

Premium Efficiency Geared Motors

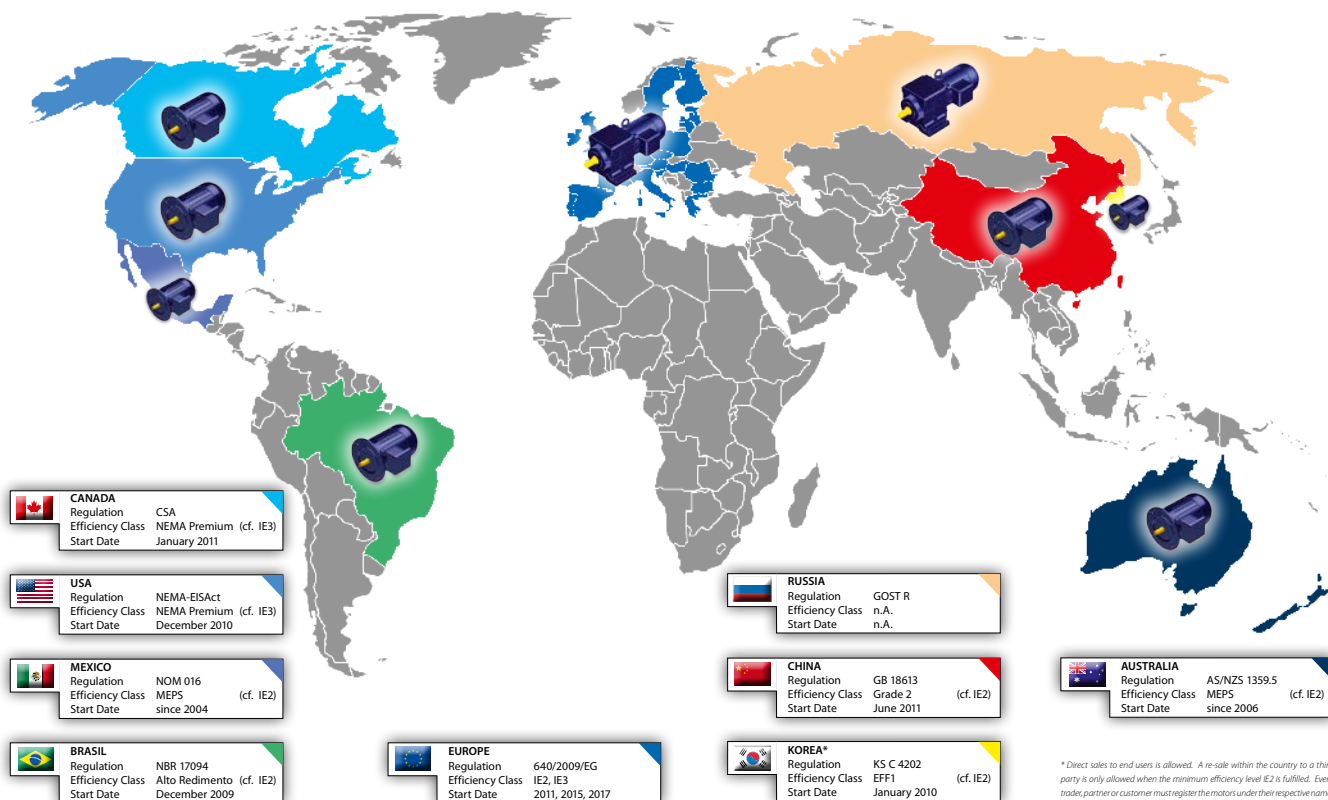
Catalogue Edition 07/2016 EN



 **Bauer**[®]
Gear Motor

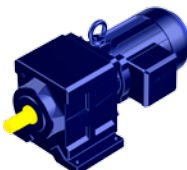
An Altra Industrial Motion Company

Worldwide Efficiency Regulations

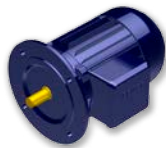


* Direct sales to end users is allowed. A re-sale within the country to a third party is only allowed when the minimum efficiency level IE2 is fulfilled. Every trader, partner or customer must register the motors under their respective name.

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 and (EU) No 4/2014:

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 4,000 metres above sea level
- at ambient temperatures above 60° C
- at maximum operating temperatures above 400 °C
- at ambient temperatures below -30° 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

B K 50 Z X - 1 1 U W A

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

L = 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

0 = Gear Housing, no surfaces except torque arm bore for BF

1 = 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)

- = separates 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)

B • = Gear type (BG, BF, BK, BS)

D.. 09 L A 4 - TF - S

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

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

.. = NF Motor without Gearbox, Motor in flange design

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

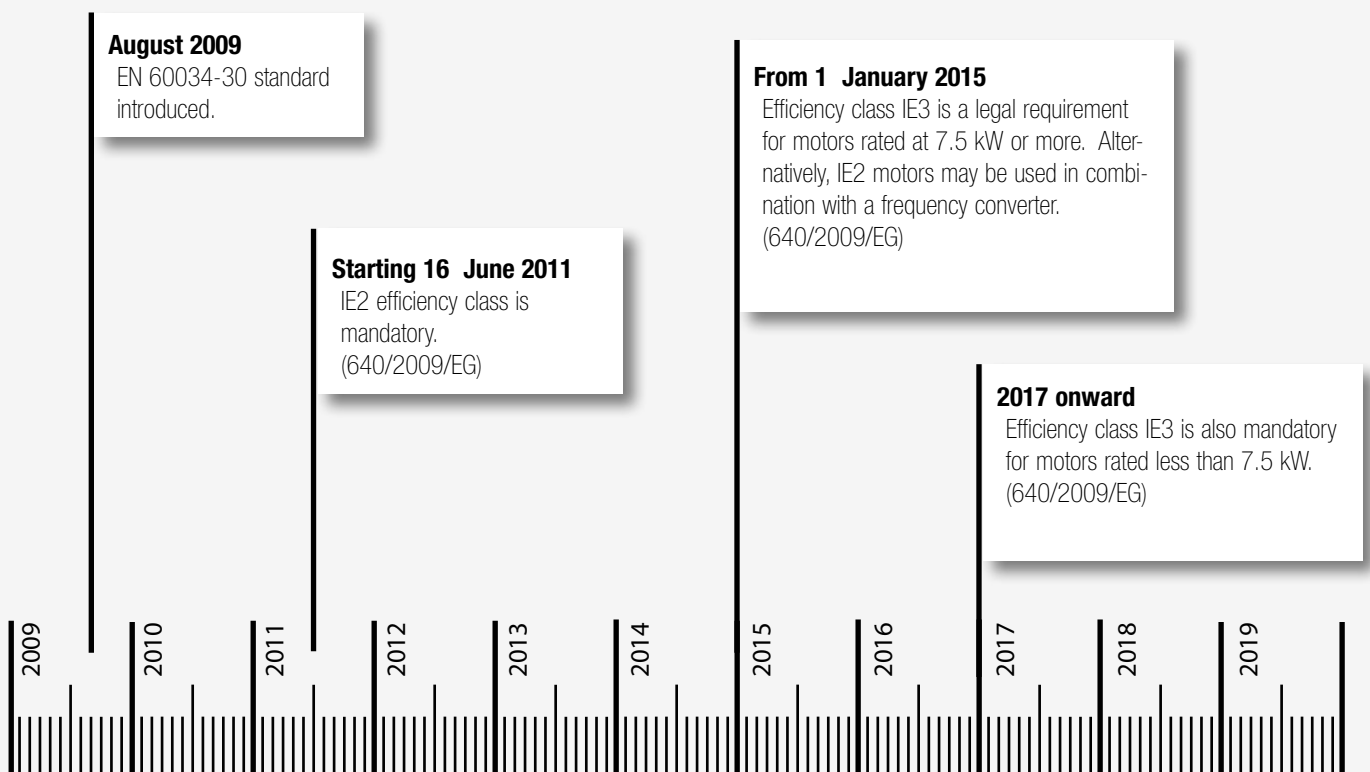
New IE (International Energy Efficiency) efficiency classes were introduced at the beginning of 2009:





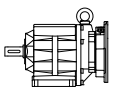
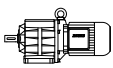

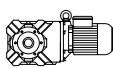
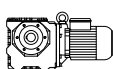
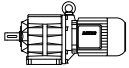

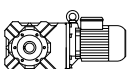
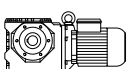
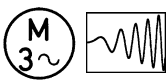
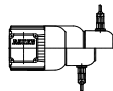
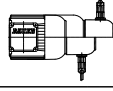

- IE1 = Standard Efficiency (~ EFF2)
- IE2 = High Efficiency (~ EFF1)
- IE3 = Premium Efficiency (10–15 % higher efficiency than IE2)
- IE4 = Super Premium Efficiency

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	Geared motors are considered

What happens when?



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Fast - Flexible - Reliable



...As one of the leading manufacturers of intelligent drive technology, we have lived this motto for nearly 90 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“.

Catalogue geared motors IE3

General 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 IP65 as standard

Shaft-Mounted Geared Motor Series BF



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

- Motor power from 0.03 kW to 75 kW
- 10 gearbox sizes for torques from 90 Nm to 18500 Nm
- Gearbox housing with integral torque arm
- High efficiency through 2 stage base design
- Enclosure IP65 as standard

Bevel-Geared Motor Series BK



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

- Motor power from 0.03 kW to 75 kW
- 10 gearbox sizes for torques from 80 Nm to 18500 Nm
- The right angle gearbox with universal attachment possibilities
- High efficiency through 2 stage base design
- Enclosure IP65 as standard

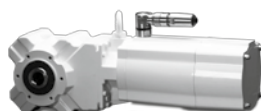
Small Industry Geared Motors KIG



Gearbox and motor build a compact unit. Small industrial gear motors are space-saving and versatile and can be supplied for any mounting position.

- Available for three-phase and single-phase
- Lightweight, compact drives help to reduce the weight of the machine
- Saves space and reduces costs, especially for conveyor systems
- Motor connection via CAGE CLAMP® is vibration-proof and saves you money
- Motor parts for many installation situations and supply voltages
- In self- or non-ventilated design

AsepticDrive



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
 - 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 IP67 and IP69K with acid and alkali resistant coating as standard
- Motor connection through standard stainless steel plug connector

CleanDrive



Geared motors for the Food & Beverage industry in enclosure IP66 with acid and alkali resistant coating as standard.

- Motor without fan and cooling fins
- Motor power
 - DA05 0,06 kW - 0,25 kW
 - DA08 0,25 kW - 0,55 kW
- Motor winding in Iso Class F with thermistors as standard
- Motor connection through standard terminal box or stainless steel cable gland

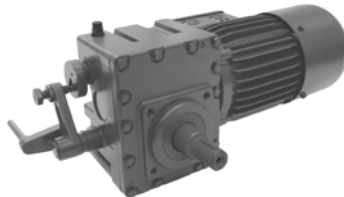
Worm-Geared Motor Series BS



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 IP65 as standard

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 25.000 N
- Flexible mounting on the running gear
- Enclosure IP65 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
- ⚠ Zone 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



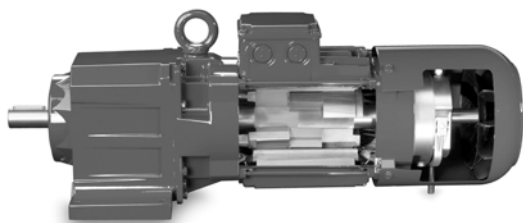
Geared motors suitable for use in explosive areas:

GAS	Zones 1, 2		
DUST	Zones 21, 22		
DXD	Zone 1,	II 2 G Ex d(e) IIC T3...T4 Gb	0,12... 75 kW
DXE	Zone 1,	II 2 G Ex e IIC T1...T4 Gb	0,12... 11 kW
SXE	Zone 1,	II 2 G Ex e IIC T1...T4 Gb	0,55 ... 15 kW
DXN	Zone 2,	II 3 G Ex nA IIC T3 Gc	0,03... 30 kW
DXC	Zone 21,	II 2 D Ex tb IIIC T160° C IP66 Db	0,03... 30 kW
DXC	Zone 21,	II 2 D Ex tb IIIC T120° C IP66 Db	0,03... 22 kW
SXC	Zone 21,	II 2 D Ex d(e) IIC T3...T4 Gb	
DXS	Zone 22,	II 3 D Ex tc IIIC T120° C...160° C IP65 Dc	0,03... 30 kW
DXD	Zone 1/21,	II 2 G Ex d(e) IIC T3...T4 Gb	
		II 2 D Ex tb IIIC T120° C...160° C IP65 Db	0,12... 75 kW
DXE	Zone 1/21,	II 2 G Ex e IIC T1...T4 Gb	
		II 2 D Ex tb IIIC T120° C...160° C IP66 Db	0,12... 11 kW
SXE	Zone 1/21,	II 2 G Ex e IIC T1...T4 Gb	
		II 2 D Ex tb IIIC T120° C...160° C IP66 Db	0,55... 15 kW
DXS	Zone 2/22,	II 3 G Ex nA IIC T1...T3 Gc	
		II 3 D Ex tc IIIC T120° C...160° C IP65 Dc	0,03... 30 kW

Catalogue geared motors IE3

General Product Overview

Energy Saving Geared Motors



η	Advantages	Your benefits
Without	<ul style="list-style-type: none"> Motor design according to duty Small installation volume and minimum weight Higher motor powers 	<ul style="list-style-type: none"> Economical Small installation space Efficient motor utilisation Smaller motor frame size Tailored to customer application
IE1	<ul style="list-style-type: none"> Standard efficiency in continuous operation Small installation volume and minimum weight 	<ul style="list-style-type: none"> Economical Small installation space For general-purpose use inside or outside Europe
IE2	<ul style="list-style-type: none"> Higher efficiency in continuous operation Higher start-up torque 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Premium efficiency in continuous operation Higher start-up torque 	<ul style="list-style-type: none"> Up to 18 % more energy savings compared to IE2 Already meets minimum efficiency requirements for 2015/2017
IE4	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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


Series S in IE4 for explosion hazardous areas



Permanent magnet synchronous motors (PMSM) Series S as variable-speed motors in efficiency class IE4 for use in explosion hazardous areas.

- Design torque M_N : 5 Nm – 48 Nm
- Rated power P_N : 0.75 kW – 15 kW

- Protection type: Increased Safety Zone 1

 II 2 G Ex e IICT1 - T3 Gb

S.XE.08MA4
S.XE.08LA4
S.XE.09SA4
S.XE.09XA4
S.XE.11SA6
S.XE.11MA6
S.XE.11LA6

- Dust explosion protection Zone 21

 II 2 D Extb IIICT 160° C... 120° Db

S.XC.08MA4
S.XC.08LA4
S.XC.09SA4
S.XC.09XA4
S.XC.11SA6
S.XC.11MA6
S.XC.11LA6

HiflexDrive



Die HiflexDrive consists of two gear sizes BK17 and BK08.

Gearbox BK17

- Torque 330 Nm
- Ratios 4.54 - 108.6
- Motor sizes

Standard:	D08, S08, D09, S09
Aseptic:	DA08, SA08, DA09, SA09
Stainless Steel:	DA09, SA09

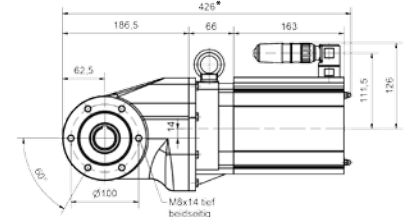
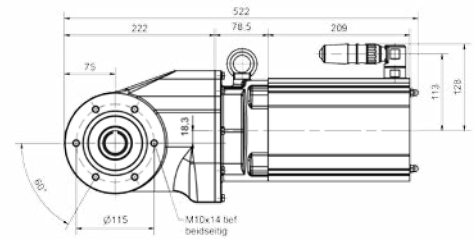
Gearbox BK08

- Torque 200 Nm
- Ratios 4.44 - 102.5
- Motor sizes

Standard:	D08, S08
Aseptic:	DA08, SA08
Stainless Steel:	DA08, SA08, DA09, SA09

Motors

- Power ration 0.18 kW ... 3.0 kW
- Efficiency Classes w/o, IE1 through IE4
- Mains supply 110V ... 690V, 50/60 Hz
- Enclosure IP65 (Standard)
IP67 / IP 69K (optional)



* Total length in Stainless Steel Design + 20 mm

Gear Solutions

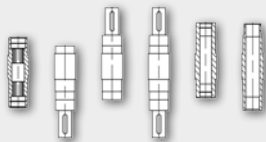
Our Performance

Variance in Materials

- Housing Aluminium and Stainless Steel
- Shafts Steel and Stainless Steel

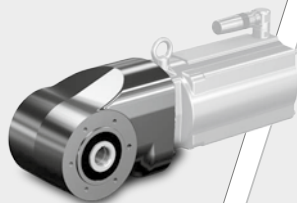
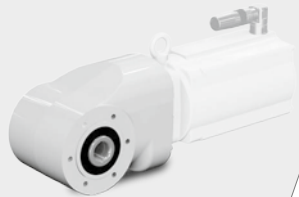
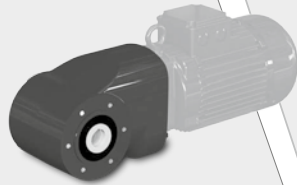
Diversity in Mounting

- Standard design with C-Face
- Optional A-Flange available
- Flexible shaft diameters
- All prevalent shaft types



Well thought-through gear design

- No interference contour
- Form and radius adapted to the logistic industry
- Easy to clean
- Special aseptic coating
- Modular set-up



Flexibility

Adaptability

Motor Solutions

Our Performance

Motor technologies

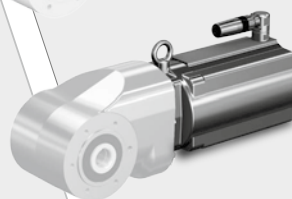
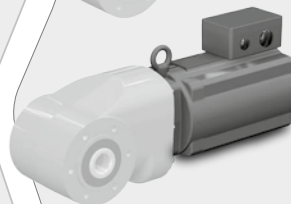
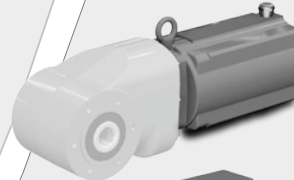
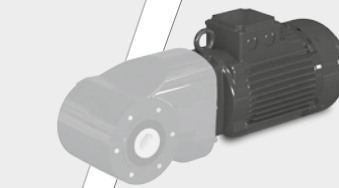
- Asynchronous technology
 - Efficiency Class IE1 to IE3
- Permanentmagnettechnology (PSM)
 - Efficiency class IE4
 - Optimised for partial load acc. to EN 50598

Diversity in dimensioning

- Finely graded brake sizes
- Speed feedback
- Duty cycles S1 to S9
- Optimised for inverter duty
- Connection technology
 - Cage Clamp
 - Terminal Board
 - Stainless Steel Connector

Well thought-through motor design

- Variance in housing design
- Easy to clean
- Special aseptic coating
- Modular set-up
- Flexible connection technology
- All enclosures incl. IP 69K



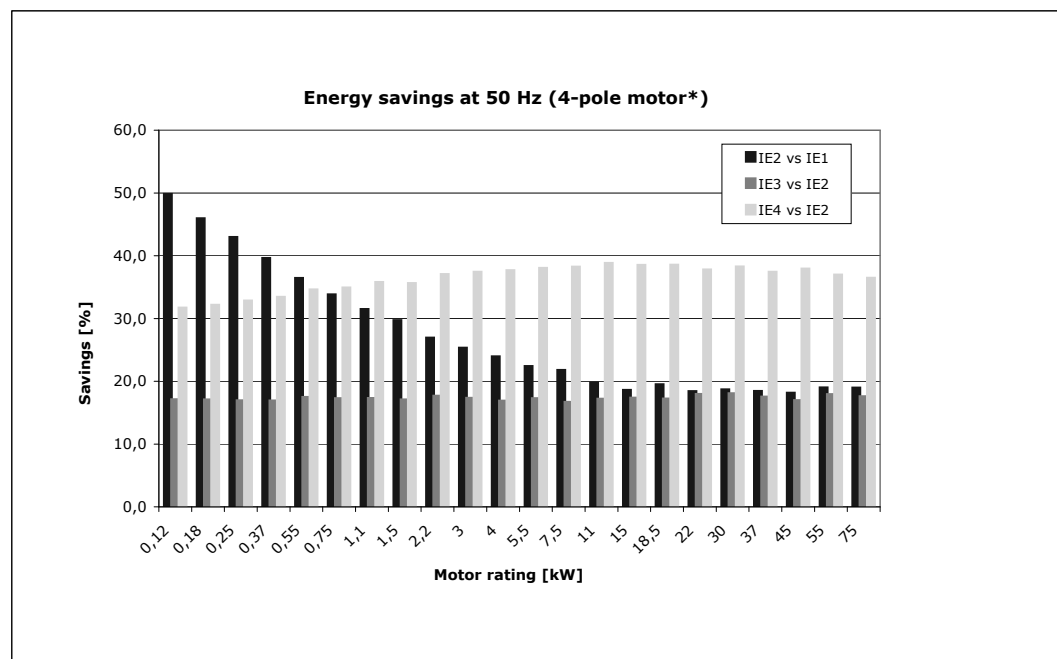
Catalogue geared motors IE3

General Product Overview

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



PN [kW]	ASM			PMSM			
	IE1*	IE2*	IE3*	IE3	IE4	IE3	IE4
				1500 rpm		3000 rpm	
0,12	DSE04LA4	DHE05LA4	DPE06LA4				
0,18	DSE05LA4	DHE06LA4	DPE07LA4				
0,25	DSE06LA4	DHE07LA4	DPE08MA4				
0,37	DSE07LA4	DHE08MA4	DPE08LA4				
0,55	DSE08MA4	DHE08LA4	DPE08XA4		SU08MA4		
0,75	DSE08LA4	DHE08XA4	DPE08XB4		S08MA4		
1,1	DSE09SA4	DHE09LA4	DPE09XA4		S08LA4		SU08MA4
1,5	DSE09LA4	DHE09XA4	DPE09XB4	S08LA4	S09SA4		S08MA4
2,2	DSE09XA4	DHE09XB4	DPE09XB4C	S09SA4	S09XA4	S08MA4	S08LA4
3	DSE11SA4	DHE11MA4	DPE11LA4	S09XA4	S11SA6		S08LA4
4	DSE11MA4	DHE11LA4	DPE11LB4	S11SA6	S11MA6		S09SA4
5,5	DSE11LA4	DHE11LB4	DPE11LB4C	S11MA6	S11LA6		S09XA4
7,5	DSE13MA4	DHE13LA4	DPE13XA4	S11LA6		S11SA6	S11MA6
9,5	DSE13LA4	DHE16MB4	DPE16LB4			S11MA6	S11LA6
11	DSE16MB4	DHE16LB4	DPE16LB4			S11MA6	S11LA6
15	DSE16LB4	DHE16XB4	DPE16XB4			S11LA6	
18,5	DSE16XB4	DHE18LB4	DPE18LB4				
22	DSE18LB4	DHE18XB4	DPE18XB4				
30	DSE18XB4	DHE20LA4	DPE20LA4				
37	DSE22SA4	DHE22SA4	DPE22SA4				
45	DSE22MA4	DHE22MA4	DPE22MA4				

*at 1.500 rpm



Page

Advantages for Bauer Geared Motors

9-12

Bauer Geared Motors
Bauer Gearboxes
Bauer-Motors
Bauer-Brakes

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, IE3 and IE4 as Standard)
- All efficiency classes in the same motor frame size. No motor size change.
- 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



Page

Selection of geared motors

13-18

Installed positions of geared motors
Notes on safety
Guards for rotating parts
Protection against accidental contact
Operating noise
Paint finish and corrosion protection
Modular system overview

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 Operating Instructions.
Guards for rotating parts	<p>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.</p> <p>See the Operating Instruction.</p>
Protection against accidental contact	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	<p>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.</p> <p>For physical reasons, low-ratio, high-speed gears produce more noise than medium- and high-ratio gears operating at low speeds.</p>
Paint finish and corrosion protection	<p>BAUER geared motors are spray-painted in RAL 7031 to DIN 1843 as standard. Other RAL colours are available at extra cost.</p> <p>The output shafts are shipped in protective sleeves or with a protective coating to prevent corrosion.</p> <p>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.</p> <p>Paint finishes up to 200 µm 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.</p>

Product Description

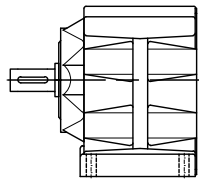
Modular system overview

2

Gear design

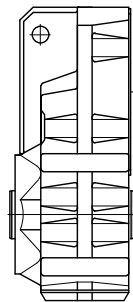
BG

Helical gear



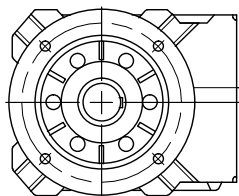
BF

Shaft-mounted gear



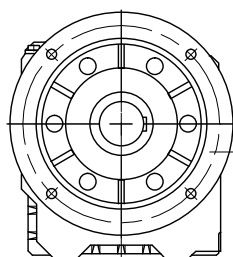
BK

Bevel gear



BS

Worm gear



Motor terminal box design

System cover

Pre-stage

Pre-stage + System cover

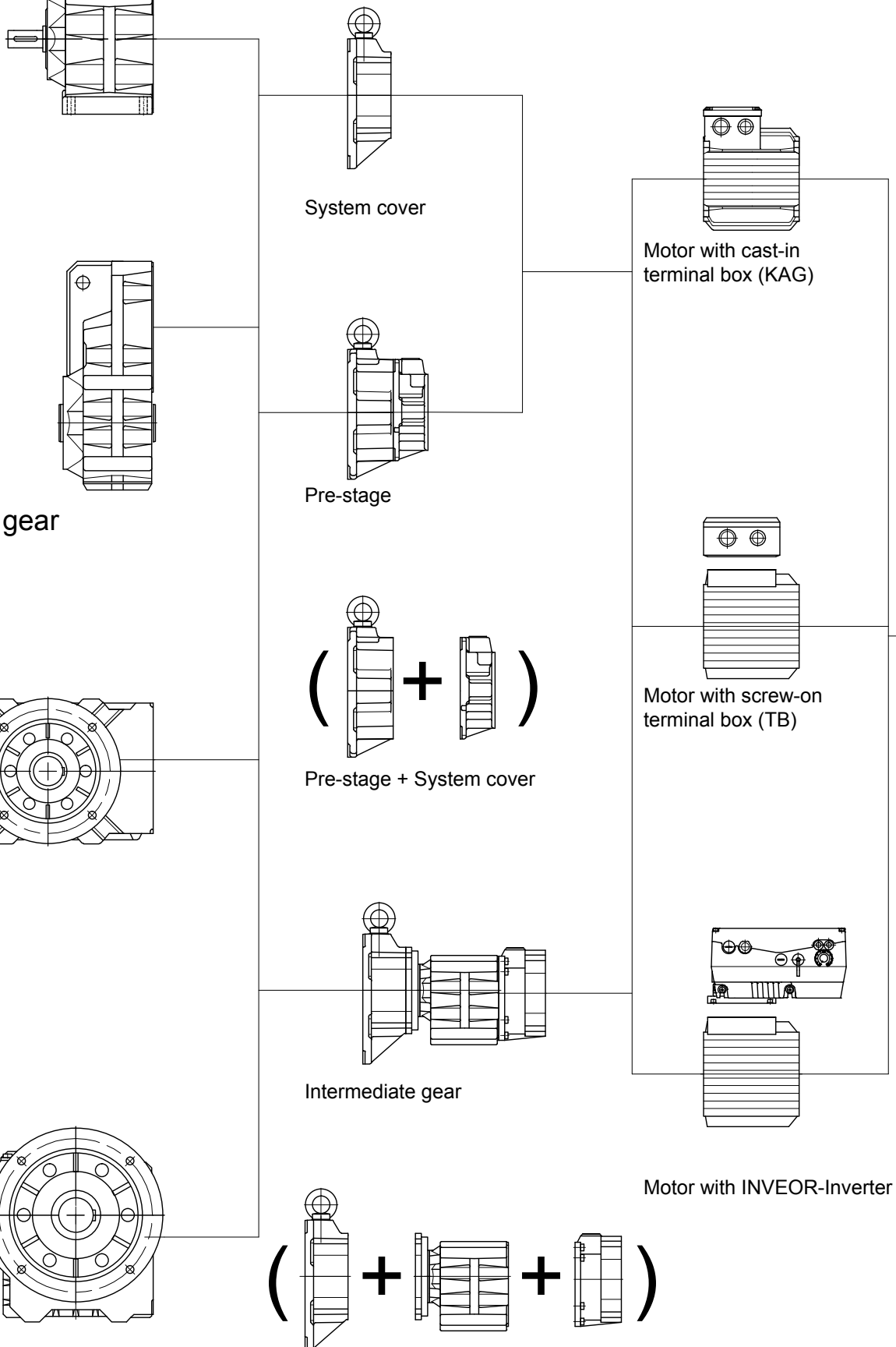
Intermediate gear

(System cover + Intermediate gear + System cover)

