30000	75000	5.2	4000	2.9
3.8	5500	2.1	389.0	"	"	30000	75000	4.5	4650	2.5
3.4	6100	1.9	435.7	"	"	30000	75000	4.0	5200	2.2
2.9	7200	1.6	499.5	"	"	30000	75000	3.5	6000	1.9
2.6	8000	1.45	559.5	"	"	30000	75000	3.2	6500	1.75
2.4	8000	1.45	607.8	BK80G40/DHE09XA4C	363	30000	75000	2.9	6400	1.8
2.2	8700	1.3	680.9	"	"	30000	75000	2.6	7200	1.6
2.0	9600	1.2	756.3	"	"	30000	75000	2.4	7900	1.45
1.7	11400	1.0	847.2	"	"	30000	75000	2.1	9000	1.3
1.5	13100	0.88	963.0	"	"	30000	75000	1.9	10100	1.15
1.4	13900	0.83	1079	II	II	30000	75000	1.7	11300	1.0
3.4	6100	3.0	435.3	BK90Z/DHE09XA4C	624	49400	120000	4.0	5200	3.6
2.9	7200	2.6	499.2	"	"	49400	120000	3.5	6000	3.1
2.6	8000	2.3	558.5	"	"	49400	120000	3.2	6500	2.8
2.3	9100	2.0	637.7	"	"	49400	120000	2.8	7500	2.5
2.1	10000	1.85	713.5	"	"	49400	120000	2.5	8400	2.2
1.8	10300	1.8	821.0	BK90G50/DHE09XA4C	635	49400	120000	2.2	8200	2.3
1.7	11100	1.65	882.3	"	"	49400	120000	2.0	9300	2.0
1.5	12600	1.45	1008	"	"	49400	120000	1.8	10300	1.8
1.3	14600	1.25	1127	"	"	49400	120000	1.6	11600	1.6
1.1	17800	1.05	1363	"	"	49400	120000	1.3	14900	1.25

P = 3 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
305	86	2.3	4.73	BK30/DHE11MA4	65	1550	8800	370	71	2.7
240	109	1.95	6.02	m .	"	1690	9600	290	90	2.4
194	135	2.0	7.45	п	II .	2200	10400	235	112	2.4
150	175	1.85	9.63	m .	"	3150	11500	181	145	2.2
127	200	2.1	11.39	m .	"	4150	11000	153	168	2.5
121	215	1.5	11.93	n n	II .	3650	12000	146	180	1.8
104	250	1.3	13.98	"	"	4050	12000	125	205	1.55
100	255	1.75	14.50	"	"	4900	12000	120	210	2.1
81	315	1.45	17.95	"	"	5300	12000	97	265	1.7
63	405	1.1	23.20	"	II .	5900	12000	75	340	1.3
51	500	0.9	28.76	II	"	6500	12000	61	420	1.05
155	170	2.9	9.31	BK40/DHE11MA4	90	1040	11200	187	140	3.5
122	215	2.3	11.86	m .	"	1770	12200	147	179	2.8
100	255	3.1	14.50	n n	II .	4500	14300	120	210	3.7
80	320	2.4	18.05	"	"	4900	15300	97	265	2.9
65	395	1.95	22.44	"	"	5500	16500	78	330	2.4
51	500	1.55	28.59	"	"	6300	17000	61	420	1.85
42	610	1.3	34.61	"	"	6900	17000	51	500	1.55
35.5	720	1.1	40.88	"	"	7600	17000	43	590	1.3
81	320	2.3	17.92	BK50/DHE11MA4	120	4600	16800	98	265	2.7
75	340	3.1	19.33	m m	II .	6900	19200	91	280	3.8
55	465	2.3	26.51	m m	II .	7800	21200	66	390	2.7
41	620	1.7	35.21	п	II .	8700	23100	49.5	520	2.0

Selection - bevel geared motors DHE - IE2

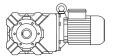
P = 3 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	•	.,,,,		- NN	- NV	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	-в			kg	N	N	1/min	Nm	
30.5	830	1.25	47.50	BK50/DHE11MA4	ıı	10100	25700	37	680	1.55
24	1050	1.0	60.76	"	ıı	11400	26000	29	860	1.2
19.5	1270	0.83	75.40	II .	"	12600	26000	23.5	1060	0.99
19.5	1270	0.05	73.40			12000	20000	23.3	1000	0.55
38.5	740	3.1	37.80	BK60/DHE11MA4	130	7300	26500	46.5	610	3.8
32	890	2.6	45.05	" "	"	8200	28300	39	730	3.2
29	980	2.3	50.40	п	"	9100	29800	35	810	2.8
24.5	1160	2.0	58.95	п	"	9900	31500	30	950	2.4
22	1300	1.75	65.95	п	"	10900	33000	26.5	1080	2.4
18.5	1540	1.75	78.13	п	"	11900	34000	20.5	1270	1.8
16.5	1730		87.41	п	"	12900	34000	20.3	1430	
		1.35		п	"					1.6
14.5	1970	1.15	101.2	п	"	13900	34000	17.5	1630	1.4
13	2200	1.05	113.2	"	"	15000	34000	15.5	1840	1.25
12	2350	0.98	122.5		"	15500	34000	14.5	1970	1.15
11	2600	0.88	137.0			16600	34000	13	2200	1.05
16	1790	2.9	90.96	BK70/DHE11MA4	209	15300	49900	19.5	1460	3.6
14	2000	2.9	103.5	BK/U/DHETTMA4	209	17200	50000	17.5	1680	3.1
1		1		п	"			1		
12	2350	2.2	120.2	n	"	18600	50000	14.5	1970	2.6
11	2600	2.0	136.7	n	"	20700	50000	13	2200	2.4
9.4	3000	1.75	154.4		"	21900	50000	11.5	2450	2.1
8.2	3450	1.5	175.7			24100	50000	10	2850	1.8
7.6	3750	1.4	190.4	BK70Z/DHE11MA4	236	24100	50000	9.2	3100	1.7
6.4	4450	1.15	226.2		"	24100	50000	7.7	3700	1.4
5.6	5100	1.0	257.3		"	24100	50000	6.8	4200	1.25
5.0	5700	0.91	293.3		"	24100	50000	6.0	4750	1.1
4.4	6500	8.0	333.6		"	24100	50000	5.3	5400	0.96
8.4	3400	3.1	171.5	BK80/DHE11MA4	324	30000	75000	10.5	2700	3.9
8.2	3450	3.3	171.5	BK80Z/DHE11MA4	366	30000	75000	9.8	2900	4.0
7.3	3900	2.9	198.9	UNOUZ/DITETTIMA4	300	30000	75000	8.8	3250	3.5
6.4	4450			п	"		75000	7.7	3700	3.1
5.7	5000	2.6 2.3	226.1 253.3	m .	"	30000 30000	75000 75000	6.9	4150	
4.8	5900 5900	1.95	300.6	m .	"	30000	75000 75000	5.8	4900	2.8 2.3
4.8	6600		336.7	m .	"	30000	75000 75000	5.0	5500	2.3
3.8	7500	1.75 1.55	389.0	m .	"	30000	75000	4.5	6300	1.85
				m .	"					
3.4 2.9	8400 9800	1.35	435.7 499.5	m .	"	30000	75000 75000	4.0 3.5	7100	1.6
1		1.15		m .	"	30000			8100	1.4
2.6	11000	1.05	559.5			30000	75000	3.2	8900	1.3
2.4 2.2	11100	1.05	607.8	BK80G40/DHE11MA4	374	30000	75000	2.9 2.6	9100	1.25
	12100	0.95	680.9	п	"	30000	75000		10100	1.15 1.05
2.0	13500	0.85	756.3			30000	75000	2.4	11100	1.05
4.9	5800	3.2	295.6	BK90Z/DHE11MA4	632	49400	120000	5.9	4850	3.8
4.4	6500	2.8	330.7	"	"	49400	120000	5.3	5400	3.4
3.8	7500	2.5	389.1	n .	II .	49400	120000	4.5	6300	2.9
3.4	8400	2.2	435.3	п	II .	49400	120000	4.0	7100	2.6
2.9	9800	1.9	499.2	n n	"	49400	120000	3.5	8100	2.3
2.6	11000	1.7	558.5	rr .	11	49400	120000	3.2	8900	2.1
2.3	12400	1.5	637.7	п	"	49400	120000	2.8	10200	1.8
2.1	13600	1.35	713.5	m .	"	49400	120000	2.5	11400	1.6
1.8	14500	1.33	821.0	BK90G50/DHE11MA4	648	49400	120000	2.2	11600	1.6
1.7	15600	1.2	882.3	BR90G30/DHETTMA4	0 4 0	49400	120000	2.2	13100	1.4
1.5	17700	1.05	1008	m .	"	49400	120000	1.8	14500	1.4
		0.9		п	"	49400				
1.3	20500	0.9	1127			49400	120000	1.6	16300	1.15

Selection - bevel geared motors DHE - IE2

P = 4 kW



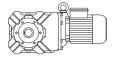
	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	ليكاك
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm		4.70	DIVOR IDITECT :	kg	N	N	1/min	Nm	
305	115	1.7	4.73	BK30/DHE11LA4	76 "	1550	8800	370	94	2.1
240	146	1.45	6.02	" "	"	1690	9600	290	121	1.75
194	181	1.5	7.45	" "	"	2200	10400	235	149	1.8
150	230	1.4	9.63	" "	"	3150	11500	181	194	1.65
127	270	1.55	11.39	" "	"	4150	11000	153	220	1.9
121	290	1.1	11.93	" "	"	3650	12000	146	240	1.35
104	330	0.97	13.98			4050	12000	125	275	1.15
100	340	1.3	14.50	"	"	4900	12000	120	285	1.6
81	420	1.05	17.95	"	"	5300	12000	97	350	1.3
63	540	0.83	23.20	II .	"	5900	12000	75	455	0.99
240	146	3.2	6.02	BK40/DHE11LA4	102	470	9800	290	121	3.9
193	182	2.7	7.49	II .	"	750	10500	235	149	3.3
155	225	2.2	9.31	II .	II .	1040	11200	187	187	2.6
129	265	2.7	11.17	m .	п	4100	13100	156	220	3.3
122	285	1.75	11.86	m .	п	1770	12200	147	235	2.1
100	340	2.3	14.50	n .	"	4500	14300	120	285	2.7
80	425	1.85	18.05	n .	"	4900	15300	97	350	2.2
65	520	1.5	22.44	11	"	5500	16500	78	440	1.75
51	670	1.15	28.59	m m	ıı	6300	17000	61	560	1.73
42	810	0.96	34.61	m m	ıı	6900	17000	51	670	1.15
35.5	960	0.81	40.88	II .	"	7600	17000	43	790	0.99
				/2						
104	330	3.2	13.95	BK50/DHE11LA4	132	6100	17400	125	275	3.8
95	360	2.9	15.19	"	"	6300	18000	115	295	3.6
81	425	1.7	17.92	"	"	4600	16800	98	350	2.1
75	455	2.3	19.33	"	"	6900	19200	91	375	2.8
55	620	1.7	26.51	"	"	7800	21200	66	520	2.0
41	830	1.25	35.21	"	"	8700	23100	49.5	690	1.5
30.5	1110	0.95	47.50	II .	"	10100	25700	37	910	1.15
53	720	3.2	27.36	BK60/DHE11LA4	142	5600	23200	64	590	3.9
43	880	2.6	33.78	m m	"	6500	25200	52	730	3.2
38.5	990	2.3	37.80	II .	"	7300	26500	46.5	820	2.8
32	1190	1.95	45.05	II .	"	8200	28300	39	970	2.4
29	1310	1.75	50.40	m .	n n	9100	29800	35	1090	2.1
24.5	1550	1.5	58.95	m .	n n	9900	31500	30	1270	1.8
22	1730	1.35	65.95	n .	II .	10900	33000	26.5	1440	1.6
18.5	2050	1.1	78.13	m .	n n	11900	34000	22.5	1690	1.35
16.5	2300	1.0	87.41	n .	"	12900	34000	20	1910	1.2
14.5	2600	0.88	101.2	п	II .	13900	34000	17.5	2150	1.05
22.5	1620	2.2	C1 C0	DV70 /DUE111 A 4	221	11500	42000	20.5	1240	2.0
23.5	1620	3.2	61.60	BK70/DHE11LA4	221	11500	42800	28.5	1340	3.9 3.4
21	1810	2.9	70.23	п	"	12500	44800	25	1520	
18.5	2050	2.5	79.89	 II	11	14300	47600	22	1730	3.0
16	2350	2.2	90.96	 II	"	15300	49900	19.5	1950	2.7
14	2700	1.95	103.5	 II	"	17200	50000	17	2200	2.4
12	3150	1.65	120.2			18600	50000	14.5	2600	2.0
11	3450	1.5	136.7	"	"	20700	50000	13	2900	1.8
9.4	4050	1.3	154.4	"	"	21900	50000	11.5	3300	1.6
8.2	4650	1.1	175.7	"	II .	24100	50000	10	3800	1.35
7.6	5000	1.05	190.4	BK70Z/DHE11LA4	247	24100	50000	9.2	4150	1.25
6.4	5900	0.88	226.2	"	"	24100	50000	7.7	4950	1.05
11	3450	3.0	131.6	BK80/DHE11LA4	336	24900	75000	13.5	2800	3.8
9.5	4000	2.6	153.1	II	II .	27200	75000	11.5	3300	3.2
8.4	4500	2.3	171.5	II .	"	30000	75000	10.5	3600	2.9
8.2	4650	2.5	177.6	BK80Z/DHE11LA4	378	30000	75000	9.8	3850	3.0
7.3	5200	2.2	198.9	"	"	30000	75000	8.8	4300	2.7
6.4	5900	1.95	226.1	11	II .	30000	75000	7.7	4950	2.3
5.7	6700	1.7	253.3	m .	"	30000	75000	6.9	5500	2.1
4.8	7900	1.45	300.6	m .	"	30000	75000	5.8	6500	1.75
4.3	8800	1.43	336.7	m .	11	30000	75000 75000	5.2	7300	1.75
3.8					"		75000 75000			
3.4	10000	1.15	389.0 435.7	"	"	30000 30000	75000 75000	4.5 4.0	8400 9500	1.35 1.2
	11200	1.05			"					
2.9	13100	0.88	499.5			30000	75000	3.5	10900	1.05

8

BK-series bevel geared motors

Selection - bevel geared motors DHE - IE2

P = 4 kW



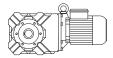
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
6.2	6100	3.0	234.6	BK90Z/DHE11LA4	643	49400	120000	7.5	5000	3.7
5.5	6900	2.7	262.5	n .	II .	49400	120000	6.7	5700	3.2
4.9	7700	2.4	295.6	n .	II .	49400	120000	5.9	6400	2.9
4.4	8600	2.2	330.7	n .	II .	49400	120000	5.3	7200	2.6
3.8	10000	1.85	389.1	n .	II .	49400	120000	4.5	8400	2.2
3.4	11200	1.65	435.3	n .	II .	49400	120000	4.0	9500	1.95
2.9	13100	1.4	499.2	n .	II .	49400	120000	3.5	10900	1.7
2.6	14600	1.25	558.5	n .	II .	49400	120000	3.2	11900	1.55
2.3	16600	1.1	637.7	"	"	49400	120000	2.8	13600	1.35
2.1	18100	1.0	713.5	п	"	49400	120000	2.5	15200	1.2
1.8	19800	0.93	821.0	BK90G50/DHE11LA4	660	49400	120000	2.2	16000	1.15
1.7	21200	0.87	882.3	II .	ıı .	49400	120000	2.0	17900	1.05

P = 5.5 kW

r – J.	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B	'	Type	""	I RN	ı RV	n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm	•в			kg	N	N	1/min	Nm	ıB
310	155	1.25	4.73	BK30/DHE11LA4C	80	1550	8800	375	128	1.5
245	197	1.1	6.02	"	"	1690	9600	295	163	1.3
196	245	1.1	7.45	m .	"	2200	10400	240	200	1.35
152	315	1.0	9.63	п	"	3150	11500	183	260	1.25
129	365	1.15	11.39	п	"	4150	11000	155	300	1.4
123	390	0.82	11.93	m .	"	3650	12000	148	325	0.98
101	465	0.97	14.50	m .	"	4900	12000	122	385	1.15
101	403	0.97	14.50			4900	12000	122	363	1.13
320	151	2.9	4.63	BK40/DHE11LA4C	106	430	8900	385	125	3.4
245	197	2.4	6.02	"	II .	470	9800	295	163	2.9
195	245	2.0	7.49	"	"	750	10500	235	205	2.4
157	305	1.6	9.31	"	II .	1040	11200	190	250	1.95
131	360	2.0	11.17	"	"	4100	13100	158	295	2.4
124	385	1.3	11.86	"	"	1770	12200	149	320	1.55
101	465	1.7	14.50	"	II .	4500	14300	122	385	2.0
81	580	1.35	18.05	"	"	4900	15300	98	480	1.65
66	710	1.1	22.44	"	II .	5500	16500	79	590	1.3
52	900	0.87	28.59	n .	"	6300	17000	62	760	1.05
151	310	3.0	9.73	BK50/DHE11LA4C	136	5400	15400	181	260	3.6
146	330	2.5	10.00	"	"	1220	13200	176	270	3.0
105	450	2.3	13.95	m .	"	6100	17400	127	370	2.8
97	485	2.2	15.19	n .	"	6300	18000	116	405	2.6
82	580	1.25	17.92	n .	"	4600	16800	99	480	1.5
76	620	1.7	19.33	m .	"	6900	19200	92	510	2.1
56	840	1.25	26.51	m .	"	7800	21200	67	700	1.5
41.5	1130	0.93	35.21	n,	"	8700	23100	50	940	1.1
72	720	3.1	20.54	BK60/DHE11LA4C	146	4400	20600	86	610	3.7
60	870	2.6	24.45	BROU/DHETTLA4C	140	4850	22000	72	720	3.7
54	970	2.4	27.36	"	"	5600	23200	65	800	2.9
43.5	1200	1.9	33.78	"	"	6500	25200	53	990	2.9
39	1340	1.7	33.76 37.80	n .	"	7300	26500	47	1110	2.3
32.5	1610	1.45	45.05	n .	"	8200	28300	39.5	1320	1.75
29	1810	1.45	50.40	n .	"	9100	29800	35.3	1500	1.55
25	2100	1.23	50.40 58.95	n .	"	9900	31500	30	1750	1.33
22.5	2300	1.0	65.95	n .	"	10900	33000	27	1940	1.2
19	2750	0.84	78.13	п	II .	11900	34000	23	2250	1.0
32.5	1610	3.2	45.59	BK70/DHE11LA4C	225	9000	37900	39	1340	3.8
27	1940	2.7	54.15	"	"	9900	40200	33	1590	3.3
24	2150	2.4	61.60	"	"	11500	42800	29	1810	2.9
21	2500	2.1	70.23	II	"	12500	44800	25.5	2050	2.5
18.5	2800	1.85	79.89	"	"	14300	47600	22.5	2300	2.3
16.5	3150	1.65	90.96	"	"	15300	49900	19.5	2650	1.95
14.5	3600	1.45	103.5	"	"	17200	50000	17.5	3000	1.75
12.5	4200	1.25	120.2	m m	"	18600	50000	15	3500	1.5
11	4750	1.1	136.7	"	"	20700	50000	13	4000	1.3

Selection - bevel geared motors DHE - IE2

P = 5.5 kW



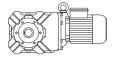
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
9.5	5500	0.95	154.4	BK70/DHE11LA4C	"	21900	50000	11.5	4550	1.15
8.4	6200	0.84	175.7	II	II .	24100	50000	10.5	5000	1.05
16	3250	3.2	91.53	BK80/DHE11LA4C	340	18300	74200	19.5	2650	3.9
14.5	3600	2.9	102.5	"	"	20500	75000	17.5	3000	3.5
12.5	4200	2.5	117.5	"	"	22300	75000	15	3500	3.0
11.5	4550	2.3	131.6	11	"	24900	75000	13.5	3850	2.7
9.6	5400	1.95	153.1	"	"	27200	75000	11.5	4550	2.3
8.6	6100	1.7	171.5	"	"	30000	75000	10.5	5000	2.1
8.3	6300	1.85	177.6	BK80Z/DHE11LA4C	382	30000	75000	10	5200	2.2
7.4	7000	1.65	198.9	"	II .	30000	75000	8.9	5900	1.95
6.5	8000	1.45	226.1	"	II .	30000	75000	7.8	6700	1.7
5.8	9000	1.3	253.3	"	II .	30000	75000	7.0	7500	1.55
4.9	10700	1.05	300.6	11	"	30000	75000	5.9	8900	1.3
4.4	11900	0.97	336.7	11	"	30000	75000	5.3	9900	1.15
3.8	13800	0.83	389.0	TI .	"	30000	75000	4.6	11400	1.0
8.4	6200	3.0	174.7	BK90Z/DHE11LA4C	647	49400	120000	10.5	5000	3.7
7.5	7000	2.6	195.4	"	"	49400	120000	9.1	5700	3.2
6.3	8300	2.2	234.6	"	"	49400	120000	7.6	6900	2.7
5.6	9300	2.0	262.5	"	"	49400	120000	6.8	7700	2.4
5.0	10500	1.75	295.6	"	"	49400	120000	6.0	8700	2.1
4.5	11600	1.6	330.7	"	"	49400	120000	5.4	9700	1.9
3.8	13800	1.35	389.1	"	"	49400	120000	4.6	11400	1.6
3.4	15400	1.2	435.3	"	"	49400	120000	4.1	12800	1.45
3.0	17500	1.05	499.2	"	"	49400	120000	3.6	14500	1.3
2.7	19400	0.95	558.5	"	"	49400	120000	3.2	16400	1.15
2.3	22800	0.81	637.7	11	"	49400	120000	2.8	18700	0.99

P = 7.5 kW

P = 7.	JKW									
	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
400	164	4.4	3.67	BK50/DHE13LA4	146	115	9400	480	137	5.2
280	235	3.5	5.26	"	II .	130	10700	335	196	4.1
205	320	2.5	7.29	"	"	620	11900	245	265	3.1
151	425	2.2	9.73	"	"	5400	15400	181	355	2.6
146	450	1.8	10.00	"	"	1220	13200	176	370	2.2
105	610	1.7	13.95	"	"	6100	17400	127	500	2.1
97	660	1.6	15.19	"	"	6300	18000	116	550	1.9
82	790	0.92	17.92	"	"	4600	16800	99	650	1.1
76	840	1.25	19.33	"	II .	6900	19200	92	700	1.5
56	1150	0.91	26.51	"	"	7800	21200	67	960	1.1
135	530	2.2	10.82	BK60/DHE13LA4	158	3200	17000	163	435	2.0
106	670	3.2	13.85	BROU/DHE13LA4	158		18000			3.9
1		2.9		"	ıı .	3850		128	550	3.6
102 91	700	2.8	14.41	"	ıı .	3650	18600 18800	123 110	580	3.3
80	780 890	2.5 2.5	16.05 18.36	"		4050 4000	19900	96	650 740	3.0 3.0
	990			"	ıı .		20600			
72		2.3	20.54		"	4400		86	830	2.7
60	1190	1.95	24.45		"	4850	22000	72	990	2.3
54	1320	1.75	27.36		"	5600	23200	65	1100	2.1
43.5	1640	1.4	33.78		"	6500	25200	53	1350	1.7
39	1830	1.25	37.80	"	ıı .	7300	26500	47	1520	1.5
32.5	2200	1.05	45.05	"	ıı .	8200 9100	28300 29800	39.5	1810	1.25
29	2450	0.94	50.40		"			35	2000	1.15
25	2850	0.81	58.95			9900	31500	30	2350	0.98
47.5	1500	3.0	30.90	BK70/DHE13LA4	237	7500	33600	57	1250	3.6
42	1700	2.8	35.15	m .	ıı	8000	35000	51	1400	3.4
36.5	1960	2.5	40.08	II .	II .	8300	36300	44	1620	3.0
32.5	2200	2.3	45.59	m .	II .	9000	37900	39	1830	2.8
27	2650	1.95	54.15	II .	II .	9900	40200	33	2150	2.4

Selection - bevel geared motors DHE - IE2

P = 7.5 kW



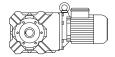
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
24	2950	1.75	61.60	BK70/DHE13LA4	"	11500	42800	29	2450	2.1
21	3400	1.55	70.23	"	"	12500	44800	25.5	2800	1.85
18.5	3850	1.35	79.89	"	II	14300	47600	22.5	3150	1.65
16.5	4300	1.2	90.96	"	"	15300	49900	19.5	3650	1.4
14.5	4900	1.05	103.5	"	"	17200	50000	17.5	4050	1.3
12.5	5700	0.91	120.2	"	"	18600	50000	15	4750	1.1
11	6500	8.0	136.7	"	"	20700	50000	13	5500	0.95
24.5	2900	3.2	59.60	BK80/DHE13LA4	351	15700	65500	30	2350	3.9
21	3400	2.8	70.72	m .	II .	16600	68700	25	2850	3.4
18.5	3850	2.6	79.22	m .	II .	17600	71300	22.5	3150	3.2
16	4450	2.3	91.53	"	II .	18300	74200	19.5	3650	2.8
14.5	4900	2.1	102.5	m .	"	20500	75000	17.5	4050	2.6
12.5	5700	1.85	117.5	m .	"	22300	75000	15	4750	2.2
11.5	6200	1.7	131.6	n n	"	24900	75000	13.5	5300	2.0
9.6	7400	1.4	153.1	m m	"	27200	75000	11.5	6200	1.7
8.6	8300	1.25	171.5	"	"	30000	75000	10.5	6800	1.55
8.3	8600	1.35	177.6	BK80Z/DHE13LA4	394	30000	75000	10	7100	1.6
7.4	9600	1.2	198.9	"	II	30000	75000	8.9	8000	1.45
6.5	11000	1.05	226.1	"	II	30000	75000	7.8	9100	1.25
5.8	12300	0.93	253.3	II .	"	30000	75000	7.0	10200	1.15
12.5	5700	2.9	117.0	BK90/DHE13LA4	603	39200	113000	15.5	4600	3.7
11.5	6200	2.7	130.9	TI TI	II .	42700	119400	13.5	5300	3.2
9.8	7300	2.3	149.5	m .	"	45600	120000	12	5900	2.8
8.8	8100	2.1	167.2	II.	"	49400	120000	11	6500	2.6
8.4	8500	2.2	174.7	BK90Z/DHE13LA4	659	49400	120000	10.5	6800	2.7
7.5	9500	1.95	195.4	· ·	"	49400	120000	9.1	7800	2.4
6.3	11300	1.65	234.6	"	"	49400	120000	7.6	9400	1.95
5.6	12700	1.45	262.5	"	"	49400	120000	6.8	10500	1.75
5.0	14300	1.3	295.6	"	"	49400	120000	6.0	11900	1.55
4.5	15900	1.15	330.7	"	"	49400	120000	5.4	13200	1.4
3.8	18800	0.98	389.1	"	II .	49400	120000	4.6	15500	1.2
3.4	21000	0.88	435.3	"	"	49400	120000	4.1	17400	1.05

P = 9.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
405	205	3.5	3.67	BK50/DHE16MA4*	191	115	9400	485	172	4.2
280	295	2.8	5.26	m .	II .	130	10700	340	245	3.3
205	405	2.0	7.29	m .	II .	620	11900	245	340	2.4
152	530	1.75	9.73	n n	"	5400	15400	182	445	2.1
147	560	1.45	10.00	n n	"	1220	13200	177	470	1.75
106	770	1.35	13.95	"	II .	6100	17400	127	640	1.65
97	840	1.25	15.19	"	II .	6300	18000	117	690	1.5
77	1060	0.99	19.33	II .	"	6900	19200	92	880	1.2
205	440	2.2	7.20	DICO /DUE1CMA4*	202	2000	1.4000	245	270	4.0
205	440	3.3	7.29	BK60/DHE16MA4*	203	2800	14900	245	370	4.0
136	660	2.5	10.82		"	3200	17000	164	550	3.0
107	840	2.3	13.85		"	3850	18000	128	700	2.8
103	880	2.2	14.41		"	3650	18600	123	730	2.6
92	980	2.0	16.05		"	4050	18800	111	810	2.4
81	1120	1.95	18.36	"	"	4000	19900	97	930	2.3
72	1260	1.8	20.54	"	"	4400	20600	87	1040	2.2
61	1480	1.55	24.45	"	"	4850	22000	73	1240	1.85
54	1680	1.35	27.36			5600	23200	65	1390	1.65
44	2050	1.1	33.78		"	6500	25200	53	1710	1.35
39	2300	1.0	37.80		"	7300	26500	47	1930	1.2
33	2700	0.85	45.05	"	"	8200	28300	39.5	2250	1.0
97	930	3.3	15.16	BK70/DHE16MA4*	286	5600	25800	117	770	4.0
86	1050	3.3	17.24	"	"	6500	29200	103	880	4.0
68	1330	3.1	21.88	п	"	6500	30200	81	1120	3.6

Selection - bevel geared motors DHE - IE2

P = 9.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
60	1510	2.8	24.89	BK70/DHE16MA4*	II	7000	31500	72	1260	3.4
48	1890	2.4	30.90	m	II .	7500	33600	58	1560	2.9
42	2150	2.2	35.15	m	II .	8000	35000	51	1770	2.7
37	2450	2.0	40.08	m	II .	8300	36300	44.5	2000	2.4
32.5	2750	1.85	45.59	"	"	9000	37900	39	2300	2.2
27.5	3250	1.6	54.15	"	"	9900	40200	33	2700	1.95
24	3750	1.4	61.60	"	"	11500	42800	29	3100	1.7
21	4300	1.2	70.23	"	"	12500	44800	25.5	3550	1.45
18.5	4900	1.05	79.89	"	"	14300	47600	22.5	4000	1.3
16.5	5400	0.96	90.96	"	"	15300	49900	19.5	4650	1.1
14.5	6200	0.84	103.5	"	"	17200	50000	17.5	5100	1.0
35.5	2550	3.2	41.78	BK80/DHE16MA4*	396	13500	58700	42.5	2100	3.9
31.5	2850	3.0	46.80	"	"	14300	60900	38	2350	3.7
28	3200	2.8	53.21	"	"	14800	63100	33.5	2700	3.3
25	3600	2.6	59.60	"	"	15700	65500	30	3000	3.1
21	4300	2.2	70.72	"	II	16600	68700	25.5	3550	2.7
19	4750	2.1	79.22	"	"	17600	71300	22.5	4000	2.5
16.5	5400	1.95	91.53	"	"	18300	74200	19.5	4650	2.2
14.5	6200	1.7	102.5	"	"	20500	75000	17.5	5100	2.1
13	6900	1.5	117.5	"	"	22300	75000	15.5	5800	1.8
11.5	7800	1.35	131.6	"	"	24900	75000	13.5	6700	1.55
9.7	9300	1.15	153.1	"	"	27200	75000	12	7500	1.4
8.6	10500	1.0	171.5	"	II .	30000	75000	10.5	8600	1.2
8.3	10900	1.05	177.6	BK80Z/DHE16MA4*	439	30000	75000	10	9000	1.3
7.4	12200	0.94	198.9	"	"	30000	75000	8.9	10100	1.15
6.6	13700	0.84	226.1	"	"	30000	75000	7.9	11400	1.0
16.5	5400	3.1	91.19	BK90/DHE16MA4*	649	33300	101000	19.5	4650	3.6
14.5	6200	2.7	102.0	"	II .	36600	107000	17.5	5100	3.3
13	6900	2.4	117.0	m m	II .	39200	113000	15.5	5800	2.9
11.5	7800	2.2	130.9	"	II .	42700	119400	14	6400	2.6
9.9	9100	1.85	149.5	"	II .	45600	120000	12	7500	2.2
8.8	10300	1.65	167.2	m m	"	49400	120000	11	8200	2.0
8.5	10600	1.75	174.7	BK90Z/DHE16MA4*	708	49400	120000	10.5	8600	2.2
7.6	11900	1.55	195.4	"	"	49400	120000	9.1	9900	1.85
6.3	14400	1.3	234.6	"	"	49400	120000	7.6	11900	1.55
5.6	16200	1.15	262.5	"	"	49400	120000	6.8	13300	1.4
5.0	18100	1.0	295.6	"	II .	49400	120000	6.0	15100	1.25
4.5	20100	0.92	330.7	"	"	49400	120000	5.4	16800	1.1

*At 60Hz model changes on the motor size DHE16LA4

P = 11 kW

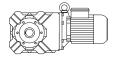
	I KVV									
	50 Hz		i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	f_B
1/min	Nm				kg	N	N	1/min	Nm	
405	235	3.1	3.67	BK50/DHE16LA4	204	115	9400	485	199	3.6
280	345	2.4	5.26	"	"	130	10700	340	280	2.9
205	470	1.75	7.29	"	"	620	11900	245	390	2.1
152	620	1.5	9.73	"	"	5400	15400	182	510	1.85
147	650	1.25	10.00	"	"	1220	13200	177	540	1.5
106	890	1.2	13.95	"	"	6100	17400	127	740	1.4
97	970	1.1	15.19	"	"	6300	18000	117	800	1.3
77	1220	0.86	19.33	m m	II .	6900	19200	92	1020	1.05
205	510	2.9	7.29	BK60/DHE16LA4	216	2800	14900	245	425	3.4
136	770	2.2	10.82	II	"	3200	17000	164	640	2.6
107	980	2.0	13.85	n .	"	3850	18000	128	820	2.4
103	1010	1.9	14.41	"	"	3650	18600	123	850	2.3
92	1140	1.75	16.05	"	"	4050	18800	111	940	2.1
81	1290	1.7	18.36	"	"	4000	19900	97	1080	2.0
72	1450	1.55	20.54	"	"	4400	20600	87	1200	1.9
61	1720	1.35	24.45	"	"	4850	22000	73	1430	1.6
54	1940	1.2	27.36	"	"	5600	23200	65	1610	1.45
44	2350	0.98	33.78	"	"	6500	25200	53	1980	1.15
39	2650	0.87	37.80	"	"	7300	26500	47	2200	1.05

8

BK-series bevel geared motors

Selection - bevel geared motors DHE - IE2

P = 11 kW



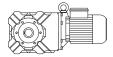
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f_{B}						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
108	970	3.1	13.70	BK70/DHE16LA4	299	5400	24800	130	800	3.8
97	1080	2.8	15.16	II	"	5600	25800	117	890	3.4
86	1220	2.9	17.24	"	"	6500	29200	103	1010	3.5
68	1540	2.6	21.88	"	"	6500	30200	81	1290	3.2
60	1750	2.4	24.89	"	"	7000	31500	72	1450	2.9
48	2150	2.1	30.90	II .	"	7500	33600	58	1810	2.5
42	2500	1.9	35.15	II .	"	8000	35000	51	2050	2.3
37	2800	1.75	40.08	m	"	8300	36300	44.5	2350	2.1
32.5	3200	1.6	45.59	II .	"	9000	37900	39	2650	1.95
27.5	3800	1.35	54.15	m	"	9900	40200	33	3150	1.65
24	4350	1.2	61.60	II .	"	11500	42800	29	3600	1.45
21	5000	1.05	70.23	II .	"	12500	44800	25.5	4100	1.25
18.5	5600	0.93	79.89	II .	"	14300	47600	22.5	4650	1.1
16.5	6300	0.83	90.96	II	"	15300	49900	19.5	5300	0.98
43	2400	2.2	24.22	DVOC /DUESCIAC	400	12600	EE 400	E2	2000	2.0
43 35.5	2400	3.3	34.22	BK80/DHE16LA4	408	12600	55400	52 42.5	2000	3.9
31.5	2950 3300	2.8 2.6	41.78 46.80	п	"	13500 14300	58700 60900	42.5 38	2450 2750	3.4 3.1
				"	"					
28 25	3750 4200	2.4	53.21	"	"	14800	63100	33.5	3100 3500	2.9 2.6
25	5000	2.2	59.60	"	"	15700 16600	65500	30 25.5	4100	
19		1.95	70.72 79.22	"	"		68700	22.5		2.3 2.2
16.5	5500 6300	1.85 1.65	79.22 91.53	"	"	17600 18300	71300 74200	19.5	4650 5300	1.95
14.5	7200	1.65	102.5	11	"	20500	74200 75000	17.5	6000	1.75
13	8000	1.43	117.5	11	"	22300	75000	15.5	6700	1.75
11.5	9100	1.15	131.6	11	"	24900	75000 75000	13.5	7700	1.35
9.7	10800	0.97	153.1	11	"	27200	75000 75000	12.5	8700	1.33
8.6	12200	0.97	171.5	п	"	30000	75000	10.5	10000	1.05
8.3	12600	0.86	171.5	BK80Z/DHE16LA4	452	30000	75000 75000	10.5	10500	1.05
7.4	14100	0.82	198.9	BROUZ/DHE IOLA4	432	30000	75000	8.9	11800	0.97
7.4	14100	0.62	190.9			30000	73000	0.9	11800	0.97
19	5500	3.1	77.51	BK90/DHE16LA4	662	30300	94400	23	4550	3.7
16.5	6300	2.7	91.19	"	"	33300	101000	19.5	5300	3.2
14.5	7200	2.3	102.0	II	"	36600	107000	17.5	6000	2.8
13	8000	2.1	117.0	II .	"	39200	113000	15.5	6700	2.5
11.5	9100	1.85	130.9	"	"	42700	119400	14	7500	2.2
9.9	10600	1.6	149.5	п	"	45600	120000	12	8700	1.95
8.8	11900	1.4	167.2	п	"	49400	120000	11	9500	1.75
8.5	12300	1.5	174.7	BK90Z/DHE16LA4	721	49400	120000	10.5	10000	1.85
7.6	13800	1.35	195.4	II	"	49400	120000	9.1	11500	1.6
6.3	16600	1.1	234.6	II	"	49400	120000	7.6	13800	1.35
5.6	18700	0.99	262.5	II	"	49400	120000	6.8	15400	1.2
5.0	21000	0.88	295.6	п	"	49400	120000	6.0	17500	1.05

<u>P = 15 kW</u>

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
405	325	2.2	3.67	BK50/DHE16XA4	214	115	9400	485	270	2.7
280	470	1.75	5.26	"	"	130	10700	340	385	2.1
205	640	1.25	7.29	II	"	620	11900	245	530	1.55
152	840	1.1	9.73	"	"	5400	15400	182	700	1.35
147	890	0.91	10.00	"	"	1220	13200	177	740	1.1
106	1210	0.87	13.95	"	"	6100	17400	127	1010	1.05
97	1320	0.8	15.19	II .	"	6300	18000	117	1100	0.95
205	690	2.1	7.29	BK60/DHE16XA4	226	2800	14900	245	580	2.5
136	1050	1.6	10.82	II	"	3200	17000	164	870	1.95
107	1330	1.5	13.85	II	"	3850	18000	128	1110	1.8
103	1390	1.4	14.41	"	"	3650	18600	123	1160	1.65
92	1550	1.25	16.05	II	"	4050	18800	111	1290	1.55
81	1760	1.25	18.36	"	"	4000	19900	97	1470	1.5
72	1980	1.15	20.54	"	"	4400	20600	87	1640	1.35
61	2300	1.0	24.45	II .	"	4850	22000	73	1960	1.15
54	2650	0.87	27.36	"	II .	5600	23200	65	2200	1.05

Selection - bevel geared motors DHE - IE2

P = 15 kW



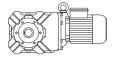
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
108	1320	2.3	13.70	BK70/DHE16XA4	309	5400	24800	130	1100	2.8
97	1470	2.1	15.16	"	"	5600	25800	117	1220	2.5
86	1660	2.1	17.24	n .	"	6500	29200	103	1390	2.5
68	2100	1.95	21.88	"	"	6500	30200	81	1760	2.3
60	2350	1.8	24.89	"	"	7000	31500	72	1980	2.2
48	2950	1.55	30.90	"	"	7500	33600	58	2450	1.85
42	3400	1.4	35.15	"	"	8000	35000	51	2800	1.7
37	3850	1.25	40.08	"	"	8300	36300	44.5	3200	1.5
32.5	4400	1.15	45.59	"	"	9000	37900	39	3650	1.4
27.5	5200	1.0	54.15	"	"	9900	40200	33	4300	1.2
24	5900	0.88	61.60	"	II .	11500	42800	29	4900	1.05
48.5	2950	2.5	30.56	BK80/DHE16XA4	418	11900	53400	58	2450	3.1
43	3300	2.4	34.22	"	410	12600	55400	52	2750	2.8
35.5	4000	2.1	41.78	п	"	13500	58700	42.5	3350	2.5
31.5	4500	1.9	46.80	п	"	14300	60900	38	3750	2.3
28	5100	1.75	53.21	п	"	14800	63100	33.5	4250	2.1
25	5700	1.6	59.60	TI TI	"	15700	65500	30	4750	1.95
21	6800	1.4	70.72	TI TI	"	16600	68700	25.5	5600	1.7
19	7500	1.35	79.22	п	"	17600	71300	22.5	6300	1.6
16.5	8600	1.2	91.53	n .	"	18300	74200	19.5	7300	1.4
14.5	9800	1.05	102.5	n .	"	20500	75000	17.5	8100	1.3
13	11000	0.95	117.5	п	"	22300	75000	15.5	9200	1.15
11.5	12400	0.85	131.6	"	II .	24900	75000	13.5	10600	0.99
27	5300	3.0	54.98	BK90/DHE16XA4	672	24000	81000	32.5	4400	3.7
24	5900	2.8	61.52	BR90/DHETOXA4	072	25500	84600	29	4900	3.4
21.5	6600	2.5	69.27	п	"	27200	88900	26	5500	3.1
19	7500	2.2	77.51	п	"	30300	94400	23	6200	2.7
16.5	8600	1.95	91.19	п	"	33300	101000	19.5	7300	2.3
14.5	9800	1.7	102.0	п	"	36600	107000	17.5	8100	2.1
13	11000	1.55	117.0	n .	"	39200	113000	15.5	9200	1.85
11.5	12400	1.35	130.9	TI TI	"	42700	119400	14	10200	1.65
9.9	14400	1.15	149.5	TI .	II .	45600	120000	12	11900	1.4
8.8	16200	1.05	167.2	п	II .	49400	120000	11	13000	1.3
8.5	16800	1.1	174.7	BK90Z/DHE16XA4	731	49400	120000	10.5	13600	1.35
7.6	18800	0.98	195.4	"	"	49400	120000	9.1	15700	1.2
6.3	22700	0.81	234.6	m .	II .	49400	120000	7.6	18800	0.98

P = 18.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
405	400	1.8	3.67	BK50/DHE18LA4	282	115	9400	485	335	2.1
280	580	1.4	5.26	"	"	130	10700	340	475	1.7
205	790	1.05	7.29	"	II .	620	11900	245	660	1.25
152	1040	0.9	9.73	11	"	5400	15400	182	870	1.05
205	860	1.7	7.29	BK60/DHE18LA4	289	2800	14900	245	720	2.0
136	1290	1.3	10.82	"	"	3200	17000	164	1070	1.55
107	1650	1.2	13.85	"	"	3850	18000	128	1380	1.45
103	1710	1.15	14.41	"	"	3650	18600	123	1430	1.35
81	2150	1.0	18.36	"	"	4000	19900	97	1820	1.2
72	2450	0.92	20.54	"	"	4400	20600	87	2000	1.15
61	2850	0.81	24.45	II .	"	4850	22000	73	2400	0.96
97	1820	1.7	15.16	BK70/DHE18LA4	366	5600	25800	117	1510	2.0
86	2050	1.7	17.24	"	II .	6500	29200	103	1710	2.0
68	2550	1.6	21.88	"	II .	6500	30200	81	2150	1.9
60	2900	1.45	24.89	"	"	7000	31500	72	2450	1.75
48	3650	1.25	30.90	"	II .	7500	33600	58	3000	1.5
42	4200	1.15	35.15	"	II .	8000	35000	51	3450	1.35
37	4750	1.05	40.08	"	II .	8300	36300	44.5	3950	1.25
32.5	5400	0.95	45.59	"	II .	9000	37900	39	4500	1.15
27.5	6400	0.81	54.15	"	"	9900	40200	33	5300	0.98

Selection - bevel geared motors DHE - IE2

P = 18.5 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M ₂	f _B
1/min	Nm				kg	N	N	1/min	Nm	
103	1710	2.5	14.34	BK80/DHE18LA4	480	7900	36200	124	1420	3.0
93	1890	2.5	15.88	II	II .	8400	38600	112	1570	3.0
83	2100	2.5	17.79	"	II .	9400	42100	100	1760	3.0
76	2300	2.5	19.35	"	II .	9500	44000	92	1920	3.0
67	2600	2.6	22.19	n n	"	10500	48500	80	2200	3.1
60	2900	2.4	24.85	"	"	11200	50400	72	2450	2.9
48.5	3600	2.1	30.56	"	II .	11900	53400	58	3000	2.5
43	4100	1.9	34.22	"	II .	12600	55400	52	3350	2.3
35.5	4950	1.65	41.78	"	II .	13500	58700	42.5	4150	2.0
31.5	5600	1.55	46.80	"	II .	14300	60900	38	4600	1.85
28	6300	1.4	53.21	"	II .	14800	63100	33.5	5200	1.7
25	7000	1.3	59.60	"	II .	15700	65500	30	5800	1.6
21	8400	1.15	70.72	"	II .	16600	68700	25.5	6900	1.4
19	9200	1.1	79.22	"	II .	17600	71300	22.5	7800	1.3
16.5	10700	0.97	91.53	"	II .	18300	74200	19.5	9000	1.15
14.5	12100	0.87	102.5	"	"	20500	75000	17.5	10000	1.05
36	4900	3.0	40.94	BK90/DHE18LA4	734	21400	73100	43.5	4050	3.7
32.5	5400	2.9	45.80	BR90/DHE18LA4	/34	21400	76300	39	4500	3.4
27	6500	2.5	54.98		"	24000	81000	32.5	5400	3.0
24	7300	2.3	61.52	m .	II .	25500	84600	29	6000	2.8
21.5	8200	2.0	69.27	m .	"	27200	88900	26	6700	2.5
19	9200	1.85	77.51	п	"	30300	94400	23	7600	2.2
16.5	10700	1.55	91.19	m .	II .	33300	101000	19.5	9000	1.85
14.5	12100	1.4	102.0	II .	II .	36600	107000	17.5	10000	1.7
13	13500	1.25	117.0	m .	II .	39200	113000	15.5	11300	1.5
11.5	15300	1.1	130.9	u u	II .	42700	119400	14	12600	1.35
9.9	17800	0.94	149.5	m .	п	45600	120000	12	14700	1.15
8.8	20000	0.84	167.2	m .	п	49400	120000	11	16000	1.05
8.5	20700	0.89	174.7	BK90Z/DHE18LA4	788	49400	120000	10.5	16800	1.1
7.6	23200	0.8	195.4	"	"	49400	120000	9.1	19400	0.95

P = 22 kW

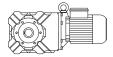
	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B		7-				n ₂	M_2	f_B
1/min	Nm				kg	N	N	1/min	Nm	
97	2150	1.45	15.16	BK70/DHE18XA4	384	5600	25800	117	1790	1.7
86	2400	1.45	17.24	"	"	6500	29200	103	2000	1.75
68	3050	1.35	21.88	"	"	6500	30200	81	2550	1.6
60	3500	1.2	24.89	"	"	7000	31500	72	2900	1.45
48	4350	1.05	30.90	"	"	7500	33600	58	3600	1.25
42	5000	0.95	35.15	"	"	8000	35000	51	4100	1.15
37	5600	0.87	40.08	"	"	8300	36300	44.5	4700	1.05
32.5	6400	0.8	45.59	II	"	9000	37900	39	5300	0.97
103	2000	2.1	14.34	BK80/DHE18XA4	498	7900	36200	124	1690	2.5
93	2250	2.1	15.88	"	"	8400	38600	112	1870	2.6
83	2500	2.1	17.79	"	II .	9400	42100	100	2100	2.5
76	2750	2.1	19.35	"	"	9500	44000	92	2250	2.6
67	3100	2.2	22.19	"	"	10500	48500	80	2600	2.6
60	3500	2.0	24.85	"	II .	11200	50400	72	2900	2.4
48.5	4300	1.75	30.56	"	II .	11900	53400	58	3600	2.1
43	4850	1.6	34.22	"	II .	12600	55400	52	4000	1.95
35.5	5900	1.4	41.78	"	II .	13500	58700	42.5	4900	1.7
31.5	6600	1.3	46.80	"	II .	14300	60900	38	5500	1.55
28	7500	1.2	53.21	"	II .	14800	63100	33.5	6200	1.45
25	8400	1.1	59.60	"	II .	15700	65500	30	7000	1.3
21	10000	0.96	70.72	"	II .	16600	68700	25.5	8200	1.15
19	11000	0.91	79.22	"	II .	17600	71300	22.5	9300	1.1
16.5	12700	0.82	91.53	"	"	18300	74200	19.5	10700	0.97

8

BK-series bevel geared motors

Selection - bevel geared motors DHE - IE2

P = 22 kW



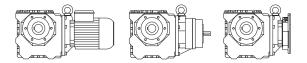
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
48.5	4300	3.1	30.47	BK90/DHE18XA4	752	19100	65900	59	3550	3.8
43.5	4800	2.9	34.09	II.	"	20300	68800	52	4000	3.5
36	5800	2.5	40.94	"	II .	21400	73100	43.5	4800	3.1
32.5	6400	2.4	45.80	"	"	22700	76300	39	5300	2.9
27	7700	2.1	54.98	"	"	24000	81000	32.5	6400	2.5
24	8700	1.95	61.52	"	"	25500	84600	29	7200	2.3
21.5	9700	1.75	69.27	"	"	27200	88900	26	8000	2.1
19	11000	1.55	77.51	"	"	30300	94400	23	9100	1.85
16.5	12700	1.3	91.19	"	"	33300	101000	19.5	10700	1.55
14.5	14400	1.15	102.0	"	"	36600	107000	17.5	12000	1.4
13	16100	1.05	117.0	"	"	39200	113000	15.5	13500	1.25
11.5	18200	0.92	130.9	"	"	42700	119400	14	15000	1.1

Catalogue geared motors

Catalogue geared motors

Edition 08/2011





Page

BS-series worm-geared motors Selection

299-336

Description of worm-geared units

- Sizes
- Bauer service factors (f_B) for worm-geared motors
- Continuous operation without switching frequency $Z \le 1/h$
- Switching duty
- Bauer service factor
- Explanation of shock classification
- Key to abbreviations
- Selection tables, worm-geared motors

Selection - worm geared motors IE1

Selection - worm geared motors IE2

Description of worm-gear units

Sizes

Bauer BS-series worm-geared motors are normally supplied in eight frame sizes and with torques of 25 to 1,000 Nm. Higher torques are available on request. The gear unit is accommodated in a sturdy cast housing.

Efficiency

The efficiency of worm-geared motors depends on numerous factors, including lubrication, extent of wear, temperature and vibration. Calculated efficiency, therefore, is merely a guideline value. Please consult BAUER and state the boundary conditions if efficiency or self-locking capability are important factors for your application.

Bauer service factors (f_B) for worm-geared motors

Worm gears transmit torque by sliding friction only, which means that losses and temperature are inevitably higher than with helical-gear arrangements.

Of the numerous factors influencing the total loading of a worm-gear unit, the most important include:

- Mean torque (rated torque)
- Daily operating hours
- Severity of torque peaks (shock classification)
- Frequency of torque peaks (switching duty)
- Ambient temperature

These factors can be represented in a simplified and practical manner by **service factors**. The tables and explanations below attempt to provide an objective description of the **shock classification**, rather than a classification of the driven machinery. Experience has shown that, in addition to the torque shocks caused by the driven machinery (M_x/M_N) , above all the power transmission components (clutches, chains etc.) plus the mass ratios play a decisive role in this.

See Bauer special imprint SD32 for more information.

Factor f₁ for shock classification and operating time

Shock classification	Operating hours per day t _d ≤10 min	≤1 h	>1 h	>4 h	>8 h	>16 h
			≤4 h	≤8 h	≤16 h	≤24 h
I	0,7	0,8	0,9	1,0	1,25	1,4
II	0,9	1,0	1,12	1,25	1,6	1,8
III	1,25	1,4	1,6	1,8	2,2	2,5

Continuous operation without switching frequency Z ≤1/h

Description of worm-gear units

Switching duty

Factor f₂ or shock classification and switching frequency

Switching frequency in single-shift operation $t_d \le 8 \text{ h/d}$

Shock classification	1 <z th="" ≤100<=""><th>100 <z th="" ≤1000<=""><th>1000 <z< th=""></z<></th></z></th></z>	100 <z th="" ≤1000<=""><th>1000 <z< th=""></z<></th></z>	1000 <z< th=""></z<>
1	1,25	1,4	1,6
II	1,6	1,8	2,0
III	1,8	2,0	2,2

Switching frequency in multiple-shift operation t_d >8 h/d

Shock classification	1 <z th="" ≤100<=""><th>100 <z th="" ≤1000<=""><th>1000 <z< th=""></z<></th></z></th></z>	100 <z th="" ≤1000<=""><th>1000 <z< th=""></z<></th></z>	1000 <z< th=""></z<>
I	1,4	1,6	1,8
II	1,8	2,0	2,2
III	2,0	2,2	2,5

Ambient temperature

Factor f₃ for increased ambient temperature

AT	-10°C +25°C	>25°C	>30°C	>35°C	>40°C	>45°C	>50°C	>55°C
	no Factor	1,1	1,2	1,3	1,4	1,5	1,6	Enquiry

Bauer service factor

Bauer service factor $f_B = \text{maximum value } f_1, f_2, f_3$ (at daily operating hours > 1h)

For example: Shock classification II for Z=100 switching operations per hour and multiple-shift operation yields a service factor $f_B=f_2=1.8$

Explanation of shock classification

Shock classification I:

Uniform without shock loads. All the following requirements must be satisfied:

- FI ≤1,3
- M_x/M_N ≤1,0
- Shock-absorbing power transmission components (e.g. highly resilient, zero-play coupling, ϕ N ${\ge}5^{\circ})$

Shock classification II:

Moderate shock loads. At least one of the following conditions applies:

- 1,3 <FI ≤2
- $1 \le M_x/M_N \le 1,4$
- Shock-neutral power transmission components (e.g. gear wheels, zero- playrigid coupling or resilient coupling with ϕ N <5 °)

Shock classification III:

Heavy shock loads. At least one of the following conditions applies:

- FI >2
- $1,4 < M_x/M_N \le 2,0$
- Shock-amplifying power transmission components (e.g. coupling with play or chain drive)

Description of worm-gear units

Key to abbreviations Z Switching duty number of switching operations per hour

 t_d Daily operating time in hours (h/d) FI Factor of inertia FI = $(J_{ext} + J_{rot})/J_{rot}$

J_{ext} Mass moment of inertia of the machine to be driven, in relation to the motor's

rotor shaft (kgm²)

 J_{rot} Mass moment of inertia of the motor rotor (kgm²)

M_x Highest impact torque above the static torque which can occur during normal

operation or in emergency situations

M_N Required static load torque for the application

M_x/M_N Relative torque - Factor

 ϕ_N Torsional offset of the resilient coupling under rated torque

UT Ambient temperature (°C)

Selection tables, worm-geared motors

Key to abbreviations

P Rated output

n₂ Rated speed of the output shaft

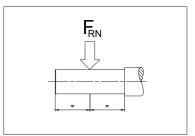
Gear reduction ratio

M₂ Rated torque at the output shaft

Bauer Service factor

 F_{RN} Maximum permissible radial force

with standard solid shaft (Code -.1 und -.2)



Use the selection tables to determine the size of geared motor required. The codes clearly define the Type of gear unit and output shaft (see chapter 13 "dimensional drawings wormgeared motors").

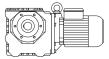
The torques marked (*) are maximum permissible torques for service factor $f_B=1,0$.

Motor power overload protection

Motor-power ratings, particularly in conjunction with four-stage and multi-stage gear units, are more than ample in some instances. Consequently, and in much the same way as with low-power motors, rated current is not a measure of gear loading and cannot be used to protect the gear unit against overloading. It is advisable to provide gears at risk from excessive load or blockage with a protective mechanism (e. g., slip clutch, slip hub, shear pin or an alternative).

Selection - worm-geared motors DSE - IE1

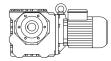
P = 0.03 kW



	50 Hz		i	Туре	m	F _{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
75	2.8	8.9	18.00	BS02/D04LA4	3.5	1250	-	90	2.35	11
62	3.2	7.8	22.00	"	"	1250	-	74	2.7	9.3
50	3.6	6.9	27.00	"	"	1250	-	60	3.0	8.3
41	4.15	6.0	33.00	"	"	1250	-	49.5	3.45	7.2
31.5	5.6	4.3	43.00	"	"	1250	-	38	4.65	5.2
25	6.5	3.4	54.00	"	"	1250	-	30	5.4	4.1
19.5	7.4	2.7	70.00	"		1250	-	23.5	6.2	3.2
145	11.6	2.2	02.02	BS04/D04LA4	2.0	2250		17.5	0.6	4.0
14.5 13.5	11.6 13.5	3.3 2.8	93.92 102.9	B304/D04LA4	3.9	2250 2250	-	17.5 16	9.6 11.4	4.0 3.3
12.5	13.6	2.8	117.0	"	"	2250	-	14	11.6	3.3
11	16.4	2.5	123.0	п	"	2250	_	13.5	13.3	3.1
9.8	18.1	2.3	138.4	n .	"	2250	_	12	14.8	2.8
9.0	17.5	2.2	150.3	"	11	2250	_	11	14.3	2.7
8.5	20.5	1.8	160.1	II .	"	2250	_	10.5	16.6	2.2
7.8	19.8	2.0	174.0	n .	"	2250	-	9.4	16.4	2.4
6.2	24	1.65	220.0	n .	II .	2250	-	7.4	20.5	1.95
5.4	27.5	1.5	251.6	II	II .	2250	-	6.5	22.5	1.8
4.5	32	1.35	300.7	II	II .	2250	-	5.4	27	1.6
4.0	35.5	1.25	338.3	TI .	"	2250	-	4.8	29.5	1.5
3.5	40	1.15	391.3	TI .	"	2250	-	4.2	33	1.35
5.4	30.5	3.2	252.0	BS06/D04LA4	8.4	3500	-	6.5	25.5	3.9
4.3	37.5	2.8	315.3	"	"	3500	-	5.2	31	3.4
3.8	42	2.6	358.9	"	"	3500	-	4.6	34.5	3.2
3.3	47.5	2.3	418.0	"	"	3500	-	3.9	40	2.8
2.9	70	1.35	474.8	BS06G04/D04LA4	11	3500	-	3.5	58	1.6
2.5	79	1.25	552.6	"	"	3500	-	3.0	65	1.55
2.3	88	1.05	610.7	"	"	3500	-	2.7	75	1.25
2.0	101	0.93	704.7	" "	"	3500	-	2.3	88	1.05
1.6	94*	1.0	847.0		"	3500	-	2.0	94	1.0
1.5 1.2	94* 94*	1.0 1.0	939.6 1170		"	3500 3500	-	1.8 1.4	94 94	1.0 1.0
0.9	94* 94*	1.0	1503	n n	"	3500	-	1.1	94	1.0
0.85	94*	1.0	1654	n .	"	3500	_	1.0	94	1.0
0.75	94*	1.0	1914	n	11	3500	_	0.85	94	1.0
0.65	94*	1.0	2200	n	11	3500	_	0.75	94	1.0
0.49	94*	1.0	2768	п	II .	3500	_	0.6	94	1.0
0.45	94*	1.0	3007	"	II .	3500	_	0.55	94	1.0
0.41	94*	1.0	3308	m .	II .	3500	-	0.49	94	1.0
0.37	94*	1.0	3721	m .	"	3500	-	0.44	94	1.0
0.32	94*	1.0	4304	II	II .	3500	-	0.38	94	1.0
0.28	98*	1.0	4947	"	"	3500	-	0.33	98	1.0
0.25	98*	1.0	5442	"	"	3500	-	0.3	98	1.0
0.22	100*	1.0	6234	"	"	3500	-	0.26	100	1.0
2.5	67	2.8	544.8	BS10Z/D04LA4	21	6000	-	3.0	56	3.4
2.2	72	2.6	638.7	"	"	6000	-	2.6	61 73	3.1
1.8	85	2.1	788.7	" "	"	6000	-	2.1	73	2.5
1.5	101	1.55	905.6	" BS10G06/D04LA4		6000	-	1.8	84 107	1.9
1.4 1.2	130 152	1.25	969.9 1166	BS10G06/D04LA4	25	6000 6000	-	1.7	107	1.5 1.25
1.1	152 166	1.05 0.96	1166 1342	 II	11	6000	-	1.4 1.3	130 141	1.25
0.9	160*	1.0	1528	II.	"	6000	-	1.1	160	1.15
0.85	160* 160*	1.0	1668	"	п	6000	-	1.0	160	1.0
0.83	160*	1.0	1963	п	"	6000	_	0.85	160	1.0
0.6	160*	1.0	2348	II	II .	6000	_	0.03	160	1.0
0.55	160*	1.0	2635	"	"	6000	-	0.65	160	1.0
0.47	160*	1.0	2875	II .	II .	6000	_	0.6	160	1.0
0.41	160*	1.0	3332	II .	II .	6000	_	0.49	160	1.0
0.38	160*	1.0	3635	II	II .	6000	-	0.45	160	1.0
0.33	160*	1.0	4163	II	II .	6000	-	0.39	160	1.0
0.29	160*	1.0	4776	TI .	"	6000	-	0.34	160	1.0
0.26	160*	1.0	5209	"	II .	6000	-	0.32	160	1.0
0.23	164*	1.0	6019	II .	II .	6000	-	0.27	164	1.0
0.21	164*	1.0	6565	п	"	6000	-	0.25	164	1.0

Selection - worm-geared motors DSE - IE1

P = 0.03 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		••				n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
0.19	164*	1.0	7471	BS10G06/D04LA4	"	6000	-	0.22	164	1.0
0.16	164*	1.0	8703	"	"	6000	-	0.19	164	1.0
1.7	111	2.4	831.7	BS20G06/D04LA4	35	8000	-	2.0	94	2.9
1.4	135	2.0	1000	"	II .	8000	-	1.7	111	2.4
1.1	171	1.6	1311	"	"	8000	-	1.3	145	1.85
0.9	210	1.3	1543	"	"	8000	-	1.1	171	1.6
0.85	220	1.25	1683	"	"	8000	-	1.0	189	1.45
0.7	270*	1.0	2014	"	"	8000	-	0.85	270	1.0
0.55	270*	1.0	2465	"	"	8000	-	0.7	270	1.0
0.48	270*	1.0	2857	II .	"	8000	-	0.6	270	1.0
0.44	270*	1.0	3117	"	"	8000	-	0.55	270	1.0
0.38	270*	1.0	3570	II .	"	8000	-	0.46	270	1.0
0.33	270*	1.0	4096	"	"	8000	-	0.4	270	1.0
0.28	270*	1.0	4910	II .	"	8000	-	0.33	270	1.0
0.23	270*	1.0	5880	"	"	8000	-	0.28	270	1.0
0.19	275*	1.0	7363	II .	"	8000	-	0.23	275	1.0
0.17	275*	1.0	8031	"	"	8000	-	0.21	275	1.0
0.15	280*	1.0	9220	"	"	8000	-	0.18	280	1.0
			4476	D000000 (D00100		10000			4.44	2.5
1.2	164	3.0	1176	BS30G06/D04LA4	53	10000	-	1.4	141	3.5
0.95	205	2.4	1461		"	10000	-	1.2	164	3.0
0.9	215	2.3	1576		"	10000	-	1.1	179	2.7
0.75	260	1.9	1886			10000	-	0.9	215	2.3
0.6	325	1.5	2308	"	"	10000	-	0.75	260	1.9
0.55	355	1.4	2518	II .	"	10000	-	0.65	300	1.65
0.47	420	1.15	2919	"	"	10000	-	0.6	325	1.5
0.41	480	1.0	3344	"	"	10000	-	0.49	400	1.25
0.38	490*	1.0	3647	"		10000	-	0.45	490	1.0
0.33	490*	1.0	4184	"	"	10000	-	0.39	490	1.0
0.28	510*	1.0	4905	"	"	10000	-	0.34	510	1.0
0.24	520*	1.0	5783	"	"	10000	-	0.29	520	1.0
0.22	520*	1.0	6308	"	"	10000	-	0.26	520	1.0
0.19	520*	1.0	7179	"	"	10000	-	0.23	520	1.0
0.17	520*	1.0	8362		"	10000	-	0.2	520	1.0

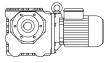
P = 0.04 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7.				n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
127	2.45	10	10.67	BS02/D04LA4	3.5	1250	-	152	2.05	12
100	2.95	8.5	13.50	TI TI	"	1250	-	120	2.45	10
75	3.75	6.7	18.00	TI TI	"	1250	-	90	3.1	8.1
62	4.3	5.8	22.00	TI TI	"	1250	-	74	3.6	6.9
50	4.8	5.2	27.00	TI TI	"	1250	-	60	4.0	6.3
41	5.5	4.5	33.00	TI TI	"	1250	-	49.5	4.6	5.4
31.5	7.5	3.2	43.00	TI TI	"	1250	-	38	6.2	3.9
25	8.7	2.5	54.00	TI TI	"	1250	-	30	7.2	3.1
19.5	9.9	2.0	70.00	"	II	1250	-	23.5	8.2	2.4
21.5	11.1	3.2	64.06	BS04/D04LA4	3.9	2250	-	25.5	9.4	3.8
19	13.2	2.9	71.18	TI .	"	2250	-	23	10.9	3.5
18	12.9	2.9	77.00	TI .	"	2250	-	21.5	10.8	3.5
14.5	15.5	2.5	93.92	TI .	"	2250	-	17.5	12.8	3.0
13.5	18.1	2.1	102.9	TI .	"	2250	-	16	15.2	2.5
12	18.1	2.1	117.0	II .	II	2250	-	14	15.5	2.5
11	21.5	1.9	123.0	m m	"	2250	-	13.5	17.8	2.3
9.8	24	1.75	138.4	"	"	2250	-	12	19.7	2.1
9.0	23	1.7	150.3	"	"	2250	-	11	19.1	2.0
8.5	27	1.35	160.1	II .	II	2250	-	10.5	22	1.7
7.8	26	1.55	174.0	II.	II .	2250	-	9.4	21.5	1.85
6.2	32.5	1.25	220.0	II .	II	2250	-	7.4	27	1.5
5.4	36.5	1.1	251.6	II .	II .	2250	-	6.5	30.5	1.35
4.5	43	1.0	300.7	n n	II .	2250	_	5.4	36	1.2

304 www.bauergears.com

Selection - worm-geared motors DSE - IE1

P = 0.04 kW



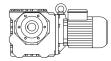
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
4.0	47.5	0.93	338.3	BS04/D04LA4	II	2250	-	4.8	39.5	1.1
3.5	53	0.85	391.3	II .	"	2250	-	4.2	44.5	1.0
7.9	30.5	2.9	171.0	BS06/D04LA4	8.4	3500	-	9.5	25.5	3.5
6.2	36	2.7	220.0	m m	II .	3500	-	7.4	30	3.3
5.4	41	2.4	252.0	m m	II .	3500	-	6.5	34	2.9
4.3	50	2.1	315.3	m m	"	3500	-	5.2	41.5	2.6
3.8	56	1.95	358.9	m m	"	3500	-	4.6	46.5	2.4
3.3	63	1.75	418.0	m m	"	3500	-	3.9	53	2.1
2.9	93	1.0	474.8	BS06G04/D04LA4	11	3500	-	3.5	77	1.2
2.5	105	0.95	552.6	m	"	3500	-	3.0	87	1.15
2.3	117	0.8	610.7	"	II .	3500	-	2.7	100	0.94
3.8	62	3.1	360.3	BS10Z/D04LA4	21	6000	-	4.5	52	3.7
3.2	72	2.6	432.4	п	II .	6000	-	3.8	61	3.1
2.5	90	2.1	544.8	п	II .	6000	-	3.0	75	2.5
2.2	97	1.95	638.7	п	II .	6000	-	2.6	82	2.3
1.8	114	1.6	788.7	m .	"	6000	-	2.1	98	1.85
1.5	134	1.2	905.6	m .	"	6000	-	1.8	112	1.4
1.4	174	0.92	969.9	BS10G06/D04LA4	25	6000	-	1.7	143	1.1
1.2	200	8.0	1166	"	"	6000	-	1.4	174	0.92
1.8	114	2.7	763.4	BS20Z/D04LA4	32	8000	-	2.2	93	3.3
1.7	148	1.8	831.7	BS20G06/D04LA4	35	8000	-	2.0	126	2.1
1.4	180	1.5	1000	m .	"	8000	-	1.7	148	1.8
1.1	225	1.2	1311	"	II .	8000	-	1.3	193	1.4
1.4	188	2.6	1022	BS30G06/D04LA4	53	10000	-	1.6	164	3.0
1.2	215	2.3	1176	II.	II .	10000	-	1.4	188	2.6
0.95	275	1.8	1461	TI TI TI TI TI TI TI TI TI TI TI TI TI T	II .	10000	-	1.2	215	2.3
0.9	290	1.7	1576	II.	II .	10000	-	1.1	235	2.1
0.75	350	1.4	1886	II.	II .	10000	-	0.9	290	1.7
0.6	435	1.15	2308	II.	II .	10000	-	0.75	350	1.4
0.55	475	1.05	2518	TI TI	II .	10000	-	0.65	405	1.2

P = 0.06 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
295	1.7	8.8	4.60	BS02/D04LA4	3.5	1000	-	355	1.42	11
250	2.0	10	5.40	m	"	1000	-	300	1.68	12
200	2.45	10	6.75	m	"	1000	-	240	2.05	12
164	2.9	8.6	8.25	m	"	1100	-	197	2.4	10
127	3.65	6.8	10.67	m .	"	1250	-	152	3.05	8.2
100	4.45	5.6	13.50	m .	"	1250	-	120	3.7	6.8
75	5.6	4.5	18.00	"	"	1250	-	90	4.7	5.3
62	6.4	3.9	22.00	"	"	1250	-	74	5.4	4.6
50	7.2	3.5	27.00	"	"	1250	-	60	6.0	4.2
41	8.3	3.0	33.00	"	II	1250	-	49.5	6.9	3.6
31.5	11.2	2.1	43.00	"	"	1250	-	38	9.3	2.6
25	13	1.7	54.00	"	"	1250	-	30	10.8	2.0
19.5	14.9	1.35	70.00	"	"	1250	-	23.5	12.4	1.6
18	16.2	2.5	75.00	BS03/D05LA4	5.4	1950	-	22	13.2	3.0
35.5	11.1	3.3	38.42	BS04/D04LA4	3.9	2250	-	42.5	9.3	4.0
28.5	13.6	2.8	47.86	"	II	2250	-	34	11.4	3.3
21.5	16.7	2.2	64.06	"	II	2250	-	25.5	14.1	2.6
19	19.9	1.9	71.18	"	"	2250	-	23	16.4	2.3
18	19.4	1.95	77.00	"	"	2250	-	21.5	16.2	2.3
14.5	23	1.65	93.92	II .	II	2250	-	17.5	19.3	1.95
13.5	27	1.4	102.9	II .	II .	2250	-	16	22.5	1.7
12	27	1.4	117.0	"	"	2250	-	14	23	1.65
11	32.5	1.25	123.0	II .	"	2250	-	13.5	26.5	1.55

Selection - worm-geared motors DSE - IE1

P = 0.06 kW



	50 Hz		i	Type	m	F_RN	F_{RV}		60 Hz	
n ₂	M_2	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
9.8	36	1.15	138.4	BS04/D04LA4	"	2250	-	12	29.5	1.4
9.0	35	1.1	150.3	"	"	2250	-	11	28.5	1.35
8.5	41	0.9	160.1	"	"	2250	-	10.5	33	1.1
7.8	39.5	1.0	174.0	"	"	2250	-	9.4	32.5	1.25
6.2	48.5	0.82	220.0	TI .	"	2250	-	7.4	41	0.98
11.5	32	2.9	118.8	BS06/D04LA4	8.4	3500	-	14	26.5	3.5
10.5	36.5	2.8	129.0	"	"	3500	-	13	29.5	3.5
9.2	40	2.7	146.8	"	"	3500	-	11.5	32	3.3
7.8	44	2.2	174.0	"	"	3500	-	9.4	36.5	2.7
6.2	54	1.8	220.0	"	"	3500	-	7.4	45.5	2.2
5.4	61	1.6	252.0	"	"	3500	-	6.5	51	1.95
4.3	75	1.4	315.3	m	"	3500	-	5.2	62	1.7
3.8	84	1.3	358.9	"	II .	3500	-	4.6	69	1.6
3.3	95	1.15	418.0	II .	"	3500	-	3.9	80	1.4
11.5	36.5	3.3	119.6	BS10/D06LA4	23	6000	-	14	30	4.0
6.3	58	3.1	216.6	m	II .	6000	-	7.5	48.5	3.7
5.4	67	2.7	254.0	BS10Z/D06LA4	24	6000	-	6.4	57	3.2
4.5	78	2.4	302.5	TI TI	II .	6000	-	5.4	65	2.9
3.8	93	2.0	360.3	II .	II .	6000	-	4.5	78	2.4
3.2	109	1.75	432.4	II .	II .	6000	-	3.8	91	2.1
2.5	135	1.4	544.8	II .	II .	6000	-	3.0	112	1.7
2.2	145	1.3	638.7	II .	"	6000	-	2.6	123	1.55
1.8	171	1.05	788.7	II .	"	6000	-	2.1	147	1.2
3.2	109	3.0	430.8	BS20Z/D06LA4	35	8000	_	3.8	91	3.6
2.6	121	3.0	539.7	TI TI	II .	8000	-	3.1	101	3.6
2.2	140	2.4	619.2	TI TI	II .	8000	-	2.7	114	2.9
1.8	171	1.8	763.4	TI TI	II .	8000	-	2.2	140	2.2
1.7	220	1.25	831.7	BS20G06/D06LA4	38	8000	-	2.0	189	1.45
1.4	270	1.0	1000	II .	"	8000	-	1.7	220	1.25
1.7	195	2.4	804.1	BS30Z/D06LA4	54	10000	-	2.1	158	3.0
1.5	215	2.1	932.0	II	"	10000	-	1.8	181	2.5
1.4	280	1.75	1022	BS30G06/D06LA4	56	10000	-	1.6	245	2.0
1.2	325	1.5	1176	m m	II .	10000	-	1.4	280	1.75
0.95	415	1.2	1461	TI TI	II .	10000	-	1.2	325	1.5
0.9	435	1.15	1576	п	"	10000	-	1.1	355	1.4
1.5	225	3.3	908.2	BS40Z/D06LA4	68	15000	-	1.8	187	4.0
1.4	285	3.1	965.5	BS40G10/D06LA4	73	15000	-	1.7	235	3.7
1.2	330	2.7	1180	"	11	15000	-	1.4	285	3.1
0.95	420	2.1	1499	"	11	15000	-	1.1	360	2.4
0.8	500	1.75	1785	"	11	15000	-	0.95	420	2.1
0.65	610	1.45	2126	"	II .	15000	-	0.8	500	1.75
0.6	660	1.35	2304	"	II .	15000	-	0.75	530	1.65
0.55	720	1.2	2552	"	11	15000	-	0.65	610	1.45
0.47	850	1.05	2902	m .	"	15000	-	0.6	660	1.35

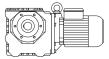
P = 0.09 kW

	50 Hz		i	Туре	m	F _{RN}	F_{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
295	2.55	5.9	4.60	BS02/D04LA4	3.5	1000	-	355	2.1	7.1
250	3.0	6.7	5.40	п	"	1000	-	300	2.5	8.0
200	3.65	6.8	6.75	TI TI	"	1000	-	240	3.05	8.2
164	4.4	5.7	8.25	TI TI	"	1100	-	197	3.65	6.8
127	5.5	4.5	10.67	II .	"	1250	-	152	4.6	5.4
100	6.7	3.7	13.50	m .	"	1250	-	120	5.5	4.5
75	8.4	3.0	18.00	m .	"	1250	-	90	7.0	3.6
62	9.7	2.6	22.00	m .	"	1250	-	74	8.1	3.1
50	10.8	2.3	27.00	m .	II .	1250	-	60	9.0	2.8
41	12.5	2.0	33.00	m .	"	1250	_	49.5	10.4	2.4

306 www.bauergears.com

Selection - worm-geared motors DSE - IE1

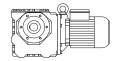
P = 0.09 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
31.5	16.9	1.4	43.00	BS02/D04LA4	"	1250	-	38	14	1.7
25	19.5	1.15	54.00	"	"	1250	-	30	16.3	1.35
19.5	22	0.91	70.00	II	"	1250	-	23.5	18.6	1.1
	40.4		50.00	DC02 /D051 4.4	5 4	1050		22.5	15.3	2.6
27	18.4	3.0	50.00	BS03/D05LA4	5.4	1950	-	32.5	15.3	3.6
22 18	20.5 24	2.3 1.65	62.00 75.00	"	"	1950 1950	-	26.5 22	17.1 19.9	2.8 2.0
10	24	1.05	75.00			1950	-	22	19.9	2.0
56	11.6	2.9	24.25	BS04/D04LA4	3.9	2250	_	67	9.7	3.5
52	11.7	3.2	26.21	"	ا. ا	2250	_	62	9.8	3.9
43	13.9	2.7	31.50	"	ıı	2250	_	52	11.5	3.3
35.5	16.7	2.2	38.42	m .	II .	2250	_	42.5	13.9	2.7
28.5	20.5	1.85	47.86	m m	II .	2250	-	34	17.1	2.2
21.5	25	1.45	64.06	m m	II .	2250	-	25.5	21	1.7
19	29.5	1.3	71.18	"	II .	2250	-	23	24.5	1.55
18	29	1.3	77.00	m .	II .	2250	-	21.5	24	1.6
14.5	34.5	1.1	93.92	II .	II .	2250	-	17.5	28.5	1.35
13.5	40.5	0.94	102.9	m .	II .	2250	-	16	34	1.1
12	40.5	0.94	117.0	II	II .	2250	-	14	34.5	1.1
11	49	0.84	123.0	m	II .	2250	-	13.5	40	1.05
21.5	27	3.0	64.06	BS06/D04LA4	8.4	3500	-	25.5	22.5	3.6
19	32	2.9	71.18	II .	II .	3500	-	23	26.5	3.5
18	31.5	2.7	77.00	"	II .	3500	-	21.5	26.5	3.2
15	40	2.5	90.00	"	II .	3500	-	18	33	3.0
13.5	43.5	2.3	103.1	"	"	3500	-	16	37	2.7
11.5	48.5	1.95	118.8	"	"	3500	-	14	39.5	2.4
10.5	54	1.95	129.0	" "	"	3500	-	13	44	2.4
9.2	60	1.75	146.8	" "	"	3500	-	11.5	48.5	2.2
7.8	66	1.5	174.0	 II	"	3500	-	9.4	54	1.8
6.2	81	1.2	220.0		"	3500	-	7.4	68	1.45
5.4 4.3	92 113	1.1 0.94	252.0 315.3	II.	"	3500 3500	-	6.5 5.2	76 94	1.3 1.15
3.8	126	0.94	358.9	11	"	3500	-	4.6	94 104	1.15
3.0	120	0.67	330.9			3300	-	4.0	104	1.05
11.5	55	2.2	119.6	BS10/D06LA4	23	6000	_	14	45	2.7
10.5	52	3.2	130.3	"	"	6000	_	12.5	44	3.7
8.9	61	2.7	152.7	"	"	6000	_	11	50	3.3
7.2	76	2.2	188.6	п	"	6000	_	8.6	63	2.7
6.3	87	2.1	216.6	п	II .	6000	_	7.5	73	2.5
5.4	101	1.8	254.0	BS10Z/D06LA4	24	6000	-	6.4	85	2.1
4.5	118	1.6	302.5	"	II .	6000	-	5.4	98	1.95
3.8	140	1.35	360.3	"	II .	6000	-	4.5	118	1.6
3.2	163	1.15	432.4	"	"	6000	-	3.8	137	1.4
2.5	200	0.95	544.8	"	"	6000	-	3.0	169	1.1
2.2	215	0.88	638.7	II .	II .	6000	-	2.6	185	1.05
		_	-		_					
6.0	91	3.2	225.6	BS20/D06LA4	34	8000	-	7.2	76	3.8
5.3	103	2.9	257.8	BS20Z/D06LA4	35	8000	-	6.3	87	3.4
4.5	120	2.5	300.1	"	"	8000	-	5.4	100	3.0
3.8	140	2.3	359.9	" "	"	8000	-	4.6	115	2.8
3.2	163	2.0	430.8	 II	"	8000	-	3.8	137	2.4
2.6	181	2.0	539.7	"	"	8000	-	3.1	152	2.4
2.2	210	1.55	619.2	II .	"	8000	-	2.7	171	1.95
1.8 1.7	255 330	1.2 0.82	763.4 831.7	BS20G06/D06LA4	38	8000 8000	-	2.2	210 280	1.5 0.96
1.7	330	0.82	831./	B320G00/D00LA4	38	8000	-	2.0	280	0.96
3.8	167	2.4	359.6	BS30Z/D06LA4	54	10000	-	4.6	138	2.9
3.0	183	3.3	457.3	II	"	10000	-	3.6	152	3.9
2.6	210	2.9	539.3	II .	II	10000	-	3.1	177	3.4
2.1	245	2.4	651.0	II	ıı	10000	-	2.5	205	2.8
1.7	290	1.65	804.1	II	ıı	10000	-	2.1	235	2.0
								1		
1.5	325	1.4	932.0	"	"	10000	-	1.8	270	1.65
1.5 1.4	325 420	1.4 1.15	932.0 1022	" BS30G06/D06LA4	56 "	10000 10000	-	1.8 1.6	270 370	1.65 1.3 1.15

Selection - worm-geared motors DSE - IE1

P = 0.09kW



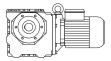
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
1.9	270	2.8	736.5	BS40Z/D06LA4	68	15000	-	2.2	230	3.3
1.5	335	2.2	908.2	"	II .	15000	-	1.8	280	2.7
1.4	425	2.1	965.5	BS40G10/D06LA4	73	15000	-	1.7	350	2.5
1.2	500	1.75	1180	"	II .	15000	-	1.4	425	2.1
0.95	630	1.4	1499	"	II .	15000	-	1.1	540	1.65
0.8	750	1.15	1785	ıı .	II .	15000	-	0.95	630	1.4

P = 0.12kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
295	3.4	4.4	4.60	BS02/D04LA4	3.5	1000	-	355	2.8	5.4
250	4.0	5.0	5.40	"	II	1000	-	300	3.35	6.0
200	4.9	5.1	6.75	"	"	1000	-	240	4.1	6.1
164	5.8	4.3	8.25	"	"	1100	-	197	4.85	5.2
127	7.3	3.4	10.67	"	"	1250	-	152	6.1	4.1
100	8.9	2.8	13.50	"	"	1250	-	120	7.4	3.4
75	11.3	2.2	18.00	"	"	1250	-	90	9.4	2.7
62	12.9	1.95	22.00	"	"	1250	-	74	10.8	2.3
50	14.4	1.75	27.00	"	11	1250	-	60	12	2.1
41	16.7	1.5	33.00	n n	"	1250	-	49.5	13.8	1.8
31.5	22.5	1.05	43.00	n n	"	1250	-	38	18.6	1.3
25	26	0.85	54.00	II .	"	1250	-	30	21.5	1.0
41	17	3.2	33.00	BS03/D05LA4	5.4	1950	-	49.5	14.1	3.9
35	20.5	2.7	39.00	II .	"	1950	-	42	17.4	3.2
27	24.5	2.2	50.00	II .	II .	1950	-	32.5	20	2.8
22	27.5	1.75	62.00	"	ıı .	1950	-	26.5	22.5	2.1
18	32	1.25	75.00	II.	"	1950	-	22	26.5	1.5
83	10.6	3.3	16.31	BS04/D04LA4	3.9	1970	-	100	8.8	4.0
65	13.3	2.8	20.96	"	"	2100	-	78	11.1	3.3
56	15.5	2.2	24.25	"	ıı .	2250	-	67	12.9	2.6
52	15.6	2.4	26.21	"	II .	2250	-	62	13.1	2.9
43	18.6	2.0	31.50	"	II .	2250	-	52	15.4	2.5
35.5	22	1.7	38.42	"	"	2250	-	42.5	18.6	2.0
28.5	27	1.4	47.86	"	II .	2250	-	34	22.5	1.7
21.5	33.5	1.05	64.06	"	"	2250	-	25.5	28	1.3
19	39.5	0.96	71.18	"	"	2250	-	23	32.5	1.15
18	38.5	0.99	77.00	"	"	2250	-	21.5	32.5	1.15
14.5	46.5	0.82	93.92	"	"	2250	-	17.5	38.5	0.99
28	29	3.0	48.60	BS06/D04LA4	8.4	3500	-	33.5	24.5	3.6
23.5	34.5	2.6	58.15	"	II .	3500	-	28	29	3.1
21.5	36	2.2	64.06	"	"	3500	-	25.5	30.5	2.6
19	42.5	2.2	71.18	"	"	3500	-	23	35	2.7
18	42.5	2.0	77.00	"	"	3500	-	21.5	35.5	2.4
15	53	1.85	90.00	"	II .	3500	-	18	44.5	2.2
13.5	58	1.7	103.1	"	II .	3500	-	16	49	2.0
11.5	64	1.45	118.8	"	"	3500	-	14	53	1.75
10.5	73	1.4	129.0	"	II .	3500	-	13	59	1.75
9.2	80	1.35	146.8	"	"	3500	-	11.5	64	1.65
7.8	88	1.1	174.0	"	"	3500	-	9.4	73	1.35
6.2	109	0.9	220.0	"	"	3500	-	7.4	91	1.1
5.4	123	8.0	252.0	п	II	3500	-	6.5	102	0.97
16.5	51	2.9	84.36	BS10/D06LA4	23	5300	-	19.5	43	3.5
13.5	54	3.0	103.4	II .	"	5600	-	16	45.5	3.5
11.5	73	1.65	119.6	"	II .	6000	-	14	60	2.0
10.5	69	2.4	130.3	"	11	6000	-	12.5	58	2.8
8.9	82	2.0	152.7	II .	"	6000	-	11	66	2.5
7.2	101	1.7	188.6	II .	"	6000	-	8.6	85	2.0
6.3	116	1.55	216.6	II .	II .	6000	-	7.5	97	1.85

Selection - worm-geared motors DSE - IE1

P = 0.12 kW



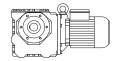
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
5.4	135	1.35	254.0	BS10Z/D06LA4	24	6000	-	6.4	114	1.6
4.5	157	1.2	302.5	п	"	6000	-	5.4	131	1.45
3.8	186	1.0	360.3	n n	II .	6000	-	4.5	157	1.2
3.2	215	0.88	432.4	"	"	6000	-	3.8	183	1.05
8.5	88	3.1	159.4	BS20/D06LA4	34	8000	-	10.5	72	3.8
7.4	102	2.7	183.0	m m	II .	8000	-	8.9	84	3.3
6.0	122	2.4	225.6	m m	II .	8000	-	7.2	101	2.9
5.3	138	2.1	257.8	BS20Z/D06LA4	35	8000	-	6.3	116	2.5
4.5	160	1.9	300.1	m m	II .	8000	-	5.4	133	2.3
3.8	186	1.7	359.9	m m	II .	8000	-	4.6	154	2.1
3.2	215	1.55	430.8	m m	II .	8000	-	3.8	183	1.8
2.6	240	1.5	539.7	m m	II .	8000	-	3.1	200	1.85
2.2	280	1.2	619.2	TI .	II .	8000	-	2.7	225	1.45
1.8	340	0.91	763.4	"	"	8000	-	2.2	280	1.1
3.8	220	1.8	359.6	BS30Z/D06LA4	54	10000	-	4.6	184	2.1
3.5	210	2.8	390.2	"	"	10000	-	4.2	177	3.3
3.0	240	2.5	457.3	"	"	10000	-	3.6	200	3.0
2.6	280	2.1	539.3	"	"	10000	-	3.1	235	2.6
2.1	325	1.8	651.0	"	"	10000	-	2.5	275	2.1
1.7	390	1.2	804.1	"	"	10000	-	2.1	315	1.5
1.5	435	1.05	932.0	"	"	10000	-	1.8	360	1.25
1.4	560	0.88	1022	BS30G06/D06LA4	56	10000	-	1.6	490	1.0
2.3	300	3.0	612.1	BS40Z/D06LA4	68	15000	-	2.7	255	3.6
1.9	360	2.1	736.5	II.	"	15000	-	2.2	310	2.4
1.5	450	1.65	908.2	II.	"	15000	-	1.8	375	2.0
1.4	570	1.55	965.5	BS40G10/D06LA4	73	15000	-	1.7	470	1.85
1.2	660	1.35	1180	II.	"	15000	-	1.4	570	1.55
0.95	840	1.05	1499	II.	11	15000	-	1.1	720	1.2

P = 0.18 kW

	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
295	5.1	2.9	4.60	BS02/D05LA4	5.3	1000	-	355	4.25	3.5
250	6.0	3.3	5.40	"	"	1000	-	300	5.0	4.0
200	7.3	3.4	6.75	"	"	1000	-	240	6.1	4.1
164	8.8	2.8	8.25	"	II .	1100	-	197	7.3	3.4
127	11	2.3	10.67	II .	"	1250	-	152	9.2	2.7
100	13.4	1.85	13.50	II .	"	1250	-	120	11.1	2.3
75	16.9	1.5	18.00	"	"	1250	-	90	14.1	1.75
62	19.4	1.3	22.00	"	"	1250	-	74	16.2	1.55
50	21.5	1.15	27.00	"	"	1250	-	60	18	1.4
41	25	1.0	33.00	"	"	1250	-	49.5	20.5	1.2
72	18.1	3.0	19.00	BS03/D05LA4	5.4	1950	-	86	15.1	3.6
54	21.5	2.6	25.00	"	"	1950	-	65	18.2	3.0
41	25.5	2.2	33.00	II .	II .	1950	-	49.5	21	2.6
35	31	1.75	39.00	II .	II .	1950	-	42	26	2.1
27	36.5	1.5	50.00	II .	II .	1950	-	32.5	30.5	1.8
22	41	1.15	62.00	"	"	1950	-	26.5	34	1.4
18	48.5	0.82	75.00	"	"	1950	-	22	39.5	1.0
126	10.6	3.0	10.73	BS04/D05LA4	5.8	1600	-	151	8.8	3.6
104	12.7	2.6	13.09	"	"	1760	-	124	10.6	3.1
83	15.9	2.2	16.31	II .	II .	1970	-	100	13.2	2.7
65	20	1.85	20.96	"	II .	2100	-	78	16.7	2.2
56	23	1.5	24.25	II .	II .	2250	-	67	19.4	1.75
52	23	1.65	26.21	II .	II .	2250	-	62	19.6	1.95
43	27.5	1.4	31.50	II .	II .	2250	-	52	23	1.65
35.5	33	1.1	38.42	II .	II .	2250	-	42.5	27.5	1.35
28.5	41	0.93	47.86	II	"	2250	-	34	34	1.1

Selection - worm-geared motors DSE - IE1

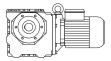
P = 0.18 kW



	50 Hz		i	Туре	m	F _{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B	•	.,,,,,	•••	- NN	- NV	n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm	-6			kg	N	Ν	1/min	Nm	- 6
56	24.5	3.1	24.25	BS06/D05LA4	10	2600	_	67	20.5	3.8
52	24	3.2	26.21	"	"	3000	_	62	20	3.9
43	29	2.8	31.50	"	II .	3200	_	52	24	3.3
33	37.5	2.3	41.29	11	II .	3500	_	39.5	31	2.8
28	44	2.0	48.60	n .	ш	3500	_	33.5	36.5	2.4
23.5	51	1.8	58.15	m .	"	3500	_	28	43.5	2.1
21.5	54	1.5	64.06	п	"	3500	_	25.5	45.5	1.75
19	64	1.45	71.18	m .	11	3500	_	23.5	53	1.75
18	63	1.35	77.00	"	11	3500	_	21.5	53	1.73
15	80	1.25	90.00	11	"	3500	-	18	66	1.5
13.5	80 87		103.1	11	"	3500	-	16	74	
		1.15		п	"			1		1.35
11.5	97	0.97	118.8	11	ıı .	3500	-	14	79	1.2
10.5	109	0.95	129.0		"	3500	-	13	88	1.2
9.2	121	0.88	146.8			3500	-	11.5	97	1.1
28.5	45	3.2	47.59	BS10/D06LA4	23	4050	-	34.5	37	3.9
24	53	2.8	57.12	m	II .	4350	-	28.5	44.5	3.4
22.5	51	2.9	60.74	II	II .	4550	-	27	42.5	3.5
19	66	2.4	71.96	m m	II .	5000	-	23	55	2.9
16.5	77	1.95	84.36	TI TI	II	5300	-	19.5	65	2.3
13.5	81	2.0	103.4	II .	II .	5600	-	16	68	2.4
11.5	110	1.1	119.6	II .	II .	6000	-	14	90	1.35
10.5	104	1.6	130.3	m .	11	6000	_	12.5	88	1.85
8.9	123	1.35	152.7	п	11	6000	_	11	100	1.65
7.2	152	1.1	188.6	п	11	6000	_	8.6	127	1.35
6.3	174	1.05	216.6	m .	11	6000	_	7.5	146	1.25
5.4	200	0.9	254.0	BS10Z/D06LA4	24	6000	_	6.4	171	1.05
4.5	235	0.81	302.5	"		6000	-	5.4	197	0.96
13	87	3.1	106.3	BS20/D06LA4	34	7600	_	15.5	73	3.7
11	103	2.6	127.3	"	"	8000	_	13.5	87	3.1
8.5	133	2.1	159.4	п	11	8000	_	10.5	108	2.5
7.4	153	1.85	183.0	m .	"	8000	_	8.9	127	2.2
6.0	183	1.6	225.6	п	"	8000	_	7.2	152	1.9
5.3	205	1.45	257.8	BS20Z/D06LA4	35	8000	_	6.3	174	1.7
4.5	240	1.25	300.1	D3202/D00LA4	۱۱	8000	_	5.4	200	1.5
1		1		"	"		_			
3.8	280	1.15	359.9	"	"	8000		4.6	230	1.4
3.2	325	1.0	430.8	11	"	8000	-	3.8	275	1.2
2.6	360	1.0	539.7			8000	-	3.1	300	1.2
6.3	180	2.9	216.4	BS30/D06LA4	51	10000	-	7.5	151	3.4
5.2	215	2.6	261.6	BS30Z/D06LA4	54	10000	-	6.2	182	3.1
4.5	245	2.4	306.6	"	"	10000	-	5.3	210	2.8
3.8	330	1.2	359.6	m .	II .	10000	-	4.6	275	1.45
3.5	315	1.85	390.2	m .	II .	10000	-	4.2	265	2.2
3.0	365	1.65	457.3	m .	II .	10000	-	3.6	305	1.95
2.6	420	1.45	539.3	m m	II .	10000	-	3.1	350	1.7
2.1	490	1.2	651.0	m .	II .	10000	_	2.5	410	1.4
1.7	580	0.82	804.1	II .	ıı	10000	-	2.1	470	1.0
4.7	270	2.6	287.7	BS40Z/D06LA4	68	15000	_	5.7	220	3.3
3.1	345	2.9	446.8	B3402/D00LA4	"	15000	_	3.7	290	3.4
2.6	415	2.7	520.8	"	п	15000	_	3.2	335	3.4
2.6	415 455	i		II	"	15000	-			
		2.0	612.1	11	"		-	2.7	385 465	2.4
1.9	540 670	1.4	736.5	"	"	15000	-	2.2	465 560	1.65
1.5	670	1.1	908.2			15000	-	1.8	560 700	1.35
1.4	850	1.05	965.5	BS40G10/D06LA4	73	15000	-	1.7	700	1.25
1.2	1000	0.88	1180	.		15000	-	1.4	850	1.05