Motor with cast-in terminal box (KAG)

Motor with screw-on terminal box (TB)

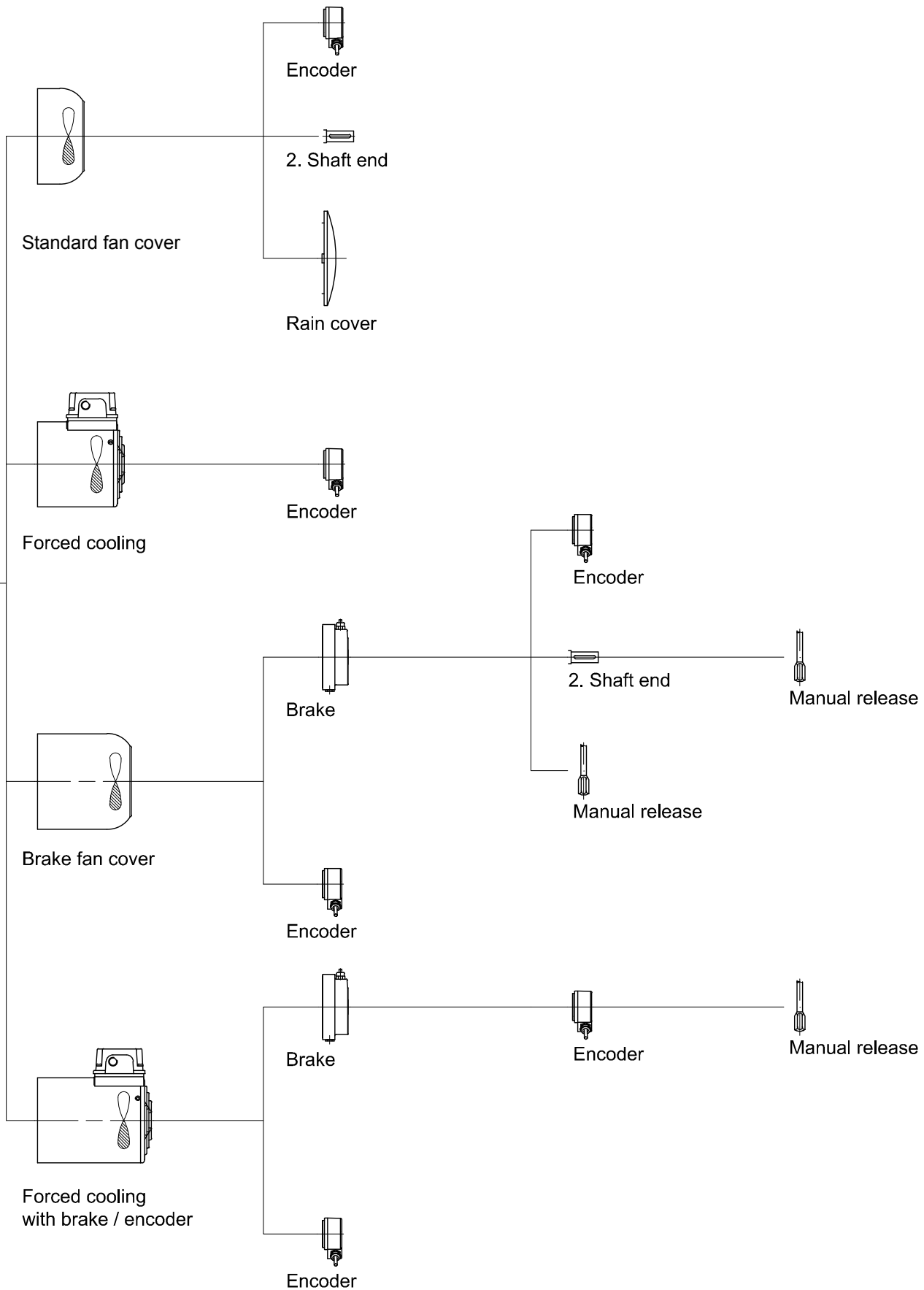
Motor with INVEOR-Inverter



Covers
B-side

Extensions
Standard motor

Extensions
Motor with brake



3

Bauer		D-73734 Esslingen	
3-Mot.No	A/	46/2014	
Type	BF40-74W/DPE09XA4-TX(C2-SP		
1.1 kW	cosφ	0,78	S1
60 Hz		400 V	2,45 A
n ₁₄₄₀	n ₂	21,6 (mm/s)	67,38
			485 Nm
M H2/V1	35	IP 65	4,9 L CLP 220
		t _{amb} -20...40°C	66,1 kg
		CE EN 60034	

Page

Type Designations

19-28

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

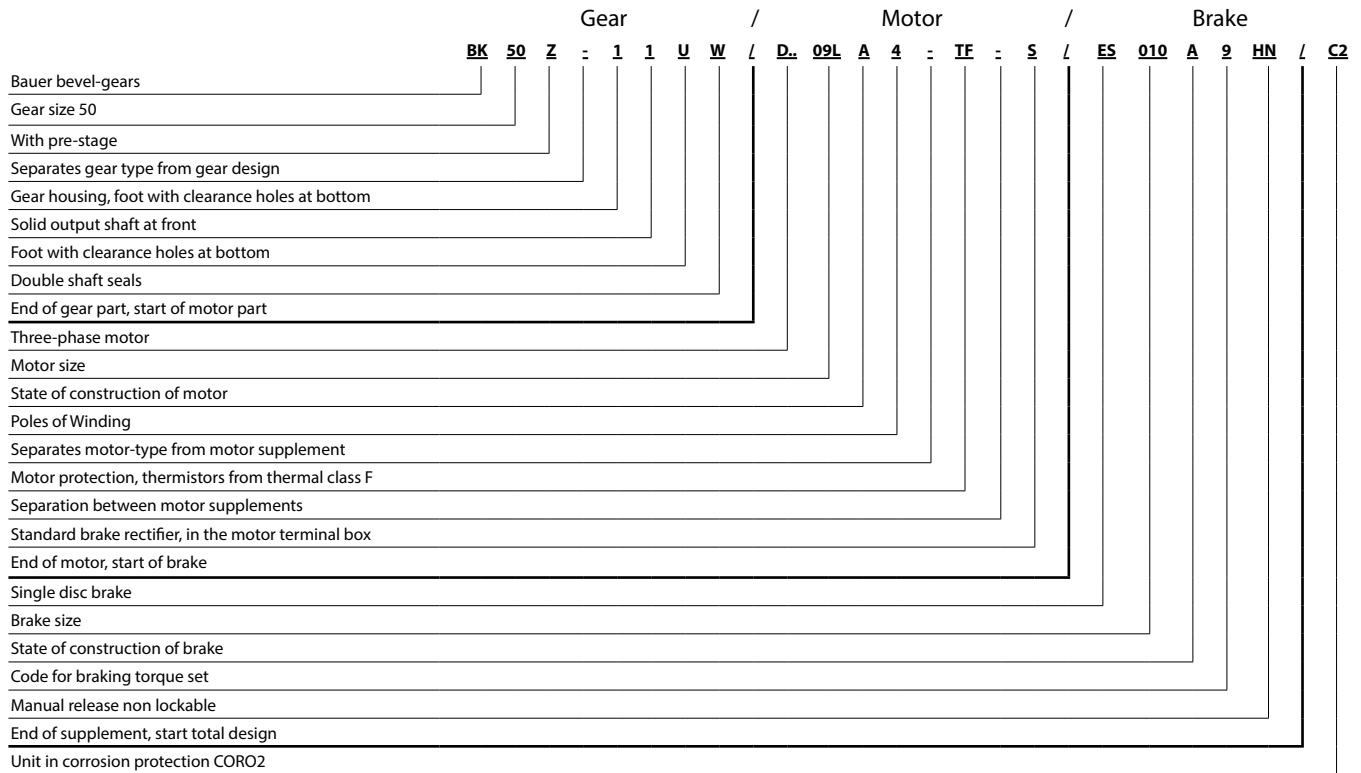
Significance of type designation

Example: Bauer bevel-gear 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.

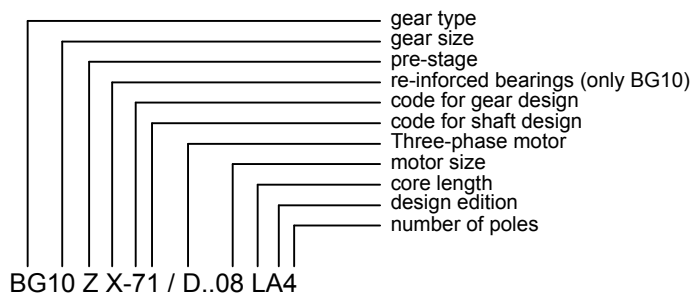
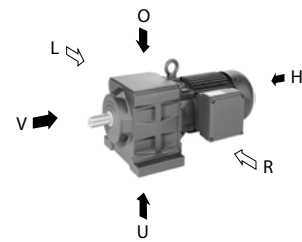
The build-up of the type designation is explained with the help of the following example of a bevel geared motor with brake and series options.



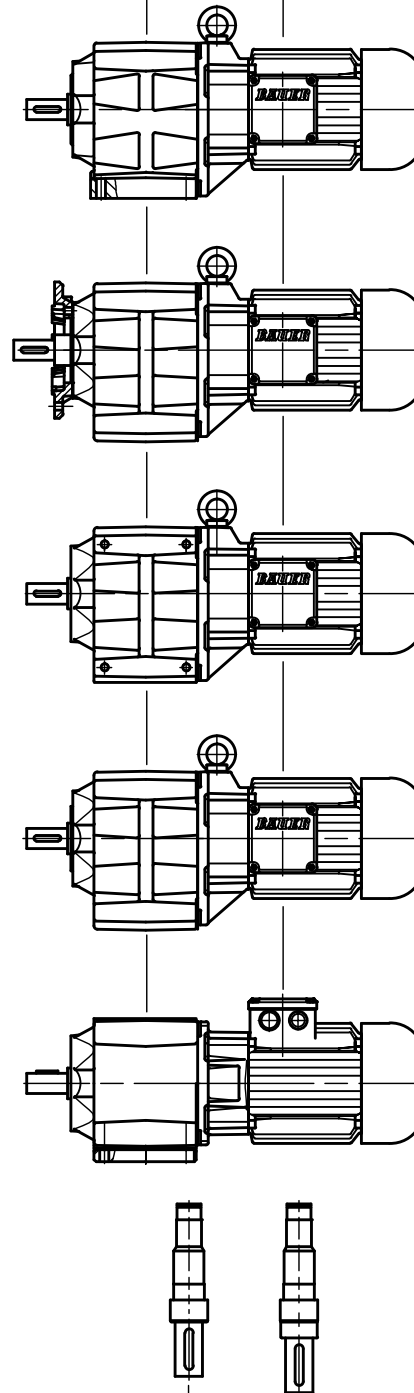
Type Designations

BG-series helical-geared motor

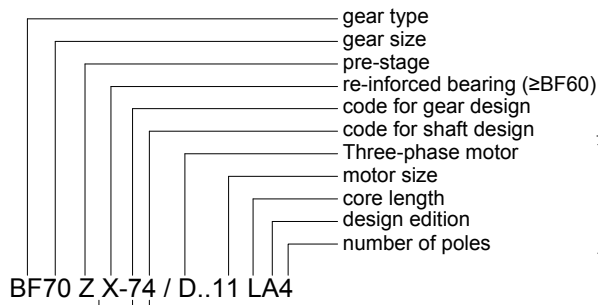
3



- Z- gear with pre-stage
- G- tandem gear
- 1 foot with through holes
- 2 small A-flange with through holes
- 3 standard A-flange with through holes
- 4 large A-flange with through holes
- 6 . L foot with threaded holes, left
- 6 . R foot with threaded holes, right
- 6 . LR foot with threaded holes, left and right
- 7 C-flange with threaded holes
- 8 completely machined
- 9 . L footplate, left
- 9 . R footplate, right
- 9 . LR footplate, left and right



- . 1 solid shaft on gear side V
- . 7 solid shaft on gear side V for flange as from BG10
- . . . W double shaft seals



- Z-.. gear with pre-stage
- X-.. gear with reinforced bearings
- G-.. tandem gear

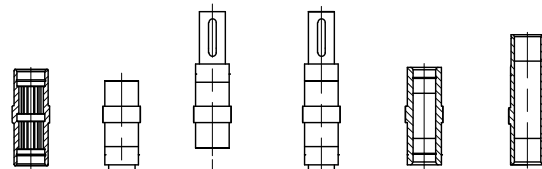
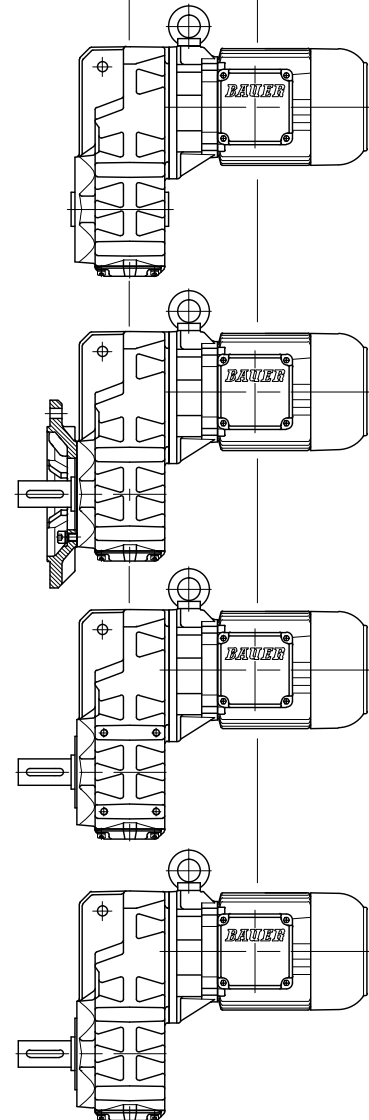
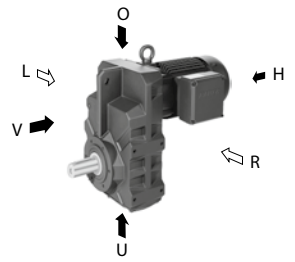
- 0 . cast-in torque arm

- 2 . small A-flange with through holes
- 3 . standard A-flange with through holes
- 4 . large A-flange with through holes

- 1 . LR — foot with through holes, right and left
- 6 . L — foot with threaded holes, left
- 6 . R — foot with threaded holes, right
- 6 . LR — foot with threaded holes, right and left

- 7 . C-flange with threaded holes
- 8 . completely machined

- . 0 splined shaft acc. DIN 5480
- . 1 solid shaft on gear side V
- . 2 solid shaft on gear side H
- . 3 solid shaft on gear side V and H
- . 4 hollow shaft with keyway
- . 5 hollow shaft with shrink disk SSV on side H
- . . W double shaft seals
- . . A cover for shrink disk SSV



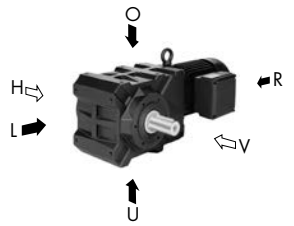
Type Designations

BK-series bevel-gear motor

3

gear type
 gear size
 pre-stage
 re-inforced bearing (\geq BK20)
 code for gear design
 code for shaft design
 Three-phase motor
 motor size
 core length
 design edition
 number of poles

BK20 Z X-64U / D06 LA4



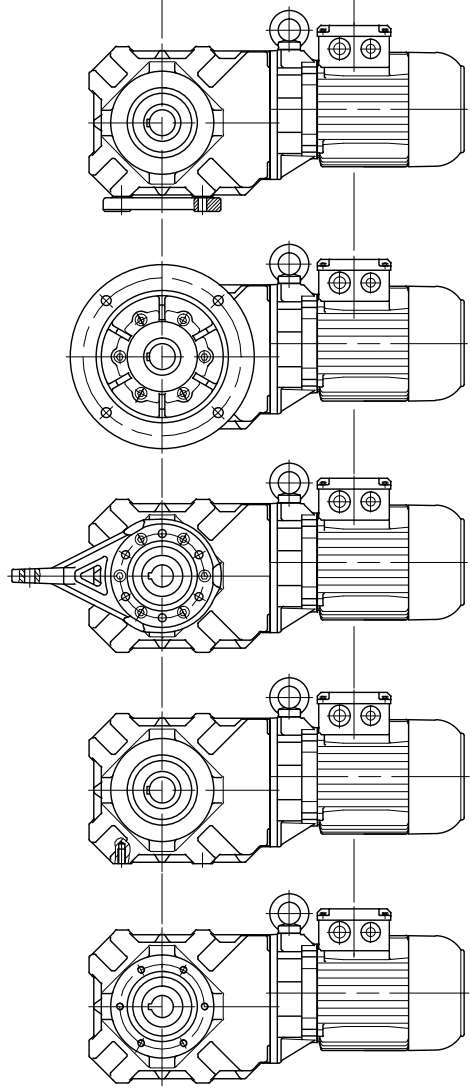
- 1 . U — foot with through holes, bottom
- 1 . L — foot with through holes, left
- 1 . O — foot with through holes, top

- 2 . V — small A-flange with through holes, front
- 3 . V — standard A-flange with through holes, front
- 4 . V — large A-flange with through holes, front
- . . H — A-flange, rear
- . . VH — A-flange, front and rear

- 5 . V — torque arm, front
- 5 . VL — torque arm, front to left
- 5 . VO — torque arm, front to top
- 5 . VU — torque arm, front to bottom
- 5 . HL — torque arm, rear to left
- 5 . HO — torque arm, rear to top
- 5 . HU — torque arm, rear to bottom

- 6 . U — foot with threaded holes, bottom
- 6 . L — foot with threaded holes, left
- 6 . O — foot with threaded holes, top

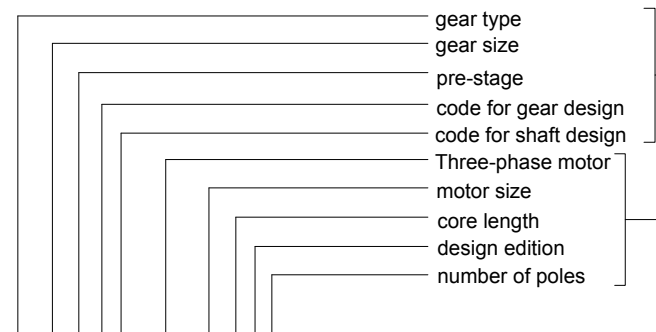
- 7 . V — C-flange with threaded holes, front
- 7 . H — C-flange with threaded holes, rear
- 7 . VH — C-flange with threaded holes, front and rear
- 8 . — completely machined



- . 0 Splined shaft acc. DIN 5480
- . 1 solid shaft on gear side V
- . 2 solid shaft on gear side H
- . 3 solid shaft on gear side V and H
- . 4 hollow shaft with keyway
- . 5 hollow shaft with shrink disk SSV on gear side H
- . 7 solid shaft at gear side V for flange (only BK06)
- . 8 solid shaft at gear side H for flange (only BK06)
- . 9 solid shaft at gear side V and H for flange (only BK06)
- . . W double shaft seals
- . . A cover for shrink disk SSV

Type Designations

BS-series worm-geared motor



BS40 Z-64U/ D..08 LA4

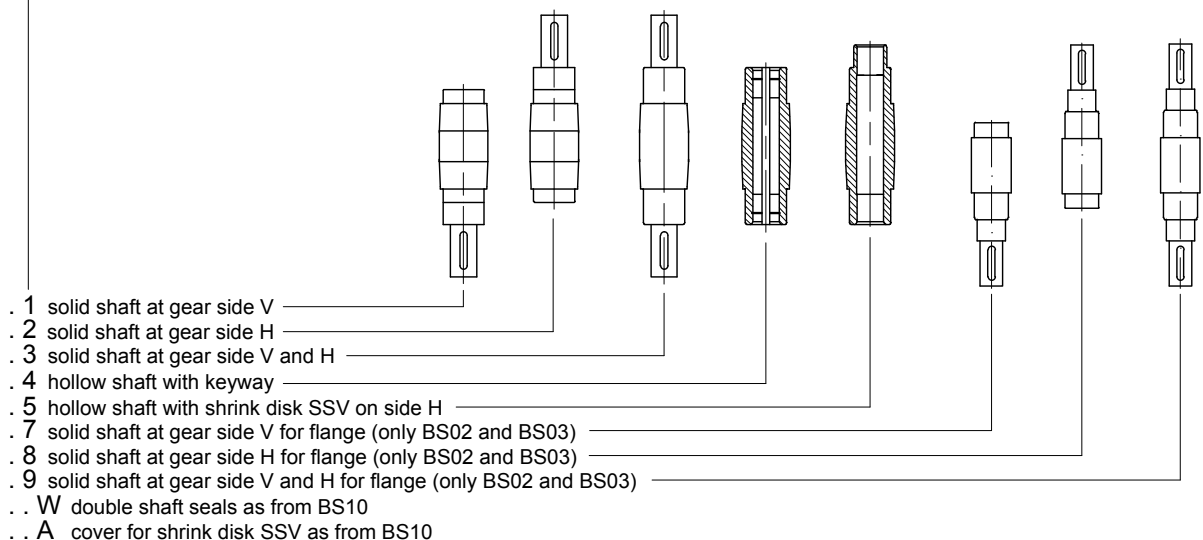
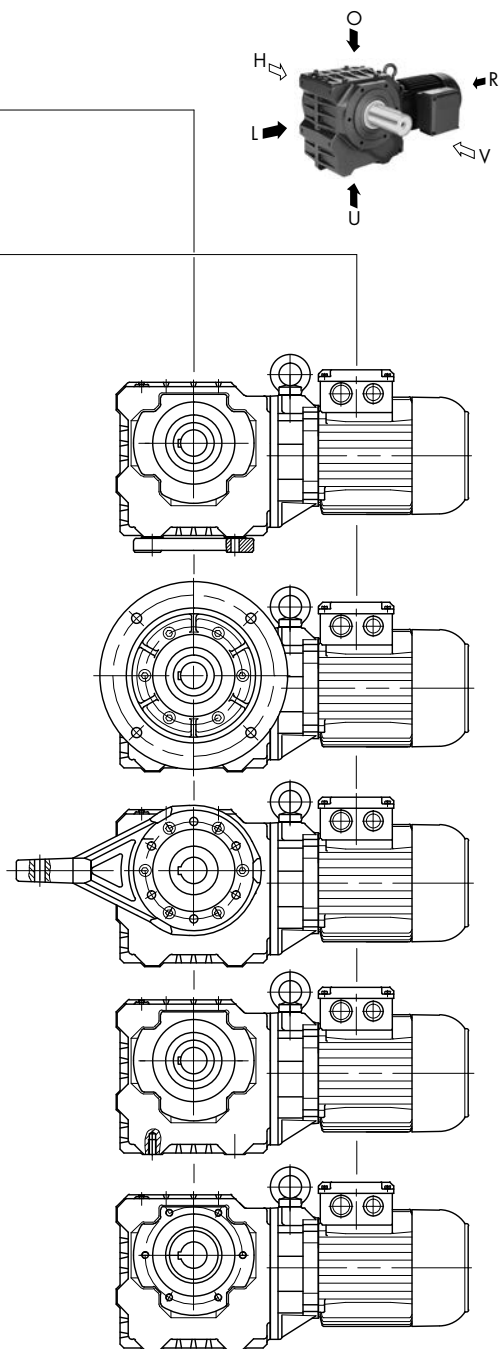
- 1 . U ———— foot with through holes, bottom
- 1 . L ———— foot with through holes, left
- 1 . O ———— foot with through holes, top

- 2 . V ———— small A-Flange with through holes, front
- 3 . V ———— standard A-Flange with through holes, front
- 4 . V ———— large A-Flange with through holes, front
- .. H ———— A-flange, rear (standard flange)
- .. VH ———— A-flange, front and rear (standard flange)

- 5 . V ———— torque arm, front
- 5 . VL ———— torque arm, front to left
- 5 . VO ———— torque arm, front to top
- 5 . VU ———— torque arm, front to bottom
- 5 . HL ———— torque arm, rear to left
- 5 . HO ———— torque arm, rear to top
- 5 . HU ———— torque arm, rear to bottom

- 6 . U ———— foot with threaded holes, bottom
- 6 . L ———— foot with threaded holes, left
- 6 . O ———— foot with threaded holes, top

- 7 . V ———— C-flange with threaded holes, front
- 7 . H ———— C-flange with threaded holes, rear
- 7 . VH ———— C-flange with threaded holes, front and rear
- 8 . ———— completely machined



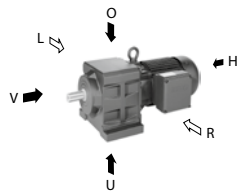
- . 1 solid shaft at gear side V
- . 2 solid shaft at gear side H
- . 3 solid shaft at gear side V and H
- . 4 hollow shaft with keyway
- . 5 hollow shaft with shrink disk SSV on side H
- . 7 solid shaft at gear side V for flange (only BS02 and BS03)
- . 8 solid shaft at gear side H for flange (only BS02 and BS03)
- . 9 solid shaft at gear side V and H for flange (only BS02 and BS03)
- .. W double shaft seals as from BS10
- .. A cover for shrink disk SSV as from BS10

Type Designations

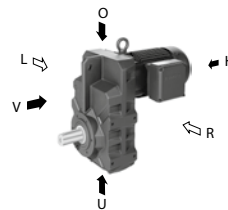
Versions and options

BG and BF series

BG series: type B3



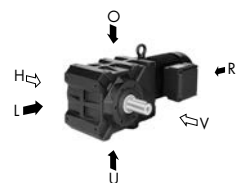
BF series: type H4



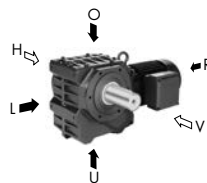
- V = Front
The side of the gear unit facing away from the motor or the source of motive power
- H = Rear
The side of the gear unit facing toward the motor or the source of motive power
- L = Left
The left side of the gear unit as viewed from the output shaft side of type B3 for the BG series or type 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

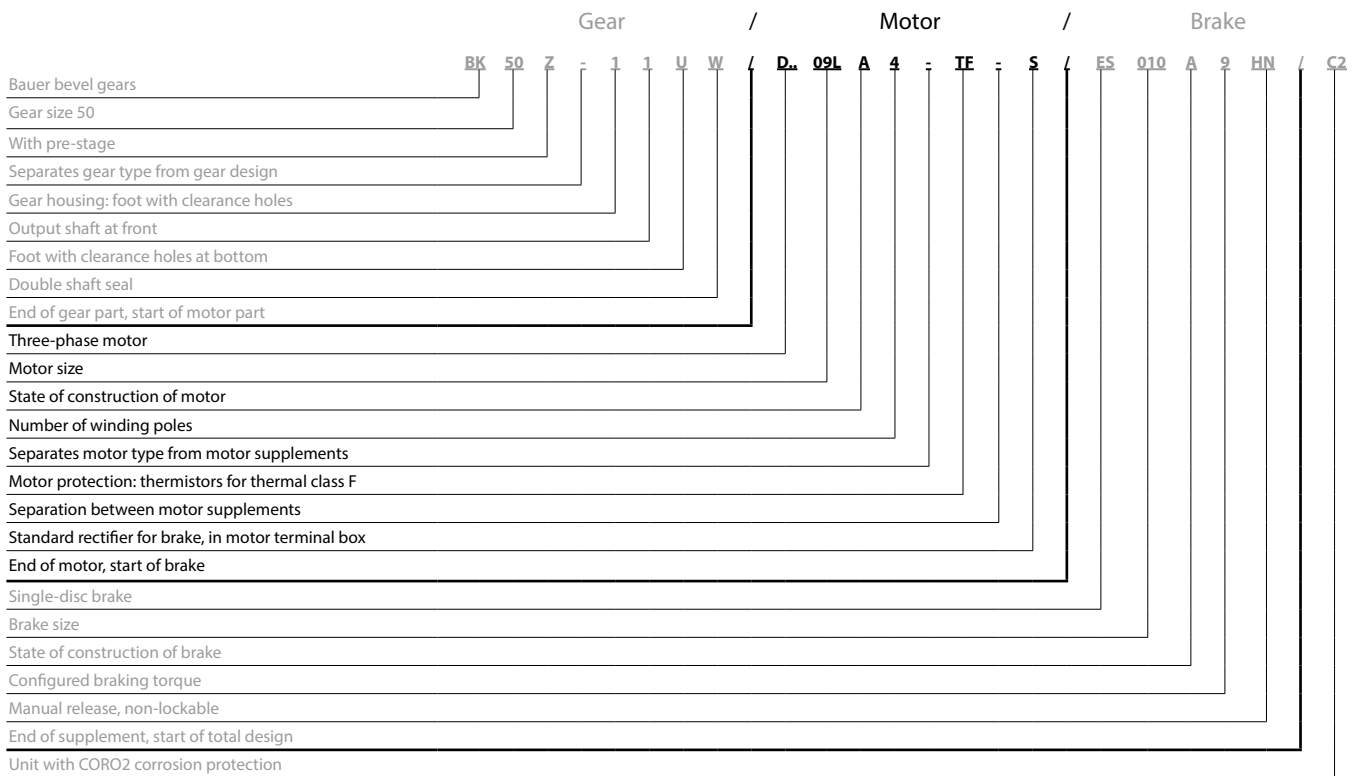
BK series: type H1



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 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



Three-phase motor

D	=	Three-phase motor
E	=	Single-phase motor (Steinmetz circuit)
S	=	PM-Synchronous motor
. A	=	Aseptic motor (germ-free drive)
. SE	=	Three-phase motor with enhanced efficiency compliant with IE1
. HE	=	Three-phase motor with enhanced efficiency compliant with IE2
. PE	=	Three-phase motor with enhanced efficiency compliant with IE3
. N	=	Motor without gear unit; foot-mount version
. NF	=	Motor without gear unit; flange-mount version
. R	=	Roller table motor
. XE	=	Explosion-proof motor with increased safety
. XD	=	Explosion-proof motors
. W	=	Torque motor
. L	=	Special rotor for traction and slewing gear motors
. C	=	With main and auxiliary windings; only with single-phase motors (EC...)
. V	=	Multiple voltage ranges (wide voltage range)
. U	=	Unventilated (no forced ventilation)

Motor protection

TB	=	Thermistor 140°
TF	=	Thermistor 160°
TH	=	Thermistor 180°
TEB	=	Thermistor warning/shutdown 120°/140°
TBF	=	Thermistor warning/shutdown 140°/160°
TFH	=	Thermistor warning/shutdown 160°/180°
TOB	=	Thermostatic switch, NC 140°
TOF	=	Thermostatic switch, NC 160°
TOH	=	Thermostatic switch, NC 180°
TSB	=	Thermostatic switch, NO 125°
TSF	=	Thermostatic switch, NO 160°
TSH	=	Thermostatic switch, NO 180°
TX	=	Other

Brake rectifier in motor terminal box

S	=	Standard rectifier	SG
E	=	Special rectifier	ESG
M	=	Special rectifier	MSG

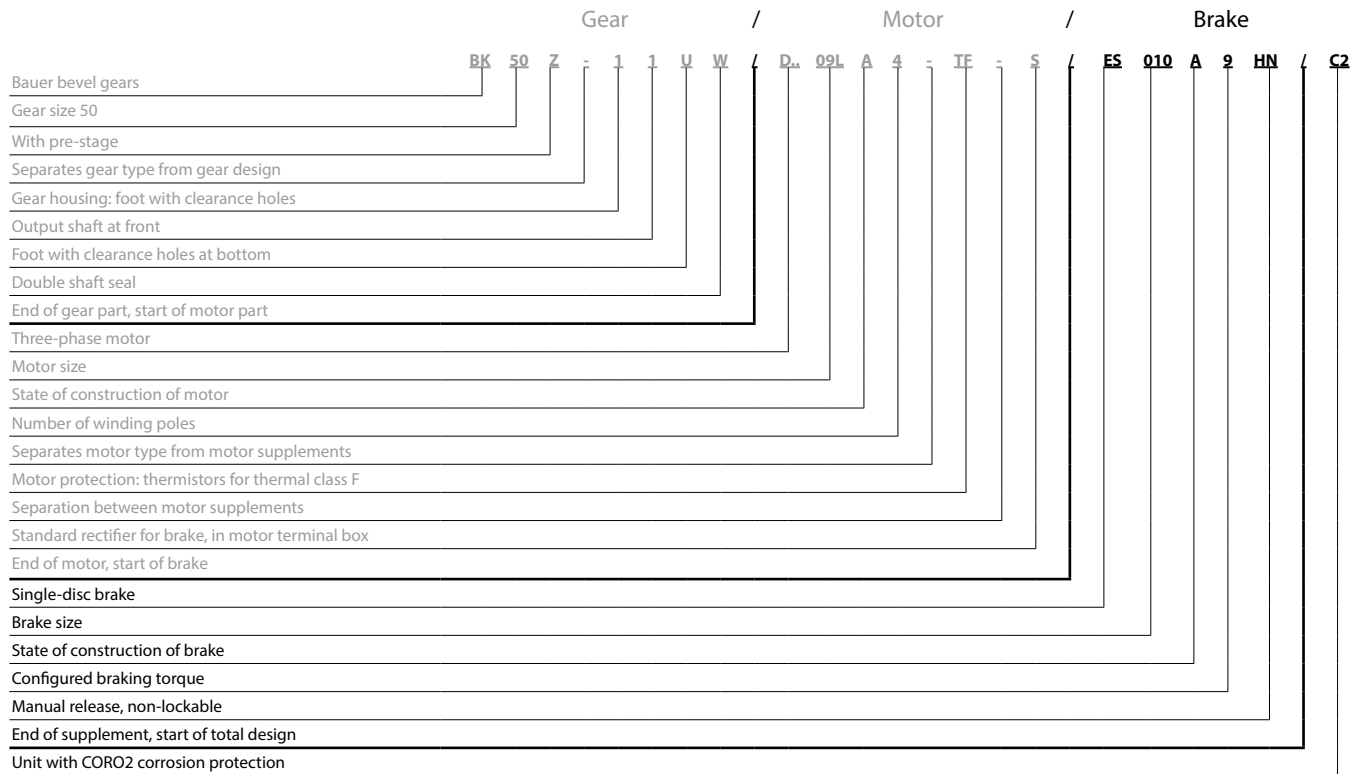
Plug connector Heavy-duty fan Protective cover CleanDrive™

ST	=	Harting (other)
SL		
D		
CD	=	Aseptic drive with cable

Type Designations

Supplement types

3



Brake

E	= Single-disc brake
ES	= Single-disc holding brake
EH	= Single-disc holding brake in heavy duty
ZS	= Two-disc holding brake
ESX	= Single-disc service brake
EHX	= Single-disc service brake in heavy duty version
ZSX	= Two-disc service brake
... 010	= Brake size
... .. A	= Construction state
... .. . 9	= Code for configured braking torque
... HN	= Manual release (not lockable)
... HA	= Manual release (lockable)

Reverse rotation block

RR	= Blocking direction clockwise
RL	= Blocking direction anticlockwise

Digital and analogue encoder

G

Second shaft end

ZW	= With key
ZV	= With square shaft

Forced ventilation

FV

Overall design

AV	= USA/Canada version with shaft dimensions in inches
AM	= USA/Canada version with metric shaft dimensions
UL	= US version
CS	= Canadian version
C1	= Coro1 corrosion protection
C2	= Coro2 corrosion protection
C3	= Coro3 corrosion protection
SP	= Non-catalogue version



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

Catalogue geared motors IE3

Selection of geared motors

RFQ data

Order

Bauer Gear Motor GmbH

Order / RFQ no.:

Fax: +49 (0)711 3518 381

Contact data:

Email: info@bauergears.com

Application:

(e.g. traction drive, hoist/lift drive, roller conveyor, feedscrew, etc.)

Gearbox type



BG

BF

BK

BS

Number of items

Efficiency class

not IE IE2 IE3

Type _____

Power _____ kW

Output shaft speeds _____ 1/min

Torque _____ Nm

Service factor $f_s =$ _____

Mounting arrangement/

Type of installation _____

Terminal box position _____

RAL 7031 or special RAL shade _____

Corrosion prevention **Standard** or CORO1 / CORO2 / CORO3 _____

Rated voltage _____ V type of business _____

Frequency _____ Hz

Thermistors

Thermostats

Ambient temperature _____ °C

Altitude [m] _____

Ambient conditions & installation site _____

Transmission component (direct, chain, gearwheel, belt, etc.) _____

Radial force on output shaft _____ N at a distance x from the shaft junction _____ mm

Axial force on output shaft _____ N

Operation with inverter

speeds of _____ 1/min to _____ 1/min

Cutoff frequency _____ Hz

Integrated frequency converter

Cabinet-mounted frequency converter

Gear unit design

Foot with clearance holes

A-Flange with clearance holes $D =$ _____ mm

C-Flange with tapped holes

Torque restraining arms with rubber buffers in L/T/B direction _____

Foot with tapped holes on L/R/LR/T/B side _____

Output shaft

Solid shaft on F/B/FB end _____

Hollow shaft

Hollow shaft for shrink-on disk

Motor-mounted components

brake

Type _____ Braking torque = _____ Nm

Supply voltage = _____ VAC _____ Hz or _____ V DC

manual release yes no

Microswitch Function monitoring Wear monitoring

Encoder

incremental

absolute

Pulse count _____

Output signal HTL TTL

Forced ventilation

Output shaft reverse rotation block (clockwise / anti-clockwise) _____

Special design features

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	[kgm ²]
J _{ext}	External moment of inertia	[kgm ²]
J _{ext}	External moment of inertia referred to the rotor shaft	[kgm ²]
J _{rot}	Rotor moment of inertia	[kgm ²]
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]
M _b	Deceleration torque	[Nm]
M _L	Braking or driving load torque	[Nm]
M _{gr}	Specific limiting torque of gearbox at gear ratio i	[Nm]
M _{Br}	Rated braking torque	[Nm]
i	Gear reduction ratio	
FI	Inertia ratio	

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:

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

Gear Motor Selection

Motor configuration

Determining the shock load

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.

Determining the minimum service factor f_{Bmin}

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:

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

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:

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

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

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.

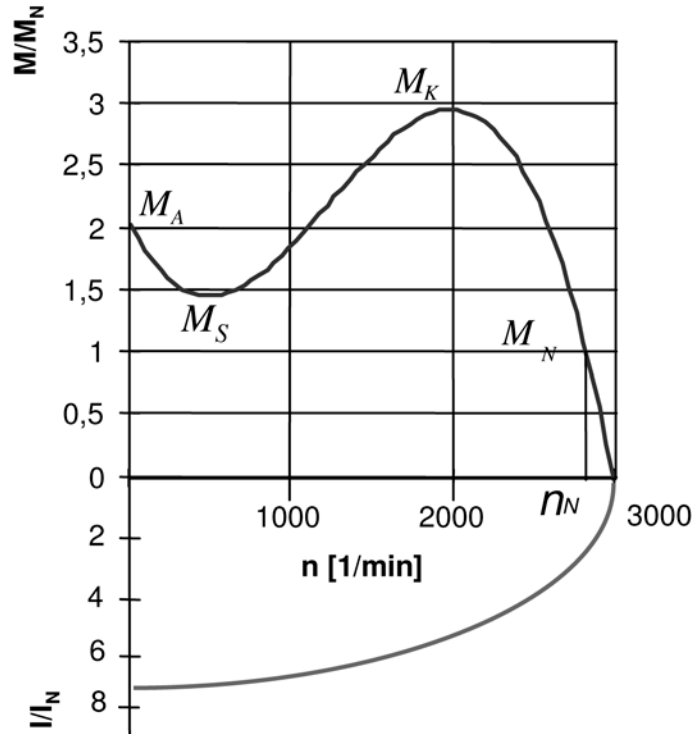
In the case of applications with significant external moments of inertia (FI greater than 2) and with operating cycles per hour, the brake size must always be selected on the basis of the thermally allowable braking energy. See Section 16 for detailed information on brake configuration.

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.

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 .

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.

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

P_{dyn}	Dynamic power [W]
m	Mass [kg]
a	Acceleration [m/s ²]
v	Velocity [m/s]
η	Efficiency

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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.

$$P_S = \frac{F_F \times v}{\eta}$$

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

Total power P_G

$$P_G = P_{\text{dyn}} + P_S$$

$$P_G = \frac{m \times a \times v}{\eta} + \frac{F_F \times v}{\eta}$$

Horizontal motion, rotary motion and vertical motion upwards	
Start-up time [s]	$t_A = \frac{\left[J_M + \frac{J_{\text{ext}}}{\eta} \right] \times n_M}{9,55 \times \left[M_A - \frac{M_L}{\eta} \right]}$
Cycle rate [c/h]	$Z = Z_0 \times \frac{1 - \left[\frac{M_L}{M_A \times \eta} \right]}{\left[\frac{J_S + \frac{J_{\text{ext}}}{\eta} + J_M}{J_M} \right]} \times K_L$
Vertical motion downwards	
Start-up time [s]	$t_A = \frac{\left[J_M + \frac{J_{\text{ext}}}{\eta} \right] \times n_M}{9,55 \times \left[M_A - (M_L \times \eta) \right]}$
Cycle rate [c/h]	$Z = Z_0 \times \frac{1 - \left[\frac{M_L \times \eta}{M_A} \right]}{\left[\frac{J_S + J_M + (J_{\text{ext}} \times \eta)}{J_M} \right]} \times K_L$

Motor selection

Example:

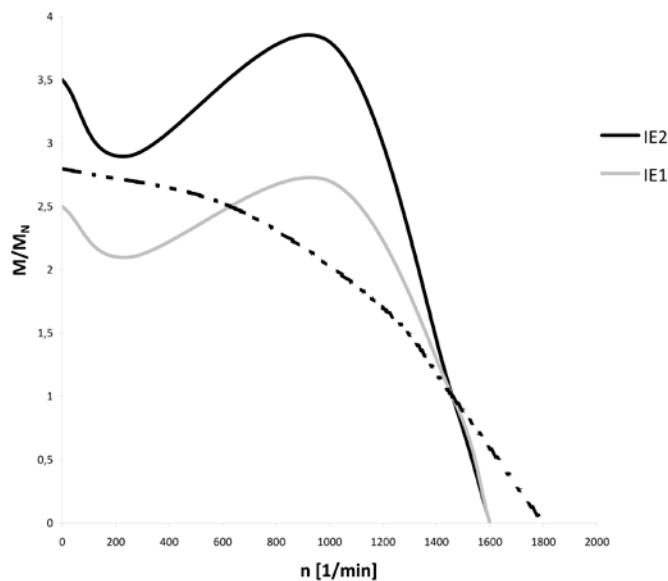
Required dynamic torque at motor (for acceleration):	126 Nm
Required static torque at motor	70.0 Nm
Total torque at motor:	196 Nm

P_N [kW]	Type	n_N [rpm]	M_N [Nm]	I_N 400 V [A]	$\cos \varphi$	η (100% load) [%]	η (75% load) [%]	η (50% load) [%]	I_A/I_N	M_A/M_N	M_S/M_N	M_K/M_N	J_{rot} [kgm ²]
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	DHE16MB4	1470	62	19,7	0,78	89,4	89,4	86,5	6,8	2,9	2,5	3,2	0,057
11	DHE16LB4	1470	71	22,5	0,78	90,3	90,0	88,3	7,9	3,5	2,9	3,8	0,076
15	DHE16XB4	1470	97	31	0,77	90,6	90,8	88,8	7,2	3,2	2,8	3,5	0,087
18,5	DHE18LB4	1470	120	35	0,83	91,5	91,7	90,0	7,9	3,6	3,0	3,3	0,160

P_N [kW]	Type	n_N [rpm]	M_N [Nm]	I_N 400 V [A]	$\cos \varphi$	η (100% load) [%]	η (75% load) [%]	η (50% load) [%]	I_A/I_N	M_A/M_N	M_S/M_N	M_K/M_N	J_{rot} [kgm ²]
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	DSE16MB4	1460	72	22,6	0,81	87,7	88,0	87,3	6,0	2,5	2,1	2,7	0,05700
15	DSE16LB4	1460	98	29,5	0,83	88,9	89,2	88,9	6,1	2,5	2,1	2,8	0,07600
18,5	DSE16XB4	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 (M_A) of IE2 motors (M_A/M_N 3.5) compared to IE1 motors (M_A/M_N 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



Gear Motor Selection

Motor configuration

No-load cycle rate Z_0

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 Z_0 :

P_N [kW]	Type	Z_0 [c/h]
0,12	DPE05LA4	65000
0,12	DPE06LA4	65000
0,18	DPE07LA4	47000
0,25	DPE08MA4	36000
0,37	DPE08LA4	27000
0,55	DPE08XA4	19000
0,75	DPE09LA4	15000
1,1	DPE09XA4	11000
1,5	DPE09XA4C	8700
2,2	DPE11MA4	6400
3	DPE11LA4	5000
4	DPE11LA4C	4000
5,5	DPE13LA4	3100
7,5	DPE13XA4	2400
9,5	DPE16LB4	2000
11	DPE16LB4	1800
15	DPE16XB4	1400
18,5	DPE18LB4	1200
22	DPE18XB4	1000

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 .

4

Load factor K_L

The load factor reflects the relative load P/P_N 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_L for 4-pole motors is determined as follows:

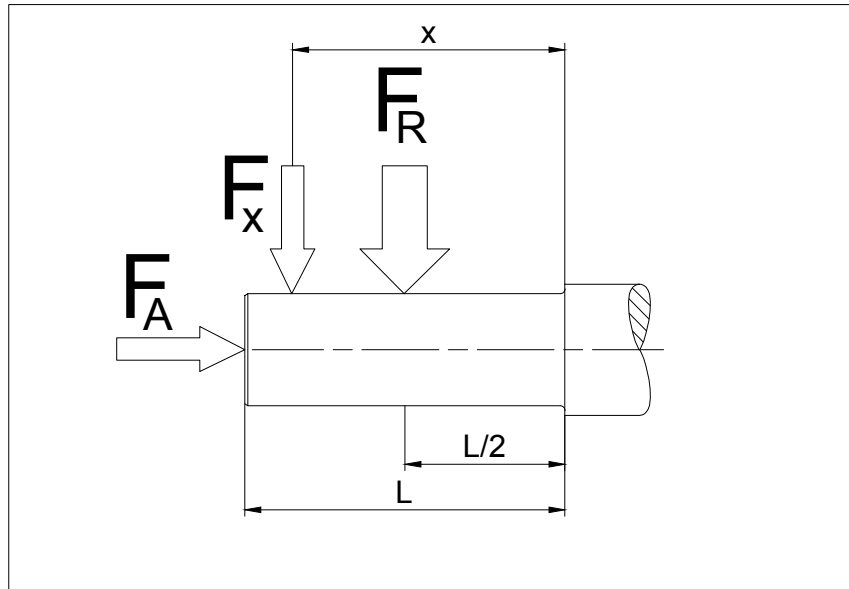
$$K_{L100} = 1 - \left(\frac{P}{P_n} \right)^{1,5}$$

$$K_L = 0,35 + (K_{L100} - 0,25) \times ED$$

Radial and axial forces on the output shaft

Maximum allowable radial force at force application point X

For each geared motor with a solid shaft, the allowable radial force $F_{R(N,V)}$ referred to the centre of the output shaft, $x = l/2$, 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.



4

$F_{R(N,V)}$	Allowable radial force ($x = l/2$) according to the selection tables [N]
X	Distance from shaft junction to the force application point [mm]
F_A	Axial force [N]

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 l , please consult us.

Bearing load limit

$$F_{XL1} = F_q \times \frac{0,5 + b}{\left(\frac{X}{l} + b\right)}$$

$$F_{XL2} = F_q \times \frac{0,5 + a}{\left(\frac{X}{l} + a\right)}$$

Gear Motor Selection

Radial and axial forces on the output shaft

Shaft strength

$$F_{XW1} = F_{qmax} \times \frac{0,5}{\left(\frac{X}{l}\right)}$$

$$F_{XW2} = F_{qmax} \times \frac{0,5 + c}{\left(\frac{X}{l} + c\right)}$$

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	l	a	b	c
BG04	Normal	-1	24	0,5625	1,5	-
BG05	Normal	-1	28	0,5893	1,3929	-
BG06	Normal	-1	30	0,6667	1,4167	-
BG10	Normal	-1	40	0,7125	1,6750	-
		-7		1,1000	2,0625	-
BG20	Normal	-1	50	0,6100	2,2500	-
		-7		0,9400	2,5800	-
BG30	Normal	-1	60	0,5917	2,1750	-
		-7		0,9417	2,5250	-
BG40	Normal	-1	60	0,6917	2,3667	-
		-7		1,0083	2,6833	-
BG50	Normal	-1	80	0,5625	2,0000	-
		-7		0,8563	2,2938	-
BG60	Normal	-1	100	0,5300	2,0200	-
		-7		0,7650	2,2550	-
BG70	Normal	-1	120	0,4750	1,7292	-
		-7		0,7292	1,9833	-
BG80	Normal	-1	140	0,4286	1,7000	-
		-7		0,6000	1,8714	-
BG90	Normal	-1	200	0,3675	1,5300	-
		-7		0,5825	1,7450	-
BG100	Normal	-1	220	0,3477	1,4341	-
		-7		0,5386	1,625	-

Shaft-mounted gear unit BF series

Frame size	Bearings	Output shaft code	l	a	b	c
BF06	Normal	-.1	50	0,4500	1,4100	-
BF10	Normal	-.1	60	0,5083	1,4833	-
		-.2		0,6500	1,6250	-
BF20	Normal	-.1	70	0,4286	1,3571	-
		-.2		0,5571	1,4857	-
BF30	Normal	-.1	80	0,3875	1,2563	-
		-.2		0,5688	1,4375	-
BF40	Normal	-.1	100	0,4050	1,2250	-
		-.2		0,5250	1,3450	-
BF50	Normal	-.1	120	0,3125	1,0625	-
		-.2		0,3959	1,1458	-
BF60	Normal	-.1	140	0,3286	1,0821	-
		-.2		0,4036	1,1571	-
	Reinforced	-.1		-	-	0,2750
		-.2		-	-	0,3643
BF70	Normal	-.1	180	0,2722	1,0566	-
		-.2		0,3056	1,0889	-
	Reinforced	-.1		-	-	0,2194
		-.2		-	-	0,2639
BF80	Normal	-.1	220	0,2878	1,3536	-
		-.2		0,2873	1,3518	-
	Reinforced	-.1	-	-	0,2364	
		-.2	-	-	0,2268	

Gear Motor Selection

Radial and axial forces on the output shaft

Bevel gear unit BK series

4

Frame size	Bearings	Output shaft code	l	a	b	c
BK06	Normal	-1	40	0,4375	1,9875	-
		-2		0,4375	1,9875	-
		-7		0,9125	2,4625	-
		-8		0,9125	2,4625	-
BK10	Normal	-1	60	0,5917	2,2417	-
		-2		0,5917	2,2417	-
BK20	Normal	-1	70	0,5071	2,2357	-
		-2		0,5071	2,2357	-
	Reinforced	-1		-	-	0,3929
		-2		-	-	0,3929
BK30	Normal	-1	80	0,5250	2,2750	-
		-2		0,5250	2,2750	-
	Reinforced	-1		-	-	0,4125
		-2		-	-	0,4125
BK40	Normal	-1	100	0,4300	2,1700	-
		-2		0,4300	2,1700	-
	Reinforced	-1		-	-	0,3400
		-2		-	-	0,3400
BK50	Normal	-1	120	0,4083	1,9417	-
		-2		0,4083	1,417	-
	Reinforced	-1		-	-	0,3250
		-2		-	-	0,3250
BK60	Normal	-1	140	0,3536	1,8036	-
		-2		0,3536	1,0836	-
	Reinforced	-1		-	-	0,3121
		-2		-	-	0,2979
BK70	Normal	-1	180	0,2861	1,6694	-
		-2		0,2861	1,6694	-
	Reinforced	-1		-	-	0,2428
		-2		-	-	0,2317
BK80	Normal	-1	220	0,2818	1,5545	-
		-2		0,2818	1,5545	-
	Reinforced	-1		-	-	0,2305
		-2		-	-	0,2214
BK90	Normal	-1		0,2519	1,6096	-
		-2		0,2519	1,6096	-
	Reinforced	-1		-	-	0,1989
		-2		-	-	0,1912

Worm gear unit BS series

Frame size	Bearings	Output shaft code	l	a	b	c
BS02	Normal	-1	30	0,6	2,1	-
		-2		-	-	-
		-7		1,3333	2,8333	-
		-8		-	-	-
BS03	Normal	-1	40	0,4375	1,9875	-
		-2		-	-	-
		-7		0,9125	2,4625	-
		-8		-	-	-
BS04	Normal	-1	40	0,5375	1,7875	-
		-2		-	-	-
BS06	Normal	-1	50	0,4800	1,9400	-
		-2		-	-	-
BS10	Normal	-1	60	0,5917	2,3083	-
		-2		-	-	-
BS20	Normal	-1	70	0,5500	2,4357	-
		-2		-	-	-
BS30	Normal	-1	80	0,5312	2,4313	-
		-2		-	-	-
BS40	Normal	-1	120	0,4292	1,7042	-
		-2		-	-	-

Transmission components

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

$$F_R = \frac{2000 \times M}{D_T} \times f_z \leq F_{R(N,V)}$$

- F_R Radial force [N]
- M Torque [Nm]
- D_T Pitch radius of the transmission component [mm]
- f_z 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 F_R that is present.