Selection - worm-geared motors DSE - IE1

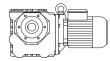
P = 0.25 kW



ns. Ms. Mn. Nn. Nn. Nn. Nn. Nn. Nn. Nn. Nn. Nn. N											
		50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
295 7,1 2,1 460 8502-J/DOSLA4 5.3 1000 - 355 5.9 2.2 250 8.4 2.4 5.40 " 1000 - 3000 7.0 2.2 250 8.4 2.4 5.40 " 1000 - 3000 7.0 2.2 260 10.2 2.5 6.75 " " 1000 - 300 7.0 2.2 271 15.4 1.6 10.67 " " 1700 - 120 170 170 170 170 170 170 170 170 170 17	n ₂	M_2	f _B								$f_{\scriptscriptstyle B}$
250	1/min							N			
200 10.2 2.5 6.75 " " 1000	295							-			2.5
164 12.2 2.0 8.25 " " 1100 - 197 10.1 2.2 127 15.4 1.6 10.67 " " 1250 - 152 12.8 1.9 100 18.6 1.35 13.50 " " 1250 - 152 12.8 1.9 100 18.6 1.35 13.50 " " 1250 - 100 15.5 1.0 62 26.5 0.94 22.00 " " 1250 - 74 22.5 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 60 25 1.0 6								-	1		2.9
197 15.4 1.6 10.67 " " 1250 - 152 12.8 12.9 190 18.6 13.5 13.50 " " 1250 - 90 19.6 12.7 190 18.6 13.5 13.50 " " 1250 - 90 19.6 12.5 12.8 100 18.6 3.0 13.50 BS03-,/D05LA4 5.4 1600 - 120 15.5 3.4 1100 18.6 3.0 13.50 BS03-,/D05LA4 5.4 1600 - 120 15.5 3.4 122 5 2.2 19.00 " " " 1990 - 86 21 22.5 11.5 134 13.5 1.5 13.00 " " " 1990 - 86 21 22.5 11.5 135 43.5 1.5 3.00 " " " 1990 - 65 25 25.2 136 137 13.5 13.5 13.5 13.5 13.5 13.5 13.5 13.5								-			2.9
100	164							-			2.5
75	127	15.4	1.6	10.67	"	"		-	152		1.95
26.5 0.94 22.00	100	18.6	1.35	13.50	"	II .	1250	-	120	15.5	1.6
100	75	23.5	1.05	18.00	"	II .		-	90	19.6	1.3
100	62	26.5	0.94	22.00	"	II .	1250	-	74	22.5	1.1
72	50	30	0.83	27.00	II	"	1250	-	60	25	1.0
72	100	18.6	3.0	13 50	RS03- /D05I A4	5.4	1600	_	120	15.5	3 5
54 30.5 1.8 25.00 " " 1950 - 65 25 2.2 35 43.5 1.25 39.00 " " 1950 - 42 36 1.57 27 51 1.1 50.00 " " 1950 - 42 36 1.52 22 57 0.84 62.00 " " 1950 - 26.5 47.5 11. 22 57 0.84 62.00 " " 1950 - 26.5 47.5 11. 152 12.2 2.5 8.93 " " 1500 - 18.0 10.2 26.5 7.0 3.3 164 14.7 2.2 10.73 " " 1500 - 151 12.3 2.2 383 2.2 1.6 16.31 " " 1700 - 100 18.3 11.5 5									1		
41 35.5 1.55 33.00 " " 1950 - 49.5 29 1.5 35 43.5 1.25 39.00 " " 1950 - 42.36 1.5 35 43.5 1.25 39.00 " " 1950 - 32.5 42.5 12.5 22 57 0.84 62.00 " " 1950 - 32.5 42.5 12.5 22 57 0.84 62.00 " " 1950 - 26.5 47.5 12.5 225 8.2 3.2 6.13 BS04/D05LA4 5.8 1320 - 26.5 7.0 33.5 152 12.2 2.5 8.93 " 1500 - 182 10.2 2.5 126 14.7 2.2 10.73 " 1600 - 182 10.2 2.5 127 104 17.6 1.9 13.09 " 1760 - 1170 - 1100 18.3 18.3 32 2 1.6 16.31 " 1770 - 1100 18.3 18.3 65 27.5 1.35 20.96 " 1 1770 - 1100 18.3 18.3 65 32 1.05 24.25 " 1 2 2 2 3 3.1 6.56 8506 " 2 2 7 1.22 43 38.5 0.99 31.50 24.25 " 2 2 2 2 3 3.1 6.56 8506 - 2 2 7 1.25 35.5 46 0.8 38.42 " 2250 - 62 2 7 1.25 35.5 46 0.8 38.42 " 2250 - 42.5 38.5 0.99 35.5 46 0.8 38.42 " 2250 - 42.5 38.5 0.99 35.5 46 0.8 38.42 " 2250 - 42.5 38.5 0.99 35.5 46 0.8 38.42 " 2 250 - 42.5 38.5 0.99 35.5 46 0.8 38.42 " 2 30.00 - 67 2.8 3.3 3.5 2.3 26.21 " 2 30.00 - 62 2.8 2.6 3.2 2.3 3.3 3.5 2.3 26.21 " 3 30.00 - 62 2.8 2.6 3.3 3.5 2.3 26.21 " 3 30.00 - 62 2.8 2.6 3.3 3.5 2.3 26.21 " 3 30.00 - 62 2.8 2.6 3.3 3.5 2.3 26.21 " 3 30.00 - 62 2.8 2.6 3.3 3.5 2.3 3.5 2.3 3.5 2.3 3.5 2.3 3.5 2.3 3.5 2.3 3.5 2.3 3.5 2.3 3.5 2.3 3.5 2.3 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3.5 3					11	"					
35					11	"					
27 51 1.1 50,00 " " 1950 - 32,5 42,5 11.2 22 57 0.84 62,00 " " 1950 - 26,5 47,5 1.4 225 8.2 3.2 6.13 BSO4/DOSLA4 5.8 1320 - 265 7.0 3.3 152 12.2 2.5 8.93 " " 1500 - 182 10.2 22.2 104 17,6 1.9 13.09 " " 1760 - 124 14.8 2.2 65 27.5 1.35 20.96 " " 2100 - 78 23 14.4 48.2 2.2 56 32 1.05 24.25 " " 2250 62 2.7 1.2 52 3.5 4.6 0.8 38.42 " " 2250 62 2.2 1.2 52 <th></th> <th></th> <td></td> <td></td> <td>· ·</td> <td>"</td> <td></td> <td></td> <td></td> <td></td> <td></td>					· ·	"					
225 8.2 3.2 6.13 BS04/D0SLA4 5.8 1320 - 26.5 47.5 1.1 152 1.2.2 2.5 8.93 " 1500 - 182 10.2 2.5 126 14.7 2.2 10.73 " 1500 - 182 10.2 2.5 126 14.7 2.2 10.73 " 1600 - 151 12.3 2.2 128 32 2.2 1.6 16.31 " 1760 - 174 14.4 14.8 2.2 128 32 2.2 1.6 16.31 " 1760 - 174 14.4 14.8 2.2 128 32 2.2 1.6 16.31 " 1760 - 174 14.4 14.8 2.2 128 32 2.2 1.6 16.31 " 1760 - 174 14.4 14.8 2.2 129 32.5 1.35 20.96 " 1 2100 - 78 23 14.2 129 32.5 1.15 26.21 " 2250 - 67 27 12.2 129 32.5 1.15 26.21 " 2250 - 67 27 12.2 129 32.5 1.15 26.21 " 2250 - 62 27 14.2 129 33.5 46 0.8 38.42 " 2250 - 52 32 1.3 13.5 2.6 2 1.3 3 16.56 BS06/D0SLA4 10 2400 98 19.4 3.3 156 34 2.3 24.25 " 2500 - 82 23 3.3 156 34 2.3 24.25 " 2500 - 82 23 3.3 157 24.25 " 2600 - 67 28.5 2.3 158 33 5.2 1.65 41.29 " 3500 - 62 28 2.8 139 40.5 2.0 31.50 " 3500 - 39.5 43.5 2.2 139 40.5 2.0 31.50 " 3500 - 39.5 43.5 2.2 129 8 61 1.45 48.60 " 3500 - 39.5 43.5 2.2 129 8 61 1.45 48.60 " 3500 - 28.6 63 12.2 129 8 1.05 77.18 " 3500 - 28.6 63 12.2 121.5 75 1.05 64.06 " 3500 - 28.6 63 12.2 122.5 77 1.25 88.15 " 3500 - 28.6 63 12.2 123.5 72 1.25 88.15 " 3500 - 28.6 63 12.2 124.5 3.0 33.5 3.0 33.5 BS10/D06LA4 23 3550 - 48.5 37 34.4 13.5 111 0.88 90.00 " 3500 - 18.9 2.1 13.5 112 0.82 103.1 " 3500 - 18.9 2.1 13.5 113 1.4 103.4 " " 5500 - 18.5 300 - 18.9 2.1 13.5 120 0.82 103.1 " 3500 - 18.5 300 - 18.9 2.1 13.5 121 0.82 103.1 " 3500 - 18.5 300 - 18.9 2.1 13.5 122 0.82 103.1 " 3500 - 18.5 300 - 18.9 2.1 13.5 121 0.82 103.1 " 3500 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18.5 300 - 18					m .	"					
225 8.2 3.2 6.13 B504/D05LA4 5.8 1320 - 265 7.0 3.5 152 12.2 2.5 8.93 " 1500 - 182 10.2 2.5 104 17.6 1.9 13.09 " 1760 - 151 12.3 2.4 104 17.6 1.9 13.09 " 1760 - 151 12.4 14.8 2.5 83 22 1.6 16.31 " 1760 - 124 14.8 2.5 83 22.1 1.05 24.25 " 2100 - 78 23 1.6 56 32 1.05 24.25 " 2250 - 67 27 1.2 143 38.5 0.99 31.50 " 2250 - 62 27 1.4 143 38.5 0.99 31.50 " 2250 - 62 27 1.4 143 38.5 0.99 31.50 " 2250 - 62 27 1.4 145 38.5 46 0.8 38.42 " 2250 - 62 27 1.4 146 0.8 38.42 " 2250 - 62 27 1.4 147 2.2 1.0 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6	22				u u	"					1.0
152					2004 (2001.44	5.0	4222		265	7.0	2 -
126											3.7 2.9
104 17.6 1.9 13.09 " " 1760 - 124 14.8 2.2 8.8 3 22 1.6 16 16.31 " " 1970 - 100 18.3 11.5 15.6 22.5 1.35 20.96 " " 2100 - 78 23 11.6 16.5 13.2 1.05 24.25 " " 2250 - 67 27 1.2 1.2 1.3 1.5 26.21 " " 2250 - 67 27 1.2 1.2 1.3 1.5 26.21 " " 2250 - 62 2.7 1.4 1.3 1.5 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2					п	II .					2.6
83					11	"					
55					11	"					
56 32 1.05 2425 " " 250 - 67 27 1.25 52 32.5 1.15 26.21 " " 2250 - 62 27 1.24 43 38.5 0.99 31.50 " " 2250 - 52 32 32 1.23 82 23 3.1 16.56 BS06/D05LA4 10 2400 - 98 19.4 3.3 56 3.4 2.3 24.25 " " 2500 - 82 23 3.3 56 3.4 2.3 24.25 " " 2600 - 67 28.5 2.2 43 40.5 2.0 31.50 " " 3200 - 62 28 2.2 43 40.5 2.0 31.50 " " 3500 - 39.5 43.5 <t>2.0 28 61<!--</td--><th></th><th></th><td></td><td></td><td>n .</td><td>"</td><td></td><td></td><td></td><td></td><td></td></t>					n .	"					
52 32.5 1.15 26.21 " " 2250 - 62 27 1.4 43 38.5 0.99 31.50 " " 2250 - 52 32 1.2 35.5 46 0.8 38.42 " " 2250 - 42.5 38.5 0.96 82 23 3.1 16.56 BS06/D05LA4 10 2400 - 98 19.4 3.5 69 27.5 2.7 19.82 " " 2500 - 82 23 3.3 3.5 2.3 2.2 23 3.3 3.5 2.2 23 3.3 2.2 28 2.2 28 2.2 23 3.3 2.2 23 3.3 52 1.65 41.29 " " 3000 - 62 28 2.2 28 3.4 43.5 2.2 33.5 51 1.7 22.5 58.5 15 " 3500 - </td <th></th> <th></th> <td></td> <td></td> <td>n .</td> <td>"</td> <td></td> <td></td> <td></td> <td></td> <td></td>					n .	"					
33.5					n n	"					
35.5					"	"					
82					m .	II .					0.96
69 27.5 2.7 19.82 " " 2500 - 82 23 33 56 34 2.3 24.25 " " 2600 - 67 28.5 2.7 52 33.5 2.3 26.21 " " 3000 - 62 28 2.8 43 40.5 2.0 31.50 " " 3200 - 52 33.5 2.4 28 61 1.45 48.60 " " 3500 - 33.5 51 1.7 21.5 72 1.25 58.15 " " 3500 - 28 60 1.2 21.5 75 1.05 64.06 " " 3500 - 28 60 1.2 19 89 1.05 71.18 " " 3500 - 23 73 1.3 15 11 0.88 <t< td=""><th></th><th></th><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											
56 34 2.3 24.25 " " 2600 - 67 28.5 2.2 43 40.5 2.0 31.50 " " 3200 - 52 23.5 2.4 33 52 1.65 41.29 " " 3500 - 39.5 43.5 2.6 28 61 1.45 48.60 " " 3500 - 39.5 43.5 2.6 23.5 72 1.25 58.15 " " 3500 - 28 60 1.5 21.5 75 1.05 64.06 " " 3500 - 25.5 63 1.25 19 89 1.05 71.18 " " 3500 - 21.5 74 1.11 15 111 0.88 90.00 " " 3500 - 18.5 92 1.00 13.5 122 0.82 103.1 " 3500 - 18.5 92 1.00 40	82										3.7
200											
433								-			
33								-			
28 61 1.45 48.60 " " 3500 - 33.5 51 1.72 23.5 72 1.25 58.15 " " 3500 - 28 60 1.5 21.5 75 1.05 64.06 " " 3500 - 28 60 1.5 21.5 75 1.05 64.06 " " 3500 - 25.5 63 1.25 19 89 1.05 71.18 " " 3500 - 21.5 74 1.15 111 0.88 90.00 " " 3500 - 21.5 74 1.15 15 111 0.88 90.00 " " 3500 - 18 92 1.06 13.5 122 0.82 103.1 " " 3500 - 16 102 0.99 40.5 44.5 3.0 33.55 BS10/D06LA4 23 3550 - 48.5 37 33. 34 52 2.7 39.96 " " 3800 - 41 43.5 33. 358.5 62 2.3 47.59 " " 4050 - 34.5 51 2.8 24 73 2.1 57.12 " " 4350 - 28.5 61 2.9 22.5 71 2.1 60.74 " " 4350 - 28.5 61 2.9 22.5 71 2.1 60.74 " " 4550 - 27 59 2.5 19 92 1.75 71.96 " " 5000 - 23 76 2.7 16.5 107 1.4 84.36 " " 5300 - 16 95 1.5 11.5 113 1.4 103.4 " " 5600 - 16 95 1.5 11.5 1.15 130.3 " " 6000 - 12.5 122 1.3 8.9 171 0.96 152.7 " " 6000 - 12.5 122 1.3 8.9 171 0.96 152.7 " " 6000 - 11 138 1.7 7.2 210 0.81 188.6 " " 6000 - 15.5 122 1.3 8.9 171 0.96 152.7 " " 6000 - 18.5 85 1.5 101 2.7 88.67 " " 6000 - 18.5 85 1.5 101 2.7 88.67 " " 7000 - 18.5 85 1.5 101 2.7 88.67 " " 7000 - 18.5 85 1.1 143 1.9 127.3 " " 6000 - 15.5 101 2.5 1.1 143 1.9 127.3 " " 8000 - 15.5 101 2.5 1.8 15 1.5 159.4 " " 8000 - 15.5 101 2.5 1.8 15 1.5 159.4 " " 8000 - 10.5 150 18.8 7.4 210 1.35 183.0 " " 8000 - 10.5 150 1.8 7.4 210 1.35 183.0 " " 8000 - 10.5 150 1.8 7.4 210 1.35 183.0 " " 8000 - 10.5 150 1.8 7.4 210 1.35 183.0 " " 8000 - 10.5 150 1.8 7.4 210 1.35 183.0 " " 8000 - 10.5 150 1.8 7.4 210 1.35 183.0 " " 8000 - 10.5 150 1.8 7.4 210 1.35 183.0 " " 8000 - 10.5 150 1.8 7.5 225.6 " " 8000 - 10.5 150 1.8 7.6 25.7 1.5 150 1.5 150 1.8 7.7 2 25.7 1.5 150 1.5 150 1.8 7.8 25.7 1.5 150 1.5 150 1.8 7.9 25.7 1.5 150 1.5 150 1.8 7.0 25.7 1.5 150 1.5 150 1.8 7.1 1.5 150 1.5 150 1.5 150 1.8 7.2 1.5 1.5 150 1.5 150 1.8 7.4 1.5 1.5 150 1.5 150 1.8 7.5 1.5 150 1.5 150 1.5 150 1.8 7.5 1.5 150 1.5 150 1.8 7.6 1.5 1.5 150 1.5 150 1.8 7.7 1.6 1.8 7.9 1.7 1.8 1.8 7.0 1.8 1.9 1.7 1.8 7.0 1.8 1.9 1.7 1.8 7.0 1.8 1.9 1.7 1.8 7.2 1.9 1.9 1.8 7.2 1.9 1.9 1.9 7.2 1.9 1.9 1.9 1.9 7.2 1.9 1.9 1.9 7.2 1.9 1.9 1.9 1.9 7.2 1.9 1.9 1.9 1.9 7.2 1.9 1.								-			2.4
23.5 72 1.25 58.15 " " 3500 - 28.60 1.52 21.5 75 1.05 64.06 " " 3500 - 25.5 63 1.25 119 89 1.05 71.18 " " 3500 - 23 73 1.3 18 88 0.97 77.00 " " 3500 - 21.5 74 1.1 15 111 0.88 90.00 " " 3500 - 18 92 1.0 13.5 122 0.82 103.1 " " 3500 - 16 102 0.9 140.5 44.5 3.0 33.55 BS10/D06LA4 23 3550 - 48.5 37 3.6 34 52 2.7 39.96 " " 3800 - 41 43.5 3.3 28.5 62 2.3 47.59 " " 4050 - 34.5 51 2.8 24 73 2.1 57.12 " " 4350 - 28.5 61 2.3 22.5 71 2.1 60.74 " " 4550 - 27 59 2.5 19 92 1.75 71.96 " " 5000 - 23 76 2.5 16.5 107 1.4 84.36 " " 5000 - 16 95 1.3 13.5 113 1.4 103.4 " " 5000 - 16 95 1.3 13.5 113 1.4 103.4 " " 5000 - 16 95 1.3 18.9 171 0.96 152.7 " " 6000 - 16 95 1.3 18.9 171 0.96 152.7 " " 6000 - 16 95 1.3 18.9 171 0.96 152.7 " " 6000 - 11 11 138 1.2 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 23.5 76 3.5 18 87 3.1 76.18 " " 6000 - 15.5 101 2.7 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 23.5 76 3.5 18 87 3.1 76.18 " " 6000 - 15.5 101 2.7 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 21.5 73 3.3 18.87 3.1 76.18 " " 6000 - 15.5 101 2.7 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 21.5 73 3.3 18.87 3.1 76.18 " " 6000 - 15.5 101 2.7 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 21.5 73 3.3 18.87 3.1 76.18 " " 7000 - 18.5 85 3.2 18.5 185 1.5 159.4 " " 8000 - 15.5 101 2.7 11 143 1.9 127.3 " " 8000 - 15.5 101 2.7 11 143 1.9 127.3 " " 8000 - 15.5 101 2.7 11 143 1.9 127.3 " " 8000 - 15.5 101 2.7 11 143 1.9 127.3 " " 8000 - 15.5 101 2.7 11 143 1.9 127.3 " " 8000 - 15.5 101 2.7 11 143 1.9 127.3 " " 8000 - 15.5 101 2.7 11 143 1.9 127.3 " " 8000 - 15.5 101 2.7 12 1.5 225.6 " " 8000 - 15.5 101 2.7 13 12 12 12 13.3 183.0 " " 8000 - 15.5 101 1.5 15.5 101 2.7 2.7 2.7 10 1.5 183.0 " " 8000 - 15.5 101 1.5 15.5 101 2.7 2.7 2.7 10 1.5 183.0 " " 8000 - 15.5 101 1.5 15.5 101 2.7 2.7 2.7 10 1.5 183.0 " " 8000 - 15.5 101 1.5 15.5 101 2.7 2.7 2.7 10 1.5 183.0 " " 8000 - 15.5 101 1.5 15.5 101 2.7 2.7 2.7 10 1.5 183.0 " " 8000 - 15.5 100 1.5 150 1.8 15.5 100 1.5 150 1.8 15.5 100 1.5 150 1.8 15.5 100 1.5 150 1.8 15.5 100 1.5 150 1.8 15.5 100 1.5 150 1.8 15.5 100 1.5 150								-			2.0
22.15								-			
19 89 1.05 71.18 " 3500 - 23.5 05 1.22 111 0.88 90.00 " 3500 - 21.5 74 1.1! 15 111 0.88 90.00 " 3500 - 18 92 1.0! 13.5 122 0.82 103.1 " 3500 - 16 102 0.9! 40.5 44.5 3.0 33.55 B510/D06LA4 23 3550 - 48.5 37 3.6 34 52 2.7 39.96 " 3800 - 41 43.5 3.2 28.5 62 2.3 47.59 " 4050 - 34.5 51 2.4 24 73 2.1 57.12 " 4350 - 28.5 61 2.2 25.5 71 2.1 60.74 " 4550 - 27 59 2.5 19 92 1.75 71.96 " 5500 - 23 76 2.7 16.5 107 1.4 84.36 " 5500 - 19.5 90 1.61 13.5 113 1.4 103.4 " 5500 - 16 95 1.5 10.5 145 1.15 130.3 " 6000 - 12.5 12.2 1.3 8.9 171 0.96 152.7 " 6000 - 12.5 12.2 1.3 8.9 171 0.96 152.7 " 6000 - 11 1 138 1.7 7.2 210 0.81 188.6 " 6000 - 11.5 13.5 13.1 18 87 3.1 88.6 " 6000 - 11.5 13.5 13.1 19 12 2.2 106.3 " 76.18 " 6000 - 18.5 85 15 101 2.7 88.67 " 7000 - 18.5 85 15 101 2.7 88.67 " 7000 - 18.5 85 15 101 2.7 88.67 " 7000 - 18.5 85 13 121 2.2 106.3 " 7600 - 18.5 85 1.5 101 2.7 88.67 " 7000 - 18.5 85 1.5 101 2.7 88.67 " 7000 - 18.5 85 1.5 101 2.7 88.67 " 7000 - 18.5 85 1.5 101 2.7 88.67 " 7000 - 18.5 85 1.5 101 2.7 88.67 " 7000 - 18.5 85 1.5 101 2.7 88.67 " 7000 - 18.5 85 1.5 101 2.7 88.67 " 7000 - 18.5 85 1.5 15 159.4 " 8000 - 10.5 150 1.88 8.5 1.5 159.4 " 8000 - 7.2 210 1.4 8.5 1.85 1.5 159.4 " 8000 - 7.2 210 1.4 8.5 1.85 1.5 159.4 " 8000 - 7.2 210 1.4 8.5 1.85 1.5 159.4 " 8000 - 7.2 210 1.4 8.5 1.85 1.55 1.50 1.5 25.6 " 8000 - 7.2 210 1.4 8.5 1.85 1.55 1.55 1.50 1.5 25.6 " 8000 - 7.2 210 1.4 8.5 1.5 330 0.91 300.1 " 8000 - 7.2 210 1.4 8.5 330 0.91 300.1 " 8000 - 7.2 210 1.4 8.5 330 0.91 300.1 " 8000 - 7.2 210 1.4 8.5 330 0.91 300.1 " 8000 - 7.2 210 1.4 8.5 330 0.91 300.1 " 8000 - 7.2 210 1.4 8.5 330 0.91 300.1 " 8000 - 7.2 210 1.4 8.5 330 0.91 300.1 " 8000 - 7.2 210 1.4								-			
18 88 0.97 77.00 " 3500 - 21.5 74 1.11 15 111 0.88 90.00 " " 3500 - 18 92 1.01 13.5 122 0.82 103.1 " " 3500 - 16 102 0.91 40.5 44.5 3.0 33.55 BS10/D06LA4 23 3550 - 48.5 37 3.0 34 52 2.7 39.96 " " 3800 - 41 43.5 3.2 28.5 62 2.3 47.59 " " 4050 - 34.5 51 2.2 24 73 2.1 57.12 " " 4350 - 28.5 61 2.2 22.5 71 2.1 60.74 " " 4550 - 27 59 2.3 19 92 1.75 71.96 " " 5000 - 23 76 2.7 16.5 107 1.4 84.36 " " 5000 - 19.5 90 1.66 13.5 113 1.4 103.4 " " 5600 - 16 95 1.3 10.5 145 1.15 130.3 " " 6000 - 12.5 122 1.33 8.9 171 0.96 152.7 " " 6000 - 11 138 1.2 7.2 210 0.81 188.6 " " 6000 - 11 138 1.2 18.87 3.1 76.18 " " 6000 - 11.5 122 1.33 18.87 3.1 76.18 " " 6000 - 15.5 122 1.33 18.87 3.1 76.18 " " 6000 - 15.5 122 1.33 18.87 3.1 76.18 " " 6000 - 15.5 101 2.7 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 23.5 76 3.9 18.87 3.1 76.18 " " 7000 - 18.5 85 3.3 13 121 2.2 106.3 " " 7000 - 18.5 85 3.3 13 121 2.2 106.3 " " 7000 - 18.5 85 3.3 13 121 2.2 106.3 " " 7000 - 18.5 85 3.3 14 14 31.9 127.3 " " 8000 - 15.5 101 2.7 18.5 185 1.5 159.4 " " 8000 - 15.5 101 2.7 18.5 185 1.5 159.4 " " 8000 - 10.5 150 1.8 18.5 1.5 159.4 " " 8000 - 7.2 210 1.8 18.5 1.5 159.4 " " 8000 - 7.2 210 1.5 18.5 185 1.5 159.4 " " 8000 - 7.2 210 1.4 18.5 330 0.91 300.1 " " 8000 - 5.4 275 1.5								-			
15 111 0.88 90.00 " " 3500 - 18 92 1.09 40.5 44.5 3.0 33.55 BS10/D06LA4 23 3550 - 48.5 37 3.6 34 52 2.7 39.96 " " 3800 - 41 43.5 3.3 28.5 62 2.3 47.59 " " 4050 - 34.5 51 2.8 24 73 2.1 60.74 " " 4350 - 28.5 61 2.5 22.5 71 2.1 60.74 " " 4550 - 27 59 2.2 19 92 1.75 71.96 " " 5000 - 23 76 2.7 16.5 107 1.4 84.36 " " " 5300 - 19.5 90 1.6 10.5 145 1.15 130.3 " " 6000 - 12.5 12.2								-			1.3
13.5 122 0.82 103.1 " " 3500 - 16 102 0.99 40.5 44.5 3.0 33.55 BS10/D06LA4 23 3550 - 48.5 37 3.0 34 52 2.7 39.96 " " 3800 - 41 43.5 32. 28.5 62 2.3 47.59 " " 4050 - 34.5 51 2.6 24 73 2.1 57.12 " " 4350 - 28.5 61 2.9 22.5 71 2.1 60.74 " " 4550 - 27 59 2.9 19 92 1.75 71.96 " " 5000 - 23 76 2.7 16.5 107 1.4 84.36 " " 5300 - 19.5 90 1.66 13.5 113 1.4 103.4 " " 5600 - 16 95 1.7 10.5 145 1.15 130.3 " " 6000 - 12.5 122 1.38 8.9 171 0.96 152.7 " " 6000 - 11 138 1.7 7.2 210 0.81 188.6 " " 6000 - 8.6 177 0.96 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 23.5 76 3.9 19.5 13 121 2.2 106.3 " " 7000 - 18.5 85 3.1 11 143 1.9 127.3 " " 8000 - 15.5 101 2.7 11 143 1.9 127.3 " " 8000 - 15.5 101 2.7 8.5 185 1.5 159.4 " " 8000 - 10.5 150 1.8 7.4 210 1.35 183.0 " " 8000 - 10.5 150 1.8 7.4 210 1.35 183.0 " " 8000 - 8.9 177 1.6 6.0 250 1.15 225.6 " " 8000 - 7.2 210 1.8 8.5 33 285 1.05 257.8 BS202/D06LA4 35 8000 - 6.3 240 1.25 5.3 285 1.05 257.8 BS202/D06LA4 35 8000 - 6.3 240 1.25 5.3 285 1.05 257.8 BS202/D06LA4 35 8000 - 6.3 240 1.25 5.3 285 1.05 257.8 BS202/D06LA4 35 8000 - 6.3 240 1.25 1.5 1.5 330 0.91 300.1 " " 8000 - 5.4 275 1.7	18							-			1.15
40.5	15	111	0.88	90.00	"	"	3500	-		92	1.05
34 52 2.7 39.96 " " 3800 - 41 43.5 3.2 28.5 62 2.3 47.59 " " 4050 - 34.5 51 2.8 24 73 2.1 57.12 " " 4350 - 28.5 61 2.5 19 92 1.75 71.96 " " 5000 - 23 76 2.5 16.5 107 1.4 84.36 " " 5300 - 19.5 90 1.65 13.5 113 1.4 103.4 " " 5600 - 16 95 1.7 10.5 145 1.15 130.3 " " 6000 - 12.5 122 1.33 8.9 171 0.96 152.7 " " 6000 - 11 138 1.7 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 23.5 76 3.9 <th>13.5</th> <th>122</th> <td>0.82</td> <td>103.1</td> <td>"</td> <td>"</td> <td>3500</td> <td>-</td> <td>16</td> <td>102</td> <td>0.98</td>	13.5	122	0.82	103.1	"	"	3500	-	16	102	0.98
34 52 2.7 39.96 " " 3800 - 41 43.5 3.2 28.5 62 2.3 47.59 " " 4050 - 34.5 51 2.8 24 73 2.1 57.12 " " 4350 - 28.5 61 2.5 19 92 1.75 71.96 " " 5000 - 23 76 2.5 16.5 107 1.4 84.36 " " 5300 - 19.5 90 1.65 13.5 113 1.4 103.4 " " 5600 - 16 95 1.7 10.5 145 1.15 130.3 " " 6000 - 12.5 122 1.33 8.9 171 0.96 152.7 " " 6000 - 11 138 1.7 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 23.5 76 3.9 <th>40.5</th> <th>44.5</th> <td>3.0</td> <td>33.55</td> <td>BS10/D06LA4</td> <td>23</td> <td>3550</td> <td>_</td> <td>48.5</td> <td>37</td> <td>3.6</td>	40.5	44.5	3.0	33.55	BS10/D06LA4	23	3550	_	48.5	37	3.6
28.5 62 2.3 47.59 " 4050 - 34.5 51 2.6 24 73 2.1 57.12 " 4350 - 28.5 61 2.5 2.5 71 2.1 60.74 " 4550 - 27 59 2.5 19 92 1.75 71.96 " 5000 - 23 76 2.5 16.5 107 1.4 84.36 " 5300 - 19.5 90 1.65 13.5 113 1.4 103.4 " 5600 - 16 95 1.5 10.5 145 1.15 130.3 " 6000 - 12.5 122 1.35 8.9 171 0.96 152.7 " 6000 - 11 138 1.2 138 1.2 138.6 " 6000 - 8.6 177 0.96 19.5 11.1 138 1.2 13.5 113 121 2.2 106.3 " 70.30 8520/D06LA4 34 6300 - 23.5 76 3.5 13 121 2.2 106.3 " 7000 - 18.5 85 3.5 13 121 2.2 106.3 " 7000 - 18.5 85 3.5 13 121 2.2 106.3 " 7000 - 18.5 85 3.5 15 15 159.4 " 8000 - 15.5 101 2.7 88.5 1.5 159.4 " 8000 - 10.5 150 1.8 8.9 177 1.6 1.5 150 1.8 8.5 1.5 159.4 " 8000 - 10.5 150 1.8 8.9 177 1.6 1.5 150 1.3 183.0 " 8000 - 7.2 210 1.5 150 1.8 8.5 1.5 159.4 " 8000 - 7.2 210 1.5 150 1.8 8.5 1.5 159.4 " 8000 - 8.9 177 1.6 1.5 150 1.8 8.9 1.7 1.5 150 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1.2 1.3 120 1	34		2.7	39.96				-			3.2
24 73 2.1 57.12 " 4350 - 28.5 61 2.5 22.5 71 2.1 60.74 " " 4550 - 27 59 2.5 19 92 1.75 71.96 " " 5000 - 23 76 2.5 16.5 107 1.4 84.36 " " 5300 - 19.5 90 1.65 13.5 113 1.4 103.4 " " 5600 - 16 95 1.7 10.5 145 1.15 130.3 " " 6000 - 12.5 122 1.3 8.9 171 0.96 152.7 " " 6000 - 11 138 1.2 7.2 210 0.81 188.6 " " 6000 - 8.6 177 0.96 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 23.5 76 3.9	28.5			47.59	II .	"		-			2.8
22.5 71 2.1 60.74 " " 4550 - 27 59 2.5 19 92 1.75 71.96 " " 5000 - 23 76 2.7 16.5 107 1.4 84.36 " " 5300 - 19.5 90 1.65 13.5 113 1.4 103.4 " " 5600 - 16 95 1.7 10.5 145 1.15 130.3 " " 6000 - 12.5 122 1.35 8.9 171 0.96 152.7 " " 6000 - 11 138 1.2 7.2 210 0.81 188.6 " " 6000 - 23.5 76 3.9 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 23.5 76 3.9 18.8 87 3.1 76.18 " " 7000 - 18.5 85 3.2	24				11	"		-	28.5		2.5
19 92 1.75 71.96 " " 5000 - 23 76 2.7 16.5 107 1.4 84.36 " " 5300 - 19.5 90 1.65 13.5 113 1.4 103.4 " " 5600 - 16 95 1.7 10.5 145 1.15 130.3 " " 6000 - 12.5 122 1.35 8.9 171 0.96 152.7 " " 6000 - 11 138 1.7 7.2 210 0.81 188.6 " " 6000 - 11 138 1.2 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 23.5 76 3.9 18.8 87 3.1 76.18 " " 6600 - 21.5 73 3.3 15.5 101 2.7 88.67 " " 7000 - 18.5 85 3.2	22.5				II .	"		-		59	2.5
16.5 107 1.4 84.36 " " 5300 - 19.5 90 1.69 13.5 113 1.4 103.4 " " 5600 - 16 95 1.7 10.5 145 1.15 130.3 " " 6000 - 12.5 122 1.35 8.9 171 0.96 152.7 " " 6000 - 11 138 1.7 7.2 210 0.81 188.6 " " 6000 - 11 138 1.2 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 23.5 76 3.9 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 23.5 76 3.9 19.5 91 3.3 76.18 " " 7000 - 18.5 85 3.2 15.5 101 2.7 88.67 " " 7600 - 15.5 101	19				II	II .		-			2.1
13.5 113 1.4 103.4 " " 5600 - 16 95 1.5 10.5 145 1.15 130.3 " " 6000 - 12.5 122 1.39 8.9 171 0.96 152.7 " " 6000 - 11 138 1.2 7.2 210 0.81 188.6 " " 6000 - 8.6 177 0.96 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 23.5 76 3.9 18 87 3.1 76.18 " " 6600 - 21.5 73 3.3 15.5 101 2.7 88.67 " " 7000 - 18.5 85 3.2 13 121 2.2 106.3 " " 7600 - 15.5 101 2.7 11 143 1.9 127.3 " " 8000 - 10.5 15.0 1.85	16.5				п	II .		-			1.65
10.5 145 1.15 130.3 " " 6000 - 12.5 122 1.35 8.9 171 0.96 152.7 " " 6000 - 11 138 1.2 7.2 210 0.81 188.6 " " 6000 - 8.6 177 0.96 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 23.5 76 3.9 18 87 3.1 76.18 " " 6600 - 21.5 73 3.3 15.5 101 2.7 88.67 " " 7000 - 18.5 85 3.2 13 121 2.2 106.3 " " 7600 - 15.5 101 2.7 11 143 1.9 127.3 " " 8000 - 13 121 2.2 8.5 185 1.5 159.4 " " 8000 - 10.5 150 1.85	13.5				п	II .		-			1.7
8.9 171 0.96 152.7 " " 6000 - 11 138 1.2 7.2 210 0.81 188.6 " " 6000 - 8.6 177 0.96 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 23.5 76 3.9 18 87 3.1 76.18 " " 6600 - 21.5 73 3.7 15.5 101 2.7 88.67 " " 7000 - 18.5 85 3.2 13 121 2.2 106.3 " " 7600 - 15.5 101 2.7 11 143 1.9 127.3 " " 8000 - 13 121 2.2 8.5 185 1.5 159.4 " " 8000 - 10.5 150 1.85 7.4 210 1.35 183.0 " " 8000 - 8.9 177 1.6	10.5				п	II .		_			1.35
7.2 210 0.81 188.6 " " 6000 - 8.6 177 0.96 19.5 91 3.3 70.30 BS20/D06LA4 34 6300 - 23.5 76 3.9 18 87 3.1 76.18 " " 6600 - 21.5 73 3.7 15.5 101 2.7 88.67 " " 7000 - 18.5 85 3.2 13 121 2.2 106.3 " " 7600 - 15.5 101 2.7 11 143 1.9 127.3 " " 8000 - 13 121 2.2 8.5 185 1.5 159.4 " " 8000 - 10.5 150 1.85 7.4 210 1.35 183.0 " " 8000 - 8.9 177 1.6 6.0 250 1.15 225.6 " " 8000 - 7.2 210 1.4					II .	11		_			1.2
18 87 3.1 76.18 " " 6600 - 21.5 73 3.7 15.5 101 2.7 88.67 " " 7000 - 18.5 85 3.2 13 121 2.2 106.3 " " 7600 - 15.5 101 2.7 11 143 1.9 127.3 " " 8000 - 13 121 2.2 8.5 185 1.5 159.4 " " 8000 - 10.5 150 1.85 7.4 210 1.35 183.0 " " 8000 - 8.9 177 1.6 6.0 250 1.15 225.6 " " 8000 - 7.2 210 1.4 5.3 285 1.05 257.8 BS20Z/D06LA4 35 8000 - 6.3 240 1.25 4.5 330 0.91 300.1 " 8000 - 5.4 275 1.7 <th>7.2</th> <th></th> <td></td> <td></td> <td>"</td> <td>II .</td> <td></td> <td>-</td> <td></td> <td></td> <td>0.96</td>	7.2				"	II .		-			0.96
18 87 3.1 76.18 " " 6600 - 21.5 73 3.7 15.5 101 2.7 88.67 " " 7000 - 18.5 85 3.2 13 121 2.2 106.3 " " 7600 - 15.5 101 2.7 11 143 1.9 127.3 " " 8000 - 13 121 2.2 8.5 185 1.5 159.4 " " 8000 - 10.5 150 1.85 7.4 210 1.35 183.0 " " 8000 - 8.9 177 1.6 6.0 250 1.15 225.6 " " 8000 - 7.2 210 1.4 5.3 285 1.05 257.8 BS20Z/D06LA4 35 8000 - 6.3 240 1.25 4.5 330 0.91 300.1 " 8000 - 5.4 275 1.7 <th>19 5</th> <th>Q1</th> <td>3 3</td> <td>70.30</td> <td>RS20. /D061 A4</td> <td>3/1</td> <td>6300</td> <td>_</td> <td>23.5</td> <td>76</td> <td>3 0</td>	19 5	Q1	3 3	70.30	RS20. /D061 A4	3/1	6300	_	23.5	76	3 0
15.5 101 2.7 88.67 " " 7000 - 18.5 85 3.2 13 121 2.2 106.3 " " 7600 - 15.5 101 2.7 11 143 1.9 127.3 " " 8000 - 13 121 2.2 8.5 185 1.5 159.4 " " 8000 - 10.5 150 1.85 7.4 210 1.35 183.0 " " 8000 - 8.9 177 1.6 6.0 250 1.15 225.6 " " 8000 - 7.2 210 1.4 5.3 285 1.05 257.8 BS20Z/D06LA4 35 8000 - 6.3 240 1.25 4.5 330 0.91 300.1 " 8000 - 5.4 275 1.7											
13 121 2.2 106.3 " " 7600 - 15.5 101 2.7 11 143 1.9 127.3 " " 8000 - 13 121 2.2 8.5 185 1.5 159.4 " " 8000 - 10.5 150 1.85 7.4 210 1.35 183.0 " " 8000 - 8.9 177 1.6 6.0 250 1.15 225.6 " " 8000 - 7.2 210 1.4 5.3 285 1.05 257.8 BS20Z/D06LA4 35 8000 - 6.3 240 1.25 4.5 330 0.91 300.1 " " 8000 - 5.4 275 1.7					n	II.					
11 143 1.9 127.3 " " 8000 - 13 121 2.2 8.5 185 1.5 159.4 " " 8000 - 10.5 150 1.85 7.4 210 1.35 183.0 " " 8000 - 8.9 177 1.6 6.0 250 1.15 225.6 " " 8000 - 7.2 210 1.2 5.3 285 1.05 257.8 BS20Z/D06LA4 35 8000 - 6.3 240 1.25 4.5 330 0.91 300.1 " 8000 - 5.4 275 1.7											
8.5											
7.4 210 1.35 183.0 " " 8000 - 10.3 130 1.35 1.66.0 250 1.15 225.6 " " 8000 - 7.2 210 1.4									1		
6.0 250 1.15 225.6 " " 8000 - 7.2 210 1.4 5.3 285 1.05 257.8 BS20Z/D06LA4 35 8000 - 6.3 240 1.25 4.5 330 0.91 300.1 " 8000 - 5.4 275 1.7											
5.3 285 1.05 257.8 BS20Z/D06LA4 35 8000 - 6.3 240 1.25 4.5 330 0.91 300.1 " " 8000 - 5.4 275 1.1											
4.5 330 0.91 300.1 " " 8000 - 5.4 275 1.7											1.4
3.8 385 0.83 359.9 " " 8000 - 4.6 320 1.0											1.1
	3.8	385	0.83	359.9	"	"	8000	-	4.6	320	1.0

Selection - worm-geared motors DSE - IE1

P = 0.25 kW



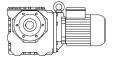
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
9.0	177	3.1	151.1	BS30/D06LA4	51	9500	-	11	145	3.7
7.3	215	2.5	186.7	"	"	10000	-	8.7	181	3.0
6.3	250	2.1	216.4	"	"	10000	-	7.5	210	2.5
5.2	300	1.85	261.6	BS30Z/D06LA4	54	10000	-	6.2	250	2.2
4.5	340	1.7	306.6	"	"	10000	-	5.3	290	2.0
3.8	460	0.86	359.6	"	"	10000	-	4.6	380	1.05
3.5	440	1.35	390.2	"	"	10000	-	4.2	365	1.6
3.0	500	1.2	457.3	"	"	10000	-	3.6	420	1.45
2.6	580	1.05	539.3	"	"	10000	-	3.1	490	1.2
2.1	680	0.85	651.0	"	"	10000	-	2.5	570	1.0
6.9	255	2.7	197.1	BS40Z/D06LA4	68	15000	-	8.3	210	3.3
5.5	270	3.3	249.6	"	"	15000	-	6.5	230	3.9
4.7	375	1.9	287.7	"	"	15000	-	5.7	305	2.3
4.5	330	3.2	302.1	"	"	15000	-	5.4	275	3.9
3.8	395	2.7	356.8	"	"	15000	-	4.6	325	3.3
3.1	485	2.0	446.8	"	"	15000	-	3.7	405	2.4
2.6	570	1.95	520.8	"	"	15000	-	3.2	470	2.3
2.3	630	1.45	612.1	"	"	15000	-	2.7	530	1.7
1.9	750	1.0	736.5	"	"	15000	-	2.2	650	1.15
1.5	930	0.8	908.2	"	"	15000	-	1.8	780	0.95

P = 0.3 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		•				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
295	8.5	1.75	4.60	BS02/D07LA4	9.3	1000	-	355	7.1	2.1
250	10	2.0	5.40	"	"	1000	-	300	8.4	2.4
200	12.3	2.0	6.75	"	"	1000	-	240	10.2	2.5
164	14.6	1.7	8.25	"	II .	1100	-	197	12.2	2.0
127	18.4	1.35	10.67	"	"	1250	-	152	15.4	1.6
100	22	1.15	13.50	"	II .	1250	-	120	18.6	1.35
75	28	0.89	18.00	"	"	1250	-	90	23.5	1.05
100	22	2.5	13.50	BS03/D07LA4	9.4	1600	-	120	18.6	3.0
72	30	1.85	19.00	II	"	1950	-	86	25	2.2
54	36.5	1.5	25.00	II	"	1950	-	65	30	1.85
41	42.5	1.3	33.00	"	II .	1950	-	49.5	35	1.55
35	52	1.05	39.00	II .	II .	1950	-	42	43.5	1.25
27	61	0.9	50.00	п	"	1950	-	32.5	51	1.1
225	9.9	2.6	6.13	BS04/D07LA4	9.8	1320	-	265	8.4	3.1
152	14.7	2.0	8.93	"	II .	1500	-	182	12.2	2.5
126	17.7	1.8	10.73	II	II	1600	-	151	14.7	2.2
104	21	1.55	13.09	II .	II	1760	-	124	17.7	1.85
83	26.5	1.3	16.31	"	"	1970	-	100	22	1.6
65	33	1.1	20.96	"	"	2100	-	78	27.5	1.35
56	38.5	0.88	24.25	"	"	2250	-	67	32	1.05
52	39	0.97	26.21	"	"	2250	-	62	32.5	1.15
43	46.5	0.82	31.50	п	"	2250	-	52	38.5	0.99
96	24	2.8	14.07	BS06/D07LA4	14	2200	-	116	20	3.4
82	27.5	2.6	16.56	п	II .	2400	-	98	23	3.1
69	33	2.3	19.82	II .	"	2500	-	82	27.5	2.7
56	40.5	1.9	24.25	"	"	2600	-	67	34	2.3
52	40	1.95	26.21	"	"	3000	-	62	33.5	2.3
43	48.5	1.65	31.50	"	"	3200	-	52	40	2.0
33	62	1.4	41.29	" "	"	3500	-	39.5	52	1.65
28	73	1.2	48.60	"	"	3500	-	33.5	61	1.45
23.5	86	1.05	58.15	"	"	3500	-	28	72	1.25
21.5	90	0.89	64.06	"	"	3500	-	25.5	76	1.05
19	107	0.88	71.18	"	"	3500	-	23	88	1.05
18	106	0.8	77.00	"	"	3500	-	21.5	89	0.96

Selection - worm-geared motors DSE - IE1

P = 0.3 kW



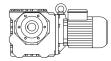
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		• •				n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	-
52	42.5	3.1	26.42	BS10/D07LA4	26	3250	-	62	36	3.6
40.5	53	2.5	33.55	m .	II .	3550	-	48.5	44.5	3.0
34	63	2.2	39.96	m .	II .	3800	-	41	52	2.7
28.5	75	1.95	47.59	m m	II .	4050	-	34.5	62	2.3
24	88	1.7	57.12	m m	II .	4350	-	28.5	74	2.0
22.5	85	1.75	60.74	"	ıı	4550	-	27	71	2.1
19	111	1.45	71.96	"	ıı	5000	-	23	92	1.75
16.5	128	1.15	84.36	"	11	5300	-	19.5	108	1.4
13.5	135	1.2	103.4	"	11	5600	-	16	114	1.4
10.5	174	0.94	130.3	"	"	6000	-	12.5	146	1.1
8.9	205	0.8	152.7	II	"	6000	-	11	166	0.99
23	93	3.0	58.74	BS20/D07LA4	36	5900	_	28	76	3.7
19.5	110	2.7	70.30	"	"	6300	_	23.5	91	3.3
18	105	2.6	76.18	"	11	6600	_	21.5	87	3.1
15.5	121	2.2	88.67	"	"	7000	_	18.5	102	2.6
13	145	1.85	106.3	"	"	7600	_	15.5	121	2.2
11	171	1.6	127.3	m .	II	8000	_	13	145	1.85
8.5	220	1.25	159.4	"	II .	8000	-	10.5	180	1.55
7.4	255	1.1	183.0	m .	"	8000	_	8.9	210	1.35
6.0	305	0.95	225.6	m .	"	8000	-	7.2	250	1.15
5.3	345	0.86	257.8	BS20Z/D07LA4	38	8000	-	6.3	290	1.0
16.5	133	3.1	83.48	BS30/D07LA4	54	6800	_	19.5	113	3.6
11	177	2.9	125.2	m .	"	8700	_	13	149	3.5
9.0	210	2.6	151.1	"	II .	9500	_	11	174	3.1
7.3	255	2.1	186.7	m .	"	10000	-	8.7	215	2.5
6.3	300	1.75	216.4	"	II	10000	-	7.5	250	2.1
5.2	360	1.55	261.6	BS30Z/D07LA4	56	10000	-	6.2	300	1.85
4.5	410	1.4	306.6	"	"	10000	-	5.3	350	1.65
3.5	530	1.1	390.2	"	II .	10000	-	4.2	440	1.35
3.0	610	0.98	457.3	II	II .	10000	-	3.6	500	1.2
2.6	700	0.86	539.3	n n	"	10000	-	3.1	590	1.0
6.9	305	2.3	197.1	BS40Z/D07LA4	70	15000	_	8.3	255	2.7
5.5	325	2.8	249.6	"	II	15000	-	6.5	275	3.3
4.7	450	1.6	287.7	m .	"	15000	-	5.7	370	1.95
4.5	400	2.7	302.1	"	II	15000	-	5.4	330	3.2
3.8	470	2.3	356.8	II	II .	15000	-	4.6	390	2.8
3.1	580	1.7	446.8	II .	II .	15000	-	3.7	485	2.0
2.6	690	1.6	520.8	II .	"	15000	-	3.2	560	1.95
2.3	750	1.2	612.1	II .	"	15000	-	2.7	640	1.4
1.9	900	0.84	736.5	II .	II .	15000	-	2.2	780	0.97

P = 0.37 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		, ,				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
295	10.5	1.45	4.60	BS02/D07LA4	9.3	1000	-	355	8.7	1.7
250	12.4	1.6	5.40	n n	"	1000	-	300	10.3	1.95
200	15.1	1.65	6.75	"	"	1000	-	240	12.6	2.0
164	18	1.4	8.25	II	II .	1100	-	197	15	1.65
127	22.5	1.1	10.67	"	"	1250	-	152	19	1.3
100	27.5	0.91	13.50	"	II	1250	-	120	22.5	1.1
100	27.5	2.0	13.50	BS03/D07LA4	9.4	1600	-	120	22.5	2.4
72	37	1.5	19.00	"	"	1950	-	86	31	1.75
54	45	1.2	25.00	m	"	1950	-	65	37.5	1.45
41	52	1.05	33.00	m	"	1950	-	49.5	43.5	1.25
35	64	0.86	39.00	"	II .	1950	-	42	53	1.05
225	12.2	2.1	6.13	BS04/D07LA4	9.8	1320	-	265	10.4	2.5
152	18.1	1.65	8.93	"	II .	1500	-	182	15.1	2.0
126	21.5	1.5	10.73	II .	II .	1600	-	151	18.2	1.75

Selection - worm-geared motors DSE - IE1

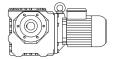
P = 0.37 kW



n ₂	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
	M ₂	f _B		,,				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg "	N	N	1/min	Nm	
104	26	1.25	13.09	BS04/D07LA4	"	1760	-	124	21.5	1.55
83	32.5	1.1	16.31	"	"	1970	-	100	27	1.3
65	41	0.9	20.96			2100	-	78	34	1.1
152	18.8	3.3	8.93	BS06/D07LA4	14	1710	-	182	15.7	3.9
126	22.5	2.9	10.73	TI TI	II .	1850	-	151	18.9	3.4
96	29.5	2.3	14.07	"	"	2200	-	116	24.5	2.8
82	34	2.1	16.56	"	"	2400	-	98	28.5	2.5
69	40.5	1.85	19.82	"	"	2500	-	82	34	2.2
56	50	1.55	24.25	"	II	2600	-	67	42	1.85
52	49.5	1.55	26.21	"	"	3000	-	62	41.5	1.85
43	59	1.35	31.50	"	"	3200	-	52	49.5	1.6
33	77	1.1	41.29	"	"	3500	-	39.5	64	1.35
28	90	0.98	48.60	"	"	3500	-	33.5	75	1.15
23.5	106	0.86	58.15	"	"	3500	-	28	89	1.0
63	44.5	2.8	21.61	BS10/D07LA4	26	3000	-	75	37.5	3.3
52	53	2.5	26.42	II .	II .	3250	-	62	44	3.0
40.5	66	2.0	33.55	u u	II .	3550	-	48.5	55	2.5
34	77	1.8	39.96	II .	"	3800	-	41	64	2.2
28.5	92	1.6	47.59	"	"	4050	-	34.5	76	1.9
24	108	1.4	57.12	"	"	4350	-	28.5	91	1.65
22.5	105	1.45	60.74	"	"	4550	-	27	87	1.7
19	137	1.15	71.96	"	"	5000	-	23	113	1.4
16.5	158	0.95	84.36	"	"	5300	-	19.5	134	1.1
13.5	167	0.96	103.4	II	"	5600	-	16	141	1.15
32.5	82	3.3	42.08	BS20/D07LA4	36	5200	-	38.5	69	3.9
28	94	2.9	48.98	"	II .	5500	-	33.5	79	3.4
27	87	3.1	50.44	"	"	5700	-	32.5	72	3.8
23	115	2.4	58.74	II .	"	5900	-	28	94	3.0
19.5	135	2.2	70.30	II .	"	6300	-	23.5	112	2.7
18	129	2.1	76.18	"	"	6600	-	21.5	108	2.5
15.5	150	1.8	88.67	"	"	7000	-	18.5	126	2.1
13	179	1.5	106.3	"	"	7600	-	15.5	150	1.8
11	210	1.3	127.3	"	"	8000	-	13	179	1.5
8.5	270	1.0	159.4	"	"	8000	-	10.5	220	1.25
7.4	315	0.89	183.0			8000	-	8.9	260	1.1
6.8	330	0.85	201.4	BS20Z/D07LA4	38	8000	-	8.1	275	1.0
16.5	164	2.5	83.48	BS30/D07LA4	54	6800	-	19.5	139	2.9
15	162	3.0	90.59	"	"	7700	-	18	135	3.6
13	184	2.8	106.2		"	8200	-	15.5	155	3.3
11	215	2.4	125.2	"	"	8700	-	13	184	2.8
9.0	260	2.1	151.1	"	"	9500	-	11	215	2.5
7.3	315	1.7	186.7	"	"	10000	-	8.7	265	2.0
6.3	370	1.4	216.4			10000	-	7.5	310	1.7
5.2	445	1.25	261.6	BS30Z/D07LA4	56 "	10000	-	6.2	375	1.5
4.5	510	1.15	306.6			10000	-	5.3	430	1.35
3.5 3.0	650 750	0.91	390.2 457.3	п	"	10000 10000	-	4.2 3.6	540 620	1.1 0.97
6.9	375 400	1.85	197.1	BS40Z/D07LA4	70	15000	-	8.3	315	2.2
5.5	400	2.3	249.6	"	"	15000	-	6.5	340	2.6
4.7	550 400	1.3	287.7	"	"	15000	-	5.7	455	1.55
4.5 3.8	490 590	2.2	302.1		"	15000 15000	-	5.4	410	2.6 2.3
3.8	580 710	1.85	356.8 446.8	II .		15000	-	4.6	480 600	
2.6	710 850	1.4 1.3	446.8 520.8	 II	11	15000	-	3.7	600 690	1.65 1.6
2.3	930	0.98	612.1	II .	II .	15000	-	3.2 2.7	790	1.15
۷.3	930	0.70	012.1			13000		Z./	7 90	1.13

Selection - worm-geared motors DSE - IE1

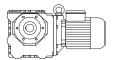
P = 0.55 kW



n ₂ 1/min 305 235 175 140 104 74	M ₂ Nm 15.1 19.6 25.5	f _B	i	Type	m	F_{RN}	F_{RV}	n ₂	60 Hz M ₂	$f_{\scriptscriptstyle B}$
1/min 305 235 175 140 104 74	Nm 15.1 19.6				_			n_2		f _R
305 235 175 140 104 74	15.1 19.6	2.6								
235 175 140 104 74	19.6	2.6			kg	N	N	1/min	Nm	
175 140 104 74			4.60	BS03/D08MA4	10	1070	-	370	12.4	3.2
140 104 74	25.5	2.2	6.00	"	"	1170	-	280	16.5	2.7
104 74		1.9	8.00	"		1320	-	210	21.5	2.2
74	31.5	1.65	10.00	"	"	1450	-	168	26	2.0
	39	1.4	13.50	"	"	1600	-	125	32.5	1.7
56	53	1.05	19.00	"	"	1950	-	89	44.5	1.25
	64	0.86	25.00	"	"	1950	-	68	53	1.05
210	20	2.8	6.67	BS06/D08MA4	16	1550	-	255	16.6	3.4
157	27	2.3	8.93	"	"	1710	-	189	22.5	2.8
131	32	2.0	10.73	"	"	1850	-	157	27	2.4
100	42.5	1.6	14.07	"	II .	2200	-	120	35	1.95
85	49	1.45	16.56	"	II .	2400	-	102	41	1.75
71	59	1.25	19.82	"	"	2500	-	85	49	1.55
58	72	1.05	24.25	"	"	2600	-	70	60	1.3
54	71	1.1	26.21	"	II .	3000	-	65	58	1.35
44.5	86	0.93	31.50	"	"	3200	-	54	71	1.15
113	37	2.9	12.49	BS10/D08MA4	27	2400	-	135	31	3.5
83	50	2.4	16.92	II	II .	2700	-	100	42	2.9
65	64	1.95	21.61	п	II .	3000	-	78	53	2.4
53	77	1.7	26.42	II .	II .	3250	_	64	64	2.0
46	78	1.65	30.63	II .	II .	3550	_	55	65	2.0
42	95	1.4	33.55	11	II .	3550	_	51	78	1.75
35.5	110	1.25	39.96	n n	II .	3800	_	42.5	92	1.5
29.5	133	1.1	47.59	11	II .	4050	_	35.5	110	1.3
25	155	0.97	57.12	11	II .	4350	_	29.5	131	1.15
23.5	149	1.0	60.74	II .	ш	4550	_	28	125	1.2
19.5	199	0.8	71.96	п	II	5000	-	23.5	165	0.97
E1	80	2.1	27.86	BS20/D08MA4	37	4450	_	61	67	2.7
51 46	80 82	3.1 3.0	30.63	B320/D08WIA4	3/	4450 4750	-	55	68	3.7 3.7
	94			"	"					
43		2.9	32.87	"	"	4750	-	52	77	3.5
35 33.5	108	2.4	40.25	II .	"	5300	-	42 40	90	2.9
	119	2.3	42.08	II .	"	5200	-		99	2.7
29	135	2.0	48.98		"	5500	-	34.5	114	2.4
28	125	2.2	50.44		"	5700	-	33.5	105	2.6
24	164	1.7	58.74		"	5900	-	29	135	2.1
20	196	1.55	70.30		"	6300	-	24	164	1.85
18.5	187	1.45	76.18			6600	-	22.5	154	1.75
16	215	1.25	88.67	 II	"	7000	-	19	182	1.5
13.5	255	1.05	106.3	"	"	7600	-	16	215	1.25
11	315	0.86	127.3	"	"	8000	-	13.5	255	1.05
28	144	3.1	50.04	BS30/D08MA4	55	5900	-	34	118	3.8
24	168	2.7	58.64	II .	"	6900	-	29	139	3.3
20	183	2.6	71.17	II .	II .	7000	-	24	153	3.1
17	235	1.75	83.48	"	"	6800	-	20.5	197	2.1
15.5	230	2.1	90.59	"	"	7700	-	19	190	2.6
13.5	260	1.95	106.2	"	II .	8200	-	16	220	2.3
11.5	310	1.7	125.2	"	II .	8700	-	13.5	260	2.0
9.3	375	1.45	151.1	"	II .	9500	-	11.5	305	1.75
7.5	460	1.2	186.7	"	II .	10000	-	9.0	385	1.4
6.5	530	0.98	216.4	"	II .	10000	-	7.8	440	1.2
5.4	640	0.88	261.6	BS30Z/D08MA4	58	10000	-	6.5	530	1.05
11.5	305	3.2	126.0	BS40/D08MA4	68	14900	_	13.5	260	3.8
9.5	355	2.7	148.1	"	"	15000	_	11.5	295	3.3
7.9	430	1.9	178.2	"	"	15000	_	9.5	355	2.3
6.4	510	1.55	219.7	"	"	15000	_	7.7	425	1.85
5.7	580	1.55	249.6	BS40Z/D08MA4	71	15000	_	6.8	485	1.85
4.9	790	0.91	287.7	"	"	15000	_	5.9	650	1.1
4.7	700	1.55	302.1	II .	п	15000	_	5.6	590	1.8
4.0	820	1.3	356.8	II .	"	15000	_	4.8	680	1.6
3.2	1030	0.96	446.8	II .	"	15000	_	3.8	870	1.15
2.7	1220	0.90	520.8	II .	"	15000	_	3.3	1000	1.13

Selection - worm-geared motors DSE - IE1

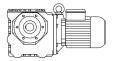
P = 0.75 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
305	20.5	1.95	4.60	BS03/DSE08LA4	12	1070	-	370	17	2.4
235	26.5	1.65	6.00	"	"	1170	-	280	22.5	1.95
175	35	1.35	8.00	"	II .	1320	-	210	29	1.65
140	42.5	1.2	10.00	"	II .	1450	-	168	35.5	1.45
104	53	1.05	13.50	"	II .	1600	-	125	44.5	1.25
210	27.5	2.0	6.67	BS06/DSE08LA4	17	1550	-	255	22.5	2.5
157	36.5	1.7	8.93	"	II .	1710	-	189	30.5	2.0
131	44	1.5	10.73	m .	"	1850	-	157	36.5	1.8
100	58	1.15	14.07	m .	II .	2200	-	120	48	1.4
85	67	1.05	16.56	II .	II .	2400	-	102	56	1.3
71	80	0.94	19.82	II .	II .	2500	-	85	67	1.1
54	96	0.8	26.21	m m	II .	3000	_	65	80	0.96
113	50	2.2	12.49	BS10/DSE08LA4	28	2400	_	135	42	2.6
83	69	1.75	16.92	II .	m m	2700	_	100	57	2.1
65	88	1.4	21.61	п	II .	3000	_	78	73	1.7
53	105	1.25	26.42	n .	II	3250	_	64	87	1.5
46	107	1.2	30.63	II .	II .	3550	_	55	89	1.45
42	129	1.05	33.55	II .	II .	3550	_	51	106	1.25
35.5	151	0.93	39.96	n .	II	3800	_	42.5	126	1.1
29.5	182	0.8	47.59	n .	II	4050	_	35.5	151	0.96
		0.0	.,			.000		00.0		0.20
83	69	3.2	16.92	BS20/DSE08LA4	39	3700	_	100	58	3.8
63	92	2.5	22.23	"	"	4100	_	76	76	3.0
51	109	2.3	27.86	11	II .	4450	_	61	91	2.7
46	112	2.2	30.63	11	II .	4750	_	55	93	2.7
43	128	2.1	32.87	m .	II	4750	_	52	106	2.5
35	147	1.75	40.25	m .	II	5300	_	42	122	2.1
33.5	162	1.65	42.08	II .	11	5200	_	40	136	2.0
29	185	1.45	48.98	п	II.	5500	_	34.5	155	1.75
28	171	1.43	50.44	п	II.	5700	_	33.5	143	1.73
24	220	1.25	58.74	п	"	5900	_	29	185	1.5
20	265	1.15	70.30	п	II.	6300	_	24	220	1.35
18.5	255	1.05	76.18	п	II.	6600	_	22.5	210	1.33
16.5	295	0.92	88.67	II .	"	7000	_	19	245	1.1
	2,5	0.52	00.07			7000		'	2 13	
42	139	3.0	33.55	BS30/DSE08LA4	56	5200	_	51	115	3.7
37	145	2.9	37.92	"	"	5500	_	44.5	120	3.5
36	161	2.7	39.31	m .	11	5500	_	43	134	3.2
28	196	2.3	50.04	m .	ш	5900	_	34	162	2.8
24	225	2.0	58.64	m .	"	6900	_	29	190	2.4
20	250	1.9	71.17	m .	II .	7000	_	24	205	2.3
17	320	1.3	83.48	m .	ш	6800	_	20.5	265	1.55
15.5	315	1.55	90.59	m .	"	7700	_	19	260	1.9
13.5	360	1.4	106.2	m .	ш	8200	_	16	300	1.7
11.5	420	1.25	125.2	m .	"	8700	_	13.5	360	1.45
9.3	510	1.05	151.1	II .	"	9500	_	11.5	415	1.3
7.5	630	0.86	186.7	"	п	10000		9.0	520	1.05
7.5	030	0.80	100.7			10000		9.0	320	1.03
20.5	265	2.8	69.60	BS40/DSE08LA4	69	11800	_	24.5	225	3.3
16.5	295	3.1	86.33	"	u u	12900	_	19.5	250	3.6
13	365	2.6	108.1	п	"	14000	_	16	295	3.2
11.5	415	2.4	126.0	п	п	14900	-	13.5	355	2.8
9.5	415	2.4	148.1		"	15000	-	11.5	400	2.6
7.9	490 580				"		-		400 490	
		1.4	178.2		"	15000		9.5 7.7		1.65
6.4	700 700	1.15	219.7			15000	-		580	1.35
5.7	790 060	1.15	249.6	BS40Z/DSE08LA4	73	15000	-	6.8	660	1.35
4.7	960 1120	1.1	302.1	 II	"	15000	-	5.6	800	1.35
4.0	1120	0.96	356.8	- 		15000	-	4.8	940	1.15

Selection - worm-geared motors DSE - IE1

P = 1.1 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
305	30	1.35	4.60	BS03/DSE08XA4	13	1070	-	370	24.5	1.65
235	39	1.15	6.00	m .	"	1170	-	280	33	1.35
175	51	0.94	8.00	m m	"	1320	-	210	43	1.1
140	63	0.83	10.00	п	II .	1450	-	168	52	1.0
210	40.5	1.4	6.67	BS06/DSE08XA4	18	1550	_	255	33	1.7
157	54	1.15	8.93	"	"	1710	_	189	45	1.4
131	64	1.0	10.73	II .	"	1850	_	157	54	1.2
100	85	0.8	14.07	п	II .	2200	-	120	70	0.97
113	74	1 45	12.49	BS10/DSE08XA4	30	2400	_	135	62	1 75
		1.45		B310/D3E08XA4	30		-			1.75
83	101	1.2	16.92	11	"	2700		100	84	1.45
65	129	0.97	21.61	"	11	3000	-	78	107	1.15
53	154	0.84	26.42		11	3250	-	64	128	1.0
46	157	0.83	30.63	"		3550	-	55	131	0.99
110	77	2.6	12.77	BS20/DSE08XA4	40	3350	-	132	64	3.1
83	102	2.2	16.92	"	"	3700	-	100	85	2.6
63	135	1.7	22.23	"	"	4100	-	76	111	2.1
51	160	1.55	27.86	"	"	4450	-	61	134	1.85
46	164	1.5	30.63	"	"	4750	-	55	137	1.8
43	188	1.45	32.87	п	"	4750	-	52	155	1.75
35	215	1.2	40.25	п	"	5300	-	42	180	1.45
33.5	235	1.15	42.08	m .	"	5200	-	40	199	1.35
29	270	1.0	48.98	m m	"	5500	-	34.5	225	1.2
28	250	1.1	50.44	m m	"	5700	-	33.5	210	1.3
24	325	0.86	58.74	II .	"	5900	-	29	270	1.05
67	130	2.9	20.94	BS30/DSE08XA4	57	4300	_	81	107	3.6
52	167	2.4	27.07	"	"	4750	_	63	138	2.9
46	171	2.3	30.63	m .	m m	5000	_	55	143	2.8
42	205	2.0	33.55	m .	"	5200	_	51	168	2.5
37	210	2.0	37.92	n .	m m	5500	_	44.5	177	2.4
36	235	1.85	39.31	m .	m m	5500	_	43	197	2.2
28	285	1.6	50.04	II .		5900	_	34	235	1.9
24	335	1.35	58.64	II .		6900	_	29	275	1.65
20	365	1.33	71.17	II .	"	7000	_	24	305	1.55
17	475	0.86	83.48	m .	"	6800	_	20.5	390	1.05
15.5	465	1.05	90.59	m .	"	7700	-	19	380	1.03
13.5	520	0.98	106.2	· ·	"	8200	-	16	445	1.15
11.5	620	0.98	125.2	m .	"	8700	_	13.5	520	1.13
11.5	020	0.04	123.2			6700		13.5	320	1.0
29.5	275	3.0	47.69	BS40/DSE08XA4	70	9600	-	35.5	230	3.6
23.5	315	2.7	60.38		"	11200	-	28	265	3.2
20.5	390	1.9	69.60	"	"	11800	-	24.5	330	2.3
19.5	375	2.3	73.09			12100	-	23	315	2.8
16.5	435	2.1	86.33		"	12900	-	19.5	370	2.4
13	540	1.75	108.1	"	"	14000	-	16	435	2.2
11.5	610	1.6	126.0	"	II .	14900	-	13.5	520	1.9
9.5	710	1.35	148.1	"	II .	15000	-	11.5	590	1.65
7.9	860	0.95	178.2	"	"	15000	-	9.5	710	1.15

P = 1.5 kW

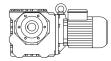
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	$f_{\scriptscriptstyle B}$		• •				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
114	100	1.1	12.49	BS10/DSE09LA4	36	2400	-	137	83	1.3
84	136	0.88	16.92	"	"	2700	-	102	112	1.05
112	103	1.95	12.77	BS20/DSE09LA4	46	3350	-	134	86	2.3
84	138	1.6	16.92	"	II .	3700	-	102	113	1.95
64	181	1.25	22.23	"	II .	4100	-	77	150	1.55
51	215	1.15	27.86	m .	II .	4450	-	62	180	1.4
46.5	220	1.15	30.63	m .	II .	4750	-	56	184	1.35
43.5	250	1.1	32.87	II	"	4750	-	53	205	1.3

0

BS-series worm-geared motors

Selection - worm-geared motors DSE - IE1

P = 1.5 kW



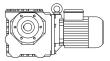
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	Ν	1/min	Nm	
35.5	290	0.9	40.25	BS20/DSE09LA4	"	5300	-	42.5	240	1.1
34	320	0.84	42.08	"	"	5200	-	41	265	1.0
28.5	335	0.81	50.44	II	"	5700	-	34	280	0.96
				/						
107	111	3.0	13.29	BS30/DSE09LA4	64	3600	-	129	92	3.6
84	141	2.6	16.92		"	3950	-	102	116	3.1
68	174	2.2	20.94	"		4300	-	82	144	2.6
53	220	1.8	27.07	"	"	4750	-	64	185	2.2
46.5	230	1.75	30.63	"	"	5000	-	56	191	2.1
42.5	275	1.55	33.55	"	"	5200	-	51	230	1.85
37.5	285	1.45	37.92	"	"	5500	-	45.5	235	1.8
36.5	315	1.35	39.31	"	"	5500	-	44	260	1.65
28.5	385	1.15	50.04	"	"	5900	-	34.5	315	1.45
24.5	450	1.0	58.64	n n	"	6900	-	29.5	370	1.25
20	500	0.96	71.17	n n	"	7000	-	24.5	405	1.2
16	610	0.8	90.59	II .	"	7700	-	19	520	0.94
46.5	225	2.2	20.62	DC40 /DCF00LA4	77	0700		F.C.	100	4.0
46.5	225	3.3	30.63	BS40/DSE09LA4	77	8700	-	56	189	4.0
43	265	2.9	33.35	 II	"	8300	-	52	220	3.5
37.5	275	2.8	38.13		"	9400	-	45	230	3.4
35.5	315	2.5	40.37	 II	"	9000	-	42.5	265	3.0
30	370	2.2	47.69		"	9600	-	36	310	2.7
24	420	2.0	60.38	"	"	11200	-	28.5	355	2.4
20.5	530	1.4	69.60	"	"	11800	-	25	440	1.7
19.5	510	1.75	73.09			12100	-	23.5	425	2.1
16.5	590	1.55	86.33	"	"	12900	-	20	490	1.85
13.5	710	1.35	108.1	"	"	14000	-	16	590	1.6
11.5	830	1.2	126.0	"	"	14900	-	14	680	1.45
9.6	960	1.0	148.1	"	II .	15000	-	12	770	1.25

P = 2.2 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
112	151	1.3	12.77	BS20/DSE09XA4	50	3350	-	134	127	1.55
84	200	1.1	16.92	"	"	3700	-	102	166	1.35
64	265	0.87	22.23	"	II.	4100	-	77	220	1.05
107	162	2.0	13.29	BS30/DSE09XA4	68	3600	-	129	135	2.5
84	205	1.75	16.92	"	"	3950	-	102	170	2.1
68	255	1.5	20.94	"	"	4300	-	82	210	1.8
53	325	1.25	27.07	"	"	4750	-	64	270	1.5
46.5	335	1.2	30.63	"	"	5000	-	56	280	1.45
42.5	405	1.05	33.55	"	"	5200	-	51	335	1.25
37.5	420	1.0	37.92	"	"	5500	-	45.5	345	1.2
36.5	465	0.92	39.31	"	"	5500	-	44	385	1.1
28.5	560	0.8	50.04	II	"	5900	-	34.5	465	0.97
84	210	3.2	16.92	BS40/DSE09XA4	81	6400	-	102	175	3.8
68	250	2.8	21.06	"	"	6900	-	82	210	3.4
55	310	2.4	26.18	"	"	7500	-	66	260	2.8
46.5	330	2.3	30.63	"	"	8700	-	56	275	2.7
43	390	2.0	33.35	"	"	8300	-	52	320	2.4
37.5	405	1.95	38.13	"	"	9400	-	45	340	2.3
35.5	465	1.7	40.37	"	"	9000	-	42.5	390	2.1
30	540	1.55	47.69	"	"	9600	-	36	455	1.8
24	620	1.4	60.38	"	"	11200	-	28.5	520	1.65
20.5	780	0.95	69.60	"	"	11800	-	25	640	1.15
19.5	750	1.15	73.09	"	"	12100	-	23.5	620	1.4
16.5	870	1.05	86.33	"	"	12900	-	20	720	1.25
13.5	1040	0.91	108.1	"	"	14000	-	16	870	1.1
11.5	1220	0.8	126.0	"	"	14900	-	14	1000	0.98

Selection - worm-geared motors DSE - IE1

P = 3 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
107	220	1.5	13.29	BS30/DSE11SA4	71	3600	-	129	184	1.8
84	280	1.3	16.92	"	"	3950	-	102	230	1.55
68	345	1.1	20.94	"	"	4300	-	82	285	1.35
53	445	0.9	27.07	"	II .	4750	-	64	370	1.1
46.5	460	0.87	30.63	"	"	5000	-	56	380	1.05
109	220	2.8	13.03	BS40/DSE11SA4	89	5800	-	132	184	3.3
84	285	2.4	16.92	"	"	6400	-	102	235	2.9
68	345	2.1	21.06	"	"	6900	-	82	285	2.5
55	425	1.75	26.18	"	"	7500	-	66	355	2.1
46.5	455	1.65	30.63	"	"	8700	-	56	375	2.0
43	530	1.45	33.35	"	"	8300	-	52	440	1.75
37.5	550	1.4	38.13	"	"	9400	-	45	460	1.7
35.5	630	1.25	40.37	ıı .	II .	9000	-	42.5	530	1.5
30	740	1.1	47.69	"	II .	9600	-	36	620	1.35
24	840	1.0	60.38	"	II .	11200	-	28.5	710	1.2
19.5	1020	0.86	73.09	II .	ıı	12100	-	23.5	850	1.05

P = 4 kW

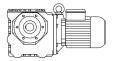
	17.4.4									
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
107	295	1.15	13.29	BS30/DSE11MA4	77	3600	-	129	245	1.35
84	375	0.96	16.92	п	II .	3950	-	102	310	1.15
68	465	0.82	20.94	"	II .	4300	-	82	385	0.99
109	295	2.1	13.03	BS40/DSE11MA4	95	5800	-	132	245	2.5
84	385	1.75	16.92	II	"	6400	-	102	315	2.1
68	460	1.55	21.06	TI TI	II .	6900	-	82	380	1.85
55	560	1.3	26.18	TI TI	II .	7500	-	66	470	1.55
46.5	600	1.25	30.63	TI TI	II	8700	-	56	500	1.5
43	710	1.1	33.35	TI TI	II	8300	-	52	580	1.35
37.5	740	1.05	38.13	II .	II .	9400	-	45	610	1.3
35.5	850	0.94	40.37	II .	II .	9000	-	42.5	710	1.15
30	990	0.84	47.69	II .	II .	9600	-	36	820	1.0

P = 5.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
107	405	0.82	13.29	BS30/DSE11LA4	89	3600	-	129	335	0.99
109	405	1.5	13.03	BS40/DSE11LA4	107	5800	-	132	335	1.85
84	530	1.25	16.92	II	"	6400	-	102	435	1.55
68	630	1.15	21.06	п	II .	6900	-	82	520	1.35
55	780	0.95	26.18	TI TI	II .	7500	-	66	650	1.15
46.5	830	0.9	30.63	"	II	8700	-	56	690	1.1
43	970	0.8	33.35	II.	II .	8300	-	52	800	0.98

Selection - worm-geared motors DHE - IE2

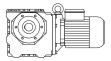
P = 0.03 kW



	50 Hz		i	Typo	m	Е	Е		60 Hz	
n	M ₂	f _B	1	Туре	m	F_{RN}	F_{RV}	n	M ₂	$f_{\scriptscriptstyle B}$
n ₂ 1/min	Nm	■B			kg	N	N	n ₂ 1/min	Nm	IB
75	2.8	8.9	18.00	BS02/D04LA4	3.5	1250	- 11	90	2.35	11
62	3.2	7.8	22.00	"	"	1250	_	74	2.7	9.3
50	3.6	6.9	27.00	"	ıı	1250	_	60	3.0	8.3
41	4.15	6.0	33.00	п	II.	1250	_	49.5	3.45	7.2
31.5	5.6	4.3	43.00	"	ıı	1250	_	38	4.65	5.2
25	6.5	3.4	54.00	п	II.	1250	_	30	5.4	4.1
19.5	7.4	2.7	70.00	п	11	1250	_	23.5	6.2	3.2
1,5.5	7.4	,	70.00			1230		23.3	0.2	3.2
14.5	11.6	3.3	93.92	BS04/D04LA4	3.9	2250	_	17.5	9.6	4.0
13.5	13.5	2.8	102.9	m .	11	2250	_	16	11.4	3.3
12	13.6	2.8	117.0	m .	II .	2250	-	14	11.6	3.3
11	16.4	2.5	123.0	m .	II .	2250	-	13.5	13.3	3.1
9.8	18.1	2.3	138.4	m	ıı	2250	-	12	14.8	2.8
9.0	17.5	2.2	150.3	m .	II .	2250	-	11	14.3	2.7
8.5	20.5	1.8	160.1	m	ıı	2250	-	10.5	16.6	2.2
7.8	19.8	2.0	174.0	m	II .	2250	-	9.4	16.4	2.4
6.2	24	1.65	220.0	II .	"	2250	-	7.4	20.5	1.95
5.4	27.5	1.5	251.6	II	11	2250	-	6.5	22.5	1.8
4.5	32	1.35	300.7	II	II .	2250	-	5.4	27	1.6
4.0	35.5	1.25	338.3	II	II .	2250	-	4.8	29.5	1.5
3.5	40	1.15	391.3	"	"	2250	-	4.2	33	1.35
5.4	30.5	3.2	252.0	BS06/D04LA4	8.4	3500	-	6.5	25.5	3.9
4.3	37.5	2.8	315.3	II .	"	3500	-	5.2	31	3.4
3.8	42	2.6	358.9	II .	"	3500	-	4.6	34.5	3.2
3.3	47.5	2.3	418.0	II	II .	3500	-	3.9	40	2.8
2.9	70	1.35	474.8	BS06G04/D04LA4	11	3500	-	3.5	58	1.6
2.5	79	1.25	552.6	II .	II .	3500	-	3.0	65	1.55
2.3	88	1.05	610.7	II .	II .	3500	-	2.7	75	1.25
2.0	101	0.93	704.7	"	"	3500	-	2.3	88	1.05
1.6	94*	1.0	847.0	"	"	3500	-	2.0	94	1.0
1.5	94*	1.0	939.6	"	"	3500	-	1.8	94	1.0
1.2	94*	1.0	1170	"	"	3500	-	1.4	94	1.0
0.9	94*	1.0	1503	" "	"	3500	-	1.1	94	1.0
0.85	94*	1.0	1654	" "	"	3500	-	1.0	94	1.0
0.75	94*	1.0	1914	" "	"	3500	-	0.85	94	1.0
0.65	94*	1.0	2200	 II	"	3500	-	0.75	94	1.0
0.49	94*	1.0	2768		"	3500	-	0.6	94	1.0
0.45	94*	1.0	3007	"	"	3500	-	0.55	94	1.0
0.41 0.37	94* 94*	1.0 1.0	3308	"	"	3500 3500	-	0.49	94 94	1.0 1.0
0.32	94* 94*	1.0	3721 4304	"	"	3500	-	0.44 0.38	9 4 94	1.0
0.32	98*	1.0	430 4 4947		п	3500	-	0.38	98	1.0
0.25	98*	1.0	5442	n n	"	3500	_	0.33	98	1.0
0.23	100*	1.0	6234	n n	"	3500	-	0.3	100	1.0
			023 1			3300		0.20	100	1.0
2.5	67	2.8	544.8	BS10Z/D04LA4	21	6000	-	3.0	56	3.4
2.2	72	2.6	638.7	n n	"	6000	-	2.6	61	3.1
1.8	85	2.1	788.7	m .	II .	6000	-	2.1	73	2.5
1.5	101	1.55	905.6	II .	"	6000	-	1.8	84	1.9
1.4	130	1.25	969.9	BS10G06/D04LA4	25	6000	-	1.7	107	1.5
1.2	152	1.05	1166	II .	"	6000	-	1.4	130	1.25
1.1	166	0.96	1342	"	11	6000	-	1.3	141	1.15
0.9	160*	1.0	1528	II	II .	6000	-	1.1	160	1.0
0.85	160*	1.0	1668	II .	"	6000	-	1.0	160	1.0
0.7	160*	1.0	1963	II .	"	6000	-	0.85	160	1.0
0.6	160*	1.0	2348	II	"	6000	-	0.7	160	1.0
0.55	160*	1.0	2635	"	"	6000	-	0.65	160	1.0
0.47	160*	1.0	2875	"	"	6000	-	0.6	160	1.0
0.41	160*	1.0	3332	"	"	6000	-	0.49	160	1.0
0.38	160*	1.0	3635	"	"	6000	-	0.45	160	1.0
0.33	160*	1.0	4163	"	"	6000	-	0.39	160	1.0
0.29	160*	1.0	4776	"	"	6000	-	0.34	160	1.0
0.26	160*	1.0	5209	"	"	6000	-	0.32	160	1.0
0.23	164*	1.0	6019	"	"	6000	-	0.27	164	1.0
0.21	164*	1.0	6565	II	II .	6000	-	0.25	164	1.0

Selection - worm-geared motors DHE - IE2

P = 0.03 kW



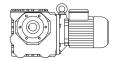
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		· ·			***	n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
0.19	164*	1.0	7471	BS10G06/D04LA4	11	6000	-	0.22	164	1.0
0.16	164*	1.0	8703	II .	II .	6000	-	0.19	164	1.0
1.7	111	2.4	831.7	BS20G06/D04LA4	35	8000	-	2.0	94	2.9
1.4	135	2.0	1000	"	"	8000	-	1.7	111	2.4
1.1	171	1.6	1311	"	"	8000	-	1.3	145	1.85
0.9	210	1.3	1543	"	"	8000	-	1.1	171	1.6
0.85	220	1.25	1683	"	II .	8000	-	1.0	189	1.45
0.7	270*	1.0	2014	"	"	8000	-	0.85	270	1.0
0.55	270*	1.0	2465	"	"	8000	-	0.7	270	1.0
0.48	270*	1.0	2857	"	II .	8000	-	0.6	270	1.0
0.44	270*	1.0	3117	"	II .	8000	-	0.55	270	1.0
0.38	270*	1.0	3570	"	II .	8000	-	0.46	270	1.0
0.33	270*	1.0	4096	11	II .	8000	-	0.4	270	1.0
0.28	270*	1.0	4910	11	II .	8000	-	0.33	270	1.0
0.23	270*	1.0	5880	11	II .	8000	-	0.28	270	1.0
0.19	275*	1.0	7363	11	II .	8000	-	0.23	275	1.0
0.17	275*	1.0	8031	"	II .	8000	-	0.21	275	1.0
0.15	280*	1.0	9220	"	II .	8000	-	0.18	280	1.0
1.2	164	3.0	1176	BS30G06/D04LA4	53	10000	-	1.4	141	3.5
0.95	205	2.4	1461	"	II .	10000	-	1.2	164	3.0
0.9	215	2.3	1576	m m	II .	10000	-	1.1	179	2.7
0.75	260	1.9	1886	11	II .	10000	-	0.9	215	2.3
0.6	325	1.5	2308	11	II .	10000	-	0.75	260	1.9
0.55	355	1.4	2518	11	II .	10000	-	0.65	300	1.65
0.47	420	1.15	2919	11	II .	10000	-	0.6	325	1.5
0.41	480	1.0	3344	11	II .	10000	-	0.49	400	1.25
0.38	490*	1.0	3647	11	II .	10000	-	0.45	490	1.0
0.33	490*	1.0	4184	11	II .	10000	-	0.39	490	1.0
0.28	510*	1.0	4905	п	"	10000	-	0.34	510	1.0
0.24	520*	1.0	5783	п	II .	10000	-	0.29	520	1.0
0.22	520*	1.0	6308	п	"	10000	-	0.26	520	1.0
0.19	520*	1.0	7179	п	"	10000	-	0.23	520	1.0
0.17	520*	1.0	8362	п	"	10000	-	0.2	520	1.0

P = 0.04 kW

	50 Hz		į	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
127	2.45	10	10.67	BS02/D04LA4	3.5	1250	-	152	2.05	12
100	2.95	8.5	13.50	"	"	1250	-	120	2.45	10
75	3.75	6.7	18.00	"	"	1250	-	90	3.1	8.1
62	4.3	5.8	22.00	"	"	1250	-	74	3.6	6.9
50	4.8	5.2	27.00	"	"	1250	-	60	4.0	6.3
41	5.5	4.5	33.00	"	"	1250	-	49.5	4.6	5.4
31.5	7.5	3.2	43.00	"	"	1250	-	38	6.2	3.9
25	8.7	2.5	54.00	"	"	1250	-	30	7.2	3.1
19.5	9.9	2.0	70.00	II	II.	1250	-	23.5	8.2	2.4
21.5	11.1	3.2	64.06	BS04/D04LA4	3.9	2250	-	25.5	9.4	3.8
19	13.2	2.9	71.18	"	"	2250	-	23	10.9	3.5
18	12.9	2.9	77.00	"	"	2250	-	21.5	10.8	3.5
14.5	15.5	2.5	93.92	"	"	2250	-	17.5	12.8	3.0
13.5	18.1	2.1	102.9	"	II .	2250	-	16	15.2	2.5
12	18.1	2.1	117.0	"	"	2250	-	14	15.5	2.5
11	21.5	1.9	123.0	"	"	2250	-	13.5	17.8	2.3
9.8	24	1.75	138.4	"	"	2250	-	12	19.7	2.1
9.0	23	1.7	150.3	"	"	2250	-	11	19.1	2.0
8.5	27	1.35	160.1	"	"	2250	-	10.5	22	1.7
7.8	26	1.55	174.0	II .	"	2250	-	9.4	21.5	1.85
6.2	32.5	1.25	220.0	II .	II .	2250	-	7.4	27	1.5
5.4	36.5	1.1	251.6	"	II .	2250	-	6.5	30.5	1.35
4.5	43	1.0	300.7	II	"	2250	-	5.4	36	1.2

Selection - worm-geared motors DHE - IE2

P = 0.04 kW



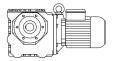
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B					***	n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
4.0	47.5	0.93	338.3	BS04/D04LA4	"	2250	-	4.8	39.5	1.1
3.5	53	0.85	391.3	II .	"	2250	-	4.2	44.5	1.0
7.9	30.5	2.9	171.0	BS06/D04LA4	8.4	3500	_	9.5	25.5	3.5
6.2	36	2.7	220.0	II	"	3500	-	7.4	30	3.3
5.4	41	2.4	252.0	II	"	3500	-	6.5	34	2.9
4.3	50	2.1	315.3	II	"	3500	-	5.2	41.5	2.6
3.8	56	1.95	358.9	m m	"	3500	-	4.6	46.5	2.4
3.3	63	1.75	418.0	m	"	3500	-	3.9	53	2.1
2.9	93	1.0	474.8	BS06G04/D04LA4	11	3500	-	3.5	77	1.2
2.5	105	0.95	552.6	m m	"	3500	-	3.0	87	1.15
2.3	117	0.8	610.7	п	"	3500	-	2.7	100	0.94
3.8	62	3.1	360.3	BS10Z/D04LA4	21	6000	_	4.5	52	3.7
3.2	72	2.6	432.4	m .	ıı	6000	-	3.8	61	3.1
2.5	90	2.1	544.8	m .	II .	6000	-	3.0	75	2.5
2.2	97	1.95	638.7	m .	ıı	6000	-	2.6	82	2.3
1.8	114	1.6	788.7	m .	ıı	6000	-	2.1	98	1.85
1.5	134	1.2	905.6	m .	ıı	6000	-	1.8	112	1.4
1.4	174	0.92	969.9	BS10G06/D04LA4	25	6000	-	1.7	143	1.1
1.2	200	0.8	1166	II .	"	6000	-	1.4	174	0.92
1.8	114	2.7	763.4	BS20Z/D04LA4	32	8000	-	2.2	93	3.3
1.7	148	1.8	831.7	BS20G06/D04LA4	35	8000	-	2.0	126	2.1
1.4	180	1.5	1000	п	II .	8000	-	1.7	148	1.8
1.1	225	1.2	1311	II	"	8000	-	1.3	193	1.4
1.4	188	2.6	1022	BS30G06/D04LA4	53	10000	_	1.6	164	3.0
1.2	215	2.3	1176	m .	II .	10000	-	1.4	188	2.6
0.95	275	1.8	1461	m .	"	10000	-	1.2	215	2.3
0.9	290	1.7	1576	m .	II .	10000	-	1.1	235	2.1
0.75	350	1.4	1886	m m	II .	10000	-	0.9	290	1.7
0.6	435	1.15	2308	m m	II .	10000	-	0.75	350	1.4
0.55	475	1.05	2518	m m	II .	10000	-	0.65	405	1.2

P = 0.06 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
295	1.7	8.8	4.60	BS02/D04LA4	3.5	1000	-	355	1.42	11
250	2.0	10	5.40	"	"	1000	-	300	1.68	12
200	2.45	10	6.75	m	"	1000	-	240	2.05	12
164	2.9	8.6	8.25	m .	"	1100	-	197	2.4	10
127	3.65	6.8	10.67	m .	"	1250	-	152	3.05	8.2
100	4.45	5.6	13.50	m .	"	1250	-	120	3.7	6.8
75	5.6	4.5	18.00	"	"	1250	-	90	4.7	5.3
62	6.4	3.9	22.00	"	"	1250	-	74	5.4	4.6
50	7.2	3.5	27.00	"	"	1250	-	60	6.0	4.2
41	8.3	3.0	33.00	"	II	1250	-	49.5	6.9	3.6
31.5	11.2	2.1	43.00	"	II	1250	-	38	9.3	2.6
25	13	1.7	54.00	"	"	1250	-	30	10.8	2.0
19.5	14.9	1.35	70.00	"	"	1250	-	23.5	12.4	1.6
18	16.2	2.5	75.00	BS03/D05LA4	5.4	1950	-	22	13.2	3.0
35.5	11.1	3.3	38.42	BS04/D04LA4	3.9	2250	-	42.5	9.3	4.0
28.5	13.6	2.8	47.86	"	II	2250	-	34	11.4	3.3
21.5	16.7	2.2	64.06	"	II	2250	-	25.5	14.1	2.6
19	19.9	1.9	71.18	"	"	2250	-	23	16.4	2.3
18	19.4	1.95	77.00	"	"	2250	-	21.5	16.2	2.3
14.5	23	1.65	93.92	II .	II	2250	-	17.5	19.3	1.95
13.5	27	1.4	102.9	II .	II .	2250	-	16	22.5	1.7
12	27	1.4	117.0	"	"	2250	-	14	23	1.65
11	32.5	1.25	123.0	II .	"	2250	-	13.5	26.5	1.55

Selection - worm-geared motors DHE - IE2

P = 0.06 kW



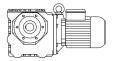
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	f_B
1/min	Nm				kg	N	N	1/min	Nm	
9.8	36	1.15	138.4	BS04/D04LA4	"	2250	-	12	29.5	1.4
9.0	35	1.1	150.3	m m	II .	2250	-	11	28.5	1.35
8.5	41	0.9	160.1	"	II .	2250	-	10.5	33	1.1
7.8	39.5	1.0	174.0	"	II .	2250	-	9.4	32.5	1.25
6.2	48.5	0.82	220.0	"	"	2250	-	7.4	41	0.98
11.5	32	2.9	118.8	BS06/D04LA4	8.4	3500	-	14	26.5	3.5
10.5	36.5	2.8	129.0	II .	"	3500	-	13	29.5	3.5
9.2	40	2.7	146.8	"	"	3500	-	11.5	32	3.3
7.8	44	2.2	174.0	"	"	3500	-	9.4	36.5	2.7
6.2	54	1.8	220.0	"		3500	-	7.4	45.5	2.2
5.4	61	1.6	252.0		"	3500	-	6.5	51	1.95
4.3	75	1.4	315.3	"	"	3500	-	5.2	62	1.7
3.8	84	1.3	358.9	"	"	3500	-	4.6	69	1.6
3.3	95	1.15	418.0	II	"	3500	-	3.9	80	1.4
11.5	36.5	3.3	119.6	BS10/D06LA4	23	6000	_	14	30	4.0
6.3	58	3.1	216.6	II .	"	6000	_	7.5	48.5	3.7
5.4	67	2.7	254.0	BS10Z/D06LA4	24	6000	-	6.4	57	3.2
4.5	78	2.4	302.5	m .	II .	6000	-	5.4	65	2.9
3.8	93	2.0	360.3	m .	II .	6000	-	4.5	78	2.4
3.2	109	1.75	432.4	m .	II .	6000	-	3.8	91	2.1
2.5	135	1.4	544.8	m .	II .	6000	-	3.0	112	1.7
2.2	145	1.3	638.7	m .	"	6000	-	2.6	123	1.55
1.8	171	1.05	788.7	п	"	6000	-	2.1	147	1.2
3.2	109	3.0	430.8	BS20Z/D06LA4	35	8000	_	3.8	91	3.6
2.6	121	3.0	539.7	TI TI	II .	8000	-	3.1	101	3.6
2.2	140	2.4	619.2	TI .	II .	8000	-	2.7	114	2.9
1.8	171	1.8	763.4	TI .	II .	8000	-	2.2	140	2.2
1.7	220	1.25	831.7	BS20G06/D06LA4	38	8000	-	2.0	189	1.45
1.4	270	1.0	1000	"	"	8000	-	1.7	220	1.25
1.7	195	2.4	804.1	BS30Z/D06LA4	54	10000	-	2.1	158	3.0
1.5	215	2.1	932.0	"	"	10000	-	1.8	181	2.5
1.4	280	1.75	1022	BS30G06/D06LA4	56	10000	-	1.6	245	2.0
1.2	325	1.5	1176	"	"	10000	-	1.4	280	1.75
0.95	415	1.2	1461	"	"	10000	-	1.2	325	1.5
0.9	435	1.15	1576	п	"	10000	-	1.1	355	1.4
1.5	225	3.3	908.2	BS40Z/D06LA4	68	15000	-	1.8	187	4.0
1.4	285	3.1	965.5	BS40G10/D06LA4	73	15000	-	1.7	235	3.7
1.2	330	2.7	1180	"	"	15000	-	1.4	285	3.1
0.95	420	2.1	1499	"	II .	15000	-	1.1	360	2.4
0.8	500	1.75	1785	"	II .	15000	-	0.95	420	2.1
0.65	610	1.45	2126	"	II .	15000	-	0.8	500	1.75
0.6	660	1.35	2304	"	II .	15000	-	0.75	530	1.65
0.55	720	1.2	2552	"	II .	15000	-	0.65	610	1.45
0.47	850	1.05	2902		"	15000	-	0.6	660	1.35

P = 0.09 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
295	2.55	5.9	4.60	BS02/D04LA4	3.5	1000	-	355	2.1	7.1
250	3.0	6.7	5.40	TI TI	"	1000	-	300	2.5	8.0
200	3.65	6.8	6.75	TI TI	"	1000	-	240	3.05	8.2
164	4.4	5.7	8.25	TI TI	"	1100	-	197	3.65	6.8
127	5.5	4.5	10.67	TI TI	"	1250	-	152	4.6	5.4
100	6.7	3.7	13.50	TI TI	"	1250	-	120	5.5	4.5
75	8.4	3.0	18.00	TI TI	"	1250	-	90	7.0	3.6
62	9.7	2.6	22.00	II	II .	1250	-	74	8.1	3.1
50	10.8	2.3	27.00	II	II .	1250	-	60	9.0	2.8
41	12.5	2.0	33.00	m .	"	1250	-	49.5	10.4	2.4

Selection - worm-geared motors DHE - IE2

P = 0.09 kW



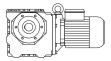
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		• •				n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	-
31.5	16.9	1.4	43.00	BS02/D04LA4	II.	1250	-	38	14	1.7
25	19.5	1.15	54.00	"	II .	1250	-	30	16.3	1.35
19.5	22	0.91	70.00	"	II .	1250	-	23.5	18.6	1.1
27	18.4	3.0	50.00	BS03/D05LA4	5.4	1950	-	32.5	15.3	3.6
22	20.5	2.3	62.00	"	II .	1950	-	26.5	17.1	2.8
18	24	1.65	75.00	"	II .	1950	-	22	19.9	2.0
56	11.6	2.9	24.25	BS04/D04LA4	3.9	2250	-	67	9.7	3.5
52	11.7	3.2	26.21	"	"	2250	-	62	9.8	3.9
43	13.9	2.7	31.50	"	"	2250	-	52	11.5	3.3
35.5	16.7	2.2	38.42	"	"	2250	-	42.5	13.9	2.7
28.5	20.5	1.85	47.86	"	"	2250	-	34	17.1	2.2
21.5	25	1.45	64.06	"	"	2250	-	25.5	21	1.7
19	29.5	1.3	71.18	"	"	2250	-	23	24.5	1.55
18	29	1.3	77.00	"	II .	2250	-	21.5	24	1.6
14.5	34.5	1.1	93.92	"	"	2250	-	17.5	28.5	1.35
13.5	40.5	0.94	102.9	"	"	2250	-	16	34	1.1
12	40.5	0.94	117.0	"	II .	2250	-	14	34.5	1.1
11	49	0.84	123.0	"	"	2250	-	13.5	40	1.05
			_			_				
21.5	27	3.0	64.06	BS06/D04LA4	8.4	3500	-	25.5	22.5	3.6
19	32	2.9	71.18	II .	II .	3500	-	23	26.5	3.5
18	31.5	2.7	77.00	II .	II .	3500	-	21.5	26.5	3.2
15	40	2.5	90.00	"	"	3500	-	18	33	3.0
13.5	43.5	2.3	103.1	"	"	3500	-	16	37	2.7
11.5	48.5	1.95	118.8	II .	"	3500	-	14	39.5	2.4
10.5	54	1.95	129.0	"	II .	3500	-	13	44	2.4
9.2	60	1.75	146.8	"	"	3500	-	11.5	48.5	2.2
7.8	66	1.5	174.0	"	"	3500	-	9.4	54	1.8
6.2	81	1.2	220.0	"	"	3500	-	7.4	68	1.45
5.4	92	1.1	252.0	"	"	3500	-	6.5	76	1.3
4.3	113	0.94	315.3	"	"	3500	-	5.2	94	1.15
3.8	126	0.87	358.9	"	II .	3500	-	4.6	104	1.05
11.5	55	2.2	119.6	BS10/D06LA4	23	6000	-	14	45	2.7
10.5	52	3.2	130.3	" "	"	6000	-	12.5	44	3.7
8.9	61	2.7	152.7	"	"	6000	-	11	50	3.3
7.2	76	2.2	188.6	" "	"	6000	-	8.6	63	2.7
6.3	87	2.1	216.6			6000	-	7.5	73	2.5
5.4	101	1.8	254.0	BS10Z/D06LA4	24	6000	-	6.4	85	2.1
4.5	118	1.6	302.5	" "	"	6000	-	5.4	98	1.95
3.8	140	1.35	360.3	 II	"	6000	-	4.5	118	1.6
3.2	163	1.15	432.4	 II	"	6000	-	3.8	137	1.4
2.5	200	0.95	544.8	 II	"	6000	-	3.0	169	1.1
2.2	215	0.88	638.7			6000	-	2.6	185	1.05
6.0	91	3.2	225.6	BS20/D06LA4	34	8000	_	7.2	76	3.8
5.3	103	2.9	257.8	BS20Z/D06LA4	35	8000	-	6.3	87	3.4
4.5	120	2.5	300.1	D32UZ/DUULA4	33	8000	-	5.4	100	
3.8	140		359.9	"	"	8000	-			3.0
3.2	163	2.3	430.8	"	"	8000	-	4.6 3.8	115 137	2.8 2.4
2.6	181	2.0	539.7	"	"	8000	-	3.1	152	2.4
				"	"	8000	-			
2.2	210	1.55	619.2	"	"			2.7	171	1.95
1.8 1.7	255 330	1.2 0.82	763.4 831.7	BS20G06/D06LA4	38	8000 8000	-	2.2	210 280	1.5 0.96
1.7	330	0.62	031./	D320000/D00LA4	30	8000	-	2.0	200	0.90
3.8	167	2.4	359.6	BS30Z/D06LA4	54	10000	_	4.6	138	2.9
3.0	183	3.3	457.3	" " " " " " " " " " " " " " " " " " "	"	10000	_	3.6	152	3.9
2.6	210	2.9	539.3	п	II .	10000	_	3.1	177	3.4
2.1	245	2.4	651.0	п	II .	10000	_	2.5	205	2.8
1.7	290	1.65	804.1	п	II .	10000	_	2.1	235	2.0
1.5	325	1.4	932.0	п	II.	10000	_	1.8	270	1.65
1.4	420	1.15	1022	BS30G06/D06LA4	56	10000	_	1.6	370	1.3
1.2	490	1.0	1176	# D330G00/D00LA4	"	10000	_	1.4	420	1.15
1.4	720	1.0	11/0			10000	-	11.7	720	1.13

9

BS-series worm-geared motors

Selection - worm-geared motors DHE - IE2

P = 0.09 kW



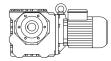
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
1.9	270	2.8	736.5	BS40Z/D06LA4	68	15000	-	2.2	230	3.3
1.5	335	2.2	908.2	"	II .	15000	-	1.8	280	2.7
1.4	425	2.1	965.5	BS40G10/D06LA4	73	15000	-	1.7	350	2.5
1.2	500	1.75	1180	"	II .	15000	-	1.4	425	2.1
0.95	630	1.4	1499	"	II .	15000	-	1.1	540	1.65
0.8	750	1.15	1785	ıı .	II .	15000	-	0.95	630	1.4

P = 0.12 kW

	50 Hz		i	Type	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		71		104	11.0	n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm	-			kg	N	N	1/min	Nm	_
295	3.4	4.4	4.60	BS02/D04LA4	3.5	1000	-	355	2.8	5.4
250	4.0	5.0	5.40	"	"	1000	-	300	3.35	6.0
200	4.9	5.1	6.75	II .	II .	1000	-	240	4.1	6.1
164	5.8	4.3	8.25	II .	II .	1100	-	197	4.85	5.2
127	7.3	3.4	10.67	"	"	1250	-	152	6.1	4.1
100	8.9	2.8	13.50	"	"	1250	-	120	7.4	3.4
75	11.3	2.2	18.00	"	"	1250	-	90	9.4	2.7
62	12.9	1.95	22.00	"	"	1250	-	74	10.8	2.3
50	14.4	1.75	27.00	m m	"	1250	-	60	12	2.1
41	16.7	1.5	33.00	m m	"	1250	-	49.5	13.8	1.8
31.5	22.5	1.05	43.00	II	"	1250	-	38	18.6	1.3
25	26	0.85	54.00	"	"	1250	-	30	21.5	1.0
41	17	3.2	33.00	BS03/D05LA4	5.4	1950	-	49.5	14.1	3.9
35	20.5	2.7	39.00	II	II .	1950	-	42	17.4	3.2
27	24.5	2.2	50.00	II .	II .	1950	-	32.5	20	2.8
22	27.5	1.75	62.00	II	II .	1950	-	26.5	22.5	2.1
18	32	1.25	75.00	"	"	1950	-	22	26.5	1.5
83	10.6	3.3	16.31	BS04/D04LA4	3.9	1970	-	100	8.8	4.0
65	13.3	2.8	20.96	m	"	2100	-	78	11.1	3.3
56	15.5	2.2	24.25	m	"	2250	-	67	12.9	2.6
52	15.6	2.4	26.21	m	"	2250	-	62	13.1	2.9
43	18.6	2.0	31.50	II .	II .	2250	-	52	15.4	2.5
35.5	22	1.7	38.42	"	"	2250	-	42.5	18.6	2.0
28.5	27	1.4	47.86	II .	II .	2250	-	34	22.5	1.7
21.5	33.5	1.05	64.06	II .	II .	2250	-	25.5	28	1.3
19	39.5	0.96	71.18	"	II .	2250	-	23	32.5	1.15
18	38.5	0.99	77.00	"	II .	2250	-	21.5	32.5	1.15
14.5	46.5	0.82	93.92	"	"	2250	-	17.5	38.5	0.99
28	29	3.0	48.60	BS06/D04LA4	8.4	3500	-	33.5	24.5	3.6
23.5	34.5	2.6	58.15	II .	"	3500	-	28	29	3.1
21.5	36	2.2	64.06	"	"	3500	-	25.5	30.5	2.6
19	42.5	2.2	71.18	"	"	3500	-	23	35	2.7
18	42.5	2.0	77.00	"	"	3500	-	21.5	35.5	2.4
15	53	1.85	90.00	"	"	3500	-	18	44.5	2.2
13.5	58	1.7	103.1	"	"	3500	-	16	49	2.0
11.5	64	1.45	118.8	" "	"	3500	-	14	53	1.75
10.5	73	1.4	129.0	" "		3500	-	13	59	1.75
9.2	80	1.35	146.8	" "	"	3500	-	11.5	64	1.65
7.8	88	1.1	174.0	" "	"	3500	-	9.4	73	1.35
6.2 5.4	109 123	0.9	220.0 252.0	"	"	3500 3500	-	7.4 6.5	91 102	1.1 0.97
16.5	51	2.9	84.36	BS10/D06LA4	23	5300	-	19.5	43	3.5
13.5	54	3.0	103.4		"	5600	-	16	45.5	3.5
11.5	73	1.65	119.6	"	"	6000	-	14	60	2.0
10.5	69	2.4	130.3	"		6000	-	12.5	58	2.8
8.9	82	2.0	152.7	"	"	6000	-	11	66	2.5
7.2	101	1.7	188.6	"	"	6000	-	8.6	85	2.0
6.3	116	1.55	216.6	"	II .	6000	-	7.5	97	1.85

Selection - worm-geared motors DHE - IE2

P = 0.12 kW



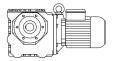
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
5.4	135	1.35	254.0	BS10Z/D06LA4	24	6000	-	6.4	114	1.6
4.5	157	1.2	302.5	m .	"	6000	-	5.4	131	1.45
3.8	186	1.0	360.3	"	"	6000	-	4.5	157	1.2
3.2	215	0.88	432.4	"	"	6000	-	3.8	183	1.05
8.5	88	3.1	159.4	BS20/D06LA4	34	8000	-	10.5	72	3.8
7.4	102	2.7	183.0	"	"	8000	-	8.9	84	3.3
6.0	122	2.4	225.6	"	"	8000	-	7.2	101	2.9
5.3	138	2.1	257.8	BS20Z/D06LA4	35	8000	-	6.3	116	2.5
4.5	160	1.9	300.1	"	"	8000	-	5.4	133	2.3
3.8	186	1.7	359.9	"	"	8000	-	4.6	154	2.1
3.2	215	1.55	430.8	"	"	8000	-	3.8	183	1.8
2.6	240	1.5	539.7	"	"	8000	-	3.1	200	1.85
2.2	280	1.2	619.2	"	"	8000	-	2.7	225	1.45
1.8	340	0.91	763.4	"	"	8000	-	2.2	280	1.1
3.8	220	1.8	359.6	BS30Z/D06LA4	54	10000	-	4.6	184	2.1
3.5	210	2.8	390.2	"	"	10000	-	4.2	177	3.3
3.0	240	2.5	457.3	"	"	10000	-	3.6	200	3.0
2.6	280	2.1	539.3	"	"	10000	-	3.1	235	2.6
2.1	325	1.8	651.0	"	"	10000	-	2.5	275	2.1
1.7	390	1.2	804.1	"	II .	10000	-	2.1	315	1.5
1.5	435	1.05	932.0	"	"	10000	-	1.8	360	1.25
1.4	560	0.88	1022	BS30G06/D06LA4	56	10000	-	1.6	490	1.0
2.3	300	3.0	612.1	BS40Z/D06LA4	68	15000	-	2.7	255	3.6
1.9	360	2.1	736.5	"	"	15000	-	2.2	310	2.4
1.5	450	1.65	908.2	"	II .	15000	-	1.8	375	2.0
1.4	570	1.55	965.5	BS40G10/D06LA4	73	15000	-	1.7	470	1.85
1.2	660	1.35	1180	"	"	15000	-	1.4	570	1.55
0.95	840	1.05	1499	"	II .	15000	-	1.1	720	1.2

P = 0.18 kW

	50 Hz		i	Туре	m	F _{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B						n_2	M_2	f _e
1/min	Nm				kg	N	N	1/min	Nm	
295	5.1	2.9	4.60	BS02/D05LA4	5.3	1000	-	355	4.25	3.5
250	6.0	3.3	5.40	II	II .	1000	-	300	5.0	4.0
200	7.3	3.4	6.75	m	"	1000	-	240	6.1	4.1
164	8.8	2.8	8.25	II	"	1100	-	197	7.3	3.4
127	11	2.3	10.67	II	"	1250	-	152	9.2	2.7
100	13.4	1.85	13.50	II	"	1250	-	120	11.1	2.3
75	16.9	1.5	18.00	II	"	1250	-	90	14.1	1.75
62	19.4	1.3	22.00	II	"	1250	-	74	16.2	1.55
50	21.5	1.15	27.00	m	"	1250	-	60	18	1.4
41	25	1.0	33.00	"	II .	1250	-	49.5	20.5	1.2
72	18.1	3.0	19.00	BS03/D05LA4	5.4	1950	-	86	15.1	3.6
54	21.5	2.6	25.00	II	"	1950	-	65	18.2	3.0
41	25.5	2.2	33.00	"	"	1950	-	49.5	21	2.6
35	31	1.75	39.00	"	"	1950	-	42	26	2.1
27	36.5	1.5	50.00	"	"	1950	-	32.5	30.5	1.8
22	41	1.15	62.00	"	"	1950	-	26.5	34	1.4
18	48.5	0.82	75.00	"	"	1950	-	22	39.5	1.0
126	10.6	3.0	10.73	BS04/D05LA4	5.8	1600	-	151	8.8	3.6
104	12.7	2.6	13.09	"	"	1760	-	124	10.6	3.1
83	15.9	2.2	16.31	"	"	1970	-	100	13.2	2.7
65	20	1.85	20.96	"	"	2100	-	78	16.7	2.2
56	23	1.5	24.25	"	"	2250	-	67	19.4	1.75
52	23	1.65	26.21	II	II .	2250	-	62	19.6	1.95
43	27.5	1.4	31.50	II .	"	2250	-	52	23	1.65
35.5	33	1.1	38.42	II .	"	2250	-	42.5	27.5	1.35
28.5	41	0.93	47.86	II .	II	2250	-	34	34	1.1

Selection - worm-geared motors DHE - IE2

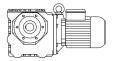
P = 0.18 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
56	24.5	3.1	24.25	BS06/D05LA4	10	2600	-	67	20.5	3.8
52	24	3.2	26.21	II	"	3000	-	62	20	3.9
43	29	2.8	31.50	"	"	3200	-	52	24	3.3
33	37.5	2.3	41.29	"	"	3500	-	39.5	31	2.8
28	44	2.0	48.60	"	"	3500	-	33.5	36.5	2.4
23.5	51	1.8	58.15	"	"	3500	-	28	43.5	2.1
21.5	54	1.5	64.06	"	"	3500	-	25.5	45.5	1.75
19	64	1.45	71.18	"	"	3500	-	23	53	1.75
18	63	1.35	77.00	"	"	3500	-	21.5	53	1.6
15	80	1.25	90.00	"	"	3500	-	18	66	1.5
13.5	87	1.15	103.1	"	"	3500	-	16	74	1.35
11.5	97	0.97	118.8	"	"	3500	-	14	79	1.2
10.5	109	0.95	129.0	"		3500	-	13	88	1.2
9.2	121	0.88	146.8	"	"	3500	-	11.5	97	1.1
28.5	45	3.2	47.59	BS10/D06LA4	23	4050	-	34.5	37	3.9
24	53	2.8	57.12	II .	II .	4350	-	28.5	44.5	3.4
22.5	51	2.9	60.74	II	"	4550	-	27	42.5	3.5
19	66	2.4	71.96	"	"	5000	-	23	55	2.9
16.5	77	1.95	84.36	"	"	5300	-	19.5	65	2.3
13.5	81	2.0	103.4	II .	"	5600	-	16	68	2.4
11.5	110	1.1	119.6	II .	"	6000	-	14	90	1.35
10.5	104	1.6	130.3	"	"	6000	-	12.5	88	1.85
8.9	123	1.35	152.7	"	"	6000	-	11	100	1.65
7.2	152	1.1	188.6	"	"	6000	-	8.6	127	1.35
6.3	174	1.05	216.6	II .	"	6000	-	7.5	146	1.25
5.4	200	0.9	254.0	BS10Z/D06LA4	24	6000	-	6.4	171	1.05
4.5	235	0.81	302.5	II	II	6000	-	5.4	197	0.96
13	87	3.1	106.3	BS20/D06LA4	34	7600	-	15.5	73	3.7
11	103	2.6	127.3	II .	"	8000	-	13	87	3.1
8.5	133	2.1	159.4	II .	"	8000	-	10.5	108	2.5
7.4	153	1.85	183.0	"	"	8000	-	8.9	127	2.2
6.0	183	1.6	225.6	II .	"	8000	-	7.2	152	1.9
5.3	205	1.45	257.8	BS20Z/D06LA4	35	8000	-	6.3	174	1.7
4.5	240	1.25	300.1	"	"	8000	-	5.4	200	1.5
3.8	280	1.15	359.9	"	"	8000	-	4.6	230	1.4
3.2	325	1.0	430.8	"	"	8000	-	3.8	275	1.2
2.6	360	1.0	539.7	"	"	8000	-	3.1	300	1.2
6.3	180	2.9	216.4	BS30/D06LA4	51	10000	-	7.5	151	3.4
5.2	215	2.6	261.6	BS30Z/D06LA4	54	10000	-	6.2	182	3.1
4.5	245	2.4	306.6	-	"	10000	-	5.3	210	2.8
3.8	330	1.2	359.6	"	"	10000	-	4.6	275	1.45
3.5	315	1.85	390.2	"	"	10000	-	4.2	265	2.2
3.0	365	1.65	457.3	" "	"	10000	-	3.6	305	1.95
2.6	420	1.45	539.3	 II	"	10000	-	3.1	350	1.7
2.1	490	1.2	651.0	"	"	10000	-	2.5	410	1.4
1.7	580	0.82	804.1	-		10000	-	2.1	470	1.0
4.7	270	2.6	287.7	BS40Z/D06LA4	68	15000	-	5.7	220	3.3
3.1	345	2.9	446.8	"		15000	-	3.7	290	3.4
2.6	415	2.7	520.8		"	15000	-	3.2	335	3.3
2.3	455	2.0	612.1	"	"	15000	-	2.7	385	2.4
1.9	540	1.4	736.5	"	"	15000	-	2.2	465	1.65
1.5	670	1.1	908.2			15000	-	1.8	560	1.35
1.4	850	1.05	965.5	BS40G10/D06LA4	73	15000	-	1.7	700	1.25
1.2	1000	0.88	1180			15000	-	1.4	850	1.05

Selection - worm-geared motors DHE - IE2

P = 0.25 kW



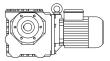
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		· ·				n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
295	7.1	2.1	4.60	BS02/D05LA4	5.3	1000	-	355	5.9	2.5
250	8.4	2.4	5.40	II .	"	1000	-	300	7.0	2.9
200	10.2	2.5	6.75	п	п	1000	_	240	8.5	2.9
164	12.2	2.0	8.25	II .	II .	1100	-	197	10.1	2.5
127	15.4	1.6	10.67	u u	п	1250	_	152	12.8	1.95
100	18.6	1.35	13.50	"	II .	1250	_	120	15.5	1.6
75	23.5	1.05	18.00	"	II .	1250	_	90	19.6	1.3
62	26.5	0.94	22.00	"	II .	1250	_	74	22.5	1.1
50	30	0.83	27.00	"	"	1250	_	60	25	1.0
100	18.6	3.0	13.50	BS03/D05LA4	5.4	1600	_	120	15.5	3.5
72	25	2.2	19.00	· ·	11	1950	_	86	21	2.6
54	30.5	1.8	25.00	· ·	"	1950	-	65	25	2.2
41	35.5	1.55	33.00	II .	"	1950	-	49.5	29	1.9
35	43.5	1.25	39.00	· ·	11	1950	-	42	36	1.55
27	51	1.1	50.00	· ·	"	1950	-	32.5	42.5	1.3
22	57	0.84	62.00	· ·	"	1950	-	26.5	47.5	1.0
225	8.2	3.2	6.13	BS04/D05LA4	5.8	1320	-	265	7.0	3.7
152	12.2	2.5	8.93	11	"	1500	-	182	10.2	2.9
126	14.7	2.2	10.73	II .	II .	1600	-	151	12.3	2.6
104	17.6	1.9	13.09	п	II	1760	-	124	14.8	2.2
83	22	1.6	16.31	· ·	11	1970	_	100	18.3	1.9
65	27.5	1.35	20.96	· ·	11	2100	_	78	23	1.6
56	32	1.05	24.25	· ·	"	2250	_	67	27	1.25
52	32.5	1.15	26.21	II .	"	2250	_	62	27	1.4
43	38.5	0.99	31.50	m .	"	2250	_	52	32	1.2
35.5	46	0.8	38.42	"	"	2250	_	42.5	38.5	0.96
		0.0	501.12					1.2.0	20.5	0.20
82	23	3.1	16.56	BS06/D05LA4	10	2400	_	98	19.4	3.7
69	27.5	2.7	19.82	"	"	2500	_	82	23	3.3
56	34	2.3	24.25	"	"	2600	_	67	28.5	2.7
52	33.5	2.3	26.21	m .	"	3000	_	62	28	2.8
43	40.5	2.0	31.50	п	"	3200	_	52	33.5	2.4
33	52	1.65	41.29	п	"	3500	_	39.5	43.5	2.0
28	61	1.45	48.60	п	"	3500	_	33.5	51	1.75
23.5	72	1.25	58.15	m m	"	3500	_	28	60	1.5
21.5	75	1.05	64.06	m m	II .	3500	-	25.5	63	1.25
19	89	1.05	71.18	п	"	3500	-	23	73	1.3
18	88	0.97	77.00	п	II .	3500	_	21.5	74	1.15
15	111	0.88	90.00	п	п	3500	_	18	92	1.05
13.5	122	0.82	103.1	· ·	II .	3500	-	16	102	0.98
40.5	44.5	3.0	33.55	BS10/D06LA4	23	3550	-	48.5	37	3.6
34	52	2.7	39.96	II .	"	3800	-	41	43.5	3.2
28.5	62	2.3	47.59	II .	"	4050	-	34.5	51	2.8
24	73	2.1	57.12	"	II .	4350	-	28.5	61	2.5
22.5	71	2.1	60.74	"	"	4550	-	27	59	2.5
19	92	1.75	71.96	11	"	5000	-	23	76	2.1
16.5	107	1.4	84.36	"	"	5300	-	19.5	90	1.65
13.5	113	1.4	103.4	"	"	5600	-	16	95	1.7
10.5	145	1.15	130.3	II .	"	6000	-	12.5	122	1.35
8.9	171	0.96	152.7	11	"	6000	-	11	138	1.2
7.2	210	0.81	188.6	"	"	6000	-	8.6	177	0.96
19.5	91	3.3	70.30	BS20/D06LA4	34	6300	-	23.5	76	3.9
18	87	3.1	76.18	"	II .	6600	-	21.5	73	3.7
15.5	101	2.7	88.67	II .	II	7000	-	18.5	85	3.2
13	121	2.2	106.3	II	II .	7600	-	15.5	101	2.7
11	143	1.9	127.3	"	II	8000	-	13	121	2.2
8.5	185	1.5	159.4	II .	"	8000	-	10.5	150	1.85
7.4	210	1.35	183.0	II .	"	8000	-	8.9	177	1.6
6.0	250	1.15	225.6	"	II	8000	-	7.2	210	1.4
5.3	285	1.05	257.8	BS20Z/D06LA4	35	8000	-	6.3	240	1.25
4.5	330	0.91	300.1	11	"	8000	-	5.4	275	1.1
3.8	385	0.83	359.9	II .	II .	8000	-	4.6	320	1.0
,								1		

9

BS-series worm-geared motors

Selection - worm-geared motors DHE - IE2

P = 0.25 kW



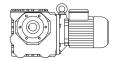
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
9.0	177	3.1	151.1	BS30/D06LA4	51	9500	-	11	145	3.7
7.3	215	2.5	186.7	"	"	10000	-	8.7	181	3.0
6.3	250	2.1	216.4	"	II .	10000	-	7.5	210	2.5
5.2	300	1.85	261.6	BS30Z/D06LA4	54	10000	-	6.2	250	2.2
4.5	340	1.7	306.6	"	"	10000	-	5.3	290	2.0
3.8	460	0.86	359.6	"	II .	10000	-	4.6	380	1.05
3.5	440	1.35	390.2	"	II .	10000	-	4.2	365	1.6
3.0	500	1.2	457.3	"	"	10000	-	3.6	420	1.45
2.6	580	1.05	539.3	"	II .	10000	-	3.1	490	1.2
2.1	680	0.85	651.0	"	"	10000	-	2.5	570	1.0
6.9	255	2.7	197.1	BS40Z/D06LA4	68	15000	-	8.3	210	3.3
5.5	270	3.3	249.6	"	"	15000	-	6.5	230	3.9
4.7	375	1.9	287.7	"	II .	15000	-	5.7	305	2.3
4.5	330	3.2	302.1	"	"	15000	-	5.4	275	3.9
3.8	395	2.7	356.8	"	II .	15000	-	4.6	325	3.3
3.1	485	2.0	446.8	"	"	15000	-	3.7	405	2.4
2.6	570	1.95	520.8	"	II .	15000	-	3.2	470	2.3
2.3	630	1.45	612.1	"	"	15000	-	2.7	530	1.7
1.9	750	1.0	736.5	"	"	15000	-	2.2	650	1.15
1.5	930	0.8	908.2	II .	"	15000	-	1.8	780	0.95

P = 0.3 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		, ,				n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
295	8.5	1.75	4.60	BS02/D07LA4	9.3	1000	-	355	7.1	2.1
250	10	2.0	5.40	n n	"	1000	-	300	8.4	2.4
200	12.3	2.0	6.75	"	"	1000	-	240	10.2	2.5
164	14.6	1.7	8.25	"	"	1100	-	197	12.2	2.0
127	18.4	1.35	10.67	"	II .	1250	-	152	15.4	1.6
100	22	1.15	13.50	"	"	1250	-	120	18.6	1.35
75	28	0.89	18.00	"	"	1250	-	90	23.5	1.05
100	22	2.5	13.50	BS03/D07LA4	9.4	1600	-	120	18.6	3.0
72	30	1.85	19.00	"	II .	1950	-	86	25	2.2
54	36.5	1.5	25.00	II	II .	1950	-	65	30	1.85
41	42.5	1.3	33.00	"	II .	1950	-	49.5	35	1.55
35	52	1.05	39.00	"	"	1950	-	42	43.5	1.25
27	61	0.9	50.00	"	"	1950	-	32.5	51	1.1
225	9.9	2.6	6.13	BS04/D07LA4	9.8	1320	-	265	8.4	3.1
152	14.7	2.0	8.93	п	"	1500	-	182	12.2	2.5
126	17.7	1.8	10.73	II	"	1600	-	151	14.7	2.2
104	21	1.55	13.09	"	"	1760	-	124	17.7	1.85
83	26.5	1.3	16.31	II .	"	1970	-	100	22	1.6
65	33	1.1	20.96	II .	"	2100	-	78	27.5	1.35
56	38.5	0.88	24.25	II .	"	2250	-	67	32	1.05
52	39	0.97	26.21	II .	II .	2250	-	62	32.5	1.15
43	46.5	0.82	31.50	"	"	2250	-	52	38.5	0.99
96	24	2.8	14.07	BS06/D07LA4	14	2200	-	116	20	3.4
82	27.5	2.6	16.56	II .	II .	2400	-	98	23	3.1
69	33	2.3	19.82	II .	"	2500	-	82	27.5	2.7
56	40.5	1.9	24.25	II .	"	2600	-	67	34	2.3
52	40	1.95	26.21	II .	II .	3000	-	62	33.5	2.3
43	48.5	1.65	31.50	"	"	3200	-	52	40	2.0
33	62	1.4	41.29	II .	II .	3500	-	39.5	52	1.65
28	73	1.2	48.60	II .	II	3500	-	33.5	61	1.45
23.5	86	1.05	58.15	II .	II .	3500	-	28	72	1.25
21.5	90	0.89	64.06	II .	II .	3500	-	25.5	76	1.05
19	107	0.88	71.18	II .	II .	3500	-	23	88	1.05
18	106	0.8	77.00	"	"	3500	-	21.5	89	0.96

Selection - worm-geared motors DHE - IE2

P = 0.3 kW



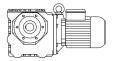
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		-71-		- 1/14	- 11.0	n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm	- 6			kg	N	N	1/min	Nm	- 6
52	42.5	3.1	26.42	BS10/D07LA4	26	3250	-	62	36	3.6
40.5	53	2.5	33.55	"	II .	3550	_	48.5	44.5	3.0
34	63	2.2	39.96	m .	II .	3800	-	41	52	2.7
28.5	75	1.95	47.59	"	II .	4050	-	34.5	62	2.3
24	88	1.7	57.12	"	II	4350	-	28.5	74	2.0
22.5	85	1.75	60.74	"	II .	4550	-	27	71	2.1
19	111	1.45	71.96	II	"	5000	-	23	92	1.75
16.5	128	1.15	84.36	m	"	5300	-	19.5	108	1.4
13.5	135	1.2	103.4	m	"	5600	-	16	114	1.4
10.5	174	0.94	130.3	"	"	6000	-	12.5	146	1.1
8.9	205	0.8	152.7	"	"	6000	-	11	166	0.99
23	93	3.0	58.74	BS20/D07LA4	36	5900	-	28	76	3.7
19.5	110	2.7	70.30	II	"	6300	-	23.5	91	3.3
18	105	2.6	76.18	m	"	6600	-	21.5	87	3.1
15.5	121	2.2	88.67	m	"	7000	-	18.5	102	2.6
13	145	1.85	106.3	m	"	7600	-	15.5	121	2.2
11	171	1.6	127.3	"	"	8000	-	13	145	1.85
8.5	220	1.25	159.4	"	"	8000	-	10.5	180	1.55
7.4	255	1.1	183.0	II	"	8000	-	8.9	210	1.35
6.0	305	0.95	225.6	"	"	8000	-	7.2	250	1.15
5.3	345	0.86	257.8	BS20Z/D07LA4	38	8000	-	6.3	290	1.0
16.5	133	3.1	83.48	BS30/D07LA4	54	6800	-	19.5	113	3.6
11	177	2.9	125.2	II	II .	8700	-	13	149	3.5
9.0	210	2.6	151.1	II	II .	9500	-	11	174	3.1
7.3	255	2.1	186.7	n n	"	10000	-	8.7	215	2.5
6.3	300	1.75	216.4	II .	"	10000	-	7.5	250	2.1
5.2	360	1.55	261.6	BS30Z/D07LA4	56	10000	-	6.2	300	1.85
4.5	410	1.4	306.6	II	"	10000	-	5.3	350	1.65
3.5	530	1.1	390.2	II .	"	10000	-	4.2	440	1.35
3.0	610	0.98	457.3	II .	II .	10000	-	3.6	500	1.2
2.6	700	0.86	539.3	"	"	10000	-	3.1	590	1.0
6.9	305	2.3	197.1	BS40Z/D07LA4	70	15000	-	8.3	255	2.7
5.5	325	2.8	249.6	II	"	15000	-	6.5	275	3.3
4.7	450	1.6	287.7	n n	"	15000	-	5.7	370	1.95
4.5	400	2.7	302.1	II	"	15000	-	5.4	330	3.2
3.8	470	2.3	356.8	II	"	15000	-	4.6	390	2.8
3.1	580	1.7	446.8	II	II .	15000	-	3.7	485	2.0
2.6	690	1.6	520.8	II	II .	15000	-	3.2	560	1.95
2.3	750	1.2	612.1	II	II .	15000	-	2.7	640	1.4
1.9	900	0.84	736.5	II .	II	15000	-	2.2	780	0.97

P = 0.37 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7.				n ₂	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
295	10.5	1.45	4.60	BS02/D07LA4	9.3	1000	-	355	8.7	1.7
250	12.4	1.6	5.40	m	"	1000	-	300	10.3	1.95
200	15.1	1.65	6.75	"	"	1000	-	240	12.6	2.0
164	18	1.4	8.25	"	"	1100	-	197	15	1.65
127	22.5	1.1	10.67	"	"	1250	-	152	19	1.3
100	27.5	0.91	13.50	"	II	1250	-	120	22.5	1.1
100	27.5	2.0	13.50	BS03/D07LA4	9.4	1600	-	120	22.5	2.4
72	37	1.5	19.00	II	II .	1950	-	86	31	1.75
54	45	1.2	25.00	"	"	1950	-	65	37.5	1.45
41	52	1.05	33.00	"	"	1950	-	49.5	43.5	1.25
35	64	0.86	39.00	"	II	1950	-	42	53	1.05
225	12.2	2.1	6.13	BS04/D07LA4	9.8	1320	-	265	10.4	2.5
152	18.1	1.65	8.93	II .	"	1500	-	182	15.1	2.0

Selection - worm-geared motors DHE - IE2

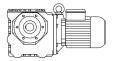
P = 0.37 kW



	50 Hz	_	i	Туре	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg "	N	N	1/min	Nm	
126	21.5	1.5	10.73	BS04/D07LA4	"	1600	-	151	18.2	1.75
104	26	1.25	13.09	"		1760	-	124	21.5	1.55
83	32.5	1.1	16.31	"	"	1970	-	100	27	1.3
65	41	0.9	20.96	"	II .	2100	-	78	34	1.1
152	18.8	3.3	8.93	BS06/D07LA4	14	1710	-	182	15.7	3.9
126	22.5	2.9	10.73	"		1850	-	151	18.9	3.4
96	29.5	2.3	14.07	"	"	2200	-	116	24.5	2.8
82	34	2.1	16.56	"	"	2400	-	98	28.5	2.5
69	40.5	1.85	19.82	"	"	2500	-	82	34	2.2
56	50	1.55	24.25	 II	"	2600	-	67	42	1.85
52	49.5	1.55	26.21	 II	"	3000	-	62	41.5	1.85
43	59	1.35	31.50	" "	"	3200	-	52	49.5	1.6
33	77	1.1	41.29	" "	"	3500	-	39.5	64	1.35
28	90	0.98	48.60	" "	"	3500	-	33.5	75	1.15
23.5	106	0.86	58.15		"	3500	-	28	89	1.0
63		2.0	21.61	DC10 /D071 4.4	26	2000		75	27.5	2.2
63	44.5	2.8	21.61	BS10/D07LA4	26	3000	-	75	37.5	3.3
52	53	2.5	26.42	 II	"	3250	-	62	44	3.0
40.5	66 	2.0	33.55	 II	"	3550	-	48.5	55	2.5
34	77	1.8	39.96		"	3800	-	41	64	2.2
28.5	92	1.6	47.59		"	4050	-	34.5	76	1.9
24	108	1.4	57.12		"	4350	-	28.5	91	1.65
22.5	105	1.45	60.74		"	4550	-	27	87	1.7
19	137	1.15	71.96		"	5000	-	23	113	1.4
16.5	158	0.95	84.36			5300	-	19.5	134	1.1
13.5	167	0.96	103.4			5600	-	16	141	1.15
22.5	02	2.2	42.00	BS20/D07LA4	26	F200		20.5	60	2.0
32.5	82	3.3	42.08	B32U/DU/LA4	36	5200	-	38.5	69 70	3.9
28	94	2.9	48.98	II .	"	5500	-	33.5	79 73	3.4
27	87 115	3.1	50.44	II .	"	5700	-	32.5	72	3.8
23 19.5	115 135	2.4 2.2	58.74 70.30	II .	"	5900 6300	-	28 23.5	94 112	3.0
18	129	2.2	76.18	"	"	6600	-	23.5	108	2.7 2.5
15.5	150	1.8	88.67	"	"	7000	-	18.5	126	2.3
13.5	179	1.5	106.3	"	"	7600	-	15.5	150	1.8
11	210	1.3	127.3	"	"	8000	_	13.5	179	1.5
8.5	270	1.0	159.4	"	"	8000	_	10.5	220	1.25
7.4	315	0.89	183.0	n n	"	8000	_	8.9	260	1.1
6.8	330	0.85	201.4	BS20Z/D07LA4	38	8000	_	8.1	275	1.0
0.0	330	0.03	201.4	D3202/D0/ER4	30	0000		0.1	273	1.0
16.5	164	2.5	83.48	BS30/D07LA4	54	6800	_	19.5	139	2.9
15	162	3.0	90.59	"	"	7700	_	18	135	3.6
13	184	2.8	106.2	m .	II .	8200	_	15.5	155	3.3
11	215	2.4	125.2	m .	II .	8700	-	13	184	2.8
9.0	260	2.1	151.1	"	II .	9500	_	11	215	2.5
7.3	315	1.7	186.7	m .	II .	10000	_	8.7	265	2.0
6.3	370	1.4	216.4	m .	II .	10000	-	7.5	310	1.7
5.2	445	1.25	261.6	BS30Z/D07LA4	56	10000	-	6.2	375	1.5
4.5	510	1.15	306.6	"	II .	10000	-	5.3	430	1.35
3.5	650	0.91	390.2	"	II .	10000	-	4.2	540	1.1
3.0	750	0.8	457.3	"	II .	10000	-	3.6	620	0.97
6.9	375	1.85	197.1	BS40Z/D07LA4	70	15000	-	8.3	315	2.2
5.5	400	2.3	249.6	II	"	15000	-	6.5	340	2.6
4.7	550	1.3	287.7	II .	"	15000	-	5.7	455	1.55
4.5	490	2.2	302.1	II	"	15000	-	5.4	410	2.6
3.8	580	1.85	356.8	II	"	15000	-	4.6	480	2.3
3.1	710	1.4	446.8	II	"	15000	-	3.7	600	1.65
2.6	850	1.3	520.8	II	"	15000	-	3.2	690	1.6
2.3	930	0.98	612.1	II .	"	15000	-	2.7	790	1.15

Selection - worm-geared motors DHE - IE2

P = 0.55 kW



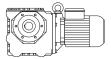
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
305	15.1	2.6	4.60	BS03/D08MA4	10	1070	-	370	12.4	3.2
235	19.6	2.2	6.00	II .	"	1170	-	280	16.5	2.7
175	25.5	1.9	8.00	II .	"	1320	-	210	21.5	2.2
140	31.5	1.65	10.00	"	"	1450	-	168	26	2.0
104	39	1.4	13.50	"	"	1600	-	125	32.5	1.7
74	53	1.05	19.00	II .	"	1950	-	89	44.5	1.25
56	64	0.86	25.00	"	"	1950	-	68	53	1.05
210	20	2.8	6.67	BS06/D08MA4	16	1550	_	255	16.6	3.4
157	27	2.3	8.93	п	II .	1710	_	189	22.5	2.8
131	32	2.0	10.73	m .	II .	1850	-	157	27	2.4
100	42.5	1.6	14.07	m .	II .	2200	-	120	35	1.95
85	49	1.45	16.56	"	11	2400	-	102	41	1.75
71	59	1.25	19.82	m .	II .	2500	-	85	49	1.55
58	72	1.05	24.25	m .	II .	2600	-	70	60	1.3
54	71	1.1	26.21	m .	II .	3000	-	65	58	1.35
44.5	86	0.93	31.50	11	"	3200	-	54	71	1.15
113	37	2.9	12.49	BS10/D08MA4	27	2400	_	135	31	3.5
83	50	2.4	16.92	" " " " " " " " " " " " " " " " " " "	"	2700	_	100	42	2.9
65	64	1.95	21.61	u u	"	3000	_	78	53	2.4
53	77	1.7	26.42	u u	"	3250	_	64	64	2.4
46	78	1.65	30.63	II .	II .	3550	_	55	65	2.0
42	95	1.4	33.55	п	"	3550	_	51	78	1.75
35.5	110	1.25	39.96	m .	"	3800	_	42.5	92	1.75
29.5	133	1.1	47.59	"	"	4050	_	35.5	110	1.3
25.5	155	0.97	57.12	"	"	4350	-	29.5	131	1.15
23.5	149	1.0	60.74	"	"	4550	-	29.3	125	1.13
19.5	199	0.8	71.96	"	"	5000	-	23.5	165	0.97
19.5	199	0.8	71.90			3000	-	23.3	105	0.97
51	80	3.1	27.86	BS20/D08MA4	37	4450	-	61	67	3.7
46	82	3.0	30.63	"	"	4750	-	55	68	3.7
43	94	2.9	32.87		"	4750	-	52	77	3.5
35	108	2.4	40.25	"	"	5300	-	42	90	2.9
33.5	119	2.3	42.08		"	5200	-	40	99	2.7
29	135	2.0	48.98	"	"	5500	-	34.5	114	2.4
28	125	2.2	50.44	"	"	5700	-	33.5	105	2.6
24	164	1.7	58.74	"	"	5900	-	29	135	2.1
20	196	1.55	70.30	"		6300	-	24	164	1.85
18.5	187	1.45	76.18	"	"	6600	-	22.5	154	1.75
16	215	1.25	88.67	"	"	7000	-	19	182	1.5
13.5	255	1.05	106.3	"	"	7600	-	16	215	1.25
11	315	0.86	127.3	II	"	8000	-	13.5	255	1.05
28	144	3.1	50.04	BS30/D08MA4	55	5900	-	34	118	3.8
24	168	2.7	58.64	"	"	6900	-	29	139	3.3
20	183	2.6	71.17	"	"	7000	-	24	153	3.1
17	235	1.75	83.48	п	"	6800	-	20.5	197	2.1
15.5	230	2.1	90.59	"	II .	7700	-	19	190	2.6
13.5	260	1.95	106.2	II .	II .	8200	-	16	220	2.3
11.5	310	1.7	125.2	II .	II .	8700	-	13.5	260	2.0
9.3	375	1.45	151.1	II .	II .	9500	-	11.5	305	1.75
7.5	460	1.2	186.7	TI TI	II .	10000	-	9.0	385	1.4
6.5	530	0.98	216.4	TI TI	II .	10000	-	7.8	440	1.2
5.4	640	0.88	261.6	BS30Z/D08MA4	58	10000	-	6.5	530	1.05
11.5	305	3.2	126.0	BS40/D08MA4	68	14900	_	13.5	260	3.8
9.5	355	2.7	148.1	"	"	15000	_	11.5	295	3.3
7.9	430	1.9	178.2	II	II .	15000	_	9.5	355	2.3
6.4	510	1.55	219.7	II .	"	15000	_	7.7	425	1.85
5.7	580	1.55	249.6	BS40Z/D08MA4	71	15000	_	6.8	485	1.85
4.9	790	0.91	287.7	"	"	15000	_	5.9	650	1.1
	700	1.55	302.1	II .	"	15000	_	5.6	590	1.8
4.7										
4.7 4.0		1.3	356.8	II .	"	15000	-	4.8	680	1.6
4.7 4.0 3.2	820 1030	1.3 0.96	356.8 446.8	"	"	15000 15000	-	4.8 3.8	680 870	1.6 1.15

9

BS-series worm-geared motors

Selection - worm-geared motors DHE - IE2

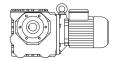
P = 0.75 kW



	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		.,,,,		• KN	• KV	n_2	M ₂	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	• 0
310	20	2.0	4.60	BS03/DHE08XA4	13	1070	-	375	16.8	2.4
240	26	1.7	6.00	"	II .	1170	_	285	22	2.0
178	34.5	1.4	8.00	"	II .	1320	_	215	28.5	1.7
142	42	1.25	10.00	"	II .	1450	_	171	35	1.5
106	52	1.05	13.50	II .	ıı	1600	-	127	43.5	1.25
215	26.5	2.1	6.67	BS06/DHE08XA4	18	1550	-	260	22	2.5
160	36	1.7	8.93	" "	"	1710	-	192	30	2.1
133	43.5	1.5	10.73	"	"	1850	-	160	36	1.8
101	57	1.2	14.07	" "	"	2200	-	122	47.5	1.45
86	66 70	1.1	16.56	 H	"	2400	-	104	55	1.3
72	79 25	0.95	19.82		"	2500	-	87	65	1.15
55	95	0.81	26.21			3000	-	66	79	0.97
114	50	2.2	12.49	BS10/DHE08XA4	30	2400	_	137	41.5	2.6
84	68	1.75	16.92	II .	II	2700	-	102	56	2.1
66	86	1.45	21.61	II	"	3000	-	80	71	1.75
54	103	1.25	26.42	II	II .	3250	-	65	85	1.55
46.5	106	1.25	30.63	II	II .	3550	-	56	88	1.5
42.5	128	1.05	33.55	II	II .	3550	-	51	106	1.25
36	149	0.94	39.96	II	II .	3800	-	43	124	1.15
30	179	0.81	47.59	II .	II .	4050	-	36	149	0.97
84	69	2.2	16.92	BS20/DHE08XA4	40	3700	_	102	56	3.9
64	90	3.2 2.6	22.23	В320/ВПЕОВХА4	40	4100	-	77	75	3.9
51	109	2.3	22.23 27.86	11	"	4450	-	62	90	2.8
46.5	110	2.3	30.63	11	"	4450 4750	-	56	90	2.0 2.7
43.5	126	2.3	32.87	11	"	4750	-	53	92 104	2.7
35.5	145	1.8	40.25	11	"	5300	-	42.5	121	2.0
34	160	1.7	42.08	11	"	5200	-	41	132	2.1
28.5	168	1.6	50.44	m .	"	5700	-	34	141	1.9
24.5	215	1.3	58.74	m .	"	5900	_	29.5	182	1.55
20.5	260	1.15	70.30	m .	"	6300	_	24.5	215	1.55
19	245	1.13	76.18	m .	11	6600	_	22.5	210	1.3
16.5	285	0.95	88.67	п	"	7000	_	19.5	240	1.15
42.5	138	3.0	33.55	BS30/DHE08XA4	57	5200	-	51	115	3.7
37.5	143	2.9	37.92	II .	"	5500	-	45.5	118	3.6
36.5	158	2.7	39.31	II .	"	5500	-	44	131	3.3
28.5	193	2.3	50.04	II .	"	5900	-	34.5	159	2.8
24.5	225	2.0	58.64		"	6900	-	29.5	186	2.5
20	250	1.9	71.17	"	"	7000	-	24.5	200	2.4
17.5	315	1.3	83.48	"	"	6800	-	20.5	265	1.55
16	305	1.6	90.59	"	"	7700	-	19	260	1.9
13.5	360	1.4	106.2	"		8200	-	16.5	295	1.75
11.5	420	1.25	125.2	"	"	8700	-	14	345	1.5
9.4	510	1.05	151.1	"	"	9500	-	11.5	415	1.3
7.7	610	0.89	186.7	"	"	10000	-	9.2	510	1.05
20.5	265	2.8	69.60	BS40/DHE08XA4	70	11800	-	25	220	3.4
16.5	295	3.1	86.33	II .	II .	12900	-	20	245	3.7
13.5	355	2.7	108.1	II .	II .	14000	-	16	295	3.2
11.5	415	2.4	126.0	II .	II .	14900	-	14	340	2.9
9.6	480	2.0	148.1	п	II .	15000	-	12	385	2.5
8.0	580	1.4	178.2	п	II .	15000	-	9.6	480	1.7
6.5	690	1.15	219.7	п	II .	15000	-	7.8	570	1.4
5.7	790	1.15	249.6	BS40Z/DHE08XA4	74	15000	-	6.9	650	1.4
4.8	940	1.15	302.1	II .	II .	15000	-	5.7	790	1.35
4.0	1120	0.96	356.8	11	II .	15000		4.8	940	1.15

Selection - worm-geared motors DHE - IE2

P = 1.1 kW



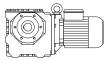
	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7.				n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
116	72	1.5	12.49	BS10/DHE09LA4	36	2400	-	140	60	1.8
86	97	1.25	16.92	TI TI	II .	2700	-	103	81	1.5
67	125	1.0	21.61	TI TI	II .	3000	-	81	103	1.2
55	148	0.88	26.42	п	II .	3250	-	66	124	1.05
47.5	152	0.86	30.63	"	"	3550	-	57	127	1.0
113	75	2.7	12.77	BS20/DHE09LA4	46	3350	-	137	62	3.2
86	98	2.2	16.92	II	"	3700	-	103	82	2.7
65	130	1.75	22.23	"	"	4100	-	79	107	2.1
52	157	1.6	27.86	"	"	4450	-	63	130	1.9
47.5	159	1.55	30.63	"	"	4750	-	57	132	1.9
44	183	1.5	32.87	"	"	4750	-	53	152	1.8
36	210	1.25	40.25	"	II .	5300	-	43.5	173	1.5
34.5	230	1.15	42.08	"	"	5200	-	41.5	192	1.4
29	240	1.15	50.44	"	"	5700	-	34.5	200	1.35
25	315	0.89	58.74	"	"	5900	-	30	260	1.1
69	126	3.0	20.94	BS30/DHE09LA4	64	4300	-	84	103	3.7
54	161	2.5	27.07	"	"	4750	-	65	134	3.0
47.5	165	2.4	30.63	"	"	5000	-	57	138	2.9
43	200	2.1	33.55	"	"	5200	-	52	165	2.5
38	205	2.0	37.92	"	"	5500	-	46	171	2.5
37	225	1.9	39.31	"	II .	5500	-	44.5	191	2.3
29	275	1.65	50.04	"	"	5900	-	35	230	1.95
25	320	1.45	58.64	II .	II	6900	-	30	265	1.75
20.5	355	1.35	71.17	"	"	7000	-	24.5	300	1.6
17.5	460	0.89	83.48	"	II	6800	-	21	385	1.05
16	450	1.1	90.59	II .	II	7700	-	19.5	370	1.3
14	510	1.0	106.2	II .	II	8200	-	16.5	430	1.2
12	590	0.88	125.2	п	"	8700	-	14	510	1.0
30.5	265	3.1	47.69	BS40/DHE09LA4	77	9600	-	36.5	220	3.8
24	310	2.8	60.38	"	II .	11200	-	29	255	3.4
21	385	1.95	69.60	"	"	11800	-	25	320	2.3
20	365	2.4	73.09	II .	II	12100	-	24	305	2.9
17	425	2.1	86.33	II .	"	12900	-	20.5	350	2.6
13.5	520	1.85	108.1	II	II .	14000	-	16.5	425	2.2
11.5	610	1.6	126.0	"	II	14900	-	14	500	1.95
9.8	690	1.4	148.1	II	II .	15000	-	12	560	1.75
8.1	840	0.98	178.2	II .	"	15000	-	9.8	690	1.2

P = 1.5 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n_2	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	Ν	1/min	Nm	
116	98	1.1	12.49	BS10/DHE09XA4	40	2400	-	140	81	1.35
86	133	0.9	16.92	"	II	2700	-	103	111	1.1
113	102	1.95	12.77	BS20/DHE09XA4	50	3350	-	137	84	2.4
86	134	1.65	16.92	"	"	3700	-	103	112	1.95
65	178	1.3	22.23	m .	"	4100	-	79	146	1.6
52	210	1.2	27.86	TI .	II .	4450	-	63	177	1.4
47.5	215	1.15	30.63	TI .	II .	4750	-	57	180	1.4
44	250	1.1	32.87	m .	II .	4750	-	53	205	1.3
36	285	0.91	40.25	m .	II .	5300	-	43.5	235	1.1
34.5	315	0.86	42.08	m .	II .	5200	-	41.5	260	1.05
29	330	0.82	50.44	11	"	5700	-	34.5	275	0.98
109	109	3.0	13.29	BS30/DHE09XA4	68	3600	-	131	90	3.7
86	138	2.6	16.92	m .	II .	3950	-	103	115	3.1
69	172	2.2	20.94	TI TI	11	4300	-	84	141	2.7
54	220	1.8	27.07	TI TI	11	4750	-	65	182	2.2
47.5	225	1.8	30.63	II .	"	5000	-	57	188	2.1

Selection - worm-geared motors DHE - IE2

P = 1.5 kW



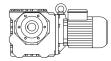
	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	$f_{\scriptscriptstyle B}$						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
43	270	1.55	33.55	BS30/DHE09XA4	"	5200	-	52	225	1.85
38	280	1.5	37.92	"	"	5500	-	46	230	1.85
37	310	1.4	39.31	"	"	5500	-	44.5	260	1.65
29	380	1.2	50.04	"	"	5900	-	35	315	1.45
25	440	1.05	58.64	"	"	6900	-	30	365	1.25
20.5	485	0.99	71.17	"	"	7000	-	24.5	405	1.2
16	610	0.8	90.59	"	"	7700	-	19.5	500	0.98
43.5	260	3.0	33.35	BS40/DHE09XA4	81	8300	-	53	215	3.6
38	275	2.8	38.13	"	"	9400	-	46	225	3.5
36	310	2.6	40.37	"	"	9000	-	43.5	260	3.1
30.5	365	2.3	47.69	n n	"	9600	-	36.5	305	2.7
24	420	2.0	60.38	n n	"	11200	-	29	350	2.5
21	520	1.45	69.60	"	"	11800	-	25	440	1.7
20	500	1.75	73.09	"	"	12100	-	24	415	2.1
17	580	1.55	86.33	"	"	12900	-	20.5	480	1.9
13.5	710	1.35	108.1	"	"	14000	-	16.5	580	1.65
11.5	830	1.2	126.0	"	"	14900	-	14	680	1.45
9.8	950	1.0	148.1	"	II .	15000	-	12	770	1.25

P = 2.2 kW

	50 Hz		i	Туре	m	F _{RN}	F_{RV}		60 Hz	
n ₂	M ₂	f _B		7-				n ₂	M_2	f _B
1/min	Nm				kg	N	N	1/min	Nm	
113	150	1.35	12.77	BS20/DHE09XA4C	53	3350	-	137	124	1.6
86	197	1.1	16.92	m	"	3700	-	103	165	1.35
65	260	0.88	22.23	"	"	4100	-	79	215	1.05
109	159	2.1	13.29	BS30/DHE09XA4C	71	3600	-	131	133	2.5
86	200	1.8	16.92	п	II .	3950	-	103	169	2.1
69	250	1.5	20.94	п	"	4300	-	84	205	1.85
54	320	1.25	27.07	п	"	4750	-	65	265	1.5
47.5	330	1.2	30.63	п	II .	5000	-	57	275	1.45
43	400	1.05	33.55	m .	"	5200	-	52	330	1.25
38	410	1.0	37.92	m .	"	5500	-	46	340	1.25
37	455	0.95	39.31	m .	"	5500	-	44.5	380	1.15
29	550	0.82	50.04	"	II	5900	-	35	460	0.98
86	205	3.3	16.92	BS40/DHE09XA4C	84	6400	-	103	173	3.9
69	245	2.9	21.06	"	"	6900	-	83	205	3.5
56	305	2.4	26.18	"	"	7500	-	67	255	2.9
47.5	325	2.3	30.63	"	II .	8700	-	57	270	2.8
43.5	385	2.0	33.35	"	II .	8300	-	53	315	2.5
38	400	1.95	38.13	"	"	9400	-	46	330	2.4
36	460	1.75	40.37	"	"	9000	-	43.5	380	2.1
30.5	530	1.55	47.69	"	"	9600	-	36.5	445	1.85
24	620	1.4	60.38	"	"	11200	-	29	510	1.7
21	770	0.97	69.60	"	"	11800	-	25	640	1.15
20	730	1.2	73.09	"	"	12100	-	24	610	1.45
17	850	1.05	86.33	"	"	12900	-	20.5	700	1.3
13.5	1040	0.91	108.1	m m	"	14000	-	16.5	850	1.1
11.5	1220	0.8	126.0	II .	"	14900	-	14	1000	0.98

Selection - worm-geared motors DHE - IE2

P = 3 kW



	50 Hz		i	Type	m	F_{RN}	F_{RV}		60 Hz	
n ₂	M_2	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
109	215	1.55	13.29	BS30/DHE11MA4	77	3600	-	131	181	1.85
86	275	1.3	16.92	"	"	3950	-	103	230	1.55
69	340	1.1	20.94	"	"	4300	-	84	280	1.35
54	440	0.91	27.07	"	"	4750	-	65	365	1.1
47.5	450	0.89	30.63	"	"	5000	-	57	375	1.05
111	215	2.9	13.03	BS40/DHE11MA4	95	5800	-	134	181	3.4
86	280	2.4	16.92	"	"	6400	-	103	235	2.9
69	340	2.1	21.06	"	"	6900	-	83	280	2.5
56	415	1.8	26.18	"	"	7500	-	67	350	2.1
47.5	445	1.7	30.63	"	"	8700	-	57	370	2.0
43.5	520	1.5	33.35	"	"	8300	-	53	430	1.8
38	550	1.4	38.13	"	"	9400	-	46	450	1.75
36	620	1.3	40.37	"	"	9000	-	43.5	520	1.55
30.5	730	1.15	47.69	"	"	9600	-	36.5	610	1.35
24	840	1.0	60.38	"	"	11200	-	29	700	1.25
20	1000	0.88	73.09	"	"	12100	-	24	830	1.05

P = 4 kW

	50 Hz		i	Туре	m	F _{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
109	290	1.15	13.29	BS30/DHE11LA4	89	3600	-	131	240	1.4
86	365	0.99	16.92	"	II .	3950	-	103	305	1.2
69	455	0.84	20.94	"	II	4300	-	84	375	1.0
111	290	2.1	13.03	BS40/DHE11LA4	107	5800	-	134	240	2.6
86	375	1.8	16.92	"	II .	6400	-	103	315	2.1
69	450	1.6	21.06	п	II .	6900	-	83	375	1.9
56	550	1.35	26.18	m	"	7500	-	67	465	1.6
47.5	590	1.25	30.63	"	II .	8700	-	57	495	1.5
43.5	700	1.1	33.35	п	II .	8300	-	53	570	1.35
38	730	1.05	38.13	"	II .	9400	-	46	600	1.3
36	830	0.96	40.37	"	II .	9000	-	43.5	690	1.15
30.5	970	0.86	47.69	11	"	9600	-	36.5	810	1.0

P = 5.5 kW

	50 Hz		i	Туре	m	F_{RN}	F _{RV}		60 Hz	
n ₂	M ₂	f _B						n ₂	M_2	$f_{\scriptscriptstyle B}$
1/min	Nm				kg	N	N	1/min	Nm	
110	395	0.84	13.29	BS30/DHE11LA4C	93	3600	-	133	325	1.0
113	395	1.55	13.03	BS40/DHE11LA4C	111	5800	-	136	325	1.9
87	510	1.3	16.92	m	II .	6400	-	105	425	1.6
70	610	1.15	21.06	TI TI	II .	6900	-	84	510	1.4
56	760	0.97	26.18	п	II .	7500	-	68	630	1.15
48	800	0.94	30.63	"	II .	8700	-	58	670	1.1
44	950	0.82	33.35	п	II .	8300	-	53	790	0.99

Q

Catalogue geared motors

Edition 03/2012

337-390

Page

Dimensional drawings helical-geared motors

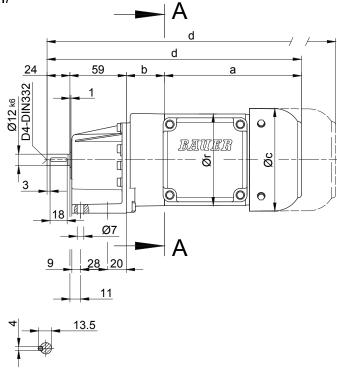
- Standard
- Tandem Gearbox

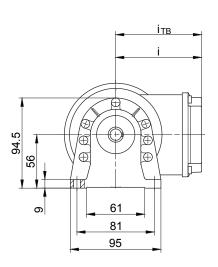
Dimension

BG04

Foot mounting

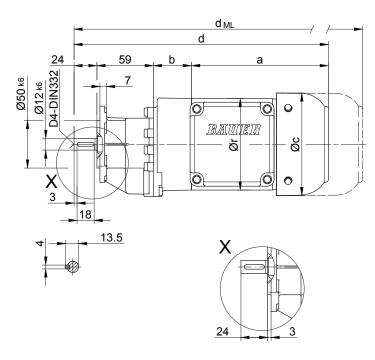
Code -11/

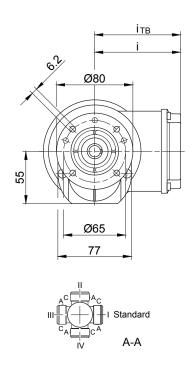




Flange with clearance holes

Code -31/

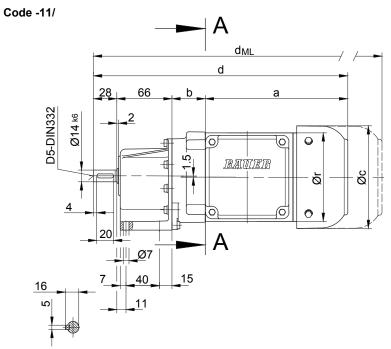


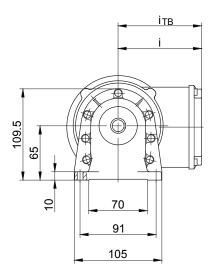


							Design with motor extensions							
Tuno		h		٦		_		E	G	EG	RR/RL			
Туре	а	D	С	u	ı	ı	ITB	d_ML	d _{ML}	d_ML	d_ML			
BG04/D04	143	40	111	266	90	96	112	309.5	328.5	371.5	-			

BG05

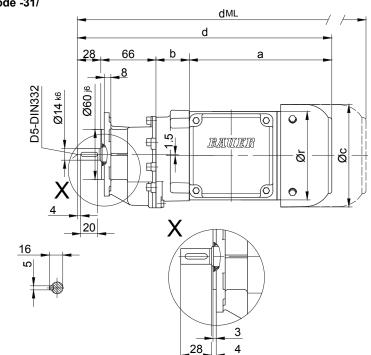


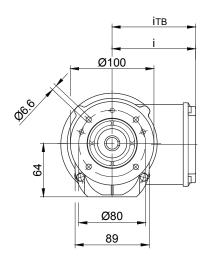


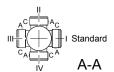


Flange with clearance holes

Code -31/



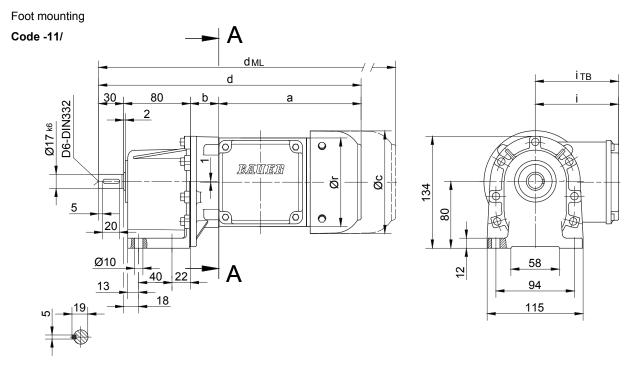




							Design with motor extensions							
Туре	a	b	С	d	١.	r	i	E	G	EG	RR/RL			
туре	a	ט	'	u	ı	ı	ITB	d_ML	d _{ML}	d _{ML}	d_ML			
BG05/D04	143	38	111	275	90	96	112	318.5	337.5	380.5	-			
BG05/D05	170	40	123	304	100	106	117	346	407	448.5	-			
BG05/D06	170	40	123	304	100	121	119	346	407	448.5	-			
BG05/D07	190	40	123	324	100	121	119	366	427	468.5	-			

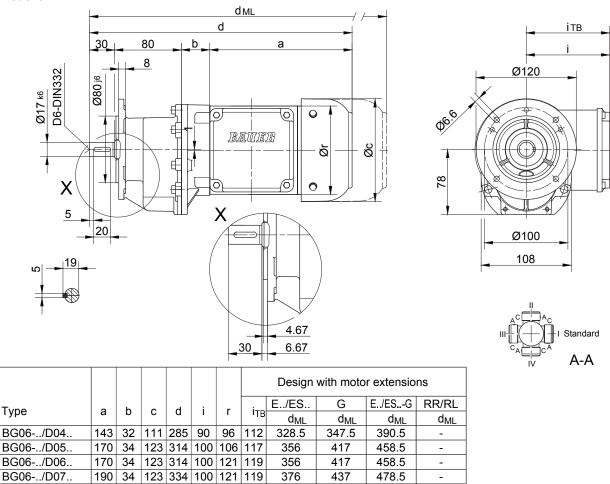
10

BG06



Flange with clearance holes

Code -31/



454

495

The actual gearbox design can vary from the geometry shown.

454

561.5

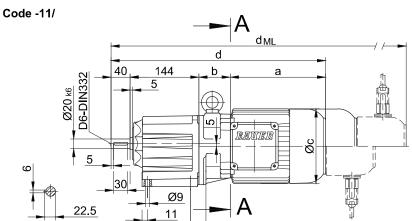
BG06-../D..08.

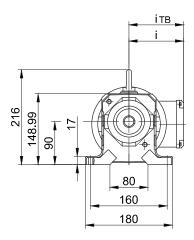
200 78 156 388 115 156 136.5

Dimension

BG10 - BG10Z

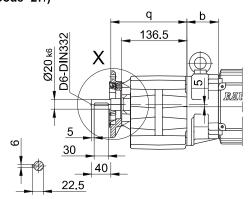
Foot mounting with clearance holes





Flange with clearance holes

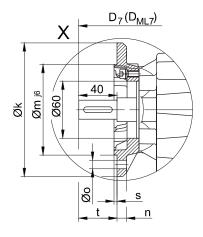
Code -37/ (Code -27/)

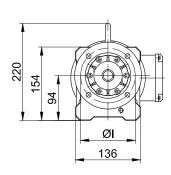


|36|

90

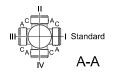
33





Flange dimensions

BG10(Z)	k	I	m	n	0	q	s	t	D ₇	D _{ML7}
Standard -37/	140	115	95	10	9	159.5	3	40	d+15.5	d _{ML} +15.5
small -27/	120	100	80	8	6.6	154.5	3	45	d+15.5	d _{ML} +15.5



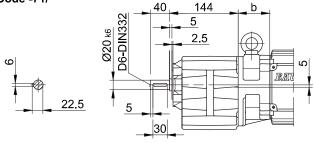
						Design with motor extensions						
Type		b		d			E/ES	G	E/ESG	RR/RL		
Type	а	ь	С	u	-	ТВ	d_ML	d _{ML}	d _{ML}	d _{ML}		
BG10Z/D04	143	86	111	413	90	112	456.5	475.5	518.5	-		
BG10/D05	170	62	123	416	100	117	458	519	560.5	-		
BG10Z/D05	170	88	123	442	100	117	484	545	586.5	-		
BG10/D06	170	62	123	416	100	119	458	519	560.5	-		
BG10Z/D06	170	88	123	442	100	119	484	545	586.5	-		
BG10/D07	190	62	123	436	100	119	478	539	580.5	-		
BG10Z/D07	190	88	123	462	100	119	504	565	606.5	-		
BG10/D08	200	66	156	450	115	136.5	516	557	623.5	516		
BG10Z/D08	200	132	156	516	115	136.5	582	623	689.5	582		
BG10/D09	251	80.5	181	515.5	124	158	608.5	622.5	713	608.5		

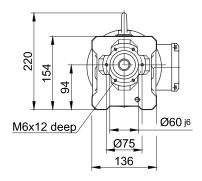
Dimension

BG10-BG10Z

Flange with tapped holes

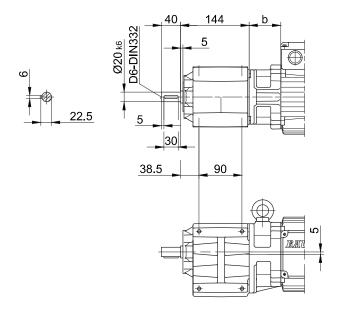
Code -71/

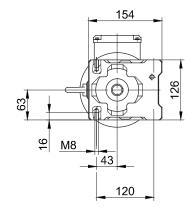




Foot with tapped holes left and right

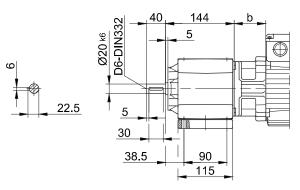
Code -61LR/

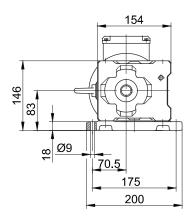




Foot plate left

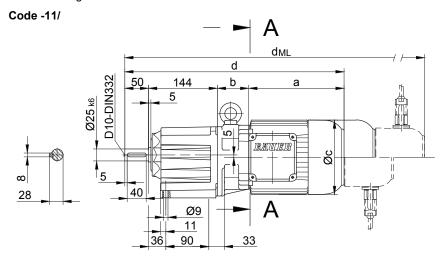
Code -91L/

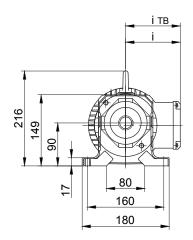




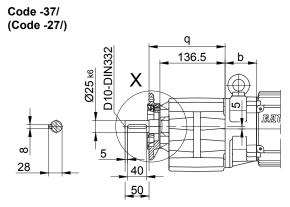
BG10X - BG10XZ

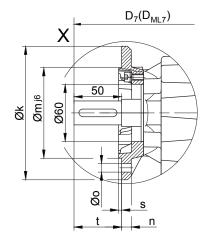
Foot mounting with clearance holes

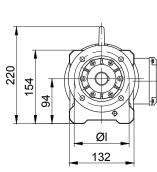




Flange with clearance holes







Flange dimensions

BG10X(Z)	k	I	m	n	0	q	s	t	D ₇	D _{ML7}
Standard -37/	Ø140	Ø115	Ø95	10	Ø9	159.5	3	50	d+15.5	d _{ML} +15.5
small -27/	Ø120	Ø100	Ø80	8	Ø6.6	154.5	3	55	d+15.5	d _{ML} +15.5

AC AC	
	Standard
C _A IV	A-A

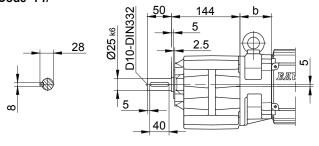
						Design with motor extensions						
Turno		<u> </u>		д			ES/ZS	G	ES/ZSG	RR/RL		
Туре	а	b	С	u		ITB	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BG10XZ1/D04	143	86	111	423	90	112	466.5	485.5	528.5	-		
BG10X1/D05	170	62	123	426	100	117	468	529	570.5	-		
BG10XZ1/D05	170	88	123	452	100	117	494	555	596.5	-		
BG10X1/D06	170	62	123	426	100	119	468	529	570.5	-		
BG10XZ1/D06	170	88	123	452	100	119	494	555	596.5	-		
BG10X1/D07	190	62	123	446	100	119	488	549	590.5	-		
BG10XZ1/D07	190	88	123	472	100	119	514	575	616.5	-		
BG10X1/D08	200	66	156	460	115	136.5	526	567	633.5	526		
BG10XZ1/D08	200	132	156	526	115	136.5	592	633	699.5	592		
BG10X1/D09	251	80.5	176	525.5	124	158	618.5	632.5	723	618.5		

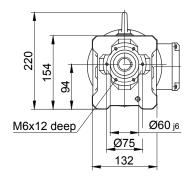
Dimension

BG10X - BG10XZ

Flange with tapped holes

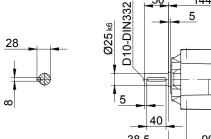
Code -71/

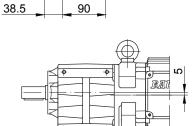


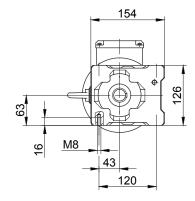


Foot with tapped holes left and right

Code -61LR/

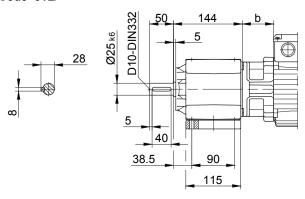


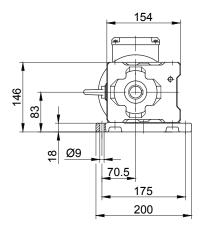




Foot plate left

Code -91L/



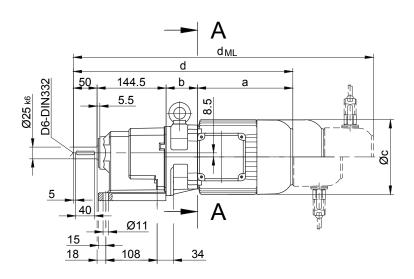


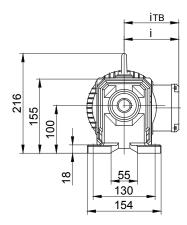
10

BG15

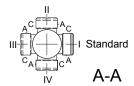
Foot mounting with clearance holes

Code -11/





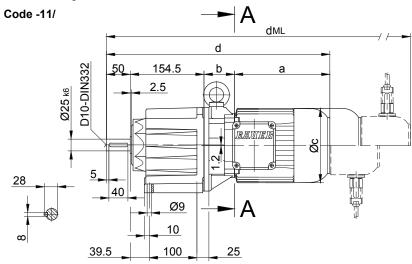




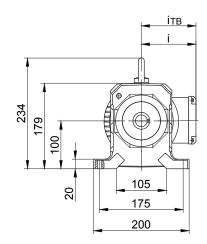
						Design with motor extensions							
Tuno		b		d	:		ES/ZS	G	ES/ZSG	RR/RL			
Туре	а	D	С	u	'	'ТВ	d _{ML}	d _{ML}	d _{ML}	d _{ML}			
BG15/D05	170	62	123	426.5	100	129.5	468.5	529.5	571	-			
BG15/D06	170	62	123	426.5	100	131.5	468.5	529.5	571	-			
BG15/D07	190	62	123	446.5	100	131.5	488.5	549.5	591	-			
BG15/D08	200	66	156	460.5	115	15 149.5 526.5 567.5 634 527.5							
BG15/D09	251	80.5	181	526	124	24 164 619 633 723.5 619							

BG20 - BG20Z

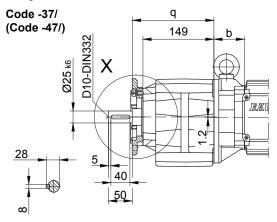
Foot mounting with clearance holes

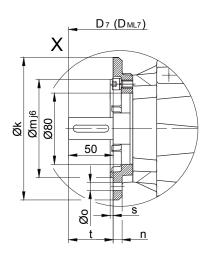


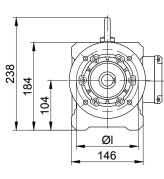
BG-series helical-geared motors



Flange with clearance holes

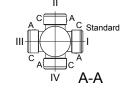






Flange dimensions

BG20(Z)	k	I	m	n	0	q	S	t	D ₇	D _{ML7}
Standard -37/	160	130	110	10	9	171	3.5	50	d+16.5	d _{ML} +16.5
big -47/	200	165	130	12	11	178	3.5	43	d+16.5	d _{ML} +16.5

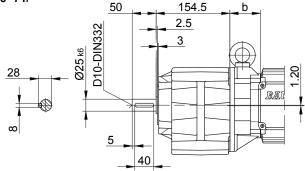


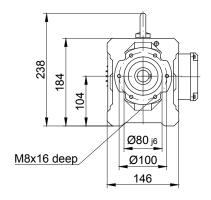
						Design with motor extensions						
Typo		b	С	d			E/ES	G	E./ESG	RR/RL		
Туре	а	D		u	1	ITB	d _{ML}	d _{ML}	d _{ML}	d_ML		
BG20Z/D04	143	100	111	447.5	90	112	491	510	553	-		
BG20/D05	170	60	123	434.5	100	117	476.5	537.5	579	-		
BG20Z/D05	170	102	123	476.5	100	117	518.5	579.5	621	-		
BG20/D06	170	60	123	434.5	100	119	476.5	537.5	579	-		
BG20Z/D06	170	102	123	476.5	100	119	518.5	579.5	621	-		
BG20/D07	190	60	123	454.5	100	119	496.5	557.5	599	-		
BG20Z/D07	190	102	123	496.5	100	119	538.5	599.5	641	-		
BG20/D08	200	64	156	468.5	115	136.5	534.5	575.5	642	534.5		
BG20Z/D08	200	146	156	550.5	115	136.5	616.5	657.5	724	616.5		
BG20/D09	251	78.5	181	534	124	158	627	641	731.5	627		

BG20 - BG20Z

Flange with tapped holes

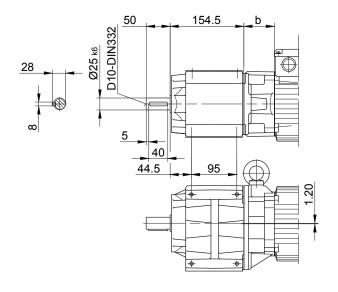


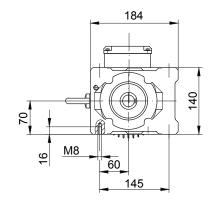




Foot with tapped holes left and right

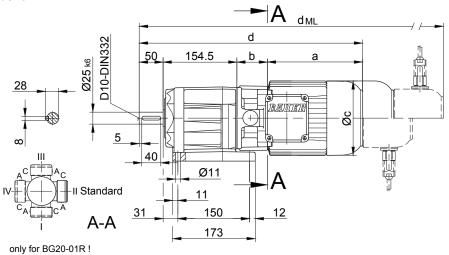
Code -61LR/

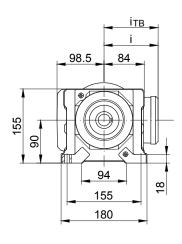




Foot mounting right with clearance holes/

Code -01R



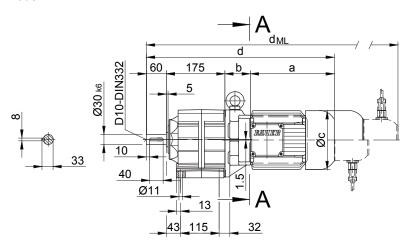


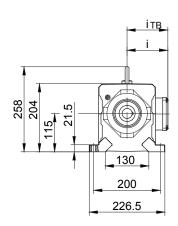
Dimension

BG30 - BG30Z

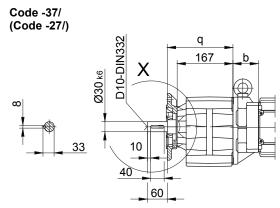
Foot mounting with clearance holes

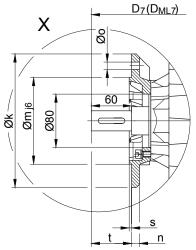
Code -11/

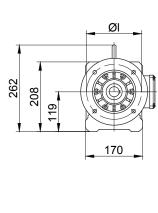




Flange with clearance holes



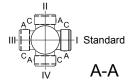




Flange dimensions

BG30(Z)	k	I	m	n	0	q	s	t	D ₇	D _{ML7}
Standard -37/	200	165	130	12	11	196	3.5	60	d+21	d _{ML} +21
small -27/	160	130	110	10	9	189	3.5	67	d+21	d _{ML} +21

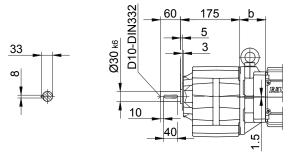
						Design with motor extensions						
Type	а	b	С	d		:	E/ES	G	E/ESG	RR/RL		
Туре	а	D	C	u	ı	ITB	d_ML	d _{ML}	d _{ML}	d_ML		
BG30/D05	170	58	123	464	100	117	505	566	607.5	-		
BG30Z/D05	170	133.5	123	538.5	100	117	580.5	641.5	683	-		
BG30/D06	170	58	123	464	100	119	505	566	607.5	-		
BG30Z/D06	170	133.5	123	538.5	100	119	580.5	641.5	683	-		
BG30/D07	190	58	123	483	100	119	525	586	627.5	-		
BG30Z/D07	190	133.5	123	558.5	100	119	600.5	661.5	703	-		
BG30/D08	200	62	156	497	115	136.5	563	604	670.5	563		
BG30Z/D08	200	137.5	156	572.5	115	136.5	638.5	679.5	746	638.5		
BG30/D09	251	76.5	181	562.5	124	158	655.5	669.5	760	655.5		
BG30Z/D09	251	152	181	638	124	158	731	745	835.5	731		
BG30/D11	319	83	228	637	181	182	735	744	839.5	735		

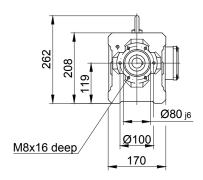


BG30 - BG30Z

Flange with tapped holes

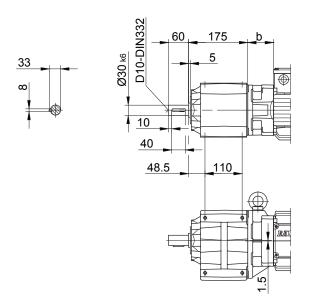
Code -71/

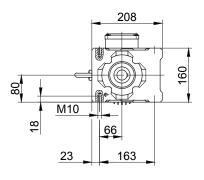




Foot with tapped holes left and right

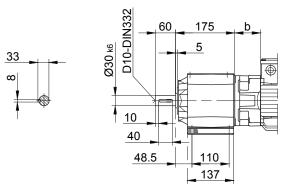
Code -61LR/

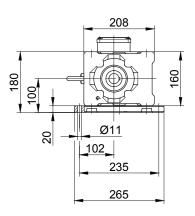




Foot plate left

Code -91L/

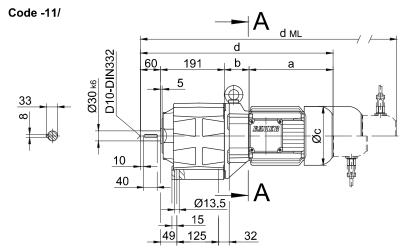


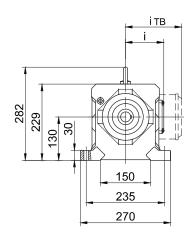


Dimension

BG40 - BG40Z

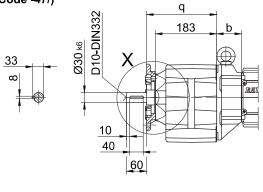
Foot mounting with clearance holes

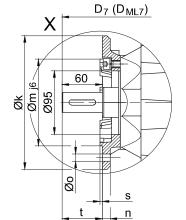


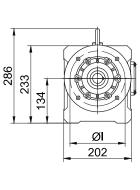


Flange with clearance holes



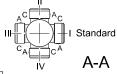






Flange dimensions

BG40(Z)	k	I	m	n	0	q	s	t	D ₇	D _{ML7}
Standard -37/	200	165	130	12	11	210	3.5	60	d+19	d _{ML} +19
big - 47/	250	215	180	16	13.5	219	4	51	d+19	d _{ML} +19



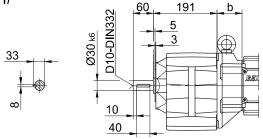
						Design with motor extensions						
Type		b	С	4			E/ES	G	E/ESG	RR/RL		
Туре	а	D		d	'	ΙТВ	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BG40Z/D05	170	138.5	123	559.5	100	117	601.5	662.5	704	-		
BG40Z/D06	170	138.5	123	559.5	100	119	601.5	662.5	704	-		
BG40Z/D07	190	138.5	123	579.5	100	119	621.5	682.5	724	-		
BG40/D08	200	60	156	511	115	136.5	577	618	684.5	577		
BG40Z/D08	200	142.5	156	593.5	115	136.5	659.5	700.5	767	659.5		
BG40/D09	251	74.5	181	576.5	124	158	669.5	683.5	774	669.5		
BG40Z/D09	251	157	181	659	124	158	752	766	856.5	752		
BG40/D11	319	81	228	651	181	181	749	758	853.5	749		

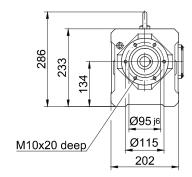
Dimension

BG40 - BG40Z

Flange with tapped holes

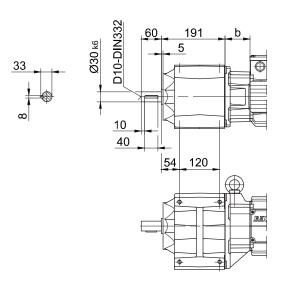
Code -71/

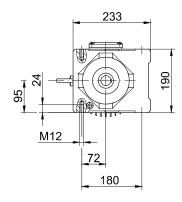




Foot with tapped holes left and right

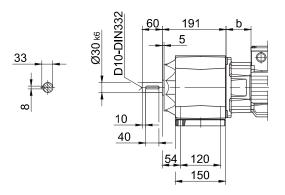
Code -61LR/

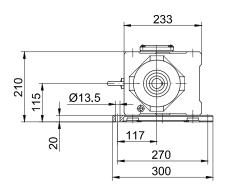




Foot plate left

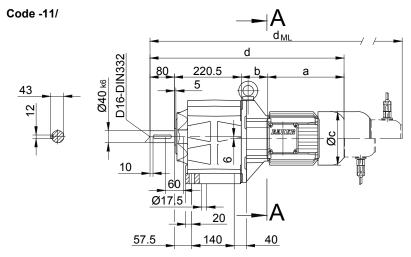
Code -91L/



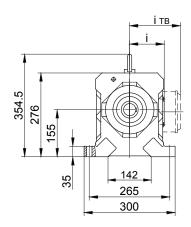


BG50 - BG50Z

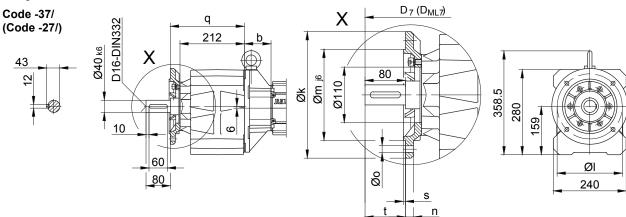
Foot mounting with clearance holes



BG-series helical-geared motors

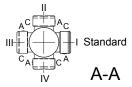


Flange with clearance holes



Flange dimensions

BG50(Z)	k	I	m	n	0	q	S	t	D ₇	D _{ML7}
Standard -37/	250	215	180	16	13.5	244	4	80	d+23.5	d _{ML} +23.5
small -27/	200	165	130	12	11	241	3.5	83	d+23.5	d _{ML} +23.5

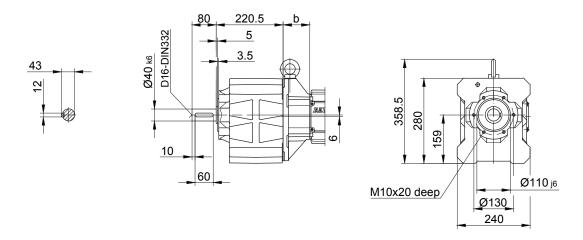


						Design with motor extensions						
Tyma		h	С	٨	i		E/ES	G	E/ESG	RR/RL		
Туре	а	b	C	d	ı	ΙТВ	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BG50Z/D05	170	155	123	625.5	100	117	667.5	728.5	771	-		
BG50Z/D06	170	155	123	625.5	100	119	667.5	728.5	771	-		
BG50Z/D07	190	155	123	645.5	100	119	687.5	748.5	769	-		
BG50/D08	200	73	156	573.5	115	136.5	639.5	680.5	746	639.5		
BG50Z/D08	200	159	156	659.5	115	136.5	725.5	766.5	832	725.5		
BG50/D09	251	87.5	181	639	124	158	732	746	833	732		
BG50Z/D09	251	173.5	181	725	124	158	818	832	919	818		
BG50/D11	319	94	228	713.5	181	181	811.5	820.5	917	811.5		
BG50/D13	393	107	258	800.5	218	218	911.5	907.5	1006	911.5		
BG50/D16	429	121	322	850.5	244	244	994.5	958.5	1103	994.5		
BG50/D18	528	143	368	971.5	288	288	1120.5	1079.5	1225	1120.5		

BG50 - BG50Z

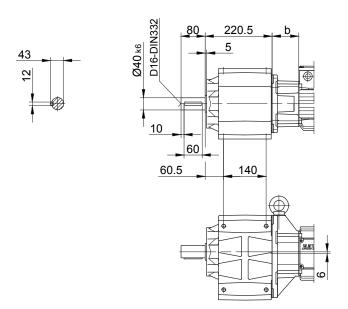
Flange with tapped holes

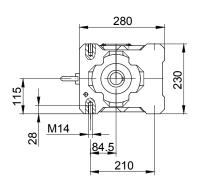
Code -71/



Foot with tapped holes left and right

Code -61LR/

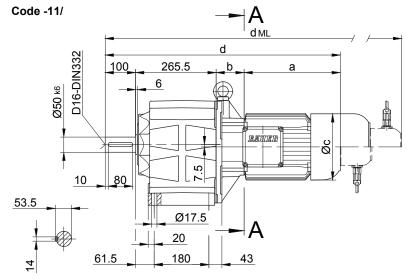


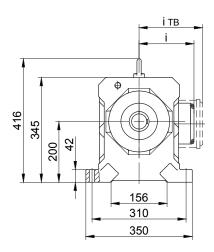


Dimension

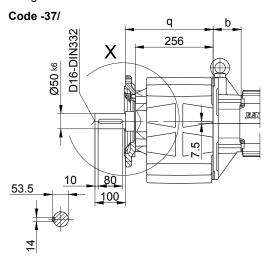
BG60 - BG60Z

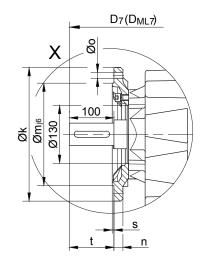
Foot mounting with clearance holes

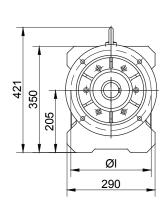




Flange with clearance holes

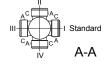






Flange dimensions

BG60(Z)	k	I	m	n	0	q	S	t	D ₇	D _{ML7}
Standard -37/	300	265	230	20	13.5	289	4	100	d+23.5	d _{ML} +23.5
small -27/	250	215	180	16	13.5	286	4	103	d+23.5	d _{ML} +23.5

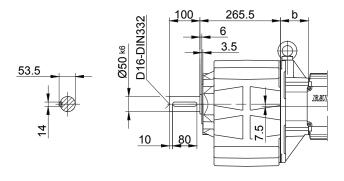


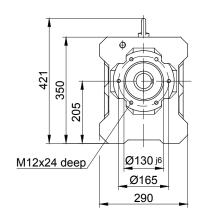
						Design with motor extensions							
Typo		b	С	d			ES/ZS	G	ES/ZSG	RR/RL			
Туре	а	D	J	u	ı	ІТВ	d _{ML}	d _{ML}	d _{ML}	d _{ML}			
BG60Z/D08	200	181	156	746.6	115	136.5	812.5	853.5	920	812.5			
BG60/D09	251	85.5	181	702	124	158	795	809	899.5	795			
BG60Z/D09	251	195.5	181	812	124	158	905	919	1009.5	905			
BG60/D11	319	92	228	776.5	181	181	874.5	883.5	979	874.5			
BG60Z/D11	319	202	228	886.5	181	181	984.5	993.5	1089	984.5			
BG60/D13	393	105	258	863.5	218	218	974.5	970.5	1079	974.5			
BG60/D16	429	119	322	913.5	244	244	1057.5	1021.5	1161.5	1057.5			
BG60/D18	528	272	368	1165.5	288	288	1314.5	1314.5	1418.5	1314.5			

BG60 - BG60Z

Flange with tapped holes

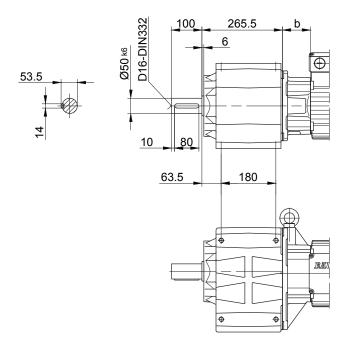
Code -71/

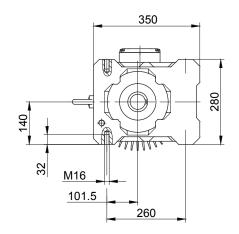




Foot with tapped holes left and right

Code -61LR/



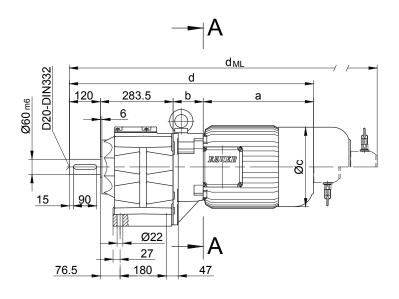


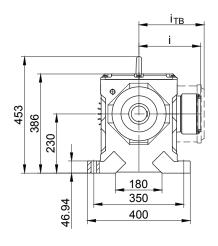
Dimension

BG70 - BG70Z

Foot mounting with clearance holes

Code -11/







Flange dimensions

i lango amilonolono										
BG70(Z)	k	I	m	n	0	q	s	t	D ₇	D _{ML7}
Standard -37/	350	300	250 _{h6}	20	17.5	314	5	120	d+30.5	d _{ML} +30.5
small -27/	300	265	230 _{j6}	20	13.5	322	4	112	d+30.5	d _{ML} +30.5

AC AC	
	Standard
C _A IV	A-A

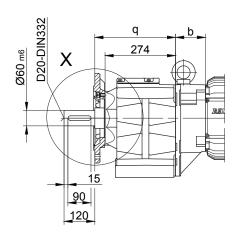
						Design with motor extensions						
Type		b		d			ES/ZS	G	ES/ZSG	RR/RL		
Туре	а	b	С	u	'	ТВ	d_ML	d _{ML}	d _{ML}	d_ML		
BG70Z/D08	200	202	156	805.5	115	136.5	871.5	912.5	979	871		
BG70/D09	251	83.5	181	738	124	158	831	845	935.5	831		
BG70Z/D09	251	216.5	181	871	124	158	964	978	1068.5	964		
BG70/D11	319	90	228	812.5	181	181	910.5	919.5	1015	910.5		
BG70Z/D11	319	223	228	945.5	181	181	1043.5	1052.5	1148	1043.5		
BG70/D13	393	103	258	899.5	218	218	1010.5	1006.5	1115	1010.5		
BG70Z/D13	393	236	258	1032.5	218	218	1143.5	1139.5	1248	1143.5		
BG70/D16	429	117	322	949.5	244	244	1093.5	1057.5	1197.5	1093.5		
BG70Z/D16	429	250	322	1082.5	244	244	1226.5	1190.5	1330.5	1226.5		
BG70/D18	528	139	368	1070.5	288	288	1219.5	1178.5	1323.5	1219.5		
BG70Z/D18	528	272	368	1203.5	288	288	1352.5	1311.5	1456.5	1352.5		

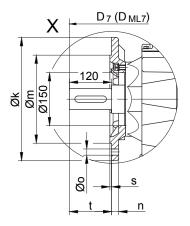
Dimension

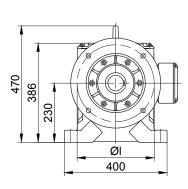
BG70 - BG70Z

Flange with clearance holes

Code -37/ (Code -27/)



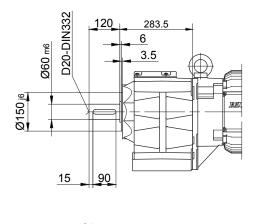




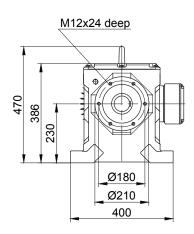


Flange with tapped holes

Code -71/







The actual gearbox design can vary from the geometry shown.

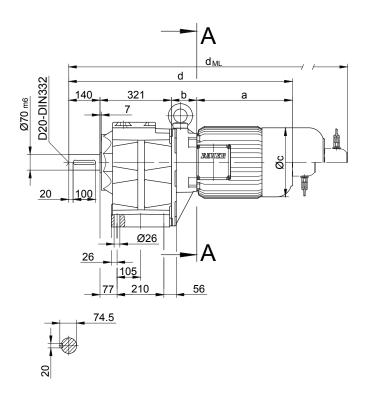
359

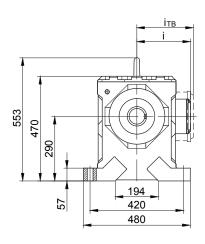
Dimension

BG80 - BG80Z

Foot mounting with clearance holes

Code -11/





10

Flange dimensions

BG80(Z)	k	ı	m	n	О	q	S	t	D ₇	D _{ML7}
Standard -37/	400	350	300	20	4 x 17.5	345	5	140	d+24	d _{ML} +24
small -27/	350	300	250	20	4 x 17.5	345	5	140	d+24	d _{ML} +24
big -47/	450	400	350	22	8 x 17.5	355	5	130	d+24	d _{ML} +24

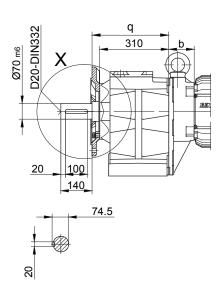
AC AC	Standard
C _A IV	A-A

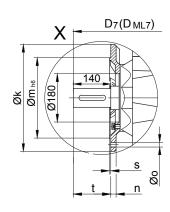
						Design with motor extensions						
Tuno		b	•	٦		i	ES/ZS	G	ES/ZSG	RR/RL		
Туре	а	D	С	d	ı	ITB	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BG80Z/D09	251	252.5	181	964.5	124	158	1057.5	1071.5	1162	1057.5		
BG80/D11	319	87	228	867	181	181	965	974	1069.5	965		
BG80Z/D11	319	259	228	1039	181	181	1137	1146	1241.5	1137		
BG80/D13	393	100	258	954	218	218	1065	1061	1169.5	1065		
BG80Z/D13	393	272	258	1126	218	218	1237	1233	1341.5	1237		
BG80/D16	429	114	322	1004	244	244	1148	1112	1252	1148		
BG80Z/D16	429	286	322	1176	244	244	1320	1284	1424	1320		
BG80/D18	528	136	368	1125	288	288	1274	1233	1378	1274		
BG80Z/D18	528	308	368	1297	288	288	1446	1405	1550	1446		

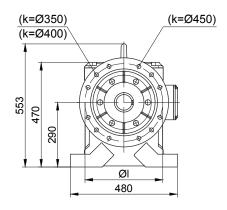
BG80 - BG80Z

Flange with clearance holes

Code -37/ (Code -27/) (Code -47/)

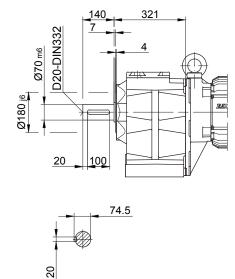


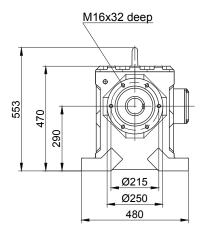




Flange with tapped holes

Code -71/



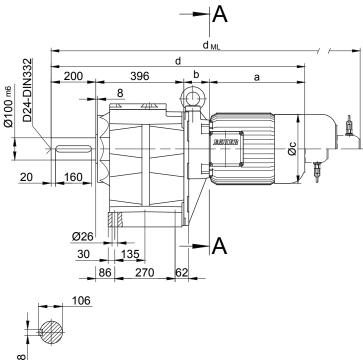


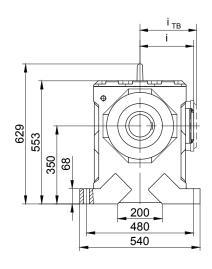
Dimension

BG90 - BG90Z

Foot mounting with clearance holes

Code -11/







Flange dimensions

BG90(Z)	k	I	m	n	0	q	s	t	D ₇	D _{ML7}
Standard -37/	450	400	350	22	17.5	439	5	200	d+43	d _{ML} +43
big -47/	550	500	450	22	17.5	444	5	195	d+43	d _{ML} +43

AC AC	
	Standard
C _A C ^A	A-A

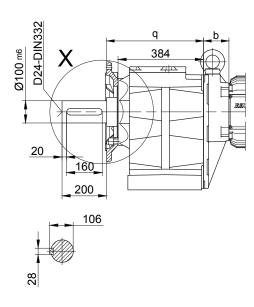
						Design with motor extensions						
Tune		<u> </u>		4			ES/ZS	G	ES/ZSG	RR/RL		
Туре	а	b	С	d	ı	ITB	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BG90Z/D09	251	267	181	1114	124	158	1207	1221	1311	1207		
BG90Z/D11	319	273.5	228	1188.5	181	181	1286.5	1295.5	1391	1286.5		
BG90/D13	393	100	258	1015	218	218	1113	1122	1217.5	1113		
BG90Z/D13	393	286.5	258	1275.5	218	218	1386.5	1382.5	1491	1386.5		
BG90/D16	429	114	322	1103	244	244	1214	1210	1318.5	1214		
BG90Z/D16	429	300.5	322	1325.5	244	244	1469.5	1433.5	1573.5	1469.5		
BG90/D18	528	136	368	1161	288	288	1305	1269	1409	1305		
BG90Z/D18	528	322.5	368	1446	288	288	1595.5	1554.5	1699.5	1595.5		

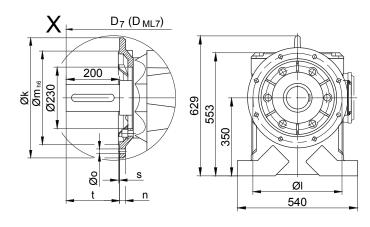
10

BG90 - BG90Z

Flange with clearance holes

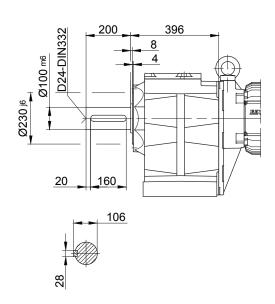
Code -37/ (Code -47/)

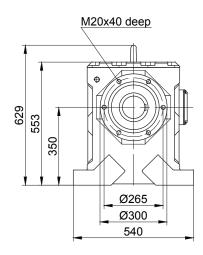




Flange with tapped holes

Code -71/



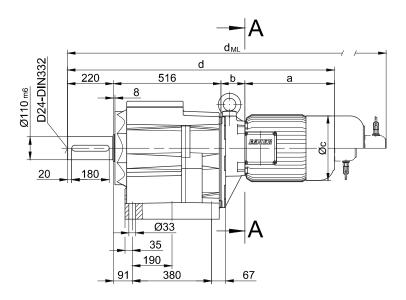


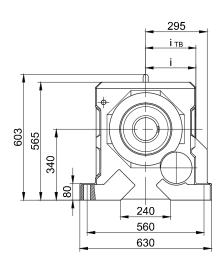
Dimension

BG100 - BG100Z

Foot mounting with clearance holes

Code -11/







Flange dimensions

BG100(Z)	k	ı	m	n	0	q	s	t	D ₇	D _{ML7}
Standard -37/	550	500	450	22	17.5	558	5	220	d+42	d _{ML} +42
big -47/	660	600	550	25	22	552	6	226	d+42	d _{ML} +42

II AC AC	
III CA CA	Standard
IV	A-A

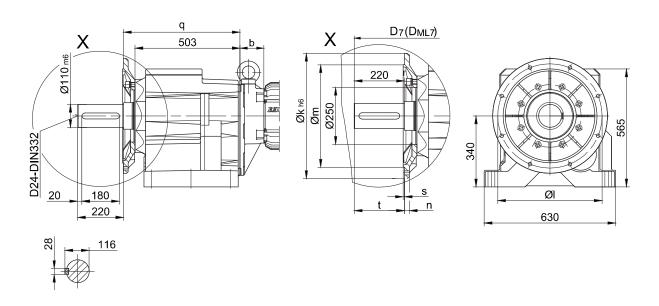
						Design with motor extensions						
Type		b		A			ES/ZS	G	ES/ZSG	RR/RL		
Туре	а	ט	С	d	ı	ITB	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BG100Z/D09	251	252.5	181	1239.5	124	158	1332.5	1346.5	1437	1332.5		
BG100/D11	319	87	228	1142	181	181	1240	1249	1344.5	1240		
BG100Z/D11	319	259	228	1314	181	181	1412	1421	1516.5	1412		
BG100/D13	393	100	258	1229	218	218	1340	1336	1444.5	1340		
BG100Z/D13	393	272	258	1401	218	218	1512	1508	1616.5	1512		
BG100/D16	429	114	322	1279	244	244	1423	1387	1527	1423		
BG100Z/D16	429	286	322	1451	244	244	1595	1559	1699	1595		
BG100/D18	528	136	368	1400	288	288	1549	1508	1653	1549		
BG100Z/D18	528	308	368	1572	288	288	1721	1680	1825	1721		

10

BG100 - BG100Z

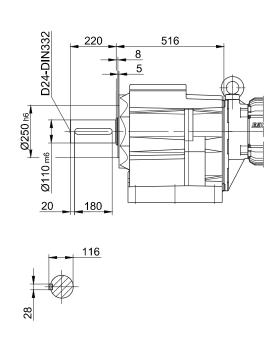
Flange with clearance holes

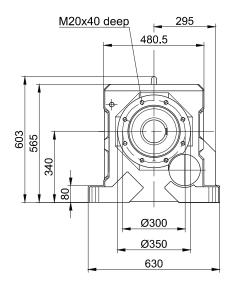
Code -37/ (Code -47/)



Flange with tapped holes

Code 71/

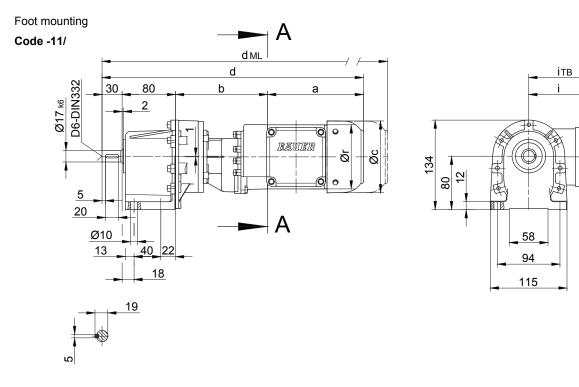




10

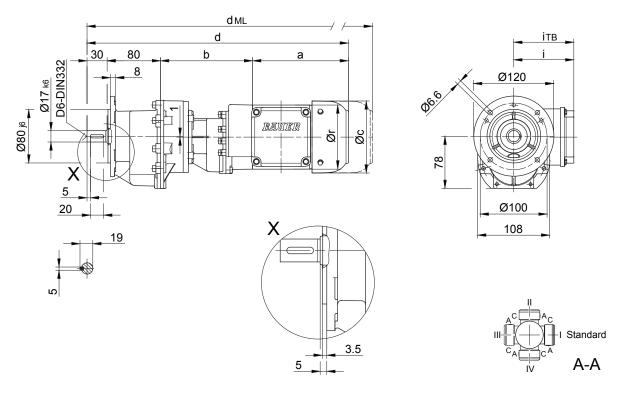
366 www.bauergears.com P-7112-BGM-EN-A4

BG06G04



Flange with clearance holes

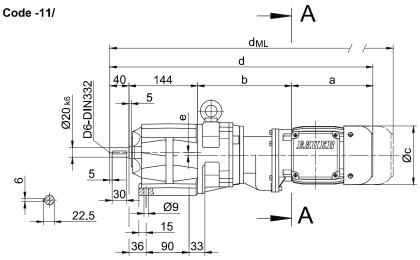
Code -31/

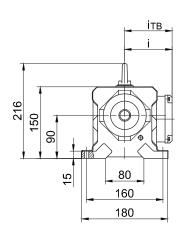


								Design	with moto	r extensior	าร
Tuno		h		٦		_		E	G	EG	RR/RL
Туре	а	b	С	d	ı	ı	ITB	d_ML	d_ML	d _{ML}	d_ML
BG06G04/D04	143	135	111	388	90	96	112	431.5	450.5	493.5	-

BG10G06

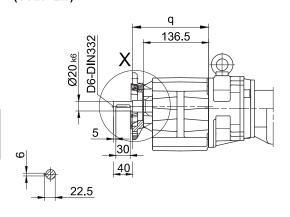
Foot mounting with clearance holes

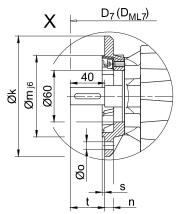


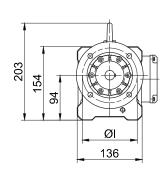


Flange with clearance holes

Code -37/ (Code -27/)

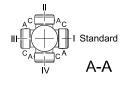






Flange dimensions

BG10G	k	I	m	n	0	q	s	t	D ₇	D _{ML7}
Standard -37/	140	115	95	10	9	159.5	3	40	d+15.5	d _{ML} +15.5
small -27/	120	100	80	8	6.6	154.5	3	45	d+15.5	d _{ML} +15.5



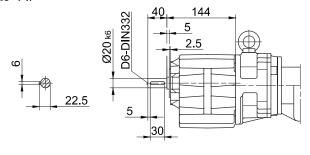
								Desig	ın with moto	r extensions	
Type	a	b	С	d	е		i	E/ES	G	E/ESG	RR/RL
Туре	a	D		u	6	ı.	ΙТВ	d_ML	d _{ML}	d _{ML}	d _{ML}
BG10G06/D04	143	195	111	522	6	90	112	565.5	584.5	627.5	-
BG10G06/D05	170	197	123	551	6	100	117	593	654	695.5	-
BG10G06/D06	170	197	123	551	6	100	119	593	654	695.5	-
BG10G06/D07	190	197	123	571	6	100	119	613	674	715.5	-
BG10G06/D08	200	241	156	625	6	115	136.5	691	732	798.5	691

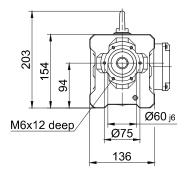
Dimension

BG10G06

Flange with tapped holes

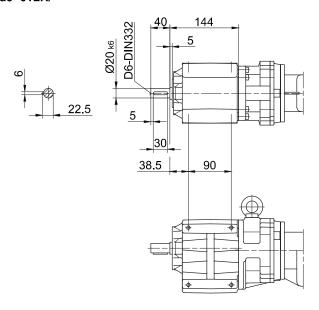
Code -71/

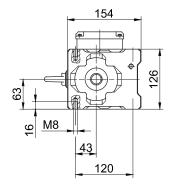




Foot with tapped holes left and right

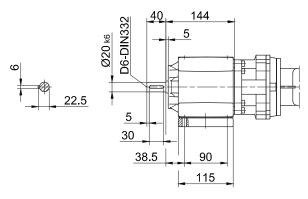
Code -61LR/

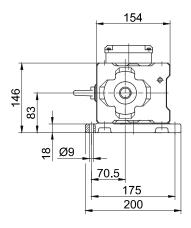




Foot plate left

Code -91L/

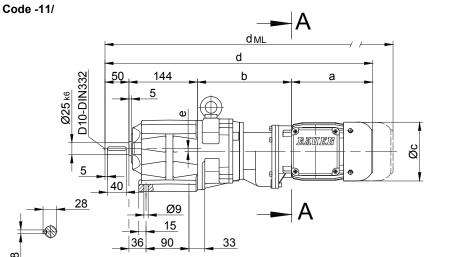


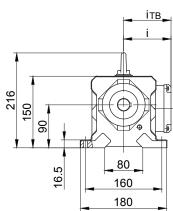


Dimension

BG10XG06

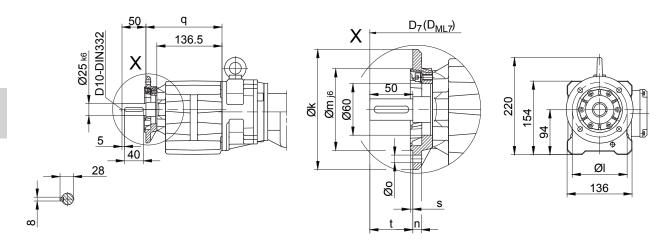
Foot mounting with clearance holes





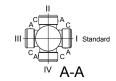
Flange with clearance holes

Code -37/ (Code -27/)



Flange dimensions

BG10G	k	I	m	n	0	q	s	t	D ₇	D _{ML7}
Standard -37/	140	115	95	10	9	159.5	3	50	d+15.5	d _{ML} +15.5
small -27/	120	100	80	8	6.6	154.5	3	55	d+15.5	d _{ML} +15.5



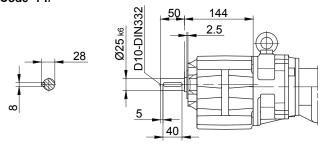
								Desiç	n with motor	extensions	
Type	a	b	С	d	е			E/ES	G	E/ESG	RR/RL
Туре	а	D	C	u	C	'	ΙТВ	d_ML	d _{ML}	d _{ML}	d _{ML}
BG10XG06/D04	143	195	111	532	6	90	112	575.5	594.5	637.5	-
BG10XG06/D05	170	197	123	561	6	100	117	603	664	705.5	-
BG10XG06/D06	170	197	123	561	6	100	119	603	664	705.5	-
BG10XG06/D07	190	197	123	581	6	100	119	623	684	725.5	-
BG10XG06/D08	200	241	156	635	6	115	136.5	701	742	808.5	701

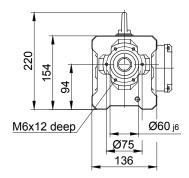
Dimension

BG10XG06

Flange with tapped holes

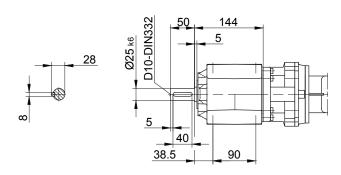
Code -71/

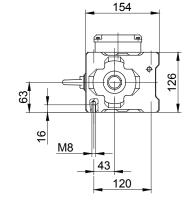


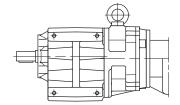


Foot with tapped holes left and right

Code -61LR/

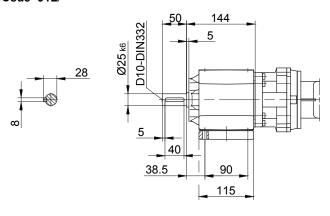


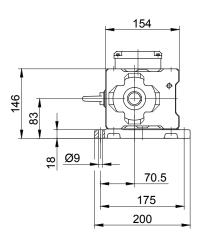




Foot plate left

Code -91L/





The actual gearbox design can vary from the geometry shown.

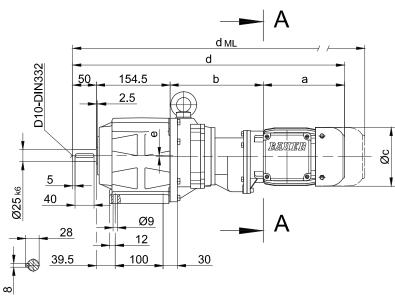
10

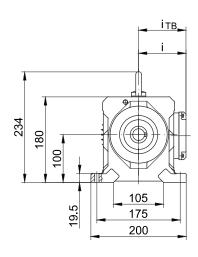
Dimension

BG20G06

Foot mounting with clearance holes

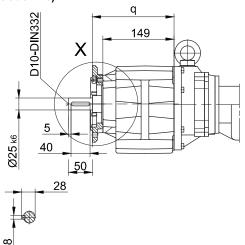
Code -11/

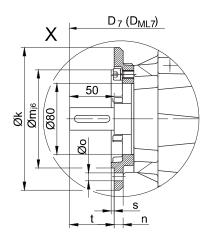


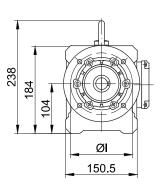


Flange with clearance holes

Code -37/ (Code -47/)







Flange dimensions

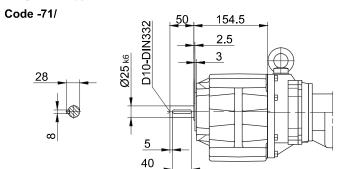
BG20(Z)G	k	I	m	n	0	q	s	t	D ₇	D _{ML7}
Standard -37/	160	130	110	10	9	171	3.5	50	d+16.5	d _{ML} +16.5
big -47/	200	165	130	12	11	178	3.5	43	d+16.5	d _{ML} +16.5

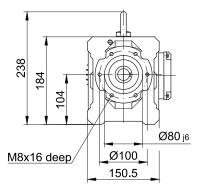
AC AC	
	Standard
C _A C ^A	A-A

								Desig	n with moto	extensions	
Type	•	h		٦				E/ES	G	E/ESG	RR/RL
Туре	а	b	С	d	е	'	ΙТВ	d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG20G06/D04	143	193	111	540.5	2	90	112	584	603	646	-
BG20G06/D05	170	195	123	569.5	2	100	117	611.5	672.5	714	-
BG20G06/D06	170	195	123	569.5	2	100	119	611.5	672.5	714	-
BG20G06/D07	190	195	123	589.5	2	100	119	631.5	692.5	734	-
BG20G06/D08	200	239	156	643.5	2	115	136.5	709.5	750.5	817	709.5

BG20G06

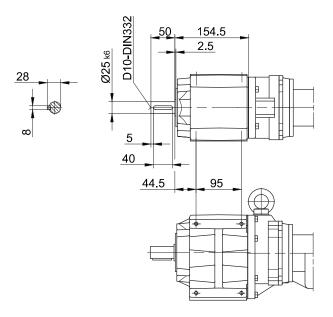
Fange with tapped holes

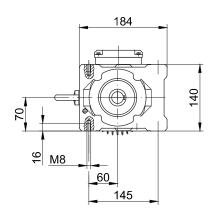




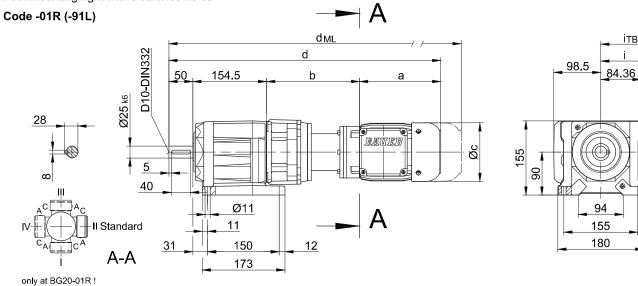
Foot with tapped holes left and right

Code -61LR/





Foot mounting right with clearance holes



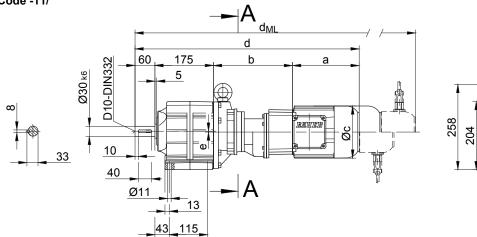
The actual gearbox design can vary from the geometry shown.

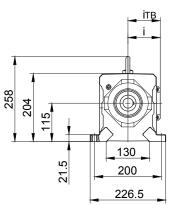
8

BG30G06

Foot mounting with clearance holes

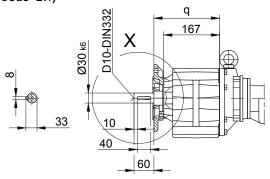
Code -11/

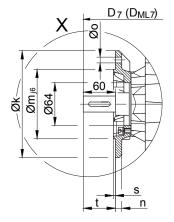


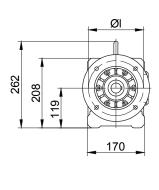


Flange with clearance holes

Code -37/ (Code -27/)

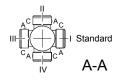






Flange dimensions

BG30G	k	I	m	n	0	q	s	t	D ₇	D _{ML7}
Standard -37/	200	165	130	12	11	196	3.5	60	d+21	d _{ML} +21
small -27/	160	130	110	10	9	189	3.5	67	d+21	d _{ML} +21



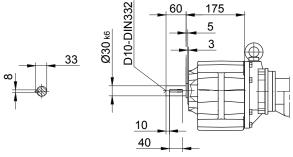
								Desig	ın with motor	extensions	
Typo		b		٦	0		i	E/ES	G	E/ESG	RR/RL
Туре	а	D	С	d	е	ı	ITB	d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG30G06/D04	143	191	111	569	3	90	112	612.5	631.5	674.5	=
BG30G06/D05	170	193	123	598	3	100	117	640	701	742.5	=
BG30G06/D06	170	193	123	598	3	100	119	640	701	742.5	-
BG30G06/D07	190	193	123	618	3	100	119	660	721	762.5	-
BG30G06/D08	200	237	156	672	3	115	136.5	738	779	845.5	738

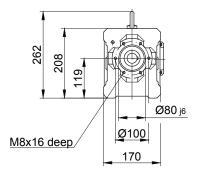
Dimension

BG30G06

Flange with tapped holes

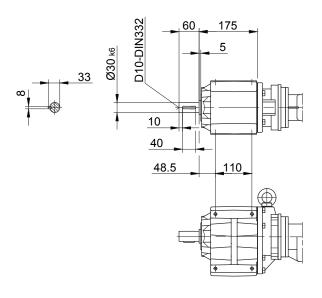
Code -71/

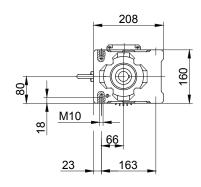




Foot with tapped holes left and right

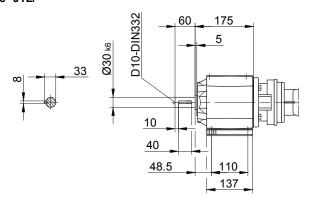
Code -61LR/

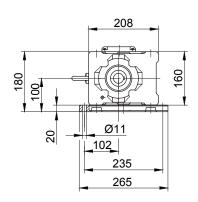




Foot plate left

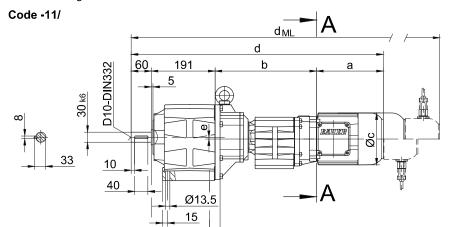
Code -91L/



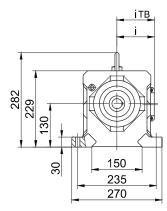


BG40G10

Foot mounting with clearance holes

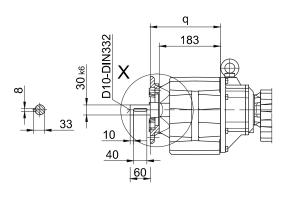


32

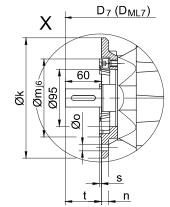


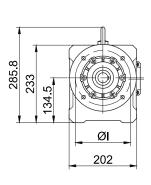
Flange with clearance holes

Code -37/ (Code -47/)



49 _ 125





Flange dimensions

BG40G	k	I	m	n	0	q	S	t	D ₇	D _{ML7}
Standard -37/	200	165	130	12	11	210	3.5	60	d+19	d _{ML} +19
big -47/	250	215	180	16	13.5	219	4	51	d+19	d _{ML} +19

AC AC	
	Standard
C _A C ^A	A-A

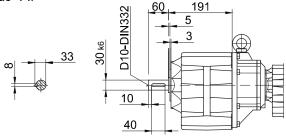
							Design with motor extensions						
Type		b	С	d	е		i	E/ES	G	E/ESG	RR/RL		
Туре	а	D	C	u	E	'	ТВ	d_ML	d _{ML}	d _{ML}	d _{ML}		
BG40G10/D05	170	300	123	721	5	100	117	763	824	865.5	•		
BG40G10/D06	170	300	123	721	5	100	119	763	824	865.5	-		
BG40G10/D07	190	300	123	741	5	100	119	783	844	887	-		
BG40G10/D08	200	304	156	755	5	115	136.5	821	862	928.5	821		
BG40G10/D09	251	318.5	181	820.5	5	124	158	913.5	927.5	1018	913.5		

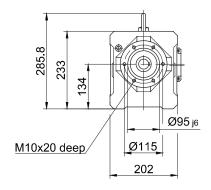
Dimension

BG40G10

Flange with tapped holes

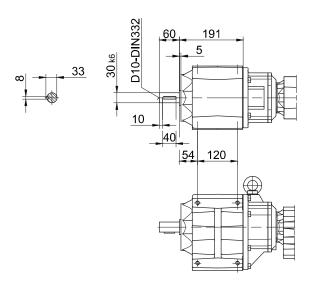
Code -71/

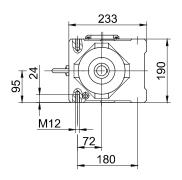




Foot with tapped holes left and right

Code -61LR/

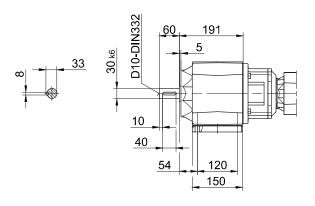


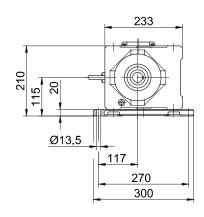


Foot plate left

P-7112-BGM-EN-A4

Code -91L/

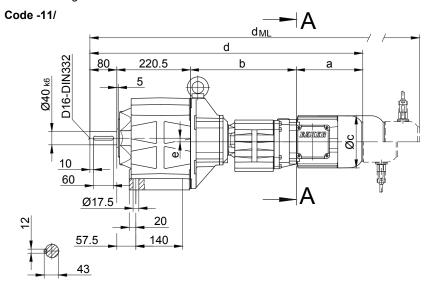


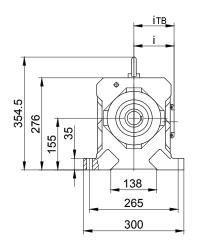


Dimension

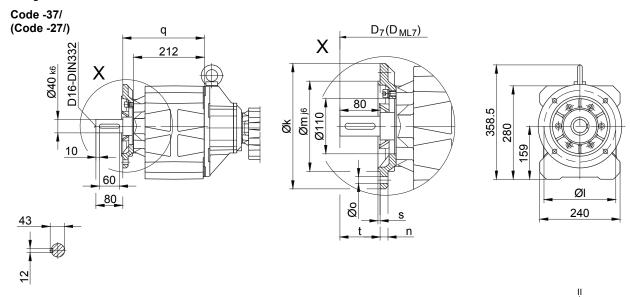
BG50G10

Foot mounting with clearance holes





Flange with clearance holes



Flange dimensions

BG50G	k	I	m	n	0	q	S	t	D 7	D _{ML7}
Standard -37/	250	215	180	16	13.5	244	4	80	d+23.5	d _{ML} +23.5
small -27/	200	165	130	12	11	241	3.5	83	d+23.5	d _{ML} +23.5

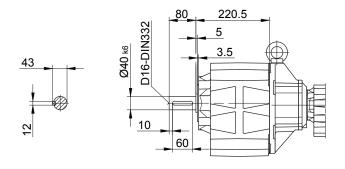
AC AC	
	Standard
C _A IV	A-A

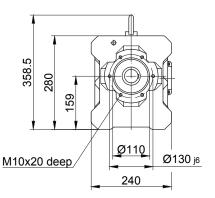
								Desig	ın with motor	extensions		
Type	a	b	С	d	е		i	E/ES	G	E/ESG	RR/RL	
Туре	a	Ь		u		ı	ITB	d_ML	d _{ML}	d _{ML}	d _{ML}	
BG50G10/D05	170	313	123	783.5	11	100	117	825.5	886.5	928	-	
BG50G10/D06	170	313	123	783.5	11	100	119	825.5	886.5	928	-	
BG50G10/D07	190	313	123	803.5	11	100	119	845.5	906.5	948	-	
BG50G10/D08	200	317	156	817.5	11	115	136.5	883.5	924.5	991	883.5	
BG50G10/D09	251	331.5	181	883	11	124	158 976 990 1080.5 976					

BG50G10

Flange with tapped holes

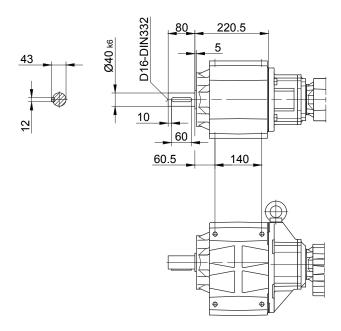
Code -71/

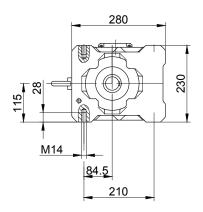




Foot with tapped holes left and right

Code -61LR/

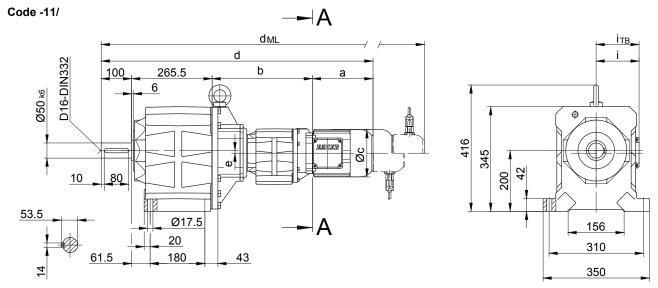




Dimension

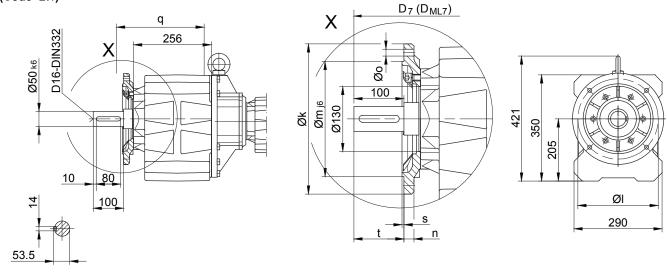
BG60G20

Foot mounting with clearance holes



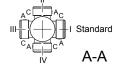
Flange with clearance holes

Code -37/ (Code -27/)



Flange dimensions

BG60G	k	I	m	n	0	q	s	t	D ₇	D _{ML7}
Standard -37/	300	265	230	20	13.5	289	4	100	d+23.5	d _{ML} +23.5
small -27/	250	215	180	16	13.5	286	4	103	d+23.5	d _{ML} +23.5

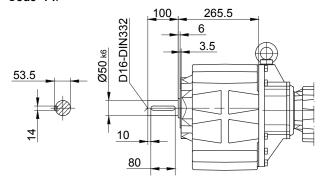


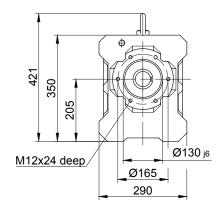
								Desig	ın with motor	extensions		
Type	a	b	С	d	_		. E/ES G E/ESG RR/F					
Туре	a	D	U	u	е	I	ΙТВ	d_ML	d _{ML}	d _{ML}	d_ML	
BG60G20/D05	170	326	123	861.5	8.5	100	117	903.5	964.5	1006	-	
BG60G20/D06	170	326	123	861.5	8.5	100	119	903.5	964.5	1006	-	
BG60G20/D07	190	326	123	881.5	8.5	100	119	923.5	984.5	1026	-	
BG60G20/D08	200	330	156	895.5	8.5	115	136.5 961.5 1002.5 1069 961.5					
BG60G20/D09	251	344.5	181	961	8.5	124	158	1054	1068	1158.5	1054	

BG60G20

Flange with tapped holes

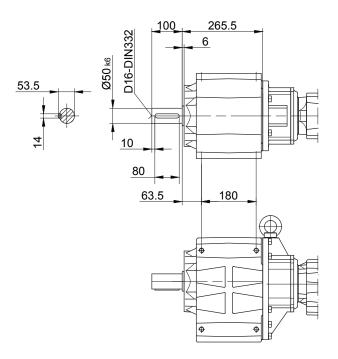
Code -71/

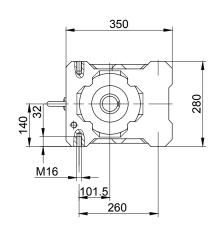




Foot with tapped holes left and right

Code -61LR/



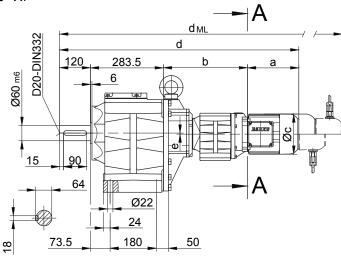


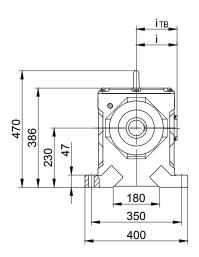
Dimension

BG70G20

Foot mounting with clearance holes

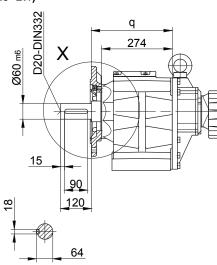
Code -11/

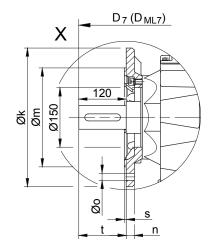


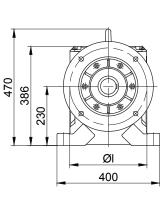


Flange with clearance holes

Code -37/ (Code -27/)

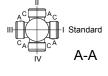






Flange dimensions

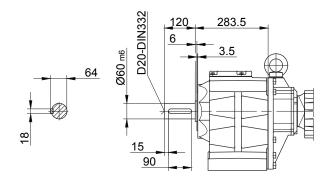
BG70G	k	I	m	n	0	q	s	t	D ₇	D _{ML7}
Standard -37/	350	300	250 _{h6}	20	17.5	314	5	120	d+30.5	d _{ML} +30.5
small -27/	300	265	230 j6	20	13.5	322	4	112	d+30.5	d _{ML} +30.5

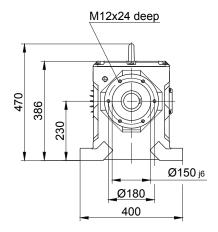


							Design with motor extensions						
Type		b		d			i	E/ES	G	E/ESG	RR/RL		
Туре	а	D	С	u	е	ı	ITB	d_ML	d _{ML}	d _{ML}	d _{ML}		
BG70G20/D05	170	324	123	897.5	1	100	117	939.5	1000.5	1042	-		
BG70G20/D06	170	324	123	897.5	1	100	119	939.5	1000.5	1042	-		
BG70G20/D07	190	324	123	917.5	1	100	119	959.5	1020.5	1062	-		
BG70G20/D08	200	328	156	931.5	1	115	136.5	997.5	1038.5	1105	997.5		
BG70G20/D09	251	342.5	181	997	1	124	158	1090	1104	1194.5	1090		

Flange with tapped holes

Code -71/

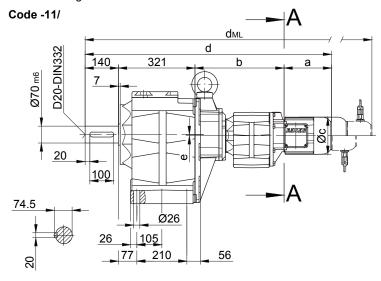


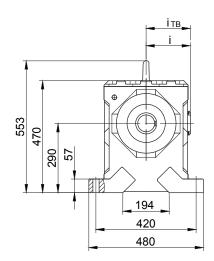


Dimension

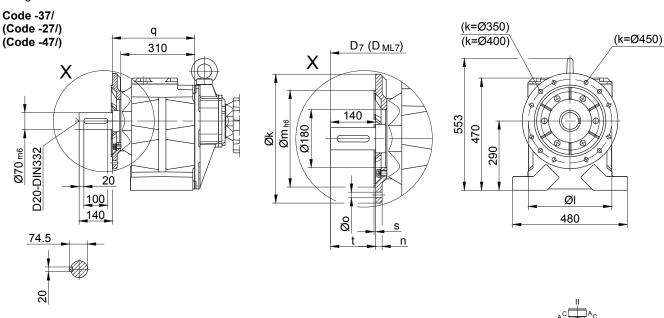
BG80G40

Foot mounting with clearance holes





Flange with clearance holes



Flange dimensions

BG80G	k	I	m	n	0	q	S	t	D ₇	D _{ML7}
Standard -37/	400	350	300	20	4 x Ø17.5	345	5	140	d+24	d _{ML} +24
small -27/	350	300	250	20	4 x Ø17.5	345	5	140	d+24	d _{ML} +24
big -47/	450	400	350	22	8 x Ø17.5	355	5	130	d+24	d _{ML} +24

							Design with motor extensions							
Type		h		٦	•			ES	G	ES/ZSG	RR/RL			
Туре	а	b	С	d	е	ı	ΙТВ	d_ML	d _{ML}	d _{ML}	d _{ML}			
BG80G40/D08	200	373	156	1034	-	115	136.5	1100	1141	1207.5	1100			
BG80G40/D09	251	387.5	181	1099.5	-	124	158	1192.5	1206.5	1297	1192.5			
BG80G40/D11	319	394	228	1174	-	181	181	1272	1281	1376.5	1272			

The actual gearbox design can vary from the geometry shown.

Standard

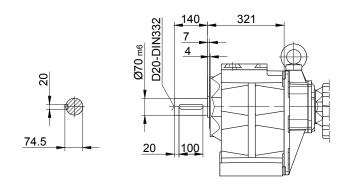
A-A

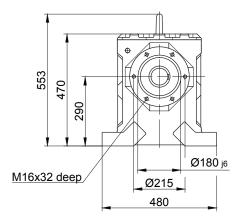
Jiiiieiisioii

BG80G40

Flange with tapped holes

Code -71/

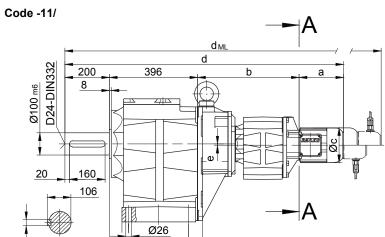




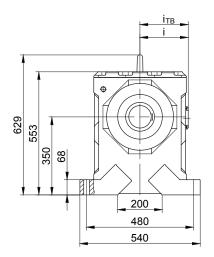
Dimension

BG90G50

Foot mounting with clearance holes



62



Flange with clearance holes

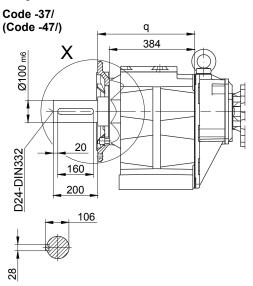
30

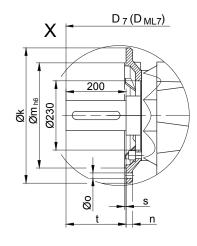
86

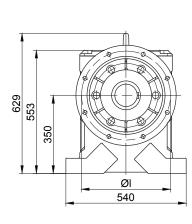
135

270

28

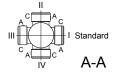






Flange dimensions

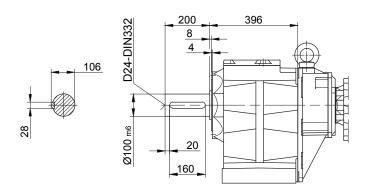
BG90G	k	I	m	n	0	q	S	t	D ₇	D _{ML7}
Standard -37/	450	400	350	22	17.5	439	5	200	d+43	d _{ML} +43
big -47/	550	500	450	22	17.5	444	5	195	d+43	d _{ML} +43

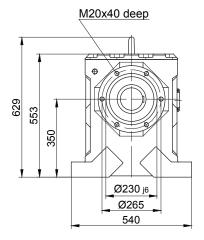


							Design with motor extensions						
Typo		b	С	d	0			ES/ZS	G	ES/ZSG	RR/RL		
Туре	а	В	C	u	е	'	ΙΤВ	d_ML	d _{ML}	d _{ML}	d_ML		
BG90G50/D08	200	456	156	1252	6	115	136.5	1318	1359	1425.5	1318		
BG90G50/D09	251	470.5	181	1317.5	6	124	158	1410.5	1424.5	1514	1410.5		
BG90G50/D11	319	477	228	1392	6	181	181	1490	1499	1594.5	1490		
BG90G50/D13	393	490	258	1479	6	218	218	1590	1586	1694.5	1590		
BG90G50/D16	429	504	322	1529	6	244	244	1673	1637	1777	1673		
BG90G50/D18	528	535	368	1659	6	244	244	1808	1767	1912	1808		

BG90G50

Flange with tapped holes **Code -71**/

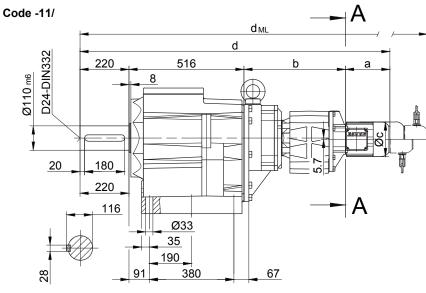


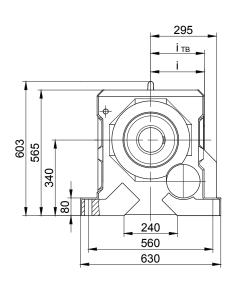


Dimension

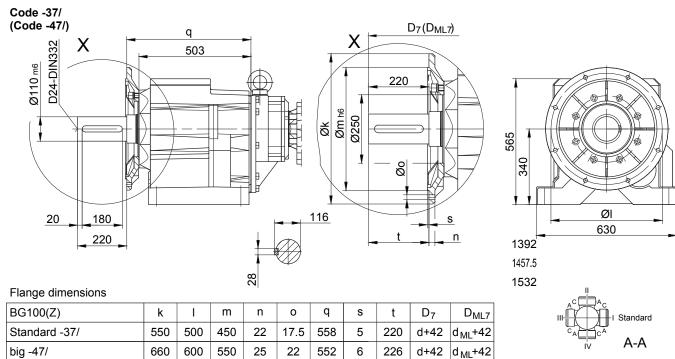
BG100G50

Foot mounting with clearance holes





Flange with clearance holes



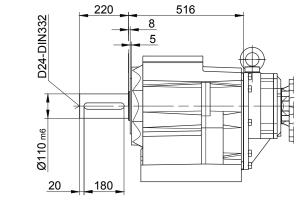
						Design with motor extensions				
Туре	а	b	С	d	i	iтв	ES/ZS	G	ES/ZSG	RR/RL
							d_ML	d _{ML}	d _{ML}	d _{ML}
BG100G50/D08	200	456	156	1392	115	136.5	1458	1499	1565.5	1458
BG100G50/D09	251	470.5	181	1457.5	124	158	1550.5	1564.5	1655	1550.5
BG100G50/D11	319	477	228	1532	181	181	1630	1639	1734.5	1630
BG100G50/D13	393	490	258	1619	218	218	1730	1726	1834.5	1730
BG100G50/D16	429	504	322	1669	244	244	1813	1777	1917	1813
BG100G50/D18	528	535	368	1799	288	288	1948	1907	2052	1948

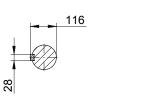
Dimension

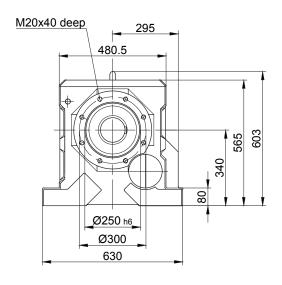
BG100G50

Flange with tapped holes

Code 71/







Catalogue geared motors

390 www.bauergears.com P-7112-BGM-EN-A4

Catalogue geared motors

Edition 03/2012



Dimensional drawings shaft-mounted-geared motors

391-442

- Standard
- Tandem Gearbox

Additional Dimension Sheet

- Splined shaft acc. DIN 5480
- Shrink disk (SSV)
- Shrink disk connection with cover (SSV)
- Hole pattern side (H)
- Rubber buffer for torque restraint
- Assembly tools for hollow shaft
- Assembly tools for splined shaft
- Shaft cap (VK))
- Shaft cover (VD)

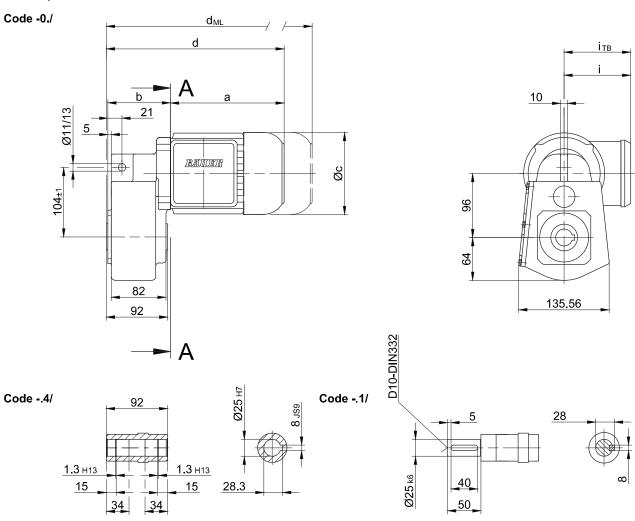
P-7112-BGM-EN-A4 www.bauergears.com 391

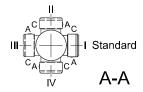
BF-series shaft-mounted geared motors

Dimension

BF06

With torque arm





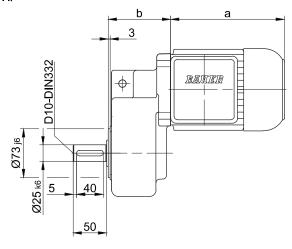
						Design with motor extensions				
Туре	а	b	С	d	i	i _{TB}	E/ES	G	E./ESG	RR/RL
							d_ML	d _{ML}	d _{ML}	d _{ML}
BF06/D05	170	93.5	123	267.5	100	117	309.5	370.5	412.5	-
BF06/D06	170	93.5	123	267.5	100	119	309.5	370.5	412.5	-
BF06/D07	190	94.5	123	287.5	100	119	329.5	390.5	432.5	-
BF06/D08	200	141	156	344	115	136.5	410	451	517.5	410

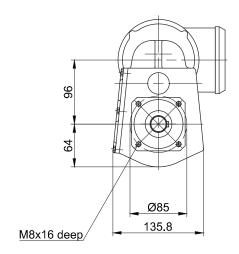
Dillielisioli

BF06

Flange with tapped holes

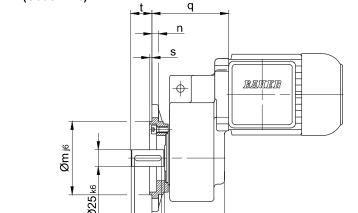
Code -7./





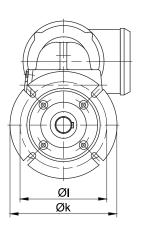
Flange with clearance holes

Code -3.V/ (Code -4.V/)



р

50



Flange dimensions

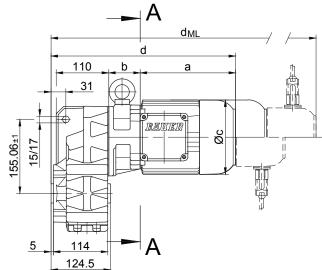
BF06	k	I	m	n	0	р	q ₁₎	q ₂₎	s	t
Standard -3./	140	115	95	10	9	108.5	115	163	3	31.5
big -4./	160	130	110	10	9	108.5	115	163	3.5	31.5

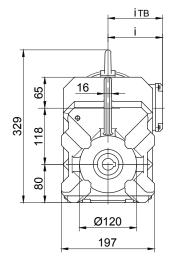
- 1) only for motor sizes D05; D06; D07
- 2) only at motor size D08..