Gear Motor Selection

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:

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

Savings potential

Motor: η_{motor}

In accordance with the Motor Regulation 16640/2009/EC, the legally binding EU ErP directive 2009/125/EC specifies IE3 (Premium Efficiency) as the minimum efficiency for new motors operating in continuous running duty (S1) $\geq 0,75$ kW, effective 01. January 2017.

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 IE3 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. This is only partly valid as the lower the loading, the lower the corresponding efficiency. Over dimensioning of the motor by use of more material does not make sense from an environmental stand point.

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]	Type	n_N [rpm]	M_N [Nm]	I_N 400 V [A]	$\cos \varphi$	η (100% load) [%]	η (75% load) [%]	η (50% load) [%]	I_A/I_N	M_A/M_N	M_S/M_N	M_K/M_N	J_{rot} [kgm ²]
1,1	DPE09XA4	1440	7,3	2,4	0,76	85,0	84,1	81,2	7,1	3,6	3,2	4,0	0,0038
2,2	DPE09XB4C	1450	14,5	4,6	0,80	86,8	87,3	86,1	7,0	2,4	2,1	3,5	0,0069
2,2	DPE11MA4	1450	14,5	4,5	0,81	87,0	86,5	84,6	7,8	3,7	3,0	4,0	0,0105

Even with 50 % capacity utilisation, the two 2.2 kW motors have higher efficiency than the fully utilised (100 % load) 1.1 kW motor. Nevertheless, fully loading of the motor makes the most sense due to the named reasons.

Thanks to the large thermal margins of IE3 motors, there is no need for additional safety margins in design parameters.

However, with very high cycle rates the higher starting torque of IE3 motors, and the associated higher gear acceleration loads, should be taken into account.

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
R_{VL}, R_{VO}	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. The change of mains driven motors on 16th June 2011 for duty cycle S1 from motor efficiency class IE1 to IE2 or IE2 to IE3 respectively results in power based extra costs for end users of electric motors when purchasing the 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 IE3 motors. As a result, the investment payback time of the motor will extend longer into the lifetime of the system.

Gear Motor Selection

Sizing based on efficiency

4

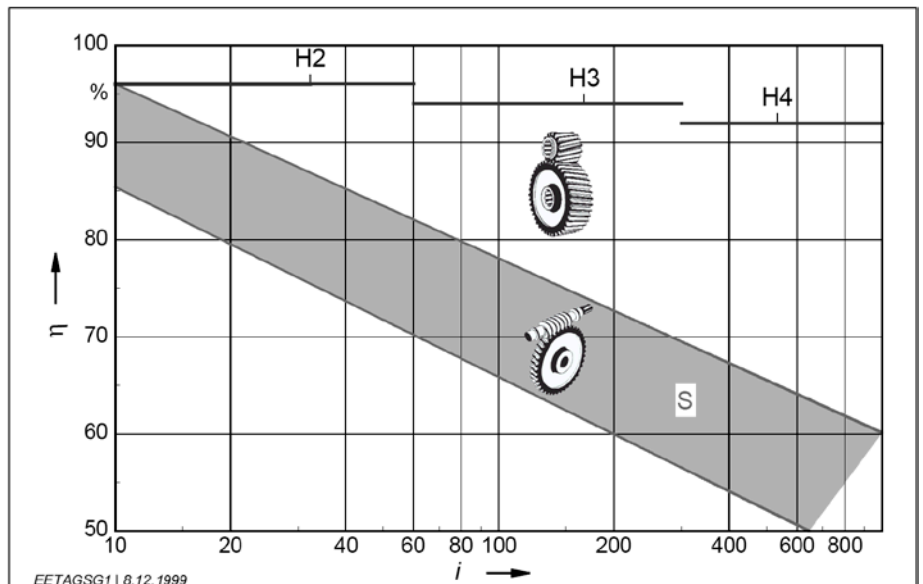
Consequently, the most cost-effective motor selection must be based on the following factors.

- 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

Gear efficiency η_{gear}

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 (η) 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.

Gear Motor Selection

Sizing based on efficiency

System efficiency η_{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 component	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 tothing, according to manufacturer's data	0.94–0.98

Gear Motor Selection

Shock loads of machinery

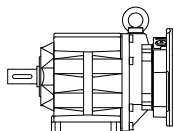
Shock loads for various types of machinery are listed in standards and guidelines as well as industry-specific documents and manufacturer's documents. If for example a crusher or a press is listed here with an shock load class of III, this is justified. On the other hand, under favourable conditions 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).

Drive	Shock load		
Construction machinery			
Construction lifts		II	
Concrete mixers		II	
Road construction machinery		II	
Chemical industry			
Cooling drums		II	
Mixers		II	
Stirrers (light media)	I		
Stirrers (viscous media)		II	
Drying drums		II	
Centrifuges (light)	I		
Centrifuges (heavy)		II	
Transport and conveying systems			
Hauling winches		II	
Conveying machines			III
Apron conveyors		II	
Belt conveyors (bulk material)	I		
Belt conveyors (piece goods)		II	
Bucket belt conveyors		II	
Chain conveyors		II	
Circular conveyors		II	
Freight lifts		II	
Flour bucket conveyors	I		
Passenger lifts		II	
Flat belts		II	
Screw conveyors		II	
Gravel bucket conveyors		II	
Inclined lifts			III
Steel belt conveyors		II	
Chain conveyors		II	
Blowers and fans			
Roots blowers		II	
Blowers (axial and radial)	I		
Cooling tower fans		II	
Suction blowers		II	

Drive	Shock load		
Rubber			
Extruders			III
Calenders		II	
Kneaders			III
Mixers		II	
Rolling mills			III
Timber processing and woodworking			
Debarking drums			III
Planers		II	
Woodworking machinery	I		
Saw frames			III
Crane systems			
Luffing mechanisms	I		
Traversing mechanisms			III
Hoisting mechanisms	I		
Slewing mechanisms		II	
Jib mechanisms		II	
Plastics			
Extruders		II	
Calenders		II	
Mixers		II	
Grinders and pulverisers		II	
Metalworking			
Plate bending machines		II	
Plate straightening machines			III
Hammers			III
Planers			III
Presses			III
Shears		II	
Forging presses			III
Punches			III
Countershafts and driveshafts	I		
Machine tools (principal)		II	
Machine tools (ancillary)	I		

Drive	Shock load		
Food processing			
Filling machines	I		
Kneading machines		II	
Mashing machines		II	
Packaging machines	I		
Sugar cane cutters		II	
Sugar cane mills			III
Sugar beet cutters		II	
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		II	
Descaling machines			III
Sheet metal mills			III
Plate mills			III
Winders (strip and wire)		II	
Cold rolling mills			III
Chain transports		II	
Billet shears			III
Cooling beds		II	
Cross transports		II	
Roller tables (light)		II	
Roller tables (heavy)			III
Roll straighteners		II	
Tube welders			III
Trimming shears		II	
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	



Gearboxes and Lubrication

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Standard mounting

- BG and BF
- BK and BS

Position of the terminal box and the cable 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

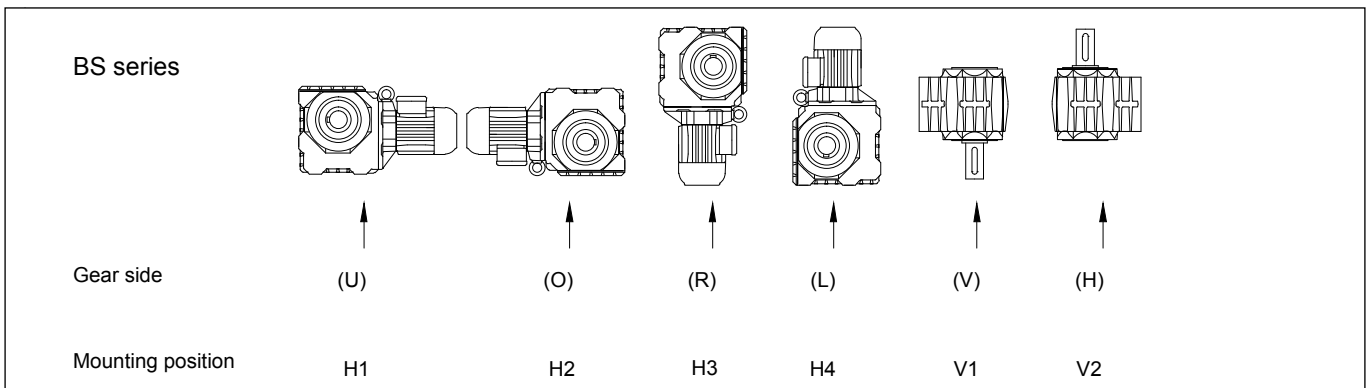
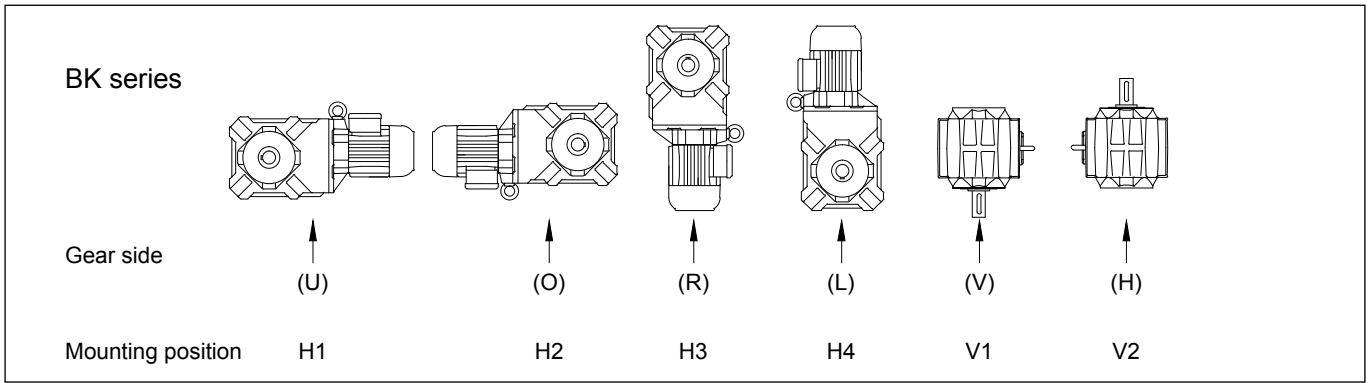
Position of threaded plugs

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

Position of the drain plugs in the System Cover

Gearboxes & Lubrication

Standard mounting positions



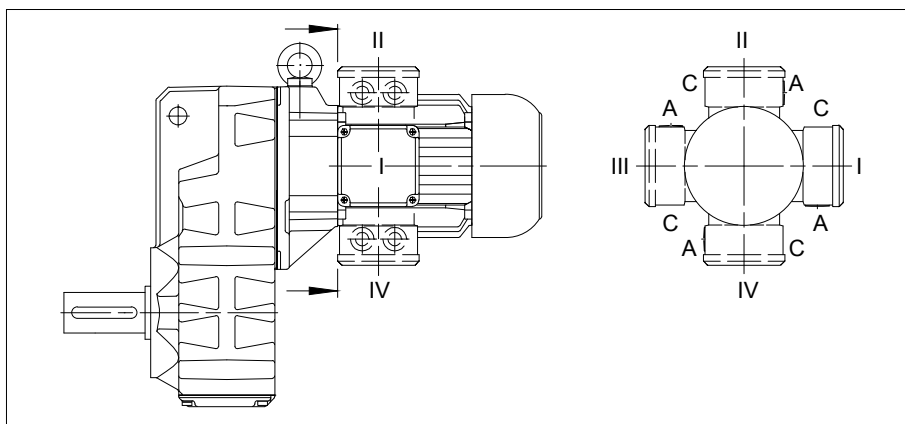
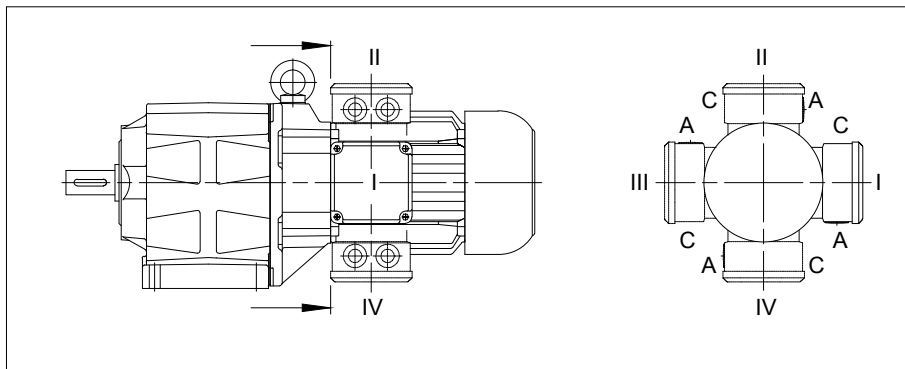
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Gearboxes & Lubrication

Position 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.

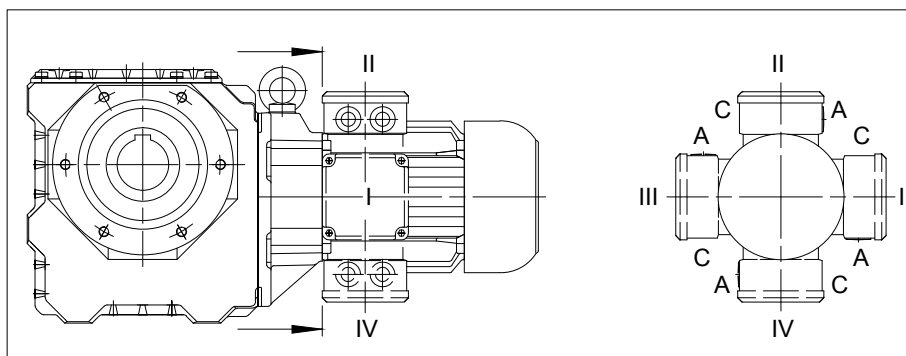
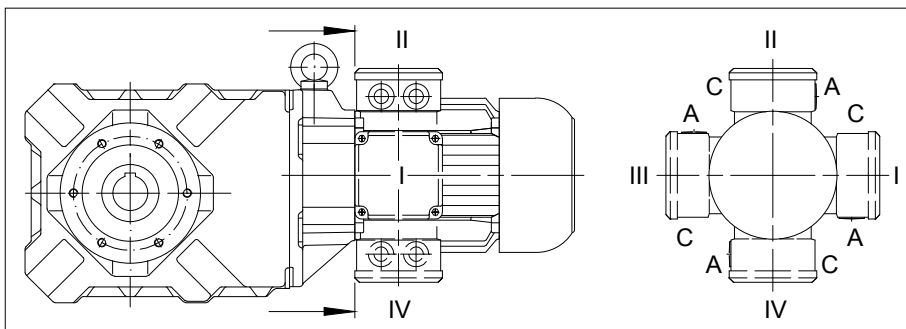


Turning or rotating the gearbox in space in the different mounting positions according to DIN 42950 does not influence the marking as shown. The details of the terminal box always show the position of the terminal box and the cable entry in relation to the gearbox and not in space. The mounting according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

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

The standard position of the terminal box for bevel-gear and worm-gear 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.

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 Page 1) 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")

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 chapter 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.

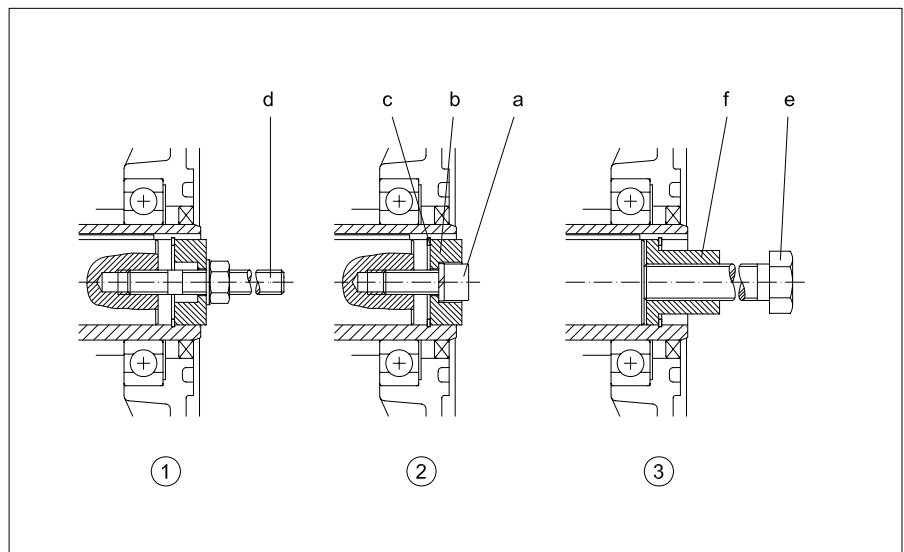
(2) Axial fastening

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 chapter 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 threaded 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









Gearboxes & Lubrication

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° 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		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	ASN 13 02 06	ASN 13 02 06
Lubricant Manufacturer	Standard oil for gearboxes in the series BF06-BF90 BG04-BG100 BK60-BK90	Low temperature oil for gearboxes in the series BF06-BF90 BG04-BG100	BK06-BK90 BM09-BM40 BS02-BS40	Standard oil for gearboxes in the series BS02-BS10 BK06-BK10 BM09-BM40 High temperature oil for gearboxes in the series BS02-BS10 BK06-BK10 BF06-BF90 BG04-BG100 BK60-BK90 BM09-BM10	Standard oil for gearboxes in the series BS20-BS40 BK17-BK50 BM20-BM40 High temperature oil for gearboxes BS20-BS40 BK17-BK50 BM20-BM40	Food and Beverage Industry Oil for gearboxes in the series BF06-BF90 BG04-BG100 BK06-BK90 BM09-BM40 BS02-BS40
AGIP 	BLASIA 220			BLASIA S 220	BLASIA S 460	
BECHER RHUS 	STAROIL G 220		BERUSYNTH EP 68	BERUSYNTH EP 220	BERUSYNTH EP 460	BERUSYNTH EP 220 H1
CASTROL 	ALPHA EP 220 ALPHA SP 220 ALPHA BMB 220 OPTIGEAR BM 220 OPTIGEAR EP 220 OPTIGEAR 1100/220	Alphasyn T68		ALPHASYN PG 220 OPTIGEAR 800/220 OPTIGEAR 1300/220 ALPHASYN GS 220	ALPHASYN PG 460 OPTIGEAR 800/460 OPTIGEAR 1300/460 ALPHASYN GS 460	OPTILEB GT 220 (CLP-HC) OPTILEB GT 1800/220 (CLP-PG)
CHEVRON	GEARTEX EP-A SAE 85W-90 Meropa 220		SYNLUBE WS 68	SYNLUBE WS 220	SYNLUBE WS 460	Chevron lubricating oils FM 220 (USA)
FUCHS 	RENOLIN CLP 220 RENOLIN CLPF 220 SUPER RENOLIN CLPF 220 PLUS	RENOLIN UNISYN CLP 68	RENOLIN PG 68	RENOLIN PG 220	RENOLIN PG 460	CASSIDA FLUID GL 220
KLÜBER 	KLÜBEROIL GEM 1-220 N		KLÜBER-SYNTH GH6-80	KLÜBERSYNTH GH6-220	KLÜBERSYNTH GH 6-460	KLÜBEROIL 4UH1-220 N KLÜBERSYNTH UH1 6-220
MOBIL 	MOBILGEAR 600 XP 220	MOBIL SHC 626				MOBIL SHC CIBUS 220
OEST 	Gearol C-LP 220					
SHELL	OMALA S2 GX220			OMALA S4 WE 220	OMALA S4 WE 460	
TOTAL 	CARTER EP 220 CARTER XEP 220			CARTER SY 220	CARTER SY 460	NEVASTANE SL220 NEVASTANE EP 220 NEVASTANE SY 220
WINTERSHALL	SRS ERSOLAN 220					

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°C the international definition of the viscosity class at 40°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





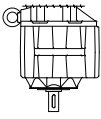
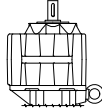
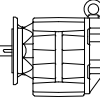

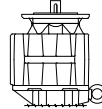
Lubricant quantities

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


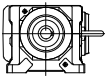
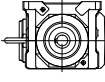

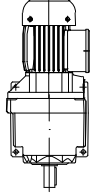
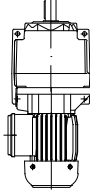
Gearboxes & Lubrication

Lubricants

Lubricant quantities, BG-series gears

Lubrication quantity in l										
Gearbox type										
BG06-BG100	(gear-housing with flange or foot)									
	Flange (Code-2./Code-3./Code-4./Code-7.) Foot with threads (Code-6.)				Foot with clearance holes (Code-9.) [Completely machined (Code -8.)]					
	H4	H1	H2	H3	H5	H6	B5	V1	V3	
BG06-BG100	(Gearbox housing)									
	cast-on-foot with clearance holes (Code -1.)									
	B3	B6	B7	B8	V5	V6				
BG04	* **	- 0.05	0.03 0.05	0.03 0.05	0.03 0.05	- 0.1	- 0.05	0.03 -	0.05 -	0.05 -
BG05	* **	- 0.08	0.05 0.08	0.05 0.08	0.05 0.08	- 0.16	- 0.08	0.05 -	0.08 -	0.08 -
BG06	* **	- 0.12	0.08 0.12	0.08 0.12	0.08 0.12	- 0.24	- 0.15	0.08 -	0.15 -	0.15 -
BG10	* **	0.65 0.45	0.65 0.45	0.65 0.45	0.85 0.6	1.05 0.75	0.85 0.6	0.65 -	1.05 -	0.85 -
BG15	**	0.4	0.4	0.4	0.35	0.62	0.55	-	-	-
BG20	* **	0.8 0.6	0.8 0.6	0.8 0.6	1.1 1.0	1.4 1.15	1.1 0.9	0.8 -	1.4 -	1.1 -
BG30	* **	1.0 1.0	1.0 1.0	1.0 1.0	1.7 1.7	2.4 2.3	1.6 1.7	1.0 -	2.4 -	1.6 -
BG40	* **	1.7 1.7	1.7 1.7	1.7 1.7	2.5 2.5	3.5 3.5	2.1 2.1	1.7 -	3.5 -	2.1 -
BG50	* **	3.0 3.0	3.0 3.0	3.0 3.0	4.5 4.5	5.5 5.5	3.3 3.3	3.0 -	5.5 -	3.3 -
BG60	* **	5.5 5.5	5.5 5.5	5.5 5.5	7.0 7.0	10.9 10.9	6.4 6.4	5.5 -	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
* Attachment housing					** Gearbox housing					

Lubricant quantities, BG20-01R

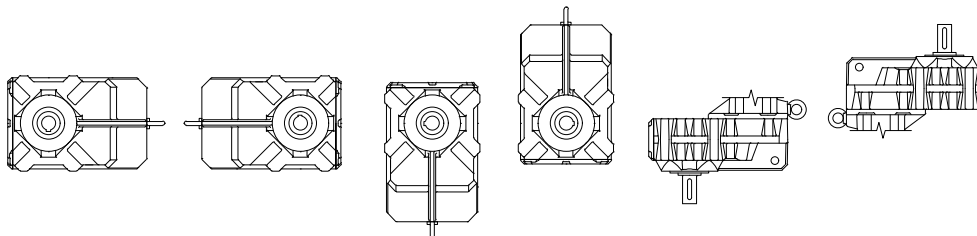
Lubrication quantity in l						
Gear type						
	H4	H1	H2	H3	V5	V6
BG20R	0.8	1.0	0.8	1.4	1.65	1.0

Gearboxes & Lubrication

Lubricants

Lubricant quantities, BF-series gears

Lubrication quantity in l

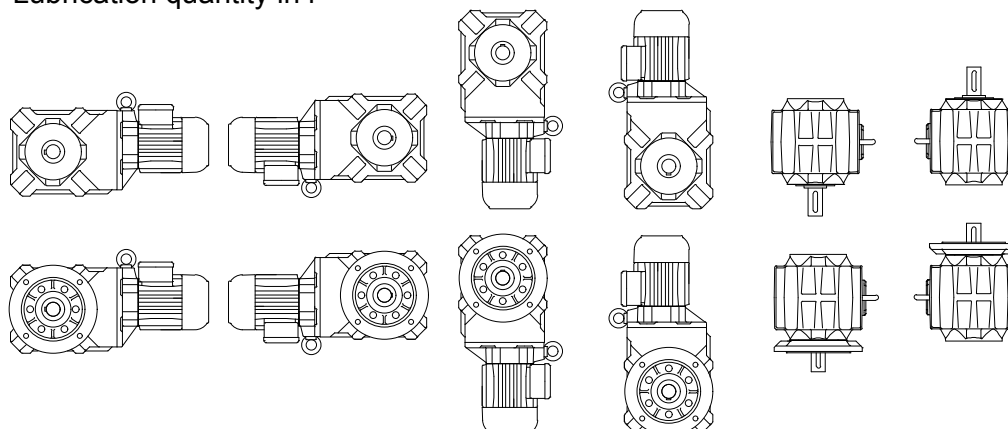


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Gear type	H1	H2	H3	H4	V1	V2
BF06	0.25	0.25	0.25	0.37	0.35	0.3
BF10	0.85	0.85	0.85	1.1	1.45	1.5
BF20	1.3	1.3	1.3	1.7	2.2	2.25
BF30	1.7	1.7	1.7	2.2	3.2	3.0
BF40	2.7	2.7	2.7	3.5	4.9	4.8
BF50	3.8	3.8	3.8	5.0	6.7	6.7
BF60	6.7	6.7	6.7	9.0	12.3	12.0
BF70	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

Lubricant quantities, BK-series gears

Lubrication quantity in l



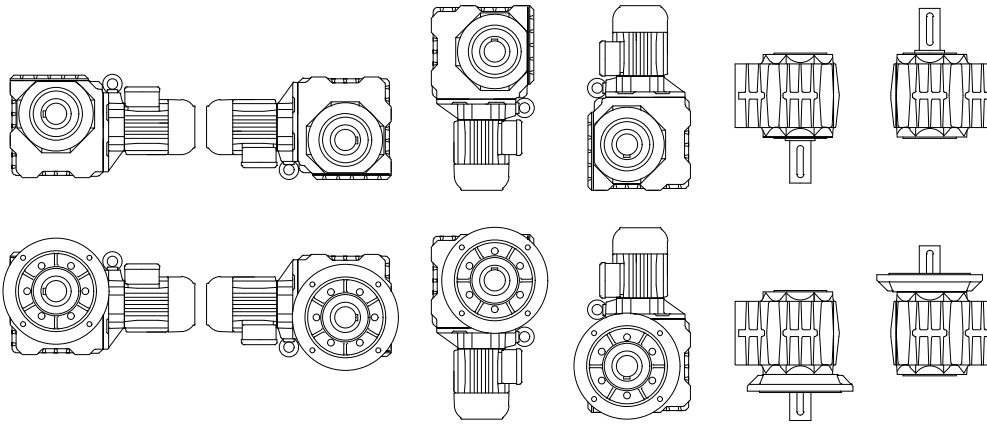
Gear box type	H1	H2	H3	H4	V1	V2
BK06	0.15	0.23	0.29	0.31	0.18	0.23
BK10	0.83	0.83	0.92	1.75	0.92	0.92
BK17	1.0	1.7	1.8	2.6	1.3	1.8
BK20	1.5	1.5	1.6	2.9	1.65	1.65
BK30	2.2	2.2	2.3	4.4	2.4	2.4
BK40	3.5	3.5	3.5	6.7	3.7	3.7
BK50	5.8	5.8	5.8	11.5	6.0	6.0
BK60	6.0	8.7	6.9	12.0	8.6	8.6
BK70	10.2	15.0	11.5	20.5	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

Gearboxes & Lubrication

Lubricants

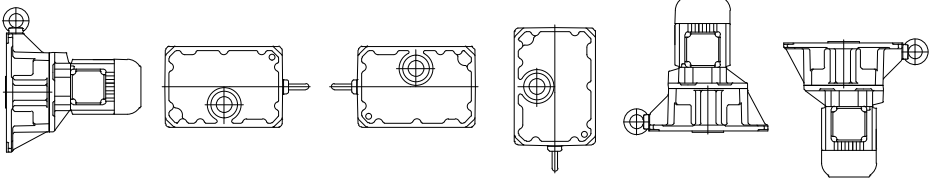
Lubricant quantities, BS-series gears

Lubrication quantity in l



Gear type	H1	H2	H3	H4	V1	V2
BS03	0.17	0.17	0.17	0.17	0.17	0.17
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)

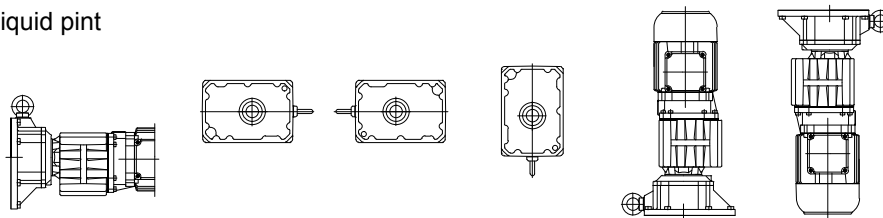
Lubrication quantity in l							
							
BF	H4	H1	H2	H3	V1	V2	
BG	H4 B3/B5	H1 B6	H2 B7	H3 B8	V1 V5/H5	V3 V6/H6	
BK und BS	H1	V1	V2	H2	H4	H3	
Gear type							
BG10Z BF10Z BK10Z BS10Z	0.10	0.05	0.12	0.07	0.16	0.07	
BG20Z BF20Z BK20Z BS20Z	0.15	0.07	0.19	0.17	0.27	0.10	
BG30Z BF30Z BK30Z BS30Z BM30Z	0.2*	0.10	0.35	0.22	0.35	0.19	
BG40Z BF40Z BK40Z BS40Z BM40Z	0.32*	0.17	0.50	0.37	0.6	0.32	
BG50Z BF50Z BK50Z	0.5	0.3	0.92	0.7	1.15	0.5	
BG60Z BF60Z BK60Z	0.9	0.5	1.55	1.1	2.0	0.7	
BG70Z BF70Z BK70Z BF80Z	1.2	0.6	1.8	1.6	2.4	1.4	
BG80Z BF90Z BK80Z BG100Z	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	

Lubrication quantity for intermediate gear

Definition of the terminal box position

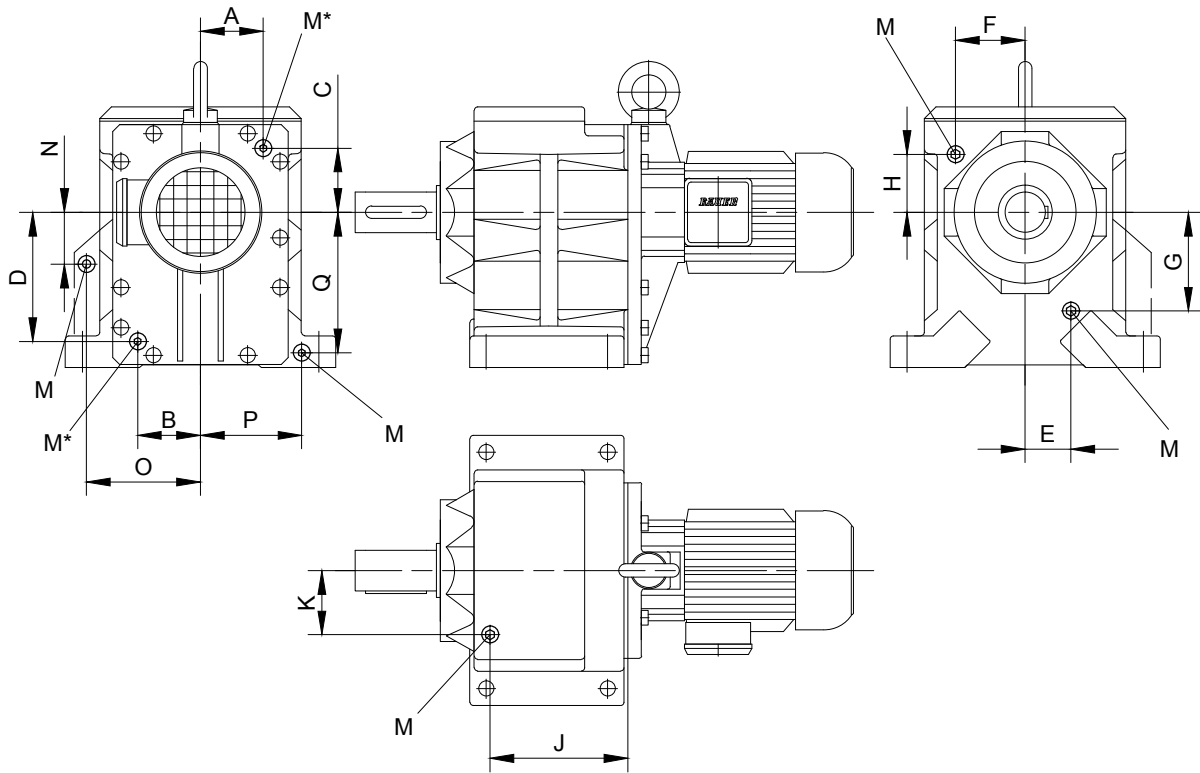
Terminal box position for intermediate gear is similar to the main gearbox that means
 Main gearbox BG,BF terminal box pos. I
 -> intermediate gearbox terminal box pos. I
 Main gearbox BK,BS terminal box pos. II
 -> intermediate gearbox terminal box pos. II

Lubrication quantity in liquid pint



Mounting position of main gearbox	BF	H4	H1	H2	H3	V1	V2	
	BG	H4 B3/B5	H1 B6	H2 B7	H3 B8	V1 V5/H5	V3 V6/H6	
	BK und BS	H1	V1	V2	H2	H4	H3	
Standard position of KLK mounting position H1,H2,H3, B5,V1,V3 for mounting with screwed resp. casted flange		B5	H1	H2	H3	V1	V3	
Type designation of double gearbox combination								
BG10G06 BF10G06 BK10G06 BS10G06	0.08	0.08	0.08	0.08	0.08	0.15	0.15	
BG20G06 BF20G06 BK20G06 BS20G06	0.08	0.08	0.08	0.08	0.08	0.15	0.15	
BG30G06 BF30G06 BK30G06 BS30G06	0.08	0.08	0.08	0.08	0.08	0.15	0.15	
BG40G10 BF40G10 BK40G10 BS40G10	0.65	0.65	0.65	0.65	0.85	1.05	0.85	
BG50G10 BF50G10 BK50G10	0.65	0.65	0.65	0.65	0.85	1.05	0.85	
BG60G20 BF60G20 BK60G20	0.8	0.8	0.8	0.8	1.1	1.4	1.1	
BG70G20 BF70G20 BK70G20	0.8	0.8	0.8	0.8	1.1	1.4	1.1	
BG80G40 BF80G40 BK80G40	1.7	1.7	1.7	1.7	2.5	3.3	2.1	
BG90G50 BF90G50 BK90G50 BG100G50	3.0	3.0	3.0	3.0	4.5	5.5	3.3	

Position of threaded plugs, BG-series gears



M = Plug according to DIN 908

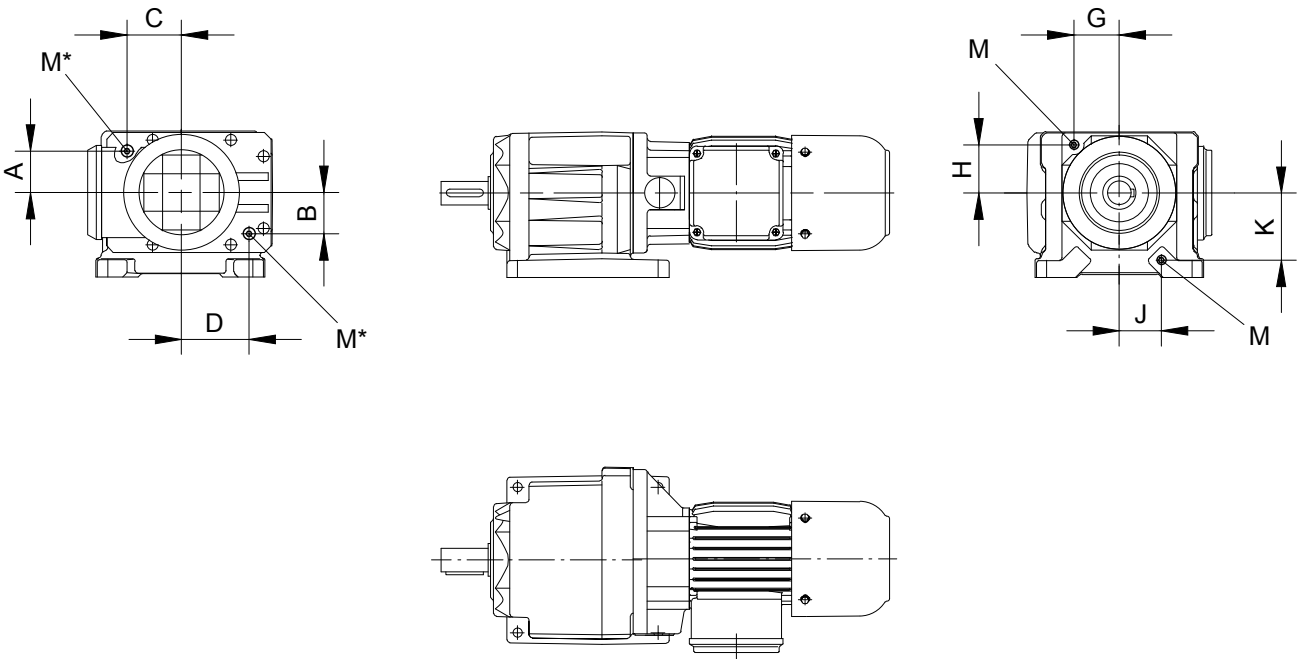
Type	A	B	C	D	E	F	G	H	J	K	N	O	P	Q	M	
BG10 Foot housing	see osition of the oil drain and filler plugs on the system cover	Tab.I-Tab.III size B10			33	42	48	41.5	-	-	-	-	-	-	M10x1	
BG10 Attachment housing		Tab.I-Tab.III size B10			27	-	73	-	-	-	-	-	-	-	M10x1	
BG15 Foot housing		Tab.I-Tab.III size B10			-	-	-	-	-	-	-	-	-	-	-	
BG20 Foot housing		Tab.I-Tab.III size B20			-	47	-	52.5	-	-	-	-	-	-	-	M10x1
BG20 Attachment housing		Tab.I-Tab.III size B20			-	28	-	68	-	-	-	-	-	-	-	M10x1
BG30 Foot housing		Tab.I-Tab.III size B30			-	54	-	58	-	-	-	-	-	-	-	M10x1
BG30 Attachment housing		Tab.I-Tab.III size B30			-	58	-	48	-	-	-	-	-	-	-	M10x1
BG40 Foot housing		Tab.I-Tab.III size B40			-	75	-	48	-	-	-	-	-	-	-	M14x1.5
BG40 Attachment housing		Tab.I-Tab.III size B40			-	75	-	48	-	-	-	-	-	-	-	M14x1.5
BG50 Foot housing		Tab.I-Tab.III size B50			-	53	-	100	-	-	-	-	-	-	-	M14x1.5
BG50 Attachment housing		Tab.I-Tab.III size B50			-	53	-	100	-	-	-	-	-	-	-	M14x1.5
BG60 Foot housing		Tab.I-Tab.III size B60			-	70	-	119	-	-	-	-	-	-	-	M20x1.5
BG60 Attachment housing		Tab.I-Tab.III size B60			-	70	-	119	-	-	-	-	-	-	-	M20x1.5
BG70		Tab.I-Tab.III size B70			-	103	-	86	204	95	-	-	-	-	-	M20x1.5
BG80		Tab.I-Tab.III size B80			-	133	-	110	237	111	-	-	-	-	-	M20x1.5
BG90		Tab.I-Tab.III size B90			-	165	-	124	297	140	-	-	-	-	-	M24x1.5
BG100	Tab.I-Tab.III size B80			-	202	-	128	420	165	135	263	202	293	M24x1.5		

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

Gearboxes & Lubrication

Threaded plugs

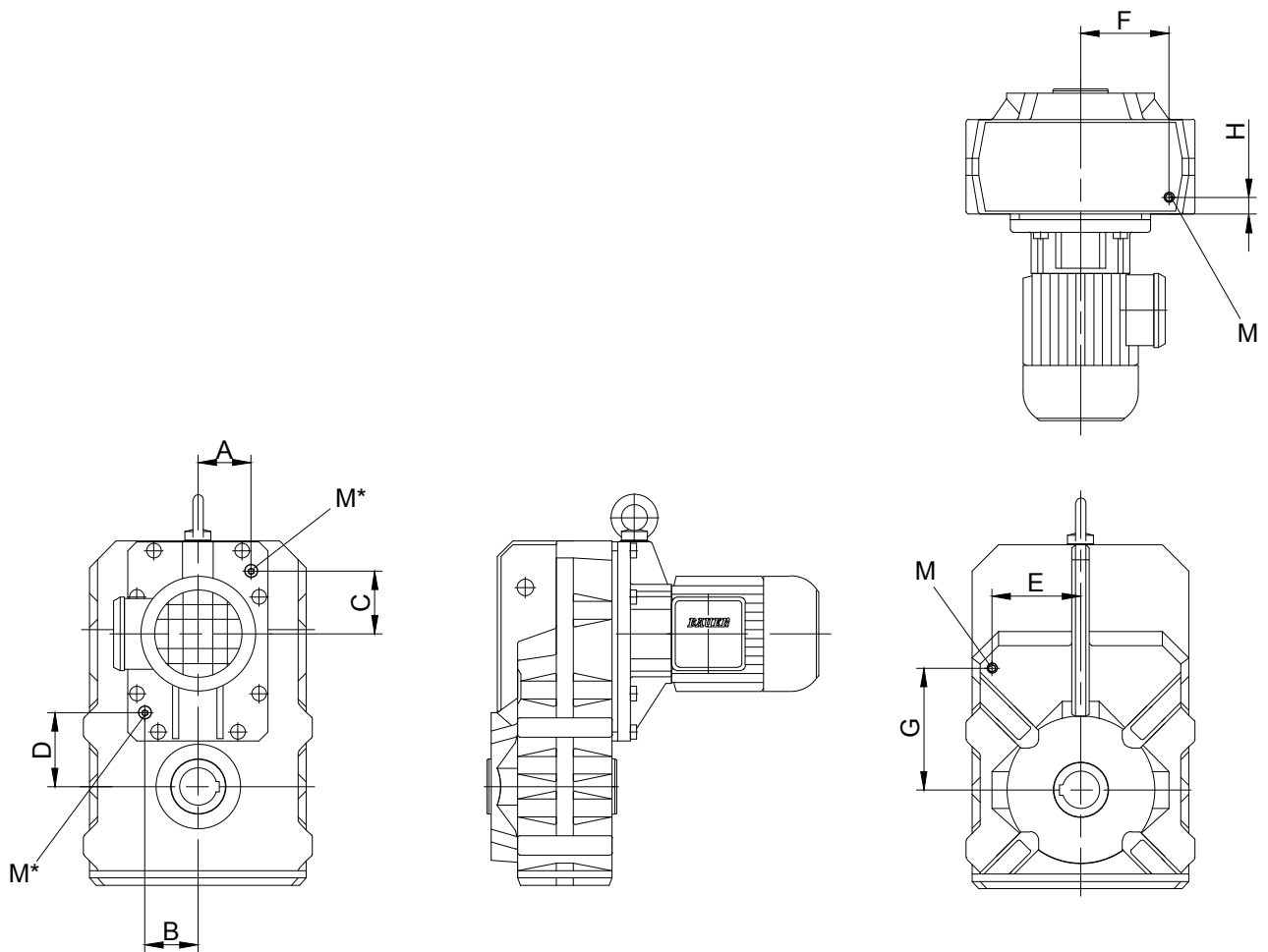
Position of threaded plugs, BG-20-01R



M = Plug according to DIN 908

Type	A	B	C	D	G	H	J	K	M
BG20-01R Rollerbed	see Position of the oil drain and filler plugs on the system cover Tab.I-Tab.III size B20				48.5	51.5	45	71.5	M10x1

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



M = Plug according to DIN 908

Type	A	B	C	D	E	F	G	H	M
BF06	on request								
BF10	see position of the oil drain and filler plugs on the system cover		Tab.I - Tab.III size B.10		64	65	97	28	M10x1
BF20			Tab.I - Tab.III size B.20		77	70	115	30.5	M10x1
BF30			Tab.I - Tab.III size B.30		88	82	125	36.5	M10x1
BF40			Tab.I - Tab.III size B.40		100	86	141	33	M14x1.5
BF50			Tab.I - Tab.III size B.50		120	105	165	42.5	M14x1.5
BF60			Tab.I - Tab.III size B.60		140	145	200	50.5	M20x1.5
BF70			Tab.I - Tab.III size B.70		165	177	235	52.5	M20x1.5
BF80			Tab.I - Tab.III size B.70		145	148	255	123	M20x1.5
BF90			Tab.I - Tab.III size B.80		155	176	347.5	260	M24x1.5

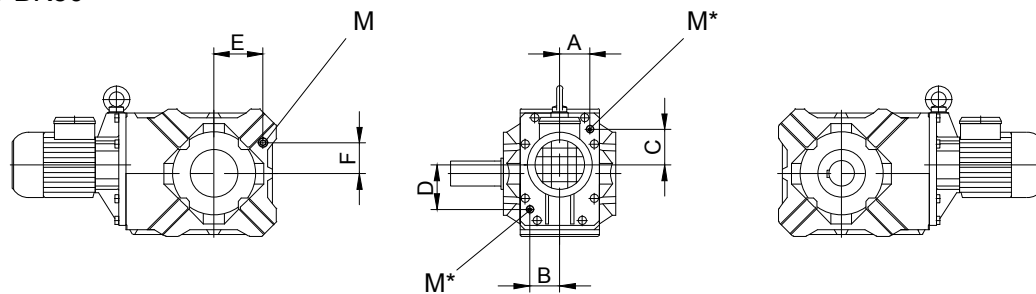
M* =Factor and position of the drain plug see page 73.

Gearboxes & Lubrication

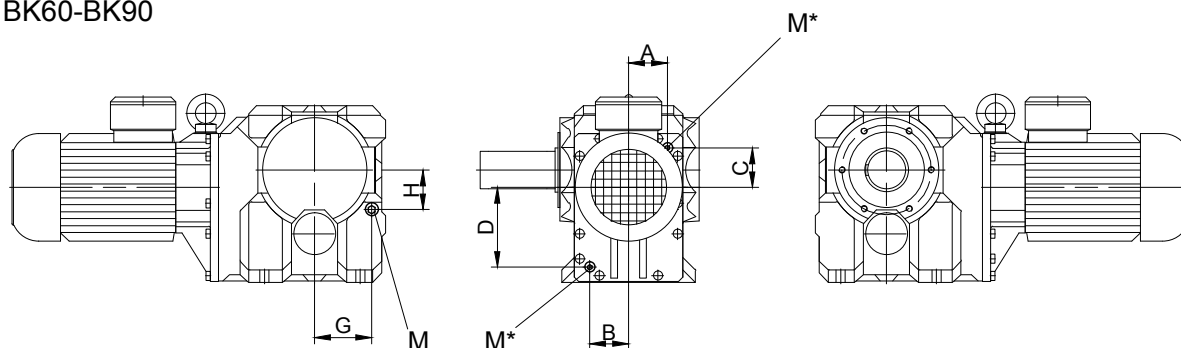
Threaded plugs

Position of threaded plugs, BK-series gears

BK10-BK50



BK60-BK90



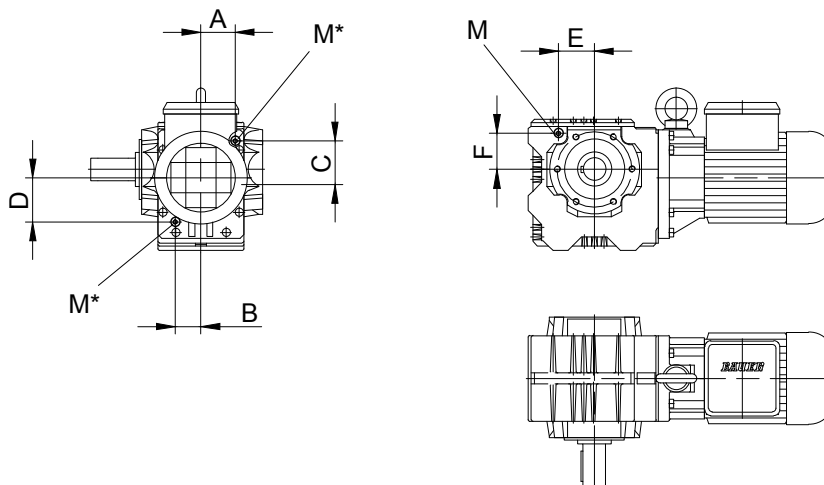
M = Plug according to DIN 908

Type	A	B	C	D	E	F	G	H	M
BK06		on request							
BK10	see position of the oil drain and filler plugs on the system cover	Tab.I- Tab.III size B.10			62	32.5	-	-	M10x1
BK20		Tab.I- Tab.III size B.20			73.5	37.5	-	-	M10x1
BK30		Tab.I- Tab.III size B.30			80	43	-	-	M10x1
BK40		Tab.I- Tab.III size B.40			88	49	-	-	M14x1.5
BK50		Tab.I- Tab.III size B.50			118	74	-	-	M14x1.5
BK60		Tab.I- Tab.III size B.60			-	-	93	87	M20x1.5
BK70		Tab.I- Tab.III size B.70			-	-	137	95	M20x1.5
BK80		Tab.I- Tab.III size B.80			-	-	150	117	M20x1.5
BK90		Tab.I- Tab.III size B.90			-	-	208	135	M24x1.5

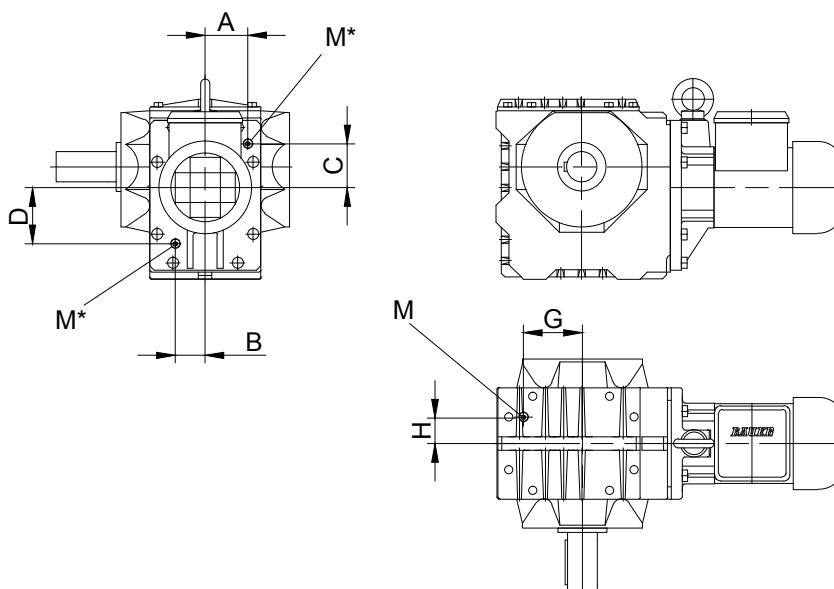
M* =Factor and position of the drain plug see page 73.