Dimension

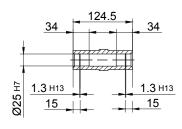
BF10 - BF10Z

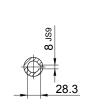
With torque arm Code -0./

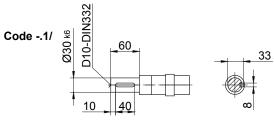




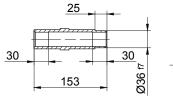
Code -.4/



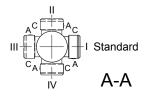




Code -.5/





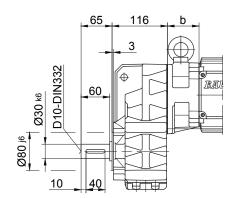


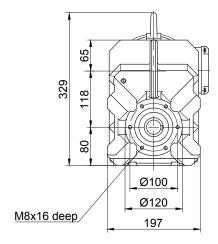
						Design with motor extensions						
Type		b		d			E/ES	G	E/ESG	RR/RL		
Туре	а	Ь	С	u	I	ТВ	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BF10Z/D04	143	86	111	350	90	112	393.5	412.5	455.5	-		
BF10/D05	170	62	123	353	100	117	395	456	497.5	-		
BF10Z/D05	170	88	123	379	100	117	421	482	523.5	-		
BF10/D06	170	62	123	353	100	119	395	456	497.5	-		
BF10Z/D06	170	88	123	379	100	119	421	482	523.5	-		
BF10/D07	190	62	123	373	100	119	415	476	517.5	-		
BF10Z/D07	190	88	123	399	100	119	441	502	543.5	-		
BF10/D08	200	66	156	387	115	136.5	453	494	560.5	453		
BF10Z/D08	200	132	156	453	115	136.5	519	560	526.5	519		
BF10/D09	251	80.5	181	452.5	124	158	545.5	559.5	650	545.5		

BF10 - BF10Z

_

Flange with tapped holes **Code -7.**/

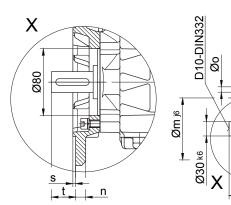


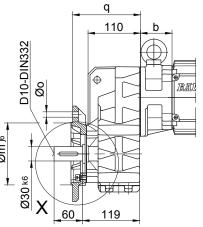


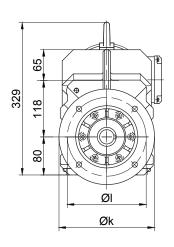
Flange with clearance holes

Code -3./

(Code -2./)





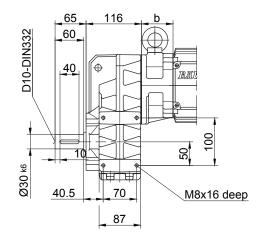


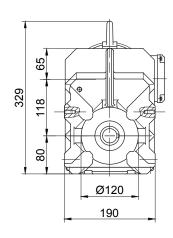
Flange dimensions

BF10(Z)	k	I	m	n	0	q	s	t
Standard -3./	200	165	130	12	11	142	3.5	39
small -2./	160	130	110	10	9	135	3.5	46

Foot with tapped holes left and right

Code -6.LR/

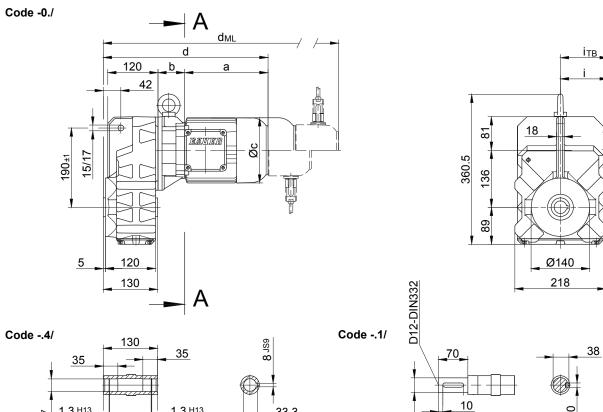




Dimension

BF20 - BF20Z

With torque arm



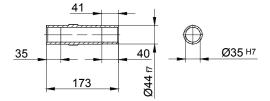
33.3

Code -.5/

Ø30 H7

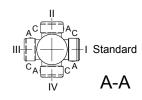
1.3 H13

15



1.3 H₁₃

15



50

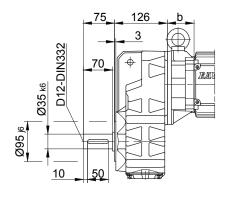
38

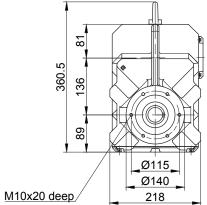
						Design with motor extensions						
Tuno		b	С	d			E/ES	G	E/ESG	RR/RL		
Туре	а	D		u	I	ITB	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BF20Z/D04	143	100	111	374	90	112	417.5	436.5	479.5	-		
BF20/D05	170	60	123	361	100	117	403	464	505.5	-		
BF20Z/D05	170	102	123	403	100	117	445	506	547.5	-		
BF20/D06	170	60	123	361	100	119	403	464	505.5	-		
BF20Z/D06	170	102	123	403	100	119	445	506	547.5	-		
BF20/D07	190	60	123	381	100	119	423	484	525.5	-		
BF20Z/D07	190	102	123	423	100	119	466	526	567.5	-		
BF20/D08	200	64	156	395	115	136.5	461	502	568.5	461		
BF20Z/D08	200	146	156	477	115	136.5	543	584	650.5	543		
BF20/D09	251	78.5	181	460.5	124	158	553.5	567.5	658	553.5		

BF20 - BF20Z

Flange with tapped holes

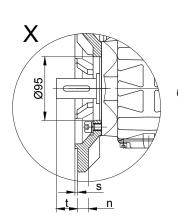
Code -7./

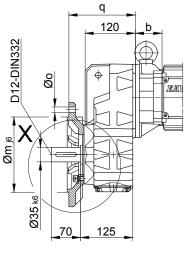


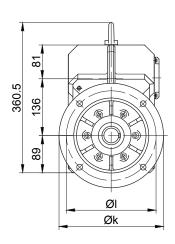


Flange with clearance holes

Code -3./ (Code -2./)





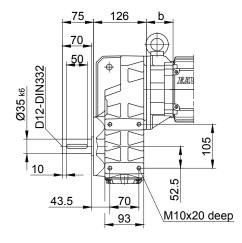


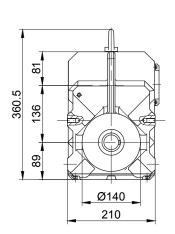
Flange dimensions

BF20(Z)	k	1	m	n	0	q	s	t
Standard -3./	250	215	180	16	13.5	159	4	42
small -2./	200	165	130	12	11	150	3.5	51

Foot with tapped holes left and right

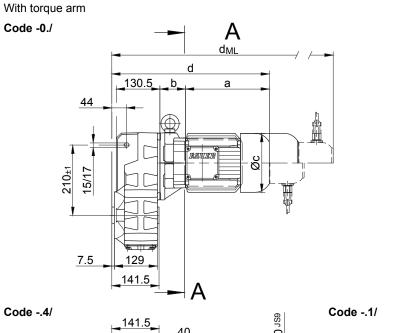
Code -6.LR/

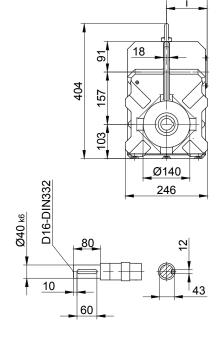


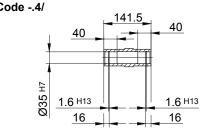


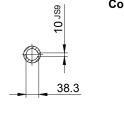
Dimension

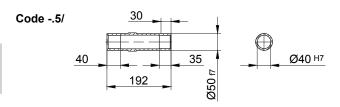
BF30 - BF30Z

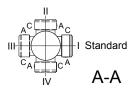










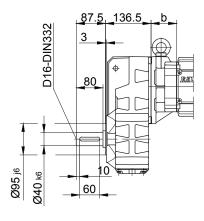


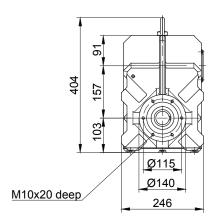
						Design with motor extensions						
Type		b		d			E/ES	G	E/ESG	RR/RL		
Туре	а	D	С	u	I	ITB	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BF30/D05	170	58	123	373	100	117	415	476	518	-		
BF30Z/D05	170	133.5	123	448	100	117	490	551	593	-		
BF30/D06	170	58	123	373	100	119	415	476	518	-		
BF30Z/D06	170	133.5	123	448	100	119	490	551	593	-		
BF30/D07	190	58	123	393	100	119	435	496	538	-		
BF30Z/D07	190	133.5	123	468	100	119	510	571	613	-		
BF30/D08	200	62	156	406	115	136.5	472	513	579.5	472		
BF30Z/D08	200	137.5	156	481	115	136.5	547	588	654.5	547		
BF30/D09	251	76.5	181	471	124	158	564	578	668	558		
BF30Z/D09	251	152	181	547	124	158	640	654	744	634		
BF30/D11	319	83	228	546	181	181	644	653	746	635		

BF30 - BF30Z

Flange with tapped holes

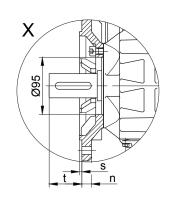
Code -7./

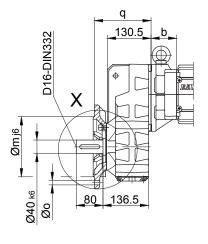


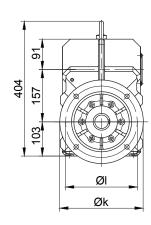


Flange with clearance holes

Code -3./ (Code -2./)





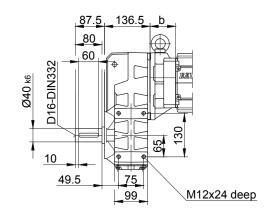


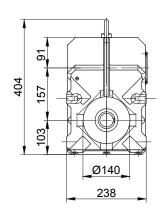
Flange dimensions

BF30(Z)	k	I	m	n	0	q	s	t
Standard -3./	250	215	180	16	13.5	169.5	4	54.5
small -2./	200	165	130	12	11	160.5	3.5	63.5

Foot with tapped holes left and right

Code -6.LR/





Dimension

BF40 - BF40Z

With torque arm

Code -0./

A

dML

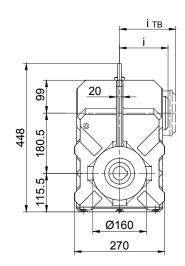
d

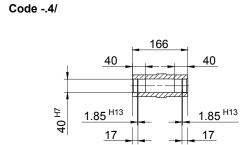
40.5

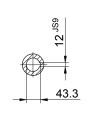
7

152.5

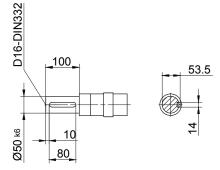
A



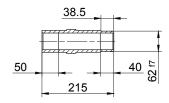


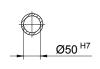


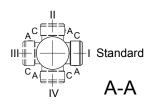
Code -.1/









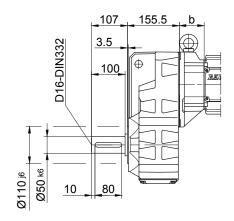


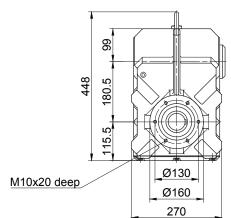
						Design with motor extensions							
Typo		b	С	d	i i _T		E/ES	G	E/ESG	RR/RL			
Туре	a	D	ט	u	ı	ΙТВ	d_ML	d _{ML}	d _{ML}	d _{ML}			
BF40Z/D05	170	138.5	123	472	100	117	514	575	617	=			
BF40Z/D06	170	138.5	123	472	100	119	514	575	617	=			
BF40Z/D07	190	138.5	123	492	100	119	534	595	637	-			
BF40/D08	200	60	156	422	115	136.5	488	529	595	488			
BF40Z/D08	200	142.5	156	506	115	136.5	572	613	679	572			
BF40/D09	251	74.5	181	489	124	158	582	596	686	576			
BF40Z/D09	251	157	181	570	124	158	663	677	767	657			
BF40/D11	319	81	228	563	181	181	661	670	763	659			

BF40 - BF40Z

Flange with tapped holes

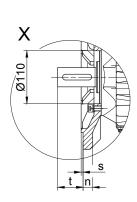
Code -7./

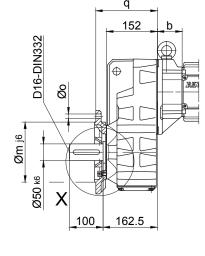


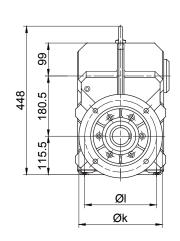


Flange with clearance holes

Code -3./ (Code -4./)





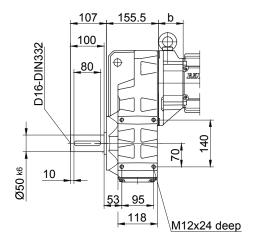


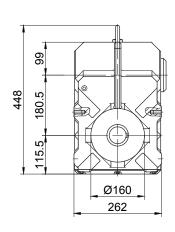
Flange dimensions

BF40(Z)	k	I	m	n	0	q	s	t
Standard -3./	250	215	180	16	13.5	184	4	78.5
big -4./	300	265	230	20	13.5	190	4	72.5

Foot with tapped holes left and right

Code -6.LR/

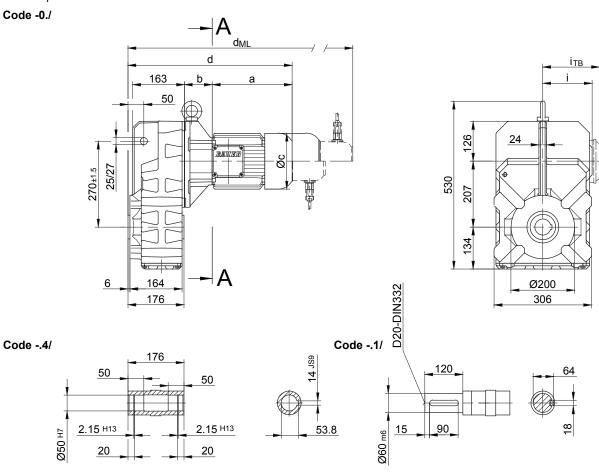




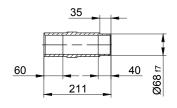
Dimension

BF50 - BF50Z

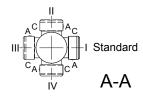
With torque arm



Code -.5/





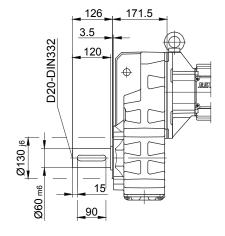


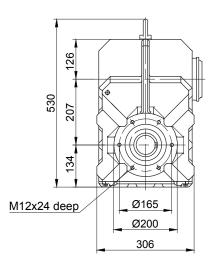
							Design with motor extensions				
Tumo		b		d			E/ES/ZS	G	E/ES/ZS-G	RR/RL	
Туре	а	D	С	u	ı	ΙТВ	d_ML	d_ML	d _{ML}	d_ML	
BF50Z/D05	170	155	123	502.5	100	117	544.5	605.5	647	-	
BF50Z/D06	170	155	123	502.5	100	119	544.5	605.5	647	-	
BF50Z/D07	190	155	123	522.5	100	119	464.5	625.5	667	-	
BF50/D08	200	73	156	450.5	115	136.5	516.5	557.5	624	516.5	
BF50Z/D08	200	159	156	536	115	136.5	602.5	643.5	710	602.5	
BF50/D09	251	87.5	181	516	124	158	609	623	713.5	609	
BF50Z/D09	251	173.5	181	602	124	158	695	709	799.5	695	
BF50/D11	319	94	228	590.5	181	181	688.5	697.5	793	688.5	
BF50/D13	393	107	258	677.5	218	218	788.5	784.5	893	788.5	
BF50/D16	429	121	322	627.5	244	244	871.5	835.5	975.5	871.5	
BF50/D18	528	143	368	848.5	288	288	997.5	956.5	1101.5	997.5	

BF50 - BF50Z

Flange with tapped holes

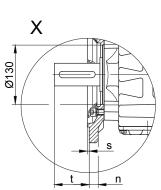
Code -7./

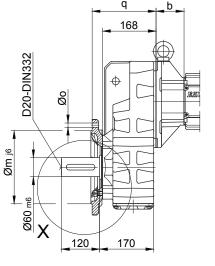


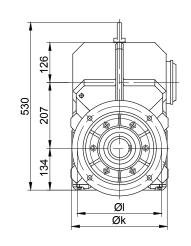


Flange with clearance holes

Code -3./ (Code -2./)





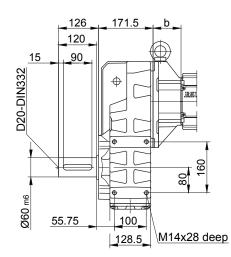


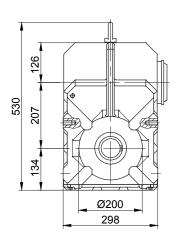
Flange dimensions

BF50(Z)	k	I	m	n	0	q	s	t
Standard -3./	300	265	230	20	13.5	201	4	96.5
small -2./	250	215	180	16	13.5	198	4	99.5

Foot with tapped holes left and right

Code -6.LR/



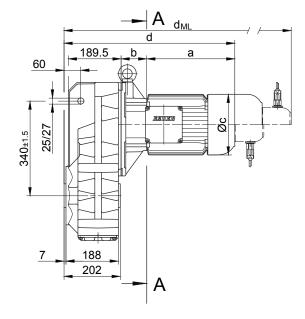


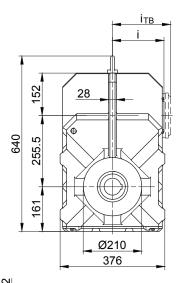
Dimension

BF60 - BF60Z

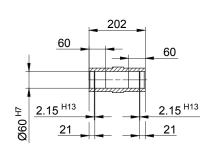
With torque arm

Code -0./

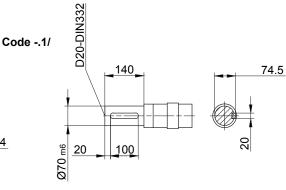




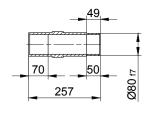
Code -.4/

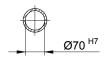


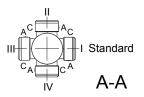
64.4



Code -.5/





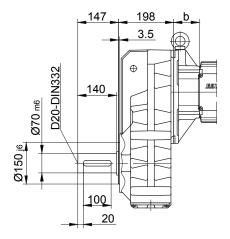


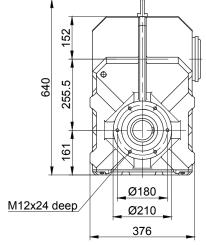
						Design with motor extensions							
Typo		b		d			ES/ZS	G	ES/ZSG	RR/RL			
Туре	а	b	С	u	'	I _{TB}	d_ML	d _{ML}	d _{ML}	d_ML			
BF60Z/D08	200	181	156	586	115	136.5	652	693	759.5	652			
BF60/D09	251	85.5	181	541.5	124	158	634.5	648.5	739	634.5			
BF60Z/D09	251	195.5	181	651.5	124	158	744.5	758.5	849	744.5			
BF60/D11	319	92	228	616	181	181	714	723	818.5	714			
BF60Z/D11	319	202	228	726	181	181	824	833	928.5	824			
BF60/D13	393	105	258	703	218	218	814	810	918.5	814			
BF60/D16	429	119	322	753	244	244	897	861	1001	897			
BF60/D18	528	141	368	874	288	288	1023	982	1127	1023			

BF60 - BF60Z

Flange with tapped holes

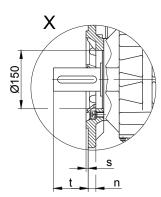
Code -7./

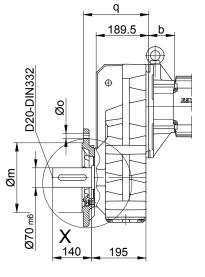


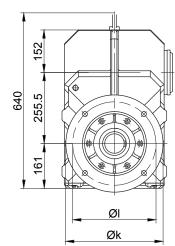


Flange with clearance holes

Code -3./ (Code -2./)





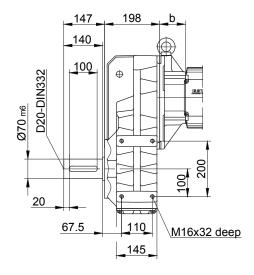


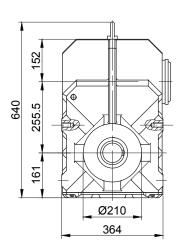
Flange dimensions

BF60(Z)	k	I	m	n	0	q	s	t
Standard -3./	350	300	250 _{h6}	20	17.5	234.5	5	110.5
small -2./	300	265	230j6	20	13.5	242.5	4	102.5

Foot with tapped holes left and right

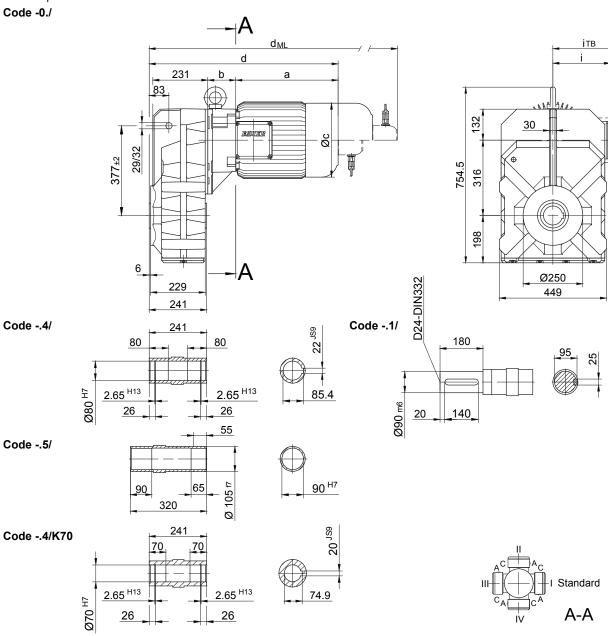
Code -6.LR/





BF70 - BF70Z





						Design with motor extensions					
Type		b	С	d			ES/ZS	G	ES/ZSG	RR/RL	
Туре	а	ט	C	u	1	Ιтв	d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BF70Z/D08	200	202	156	648	115	136.5	714	755	821.5	714	
BF70/D09	251	83.5	181	580.5	124	158	673.5	687.5	778	673.5	
BF70Z/D09	251	216.5	181	713.5	124	158	806.5	820.5	911	806.5	
BF70/D11	319	90	228	655	181	181	753	762	857.5	753	
BF70Z/D11	319	223	228	788	181	181	886	895	990.5	886	
BF70/D13	393	103	258	742	218	218	853	849	957.5	853	
BF70Z/D13	393	236	258	875	218	217	986	982	1090.5	986	
BF70/D16	429	117	322	792	244	243	936	900	1040	936	
BF70Z/D16	429	250	322	925	244	243	1069	1033	1173	1069	
BF70/D18	528	139	368	913	288	288	1062	1021	1166	1062	
BF70Z/D18	528	272	368	1046	288	288	1195	1154	1299	1195	

754.5

M16x32 deep

754.5

(k=Ø350)

(k=Ø400)

198

198

Ø215

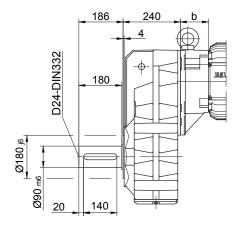
Ø250 449

Øk (k=Ø450)

BF70 - BF70Z

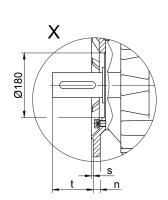
Flange with tapped holes

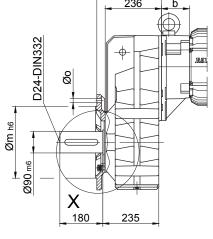
Code -7./



Flange with clearance holes

Code -3./ (Code -2./) (Code -4./)



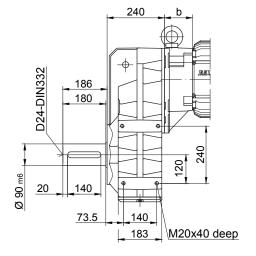


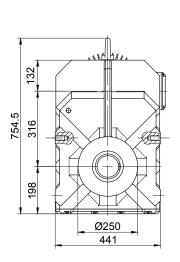
Flange dimensions

BF70(Z)	k	I	m	n	О	q	S	t
Standard -3./	400	350	300	20	4xØ17.5	271	5	155
small -2./	350	300	250	20	4xØ17.5	271	5	155
big -4./	450	400	350	22	8xØ17.5	281	5	145

Foot with tapped holes left and right

Code -6.LR/



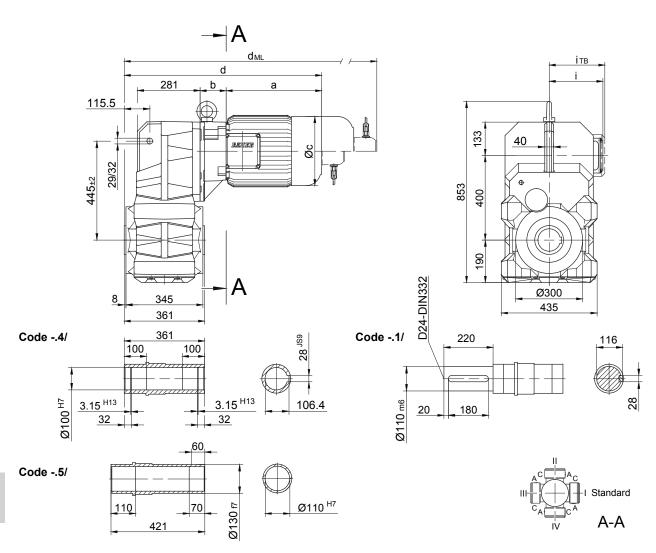


Dimension

BF80 - BF80Z

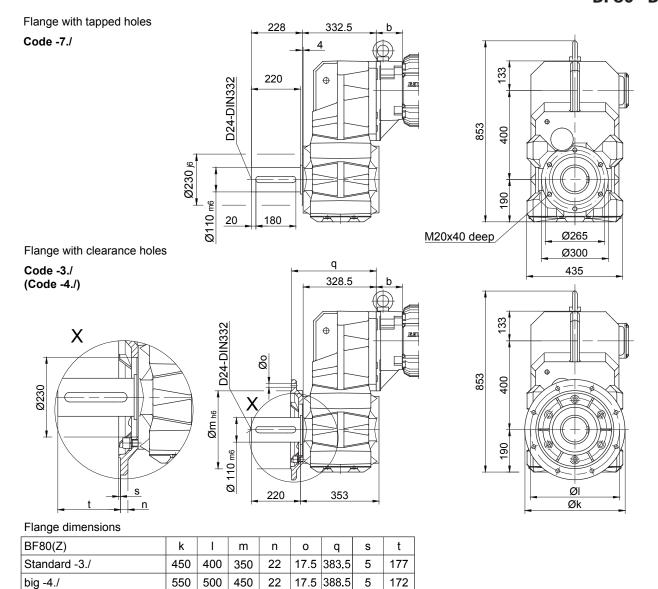
With torque arm

Code -0./



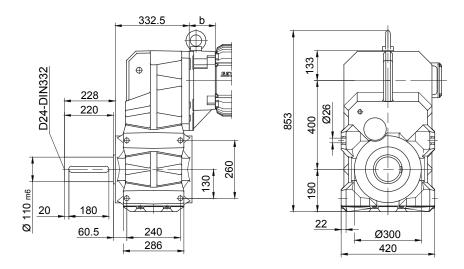
						Design with motor extensions					
Ti un a		_					ES/ZS	G	ES/ZSG	RR/RL	
Туре	а	b	С	d	Ţ	ITB	d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BF80Z/D08	200	202	156	742.5	115	136.5	808.5	849.5	916	808.5	
BF80/D09	251	83.5	181	675	124	158	768	782	872.5	768	
BF80Z/D09	251	216.5	181	808	124	158	901	915	1005.5	901	
BF80/D11	319	90	228	749.5	181	181	847.5	856.5	952	847.5	
BF80Z/D11	319	223	228	882.5	181	181	980.5	989.5	1085	980.5	
BF80/D13	393	103	258	836.5	218	218	947.5	943.5	1052	947.5	
BF80Z/D13	393	236	258	969.5	218	218	1080.5	1076.5	1185	1080.5	
BF80/D16	429	117	322	886.5	244	244	1030.5	994.5	1134.5	1030.5	
BF80Z/D16	429	250	322	1019.5	244	244	1163.5	1127.5	1267.5	1163.5	
BF80/D18	528	139	368	1007.5	288	288	1156.5	1115.5	1260.5	1156.5	
BF80Z/D18	528	272	368	1140.5	288	288	1289.5	1248.5	1393.5	1289.5	

BF80 - BF80Z



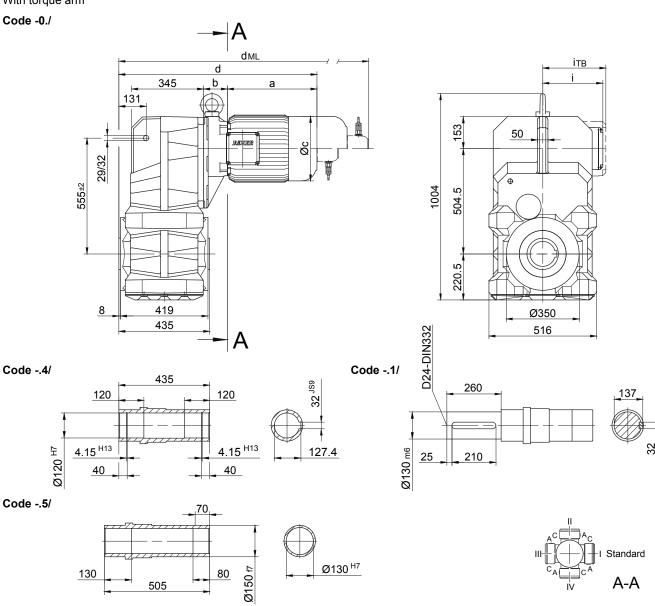
Foot with clearance holes left and right

Code -1.LR/



With torque arm

BF90 - BF90Z

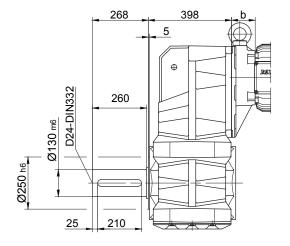


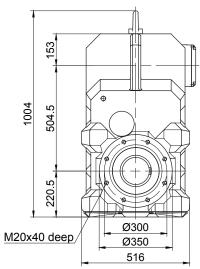
						Design with motor extensions						
Typo		b		d	i		ES/ZS	G	ES/ZSG	RR/RL		
Туре	а	D	С	u	ı	ІТВ	d _{ML}	d _{ML}	d _{ML}	d_ML		
BF90Z/D09	251	252.5	181	909	124	158	1002	1016	1106	916		
BF90/D11	319	87	228	812	181	181	910	919	1012	908		
BF90Z/D11	319	259	228	984	181	181	1082	1091	1184	1080		
BF90/D13	393	100	258	899	218	218	1010	1006	1111	1007		
BF90Z/D13	393	272	258	1071	218	218	1182	1178	1283	1179		
BF90/D16	429	114	322	949	244	244	1093	1057	1197	1093		
BF90Z/D16	429	286	322	1121	244	244	1265	1229	1369	1265		
BF90/D18	528	136	368	1060	288	288	1209	1168	1313	1209		

BF90 - BF90Z

Flange with tapped holes

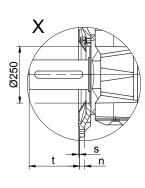
Code -7./

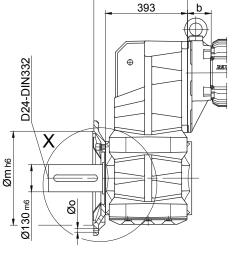




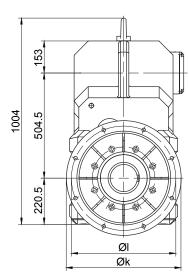
Flange with clearance holes

Code -3./ (Code -4./)





q

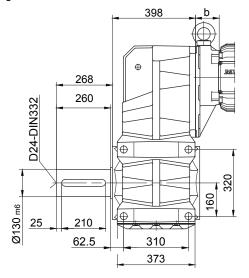


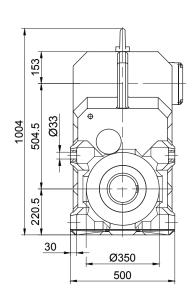
Flange dimensions

BF90(Z)	k	I	m	n	0	q	s	t
Standard -3./	550	500	450	22	17.5	448	5	218
big -4./	660	600	550	25	22	442	6	224

Foot with clearance holes left and right/

Code -1.LR/

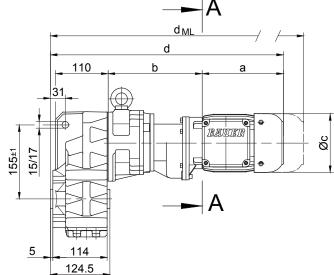


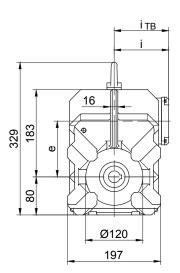


Dimension

BF10G06

With torque arm Code -0./





Code -.4/

34

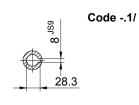
34

34

1.3 H13

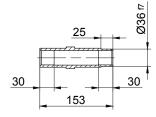
1.3 H13

15



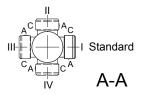
33 W 10 40 W 8

Code -.5/



15





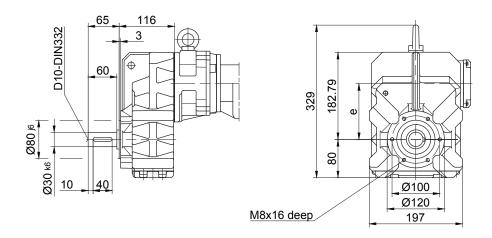
							Design with motor extensions						
Typo		h		٨			:	E/ES	G	E/ESG	RR/RL		
Туре	а	b	С	d	е	ı	ЧΤВ	d_ML	d _{ML}	d _{ML}	d_ML		
BF10G06/D04	143	195	111	459	117	90	112	502.5	521.5	564.5	502.5		
BF10G06/D05	170	197	123	489	117	100	117	531	592	634	530		
BF10G06/D06	170	197	123	489	117	100	119	531	592	634	530		
BF10G06/D07	190	197	123	509	117	100	119 551 612 654 55						
BF10G06/D08	200	241	156	562	117	115	5 136.5 628 669 735.5 628						

Dillielisioli

BF10G06

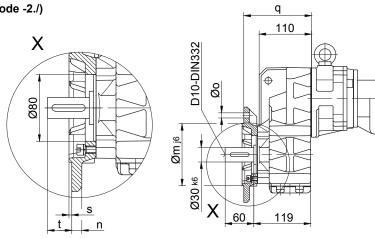
Flange with tapped holes

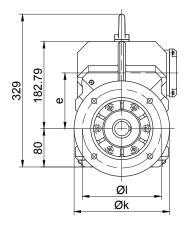
Code -7./



Flange with clearance holes

Code -3./ (Code -2./)



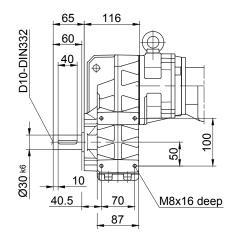


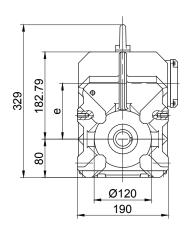
Flange dimensions

BF10G	k	I	m	n	0	q	S	t
Standard -3./	200	165	130	12	11	142	3.5	39
small -2./	160	130	110	10	9	135	3.5	46

Foot with tapped holes left and right

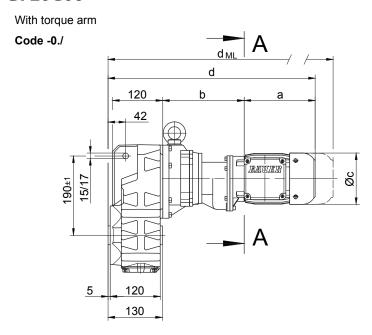
Code -6.LR/

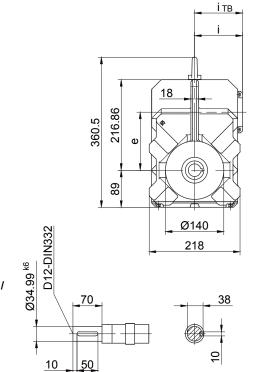


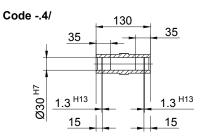


Dimension

BF20G06

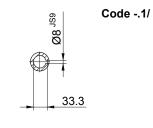


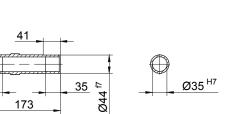


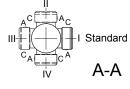


Code -.5/

35





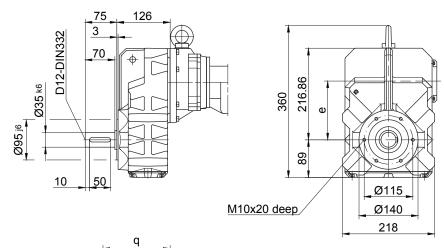


							Design with motor extensions						
Tuno		h		٨				E/ES	G	E/ESG	RR/RL		
Туре	а	b	С	d	е	ı	ITB	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BF20G06/D04	143	193	111	467	135	90	112	510.5	529.5	572.5	-		
BF20G06/D05	170	195	123	497	135	100	117	539	600	642	-		
BF20G06/D06	170	195	123	497	135	100	119	539	600	642	-		
BF20G06/D07	190	195	123	517	135	100	119	559	620	662	-		
BF20G06/D08	200	239	156	570	135	115	136.5	636	677	743.5	636		

BF20G06

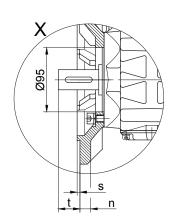
Flange with tapped holes

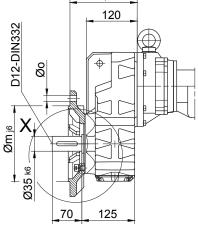
Code -7./

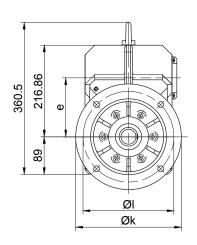


Flange with clearance holes

Code -3./ (Code -2./)





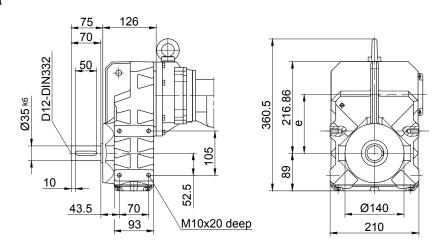


Flange dimensions

BF20G	k	I	m	n	0	q	S	t
Standard -3./	250	215	180	16	13.5	159	4	42
small -2./	200	165	130	12	11	150	3.5	51

Foot with tapped holes left and right

Code -6.LR/

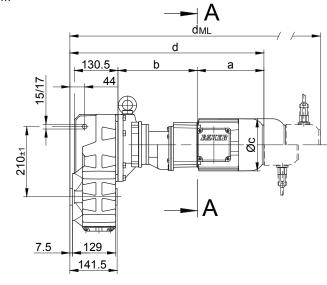


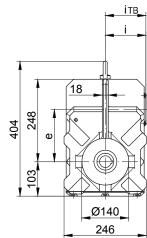
Dimension

BF30G06

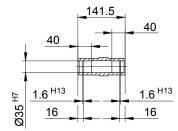
With torque arm

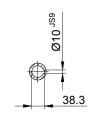


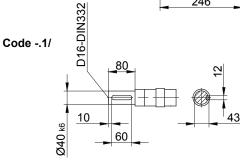




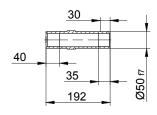
Code -.4/

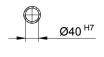


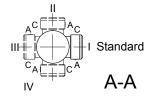




Code -.5/





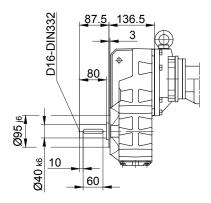


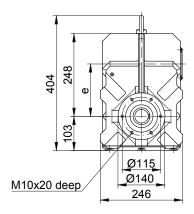
							Design with motor extensions						
Typo		b		d			:	E/ES	G	E/ESG	RR/RL		
Туре	а	D	С	u	е	ı	ITB	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BF30G06/D04	143	191	111	478	156	90	112	521.5	540.5	583.5	-		
BF30G06/D05	170	193	123	508	156	100	117	550	611	653	-		
BF30G06/D06	170	193	123	508	156	100	119	550	611	653	-		
BF30G06/D07	190	193	123	528	156	100	119 570 631 673				-		
BF30G06/D08	200	237	156	581	156	115	5 136.5 647 688 754.5 647						

BF30G06

Flange with tapped holes

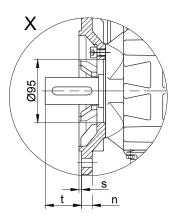
Code -7./

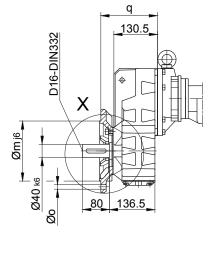


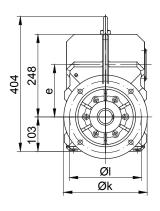


Flange with clearance holes

Code -3./ (Code -2./)





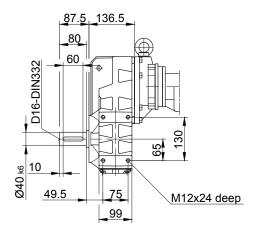


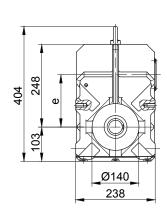
Flange dimensions

BF30G	k	I	m	n	0	q	s	t
Standard -3./	250	215	180	16	13.5	169.5	4	54.5
small -2./	200	165	130	12	11	160.5	3.5	63.5

Foot with tapped holes left and right

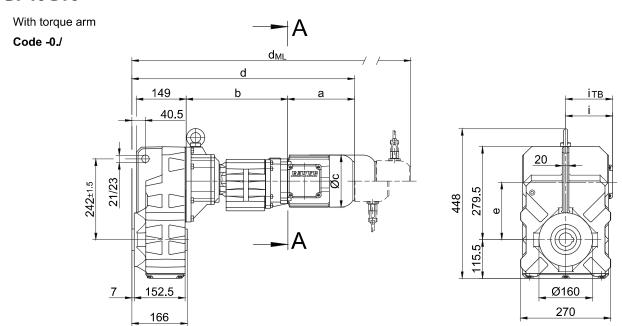
Code -6.LR/

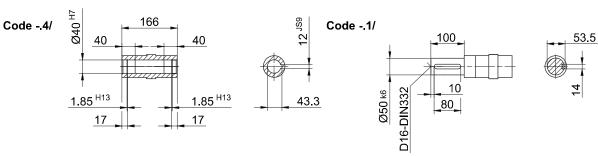


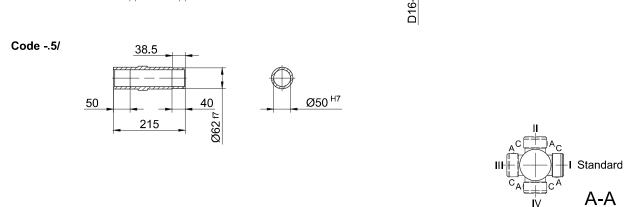


Dimension

BF40G10





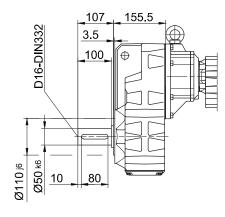


							Design with motor extensions						
Typo		b		٨			E/E		G	E/ESG	RR/RL		
Туре	а	В	С	d	е		ΙТΒ	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BF40G10/D05	170	300	123	633	176	100	117	675	736	778	-		
BF40G10/D06	170	300	123	633	176	100	119	675	736	778	-		
BF40G10/D07	190	300	123	653	176	100	119	695	756	798	-		
BF40G10/D08	200	304	156	666	176	115	136.5	732	773	839.5	732		
BF40G10/D09	251	318.5	181	732	176	124	158	825	839	929	819		

BF40G10

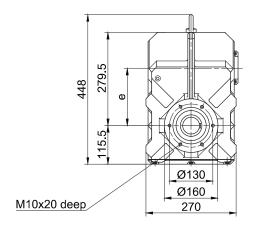
Flange with tapped holes

Code -7./



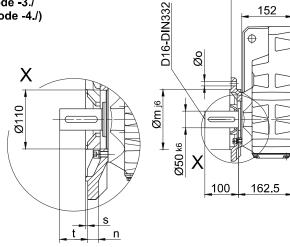
q

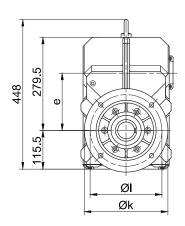
152



Flange with clearance holes

Code -3 / (Code -4./)



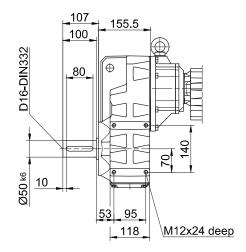


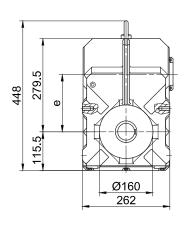
Flange dimensions

BF40G	k	I	m	n	0	q	s	t
Standard -3./	250	215	180	16	13.5	184	4	78.5
big- 4./	300	265	230	20	13.5	190	4	72.5

Foot with tapped holes left and right

Code -6.LR/

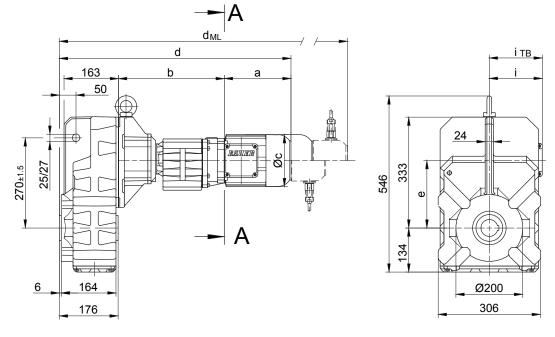




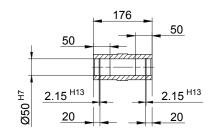
Dimension

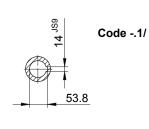
BF50G10

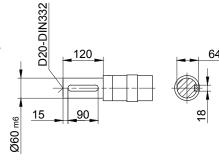
With torque arm Code -0./



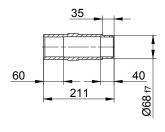


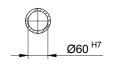


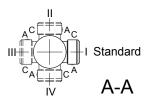




Code -.5/





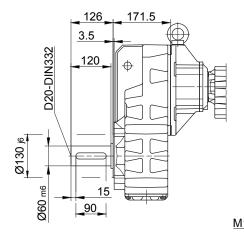


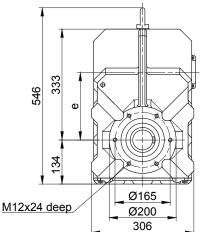
				1								
							Design with motor extensions					
Tuno		h		٨				E/ES	G	E/ESG	RR/RL	
Туре	а	b	С	d	е	ı	I I _{TB}	d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BF50G10/D05	170	313	123	661	202	100	117	703	764	806	-	
BF50G10/D06	170	313	123	661	202	100	119	703	764	806	-	
BF50G10/D07	190	313	123	681	202	100	119	723	784	826	-	
BF50G10/D08	200	317	156	694	202	115	136.5	760	801	867.5	760	
BF50G10/D09	251	332	181	760	202	124	158	853	867	957	847	

BF50G10

Flange with tapped holes

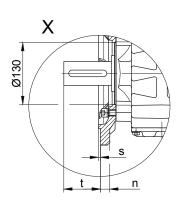
Code -7./

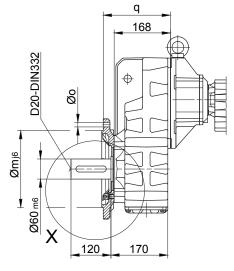


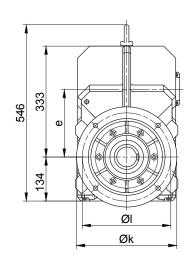


Flange with clearance holes

Code -3./ (Code -2./)





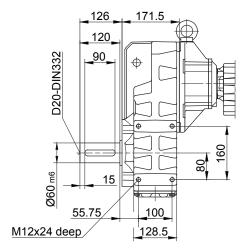


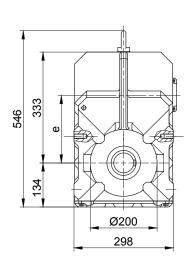
Flange dimensions

BF50G	k	I	m	n	0	q	S	t
Standard -3./	300	265	230	20	13.5	201	4	96.5
small -2./	250	215	180	16	13.5	198	4	99.5

Foot with tapped holes left and right

Code -6.LR/

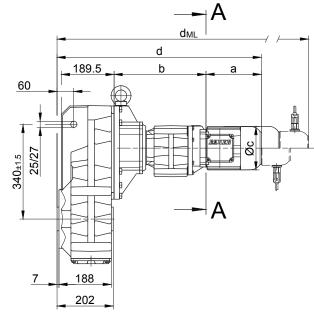


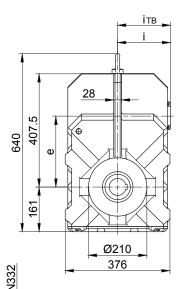


Dimension

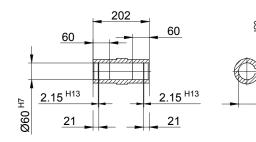
BF60G20

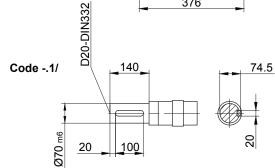
With torque arm Code -0./



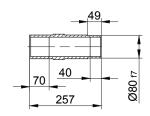


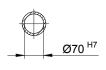
Code -.4/



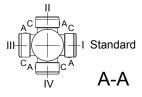


Code -.5/





64.4

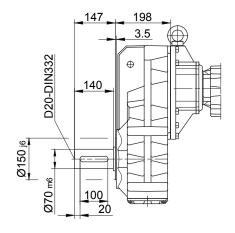


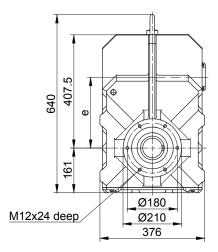
							Design with motor extensions					
Tuno		b		٦			E/ES		G	E/ESG	RR/RL	
Туре	а	D	С	d	е	'	ЧΤВ	d_ML	d _{ML}	d _{ML}	d_ML	
BF60G20/D05	170	326	123	702	254	100	117	744	805	847	-	
BF60G20/D06	170	326	123	702	254	100	119	742	805	847	-	
BF60G20/D07	190	326	123	722	254	100	119	764	825	867	-	
BF60G20/D08	200	330	156	735	254	115	136.5	801	842	908.5	801	
BF60G20/D09	251	344.5	181	800	254	124	158	893	907	973	866	

BF60G20

Flange with tapped holes

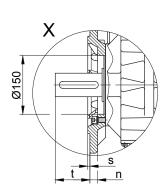
Code -7./

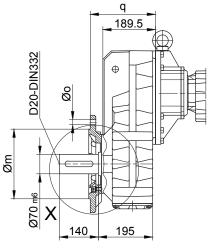


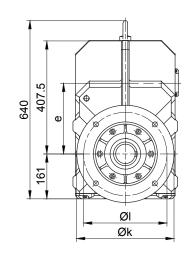


Flange with clearance holes

Code -3./ (Code -2./)





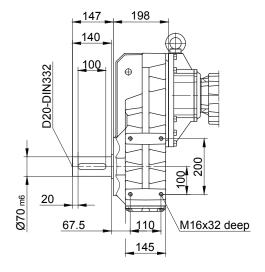


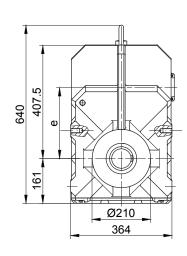
Flange dimensions

BF60G	k	ı	m	n	0	q	S	t
Standard -3./	350	300	250h6	20	17.5	234.5	5	110.5
small -2./	300	265	230j6	20	13.5	242.5	4	102.5

Foot with tapped holes left and right

Code -6.LR/



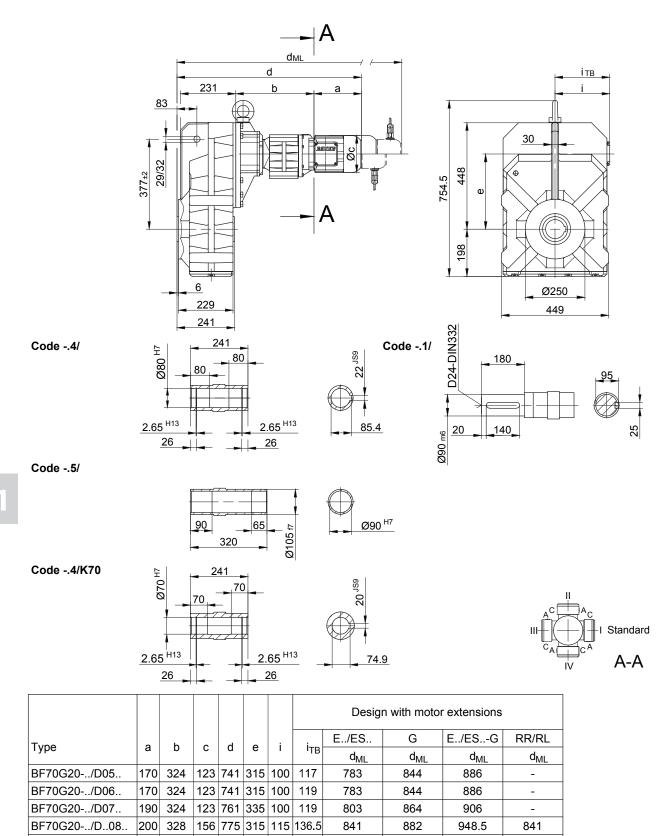


Dimension

BF70G20

With torque arm

Code -0./



932

946

1036

926

The actual gearbox design can vary from the geometry shown.

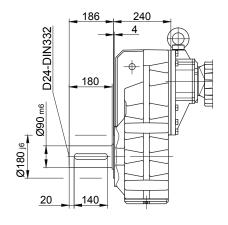
251 342.5 181 839 315 124

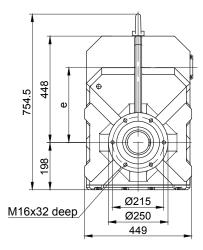
BF70G20-../D..09..

BF70G20

Flange with tapped holes

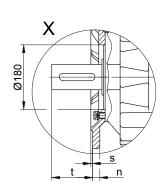
Code -7./

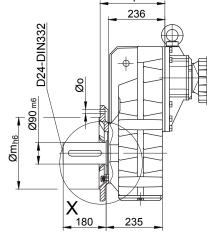




Flange with clearance holes

Code -3./ (Code -2./) (Code -4./)





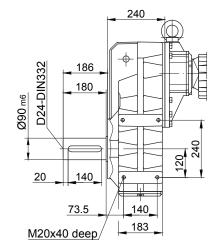
754.5 198 448	
(k=Ø350) (k=Ø400)	ØI Øk
	(k=Ø450)

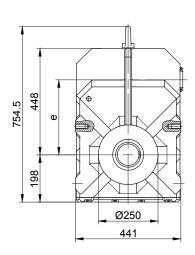
Flange dimensions

BF70G	k	1	m	n	0	q	s	t
Standard -3./	400	350	300	20	4x17.5	271	5	155
small -2./	350	300	250	20	4x17.5	271	5	155
big -4./	450	400	350	22	8x17.5	281	5	145

Foot with tapped holes left and right

Code -6.LR/



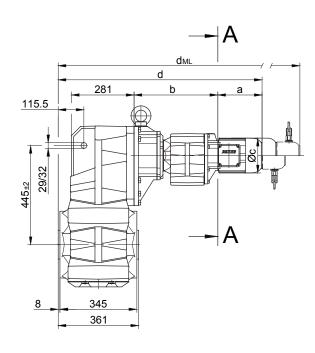


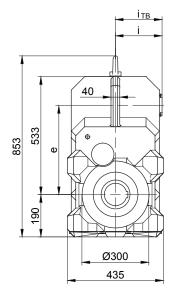
Dimension

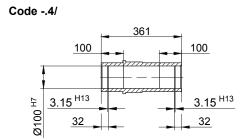
BF80G40

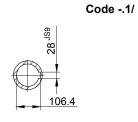
With torque arm

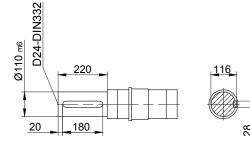
Code -0./



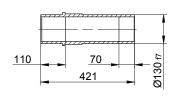




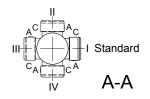




Code -.5/





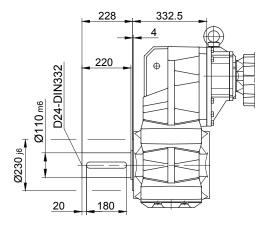


							Design with motor extensions						
Typo	а	b	С	d	e		i	ES	G	ESG	RR/RL		
Туре	a	D	C	u	6	ı	ITB	d_ML	d _{ML}	d _{ML}	d_{ML}		
BF80G40/D08	200	376	156	916.5	400	115	136.5	982.5	1023.5	1090	982.5		
BF80G40/D09	251	390.5	181	982	400	124	158	1075	1089	1179.5	1075		
BF80G40/D11	319	397	228	1056.5	400	181	181	1154.5	1163.5	1259	1154.5		

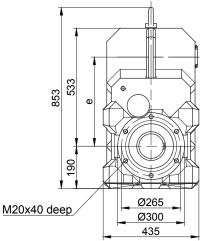
BF80G40

Flange with tapped holes

Code -7./

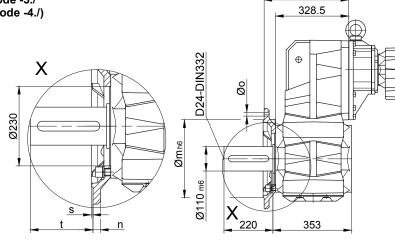


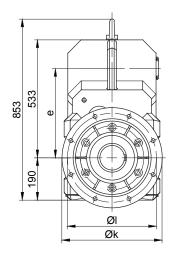
q



Flange with clearance holes

Code -3./ (Code -4./)



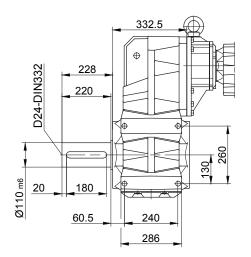


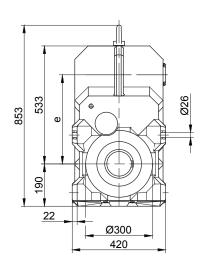
Flange dimensions

BF80G	k	I	m	n	0	q	S	t
Standard -3./	450	400	350	22	17.5	383.5	5	177
big -4./	550	500	450	22	17.5	388.5	5	172

Foot with clearance holes left and right

Code -1.LR/



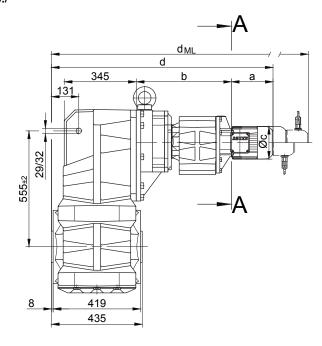


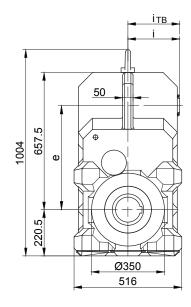
Dimension

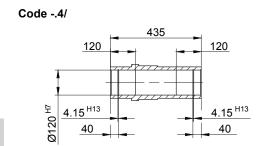
BF90G50

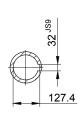
With torque arm

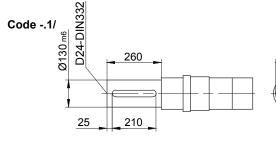
Code -0./

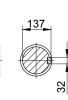




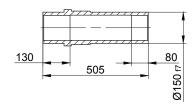




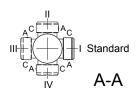




Code -.5/





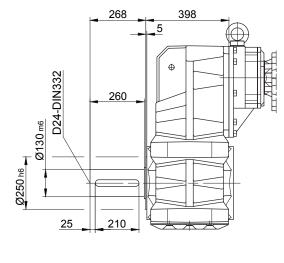


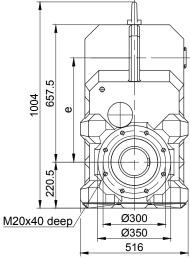
							Design with motor extensions						
Typo		b		٦				ES/ZS	G	ES./ZSG	RR/RL		
Туре	а	D	С	d	е	ı	I _{TB}	d_ML	d _{ML}	d _{ML}	d_ML		
BF90G50/D08	200	456	156	1062	503	115	136.5	1128	1169	1235.5	1128		
BF90G50/D09	251	470.5	181	1127.5	499	124	158	1220.5	1234.5	1325	1220.5		
BF90G50/D11	319	477	228	1202	499	181	181	1300	1309	1404.5	1300		
BF90G50/D13	393	490	258	1289	499	218	218	1400	1396	1504.5	1400		
BF90G50/D16	429	504	322	1339	499	244	244	1483	1447	1587	1483		
BF90G50/D18	528	535	368	1469	499	288	288	1618	1577	1722	1618		

BF90G50

Flange with tapped holes

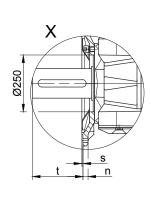
Code -7./

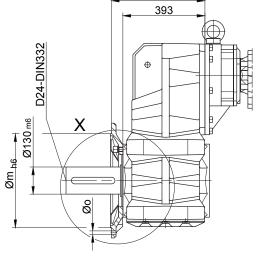




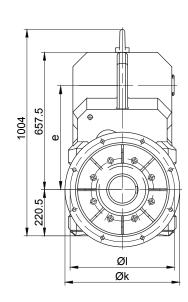
Flange with clearance holes

Code -3./ (Code -4./)





q

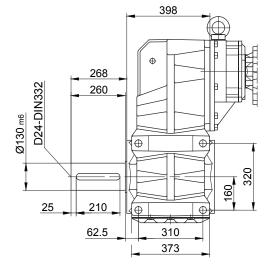


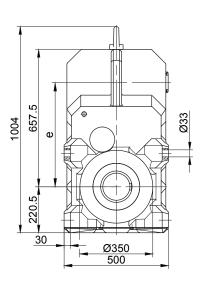
Flange dimensions

BF90G	k	I	m	n	0	q	s	t
Standard -3./	550	500	450	22	17.5	448	5	218
big -4./	660	600	550	25	22	442	6	224

Foot with clearance holes left and right

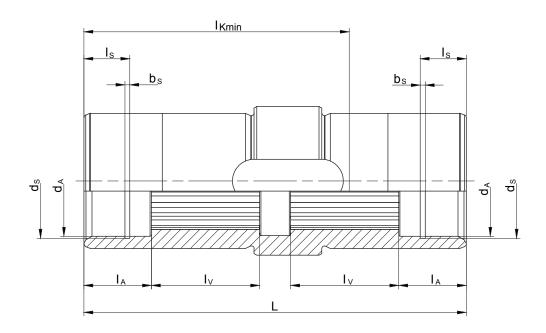
Code -1.LR/





11

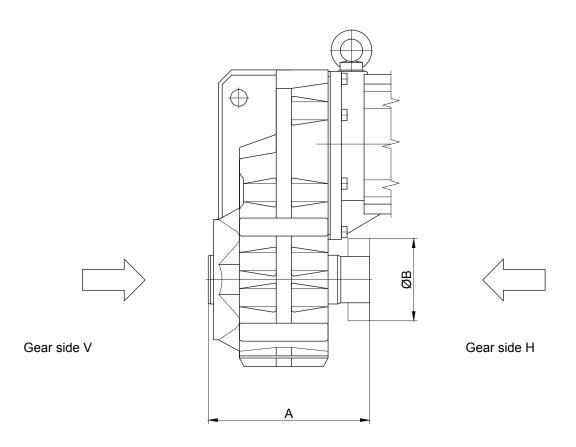
Splined shaft BF



Tuna	Spline acc.	d _A	I _A	Iv	I _{Kmin}	L	ds	IS	bs
Туре	DIN 5480	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
BF06	N25x1.25x18x9H	30 ^{G7}	22	20	68	92	31.4 ^{H12}	15	1.3 ^{H13}
BF10	N30x1.25x22x9H	30.5 ^{G7}	22	33.5	87	124.5	31.4 ^{H12}	15	1.3 ^{H13}
BF20	N35x2x16x9H	36 ^{G7}	22	35	92	130	37 ^{H12}	9.5	1.6 ^{H13}
BF30	N40x2x18x9H	41 ^{G7}	25	40	103	141.5	42.5 ^{H12}	15	1.85 ^{H13}
BF40	N50x2x24x9H	51 ^{G7}	25	48	120	166	53 ^{H12}	9.5	2.15 ^{H13}
BF50	N60x2x28x9H	61 ^{G7}	25	55	123	176	63 ^{H12}	17	2.15 ^{H13}
BF60	N70x2x34x9H	72 ^{G7}	25	70	147	202	75 ^{H12}	17	2.65 ^{H13}
BF70	N85x3x27x9H	86 ^{G7}	26	85	185	241	88.5 ^{H12}	17	3.15 ^{H13}
BF80	N110x3x35x9H	112 ^{G7}	50	90	292	361	116 ^{H12}	30	4.15 ^{H13}
BF90	N130x5x24x9H	131.5 ^{G7}	60	110	365	435	134 ^{H12}	30	4.15 ^{H13}

Shrink disc coupling (SSV)

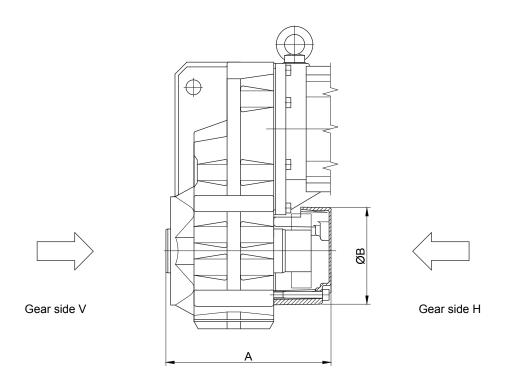
(Code BF10-.5/...) (Code BF10Z-.5/...)



Туре	SSV Ringfeder	SSV STÜWE	Α	В
BF10	RfN 4161 036x072	HSD 36-22x36	153	72
BF20	RfN 4161 044x080	HSD 44-22x44	173	80
BF30	RfN 4161 050x090	HSD 50-22x50	192	90
BF40	RfN 4161 062x110	HSD 62-22x62	215	110
BF50	RfN 4161 068x115	HSD 68-22x68	211	115
BF60	RfN 4161 080x141	HSD 80-22x80	257	140
BF70	RfN 4161 105x185	HSD 110-22x105	320	185
BF80	RfN 4161 130x215	HSD 125-22x130	421	215
BF90	RfN 4161 150x263	HSD 155-22x150	505	263

Shrink disc coupling with (SSV) cover

(Code BF10-.5A/...) (Code BF10Z-.5A/...)



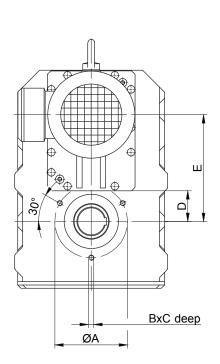
Туре	SSV Ringfeder	SSV STÜWE	A	В
BF10	RfN 4161 036x072	HSD 36-22x36	174	120
BF20	RfN 4161 044x080	HSD 44-22x44	211	140
BF30	RfN 4161 050x090	HSD 50-22x50	223	140
BF40	RfN 4161 062x110	HSD 62-22x62	245	160
BF50	RfN 4161 068x115	HSD 68-22x68	227	200
BF60	RfN 4161 080x141	HSD 80-22x80	290	210
BF70	RfN 4161 105x185	HSD 110-22x105	359	250
BF80	RfN 4161 130x215	HSD 125-22x130	463	300
BF90	RfN 4161 150x263	HSD 155-22x150	557	350

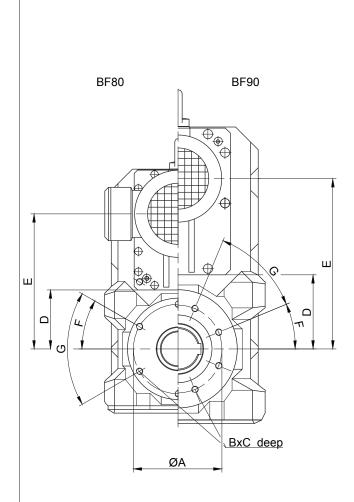
Additional Dimension Sheet

Screw Holes Side (H)

→ Shaft Cover



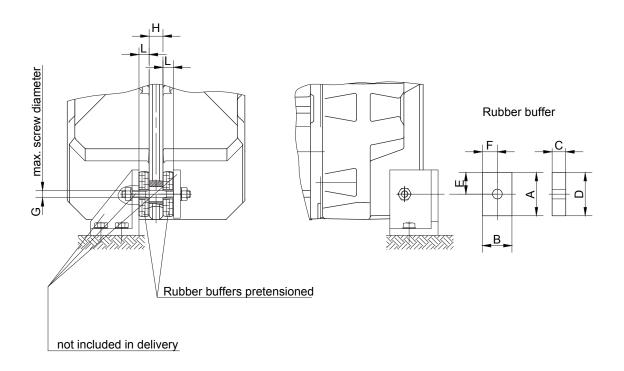




Gear	Dimensions (mm)										
	Α	В	С	D	Е	F	G				
BF10	100	M8	16	35	118	-	-				
BF20	115	M10	20	39	136	-	-				
BF30	115	M10	20	44	157	-	-				
BF40	130	M10	20	52	180.5	-	-				
BF50	165	M12	24	60	207	-	-				
BF60	180	M12	24	69	255.5	-	-				
BF70	215	M16	32	89	316	-	-				
BF80	265	M20	40	173	400	30°	6x60°				
BF90	300	M20	40	219	504.5	22.5°	8x45°				

Additional Dimension Sheet

Rubber buffer for torque restraint



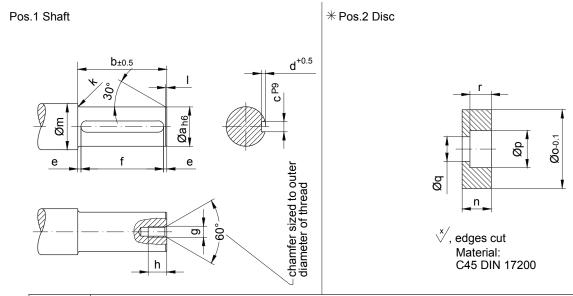
Material:

Natural rubber Hardness 50±5 Shore A Dimensions of the transverse hole: see dimensioned sketch of the respective shaft mounted gearbox

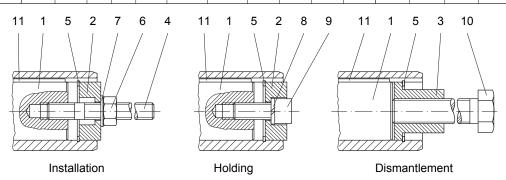
Gear	Pos.		Dimensions (mm)									
		Α	В	С	D	E	F	G	Н	L		
BF06	Pos.0	30	30	12	12	15	15	M10	10	10		
BF10	Pos.1	48	32	15	14	24	16	M10	16	13.5		
BF20	Pos.1	48	32	15	14	24	16	M10	18	13		
BF30	Pos.2	63	43	20	14	31.5	21.5	M10	18	17		
BF40	Pos.2	63	43	20	14	31.5	21.5	M10	20	16.5		
BF50	Pos.3	88	60	25	22	44	30	M18	24	21.5		
BF60	Pos.3	88	60	25	22	44	30	M18	28	21		
BF70	Pos.4	123	88	30	26	61.5	44	M20	30	25.5		
BF80	Pos.5	133	103	35	26	66.5	51.5	M20	40	30		
BF90	Pos.5	133	103	35	26	66.5	51.5	M20	50	29.5		

Additional Dimension Sheet

Assembly tools for hollow shaft and keyway



							d	imens	ions (M	им)						
Туре						Pos.	1 Shaft						Po	s.2 Di	sc	
	а	b	С	d	е	f	g	h	k	I	m	n	0	р	q	r
BF06	25	70	8	4	3.5	63 ^{+0.5}	M8	18	2	1.5	33	13.5	24.8	15	9	8.5
BF10	25	102	8	4	6	90+0.5	M8	18	2.5	1.5	33	13.5	24.8	15	9	8.5
BF20	30	108	8	4	9	90+0.5	M10	20	3	1.5	38	15	29.8	18	11	10
BF30	35	118	10	5	9	100+0.5	M10	20	3	1.5	43	16	34.8	18	11	10
BF40	40	141	12	5	8	125+0.5	M12	22	3	2	48	18	39.8	20	13.5	12
BF50	50	148	14	5.5	11.5	125+0.5	M16	30	3.5	2	58	21	49.8	26	17.5	15
BF60	60	173	18	7	6.5	160 ^{+0.5}	M20	38	3.5	2	68	24	59.8	33	22	18
BF70	80	205	22	9	12.5	180+0.5	M20	38	4	2	90	27	79.8	33	22	20
BF70-K70	70	205	20	7.5	12.5	180+0.5	M20	38	4	2	90	27	69.8	33	22	20
BF80	100	317	28	10	18.5	280+0.5	M24	45	4	3	110	32	99.8	40	26	25
BF90	120	383	32	11	11.5	360 ^{+0.5}	M24	45	4.5	3	130	35	119.8	40	26	28



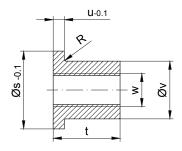
The parts shown are neccessary for assembly. ONLY *specified parts are enclosed in the assembly kit.

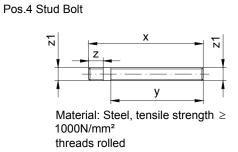
Suitable measures are to be used to secure Bolt Pos.9 against loosening.

Additional Dimension Sheet

Assembly tools for hollow shaft and keyway







√, edges cut Material: C45 DIN 17200

	Mater	ial: (C45	DIN 1	17200)					·							
				Di	mens	ions	(mm)											ngth
Туре	Pos.3	3 Sle	eeve	!			Pos.4	os.4 Stud Bolt				hexagon nut DIN 934-8	disc DIN 125-St	lock washer DIN 7980	* Filister head screw DIN 912-8.8	starting torque [Nm]	hexagon bolt DIN EN 24017-8.8	key DIN 6885 width x height x Length
	s	t	u	v	w	R	Х	у	z	z1	Pos.5	Pos.6	Pos.7	Pos.8	Pos	.9	Pos.10	Pos.11
BF06	24.8	24	5	15.4	M12	8.0	160	130	20	M8	25x1.2	M8	8.4	8	M8x30	5	M12x110	A 8x7x63
BF10	24.8	24	5	15.4	M12	0.8	160	130	20	M8	25x1.2	M8	8.4	8	M8x30	Э	M12x140	A 8x7x90
BF20	29.8	28	5	19.8	M14	0.8	170	135	23	M10	30x1.2	M10	10.5	10	M10x30	8	M14x150	A 8x7x90
BF30	34.8	28	5	23	M14	-	180	145	23	M10	35x1.5	M10	10.5	10	M10x35	0	M14x160	A 10x8x100
BF40	39.8	40	6	27.7	M20	8.0	210	170	28	M12	40x1.75	M12	13	12	M12x35	16	M20x200	A 12x8x125
BF50	49.8	48	6	36	M24	-	230	175	37	M16	50x2.0	M16	17	16	M16x40	30	M24x210	A 14x9x125
BF60	59.8	60	6	44	M30	-	270	205	45	M20	60x2.0	M20	21	20	M20x50		M30x250	A 18x11x160
BF70	79.8	60	8	55	M30	-	310	240	45	M20	80x2.5	M20	21	20	M20x50	42	M30x280	A 22x14x180
BF70-K70	69.8	60	8	53	M30	-	310	240	45	M20	70x2.5	M20	21	20	M20x50		M30x280	A 20x12x180
BF80	99.8	72	10	75	M36	-	440	360	55	M24	100x3.0	M24	25	24	M24x60	100	M36x410	A 28x16x280
BF90	119.8	72	10	80	M36	-	510	430	55	M24	120x4.0	M24	25	24	M24x60		M36x480	A 32x18x360

The parts shown are neccessary for assembly. ONLY *specified parts are enclosed in the assembly kit.

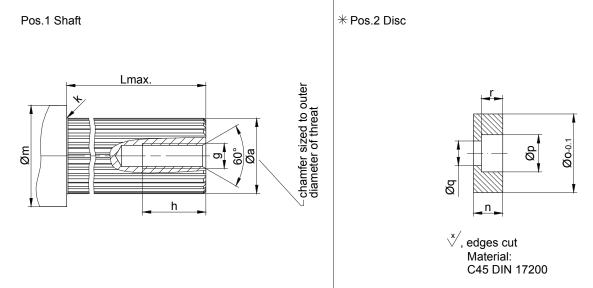
Suitable measures are to be used to secure Bolt Pos.9 against loosening.

Optional:

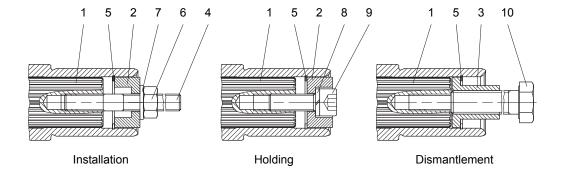
Type	Øs	Order Text
BF06	25	ld.Nr.4103921 Assembly tool "holding"
BF10	25	ld.Nr.4103921 Assembly tool "holding"
BF20	30	ld.Nr.4103939 Assembly tool "holding"
BF30	35	ld.Nr.4103947 Assembly tool "holding"
BF40	40	ld.Nr.4103955 Assembly tool "holding"
BF50	50	ld.Nr.4103963 Assembly tool "holding"
BF60	60	ld.Nr.4103971 Assembly tool "holding"
BF70	80	ld.Nr.4103980 Assembly tool "holding"
BF70-K70	70	ld.Nr.4104765 Assembly tool "holding"
BF80	100	ld.Nr.4103998 Assembly tool "holding"
BF90	120	ld.Nr.4104005 Assembly tool "holding"

Additional Dimension Sheet

Assembly tools for shaft mounted gears with splined shaft



			dim	ensior	ns (мм)							
Туре	Pos.1 Shaft							Po	s.2 Di	? Disc		
	a	g	h	k	Lmax.	m	n	О	р	q	r	
BF06	DIN 5480-W25x1.25x18x8f	M8	20	2	70	33	13	29.9	15	9	8	
BF10	DIN 5480-W30x1.25x22x8f	M10	25	2.5	100	33	15	30.4	18	11	10	
BF20	DIN 5480-W35x2x16x8f	M10	25	3	115	38	14	35.9	18	11	10	
BF30	DIN 5480-W40x2x18x8f	M12	30	3	120	43	18	40.9	20	13.5	12	
BF40	DIN 5480-W50x2x24x8f	M16	35	3	150	48	17.5	50.9	26	17.5	12.5	
BF50	DIN 5480-W60x2x28x8f	M20	40	3.5	150	58	24	60.9	33	22	18	
BF60	DIN 5480-W70x2x34x8f	M20	40	3.5	175	68	24	71.9	33	22	18	
BF70	DIN 5480-W85x3x27x8f	M20	40	4	215	90	22	85.9	33	22	16	
BF80	DIN 5480-W110x3x35x8f	M24	50	4	320	110	32	111.9	40	26	25	
BF90	DIN 5480-W130x5x24x8f	M24	50	4.5	390	130	25	131.4	40	26	18	



The parts shown are neccessary for assembly. ONLY *specified parts are enclosed in the assembly kit.

Suitable measures are to be used to secure Bolt Pos.9 against loosening.

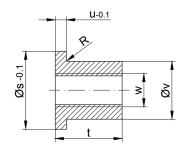
The actual gearbox design can vary from the geometry shown.

438

Additional Dimension Sheet

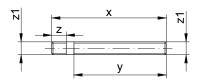
Assembly tools for shaft mounted gears with splined shaft





√, edges cut Material: C45 DIN 17200

Pos.4 Stud Bolt



Material: Steel, tensile strength ≥ 1000N/mm² threads rolled

				Di	mens	ions	(mm)										
Туре	Pos.3	3 Sle	eeve				Pos.4	Pos.4 Stud Bolt			* DIN 472	DIN 934-8	DIN 125-St	DIN 7980	* Filister head screw DIN 7984-8.8	starting torque [Nm]	DIN EN 24017-8.8
	s	t	u	٧	w	R	х	у	z	z1	Pos.5	Pos.6	Pos.7	Pos.8	Pos.	9	Pos.10
BF06	29.9	24	5	15.4	M12	8.0	160	130	20	M8	25x1.2	M8	8.4	8	M8x30	5	M12x110
BF10	30.4	28	5	19.8	M14	-	170	135	23	M10	30x1.2	M10	10.5	10	M10x30	8	M14x150
BF20	35.9	28	5	23	M14	1	180	145	23	M10	35x1.5	M10	10.5	10	M10x35	0	M14x160
BF30	40.9	40	6	27.7	M20	-	210	170	28	M12	40x1.75	M12	13	12	M12x35	16	M20x200
BF40	50.9	48	6	36	M24	8.0	230	175	37	M16	50x2.0	M16	17	16	M16x40	30	M24x210
BF50	60.9	60	6	44	M30	-	270	205	45	M20	60x2.0	M20	21	20	M20x50		M30x250
BF60	71.9	60	6	53	M30	8.0	310	240	45	M20	70x2.5	M20	21	20	M20x50	42	M30x280
BF70	85.9	60	8	65	M30	8.0	310	240	45	M20	85x3	M20	21	20	M20x50		M30x280
BF80	111.9	72	10	85	M36	8.0	440	360	55	M24	112x4	M24	25	24	M24x60	100	M36x410
BF90	131.4	72	10	95	M36	8.0	510	430	55	M24	130x4	M24	25	24	M24x60	100	M36x480

The parts shown are neccessary for assembly. ONLY ** specified parts are enclosed in the assembly kit.

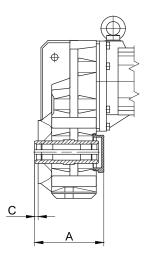
Suitable measures are to be used to secure Bolt Pos.9 against loosening.

Optional:

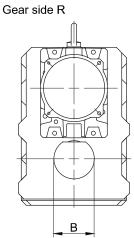
:	Туре	Øs	Order Text
	BF06	30	ld.Nr.4105125 Assembly tool "holding"
	BF10	30.5	Id.Nr.4105133 Assembly tool "holding"
	BF20	36	Id.Nr.4105141 Assembly tool "holding"
	BF30	41	Id.Nr.4105150 Assembly tool "holding"
	BF40	51	Id.Nr.4105168 Assembly tool "holding"
	BF50	61	Id.Nr.4105176 Assembly tool "holding"
	BF60	72	Id.Nr.4105184 Assembly tool "holding"
	BF70	86	ld.Nr.4105192 Assembly tool "holding"
	BF80	112	ld.Nr.4105206 Assembly tool "holding"
	BF90	131.5	Id.Nr.4105214 Assembly tool "holding"

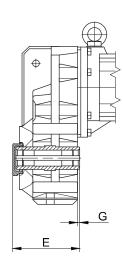
Additional Dimension Sheet

Shaft Cap (VK)

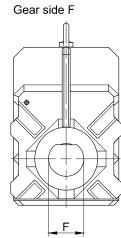






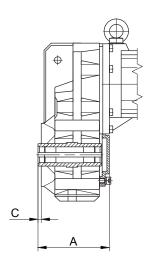






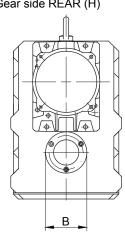
	Sealing cap	REAR	
Туре	А	В	С
BF10	134	78	5
BF20	142	85	5
BF30	153.5	90	7.5
BF40	179.5	110	7
BF50	192	125	6
BF60	222	140	7
BF70	258	170	6

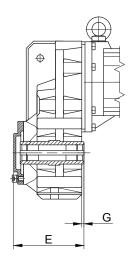
Sealing cap FRONT									
Type E F G									
BF30	149	78	7.5						
BF50	189.5	110	6						
BF70	262	130	6						





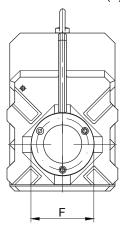
Gear side REAR (H)







Gear side FRONT (V)



Sealing cover REAR										
Туре	Type A B C									
BF80	376	300	8							
BF90	442	350	8							

S	Sealing cover	FRONT								
Туре	Type E F G									
BF10	135.5	120	5							
BF20	144	139.5	5							
BF30	153	139.5	7.5							
BF40	179.5	160	7							
BF50	191.5	199	6							
BF60	221.5	210	7							
BF70	258	250	6							
BF80	376	300	8							
BF90	442	350	8							

Catalogue geared motors

442 www.bauergears.com P-7112-BGM-EN-A4

Catalogue geared motors

Edition 03/2012



Dimensional drawings bevel-geared motors

Page

443-496

- Standard
- Tandem Gearbox

Additional Dimension Sheet

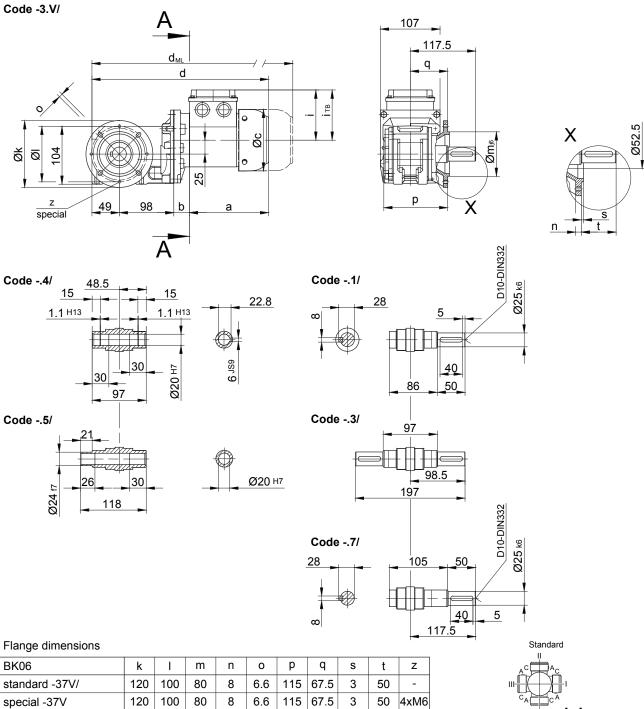
- Splined shaft acc. DIN 5480
- Additional dimension sheet
- Shrink disk connection with cover (SSV)
- Rubber buffer for torque restraint
- Posittion of the torque arm
- Foot with tapped bores
- Foot plate with through holes
- Assembly tools for hollow shaft
- Assembly tools for splined shaft
- Shaft cap (VK)
- Shaft cover (VD)

P-7112-BGM-EN-A4 www.bauergears.com 443

12

BK06





						Design with motor extensions						
Type		h		٨			E/ES	G	E/ESG	RR/RL		
Туре	а	b	С	d	1	ITB	d _{ML}	d_ML	d _{ML}	d_ML		
BK06/D04	143	28	111	318	90	112	361.5	380.5	423.5	-		
BK06/D05	170	30	123	347	100	117	389	450	491.5	-		
BK06/D06	170	30	123	347	100	119	389	450	491.5	-		
BK06/D07	190	30	123	367	100	119	409	470	511.5	-		
BK06/D08	200	74	156	421	115	136.5	487	528	594.5	487		

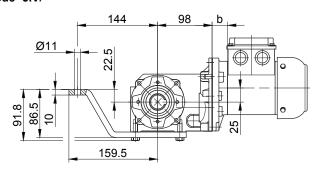
12

Jiiiieiisioii

BK06

Torque arm at front

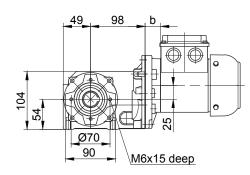
Code -5.V/

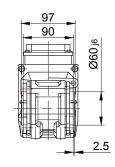


107 97 90 7.5 22.5 30

Flange with tapped holes at front

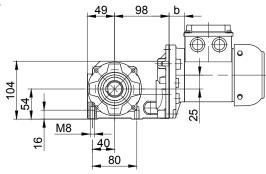
Code -7.V/

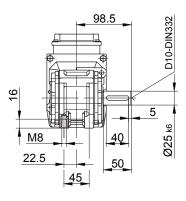




Foot with tapped holes at bottom

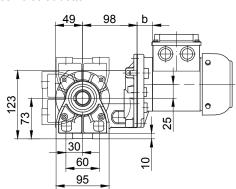
Code -6.U/

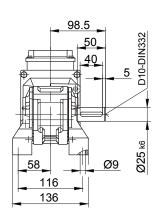




Foot with clearance holes at bottom

Code -1.U/



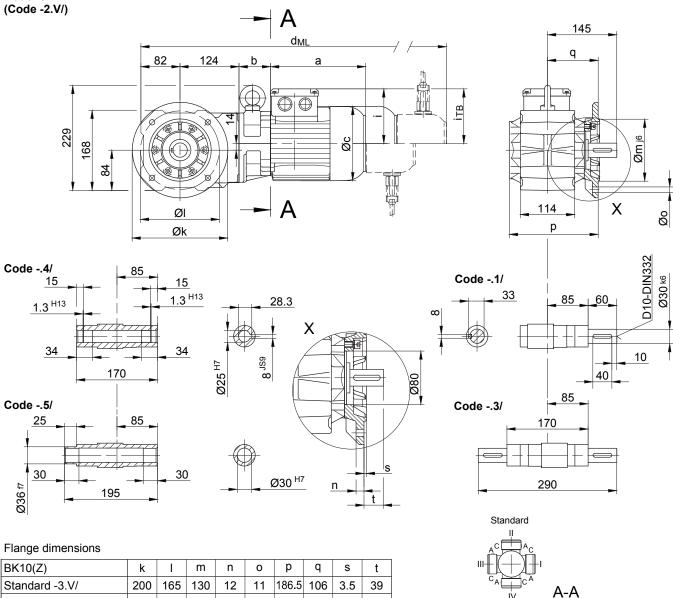


Dimension

BK10 - BK10Z

Flange with clearance holes at front





		1										
						Design with motor extensions						
Tuna		b		d			E/ES	G	E/ESG	RR/RL		
Туре	а	D	С	u	-	ITB	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BK10Z/D04	143	86	111	435	90	112	478.5	497.5	540.5	-		
BK10/D05	170	62	123	438	100	117	480	541	582.5	-		
BK10Z/D05	170	88	123	464	100	117	506	567	608.5	-		
BK10/D06	170	62	123	438	100	119	480	541	582.5	-		
BK10Z/D06	170	88	123	464	100	119	506	567	608.5	-		
BK10/D07	190	62	123	458	100	119	500	561	602.5	-		
BK10Z/D07	190	88	123	484	100	119	526	587	628.5	-		
BK10/D08	200	66	156	472	115	136.5	538	579	645.5	538		
BK10Z/D08	200	132	156	538	115	136.5	604	645	711.5	604		
BK10/D09	251	80.5	181	537.5	124	158	630.5	644.5	735	630.5		

10

179.5

99

3.5

46

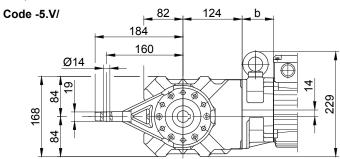
The actual gearbox design can vary from the geometry shown.

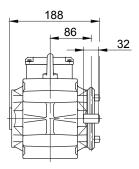
160 | 130 | 110

small -2.V/

BK10 - BK10Z

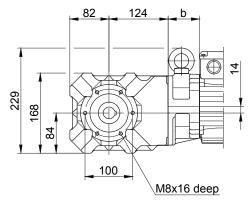
Torque arm at front

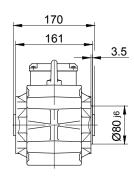




Flange with tapped holes at front

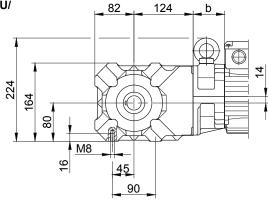
Code -7.V/

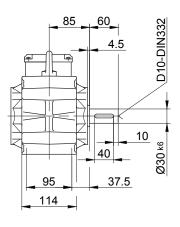




Foot with tapped holes at bottom

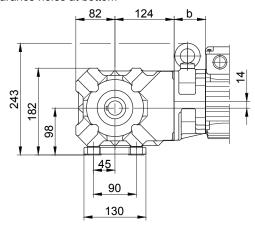
Code -6.U/

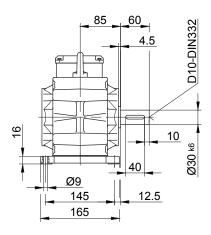




Foot with clearance holes at bottom

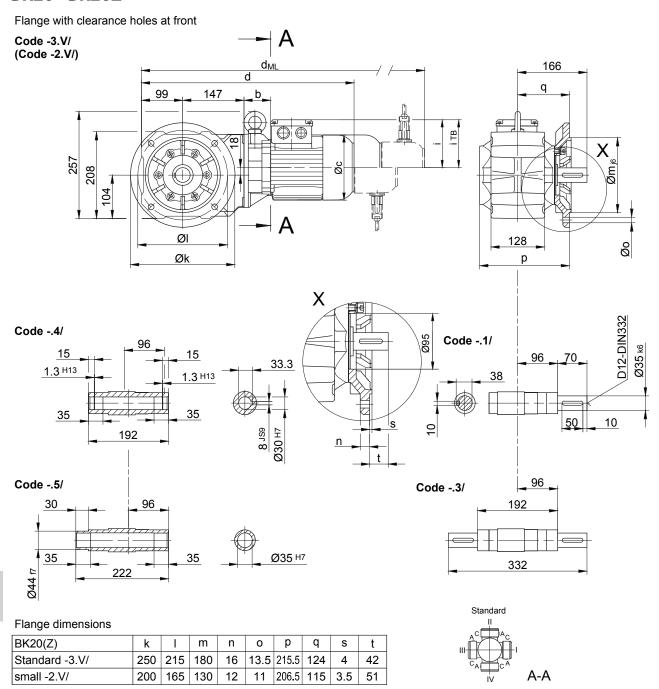
Code -1.U/





Dimension

BK20 - BK20Z

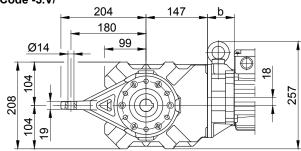


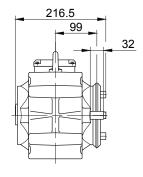
						Design with motor extensions						
Turno		h		d			ES/ZS	G	E./ESG	RR/RL		
Туре	а	b	С	u	1	ITB	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BK20Z/D04	143	100	111	489	90	112	532.5	551.5	594.5	-		
BK20/D05	170	60	123	476	100	117	518	579	620.5	-		
BK20Z/D05	170	102	123	518	100	117	560	621	662.5	-		
BK20/D06	170	60	123	476	100	119	518	579	620.5	-		
BK20Z/D06	170	102	123	518	100	119	560	621	662.5	-		
BK20/D07	190	60	123	496	100	119	538	599	640.5	-		
BK20Z/D07	190	102	123	538	100	119	580	641	682.5	-		
BK20/D08	200	64	156	510	115	136.5	576	617	683.5	576		
BK20Z/D08	200	146	156	592	115	136.5	658	699	765.5	658		
BK20/D09	251	78.5	181	575.5	124	158	668.5	682.5	773	668.5		

BK20 - BK20Z

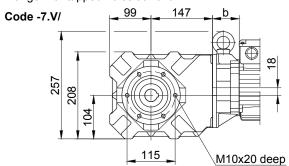
Torque arm at front

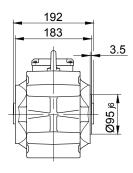
Code -5.V/



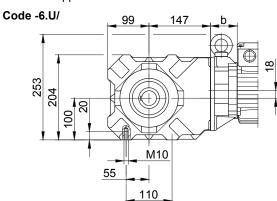


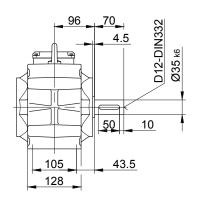
Flange with tapped holes at front



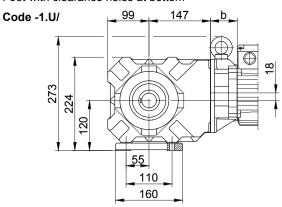


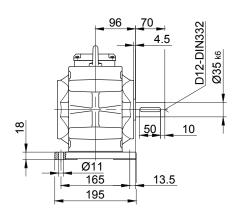
Foot with tapped holes at bottom





Foot with clearance holes at bottom

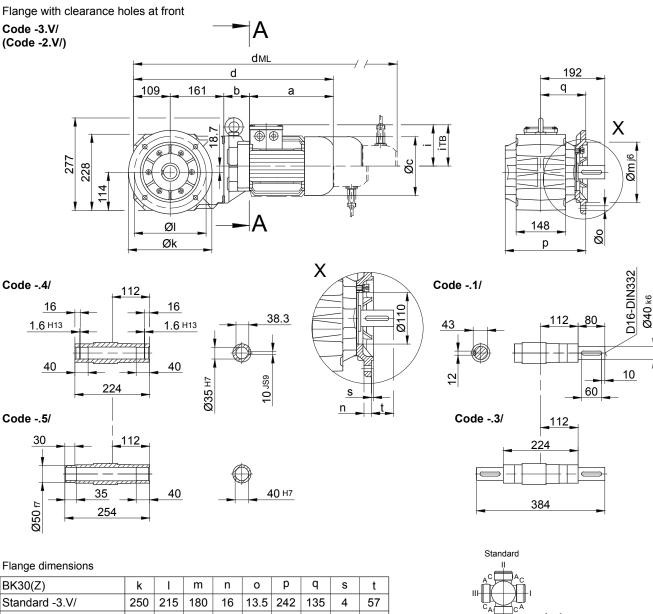




BK-series bevel-geared motors

Dimension

BK30 - BK30Z



BK30(Z)	k	ı	m	n	0	р	q	s	t
Standard -3.V/	250	215	180	16	13.5	242	135	4	57
small-2.V/	200	165	130	12	11	239	132	3.5	60

Standard	
ĮĮ.	
_A C □ A _C	
CA CA	
CALLICA	$\Delta_{-}\Delta$
IV	A-A

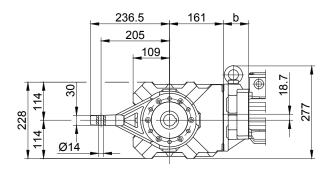
						Design with motor extensions						
Type		b	•	d			E/ES	G	E/ESG	RR/RL		
Туре	а	D	С	u	'	ITB	d_ML	d_ML	d _{ML}	d_ML		
BK30/D05	170	58	123	498	100	117	540	601	642.5	-		
BK30Z/D05	170	133.5	123	573.5	100	117	615.5	676.5	718	-		
BK30/D06	170	58	123	498	100	119	540	601	642.5	-		
BK30Z/D06	170	133.5	123	573.5	100	119	615.5	676.5	718	-		
BK30/D07	190	58	123	518	100	119	560	621	662.5	-		
BK30Z/D07	190	133.5	123	593.5	100	119	635.5	696.5	738	-		
BK30/D08	200	62	156	532	115	136.5	598	639	705.5	598		
BK30Z/D08	200	137.5	156	607.5	115	136.5	673.5	714.5	781	673.5		
BK30/D09	251	76.5	181	597.5	124	158	690.5	704.5	795	690.5		
BK30Z/D09	251	152	181	673	124	158	766	780	870.5	766		
BK30/D11	319	83	228	672	181	181	770	779	874.5	770		

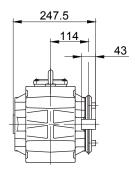
12

BK30 - BK30Z

Torque arm at front

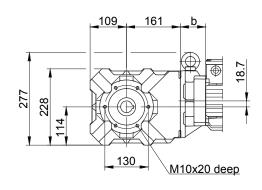
Code -5.V/

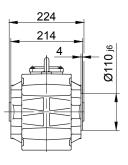




Flange with tapped holes at front

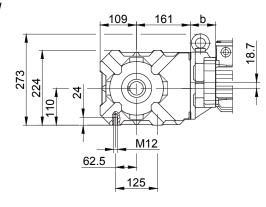
Code -7.V/

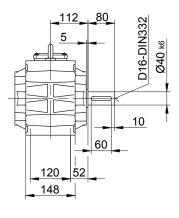




Foot with tapped holes at bottom

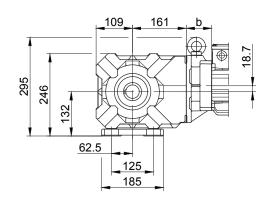
Code -6.U/

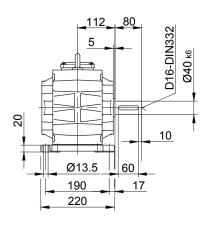




Foot with clearance holes at bottom

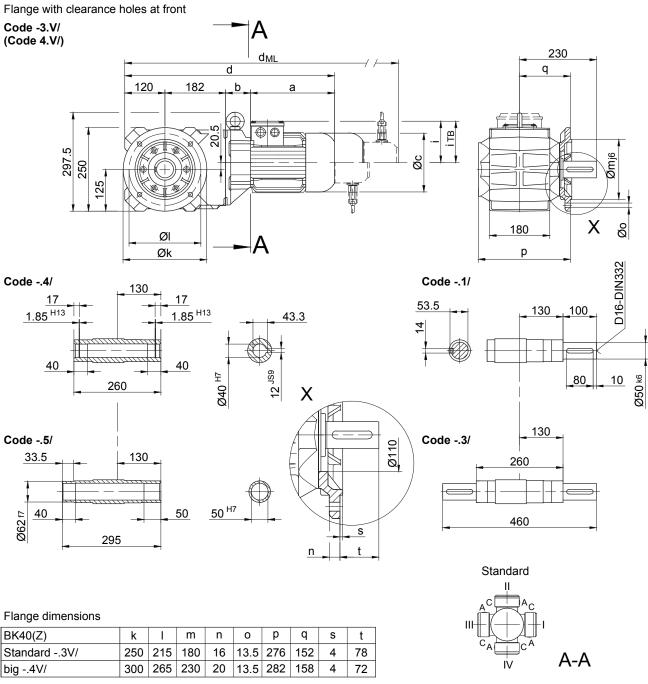
Code -1.U/





Dimension

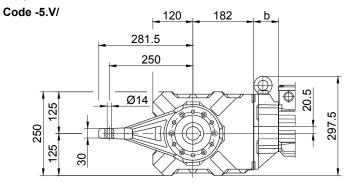
BK40 - BK40Z

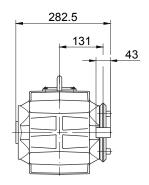


						Design with motor extensions						
Tymo		h		ا			E/ES	G	E/ESG	RR/RL		
Туре	а	b	С	d	l	ITB	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BK40Z/D05	170	138.5	123	610.5	100	117	652.5	713.5	755	-		
BK40Z/D06	170	138.5	123	610.5	100	119	652.5	713.5	755	-		
BK40Z/D07	190	138.5	123	630.5	100	119	672.5	733.5	775	-		
BK40/D08	200	60	156	562	115	136.5	628	669	735.5	628		
BK40Z/D08	200	142.5	156	644.5	115	136.5	710.5	751.5	818	710.5		
BK40/D09	251	74.5	181	627.5	124	158	720.5	734.5	825	720.5		
BK40Z/D09	251	157	181	710	124	158	803	817	907.5	803		
BK40/D11	319	81	228	702	181	181	800	809	904.5	800		

BK40 - BK40Z

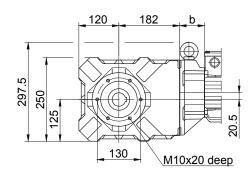
Torque arm at front

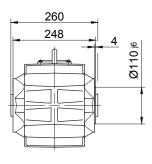




Flange with tapped holes at front

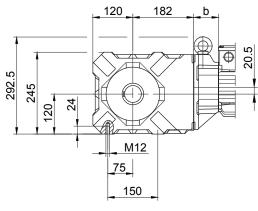
Code -7.V/

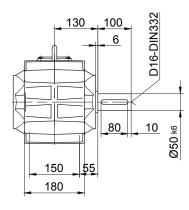




Foot with tapped holes at bottom

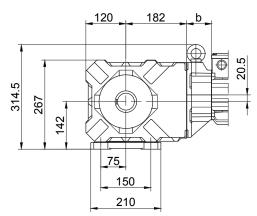
Code -6.U/

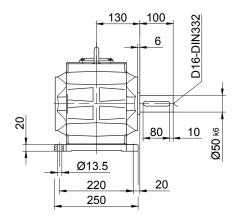




Foot with clearance holes at bottom

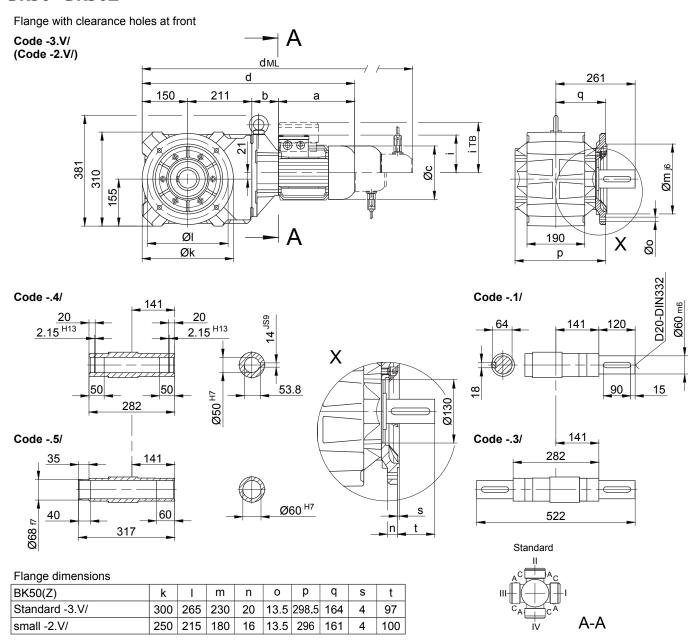
Code -1.U/





Dimension

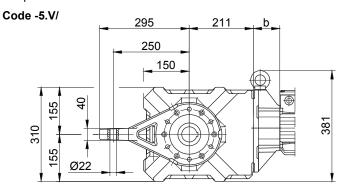
BK50 - BK50Z

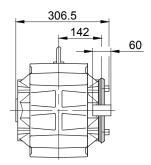


						Design with motor extensions						
T		h		ام	i		EES/ZS	G	EES/ZSG	RR/RL		
Туре	а	b	С	d	ı	ITB	dML	dмL	dмL	dмL		
BK50Z/D05	170	155	123	686	100	117	728	789	830.5	-		
BK50Z/D06	170	155	123	686	100	119	728	789	830.5	-		
BK50Z/D07	190	155	123	706	100	119	748	809	850.5	-		
BK50/D08	200	73	156	634	115	136.5	700	741	807.5	700		
BK50Z/D08	200	159	156	720	115	136.5	786	827	893.5	786		
BK50/D09	251	87.5	181	699.5	124	158	792.5	806.5	897	792.5		
BK50Z/D09	251	173.5	181	785.5	124	158	878.5	892.5	983	878.5		
BK50/D11	319	94	228	774	181	181	872	881	976.5	872		
BK50/D13	393	107	258	861	218	218	972	968	1076.5	972		
BK50/D16	429	121	322	911	244	244	1055	1019	1159	1055		
BK50/D18	528	143	368	1032	288	288	1181	1140	1285	1181		

BK50 - BK50Z

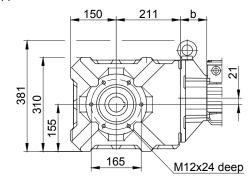
Torque arm at front

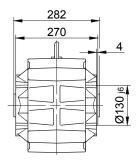




Flange with tapped holes at front

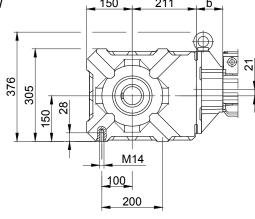
Code -7.V/

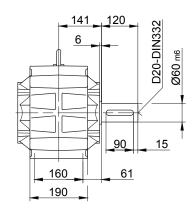




Foot with tapped holes at bottom

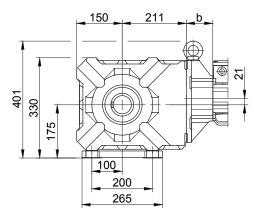
Code -6.U/

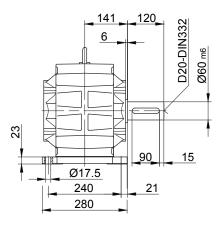




Foot with clearance holes at bottom

Code -1.U/

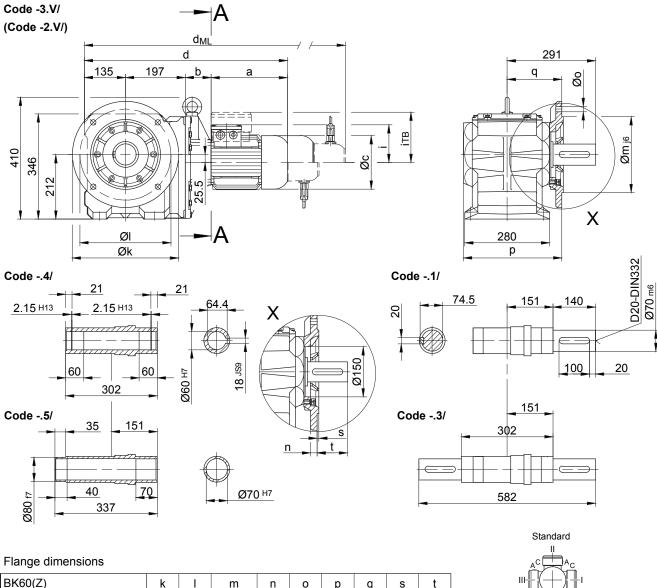




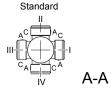
BK-series bevel-geared motors

Dimension

BK60 - BK60Z



BK60(Z)	k	I	m	n	0	р	q	s	t
Standard -3.V/	350	300	250 _{h6}	20	17.5	324	180	5	111
small -2.V/	300	265	230 _{j6}	20	13.5	332	188	4	103



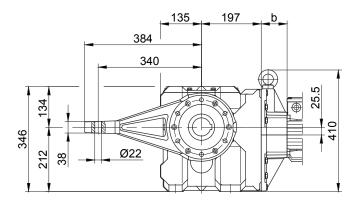
						Design with motor extensions							
Turno		b		۱ ۵			ES/ZS	G	ES/ZSG	RR/RL			
Туре	а	D	С	d	ı	ІТВ	d _{ML}	d _{ML}	d _{ML}	d _{ML}			
BK60Z/D08	200	181	156	713	115	136.5	779	820	886.5	779			
BK60/D09	251	85.5	181	668.5	124	158	761.5	775.5	866	761.5			
BK60Z/D09	251	195.5	181	778.5	124	158	871.5	885.5	976	871.5			
BK60/D11	319	92	228	743	181	181	841	850	945.5	841			
BK60Z/D11	319	202	228	853	181	181	951	960	1055.5	951			
BK60/D13	393	105	258	830	218	218	941	937	1045.5	941			
BK60/D16	429	119	322	880	244	244	1024	988	1128	1024			
BK60Z/D16	528	141	368	902	288	288	1146	1010	1150	1146			

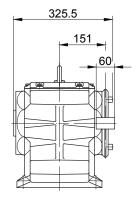
12

BK60 - BK60Z

Torque arm at front

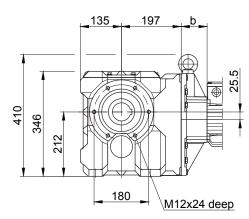
Code -5.V/

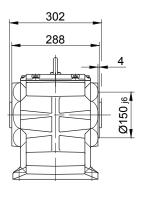




Flange with tapped holes at front

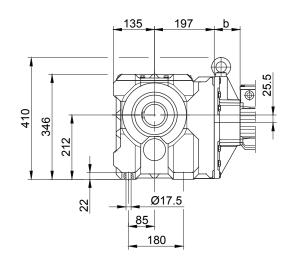
Code -7.V/

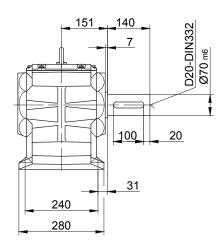




Foot with clearance holes at bottom

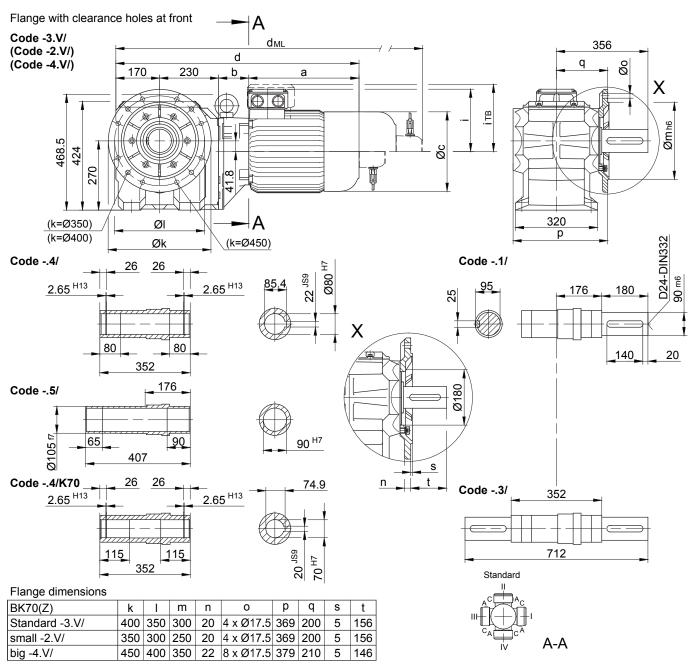
Code -1.U/





BK70 - BK70Z

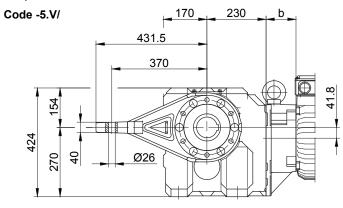
Dimension

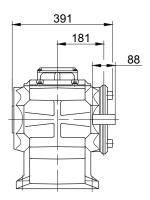


						Design with motor extensions							
Typo		b		d		i	ES/ZS	G	ES/ZSG	RR/RL			
Туре	а	D	С	u	-	ITB	d_ML	d_ML	d _{ML}	d_ML			
BK70Z/D08	200	202	156	802	115	136.5	868	909	975.5	868			
BK70/D09	251	83.5	181	734.5	124	158	827.5	841.5	932	827.5			
BK70Z/D09	251	216.5	181	867.5	124	158	960.5	974.5	1065	960.5			
BK70/D11	319	90	228	809	181	181	907	916	1011.5	907			
BK70Z/D11	319	223	228	942	181	181	1040	1049	1144.5	1040			
BK70/D13	393	103	258	896	218	218	1007	1003	1111.5	1007			
BK70Z/D13	393	236	258	1029	218	218	1140	1136	1244.5	1140			
BK70/D16	429	117	322	946	244	244	1090	1054	1194	1090			
BK70Z/D16	429	250	322	1079	244	244	1223	1187	1327	1223			
BK70/D18	528	139	368	1067	288	288	1216	1175	1320	1216			
BK70Z/D18	528	272	368	1200	288	288	1349	1308	1453	1349			

BK70 - BK70Z

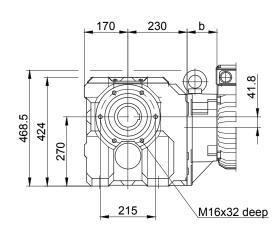
Torque arm at front

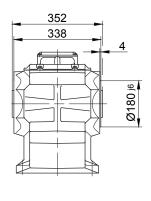




Flange with tapped holes at front

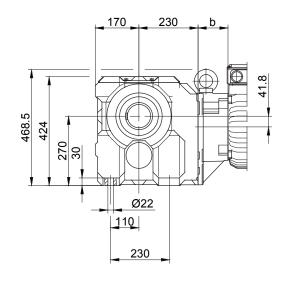
Code -7.V/

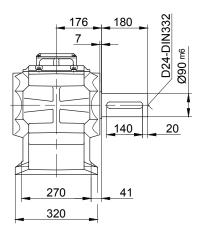




Foot with clearance holes at bottom

Code -1.U/

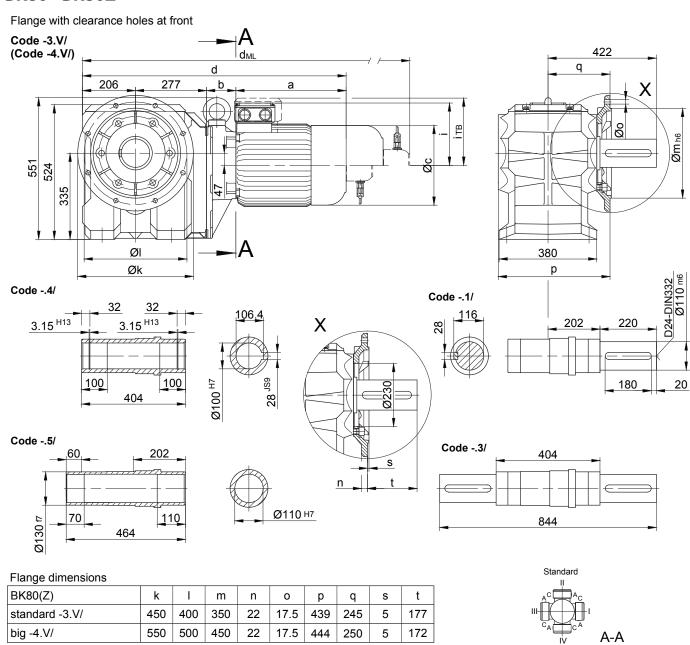




BK-series bevel-geared motors

Dimension

BK80 - BK80Z

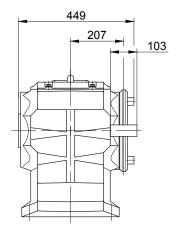


						Design with motor extensions						
T		_	_	۵			ES/ZS	G	ES/ZSG	RR/RL		
Туре	а	b	С	d		I _{TB}	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BK80Z/D09	251	252.5	181	986.5	124	158	1079.5	1093.5	1184	1079.5		
BK80/D11	319	87	228	889	181	182	987	996	1091.5	987		
BK80Z/D11	319	259	228	1061	181	182	1159	1168	1263.5	1159		
BK80/D13	393	100	258	976	218	218	1087	1083	1191.5	1087		
BK80Z/D13	393	272	258	1148	218	218	1259	1255	1363.5	1259		
BK80/D16	429	114	322	1026	244	244	1170	1134	1274	1170		
BK80Z/D16	429	286	322	1198	244	244	1342	1306	1446	1342		
BK80/D18	528	136	368	1147	288	288	1296	1255	1400	1296		
BK80Z/D18	528	308	368	1319	288	288	1468	1427	1572	1468		

BK80 - BK80Z

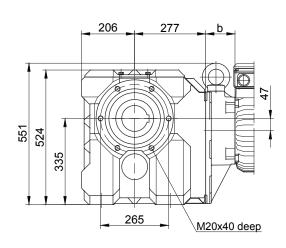
Torque arm at front

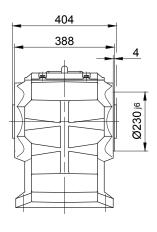
Code -5.V/ 536.5 277 b 470 206 470 206



Flange with tapped holes at front

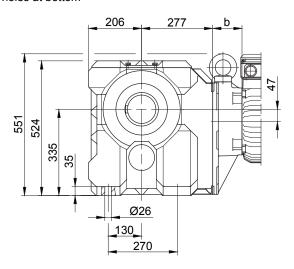
Code -7.V/

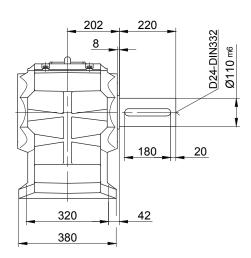




Foot with clearance holes at bottom

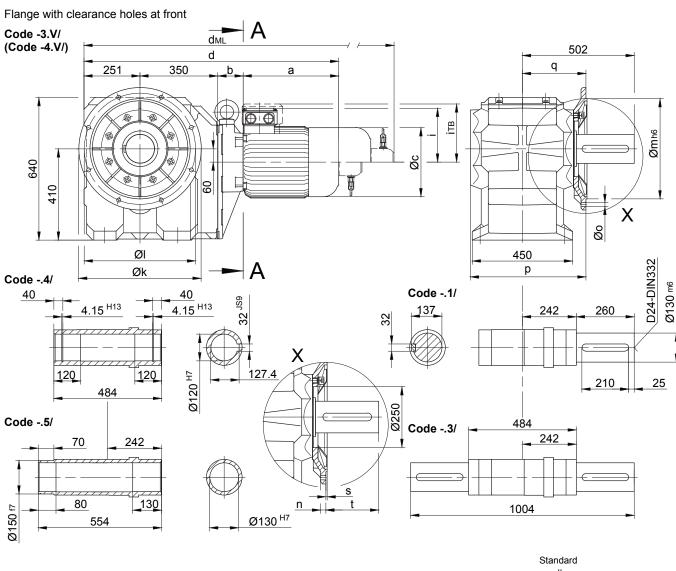
Code -1.U/





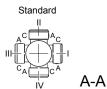
Dimension

BK90 - BK90Z



Flange dimensions

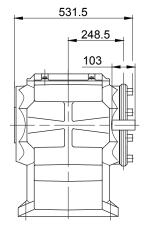
BK90(Z)	k	I	m	n	0	р	q	S	t
Standard -3.V/	550	500	450	22	17.5	519	285	5	217
big -4.V/	660	600	550	25	22	513	279	6	223



						Design with motor extensions							
Typo		b	•	d		i	ES/ZS	G	ES/ZSG	RR/RL			
Туре	а	D	С	u	•	I ITB	d _{ML}	d _{ML}	d _{ML}	d _{ML}			
BK90Z/D09	251	267	181	1119	124	158	1212	1226	1316.5	1212			
BK90Z/D11	319	273.5	228	1193.5	181	181	1291.5	1300.5	1396	1291.5			
BK90/D13	393	100	258	1020	218	218	1118	1127	1222.5	1118			
BK90Z/D13	393	286.5	258	1280.5	218	218	1391.5	1387.5	1496	1391.5			
BK90/D16	429	114	322	1108	244	244	1219	1215	1323.5	1219			
BK90Z/D16	429	300.5	322	1330.5	244	244	1474.5	1438.5	1578.5	1474.5			
BK90/D18	528	136	368	1166	288	288	1310	1274	1414	1310			
BK90Z/D18	528	322.5	368	1451.5	288	288	1600.5	1559.5	1704.5	1600.5			

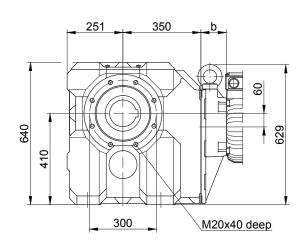
BK90 - BK90Z

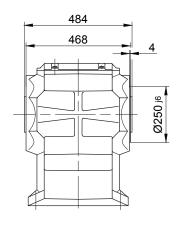
Torque arm at front



Flange with tapped holes at front

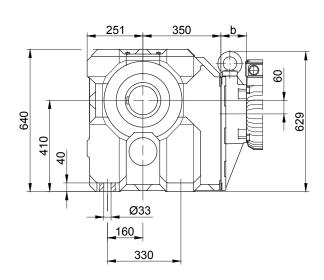
Code -7.V/

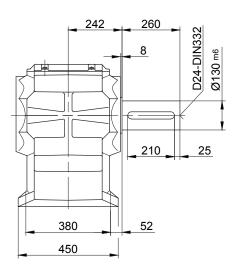




Foot with clearance holes at bottom

Code -1.U/

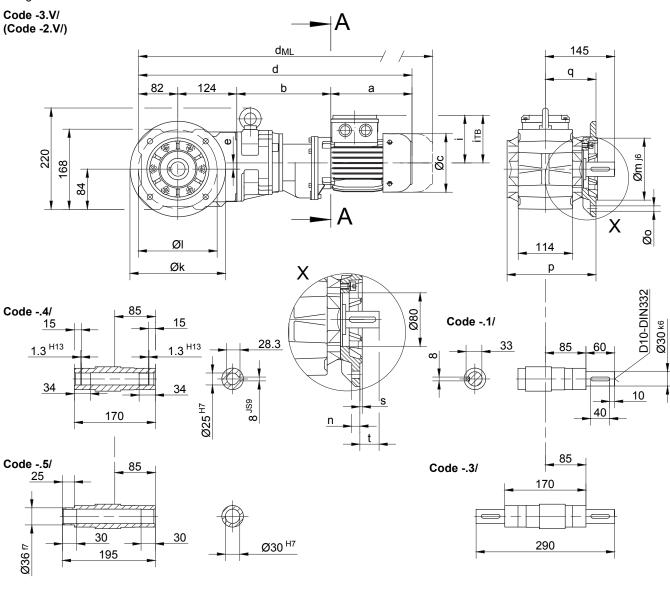




Dimension

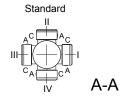
BK10G06

Flange with clearance holes at front



Flange dimensions

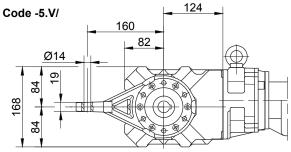
BK10G	k	I	m	n	О	р	q	s	t
Standard -3.V/	200	165	130	12	11	186.5	106	3.5	39
small -2.V/	160	130	110	10	9	179.5	99	3.5	46

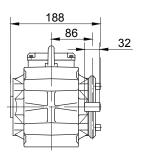


							Design with motor extensions						
Tuno		h		d				E/ES	G	E/ESG	RR/RL		
Туре	а	b	С	u	е	I	ΙТВ	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BK10G06/D04	143	195	111	544	13	90	112	587.5	606.5	649.5	-		
BK10G06/D05	170	197	123	573	13	100	117	615	676	715.5	-		
BK10G06/D06	170	197	123	573	13	100	119	615	676	715.5	-		
BK10G06/D07	190	197	123	593	13	100	119	635	696	737.5	-		
BK10G06/D08	200	241	156	647	13	115	136.5	713	754	820.5	713		

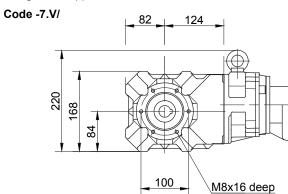
BK10G06

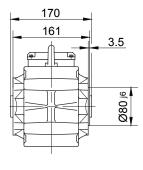
Torque arm at front





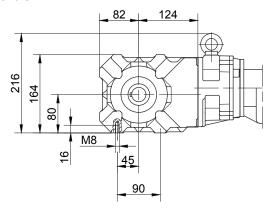
Flange with tapped holes at front

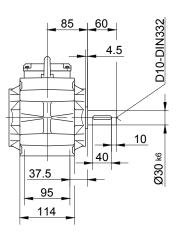




Foot with tapped holes at bottom

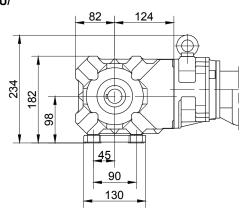
Code -6.U/

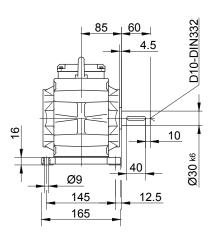




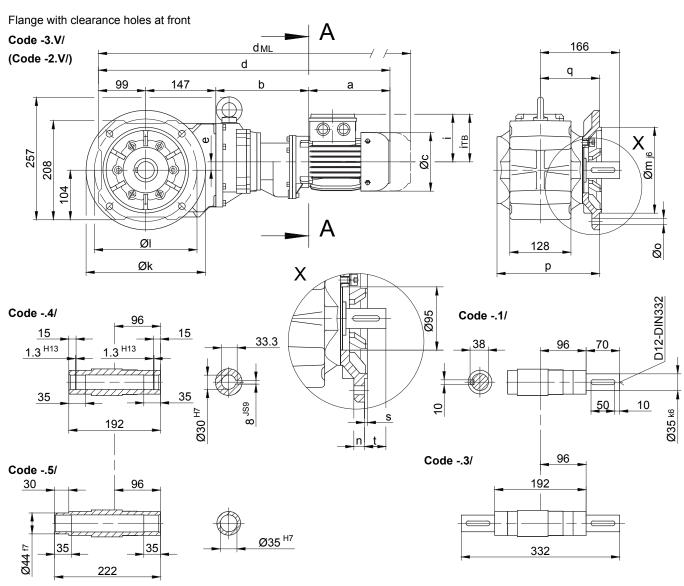
Foot with clearance holes at bottom

Code -1.U/



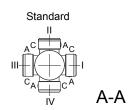


BK20G06



Flange dimensions

3									
BK20G	k	ı	m	n	0	р	q	s	t
Standard -3.V/	250	215	180	16	13.5	215.5	124	4	42
small -2.V/	200	165	130	12	11	206.5	115	3.5	51



							Design with motor extensions							
Type		 		٨			itb E/ES G E/ESG RR							
Туре	а	b	С	d	е	ı	iTB d _{ML} d _{ML} d _{ML}				d _{ML}			
BK20G06/D04	143	193	111	582	17	90	112	625.5	644.5	687.5	-			
BK20G06/D05	170	195	123	611	17	100	117	653	714	755.5	-			
BK20G06/D06	170	195	123	611	17	100	119	653	714	755.5	-			
BK20G06/D07	190	195	123	631	17	100	119	673	734	775.5	-			
BK20G06/D08	200	239	156	685	17	115	136.5	751	792	858.5	751			

32

216.5

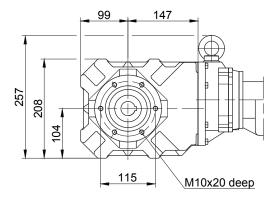
BK20G06



Code -5.V/ 204 147 180 99 99 82.52

Flange with tapped holes at front

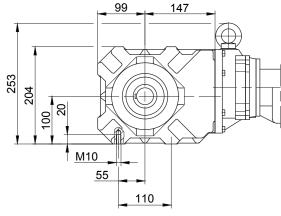
Code -7.V/

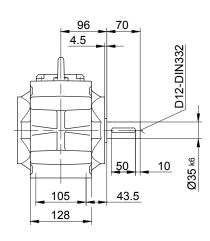


192 183 3.5

Foot with tapped holes at bottom

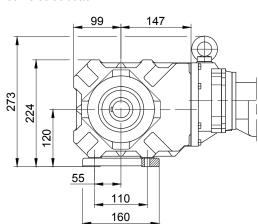
Code -6.U/

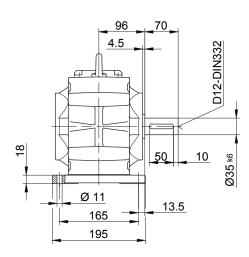




Foot with clearance holes at bottom

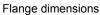
Code -1.U/



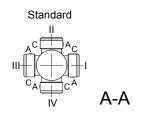


BK30G06

Flange with clearance holes at front A Code -3.V/ d_{ML} (Code -2.V/) d 192 q 161 109 b а Χ $\oplus \oplus$ Øm je 277 148 Ø١ å Øk D16-DIN332 Code -.4/ Code -.1/ 16 1.6 H₁₃ 112 1.6 H13 80 38.3 40 40 10 224 60 Χ Code -.5/ Code -.3/ Ø110 112 30 112 224 Ø40 H7 35 40 384



BK30G	k	I	m	n	0	р	q	s	t
Standard -3.V/	250	215	180	16	13.5	242	135	4	57
small -2.V/	200	165	130	12	11	239	132	3.5	60

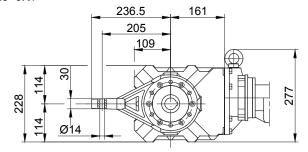


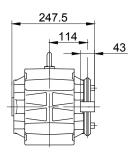
							Design with motor extensions						
Tuno		h		٦				E/ES	G	E/ESG	RR/RL		
Туре	а	b	С	d	е	'	ΙТВ	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BK30G06/D04	143	191	111	604	17	90	112	647.5	666.5	709.5	-		
BK30G06/D05	170	193	123	633	17	100	117	675	736	777.5	-		
BK30G06/D06	170	193	123	633	17	100	119	675	736	777.5	-		
BK30G06/D07	190	193	123	653	17	100	119	695	756	797.5	-		
BK30G06/D08	200	237	156	707	17	115	136.5	773	814	880.5	773		

BK30G06

Torque arm at front

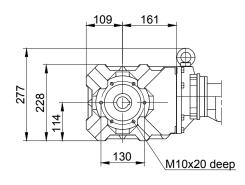
Code -5.V/

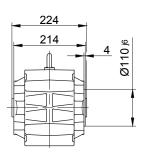




Flange with tapped holes at front

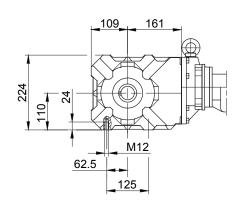
Code -7.V/

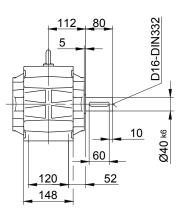




Foot with tapped holes at bottom

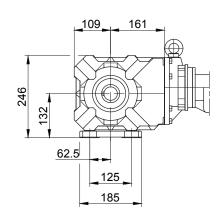
Code -6.U/

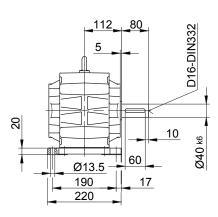




Foot with clearance holes at bottom

Code -1.U/





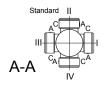
Dimension

BK40G10

Flange with clearance holes at front A d_{ML} (Code -4.V/) 230 d q 120 182 b а $\oplus \oplus$ 297.5 250 125 ØΙ 180 ø Χ Øk р D16-DIN332 Code -.4/ Code -.1/ 130 17 17 1.85 H13 1.85 H13 43.3 53.5 130 100 40 40 80 10 260 Ø110 Code -.5/ Code -.3/ 130 33.5 130 Ø50 H7 260 40 50 Ø62 f7 460 295

Flange dimensions

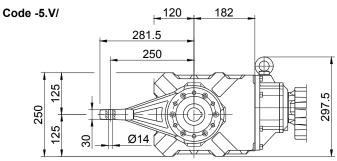
BK40G	k	I	m	n	0	р	q	s	t
Standard -3.V/	250	215	180	16	13.5	276	152	4	78
big -4.V/	300	265	230	20	13.5	282	158	4	72

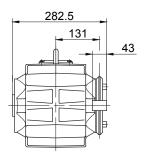


							Design with motor extensions							
Typo		b		٨			i _{TB} E/ES G E/ESG RR/R							
Туре	а	D	С	d	е	ı	ΙΤΒ	d _{ML}	d _{ML}	d _{ML}	d _{ML}			
BK40G10/D05	170	300	123	772	15.5	100	117	814	875	916.5	=			
BK40G10/D06	170	300	123	772	15.5	100	119	814	875	916.5	-			
BK40G10/D07	190	300	123	792	15.5	100	119	834	895	936.5	-			
BK40G10/D08	200	304	156	806	15.5	115	136.5 872 913 979.5 872							
BK40G10/D09	251	318.5	181	871.5	15.5	124	158	964.5	978.5	1069	964.5			

BK40G10

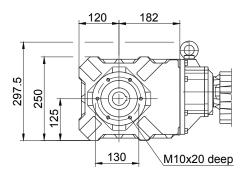
Torque arm at front

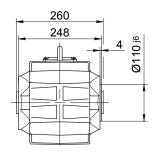




Flange with tapped holes at front

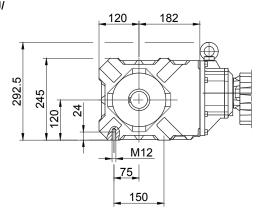
Code -7.V/

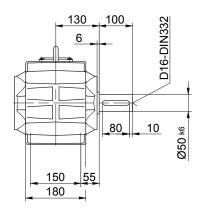




Foot with tapped holes at bottom

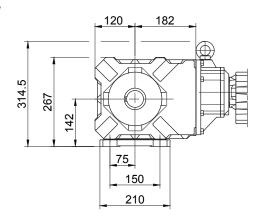
Code -6.U/

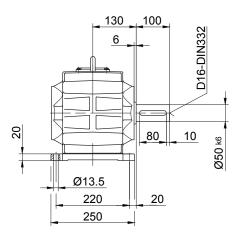




Foot with clearance holes at bottom

Code -1.U/

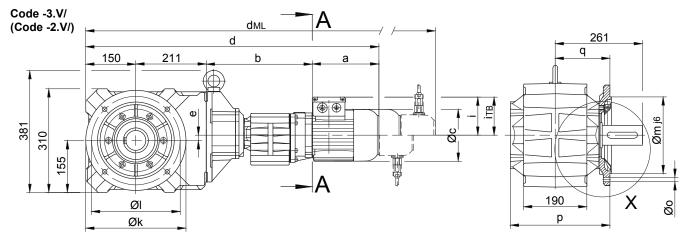


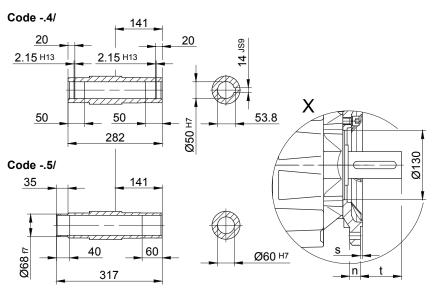


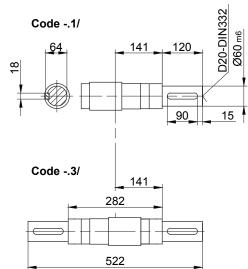
Dimension

BK50G10

Flange with clearance holes at front

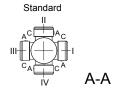






Flange dimensions

BK50G	k	I	m	n	0	р	q	s	t
Standard -3.V/	300	265	230	20	13.5	298.5	164	4	97
small-2.V/	250	215	180	16	13.5	296	161	4	100

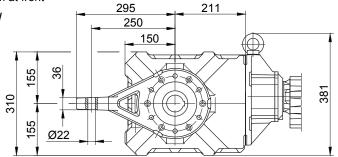


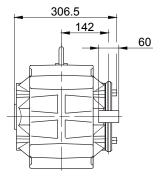
							Design with motor extensions							
Typo		b		٦	_		E/ES G E/ESG RL/RI							
Туре	а	Ь	С	d	е	ı	ΙΤΒ	d_ML	d_ML	d _{ML}	d _{ML}			
BK50G10/D05	170	313	123	844	16	100	117	886	947	988.5	-			
BK50G10/D06	170	313	123	844	16	100	119	886	947	988.5	-			
BK50G10/D07	190	313	123	864	16	100	119	906	967	1008.5	-			
BK50G10/D08	200	317	156	878	16	115	136.5	944	985	1051.5	944			
BK50G10/D09	251	331.5	181	943.5	16	124	158	1036.5	1050.5	1141	1036.5			

BK50G10

Torque arm at front

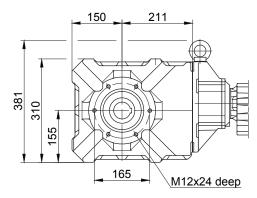
Code -5.V/

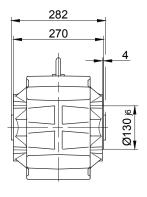




Flange with tapped holes at front

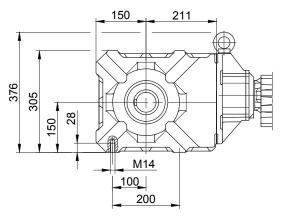
Code -7.V/

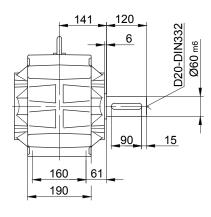




Foot with tapped holes at bottom

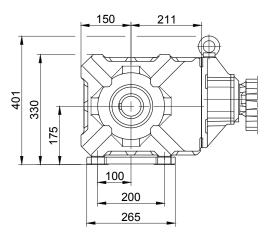
Code -6.U/

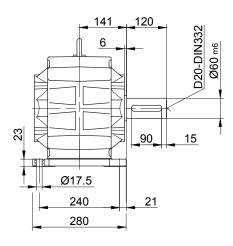




Foot with clearance holes at bottom

Code -1.U/

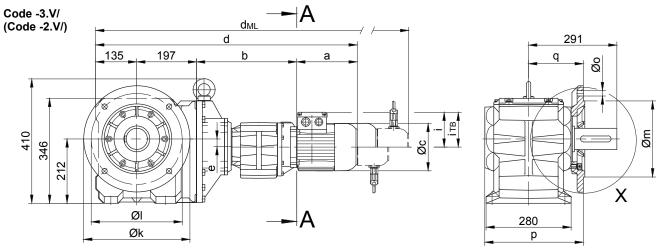


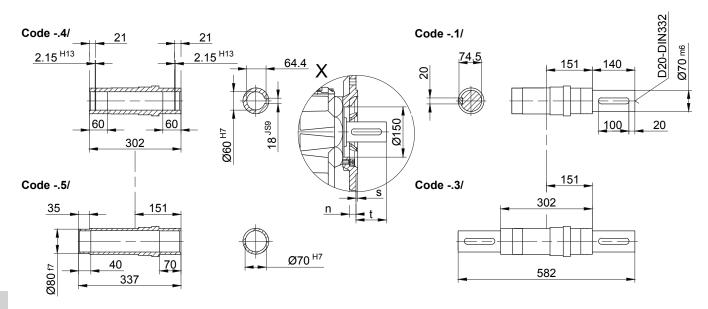


Dimension

BK60G20

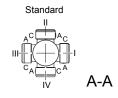
Flange with clearance holes at front





Flange dimensions

BK60G	k	I	m	n	0	р	q	s	t
Standard -3.V/	350	300	250h6	20	17.5	324	180	5	111
small -2.V/	300	265	230 j6	20	13.5	332	188	4	103



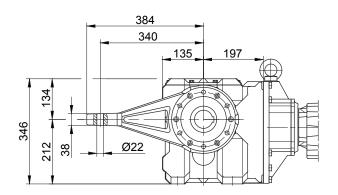
							Design with motor extensions							
Typo		b		٨			i _{TB} E/ES G E/ESG RR/F							
Туре	а	D	С	d	е	ı	ΙΤΒ	d_ML	d_ML	d _{ML}	d_ML			
BK60G20/D05	170	326	123	828	27	100	117	870	931	972.5	-			
BK60G20/D06	170	326	123	828	27	100	119	870	931	972.5	-			
BK60G20/D07	190	326	123	848	27	100	119	890	951	992.5	-			
BK60G20/D08	200	330	156	862	27	115	136.5	928	969	1035.5	928			
BK60G20/D09	251	344.5	181	927.5	27	124	158	1020.5	1034.5	1125	1020.5			

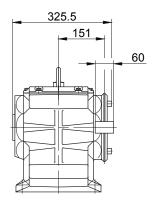
12

BK60G20

Torque arm at front

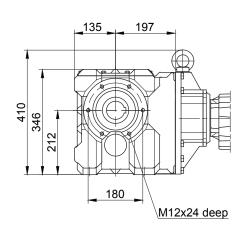
Code -5.V/

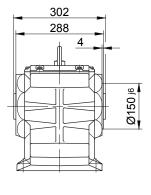




Flange with tapped holes at front

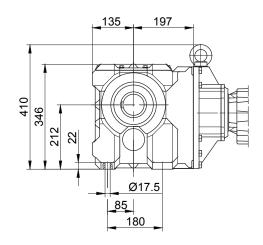
Code -7.V/

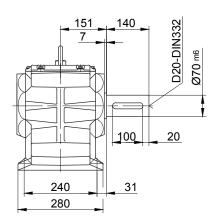




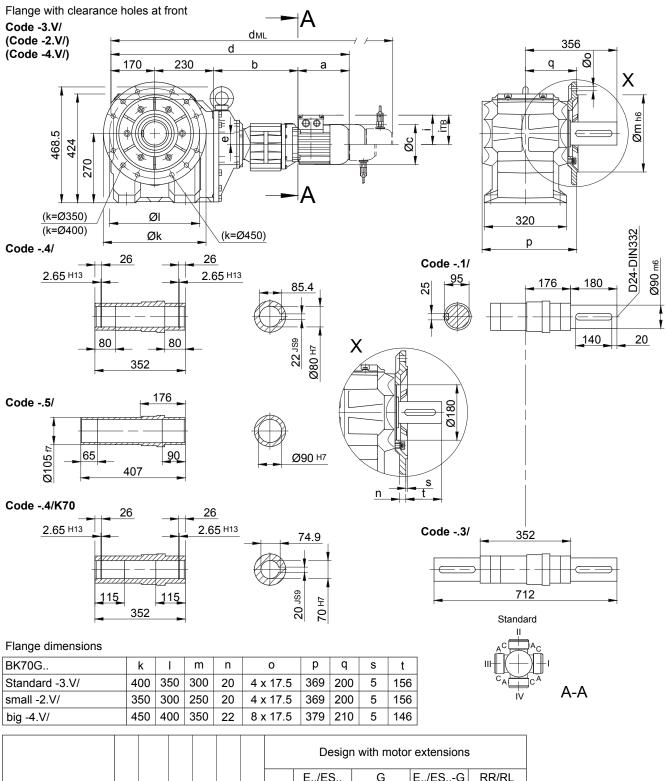
Foot with clearance holes at bottom

Code -1.U/





BK70G20

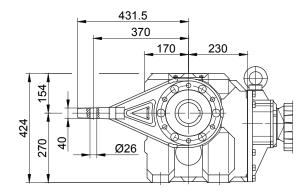


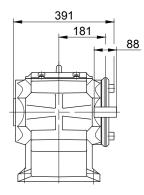
							Design with motor extensions							
Typo		b		d			E/ES G E/ESG RR/F							
Туре	а	D	С	u	е	ı	ΙТВ	d_ML	d _{ML}	d _{ML}	d_ML			
BK70G20/D05	170	324	123	894	43	100	117	936	997	1038.5	-			
BK70G20/D06	170	324	123	894	43	100	119	936	997	1038.5	-			
BK70G20/D07	190	324	123	914	43	100	119	956	1017	1058.5	-			
BK70G20/D08	200	328	156	928	43	115	136.5	994	1035	1101.5	994			
BK70G20/D09	251	342.5	181	993.5	43	124	158	1086.5	1100.5	1191	1086.5			

BK70G20

Torque arm at front

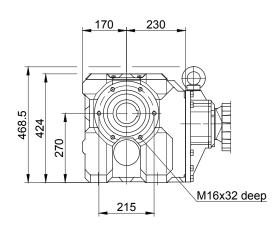
Code -5.V/

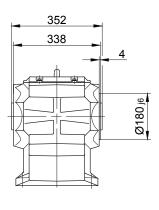




Flange with tapped holes at front

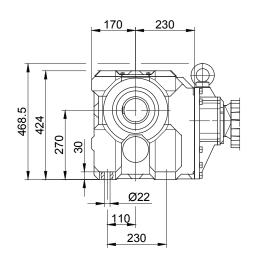
Code -7.V/

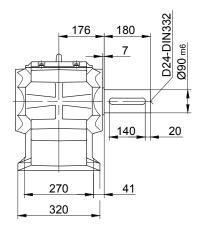




Foot with clearance holes at bottom

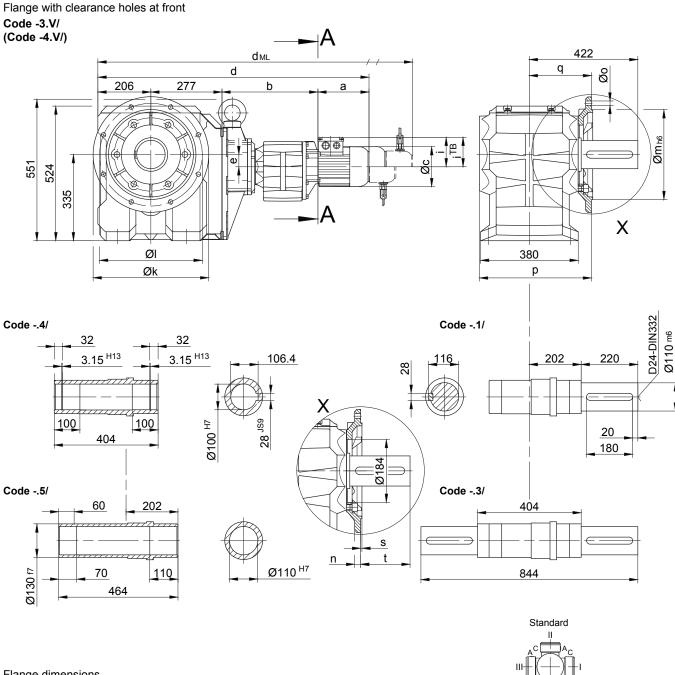
Code -1.U/





Dimension

BK80G40



Flange dimensions

BK80G	k	I	m	n	0	р	q	S	t
Standard -3.V/	450	400	350	22	17.5	439	245	5	177
big -4.V/	550	500	450	22	17.5	444	250	5	172

							Design with motor extensions								
Type		b		d	0		i	ES	G	ESG	RR/RL				
Туре	а	D	С	u	е	ı	I _{TB}	d_ML	d_ML	d_ML	d_ML				
BK80G40/D08	200	373	156	1056	47	115	136.5	1122	1163	1229.5	1122				
BK80G40/D09	251	387.5	181	1121.5	47	124	158	1214.5	1228.5	1319	1214.5				
BK80G40/D11	319	394	228	1196	47	181	181 1294 1303 1398.5 1294								

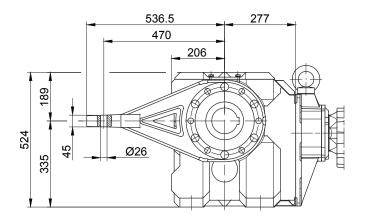
The actual gearbox design can vary from the geometry shown.

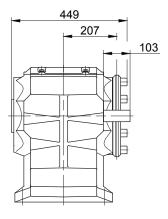
A-A

12

BK80G40

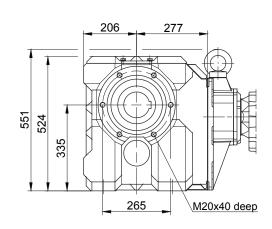
Torque arm at front **Code -5.V**/

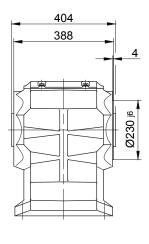




Flange with tapped holes at front

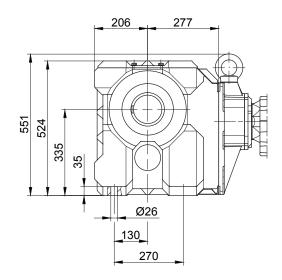
Code -7.V/

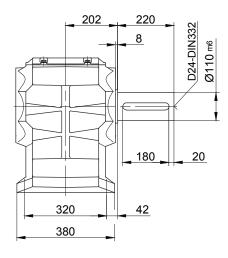




Foot with clearance holes at bottom

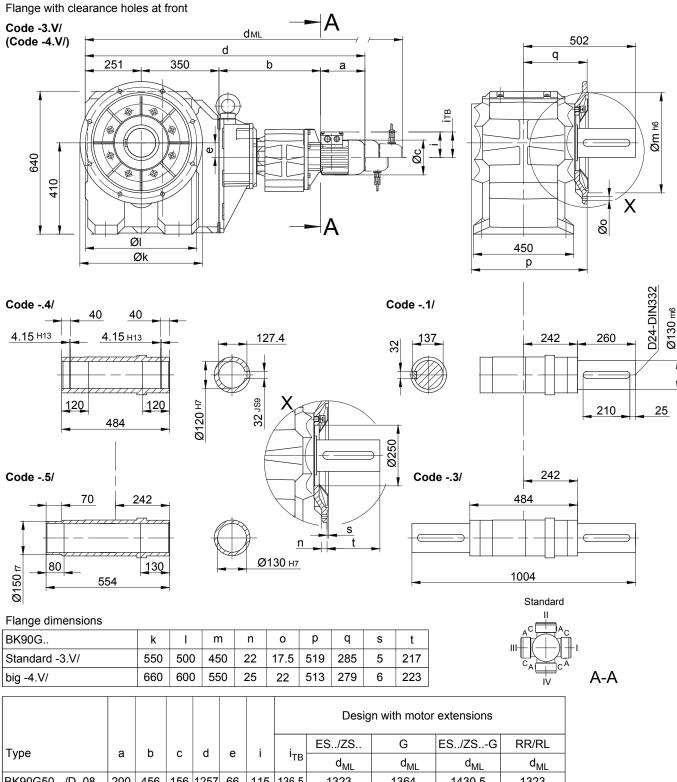
Code -1.U/





12

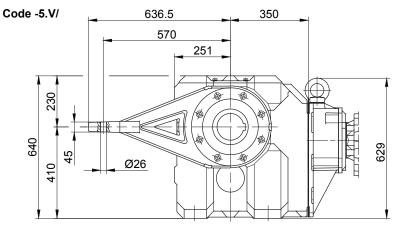
BK90G50

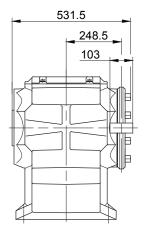


							Design with motor extensions							
Type	a	b	С	d	е			ES/ZS	G	ES/ZSG	RR/RL			
Туре	а	D	C	u	C	ľ	ТВ	d_ML	d_ML	d _{ML}	d _{ML}			
BK90G50/D08	200	456	156	1257	66	115	136.5	1323	1364	1430.5	1323			
BK90G50/D09	251	470.5	181	1322.5	66	124	158	1415.5	1429.5	1520	1415.5			
BK90G50/D11	319	477	228	1397	66	181	181	1495	1504	1599.5	1495			
BK90G50/D13	393	490	258	1484	66	218	218	1595	1591	1699.5	1595			
BK90G50/D16	429	504	322	1534	66	244	244	1678	1642	1782	1678			
BK90G50/D18	528	535	368	1664	66	288	288	38 1813 1772 1917 181						

BK90G50

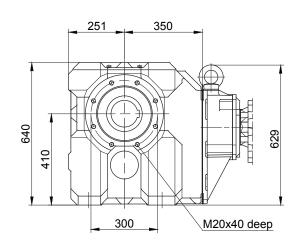
Torque arm at front

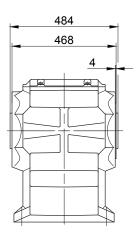




Flange with tapped holes at front

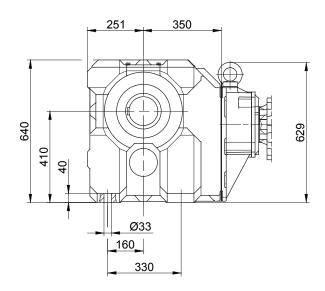
Code -7.V/

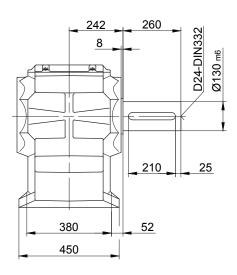




Foot with clearance holes at bottom

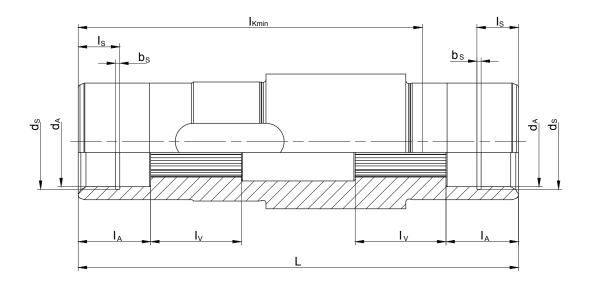
Code -1.U/





12

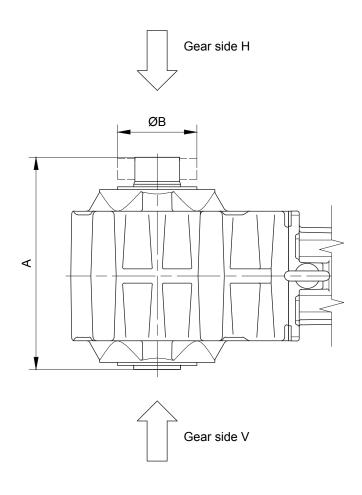
Splined shaft BK



Typo	Spline acc.	d _A	IA	Iv	I _{Kmin}	L	ds	IS	b _S
Туре	DIN 5480	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
BK10	N30x1.25x22x9H	35 ^{G7}	28	35	132	170	37 ^{H12}	16	1.6 ^{H13}
BK20	N35x2x16x9H	36 ^{G7}	28	35	154	192	37 ^{H12}	16	1.6 ^{H13}
BK30	N40x2x18x9H	41 ^{G7}	25	42	179	224	42.5 ^{H12}	17	1.85 ^{H13}
BK40	N50x2x24x9H	51 ^{G7}	25	49	214	260	53 ^{H12}	17	2.15 ^{H13}
BK50	N60x2x28x9H	61 ^{G7}	25	58	229	282	63 ^{H12}	17	2.15 ^{H13}
BK60	N70x2x34x9H	72 ^{G7}	25	72	248	302	75 ^{H12}	17	2.65 ^{H13}
BK70	N85x3x27x9H	86 ^{G7}	26	100	295	352	88.5 ^{H12}	17	3.15 ^{H13}
BK80	N110x3x35x9H	112 ^{G7}	60	90	335	404	116 ^{H12}	30	4.15 ^{H13}
BK90	N130x5x24x9H	131.5 ^{G7}	60	110	410	484	134 ^{H12}	30	4.15 ^{H13}

Shrink disc couplings (SSV)

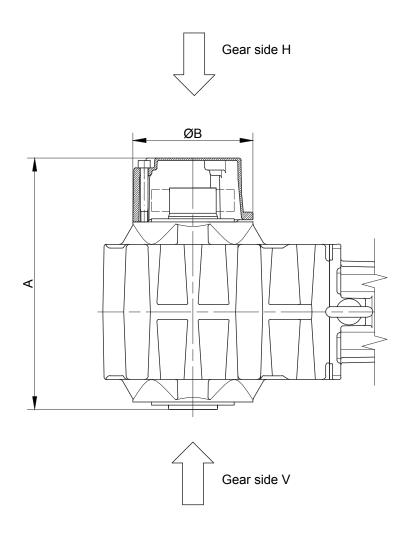
(Code BK10-.5/...) (Code BK10Z-.5/...)



Туре	SSV Ringfeder	SSV STÜWE	Α	В
BK06	RfN 4161 024x050	HSD 24-22x24	118	50
BK10	RfN 4161 036x072	HSD 36-22x36	195	72
BK20	RfN 4161 044x080	HSD 44-22x44	222	80
BK30	RfN 4161 050x090	HSD 50-22x50	254	90
BK40	RfN 4161 062x110	HSD 62-22x62	295	110
BK50	RfN 4161 068x115	HSD 68-22x68	317	115
BK60	RfN 4161 080x141	HSD 80-22x80	337	140
BK70	RfN 4161 105x185	HSD 110-22x105	407	185
BK80	RfN 4161 130x215	HSD 125-22x130	464	215
BK90	RfN 4161 150x263	HSD 155-22x150	554	263

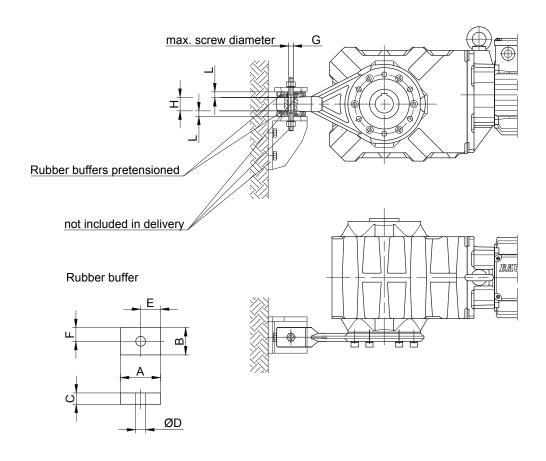
Shrink Disk Connection with Cover (SSV)

(Code BK10-.5A/...) (Code BK10Z-.5A/...)



Туре	SSV Ringfeder	SSV STÜWE	А	В
BK10	RfN 4161 036x072	HSD 36-22x36	217	120
BK20	RfN 4161 044x080	HSD 44-22x44	270	140
BK30	RfN 4161 050x090	HSD 50-22x50	300	160
BK40	RfN 4161 062x110	HSD 62-22x62	335	160
BK50	RfN 4161 068x115	HSD 68-22x68	329	200
BK60	RfN 4161 080x141	HSD 80-22x80	386	210
BK70	RfN 4161 105x185	HSD 110-22x105	465	250
BK80	RfN 4161 130x215	HSD 125-22x130	502	300
BK90	RfN 4161 150x263	HSD 155-22x150	602	350

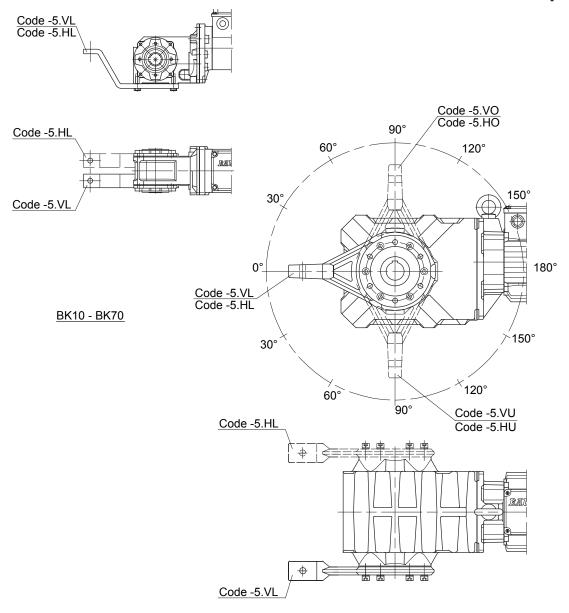
Rubber buffer for torque restraint



Material: Natural rubber Hardness 50±5 Shore A Dimensions of the transverse hole: see dimensioned sketch of the respective shaft mounted gearbox

Gear	Pos.	Dimensio	ns (mm)							
		А	В	С	D	E	F	G	Н	L
BK06	Pos.0	30	30	12	12	15	15	M10	10	10
BK10	Pos.1	48	32	15	14	24	16	M10	19	13.5
BK20	Pos.1	48	32	15	14	24	16	M10	19	13
BK30	Pos.2	63	43	20	14	31.5	21.5	M10	30	17
BK40	Pos.2	63	43	20	14	31.5	21.5	M10	30	17
BK50	Pos.3	88	60	25	22	44	30	M18	36	21.5
BK60	Pos.3	88	60	25	22	44	30	M18	38	21
BK70	Pos.4	123	88	30	26	61.5	44	M20	40	25.5
BK80	Pos.5	133	103	35	26	66.5	51.5	M20	45	30
BK90	Pos.5	133	103	35	26	66.5	51.5	M20	45	29.5

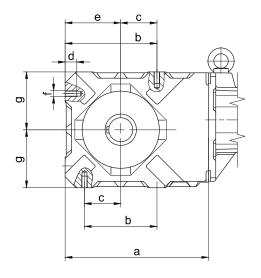
Posittion of the torque arm

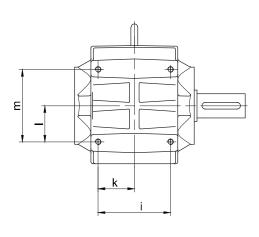


Possible locations.

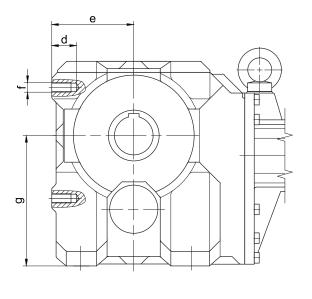
Position	VL / HL			VO / HO VU / HU			VR / HR
BK06	0°	-	-	-	-	-	-
BK10	0°	30°	60°	90°	120°	150°	-
BK20	0°	30°	60°	90°	120°	150°	-
BK30	0°	30°	60°	90°	120°	150°	-
BK40	0°	30°	60°	90°	120°	150°	-
BK50	0°	30°	60°	90°	120°	150°	-
BK60	0°	30°	60°	90°	120°	150°	-
BK70	0°	30°	60°	90°	120°	150°	-
BK80	0°	30°	60°	90°	120°	150°	-
BK90	0°	4:	5°	90°	13	5°	-

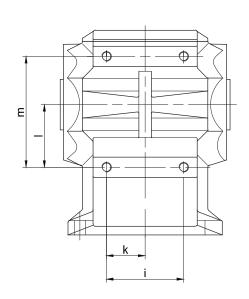
Foot with tapped bores





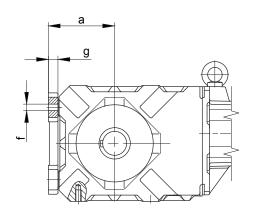
Туре	а	b	С	d	е	f	g	i	k	I	m
BK10-BK10Z	202	90	45	16	78	M8	80	95	47.5	45	90
BK20-BK20Z	242	110	55	20	95	M10	100	105	52.5	55	110
BK30-BK30Z	266	125	62.5	24	105	M12	110	120	60	62.5	125
BK40-BK40Z	297	150	75	24	115	M12	120	150	75	75	150
BK50-BK50Z	356	200	100	28	145	M14	150	160	80	100	200

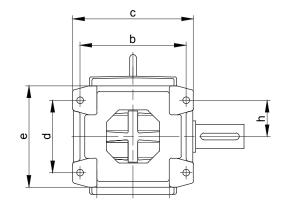




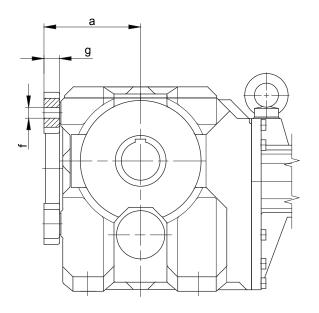
Туре	а	b	С	d	е	f	g	i	k	I	m
BK60-BK60Z	-	-	-	40	130	M20	212	160	80	145	230
BK70-BK70Z	-	-	-	40	165	M20	270	160	80	130	230
BK80-BK80Z	-	-	-	60	200	M30	335	210	105	240	360
BK90-BK90Z	-	-	-	60	245	M30	410	210	105	215	360

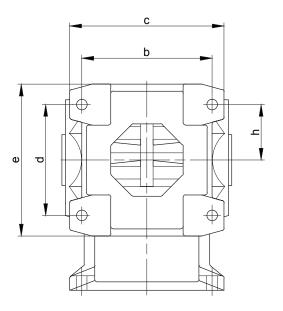
Foot plate with through holes





Туре	а	b	С	d	е	f	g	h
BK10-BK10Z	96	145	165	90	130	Ø9	16	45
BK20-BK20Z	115	165	195	110	160	Ø11	18	55
BK30-BK30Z	127	190	220	125	185	Ø13.5	20	62.5
BK40-BK40Z	137	220	250	150	210	Ø13.5	20	75
BK50-BK50Z	170	240	280	200	265	Ø17.5	23	100

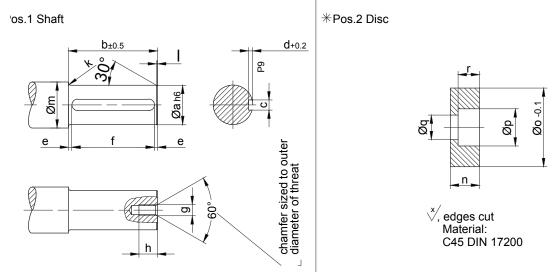




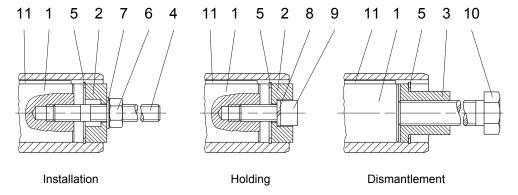
Туре	а	b	С	d	е	f	g	h
BK60-BK60Z	165	270	320	230	315	Ø22	32	85
BK70-BK70Z	200	270	320	230	315	Ø22	32	100
BK80-BK80Z	250	400	480	360	480	Ø33	47	120
BK90-BK90Z	295	400	480	360	480	Ø33	47	145

Additional Dimension Sheet

Assembly tools for shaft mounted gears with splined shaft



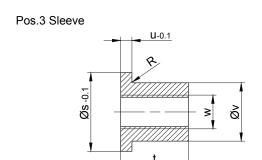
Туре						Pos.1	Shaft						Pos	s.2 Dis	С	
	а	b	С	d	е	f	g	h	k	I	m	n	0	р	q	r
BK06	20	75	6	3.5	6	63 ^{+0.3}	M6	16	2	1	28	13.5	19.8	11	6.6	6.5
BK10	25	148	8	4	11.5	125 ^{+0.5}	M8	18	2.5	1.5	33	13.5	24.8	15	9	8.5
BK20	30	170	8	4	15	140 ^{+0.5}	M10	20	3	1.5	38	15	29.8	18	11	10
BK30	35	201	10	5	10.5	180 ^{+0.5}	M10	20	3	1.5	43	16	34.8	18	11	10
BK40	40	235	12	5	17.5	200+0.5	M12	22	3	2	48	18	39.8	20	13.5	12
BK50	50	254	14	5.5	17	220+0.5	M16	30	3.5	2	58	21	49.8	26	17.5	15
BK60	60	273	18	7	11.5	250 ^{+0.5}	M20	38	3.5	2	68	24	59.8	33	22	18
BK70	80	316	22	9	18	280 ^{+0.5}	M20	38	4	2	90	27	79.8	33	22	20
BK70-K70	70	316	20	7.5	18	280+0.5	M20	38	4	2	90	27	69.8	33	22	20
BK80	100	360	28	10	20	320 ^{+0.5}	M24	45	4	3	110	32	99.8	40	26	25
BK90	120	432	32	11	16	400+0.5	M24	45	4.5	3	130	35	119.8	40	26	28



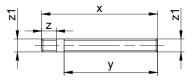
The parts shown are neccessary fpr assembly. ONLY *specified parts are enclosed in the assembly kit. Suitable measures are to be used to secure Bolt Pos.9 against loosening.

Additional Dimension Sheet

Assembly tools for shaft mounted gears with splined shaft



Pos.4 Stud Bolt



Material: Steel, tensile strength \geq 1000N/mm² threads rolled

 $\sqrt[x]{}$, edges cut

IV.	Material: C45 DIN 17200 ⊤																	
				Di	mensi	ons ((mm)								>			ength
Туре	Pos.3	Sle	eve	;			Pos.4	Pos.4 Stud Bolt			* retainer ring DIN 472	Hexagon nut DIN 934-8	Disc DIN 125-St	Lock Washer DIN 7980	* Filister head screw DIN 912-8.8	starting torque [Nm]	hexagon bolt DIN EN 24017-8.8	Key DIN 6885 width x height x Length
	s	t	u	٧	W	R	х	у	z	z1	Pos.5	Pos.6	Pos.7	Pos.8	Pos.9		Pos.10	Pos.11
BK06	19.8	20	5	11.1	M8	0.8	130	100	20	M6	20x1	M6	6.4	6	M6x30	5	M6x120	A 6x6x63
BK10	24.8	24	5	15.4	M12	0.8	200	170	20	M8	25x1.2	M8	8.4	8	M8x30	5	M12x190	A 8x7x125
BK20	29.8	28	5	19.8	M14	0.8	230	195	23	M10	30x1.2	M10	10.5	10	M10x30	8	M14x210	A 8x7x140
BK30	34.8	28	5	23	M14	-	260	220	23	M10	35x1.5	M10	10.5	10	M10x35	0	M14x240	A 10x8x180
BK40	39.8	40	6	27.7	M20	0.8	300	260	28	M12	40x1.75	M12	13	12	M12x35	16	M20x290	A 12x8x200
BK50	49.8	48	6	36	M24	-	340	290	37	M16	50x2.0	M16	17	16	M16x40	30	M24x320	A 14x9x220
BK60	59.8	60	6	44	M30	-	370	310	45	M20	60x2.0	M20	21	20	M20x50		M30x350	A 18x11x250
BK70	79.8	60	8	55	M30	-	420	360	45	M20	80x2.5	M20	21	20	M20x50	42	M30x400	A 22x14x280
BK70-K70	69.8	60	8	53	M30	-	420	360	45	M20	70x2.5	M20	21	20	M20x50		M30x400	A 20x12x280
BK80	99.8	72	10	75	M36	-	480	410	55	M24	100x3.0	M24	25	24	M24x60	100	M36x450	A 28x16x320
BK90	119.8	72	10	80	M36	-	560	480	55	M24	120x4.0	M24	25	24	M24x60		M36x520	A 32x18x400

The parts shown are neccessary fpr assembly. ONLY *specified parts are enclosed in the assembly kit.

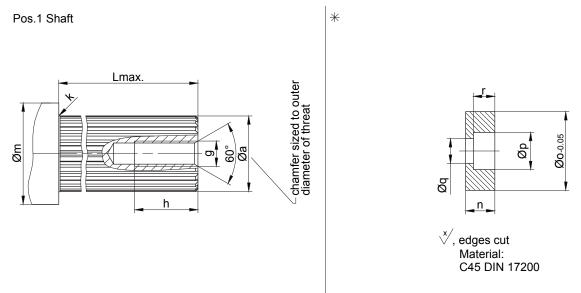
Suitable measures are to be used to secure Bolt Pos.9 against loosening.

Optional:

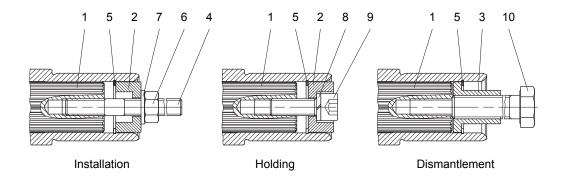
Туре	Øs	Order Text
BK06	20	Id.Nr.4104013 Assembly tool "holding"
BK10	25	Id.Nr.4103921 Assembly tool "holding"
BK20	30	Id.Nr.4103939 Assembly tool "holding"
BK30	35	Id.Nr.4103947 Assembly tool "holding"
BK40	40	Id.Nr.4103955 Assembly tool "holding"
BK50	50	Id.Nr.4103963 Assembly tool "holding"
BK60	60	Id.Nr.4103971 Assembly tool "holding"
BK70	80	Id.Nr.4103980 Assembly tool "holding"
BK70-K70	70	Id.Nr.4104765 Assembly tool "holding"
BK80	100	Id.Nr.4103998 Assembly tool "holding"
BK90	120	Id.Nr.4104005 Assembly tool "holding"

Additional Dimension Sheet

Assembly tools for shaft mounted gears with splined shaft



			dim	ensior	іѕ (мм)							
Туре	Pos.1 Shaft						Pos.2 Disc					
	а	g	h	k	Lmax.	m	n	О	р	q	r	
BK10	DIN 5480-W30x1.25x22	M10	25	2.5	145	33	15	30.4	18	11	10	
BK20	DIN 5480-W35x2x16	M10	25	3	170	38	14	35.9	18	11	10	
BK30	DIN 5480-W40x2x18	M12	30	3	200	43	18	40.9	20	13.5	12	
BK40	DIN 5480-W50x2x24	M16	35	3	235	48	17.5	50.9	26	17.5	12.5	
BK50	DIN 5480-W60x2x28	M20	40	3.5	255	58	24	60.9	33	22	18	
BK60	DIN 5480-W70x2x34	M20	40	3.5	275	68	24	71.9	33	22	18	
BK70	DIN 5480-W85x3x27	M20	40	4	325	90	22	85.9	33	22	16	
BK80	DIN 5480-W110x3x35	M24	50	4	360	110	32	111.9	40	26	25	
BK90	DIN 5480-W130x5x24	M24	50	4.5	440	130	25	131.4	40	26	18	



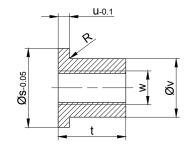
The parts shown are neccessary for assembly. ONLY **specified parts are enclosed in the assembly kit.

Suitable measures are to be used to secure Bolt Pos.9 against loosening.

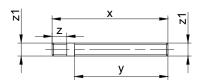
Additional Dimension Sheet

Assembly tools for shaft mounted gears with splined shaft





√, edges cut Material: C45 DIN 17200 Pos.4 Stud Bolt



Material: Steel, tensile strength \geq 1000N/mm² threads rolled

				Di	mens	ions	(mm)								screw		
Туре	Pos.3 Sleeve Pos.4 Stud Bolt							* retainer ring DIN 472	Hexagon nut DIN 934-8	Disc DIN 125-St	Lock Washer DIN 7980	* Filister head s DIN 7984-8.8	starting torque [Nm]	hexagon bolt DIN EN 24017-8.8			
	s	t	u	v	w	R	х	у	z	z1	Pos.5	Pos.6	Pos.7	Pos.8	Pos.	9	Pos.10
BK10	30.4	28	5	19.8	M14	-	200	170	23	M10	30x1.2	M10	10.5	10	M10x30	8	M14x190
BK20	35.9	28	5	23	M14	-	230	195	23	M10	35x1.5	M10	10.5	10	M10x35	0	M14x210
BK30	40.9	40	6	27.7	M20	-	260	220	28	M12	40x1.75	M12	13	12	M12x35	16	M20x240
BK40	50.9	48	6	36	M24	0.8	300	260	37	M16	50x2.0	M16	17	16	M16x40	30	M24x290
BK50	60.9	60	6	44	M30	-	340	290	45	M20	60x2.0	M20	21	20	M20x50		M30x320
BK60	71.9	60	6	53	M30	0.8	370	310	45	M20	70x2.5	M20	21	20	M20x50	42	M30x350
BK70	85.9	60	8	65	M30	0.8	420	360	45	M20	85x3	M20	21	20	M20x50		M30x400
BK80	111.9	72	10	85	M36	0.8	480	410	55	M24	112x4	M24	25	24	M24x60	100	M36x450
BK90	131.4	72	10	95	M36	0.8	560	480	55	M24	130x4	M24	25	24	M24x60	100	M36x520

The parts shown are neccessary for assembly. ONLY *specified parts are enclosed in the assembly kit.

Suitable measures are to be used to secure Bolt Pos.9 against loosening.

Optional:

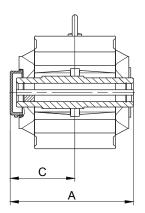
Type	Øs	Order Text
BK10	30.5	Id.Nr.4105133 Assembly tool "holding"
BK20	36	Id.Nr.4105141 Assembly tool "holding"
BK30	41	Id.Nr.4105150 Assembly tool "holding"
BK40	51	Id.Nr.4105168 Assembly tool "holding"
BK50	61	Id.Nr.4105176 Assembly tool "holding"
BK60	72	Id.Nr.4105184 Assembly tool "holding"
BK70	86	Id.Nr.4105192 Assembly tool "holding"
BK80	112	Id.Nr.4105206 Assembly tool "holding"
BK90	131.5	Id.Nr.4105214 Assembly tool "holding"

Additional Dimension Sheet

Shaft Cap (VK)

Gear side REAR (H)

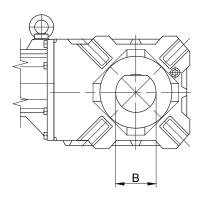




Gear side FRONT (V)



Gear side REAR (H)

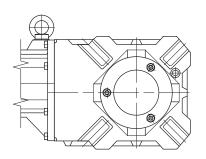


Туре	А	В	С
BK10	182.5	85	97.5
BK20	204.5	90	108.5
BK40	273.5	100	143.5
BK50	298	115	157
BK60	322	130	171
BK70	370	160	194

12

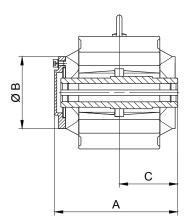
Shaft Cover (VD)

Gear side REAR (H)









Gear side FRONT (V)



Туре	А	В	С
BK10	181	120	85
BK20	206	139.5	96
BK30	239	160	112
BK40	274	160	130
BK50	297	199	141
BK60	321	210	151
BK70	368	250	176
BK80	419	300	202
BK90	492	351	242

Catalogue geared motors

496 www.bauergears.com P-7112-BGM-EN-A4

Catalogue geared motors

Edition 03/2012



Dimensional drawings of worm-geared motors

497-534

- Standard
- Tandem Gearbox

Additional Dimension Sheet

- Shrink disc couplings (SSV)
- Shrink disc couplings with (SSV) cover
- Rubber buffer for torque restraint
- Position of the torque arm
- Threaded foot, left
- Foot plate, left
- Assembly tools for hollow shaft
- Shaft cap (VK)
- Shaft cover (VD)

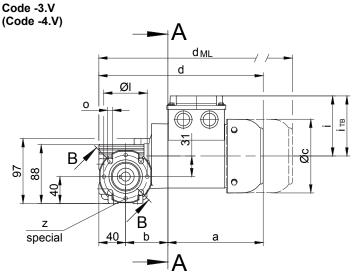
P-7112-BGM-EN-A4 www.bauergears.com 497

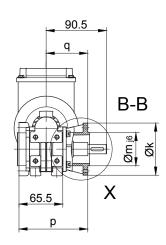
BS-series worm-geared motors

Dimension

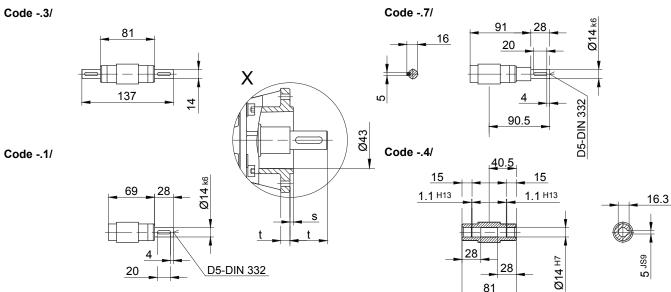
BS02

Flange with clearance holes at front



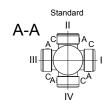


81



Flange dimensions

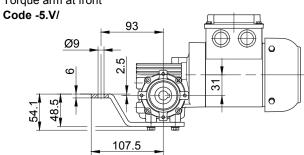
BS02	k	I	m	n	0	р	q	s	t	Z
standard -37V/	80	65	50	7	5.5	103	62.5	2.5	28	-
spezial -37V/	80	65	50	7	5.5	103	62.5	2.5	28	4xM5
big -47V/	110	80	60	8	6.6	103	62.5	2.5	28	-
spezial -47V/	110	80	60	8	6.6	103	62.5	2.5	28	4xM6



							Design with motor extensions						
Typo		b	•	d				E	G	EG	RR/RL		
Туре	а	D	С	u	u	ı	ITB	d_ML	d _{ML}	d _{ML}	d _{ML}		
BS02/D04	143	63.5	111	246.5	178	90	112	290	309	352	-		
BS02/D05	170	65.5	123	275.5	188	100	117	317.5	378.5	420	-		
BS02/D06	170	65.5	123	275.5	188	100	119	317.5	378.5	420	-		
BS02/D07	190	65.5	123	295.5	188	100	119	337.5	398.5	440	-		

BS02

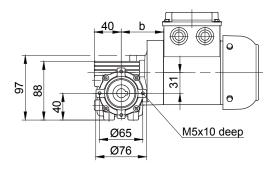
Torque arm at front

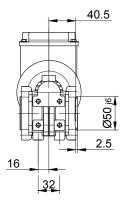


40.5 16 2.5 25 16

Flange with tapped holes at front

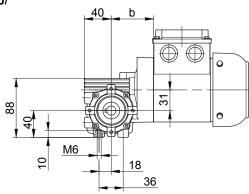
Code -7.V/

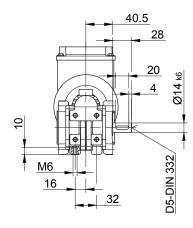




Foot with tapped holes at bottom

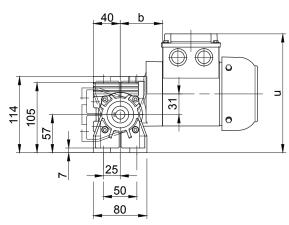
Code -6.U/

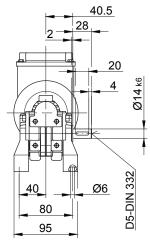




Foot with clearance holes at bottom

Code -1.U/





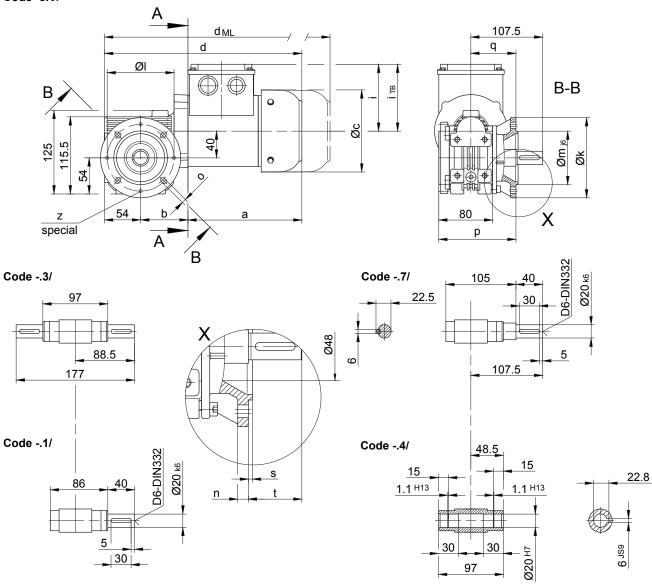
BS-series worm-geared motors

Dimension

BS03

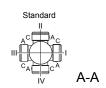
Flange with clearance holes at front

Code -3.V/



Flange dimensions

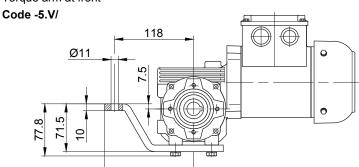
BS03	k	- 1	m	n	0	р	q	s	t	z
standard -37V/	120	100	80	8	6.6	115	67.5	3	40	-
special -37V/	120	100	80	8	6.6	115	67.5	3	40	4xM6



								Design with motor extensions							
Type		h	_	٨		.,		:	E/ES	G	E/ESG	RR/RL			
Туре	а	b	С	d	u	V	ľ	ITB	d _{ML}	d _{ML}	d _{ML}	d _{ML}			
BS03/D05	170	71	123	295	213	70	100	117	337	398	439.5	-			
BS03/D06	170	71	123	295	213	70	100	119	337	398	439.5	-			
BS03/D07	190	71	123	315	213	70	100	119	357	418	459.5	-			
BS03/D08	200	115	156	425	228	-	115	136.5	491	532	598.5	491			

BS03

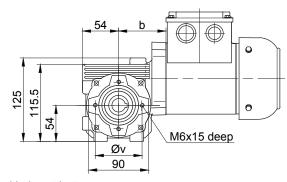
Torque arm at front



133

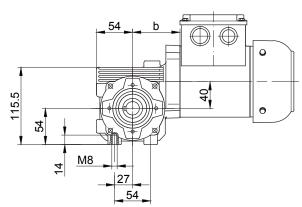
Flange with tapped holes at front

Code -7.V/



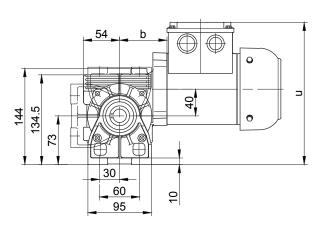
Foot with tapped holes at bottom

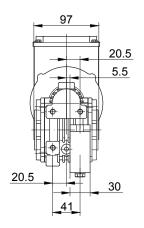
Code -6.U/

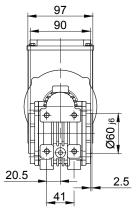


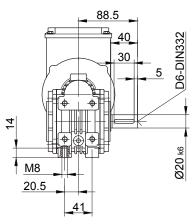
Foot with clearance holes at bottom

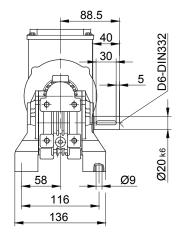
Code -1.U/







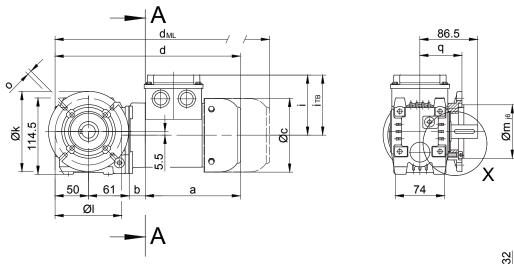




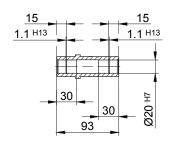
Dimension

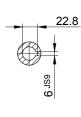
BS04

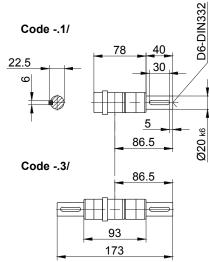
Flange with clearance holes at front **Code -3.V**/

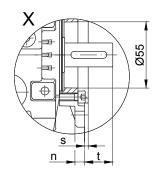


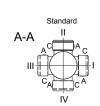












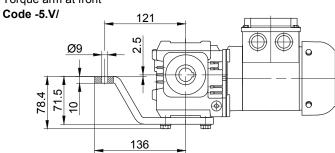
Flange dimensions

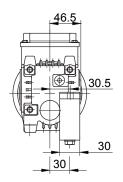
BS04	k	I	m	n	0	р	q	S	t
Standard -3.V/	120	100	80	8	6.6	110.5	63	3	23.5

						Design with motor extensions						
Type		h		٨		i	E	G	EG	RR/RL		
Туре	а	b	С	d	ı	ITB	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BS04/D04	143	24	111	278	90	112	321.5	340.5	383.5	-		
BS04/D05	170	26	123	307	100	117	349	410	451.5	-		
BS04/D06	170	26	123	307	100	119	349	410	451.5	-		
BS04/D07	190	26	123	327	100	119	369	430	471.5	-		

BS04

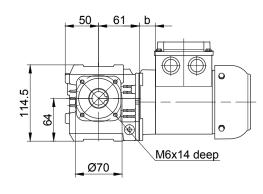
Torque arm at front

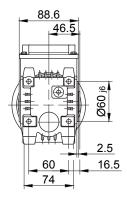




Flange with tapped holes at front

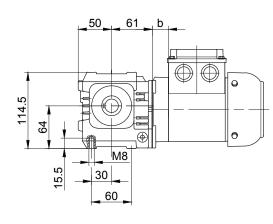
Code -7.V/

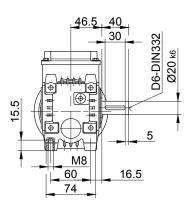




Foot with tapped holes at bottom

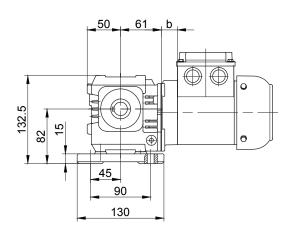
Code -6.U/

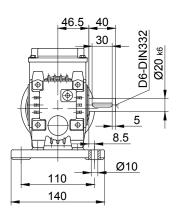




Foot with clearance holes at bottom

Code -1.U/



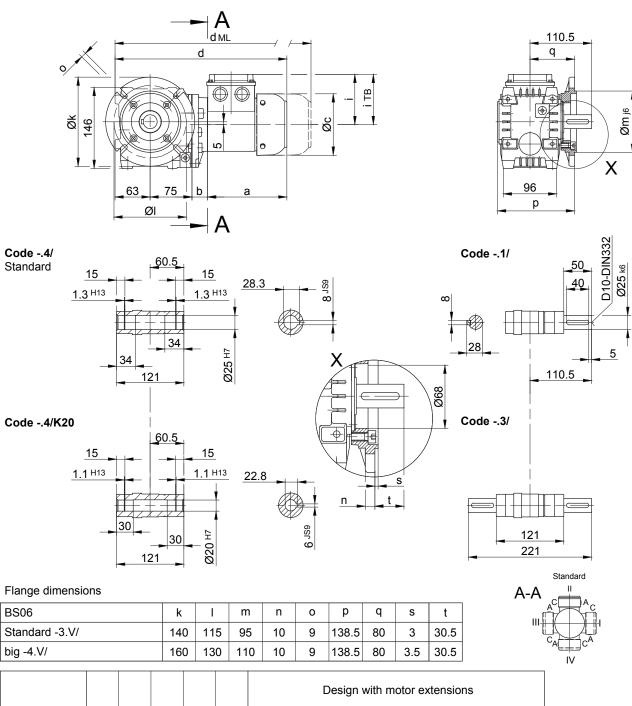


Dimension

BS06

Flange with clearance holes at front

(Code -4.V/)

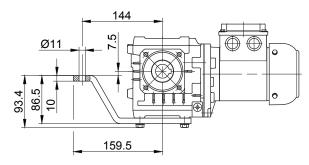


						Design with motor extensions						
Typo	а	b		d		i	E/ES	G	E/ESG	RR/RL		
Туре	а	ט	С	u	ı	ΙΤВ	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BS06/D04	143	28	111	309	90	112	352.5	371.5	414.5	-		
BS06/D05	170	30	123	338	100	117	380	441	482.5	-		
BS06/D06	170	30	123	338	100	119	380	441	482.5	-		
BS06/D07	190	30	123	358	100	119	400	461	502.5	-		
BS06/D08	200	74	156	412	115	136.5	478	519	585.5	478		

BS06

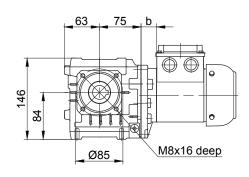
Torque arm at front

Code -5.V/



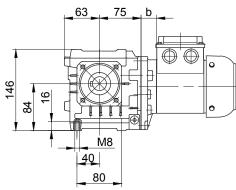
Flange with tapped holes at front

Code -7.V/



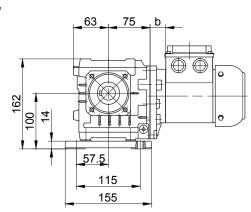
Foot with tapped holes at bottom

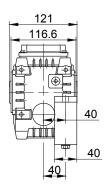
Code -6.U/

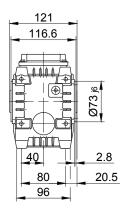


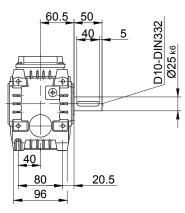
Foot with clearance holes at bottom

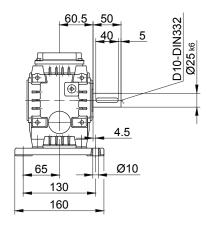
Code -1.U/







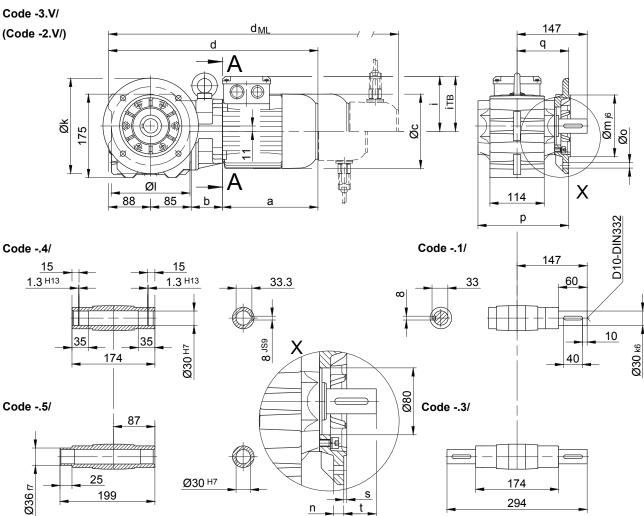




Dimension

BS10 - BS10Z

Flange with clearance holes at front



Flange dimensions

BS10(Z)	k	I	m	n	0	р	q	S	t
Standard -3.V/	200	165	130	12	11	190	108	3.5	39
small -2.V/	160	130	110	10	9	183	101	3.5	46

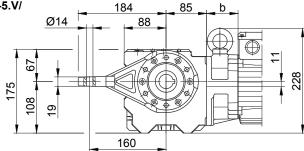
						Design with motor extensions					
Tuno		h		ا ا			E/ES	G	E/ESG	RR/RL	
Туре	а	b	С	d	ı	ITB	d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BS10Z/D04	143	86	111	402	90	112	445.5	464.5	507.5	-	
BS10/D05	170	62	123	405	100	117	447	508	549.5	-	
BS10Z/D05	170	88	123	431	100	117	473	534	575.5	-	
BS10/D06	170	62	123	405	100	119	447	508	549.5	-	
BS10Z/D06	170	88	123	431	100	119	473	534	575.5	-	
BS10/D07	190	62	123	425	100	119	467	528	569.5	-	
BS10Z/D07	190	88	123	451	100	119	493	554	595.5	-	
BS10/D08	200	66	156	439	115	136.5	505	546	612.5	505	
BS10Z/D08	200	132	156	505	115	136.5	571	612	678.5	571	
BS10/D09	251	80.5	181	504.5	124	158	597.5	611.5	702	597.5	



BS10 - BS10Z

Torque arm at front

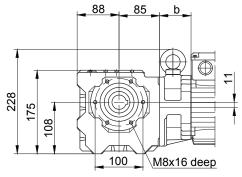
Code -5.V/

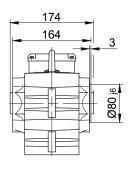


192

Flange with tapped holes at front

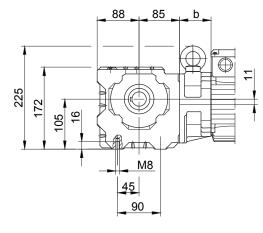
Code -7.V/

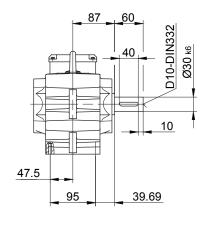




Foot with tapped holes at bottom

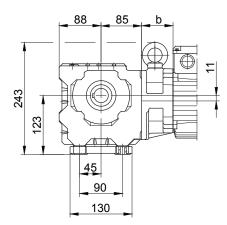
Code -6.U/

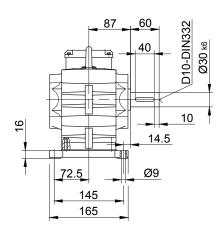




Foot with clearance holes at bottom

Code -1.U/





Dimension

BS20 - BS20Z

Flange with clearance holes at front Code -3.V/ Α 174.5 (Code -4.V/) dмL (Code -2.V/) ğ Ø 209 ø 128 X 103 102.5 р D12-DIN332 Ø35 k6 Code -.4/ Code -.1/ 16 174.5 16 38 1.6 H₁₃ 1.6 H₁₃ 38.3 70 Ø110 10 JS9 40 40 Ø35 H7 50 10 209 Code -.5/ Code -.3/ 104.5 40 40

Ø35 H7

LIGNAG	aıma	neinne
Flange	ullile	11310113

30 239

Ø44 f7

BS20(Z)	k	I	m	n	0	р	q	S	t
Standard -3.V/	250	215	180	16	13.5	227.5	128	4	46.5
small -2.V/	200	165	130	12	11	224.5	125	3.5	49.5
big -4.V/	300	265	230	20	13.5	233.5	134	4	40.5

A-A	Standard
ııı (A ^C A C
7	C _A CA

209

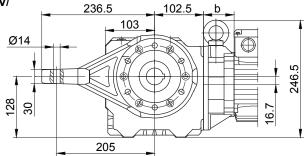
349

						Design with motor extensions					
Type		b		d			E/ES	G	E/ESG	RR/RL	
Туре	а	D	С	u	I	ΙТВ	d_ML	d_ML	d _{ML}	d_ML	
BS20Z/D04	143	100	111	448.5	90	112	492	511	554	-	
BS20/D05	170	60	123	435.5	100	117	477.5	538.5	580	-	
BS20Z/D05	170	102	123	477.5	100	117	519.5	580.5	622	-	
BS20/D06	170	60	123	435.5	100	119	477.5	538.5	580	-	
BS20Z/D06	170	102	123	477.5	100	119	519.5	580.5	622	-	
BS20/D07	190	60	123	455.5	100	119	497.5	558.5	600	-	
BS20Z/D07	190	102	123	497.5	100	119	539.5	600.5	642	-	
BS20/D08	200	64	156	469.5	115	136.5	535.5	576.5	643	535.5	
BS20Z/D08	200	146	156	551.5	115	136.5	617.5	658.5	725	617.5	
BS20/D09	251	78.5	181	535	124	158	628	642	732.5	628	

BS20 - BS20Z

Torque arm at front

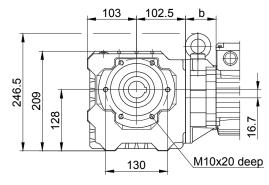
Code -5.V/

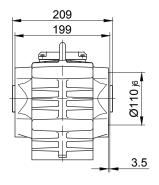


233

Flange with tapped holes at front

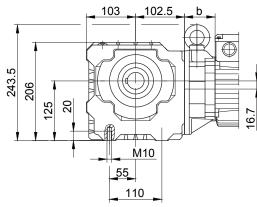
Code -7.V/

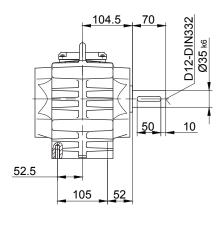




Foot with tapped holes at bottom

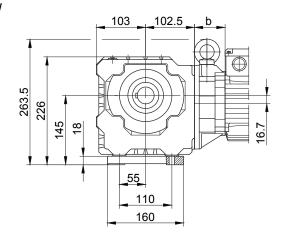
Code -6.U/

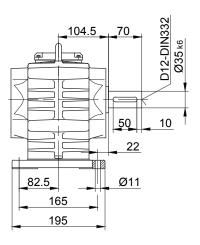




Foot with clearance holes at bottom

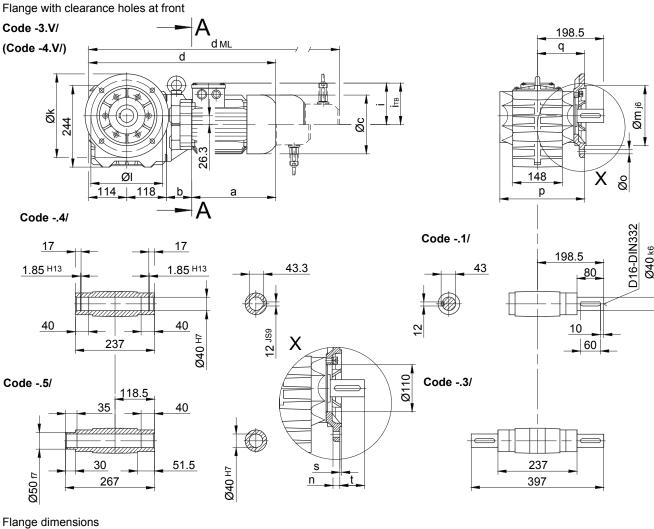
Code -1.U/





Dimension

BS30 - BS30Z



BS30(Z)	k	I	m	n	0	р	q	s	t
Standard -3.V/	250	215	180	16	13.5	253.5	141	4	57.5
big -4.V/	300	265	230	20	13.5	259.5	147	4	51.5



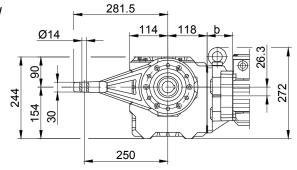
						Design with motor extensions						
Typo		b		d			E/ES	G	E/ESG	RR/RL		
Туре	а	D	С	u	I	ITB	d_ML	d _{ML}	d _{ML}	d _{ML}		
BS30/D05	170	58	123	460	100	117	502	563	604.5	-		
BS30Z/D05	170	133.5	123	535.5	100	117	577.5	638.5	680			
BS30/D06	170	58	123	460	100	119	502	563	604.5	-		
BS30Z/D06	170	133.5	123	535.5	100	119	577.5	638.5	680	-		
BS30/D07	190	58	123	480	100	119	522	583	624.5	-		
BS30Z/D07	190	133.5	123	555.5	100	119	597.5	658.5	700	-		
BS30/D08	200	62	156	494	115	136.5	560	601	667.5	560		
BS30Z/D08	200	137.5	156	569.5	115	136.5	635.5	676.5	743	635.5		
BS30/D09	251	76.5	181	559.5	124	158	652.5	666.5	757	652.5		
BS30Z/D09	251	152	181	635	124	158	728	742	832.5	728		
BS30/D11	319	83	228	634	181	181	732	741	836.5	732		

13

BS30 - BS30Z

Torque arm at front

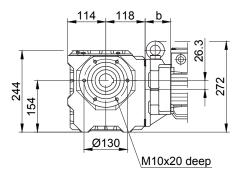
Code -5.V/

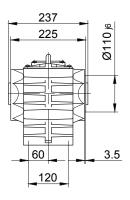


260 120 43 60 120

Flange with tapped holes at front

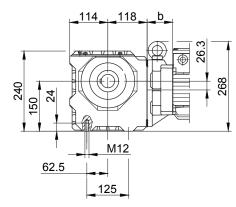
Code -7.V/

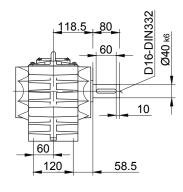




Foot with tapped holes at bottom

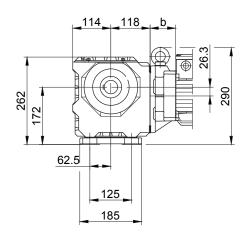
Code -6.U/

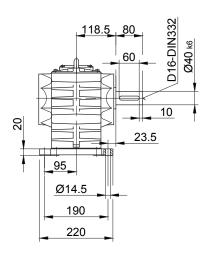




Foot with clearance holes at bottom

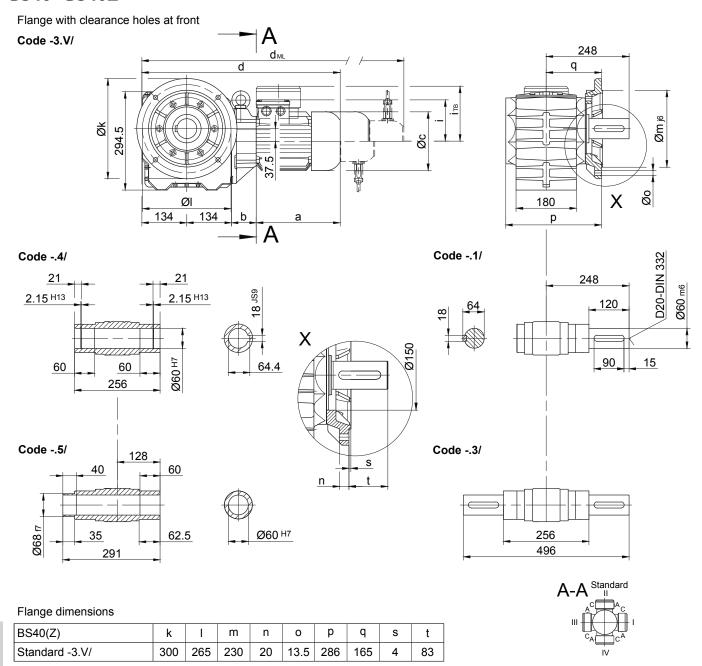
Code -1.U/





Dimension

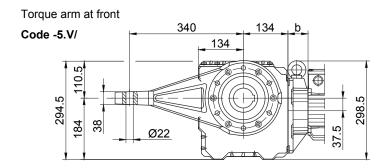
BS40 - BS40Z

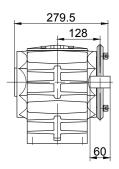


						Design with motor extensions						
Tymo		h		ا			E/ES	G	E/ESG	RR/RL		
Туре	а	b	С	d	I	ΙΤВ	d _{ML}	d _{ML}	d _{ML}	d _{ML}		
BS40Z/D05	170	138.5	123	576.5	100	117	618.5	679.5	721	-		
BS40Z/D06	170	138.5	123	576.5	100	119	618.5	679.5	721	-		
BS40Z/D07	190	138.5	123	596.5	100	119	638.5	699.5	741	-		
BS40/D08	200	60	156	528	115	136.5	594	635	701.5	594		
BS40Z/D08	200	142.5	156	610.5	115	136.5	676.5	717.5	784	676.5		
BS40/D09	251	74.5	181	593.5	124	158	686.5	700.5	791	686.5		
BS40Z/D09	251	157	181	676	124	158	769	783	873.5	769		
BS40/D11	319	81	228	668	181	181	766	775	870.5	766		

13

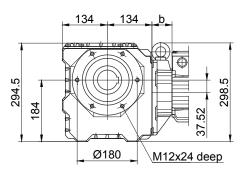
BS40 - BS40Z

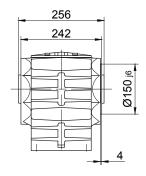




Flange with tapped holes at front

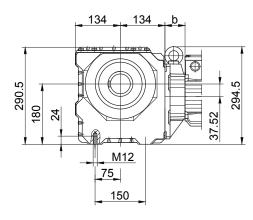
Code -7.V/

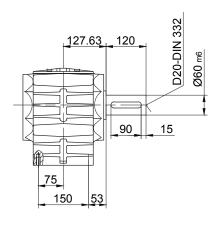




Foot with tapped holes at bottom

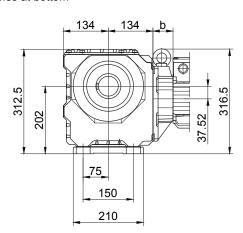
Code -6.U/

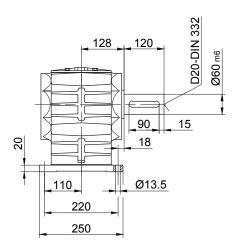




Foot with clearance holes at bottom

Code -1.U/

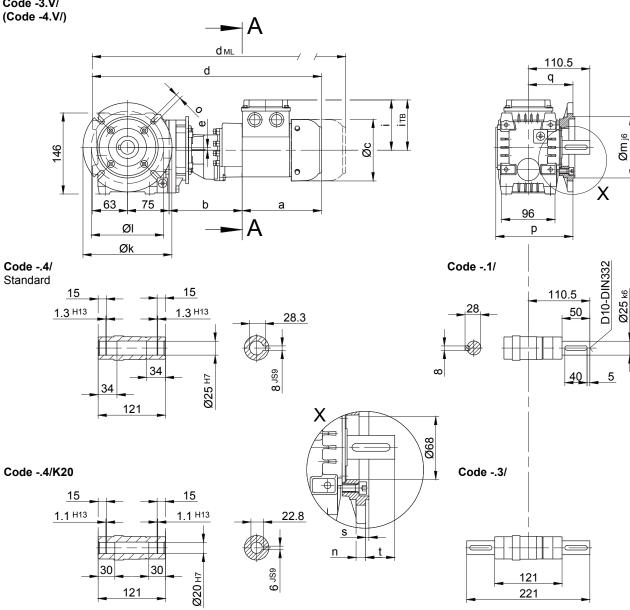




Dimension

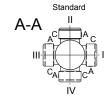
BS06G04

Flange with clearance holes at front **Code -3.V**/



Flange dimensions

BS06	k	I	m	n	0	р	q	s	t
Standard -3.V/	140	115	95	10	9	138.5	80	3	30.5
big -4.V/	160	130	110	10	9	138.5	80	3.5	30.5

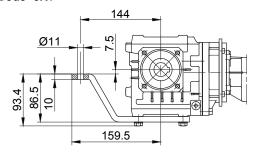


								Desig	n with motor	extensions	
Typo		h		٦			i	E	G	EG	RR/RL
Туре	a	D	С	u	е	ı	ΙΤΒ	d _{ML}	d _{ML}	d _{ML}	d _{ML}
BS06G04/D04	143	135	111	416	5	90	112	459.5	478.5	521.5	-

BS06G04

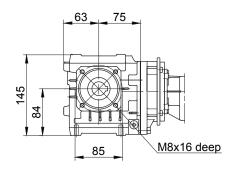
Torque arm at front

Code -5.V/



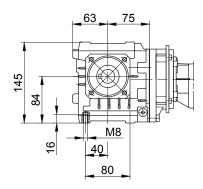
Flange with tapped holes at front

Code -7.V/



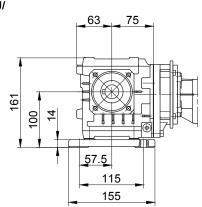
Foot with tapped holes at bottom

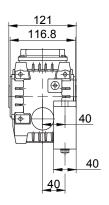
Code -6.U/

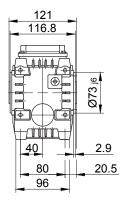


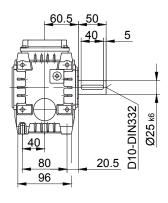
Foot with clearance holes at bottom

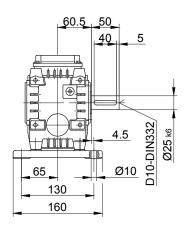
Code -1.U/





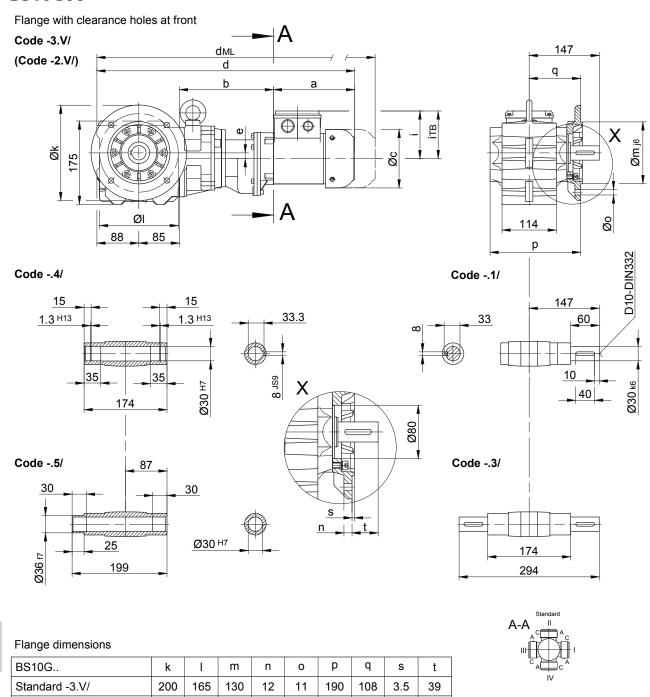






Dimension

BS10G06



							Design with motor extensions							
Typo	а	b	С	d	е		i	E/ES	G	E/ESG	RR/RL			
Туре	a	D	C	u	ט	1	ΙТВ	d_ML	d_ML	d _{ML}	d _{ML}			
BS10G06/D04	143	195	111	511	12	90	112	554.5	573.5	616.5	-			
BS10G06/D05	170	197	123	540	12	100	117	582	643	684.5	-			
BS10G06/D06	170	197	123	540	12	100	119	582	643	684.5	-			
BS10G06/D07	190	197	123	560	12	100	119	602	663	704.5	-			
BS10G06/D08	200	241	156	614	12	115	136.5	680	721	787.5	680			

183

101

3.5

46

The actual gearbox design can vary from the geometry shown.

160

130

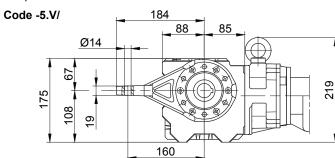
110

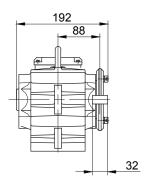
10

small -2.V/

BS10G06

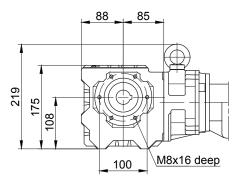
Torque arm at front

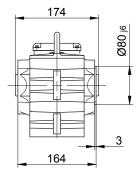




Flange with tapped holes at front

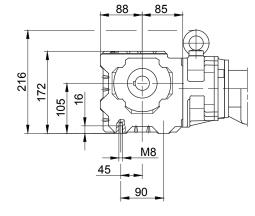
Code -7.V/

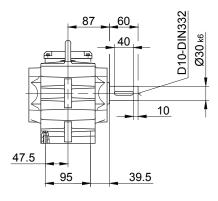




Foot with tapped holes at bottom

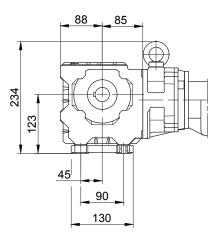
Code -6.U/

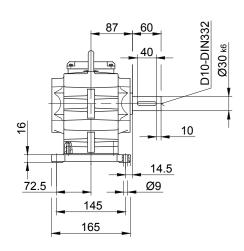




Foot with clearance holes at bottom

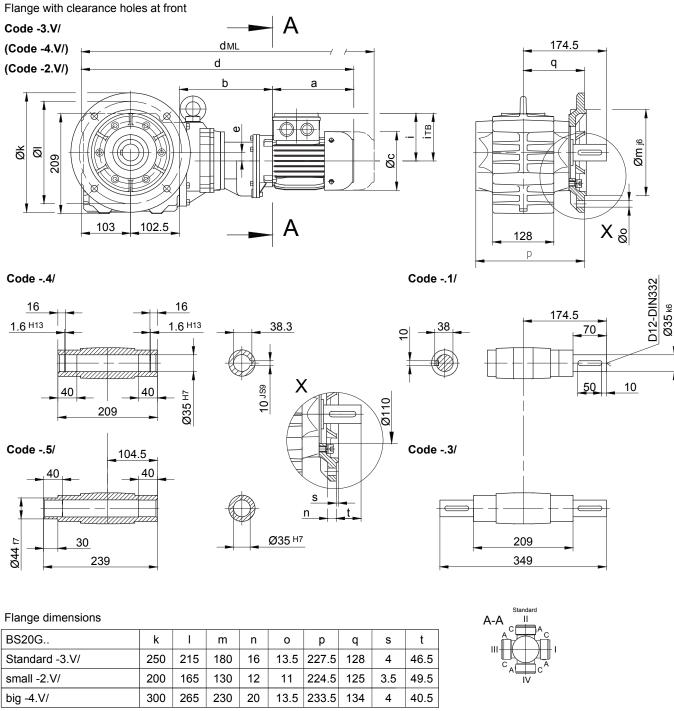
Code -1.U/





Dimension

BS20G06



							Design with motor extensions							
Type		h		d	•			ES/ZS	G	ES/ZSG	RR/RL			
Туре	а	b	С	u	е	ı	ΙТВ	d_ML	d_ML	d _{ML}	d_ML			
BS20G06/D04	143	193	111	541.5	18	90	112	585	604	647	-			
BS20G06/D05	170	195	123	570.5	18	100	117	612.5	673.5	715	-			
BS20G06/D06	170	195	123	570.5	18	100	119	612.5	673.5	715	-			
BS20G06/D07	190	195	123	590.5	18	100	119	632.5	693.5	735	-			
BS20G06/D08	200	239	156	644.5	18	115	136.5	710.5	751.5	818	710.5			

BS20G06

Torque arm at front

Code -5.V/

236.5

102.5

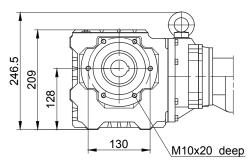
82

94

205

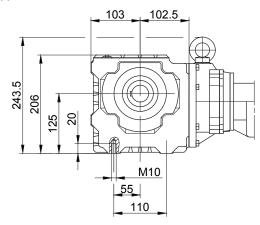
Flange with tapped holes at front

Code -7.V/



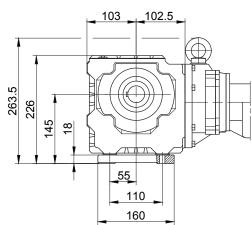
Foot with tapped holes at bottom

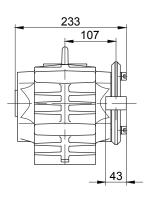
Code -6.U/

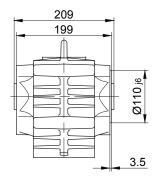


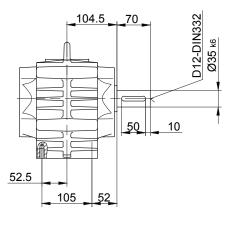
Foot with clearance holes at bottom

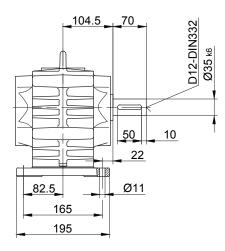
Code -1.U/











Dimension

BS30G06

Flange with clearance holes at front Code -3.V/ d_{ML} 198.5 (Code -4.V/) d q b $\Phi \Phi$ ğ 244 X 148 ØΙ 114 ___ 118 Code -.4/ Code -.1/ D16-DIN332 Ø40 k6 <u>17</u> 17 198.5 12 JS9 1.85 H₁₃ 1.85 H₁₃ 80 12 Χ 10 Ø40 H7 40 40 43.3 43 60 237 Ø110 Code -.5/ Code -.3/ 118.5 35 40 30 51.5 237 Ø40 H7 397 267 Flange dimensions

BS30G	k	I	m	n	0	р	q	S	t
Standard -3.V/	250	215	180	16	13.5	253.5	141	4	57.5
big -4.V/	300	265	230	20	13.5	259.5	147	4	51.5

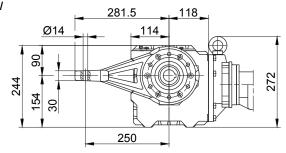


							Design with motor extensions						
Typo		b	_	٨	_			E/ES	G	E/ESG	RR/RL		
Туре	а	D	С	d	е	'	ІТВ	d _{ML}	d _{ML}	d _{ML}	d_ML		
BS30G06/D04	143	191	111	566	27	90	112	609.5	628.5	671.5	-		
BS30G06/D05	170	193	123	595	27	100	117	637	698	739.5	-		
BS30G06/D06	170	193	123	595	27	100	119	637	698	739.5	-		
BS30G06/D07	190	193	123	615	27	100	119	657	718	759.5	-		
BS30G06/D08	200	237	156	669	27	115	136.5	735	776	842.5	735		

BS30G06

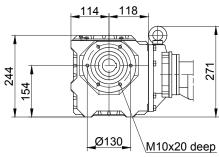
Torque arm at front

Code -5.V/



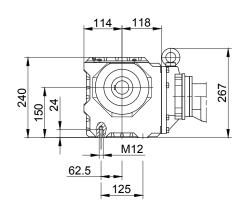
Flange with tapped holes at front

Code -7.V/



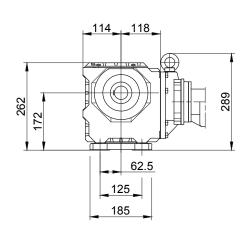
Foot with tapped holes at bottom

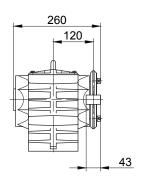
Code -6.U/

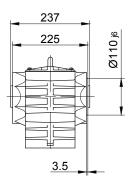


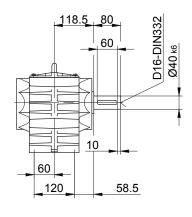
Foot with clearance holes at bottom

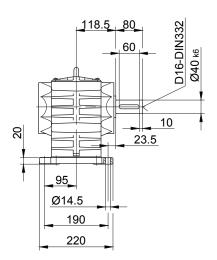
Code -1.U/





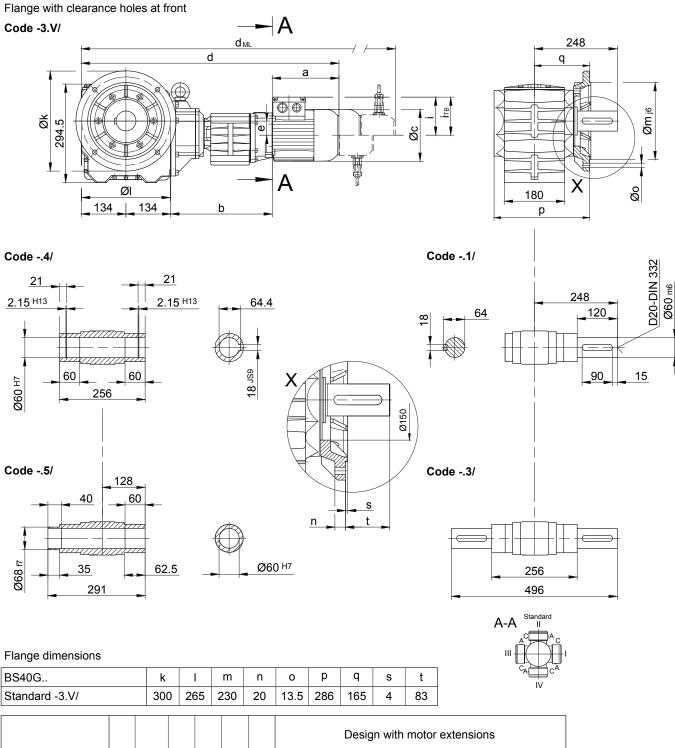






Dimension

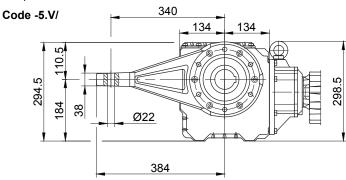
BS40G10



							Design with motor extensions							
Type		b	•	d	0		;	E/ES	G	E/ESG	RR/RL			
Туре	а	D	C	u	е	I	ΙТВ	d _{ML}	d _{ML}	d _{ML}	d _{ML}			
BS40G10/D05	170	300	123	738	43	100	117	780	841	882.5	-			
BS40G10/D06	170	300	123	738	43	100	119	780	841	882.5	-			
BS40G10/D07	190	300	123	758	43	100	119	800	861	902.5	-			
BS40G10/D08	200	304	156	772	43	115	136.5	838	879	945.5	838			
BS40G10/D09	251	318.5	181	837.5	43	124	158	930.5	944.5	1035	930.5			

BS40G10

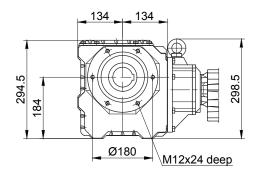
Torque arm at front

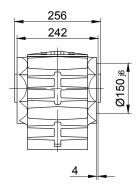


279.5 128 60

Flange with tapped holes at front

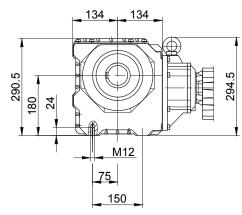
Code -7.V/

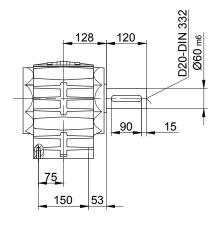




Foot with tapped holes at bottom

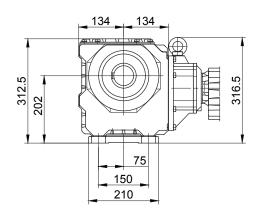
Code -6.U/

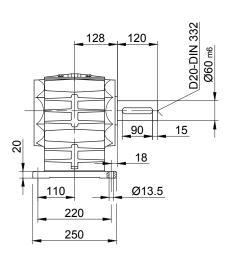




Foot with clearance holes at bottom

Code -1.U/

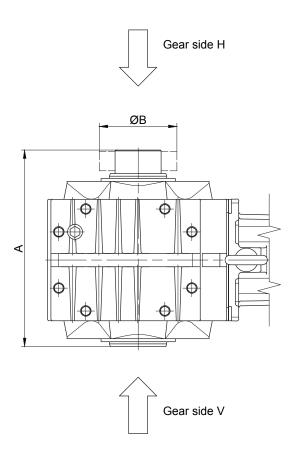




Shrink disc couplings (SSV)

(Code BS10Z-.5/...)

(Code BS10Z-.5A/...)

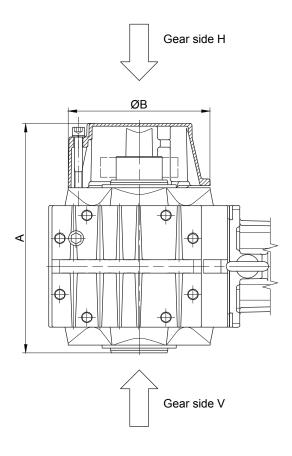


Туре	SSV Ringfeder	SSV STÜWE	A	В
BS10	RfN 4161 036x072	HSD 36-22x36	199	72
BS20	RfN 4161 044x080	HSD 44-22x44	239	80
BS30	RfN 4161 050x090	HSD 50-22x50	267	90
BS40	RfN 4161 062x110	HSD 68-22x68	291	115

Shrink disc couplings with (SSV) cover

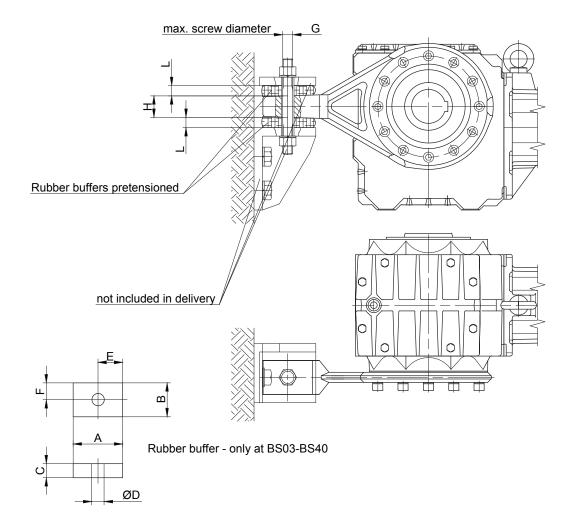
(Code BS10Z-.5A/...)

(Code BS10Z-.5A/...)



Туре	SSV Ringfeder	SSV STÜWE	Α	В
BS10	RfN 4161 036x072	HSD 36-22x36	221	120
BS20	RfN 4161 044x080	HSD 44-22x44	286	160
BS30	RfN 4161 050x090	HSD 50-22x50	313	160
BS40	RfN 4161 062x110	HSD 68-22x68	340	210

Rubber buffer for torque restraint



Material:

526

Natural rubber Hardness 50±5 Shore A

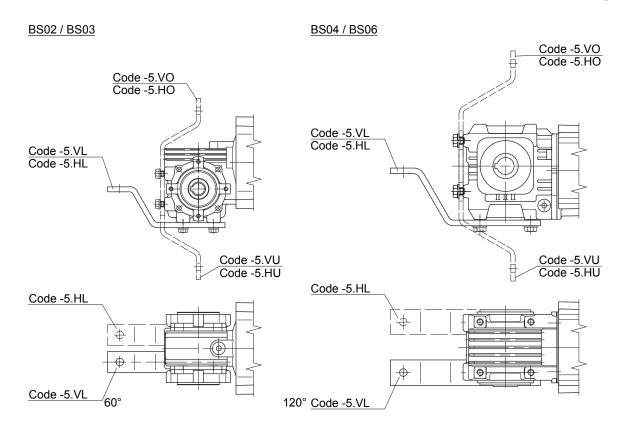
Dimensions of the transverse hole: see dimensioned sketch of the respective shaft mounted gearbox

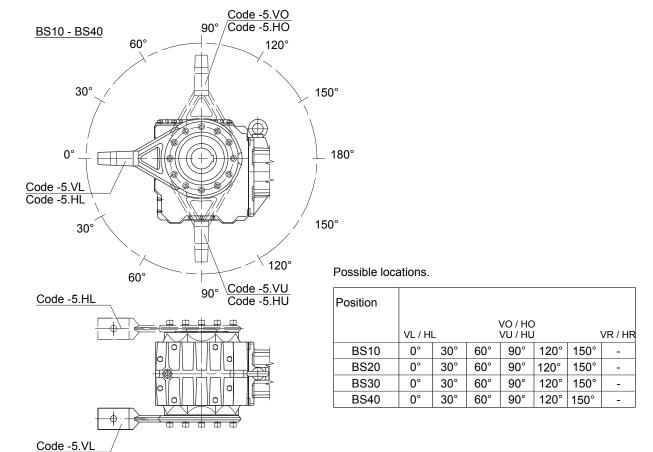
Gear	Pos.	Dimensions (mm)										
		Α	В	С	D	Е	F	G	Н	L		
BS02	-	-	-	-	-	-	-	M8	6	-		
BS03	Pos.0	30	30	12	12	15	15	M8	10	10.5		
BS04	Pos.0	30	30	12	12	15	15	M8	10	10.5		
BS06	Pos.0	30	30	12	12	15	15	M10	10	10		
BS10	Pos.1	48	32	15	14	24	16	M10	19	13		
BS20	Pos.2	63	43	20	14	31.5	21.5	M10	30	17.5		
BS30	Pos.2	63	43	20	14	31.5	21.5	M10	30	17		
BS40	Pos.3	88	60	25	22	44	30	M18	38	22		

The actual gearbox design can vary from the geometry shown.