Position of threaded plugs, BS-series gears

BS10 - BS20



BS30 - BS40

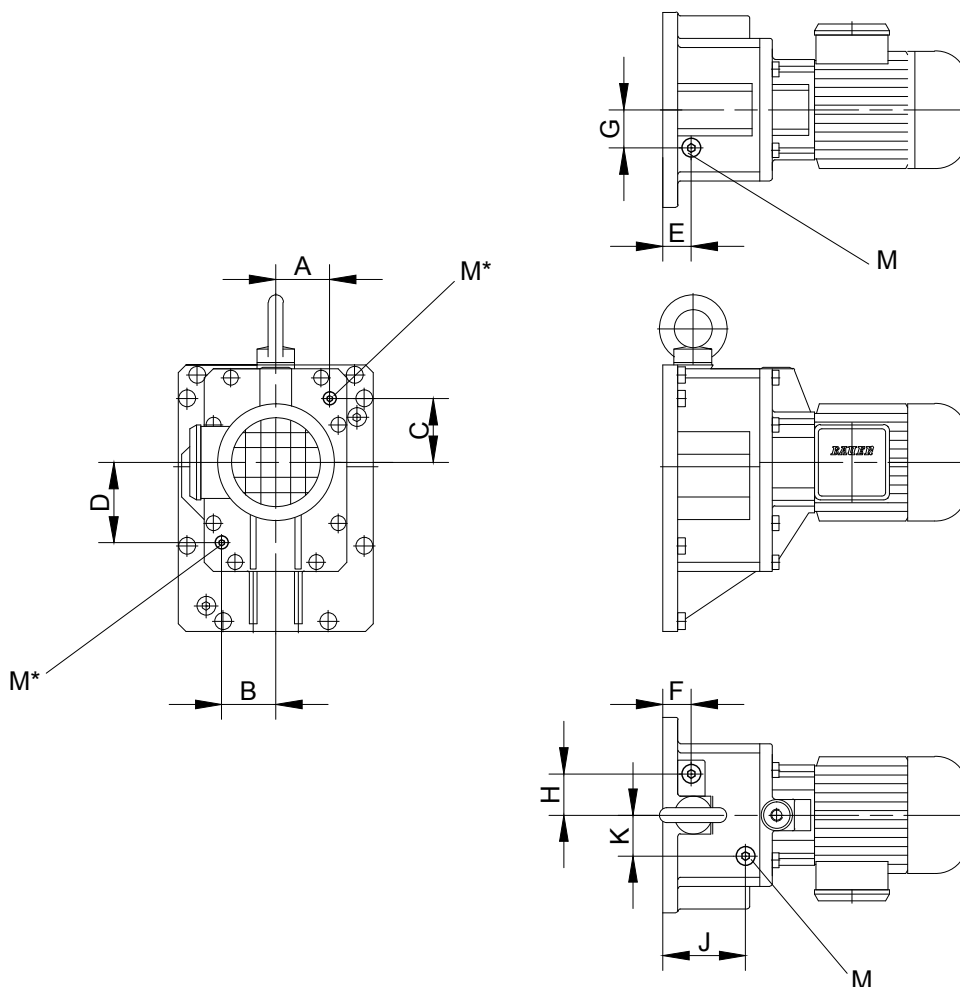


M = Plug according to DIN 908

Type	A	B	C	D	E	F	G	H	M
BS10	see position of the oil drain and filler plugs on the system cover		Tab.I-Tab.III size B.10		48	50	-	-	M10x1
BS20			Tab.I-Tab.III size B.20		59	63	-	-	M10x1
BS30			Tab.I-Tab.III size B.30		-	-	79	35	M10x1
BS40			Tab.I-Tab.III size B.40		-	-	93.5	41.5	M14x1.5

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

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

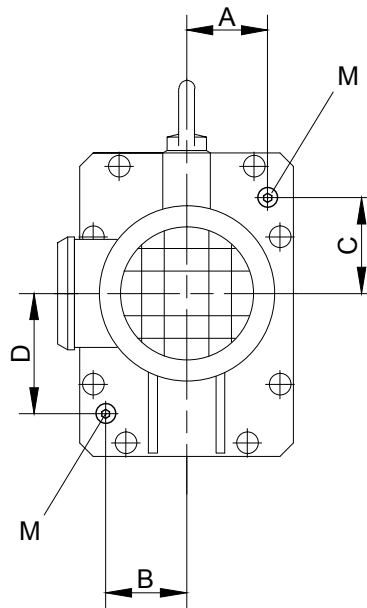


M = Plug according to DIN 908

Gear	A	B	C	D	E	F	G	H	J	K	M
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)	see position of the oil drain and filler plugs on the system cover	Tab.I u. II size B.10		-	24	-	30	-	-	-	M10x1
BG40(Z);BK40(Z); BF40(Z);BS40(Z)		Tab.I u. II size B.20		-	27.5	-	36.5	-	-	-	M14x1.5
BG50(Z);BK50(Z); BF50(Z)		Tab.I u. II size B.30		-	-	-	-	29	43	-	M14x1.5
BG60(Z);BK60(Z); BF60(Z)		Tab.I u. II size B.40		-	33	-	48	-	-	-	M20x1.5
BG70(Z);BK70(Z); BF70(Z);BF80(Z)		Tab.I u. II size B.50		-	38	-	55	-	-	-	M20x1.5
BG80(Z);BK80(Z); BF90(Z);BG100(Z)		Tab.I u. II size B.60		-	45	-	73	-	-	-	M20x1.5
BG90(Z);BK90(Z)		Tab.I u. II size B.70		-	45	-	62	-	-	-	M24x1.5

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

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



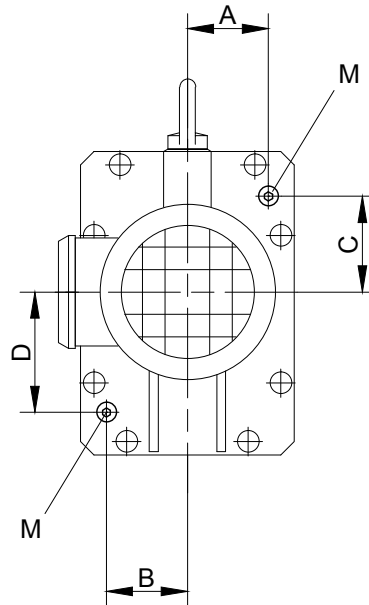
M = Plug according to DIN 908

Table I: Design with standard geared motor

Gear	Size	A	B	C	D	M
BG10(Z); BK10(Z); BF10(Z); BS10(Z)	D05-D..09	36	34	43.5	59	M10x1
BG15	D05-D..09	36	34	43.5	59	M10x1
BG20(Z); BK20(Z); BF20(Z); BS20(Z)	D05-D..09	44	44	58	72.5	M10x1
BG30(Z); BK30(Z); BF30(Z); BS30(Z)	D05-D..09	56.5	40	58.2	75	M10x1
BG40(Z); BK40(Z); BF40(Z); BS40(Z)	D..08-D..11	66	71	71	94	M14x1.5
BG50(Z); BK50(Z); BF50(Z)	D..08-D..11	72	74	85	109	M14x1.5
	D..13-D..16	78	74	82	109	M14x1.5
BG60(Z); BK60(Z); BF60(Z)	D..09-D..13	84	81	120	155	M20x1.5
	D..16	86	81	120	155	M20x1.5
BG70(Z); BK70(Z); BF70(Z); BF80(Z)	D..09-D..18	95	85	97	193	M20x1.5
BG80(Z); BK80(Z); BF90(Z); BG100(Z)	D..11-D..18	118	118	110	245	M20x1.5
BG90(Z); BK90(Z)	D..13-D..18	145	145	116	294	M24x1.5

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

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

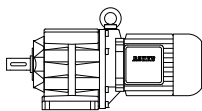


M = Plug according to DIN 908

Table III: Design with pre-stage Z

Gear	A	B	C	D	M
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

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



Page

**BG-series helical-gear motors
Selection**

75-118

Description of helical-gear units

- Sizes
 - Bauer service factors (f_B) for helical-gear 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-gear motors
-

Sizes

Bauer BG-series helical-gear 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.

Bauer service factors (f_B) for helical-gear motors

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).

Continuous operation without switching frequency $Z \leq 1/h$

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
I		0,8	1,0	1,2
II		1,05	1,25	1,45
III		1,45	1,55	1,7

Switching duty

Factor f_2 for shock classification and switching frequency

Switching frequency in single-shift operation $t_d \leq 8$ h/d

Shock classification	$1 < Z \leq 100$	$100 < Z \leq 1000$	$1000 < Z$
I	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	$1 < Z \leq 100$	$100 < Z \leq 1000$	$1000 < Z$
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 $f_B = f_2 = 1.5$

BG-series helical-geared motors

Description of helical-geared units

Explanation of shock classification

Shock classification I:

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

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

Shock classification II:

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

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

Shock classification III:

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

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

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 (kgm^2)
J_{rot}	Mass moment of inertia of the motor rotor (kgm^2)
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

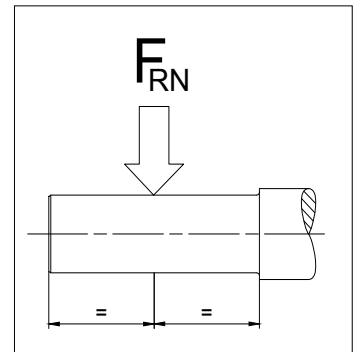
6

Key to abbreviations

Selection tables, helical-geared motors

Key to abbreviations

P	Rated output Power
n_2	Rated speed of the output shaft
i	Gear reduction ratio
M_2	Rated torque at the output shaft
f_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)

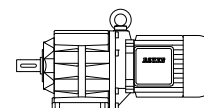


Use the selection tables to determine the size of geared motor required. The codes clearly define the Type of gear (see chapter 10 "dimensional drawings, helical-geared motors").

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).

P = 0.12 kW

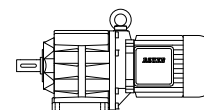


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
530	2.15	4.2	2.64	BG05-../DPE05LA4	7.0	420	-	640	1.79	5.0
410	2.75	3.6	3.38	BG05-../DPE05LA4	7.0	460	-	495	2.3	4.3
305	3.75	3.2	4.59	BG05-../DPE05LA4	7.0	490	-	365	3.1	3.9
255	4.45	3.1	5.46	BG05-../DPE05LA4	7.0	490	-	310	3.65	3.8
230	4.95	3.4	6.09	BG05-../DPE05LA4	7.0	480	-	275	4.15	4.1
210	5.4	3.1	6.64	BG05-../DPE05LA4	7.0	500	-	255	4.45	3.8
177	6.4	2.8	7.80	BG05-../DPE05LA4	7.0	530	-	215	5.3	3.4
170	6.7	2.7	8.15	BG05-../DPE05LA4	7.0	510	-	205	5.5	3.3
163	7.0	2.7	8.51	BG05-../DPE05LA4	7.0	550	-	197	5.8	3.3
131	8.7	2.3	10.59	BG05-../DPE05LA4	7.0	590	-	158	7.2	2.8
120	9.5	2.2	11.55	BG05-../DPE05LA4	7.0	600	-	145	7.9	2.7
115	9.9	2.1	12.05	BG05-../DPE05LA4	7.0	510	-	139	8.2	2.6
110	10.4	2.1	12.60	BG05-../DPE05LA4	7.0	610	-	133	8.6	2.6
101	11.3	2.0	13.75	BG05-../DPE05LA4	7.0	630	-	122	9.3	2.5
91	12.5	1.9	15.23	BG05-../DPE05LA4	7.0	640	-	110	10.4	2.3
84	13.6	1.85	16.62	BG05-../DPE05LA4	7.0	660	-	101	11.3	2.2
74	15.4	1.7	18.82	BG05-../DPE05LA4	7.0	680	-	89	12.8	2.0
68	16.8	1.6	20.53	BG05-../DPE05LA4	7.0	700	-	82	13.9	1.95
58	19.7	1.4	24.00	BG05-../DPE05LA4	7.0	740	-	70	16.3	1.7
53	21.5	1.35	26.18	BG05-../DPE05LA4	7.0	760	-	64	17.9	1.6
50	22.5	1.35	27.82	BG05-../DPE05LA4	7.0	770	-	61	18.7	1.6
45.5	25	1.2	30.35	BG05-../DPE05LA4	7.0	760	-	56	20	1.5
39.5	29	1.05	35.00	BG05-../DPE05LA4	7.0	810	-	48	23.5	1.3
36.5	31	0.97	38.18	BG05-../DPE05LA4	7.0	850	-	44	26	1.15
35	32.5	0.92	39.94	BG05-../DPE05LA4	7.0	860	-	42	27	1.1
32	35.5	0.85	43.57	BG05-../DPE05LA4	7.0	900	-	38.5	29.5	1.0
113	10.1	3.3	12.30	BG06-../DPE05LA4	8.0	670	-	136	8.4	3.9
107	10.7	3.1	12.98	BG06-../DPE05LA4	8.0	600	-	129	8.8	3.8
94	12.1	2.8	14.78	BG06-../DPE05LA4	8.0	730	-	113	10.1	3.4
86	13.3	2.6	16.13	BG06-../DPE05LA4	8.0	740	-	104	11	3.2
80	14.3	2.7	17.40	BG06-../DPE05LA4	8.0	760	-	96	11.9	3.2
73	15.6	2.6	18.98	BG06-../DPE05LA4	8.0	770	-	88	13	3.1
67	17.1	2.3	20.82	BG06-../DPE05LA4	8.0	800	-	81	14.1	2.8
61	18.7	2.3	22.71	BG06-../DPE05LA4	8.0	810	-	74	15.4	2.8
55	20.5	2.2	25.48	BG06-../DPE05LA4	8.0	850	-	66	17.3	2.6
50	22.5	2.0	27.80	BG06-../DPE05LA4	8.0	840	-	61	18.7	2.4
43	26.5	1.7	32.22	BG06-../DPE05LA4	8.0	890	-	52	22	2.0
39.5	29	1.55	35.15	BG06-../DPE05LA4	8.0	880	-	48	23.5	1.9
37.5	30.5	1.5	36.91	BG06-../DPE05LA4	8.0	890	-	45.5	25	1.8
34.5	33	1.35	40.26	BG06-../DPE05LA4	8.0	890	-	41.5	27.5	1.65
30	38	1.2	46.19	BG06-../DPE05LA4	8.0	890	-	36.5	31	1.45
27.5	41.5	1.1	50.38	BG06-../DPE05LA4	8.0	940	-	33.5	34	1.3
26.5	43	1.05	52.56	BG06-../DPE05LA4	8.0	950	-	32	35.5	1.25
24.5	46.5	0.97	57.34	BG06-../DPE05LA4	8.0	1000	-	29.5	38.5	1.15
23	49.5	0.91	61.22	BG06-../DPE05LA4	8.0	1020	-	27.5	41.5	1.1
21	54	0.83	66.79	BG06-../DPE05LA4	8.0	1070	-	25.5	44.5	1.0
31.5	36	3.3	43.99	BG10-../DPE06LA4	13	1880	2600	38	30	4.0
30	38	3.2	46.55	BG10-../DPE06LA4	13	1920	2650	36	31.5	3.8
27	42	2.9	51.57	BG10-../DPE06LA4	13	2000	2800	32.5	35	3.4
24.5	46.5	2.6	57.48	BG10-../DPE06LA4	13	2000	2800	29.5	38.5	3.1
22	52	2.3	63.69	BG10-../DPE06LA4	13	2000	2800	26.5	43	2.8
21	54	2.2	66.00	BG10-../DPE06LA4	13	2000	2800	25.5	44.5	2.7
19	60	2.0	73.13	BG10-../DPE06LA4	13	2000	2800	23	49.5	2.4
18	63	1.9	77.40	BG10Z-../DPE06LA4	14	2000	2800	22	52	2.3
16.5	69	1.75	85.76	BG10Z-../DPE06LA4	14	2000	2800	19.5	58	2.1
15	76	1.6	92.19	BG10Z-../DPE06LA4	14	2000	2800	18.5	61	1.95
14	81	1.5	102.1	BG10Z-../DPE06LA4	14	2000	2800	16.5	69	1.75
13	88	1.35	109.8	BG10Z-../DPE06LA4	14	2000	2800	15.5	73	1.65
11.5	99	1.2	121.7	BG10Z-../DPE06LA4	14	2000	2800	14	81	1.5

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

BG-series helical-geared motors

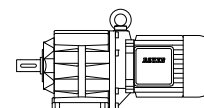
Selection helical-geared motors



P = 0.12 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
10.5	109	1.1	131.8	BG10Z-../DPE06LA4	14	2000	2800	13	88	1.35
9.5	120	1.0	146.0	BG10Z-../DPE06LA4	14	2000	2800	11.5	99	1.2
8.4	136	0.88	166.0	BG10Z-../DPE06LA4	14	2000	2800	10.5	109	1.1
8.3	120	1.1	166.3	BG10G06-../DPE06LA4	18	2000	2800	10.5	91	1.45
7.1	140	0.93	194.9	BG10G06-../DPE06LA4	18	2000	2800	8.6	112	1.15
5.8	130*	1.0	240.7	BG10G06-../DPE06LA4	18	2000	2800	7.0	130	1.0
5.0	130*	1.0	276.4	BG10G06-../DPE06LA4	18	2000	2800	6.1	130	1.0
4.2	130*	1.0	332.0	BG10G06-../DPE06LA4	18	2000	2800	5.1	130	1.0
3.7	130*	1.0	379.6	BG10G06-../DPE06LA4	18	2000	2800	4.4	130	1.0
3.2	130*	1.0	435.9	BG10G06-../DPE06LA4	18	2000	2800	3.9	130	1.0
2.7	130*	1.0	512.6	BG10G06-../DPE06LA4	18	2000	2800	3.3	130	1.0
2.3	130*	1.0	613.6	BG10G06-../DPE06LA4	18	2000	2800	2.8	130	1.0
1.9	130*	1.0	748.9	BG10G06-../DPE06LA4	18	2000	2800	2.3	130	1.0
1.6	130*	1.0	899.5	BG10G06-../DPE06LA4	18	2000	2800	1.9	130	1.0
1.3	130*	1.0	1081	BG10G06-../DPE06LA4	18	2000	2800	1.6	130	1.0
1.1	130*	1.0	1272	BG10G06-../DPE06LA4	18	2000	2800	1.4	130	1.0
0.95	130*	1.0	1523	BG10G06-../DPE06LA4	18	2000	2800	1.1	130	1.0
0.75	130*	1.0	1863	BG10G06-../DPE06LA4	18	2000	2800	0.9	130	1.0
0.6	130*	1.0	2356	BG10G06-../DPE06LA4	18	2000	2800	0.75	130	1.0
0.55	130*	1.0	2699	BG10G06-../DPE06LA4	18	2000	2800	0.65	130	1.0
0.47	130*	1.0	2944	BG10G06-../DPE06LA4	18	2000	2800	0.6	130	1.0
0.41	130*	1.0	3378	BG10G06-../DPE06LA4	18	2000	2800	0.5	130	1.0
0.38	130*	1.0	3684	BG10G06-../DPE06LA4	18	2000	2800	0.46	130	1.0
0.31	130*	1.0	4477	BG10G06-../DPE06LA4	18	2000	2800	0.38	130	1.0
0.29	130*	1.0	4884	BG10G06-../DPE06LA4	18	2000	2800	0.35	130	1.0
18	63	3.2	78.60	BG20Z-../DPE06LA4	16	5000	-	21.5	53	3.8
16	71	2.8	87.30	BG20Z-../DPE06LA4	16	5000	-	19.5	58	3.4
15	76	2.6	94.27	BG20Z-../DPE06LA4	16	5000	-	18	63	3.2
13.5	84	2.4	104.7	BG20Z-../DPE06LA4	16	5000	-	16	71	2.8
12.5	91	2.2	112.8	BG20Z-../DPE06LA4	16	5000	-	15	76	2.6
11.5	99	2.0	125.3	BG20Z-../DPE06LA4	16	5000	-	13.5	84	2.4
9.8	116	1.7	141.3	BG20Z-../DPE06LA4	16	5000	-	12	95	2.1
8.6	133	1.5	162.2	BG20Z-../DPE06LA4	16	5000	-	10.5	109	1.85
7.7	148	1.35	180.1	BG20Z-../DPE06LA4	16	5000	-	9.3	123	1.65
7.0	163	1.25	199.9	BG20Z-../DPE06LA4	16	5000	-	8.4	136	1.45
6.3	181	1.1	222.1	BG20Z-../DPE06LA4	16	5000	-	7.6	150	1.35
5.6	178	1.25	248.0	BG20G06-../DPE06LA4	20	5000	2100	6.8	142	1.55
4.7	210	1.05	297.9	BG20G06-../DPE06LA4	20	5000	2100	5.7	172	1.3
4.0	255	0.86	352.1	BG20G06-../DPE06LA4	20	5000	2100	4.8	210	1.05
3.6	220*	1.0	391.1	BG20G06-../DPE06LA4	20	5000	2100	4.3	220	1.0
3.0	220*	1.0	460.0	BG20G06-../DPE06LA4	20	5000	2100	3.7	220	1.0
2.6	220*	1.0	550.6	BG20G06-../DPE06LA4	20	5000	2100	3.1	220	1.0
2.1	220*	1.0	671.9	BG20G06-../DPE06LA4	20	5000	2100	2.5	220	1.0
1.8	220*	1.0	807.1	BG20G06-../DPE06LA4	20	5000	2100	2.1	220	1.0
1.5	220*	1.0	969.9	BG20G06-../DPE06LA4	20	5000	2100	1.8	220	1.0
1.3	220*	1.0	1142	BG20G06-../DPE06LA4	20	5000	2100	1.5	220	1.0
1.1	220*	1.0	1366	BG20G06-../DPE06LA4	20	5000	2100	1.3	220	1.0
0.85	220*	1.0	1672	BG20G06-../DPE06LA4	20	5000	2100	1.0	220	1.0
0.8	220*	1.0	1824	BG20G06-../DPE06LA4	20	5000	2100	0.95	220	1.0
0.7	220*	1.0	2114	BG20G06-../DPE06LA4	20	5000	2100	0.8	220	1.0
0.6	220*	1.0	2422	BG20G06-../DPE06LA4	20	5000	2100	0.7	220	1.0
0.55	220*	1.0	2642	BG20G06-../DPE06LA4	20	5000	2100	0.65	220	1.0
0.46	220*	1.0	3031	BG20G06-../DPE06LA4	20	5000	2100	0.6	220	1.0
0.42	220*	1.0	3306	BG20G06-../DPE06LA4	20	5000	2100	0.55	220	1.0
0.35	220*	1.0	4017	BG20G06-../DPE06LA4	20	5000	2100	0.42	220	1.0
0.32	220*	1.0	4383	BG20G06-../DPE06LA4	20	5000	2100	0.39	220	1.0
11.5	99	3.0	121.6	BG30Z-../DPE06LA4	22	6000	-	14	81	3.7
11	104	2.9	128.5	BG30Z-../DPE06LA4	22	6000	-	13	88	3.4

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.



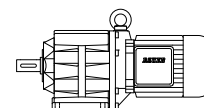
P = 0.12 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
9.7	118	2.5	142.5	BG30Z-../DPE06LA4	22	6000	-	12	95	3.2
9.2	124	2.4	151.5	BG30Z-../DPE06LA4	22	6000	-	11.5	99	3.0
8.3	138	2.2	168.1	BG30Z-../DPE06LA4	22	6000	-	10	114	2.6
7.6	150	2.0	182.9	BG30Z-../DPE06LA4	22	6000	-	9.2	124	2.4
6.9	166	1.8	202.9	BG30Z-../DPE06LA4	22	6000	-	8.3	138	2.2
6.2	184	1.65	225.9	BG30Z-../DPE06LA4	22	6000	-	7.4	154	1.95
5.6	200	1.5	250.6	BG30Z-../DPE06LA4	22	6000	-	6.7	171	1.75
5.3	215	1.4	261.9	BG30Z-../DPE06LA4	22	6000	-	6.4	179	1.7
4.8	235	1.3	290.5	BG30Z-../DPE06LA4	22	6000	-	5.8	197	1.5
4.6	215	1.5	306.2	BG30G06-../DPE06LA4	25	6000	-	5.5	178	1.85
4.0	255	1.25	346.8	BG30G06-../DPE06LA4	25	6000	-	4.9	205	1.6
3.5	295	1.1	401.9	BG30G06-../DPE06LA4	25	6000	-	4.2	240	1.35
3.0	345	0.94	472.8	BG30G06-../DPE06LA4	25	6000	-	3.6	280	1.15
2.5	325*	1.0	565.8	BG30G06-../DPE06LA4	25	6000	-	3.0	325	1.0
2.0	325*	1.0	690.6	BG30G06-../DPE06LA4	25	6000	-	2.5	325	1.0
1.9	325*	1.0	760.7	BG30G06-../DPE06LA4	25	6000	-	2.2	325	1.0
1.7	325*	1.0	829.5	BG30G06-../DPE06LA4	25	6000	-	2.1	325	1.0
1.4	325*	1.0	996.8	BG30G06-../DPE06LA4	25	6000	-	1.7	325	1.0
1.3	325*	1.0	1088	BG30G06-../DPE06LA4	25	6000	-	1.6	325	1.0
1.1	325*	1.0	1280	BG30G06-../DPE06LA4	25	6000	-	1.4	325	1.0
1.0	325*	1.0	1404	BG30G06-../DPE06LA4	25	6000	-	1.2	325	1.0
0.85	325*	1.0	1718	BG30G06-../DPE06LA4	25	6000	-	1.0	325	1.0
0.75	325*	1.0	1875	BG30G06-../DPE06LA4	25	6000	-	0.9	325	1.0
0.65	325*	1.0	2173	BG30G06-../DPE06LA4	25	6000	-	0.8	325	1.0
0.55	325*	1.0	2715	BG30G06-../DPE06LA4	25	6000	-	0.65	325	1.0
0.45	325*	1.0	3115	BG30G06-../DPE06LA4	25	6000	-	0.55	325	1.0
0.41	325*	1.0	3398	BG30G06-../DPE06LA4	25	6000	-	0.5	325	1.0
0.36	325*	1.0	3867	BG30G06-../DPE06LA4	25	6000	-	0.44	325	1.0
0.31	325*	1.0	4504	BG30G06-../DPE06LA4	25	6000	-	0.38	325	1.0
8.8	130	3.3	156.9	BG40Z-../DPE06LA4	38	7000	-	11	104	4.1
8.4	136	3.1	166.1	BG40Z-../DPE06LA4	38	7000	-	10.5	109	3.9
7.5	152	2.8	184.4	BG40Z-../DPE06LA4	38	7000	-	9.1	125	3.4
7.0	163	2.6	199.9	BG40Z-../DPE06LA4	38	7000	-	8.4	136	3.1
6.3	181	2.3	221.9	BG40Z-../DPE06LA4	38	7000	-	7.6	150	2.8
5.6	200	2.1	246.5	BG40Z-../DPE06LA4	38	7000	-	6.8	168	2.5
5.1	220	1.95	273.6	BG40Z-../DPE06LA4	38	7000	-	6.2	184	2.3
4.8	148	3.1	288.6	BG40G10-../DPE06LA4	43	7000	-	5.8	107	4.3
4.0	187	2.5	353.5	BG40G10-../DPE06LA4	43	7000	-	4.8	139	3.3
3.1	260	1.8	448.8	BG40G10-../DPE06LA4	43	7000	-	3.8	194	2.4
2.6	320	1.45	534.2	BG40G10-../DPE06LA4	43	7000	-	3.2	240	1.95
2.2	405	1.15	640.0	BG40G10-../DPE06LA4	43	7000	-	2.7	310	1.5
2.0	445	1.05	710.9	BG40G10-../DPE06LA4	43	7000	-	2.4	350	1.35
1.8	495	0.94	789.1	BG40G10-../DPE06LA4	43	7000	-	2.2	380	1.2
1.5	465*	1.0	965.2	BG40G10-../DPE06LA4	43	7000	-	1.8	465	1.0
1.2	465*	1.0	1225	BG40G10-../DPE06LA4	43	7000	-	1.4	465	1.0
0.95	465*	1.0	1459	BG40G10-../DPE06LA4	43	7000	-	1.2	465	1.0
0.8	465*	1.0	1738	BG40G10-../DPE06LA4	43	7000	-	1.0	465	1.0
0.7	465*	1.0	2087	BG40G10-../DPE06LA4	43	7000	-	0.85	465	1.0
0.55	465*	1.0	2628	BG40G10-../DPE06LA4	43	7000	-	0.65	465	1.0
0.45	465*	1.0	3082	BG40G10-../DPE06LA4	43	7000	-	0.55	465	1.0
0.37	465*	1.0	3805	BG40G10-../DPE06LA4	43	7000	-	0.44	465	1.0
0.33	465*	1.0	4216	BG40G10-../DPE06LA4	43	7000	-	0.4	465	1.0
0.29	465*	1.0	4841	BG40G10-../DPE06LA4	43	7000	-	0.35	465	1.0
5.4	210	3.0	258.6	BG50Z-../DPE06LA4	47	10000	-	6.5	176	3.6
4.9	230	2.7	286.7	BG50Z-../DPE06LA4	47	10000	-	5.9	194	3.2
3.1	260	2.7	446.5	BG50G10-../DPE06LA4	51	10000	-	3.8	194	3.6
2.6	320	2.2	531.5	BG50G10-../DPE06LA4	51	10000	-	3.2	240	2.9