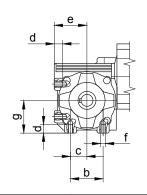
www.bauergears.com P-7112-BGM-EN-A4

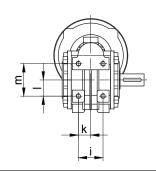
Position of the torque arm



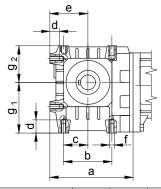


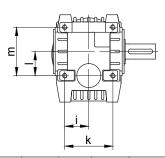
Threaded foot, left



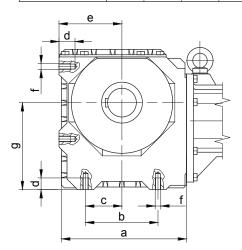


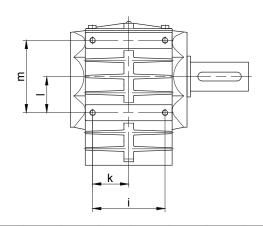
Туре	а	b	С	d	е	f	g	-	i	k	I	m
BS02	-	36	18	10	40	M6	40	-	32	16	18	36
BS03	-	54	27	14	54	M8	54	-	41	20.5	27	54





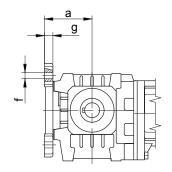
Туре	а	b	С	d	е	f	9 1	g ₂	i	k	I	m	
BS04	111	60	30	15.5	50	M8	64	49.5	30	60	30	60	
BS06	138	80	40	16	63	M8	84	61	40	80	40	80	

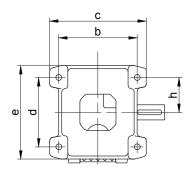




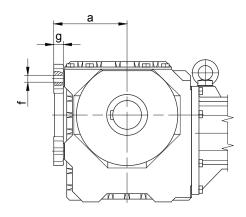
Туре	а	b	С	d	е	f	g	-	i	k	I	m
BS10-BS10Z	170	90	45	16	85	M8	105	-	95	47.5	45	90
BS20-BS20Z	202.5	110	55	20	100	M10	125	-	105	52.5	55	110
BS30-BS30Z	228	125	62.5	24	110	M12	150	-	120	60	62.5	125
BS40-BS40Z	264	150	75	24	130	M12	180	-	150	75	75	150

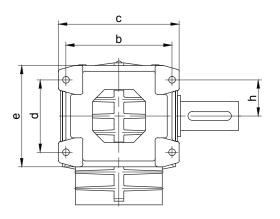
Foot plate, left





Туре	а	b	С	d	е	f	g	h
BS04	68	110	140	90	130	10	15	45
BS06	79	130	160	115	155	10	14	57.5

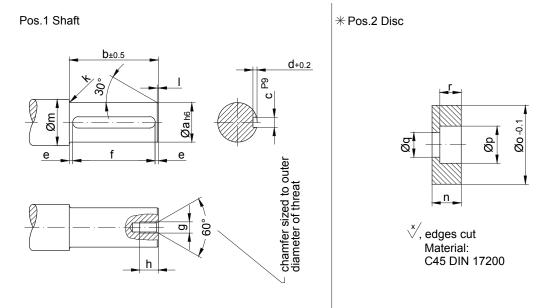




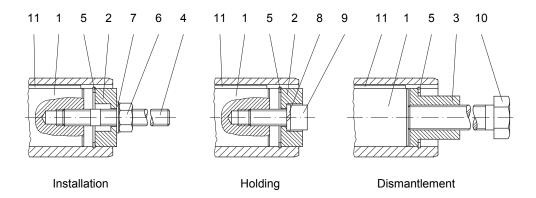
Туре	а	b	С	d	е	f	g	h
BS10-BS10Z	103	145	165	90	130	Ø9	16	72.5
BS20-BS20Z	120	165	195	110	160	Ø11	18	55
BS30-BS30Z	132	190	220	125	185	Ø13.5	20	62.5
BS40-BS40Z	152	220	250	150	210	Ø13.5	20	75

Additional Dimension Sheet

Assembly tools for hollow shaft and keyway



							Din	nensio	ns (mn	n)									
Туре						Pos.1	Shaft						Po	s.2 D	isc				
	а	b	С	d	е	f	g	h	k	I	m	n	0	р	q	r			
BS03	20	75	6	3.5	6	63+0.3	M6	16	2	1.5	28	13.5	19.8	11	6.6	6.5			
BS04	20	71	6	3.5	7.5	56 ^{+0.3}	M6	16	2	1.5	28	13.5	19.8	11	6.6	6.5			
BS06	25	99	8	4	9.5	80+0.3	M8	18	2.5	1.5	33	13.5	24.8	15	9	8.5			
BS10	30	152	8	4	6	140+0.5	M10	20	3	1.5	38	15	29.8	18	11	10			
BS20	35	186	10	5	13	160+0.5	M10	20	3	1.5	43	16	34.8	18	11	10			
BS30	40	212	12	5	6	200+0.5	M12	22	3	2	48	18	39.8	20	13.5	12			
BS40	60	227	18	7	13.5	200+0.5	M20	38	3.5	2	68	24	59.8	33	22	18			



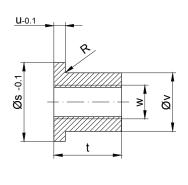
The parts shown are neccessary fpr assembly. ONLY *specified parts are enclosed in the assembly kit.

Suitable measures are to be used to secure Bolt Pos.9 against loosening.

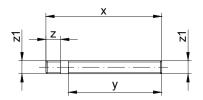
Additional Dimension Sheet

Assembly tools for hollow shaft and keyway

Pos.3 Sleeve



√, edges cut Material: C45 DIN 17200 Pos.4 Stud bolt



Material: Steel, tensile strength ³ 1000N/mm² threads rolled

			Dimensions (mm)															Jth
Туре	Pos.3	3 Sle	eeve	!			Pos.4 Stud bolt			* Retainer ring DIN 472	Hexagon nut DIN 934-8	Disc DIN 125-St	Lock washer DIN 7980	* Filister head screw DIN 912-8.8	starting torque [Nm]	Hexagon bolt DIN EN 24017-8.8	Key DIN 6885 width x height x Length	
	s	t	u	٧	w	R	х	у	z	z1	Pos.5	Pos.6	Pos.7	Pos.8	Pos	.9	Pos.10	Pos.11
BS03	19.8	24	5	11	M8	-	120	90	18	M6	20x1.0	M6	6.4	6	M6x25		M8x110	A 8x7x63
BS04	19.8	24	5	11	M8	-	120	90	18	М6	20x1.0	M6	6.4	6	M6x25	5	M8x110	A 8x7x56
BS06	19.8	24	5	15.4	M12	0.8	150	120	20	M8	25x1.2	M8	8.4	8	M8x30		M12x140	A 8x7x80
BS10	29.8	28	5	19.8	M14	0.8	210	175	23	M10	30x1.2	M10	10.5	10	M10x30	0	M14x190	A 8x7x140
BS20	34.9	28	5	23	M14	-	250	215	23	M10	35x1.5	M10	10.5	10	M10x35	8	M14x230	A10x8x160
BS30	39.9	40	6	27.7	M20	0.8	280	240	28	M12	40x1.75	M12	13	12	M12x35	16	M20x270	A 12x8x200
BS40	59.8	60	6	44	M30	-	320	260	45	M20	60x2.0	M20	21	20	M20x50	42	M30x310	A 18x11x200

The parts shown are neccessary for assembly. ONLY *specified parts are enclosed in the assembly kit.

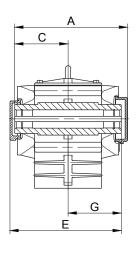
Suitable measures are to be used to secure Bolt Pos.9 against loosening.

Optional:

:	Type		Order Text
	BS03	ld.Nr.4104013	Assembly tool "holding"
	BS04	ld.Nr.4104013	Assembly tool "holding"
	BS06	ld.Nr.4103921	Assembly tool "holding"
	BS10	ld.Nr.4103939	Assembly tool "holding"
	BS20	ld.Nr.4103947	Assembly tool "holding"
	BS30	ld.Nr.4103955	Assembly tool "holding"
	BS40	ld.Nr.4103971	Assembly tool "holding"

Additional Dimension Sheet

Shaft Cap (VK)

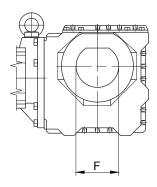


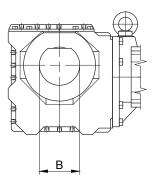




Gear side REAR (H)

Gear side FRONT (V)





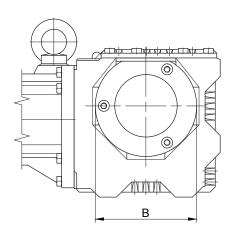
Sealing cap REAR								
Туре	Е	F	G					
BS10	186	68	87					
BS30	250.5	100	132					
BS40	276	130	128					

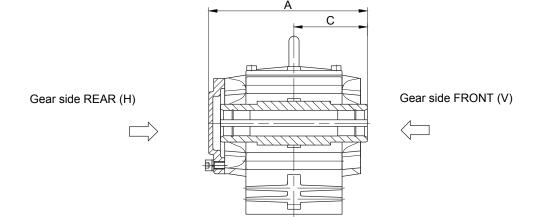
Sealing cap FRONT									
Type A B C									
BS20	221	78	104.5						

13

Shaft Cover (VD)

Gear side REAR (H)





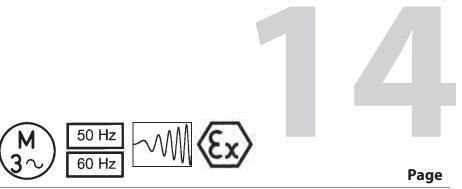
Туре	А	В	С
BS04	99.5	68	46.5
BS06	128.5	81	60.5
BS10	185	Ø120	87
BS20	224.5	Ø160	104.5
BS30	251.5	Ø160	118.5
BS40	275	Ø210	128

Catalogue geared motors

www.bauergears.com P-7112-BGM-EN-A4

Catalogue geared motors

Edition 03/2012



Motors 535-586

General

Duty Cycles acc. to DIN EN 60034
Technical data of the 50 Hz motors
Technical data of the 60 Hz motors
Operation with frequency converter
Explosion protection

P-7112-BGM-EN-A4 www.bauergears.com 535

Motors

General



ErP Directive 2009/125/EC

Directive 2009/125/EC of the European Parliament and the Council, issued in 2009, specifies requirements for the environmentally responsible design of energy-related products (ErPs). In November 2009 it superseded Directive 2005/32/EC, which formed the framework for requirements for the environmentally responsible design of energy-using products (EuPs). This change has no effect on already proclaimed implementation measures.

From 16 June 2011 onward, new motors or geared motors marketed in the EU must comply with the requirements of energy efficiency class IE2. From 1 January 2015 onward, motors with rated outputs from 7.5 to 375 kW destined for the European market must comply with energy efficiency class IE3, and from 1 January 2017 onward this requirement also applies to smaller motors rated at 0.75 kW or more.

Objectives

The ErP Directive has several objectives:

1. Mitigating the environmental impact of energy-using products

This objective is intended to be achieved by the documentation and labelling of products, by regulations for inspection, and by the formulation of individual requirements in implementation measures. As the entire product life cycle is taken into consideration, action must be taken as early as the design phase.

2. Climate protection

Achievement of the EU climate protection objectives is to be supported. This can be implemented by reducing energy consumption and the emission of global warming gasses in the production, operation and disposal of energy-using products.

3. Harmonised legislation

The directive creates a framework for the European regulation of environmental design requirements. This avoids trade impediments resulting from differences in national regulations. This can be achieved by means of the proclamation of legally binding implementation measures for the entire Community and protection of free trade in goods against further-reaching regulations of the Member States.

The new IEC 60034-30 standard

Three-phase motors were previously classified in the EFF1, EFF2 and EFF3 efficiency classes. However, the various national schemes differ in terms of scope and classes. This prompted the IEC to develop a uniform international standard for the efficiency of electric motors. The new IEC 600034-30 standard provides internationally harmonised definitions of the efficiency classes IE1, IE2 and IE3 for three-phase motors.

The new designations are specified as follows:

Efficiency class designa	ation	Comparison with CEMEP classification					
Efficiency	Code	Efficiency	Logo				
Super Premium	IE4	-	-				
Premium	IE3	-	-				
High	IE2	High	EFF I				
Standard	IE1	Improved	EFF 2				
Lower than Standard	No designation	Standard	EFF 3				

14

536 www.bauergears.com P-7112-BGM-EN-A4

Motors subject to the ErP Directive as specified by the Electric Motors Regulation 640/2009/EC

The new Electric Motors Regulation has a broader scope than the standard previously used in Europe.

- → Single-speed, three-phase, 50 Hz and 50/60 Hz
- → 2-, 4- or 6-pole motors
- → Rated output from 0.75 to 375 kW
- → Rated voltage up to 1000 V
- → Duty type S1 (continuous running)
- → For operation directly from the mains (50 Hz or 60 Hz)
- → For Design N motors complying with IEC 60034-12
- → For operating conditions complying with IEC 60034-1 Section 6 (dimensioned for operating conditions at the installation site, elevation 1000 m, ambient temperature
 - -15 °C to +40 °C)
- → Motors with two switchable rated voltages, under the condition that the magnetic flux is the same with both voltages
- → Geared motors

Motors excluded from regulation

- → Motors exclusively manufactured for converter operation in accordance with IEC 60034-25
- → Pole-changing motors
- → Motors fully integrated into a machine (such as pumps, fans and compressors) that cannot be tested separately from the machine
- → From 16 June 2011 onward: IE1 motors for S1 duty destined for the European market
- → Explosion-proof motors (explosion protection has higher priority)
- → Brake motors

Method for determining motor efficiency according to IEC 60034-2-1

Individual loss method Additional losses using the residual loss method Low measurement uncertainty

General

Torques

Line voltages

Bauer geared motors for connection to three-phase supply are supplied with specially designed induction motors. This design ensures maximum operating safety with high breakaway torque and minimum starting current.

The torque/speed characteristic is largely free of torque dips. Torque is optimised to suit requirements and application parameters. See "www.bauergears.com" for more information.

The torques as stated in the selection tables are fully available at the output shaft. These figures apply for continuous operation (S1-100%) at a maximum ambient temperature of 40° C and at site elevations up to 1000 m above sea level. Drives for higher ambient temperatures and site elevations are available on request. Gear efficiencies, which are lower than the usual values for spur gears, are taken into account in the torques listed in the selection tables.

BAUER motors are available as standard for the following three-phase line voltages:

Motor size Standard voltages: D04LA4 - D09XA4 $220 \text{ V} \Delta/380 \text{ V} \text{ Y} 50 \text{ Hz}$

0,06 - 2,2 kW 230 V Δ/**400 V Y 50 Hz* (anm-iec38)**

240 V Δ / 415 V Y 50 Hz** 440 V Y / 60 Hz 460 V Y / 60 Hz

from D11SA4 220 V Δ/ 380 V Y 50 Hz from 3,0 kW 230 V Δ/ 400 V Y 50 Hz

240 V Δ/ 400 V Y 50 Hz**
440 V Y / 60 Hz460 V Y / 60 Hz
380 V Δ/ 660 V Y 50 Hz
400 V Δ/ 690 V Y50 Hz*
415 V Δ / 50 Hz**

415 V Δ / 50 Hz³ 440 V Δ/ 60 Hz 460 V Δ/ 60 Hz

Designs for other voltages available on request and at extra cost.

Unless otherwise specified, motors for operation in conjunction with frequency converters with a 50 or 60 Hz frequency have a Y-circuit to optimise operating noise and winding load.

Unless otherwise stated, the tolerance for the rated voltage is \pm 4, in accordance with IEC 60034-1.

The D04 to D18 motors in 4 pole design can be operated within a tolerance of \pm 10 % of the rated voltage (400 V 50 Hz).

^{*}Voltage recommended world-wide by IEC 38 and in Europe by CENELEC.

^{**=} Insulation Class F is necessary.

Line frequencies

Rating plate

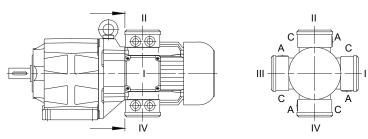
All motors are available with the same power ratings for either 50 or 60 Hz. Increased power models are available on request.

Bauer geared motors are supplied with a corrosion-proof rating plate as standard. The standard rating plate is made of special plastic tried and tested in many years of practical use and approved for hazardous areas by the Physikalisch-Technische-Bundesanstalt (PTB).



Terminal box

The cables of motors with and without brakes can be introduced into the motor terminal box from side A or side C.



The standard position for the motor terminal box is shown in the dimensional drawings for the geared motors (see chapter 10,11,12 and 13). The terminal box can be installed at any of 3 other positions on request, if on-site space is restricted. The 4 possible positions are 90° offsets around the axis of the motor (dimensional drawing and designation for standard terminal box, see chapter 17 "Dimensional drawing standard terminal box").

Cast-on terminal boxes (KAG) are supplied with knock out entries with metric nut for cable gland. Screw- on terminal boxes (TBI...4 are supplied with a metric screw thread as standard.

14

Motor connections

The electrical connection of gear motors is time consuming and creates costs, which cannot be neglected both during initial installation and in service cases. These costs are reduced considerably by the use of BAUER Gear Motors, have CAGE CLAMP* connection technology instead of the conventional terminal block – and that without extra charge.



What are the advantages for you?

Cost reduction during connection

Public timing test have confirmed, that the electrical connection of a cable by means of CAGE CLAMP° technology saves up to 75% working time compared with the classic screw connection.

Simple Handling

Cable connection from the top, very easily accessible: The CAGE CLAMP® spring is pressed, and the cable inserted from the front, i.e. in the field of vision of the installation engineer.

Which cable core diameters?

Suitable for all copper wires from 0,5 mm² to 25 mm².

Cost saving in material and tooling

- multicore cable ends, cable eyes or cable ring eyes are no longer needed
- Tools such as crimping pliers are no longer needed
- Inadvertently over tightening or breaking of the terminal bolts and the procurement of a new terminal block belong in the past.
- Searching and procurement of nuts and washers for the terminal blocks, which have fallen down, also belongs in the past.

Vibration and shock resistant

Vibration and shock result neither in conductor damage nor in a measurable contact interruption. The connection is service free.

Type of conductors

The CAGE CLAMP*-connector can clamp fine stranded, stranded and solid cores wires.

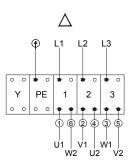
14

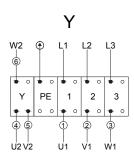
540

Terminal connections for single speed motors without motor protection

Standard connection of three phase motors without motor protection via CAGE CLAMP $^{\circ}$. D04 ... D..09

Three Phase motor means of CAGE CLAMP®

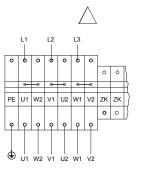


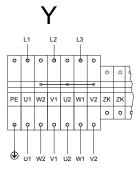


	IEC / EN 60034-8	NEMA MG 1	Colour
Supply lines	L1 L2 L3	L1 L2 L3	
Motor winding	U1 V1 W1 U2 V2 W2	T1 T2 T3 T4 T5	black blue brown yellow red violet
Δ		Connections low rated vol (e.g.: 230 V)	for the
Y		Connections high rated vo (e.g.: 400 V)	for the

D..11 ... D..18

Connection of three phase motor via CAGE CLAMP





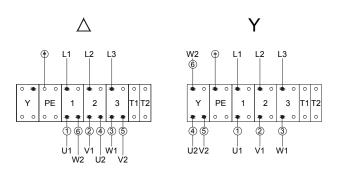
	IEC / EN	NEMA	Colour	
	60034-8	MG 1	00.04.	
Supply lines	L1 L2	L1 L2		
	L3	L3		
	U1	T1	black	
	V1	T2	blue	
	W1	T3	brown	
Motor winding				
	U2	T4	yellow	
	V2	T5	red	
	W2	Т6	violet	
\triangle	Connections for the	Connections for the low rated voltage (e.g.: 230 V)		
Y	Connections for the	Connections for the high rated voltage (e.g.: 400 V)		
ZK	Optional additional	Optional additional connection		

General

Terminal connections for single speed motors with motor protection

Standard connection of three phase motors with motor protection via CAGE CLAMP $^{\circ}$. D04 ... D0..09

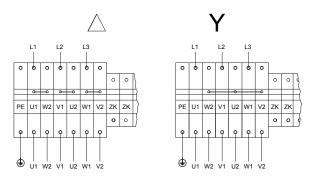
Three Phase motor and thermal protection connection by means of CAGE ${\rm CLAMP}^{\circledcirc}$



	IEC / EN 60034-8	NEMA MG 1	Colour
Supply lines	L1 L2 L3	L1 L2 L3	
Motor winding	U1 V1 W1 U2 V2 W2	T1 T2 T3 T4 T5 T6	black blue brown yellow red violet
Δ		Connections low rated vo (e.g.: 230 V)	Itage
Y	Connections for the high rated voltage (e.g.: 400 V)		
T1 T2	Thermal motor protection		

D..11 ... D..18

Connection of three phase motor via CAGE CLAMP

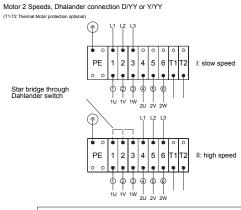


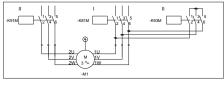
	IEC / EN	NEMA	Colour
	60034-8	MG 1	3553.
Supply lines	L1 L2	L1 L2	
Supply lines	L3	L3	
	U1	T1	black
	V1	T2	blue
	W1	T3	brown
Motor winding			
	U2	T4	yellow
	V2	T5	red
	W2	Т6	violet
Δ	Connections for the low rated voltage (e.g.: 230 V)		
Y	Connections for the high rated voltage (e.g.: 400 V)		
ZK	Optional additional connection		

1Д

Terminal connections for pole changing motors in Dahlander connection (Δ/ΥΥ or Υ/ΥΥ)

Standard connection of three phase motors without motor protection via CAGE CLAMP*. D04 ... D..09

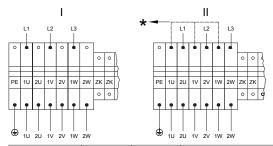




	IEC / EN 60034-8	NEMA MG 1	Colour
Supply lines	L1 L2 L3	L1 L2 L3	
Motor winding	1U 1V 1W	T1 T2 T3	black blue brown
	2V 2W	T6 T4	yellow red violet
I	Low speed		eed
II	High speed		

D..11D..18.

Connection of three phase motor via CAGE CLAMP
Pole changing for 2 speeds; Dahlander connection \(\frac{\lambda}{V} \) YY



	IEC / EN	NEMA	Colour
	60034-8	MG 1	
Supply lines	L1 L2 L3	L1 L2 L3	
Motor winding	1U 1V 1W 2U 2V 2W	T1 T2 T3 T4 T5 T6	black blue brown yellow red violet
I	Low speed		
II	High speed		
ZK	Optional addition	al connection	
*	Star point over Da	ahlander Relay	

P-7112-BGM-EN-A4 www.bauergears.com 543

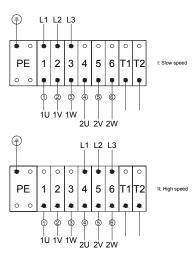
14

General

Terminal connections for pole changing motors with two separate windings (Y/Y or Δ/Δ)

Standard connection of three phase motors with motor protection via CAGE CLAMP°. D04 ... D..09

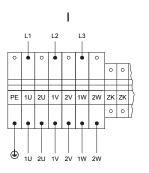
Pole change motor 2 Speeds, 2 windings Y/Y or D/D (T1-T2 Thermal Motor protection optional)

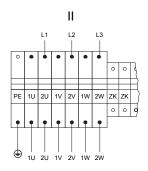


	IEC / EN 60034-8	NEMA MG 1	Colour
Supply lines	L1 L2 L3	L1 L2 L3	
Motor winding	1U 1V 1W	T1 T2 T3	black blue brown yellow
	2V 2W	T12 T13	red violet
1	Low speed		
II	High speed		
T1		Thermal	
T2	motor protection		

D..11 ... D..18

Connection of three phase motor via CAGE CLAMP
Pole changing for 2 speeds; separate windings Y/Y or $\Delta \Delta$





	IEC / EN	NEMA	Colour
	60034-8	MG 1	
Supply lines	L1 L2 L3	L1 L2 L3	
Motor winding	1U 1V 1W	T1 T2 T3	black blue brown yellow
	2V 2W	T5 T6	red violet
I	Low speed		
П	High speed		
ZK	Optional additional	al connection	

14

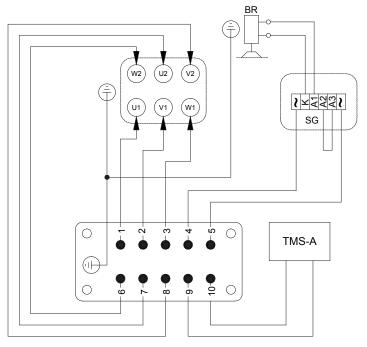
Plug-and-socket connection

D06 to D..16 Bauer motors are available with plug-in motor connection. The socket housing is mounted on the fan-cowl side of the terminal box as standard. This layout minimises the protrusion caused by the plug.

The standard plug-and-socket type connection incorporates the attachment housing, pin insert and cover. Grommet-type housings and jack inserts are available on request at extra cost. Pin assignments on request (dimensional drawing, see chapter 17 "Dimensional drawing, plug-connector terminal box").

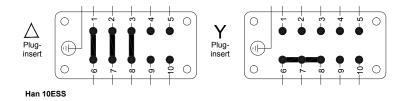


A design with single clamp lever according to the DESINA regulation of the "Verbandes Deutscher Werkzeugmaschinenhersteller" (VDW) is also available.





 $\underline{\mathbf{x}}$ - or Y-Connection in the plughousing or installation cabinet is performed by the machine manufacturer.



The motors are also available with a low-cost round plug connector as an alternative. This is fitted at the factory in the standard terminal box and is also suitable for brake connection, thermistors and thermostats. Additional information on request.

Bauer motors from D08 with motor-mounted brake are also available with plug-in brake connection. This means that if it requires attention, the brake can be replaced on site with no loss of time

General

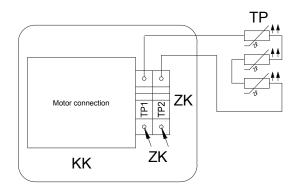
Motor protection

Each geared motor requires a current-dependent motor protection switch or an overcurrent relay with thermal delay in the switchgear to protect the motor windings. The rated motor currents required for settings are stated in the order acknowledgment. Thermal protection for the winding is recommended as an additional safety measure for special operating conditions (short-time or intermittent periodic duty, high switching frequency, severe voltage fluctuations or restricted cooling) and for operation in conjunction with a frequency converter.

Thermistors (PTC)

Thermistors are temperature-dependent resistors which are fitted in each phase winding. In conjunction with a motor protection switch, they ensure optimum protection for the winding in the event of rapid temperature rise. Characteristic to DIN 44081 and "Mark A" to IEC 34-11-2. Thermistors are available for all motors at extra cost. The requisite monitoring device is not included in the scope of supply.

Thermal motor protection with PTC-thermistors



KK	Terminal box	
ZK	Additional terminals	
TP	PTC-thermistors	
IP	DIN 44081/IEC 34-11-2 Mark A	
TCU	Connection of thermistor control unit EN 60947	
	Max. permissible testing voltage 2,5 VDC / thermistor	
	in case of	
	with auth. certificate:	

The location of the additional terminals in the drawing is not necessarily identical with the actual arrangement.

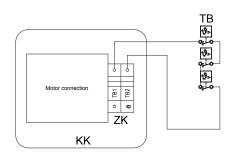
1Д

Thermostatic protection

Bimetal switches are used for slow-acting, independent temperature monitoring and are embedded in each winding section of the motor.

The bimetal disc is sized such that when the temperature rises above a specific, previously set value, the disc suddenly snaps from a convex state to a concave state and the contact moves vertically away from the contact plate. In this state the switch is either open (normally closed switch) or closed (normally open switch). A significant temperature change is necessary to allow the bimetal disc to independently snap back to its initial position. When it does, the switch is again closed (normally closed switch) or open (normally open switch). Thermal protection switches are available for all motors at additional cost. For technical reasons, this option is not recommended for large motors (D11 to D18).

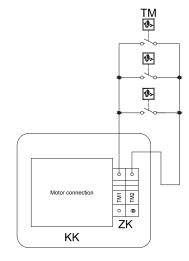
Thermal motor protection with thermostats (with normally closed contacts)



KK	Terminal box
ZK	Additional terminals
	Thermostats with normally closed
TB	contacts max. 250VAC 1,6A

The location of the additional terminals in the drawing is not necessarily identical with the actual arrangement

Thermal motor protection with thermostats (with normally opened contacts)



	KK	Terminal box	
	ZK	Additional terminals	
	ТВ	Thermostats with normally closed	
		contacts max. 250VAC 1,6A	

The location of the additional terminals in the drawing is not necessarily identical with the actual arrangement.

14

General

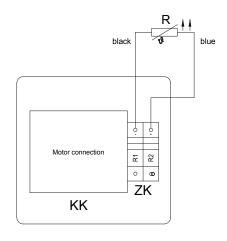
KTY sensors

KTY sensors with heat-shrink insulation can be used to measure and monitor critical surface temperatures and internal temperatures of motors and machines. These sensors are suitable for use in harsh industrial environments in all places where accurate measurements with a single sensor are required. KTY sensors are available for all types of motors at additional cost.

Type 84-130SH: primarily installed in motors that are operated with Siemens frequency converters.

<u>Working principle</u>: KTY sensors are temperature-dependent components. The resistance of the KTY sensor increases when its temperature rises. The characteristic curve is nearly linear in the sensor's measuring range; the reference resistance (at $100\,^{\circ}$ C) is 970 to 1030 ohms.

Resistance temperature sensor KTY84-130SH



KK	Terminal box
ZK	Additional terminals
R	Resistance temperature sensor

The location of the additional terminals in the drawing is not necessarily identical with the actual arrangement.

14

PT100 sensors

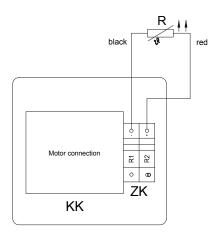
Precise monitoring of motor temperatures is necessary in many fields of industry. Pt100 sensors feature high accuracy, short response time and long-term stability, and they are suitable for use over a wide range of temperatures. Pt100 sensors are available for all motor types at additional cost.

Specifications

Nominal resistance: 100 Ω at 0 $^{\circ}$ C

The resistance characteristics are specified in EN 60751.

Resistance temperature sensor PT 100



KK	Terminal box
ZK	Additional terminals
R	Resistance temperature sensor

The location of the additional terminals in the drawing is not necessarily identical with the actual arrangement.

14

General

Insulation

The gearmotors described in the selection tables of this catalogue with the motor sizes D04, D05, D06, D08, D..09S and D..09L are executed in insulation class B. Temperature class F is available on request at extra cost.

4-pole motors D07 and D..09XA4 (2.2 kW) to D..18XA4 (30 kW) and all multi-speed motors are rated in Temperature Class F as standard.

Insulation Class F bestows the winding a multiple protection against high humidity, acidic gases and heavy tropical influences while making the same shock resistant and more resistant to heat. Protection against insects (termites) is guaranteed through the complete enclosure (IP65) as long as the mains cables are encased in metal.

Degree of protection

Bauer motors from motor size D06 are manufactured to IP65 degree of protection as standard. Motor sizes D04 and D05 have smooth housings, degree of protection IP 54, on request in IP65 at extra cost. The motor terminal box is always IP 65.

Special corrosion protection

If high requirements for corrosion resistance are required, the geared motors are available with three levels of enhanced corrosion protection:

CORO1: Finished with two-component paint to protect against chemically

aggressive gases and vapours.

CORO2: External paint as CORO1. In addition, sheet steel fan cowl with coating.

The screws for the terminal-box cover are non-rusting steel.

CORO3 with IP 66: Available from motor size D06. Corrosion protection as CORO2. All

motors manufactured within Temperature Class F. Terminal box compartment separated from motor interior by cast resin. Threaded cable entries and mating faces have special seals. See Bauer special

imprint SD1 for more information.

Speed of output shaft

The rated speeds in the selection tables are guidelines for load at rated power. Speed can vary depending on degree of load and temperature (particularly in the case of relatively small motors). Combination gear units for lower speeds are available on request.

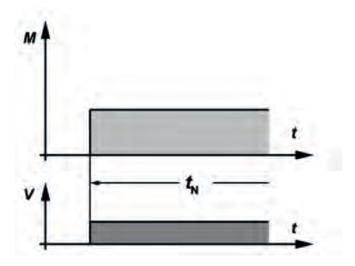
14

550

General

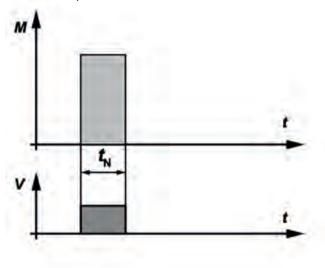
#Aside from special drives (such as lifting equipment), standard motors are always designed for continuous running duty. If the drive is operated with frequent on/off cycles, it may be necessary to select a larger motor with a special design. On the other hand, with pronounced short-time duty it is often possible to select a smaller model. For this reason, it is technically necessary or economically advantageous to inform the motor manufacturer of any duty type that differs from continuous running.

Continuous running duty (S1)



Operation under rated load for sufficient time to allow temperature equilibrium to be attained, such that the temperature does not increase any more with continued operation. The equipment can operate continuously under the rated load without exceeding the allowable temperature.

Short-time duty (S2)

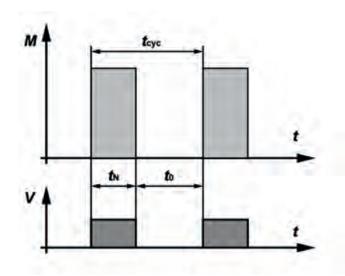


The operating time under rated load is short compared with the subsequent rest period. The standard operating times are 10, 30, 60 and 90 minutes. The equipment can operate for this period under the rated load without exceeding the allowable temperature.

Example: S2 - 60 min

Duty types as defined by EN 60034

Intermittent periodic duty (S3)



S3 duty consists of a sequence of identical cycles, each composed of an operating time with constant load and a rest time with the windings de-energised. The cycle is such that the starting current does not significantly affect the temperature rise. The operating time under rated load and the subsequent pause are both short. The equipment can operate under load only during the period indicated by the duty cycle as a percentage of the total cycle time (cycle duration).

The standardised duty cycles are 15, 25, 40 and 60%. The cycle duration is 10 minutes unless otherwise specified.

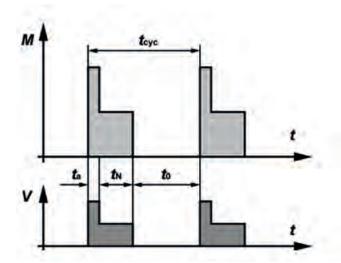
Intermittent periodic duty means that a state of thermal equilibrium is not reached during the load interval.

The duty cycle can be determined as follows:

$$ED \ = \ \frac{t_{_{N}}}{t_{_{cyc}}} \ \times 100\% \ = \ \frac{t_{_{N}}}{t_{_{N}} + t_{_{0}}} \ \times 100\%$$

Example: S3 - 25%

Intermittent periodic duty with starting (S4)



S4 duty consists of a sequence of identical cycles, each of which is composed of a distinct starting time, a time of operation under constant load, and a rest period with the windings de-energised.

The operating time under rated load and the subsequent pause are both short. The equipment can operate under load only during the period indicated by the duty cycle as a percentage of the total cycle time (cycle duration).

The standardised duty cycles are 15, 20, 40 and 60%. The cycle duration is 10 minutes unless otherwise specified.

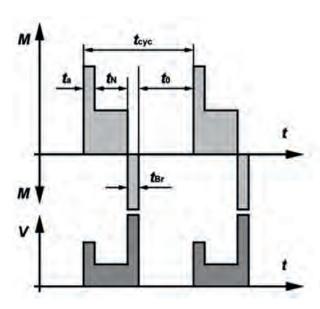
The load cycle corresponds to mode S3, but with additional heating during the starting time that must be taken into account.

The duty cycle can be determined as follows:

ED =
$$\frac{(t_a + t_N)}{t_{cyc}} \times 100\% = \frac{t_a + t_N}{t_a + t_N + t_0} \times 100\%$$

Example: S4 - 25%, $J_{M} = 0.15 \text{ kgm}^2$

Intermittent periodic duty with electric braking (S5)



S5 duty consists of a sequence of identical cycles, each of which is composed of a starting time, a time of operation under constant load, a time of fast electric braking, and a rest period with the windings de-energised.

The operating time under rated load and the subsequent pause are both short. The equipment can operate under load only during the period indicated by the duty cycle as a percentage of the total cycle time (cycle duration).

The standardised duty cycles are 15, 20, 40 and 60%. The cycle duration is 10 minutes unless otherwise specified.

The load cycle corresponds to S3 duty, but with additional warming during the starting time $t_{\mbox{\tiny B}}$ and the braking time $t_{\mbox{\tiny B}}$ taken into account.

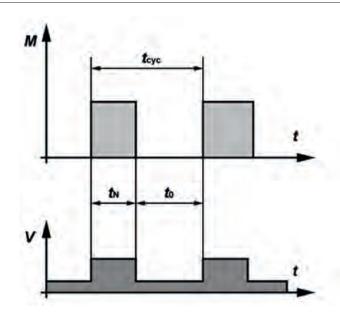
The duty cycle can be determined as follows:

$$ED = \frac{(t_a + t_N + t_{Br})}{t_{cyc}} \times 100\% = \frac{t_a + t_N + t_{Br}}{t_a + t_N + t_{Br} + t_0} \times 100\%$$

Example: S5 - 25%; $J_{M} = 0.15 \text{ kgm}^{2}$, $J_{ext} = 0.7 \text{ kgm}^{2}$

Duty types as defined by EN 60034

Continuous-operation periodic duty (S6)



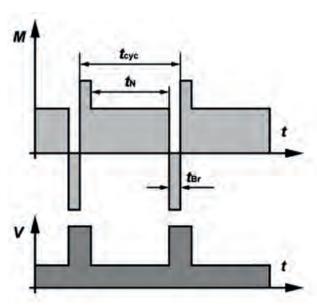
This type of duty corresponds to S3, with the exception that the equipment remains energised during the rest periods. In other words, it operates with no load during these periods. The duty cycle and cycle duration are specified the same way as for S3 duty.

The duty cycle can be determined as follows:

$$ED = \frac{t_{_{N}}}{t_{_{cyc}}} \times 100\% = \frac{t_{_{N}}}{t_{_{N}} + t_{_{0}}} \times 100\%$$

Example: S6 – 40%

Continuous-operation periodic duty with electric braking (S7)

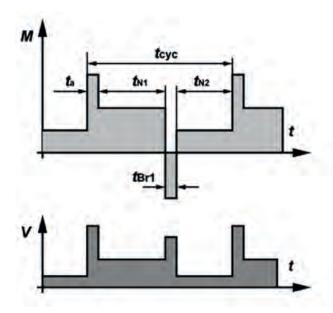


The machine starts up, operates under load, and then is braked electrically, for example by feeding it from a DC power source. Following this, it starts up again immediately. The machine can operate continuously in this manner if the specified moments of inertia of the motor J_{M} and of the load J_{Ext} as well as the specified duty cycle are not exceeded. If the cycle duration is not specified, it is assumed to be 10 minutes.

The duty cycle can be determined as follows: DC = 1Example: $S7 - J_{M} = 0.4 \text{ kgm}^{2}$, $J_{ext} = 7.5 \text{ kgm}^{2}$

14

Continuous-operation periodic duty with relative load/speed changes (S8)



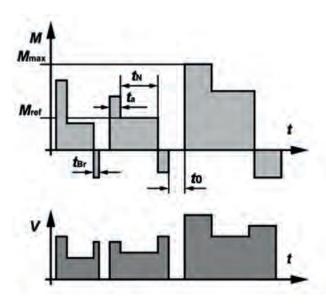
The machine runs continuously under variable load with frequent speed variations. The machine can operate continuously in this manner if at each speed the specified values are not exceeded (moments of inertia J_M and J_{Ext} cycle duration (if other than 10 minutes), rated output and duty cycle. With a moment of inertia of 1 kg m², the acceleration characteristics are the same as with a mass of 1 kg at a distance of 1 m from the axis of rotation).

The duty cycle can be determined as follows:

$$ED = \frac{t_{a} + t_{N1}}{t_{cyc}} \times 100\% = \frac{t_{Br} + t_{N2}}{t_{cyc}} \times 100\%$$

Example: $S8 - J_M = 0.5 \text{ kgm}^2$, $J_{ext} = 6 \text{ kgm}^2$

Duty with non-periodic load and speed variations (S9)

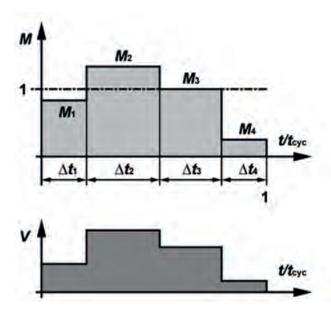


In S9 duty the load and the speed vary non-periodically within the permissible operating range. This includes frequently applied overloads, which must never exceed the reference load.

For this duty type, a constant load appropriately selected and based on duty type S1 shall be taken as the reference value M_{ref} for the overload.

Duty types as defined by EN 60034

Duty with discreet constant loads and speeds (S10)



S10 duty comprises operation with at most four different load levels, each of which is maintained long enough to allow the machine to reach thermal equilibrium.

The minimum load within a duty cycle may have a value of zero (no-load operation or at rest with the windings de-energised).

The appropriate abbreviation is S10 followed by the per unit quantities $p/\Delta t$ for the respective load and its duration and the per unit quantity TL for the relative thermal life expectancy of the insulation system. The reference value for the thermal life expectancy is the thermal life expectancy at rating for continuous running duty and permissible limits of temperature rise based on duty type S1. For a time de-energized and at rest, the load shall be indicated by the letter r.

Example: S10 $p/\Delta t = 1.1/0.4$, 1/0.3, 0.9/0.2, r/0.1; TL = 0.6

14

4-pole IE1 motors for continuous operation S1, line frequency 50 Hz

For use after 16 June 2011 only in non-EU countries, except for brake motors

P _N	Туре	n _N	M _N	I _N	Connec- tion	cosφ	η	η	η	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot}	Brake
				400 V			(100% - Last)	(75% - Last)	(50% - Last)						
kW		1/min	Nm	Α			%	%	%					kgm ²	
0,03	D04LA4	1350	0,21	0,20	Υ	0,60	-	-	-	2,2	2,6	2,6	3,0	0,000175	
0,04	D04LA4	1350	0,28	0,20	Υ	0,60	-	-	-	2,2	2,0	2,0	2,3	0,000175	
0,06	D04LA4	1350	0,42	0,30	Υ	0,60	-	-	-	2,3	2,1	2,1	2,4	0,000175	E003
0,09	D04LA4	1350	0,63	0,45	Υ	0,69	-	-	-	2,5	2,2	2,2	2,6	0,000175	
0,12	D04LA4	1350	0,84	0,46	Υ	0,73	-	-	-	2,3	1,7	1,7	1,9	0,000175	
0,06	D05LA4	1350	0,42	0,35	Υ	0,72	-	-	-	3,7	3,7	3,5	3,7	0,000295	
0,09	D05LA4	1350	0,63	0,38	Υ	0,70	-	-	-	3,9	3,0	2,8	3,0	0,000295	
0,12	D05LA4	1350	0,85	0,42	Υ	0,73	-	-	-	3,4	2,2	2,1	2,2	0,000295	E003
0,18	D05LA4	1350	1,28	0,63	Υ	0,70	-	-	-	3,4	2,3	2,2	2,4	0,000295	
0,25	D05LA4	1350	1,75	0,88	Υ	0,69	-	-	-	3,3	2,3	2,2	2,3	0,000295	
0,06	D06LA4	1350	0,42	0,35	Υ	0,72	-	-	-	3,7	3,7	3,5	3,7	0,000295	
0,09	D06LA4	1350	0,63	0,38	Υ	0,70	-	-	-	3,9	3,0	2,8	3,0	0,000295	
0,12	D06LA4	1350	0,85	0,42	Υ	0,73	-	-	-	3,4	2,2	2,1	2,2	0,000295	E003
0,18	D06LA4	1350	1,28	0,63	Υ	0,70	-	-	-	3,4	2,3	2,2	2,4	0,000295	
0,25	D06LA4	1350	1,76	0,89	Υ	0,69	-	-	-	3,2	2,3	2,2	2,3	0,000295	
0,3	D07LA4	1350	2,1	1,30	Υ	0,60	-	-	-	2,7	2,7	2,7	2,8	0,000385	E003
0,37	D07LA4	1350	2,6	1,35	Υ	0,66	-	-	-	2,6	2,2	2,2	2,2	0,000385	E004
0,55	DSE08MA4	1400	3,75	1,45	Υ	0,72	75,4	75,2	72,0	4,2	2,1	2,0	2,4	0,00115	ES(X)010
0,75	DSE08LA4	1400	5,1	1,95	Υ	0,76	75,6	76,2	72,7	4,6	2,0	2,0	2,4	0,00150	EH(X)027
1,1	DSE08XA4	1400	7,5	2,8	Υ	0,75	75,5	76,8	73,5	3,7	2,0	1,8	2,2	0,00170	
1,1	DSE09SA4	1420	7,5	2,6	Υ	0,76	80,0	80	77,5	4,9	2,5	2,2	2,8	0,00245	ES(X)010
1,5	DSE09LA4	1420	10,1	3,5	Υ	0,76	80,7	80,9	79,5	5,0	2,5	2,3	2,9	0,00320	ES(X)027
2,2	DSE09XA4	1420	15	4,9	Υ	0,81	80,5	81,1	80,4	4,5	2,3	2,2	2,6	0,00380	EH(X)040
3	DSE11SA4	1420	20	6,4	D	0,80	84,4	85,0	83,8	5,9	2,7	2,5	3,2	0,00810	ES(X)027
4	DSE11MA4	1420	27	8,4	D	0,83	84,0	84,9	84,2	5,5	2,8	2,4	3,0	0,01050	ES(X)040
5,5	DSE11LA4	1420	37	11,3	D	0,83	85,8	86,2	85,4	6,3	2,8	2,6	3,2	0,01400	ES(X)070 EH(X)125
7,5	DSE13MA4	1440	50	15,3	D	0,81	87,5	87,8	87,1	6,2	2,8	2,5	3,2	0,02900	ES(X)040 ES(X)070
9,5	DSE13LA4	1440	63	19,2	D	0,82	87,1	87,5	87,5	6,0	2,9	2,6	3	0,03450	ES(X)125 EH(X)200
11	DSE16MA4	1460	72	22,6	D	0,81	87,7	88,0	87,3	6,0	2,5	2,1	2,7	0,05700	ES(X)125
15	DSE16LA4	1460	98	29,5	D	0,83	88,9	89,2	88,9	6,1	2,5	2,1	2,8	0,07600	ES(X)200
18,5	DSE16XA4	1460	121	37,5	D	0,81	89,3	89,9	88,5	6,1	2,6	2,2	2,8	0,08700	EH(X)400 ZS(X)300
22	DSE18LA4	1460	144	41,5	D	0,85	90,7	91,0	90,5	6,8	3,0	2,5	2,8	0,16000	ES(X)250
30	DSE18XA4	1460	196	56	D	0,85	90,9	91,2	90,8	6,8	3,1	2,4	2,8	0,19500	EH(X)400
			1	1		"	1	- ,-	,-	"	'	'	'-	.,	ZS(X)500
37	DHENF22SG4	1480	238	63	D	0,89	94,4	94,4	93,7	7,5	2,2	1,5	2,7	0,53	-
45	DHENF22MG4	1480	289	77	D	0,90	94,4	94,4	93,8	7,5	2,0	1,6	2,2	0,58	
55	DHENF25SG4	1480	355	93	D	0,90	94,3	94,6	94,1	7,0	2,3	1,6	2,5	0,79	-
75	DHENF28MG4	1480	483	126	D	0,91	94,7	94,7	94,3	7,3	2,7	1,9	2,8	0,92	-

P Rated output at 50 HZ mains frequency

n Typical rated rotor shaft speed with 50 Hz mains frequency

M_N Rated torque at rotor shaft

 I_N Rated current at 400 V (for other special voltages, multiply by the inverse voltage ratio to convert the current at 400 V to the current at the desired

voltage)

cos φ Power factor

Ia/InRelative starting currentMa/MnRelative starting torqueMs/MnRelative pull-up torqueMk/MnRelative breakdown torqueJrotRotor moment of inertiaŋEfficiency with different loads

Brake See Section 16 for brake configuration.

The standard motor winding configuration is for 400 V / 50 Hz.

All motors designed for thermal class F are suitable for operation over the voltage range $380-420\,\mathrm{V}$ or $400\,\mathrm{V}$ +/- 10%.

Note: the current, power factor and torque vary depending on the deviation from 400 V.

See "www.bauergears.com" for more information.

14

Technical data of the 50 Hz motors

4-pole motors for continuous operation S1, line frequency 50 Hz

P _N	Туре	n _N	M _N	I _N	Connec- tion	cosφ	η	η	η	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	Jrot	Brake
				(400 V)	tion		(100% - Last)	(75% - Last)	(50% - Last)						
kW		1/min	Nm	Α			%	%	%					kgm²	
0,03	D04LA4	1350	0,21	0,20	Υ	0,60	-	-	-	2,2	2,6	2,6	3,0	0,000175	
0,04	D04LA4	1350	0,28	0,20	Υ	0,60	-	-	-	2,2	2,0	2,0	2,3	0,000175	
0,06	D04LA4	1350	0,42	0,30	Υ	0,60	-	-	-	2,3	2,1	2,1	2,4	0,000175	E003
0,09	D04LA4	1350	0,63	0,45	Υ	0,69	-	-	-	2,5	2,2	2,2	2,6	0,000175	
0,12	D04LA4	1350	0,84	0,46	Υ	0,73	-	-	-	2,3	1,7	1,7	1,9	0,000175	
0,06	D05LA4	1350	0,42	0,35	Υ	0,72	-	-	-	3,7	3,7	3,5	3,7	0,000295	
0,09	D05LA4	1350	0,63	0,38	Υ	0,70	-	-	-	3,9	3,0	2,8	3,0	0,000295	
0,12	D05LA4	1350	0,85	0,42	Υ	0,73	-	-	-	3,4	2,2	2,1	2,2	0,000295	E003
0,18	D05LA4	1350	1,28	0,63	Y	0,70	-	-	-	3,4	2,3	2,2	2,4	0,000295	
0,25	D05LA4	1350	1,75	0,88	Υ	0,69	-	-	-	3,3	2,3	2,2	2,3	0,000295	
0,06	D06LA4	1350	0,42	0,35	Υ	0,72	-	-	-	3,7	3,7	3,5	3,7	0,000295	
0,09	D06LA4	1350	0,63	0,38	Y	0,70	-	-	-	3,9	3,0	2,8	3,0	0,000295	
0,12	D06LA4	1350	0,85	0,42	Y	0,73	-	-	-	3,4	2,2	2,1	2,2	0,000295	E003
0,18	D06LA4	1350	1,28	0,63	Υ	0,70	-	-	-	3,4	2,3	2,2	2,4	0,000295	
0,25	D06LA4	1350	1,76	0,89	Y	0,69	-	-	-	3,2	2,3	2,2	2,3	0,000295	
0,3	D07LA4	1350	2,1	1,30	Υ	0,60	-	-		2,7	2,7	2,7	2,8	0,000385	E003
0,37	D07LA4	1350	2,6	1,35	Υ	0,66	-	-	-	2,6	2,2	2,2	2,2	0,000385	E004
0,37	DHE08MA4	1420	2,45	1,20	Υ	0,60	76,2	76,0	74,2	5,4	3,2	3,0	3,6	0,00115	ES(X)010
0,55	DHE08LA4	1420	3,7	1,36	Υ	0,74	78,4	78,8	76,0	6,8	2,1	2,0	2,4	0,0015	EH(X)027
0,75	DHE08XA4	1420	5,0	1,88	Υ	0,72	79,7	80,0	77,4	4,7	2,3	2,2	2,7	0,00170	EH(X)027
0,75	DHE09SA4	1440	5,0	1,8	Y	0,73	81,6	81,0	77,4	5,9	3,1	2,7	3,5	0,00245	ES(X)010
1,1	DHE09LA4	1440	7,3	2,5	Y	0,75	82,7	82,3	79,8	5,9	2,9	2,7	3,4	0,0032	ES(X)010 ES(X)027
1,5	DHE09XA4	1440	10,0	3,3	Y	0,78	83,2	82,8	79,5	5,6	3,0	2,9	3,3	0,0038	EH(X)040
2,2	DHE09XA4C	1440	14,5	4,75	Υ	0,79	84,5	85,0	83,5	5,2	1,8	1,7	2,7	0,0053	LI I(X)040
2,2	DHE11SA4	1440	14,5	4,6	Υ	0,80	86,2	86,0	84,7	7,0	3,1	2,8	3,6	0,0081	ES(X)027
3	DHE11MA4	1440	20	6,3	D	0,80	86,5	86,5	84,7	6,7	3,4	2,8	3,7	0,0105	ES(X)040
4	DHE11LA4	1440	26,5	8,4	D	0,79	87,5	87,0	85,3	7,6	3,6	3,3	4,2	0,0140	ES(X)070
5,5	DHE11LA4C	1460	36	11,0	D	0,82	87,8	88,2	86,5	6,7	2,1	1,6	3,4	0,0162	EH(X)125
															ES(X)040
5,5	DHE13MA4	1460	36	11,0	D	0,81	88,9	88,9	87,6	7,2	3,2	2,9	3,6	0,0290	ES(X)070
7,5	DHE13LA4	1460	49	15,1	D	0,81	88,9	89,2	87,9	7,0	3,3	3,0	3,5	0,0345	ES(X)125
			1												EH(X)200
9,5	DHE16MA4	1470	62	19,7	D	0,78	89,4	89,4	86,5	6,8	2,9	2,5	3,2	0,057	ES(X)125
11	DHE16LA4	1470	71	22,5	D	0,78	90,3	90,0	88,3	7,9	3,5	2,9	3,8	0,076	ES(X)200
15	DHE16XA4	1470	97	31	D	0,77	90,6	90,8	88,8	7,2	3,2	2,8	3,5	0,087	EH(X)400 ZS(X)300
18,5	DHE18LA4	1470	120	35	D	0,83	91,5	91,7	90,0	7,9	3,6	3,0	3,3	0,160	ES(X)250
22	DHE18XA4	1470	142	43,5	D	0,80	92,0	91,6	89,6	8,7	4,2	3,3	3,9	0,195	EH(X)400
30	DHENF20LG4	1480	194	53	D	0.87	93.7	93,7	93,1	7,3	2,3	1,9	3,0	0,310	ZS(X)500
37	DHENF22SG4	1480	238	63	D	0,89	94,4	94,4	93,7	7,5	2,2	1,5	2,7	0,510	-
45	DHENF22MG4	1480	289	77	D	0,90	94,4	94,4	93,8	7,5	2,0	1,6	2,2	0,58	
55	DHENF25SG4	1480	355	93	D	0,90	94,3	94,6	94,1	7,0	2,3	1,6	2,5	0,79	-
75	DHENF28MG4	1480	483	126	D	0,91	94,7	94,7	94,3	7,3	2,7	1,9	2,8	0,92	1_

P Rated power at 50 Hz line frequency

n Guideline value for rated speed at the rotor shaft at 50 Hz line frequency

 M_N Rated torque at the rotor shaft

 I_N Rated current at 400 V (the current can be converted as inverse ratios of voltages

from 400 V to the desired special voltage)

cos φ Power factor

 $\begin{array}{ll} I_{\text{A}}/I_{\text{N}} & \text{Relative starting current} \\ M_{\text{A}}/M_{\text{N}} & \text{Relative breakaway torque} \\ M_{\text{S}}/M_{\text{N}} & \text{Relative pull-up torque} \\ M_{\text{K}}/M_{\text{N}} & \text{Relative breakdown torque} \\ J_{\text{rot}} & \text{Mass moment of inertia of the rotor} \end{array}$

Brake recommended standard brake for normal requirements (see chapter 16)

Winding configuration for standard motors for 400 V / 50 Hz.

All motors are suitable for the voltage range 380...420V or 400V +/- 10% if executed in insulation class F.

Important: Current, power factor and torque change as voltage deviates from 400 V.

See "www.bauergears.com" for more information.

14

4-pole motors for intermittent periodic duty S3/S6, line frequency 50 Hz

P_N	Туре	n _N	M _N	I _N	Connec-	cosφ	η	η	η	I _A /I _N	M_A/M_N	M_s/M_N	M_K/M_N	J _{rot}
					tion									
				400 V			(100% - Last)	(75% - Last)	(50% - Last)					
kW		1/min	Nm	Α			%	%	%					kgm²
0,75	DPE09LA4	1440	4,9	1,68	Υ	0,76	84,0	83,2	79,9	6,6	3,3	2,7	3,7	0,0032
1,1	DPE09XA4	1440	7,25	2,45	Υ	0,76	85,0	84,1	81,2	7,1	3,6	3,2	4,0	0,0038
1,5	DPE09XA4C	1460	9,8	3,25	Υ	0,78	85,3	85,5	83,0	6	2,1	2	3,1	0,0053
1,5	DPE11SA4	1460	9,8	3,20	Υ	0,79	86,8	86,0	83,0	8,2	3,5	3,0	4,3	0,0081
2,2	DPE11MA4	1450	14,5	4,50	Υ	0,81	87,0	86,5	84,6	7,8	3,7	3,0	4,0	0,0105
3,0	DPE11LA4	1450	19,7	6,05	D	0,81	88,2	88,1	86,2	8,3	3,6	3	4,2	0,0140
4,0	DPE11LA4C	1470	26	8,3	D	0,78	88,8	88,5	86,5	7,5	2,2	2	4	0,0162
4,0	DPE13MA4	1460	26	7,9	D	0,82	89,1	89,1	87,5	7,7	3,4	2,5	3,7	0,0290
5,5	DPE13LA4	1460	35,9	8,0	D	0,81	89,6	89,6	87,5	8,0	3,9	3,5	4,1	0,0345
7,5	DPE16LA4	1480	48,4	14,8	D	0,81	90,5	89,6	86,7	8,5	3,8	3,1	4,0	0,076
9,5	DPE16XA4	1480	61	18,7	D	0,81	91,0	90,3	87,0	9,5	3,6	3,0	3,9	0,087
11	DPE18LA4	1480	71	21,3	D	0,82	91,5	90,6	88,5	9,3	4,5	3,6	4,0	0,160
15	DPE18XA4	1480	97	28,4	D	0,83	92,2	91,9	90,8	8,7	4,1	3,3	3,8	0,195

P Rated power at 50 Hz line frequency, duty type S3/S6

n Guideline value for rated speed at the rotor shaft at 50 Hz line frequency

 M_N Rated torque at the rotor shaft

Rated current at 400 V (the current can be converted as inverse ratios of voltages

from 400 V to the desired special voltage)

cos φ Power factor

 $\begin{array}{ll} I_A/I_N & \text{Relative starting current} \\ M_A/M_N & \text{Relative breakaway torque} \\ M_S/M_N & \text{Relative pull-up torque} \\ M_K/M_N & \text{Relative breakdown torque} \end{array}$

 J_{rot} Mass moment of inertia of the rotor

Brake recommended standard brake for normal requirements (see chapter 16)

Winding configuration for standard motors for 400 V / 50 Hz.

See "www.bauergears.com" for more information.

14

Technical data of the 50 Hz motors

4 pole motors for periodic duty S3/S6-75%, Mains Frequency 50 Hz

0,04 D,06 D,09 D,12 D,18 D,06 D,09 D,12 D,06 D,09 D,12 D,06 D,09 D,12 D,06 D,09 D,12 D,18 D,018 D,018 D,016 D,016 D,018 D,016 D,016 D,017 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018	004LA4 004LA4 004LA4 004LA4 005LA4 005LA4 005LA4 005LA4 006LA4 006LA4 006LA4	1/min 1350 1350 1350 1350 1350 1350 1350 1350	Nm 0,21 0,28 0,42 0,63 0,84 0,42 0,63 0,85 1,28 1,75 0,42 0,63 0,85	400V A 0,20 0,20 0,30 0,45 0,46 0,35 0,38 0,42 0,63 0,88 0,35 0,38	Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y	0,60 0,60 0,60 0,69 0,73 0,72 0,70 0,73 0,70 0,69	2,2 2,2 2,3 2,5 2,3 3,7 3,9 3,4 3,4 3,3	2,6 2,0 2,1 2,2 1,7 3,7 3,0 2,2 2,3 2,3	2,6 2,0 2,1 2,2 1,7 3,5 2,8 2,1 2,2 2,2	3,0 2,3 2,4 2,6 1,9 3,7 3,0 2,2 2,4 2,3	kgm² 0,000175 0,000175 0,000175 0,000175 0,000175 0,000295 0,000295 0,000295 0,000295	E003
0,03 D,04 D,06 D,09 D,12 D,08 D,09 D,12 D,06 D,09 D,12 D,06 D,09 D,09 D,06 D,09 D,012 D,012 D,013 D,012 D,014 D,018 D,012 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,01	004LA4 004LA4 004LA4 005LA4 005LA4 005LA4 005LA4 005LA4 006LA4 006LA4	1350 1350 1350 1350 1350 1350 1350 1350	0,21 0,28 0,42 0,63 0,84 0,42 0,63 0,85 1,28 1,75 0,42 0,63	0,20 0,30 0,45 0,46 0,35 0,38 0,42 0,63 0,88 0,35 0,38	Y Y Y Y Y Y Y Y	0,60 0,60 0,69 0,73 0,72 0,70 0,73 0,70 0,69	2,2 2,3 2,5 2,3 3,7 3,9 3,4 3,4 3,3	2,0 2,1 2,2 1,7 3,7 3,0 2,2 2,3	2,0 2,1 2,2 1,7 3,5 2,8 2,1 2,2	2,3 2,4 2,6 1,9 3,7 3,0 2,2 2,4	0,000175 0,000175 0,000175 0,000175 0,000175 0,000295 0,000295 0,000295	
0,04 D,06 D,09 D,12 D,18 D,06 D,09 D,12 D,06 D,09 D,12 D,06 D,09 D,12 D,06 D,09 D,12 D,11 D,11 D,11 D,11 D,11 D,11 D,11	004LA4 004LA4 004LA4 005LA4 005LA4 005LA4 005LA4 005LA4 006LA4 006LA4	1350 1350 1350 1350 1350 1350 1350 1350	0,28 0,42 0,63 0,84 0,42 0,63 0,85 1,28 1,75 0,42 0,63	0,20 0,30 0,45 0,46 0,35 0,38 0,42 0,63 0,88 0,35 0,38	Y Y Y Y Y Y Y Y	0,60 0,60 0,69 0,73 0,72 0,70 0,73 0,70 0,69	2,2 2,3 2,5 2,3 3,7 3,9 3,4 3,4 3,3	2,0 2,1 2,2 1,7 3,7 3,0 2,2 2,3	2,0 2,1 2,2 1,7 3,5 2,8 2,1 2,2	2,3 2,4 2,6 1,9 3,7 3,0 2,2 2,4	0,000175 0,000175 0,000175 0,000175 0,000295 0,000295 0,000295 0,000295	
0,06 D,09 D,006 D,09 D,12 D,06 D,06 D,09 D,06 D,09 D,06 D,09 D,06 D,09 D,012 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,019 D,018 D,019 D,018 D,019 D,019 D,018 D,019 D,019 D,018 D,018 D,019 D,019 D,018 D,019 D,019 D,018 D,019 D,019 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D,018 D	004LA4 004LA4 005LA4 005LA4 005LA4 005LA4 005LA4 006LA4 006LA4 006LA4	1350 1350 1350 1350 1350 1350 1350 1350	0,42 0,63 0,84 0,42 0,63 0,85 1,28 1,75 0,42 0,63	0,30 0,45 0,46 0,35 0,38 0,42 0,63 0,88 0,35 0,38	Y Y Y Y Y Y Y	0,60 0,69 0,73 0,72 0,70 0,73 0,70 0,69	2,3 2,5 2,3 3,7 3,9 3,4 3,4 3,3	2,1 2,2 1,7 3,7 3,0 2,2 2,3	2,1 2,2 1,7 3,5 2,8 2,1 2,2	2,4 2,6 1,9 3,7 3,0 2,2 2,4	0,000175 0,000175 0,000175 0,000295 0,000295 0,000295 0,000295	
0,09	004LA4 004LA4 005LA4 005LA4 005LA4 005LA4 006LA4 006LA4 006LA4 006LA4	1350 1350 1350 1350 1350 1350 1350 1350	0,63 0,84 0,42 0,63 0,85 1,28 1,75 0,42 0,63	0,45 0,46 0,35 0,38 0,42 0,63 0,88 0,35 0,38	Y Y Y Y Y Y	0,69 0,73 0,72 0,70 0,73 0,70 0,69	2,5 2,3 3,7 3,9 3,4 3,4 3,3	2,2 1,7 3,7 3,0 2,2 2,3	2,2 1,7 3,5 2,8 2,1 2,2	2,6 1,9 3,7 3,0 2,2 2,4	0,000175 0,000175 0,000295 0,000295 0,000295 0,000295	
0,12 D 0,06 D 0,09 D 0,12 D 0,18 D 0,25 D 0,06 D 0,09 D 0,12 D 0,18 D	004LA4 005LA4 005LA4 005LA4 005LA4 005LA4 006LA4 006LA4 006LA4	1350 1350 1350 1350 1350 1350 1350 1350	0,84 0,42 0,63 0,85 1,28 1,75 0,42 0,63	0,46 0,35 0,38 0,42 0,63 0,88 0,35 0,38	Y Y Y Y Y Y	0,73 0,72 0,70 0,73 0,70 0,69	2,3 3,7 3,9 3,4 3,4 3,3	1,7 3,7 3,0 2,2 2,3	1,7 3,5 2,8 2,1 2,2	1,9 3,7 3,0 2,2 2,4	0,000175 0,000175 0,000295 0,000295 0,000295 0,000295	E003
0,06 D,09 D,012 D,025 D,006 D,09 D,012 D,018 D,018 D,012 D,012 D,018 D,018 D	005LA4 005LA4 005LA4 005LA4 005LA4 006LA4 006LA4 006LA4 006LA4	1350 1350 1350 1350 1350 1350 1350 1350	0,42 0,63 0,85 1,28 1,75 0,42 0,63	0,35 0,38 0,42 0,63 0,88 0,35 0,38	Y Y Y Y Y	0,72 0,70 0,73 0,70 0,69	3,7 3,9 3,4 3,4 3,3	3,7 3,0 2,2 2,3	3,5 2,8 2,1 2,2	3,7 3,0 2,2 2,4	0,000295 0,000295 0,000295 0,000295	E003
0,09 D 0,12 D 0,18 D 0,25 D 0,06 D 0,09 D 0,12 D	005LA4 005LA4 005LA4 005LA4 006LA4 006LA4 006LA4 006LA4	1350 1350 1350 1350 1350 1350 1350 1350	0,63 0,85 1,28 1,75 0,42 0,63	0,38 0,42 0,63 0,88 0,35 0,38	Y Y Y Y	0,70 0,73 0,70 0,69	3,9 3,4 3,4 3,3	3,0 2,2 2,3	2,8 2,1 2,2	3,0 2,2 2,4	0,000295 0,000295 0,000295	E003
0,12 D 0,18 D 0,25 D 0,06 D 0,09 D 0,12 D	005LA4 005LA4 005LA4 006LA4 006LA4 006LA4 006LA4	1350 1350 1350 1350 1350 1350 1350	0,85 1,28 1,75 0,42 0,63	0,42 0,63 0,88 0,35 0,38	Y Y Y	0,73 0,70 0,69	3,4 3,4 3,3	2,2 2,3	2,1 2,2	2,2 2,4	0,000295 0,000295	E003
0,18 D 0,25 D 0,06 D 0,09 D 0,12 D 0,18 D	005LA4 005LA4 006LA4 006LA4 006LA4 006LA4	1350 1350 1350 1350 1350 1350	1,28 1,75 0,42 0,63	0,63 0,88 0,35 0,38	Y Y Y	0,70 0,69	3,4 3,3	2,3	2,2	2,4	0,000295	E003
0,25 D 0,06 D 0,09 D 0,12 D 0,18 D	005LA4 006LA4 006LA4 006LA4 006LA4 006LA4	1350 1350 1350 1350 1350	1,75 0,42 0,63	0,88 0,35 0,38	Y	0,69	3,3					
0,06 D 0,09 D 0,12 D 0,18 D	006LA4 006LA4 006LA4 006LA4 006LA4	1350 1350 1350 1350	0,42 0,63	0,35 0,38	Υ			2.3	22	2.3	0.000205	
0,09 D 0,12 D 0,18 D	D06LA4 D06LA4 D06LA4 D06LA4	1350 1350 1350	0,63	0,38	1	0.72		1-,-	4,4	۷,۵	0,000293	1
0,12 D 0,18 D	D06LA4 D06LA4 D06LA4	1350 1350	1 -			0,72	3,7	3,7	3,5	3,7	0,000295	
0,18 D	D06LA4 D06LA4	1350	0,85		Υ	0,70	3,9	3,0	2,8	3,0	0,000295	E003
	D06LA4			0,42	Υ	0,73	3,4	2,2	2,1	2,2	0,000295	
0,25 D			1,28	0,63	Υ	0,70	3,4	2,3	2,2	2,4	0,000295	
	2071 84	1350	1,76	0,89	Υ	0,69	3,2	2,3	2,2	2,3	0,000295	
	D07LA4	1350	2,1	1,30	Υ	0,60	2,7	2,7	2,7	2,8	0,000385	E003
0,37 D	007LA4	1350	2,6	1,35	Υ	0,66	2,6	2,2	2,2	2,2	0,000385	E004
0,55 D	DSE08MA4	1400	3,75	1,45	Υ	0,72	4,2	2,1	2,0	2,4	0,00115	ES(X)010
	DSE08LA4	1400	5,1	1,95	Υ	0,76	4,6	2,0	2,0	2,4	0,00150	EH(X)027
	DSE08XA4	1400	7,5	2,8	Υ	0,75	3,7	2,0	1,8	2,2	0,00170	ΕΠ(Λ)027
, -	DSE09SA4	1420	7,5	2,6	Υ	0,76	4,9	2,5	2,2	2,8	0,00245	ES(X)010
	DSE09LA4	1420	10,1	3,5	Υ	0,76	5,0	2,5	2,3	2,9	0,00320	ES(X)027
2,2 D	DSE09XA4	1420	15	4,9	Υ	0,81	4,5	2,3	2,2	2,6	0,00380	EH(X)040
3 D	OSE11SA4	1420	20	6,4	D	0,80	5,9	2,7	2,5	3,2	0,00810	ES(X)027
	DSE11MA4	1420	27	8,4	D	0,83	5,5	2,8	2,4	3,0	0,01050	ES(X)040
5,5 D	OSE11LA4	1420	37	11,3	D	0,83	6,3	2,8	2,6	3,2	0,01400	ES(X)070
												EH(X)125
7,5 D	DSE13MA4	1440	50	15,3	D	0,81	6,2	2,8	2,5	3,2	0,02900	ES(X)040
	OSE13LA4	1440	63	19,2	D	0,82	6,0	2,9	2,6	3	0,03450	ES(X)125
							'		'			EH(X)200
11 D	DSE16MA4	1460	72	22,6	D	0,81	6,0	2,5	2,1	2,7	0,05700	ES(X)125
	DSE16LA4	1460	98	29,5	D	0,83	6,1	2,5	2,1	2,8	0,07600	ES(X)200
I .	DSE16XA4	1460	121	37,5	D	0,81	6,1	2,6	2,2	2,8	0,08700	EH(X)400
.				,-			'	'		'	,	ZS(X)300
22 D	DSE18LA4	1460	144	41,5	D	0,85	6,8	3,0	2,5	2,8	0,16000	ES(X)250
I	OSE18XA4	1460	196	56	D	0,85	6,8	3,1	2,4	2,8	0,19500	EH(X)400
						0,00		,.		_,0	3,13300	ZS(X)500
37 D	OHENF22SG4	1480	238	63	D	0,89	7,5	2,2	1,5	2,7	0,53	
I	OHENF22MG4	1480	289	77	D	0,89	7,5 7,5	2,2	1,6	2,7	0,53	
	OHENF25SG4	1480	355	93	D	0,90	7,0	2,3	1,6	2,5	0,79	-
	OHENF28MG4	1480	483	126	D	0,91	7,3	2,7	1,0	2,8	0,79	-

P Rated outputs at 50 Hz line frequency

n Guideline values for rated speeds at the rotor shaft at 50 Hz line frequency

 M_N Rated torques at the rotor shaft

 $I_{\text{\tiny N}}$ Rated currents 400 V Δ/YY (currents can be converted as inverse ratios of volt-

ages from 400 V to the desired special voltage)

cos φ Power factors

 $\begin{array}{lll} I_A/I_N & & \text{Relative starting currents} \\ M_A/M_N & & \text{Relative breakaway torques} \\ M_S/M_N & & \text{Relative pull-up torques} \\ M_K/M_N & & \text{Relative breakdown torques} \\ J_{rot} & & \text{Mass moment of inertia of the rotor} \\ Brake & & \text{Delection of the brake, see chapter 16} \end{array}$

Standard motor winding design for 400V / $50\,Hz$

14

4-pole motors for intermittent periodic duty (\$3/\$6) and 50 Hz mains frequency

P	ED	Туре	n	M _N	IN (400 V)	Connec-	cos φ	I_A/I_N	M_A/M_N	M_s/M_N	M _K /M _N	J_{rot}
						tion						
kW			1/min	Nm	Α							kgm ²
0,15	15%	D04LA4	1350	1,05	0,60	Υ	0,77	2,0	1,6	1,5	1,6	0,000175
0,3	15%	D05LA4	1350	2,1	0,98	Υ	0,75	2,6	1,9	1,8	1,9	0,000295
0,3	60%	D06LA4	1350	2,1	0,98	Υ	0,75	2,6	1,9	1,8	1,9	0,000295
0,55	60%	D07LA4	1350	3,9	1,95	Υ	0,86	3,4	1,6	1,5	1,6	0,000385
0,75	60%	D08MA4	1400	5,1	2,0	Υ	0,81	3,4	1,6	1,4	1,7	0,00115
1,1	60%	D08LA4	1400	7,5	2,8	Υ	0,82	3,3	1,5	1,4	1,7	0,0015
1,5	60%	D09SA4	1400	10,2	3,6	Υ	0,84	3,9	1,7	1,5	2,0	0,00245
2,2	60%	D09LA4	1400	15	5,0	Υ	0,86	3,9	1,6	1,5	1,9	0,0032
3,0	60%	D09XA4	1400	20	6,8	Υ	0,86	3,4	1,7	1,6	1,9	0,0038
4,0	60%	D11SA4	1420	26,5	8,9	Δ	0,85	4,0	1,6	1,4	2,0	0,0081
5,5	60%	D11MA4	1420	37	11,7	Δ	0,87	4,3	1,5	1,5	2,0	0,0105
7,5	60%	D11LA4	1420	50	16	Δ	0,87	4,3	1,8	1,7	2,1	0,014
9,5	60%	D13MA4	1420	64	19	Δ	0,87	4,9	1,9	1,6	2,2	0,029
11	60%	D13LA4	1420	72	22	Δ	0,84	5,5	2,4	2,1	2,5	0,0345
13,5	60%	D16MA4	1460	88	28	Δ	0,84	5,6	2,1	1,6	2,0	0,057
18,5	60%	D16LA4	1460	121	38	Δ	0,84	5,1	1,9	1,6	2,1	0,076
22	60%	D16XA4	1460	144	46	Δ	0,84	5,4	2,1	1,3	2,0	0,087
30	60%	D18LA4	1460	196	58	Δ	0,89	4,5	1,8	1,5	1,7	0,16
37	60%	D18XA4	1460	240	74	Δ	0,85	5,5	2,5	2,0	2,3	0,195

P Rated output at 50 Hz mains frequency, S3/S6 duty

DC Permissible duty cycle

n Typical rated rotor shaft speed at 50 Hz

Mains frequency

M_N Rated shaft torque

 I_{N} Rated current at 400 V (for other special voltages, multiply by the inverse voltage

ratio to convert the current at 400 V to the current at the desired voltage)

cos φ Power factor

 $\begin{array}{lll} I_A/I_N & Relative starting current \\ M_A/M_N & Relative starting torque \\ M_S/M_N & Relative pull-up torque \\ M_K/M_N & Relative breakdown torque \\ J_{rot} & Rotor moment of inertia \end{array}$

The standard motor winding configuration is for 400 V / 50 Hz.

See "www.bauergears.com" for more information.

14

Technical data of the 50 Hz motors

4/2-pole Δ/YY motors for continuous running duty (S1) and 50 Hz mains frequency

Р	Туре	n	M _N	I _N (400 V)	cos φ	I _A /I _N	M_A/M_N	M _S /M _N	M _K /M _N	J_{rot}
kW		1/min	Nm	Α						kgm²
0,03 / 0,06	D04LA42	1350 / 2700	0,210 / 0,210	0,230 / 0,250	0,56 / 0,67	2,2 / 3,1	3,4 / 3,1	3,4 / 3,1	3,6 / 3,3	0,000175
0,04 / 0,08	D04LA42	1350 / 2700	0,280 / 0,280	0,250 / 0,280	0,60 / 0,75	2,0 / 2,8	3,0 / 2,1	3,0 / 2,1	3,3 / 2,2	0,000175
0,06 / 0,12	D05LA42	1350 / 2700	0,420 / 0,420	0,450 / 0,450	0,50 / 0,75	2,8 / 3,3	3,1 / 2,0	3,0 / 1,9	3,8 / 2,6	0,000295
0,08 / 0,16	D05LA42	1350 / 2700	0,56 / 0,56	0,50 / 0,50	0,55 / 0,75	2,8 / 3,3	3,1 / 1,8	2,7 / 1,7	3,4 / 2,3	0,000295
0,06 / 0,12	D06LA42	1350 / 2700	0,420 / 0,420	0,450 / 0,450	0,50 / 0,75	2,8 / 3,3	3,1 / 2,0	3,0 / 1,9	3,8 / 2,6	0,000295
0,08 / 0,16	D06LA42	1350 / 2700	0,56 / 0,56	0,50 / 0,50	0,55 / 0,75	2,8 / 3,3	2,8 / 1,8	2,7 / 1,7	3,4 / 2,3	0,000295
0,11 / 0,22	D06LA42	1350 / 2700	0,77 / 0,77	0,68 / 0,68	0,55 / 0,75	2,8 / 3,3	2,8 / 1,8	2,7 / 1,7	3,4 / 2,3	0,000295
0,16 / 0,32	D06LA42	1350 / 2700	1,13 / 1,13	0,90 / 0,90	0,57 / 0,80	2,8 / 3,3	2,6 / 1,7	2,5 / 1,6	3,1 / 2,1	0,000295
0,2 / 0,4	D07LA42	1400 / 2800	1,35 / 1,37	1,10 / 1,15	0,58 / 0,81	2,9 / 3,6	2,8 / 1,6	2,7 / 1,4	3,0 / 2,0	0,000385
0,28 / 0,56	D08MA42	1400 / 2800	1,90 / 1,90	1,20 / 1,75	0,61 / 0,81	3,4 / 2,9	2,3 / 1,5	2,3 / 1,4	3,0 / 1,9	0,00115
0,4 / 0,8	D08LA42	1400 / 2800	2,7 / 2,7	1,53 / 1,91	0,62 / 0,90	4,7 / 5,1	2,7 / 1,8	2,4 / 1,7	3,1 / 2,1	0,0015
0,5 / 1,0	D09SA42	1400 / 2800	3,4 / 3,4	1,65 / 2,4	0,71 / 0,91	5,1 / 4,5	2,9 / 1,9	2,9 / 1,9	3,6 / 2,4	0,00245
0,7 / 1,4	D09SA42	1400 / 2800	4,8 / 4,8	2,1 / 3,3	0,71 / 0,93	4,7 / 4,1	2,5 / 1,6	2,5 / 1,6	3,1 / 2,0	0,00245
1,0 / 2,0	D09LA42	1400 / 2800	6,8 / 6,8	2,9 / 4,7	0,72 / 0,94	4,7 / 4,1	2,5 / 1,6	2,5 / 1,6	3,1 / 2,0	0,0032
1,2 / 2,4	D09XA42	1400 / 2800	8,2 / 8,1	3,8 / 5,7	0,65 / 0,87	6,2 / 3,0	2,5 / 1,8	2,5 / 1,8	3,1 / 2,3	0,0038
1,4 / 2,8	D11SA42	1420 / 2840	9,4 / 9,4	3,6 / 6,2	0,74 / 0,90	6,4 / 4,5	3,0 / 1,7	2,6 / 1,5	4,1 / 2,8	0,0081
2,0 / 4,0	D11MA42	1420 / 2840	13,5 / 13,4	5,5 / 9,1	0,70 / 0,90	6,7 / 5,4	3,1 / 2,1	2,7 / 1,6	3,7 / 2,5	0,0105
2,5 / 5,0	D11LA42	1420 / 2840	16,8 / 16,8	5,5 / 10	0,79 / 0,92	5,6 / 4,6	2,8 / 1,8	2,7 / 1,7	3,7 / 2,6	0,014
3,5 / 7,0	D13MA42	1420 / 2840	23 / 23	8,2 / 14,8	0,76 / 0,91	6,8 / 5,2	3,4 / 2,0	2,8 / 1,8	3,8 / 2,7	0,029
4,5 / 9,0	D13LA42	1420 / 2840	30,2 / 30	10,5 / 19	0,76 / 0,91	6,8 / 5,5	3,2 / 1,9	2,6 / 1,7	3,5 / 2,5	0,0345
5,5 / 11	D16MA42	1460 / 2920	36 / 36	13,4 / 24	0,73 / 0,91	6,7 / 5,2	2,8 / 1,7	2,2 / 1,2	3,2 / 2,3	0,057
7,0 / 14	D16LA42	1460 / 2920	45 / 45	15,5 / 28,5	0,78 / 0,92	7,2 / 5,5	3,1 / 2,1	2,5 / 1,4	3,3 / 2,6	0,076
9,0 / 18	D16XA42	1460 / 2920	58 / 58	19,1 / 36,5	0,79 / 0,92	7,9 / 5,8	2,8 / 1,8	2,2 / 1,2	3,1 / 2,2	0,087
12,5 / 25	D18LA42	1460 / 2920	81 / 81	28,5 / 49,5	0,77 / 0,89	8,5 / 7,0	3,9 / 2,8	3,3 / 1,9	3,8 / 3,0	0,16
16/32	D18XA42	1460 / 2920	104 / 104	38,5 / 66	0,77 / 0,89	7,8 / 6,5	3,7 / 2,6	3,1 / 1,8	3,6 / 2,8	0,195

P Rated output at 50 Hz mains frequency n Typical rated rotor shaft speed at 50 Hz

Mains frequency

M_N Rated torque at rotor shaft

Rated current at 400 V Δ /YY (for other special voltages, multiply by the

inverse voltage ratio to convert the current at 400 V to the current at the desired

voltage)

cos φ Power factor

 $\begin{array}{lll} I_A/I_N & Relative starting current \\ M_A/M_N & Relative starting torque \\ M_S/M_N & Relative pull-up torque \\ M_K/M_N & Relative breakdown torque \\ J_{rot} & Rotor moment of inertia \end{array}$

14

8/4-pole Δ/YY motors for continuous running duty (S1) and 50 Hz mains frequency

Р	Туре	n	M _N	I _N (400 V)	cos φ	I _A /I _N	M _A /M _N	M _s /M _N	M _K /M _N	J_{rot}
1.34/		1 /:	Nima							1 ?
kW	DOEL AGA	1/min	Nm	A	0.52 / 0.71	1.6./2.6	27/10	16/17	16/17	kgm²
0,03 / 0,06	D05LA84	680 / 1350	0,410 / 0,420	0,300 / 0,280	0,52 / 0,71	1,6 / 2,6	2,7 / 1,9	1,6 / 1,7	1,6 / 1,7	0,000295
0,03 / 0,06	D06LA84	680 / 1350	0,410 / 0,420	0,300 / 0,280	0,52 / 0,71	1,6 / 2,6	2,7 / 1,9	1,6 / 1,7	1,6 / 1,7	0,000295
0,04 / 0,08	D06LA84	680 / 1350	0,54 / 0,56		0,52 / 0,66	1,4 / 2,2	2,6 / 2,1	1,6 / 1,7	1,6 / 1,7	0,000295
0,06 / 0,12	D07LA84	680 / 1350	0,84 / 0,85	0,70 / 0,60	0,52 / 0,66	1,7 / 2,8	3,2 / 1,7	3,2 / 1,5	3,3 / 2,1	0,000385
0,06 / 0,12	D08LA84	700 / 1400	0,81 / 0,81	0,50 / 0,50	0,61 / 0,83	2,8 / 3,7	3,1 / 2,3	3,1 / 2,3	3,7 / 3,1	0,0025
0,08 / 0,16	D08LA84	700 / 1400	1,08 / 1,09	0,62 / 0,62	0,61 / 0,83	2,8 / 3,7	3,0 / 2,2	3,0 / 2,2	3,5 / 3,0	0,0025
0,11 / 0,22	D08LA84	700 / 1400	1,49 / 1,5	0,80 / 0,80	0,61 / 0,83	2,8 / 3,7	2,8 / 2,1	2,8 / 2,1	3,3 / 2,8	0,0025
0,14 / 0,28	D08LA84	700 / 1400	1,90 / 1,91	1,00 / 1,00	0,61 / 0,83	2,8 / 3,7	2,8 / 2,1	2,8 / 2,1	3,3 / 2,8	0,0025
0,2 / 0,4	D08LA84	700 / 1400	2,7 / 2,7	1,10 / 1,30	0,55 / 0,77	2,8 / 3,7	2,3 / 1,7	2,3 / 1,7	2,7 / 2,3	0,0025
0,25 / 0,5	D09XC84	700 / 1400	3,3 / 3,3	1,40 / 1,40	0,48 / 0,77	2,9 / 5,0	2,7 / 2,0	2,7 / 2,1	3,1 / 2,7	0,006
0,28 / 0,56	D09XC84	700 / 1400	3,8 / 3,8	1,40 / 1,50	0,57 / 0,80	2,9 / 4,9	2,4 / 1,8	2,4 / 1,9	2,8 / 2,4	0,006
0,4 / 0,8	D09XC84	700 / 1400	5,4 / 5,4	1,95 / 2,4	0,55 / 0,79	2,8 / 4,2	2,3 / 1,7	2,3 / 1,8	2,7 / 2,3	0,006
0,5 / 1,0	D09XC84	700 / 1400	6,8 / 6,8	2,4 / 2,6	0,55 / 0,81	2,6 / 4,0	2,2 / 1,6	2,2 / 1,6	2,5 / 2,2	0,006
0,8 / 1,6	D11LC84	710 / 1420	10,7 / 10,7	3,0 / 4,2	0,63 / 0,88	3,5 / 4,3	2,2 / 1,9	2,2 / 1,7	2,8 / 2,7	0,0215
1,1 / 2,2	D11LC84	710 / 1420	14,7 / 14,7	4,0 / 5,0	0,58 / 0,85	3,9 / 5,7	2,3 / 2,1	2,3 / 1,7	2,7 / 2,5	0,0215
1,6 / 3,2	D11LC84	710 / 1420	21,5 / 21,5	6,0 / 7,6	0,59 / 0,84	3,7 / 5,1	2,2 / 1,8	2,1 / 1,5	2,6 / 2,3	0,0215
2,2 / 4,4	D13LC84	710 / 1420	29 / 29	7,2 / 9,5	0,60 / 0,87	4,3 / 5,4	2,1 / 1,7	2,1 / 1,4	2,9 / 2,8	0,046
2,8 / 5,6	D13LC84	710 / 1420	37,5 / 37,5	9,4 / 12,3	0,60 / 0,86	4,3 / 5,4	2,1 / 1,7	2,1 / 1,4	2,9 / 2,8	0,046
3,5 / 7,0	D16MA84	730 / 1460	45,8 / 45,5	13,9 / 15,6	0,59 / 0,84	3,3 / 4,9	2,1 / 1,8	1,8 / 1,4	2,1 / 2,2	0,057
5,0 / 10	D16LA84	730 / 1460	65 / 65	17,5 / 20,5	0,57 / 0,87	3,6 / 5,6	2,1 / 1,8	1,9 / 1,4	2,1 / 2,2	0,076
7,0 / 14	D16XA84	730 / 1460	91 / 91		0,60 / 0,84	3,3 / 5,2	2,1 / 1,9	2,0 / 1,6	2,1 / 2,4	0,087
8,0 / 16	D18LA84	730 / 1460	105 / 104	24 / 32,5	0,60 / 0,86	3,7 / 5,5	2,2 / 2,2	1,8 / 1,8	1,9 / 2,1	0,16
10 / 20	D18XA84	730 / 1460	130 / 130	30 / 41	0,60 / 0,86	3,7 / 5,5	2,2 / 2,2	1,8 / 1,8	1,9 / 2,1	0,195

Р Rated output at 50 Hz mains frequency Typical rated rotor shaft speed at 50 Hz n

Mains frequency

Rated torque at rotor shaft M_N

Rated current at 400 V Δ /YY (for other special voltages, multiply by the inverse I_N voltage ratio to convert the current at 400 V to the current at the desired volt-

age)

cos φ Power factor

Relative starting current I_A/I_N $M_{\text{A}}/M_{\text{N}}$ Relative starting torque M_A/M_N Relative pull-up torque M_K/M_N Relative breakdown torque $\boldsymbol{J}_{\text{rot}}$ Rotor moment of inertia

Technical data of the 50 Hz motors

8/2-pole Y/Y motors for intermittent periodic duty S3 25/75% and 50 Hz mains frequency

P	ED	Туре	n	M _N	I _N (400 V)	cos φ	I_A/I_N	M _A /M _N	M_s/M_N	M_K/M_N	J_{rot}
kW			1/min	Nm	Α						kgm ²
0,04 / 0,16	25/75%	D05LA82	680 / 2700	0,56 / 0,56	0,400 / 0,80	0,63 / 0,75	1,6 / 3,2	1,9 / 2,2	1,9 / 2,1	2,0 / 2,3	0,000295
0,05 / 0,20	25/75%	D06LA82	680 / 2700	0,70 / 0,70	0,51 / 1,02	0,63 / 0,75	1,4 / 2,8	1,7 / 2,0	1,7 / 1,9	1,8 / 2,1	0,000295
0,063 / 0,25	25/75%	D07LA82	650 / 2840	0,87 / 0,87	0,60 / 1,20	0,69 / 0,62	1,4 / 2,6	1,6 / 1,4	1,6 / 1,4	1,8 / 2,7	0,000385
0,071 / 0,28	25/75%	D07LA82	650 / 2840	0,99 / 0,98	0,65 / 1,40	0,69 / 0,68	1,4 / 2,6	1,5 / 1,3	1,5 / 1,3	1,7 / 2,6	0,000385
0,063 / 0,25	25/75%	D08LA82	700 / 2800	0,85 / 0,85	0,55 / 0,70	0,55 / 0,87	2,8 / 4,0	2,4 / 2,6	2,4 / 2,5	2,8 / 3,0	0,0015
0,09 / 0,36	25/75%	D08LA82	700 / 2800	1,22 / 1,22	0,70 / 1,05	0,60 / 0,92	2,9 / 4,5	2,0 / 2,6	2,0 / 2,5	2,4 / 2,9	0,0015
0,12 / 0,5	25/75%	D08LA82	700 / 2800	1,70 / 1,70	0,95 / 1,43	0,60 / 0,92	2,9 / 4,5	2,0 / 2,6	2,0 / 2,5	2,4 / 2,9	0,0015
0,16 / 0,63	25/75%	D08LA82	700 / 2800	2,1 / 2,1	1,20 / 1,45	0,63 / 0,90	2,0 / 4,6	1,8 / 2,1	1,8 / 2,0	2,2 / 2,4	0,0015
0,25 / 1,0	25/75%	D09XA82	700 / 2800	3,4 / 3,4	1,30 / 2,3	0,62 / 0,90	2,2 / 5,2	1,9 / 2,3	1,9 / 2,3	2,0 / 2,6	0,0038
0,36 / 1,4	25/75%	D09XA82	700 / 2800	4,9 / 4,8	2,1 / 3,3	0,57 / 0,87	2,0 / 4,5	1,9 / 2,1	1,9 / 2,1	2,0 / 2,4	0,0038
0,45 / 1,8	25/75%	D09XA82	700 / 2800	6,1 / 6,1	2,4 / 4,3	0,65 / 0,89	2,0 / 4,3	1,7 / 2,0	1,7 / 2,0	2,0 / 2,5	0,0038
0,56 / 2,2	25/75%	D11LA82	710 / 2840	7,5 / 7,3	2,3 / 4,7	0,60 / 0,94	3,2 / 4,9	1,9 / 2,9	1,9 / 2,4	2,2 / 2,9	0,014
0,71 / 2,8	25/75%	D11LA82	710 / 2840	9,5 / 9,4	2,8 / 5,6	0,58 / 0,94	2,5 / 4,7	1,9 / 2,3	1,9 / 2,0	2,1 / 2,4	0,014
0,90 / 3,6	25/75%	D11LA82	710 / 2840	12,1 / 12,1	3,5 / 7,9	0,58 / 0,94	2,5 / 4,5	1,8 / 2,0	1,8 / 1,8	2,0 / 2,1	0,014
1,10 / 4,5	25/75%	D13LA82	710 / 2840	14,7 / 15,1	4,0 / 10,1	0,59 / 0,90	2,8 / 5,4	1,8 / 2,5	1,8 / 1,8	2,3 / 2,7	0,0345
1,25 / 5,0	25/75%	D13LA82	710 / 2840	16,8 / 16,8	4,5 / 11,5	0,59 / 0,88	2,9 / 5,4	1,6 / 2,3	1,6 / 1,8	2,1 / 2,7	0,0345
1,6 / 6,3	25/75%	D16XA82	730 / 2920	20 / 20,5	7,6 / 13,5	0,48 / 0,88	3,6 / 6,5	2,4 / 3,0	2,2 / 2,1	2,7 / 3,0	0,087
2,0 / 8,0	25/75%	D16XA82	730 / 2920	25,5 / 26	9,5 / 17	0,50 / 0,89	3,6 / 6,1	2,4 / 3,0	2,1 / 2,0	2,7 / 3,0	0,087
2,8 / 11	25/75%	D16XA82	730 / 2920	36,6 / 36	11,5 / 24	0,53 / 0,91	3,0 / 5,9	1,8 / 2,9	1,6 / 2,0	1,9 / 2,8	0,087
3,6 / 14	25/75%	D18XA82	730 / 2920	47 / 45,5	13,6 / 30,5	0,55 / 0,91	3,3 / 4,9	1,7 / 2,2	1,6 / 1,5	2,1 / 2,4	0,195
4,0 / 16	25/75%	D18XA82	730 / 2920	52 / 52	15,1 / 34,5	0,55 / 0,91	3,3 / 4,9	1,7 / 2,2	1,6 / 1,5	2,1 / 2,4	0,195
5,0 / 20	25/75%	D18XA82	730 / 2920	65 / 65	18,8 / 43	0,55 / 0,91	3,3 / 4,9	1,7 / 2,2	1,6 / 1,5	2,1 / 2,4	0,195

P Rated output at 50 Hz mains frequency and S3 25/75% duty

n Typical rated rotor shaft speed at 50 Hz

Mains frequency

 M_N Rated torque at rotor shaft

 I_N Rated current at 400 V Y/Y (for other special voltages, multiply by the

inverse voltage ratio to convert the current at 460 V to the current at the desired

voltage)

 $\cos \phi$ Power factor

 $\begin{array}{lll} I_A/I_N & Relative starting current \\ M_A/M_N & Relative starting torque \\ M_S/M_N & Relative pull-up torque \\ M_K/M_N & Relative breakdown torque \\ J_{rot} & Rotor moment of inertia \end{array}$

14

12/2 pole motors Y/Y for periodic duty S3-25/75%, Mains Frequency 50 Hz

Р	ED	Туре	n	M _N	I _N (400 V)	cos φ	I_A/I_N	M _A /M _N	M _S /M _N	M _K /M _N	J_{rot}
kW			1/min	Nm	Α						kgm ²
0,045 / 0,28	25/75%	D08LA122	470 / 2800	0,92 / 0,95	0,55 / 0,86	0,70 / 0,90	1,4 / 4,5	1,9 / 2,4	1,9 / 2,4	1,9 / 2,7	0,0015
0,063 / 0,4	25/75%	D08LA122	470 / 2800	1,29 / 1,36	0,66 / 1,10	0,70 / 0,90	1,4 / 4,5	1,7 / 2,2	1,7 / 2,2	1,7 / 2,4	0,0015
0,09 / 0,56	25/75%	D08LA122	470 / 2800	1,85 / 1,91	1,00 / 1,45	0,63 / 0,89	1,4 / 4,1	1,7 / 2,1	1,7 / 2,3	1,8 / 2,4	0,0015
0,11 / 0,71	25/75%	D09XA122	470 / 2800	2,3 / 2,4	1,05 / 1,60	0,59 / 0,88	1,5 / 5,5	1,7 / 2,7	1,7 / 2,6	1,8 / 3,3	0,0038
0,16 / 1,0	25/75%	D09XA122	470 / 2800	3,2 / 3,4	1,70 / 2,4	0,62 / 0,89	1,5 / 5,5	1,8 / 2,6	1,8 / 2,5	1,8 / 3,3	0,0038
0,20 / 1,25	25/75%	D09XA122	470 / 2800	4,1 / 4,2	2,0 / 3,0	0,62 / 0,89	1,5 / 5,0	1,7 / 2,4	1,7 / 2,3	1,7 / 3,1	0,0038
0,25 / 1,6	25/75%	D11LA122	470 / 2840	5,1 / 5,3	2,3 / 3,4	0,53 / 0,95	1,6 / 4,9	1,7 / 2,6	1,7 / 2,4	2,0 / 2,8	0,014
0,32 / 2,0	25/75%	D11LA122	470 / 2840	6,5 / 6,7	2,9 / 4,0	0,53 / 0,94	1,6 / 4,7	1,7 / 2,5	1,7 / 2,2	2,0 / 2,7	0,014
0,45 / 2,8	25/75%	D11LA122	470 / 2840	9,2 / 9,4	4,5 / 5,6	0,52 / 0,94	1,6 / 4,7	1,5 / 2,3	1,5 / 2,0	1,8 / 2,4	0,014
0,63 / 4,0	25/75%	D13LA122	470 / 2840	12,9 / 13,4	4,1 / 8,6	0,45 / 0,95	1,6 / 5,6	1,6 / 2,4	1,6 / 1,8	1,8 / 2,7	0,0345
0,80 / 5,0	25/75%	D13LA122	470 / 2840	16,3 / 16,8	6,3 / 11,3	0,41 / 0,92	1,7 / 5,3	1,5 / 2,7	1,5 / 1,9	2,0 / 2,9	0,0345
1,0 / 6,3	25/75%	D16XA122	490 / 2920	19,6 / 20	8,0 / 13,4	0,35 / 0,90	2,2 / 6,3	1,9 / 2,7	1,9 / 1,7	2,4 / 2,8	0,087
1,25 / 8,0	25/75%	D16XA122	490 / 2920	24,5 / 26	9,9 / 16,9	0,35 / 0,90	2,2 / 6,3	1,9 / 2,7	1,9 / 1,7	2,4 / 2,8	0,087
1,6 / 10	25/75%	D16XA122	490 / 2920	30,5 / 32	10,5 / 21	0,40 / 0,92	1,9 / 5,4	1,6 / 2,4	1,6 / 1,4	2,1 / 2,4	0,087
2,4 / 14	25/75%	D18XA122	490 / 2920	47 / 45	16,6 / 31	0,39 / 0,91	1,8 / 4,3	1,6 / 2,6	1,7 / 2,0	1,9 / 2,6	0,195
2,5 / 16	60/60%	D18XA122	490 / 2920	49 / 52	15,5 / 31	0,46 / 0,92	1,8 / 5,4	1,6 / 2,5	1,4 / 1,5	1,6 / 2,6	0,195
2,8 / 18	10/40%	D18XA122	490 / 2920	55 / 58	19,3 / 39,5	0,39 / 0,91	1,8 / 4,3	1,6 / 2,6	1,7 / 2,0	1,9 / 2,6	0,195

P Nominal Powers for 50 Hz mains frequency, Duty S3-25/75%

n Guideline values for rated speeds at the rotor shaft at 50 Hz line frequency

 M_N Rated torques at the rotor shaft

 I_N Rated currents 400 V Δ /YY (currents can be converted as inverse ratios of volt-

ages from 400 V to the desired special voltage)

cos φ Power factors

 $\begin{array}{ll} I_A/I_N & \text{Relative starting currents} \\ M_A/M_N & \text{Relative breakaway torques} \\ M_A/M_N & \text{Relative pull-up torques} \\ M_K/M_N & \text{Relative beakdown torques} \end{array}$

 J_{rot} Mass moment of inertia of the rotor

14

4-pole IE1 motors for continuous running duty S1 and 60 Hz mains frequency

For use after 16 June 2011 only in non-EU countries, except for brake motors

P _N	Туре	n _N	M _N	I _N	Connec- tion	cosφ	η	η	η	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot}	Brake
				460 V			(100% - Last)	(75% - Last)	(50% - Last)						
kW		1/min	Nm	Α			%	%	%					kgm²	
0,03	D04LA4	1620	0,17	0,18	Υ	0,60	-	-	-	2,4	2,9	2,9	3,3	0,000175	
0,04	D04LA4	1620	0,23	0,18	Υ	0,60	-	-	-	2,4	2,2	2,2	2,5	0,000175	
0,06	D04LA4	1620	0,35	0,28	Υ	0,60	-	-	-	2,5	2,3	2,3	2,7	0,000175	E003
0,09	D04LA4	1620	0,52	0,40	Υ	0,69	-	-	-	2,7	2,4	2,4	2,9	0,000175	
0,12	D04LA4	1620	0,7	0,42	Υ	0,73	-	-	-	2,5	1,9	1,9	2,1	0,000175	
0,06	D05LA4	1620	0,35	0,32	Υ	0,72	-	-	-	4,1	4,1	3,8	4,1	0,000295	
0,09	D05LA4	1620	0,52	0,35	Υ	0,70	-	-	-	4,3	3,3	3,1	3,3	0,000295	
0,12	D05LA4	1620	0,7	0,38	Υ	0,73	-	-	-	3,7	2,4	2,3	2,4	0,000295	E003
0,18	D05LA4	1620	1,06	0,58	Υ	0,70	-	-	-	3,7	2,5	2,4	2,6	0,000295	
0,25	D05LA4	1620	1,45	0,80	Υ	0,69	-	-	-	3,6	2,5	2,4	2,5	0,000295	
0,06	D06LA4	1620	0,35	0,32	Υ	0,72	-	-	-	4,1	4,1	3,8	4,1	0,000295	
0,09	D06LA4	1620	0,52	0,35	Υ	0,70	-	-	-	4,3	3,3	3,1	3,3	0,000295	
0,12	D06LA4	1620	0,7	0,38	Υ	0,73	-	-	-	3,7	2,4	2,3	2,4	0,000295	E003
0,18	D06LA4	1620	1,06	0,58	Υ	0,70	-	-	-	3,7	2,5	2,4	2,6	0,000295	
0,25	D06LA4	1620	1,45	0,80	Υ	0,69	-	-	-	3,6	2,5	2,4	2,5	0,000295	
0,3	D07LA4	1620	1,76	1,20	Υ	0,60	-	-	-	3,0	3,0	3,0	3,1	0,000385	E003
0,37	D07LA4	1620	2,1	1,26	Υ	0,66	-	-	-	2,8	2,4	2,4	2,4	0,000385	E004
0,55	DSE08MA4	1720	3,1	1,28	Υ	0,72	75,4	75,2	73,0	4,6	2,3	2,2	2,7	0,00115	ES(X)010
0,75	DSE08LA4	1720	4,15	1,75	Υ	0,69	78,2	77,0	72,7	4,8	2,5	2,4	2,9	0,00150	EH(X)027
1,1	DSE08XA4	1720	6,2	2,4	Υ	0,71	79,0	77,0	73,0	4,1	2,2	2,0	2,4	0,00170	EH(X)027
1,1	DSE09SA4	1740	6,05	2,3	Y	0,72	83,6	82,6	79,2	6,5	3,6	3,3	4,0	0,00245	ES(X)010
1,5	DSE09LA4	1740	8,25	3,1	Y	0,72	84,2	83,5	80,4	6,5	3,4	3,1	4,0	0,00320	ES(X)027
2,2	DSE09XA4	1720	12,2	4,3	Υ	0,76	84,9	85,0	83,0	6,2	3,3	3,0	3,6	0,00380	EH(X)040
3	DSE11SA4	1740	16,4	5,5	D	0,78	86,7	86,6	84,4	6,9	3,0	2,7	3,8	0,00810	ES(X)027
4	DSE11MA4	1740	21,9	7,2	D	0,81	86,2	86,4	84,9	6,9	3,3	2,7	3,7	0,01050	ES(X)040
5,5	DSE11LA4	1740	30,2	9,7	D	0,81	87,7	87,8	86	7,6	3,3	2,9	4,0	0,01400	ES(X)070
															EH(X)125
															ES(X)040
7,5	DSE13MA4	1760	41	13,3	D	0,80	89,1	89,1	87,6	7,6	3,4	2,9	3,6	0,02900	ES(X)070
9,5	DSE13LA4	1760	52	16,6	D	0,81	88,4	88,7	87,5	7,3	3,4	2,9	3,4	0,03450	ES(X)125
				1	-						1				EH(X)200
11	DSE16MA4	1760	59	19,3	D	0,80	88,7	88,8	87,5	6,9	2,9	2,2	3,0	0,05700	ES(X)125
15	DSE16LA4	1760	81	25,3	D	0,83	89,6	89,8	88,8	6,7	2,7	2,3	3,1	0,07600	ES(X)200
18,5	DSE16XA4	1760	100	32	D	0,81	90,5	89,7	88,7	6,7	2,8	2,4	3,1	0,08700	EH(X)400
			1	1	-					-	1	-			ZS(X)300
22	DSE18LA4	1760	120	36	D	0,85	91,1	91,2	89,9	7,4	3,3	2,7	3,1	0,16000	ES(X)250
30	DSE18XA4	1760	162	49	D	0,83	91,8	91,8	90,8	7,4	3,4	2,6	3,1	0,19500	EH(X)400
															ZS(X)500

P Rated torque at 60 Hz mains frequency

n Typical rated rotor shaft speed at 60 Hz

Mains frequency

 M_N Rated torque at rotor shaft

 $\ensuremath{I_{\text{N}}}$ Rated current at 460 V (for other special voltages, multiply by the inverse

voltage ratio to convert the current at 460 V to the current at the desired

voltage)

cos φ Power factor

Ia/In Relative starting current
Ma/Mn Relative starting torque
Ms/Mn Relative pull-up torque
Mk/Mn Relative breakdown torque
Jrot Rotor moment of inertia

n Efficiency with different loads
Brake Brake configuration (see Section 16)

The standard motor winding configuration is for $460\,\mathrm{V}$ / $60\,\mathrm{Hz}$.

All motors designed for thermal class F are suitable for operation over the voltage range $440-480\,\mathrm{V}$ or $460\,\mathrm{V}$ +/- 10%.

Note: the current, power factor and torque vary depending on the deviation from 460 V.

See "www.bauergears.com" for more information.

14

4-pole motors for continuous operation S1, line frequency 60 Hz

P _N	Туре	n _N	M _N	I _N	Connec-	cosφ	η	η	η	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot}	Brake
				460 V			(100% - Last)	(75% - Last)	(50% - Last)						
kW		1/min	Nm	Α			%	%	%					kgm²	
0,03	D04LA4	1620	0,17	0,18	Υ	0,60	-	-	-	2,4	2,9	2,9	3,3	0,000175	
0,04	D04LA4	1620	0,23	0,18	Υ	0,60	-	-	-	2,4	2,2	2,2	2,5	0,000175	
0,06	D04LA4	1620	0,35	0,28	Y	0,60	-	-	-	2,5	2,3	2,3	2,7	0,000175	E003
0,09	D04LA4	1620	0,52	0,40	Y	0,69	-	-	-	2,7	2,4	2,4	2,9	0,000175	
0,12	D04LA4	1620	0,7	0,42	Υ	0,73	-	-	-	2,5	1,9	1,9	2,1	0,000175	
0,06	D05LA4	1620	0,35	0,32	Υ	0,72	-	-	-	4,1	4,1	3,8	4,1	0,000295	
0,09	D05LA4	1620	0,52	0,35	Y	0,70	-	-	-	4,3	3,3	3,1	3,3	0,000295	
0,12	D05LA4	1620	0,7	0,38	Y	0,73	-	-	-	3,7	2,4	2,3	2,4	0,000295	E003
0,18	D05LA4	1620	1,06	0,58	Y	0,70	-	-	-	3,7	2,5	2,4	2,6	0,000295	
0,25	D05LA4	1620	1,45	0,80	Y	0,69	-	-	-	3,6	2,5	2,4	2,5	0,000295	
0,06	D06LA4	1620	0,35	0,32	Υ	0,72	-	-	-	4,1	4,1	3,8	4,1	0,000295	
0,09	D06LA4	1620	0,52	0,35	Y	0,70	-	-	-	4,3	3,3	3,1	3,3	0,000295	
0,12	D06LA4	1620	0,7	0,38	Y	0,73	-	-	-	3,7	2,4	2,3	2,4	0,000295	E003
0,18	D06LA4	1620	1,06	0,58	Y	0,70	-	-	-	3,7	2,5	2,4	2,6	0,000295	
0,25	D06LA4	1620	1,45	0,80	Y	0,69	-	-	-	3,6	2,5	2,4	2,5	0,000295	
0,3	D07LA4	1620	1,76	1,20	Υ	0,60	-	-	-	3,0	3,0	3,0	3,1	0,000385	E003
0,37	D07LA4	1620	2,1	1,26	Υ	0,66	-	-	-	2,8	2,4	2,4	2,4	0,000385	E004
0,75	DHE08XA4	1720	4,1	1,60	Y	0,72	82,5	81,0	78,0	5,1	2,5	2,4	3,0	0,0017	ES(X)010 EH(X)027
0,75	DHE09SA4	1740	4,1	1,60	Υ	0,70	83,7	82,4	78,3	7,3	3,4	3,0	4,0	0,00245	
1,1	DHE09LA4	1740	6,0	2,25	Υ	0,73	84,8	83,8	80,4	7,3	3,6	3,3	4,3	0,0032	ES(X)010
1,5	DHE09XA4	1740	8,2	2,95	Y	0,74	85,8	85,2	82,5	7,2	3,7	3,5	4,3	0,0038	ES(X)027
2,2	DHE09XA4C	1760	12	4,0	Υ	0,79	87,5	87,5	86,0	6,0	2,1	2,0	3,1	0,0053	EH(X)040
2,2	DHE11SA4	1760	12	4,0	Υ	0,78	87,7	87,2	84,1	8,3	3,5	3,1	4,3	0,0081	ES(X)027
3	DHE11MA4	1760	16,5	5,5	D	0,78	87,6	87,2	83,9	7,9	3,9	3,1	4,4	0,0105	ES(X)040
4	DHE11LA4	1760	21,5	7,3	D	0,77	88,3	87,5	84,6	9,3	4,1	3,6	4,9	0,0140	ES(X)070
5,5	DHE11LA4C	1760	30	9,5	D	0,81	89,6	89,2	88,3	8,2	2,4	1,8	4,1	0,0162	EH(X)125
															ES(X)040
5,5	DHE13MA4	1760	30	9,7	D	0,80	89,7	89,3	87,1	8,5	3,8	3,3	4,0	0,0290	ES(X)070
7,5	DHE13LA4	1760	40,5	13,2	D	0,80	89,6	89,2	87,2	8,2	3,9	3,4	4,0	0,0345	ES(X)125
															EH(X)200
9,5	DHE16LA4	1780	51	16,5	D	0,79	91,4	90,1		9,1	3,7	3,2	4,1	0,076	ES(X)125
11	DHE16LA4	1780	59	19,6	D	0,78	91,0	90,5	88,0	8,7	3,8	3,2	4,2	0,076	ES(X)200
15	DHE16XA4	1780	81	27	D	0,77	91,0	90,8	88,6	7,9	3,8	3,4	4,2	0,087	EH(X)400 ZS(X)300
18,5	DHE18LA4	1780	100	31	D	0,82	92,5	91,2	89,1	8,7	3,9	3,3	3,6	0,160	ES(X)250
22	DHE18XA4	1780	118	38,5	D	0,79	92,5	92,0	89,0	9,5	4,6	3,6	4,3	0,195	EH(X)400 ZS(X)500
30	DHENF20LG4	1780	160	46	D	0,87	93,9	93,9	93,2	8,3	2,3	1,9	3,3	0,310	-
37	DHENF22SG4	1780	198	56	D	0,88	94,6	94,6	93,9	8,4	2,2	1,6	3,0	0,53	-
45	DHENF22MG4	1780	240	67	D	0,89	94,5	94,5	93,9	8,4	2,0	1,6	2,5	0,58	
55	DHENF25MG4	1780	294	81	D	0,90	94,5	94,7	94,3	7,8	2,3	1,6	2,9	0,79	1-
75	DHENF28MG4	1780	400	110	D	0,90	94,8	94,9	94,4	8,2	2,8	1,9	3,2	0,92	1-

P Rated output at 60 Hz line frequency

n Guideline value for rated speed at the rotor shaft at 60 Hz line frequency

M_N Rated torque at the rotor shaft

 I_N Rated current at 460 V (the current can be converted as inverse ratios of voltages

from 460 V to the desired special voltage)

 $\cos \phi$ Power factor

 $\begin{array}{ll} I_A/I_N & \text{Relative starting current} \\ M_A/M_N & \text{Relative breakaway torque} \\ M_S/M_N & \text{Relative pull-up torque} \\ M_K/M_N & \text{Relative breakdown torque} \\ J_{rot} & \text{Mass moment of inertia of the rotor} \end{array}$

Brake recommended standard brake for normal requirements (see chapter 16)

Winding configuration for standard motors for 460 V / 60 Hz.

All motors are suitable for the voltage range 440...480V or 460V +/- 10% if executed in insulation class F.

Important: Current, power factor and torque change as voltage deviates from 460 V.

See "www.bauergears.com" for more information.

Technical data of the 60 Hz motors

4-pole motors for intermittent periodic duty (\$3/\$6 75%) and 60 Hz mains frequency

P _N	Туре	n _N	M _N	I _N	Connec- tion	cos φ	I _A /I _N	M _A /M _N	M _s /M _N	M _K /M _N	J_{rot}	Brake
134/		1.		460V							. 2	
kW	DOM A	1/min	Nm	Α		0.60	2.4	2.0	2.0	2.2	kgm²	
0,03	D04LA4	1620	0,17	0,18	Y	0,60	2,4	2,9	2,9	3,3	0,000175	
0,04	D04LA4	1620	0,23	0,18	Y	0,60	2,4	2,2	2,2	2,5	0,000175	F000
0,06	D04LA4	1620	0,35	0,28	Y	0,60	2,5	2,3	2,3	2,7	0,000175	E003
0,09	D04LA4	1620	0,52	0,40	Y	0,69	2,7	2,4	2,4	2,9	0,000175	
0,12	D04LA4	1620	0,7	0,42	Υ	0,73	2,5	1,9	1,9	2,1	0,000175	
0,06	D05LA4	1620	0,35	0,32	Υ	0,72	4,1	4,1	3,8	4,1	0,000295	
0,09	D05LA4	1620	0,52	0,35	Υ	0,70	4,3	3,3	3,1	3,3	0,000295	
0,12	D05LA4	1620	0,7	0,38	Υ	0,73	3,7	2,4	2,3	2,4	0,000295	E003
0,18	D05LA4	1620	1,06	0,58	Υ	0,70	3,7	2,5	2,4	2,6	0,000295	
0,25	D05LA4	1620	1,45	0,80	Υ	0,69	3,6	2,5	2,4	2,5	0,000295	
0,06	D06LA4	1620	0,35	0,32	Υ	0,72	4,1	4,1	3,8	4,1	0,000295	
0,09	D06LA4	1620	0,52	0,35	Υ	0,70	4,3	3,3	3,1	3,3	0,000295	
0,12	D06LA4	1620	0,7	0,38	Υ	0,73	3,7	2,4	2,3	2,4	0,000295	E003
0,18	D06LA4	1620	1,06	0,58	Υ	0,70	3,7	2,5	2,4	2,6	0,000295	
0,25	D06LA4	1620	1,45	0,80	Υ	0,69	3,6	2,5	2,4	2,5	0,000295	
0,3	D07LA4	1620	1,76	1,20	Υ	0,60	3,0	3,0	3,0	3,1	0,000385	E003
0,37	D07LA4	1620	2,1	1,26	Υ	0,66	2,8	2,4	2,4	2,4	0,000385	E004
0,55	DSE08MA4	1720	3,1	1,28	Υ	0,72	4,6	2,3	2,2	2,7	0,00115	FC(V)010
0,75	DSE08LA4	1720	4,15	1,75	Υ	0,69	4,8	2,5	2,4	2,9	0,00150	ES(X)010
1,1	DSE08XA4	1720	6,2	2,4	Υ	0,71	4,1	2,2	2,0	2,4	0,00170	EH(X)027
1,1	DSE09SA4	1740	6,05	2,3	Υ	0,72	6,5	3,6	3,3	4,0	0,00245	ES(X)010
1,5	DSE09LA4	1740	8,25	3,1	Υ	0,72	6,5	3,4	3,1	4,0	0,00320	ES(X)027
2,2	DSE09XA4	1720	12,2	4,3	Υ	0,76	6,2	3,3	3,0	3,6	0,00380	EH(X)40
3	DSE11SA4	1740	16,4	5,5	D	0,78	6,9	3,0	2,7	3,8	0,00810	ES(X)027
4	DSE11MA4	1740	21,9	7,2	D	0,81	6,9	3,3	2,7	3,7	0,01050	ES(X)040
5,5	DSE11LA4	1740	30,2	9,7	D	0,81	7,6	3,3	2,9	4,0	0,01400	ES(X)070
3,3	D D T T L T T T	17 10	30,2	7,7		0,01	,,0	3,3	2,7	1,0	0,01100	EH(X)125
			+	+	+			+				ES(X)040
7,5	DSE13MA4	1760	41	13,3	D	0,80	7,6	3,4	2,9	3.6	0,02900	
			1		1			1	1	3,6		ES(X)070
9,5	DSE13LA4	1760	52	16,6	D	0,81	7,3	3,4	2,9	3,4	0,03450	ES(X)125
1.1	DCF4C111	1760	50	10.3	-	0.00	6.0	2.0	2.2	2.0	0.05700	EH(X)200
11	DSE16MA4	1760	59	19,3	D	0,80	6,9	2,9	2,2	3,0	0,05700	ES(X)125
15	DSE16LA4	1760	81	25,3	D	0,83	6,7	2,7	2,3	3,1	0,07600	ES(X)200
18,5	DSE16XA4	1760	100	32	D	0,81	6,7	2,8	2,4	3,1	0,08700	EH(X)400
												ZS(X)300
22	DSE18LA4	1760	120	36	D	0,85	7,4	3,3	2,7	3,1	0,16000	ES(X)250
30	DSE18XA4	1760	162	49	D	0,83	7,4	3,4	2,6	3,1	0,19500	EH(X)400
												ZS(X)500

P Rated torque at 60 Hz mains frequency

n Typical rated rotor shaft speed at 60 Hz

Mains frequency

M_N Rated torque at rotor shaft

 I_N Rated current at 460 V (for other special voltages, multiply by the inverse

voltage ratio to convert the current at 460 V to the current at the desired

voltage)

cos φ Power factor

 $\begin{array}{lll} I_A/I_N & \text{Relative starting current} \\ M_A/M_N & \text{Relative starting torque} \\ M_S/M_N & \text{Relative pull-up torque} \\ M_K/M_N & \text{Relative breakdown torque} \\ J_{rot} & \text{Rotor moment of inertia} \end{array}$

Brake Brake configuration (see Section 16)

The standard motor winding configuration is for 460 V / 60 Hz.

14

4-pole motors for intermittent periodic duty (S3/S6) and 60 Hz mains frequency

Р	ED	Туре	n	M _N	I _N (460 V)	Connec-	cos φ	I_A/I_N	M_A/M_N	M_s/M_N	M_K/M_N	J _{rot}
						tion						
kW			1/min	Nm	Α							kgm ²
0,15	15%	D04LA4	1620	0,87	0,56	Υ	0,77	2,2	1,8	1,7	1,8	0,000175
0,3	15%	D05LA4	1620	1,75	0,9	Υ	0,75	2,8	2,1	2,0	2,1	0,000295
0,3	60%	D06LA4	1620	1,75	0,9	Υ	0,75	2,8	2,1	2,0	2,1	0,000295
0,55	60%	D07LA4	1620	3,2	1,78	Υ	0,86	3,7	1,8	1,6	1,8	0,000385
0,75	60%	D08MA4	1680	4,2	1,84	Υ	0,81	3,7	1,8	1,5	1,9	0,00115
1,1	60%	D08LA4	1680	6,2	2,5	Υ	0,82	3,6	1,6	1,5	1,9	0,0015
1,5	60%	D09SA4	1680	8,5	3,3	Υ	0,84	4,3	1,9	1,6	2,2	0,00245
2,2	60%	D09LA4	1680	12,5	4,5	Υ	0,86	4,3	1,8	1,6	2,1	0,0032
3,0	60%	D09XA4	1680	16,6	6,2	Υ	0,86	3,7	1,9	1,8	2,1	0,0038
4,0	60%	D11SA4	1710	22	8,1	Δ	0,85	4,4	1,8	1,5	2,2	0,0081
5,5	60%	D11MA4	1710	30,5	10,7	Δ	0,87	4,7	1,6	1,6	2,2	0,0105
7,5	60%	D11LA4	1710	41,5	14,6	Δ	0,87	5,0	2,0	1,9	2,3	0,014
9,5	60%	D13MA4	1710	53	17,3	Δ	0,87	5,4	2,1	1,8	2,4	0,029
11	60%	D13LA4	1710	60	20	Δ	0,84	6,0	2,6	2,3	2,7	0,0335
13,5	60%	D16MA4	1760	73	25,5	Δ	0,84	6,1	2,3	1,8	2,2	0,057
18,5	60%	D16LA4	1760	100	35	Δ	0,84	5,6	2,1	1,8	2,3	0,076
22	60%	D16XA4	1760	120	42	Δ	0,84	5,9	2,3	1,4	2,2	0,087
30	60%	D18LA4	1760	163	53	Δ	0,89	4,9	2,0	1,6	1,9	0,16
37	60%	D18XA4	1760	200	68	Δ	0,85	6,0	2,7	2,2	2,5	0,195

P Rated output at 60 Hz mains frequency, S3/S6 duty

DC Permissible duty cycle

n Typical rated rotor shaft speed at 60 Hz

Mains frequency

M_N Rated shaft torque

 I_N Rated current at 460 V (for other special voltages, multiply by the inverse voltage

ratio to convert the current at 460 V to the current at the desired voltage)

cos φ Power factor

 $\begin{array}{lll} I_A/I_N & Relative starting current \\ M_A/M_N & Relative starting torque \\ M_S/M_N & Relative pull-up torque \\ M_K/M_N & Relative breakdown torque \\ J_{rot} & Rotor moment of inertia \end{array}$

The standard motor winding configuration is for 460 V / 60 Hz.

See "www.bauergears.com" for additional information.

14

Technical data of the 60 Hz motors

4/2-pole motors Δ/YY for continuous operation S1, line frequency 60 Hz

Р	Туре	n	M _N	I _N (460 V)	cos φ	I_A/I_N	M_A/M_N	M_s/M_N	M_K/M_N	J_{rot}
kW		1/min	Nm	A						kgm²
0,03 / 0,06	D04LA42	1620 / 3240	0,160 / 0,170	0,200 / 0,230	0,56 / 0,67	2,4 / 3,4	3,8 / 3,4	3,8 / 3,4	4,0 / 3,7	0,000175
0,04 / 0,08	D04LA42	1620 / 3240	0,230 / 0,230	0,230 / 0,260	0,60 / 0,75	2,2 / 3,1	3,3 / 2,3	3,3 / 2,3	3,7 / 2,4	0,000175
0,06 / 0,12	D05LA42	1620 / 3240	0,350 / 0,350	0,420 / 0,420	0,50 / 0,75	3,1 / 3,6	3,4 / 2,2	3,3 / 2,1	4,2 / 2,9	0,000295
0,08 / 0,16	D05LA42	1620 / 3240	0,470 / 0,470	0,460 / 0,460	0,55 / 0,75	3,1 / 3,6	3,1 / 2,0	3,0 / 1,9	3,8 / 2,5	0,000295
0,06 / 0,12	D06LA42	1620 / 3240	0,350 / 0,350	0,420 / 0,420	0,50 / 0,75	3,1 / 3,6	3,4 / 2,2	3,3 / 2,1	4,2 / 2,9	0,000295
0,08 / 0,16	D06LA42	1620 / 3240	0,470 / 0,470	0,460 / 0,460	0,55 / 0,75	3,1 / 3,6	3,1 / 2,0	3,0 / 1,9	3,8 / 2,5	0,000295
0,11 / 0,22	D06LA42	1620 / 3240	0,64 / 0,64	0,63 / 0,63	0,55 / 0,75	3,1 / 3,6	3,1 / 2,0	3,0 / 1,9	3,8 / 2,5	0,000295
0,16 / 0,32	D06LA42	1620 / 3240	0,94 / 0,94	0,82 / 0,82	0,57 / 0,80	3,1 / 3,6	2,8 / 1,9	2,7 / 1,8	3,4 / 2,3	0,000295
0,2 / 0,4	D07LA42	1680 / 3360	1,12 / 1,14	1,04 / 1,08	0,58 / 0,81	3,2 / 3,9	3,1 / 1,8	3,0 / 1,5	3,3 / 2,2	0,000385
0,28 / 0,56	D08MA42	1680 / 3360	1,58 / 1,58	1,10 / 1,60	0,61 / 0,81	3,7 / 3,2	2,5 / 1,7	2,5 / 1,5	3,3 / 2,1	0,00115
0,4 / 0,8	D08LA42	1680 / 3360	2,2 / 2,2	1,40 / 1,74	0,62 / 0,90	5,1 / 5,6	3,0 / 2,0	2,6 / 1,9	3,4 / 2,3	0,0015
0,5 / 1,0	D09SA42	1680 / 3360	2,8 / 2,8	1,60 / 2,6	0,71 / 0,91	5,5 / 4,6	3,4 / 2,2	3,4 / 2,2	4,2 / 2,6	0,00245
0,7 / 1,4	D09SA42	1680 / 3360	3,9 / 3,9	1,93 / 3,1	0,71 / 0,93	5,1 / 4,5	2,8 / 1,8	2,8 / 1,8	3,4 / 2,2	0,00245
1,0 / 2,0	D09LA42	1680 / 3360	5,6 / 5,6	2,8 / 4,3	0,72 / 0,94	5,1 / 4,5	2,8 / 1,8	2,8 / 1,8	3,4 / 2,2	0,0032
1,2 / 2,4	D09XA42	1680 / 3360	6,8 / 6,7	3,4 / 5,2	0,65 / 0,87	6,8 / 3,3	2,7 / 2,0	2,7 / 2,0	3,4 / 2,5	0,0038
1,4 / 2,8	D11SA42	1710 / 3420	7,8 / 7,8	3,3 / 5,7	0,74 / 0,90	7,0 / 4,9	3,3 / 1,9	2,8 / 1,6	4,5 / 3,1	0,0081
2,0 / 4,0	D11MA42	1710 / 3420	11,2 / 11,1	5,1 / 8,4	0,70 / 0,90	7,3 / 5,9	3,4 / 2,3	3,0 / 1,8	4,1 / 2,8	0,0105
2,5 / 5,0	D11LA42	1710 / 3420	14 / 14	5,0 / 9,1	0,79 / 0,92	6,1 / 5,0	3,1 / 2,0	3,0 / 1,9	4,1 / 2,8	0,014
3,5 / 7,0	D13MA42	1710 / 3420	19,1 / 19,1	7,5 / 13,5	0,76 / 0,91	7,4 / 5,7	3,7 / 2,2	3,1 / 2,0	4,2 / 3,0	0,029
4,5 / 9,0	D13LA42	1710 / 3420	25 / 25	9,6 / 17,3	0,76 / 0,91	7,4 / 6,0	3,5 / 2,1	2,8 / 1,9	3,8 / 2,7	0,0345
5,5 / 11	D16MA42	1760 / 3520	30 / 29,5	12,4 / 22,5	0,73 / 0,91	7,3 / 5,7	3,1 / 1,9	2,4 / 1,3	3,5 / 2,5	0,057
7,0 / 14	D16LA42	1760 / 3520	37,5 / 37,5	14,1 / 26	0,78 / 0,92	7,9 / 6,0	3,4 / 2,3	2,7 / 1,5	3,6 / 2,8	0,076
9,0 / 18	D16XA42	1760 / 3520	48,5 / 48,5	17,6 / 34	0,79 / 0,92	8,7 / 6,4	3,1 / 2,0	2,4 / 1,3	3,4 / 2,4	0,087
12,5 / 25	D18LA42	1760 / 3520	68 / 67	26,5 / 45,5	0,77 / 0,89	9,3 / 7,7	4,3 / 3,1	3,7 / 2,1	4,2 / 3,3	0,16
16/32	D18XA42	1760 / 3520	86 / 86	35 / 60	0,77 / 0,89	8,5 / 7,1	4,1 / 2,8	3,4 / 2,0	3,9 / 3,1	0,195

P Rated outputs at 60 Hz line frequency

n Guideline values for rated speeds at the rotor shaft at 60 Hz line frequency

 M_N Rated torques at the rotor shaft

 I_{N} Rated currents 460 V Δ/YY (currents can be converted as inverse ratios of volt-

ages from 460 V to the desired special voltage) $\,$

cos φ Power factors

 $\begin{array}{ll} I_A/I_N & \text{Relative starting currents} \\ M_A/M_N & \text{Relative breakaway torques} \\ M_S/M_N & \text{Relative pull-up torques} \\ M_K/M_N & \text{Relative breakdown torques} \\ J_{rot} & \text{Mass moment of inertia of the rotor} \end{array}$

14

8/4-pole motors Δ/YY for continuous operation S1, line frequency 60 Hz

Р	Туре	n	M _N	I _N (460 V)	cos φ	I_A/I_N	M_A/M_N	M_s/M_N	M _K /M _N	J_{rot}
kW		1/min	Nm	A						kgm²
0,03 / 0,06	D05LA84	810 / 1620	0,340 / 0,350	0,280 / 0,260	0,52 / 0,71	1,8 / 2,8	3,0 / 2,1	1,8 / 1,9	1,8 / 1,9	0,000295
0,03 / 0,06	D06LA84	810 / 1620	0,340 / 0,350	0,280 / 0,260	0,52 / 0,71	1,8 / 2,8	3,0 / 2,1	1,8 / 1,9	1,8 / 1,9	0,000295
0,04 / 0,08	D06LA84	810 / 1620	0,450 / 0,460	0,440 / 0,370	0,52 / 0,66	1,5 / 2,4	2,9 / 2,3	1,8 / 1,9	1,8 / 1,9	0,000295
0,06 / 0,12	D07LA84	810 / 1620	0,70 / 0,70	0,65 / 0,55	0,52 / 0,66	1,9 / 3,1	3,5 / 1,9	3,5 / 1,7	3,6 / 2,3	0,000385
0,06 / 0,12	D08LA84	840 / 1680	0,67 / 0,67	0,460 / 0,460	0,61 / 0,83	3,1 / 4,1	3,4 / 2,5	3,4 / 2,5	3,9 / 3,2	0,0025
0,08 / 0,16	D08LA84	840 / 1680	0,90 / 0,90	0,57 / 0,57	0,61 / 0,83	3,1 / 4,1	3,3 / 2,4	3,3 / 2,4	3,9 / 3,3	0,0025
0,11 / 0,22	D08LA84	840 / 1680	1,24 / 1,25	0,74 / 0,74	0,61 / 0,83	3,1 / 4,1	3,1 / 2,3	3,1 / 2,3	3,7 / 3,1	0,0025
0,14 / 0,28	D08LA84	840 / 1680	1,58 / 1,59	0,92 / 0,92	0,61 / 0,83	3,1 / 4,1	3,1 / 2,3	3,1 / 2,3	3,7 / 3,1	0,0025
0,2 / 0,4	D08LA84	840 / 1680	2,2 / 2,2	1,05 / 1,20	0,55 / 0,77	3,1 / 4,1	2,5 / 1,9	2,5 / 1,9	3,0 / 2,5	0,0025
0,25 / 0,5	D09XC84	840 / 1680	2,8 / 2,8	1,28 / 1,28	0,48 / 0,77	3,2 / 5,5	3,0 / 2,2	3,0 / 2,3	3,4 / 3,0	0,006
0,28 / 0,56	D09XC84	840 / 1680	3,1 / 3,1	1,29 / 1,38	0,57 / 0,80	3,2 / 5,4	2,7 / 2,0	2,7 / 2,1	3,1 / 2,7	0,006
0,4 / 0,8	D09XC84	840 / 1680	4,5 / 4,5	1,80 / 2,2	0,55 / 0,79	3,1 / 4,6	2,5 / 1,9	2,5 / 2,0	3,0 / 2,5	0,006
0,5 / 1,0	D09XC84	840 / 1680	5,6 / 5,6	2,2 / 2,4	0,55 / 0,81	2,9 / 4,4	2,4 / 1,8	2,4 / 1,8	2,8 / 2,4	0,006
0,8 / 1,6	D11LC84	850 / 1710	8,9 / 8,9	2,8 / 3,8	0,63 / 0,88	3,8 / 4,7	2,4 / 2,1	2,4 / 1,9	3,1 / 3,0	0,0215
1,1 / 2,2	D11LC84	850 / 1710	12,2 / 12,2	3,7 / 4,5	0,58 / 0,85	4,3 / 6,2	2,5 / 2,3	2,5 / 1,9	3,0 / 2,7	0,0215
1,6 / 3,2	D11LC84	850 / 1710	17,9 / 17,9	5,5 / 7,0	0,59 / 0,84	4,1 / 5,6	2,4 / 2,0	2,3 / 1,6	2,8 / 2,5	0,0215
2,2 / 4,4	D13LC84	850 / 1710	24 / 24	6,6 / 8,7	0,60 / 0,87	4,7 / 5,9	2,3 / 1,9	2,3 / 1,5	3,2 / 3,1	0,046
2,8 / 5,6	D13LC84	850 / 1710	31 / 31	8,6 / 11,2	0,60 / 0,86	4,7 / 5,9	2,3 / 1,9	2,3 / 1,5	3,2 / 3,1	0,046
3,5 / 7,0	D16MA84	880 / 1760	38 / 38	12,7 / 14,2	0,59 / 0,84	3,6 / 5,4	2,3 / 2,0	2,0 / 1,5	2,3 / 2,4	0,057
5,0 / 10	D16LA84	880 / 1760	54 / 54	16,1 / 18,9	0,57 / 0,87	3,9 / 6,1	2,3 / 2,0	2,1 / 1,5	2,3 / 2,4	0,076
7,0 / 14	D16XA84	880 / 1760	76 / 75	22,5 / 26,5	0,60 / 0,84	3,6 / 5,7	2,3 / 2,1	2,2 / 1,8	2,3 / 2,6	0,087
8,0 / 16	D18LA84	880 / 1760	87 / 86	22 / 30	0,60 / 0,86	4,1 / 6,0	2,4 / 2,4	2,0 / 2,0	2,1 / 2,3	0,16
10 / 20	D18XA84	880 / 1760	108 / 108	27,5 / 37,5	0,60 / 0,86	4,1 / 6,0	2,4 / 2,4	2,0 / 2,0	2,1 / 2,3	0,195

P Rated outputs at 60 Hz line frequency

n Guideline values for rated speeds at the rotor shaft at 60 Hz line frequency

 M_N ated torques at the rotor shaft

 I_{N} Rated currents 460 V Δ/YY (currents can be converted as inverse ratios of volt-

ages from 460 V to the desired special voltage)

cos φ Power factors

 $\begin{array}{lll} I_A/I_N & & \text{Relative starting currents} \\ M_A/M_N & & \text{Relative breakaway torques} \\ M_S/M_N & & \text{Relative pull-up torques} \\ M_K/M_N & & \text{Relative breakdown torques} \\ J_{\text{rot}} & & \text{Mass moment of inertia of the rotor} \end{array}$

14

Technical data of the 60 Hz motors

8/2-pole motors Y/Y for intermittent periodic duty S3-25/75%, line frequency 60 Hz

Р	ED	Туре	n	M _N	I _N (460 V)	cos φ	I_A/I_N	M _A /M _N	M _S /M _N	M _K /M _N	J_{rot}
kW			1/min	Nm	Α						kgm²
0,04 / 0,16	25/75%	D05LA82	810 / 3240	0,460 / 0,470	0,370 / 0,74	0,63 / 0,75	1,8 / 3,5	2,1 / 2,4	2,1 / 2,3	2,2 / 2,5	0,000295
0,05 / 0,20	25/75%	D06LA82	810 / 3240	0,58 / 0,59	0,470 / 0,94	0,63 / 0,75	1,5 / 3,1	1,9 / 2,2	1,9 / 2,1	2,0 / 2,3	0,000295
0,063 / 0,25	25/75%	D07LA82	800 / 3420	0,75 / 0,75	0,55 / 1,10	0,69 / 0,62	1,5 / 2,8	1,8 / 1,5	1,8 / 1,5	2,0 / 3,0	0,000385
0,071 / 0,28	25/75%	D07LA82	800 / 3420	0,82 / 0,81	0,60 / 1,30	0,69 / 0,68	1,5 / 2,8	1,7 / 1,4	1,7 / 1,4	1,9 / 2,9	0,000385
0,063 / 0,25	25/75%	D08LA82	840 / 3360	0,70 / 0,71	0,51 / 0,65	0,55 / 0,87	3,1 / 4,4	2,6 / 2,9	2,6 / 2,8	3,1 / 3,3	0,0015
0,09 / 0,36	25/75%	D08LA82	840 / 3360	1,01 / 1,01	0,65 / 0,98	0,60 / 0,92	3,2 / 4,9	2,2 / 2,9	2,2 / 2,8	2,7 / 3,2	0,0015
0,12 / 0,50	25/75%	D08LA82	840 / 3360	1,41 / 1,41	0,90 / 1,33	0,60 / 0,92	3,2 / 4,9	2,2 / 2,9	2,2 / 2,8	2,7 / 3,2	0,0015
0,16 / 0,63	25/75%	D08LA82	840 / 3360	1,79 / 1,75	1,12 / 1,35	0,63 / 0,90	2,2 / 5,0	2,0 / 2,3	2,0 / 2,2	2,5 / 2,7	0,0015
0,25 / 1,0	25/75%	D09XA82	840 / 3360	2,8 / 2,8	1,19 / 2,1	0,62 / 0,90	2,4 / 5,7	2,1 / 2,5	2,1 / 2,5	2,2 / 2,8	0,0038
0,36 / 1,4	25/75%	D09XA82	840 / 3360	4,0 / 3,9	1,91 / 3,0	0,57 / 0,87		2,1 / 2,3	2,1 / 2,3	2,2 / 2,6	0,0038
0,45 / 1,8	25/75%	D09XA82	840 / 3360	5,1 / 5,0	2,2 / 3,9	0,65 / 0,89	2,2 / 4,7	1,9 / 2,2	1,9 / 2,2	2,2 / 2,7	0,0038
0,56 / 2,2	25/75%	D11LA82	850 / 3420	6,2 / 6,0	2,1 / 4,3	0,60 / 0,94	3,5 / 5,4	2,1 / 3,2	2,1 / 2,6	2,4 / 3,2	0,014
0,71 / 2,8	25/75%	D11LA82	850 / 3420	7,9 / 7,8	2,5 / 5,1	0,58 / 0,94	2,7 / 5,1	2,1 / 2,5	2,1 / 2,2	2,3 / 2,6	0,014
0,90 / 3,6	25/75%	D11LA82	850 / 3420	10 / 10	3,2 / 7,2	0,58 / 0,94	2,7 / 4,9	2,0 / 2,2	2,0 / 2,0	2,2 / 2,3	0,014
1,10 / 4,5	25/75%	D13LA82	850 / 3420	12,2 / 12,5	3,6 / 9,2	0,59 / 0,90	3,1 / 5,9	2,0 / 2,7	2,0 / 2,0	2,5 / 3,0	0,0345
1,25 / 5,0	25/75%	D13LA82	850 / 3420	14 / 13,9	4,2 / 10,7	0,59 / 0,88	3,2 / 5,9	1,8 / 2,6	1,8 / 2,0	2,3 / 3,0	0,0345
1,6 / 6,3	25/75%	D16XA82	880 / 3520	16,6 / 17	7,0 / 12,3	0,48 / 0,88	3,9 / 7,1	2,6 / 3,3	2,4 / 2,3	3,0 / 3,3	0,087
2,0 / 8,0	25/75%	D16XA82	880 / 3520	21 / 21,5	8,9 / 15,5	0,50 / 0,89	3,9 / 6,7	2,6 / 3,3	2,3 / 2,2	3,0 / 3,3	0,087
2,8 / 11	25/75%	D16XA82	880 / 3520	30,5 / 29,5	10,7 / 22,5	0,53 / 0,91	3,3 / 6,5	2,0 / 3,2	1,8 / 2,2	2,1 / 3,1	0,087
3,6 / 14	25/75%	D18XA82	880 / 3520	39 / 38	12,7 / 28,5	0,55 / 0,91	3,6 / 5,4	1,9 / 2,5	1,8 / 1,7	2,3 / 2,7	0,195
4,0 / 16	25/75%	D18XA82	880 / 3520	43 / 43	14,1 / 32,5	0,55 / 0,91	3,6 / 5,4	1,9 / 2,5	1,8 / 1,7	2,3 / 2,7	0,195
5,0 / 20	25/75%	D18XA82	880 / 3520	54 / 54	17,5 / 40	0,55 / 0,91	3,6 / 5,4	1,9 / 2,5	1,8 / 1,7	2,3 / 2,7	0,195

P Rated outputs at 60 Hz line frequency, duty type S3-25/75%

n Guideline values for rated speeds at the rotor shaft at 60 Hz line frequency

 M_N Rated torques at the rotor shaft

 I_N Rated currents 460 V Y/Y (currents can be converted as inverse ratios of voltages

from 460 V to the desired special voltage)

cos φ Power factors

 $\begin{array}{ll} I_{\text{A}}/I_{\text{N}} & \text{Relative starting currents} \\ M_{\text{A}}/M_{\text{N}} & \text{Relative breakaway torques} \\ M_{\text{S}}/M_{\text{N}} & \text{Relative pull-up torques} \\ M_{\text{K}}/M_{\text{N}} & \text{Relative breakdown torques} \\ J_{\text{rot}} & \text{Mass moment of inertia of the rotor} \end{array}$

14

12/2-pole motors Y/Y for intermittent periodic duty S3-25/75%, line frequency 60 Hz

Р	ED	Туре	n	M _N	I _N (460 V)	cos φ	I_A/I_N	M_A/M_N	M _S /M _N	M _K /M _N	J_{rot}
kW			1/min	Nm	Α						kgm²
0,045 / 0,28	25/75%	D08LA122	560 / 3360	0,76 / 0,79	0,51 / 0,79	0,70 / 0,90	1,5 / 4,9	2,1 / 2,7	2,1 / 2,7	2,1 / 3,0	0,0015
0,063 / 0,40	25/75%	D08LA122	560 / 3360	1,07 / 1,13	0,61 / 1,02	0,70 / 0,90	1,5 / 4,9	1,9 / 2,4	1,9 / 2,4	1,9 / 2,7	0,0015
0,09 / 0,56	25/75%	D08LA122	560 / 3360	1,54 / 1,59	0,95 / 1,35	0,63 / 0,89	1,5 / 4,5	1,9 / 2,3	1,9 / 2,5	2,0 / 2,6	0,0015
0,11 / 0,71	25/75%	D09XA122	560 / 3360	1,88 / 2,0	1,00 / 1,50	0,59 / 0,88	1,6 / 6,0	1,9 / 3,0	1,9 / 2,9	2,0 / 3,6	0,0038
0,16 / 1,0	25/75%	D09XA122	560 / 3360	2,7 / 2,8	1,56 / 2,2	0,62 / 0,89	1,6 / 6,0	2,0 / 2,9	2,0 / 2,7	2,0 / 3,6	0,0038
0,2 / 1,25	25/75%	D09XA122	560 / 3360	3,4 / 3,5	1,85 / 2,8	0,62 / 0,89	1,6 / 5,5	1,9 / 2,6	1,9 / 2,5	1,9 / 3,4	0,0038
0,25 / 1,6	25/75%	D11LA122	560 / 3420	4,2 / 4,4	2,1 / 3,1	0,53 / 0,95	1,8 / 5,4	1,9 / 2,8	1,9 / 2,6	2,2 / 3,1	0,014
0,32 / 2,0	25/75%	D11LA122	560 / 3420	5,4 / 5,5	2,7 / 3,6	0,53 / 0,94	1,8 / 5,1	1,9 / 2,7	1,9 / 2,4	2,2 / 3,0	0,014
0,45 / 2,8	25/75%	D11LA122	560 / 3420	7,6 / 7,8	3,8 / 5,1	0,52 / 0,94	1,8 / 5,1	1,6 / 2,5	1,6 / 2,2	2,0 / 2,6	0,014
0,63 / 4,0	25/75%	D13LA122	560 / 3420	10,7 / 11,1	3,8 / 7,9	0,45 / 0,95	1,8 / 6,1	1,8 / 2,6	1,8 / 2,0	2,0 / 3,0	0,0345
0,80 / 5,0	25/75%	D13LA122	560 / 3420	13,5 / 14	5,8 / 10,3	0,41 / 0,92	1,9 / 5,8	1,6 / 3,0	1,6 / 2,1	2,2 / 3,2	0,0345
1,0 / 6,3	25/75%	D16XA122	590 / 3520	16,3 / 16,6	7,3 / 12,2	0,35 / 0,90	2,4 / 6,9	2,1 / 3,0	2,1 / 1,9	2,6 / 3,1	0,087
1,25 / 8,0	25/75%	D16XA122	590 / 3520	20 / 21,5	9,0 / 15,4	0,35 / 0,90	2,4 / 6,9	2,1 / 3,0	2,1 / 1,8	2,6 / 3,1	0,087
1,6 / 10	25/75%	D16XA122	590 / 3520	25 / 26,5	9,6 / 19,1	0,40 / 0,92	2,1 / 5,9	1,8 / 2,6	1,8 / 1,5	2,3 / 2,6	0,087
2,4 / 14	25/75%	D18XA122	590 / 3520	39 / 37,5	15,1 / 28,5	0,39 / 0,91	2,0 / 4,7	1,8 / 2,8	1,9 / 2,2	2,1 / 2,8	0,195
2,5 / 16	60/60%	D18XA122	590 / 3520	40,5 / 43	14,1 / 28,5	0,46 / 0,92	2,0 / 5,9	1,8 / 2,7	1,5 / 1,6	1,8 / 2,8	0,195
2,8 / 18	10/40%	D18XA122	590 / 3520	45,5 / 48	17,6 / 36	0,39 / 0,91	2,0 / 4,7	1,8 / 2,8	1,9 / 2,2	2,1 / 2,8	0,195

P Rated outputs at 60 Hz line frequency, duty type S3-25/75%

n Guideline values for rated speeds at the rotor shaft at 60 Hz line frequency

M_N Rated torques at the rotor shaft

 I_{N} Rated currents 460 V Y/Y (currents can be converted as inverse ratios of voltages

from 460 V to the desired special voltage)

cos φ Power factors

 $\begin{array}{lll} I_{\text{A}}/I_{\text{N}} & \text{Relative starting currents} \\ M_{\text{A}}/M_{\text{N}} & \text{Relative breakaway torques} \\ M_{\text{S}}/M_{\text{N}} & \text{Relative pull-up torques} \\ M_{\text{K}}/M_{\text{N}} & \text{Relative breakdown torques} \\ J_{\text{rot}} & \text{Mass moment of inertia of the rotor} \end{array}$

14

Motors

Operation with frequency converter



The figures given in the table below are for Bauer motors operating in conjunction with the frequency inverter. The torques referred to in tables can be entered for the respective frequencies in continuous operation (S1 = duty factor 100%).

Motor torques for frequency-converter range 5 Hz - 70 Hz, line frequency 50 Hz

Р	Туре	Connec-	5 Hz	10 Hz	20 Hz	30 Hz	50 Hz	60 Hz	70 Hz	5 Hz	10 Hz	20 Hz	30 Hz	50 Hz	60 Hz	70 Hz
		tion	M	м	М	М	М	М	М							1
			l'VI	livi	IVI	171	171	171	101	l'	l'	l'				'
kW			Nm	Nm	Nm	Nm	Nm	Nm	Nm	Α	Α	Α	Α	Α	Α	Α
0,03	D04LA4	Υ	0,125	0,155	0,185	0,205	0,210	0,210	0,180	0,190	0,193	0,198	0,200	0,200	0,230	0,230
0,04	D04LA4	Υ	0,165	0,210	0,250	0,275	0,280	0,275	0,205	0,190	0,193	0,198	0,200	0,200	0,230	0,200
0,06	D04LA4	Υ	0,250	0,315	0,375	0,410	0,420	0,420	0,320	0,290	0,295	0,300	0,300	0,300	0,340	0,305
0,09	D04LA4	Υ	0,375	0,470	0,56	0,62	0,63	0,63	0,52	0,435	0,440	0,450	0,450	0,450	0,51	0,495
0,12	D04LA4	Υ	0,50	0,63	0,75	0,82	0,84	0,69	0,50	0,440	0,450	0,455	0,460	0,460	0,460	0,450
0,06	D05LA4	Υ	0,250	0,315	0,375	0,410	0,420	0,420	0,360	0,300	0,315	0,340	0,350	0,350	0,395	0,400
0,09	D05LA4	Υ	0,375	0,470	0,56	0,62	0,63	0,63	0,54	0,355	0,365	0,375	0,380	0,380	0,430	0,430
0,12	D05LA4	Υ	0,51	0,63	0,76	0,83	0,85	0,81	0,59	0,370	0,385	0,410	0,420	0,420	0,455	0,410
0,18	D05LA4	Υ	0,76	0,96	1,15	1,26	1,28	1,28	0,97	0,59	0,60	0,62	0,63	0,63	0,72	0,64
0,25	D05LA4	Υ	1,05	1,31	1,57	1,72	1,75	1,74	1,28	0,85	0,86	0,87	0,88	0,88	1,00	0,88
0,06	D06LA4	Υ	0,250	0,315	0,375	0,410	0,420	0,420	0,360	0,300	0,315	0,340	0,350	0,350	0,395	0,400
0,09	D06LA4	Y	0,375	0,470	0,56	0,62	0,63	0,63	0,54	0,355	0,365	0,375	0,380	0,38	0,430	0,430
0,12	D06LA4	Y	0,51	0,63	0,76	0,83	0,85	0,81	0,59	0,37	0,385	0,41	0,420	0,42	0,455	0,41
0,18	D06LA4	Y	0,76	0,96	1,15	1,26	1,28	1,28	0,97	0,59	0,60	0,62	0,63	0,63	0,72	0,64
0,25	D06LA4	Υ	1,05	1,32	1,58	1,73	1,76	1,75	1,29	0,85	0,87	0,88	0,89	0,89	1,01	0,89
0,3	D07LA4	Y	1,27	1,59	1,9	2,0	2,1	2,1	1,81	1,25	1,27	1,29	1,30	1,30	1,47	1,47
0,37	D07LA4	Υ	1,57	1,96	2,3	2,5	2,6	2,5	1,83	1,30	1,32	1,34	1,35	1,35	1,46	1,34
0,37	DHE08MA4	Y	1,47	1,83	2,2	2,4	2,4	2,4	2,1	1,18	1,19	1,2	1,2	1,2	1,36	1,36
0,55	DHE08LA4	Y	2,2	2,8	3,3	3,6	3,7	3,7	2,8	1,13	1,21	1,3	1,36	1,36	1,54	1,38
0,75 0,75	DHE08XA4 DHE09SA4	Y	3	3,8	4,5 4,5	4,9	5	5	4,2	1,68	1,75 1,66	1,83 1,75	1,88	1,88	2,2	2,2
'	DHE095A4	Y	_	3,8		4,9	-	7,3	4,2	1,59		1 '	1,8	1,8	2,1	2,1
1,1 1,5	DHE09LA4	Y	4,3 5,9	5,4 7,4	6,5 8,9	7,2 9,8	7,3 9,9	9,9	6,2 8,5	2,2 2,8	2,4 3,1	2,5 3,2	2,6 3,4	2,6 3,4	2,9 3,8	2,9 3,8
2,2	DHE09XA4C	Ϋ́	8,7	10,8	13	14,3	14,5	14,5	12,4	3,8	4,2	4,5	4,8	4,8	5,4	5,4
2,2	DHE11SA4	Y	8,7	10,8	13	14,3	14,5	14,5	12,4	3,6	3,9	4,4	4,6	4,6	5,2	5,3
3	DHE11MA4	Y	12	15	18	19,7	20	20	17,1	4,9	5,4	5,9	6,3	6,3	7,2	7,2
4	DHE11LA4	Ϋ́	15,9	19,8	23,5	26	26,5	26,5	22,5	6,5	7,2	7,9	8,4	8,4	9,5	9,5
5,5	DHE11LA4C	Ϋ́	21,5	27	32	35,5	36	36	30,5	8,1	9	10	10,7	10,7	12,1	12,1
5,5	DHE13MA4	Y	21,5	27	32	35,5	36	36	30,5	8,2	9,2	10,3	11	11	12,5	12,5
7,5	DHE13LA4	Υ	29	36,5	44	48	49	49	42	11,2	12,6	14,1	15	15,1	17,1	17,1
9,5	DHE16MA4	Υ	37	46,5	55	61	62	62	53	14,8	16,5	18,4	19,6	19,7	22,5	22,5
11	DHE16LA4	Υ	42,5	53	64	70	71	71	61	17,2	19	21,5	22,5	22,5	25,5	25,5
15	DHE16XA4	Υ	58	73	87	96	97	97	83	24	26,5	29,5	31	31	35	35,5
18,5	DHE18LA4	Υ	72	90	108	118	120	120	102	25	28,5	32,5	35	35	39,5	40
22	DHE18XA4	Υ	85	106	127	140	142	142	121	33,5	37	41	43,5	43,5	49,5	49,5
30	DHENF20LG4	Υ	116	145	174	191	194	194	166	37	43	49,5	54	54	61	62
37	DHENF22SG4	Υ	142	178	210	235	235	235	200	43	51	59	64	64	73	73
45	DHENF22MG4	Υ	173	215	260	285	285	275	200	52	61	71	78	78	85	73
55	DHENF25MG4	Υ	210	265	315	350	355	355	280	62	73	86	93	94	107	99
75	DHENF25MG4	Υ	290	360	435	475	480	480	410	61	72	85	93	94	107	107

Field weakening for frequencies above 50 Hz, winding for standard voltage 400 VY / 50 Hz, Temperature Class F.

Ρ Rated output

Guideline value for rated speed at the rotor shaft

permissible load torque (S1-100%) for operation with frequency inverter Μ

Rated torque at the rotor shaft M_N

Load current for operation with frequency inverter

Motors with standard windings can be switched from Y- to Δ - circuit for operation with a converter having a single-phase mains connection. This has no effect on the torques and frequencies as listed in the table above. As regards the choice of converter, however, note that currents are higher than those of the Y-circuit by a factor of 1.73.

The load currents in the table are guideline values for selecting the size of frequency inverter. Load current is lower if the load torque is below the values permitted for 30-70 Hz and the frequency inverter used is of the high-grade type. This means that a smaller inverter can sometimes be used, particularly in conjunction with large motors.

Motor torques for frequency-converter range 5 Hz - 100 Hz, line frequency 50 Hz

Р	Туре	Connection	5 Hz M	8,7 Hz M	10 Hz M	20 Hz M	87 Hz M	100 Hz M	5 Hz	8,7 Hz I	10 Hz	20 Hz I	87 Hz	100 Hz
kW			Nm	Nm	Nm	Nm	Nm	Nm	Α	Α	Α	Α	Α	Α
0,03	D04LA4	D	0,125	0,15	0,155	0,185	0,21	0,21	0,33	0,335	0,335	0,345	0,35	0,38
0,04	D04LA4	D	0,165	0,2	0,21	0,25	0,28	0,28	0,33	0,335	0,335	0,345	0,35	0,38
0,06	D04LA4	D	0,25	0,3	0,315	0,375	0,42	0,42	0,51	0,51	0,51	0,52	0,52	0,57
0,09	D04LA4	D	0,375	0,45	0,47	0,56	0,63	0,63	0,76	0,76	0,77	0,78	0,78	0,86
0,12	D04LA4	D	0,5	0,6	0,63	0,75	0,84	0,75	0,76	0,77	0,78	0,79	0,8	0,8
0,06	D05LA4	D	0,25	0,3	0,315	0,375	0,42	0,42	0,52	0,54	0,55	0,59	0,61	0,67
0,09	D05LA4	D	0,375	0,45	0,47	0,56	0,63	0,63	0,62	0,63	0,63	0,65	0,66	0,73
0,12	D05LA4	D	0,51	0,61	0,63	0,76	0,85	0,85	0,64	0,67	0,67	0,71	0,73	0,8
0,18	D05LA4	D	0,76	0,92	0,96	1,15	1,28	1,28	1,01	1,04	1,04	1,07	1,1	1,2
0,25	D05LA4	D	1,05	1,25	1,31	1,57	1,75	1,75	1,46	1,48	1,49	1,51	1,53	1,68
0,06	D06LA4	D	0,25	0,3	0,315	0,375	0,42	0,42	0,52	0,54	0,55	0,59	0,61	0,67
0,09	D06LA4	D	0,375	0,45	0,47	0,56	0,63	0,63	0,62	0,63	0,63	0,65	0,66	0,73
0,12	D06LA4	D	0,51	0,61	0,63	0,76	0,85	0,85	0,64	0,67	0,67	0,71	0,73	0,8
0,18	D06LA4	D	0,76	0,92	0,96	1,15	1,28	1,28	1,01	1,04	1,04	1,07	1,1	1,2
0,25	D06LA4	D	1,05	1,26	1,32	1,58	1,76	1,76	1,47	1,49	1,5	1,53	1,55	1,69
0,3	D07LA4	D	1,27	1,52	1,59	1,9	2,1	2,1	2,2	2,2	2,2	2,2	2,3	2,5
0,37	D07LA4	D	1,57	1,88	1,96	2,3	2,6	2,6	2,2	2,3	2,3	2,4	2,4	2,6
0,37	DHE08MA4	D	1,47	1,76	1,83	2,2	2,4	2,4	2,1	2,1	2,1	2,1	2,1	2,3
0,55	DHE08LA4	D	2,2	2,6	2,8	3,3	3,7	3,7	1,95	2,1	2,1	2,2	2,4	2,6
0,75	DHE08XA4	D	3	3,6	3,8	4,5	5	5	3	3,1	3,1	3,2	3,3	3,6
0,75	DHE09SA4	D	3	3,6	3,8	4,5	5	5	2,8	2,8	2,9	3,1	3,2	3,5
1,1	DHE09LA4	D	4,3	5,2	5,4	6,5	7,3	7,3	3,8	4	4	4,2	4,5	4,9
1,5	DHE09XA4	D	5,9	7,1	7,4	8,9	9,9	9,9	4,6	5	5,1	5,5	5,9	6,4
2,2	DHE09XA4C	D	8,7	10,4	10,8	13	14,5	14,5	6,7	7,1	7,2	7,8	8,3	9,1
2,2	DHE11SA4	D	8,7	10,4	10,8	13	14,5	14,5	6,2	6,7	6,8	7,5	8	8,8
3	DHE11MA4	D	12	14,3	15	18	20	20	8,4	9,1	9,3	10,3	11	12
4	DHE11LA4	D	15,9	19	19,8	23,5	26,5	26,5	11,9	12,6	12,8	13,9	14,6	16
5,5	DHE11LA4C	D	21,5	25,5	27	32	36	36	14,2	15,6	15,9	17,8	19,1	21
5,5	DHE13MA4	D	21,5	25,5	27	32	36	36	14,1	15,5	15,8	17,7	19,1	21
7,5	DHE13LA4	D	29	35	36,5	44	49	49	19,3	21,5	22	24,5	26,5	29
9,5	DHE16MA4	D	37	44,5	46,5	55	62	62	26	28	29	32	34,5	37,5
11	DHE16LA4	D	42,5	51	53	64	71	71	30	32,5	33	36,5	39	43
15	DHE16XA4	D	58	70	73	87	97	97	41,5	45	46	51	54	59
18,5	DHE18LA4	D	72	86	90	108	120	120	43,5	48	49,5	56	61	67
22	DHE18XA4	D	85	102	106	127	142	142	58	63	64	71	76	83
30	DHENF20LG4	D	116	139	145	174	194	194	168	64	72	74	86	94
37	DHENF22SG4	D	142	171	178	210	235	235	205	75	85	87	101	111
45	DHENF22MG4	D	173	205	215	260	285	285	205	90	102	106	123	136
55	DHENF25MG4	D	210	255	265	315	355	355	290	107	122	126	148	163
75	DHENF25MG4	D	290	345	360	435	480	480	420	105	121	125	147	163

Field weakening for frequencies above 87 Hz, winding for 230 V Δ / 50 Hz (U_{max} = 400 V Δ /87 Hz), Temperature Class F.

P Rated output

n Guideline value for rated speed at the rotor shaft

M permissible load torque (S1-100%) for operation with frequency inverter

 $M_{\scriptscriptstyle N}$ Rated torque at the rotor shaft

I Load current for operation with frequency inverter

The load currents in the table are guideline values for selecting the size of frequency inverter. Load current is lower if the load torque is below the values permitted for 30-100 Hz and the frequency inverter used is of the high-grade type. This means that a smaller inverter can sometimes be used, particularly in conjunction with large motors.

Motor torques for frequency-converter range 6 Hz - 84 Hz, line frequency 60 Hz

Р	Туре	Connec- tion	6 Hz	12 Hz	24 Hz	36 Hz	60 Hz	72 Hz	84 Hz	6 Hz	12 Hz	24 Hz	36 Hz	60 Hz	72 Hz	84 Hz
			М	М	М	М	М	М	М	ı	ı	1	1	1	ı	ı
											-	ľ	ľ	ľ	•	i
kW			Nm	Nm	Nm	Nm	Nm	Nm	Nm	Α	Α	Α	Α	Α	Α	Α
0,03	D04LA4	Υ	0,115	0,140	0,165	0,180	0,180	0,180	0,150	0,176	0,178	0,180	0,185	0,180	0,205	0,205
0,04	D04LA4	Υ	0,145	0,180	0,215	0,235	0,230	0,230	0,180	0,176	0,178	0,180	0,185	0,180	0,205	0,190
0,06	D04LA4	Υ	0,220	0,275	0,325	0,355	0,350	0,350	0,300	0,275	0,275	0,280	0,290	0,280	0,320	0,320
0,09	D04LA4	Υ	0,330	0,410	0,485	0,53	0,520	0,520	0,445	0,400	0,400	0,400	0,415	0,400	0,455	0,455
0,12	D04LA4	Υ	0,445	0,55	0,65	0,71	0,70	0,63	0,465	0,410	0,415	0,420	0,435	0,420	0,435	0,415
0,06	D05LA4	Υ	0,220	0,275	0,325	0,355	0,350	0,350	0,300	0,280	0,295	0,315	0,330	0,320	0,365	0,365
0,09	D05LA4	Υ	0,330	0,410	0,485	0,53	0,520	0,520	0,445	0,335	0,340	0,350	0,360	0,350	0,395	0,400
0,12	D05LA4	Υ	0,445	0,55	0,65	0,71	0,70	0,70	0,53	0,345	0,36	0,375	0,395	0,38	0,43	0,385
0,18	D05LA4	Υ	0,67	0,83	0,99	1,08	1,06	1,06	0,87	0,54	0,56	0,58	0,60	0,58	0,66	0,64
0,25	D05LA4	Υ	0,92	1,14	1,36	1,48	1,45	1,45	1,15	0,78	0,79	0,8	0,83	0,8	0,91	0,85
0,06	D06LA4	Υ	0,22	0,275	0,325	0,355	0,35	0,35	0,3	0,28	0,295	0,315	0,330	0,32	0,365	0,365
0,09	D06LA4	Υ	0,33	0,41	0,485	0,53	0,52	0,52	0,445	0,335	0,34	0,35	0,360	0,35	0,395	0,4
0,12	D06LA4	Υ	0,445	0,55	0,65	0,71	0,70	0,70	0,53	0,345	0,36	0,375	0,395	0,38	0,43	0,385
0,18	D06LA4	Υ	0,67	0,83	0,99	1,08	1,06	1,06	0,87	0,54	0,56	0,58	0,60	0,58	0,66	0,64
0,25	D06LA4	Υ	0,92	1,14	1,36	1,48	1,45	1,45	1,15	0,78	0,79	0,8	0,83	0,8	0,91	0,85
0,3	D07LA4	Υ	1,12	1,38	1,65	1,80	1,76	1,76	1,5	1,18	1,19	1,20	1,24	1,2	1,36	1,36
0,37	D07LA4	Υ	1,37	1,69	2,0	2,2	2,1	2,1	1,64	1,24	1,25	1,26	1,30	1,26	1,43	1,28
0,55	D08MA4	Υ	1,98	2,4	2,9	3,1	3,1	3,1	2,4	1,29	1,36	1,44	1,51	1,47	1,66	1,55
0,75	DHE08XA4	Υ	2,4	3,1	3,7	4,1	4,1	4,1	3,7	1,45	1,5	1,56	1,6	1,6	1,78	1,81
0,75	DHE09SA4	Υ	2,4	3,1	3,7	4,1	4,1	4,1	3,7	1,34	1,43	1,53	1,6	1,6	1,78	1,81
1,10	DHE09LA4	Υ	3,6	4,5	5,4	5,9	6	6	5,4	1,85	1,99	2,2	2,2	2,2	2,5	2,6
1,50	DHE09XA4	Υ	4,9	6,1	7,3	8,1	8,2	8,2	7,3	2,4	2,6	2,8	3	3	3,3	3,4
2,2	DHE09XA4C DHE11SA4	Y	7,2	9	10,8	11,8	12 12	12 12	10,8	3,5	3,7	3,9	4	4	4,5	4,5
2,2	DHE113A4	Ϋ́	7,2 9,9	12,3	10,8 14,8	11,8 16,2	16,5	16,5	10,8 14,8	3,1 4,2	3,5 4,7	3,8 5,2	4 5,5	4 5,5	4,5 6,1	4,5 6,3
3,0	DHE11LA4	Ϋ́	13		1 '	21	21,5	1 '	1 '	5,6		6,9	7,3	7,3	1 '	1 ' 1
4,0 5,5	DHE11LA4C	Y	18	16,2 22,5	19,5 27	29,5	30	21,5 30	19,5 27	7	6,2 7,8	8,6	7,3 9,2	7,3 9,2	8,1 10.2	8,3 10,4
5,5	DHE13MA4	Y	18	22,5	27	29,5	30	30	27	7,3	8,1	9,1	9,2	9,2	10,2	11
7,5	DHE13LA4	Y	24	30	36	40	40.5	40.5	36	9,9	11	12,3	13,1	13,2	14.7	15
9,2	DHE16MA4	Y	30	37,5	45	49	50	50	45	12,8	14,1	15,5	16,4	16,5	18,3	18,7
11,0	DHE16LA4	Ϋ́	35	44	53	58	59	59	53	15	16,6	18,4	19,5	19,6	22	22,5
15.0	DHE16XA4	Ϋ́	48.5	60	72	80	81	81	72	21	23	25,5	27	27	30	31
18,5	DHE18LA4	Y	60	75	90	98	100	100	90	22	25,5	29	31	31	34,5	35,5
22	DHE18XA4	Ϋ́	70	88	106	116	118	118	106	29.5	32,5	36	38,5	38,5	43	43,5
	D. IE 10/017		,,,					1.10		20,0	52,5	, 50	50,5	30,3	٠,5	, .

Field weakening for frequencies above 60 Hz, winding for standard voltage 460 V Y / 60 Hz, Temperature Class F.

P Rated output

n Guideline value for rated speed at the rotor shaft

M permissible load torque (S1-100%) for operation with frequency inverter

 M_N Rated torque at the rotor shaft

I Load current for operation with frequency inverter

Motors with standard windings can be switched from Y- to Δ - circuit for operation with a converter having a single-phase mains connection. This has no effect on the torques and frequencies as listed in the table above. As regards the choice of converter, however, note that currents are higher than those of the Y-circuit by a factor of 1.73.

The load currents in the table are guideline values for selecting the size of frequency converter. Load current is lower if the load torque is below the values permitted for 36-84 Hz and the frequency inverter used is of the high-grade type. This means that a smaller inverter can sometimes be used, particularly in conjunction with large motors.

14

Motor torques for frequency-converter range 6 Hz - 120 Hz, line frequency 60 Hz

Р	Туре	Connec-	6 Hz	12 Hz	24 Hz	36 Hz	104 Hz	120 Hz	6 Hz	12 Hz	24 Hz	36 Hz	104 Hz	120 Hz
		tion	N 4		М		М		ļ.					l. l
kW			M Nm	M Nm	Nm	M Nm	Nm	M Nm	A	A	A	A	A	A
0,03	D04LA4	D	0,105	0,13	0,155	0,18	0,17	0,17	0,245	0,25	0,26	0,325	0,26	0,29
0,03	D04LA4	D	0,103	0,13	0,133	0,13	0,17	0,17	0,243	0,23	0,28	0,325	0,28	0,305
0,04	D04LA4	D	0,143	0,10	0,215	0,255	0,25	0,25	0,455	0,465	0,48	0,525	0,485	0,505
0,00	D04LA4	D	0,33	0,273	0,323	0,533	0,53	0,52	0,72	0,73	0,74	0,72	0,75	0,82
0,12	D04LA4	D	0,445	0,55	0,465	0,71	0,7	0,65	0,63	0,65	0,67	0,75	0,68	0,7
0,12	D05LA4	D D	0,443	0,275	0,325	0,71	0,7	0,35	0,48	0,51	0,55	0,73	0,56	0,7
0,00	D05LA4	D	0,22	0,273	0,323	0,533	0,53	0,53	0,48	0,51	0,55	0,57	0,50	0,67
0,12	D05LA4	D	0,445	0,55	0,465	0,71	0,32	0,32	0,50	0,62	0,65	0,68	0,66	0,73
0,12	D05LA4		0,443	0,83	0,99	1,08	1,06	1,06	0,93	0,02	1	1,04	1,01	1,11
0,18	D05LA4	D D	0,92	1,14	1,36	1,48	1,45	1,45	1,34	1,36	1,38	1,43	1,39	1,53
0,25	D06LA4	D D	0,32	0,275	0,325	0,355	0,35	0,35	0,48	0,51	0,55	0,57	0,56	0,61
0,00	D06LA4	D	0,22	0,275	0,323	0,533	0,53	0,52	0,58	0,51	0,55	0,63	0,61	0,67
0,12	D06LA4	D	0,445	0,55	0,465	0,71	0,32	0,32	0,56	0,59	0,65	0,68	0,66	0,73
0,12	D06LA4	D	0,443	0,83	0,03	1.08	1,06	1.06	0,93	0,96	1	1,04	1,01	1,11
0,16	D06LA4	D	0,92	1.14	1,36	1,48	1,45	1,45	1,34	1,36	1,38	1,43	1,39	1,53
0,23	D07LA4	D	1,12	1,38	1,65	1,8	1,76	1,76	2,1	2,1	2,1	2,2	2,1	2,3
0,37	D07LA4	D	1,37	1,69	2	2,2	2,1	2,1	2,2	2,2	2,2	2,2	2,2	2,4
0,55	D08MA4	D	1,98	2,4	2,9	3,1	3,1	3,1	2,2	2,4	2,5	2,7	2,6	2,8
0,75	DHE08XA4	D	2,4	3,1	3,7	4,1	4,1	4,1	2,6	2,6	2,7	2,8	2,8	3,1
0,75	DHE09SA4	D	2,4	3,1	3,7	4,1	4,1	4,1	2,4	2,5	2,7	2,8	2,8	3,1
1,1	DHE09LA4	D	3,6	4,5	5,4	5,9	6	6	3,2	3,5	3,8	3,9	3,9	4,3
1,5	DHE09XA4	D	4,9	6,1	7,3	8,1	8,2	8,2	4,2	4,5	4,9	5,1	5,2	5,7
2,2	DHE09XA4C	D	7,2	9	10,8	11.8	12	12	5,7	6,1	6,6	6,9	7	7,7
2,2	DHE11SA4	D	7,2	9	10,8	11,8	12	12	5,4	5,9	6,5	6,9	7	7,7
3	DHE11MA4	D	9,9	12,3	14,8	16,2	16,5	16,5	7,4	8,1	9	9,5	9,6	10,5
4	DHE11LA4	D	13	16,2	19,5	21	21,5	21,5	10,7	11,4	12,2	12,6	12,7	13,9
5,5	DHE11LA4C	D	18	22,5	27	29,5	30	30	12,4	13,8	15,4	16,4	16,5	18,1
5,5	DHE13MA4	D	18	22,5	27	29,5	30	30	12,6	14,1	15,7	16,7	16,9	18,5
7,5	DHE13LA4	D	24	30	36	40	40,5	40,5	17,1	19,1	21,5	23	23	25,5
9,5	DHE16LA4	D	30,5	38	45,5	50	51	51	21,5	24	27	28,5	29	31,5
11	DHE16LA4	D	35	44	53	58	59	59	26	29	32	34	34	37,5
15	DHE16XA4	D	48,5	60	72	80	81	81	36,5	40	44	46,5	47	52
18,5	DHE18LA4	D	60	75	90	98	100	100	38	43,5	49,5	54	54	60
22	DHE18XA4	D	70	88	106	116	118	118	51	56	63	67	67	74

Field weakening for frequencies above 87 Hz, winding for standard voltage 265 V Δ / 60 Hz (Umax = 460 V Δ / 104 Hz), Temperature Class F.

P Rated output

n Guideline value for rated speed at the rotor shaft

M permissible load torque (S1-100%) for operation with frequency inverter

 $M_{\mbox{\tiny N}}$ Rated torque at the rotor shaft

I Load current for operation with frequency inverter

The load currents in the table are guideline values for selecting the size of frequency converter. Load current is lower if the load torque is below the values permitted for 36-120 Hz and the frequency inverter used is of the high-grade type. This means that a smaller inverter can sometimes be used, particularly in conjunction with large motors.

Motors

Operation with frequency converter

Notes on design

Use the torque required at the lowest operating speed to select motors for applications which require constant torque over the entire speed range, as is the case, for example, with lifting gear and conveyors. Bear in mind, too, the possibility of torque being lower in the field-weakening range.

Use only the torque required at the highest operating speed to select motors for applications which require square-law torque over the speed range, as is the case, for example, with pumps and fans. Field weakening is not permissible.

The motor's power is frequency-dependent. It can be approximated in kW from torque M in Nm, the 50 Hz or 60 Hz speed n and the frequency f in Hz by means of the equation

 $P = M \times n / 9550 \times f/50$ or $P = M \times n / 9550 \times f/60$

If a frequency inverter is used in conjunction with a pulse generator, the full 50 Hz or 60 Hz rated torque is available as holding torque at motor standstill (independent fan required for prolonged periods at standstill). In many instances, however, a mechanical brake is necessary for holding a position exactly or for safety reasons.

The use of thermistors for the thermal protection of the motor winding for frequency inverter duty are strictly recommended (available at extra cost for all motor sizes).

A reduction in duty factor increases the torque available at the low end of the frequency range (up to the transition frequency for field weakening) in accordance with the factors in the table below:

Duty factor	Motor torque with reduced duty factor	Increase in current requirementapproximate
100 %	-	-
60 %	1,15 x S1 torque	1,15 x S1 current
40 %	1,30 x S1 torque	1,30 x S1 current
25 %	1,45 x S1 torque	1,45 x S1 current
15 %	1,60 x S1 torque	1,60 x S1 current

This, in turn, means that short-term overload by a factor of 1.6 is permissible for starting from a low speed, for example. An increase in torque in the field-weakening range due to a reduction in duty factor is possible only under certain conditions; the 1.6x S1 torque generally cannot be achieved

If an independent fan is used, the S1- torque in the lower frequency range (below 30 Hz) need not be reduced, i.e., when it has an independent fan the motor can provide the 50 Hz or 60 Hz rated torque throughout the entire frequency range to the cut-off frequency of the field weakening.

With a high quality frequency inverter of 160%, when independent ventilation is combined with a reduced duty factor the 50 Hz or 60 Hz torque is available from rest through to the transition frequency of the field weakening range.

External ventilation is available for motor types D08 and larger (see chapter 16 "Motor-independent fan (FV)). In many instances, a more economical alternative is to select a larger motor without external ventilation.

Increased torque with reduced duty factor

Increased torque with external fan

-7

Operation with frequency converter

Energy-saving function

High quality frequency inverters reduce voltage in part-load operation to lower the motor current and thus improve efficiency. This converter function emulates the method of operation of commercially available "energy-saving devices".

Regeneration

Regenerative torques (braking torques) are required for motors used in lifting gear, for example. In conjunction with high quality frequency inverters, the motor torques listed in the table can also be applied as regenerative torques. As with motor torque, an increase in regenerative torque with reduced duty factor is permissible.

Notes on operation with othermake frequency inverters The precondition is that the motor current generated by the frequency converter is largely free of harmonics. The harmonics generated in the motor by some old-style frequency inverters result in additional losses and cut available torque by some 10% across the entire frequency range. There is also a risk of oscillation causing damage to the gear unit.

At frequencies below approximately 5 Hz, operation without pulse generators is possible only using a frequency inverter with state-of- the-art control. If frequency inverters are used that do not feature load-dependent frequency and current adjustment, the increase in the motor's current consumption means that, particularly in the case of small motors (D04-D..09), torque has to be reduced at frequencies below approximately 10 Hz even if an external fan is used or the duty factor is reduced. Regenerative operation is possible only under certain circumstances.

14

Motors

Explosion protection



The **gearboxes** described in this catalogue are suitable for use in explosive areas of Zones 1, 2, 21 and 22. An **EC-Declaration of Conformity** can be supplied on request; it is based on a "ignition hazards assessment report" which has been registered with a notified body (PTB). The explosion class of the associated **motors** are designated according to the Zone in which they should be used and according to the Method of use (e.g. use on inverter). The motor parts are partly larger or – for explosion proof – differently designed compared with the standard design shown in this catalogue. The modular system shown in section 3 allows, in most cases, the gear sizes and the connection dimensions to be maintained.

ATEX

The term ATEX is derived from Atmosphères explosibles. The designation 95 and 137 are based on a new numbering of the articles of the first contract of the foundation of the EU. **ATEX 95:** Directive 94/9/EC on the approximation of the laws of the member states concerning equipment and protective systems intended for use in potentially explosive atmospheres; binding for **placing on the market** since 01.07.2003

ATEX 137: Directive 1999/92/EG on minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres; binding for use in new installations since 01.07.2003 and binding for existing installations to comply with the requirements from 01.07.2006.

For Safety Instructions for the use of explosion protection geared motors, see the operating instructions BA170....

Scope of supply

Type	Type of motor explosion protection	Zone	Temperature Class T3	Temperature Class T4	max. surface temperature 120°C	max. surface temperature <160°C
DXE	II 2 G Ex e II T3	1	X			
DXD	II 2 G Ex d(e) IIC T4	1	X	X		
DXN	II 3 G Ex nA II T3	2	Х			
DXC	II 2 D Ex tD A21 IP65 T<160°C	21				Х
DXC	II 2 D Ex tD A21 IP65 T120°C	21			X	
DXS	II 3 D Ex tD T<160°C	22				X
DXE	II 2 G Ex e II T3 / II 2D Ex tD A21 IP65T120°C	1 and 21	Х		Х	
DXD	II 2 G Ex de IIC T4 / II 2 D T120°C	1 and 21	X	X	X	
DXS	II 3 G Ex nA II T3 / II 3 D Ex tD T<160°C	2 and 22	Х			Х

14

Explosion protection

Gear units with explosion protection for non-electrical equipment

Since 01.07.2003 mechanical apparatus ("equipment") to be placed on the market has had to comply with the requirements of ATEX 95. In ATEX it is defined: "Equipment means machines, apparatus, fixed or mobile devices, control components and instrumentation thereof and detection or prevention systems which, separately or jointly, are intended for the generation, transfer, storage, measurement, control and conversion of energy for the processing of material and which are capable of causing an explosion through their own potential sources of ignition." The requirement is to be applied on the gear unit of a geared motor; as well as on the driven machine or processing equipment if installed in classified areas with explosion hazard. In order to **declare the conformity** the manufacturer of the driven equipment has to assess and register the **ignition hazard**. This task is simplified if for the geared motor as a component a separate assessment has been performed. Such assessment could be based on the ATEX requirements only. It is positive for the product if the investigation has been based on an existing or draft standard, however.

Should differing conditions come together (e.g. ambient temperature > 40 °C, Speed > 1500 r/min, vertical arrangement of the motor, Temperature Class T4) this could lead to a restriction in the selection of the possible gear units in the higher power range.

For the assessment of Bauer-Gears the following standards, among others, have been taken into account:

EN 1127	Explosive atmospheres, Explosion prevention and protection; Basic concepts and methodology
EN 13463	Non-electrical equipment for use in potentially explosive atmospheres
EN 13463-1	Basic methods and requirements
EN 13463-5	Protection by constructional safety
EN 13463-8	Protection by liquid immersion "k"



Explosion protection

Speed change by means of inverter

Zone	Category	Available explosion class with TMS as sole protection	Seperate inverter	Built-on inverter
1	2G	II 2G Ex de IIC T4	Power up to 45 kW	
2	3G	II 3G Ex nA T3	Power up to 30 kW	Power up to 7,5 kW
21	2D	II 2D Ex tD A21 IP65T<160°C	Power up to 30 kW	
22	3D	II 3D Ex tD T <160 °C	Power up to 30 kW	Power up to 7,5 kW
1 and 21	2G/D	II 2 G Ex de IIC T4 / II 2 D T120°C	Power up to 45 kW	-

Motors for explosion protection "nA" and "e" must be tested together with the inverter as one unit.

For **explosion protection "e"**, this test must be a Type Examination performed by a named body (EN 60079-14). This combination is not a part of the scope of supply of Bauer.

For **explosion protection "nA"**, the successful test is confirmed by the manufacturer by means of a Certificate of Conformity (EN60079-15).

For motor with **explosion protection "d" and "de" for temperature class T4**, the motor and the inverter do not have to be tested together; the surface temperature which is decisive for the explosion protection is monitored by the monitoring device and thermal protection (EN 60079-14).

For **explosion protection "tD"**, the surface temperature which is decisive for the explosion protection is monitored by the monitoring device and thermal protection; the test for the connection between the motor and the inverter is not necessary (EN 61241-14).

Only motors with temperature monitoring by means of thermistors are permissible for use with frequency inverters.

14

582

Technical data for motors in explosion class "increased safety"

II 2G Ex e II T3 2p = 4, 50 Hz

Р	Туре	n	M _N	I _N (400 V)	Connec-	cos φ	I_A/I_N	M _A /M _N	M _K /M _N	EU Type examination	T1	T2	T3	T4
					tion					certificate				
kW		rpm	Nm	Α							s	s	S	s
0,12	DXE06LA4	1350	0,85	0,42	Υ	0,73	3,4	2,2	2,2	PTB 08 ATEX 3048-BI.01	160	160	160	40
0,18	DXE06LA4	1350	1,28	0,63	Y	0,7	3,4	2,3	2,4	PTB 08 ATEX 3048-BI.02	50	50	50	19
0,25	DXE06LA4	1350	1,75	0,88	Υ	0,69	3,3	2,3	2,3	PTB 08 ATEX 3048-BI.03	30	30	30	0
0,37	DXE08MA4	1400	2,5	1,08	Υ	0,73	4,7	2,3	2,6	PTB 08 ATEX 3049-BI.09	25	25	25	0
0,55	DXE08MA4	1400	3,8	1,6	Y	0,75	4,2	2,1	2,3	PTB 08 ATEX 3049-BI.02	21	21	21	0
0,75	DXE08LA4	1400	5,1	2	Υ	0,76	4,6	2,2	2,5	PTB 08 ATEX 3049-BI.03	16	16	16	0
1,1	DXE09SA4	1400	7,5	2,8	Υ	0,78	5,1	2,3	2,7	PTB 08 ATEX 3050-BI.02	17	17	17	0
1,5	DXE09LA4	1400	10,2	3,6	Υ	0,8	5,4	2,4	2,8	PTB 08 ATEX 3050-BI.03	12	12	12	0
2,2	DXE11SA4	1420	14,8	5,1	Υ	0,82	6,2	2,2	2,9	PTB 08 ATEX 3051-BI.02	12	12	12	0
3	DXE11MA4	1420	20,2	6,5	Δ	0,85	6,3	2,2	2,8	PTB 08 ATEX 3051-BI.03	11	11	11	0
4	DXE11LA4	1420	26,5	8,7	Δ	0,81	7,8	2,9	3,6	PTB 08 ATEX 3051-BI.04	9	9	9	0
5,5	DXE13LA4	1460	36	11,9	Δ	0,8	8,1	3,2	3,5	PTB 08 ATEX 3052-BI.02	13	13	12	0
7,5	DXE16MA4	1460	49	15,2	Δ	0,84	6,9	2,5	2,7	PTB 08 ATEX 3053-BI.01	16	16	15	0
9,5	DXE16LA4	1460	64	19,1	Δ	0,84	8	2,7	2,8	PTB 08 ATEX 3053-BI.02	14	14	9	0
11	DXE16XA4	1460	71	22	Δ	0,84	8,1	3	3,1	PTB 08 ATEX 3053-BI.04	12	12	10	0

II 2G Ex e II T3 2p = 4, 60 Hz

Р	Туре	n	M _N	I _N (440 V)	Connec-	cos φ	I_A/I_N	M_A/M_N	M _K /M _N	EU Type examination	T1	T2	T3	T4
					tion					certificate				
kW		rpm	Nm	Α							s	s	S	s
0,12	DXE06LA4	1660	0,7	0,37	Υ	0,73	3,9	2,4	2,4	PTB 08 ATEX 3048-BI.05	160	160	160	40
0,18	DXE06LA4	1660	1,06	0,57	Υ	0,7	3,8	2,6	2,7	PTB 08 ATEX 3048-BI.04	50	50	50	19
0,25	DXE06LA4	1660	1,45	0,8	Υ	0,69	3,6	2,5	2,5	PTB 08 ATEX 3048-BI.06	30	30	30	0
0,37	DXE08MA4	1680	2	0,98	Υ	0,73	5,1	2,5	2,9	PTB 08 ATEX 3049-BI.10	25	25	25	0
0,55	DXE08MA4	1680	3,1	1,45	Υ	0,75	4,6	2,3	2,5	PTB 08 ATEX 3049-BI.05	21	21	21	0
0,75	DXE08LA4	1680	4,2	1,82	Υ	0,76	5	2,4	2,7	PTB 08 ATEX 3049-BI.06	16	16	16	0
1,1	DXE09SA4	1710	6,2	2,5	Υ	0,78	5,6	2,5	3	PTB 08 ATEX 3050-BI.04	17	17	17	0
1,5	DXE09LA4	1710	8,5	3,3	Υ	0,8	5,9	2,6	3,1	PTB 99 ATEX 3272-BI.05	12	12	12	0
2,2	DXE11SA4	1710	12,2	4,6	Υ	0,82	6,8	2,4	3,2	PTB 08 ATEX 3051-BI.05	12	12	12	0
3	DXE11MA4	1710	16,7	5,9	Δ	0,85	6,9	2,4	3,1	PTB 08 ATEX 3051-BI.06	11	11	11	0
4	DXE11LA4	1710	22	7,9	Δ	0,81	8,4	3,2	3,9	PTB 09 ATEX 3051-BI.07	9	9	9	0
5,5	DXE13LA4	1760	30	10,7	Δ	0,8	8,6	3,5	3,8	PTB 08 ATEX 3052-BI.03	13	13	12	0
7,5	DXE16MA4	1760	40,5	13,8	Δ	0,84	7,6	2,7	3	PTB 08 ATEX 3053-BI.05	16	16	15	0
9,5	DXE16LA4	1760	53	17,3	Δ	0,84	8,2	3	3,1	PTB 08 ATEX 3053-BI.06	14	14	9	0
11	DXE16XA4	1760	59	19,8	Δ	0,84	8,7	3,3	3,4	PTB 08 ATEX 3053-BI.08	12	12	10	0

Motors

Explosion protection

Technical Data for motors in ignition protection "flame proof"

Ex d(e) IIC T4 2p=4 50 Hz single speed

Р	Туре	n	M _N	I _N (400 V)	Connec-	cos φ	I_A/I_N	M _A /M _N	M _K /M _N	EC Type Test
					tion					Certificate
kW		rpm	Nm	Α						
0,25	DNFXD07K0D4	1350	1,74	0,7	Υ	0,8	3,5	2	2,5	09 ATEX 1050X
0,37	DNFXD07L0D4	1350	2,6	0,95	Υ	0,8	3,6	2,2	2,6	09 ATEX 1050X
0,55	DNFXD08K0D4	1400	3,8	1,36	Υ	0,8	3,8	2	2,3	09 ATEX 1051X
0,75	DNFXD08L0D4	1400	5,1	1,83	Υ	0,79	4,2	2,1	2,5	09 ATEX 1051X
1,1	DNFXD09L1D4	1400	7,5	2,5	Υ	0,84	4,8	2,1	2,5	09 ATEX 1051X
1,5	DNFXD09L2D4	1400	10,2	3,2	Υ	0,84	5	2,3	2,7	09 ATEX 1051X
2,2	DNFXD10L1D4	1400	14,8	5	Υ	0,8	5,4	2,4	2,8	09 ATEX 1051X
3	DNFXD10L2D4	1400	20,2	6,6	Υ	0,82	5,5	2,3	2,7	09 ATEX 1051X
4	DNFXD11M0D4	1420	26,6	8,1	Υ	0,84	6,8	2,7	3,2	09 ATEX 1051X
5,5	DNFXD13S0D4	1420	36,5	10,7	Υ	0,86	6,2	2,5	2,7	09 ATEX 1051X
7,5	DNFXD13M0D4	1420	50	14,3	Υ	0,86	6,5	2,7	2,8	09 ATEX 1051X
11	DNFXD16M0D4	1460	72	21	Δ	0,85	6,6	2,5	2,8	09 ATEX 1051X
15	DNFXD16L0D4	1460	98	28	Δ	0,86	6,5	2,8	3,1	09 ATEX 1051X
18,5	DNFXD18M0D4	1460	121	35	Δ	0,84	6,6	2,9	3	09 ATEX 1052X
22	DNFXD18L0D4	1460	144	41	Δ	0,85	6,9	3	3	09 ATEX 1052X
30	DNFXD20L0D4	1460	196	53	Δ	0,88	6,8	2,6	2,9	09 ATEX 1053X
37	DNFXD22S0D4	1460	241	65	Δ	0,89	6,7	2,7	2,6	09 ATEX 1051X
45	DNFXD22M0D4	1460	292	78	Δ	0,89	6,5	2,7	2,6	09 ATEX 1051X

Exd(e) IIC T4 2p = 4 50Hz

Р	Туре	n	M _N	I _N (400V)		η	η	η	Connec-	cos φ	I_A/I_N	M _A /M _N	M _K /M _N	EC Type Test
	7.								tion					Certificate
						(100% -	(75% -	(50% -						
kW		1/min	Nm	Α		load)	load)	load)						
0,75	DNFXD08L0H4	1445	5	1,71	IE2	81,0%			Υ	0,78	6,8	3,2	4,2	09 ATEX 1051X
1,1	DNFXD09L1H4	1455	7,2	2,4	IE2	82,7%			Υ	0,8	6,8	2,4	3,1	09 ATEX 1051X
1,5	DNFXD09L2H4	1450	9,9	3,2	IE2	84,0%			Υ	0,81	6,9	2,5	3,2	09 ATEX 1051X
2,2	DNFXD10L1H4	1450	14,5	4,4	IE2	85,5%			Υ	0,84	7,3	2,9	3,3	09 ATEX 1051X
3	DNFXD10L2H4	1450	18,8	6	IE2	86,6%			Υ	0,84	7,4	3,1	3,6	09 ATEX 1051X
4	DNFXD11M0H4	1460	26,2	7,9	IE2	87,6%			Υ	0,83	7,2	3	3,4	09 ATEX 1051X
5,5	DNFXD13S0H4	1460	36	10,5	IE2	88,6%			Υ	0,85	7,1	3,2	3,5	09 ATEX 1051X
7,5	DNFXD13M0H4	1460	49	14,1	IE2	89,5%			Υ	0,86	7,4	3,1	3,3	09 ATEX 1051X
11	DNFXD16M0H4	1470	71	20,5	IE2	90,6%			Δ	0,85	7,1	2,8	3,1	09 ATEX 1051X
15	DNFXD16L0H4	1470	97	28,5	IE2	91,3%			Δ	0,83	7,4	3	3,3	09 ATEX 1051X
18,5	DNFXD18M0H4	1470	120	35	IE2	91,9%			Δ	0,83	7,4	3,3	3,4	09 ATEX 1052X
22	DNFXD18L0H4	1470	143	41,5	IE2	92,3%			Δ	0,83	7,3	3,3	3,3	09 ATEX 1052X
30	DNFXD20L0H4	1470	195	55	IE2	92,9%			Δ	0,85	7,6	3,1	3,3	09 ATEX 1053X
37	DNFXD22S0H4	1475	240	67	IE2	93,3%			Δ	0,85	7,1	3	2,9	09 ATEX 1051X
45	DNFXD22M0H4	1475	291	81	IE2	93,6%			Δ	0,86	7,2	3,1	3	09 ATEX 1051X

Exd(e) IIC T4 2p = 4 50Hz

Р	Type	n	M _N	I _N (400V)		η	η	η	Connec-	cos φ	I_A/I_N	M _A /M _N	M _K /M _N	EC Type Test
									tion					Certificate
						(100% -	(75% -	(50% -						
kW		1/min	Nm	Α		load)	load)	load)						
0,75	DNFXD08L0P4	1445	5	1,68	IE3	82,6%			Υ	0,78	6,8	3,2	4,2	09 ATEX 1051X
1,1	DNFXD09L1P4	1455	7,2	2,3	IE3	84,2%			Υ	0,8	6,8	2,4	3,1	09 ATEX 1051X
1,5	DNFXD09L2P4	1450	9,9	3,1	IE3	85,5%			Υ	0,81	6,9	2,5	3,2	09 ATEX 1051X
2,2	DNFXD10L1P4	1450	14,5	4,3	IE3	87,1%			Υ	0,84	7,3	2,9	3,3	09 ATEX 1051X
3	DNFXD10L2P4	1450	18,8	5,9	IE3	87,8%			Υ	0,84	7,4	3,1	3,6	09 ATEX 1051X
4	DNFXD11M0P4	1460	26,2	7,8	IE3	88,7%			Υ	0,83	7,2	3	3,4	09 ATEX 1051X
5,5	DNFXD13S0P4	1460	36	10,4	IE3	89,6%			Υ	0,85	7,1	3,2	3,5	09 ATEX 1051X
7,5	DNFXD13M0P4	1460	49	13,9	IE3	90,5%			Υ	0,86	7,4	3,1	3,3	09 ATEX 1051X
11	DNFXD16M0P4	1470	71	20,5	IE3	91,5%			Δ	0,85	7,1	2,8	3,1	09 ATEX 1051X
15	DNFXD16L0P4	1470	97	28,5	IE3	92,1%			Δ	0,83	7,4	3,1	3,4	09 ATEX 1051X
18,5	DNFXD18M0P4	1470	120	34,5	IE3	92,7%			Δ	0,83	7,4	3,3	3,4	09 ATEX 1052X
22	DNFXD18L0P4	1470	143	41	IE3	93,2%			Δ	0,83	7,4	3,3	3,3	09 ATEX 1052X
30	DNFXD20L0P4	1470	195	54	IE3	93,8%			Δ	0,85	7,6	3,1	3,3	09 ATEX 1053X
37	DNFXD22S0P4	1475	240	67	IE3	93,9%			Δ	0,85	7,1	3	2,9	09 ATEX 1051X
45	DNFXD22M0P4	1475	291	80	IE3	94,3%			Δ	0,86	7,2	3,1	3	09 ATEX 1051X

Ex d(e) IIC T4 2p=4/2 50 Hz pole changing (4/2-pole)

P	Туре	n	M _N	I _N (400 V)	Connec-	cos φ	I_A/I_N	M _A /M _N	M _K /M _N	EC Type Test
					tion					Certificate
kW		rpm	Nm	Α						
0,50 / 0,65	DNFXD08K0D42	1400/2800	3,4 / 2,2	1,43 / 1,66	Δ/ΥΥ	0,75/0,89	3,9/4,2	2,0/2,2	2,6/3,0	09 ATEX 1051X
0,70 / 0,85	DNFXD08L0D42	1400/2800	4,8 / 2,8	1,92 / 2,1	Δ/ΥΥ	0,75/0,87	4,0/4,8	2,1/2,4	2,7/3,2	09 ATEX 1051X
1,10 / 1,40	DNFXD09L1D42	1400/2800	7,5 / 4,7	2,7 / 3,1	Δ/ΥΥ	0,84/0,92	4,2/4,9	1,8/1,9	2,2/3,0	09 ATEX 1051X
1,50 / 1,90	DNFXD09L2D42	1400/2800	10,2 / 6,4	3,5 / 4,1	Δ/ΥΥ	0,83/0,92	4,7/5,4	2,0/2,2	2,3/3,0	09 ATEX 1051X
2,6 / 3,2	DNFXD10L0D42	1400/2800	17,6 / 10,6	5,9 / 6,5	Δ/ΥΥ	0,82/0,91	4,8/5,8	2,0/2,1	2,7/3,0	09 ATEX 1051X
3,7 / 4,4	DNFXD11M0D42	1420/2840	24,7 / 14,5	7,6 / 8,9	Δ/ΥΥ	0,85/0,91	6,0/6,7	2,2/2,5	3,0/3,3	09 ATEX 1051X
5,0 / 6,0	DNFXD13S0D42	1420/2840	33 / 19,6	10,4 / 12	Δ/ΥΥ	0,84/0,91	5,0/6,4	2,1/2,5	2,9/2,9	09 ATEX 1051X
7,0 / 9,0	DNFXD13M0D42	1420/2840	46 / 29,5	14,2 / 17,3	Δ/ΥΥ	0,85/0,92	5,8/6,8	2,6/2,5	2,8/3,0	09 ATEX 1051X
9,5 / 11,0	DNFXD16M0D42	1460/2920	62 / 35,5	18,7 / 19,8	Δ/ΥΥ	0,84/0,92	6,0/6,8	2,5/2,7	2,8/3,1	09 ATEX 1051X
13,0 / 16,0	DNFXD16L0D42	1460/2920	85 / 52	25 / 28,5	Δ/ΥΥ	0,84/0,92	6,0/6,8	2,3/2,6	2,8/3,2	09 ATEX 1051X
16,5 / 20	DNFXD18M0D42	1460/2920	108 / 65	32 / 36,5	Δ/ΥΥ	0,83/0,90	6,5/6,9	2,8/2,8	2,7/3,0	09 ATEX 1052X
19,0 / 25	DNFXD18L0D42	1460/2920	124 / 81	36,5 / 45,5	Δ/ΥΥ	0,83/0,90	6,5/6,8	3,1/3,1	2,9/3,2	09 ATEX 1052X
26/31	DNFXD20L0D42	1460/2920	169 / 100	47 / 53	Δ/ΥΥ	0,87/0,93	6,6/7,1	2,8/2,7	3,0/3,5	09 ATEX 1053X

Ex d(e) IIC T4 2p=8/4 50 Hz polumschaltbar (8/4-polig)

Р	Туре	n	M _N	I _N (400 V)	Connec-	cos φ	I_A/I_N	M_A/M_N	M_K/M_N	EC Type Test
					tion					Certificate
kW		rpm	Nm	Α						
0,40 / 0,60	DNFXD09L1D84	700/1400	5,7 / 4,0	1,48 / 1,40	Δ/ΥΥ	0,69/0,88	2,7/4,4	1,5/2,0	2,0/2,5	09 ATEX 1051X
0,55 / 0,80	DNFXD09L2D84	700/1400	7,7 / 5,4	2,0 / 1,87	Δ/ΥΥ	0,68/0,87	3,3/4,2	1,7/2,0	2,2/2,6	09 ATEX 1051X
0,90 / 1,30	DNFXD10L1D84	700/1400	12,5 / 8,9	3,0 / 3,1	Δ/ΥΥ	0,71/0,90	3,1/4,2	1,6/2,1	1,6/2,2	09 ATEX 1051X
1,00 / 1,60	DNFXD10L2D84	700/1400	13,6 / 10,9	3,1 / 3,5	Δ/ΥΥ	0,71/0,91	3,5/4,5	1,7/1,7	2,2/2,4	09 ATEX 1051X
1,50 / 2,5	DNFXD11M0D84	710/1420	20,2 / 16,8	4,1 / 5,0	Δ/ΥΥ	0,73/0,90	4,4/5,4	1,8/1,9	2,2/2,3	09 ATEX 1051X
2,3 / 3,6	DNFXD13S0D84	710/1420	30,7 / 24	6,8 / 7,3	Δ/ΥΥ	0,66/0,89	4,2/5,3	1,7/1,8	2,6/2,5	09 ATEX 1051X
3,0 / 5,0	DNFXD13M0D84	710/1420	40 / 33	8,1 / 9,5	Δ/ΥΥ	0,67/0,90	4,6/5,8	1,9/1,9	2,7/2,6	09 ATEX 1051X
1,7 / 5,5	DNFXD16M1D84	730/1460	62 / 36	11,5 / 12,1	Δ/ΥΥ	0,73/0,86	4,7/5,7	1,7/2,1	2,5/3,0	09 ATEX 1051X
5,5 / 7,5	DNFXD16M2D84	730/1460	73 / 49,5	12,1 / 14,8	Δ/ΥΥ	0,79/0,90	4,6/6,1	1,7/2,0	2,2/2,8	09 ATEX 1051X
7,0 / 11,0	DNFXD16L0D84	730/1460	93 / 72	16,3 / 22	Δ/ΥΥ	0,74/0,89	5,5/6,6	2,0/2,0	2,7/3,0	09 ATEX 1051X
11,0 / 18,0	DNFXD18L0D84	730/1460	145 / 117	25 / 32	Δ/ΥΥ	0,74/0,92	6,0/6,9	2,2/2,1	2,8/3,2	09 ATEX 1052X
17,0 / 27	DNFXD20L0D84	730/1460	222 / 175	39,5 / 47	Δ/ΥΥ	0,70/0,91	6,4/7,1	2,2/2,2	3,5/3,8	09 ATEX 1053X
22 / 32	DNFXD22S0D84	730/1460	286 / 207	47,5 / 56	Δ/ΥΥ	0,75/0,91	6,4/7,2	2,3/2,1	3,3/3,5	09 ATEX 1051X
26 / 38	DNFXD22M0D84	730/1460	340 / 246	53 / 65	Δ/ΥΥ	0,78/0,93	6,5/7,2	2,4/2,5	3,4/3,6	09 ATEX 1051X

I 4

Motors

Explosion protection

EEx d(e) IIC T4 2p=4 VF 5... 70 Hz U_{50Hz} = 400V 99 ATEX 1105

Р	S	Туре	Connec-	M_{5Hz}	M _{10Hz}	M _{20Hz}	M _{30Hz}	M _{50Hz}	M _{60Hz}	M _{70Hz}
			tion							
kW				Nm	Nm	Nm	Nm	Nm	Nm	Nm
0,25	S1	DNFXD07K0D4	Υ	1,04	1,30	1,56	1,71	1,745	1,45	1,20
0,37	S1	DNFXD07L0D4	Υ	1,53	1,92	2,3	2,5	2,5	2,1	1,8
0,55	S1	DNFXD08K0D4	Υ	2,2	2,8	3,4	3,8	3,8	3,2	2,8
0,75	S1	DNFXD08L0D4	Υ	3,0	3,8	4,5	5,0	5,1	4,3	3,7
1,10	S1	DNFXD09L1D4	Υ	4,5	5,6	6,7	7,4	7,5	6,3	5,4
1,50	S1	DNFXD09L2D4	Υ	6,1	7,6	9,1	10	10,2	8,5	7,3
2,2	S1	DNFXD10L1D4	Υ	8,8	11,1	13,3	14,6	14,8	12,3	10,6
3,0	S1	DNFXD10L2D4	Υ	12,1	15,1	18,1	19,9	20	16,9	14,5
4,0	S1	DNFXD11M0D4	Υ	15,9	19,9	23,5	26	26,5	22,2	19,0
5,5	S1	DNFXD13S0D4	Υ	21,5	27	32,5	36	36,5	30,4	26,0
7,5	S1	DNFXD13M0D4	Υ	30	37,5	45	49	50	41	36
11,0	S1	DNFXD16M0D4	Υ	43	54	64	71	72	60	51
15,0	S1	DNFXD16L0D4	Υ	58	73	88	96	98	82	70
18,5	S1	DNFXD18M0D4	Υ	72	90	108	119	121	101	86
22	S1	DNFXD18L0D4	Υ	86	108	129	142	144	120	103
30	S1	DNFXD20L0D4	Υ	117	147	176	193	196	164	140
37	S1	DNFXD22S0D4	Υ	144	180	201	235	240	201	172
45	S1	DNFXD22M0D4	Υ	175	215	240	285	290	244	209

Technical data for motors in explosion protection "dust explosion proof"

Motor range DXN Power selection: See tables "Technical data of the 50 Hz motors" for the base

types D04 ... D18

Technical data for motors in explosion protection "non sparking"

Motor range DXC for Zone 21 ; max. surface temperature < 160 $^{\circ}\text{C}$ Power selection: See tables "Technical data of the 50 Hz motors" for the base types D05 ... D18

Motor range DXS for Zone 22 ; max. surface temperature < 160 $^{\circ}C$ Power selection: See tables "Technical data of the 50 Hz motors" for the base types D05 ... D18

Technical data for motors in explosion protection "gas and dust explosion proof" On request

Catalogue geared motors

Edition 03/2012



Motor-mounted components

587-612

Brake **Encoder system** Incremental encoder Absolute encoder Modular motor system

Brake

Functional description

The compression springs act on the anchor disc, which is free to move in the axial direction and presses the brake disc, which is keyed to the rotor shaft, against the friction plate or the motor bearing plate. This produces the braking torque.

When a DC voltage is applied to the coil in the electromagnet housing, it generates a magnetic force that opposes the spring force and causes the anchor disc to be pulled toward the electromagnet enclosure. This releases the brake disc and disengages the brake.

Brakes are classified into two types according to how they are used: holding brakes and service brakes.

Holding brake ES.. / ZS..

brake that in normal operation does not convert kinetic energy into frictional energy but is only used to hold a mechanism in a particular position, but which can also be used for motion braking in an emergency.

Service brake ESX.. / ZSX..

A brake that converts kinetic energy into frictional energy in normal operation, which means that it brakes mechanical motion. When a service brake is used as a holding brake, the braking torque tolerance of up to -30% (in new condition) must be taken into account.

Product description of type ES(X) spring-actuated brakes

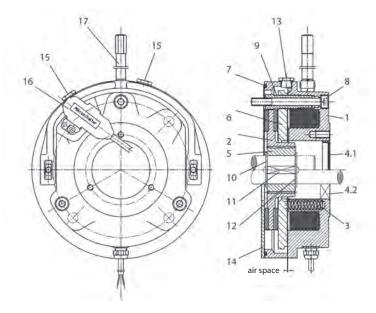


Figure 1: Construction of ES(X) brake

Brake mounting

ES and ESX: Brake mounting is under the fan cover EH and EHX: Brake mounting is on the fan cover

Options

- Manual release, non-locking or locking
- Microswitch for monitoring operation or wear

Construction

Electromagnet housing 2 Brake disc 3 Compression spring 4.1 Cover plate with closed brake Shaft seal with through shaft 4.2 5 Drive bush Anchor disc 6 O-ring 7 8 Fitting screw with copper washer 9 Hollow screw 10 Retaining ring 11 Key 12 Retaining ring Screw plug for checking air gap 13 Friction plate (only with motor size Dxx08 or Dxx09) 14 15 Screw plug for checking microswitch setting Microswitch (optional) 16 17 Manual release (optional)

Product description of type ZS(X) spring-actuated brakes

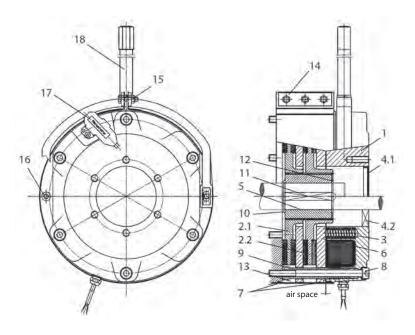


Figure 2: ZS(X) brake construction

589

Brake

Options

- Manual release, non-locking or locking
- Microswitch for monitoring operation or wear

Construction

- 1 Electromagnet housing
 2 Brake disc 2.1 and 2.2
 3 Compression spring
 4.1 Cover plate
 4.2 Shaft seal with through shaft
- 5 Drive bush6 Anchor disc7 O-ring
- 8 Fitting screw with copper washer9 Hollow screw
- 10 Retaining ring
 11 Key
- 12 Retaining ring
- 13 Cover14 Fitting screws
- BracketAssembly screw/assembly aidMicroswitch (optional)
- 18 Manual release (optional)

Brake selection and sizing

If the service brake is undersized, it will have increased wear and a shorter lifetime. If it is oversized, the resulting mechanical forces may overload the drive.

If specific application data is not available, in the case of horizontally driven equipment we recommend selecting a braking torque with a safety factor (K) of 1 to 1.5 times the rated torque of the motor.

For braking to standstill, the selected braking torque should be at least 80% of the rated torque of the drive.

Rated torque:

$$M_{\text{Berf}} = \, \frac{P \times 9550}{n_2} \times K$$

M_{Berf} Braking torque [Nm]
P Motor power [kW]
n Rated speed at rotor shaft [rpm]

For lifting operation, a braking torque equal to twice the rated motor torque should always be chosen for safety reasons.

If the moment of inertia, speed and allowable deceleration time of the machine are known, the braking torque can be calculated as described below.

External moments of inertia

If the masses to be decelerated by the brake do not run at the same speed as the rotor shaft, the moment of inertia (J_{ext}) must be reduced to the value at the rotor shaft

$$\boldsymbol{J}_{\text{ext'}} = \frac{\boldsymbol{J}_{\text{ext1}} \times \boldsymbol{n_1}^2 + \boldsymbol{J}_{\text{ext2}} \times \boldsymbol{n_2}^2 + ... + \boldsymbol{J}_{\text{extn}} \times \boldsymbol{n_n}^2}{\boldsymbol{i}^2}$$

or the external moment of inertia reduced by the gear ratio of the gear unit to the value at the rotor shaft.

15

Brake

$$J_{ext'} = \frac{J_{ext}}{i^2}$$

Total external moment of inertia [kgm²] Total external moment of inertia referenced $J_{\text{ext}'}$

to the rotor shaft [kgm²]

Individual external moments of inertia [kgm²] $J_{\text{ext1,2,...}}$

i Gear reduction ratio n Rotor shaft speed

Speeds of the individual moments of inertia [rpm] n_{1,2}...

Load torque under static load

$$M_{l} = F x r$$

 M_{L} Load torque [Nm]

Force [N] radius [m]

Braking torque with dynamic load

A purely dynamic load is present when flywheels, rolls, etc. must be decelerated and the static load torque is negligible.

$$\mathsf{M}_{a} \; = \; \frac{\mathsf{J}_{ges} \times \mathsf{n}_{a}}{9,55 \times (t_{a} \text{-} t_{a})} \;\; = \;\; \frac{(\mathsf{J}_{ext'} + \mathsf{J}_{rot} + \mathsf{J}_{Br'}) \times \mathsf{n}_{a}}{9,55 \times (t_{a} \text{-} t_{a})}$$

Moment of inertia of the brake [kgm²] J_{br}

Moment of inertia of the rotor shaft and rotor [kgm²] J_{rot}

 M_{a} Deceleration torque [Nm]

Initial speed at start of deceleration [rpm]

Total deceleration time (from switch-off until drive is stationary) [s] $\boldsymbol{t}_{\text{a}}$ The response time of the brake for braking corresponds to tac or toc tΑ

in the specification tables [s]

Dynamic and static loads

In most application situations, both static and dynamic loads are present.

$$M_{Berf} = (M_a \pm M_L) \times K$$

where
$$M_{Berf} \leq M_{Br}$$

$$M_{Berf} \leq M$$

must hold true.

 M_L

braking (positive) or driving (negative) load torque [Nm]

Heat generated by each brake cycle

Friction converts the kinetic energy of the moving masses into heat.

$$W = \frac{J_{ges} \times n^2}{182,5} = \frac{(J_{ext} + J_{rot} + J_{Br}) \times n_a^2}{182,5} \quad \text{where} \quad W \leq W_{max} \quad \text{must hold true.}$$

W Braking energy for each brake cycle [J]

 M_{max} Maximum permissible frictional energy per brake cycle

(see brake tables)

591

Brake

Thermally allowable braking energy of service brakes

With a uniform sequence of brake cycles, which means a certain average number of brake cycles per hour, the temperature rises until an equilibrium between heat input and heat dissipation is reached. The temperature rise must be sized to avoid overheating the coil and the friction layer, taking the ambient temperature into account.

Braking to standstill:

$$W_z = W \times Z \leq W_{th}$$

W_{th} Maximum allowable braking energy per hour

Wz Braking energy with Z brake cyclesZ Number of brake cycles per hour

Lifting operation

In lowering operation, the drive motor acts as a generator and its braking effect results in a steady downward motion (constant speed). If we ignore transmission losses, under full load the drive must brake the load with the rated motor torque. If a mechanical brake with a braking torque equal to the braking torque of the motor is applied after the drive is switched off, the downward motion will continue at the same speed. This means that additional braking torque is necessary to stop the motion of the load. For example, if the brake is dimensioned for 200% braking torque, approximately 100% is used for "static" deceleration and the rest is used for "dynamic" deceleration.

If part of the braking torque is required for braking the load during lowering (downward motion), the brake engagement time is greater, and the thermal load is therefore greater.

In this case

$$W_{H} = \frac{M_{Br}}{M_{Br} - M_{L}} \times W_{Z}$$

W_H Friction energy per hour in lifting operation

M_{Br} Braking torque of the brake

Brake lifetime

The energy absorbed during braking causes the brake disc to wear, which increases the air gap. If the air gap increases beyond a certain maximum gap size, the magnetic field is so weak that the pulling force of the electromagnet is no longer sufficient to release the brake. A proper air gap must be restored by adjusting the air gap or by replacing the brake disc, depending on the type of brake construction.

The maximum number of brake cycles until service is necessary can be calculated as follows:

$$Z_L = \frac{W_L}{W}$$

Z_L Number of brake cycles until the air gap limit is reached

WL Maximum allowable braking energy until maintenance; i.e. replacing the brake disc or adjusting the air gap. Adjustment of the air gap is possible only with type ZXSxx brakes.

Deceleration time

The pure braking time from the start of mechanical braking to standstill depends on the braking deceleration.

Especially with lifting operation, but also in other types of operation, it is necessary to check whether the load torque reinforces the braking effect or counters the braking effect.

The deceleration time is therefore calculated as follows:

$$t_{a} = \frac{J_{ges} \times n_{a}}{9,55 \times (M_{Br} \pm M_{L})}$$

15

Electrical connection

General

There are two basic options for providing the supply voltage for the DC electromagnet:

- 1. Externally from an existing DC control voltage mains or a rectifier in the cabinet.
- 2. From a rectifier built into the motor or brake terminal box. In this case, the rectifier can be powered either directly from the motor terminal board or from the mains. Note that in the following cases the rectifier is not allowed to be connected to the terminal board of the motor:
 - Pole-changing motors and motors with wide operating voltage range
 - Operation from a frequency converter
 - Other configurations in which the motor voltage is not constant, such as operation with soft-start devices, start-up transformers, etc.

Release

When the rated voltage is applied to the electromagnet coil, the current through the coils increases exponentially and with it the generated magnetic field. The current must rise to a certain value (Irelease) before it overcomes the spring force and starts to release the brake.

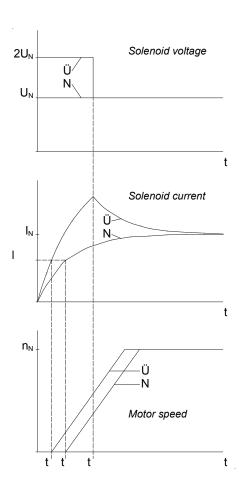


Figure 3: Idealised curves of coil voltage, coil current and motor speed with normal excitation (N) and overexcitation (Ü). to: overexcitation time; tan, tao: Response time with normal excitation and overexcitation.

Brake

Two different situations can arise during the response time tA, assuming that the voltage is applied to the motor and the brake simultaneously:

- The motor is locked if $M_A < M_L + M_{Br}$ The motor draws its locked-rotor current, which increases the thermal load on the motor.
- This situation is illustrated in Figure 3.
- The brake slips if $M_A > M_L + M_{Br}$ In this case, the brake is also thermally stressed during start-up and wears faster.

Ma: locked rotor torque of the motor; ML: load torque; MBr: braking torque

As can be seen, there is an additional load on the motor and brake in both cases. The effect of the response time increases with increasing brake size. Consequently, it is advisable to reduce the response time, especially with medium-sized and large brakes and with a high cycle rate. This can be achieved relatively easily by means of electrical overexcitation. With this approach, the coil is briefly operated at twice its rated voltage after switch-on.

This causes the current to rise faster than with normal excitation, and it reduces the response time by approximately 50%. This overexcitation function is built into the type MSG special rectifier.

The release current increases with increasing air gap, and with it the response time. When the release current exceeds the rated coil current, the brake will not be released with normal excitation and the brake has reached its wear limit.

Braking

The brake does not start generating braking torque immediately after the coil voltage is switched off. First the magnetic energy must decline to the point that the spring force can overcome the magnetic force. This occurs at the holding current Ihold, which is lower than the release current.

The response time depends on how the voltage is switched off.

Switching off the AC supply voltage to a type SG standard rectifier

a) Rectifier powered from the motor terminal board (Figure 4, curve 1) Response time tai: very long

Cause: Due to the residual magnetism of the motor, after the motor voltage is switched off a slowly decaying voltage is induced, and it continues to supply power to the rectifier and thereby to the brake. In addition, the magnetic energy of the brake coil is dissipated relatively slowly in the freewheel circuit of the rectifier.

b) Rectifier powered separately (Figure 4, curve 2) Response time $t_{\rm A2}$: long

Cause: After the rectifier voltage is switched off, the magnetic energy of the brake coil is dissipated relatively slowly in the freewheel circuit of the rectifier.

If the supply voltage is interrupted on the AC side, no significant switch-off voltage occurs on the electromagnet coil.

15

15

Interrupting the DC circuit of the electromagnet coil (Figure 4, curve 3)

a) By a mechanical switch

- with separate power supply from a DC control voltage mains or

- at the DC switch contacts (A2 and A3) of the type SG standard rectifier Response time $t_{\rm A3}$: very short

Cause: The magnetic energy of the brake coil is dissipated very quickly by

arcing across the switch contacts.

b) Electronic

Using a type ESG or MSG special rectifier Response time t_{A3}: short

Cause: The magnetic energy of the brake coil is dissipated quickly by a varistor integrated in the rectifier.

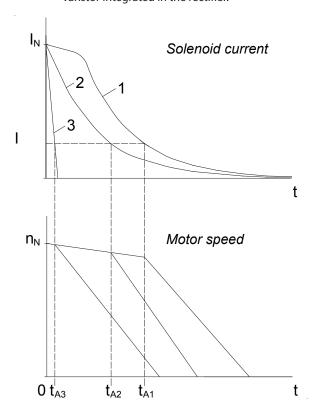


Figure 4: Idealised coil current and motor speed curves after switching off power on the AC side (1 and 2) or DC side (3)

If the circuit is interrupted on the DC side, a high voltage $u_{\scriptscriptstyle q}$ is induce by the electromagnet coil. The magnitude of this voltage depends on the inductance L of the coil and the switch-off speed di/dt according to the formula

$$u_q = L \cdot \frac{di}{dt}$$

Due to the winding design, the inductance L increases with increasing rated coil voltage. Consequently, the voltage spikes induced at switch-off can reach hazardous levels with relatively high coil voltages. For this reason, a varistor is included in the circuit for all brakes with voltages greater than 24 V.

This varistor is solely intended to protect the electromagnet coil; it is not intended to protect adjacent electronic components or devices against electromagnetic interference. On request, brakes with rated voltages of 24 V or less can also be fitted with a varistor. If the circuit is interrupted on the DC side by a mechanical switch, the resulting arcing over the switch contacts causes strong erosion of the contacts. For this reason, only special DC contactors or adapted AC contactors with contacts rated for use class AC3 as specified in EN 60947-4-1 may be used.

Brake

Specifications of holding brakes with emergency stop capability

The maximum allowable friction energy values stated here do not apply to brake motors for use in areas with potentially explosive atmospheres.

Refer to separate data in appropriate documents for explosion-proof drives.

Туре	M _{Br}	W _{max}	W _{th}	W,	t _A	t _{AC}	t _{DC}	P_{el}	J
.,,,,	[Nm]	[10 ³ J]	[10 ³ J]	[10 ⁶ J]	[ms]	[ms]	[ms]	[W]	[10-3 kgm ²]
E003B9	3	1,5	-	-	35	150	15	[]	[10 5 kgm]
E003B7	2,2	1,8	_	-	28	210	20	20	0,01
E003B4	1,5	2,1	_	_	21	275	30	20	0,01
E004B9	5	2,5	_	_	37	125	15		
E004B8	4	3	_	_	30	160	18		
E004B6	2,8	3,6	-	_	23	230	26	30	0,017
E004B4	2	4,1	_	_	18	290	37	30	0,017
E004B2	1,4	4,8	_	_	15	340	47		
ES010AX	15*	3	_	_	110	-	30		
ES010A9	10	3	_	-	60	100	15		
ES010A8	8	3	_	_	55	150	20		
ES010A5	5	3	_	_	45	220	20	35	0,045
ES010A4	4	3	_	_	30	250	20		
ES010A2	2,5	3	_	_	25	350	25		
ES027AX	32*	2,5	_	_	80	-	30		
ES/EH027A9	27	2,5	_	_	120	100	15		
ES/EH027A7	20	2,5	_	_	100	130	20	50	0,172
ES/EH027A6	16	2,5	_	-	80	170	25		
ES/EH040A9	40	3,5	_	-	100	100	20		
ES/EH040A8	34	3,5	_	-	80	200	25	65	0,45
ES/EH040A7	27	3,5	_	-	70	250	30		0,13
ES070AX	90*	3,5	_	-	120	-	40		
ES070A9	70	3,5	_	-	120	150	18		
ES070A8	63	3,5	_	_	120	200	20	85	0,86
ES070A7	50	3,5	_	-	90	220	25		
ES/EH125A9	125	4,5	_	_	170	220	25		
ES/EH125A8	105	4,5	_	_	150	320	28		
ES/EH125A7	85	4,5	_	-	135	350	30		
ES/EH125A6	70	4,5	_	_	120	440	35	105	1,22
ES125A5	57	4,5	_	-	100	600	40		
ES125A3	42	4,5	_	_	90	700	45		
ES/EH200A9	200	8	_	_	400	150	22		
ES/EH200A8	150	8	_	_	280	250	35	105	2,85
ES/EH200A7	140	8	-	-	200	320	35	1	_,
ES250AX	350*	9	_	-	180	-	70		
ES250A9	250	9	_	_	300	500	45		
ES250A8	200	9	_	_	200	960	60		
ES250A6	150	9	_	_	160	1100	60	135	6,65
ES250A5	125	9	_	_	150	1500	90		
ES250A4	105	9	_	_	130	1800	110		
ZS300A9	300	8	_	_	280	220	35		
ZS300A8	250	8	-	-	210	380	45	75	5,7
EH400A9	400	10	_	-	300	600	60		
EH400A7	300	10	_	-	200	850	75	180	19,5
EH400A5	200	10	_	_	150	1400	85		, .
ZS500A9	500	9	_	_	320	320	50		
ZS500A8	400	9	_	_	260	600	60	100	13,3
23300A0)	_	_	200	1 000	00		

^{*} Requires overexcitation; permissible only with MSG rectifier

Braking torque tolerance: -10 / +30%

 W_{th} and WL are not specified because little or no braking energy is dissipated by holding brakes when they are used as intended.

For versions with braking torque marked with *, which may only be used with an MSG rectifier, the values of t_A and t_{DC} apply to operation with an MSG rectifier; i.e. t_A for overexcitation or t_{DC} for electronic circuit interruption on the DC side.

Due to the effects of operating temperature and manufacturing tolerances, actual response times may differ from the guideline values listed here.

Brake

Specifications of service brakes

The maximum braking energy values stated here do not apply to brake motors for use in areas with potentially explosive atmospheres.

Refer to separate data in appropriate documents for explosion-proof drives.

Туре	M _{Br} [Nm]	W _{max} [10 ³ J]	W _{th} [10 ³ J]	V		t _A [ms]	t _{AC} [ms]	t _{DC} [ms]	P _{el} [W]	J [10-³
	[INIII]	נוט אן	ניט אַ	[10		[III3]	[III3]	[IIII3]	[WV]	-
				without HL	with HL					kgm²]
E003B9	3	1,5	36	55	55	35	150	15		
E003B7	2,2	1,8	36	90	90	28	210	20	20	0,01
E003B4	1,5	2,1	36	140	140	21	275	30		-,
E004B9	5	2,5	60	50	50	37	125	15		
E004B8	4	3	60	100	100	30	160	18		
E004B6	2,8	3,6	60	180	180	23	230	26	30	0,017
E004B4	2	4,1	60	235	235	18	290	37		, , , , ,
E004B2	1,4	4,8	60	310	310	15	340	47		
ESX010AX	15*	3	250	120	120	110	-	30		
ESX010A9	10	3	250	120	120	60	100	15		
ESX010A8	8	3	250	150	150	55	150	20		
ESX010A5	5	3	250	240	240	45	220	20	35	0,045
ESX010A4	4	3	250	300	240	30	250	20		
ESX010A2	2,5	3	250	390	240	25	350	25		
ESX027AX	27*	10	350	150	150	80	-	30		
ESX/EHX027A9	22	10	350	150	150	120	100	15		
ESX/EHX027A7	16	10	350	300	300	100	130	20	50	0,172
ESX/EHX027A6	13	10	350	350	350	80	170	25		
ESX/EHX040A9	32	20	450	420	420	100	100	20		
ESX/EHX040A8	27	20	450	560	490	80	200	25	65	0,45
ESX/EHX040A7	22	20	450	700	490	70	250	30		0,13
ESX070AX	72*	28	550	700	700	120	-	40		
ESX070A9	58	28	550	500	500	120	150	18		
ESX070A8	50	28	550	800	700	120	200	20	85	0,86
ESX070A7	40	28	550	1200	700	90	220	25		
ESX/EHX125AX	100*	40	700	1900	1900	100	-	70		
ESX/EHX125A9	85	40	700	1700	1700	150	320	28		
ESX/EHX125A8	70	40	700	1900	1700	135	350	30		
ESX/EHX125A7	58	40	700	2700	1700	120	440	35	105	1,22
ESX125A5	45	40	700	3300	1700	100	600	40		
ESX125A3	34	40	700	3300	1700	90	700	45		
ESX/EHX200AX	160*	60	850	2000	2000	105	-	70		
ESX/EHX200A9	120	60	850	1700	1700	280	250	35	105	2,85
ESX/EHX200A8	110	60	850	2600	2600	200	320	35		,
ESX250AX	280*	84	1000	2300	2300	180	-	70		
ESX250A9	200	84	1000	2800	2800	300	500	45		
ESX250A8	160	84	1000	6800	5700	200	960	60		
ESX250A6	120	84	1000	8500	5700	160	1100	60	135	6,65
ESX250A5	100	84	1000	11000	5700	150	1500	90		
ESX250A4	85	84	1000	11000	5700	130	1800	110		
ZSX300A9	250	60	850	1300	1300	280	220	35		
ZSX300A8	200	60	850	2000	2000	210	380	45	75	5,7
EHX400A9	320	120	1100	3000	3000	300	600	60		
EHX400A7	240	120	1100	4800	4800	200	850	75	180	19,5
EHX400A5	160	120	1100	6000	4800	150	1400	85	.00	1,5
ZSX500A9	400	84	1000	2800	2800	320	320	50		
ZSX500A8	320	84	1000	4000	4000	260	600	60	100	13,3

^{*} Requires overexcitation; permissible only with MSG rectifier

Braking torque tolerance:

E003 / E004: -10 / +30%

ESXxx / ZSXxx: -20 / +30% after run-in; up to -30% in new condition.

For versions with braking torque marked with *, which may only be used with an MSG rectifier, the values of ta and toc apply for operation with an MSG rectifier; i.e. ta for overexcitation or toc for electronic circuit interruption on the DC side.

The values for W_L are guidelines; actual values may vary significantly depending on the application situation. Periodic inspection of the air gap or brake disc thickness is recommended.

Actual response times may differ from the times listed here due to the effects of operating temperature, brake disc wear and manufacturing tolerances.

Brake

Key to symbols

 M_{Br} Rated braking torque Maximum allowable friction energy for an emergency stop with a holding brake W_{max} W_{max} Maximum allowable friction energy for each brake cycle with service brakes $W_{\text{th}} \\$ Maximum allowable braking energy per hour W_{L} Maximum allowable braking energy until maintenance; i.e. brake disc replacement or air gap adjustment. Air gap adjustment is possible only with type ZSXxx brakes. H_{L} Manual release Response time for release with normal excitation. t_{A} Overexcitation with a type MSG special rectifier reduces the response time by approximately 50%. Response time for brakes with AC-side switch-off, i.e. by \mathbf{t}_{AC} switching off the supply voltage to a separately powered standard rectifier. If the supply voltage for the rectifier is taken from the motor terminals, considerably longer response times should be expected (depending on the motor size and winding design). t_{DC} Response time for braking with DC-side circuit interruption by a mechanical switch. In the case of electronic circuit interruption on the DC side by a type ESG or MSG special rectifier, the response times will be approximately two to three times as long. P_{el} Electromagnet coil power consumption at 20 °C. Depending on the rated voltage of the coil, the actual power may differ from the guideline value stated here. Moment of inertia of the drive bush and brake disc(s)

15

Connection

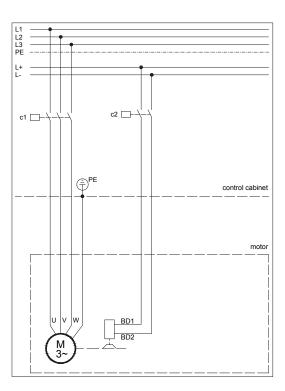
The electrical connections to the brake are made in the motor terminal box using terminals or the rectifier. Standard voltages:

 $380-420\,V\,50/60\,Hz$ (brake coil voltage $180\,V\,DC)$ $220-230\,V\,50/60\,Hz$ (brake coil voltage $105\,V\,DC)$ $24\,V\,DC$ (brake coil voltage $24\,V\,DC)$

Other voltages are available at additional cost.