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BG-series helical-geared motors

Selection helical-geared motors



P = 0.12 kW

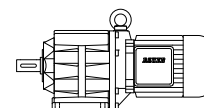
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
2.3	385	1.8	621.3	BG50G10-../DPE06LA4	51	10000	-	2.7	310	2.2
2.0	445	1.55	708.3	BG50G10-../DPE06LA4	51	10000	-	2.4	350	1.95
1.8	495	1.4	785.1	BG50G10-../DPE06LA4	51	10000	-	2.2	380	1.8
1.5	610	1.15	960.2	BG50G10-../DPE06LA4	51	10000	-	1.8	485	1.4
1.2	790	0.87	1219	BG50G10-../DPE06LA4	51	10000	-	1.4	660	1.05
1.0	690*	1.0	1452	BG50G10-../DPE06LA4	51	10000	-	1.2	690	1.0
0.8	690*	1.0	1729	BG50G10-../DPE06LA4	51	10000	-	1.0	690	1.0
0.7	690*	1.0	2076	BG50G10-../DPE06LA4	51	10000	-	0.85	690	1.0
0.55	690*	1.0	2615	BG50G10-../DPE06LA4	51	10000	-	0.65	690	1.0
0.46	690*	1.0	3066	BG50G10-../DPE06LA4	51	10000	-	0.55	690	1.0
0.37	690*	1.0	3786	BG50G10-../DPE06LA4	51	10000	-	0.45	690	1.0
0.33	690*	1.0	4195	BG50G10-../DPE06LA4	51	10000	-	0.4	690	1.0
0.29	690*	1.0	4816	BG50G10-../DPE06LA4	51	10000	-	0.35	690	1.0
1.8	430	3.0	804.5	BG60G20-../DPE06LA4	100	16000	-	2.1	340	3.8
1.6	490	2.7	891.5	BG60G20-../DPE06LA4	100	16000	-	1.9	375	3.5
1.4	570	2.3	1051	BG60G20-../DPE06LA4	100	16000	-	1.6	475	2.7
1.2	700	1.85	1168	BG60G20-../DPE06LA4	100	16000	-	1.5	510	2.5
1.1	770	1.7	1346	BG60G20-../DPE06LA4	100	16000	-	1.3	610	2.1
0.95	930	1.4	1496	BG60G20-../DPE06LA4	100	16000	-	1.2	680	1.9
0.8	1160	1.1	1741	BG60G20-../DPE06LA4	100	16000	-	1.0	870	1.5
0.75	1250	1.05	1880	BG60G20-../DPE06LA4	100	16000	-	0.9	1000	1.3
0.65	1300*	1.0	2249	BG60G20-../DPE06LA4	100	16000	-	0.75	1300	1.0
0.49	1300*	1.0	2818	BG60G20-../DPE06LA4	100	16000	-	0.6	1300	1.0
0.43	1300*	1.0	3234	BG60G20-../DPE06LA4	100	16000	-	0.55	1300	1.0
0.39	1300*	1.0	3592	BG60G20-../DPE06LA4	100	16000	-	0.47	1300	1.0
0.32	1300*	1.0	4429	BG60G20-../DPE06LA4	100	16000	-	0.38	1300	1.0
1.0	900	2.8	1389	BG70G20-../DPE06LA4	130	20000	-	1.3	640	3.9
0.9	1030	2.4	1543	BG70G20-../DPE06LA4	130	20000	-	1.1	800	3.1
0.85	1100	2.3	1666	BG70G20-../DPE06LA4	130	20000	-	1.1	800	3.1
0.7	1390	1.8	1994	BG70G20-../DPE06LA4	130	20000	-	0.85	1100	2.3
0.65	1520	1.65	2215	BG70G20-../DPE06LA4	130	20000	-	0.8	1190	2.1
0.5	2050	1.2	2774	BG70G20-../DPE06LA4	130	20000	-	0.65	1520	1.65
0.44	2350	1.05	3184	BG70G20-../DPE06LA4	130	20000	-	0.55	1840	1.35
0.36	2500*	1.0	3925	BG70G20-../DPE06LA4	130	20000	-	0.43	2500	1.0

P = 0.18 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
530	3.2	2.8	2.64	BG05-../DPE07LA4	11	420	-	640	2.65	3.4
410	4.15	2.4	3.38	BG05-../DPE07LA4	11	460	-	495	3.45	2.9
305	5.6	2.1	4.59	BG05-../DPE07LA4	11	490	-	365	4.7	2.6
255	6.7	2.1	5.46	BG05-../DPE07LA4	11	490	-	310	5.5	2.5
230	7.4	2.3	6.09	BG05-../DPE07LA4	11	480	-	275	6.2	2.7
210	8.1	2.1	6.64	BG05-../DPE07LA4	11	500	-	255	6.7	2.5
177	9.7	1.85	7.80	BG05-../DPE07LA4	11	530	-	215	7.9	2.3
170	10.1	1.8	8.15	BG05-../DPE07LA4	11	510	-	205	8.3	2.2
163	10.5	1.8	8.51	BG05-../DPE07LA4	11	550	-	197	8.7	2.2
131	13.1	1.55	10.59	BG05-../DPE07LA4	11	590	-	158	10.8	1.85
120	14.3	1.45	11.55	BG05-../DPE07LA4	11	600	-	145	11.8	1.8
115	14.9	1.4	12.05	BG05-../DPE07LA4	11	510	-	139	12.3	1.7
110	15.6	1.4	12.60	BG05-../DPE07LA4	11	610	-	133	12.9	1.7
101	17	1.35	13.75	BG05-../DPE07LA4	11	630	-	122	14	1.65
91	18.8	1.3	15.23	BG05-../DPE07LA4	11	640	-	110	15.6	1.55

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

P = 0.18 kW



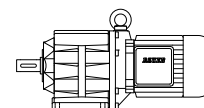
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
84	20	1.25	16.62	BG05-../DPE07LA4	11	660	-	101	17	1.45
74	23	1.15	18.82	BG05-../DPE07LA4	11	680	-	89	19.3	1.35
68	25	1.1	20.53	BG05-../DPE07LA4	11	700	-	82	20.5	1.3
58	29.5	0.95	24.00	BG05-../DPE07LA4	11	740	-	70	24.5	1.15
53	32	0.91	26.18	BG05-../DPE07LA4	11	760	-	64	26.5	1.1
50	34	0.88	27.82	BG05-../DPE07LA4	11	770	-	61	28	1.05
45.5	37.5	0.8	30.35	BG05-../DPE07LA4	11	760	-	56	30.5	0.98
235	7.3	3.3	5.96	BG06-../DPE07LA4	12	570	-	285	6.0	4.0
197	8.7	3.0	7.01	BG06-../DPE07LA4	12	580	-	240	7.1	3.7
165	10.4	2.7	8.39	BG06-../DPE07LA4	12	600	-	200	8.5	3.3
148	11.6	2.6	9.38	BG06-../DPE07LA4	12	640	-	179	9.6	3.1
135	12.7	2.4	10.24	BG06-../DPE07LA4	12	640	-	164	10.4	3.0
123	13.9	2.3	11.28	BG06-../DPE07LA4	12	670	-	149	11.5	2.8
113	15.2	2.2	12.30	BG06-../DPE07LA4	12	670	-	136	12.6	2.6
107	16	2.1	12.98	BG06-../DPE07LA4	12	600	-	129	13.3	2.5
94	18.2	1.85	14.78	BG06-../DPE07LA4	12	730	-	113	15.2	2.2
86	19.9	1.75	16.13	BG06-../DPE07LA4	12	740	-	104	16.5	2.1
80	21	1.8	17.40	BG06-../DPE07LA4	12	760	-	96	17.9	2.1
73	23.5	1.7	18.98	BG06-../DPE07LA4	12	770	-	88	19.5	2.1
67	25.5	1.55	20.82	BG06-../DPE07LA4	12	800	-	81	21	1.9
61	28	1.55	22.71	BG06-../DPE07LA4	12	810	-	74	23	1.85
55	31	1.45	25.48	BG06-../DPE07LA4	12	850	-	66	26	1.75
50	34	1.3	27.80	BG06-../DPE07LA4	12	840	-	61	28	1.6
43	39.5	1.15	32.22	BG06-../DPE07LA4	12	890	-	52	33	1.35
39.5	43.5	1.05	35.15	BG06-../DPE07LA4	12	880	-	48	35.5	1.25
37.5	45.5	0.99	36.91	BG06-../DPE07LA4	12	890	-	45.5	37.5	1.2
34.5	49.5	0.91	40.26	BG06-../DPE07LA4	12	890	-	41.5	41	1.1
47.5	36	3.3	29.09	BG10-../DPE07LA4	15	1540	2150	58	29.5	4.1
44	39	3.1	31.52	BG10-../DPE07LA4	15	1600	2200	53	32	3.8
40	42.5	2.8	34.92	BG10-../DPE07LA4	15	1690	2350	48	35.5	3.4
35	49	2.4	39.70	BG10-../DPE07LA4	15	1780	2450	42.5	40	3.0
31.5	54	2.2	43.99	BG10-../DPE07LA4	15	1880	2600	38	45	2.7
30	57	2.1	46.55	BG10-../DPE07LA4	15	1920	2650	36	47.5	2.5
27	63	1.9	51.57	BG10-../DPE07LA4	15	2000	2800	32.5	52	2.3
24.5	70	1.7	57.48	BG10-../DPE07LA4	15	2000	2800	29.5	58	2.1
22	78	1.55	63.69	BG10-../DPE07LA4	15	2000	2800	26.5	64	1.9
21	81	1.5	66.00	BG10-../DPE07LA4	15	2000	2800	25.5	67	1.8
19	90	1.35	73.13	BG10-../DPE07LA4	15	2000	2800	23	74	1.6
18	95	1.25	77.40	BG10Z-../DPE07LA4	16	2000	2800	22	78	1.55
16.5	104	1.15	85.76	BG10Z-../DPE07LA4	16	2000	2800	19.5	88	1.35
15	114	1.05	92.19	BG10Z-../DPE07LA4	16	2000	2800	18.5	92	1.3
14	122	0.98	102.1	BG10Z-../DPE07LA4	16	2000	2800	16.5	104	1.15
13	132	0.91	109.8	BG10Z-../DPE07LA4	16	2000	2800	15.5	110	1.1
11.5	149	0.81	121.7	BG10Z-../DPE07LA4	16	2000	2800	14	122	0.98
36.5	47	3.2	37.90	BG15-../DPE07LA4	15	3000	6000	44.5	38.5	3.9
26	66	3.0	53.22	BG20-../DPE07LA4	18	4950	-	31.5	54	3.7
23.5	73	2.7	59.07	BG20-../DPE07LA4	18	5000	-	28.5	60	3.3
21.5	79	2.5	65.62	BG20-../DPE07LA4	18	5000	-	25.5	67	3.0
20.5	83	2.4	67.53	BG20Z-../DPE07LA4	19	5000	-	25	68	2.9
18	95	2.1	78.60	BG20Z-../DPE07LA4	19	5000	-	21.5	79	2.5
16	107	1.85	87.30	BG20Z-../DPE07LA4	19	5000	-	19.5	88	2.3
15	114	1.75	94.27	BG20Z-../DPE07LA4	19	5000	-	18	95	2.1
13.5	127	1.55	104.7	BG20Z-../DPE07LA4	19	5000	-	16	107	1.85
12.5	137	1.45	112.8	BG20Z-../DPE07LA4	19	5000	-	15	114	1.75
11.5	149	1.35	125.3	BG20Z-../DPE07LA4	19	5000	-	13.5	127	1.55
9.8	175	1.15	141.3	BG20Z-../DPE07LA4	19	5000	-	12	143	1.4

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

BG-series helical-geared motors

Selection helical-geared motors

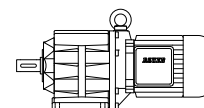
P = 0.18 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
8.6	199	1.0	162.2	BG20Z-../DPE07LA4	19	5000	-	10.5	163	1.25
7.7	220	0.91	180.1	BG20Z-../DPE07LA4	19	5000	-	9.3	184	1.1
7.0	245	0.82	199.9	BG20Z-../DPE07LA4	19	5000	-	8.4	200	1.0
21	81	3.3	65.79	BG30Z-../DPE07LA4	25	6000	-	25.5	67	4.0
19	90	3.3	73.51	BG30Z-../DPE07LA4	25	6000	-	23	74	4.1
17	101	3.0	81.55	BG30Z-../DPE07LA4	25	6000	-	20.5	83	3.6
16.5	104	2.9	86.13	BG30Z-../DPE07LA4	25	6000	-	19.5	88	3.4
14.5	118	2.5	95.55	BG30Z-../DPE07LA4	25	6000	-	17.5	98	3.1
13	132	2.3	109.6	BG30Z-../DPE07LA4	25	6000	-	15.5	110	2.7
11.5	149	2.0	121.6	BG30Z-../DPE07LA4	25	6000	-	14	122	2.5
11	156	1.9	128.5	BG30Z-../DPE07LA4	25	6000	-	13	132	2.3
9.7	177	1.7	142.5	BG30Z-../DPE07LA4	25	6000	-	12	143	2.1
9.2	186	1.6	151.5	BG30Z-../DPE07LA4	25	6000	-	11.5	149	2.0
8.3	205	1.45	168.1	BG30Z-../DPE07LA4	25	6000	-	10	171	1.75
7.6	225	1.35	182.9	BG30Z-../DPE07LA4	25	6000	-	9.2	186	1.6
6.9	245	1.2	202.9	BG30Z-../DPE07LA4	25	6000	-	8.3	205	1.45
6.2	275	1.1	225.9	BG30Z-../DPE07LA4	25	6000	-	7.4	230	1.3
5.6	305	0.98	250.6	BG30Z-../DPE07LA4	25	6000	-	6.7	255	1.2
5.3	320	0.94	261.9	BG30Z-../DPE07LA4	25	6000	-	6.4	265	1.15
4.8	355	0.85	290.5	BG30Z-../DPE07LA4	25	6000	-	5.8	295	1.0
4.6	340	0.96	306.2	BG30G06-../DPE07LA4	27	6000	-	5.5	280	1.15
4.0	400	0.81	346.8	BG30G06-../DPE07LA4	27	6000	-	4.9	320	1.0
13	132	3.2	107.5	BG40Z-../DPE07LA4	40	7000	-	16	107	4.0
11.5	149	2.9	121.3	BG40Z-../DPE07LA4	40	7000	-	14	122	3.5
10.5	163	2.6	134.6	BG40Z-../DPE07LA4	40	7000	-	12.5	137	3.1
9.8	175	2.4	141.4	BG40Z-../DPE07LA4	40	7000	-	12	143	3.0
8.8	195	2.2	156.9	BG40Z-../DPE07LA4	40	7000	-	11	156	2.7
8.4	200	2.1	166.1	BG40Z-../DPE07LA4	40	7000	-	10.5	163	2.6
7.5	225	1.9	184.4	BG40Z-../DPE07LA4	40	7000	-	9.1	188	2.3
7.0	245	1.75	199.9	BG40Z-../DPE07LA4	40	7000	-	8.4	200	2.1
6.3	270	1.55	221.9	BG40Z-../DPE07LA4	40	7000	-	7.6	225	1.9
5.6	305	1.4	246.5	BG40Z-../DPE07LA4	40	7000	-	6.8	250	1.7
5.1	335	1.25	273.6	BG40Z-../DPE07LA4	40	7000	-	6.2	275	1.55
4.8	265	1.75	288.6	BG40G10-../DPE07LA4	46	7000	-	5.8	205	2.3
4.0	330	1.4	353.5	BG40G10-../DPE07LA4	46	7000	-	4.8	255	1.8
3.1	445	1.05	448.8	BG40G10-../DPE07LA4	46	7000	-	3.8	345	1.35
2.6	540	0.86	534.2	BG40G10-../DPE07LA4	46	7000	-	3.2	420	1.1
8.4	200	3.2	164.9	BG50Z-../DPE07LA4	50	10000	-	10.5	163	3.9
7.6	225	2.8	182.8	BG50Z-../DPE07LA4	50	10000	-	9.2	186	3.4
6.8	250	2.5	204.7	BG50Z-../DPE07LA4	50	10000	-	8.2	205	3.1
6.1	280	2.3	226.9	BG50Z-../DPE07LA4	50	10000	-	7.4	230	2.7
5.4	315	2.0	258.6	BG50Z-../DPE07LA4	50	10000	-	6.5	260	2.4
4.9	350	1.8	286.7	BG50Z-../DPE07LA4	50	10000	-	5.9	290	2.2
4.0	330	2.1	351.7	BG50G10-../DPE07LA4	54	10000	-	4.8	255	2.7
3.1	445	1.55	446.5	BG50G10-../DPE07LA4	54	10000	-	3.8	345	2.0
2.6	540	1.3	531.5	BG50G10-../DPE07LA4	54	10000	-	3.2	420	1.65
2.3	630	1.1	621.3	BG50G10-../DPE07LA4	54	10000	-	2.7	520	1.35
2.0	730	0.95	708.3	BG50G10-../DPE07LA4	54	10000	-	2.4	590	1.15
1.8	810	0.85	785.1	BG50G10-../DPE07LA4	54	10000	-	2.2	640	1.1
2.8	465	2.8	504.9	BG60G20-../DPE07LA4	102	16000	-	3.4	355	3.7
2.5	520	2.5	559.5	BG60G20-../DPE07LA4	102	16000	-	3.0	405	3.2
2.2	610	2.1	651.3	BG60G20-../DPE07LA4	102	16000	-	2.6	495	2.6
1.8	750	1.75	804.5	BG60G20-../DPE07LA4	102	16000	-	2.1	610	2.1
1.6	840	1.55	891.5	BG60G20-../DPE07LA4	102	16000	-	1.9	670	1.95
1.4	980	1.35	1051	BG60G20-../DPE07LA4	102	16000	-	1.6	830	1.55

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

P = 0.18 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
1.2	1180	1.1	1168	BG60G20-../DPE07LA4	102	16000	-	1.5	890	1.45
1.1	1290	1.0	1346	BG60G20-../DPE07LA4	102	16000	-	1.3	1050	1.25
1.8	750	3.3	790.2	BG70G20-../DPE07LA4	132	20000	-	2.2	580	4.3
1.6	860	2.9	877.6	BG70G20-../DPE07LA4	132	20000	-	2.0	650	3.8
1.4	1000	2.5	1035	BG70G20-../DPE07LA4	132	20000	-	1.7	790	3.2
1.2	1190	2.1	1193	BG70G20-../DPE07LA4	132	20000	-	1.4	990	2.5
1.0	1470	1.7	1389	BG70G20-../DPE07LA4	132	20000	-	1.3	1080	2.3
0.9	1670	1.5	1543	BG70G20-../DPE07LA4	132	20000	-	1.1	1320	1.9
0.85	1780	1.4	1666	BG70G20-../DPE07LA4	132	20000	-	1.1	1320	1.9
0.7	2200	1.15	1994	BG70G20-../DPE07LA4	132	20000	-	0.85	1780	1.4
0.65	2400	1.05	2215	BG70G20-../DPE07LA4	132	20000	-	0.8	1900	1.3

P = 0.25 kW

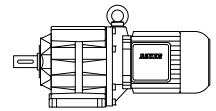
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
510	4.65	3.9	2.82	BG06-../DPE08MA4	16	470	-	610	3.9	4.6
380	6.2	3.2	3.78	BG06-../DPE08MA4	16	520	-	455	5.2	3.8
315	7.5	2.9	4.54	BG06-../DPE08MA4	16	530	-	380	6.2	3.5
240	9.9	2.4	5.96	BG06-../DPE08MA4	16	570	-	290	8.2	2.9
205	11.6	2.2	7.01	BG06-../DPE08MA4	16	580	-	245	9.7	2.7
186	12.8	2.2	7.65	BG06-../DPE08MA4	16	580	-	225	10.6	2.6
170	14	2.0	8.39	BG06-../DPE08MA4	16	600	-	205	11.6	2.4
152	15.7	1.9	9.38	BG06-../DPE08MA4	16	640	-	183	13	2.3
139	17.1	1.8	10.24	BG06-../DPE08MA4	16	640	-	167	14.2	2.2
126	18.9	1.7	11.28	BG06-../DPE08MA4	16	670	-	152	15.7	2.0
116	20.5	1.6	12.30	BG06-../DPE08MA4	16	670	-	140	17	1.95
110	21.5	1.55	12.98	BG06-../DPE08MA4	16	600	-	132	18	1.85
97	24.5	1.4	14.78	BG06-../DPE08MA4	16	730	-	116	20.5	1.65
89	26.5	1.3	16.13	BG06-../DPE08MA4	16	740	-	107	22	1.6
82	29	1.3	17.40	BG06-../DPE08MA4	16	760	-	99	24	1.6
75	31.5	1.25	18.98	BG06-../DPE08MA4	16	770	-	91	26	1.55
69	34.5	1.15	20.82	BG06-../DPE08MA4	16	800	-	83	28.5	1.4
63	37.5	1.15	22.71	BG06-../DPE08MA4	16	810	-	76	31	1.4
56	42.5	1.05	25.48	BG06-../DPE08MA4	16	850	-	68	35	1.3
52	45.5	0.99	27.80	BG06-../DPE08MA4	16	840	-	62	38.5	1.15
44.5	53	0.85	32.22	BG06-../DPE08MA4	16	890	-	54	44	1.0
65	36.5	3.3	22.04	BG10-../DPE08MA4	16	1330	1860	78	30.5	3.9
59	40	3.0	24.42	BG10-../DPE08MA4	16	1410	1970	71	33.5	3.6
55	43	2.8	26.26	BG10-../DPE08MA4	16	1460	2000	66	36	3.3
49	48.5	2.5	29.09	BG10-../DPE08MA4	16	1540	2150	59	40	3.0
45.5	52	2.3	31.52	BG10-../DPE08MA4	16	1600	2200	55	43	2.8
41	58	2.1	34.92	BG10-../DPE08MA4	16	1690	2350	49	48.5	2.5
36	66	1.8	39.70	BG10-../DPE08MA4	16	1780	2450	43.5	54	2.2
32.5	73	1.65	43.99	BG10-../DPE08MA4	16	1880	2600	39	61	1.95
31	77	1.55	46.55	BG10-../DPE08MA4	16	1920	2650	37	64	1.9
28	85	1.4	51.57	BG10-../DPE08MA4	16	2000	2800	33.5	71	1.7
25	95	1.25	57.48	BG10-../DPE08MA4	16	2000	2800	30	79	1.5
22.5	106	1.15	63.69	BG10-../DPE08MA4	16	2000	2800	27	88	1.35
21.5	111	0.93	67.54	BG10Z-../DPE08MA4	18	2000	2800	25.5	93	1.1
18.5	129	0.93	77.40	BG10Z-../DPE08MA4	18	2000	2800	22.5	106	1.15
17	140	0.86	85.76	BG10Z-../DPE08MA4	18	2000	2800	20	119	1.0

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BG-series helical-geared motors