DC connection via terminals (K)

The brake must be connected via separate terminals in the motor or brake terminal box directly to the DC voltage. The standard voltages are 180 V DC, 105 V DC and 24 V DC. Brakes with other operating voltages are available at additional cost.



Brake

Standard rectifier (S)

Working principle Half-wave rectifier with switch contacts for

DC-side circuit interruption

Input voltage U1 max. 575 VAC +5%
Output voltage 0.45 x U1 VDC
Max. output current 2.5 A DC
Ambient temperature -40 to +40 °C

Connection Caged Clamp terminals with clamp lever Clampable conductor cross-section max. 1.5 mm² without wire end sleeve

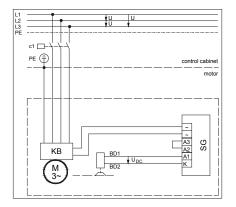
max. 1.5 mm² with wire end sleeve

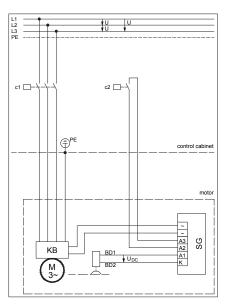
Approvals c-CSA-us

c-UL-us (only in combination with B2000 geared motors

and brakes in the ES(X) or ZS(X) product series

The brake must be connected to the AC supply via the standard rectifier in the motor terminal box or brake terminal box. The standard voltages are 380 ... 420 V 50/60 Hz or 220 ... 230 V 50/60 Hz. Other voltages up to 575 V are available at extra cost. In a configuration with standard rectifier, the brake circuit can be interrupted by an extra contact on the d.c. side in order to reduce the response time. This significantly reduces the braking time and overtravel distance.





Voltage connection for the rectifier from the motor terminal block or cage clamp (see Rectifier Connection on Motor Terminal Block or Cage Clamp)

15

Brake

Rectifier for electronic rapid shutdown (E)

Working principle Half-wave rectifier with electronic

DC-side circuit interruption 220–460 V AC ±5%, 50/60 Hz

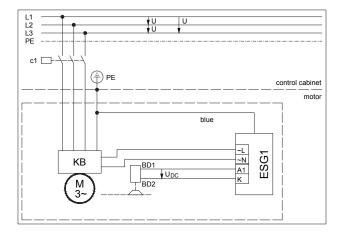
Output voltage 0.45 x U1 V DC

Max. output current 1 A DC

Input voltage U1

Ambient temperature $-20 \,^{\circ}\text{C}$ to $+40 \,^{\circ}\text{C}$ Clampable conductor cross-section max. 1.5 mm²

This rectifier permits electronic DC-side interruption of the brake circuit. No additional cable to the rectifier is necessary. The rectifier is supplied complete with a protective resistor which prevents a mains short- circuit via the shutdown arc of the high-speed motor contactor. Brake response times are significantly shorter than those achievable by AC-side interruption of the brake circuit. They are, however, longer than those achievable with DC-side interruption by a mechanical switch. The brake must be connected to the alternating current via the rapid shutdown rectifier in the motor terminal box or the brake terminal box. The standard voltages are 380 ... 420 V 50/60 Hz or 220 ... 230 V 50/60 Hz. Other voltages up to 460 V are available at extra cost.



Voltage connection for the rectifier from the motor terminal block or cage clamp (see Rectifier Connection on Motor Terminal Block or Cage Clamp)

Brake

Standard rectifier (M) Working principle MSG 1.5.480I

Half-wave rectifier with time-limited overexcitation

and electronic DC-side circuit interruption

Fast shutdown due to no motor current in one phase

Input voltage U1 220–480 V AC +6 / -10%, 50/60 Hz
Output voltage 0.9 x U1 V DC during overexcitation

0.45 x U1 V DC over overexcitation period

Overexcitation time 0.3 s Max. output current 1.5 A DC Ambient temperature $-20 \,^{\circ}\text{C}$ to $+40 \,^{\circ}\text{C}$

Clampable

conductor cross-section max. 1.5 mm²

Working principle MSG 1.5.500U

Half-wave rectifier with time-limed overexcitation and

electronic DC-side circuit interruption

Fast shutdown due to the absence of input voltage

Input voltage U1 220–500 V AC ±10%, 50/60 Hz
Output voltage 0.9 x U1 V DC during overexcitation

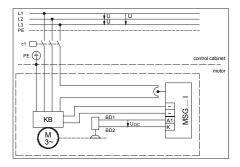
 $0.45\,x\,U1\,V$ DC over overexcitation period

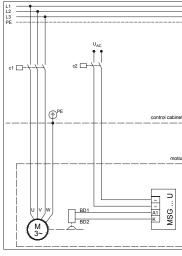
Overexcitation time 0.3 s Max. output current 1.5 A DC Ambient temperature $-20 \, ^{\circ}\text{C}$ to $+40 \, ^{\circ}\text{C}$

Clampable

conductor cross-section max. 1.5 mm²

In cases where there are high motor switching frequencies, the brake can be de-energised more rapidly with this rectifier thereby significantly reducing the thermal stress on the motor. In addition, interrupting the brake's DC circuit by electronic means significantly reduces response times. Depending on the circumstances in which they are to be used, either the MSG 1.5.500 U (rapid shutdown brought about by removed supply voltage) or MSG 1.5.480 I (rapid shutdown brought about by removed motor current in a phase) is used. Power supply 220 to 480 V AC.

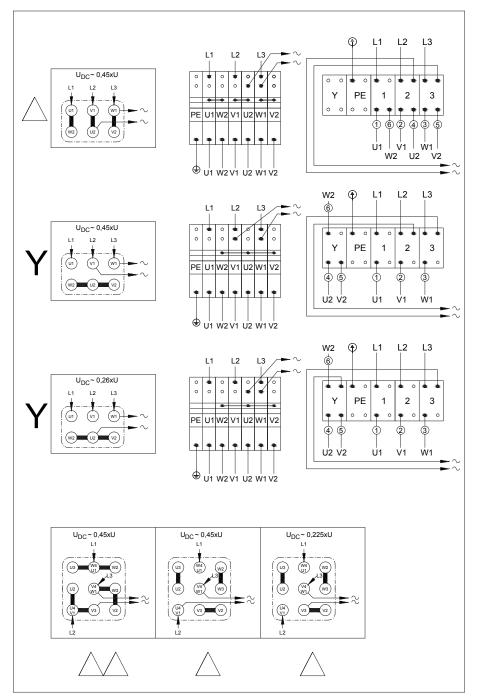




15

Brake

Rectifier Connection on Motor Terminal Block or Cage Clamp



15

Brake

Brake connection, operation with frequency converter

The voltage present at the motor terminal block when operating with a frequency converter is frequency-dependent. Brakes require a constant voltage, so they need a seperate electrical connection. This is the reason why the brake is not connected to the motor terminals ex- works.

Brake connection, pole-changing motors

The brakes of pole-changing motors need a seperate electrical connection. As is the case with motors for operation with frequency inverters, the brake is not connected to the motor terminals ex-works.

Manual release (HA, HN)

All brakes are available with mechanical manual release on request. Non-latching manual release is the standard version (HN). A latching manual release (HA) can be supplied if required for all brake sizes.

Degree of protection

All BAUER brakes comply with degree of protection IP 65.

Special corrosion protection

If high requirements for corrosion resistance apply, the brakes are available with two levels of enhanced corrosion protection:

CORO1 (C1): Finished with two-component paint to protect against chemically

aggressive gases and vapours.

CORO2 (C2): Same finish as CORO1. The screws for the terminal-box cover are

non-rusting steel. The mechanical internals of the brake are made of

corrosion-proofed material.

CE mark

BAUER geared motors with externally mounted spring-loaded brakes bear the CE mark.

The brakes comply with:

the Machinery Directive (2006/42/EG)
 Manufacturer's declaration available on request

the Low-Voltage Directive (2006/95/EG)
 Documented by the CE mark

the EMC Directive (2004/108/EG)
 Documented by the CE mark

See BAUER special print SD33.. for more information.

Explosion protection

Brakes for use in hazardous areas are subject to special regulations. Please consult our support specialists in these special cases.

Back stop (RR, RL)

Motors of size D..09 (1,1kW) up to D..18 (30kW) are available with backstop. The locking rotational direction clockwise (RR) or anticlockwise (RL) is to given in the order. The reference is the connection side of the gearbox. Should the connection side not be clearly defined, gearbox side "V" (front) will be assumed (see chapter 17 Dimensions drawing "Motor with back stop").

Note that the back-stop functionality on a motor operating with a frequency converter is guaranteed only at rotor speeds above 670/min.

It is advisable to consult BAUER for applications in corrosive atmospheres, especially for motor-down installed positions.

15

Brake

Second motor shaft extension (ZW, ZV)

The motors are also available on request with a second motor shaft extension in design ZW (shaft with key) or ZV (shaft with square end).

Half the central motor's rated power is available at each of the two shafts. Permissible radial loads available on request. Guards are not included in the scope of supply (for dimensional drawing see chapter 17).

Motors with brakes are available on request with a second shaft stub extended through the brake.

Protective fan cowl (D)

A protective hood over the fan cowl is recommended for outdoor installations where the motor is pointing upward and subject to severe or prolonged exposure to water (dimensional drawing, see chapter 17).

This protective hood is mandatory for upright explosion-proof motors.

A special fan cowl for the textiles industry is available on request at extra cost. This design prevents airborne fibres and fluff clogging the fan cowl.

Motor-independent fan (FV)

For special applications, standard motors and brake motors of size D08 and larger are available with externally mounted motor-independent fans. The standard line voltage of the motor-independent fan matches the voltage of the geared motor (dimensional drawing for motor-independent fan, see chapter 17).

The independent fans are supplied as standard with Bayonet-fitting for standard motors sizes D..16 and D..18 and brake motors sizes D..11 to D..18. Standard enclosure IP66.

Technical Data:

Multivolt Conception Running capacitor for single phase duty enclosed as standard.

Mode	Frame size	Blower diameter	Range o	f voltage	max. permissible	max. power input
		()	5011-	6011-	current	14/
		(mm)	50 Hz	60 Hz	(A)	W
1 ~ ⊥ (Δ)	63	118	230-277	230-277	0,12	32
	71	132	230-277	230-277	0,12	33
	80	150	230-277	230-277	0,14	37
	90	169	230-277	230-277	0,29	65
	100	187	230-277	230-277	0,30	75
	112	210	230-277	230-277	0,37	94
	132	250	230-277	230-277	0,60	149
	160-200	300	230-277		0,96	236
3 ~ Y	63	118	380-500	380-575	0,06	28
	71	132	380-500	380-575	0,06	29
	80	156	380-500	380-575	0,06	34
	90	169	380-500	380-575	0,19	75
	100	187	380-500	380-575	0,17	94
	112	210	380-500	380-575	0,17	99
	132	250	380-500	380-575	0,25	148
	160-200	300	380-500	380-575	0,54	360
3 ~ ∆	63	118	220-290	220-332	0,10	28
	71	132	220-290	220-332	0,10	28
	80	156	220-290	220-332	0,10	34
	90	169	220-290	220-332	0,33	78
	100	187	220-290	220-332	0,31	87
	112	210	220-290	220-332	0,31	103
	132	250	220-290	220-332	0,45	146
	160-200	300	220-290	220-332	0,91	360

Encoder System

Shaft encoder (G)

Bauer gear motors can be fitted with either an incremental encoder or an absolute encoder for special applications. Both the standard incremental encoder and the absolute encoder are optimised and suitable for use with all modern inverters.

Bauer standard encoders as from motor frame size D05 (0,18kW) are protected against mechanical damage by means of a protective cover (Additional Dimension Sheet see chapter 17).

Special features: standard incremental encoder:

- Robust mount
- Degree of protection IP66
- EMC-tested
- Protected against polarity reversal
- Supply voltage 8-30 V DC
- A-, B- and N-lines and inverted signals or output signals as preferred
- HTL output circuit (TTL on request)
- 1024 pulses per revolution

Special features: standard absolute encoder

- Enclosure: IP66
- Steps per revolution: 8192 (13 Bit)
- Number of turns: 4096 (12 Bit) shaft turns
- Execution of electronic: SSI (Synchronous-Serial Interface)
- Output code: Gray-Code
- Supply voltage: 11-27 VDC
- Loss efficiency (no load): ≤ 3 Watt
- Output driver: RS-422 (2-wire)

15

Incremental rotary encoder

Functional description



Incremental encoders are used to determine motor shaft positions. An incremental encoder detects rotary motion and coverts it into an electrical output signal. An encoder disc with a specific number of periods per rotation senses angular motion. The optoelectronic scanning unit generates signals and issues pulses after the signals have been processed in trigger stages. The resolution is defined by the number of opaque and clear segments on the encoder disc. For example, an encoder with 1024 lines will generate a sequence of 1024 pulses for one full rotation.

The combination of an incremental encoder and a frequency converter allows optimised solutions to be developed, such as

- speed controllers with a wide adjustment range
- accurate speed control
- constant-speed control
- position control

Supply voltage: 10-30 V DC with HTL

5 V DC with differential TTL

Output signals: HTL A, B and N tracks; optional TTL

Pulses per revolution:

Optional 512, 2048, ..., 4096, or others on request

Enclosure rating: IP 65 (optional IP 67) -40 °C to +85 °C Temperature range:

Electrical specifications

(TTL compatible)	RS 422 (TTL compatible)	Differential	Differential (7272)
5–30 V DC	5 V ±5%	10-30 V DC	5–30 V DC
typ. 40 mA / max. 90 mA	typ. 40 mA max. 90 mA	typ. 50 mA / max. 100 mA	typ. 50 mA max. 100 mA
max. ±20 mA max. 300 kHz	max. ±20 mA max. 300 kHz	max. ±20 mA max. 300 kHz	max. ±20 mA max. 300 kHz ³
min. 2.5 V	min. 2.5 V	min. UB – 1 V	min. UB – 2.0 V
max. 0.5 V	max. 0.5 V	max. 0.5 V	max. 0.5 V
max. 200 ns	max. 200 ns	max. 1 μs	max. 1 μs
max. 200 ns	max. 200 ns	max. 1 μs	max. 1 μs
Yes ²	Yes ²	Yes	Yes
Yes	No	Yes	No
	typ. 40 mA / max. 90 mA max. ±20 mA max. 300 kHz min. 2.5 V max. 0.5 V max. 200 ns max. 200 ns Yes² Yes	typ. 40 mA / typ. 40 mA max. 90 mA max. 90 mA max. 200 mA max. 300 kHz min. 2.5 V min. 2.5 V max. 0.5 V max. 200 ns max. 200 ns max. 200 ns Yes² Yes²	typ. 40 mA / max. 90 mA typ. 40 mA / max. 90 mA typ. 50 mA / max. 100 mA max. 90 mA max. 90 mA max. 100 mA max. ±20 mA max. 300 kHz max. 300 kHz max. 300 kHz min. 2.5 V min. 2.5 V min. UB – 1 V max. 0.5 V max. 0.5 V max. 0.5 V max. 200 ns max. 1 μs max. 200 ns max. 1 μs Yes² Yes² Yes Yes No Yes

¹⁾ With applied supply voltage within specified range

(with UB = 5 V, shorting to another channel, 0 V or +UB is allowed)

(with UB = 5-30 V, shorting to another channel or 0 V is allowed)

²⁾ Only one channel may be shorted at the same time:

³⁾ Maximum cable length 30 m

Incremental rotary encoder

Plug end view with male pin insert

Connector type	8-pin M12 plug	12-pin M23 plug	MIL connector 10-pin
Layout	3 8 2 4 7 5 6		
Order code:	8.5000.XXX3.XXXX 8.5000.XXX4.XXXX	8.5000.XXX7.XXXX 8.5000.XXX8.XXXX	8.5000XXXY.XXXX
Mating 05.CMB-818 connector:	31-0	8.0000.5012.0000	8.0000.5062.0000

Signal assignments

Signal:	0 V GND	+U _B	0 V Sens	+Ub Sens	А	А	В	В	Z	Z	Shield
M23 Multifast, 12-pin connector; pin	10	12	11	2	5	6	8	1	3	4	1)
assignments: M12 Eurofast, 8-pin connector; pin assignments:	1	2			3	4	5	6	7	8	1)
Military version; 10-pin connector; pin assignments:	F	D		Е	А	G	В	Н	С	I	J ¹)
Cable; lead colour:	WH	BN	GY PK	RD BU	GN	YE	GY	PK	BU	RD	Shield

¹ Shield connected to plug housing.

Insulate unused outputs before putting into service.

15

Motor Mounted Components

Absolute rotary encoders

Functional description

Absolute encoders detect both angular and rotational motions and convert them into electrical signals. In contrast to incremental encoders, with absolute encoders the current position is directly available. If an absolute encoder is moved mechanically while it is switched off, after the power is switched on again the current position can be read out immediately and directly. Absolute encoders are available in single-turn and multi-turn versions.

Profibus DP interface



Specifications

Supply voltage 11-27 VDC No-load current consumption < 350 mA Total resolution 1 ≤ 33 bits Number of steps per revolution, standard/extended ¹ \leq 8,192 / \leq 32,768 Number of turns, standard/extended 1 ≤ 4,096 / ≤ 256,000 Profibus DP V0 IEC 61158, IEC 61784 PNO encoder profile

Class 1/Class 2 parameters 1 Counting direction switchover,

scaling function, etc. Output code 1 Binary, Gray, truncated Gray Address 3–99, set using a rotary switch Baud rate 9.6 kbit/s to 12 Mbit/s TR-specific functions 1 Gear and speed outputs

Data width on bus for actual position ≤ 25 bits Permissible mechanical speed ≤ 12,000 rpm Shaft load Own mass Bearing life \geq 3.9 x 10¹⁰ revolutions at

> - speed ≤ 6,000 rpm - operating temperature \leq 60 $^{\circ}$ C

8H7, 10H7, 12H7 Shaft diameter [mm] $\leq 10^4 \, \text{rad/s}^2$

Permissible angular acceleration Moment of inertia

2.5 x 10⁻⁶ kg m² (typical) Start-up torque at 20 °C 2 Ncm (typical) Weight 0.3-0.5 kg

1 Configurable parameter

Ambient conditions

Vibration (EN 60068-2-6:1996) \leq 100 m/s², sinusoidal 50–2,000 Hz Shock (EN 60068-2-27:1995) ≤ 1000 m/s², half-cycle sinusoidal 11 ms **EMC**

- Interference emission compliant with EN 61000-6-3:2007 - Interference immunity compliant with EN 61000-6-2:2006

0 °C to +60 °C; optionally -20 °C to +70 °C Operating temperature Storage temperature -30 °C to +80 °C, dry

Relative humidity (EN 60068-3-4:2002) 98%, non condensing

Enclosure rating (EN 60529:1991)² IP 65

2 With mating connector fitted and/or cable glands fitted and tightened

609 P-7112-BGM-EN-A4 www.bauergears.com

Motor Mounted Components

Absolute rotary encoders

SSI interface



Specifications

Supply voltage11-27 VDCNo-load current consumption< 350 mATotal resolution 1 $\leq 25 \text{ bits}$ Number of steps per revolution 1 $\leq 8,192$ Number of rotations, standard 1 $\leq 4,096$ Number of rotations, extended 1 $\leq 256,000$

SSI Synchronous Serial Interface

Clock input Optocoupler
Data output RS-422, 2-wire
Clock frequency 80 kHz – 1 MHz

Monostable time t_M 16 $\mu s \le t_M \le 25 \ \mu s$ (20 μs typical)

Output code ¹ Binary, Gray, BCD

Output format ¹ Standard, Tannenbaum, SSI + CRC, 26-bit cycle, variable number of

data bits

Negative values ¹ Sign and magnitude, twos complement

SSI or parallel special bits ¹ Limit switch, overspeed,

direction indication, motion indication,

error indication, parity Counting direction

Preset ¹ Electronic alignment

Logic levels "0" < +2 VDC; "1" = supply voltage

Permissible mechanical speed ≤ 12,000 rpm Shaft load Own mass

Bearing life $\geq 3.9 \times 10^{10}$ revolutions at

- speed- operating temperatureShaft diameter [mm]≤ 60 °C8H7, 10H7, 12H7

Permissible angular acceleration $\leq 10^4 \,\text{rad/s}^2$

Moment of inertia 2.5 x 10⁻⁶ kg m² (typical) Start-up torque at 20 °C 2 Ncm (typical)

Weight Optional

F/R¹

- incremental signals, RS422 levels K1+, K1-, K2+, K2- with 1024 or 2048

pulses

0.3-0.5 kg

Ambient conditions

Vibration (EN 60068-2-6:1996) \leq 100 m/s², sinusoidal 50–2,000 Hz Shock (EN 60068-2-27:1995) \leq 1000 m/s², half-cycle sinusoidal 11 ms

EMC

- Interference emission compliant with EN 61000-6-3:2007 - Interference immunity compliant with EN 61000-6-2:2006

Operating temperature 0 °C to +60 °C; optionally -20 °C to +70 °C

Storage temperature -30 °C to +80 °C, dry Relative humidity (EN 60068-3-4:2002) 98%, non condensing

Enclosure rating (EN 60529:1991)² IP 65

In addition to the angular position within a rotation, multiturn encoders detect multiple rotations. An internal reduction gear mechanism connected to the motor shaft is used to detect the number of turns. Consequently, the value measured by a multiturn encoder consists of the current angular position and the number of turns. As with incremental encoders, the reading is calculated and output via various interface modules, depending on the interface.

On request, a large range of motor frames can be fitted with sensor bearings. The output signal from the sensor allows the direction of rotation to be determined, among other things. The number of possible pulse counts depends on the frame size. Please enquire for more information.

15

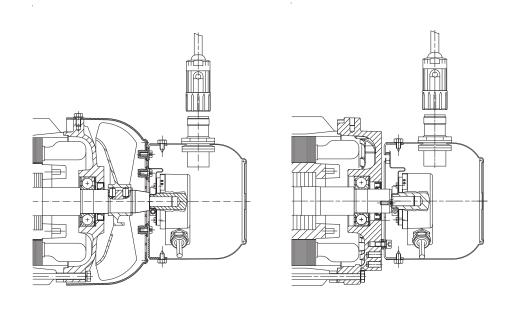
¹⁾ Configurable parameter

²⁾ With mating connector fitted and/or cable glands fitted and tightened

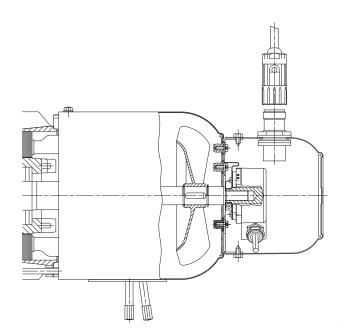
Motor Mounted Components

Modulares Motorsystem

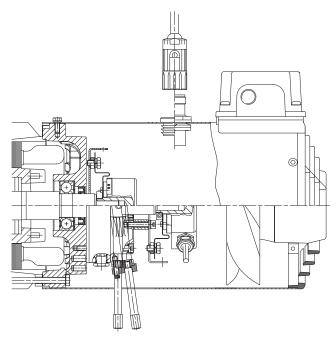
Motor and encoder



Motor, brake and encoder



Motor and forced ventilation



15

Catalogue geared motors

612 www.bauergears.com

Catalogue geared motors

Edition 03/2012

Page

Additional dimensional drawings for motor-mounted components

613-632

Dimensional drawing, standard terminal box

Dimensional drawing, plug-connector terminal box

Dimensional drawings, standard brakes without terminal box

Dimensional drawings for brakes with terminal box

Dimensional drawing, motor with back stop

Dimensional drawing, motor with second shaft end

Dimensional drawing, motor with protective hood

Dimensional drawing, motor with independent fan

Dimensional drawing, motor with brake and independent fan

Dimensional drawing, motor with encoder

Dimensional drawing, motor with brake and encoder

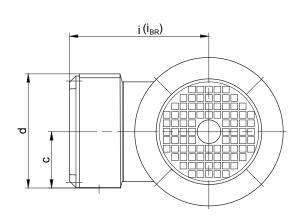
Dimensional drawing, motor in IEC design

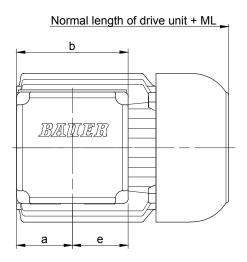
www.bauergears.com P-7112-BGM-EN-A4

Motor-mounted components

Dimensions drawing

Standard terminal box

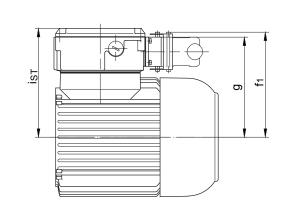




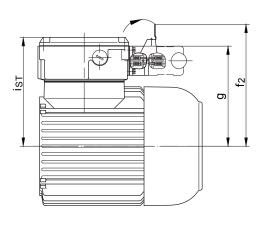
Motor/ Motor with			ons (mm)			Code	Cable entry Major (M) Monir (N)	max. wrench size for cable entry gland
	а	b	С	d	е	i / i _{BR}			
D04	42.5	88	44	88	44	90	KAG1	M=2xM20x1.5	24 mm
D05	50	100	50	100	50	100	KAG2	M=2xM25x1.5	29 mm
D06	50	100	50	100	50	100	KAG2	M=2xM25x1.5	29 mm
D07	50	100	50	100	50	100	KAG2	M=2xM25x1.5	29 mm
D08	50	100	50	100	50	115	KAG2	M=2xM25x1.5	29 mm
D09	50	100	50	100	50	124	KAG2	M=2xM25x1.5	29 mm
D11	62	132	66.5	135	66	181	TB222	M=2xM32x1.5; N=2xM25x	1.5 -
D13	78	156	78.5	158	78	217	TB322	M=2xM40x1.5; N=2xM25x	1.5 -
D16	74	156	78.5	158	78	243	TB322	M=2xM40x1.5; N=2xM25x	1.5 -
D18	94	200	100.5	201	100	288	TB422	M=2xM50x1.5; N=2xM25x	1.5 -

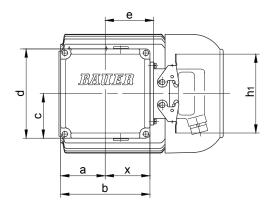
Plug-connector terminal box

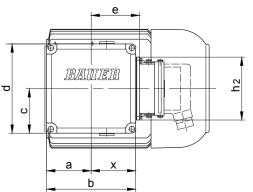
Standard design (two brackets)





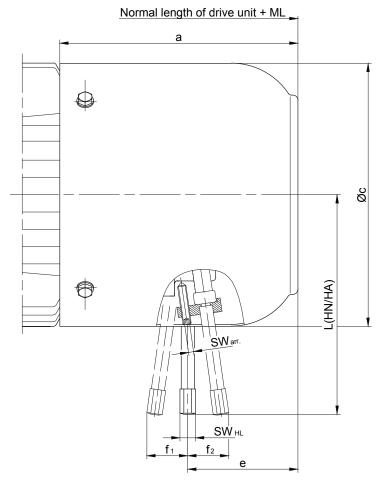






Motor	Size of Terminalbox	а	b	С	d	е	f ₁	f ₂	g	h ₁	h ₂	i _{ST}	х
D04	TBS1	30	90	52.5	106	49	118.5	147	111	117	93	124.5	46
D05	TBS1	57	90	52.5	106	49	123.5	152	116	117	93	129.5	46
D06	TBS1	45	90	52.5	106	49	125.5	154	118	117	93	131.5	46
D07	TBS1	45	90	52.5	106	49	125.5	154	118	117	93	131.5	46
D08	TBS1	45	90	52.5	106	49	143.5	172	136	117	93	149.5	46
D09	TBS2	62	132	66	135	71.5	158.5	187	158	117	93	164	68.5
D11	TBS2	62	132	66	135	71.5	175.5	191	166	117	93	181	68.5
D13	TBS3	78	156	78	158	83.5	199	227.5	191.5	117	93	216	79.5
D16	TBS3	74	156	78	158	83.5	225	253.5	225	117	93	242	79.5
D18	TBS4	94	200	100	201	105.5	257	299	257	117	93	287	100.5

Standard brakes

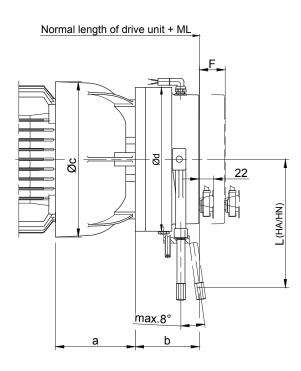


Motor Type	Brake Type	ML(mm) Additional length with brake	Dimer		Add. weight						
			а	Øc	е	f ₁	f ₂	L(HN/HA)	SW _{HL}	SW _{arr.}	kg
D04		43.5	97	110.5	58.5						
D05	E003				60	20.5	24	96/102	11	11	1.0
D06		42	102	123	58.5	20.5	24	90/102	11	''	1.0
D07	E003 / E004										
D08	ES(X)010	66	141	156	68	-	29	132	8	2.5	2.6
D09	ES(X)010	93	173	176	99	-	29	132	8	2.5	2.7
D09	ES(X)027	30	173	170	91	-	35.5	162	0	2.0	4.2
	ES(X)027				103	-	35.5	162	8	2.5	4.5
D11	ES(X)040	98	195	218	100	-	37	172	0	2.5	6.3
	ES(X)070				96	-	34.5	190	12	4	8.5
	ES(X)040				125	-	41	202			6.5
D13	ES(X)070	111	225	258	121	-	38	225	12	4	8.5
	ES(X)125				116	-	45	223			12.5
	ES(X)125				148	-	48.5	244			13.5
D16	ES(X)200	144	280	310	141	-	50	256	12	4	19
	ZS(X)300				112	-		230			22
D18	ES(X)250	149	304	348	153	-	58.5	286	12	4	28
D 10	ZS(X)500	1 1 3	304	340	123	-	30.3	200	19	5	30

HN = Manual release non-locking

HA = Manual release locking

"Heavy-Duty"- brake

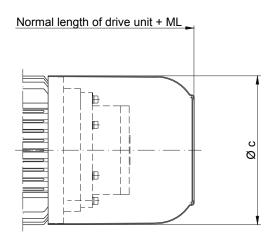


Motor	Brake	ML(mm) A		C	imensio	ons (mm	1)		Add. weight
		Standard	Micro s.	а	b	C	Ød	L (HA/HN)	kg
D08	EH(X)027	79	101	83.5	66.5	166	145	162	5.5
D09	EH(X)040	90	112	102	73	191	168	172	8.3
D11	EH(X)125	114	136	120	95	231	213	208.5	19.5
D13	EH(X)200	128	150	140	106	274.5	245	221	29.3
D16	FH(X)400	141	163	155	104	326	224	242	55.8
D18	EH(X)400	152	174	183	124	366	324	313	61

Motor-mounted components

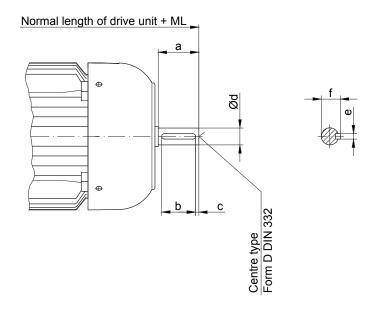
Dimensions drawing

Motor with back stop



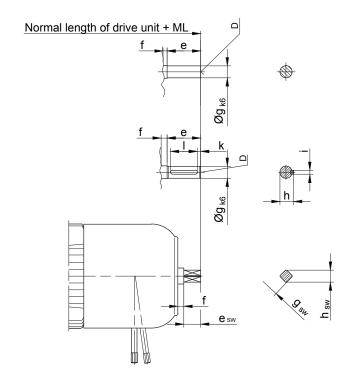
Motor	ML (mm) Add. length with backstop	Dimensions (mm)	Add. weight
		С	kg
D08	66	156	6.5
D09	93	181	6.5
D11	98	228	8
D13	111	258	13.5
D16	144	322	16
D18	149	368	17

Motor with second shaft end



Motor	ML(mm) Add. length with second shaft extension			Dimens	ions (mm)	ı	ı	Centre
III OLO	Cocona chair extension	а	b	С	d	е	f	DIN 332
D04	20	15	-	-	8 g6	-	-	-
D05	25	20	-	-	10 k6	-	-	-
D06	25	20	-	-	10 k6	-	-	-
D07	25.5	20	-	-	10 k6	-	-	-
D08	45	40	30	5	16 k6	5	18	D 5
D09	55	50	40	5	20 k6	6	22.5	D 5
D11	65	60	50	5	25 k6	8	28	D 8
D13	85	80	60	10	35 k6	10	38	D 12
D16	115	110	90	10	40 k6	12	43	D 16
D18	115	110	90	10	45 k6	14	48.5	D 16

Motors with brake and second shaft end

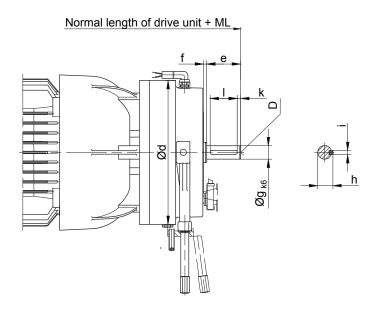


Motor	Brake	Addition	al length				Г	Dimensio	ns (mm	1)				N332	
		ML	ML _{sw}	е	e _{sw}	f	g	g _{sw}	h	h _{sw}	i	k	ı	Centre D DIN332	SW
D04				15			8								
D05	F002	60				_									
D06	E003	63	-	20	-	5	10	-	-	-	-	-	-	-	-
D07	E003 / E004														
D08		121	96 *	50	25*		18	SW14*	20.5	18*	6	5	40	D6	D4*
D09	EC(V)	98	123 *	30	25	5			20.5	10	0	5	40		
D11	ES(X)	153.5*	128	50 [*]	25	5	20*	SW14	22.5	18	6 *		40*	D6 [*]	D4
D13		176 *	156									5 *			
D16	EC/V) /7C/V)	208.5*	188.5	60 [*]	40	4.5	28*	SW22	31*	28	8 *	5	50 [*]	D10*	D10
D18	ES(X) / ZS(X)	359*	194.5			5									

^{*} Special design

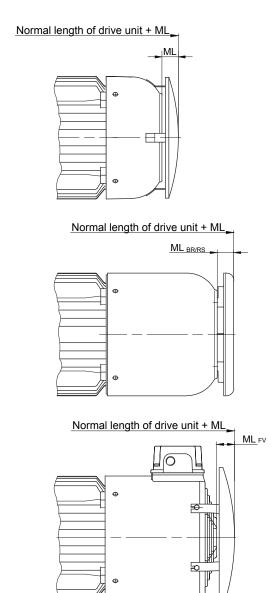
^{**} with manual release

Motor with "heavy duty" brake and second shaft end



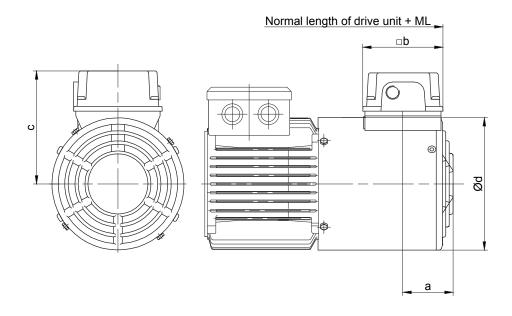
Motor	Brake	ML(mm) Additional length with brake and encoder		С)imensi	ions (mr	m)				Centring D 332	Add. weight
			Ød	е	f	g	h	i	k	k	ŏ	kg
D08	EH(X)027	132	145		4	18	20.5					6
D09	EH(X)040	144	168	50		10	20.5	6		6	D06	9
D11	EH(X)125	169	213			20	22.5		5			20
D13	EH(X)200	192	245		5	28	31		٥			29.5
D16	EU(V)400	205.5	224	60		28	31	8		8	D10	56
D18	EH(X)400	216.5	324	324 30 33								61

Motor with second shaft end



Motor	ML(atta	mm) Add. le	ength with		Add. weight
	ML	ML_{BR}	ML_{FV}	kg	
D06	18	-	-	0.15	
D07	18	-	-	-	0.15
D08	14.5	24.5	24.5	40	0.20
D09	22	24.5	24.5	30	0.30
D11	29	29.5	29.5	33	0.40
D13	30	29.5	29.5	25	0.6
D16	47	34.5	32	1.8	
D18	54	34.5	32	5.5	

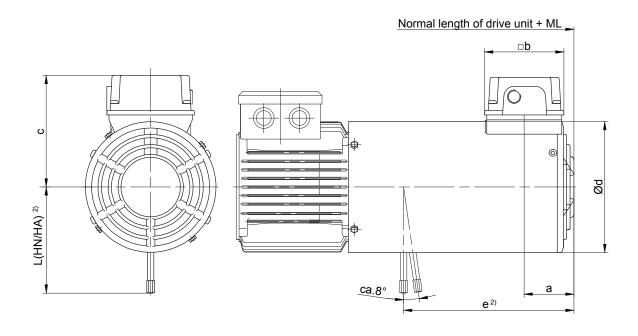
Motor with independent fan



Drive Motor	Fan Motor			400 V	ML (mm) Additional length forced vent.	Dimensions (mm)			Add. weight	
Туре	Type	kW	r/min	A		а	b	С	d	~ kg
D08	FV D08	0.019	2670	0.029	92	69.5	95	131.5	157	2.2
D09	FV D09	0.046	2820	0.106	97	69.5	95	141.5	176	2.7
D11	FV D11	0.051	2660	0.110	97	79.5	95	162.5	219	3.2
D13	FV D13	0.073	2820	0.169	119	78.8	95	182	258	4.6
D16*	FV D16	0.154	2760	0.347	144	78.8 95 208.5		208.5	311	6.4
D18*	FV D18	0.154	2760	0.347	303	78.8	95	208.5	348	8.4

 $*\ \text{bayonet joint}$

Motor with brake and independent fan



Motor	Brake	ML (mm) Additional length with attached brake and	Dime	nsions	(mm)				Add. weight
		forced ventilation	а	b	С	Ød	e ²⁾	L(HN/HA)	~kg
D08	ES(X)010	202	59	95	131.5	157	204	132	5.0
D 00	ES(X)010	214	69.5	95	1/1 5	176	220	132	5.5
D09	ES(X)027	214	09.5	95	141.5	176	212	162	7.5
	ES(X)027						226	162	8.0
D11*	ES(X)040	221	69.5	95	162.5	219	223	172	10
	ES(X)070						218	184	12
	ES(X)040						254	202	11.5
D13*	ES(X)070	237	79.5	95	182	258	250	225	13.5
	ES(X)125						245	223	17.5
	ES(X)125						298	244	19.5
D16*	ES(X)200	294	78.8	95	208.5	311	291	256	25
	ZS(X)300						262	230	27
D18*	ES(X)250	303	78.8	95	208.5	3/18	307	286	37
□10*	ZS(X)500	303	70.0	90	5 208.5 348		277	200	38.5

^{*} bayonet joint

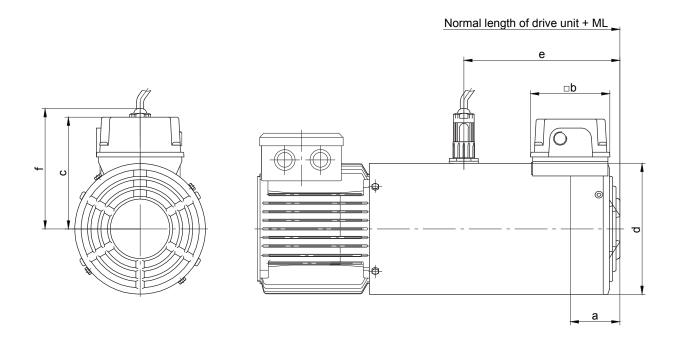
The actual gearbox design can vary from the geometry shown.

624 www.bauergears.com P-7112-BGM-EN-A4

¹⁾ The additional length is for normal motor unit without brake. Other dimensions see the appropriate normal dimensioned sketch

²⁾ Brake release on request

Motor with encoder with built-on independent fan

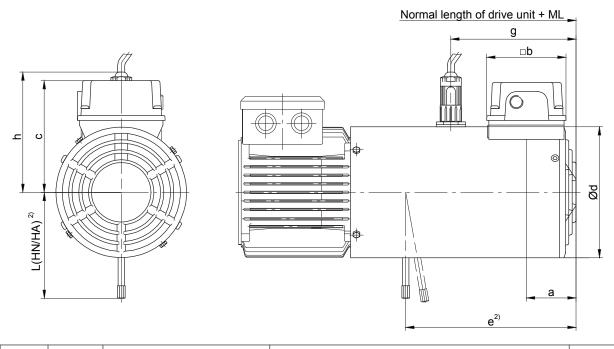


Motor	ML(mm) ¹⁾ Additional length with attached encoder and		Dime	ensions	(mm)			Add. weight
	forced ventilation	а	b	С	d	е	f	~ kg
D08	202	59	95	131.5	157	187	144	2.6
D09	214	69.5	95	141.5	176	192	153.5	3.3
D11*	221	69.5	95	162.5	218	192	-	4.0
D13*	240	79.5	95	182	258	217	-	5.7
D16*	294	78.8	95	208.5	311	252	-	7.9
D18*	303	78.8	95	208.5	348	267	-	10.9

 $^{* \ \ \}text{with bayonet joint}$

¹⁾ The additional length is for normal motor unit without brake. Other dimensions see the appropriate normal dimensioned sketch

Motor with brake and encoder with built-on independent fan



Motor	Brake	ML (mm) Additional length with attached brake, encoder				Add. weight					
		and forced ventilation	а	b	С	Ød	e ²⁾	g	h	L(HN/HA)	~ kg
D08	ES(X)010	202	59	95	131.5	157	204	150	150	132	6.0
D09	ES(X)010	214	69.5	95	141.5	176	220	160	160	132	6.5
D09	ES(X)027	214	09.5	95	141.5	170	212	160	100	162	8.5
	ES(X)027						226	155		162	9.0
D11*	ES(X)040	221	69.5	95	162.5	219	223	155	155	172	11.5
	ES(X)070						218	155		184	13.5
	ES(X)040						254	175		202	13
D13*	ES(X)070	240	79.5	95	182	258	250	175	175	225	15
	ES(X)125				102	250	245	175		223	19
	ES(X)125						298	195		244	21
D16*	ES(X)200	294	78.8	95	208.5	311	291	195	195	256	27
	ZS(X)300						262	195		200	29
D18*	ES(X)250	303	78.8	95	208.5	5 348		212	212	286	39
D 10*	ZS(X)500	303	70.0	90	200.5	340	277 212		_	200	40.5

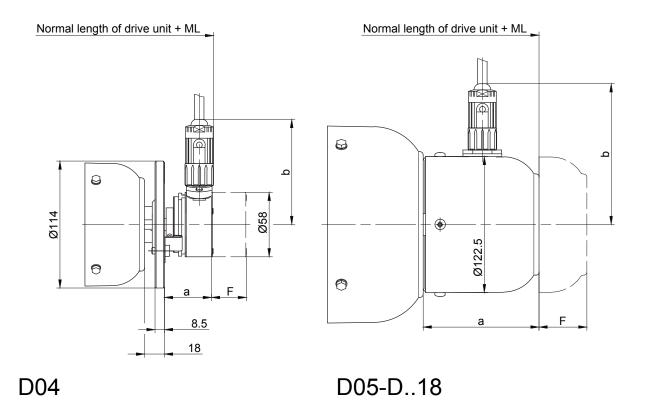
bayonet joint

¹⁾ The additional length is for normal motor unit without brake.

Other dimensions see the appropriate normal dimensioned sketch

²⁾ Brake release on request

Motor with encoder

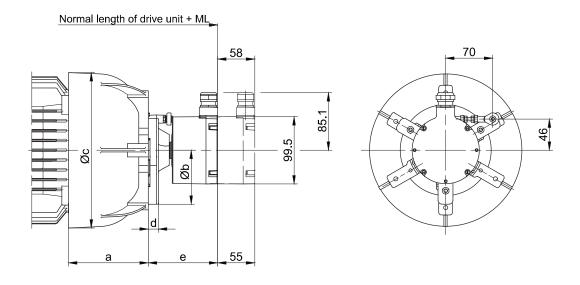


Motor	ML(mm) Additional length with encoder	Dimensions (mm)			n)	Add. weight	Free sp removing e	ace for ncoder "F"
		incremental encoder absolute encoder			encoder		incremental encoder	absolute encoder
		Fa. Kübleı		Fa. TR Ty			Fa. Kübler Typ 5820	Fa. TR Typ CS58-M
		а	b	а	b	kg		
D04	62.5	43.5	95	69.5	109.5	0.7	30	55
D05								
D06	103	98.5		98.5		0.9	63	88
D07								
D08		107.5		107.5			41	66
D09	107		127		127			
D11	107							
D13		104		104		0.8	43	68
D16	100							
D18	108							

Motor-mounted components

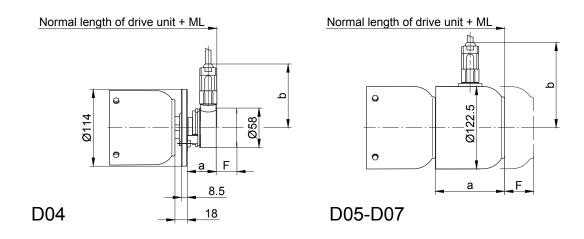
Dimensions drawing

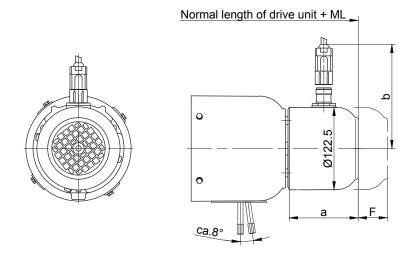
Motor with "heavy duty" encoder



Motor	ML(mm) Additional length with encoder	С)imensio	Add. weight				
		а	b	С	d	е	kg	
D08	114	83.5		166			2	
D09	118.5	102	160	191	15	102.5	2	
D11	121.5	120		231			5.4	
D13	115.5	140		274.5			8.6	
D16	113.5	155	185	326	17	94.5	9.6	
D18	122.5	183		366			11.5	

Motor with brake and encoder



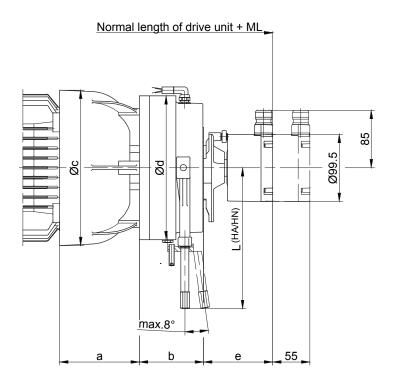


D08-	D1	8

Motor	Brake	ML(mm) Additional length with encoder	D		ons (mn	n) e encoder	Add. weight	Free space removing er	for ncoder "F"
		and brake	Fa. Kübler a	тур 5820 b	Fa. TR Ty	_{rp CS58-М}	kg	Fa. Kübler Typ 5820	Fa. TR Typ CS58-M
D04		105.5	43.5	95	69.5	109.5	0.7	30	55
D05	F002								
D06	E003	145					0.9	63	88
D07	E003 / E004								
D08	ES(X)	173.5							
D09	ES(X)	197	102	127	102	127			
D11	ES(X)	200					0.8	49	74
D13	ES(X)	212					0.0	1 9	'4
D16	ES(X) / ZS(X)	248							
D18	ES(X) / ZS(X)	253							

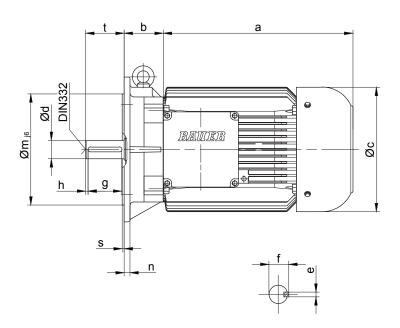
Dimensions drawing

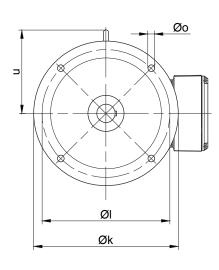
Motor with "heavy duty" brake and encoder



Motor	Brake	ML(mm) Additional length with brake and encoder		Dimension	Add. weight				
			а	b	С	Ød	е	L (HA/HN)	kg
D08	EH(X)027	180.5	83.5	66.5	166	145		162	7.1
D09	EH(X)040	191.5	102	73	191	168	102.5	172	10
D11	EH(X)125	216.5	120	95	231	213		208.5	21.4
D13	EH(X)200	259	140	106	274.5	245		221	32
D16	EH(Y)400	243	155	124	326		94.5	313	58
D18	EH(X)400	254		124		324		313	61

Motor in IEC design



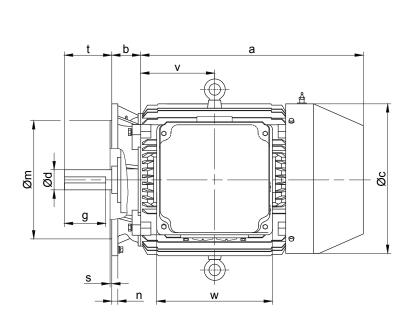


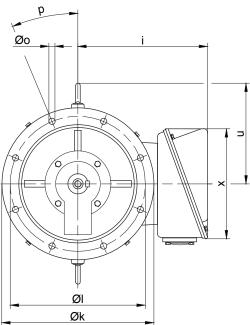
Motor		Dimensions (mm)													Centre		
	а	b	С	d	е	f	g	h	k	1	m	n	О	s	t	u	DIN 332
D06	170	45	123	11 _{j6}	4	12.5	18	2.5	140	115	95	9	10	2.75	23	-	D4
D07	190	45	123	11 _{j6}	4	12.5	18	2.5	140	115	95	9	10	2.75	23	-	D4
D08	200	49	156	19 _{j6}	6	21.5	35	2.5	200	165	130	10	12	3.5	40	-	D4
D09	251	66	176	24 _{j6}	8	27	40	5	200	165	130	10	12	3.5	50	128.5	D6
D11	319	75	218	28 _{j6}	8	31	50	5	250	215	180	11	14.5	4	60	145.5	D8
D13	393	81	266	38 _{k6}	10	41	70	5	300	265	230	12	14	4	80	173	D12
D16	429	98.5	310	42 _{k6}	12	45	90	10	350	300	250	13	18.5	5	110	215.5	D16

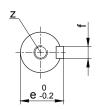
Motor-mounted components

Dimensions drawing

Motor in IEC-design







Motor		Dimensions (mm)															
	a	b	С	d	е	f	g	i	k	I	m	n	О	p	s	t	u
DNF18	551	79	355	48+0.018	14	51.5	80	293	350	300	250	16	Ø19	4x45°	5	110	240
DNF20	613	82	395	55 ^{+0.030} _{+0.011}	16	59	91	313	400	350	300	16	Ø19	4x45°	5	110	270
DNF22	659	86	442	60+0.030	18	64	122	390	450	400	350	18	Ø19	8x22.5°	5	140	300
DNF25	730	95	485	65 ^{+0.030} _{+0.011}	18	69	126	415	550	500	450	18	Ø19	8x22.5°	5	140	330
DNF28	797	98	544	75 ^{+0.030} _{+0.011}	20	79.5	124	445	550	500	450	18	Ø19	8x22.5°	5	140	380

Motor				Center bore	Weight
	v	w	x	z	kg
DNF18	194	200	221	M16x2x24	215
DNF20	203.5	200	221	M20x2.5x30	293
DNF22	218.5	342	326	M20x2.5x30	395
DNF25	247.5	342	326	M20x2.5x30	487
DNF28	276	342	326	M20x2.5x30	692

Catalogue geared motors

Edition 03/2012

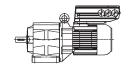


Drive solutions for decentral and central Drive 633-648 technology

P-7112-BGM-EN-A4 www.bauergears.com 633

Elektronic

Drive solutions for decentral and central Drive technology



FCD 300

All Bauer gear motors from 0,37 to 3,0kW are available with an externally mounted FCD frequency inverter. The frequency inverters in the range FCD300 are mounted directly to the motor in place of the terminal box. The inverters can alternatively be installed in the vicinity of the motor.



Features of FCD geared motors

Flexible assembly

• The FCD300 can be either mounted on the Bauer gear motor or in the vicinity

Simple cabling

- Through spring connectors and a large installation area in the installation box Cable entries 3 X M25, 2 X M20, 2 X M16
- Maximum cable cross section: Control contacts: 2,5 mm², Power contacts 4 mm², PE: 10 mm²
- The installation box can be used as T-connecter for the power and bus system connections
- Plug connections are available on request (e.g. Harting Connector)

Integrated Brake Control

- · The gear motor brake is controlled directly from the FCD
- Brakes can be supplied from the FCD

Robust Housing

- Enclosure IP66
- · Easy to clean
- Protected against aggressive environments

Advanced Bus Communication

- With Profibus DP (3 or 12 MB), AS(i) or DeviceNet
- The unit can be parameterised parallel to the standard cycle bus communication by means of the 2nd bus connection RS 485

Clearly visible status information by means of LED

- Bus
- Status
- Alarm
- Warning
- On

Integrated mains filter

• The unit contains filters for Class 1A (Industry) and mains return as standard

Technical Data for FCD 300

Power range:

0,37-3 kW (3-phase)

Voltage range:

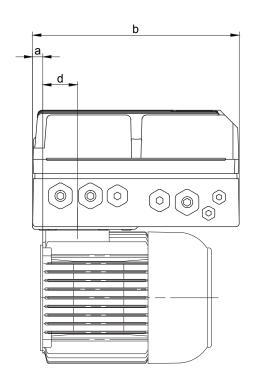
380-480 V

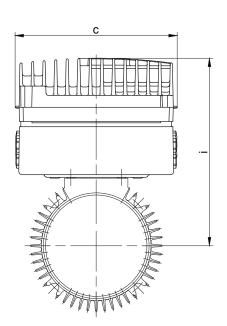
Advantages

- Adaptation to gear motors, standard motors or assembly in the vicinity of the motor
- Enclosure IP66
- High resistance against aggressive environments
- Profibus option
- integrated EMV filter (EN 55011, 1A)
- · Convection cooling, no ventilation needed
- Automatic motor adjustment
- Simple operation through separate clear text display

17

Allocation of FCD300 to motor





Motor	Туре	FCD		Dim	ensions (r		Cable entry		
			а	b	С	d	i	right	at both ends
D08	D303 D307 D315	D305 D311	13	244.5	192	40.5	222	2 x M16x1.5 2 x M20x1.5 3 x M25x1.5	4x M16x1.5 4 x M20x1.5 6 x M25x1.5
D09	D303 D307 D315	D305 D311	0	244.5	192	62	240.5	2 x M16x1.5 2 x M20x1.5 3 x M25x1.5	4 x M16x1.5 4 x M20x1.5 6 x M25x1.5
D11	D322	D330	0.5	302	258	62	266	2 x M16x1.5 2 x M20x1.5 3 x M25x1.5	4 x M16x1.5 5 x M20x1.5 6 x M25x1.5

P-7112-BGM-EN-A4 www.bauergears.com 635

17

Elektronic

Drive solutions for decentral and central Drive technology

Eta geared motors

All Bauer geared motors from 0,12 to 7,5 kW are available with an externally mounted Eta-K frequency inverter. These are mounted directly onto the motor in place of a terminal box. The installation volume required for the geared motor is not much greater than that required for standard geared motors.



Features of Eta geared motors

The combination of geared motor and converter opens up a whole range of attractive possibilities:

Reduce costs - Save space

- Planning and installation costs are down
- Less space needed for switchgear
- · Fewer drive versions, so stock holding is streamlined
- Thermal situation inside the switchgear cabinet is better
- Fewer shielded motor cables

Think system - Avoid interfaces

- Converter and motor are integrated in a single, compact unit
- Converter is optimised ex-works for motor and application
- · Retrofits available for existing drive configurations
- · Cabling is simplified

Replace standards - Boost functionality

- Substitute the convenience of remote operation for mechanical actuation
- Replacement for pole-changing motors with defined ramp functions

Design features

- · Compact, slimline geometry
- Plug-fit to motor
- · Maintenance-friendly, accessible and easily replaced
- Complete unit, requires no external control voltage

User benefits

- Preconfigured, plug and play on application-specific basis
- Slip compensation for load-independent constant speed
- PID controller for structuring process control
- · Switching frequency adjusts automatically to temperature

Technical Data for Eta-K

636

- Motor power range 0,12 to 7,5 kW
- Supply voltage 3 x 380 .. 480 V +/- 10%
- Frequency 50/60 Hz
- Speed range 1:50
- 160 % of rated motor torque over the entire frequency-converter range
- Flux braking
- Integrated Profibus interface instead of standard controller card available on request
- CE marl
- Compliant with EMC Directive for Industry and Households as per EN 61800-3 (EN 50081, EN 50082)
- Design compliant with UL requirements
- Degree of protection IP 65: motor and converter
- Integrated protection against overload, overcurrent, phase failure, overvoltage and undervoltage
- Drive is thermally monitored

17

www.bauergears.com P-7112-BGM-EN-A4

Drive solutions for decentral and central Drive technology

Classification, Eta-K to motor

Motor power	Type of motor	Type of inverter 400 V / 50 Hz	Type of inverter 400 V / 87 Hz
0,12	D06LA4	K305	K305
0,18	D06LA4	K305	K305
0,25	D06LA4	K305	K305
0,37	D08MA4	K305	K307
0,55	D08MA4	K305	K311
0,75	D08LA4	K307	K315
1,1	D09SA4	K311	K322
1,5	D09LA4	K315	K330
1,8	D09XA4	K322	K340
2,2 *	D09XA4-FV	K322	K340
2,2	D11SA4	K322	K340
3,0	D11MA4	K330	K355
4,0	D11LA4	K340	K375
5,5	D13LA4	K355	-
7,5	D16MA4	K375	-

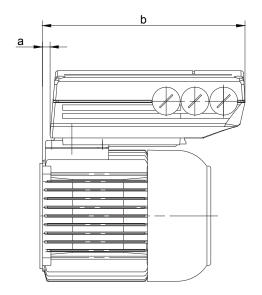
^{* =} Motor design only with Forced Cooling (FV) permissible

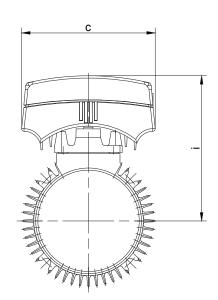
P-7112-BGM-EN-A4 www.bauergears.com 637

Elektronic

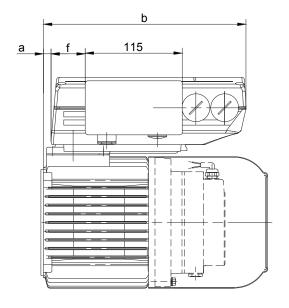
Drive solutions for decentral and central Drive technology

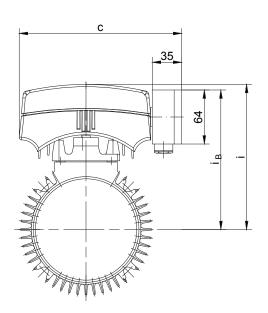
Dimensional drawing, motors with externally mounted Eta-K inverter





Motor	Туре Е	Eta-K		Dimensio	ons (mm)		Cable entry
			а	b	С	i	
D06	K305		12	218	141	148	3xM20x1.5
D 00	K305	K307	8	214	141	166	3xM20x1.5
D08	K311	K315	9	240	158	174	3xM20x1.5
	K311	K315	5	236	158	202	3xM20x1.5
D09	K322	K330	2	259	176	212	3xM20x1.5
	K340		1	289	197	228	2xM20x1.5;1xM25x1.5
	K322	K330	3	260	176	223	3xM20x1.5
D11	K340		2	290	197	245	2xM20x1.5;1xM25x1.5
	K355	K375	4	363	245	257	2xM20x1.5;1xM25x1.5
D13	K355		7	366	245	278	2xM20x1.5;1xM25x1.5
D16	K375		8	367	245	304	2xM20x1.5;1xM25x1.5





Motor	Туре Е	Eta-K			Dimensio	Cable entry			
			а	b	С	f	i	iв	
D06	K305		12	218	180.5	17	148	157	2xM20x1.5
D08	K305	K307	8	214	180.5	17	166	172	2xM20x1.5
D06	K311	K315	9	240	198	40	175	170	2xM20x1.5
	K311	K315	5	236	198	40	202	197	2xM20x1.5
D09	K322	K330	2	259	215	65	212	210	2xM20x1.5
	K340		1	289	236	82	228	218	1xM20x1.5; 1xM25x1.5
D11	K322 K330 3 260 215	215	65	223	223	1xM20x1.5			
D11	K340		2	290	236	82	245	235	1xM20x1.5; 1xM25x1.5

Elektronic

Drive solutions for decentral and central Drive technology

Accessories

Operating panel with keyboard (LCP2) for setting parameters

This IP 65 control panel has a 4-line plain-text display for easy operation and parameterisation. All parameters can be stored in the control panel for straightforward transfer to other converters. The control panel connects to the RS 485 serial interface. 2 connecting-cable sets are available:

- Connecting cable from LCP to the terminal strip of the converter
- Connecting cable for LCP with plug connector and adapter to terminal strip with plug socket for installation in PG16 hole. A kit complete with connecting cable for installing the control panel in a master panel is also available.



Local operator panel (LOP)

Setpoint potentiometer

Parameterisation software

Supply for mechanical brake

640

A LOP with connecting cable can be used for setting speed locally and for starting and stopping the drive. The LOP can be used to control the following functions via the converter's programmable inputs/outputs: Start clockwise, start counter-clockwise, stop, acknowledge, increase speed, decrease speed.

A setpoint potentiometer for installation in a cable entry gland of the converter housing is available for adjusting speed directly at the drive. Resistance 1 kohm, angle of rotation 270°, protection IP52. This potentiometer is particularly suitable as an alternative to mechanical actuating drives.



Using this software it is possible to set parameters, operate and control all frequency inverters by means of a PC. This contributes significantly to simplifying parameterisation, initial operation, diagnosis and documentation of the systems. It is possible to network up to 126 inverters. Downtimes for device replacement are cut dramatically using a configuration of this nature.

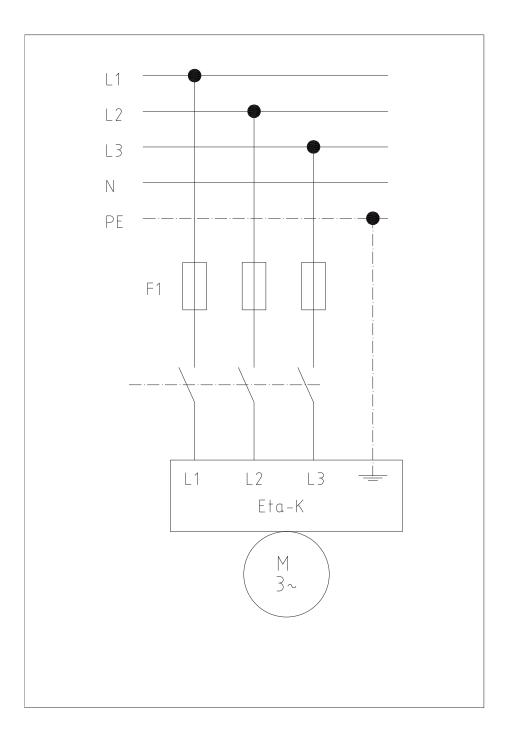
- Basic module for convenient parameterisation and testing.
- Log module with monitor functionality for commissioning complex systems; modembased communication is possible.
- Compilation module for compiling input and output forms with password protection.

A mechanical brake for the motor can be actuated directly by the frequency converter. Connection is by means of an additional terminal box on the frequency converter. Two output relays are also available for the signals "Eta-K ready" and "Brake fault".

www.bauergears.com P-7112-BGM-EN-A4

Connection diagrams

Power section



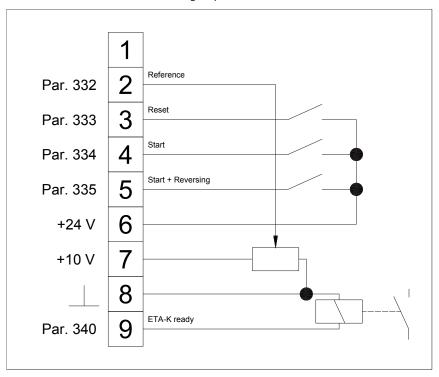
Elektronic

Drive solutions for decentral and central Drive technology

Control section

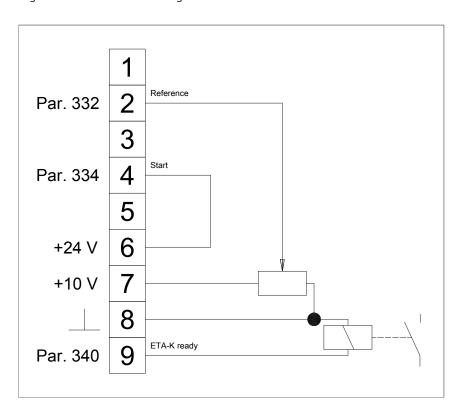
Standard

Two directions of rotation with analog setpoint



One direction of rotation with analog setpoint

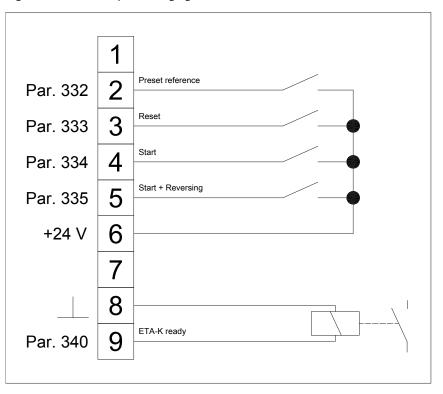
e.g. as a substitute for actuator geared motors.



17

2 speeds + 2 directions of rotation

e. g. as a substitute for pole-changing drives



P-7112-BGM-EN-A4 www.bauergears.com 643

Elektronic

Drive solutions for decentral and central Drive technology

Possible assemblies for FCD and Eta-K

BG-series

Terminal box	В3	B6	B7	B8	V5	V6			
position	H4	H1	H2	H3	H5	H6	B5	V1	V3
I	+	О	+	+	+	+	+	+	+
II	+	+	+	О	+	+	+	+	+
III	+	+	О	+	+	+	+	+	+
IV	О	+	+	+	+	+	0	+	+

⁺ posible, o not possible

BF-series

Terminal box position	H1	H2	H3	H4	V1	V2		
1	О	+	+	+	+	+		
II	+	+	О	+	+	+		
III	+	О	+	+	+	+		
IV	+	+	+	О	+	+		

⁺ posible, o not possible

BK-series

Terminal box position	H1	H2	H3	H4	V1	V2		
1	+	+	+	+	О	+		
II	+	О	+	+	+	+		
III	+	+	+	+	+	О		
IV	О	+	+	+	+	+		

⁺ posible, o not possible

BS-series

Terminal box position	H1	H2	H3	H4	V1	V2		
1	+	+	+	+	О	+		
II	+	О	+	+	+	+		
III	+	+	+	+	+	О		
IV	0	+	+	+	+	+		

⁺ posible, o not possible

17

Drive solutions for decentral and central Drive technology

VLT® Micro Drive

Microdrive for standard product applications



Technical data for VLT® Micro Drive

Power range:

0.37–7.5 kW (380–480 V, 3 phase) 0.18–2.2 kW (200–240 V, 1 phase) 0.25–3.7 kW (200–240 V, 3 phase)

Protection:

IP 20 / IP 21

Advantages

- Approx. 40% smaller than comparable drives
- Integrated EMC filter
- Protective housing
- Removable control unit with copy function
- Control unit with setpoint potentiometer (option)
- RS485 port as standard
- Extremely easy commissioning (preconfigured)

VLT® 2800 Series

General-purpose converter for small and medium power levels



Technical data for VLT® 2800 Series

Power range:

0.55–18.5 kW (380–480 V, 3 phase) 0.37–1.5 kW (200–240 V, 1 phase) 0.37–3.7 kW (200–240 V, 3 phase)

Protection:

IP 20

Advantages

- Integrated EMC filter and RFI choke
- Robust cold-plate heatsink
- Suitable for side-by-side or horizontal mounting
- Large integrated control panel
- RS 485 port as standard
- Optional Profibus DPV1 interface

17

Elektronic

Drive solutions for decentral and central Drive technology

VLT® AutomationDrive

Modular drive platform with full power spectrum



Technical data for VLT® AutomationDrive

Power range:

0.37–800 kW (380–500 V, 3 phase) 0.25–37 kW (200–240 V, 3 phase)

Protection:

IP 20 / IP 21, IP 55, IP 66

Advantages

- A single drive platform for all main and auxiliary drives
- Modular design for optimal matching to the application
- Safety features: Basic unit with STO/SIL 2
- Integrated EMC filter and RFI choke
- Plain-text control unit with online help and copy function (optional)
- RS485 and USB interfaces as standard
- Motor cable lengths up to 150 m screened without extra fittings
- Mechanical braking/lifting function
- "Smart Logic" simplifies logic tasks
- Optional fieldbus interfaces (Profibus, Profinet, Ethernet/IP, Powerlink, Interbus, Safetybus-p)

MCT 10 Software

Project-oriented PC software for all VLT® series drive systems



Description of MCT 10 software

Supported VLT series:

Eta-K

VLT® FCD 300

VLT® Micro Drive

VLT® 2800 series

VLT® 5000 series

VLT® Automation Drive

Advantages

- Easy project management overview, even with extensive system data
- A single software tool for all VLT® drives
- Online processing for commissioning
- Oscilloscope function
- Supports RS485, USB and Profibus DP-V1 interfaces
- Operational basic version free of charge

Download:

www.danfoss.de/drives (Software)

17

Drive solutions for decentral and central Drive technology

MCD soft starters

MCD 100/MCD 200 soft-start equipment for gentle handling of mechanical transfer components



Technical data for MCD100 / MCD 200 Softstarters

Power range:

MCD 100: 1.1–11 kW (200–600 V) MCD 200: 7.5–110 kW (200–575 V)

Protection:

IP 20 / IP 21

MCD 100 advantages

- Minimal space requirement
- Rail mounting
- Extremely easy to use

MCD 200 advantages

- Motor protection features
- External control unit (optional)
- Fieldbus interfaces (optional)

Additional information

Detailed information on VLT® frequency converters and MCD soft starters is available online at

www.danfoss.de/drives

We would also be pleased to send you additional engineering documentation on these products.

Catalogue geared motors

Catalogue geared motors

Edition 03/2012



Page

Address 649-658

International Organisation Bauer Gear Centre Germany Service Partner Companies Germany Service Stations Germany

International Organisation

	Bauer Gear Motor GmbH	Eberhard-Bauer-Strasse 36-60 73734 Esslingen	Postfach 10 02 08 73726 Esslingen	Phone Fax	+711 3518 0 +711 3518 381	info@bauergears.com www.bauergears.com
Argentina	Equitecnica S.A. Buenos Aires	Sanchez De Loria 1852/54 C 1241 ACI Buenos Aires		Phone Fax	+54 11 49 12 45 90 +54 11 49 12 70 28	drivers@equitecnica.com.ar
Australia	Transmission Australia Pty Ltd	22 Corporate Ave VIC 3178 Rowville	P.O. Box 2334	Phone Fax	+61 3 97 55 44 44 +61 3 97 55 44 11	Info@transaus.com.au
Austria	Bauer Gear Motor Europe GmbH	Danfoss-Strasse 8 2353 Guntramsdorf		Phone Fax	+43 22 36 50 40 +43 22 36 50 40 35	info.at@bauergears.com
Austria	BIS Chemserv GmbH	Haimingerst. 1 D-84489 Burghausen		Phone Fax	+49 867 797 75 07 +49 867 797 75 10	j.hoefelmeier@chemserv.co.at
Austria	BIS Chemserv GmbH	Bau 28 St. Peter-Str. 25 4021 Linz	Postfach 7 50 4021 Linz	Phone Fax	+43 732 69 17 22 78 +43 732 69 17 33 22	service@chemserv.at
Austria	ESKO Elektro- maschinenbau GmbH	Ankerweg 8 8753 Fohnsdord		Phone Fax	+43 3573 2 75 70 +43 3573 2 75 70 4	office@esko.at
Austria	Mangold Elektro- maschinen GmbH	Holzriedstr. 33 6960 Wolfurt		Phone Fax	+43 5574 6 70 72-0 +43 5574 6 40 72-9	info@mangoldgmbh.at
Belarus	Energopro	prospekt Nezavisimosti, 169 220114 Minsk		Phone Fax	+375 172 18 11 77	inverter@energopro.by
Belgium	Bauer Gear Motor Europe GmbH	p/a EEBIC bedrijvencentrum Joseph Wybranlaan 40 1070 Brussel (Anderlecht)		Phone Fax	+32 2 529 59 41 +32 2 529 59 44	Info.be@bauergears.com
Belgium	EMR Gent Belguim n.v. EMR s.a			Phone Fax	+32 9 2 51 59 56 +32 9 2 51 58 91	emr@nvemr.be
Brazil	MKN Acionamentos LTDA			Phone Fax	+55 11 56 21 55 74 +55 11 56 21 14 06	mkn.aciona@terra.com.br
Bulgaria	NASA - D Ltd.	kv. Mladost IV		Phone Fax	+359 2 975 50 65 +359 2 975 50 67	office@nasa-d.com
Bulgaria	NASA - D Ltd.	12, Bitolya str. 9002 Varna		Phone Fax	+359 52 60 59 95 +359 52 60 04 98	varna@nasa-d.com
Canada	Bauer MLD	4020B Sladeview Cres., Unit 5 Mississauga Ontario L5L 6B1		Phone Fax	+1 905 814 51 52 +1 905 814 51 53	
Chile	Jung y Cia LTDA	Huerfanos 757 Of 310 14478 Casilla		Phone Fax	+ 56 2638 37 31	jung@jung.cl
China	Motion (ShenZhen) Co., Ltd Beijing Branch Company	Central International Trade Center, Suite No. 1802 Tower D, No. 6A Jianguomenwai Avenue Chaoyang District 100022 Beijing		Phone Fax	+86 10 85 67 94 88 +86 10 85 67 90 58	dewen.yang@bauergears.vom.cn
China Shanghai	Altra Industial Motion (ShenZhen) Co., Ltd. Shanghai Branch Company	Suite 703, Universal Mansion 168 Yuyuan Road Shanghai, China - 200040		Phone Fax	+86 21 51 69 92 55 +86 21 62 48 53 87	Yang.Yang@bauergears.com.cn
China Shanghai	Shanghai Jinxin Inverter Company	No.248-5, Xinshi Road 200083 Shanghai		Phone Fax	+86 21 56 63 51 23 +86 21 65 60 04 54	xuzujie@sinodrive.com
Colombia	Transmisiones LTDA.	Cra. 69 B No. 21 A-24		Phone Fax	+57 1 412 68 98 +57 1 292 97 37	carlospaz@transmisiones.de www.transmisiones.de
Croatia	Pogonska Tehnika d.o.o.	Horvatocac 94 1000 Zagreb		Phone Fax	+385 1 46 80 174 +385 1 46 80 271	pogonska.tehnika@zg.t-com.hr
Czech Republic	Bauer Gear Motor Europe GmbH	V parku 2316/12 148 00 Praha 4 - Chodov		Phone Fax	+420 2 83 01 41 11 +420 2 83 01 41 23	info.cz@bauergears.com
Czech Republic	Jan Koárek-HMF	Sturova 15 415 02 Peplice		Phone Fax	+420 417 56 44 56 +420 417 56 56 88	tomas.abraham@navijama-hmf. cz
Czech Republic	IHR Technika s.r.o.	Boleslavská 902 29306 Kosmonosy		Phone Fax	+420 326 72 27 16 +420 326 32 01 19	indo@ihr-tech.cz
Czech Republic	Huber CS s.r.o.	Cihlarska 19 602 00 Brno		Phone Fax	+420 541 21 56 35 +420 541 21 68 35	doskocil@hubercs.cz

Internation Organisation

Denmark	Bauer Gear Motor Europe GmbH	Jegstrupvej 3 8361 Hasselager		Phone Fax	+45 89 48 91 11 +45 89 48 93 11	info.dk@bauergears.com
Denmark	Horsens Elektro Service I/S	Egebjergvej 4 8700 Horsens		Phone Fax	+45 75 62 62 44 +45 75 62 62 24	h-e-s@mail.tele.dk
Denmark	Alestrup Electro	Testrupvej 7 9620 Aalestrup		Phone Fax	+45 98 64 12 33	estrupelektro.dk
Denmark	JW Industri	Smedevej 7 7430 lkast		Phone Fax	+45 97 25 15 16	info@jwelektro.dk
Denmark	Electro Care ApS	Rentemestervej 56c 2400 Copenhagen NV		Phone Fax	+45 38 34 60 10 +45 38 34 60 17	kbh@eletrocare.dk
Denmark	Electro Care ApS	Asebro 68 3300 Frederiksvaerk			+45 47 77 01 22	frv@electrocare.dk
Denmark	PN Electro ApS	Ostre Allé 4200 Slagelse			+45 58 53 30 60	ta@pn-elektro.dk
Denmark	Glenco A/S	Blytaekkervej 3-5 9000 Aalborg		Phone Fax	+45 70 23 16 00	crk@glenco.dk
Ecuador	Transmisiones & Servicios S.A.C.	Via a Daule KM 6.5		Phone Fax	+59 34 25 43 00 +59 34 25 49 39	controles@maquinarias- henriques.com
Ecuador	Maquinarias Henriques Guayaques	Via a Daule KM 6.5 Guayaquil		Phone Fax	+59 34 25 43 00 +59 34 25 49 39	controles@maquinarias- henrigues.com
Egypt	Universal Est.		P.O. Box 101 - Zamalek Cairo	Phone Fax	+20 2 33 81 36 96 +20 2 33 81 36 99	m.zohni@uniest.com
Estonia	Laagri-Ja Tihendikeskus Oü	Laki 17 12915 Tallinn		Phone Fax	+372 653 01 65 +372 653 01 66	laager@laager.ee
Finland	Bauer Gear Motor Finland Oy Ab	Yrittäjänkuja 3, 01800 Klaukkala		Phone Fax	+358 9 4764 70 00 +358 9 4764 70 44	info.fi@bauergears.com
France	Bauer Gear Motor Europe GmbH	Succursale France Hall C 46, avenue des Frères Lumière 78190 Trappes		Phone Phone Fax	+33 1 30 13 73 71 +33 1 30 13 17 11 +33 1 30 13 20 88	info.fr@bauergears.com
France	Petit	Zone industrielle de Bruèges Nord 310 Avenue Monge 30100 Ales (Sud-Est)		Phone Fax	+33 466 30 68 22 +33 466 30 59 85	oliver.lionel@etspetit.com
France	Secco	161 Avenue Roger Salengro 69120 Vaulx en-Velin (Rhone-Alpes)		Phone Fax	+33 47 237 51 31 +33 47 826 99 04	secco@wanadoo.fr
France	FAEP	135 rue du Général de Gaulle 13510 Eguilles		Phone Fax	+33 4 42 92 50 39 + 33 4 42 92 39 17	faep@wanadoo.fr
France	Amremm	1 rue Auguste Renoir 93600 Aulnay sous bois (Region parisienne)		Phone Fax	+33 960 53 87 66 +33 148 61 80 23	amremm@orange.fr
France	Avenel	1, rue Lucien Fromage BP 1 76160 Darnetal (Nord- Quest/Normandie)		Phone Fax	+33 23 508 53 53 +33 23 508 56 08	info@avenel.fr
France	Diceep	17-19 Route National 54 280 Nancy-Laneuvelotte (Nord-Est)		Phone Fax	+33 3 83 29 03 43 +33 3 83 21 43 13	diceep@diceep.fr
Germany	Bauer Gear Motor GmbH	Eberhard-Bauer-Strasse 36-60 73734 Esslingen	Postfach 10 02 08 73726 Esslingen	Phone Fax	+49 711 3518 0 +49 711 3518 381	info.de@bauergears.com www.bauergears.com
Great Britain	Bauer Gear Motor Limited	Unit 1 Nat Lane Business Park Winsford, Cheshire CW7 3BS	, ,	Phone Fax	+44 1606 86 86 00 +44 1606 86 86 03	info.uk@bauergears.com
Greece	Drivetech e.p.e.	Chrysostomou Smyrnis 124 18345 Moschato		Phone Fax	+30 210 723 33 18 +30 210 723 33 57	info@drivetech.gr
Guatemala	Juan Niemann & Cia. Ltda.	Apartado Postal 290 C / Mariscal Cruz 10-69, Zona 5 Guatemala Ciudad, C.A.		Phone Fax	+502 331 54 54 +502 334 74 53	jcniemann@jcniemann.com
Hong Kong	A-CALL Company	Flat 8A, 8th Foor Wing Cheong Idustrial Building 109 How Ming Street		Phone Fax	+852 27 93 02 50 +852 27 93 06 20	

International Organisation

Hungary	BC Ongroelektro. Kft.	Bolyai tér 1. 3702 Kazincgarcika (East Hungary)		Phone Fax	+36 48 51 11 86 +36 48 71 27 71	toth.tibor@borsodchem.hu
Hungary	Schoch Hungaria Ltd.	Industrial Site, Gyari Street 1 3580 Tiszaujvaros	P.O. box 85 3580 Tiszaujvaros	Phone Fax	+36 49 44 08 77 +36 49 44 08 77	info@schochhungaria.hu www.schochhungaria.hu
India	International Combustion (India) Ltd.	Infinity Benchmark, 11 th Floor, Plot- G1, Block - EP & GP, Salt Lake Electronics Complex, Kolkata - 700 091.		Phone Fax	+91 33 33 15 30 00 +91 33 23 57 66 53	info@internationalcombu- stion.in
Indonesia	PT. Cahaya Mekar Sejati	Jl. Agung Utara Raya Blok A36 D/ 46 Jakarta 14350		Phone Fax	+62 21 640 18 03 +62 21 64 71 50 82	cahkarti@cbn.net.id
Iran Kontakt Inland	Sherlock GmbH Deutschland	Rostockerstrasse 19 65191 Wiesbaden		Phone Fax	+49 611 18 95 00 +49 611 18 95 01 8	
Israel	I.Ettner - Representations Ltd.	17, Mazal Dli St. Hod Hasharon 45309 Tel-Aviv 69086		Phone Fax	+972 0 9 745 35 52 +972 0 9 745 25 54	israel@ettner.co.il
Italy	Bauer Gear Motor Europe GmbH	Via Kennedy 43 36040 Grisignano di Zocco (VI)		Phone Fax	+39 (0444) 41 43 92 +39 (0444) 41 43 84	Info.
Italy	Ma.ln s.n.c.	Via Pola, 8 10135 Torino		Phone Fax	+39 (011) 347 33 25 +39 (011) 391 33 56	
Italy	Elettromeccanica Volta Srl	Via Leucaspide, 10240 74010 Statte TA		Phone Fax	+39 099 474 02 64 +39 099 474 02 64	
Italy	Reima Sud	Via Naz. le delle Puglie Contrada Salice, 11 80021 Afragola (Napoli)		Phone Fax	+39 (081) 851 23 82 +39 (081) 851 00 66	
Japan	Leybold Co., Ltd.	5th Floor, Tokyo Tatemono Bldg. 1-9-9, Yaesu 1-Chome, Chuo-Ku 103-0028 Tokyo		Phone Fax	+81 3 32 72 18 61 +81 3 32 81 44 90	koki@leybold-kk.com
Korea	Chemiko Trading Co. Ltd.	Chung Rok Bldg, 721-29 Yeoksam – Dong, Kangnam-Gu Seoul		Phone Fax	+82 2 567 53 36 +82 2 554 12 84	chemiko@chol.com
Korea	Chemiko Trading Co. Ltd.	Rm 1612, Namwoon Officetel, 229-10, Mooguh-Dong Nam-Gu Ulsan		Phone Fax	+82 52 277 21 07 +82 52 247 21 95	chemiko@choillian.net
Latvia	SIA Generis	Skanstes 13 LV1013 Riga		Phone Fax	+371 67 80 50 76 +371 67 80 50 93	info@vlt.lv
Lithuania	Dotronika UAB	Smolensko 6 03201 Vilnius		Phone Fax	+370 52 10 57 42 +370 52 05 19 67	dainius@dotronika.lt
Malaysia	Greenvi Technologies (M) Sdn Bhd Industial Automation	No.64-02, Jalan Molek 2/2 Taman Molek 81100 Johor Bahru Johor		Phone Fax	+60 7 354 30 06 +60 7 354 20 06	bpchin@greenvitech.com
Mexico	Mexpump S. A. de C.V.	Calle 1. No. 7 Manzana1, Colonia Ampliacion Guadalupe Proletraria 07670 Mexico City, D.F.		Phone Fax	+52 24 51 77 63 +52 24 51 77 64	
Mexico	Tecnoseal S.A. de C.V.	Calle 19, No.31 Col. Pro-Hogar C.P. 02600 Mexico City, D. F.		Phone Fax	+52 55 55 56 28 43 +52 55 53 55 43 89	tecnosel@prodigy.net.mx
Montenegro	Indas Industry Assistance d.o.o.	Heroja Pinkija 95 YU-21000 Novi Sad		Phone Fax	+381 21 480 48 00 +381 21 480 48 08	office@indas.rs
Netherland	Bauer Gear Motor Europe GmbH	p/a EEBIC bedrijvencentrum Joseph Wybranlaan 40 1070 Brussel (Anderlecht)		Phone Fax	+32 2 529 59 42 +32 475 32 28 47	Info.be@bauergears.com
Netherland	De Bruyn B.V. Power Repairs	Van Konijnenburgweg 105 4612 PL Bergen op Zoom		Phone Fax	+31 164 23 43 02 +31 164 25 51 40	repair@de-bruyn.nl
Netherland	Gekas & Boot Zaanstad b.v.	Grote Tocht 25 1507 CG Zaandam		Phone Fax	+31 75 670 19 01 +31 75 616 51 62	zaanstad@gekasenboot.nl
Netherland	Gekas & Boot Noord b.v.	Holepolder 1 9902 SN Appingedam		Phone Fax	+31 50 318 73 74 +31 50 318 73 37	groningen@gekasenboot.nl

Internation Organisation

Netherland	Gekas & Boot	Pannenweg 208		Phone	+31 495 63 41 41	nederweert@gekasenhoot nl
ivetilellallu	Zuid b.v.	6031 RK Nederweert		Fax	+31 495 63 27 03	nederweert@gekasenboot.nl
Netherland	Gekas & Boot Noord b.v.	Osnabrückstraat 22 7418 BN Deventer		Phone Fax	+31 570 60 87 66 +31 570 62 09 61	deventer@gekasenboot.nl
Norway	Bauer Gearmotorer AS	Vestvollveien 10 2019 Skedsmokorset	Postboks 221 2021 Skedsmo- korset	Phone Fax	+47 63 87 59 50 +47 63 87 59 60	bauergear@bauergear.no
Peru	Transmisiones & Servicios S.A.C.	Alcanfores 981. of 601. 18 Miraflores - Lima		Phone Fax	+51 1 242 08 62 +51 1 242 08 62 21	www.transmisiones.pe
Philippines	Optima Equipment Corporation	Unit 1905 Cityland Herrera Tower Valero St. Cor. V. A. Rufino St. 1227 Salcedo Villiage, Makati City		Phone Fax	+63 2 817 31 35 +63 2 817 31 19	vandel@optima-equipment.com
Poland	Steinlen Polska Sp. z o.o.	ul. W. Grabskiego 4/8 63-500 Ostrzeszów		Phone Fax	+48 62 732 23 52 +48 62 732 23 51	biuro@steinlenpolska.pl
Russia	NPF Inger	423800 Naberezhnye Chelny, BSI		Phone Fax	+7 85 52 77 83 00	info@inger.ru
Russia	SP Reduktor	Perovskoe st, 21 Moscow		Phone Fax	+7 495 258 54 60 +7 495 258 54 60	derevitskiy a@privod.ru
Russia	Uraltehmarket	Serafima Deryabninoy st., 24 20149 Ekaterinburg		Phone Fax	+7 343 380 51 41 +7 343 380 51 41	info@uraltm.ru
Russia	Uralteplopribor	Elkina st., 14 455016 Magnitogorsk		Phone Fax	+7 3519 48 96 33 +7 3519 48 96 33	smv_utp@mail.ru
Russia	Tet-RS	Borisa Bogatkova st., 63 630008 Novosibirsk		Phone Fax	+7 383 213 55 21 +7 383 266 33 26	koroleva@tet-rs.ru
Russia	Pribor-Service	Uchebnaya st, 90 644010 Omsk		Phone Fax	+7 3812 53 45 98 +7 3812 53 45 98	info@pribor-servis.ru
Russia	Epos Plus	Turgenevskaya st., 72 344002 Rostov-na-Donu		Phone Fax	+7 863 262 35 70 +7 863 262 35 70	ermakova@epos-plus.ru
Russia	S-Tek	Karl Marks st, 29a 443082 Samara		Phone Fax	+7 846 279 04 79 +7 846 279 04 79	Danfoss.BAUER@s-tec.ru
Russia	Stek-Master	Kosmonavtov st. 39 B 420061 Kazan		Phone Fax	+7 843 279 64 68 +7 843 279 64 68	master@stekmaster.ru
Russia	Privod Service	Nikitina st., 20 634062 Tomsk		Phone Fax	+7 3822 53 53 47 +7 3822 53 53 47	privodservice@bk.ru
Serbia &	Indas Industry	Heroja Pinkija 95		Phone	+381 21 480 48 00	office@indias.co.yu
Montenegro	Assistance d.o.o.	YU-21000 Novi Sad		Fax	+381 21 480 48 08	www.indias.co.yu
Singapore	AVM Diesel (F. E.) PTE	BLK 27 TUAS AVE 13 #01-23 Singapore 638993		Phone Fax	+65 68 63 69 33 +65 68 63 69 00	sales@avmdiesel.com www.avmdiesel.com
Slovakia	Bauer Gear Motor s.r.o	Tovarenskå 953 01 Zlate Moravce		Phone Fax	+421 37 6 92 61 00 +421 37 6 92 61 81	www.bauergears.com
Slovakia	Transmisie Engineering a.s.	P. Mudrona 10 03601 Martin		Phone Fax	+421 37 64 06 294 +421 37 64 06 291	dps@transmisie.sk www.transmisie.sk
Slovenia	TALER ING d.o.o.	Jelovška cesta 43A 4264 Bohinjska Bistrica		Phone Fax	+386 4 574 71 28 +386 4 574 71 29	info@talering.si
South Africa	Bauer a Division of Hudaco Trading (Pty) Ltd.	72 Acacia Road 1401 Primrose	P.O. Box 19007 Fisher's Hill 1408	Phone Fax	+27 11 828 97 15 +27 11 822 41 35	johnB@gbauer.co.za
Spain	Bauer Gear Motor Europe GmbH	Duquesas, 14 - bajo 28341 Valdemoro (Madrid)		Phone Fax	+34 91 801 83 40 +34 91 808 27 58	Info.es@bauergears.com
Spain	Santos Maquinaria Electrica, S.L.	Pol. Ind. Los Olivos Sindicalismo, 13-15 28906 Getafe (Madrid)		Phone Fax	+34 91 468 35 00 +34 91 467 06 45	comercial@santosmaquinaria.es
Spain	Baurroll S.A.	Rafael Pikabea, 15 bajo 20180 Oiartzun (Guipúzcoa)		Phone Fax	+34 943 49 11 28 +34 973 49 42 27	baurroll@baurroll.com
Spain	Motronic Service s.a.	Avgda. Castell de Barberà 16 Pol. Ind. Santiga 08210 Barberà del Vallès (Barcelona)		Phone Fax	+34 937 19 29 20 +34 937 19 29 21	motronic@motronic.es
Spain	Matinso s.l.	Pol. Ind. Horta Vella c/ 3, n° 13 46117 Betera (Valencia)		Phone Fax	+34 96 313 20 39 +34 96 160 07 69	admin@matinso.es
Sri Lanka	Southern Automation Systems (Pvt) Ltd.	593 Maranda Road Colombo 10		Phone Fax	+94 115 343 190 +94 115 343 191	sas@saslanka.com web: www.saslanka.com

Sweden	Bauer Gearmotorer AS	Skårs Led 3 412 63 Göteborg		Phone Fax	+46 31 703 71 65 +46 31 703 71 64	postmaster@bauergear.net
Sweden	AB Carl A. Nilssons	Industrigatan 60 25229 Helsingborg		Phone Fax	+46 42 18 00 85 +46 42 13 65 92	info@carlanilsson.se
Switzerland	Meier + Co AG Antriebstechnik	Oltnerstrasse 92 5013 Niedergösgen		Phone Fax	+41 62 858 67 00 +41 62 858 67 11	info@meico.ch
Switzerland	Electro Müller AG	Bözingenstrasse 37 2500 Biel		Phone Fax	+41 32 344 10 10 +41 32 344 10 19	info@electromueller.ch
Taiwan	Saturn Power Ltd.	9F, No. 69-5, Sec. 2 Chung Cheng E. Rd. Tanshui District 105 New Taipei City		Phone Fax	+886 2 28 09 58 90 +886 2 28 09 67 70	service@saturnpowerltd.com
Thailand	Kasetphand Industry Co.,LTD			Phone Fax	+66 28 17 64 10 +66 28 17 64 37	sakchai_engineer@hotmail.com
Turkey	CEFIP - Makina & Endüstriyel			Phone Fax	+90 212 210 18 90 +90 212 210 15 97	cefip@cefip.com.tr
Turkey	Senka Enerji Sanayi ve Ticaret Ltd Sti	Kara Hasan Atli Is Merkezi Sok. No: 1203/11 Kat.: 4/419 Yenisehir / Izmir		Phone Fax	+90 232 4 69 55 55 +90 232 4 33 43 71	senka@senka.org
Ukraine	AIDAR	llicha avenue 46 83003 Donetsk		Phone Fax	+38 062 345 55 11 +38 062 34526 06	sa@aidar.in.ua
Ukraine	Pryvid Plus LLC	Krasnopolskaya str. 9, of.434 49000 Dnepropetrovsk		Phone Fax	+38 056 763 77 01	ot@privod-plus.com.ua
Ukraine	CHP Rychko	Artelnaya str, 10 49081 Dnepropetrovsk		Phone Fax	+38 067 565 44 20	seg_64@ua.fm
Ukraine	Comfort Group	Bykova str., 16 50036 Krivoy Rog		Phone Fax	+38 050 321 89 98	dir@komfortgroup.com.ua
Ukraine	Leko Trade	Akademicheskaya str, 6/1 83037 Donetsk		Phone Fax	+38 062 63 39 05	leko_trade@bk.ru
Ukraine	Service - Avtomatika	Peremogi st, 56 04080 Kiev		Phone Fax	+38 044 332 54 23 +38 044 223 09 13	avtomatika@ukr.net
Ukraine	ZEVS	Elektrikov str. 26 04040 Kiev		Phone Fax	+38 044 498 07 82	yarik 100@gmail.com
Ukraine	Fedama	Dragomannova str., 48 79005 Lvov		Phone Fax	+38 032 244 55 60	fedama@lviv.farlep.net
Ukraine	Nadezhda	Lenina st, 47 61103 Kharkov		Phone Fax	+38 057 717 76 98	Nadezhda@ilt.kharkov.ua
United Arab Emirates	Dubai Drydocks Afloat Repair Division		P.O. BOX 8988	Phone Fax	+97 1 43 45 13 53 +97 1 43 45 01 16	drydocks@drydocks.gov.ae
Uruguay	Tradinter S.R.L	Pereira de la luz 1327 11300 Montevideo		Phone Fax	+598 2 622 11 30 +598 2 628 46 91	
USA	Bauer Gear Motor LLC.	31, Schoolhouse Rd. Somerset, N.J. 08873-1212		Phone Fax	+1 732 469 87 70 +1 732 469 87 73	bauer.us@bauergears.com
Venezuela	EMOTEC S. A.,	Calle Johann Schafer, Edif.FHT, Piso 1, Oficina 1, Urb. Buena Vista, Caracas-Venezuela Urb. Sabana Grande Caracas		Phone Fax	+58 212 271 52 61 +58 212271 18 38	ventas@emotecsa.com
Vietnam	GNN CO., LTD	33 Hoa hong2, W.2 Phu Nhuan District		Phone Fax	+84 8 35 18 49 23 +84 8 35 17 49 24	

654

Bauer Gear Centre Germany

30938	Burgwedel	Ehlbeek 21	Steinlen Elektromaschinenbau GmbH	Phone Fax	05139-8070-0 05139-8070-60	info@steinlen.de www.steinlen.de
40223	Düsseldorf	Martinstrasse 38-42	Scheib Elektrotechnik GmbH	Phone Fax	0211-90148-10 0211-90148-11	www.scheib-gmbh.de
67065	Ludwigshafen	August-Heller-Strasse 3	Klebs + Hartmann GmbH & Co. KG	Phone Fax	0621-57900-0 0621-57900-24	www.klebs-hartmann.de
72631	Aichtal	Gutenbergstrasse 5	Elektrotechnik + Automation Ulrich Brodbeck GmbH	Phone Fax	07127-9583-0 07127-9583-17	www.elektrotechnik-automation. de

Service Partner Companies Germany

06493	Ballenstedt	Grüne Strasse 64	Digi Table GmbH Technisches Büro Ballenstedt	Phone Fax	039483-536-39 039483-536-49	www.digitable.de
06886	Lutherstadt- Wittenberg	Heuweg 1	Digi Table GmbH Zentrale Wittenberg	Phone Fax	03491-6146-0 03491-6146-31	www.digitable.de
08060	Zwickau	Herschelstrasse 13	Gützold Elektrotechnik GmbH	Phone Fax	0375-2040550 0375-2040551	www.guetzold.com
48308	Senden	Bahnhofstrasse 81	Th. Niehues GmbH	Phone Fax	02536-990-01 02536-990-19	www.niehues.com
49134	Wallenhorst	Otto-Lilienthal-Strasse1	Elektro-Anlagen-Technik EAT GmbH	Phone Fax	05407-8173-20 05407-8173-29	www.eatechnik.de
49429	Visbek	Schneiderkruger Strasse 12	Schulz Systemtechnik GmbH	Phone Fax	04445-897-0 04445-7122	www.schulz-systemtechnik.com
63069	Offenbach	Spredlinger Landstrasse 180	Bühler & Sell Elektro-Motoren KG	Phone Fax	069-423076 069-423078	www.buehler-sell.de
76547	Sinzheim	Am Markbach 2	Dipl. Ing. Kögel & Ernst & Co. GmbH	Phone Fax	07221-5095-0 07221-61330	www.koegel-ernst.de
88046	Friedrichshafen	Lindauer Strasse 116	Mangold Elektromaschinenbau GmbH	Phone Fax	07541-5006-0 07541-5006-30	www.mangold-fn.de
93354	Siegenburg	Gewerbegebiet Egelsee 15	EMS Elektro-Motoren GmbH	Phone Fax	09444-976-0 09444-976-177	www.ems-elektromotoren.de
94234	Viechtach	Prof. HStaudinger-Strasse 4	UAS Meßtechnik GmbH	Phone Fax	09942-9486-0 09942-9486-10	www.uas.de
97076	Würzburg	Nürnberger Strasse 109	Beck Elektrotechnik GmbH	Phone Fax	0931-2005-0 0931-2005-200	www.beck-elektrotechnik.de

Service Stations Germany

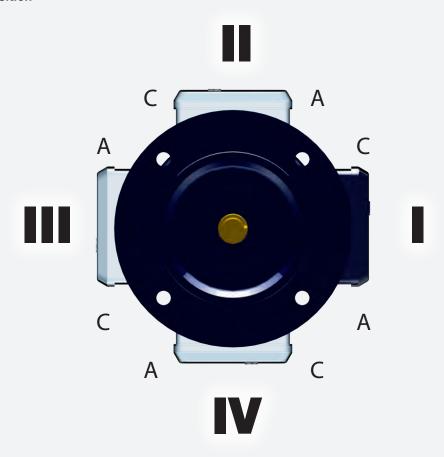
01468	Boxdorf	Ringstrasse 18	Motoren Franke GmbH Inh. Gerhard Glaser	Phone Fax	0351-20768-0 0351-20768-29	www.motoren-franke.de
04249	Leipzig	Kunzestrasse 20	Polzin Elektromaschinenbau	Phone Fax	0341-4250-107 0341-4250-108	www.polzin-elektromaschinenbau.de
08371	Glauchau	Auestrasse 36	Jens & Uwe Rülke GbR	Phone Fax	03763-5089-0 03763-5632	www.ruelke-glauchau.de
10555	Berlin	Alt-Moabit 73	Schmidtsdorff Elektromotoren	Phone Phone Fax	030-391-1011 030-391-7011 030-391-9913	www.schmidtsdorff-elektromotoren.de
22111	Hamburg	Am Schiffbeker Berg 18	Gebrüder Wittmann GmbH Elektromotoren	Phone Fax	040-732-0307 040-732-2228	www.gebr-wittmann.de
24941	Flensburg	Graf Zeppelin Strasse 5	Wilhelm Kleeberg GmbH & Co.KG E-Motoren E-Werkzeuge	Phone Fax	0461-93073 0461-95383	www.kleeberg-fl.de
26603	Aurich	Leerer Lanstrasse 35-41	Janssen Elektromaschinen GmbH	Phone Fax	04941-174257 04941-1742-60	wwwrolf-janssen.de
27570	Bremerhaven	Mushardstrasse 11	Heinz Greif GmbH Elektrotechnische Werkstatt	Phone Fax	0471-31997 0471-303694	www.greif-eletrotechnik.de
35463	Fernwald- Annerod	Industriestrasse 5	Harald Bogner Elektromaschinenbau GmbH & Co.KG	Phone Fax	0641-41023 0641-492840	www.elektromaschinenbau-bogner.de
39340	Haldensleben	Töberheide 10	Bär - Elektromaschinen	Phone Fax	03904-65669 03904-462589	www.baer-ema.de
44147	Dortmund	Tankweg 27	Boss Elektromaschinen + Pumpentechnik GmbH	Phone Fax	0231-982022-0 0231-982022-11	www.boss-elektromaschinen.de
49084	Osnabrück	Pferdestrasse 24	Sroczynski GmbH	Phone Fax	0541-588-443 0541-588-609	
53129	Bonn	Burbacher Strasse 216	Bauer Elktromotoren GmbH	Phone Fax	0228-91785-0 0228-91785-16	www.BauerBonn.de
63071	Offenbach	Bieberer Strasse 254	Wilhelm Klörs Elektromaschinenbau	Phone Fax	069-543369 069-543313	
64293	Darmstadt	Bunsenstrasse 5-7	Siebert Elektromaschinenbau GmbH	Phone Fax	06151-824462 06151-895590	www.siebertgmbh.de
66133	Saarbrücken- Scheidt	Kaiserstrasse 5	Fuchs Elektromaschinenbau & Vertriebs GmbH	Phone Fax	0681-814905 0681-813153	
68642	Bürstadt	Lorscher Strasse 10	Brenner GmbH Elektrotechnik	Phone Fax	06206-9806-0 06206-9806-16	www.brenner-gmbh.de
78532	Tuttlingen	Rudolf-Diesel-Strasse 8/1	Dent Elektromaschinen GmbH	Phone Fax	07461-969727-0 07461-969727-19	www.dent-elektromaschinen.de
91207	Lauf	Simonshofer Strasse 41	Hans Mayer Elektrotechnik GmbH	Phone Fax	09123-2041 09123-82661	www.hans-mayer-elektrotechnik.de
99734	Nordhausen	An der Helme 14	Dipl. Ing. Günter Francke Elektromaschinen & Antriebstechnik	Phone Fax	03631-4795-0 03631-4795-20	www.elektrowerk-nordhausen.de

Catalogue geared motors

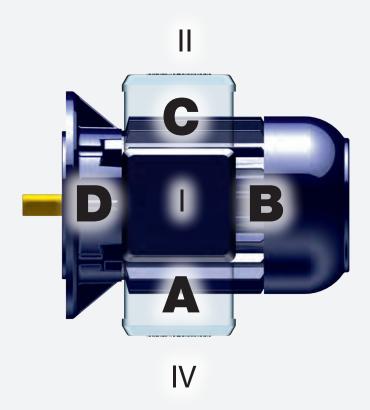
Notice

Terminal Box

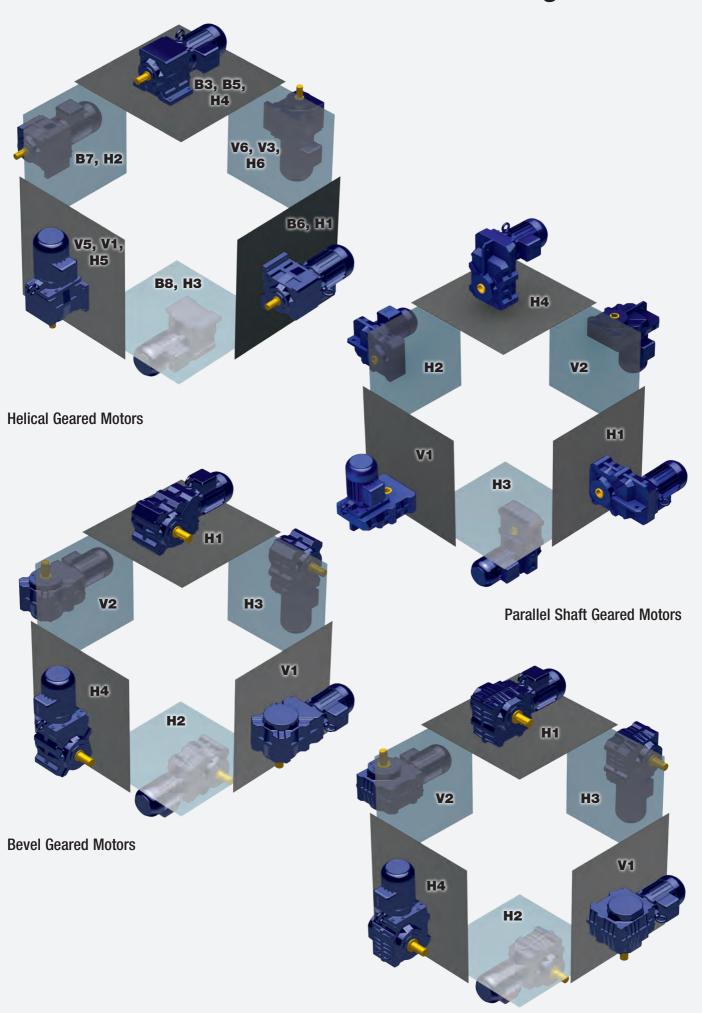
Terminal Box Position



Cable entry Position



Mounting Positions



The Gear Motor Academy

http://academy.bauergears.com

Training	Contents
Basic	 Introduction of the current Bauer Gear Motor geared motor range Definition and dimensioning of the service factor during gearbox selection Impact of radial forces on the dimensioning of geared motors Definition of the IP - Enclosures Basics for the calculation and selection of geared motors Selection of geared motors for frequency inverter duty
Drive engineering	 Introduction to technical mechanics and physics Derivation of drive specific formulae Calculation of differing machines (Controlled drives, Non-controlled drives, Travel drives, Hoists, Chain conveyors, Roller conveyors, Turntable, Belt conveyors)
Application	 Design and functionality of 3 phase, Pole changing, DC, Synchronous and Servo motors Design and functionality of frequency inverters and their control Difference between mains and inverter duty Industry sector solutions from Bauer Gear Motor (ATEX, Aseptic, Monorail, BasicMetal) Industry sectors and their design (Ambient conditions, Service factors, Modifications to the geared motors)
ATEX	 Explosion protection in general EC-Guidelines 94/9/EG and 1999/92/EG Explosion protection types for gas explosion protection according to EN 60079 and dust explosion protection according to EN 61241 Selection of motors, gearboxes and extras What has to be observed regarding gearbox service factors Notes on service and maintenance of Bauer Gear Motor geared motors
Disassembly and Assembly	 Professional disassembly and assembly of gearbox, motor, brake and backstop Composition of Bauer Gear Motor brakes Mounting position and speed change Lubricant quantities Service and maintenance - procedures Spare part and repair logistics

http://forum.bauergears.com

Topic	Contents
Hygiene	 The continually growing requirements on the food & beverage industry result in higher hygiene and process safety. For this reason the Hygiene Symposium concentrates on the following topics: Hygiene requirements on production plants in the food & beverage industry General explanations to the new guidelines for the food & beverage industry Inactivation of suspended microorganisms and biofilms on surfaces Why paint coatings and not alsways stanless steel for surfaces?
Energy	 The environmental handling of energy and other resources is becoming more and more important. For this reason the Energy Symposium concentrates on the following topics: Total Cost of Ownership (TCO) - Considering Total Costs in Drive Technology Efficiency and Standards - Using the possible savings through consistent implementation of the new regulations Motor Technologies - Efficiency increase by means of correct selection Power Electronics and the World of the Revolutionary Motor
Service	 Maintenance plays an ever increasing role in the total costing structure of a company. For this reason the Hygiene Symposium concentrates on the following topics: Total Productive Maintenance: Increasing Productivity through Maintenance So cheap doesn't become expensive: Optimising the total costs for maintenance of machines and plants Effect of lubrication on geared motors Globalisation of Service — a Challenge?

Altra Industrial Motion

All Customer Service phone numbers shown in bold

Coupling

Ameridrives Couplings

Mill Spindles, Ameriflex, Ameridisc

Erie, PA - USA 1-814-480-5000

Gear Couplings San Marcos, TX - USA 1-800-458-0887

Bibby Turboflex

Disc, Gear, Grid Couplings, Overload Clutches

Dewsbury, England +44 (0) 1924 460801

Boksburg, South Africa +27 11 918 4270

TR Wood's

Elastomeric Couplings

Chambersburg, PA - USA 1-888-829-6637- Press #5

For application assistance: 1-888-829-6637 — Press #7

General Purpose Disc Couplings

San Marcos, TX - USA 1-888-449-9439

Ameridrives Power Transmission

Universal Joints, Drive Shafts, Mill Gear Couplings Green Bay, WI - USA 1-920-593-2444

Huco Dynatork

Precision Couplings and Air Motors

Hertford, England +44 (0) 1992 501900

Chambersburg, PA - USA **1-800-829-6637**

inear Products.

Warner Linear

Linear Actuators
Belvidere, IL - USA
1-800-825-6544

For application assistance. 1-800-825-9050

St Barthelemy d'Anjou, France +33 (0) 2 41 21 24 24

Electromagnetic Clutches and Brake

Warner Electric

Electromagnetic Clutches

New Hartford, CT - USA 1-800-825-6544

For application assistance: 1-800-825-9050

St Barthelemy d'Anjou, France +33 (0) 2 41 21 24 24

Precision Electric Coils and Electromagnetic Clutches and Brakes

Columbia City, IN - USA 1-260-244-6183

Matrix International

Electromagnetic Clutches and Brakes, Pressure Operated Clutches and Brakes

Brechin, Scotland +44 (0) 1356 602000

New Hartford, CT - USA 1-800-825-6544

Inertia Dynamics

Spring Set Brakes; Power On and Wrap Spring Clutch/Brakes

New Hartford, CT - USA 1-800-800-6445

Overrunning Clutches

Formsprag Clutch

Overrunning Clutches and Holdbacks

Warren, MI - USA 1-800-348-0881- Press #1

For application assistance: 1-800-348-0881 — Press #2

Marland Clutch

Roller Ramp and Sprag Type Overrunning Clutches and Backstops

South Beloit, IL - USA 1-800-216-3515

Stieber Clutch

Overrunning Clutches and Holdbacks

Heidelberg, Germany +49 (0) 6221 30 47 0

Heavy Duty Clutches and Brake

Wichita Clutch

Pneumatic Clutches and Brakes Wichita Falls, TX - USA 1-800-964-3262

Bedford, England +44 (0) 1234 350311

Twiflex Limited

Caliper Brakes and Thrusters
Twickenham, England
+44 (0) 20 8894 1161

Industrial Clutch

Pneumatic and Oil Immersed Clutches and Brakes Waukesha, WI - USA 1-262-547-3357

Gearing

Boston Gear

Enclosed and Open Gearing, Electrical and Mechanical P.T. Components

Charlotte, NC - USA 1-800-825-6544

For application assistance: 1-800-816-5608

Bauer Gear Motor

Geared Motors
Esslingen, Germany
+49 (711) 3518-0

Nuttall Gear and Delroyd Worm Gear

Worm Gear and Helical Speed Reducers Niagara Falls, NY - USA 1-716-298-4100

Belted Drives and Sheaves

TB Wood's

Belted Drives

Chambersburg, PA - USA 1-888-829-6637 – Press #5

For application assistance: 1-888-829-6637 — Press #7

Engineered Bearing Assemblies

Kilian Manufacturing

Engineered Bearing Assemblies Syracuse, NY - USA 1-315-432-0700

Bauer Gear Motor

Bauer Gear Motor GmbH

Eberhard-Bauer-Strasse 36-60 73734 Esslingen - Germany

+49 711 3518 0 +49 711 3518 381 (Fax)

Bauer Gear Motor s.r.o

Tovarenskå 49 953 01 Zlate Moravce - Slovakia +421 37 6926100 +421 37 6926181 (Fax)

www.hauergears.com

Bauer Gear Motor Limited

Nat Lane Business Park Winsford, Cheshire CW7 3BS - United Kingdom

+44 1606 868600 +44 1606 868603 (Fax) www.bauergears.com

Bauer Gear Motor Finland Oy Ab

Yrittajankuja 3 01800 Klaukkala - Finland +358 207 189 700 +358 207 189 701 (Fax) www.bauergears.com

Bauer Gear Motor LLC

31 Schoolhouse Rd. Somerset NJ 08873-1212 - USA

+1 732 469 8770 +1 732 469 8773 (Fax) www.bauergears.com

Altra Industrial Motion (Shenzhen) Co., Ltd.

18 Huan Zhen Road Dabo Industrial Zone - BoGoang Village ShaJing Town - BaoAn District Guangdong Province 518104 Shenzhen City - China

+86 755 27246308 +86 755 27246017 (Fax) www.bauergears.com

Bauer assumes no liability or responsibility for misprints and errors in catalogues, brochures and other printed documentation. Bauer reserves the right to make changes to products without prior notice, including to products that have already been ordered, unless contractual technical specifications are affected by such changes. All trademarks in these publications are the sole and exclusive property of the relevant companies. Bauer and the Bauer logo are trademarks of Bauer Gear Motor Gear Motor GmbH. All rights reserved.



www.bauergears.com

Eberhard Bauer Straße 36-60 73734 Esslingen - Germany Tel: +49 711 3518-0 Fax: +49 711 3518-381