Selection helical-geared motors

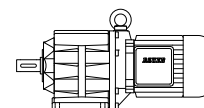
P = 0.25 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
53	45	3.3	27.08	BG15-../DPE08MA4	16	3000	6000	64	37	4.1
47.5	50	3.0	30.08	BG15-../DPE08MA4	16	3000	6000	57	41.5	3.6
42	56	2.7	34.20	BG15-../DPE08MA4	16	3000	6000	50	47.5	3.2
37.5	63	2.4	37.90	BG15-../DPE08MA4	16	3000	6000	45.5	52	2.9
38.5	62	3.2	37.02	BG20-../DPE08MA4	19	4300	-	46.5	51	3.9
34.5	69	2.9	41.76	BG20-../DPE08MA4	19	4500	-	41	58	3.4
31	77	2.6	46.38	BG20-../DPE08MA4	19	4700	-	37	64	3.1
30	79	2.5	47.92	BG20-../DPE08MA4	19	4750	-	36	66	3.0
27	88	2.3	53.22	BG20-../DPE08MA4	19	4950	-	32.5	73	2.7
24.5	97	2.1	59.07	BG20-../DPE08MA4	19	5000	-	29	82	2.4
22	108	1.85	65.62	BG20-../DPE08MA4	19	5000	-	26.5	90	2.2
21.5	111	1.8	67.53	BG20Z-../DPE08MA4	20	5000	-	25.5	93	2.2
18.5	129	1.55	78.60	BG20Z-../DPE08MA4	20	5000	-	22	108	1.85
16.5	144	1.4	87.30	BG20Z-../DPE08MA4	20	5000	-	20	119	1.7
15.5	154	1.3	94.27	BG20Z-../DPE08MA4	20	5000	-	18.5	129	1.55
14	170	1.2	104.7	BG20Z-../DPE08MA4	20	5000	-	16.5	144	1.4
13	183	1.1	112.8	BG20Z-../DPE08MA4	20	5000	-	15.5	154	1.3
11.5	205	0.98	125.3	BG20Z-../DPE08MA4	20	5000	-	14	170	1.2
10.5	225	0.89	141.3	BG20Z-../DPE08MA4	20	5000	-	12.5	191	1.05
24.5	97	3.1	58.18	BG30-../DPE08MA4	23	6000	-	29.5	80	3.8
23.5	101	3.0	60.79	BG30-../DPE08MA4	23	6000	-	28.5	83	3.6
21.5	111	2.7	67.44	BG30-../DPE08MA4	23	6000	-	25.5	93	3.2
19.5	122	2.5	73.51	BG30Z-../DPE08MA4	26	6000	-	23.5	101	3.0
17.5	136	2.2	81.55	BG30Z-../DPE08MA4	26	6000	-	21	113	2.7
16.5	144	2.1	86.13	BG30Z-../DPE08MA4	26	6000	-	20	119	2.5
15	159	1.9	95.55	BG30Z-../DPE08MA4	26	6000	-	18	132	2.3
13	183	1.65	109.6	BG30Z-../DPE08MA4	26	6000	-	16	149	2.0
12	198	1.5	121.6	BG30Z-../DPE08MA4	26	6000	-	14.5	164	1.85
11.5	205	1.45	128.5	BG30Z-../DPE08MA4	26	6000	-	13.5	176	1.7
10	235	1.3	142.5	BG30Z-../DPE08MA4	26	6000	-	12	198	1.5
9.4	250	1.2	151.5	BG30Z-../DPE08MA4	26	6000	-	11.5	205	1.45
8.5	280	1.05	168.1	BG30Z-../DPE08MA4	26	6000	-	10.5	225	1.35
7.8	305	0.98	182.9	BG30Z-../DPE08MA4	26	6000	-	9.4	250	1.2
7.0	340	0.88	202.9	BG30Z-../DPE08MA4	26	6000	-	8.5	280	1.05
6.3	375	0.8	225.9	BG30Z-../DPE08MA4	26	6000	-	7.6	310	0.97
5.6	395	0.82	254.9	BG30G06-../DPE08MA4	32	6000	-	6.8	320	1.0
17.5	136	3.1	82.00	BG40Z-../DPE08MA4	42	7000	-	21	113	3.8
16	149	2.9	91.02	BG40Z-../DPE08MA4	42	7000	-	19	125	3.4
15	159	2.7	96.86	BG40Z-../DPE08MA4	42	7000	-	18	132	3.2
13.5	176	2.4	107.5	BG40Z-../DPE08MA4	42	7000	-	16	149	2.9
12	198	2.1	121.3	BG40Z-../DPE08MA4	42	7000	-	14.5	164	2.6
11	215	2.0	134.6	BG40Z-../DPE08MA4	42	7000	-	13	183	2.3
10.5	225	1.9	141.4	BG40Z-../DPE08MA4	42	7000	-	12.5	191	2.2
9.1	260	1.65	156.9	BG40Z-../DPE08MA4	42	7000	-	11	215	2.0
8.6	275	1.55	166.1	BG40Z-../DPE08MA4	42	7000	-	10.5	225	1.9
7.8	305	1.4	184.4	BG40Z-../DPE08MA4	42	7000	-	9.3	255	1.65
7.2	330	1.3	199.9	BG40Z-../DPE08MA4	42	7000	-	8.6	275	1.55
6.4	370	1.15	221.9	BG40Z-../DPE08MA4	42	7000	-	7.8	305	1.4
5.8	410	1.05	246.5	BG40Z-../DPE08MA4	42	7000	-	7.0	340	1.25
5.2	455	0.93	273.6	BG40Z-../DPE08MA4	42	7000	-	6.3	375	1.15
5.0	385	1.2	288.6	BG40G10-../DPE08MA4	47	7000	-	6.0	305	1.5
4.1	480	0.97	353.5	BG40G10-../DPE08MA4	47	7000	-	4.9	385	1.2
11.5	205	3.1	128.9	BG50Z-../DPE08MA4	51	10000	-	13.5	176	3.6
10	235	2.7	142.9	BG50Z-../DPE08MA4	51	10000	-	12	198	3.2

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

P = 0.25 kW



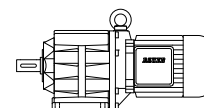
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
8.7	270	2.3	164.9	BG50Z-../DPE08MA4	51	10000	-	10.5	225	2.8
7.8	305	2.1	182.8	BG50Z-../DPE08MA4	51	10000	-	9.4	250	2.5
7.0	340	1.85	204.7	BG50Z-../DPE08MA4	51	10000	-	8.4	280	2.3
6.3	375	1.7	226.9	BG50Z-../DPE08MA4	51	10000	-	7.6	310	2.0
5.5	430	1.45	258.6	BG50Z-../DPE08MA4	51	10000	-	6.7	355	1.75
5.0	475	1.35	286.7	BG50Z-../DPE08MA4	51	10000	-	6.0	395	1.6
4.1	480	1.45	351.7	BG50G10-../DPE08MA4	55	10000	-	4.9	385	1.8
3.2	630	1.1	446.5	BG50G10-../DPE08MA4	55	10000	-	3.9	500	1.4
2.7	760	0.91	531.5	BG50G10-../DPE08MA4	55	10000	-	3.3	600	1.15
6.3	375	3.2	226.7	BG60Z-../DPE08MA4	96	16000	-	7.6	310	3.9
5.8	410	2.9	247.7	BG60Z-../DPE08MA4	96	16000	-	7.0	340	3.5
5.2	455	2.6	274.5	BG60Z-../DPE08MA4	96	16000	-	6.3	375	3.2
4.3	415	3.1	334.3	BG60G20-../DPE08MA4	103	16000	-	5.2	315	4.1
3.9	455	2.9	370.5	BG60G20-../DPE08MA4	103	16000	-	4.7	350	3.7
3.3	550	2.4	437.3	BG60G20-../DPE08MA4	103	16000	-	4.0	430	3.0
2.9	670	1.95	504.9	BG60G20-../DPE08MA4	103	16000	-	3.4	550	2.4
2.6	750	1.75	559.5	BG60G20-../DPE08MA4	103	16000	-	3.1	600	2.2
2.2	920	1.4	651.3	BG60G20-../DPE08MA4	103	16000	-	2.7	710	1.85
1.8	1120	1.15	804.5	BG60G20-../DPE08MA4	103	16000	-	2.2	880	1.5
1.6	1260	1.05	891.5	BG60G20-../DPE08MA4	103	16000	-	2.0	960	1.35
1.4	1460	0.89	1051	BG60G20-../DPE08MA4	103	16000	-	1.7	1160	1.1
1.3	1580	0.82	1168	BG60G20-../DPE08MA4	103	16000	-	1.5	1340	0.97
2.5	800	3.1	577.3	BG70G20-../DPE08MA4	133	20000	-	3.0	640	3.9
2.2	910	2.7	665.8	BG70G20-../DPE08MA4	133	20000	-	2.6	740	3.4
1.8	1120	2.2	790.2	BG70G20-../DPE08MA4	133	20000	-	2.2	880	2.8
1.7	1190	2.1	877.6	BG70G20-../DPE08MA4	133	20000	-	2.0	980	2.6
1.4	1480	1.7	1035	BG70G20-../DPE08MA4	133	20000	-	1.7	1180	2.1
1.2	1750	1.45	1193	BG70G20-../DPE08MA4	133	20000	-	1.5	1350	1.85
1.1	1930	1.3	1389	BG70G20-../DPE08MA4	133	20000	-	1.3	1590	1.55
0.95	2250	1.1	1543	BG70G20-../DPE08MA4	133	20000	-	1.2	1750	1.45
0.9	2400	1.05	1666	BG70G20-../DPE08MA4	133	20000	-	1.1	1930	1.3
1.2	1440	3.2	1261	BG80G40-../DPE08MA4	215	26000	-	1.4	1160	4.0
1.1	1630	2.8	1400	BG80G40-../DPE08MA4	215	26000	-	1.3	1290	3.6
0.9	2100	2.2	1653	BG80G40-../DPE08MA4	215	26000	-	1.1	1630	2.8
0.7	2850	1.6	2070	BG80G40-../DPE08MA4	215	26000	-	0.85	2250	2.0
0.6	3400	1.35	2413	BG80G40-../DPE08MA4	215	26000	-	0.75	2600	1.75
0.55	3800	1.2	2836	BG80G40-../DPE08MA4	215	26000	-	0.65	3100	1.5
0.6	3300	2.8	2514	BG90G50-../DPE08MA4	324	65000	-	0.7	2700	3.4
0.55	3650	2.5	2786	BG90G50-../DPE08MA4	324	65000	-	0.65	2950	3.1
0.45	4600	2.0	3177	BG90G50-../DPE08MA4	324	65000	-	0.55	3650	2.5
0.41	5100	1.8	3521	BG90G50-../DPE08MA4	324	65000	-	0.49	4150	2.2
0.25	7000	2.6	5888	BG100G50-../DPE08MA4	512	90000	-	0.3	5400	3.4
0.22	8300	2.2	6529	BG100G50-../DPE08MA4	512	90000	-	0.27	6300	2.9
0.19	10000	1.85	7533	BG100G50-../DPE08MA4	512	90000	-	0.23	7800	2.4
0.18	10700	1.75	8350	BG100G50-../DPE08MA4	512	90000	-	0.21	8800	2.1
0.16	12400	1.5	9348	BG100G50-../DPE08MA4	512	90000	-	0.19	10000	1.85

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

BG-series helical-geared motors

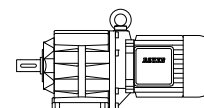
Selection helical-geared motors

P = 0.37 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
510	6.9	2.6	2.82	BG06-../DPE08LA4	18	470	-	610	5.7	3.2
380	9.2	2.2	3.78	BG06-../DPE08LA4	18	520	-	455	7.7	2.6
315	11.2	1.95	4.54	BG06-../DPE08LA4	18	530	-	380	9.2	2.4
240	14.7	1.65	5.96	BG06-../DPE08LA4	18	570	-	290	12.1	2.0
205	17.2	1.5	7.01	BG06-../DPE08LA4	18	580	-	245	14.4	1.8
186	18.9	1.5	7.65	BG06-../DPE08LA4	18	580	-	225	15.7	1.8
170	20.5	1.35	8.39	BG06-../DPE08LA4	18	600	-	205	17.2	1.65
152	23	1.3	9.38	BG06-../DPE08LA4	18	640	-	183	19.3	1.55
139	25	1.25	10.24	BG06-../DPE08LA4	18	640	-	167	21	1.5
126	28	1.15	11.28	BG06-../DPE08LA4	18	670	-	152	23	1.4
116	30	1.1	12.30	BG06-../DPE08LA4	18	670	-	140	25	1.3
110	32	1.05	12.98	BG06-../DPE08LA4	18	600	-	132	26.5	1.25
97	36	0.94	14.78	BG06-../DPE08LA4	18	730	-	116	30	1.15
89	39.5	0.89	16.13	BG06-../DPE08LA4	18	740	-	107	33	1.05
82	43	0.88	17.40	BG06-../DPE08LA4	18	760	-	99	35.5	1.05
75	47	0.85	18.98	BG06-../DPE08LA4	18	770	-	91	38.5	1.05
98	36	3.2	14.58	BG10-../DPE08LA4	18	1100	1540	118	29.5	3.9
88	40	2.9	16.15	BG10-../DPE08LA4	18	1140	1590	106	33	3.5
77	45.5	2.6	18.51	BG10-../DPE08LA4	18	1210	1690	93	37.5	3.2
70	50	2.4	20.51	BG10-../DPE08LA4	18	1290	1800	84	42	2.9
65	54	2.2	22.04	BG10-../DPE08LA4	18	1330	1860	78	45	2.7
59	59	2.0	24.42	BG10-../DPE08LA4	18	1410	1970	71	49.5	2.4
55	64	1.9	26.26	BG10-../DPE08LA4	18	1460	2000	66	53	2.3
49	72	1.65	29.09	BG10-../DPE08LA4	18	1540	2150	59	59	2.0
45.5	77	1.55	31.52	BG10-../DPE08LA4	18	1600	2200	55	64	1.9
41	86	1.4	34.92	BG10-../DPE08LA4	18	1690	2350	49	72	1.65
36	98	1.2	39.70	BG10-../DPE08LA4	18	1780	2450	43.5	81	1.5
32.5	108	1.1	43.99	BG10-../DPE08LA4	18	1880	2600	39	90	1.35
31	113	1.05	46.55	BG10-../DPE08LA4	18	1920	2650	37	95	1.25
28	126	0.95	51.57	BG10-../DPE08LA4	18	2000	2800	33.5	105	1.15
25	141	0.85	57.48	BG10-../DPE08LA4	18	2000	2800	30	117	1.05
53	66	2.3	27.08	BG15-../DPE08LA4	18	3000	6000	64	55	2.7
47.5	74	2.0	30.08	BG15-../DPE08LA4	18	3000	6000	57	61	2.5
42	84	1.8	34.20	BG15-../DPE08LA4	18	3000	6000	50	70	2.1
37.5	94	1.6	37.90	BG15-../DPE08LA4	18	3000	6000	45.5	77	1.95
56	63	3.2	25.79	BG20-../DPE08LA4	20	3700	-	67	52	3.8
51	69	2.9	27.85	BG20-../DPE08LA4	20	3800	-	62	56	3.6
46	76	2.6	30.94	BG20-../DPE08LA4	20	4000	-	56	63	3.2
43	82	2.4	33.33	BG20-../DPE08LA4	20	4100	-	52	67	3.0
38.5	91	2.2	37.02	BG20-../DPE08LA4	20	4300	-	46.5	75	2.7
34.5	102	1.95	41.76	BG20-../DPE08LA4	20	4500	-	41	86	2.3
31	113	1.75	46.38	BG20-../DPE08LA4	20	4700	-	37	95	2.1
30	117	1.7	47.92	BG20-../DPE08LA4	20	4750	-	36	98	2.0
27	130	1.55	53.22	BG20-../DPE08LA4	20	4950	-	32.5	108	1.85
24.5	144	1.4	59.07	BG20-../DPE08LA4	20	5000	-	29	121	1.65
22	160	1.25	65.62	BG20-../DPE08LA4	20	5000	-	26.5	133	1.5
21.5	164	1.2	67.53	BG20Z-../DPE08LA4	22	5000	-	25.5	138	1.45
18.5	191	1.05	78.60	BG20Z-../DPE08LA4	22	5000	-	22	160	1.25
16.5	210	0.95	87.30	BG20Z-../DPE08LA4	22	5000	-	20	176	1.15
15.5	225	0.89	94.27	BG20Z-../DPE08LA4	22	5000	-	18.5	191	1.05
14	250	0.8	104.7	BG20Z-../DPE08LA4	22	5000	-	16.5	210	0.95
36.5	96	3.1	39.02	BG30-../DPE08LA4	25	5800	-	44	80	3.8
33.5	105	2.9	42.46	BG30-../DPE08LA4	25	5900	-	40.5	87	3.4
30.5	115	2.6	47.11	BG30-../DPE08LA4	25	6000	-	36.5	96	3.1
27.5	128	2.3	52.44	BG30-../DPE08LA4	25	6000	-	33	107	2.8
24.5	144	2.1	58.18	BG30-../DPE08LA4	25	6000	-	29.5	119	2.5
23.5	150	2.0	60.79	BG30-../DPE08LA4	25	6000	-	28.5	123	2.4

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



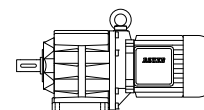
P = 0.37 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
21.5	164	1.85	67.44	BG30-../DPE08LA4	25	6000	-	25.5	138	2.2
19.5	181	1.65	73.51	BG30Z-../DPE08LA4	28	6000	-	23.5	150	2.0
17.5	200	1.5	81.55	BG30Z-../DPE08LA4	28	6000	-	21	168	1.8
16.5	210	1.45	86.13	BG30Z-../DPE08LA4	28	6000	-	20	176	1.7
15	235	1.3	95.55	BG30Z-../DPE08LA4	28	6000	-	18	196	1.55
13	270	1.1	109.6	BG30Z-../DPE08LA4	28	6000	-	16	220	1.35
12	290	1.05	121.6	BG30Z-../DPE08LA4	28	6000	-	14.5	240	1.25
11.5	305	0.98	128.5	BG30Z-../DPE08LA4	28	6000	-	13.5	260	1.15
10	350	0.86	142.5	BG30Z-../DPE08LA4	28	6000	-	12	290	1.05
9.4	375	0.8	151.5	BG30Z-../DPE08LA4	28	6000	-	11.5	305	0.98
26.5	133	3.2	53.69	BG40-../DPE08LA4	40	7000	-	32	110	3.9
24	147	2.9	59.64	BG40-../DPE08LA4	40	7000	-	29	121	3.5
21.5	164	2.6	66.20	BG40-../DPE08LA4	40	7000	-	26	135	3.1
21	168	2.5	67.74	BG40Z-../DPE08LA4	43	7000	-	25.5	138	3.1
19	185	2.3	75.19	BG40Z-../DPE08LA4	43	7000	-	23	153	2.8
17.5	200	2.1	82.00	BG40Z-../DPE08LA4	43	7000	-	21	168	2.5
16	220	1.95	91.02	BG40Z-../DPE08LA4	43	7000	-	19	185	2.3
15	235	1.8	96.86	BG40Z-../DPE08LA4	43	7000	-	18	196	2.2
13.5	260	1.65	107.5	BG40Z-../DPE08LA4	43	7000	-	16	220	1.95
12	290	1.45	121.3	BG40Z-../DPE08LA4	43	7000	-	14.5	240	1.75
11	320	1.35	134.6	BG40Z-../DPE08LA4	43	7000	-	13	270	1.55
10.5	335	1.25	141.4	BG40Z-../DPE08LA4	43	7000	-	12.5	280	1.5
9.1	385	1.1	156.9	BG40Z-../DPE08LA4	43	7000	-	11	320	1.35
8.6	410	1.05	166.1	BG40Z-../DPE08LA4	43	7000	-	10.5	335	1.25
7.8	450	0.94	184.4	BG40Z-../DPE08LA4	43	7000	-	9.3	375	1.15
7.2	490	0.87	199.9	BG40Z-../DPE08LA4	43	7000	-	8.6	410	1.05
18	196	3.2	79.78	BG50Z-../DPE08LA4	52	10000	-	21.5	164	3.8
15	235	2.7	95.58	BG50Z-../DPE08LA4	52	10000	-	18	196	3.2
13.5	260	2.4	106.0	BG50Z-../DPE08LA4	52	10000	-	16.5	210	3.0
11.5	305	2.1	128.9	BG50Z-../DPE08LA4	52	10000	-	13.5	260	2.4
10	350	1.8	142.9	BG50Z-../DPE08LA4	52	10000	-	12	290	2.2
8.7	405	1.55	164.9	BG50Z-../DPE08LA4	52	10000	-	10.5	335	1.9
7.8	450	1.4	182.8	BG50Z-../DPE08LA4	52	10000	-	9.4	375	1.7
7.0	500	1.25	204.7	BG50Z-../DPE08LA4	52	10000	-	8.4	420	1.5
6.3	560	1.15	226.9	BG50Z-../DPE08LA4	52	10000	-	7.6	460	1.35
5.5	640	0.98	258.6	BG50Z-../DPE08LA4	52	10000	-	6.7	520	1.2
5.0	700	0.9	286.7	BG50Z-../DPE08LA4	52	10000	-	6.0	580	1.1
4.1	760	0.91	351.7	BG50G10-../DPE08LA4	56	10000	-	4.9	620	1.1
9.0	390	3.1	158.0	BG60Z-../DPE08LA4	97	16000	-	11	320	3.8
8.2	430	2.8	175.1	BG60Z-../DPE08LA4	97	16000	-	9.8	360	3.3
7.0	500	2.4	204.6	BG60Z-../DPE08LA4	97	16000	-	8.4	420	2.9
6.3	560	2.1	226.7	BG60Z-../DPE08LA4	97	16000	-	7.6	460	2.6
5.8	600	2.0	247.7	BG60Z-../DPE08LA4	97	16000	-	7.0	500	2.4
5.2	670	1.8	274.5	BG60Z-../DPE08LA4	97	16000	-	6.3	560	2.1
4.7	620	2.1	306.1	BG60G20-../DPE08LA4	105	16000	-	5.6	500	2.6
4.3	680	1.9	334.3	BG60G20-../DPE08LA4	105	16000	-	5.2	530	2.5
3.9	750	1.75	370.5	BG60G20-../DPE08LA4	105	16000	-	4.7	590	2.2
3.3	900	1.45	437.3	BG60G20-../DPE08LA4	105	16000	-	4.0	710	1.85
2.9	1060	1.25	504.9	BG60G20-../DPE08LA4	105	16000	-	3.4	890	1.45
2.6	1190	1.1	559.5	BG60G20-../DPE08LA4	105	16000	-	3.1	970	1.35
2.2	1440	0.9	651.3	BG60G20-../DPE08LA4	105	16000	-	2.7	1140	1.15
3.7	800	3.1	387.6	BG70G20-../DPE08LA4	135	20000	-	4.5	630	4.0
3.4	910	2.7	417.8	BG70G20-../DPE08LA4	135	20000	-	4.1	730	3.4
2.9	1070	2.3	495.9	BG70G20-../DPE08LA4	135	20000	-	3.5	860	2.9

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

BG-series helical-geared motors

Selection helical-geared motors



P = 0.37 kW

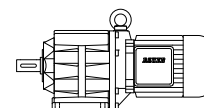
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
2.5	1260	2.0	577.3	BG70G20-../DPE08LA4	135	20000	-	3.0	1030	2.4
2.2	1430	1.75	665.8	BG70G20-../DPE08LA4	135	20000	-	2.6	1190	2.1
1.8	1760	1.4	790.2	BG70G20-../DPE08LA4	135	20000	-	2.2	1400	1.8
1.7	1870	1.35	877.6	BG70G20-../DPE08LA4	135	20000	-	2.0	1560	1.6
1.4	2300	1.1	1035	BG70G20-../DPE08LA4	135	20000	-	1.7	1850	1.35
1.2	2700	0.93	1193	BG70G20-../DPE08LA4	135	20000	-	1.5	2100	1.2
1.1	2950	0.85	1389	BG70G20-../DPE08LA4	135	20000	-	1.3	2450	1.0
1.8	1440	3.2	817.4	BG80G40-../DPE08LA4	216	26000	-	2.1	1160	4.0
1.6	1670	2.8	907.6	BG80G40-../DPE08LA4	216	26000	-	1.9	1320	3.5
1.4	1980	2.3	1042	BG80G40-../DPE08LA4	216	26000	-	1.7	1530	3.0
1.2	2400	1.9	1261	BG80G40-../DPE08LA4	216	26000	-	1.4	1980	2.3
1.1	2650	1.75	1400	BG80G40-../DPE08LA4	216	26000	-	1.3	2150	2.1
0.9	3350	1.35	1653	BG80G40-../DPE08LA4	216	26000	-	1.1	2650	1.75
0.7	4500	1.0	2070	BG80G40-../DPE08LA4	216	26000	-	0.85	3600	1.3
0.9	3250	2.8	1583	BG90G50-../DPE08LA4	326	65000	-	1.1	2500	3.7
0.85	3450	2.7	1756	BG90G50-../DPE08LA4	326	65000	-	1.0	2850	3.2
0.75	4000	2.3	2026	BG90G50-../DPE08LA4	326	65000	-	0.85	3450	2.7
0.6	5200	1.75	2514	BG90G50-../DPE08LA4	326	65000	-	0.7	4350	2.1
0.55	5700	1.6	2786	BG90G50-../DPE08LA4	326	65000	-	0.65	4750	1.95
0.45	7100	1.3	3177	BG90G50-../DPE08LA4	326	65000	-	0.55	5700	1.6
0.41	7900	1.15	3521	BG90G50-../DPE08LA4	326	65000	-	0.49	6500	1.4
0.39	6500	2.8	3644	BG100G50-../DPE08LA4	513	90000	-	0.47	5000	3.7
0.33	8200	2.3	4366	BG100G50-../DPE08LA4	513	90000	-	0.4	6300	2.9
0.3	9200	2.0	4839	BG100G50-../DPE08LA4	513	90000	-	0.36	7300	2.5
0.25	11600	1.6	5888	BG100G50-../DPE08LA4	513	90000	-	0.3	9200	2.0
0.22	13500	1.35	6529	BG100G50-../DPE08LA4	513	90000	-	0.27	10500	1.75
0.19	16000	1.15	7533	BG100G50-../DPE08LA4	513	90000	-	0.23	12800	1.45
0.18	17100	1.1	8350	BG100G50-../DPE08LA4	513	90000	-	0.21	14300	1.3

P = 0.55 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
510	10.2	1.75	2.82	BG06-../DPE08XA4	19	470	-	610	8.6	2.1
380	13.8	1.45	3.78	BG06-../DPE08XA4	19	520	-	455	11.5	1.75
315	16.6	1.35	4.54	BG06-../DPE08XA4	19	530	-	380	13.8	1.6
240	21.5	1.1	5.96	BG06-../DPE08XA4	19	570	-	290	18.1	1.35
205	25.5	1.0	7.01	BG06-../DPE08XA4	19	580	-	245	21	1.25
186	28	1.0	7.65	BG06-../DPE08XA4	19	580	-	225	23	1.2
170	30.5	0.92	8.39	BG06-../DPE08XA4	19	600	-	205	25.5	1.1
152	34.5	0.87	9.38	BG06-../DPE08XA4	19	640	-	183	28.5	1.05
139	37.5	0.83	10.24	BG06-../DPE08XA4	19	640	-	167	31	1.0
210	25	3.2	6.78	BG10-../DPE08XA4	19	660	920	255	20.5	4.0
187	28	3.2	7.63	BG10-../DPE08XA4	19	900	1250	225	23	3.9
176	29.5	3.0	8.07	BG10-../DPE08XA4	19	660	920	215	24	3.7
153	34	2.9	9.33	BG10-../DPE08XA4	19	950	1330	184	28.5	3.4
138	38	2.6	10.34	BG10-../DPE08XA4	19	1000	1400	166	31.5	3.1
120	43.5	2.4	11.92	BG10-../DPE08XA4	19	1030	1440	144	36	2.9
108	48.5	2.3	13.21	BG10-../DPE08XA4	19	1070	1490	130	40	2.8
98	53	2.2	14.58	BG10-../DPE08XA4	19	1100	1540	118	44.5	2.6
88	59	2.0	16.15	BG10-../DPE08XA4	19	1140	1590	106	49.5	2.4
77	68	1.75	18.51	BG10-../DPE08XA4	19	1210	1690	93	56	2.1

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

P = 0.55 kW



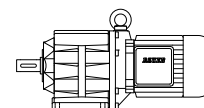
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
70	75	1.6	20.51	BG10-../DPE08XA4	19	1290	1800	84	62	1.95
65	80	1.5	22.04	BG10-../DPE08XA4	19	1330	1860	78	67	1.8
59	89	1.35	24.42	BG10-../DPE08XA4	19	1410	1970	71	73	1.65
55	95	1.25	26.26	BG10-../DPE08XA4	19	1460	2000	66	79	1.5
49	107	1.1	29.09	BG10-../DPE08XA4	19	1540	2150	59	89	1.35
45.5	115	1.05	31.52	BG10-../DPE08XA4	19	1600	2200	55	95	1.25
41	128	0.94	34.92	BG10-../DPE08XA4	19	1690	2350	49	107	1.1
36	145	0.83	39.70	BG10-../DPE08XA4	19	1780	2450	43.5	120	1.0
53	99	1.5	27.08	BG15-../DPE08XA4	19	3000	6000	64	82	1.85
47.5	110	1.35	30.08	BG15-../DPE08XA4	19	3000	6000	57	92	1.65
42	125	1.2	34.20	BG15-../DPE08XA4	19	3000	6000	50	105	1.45
37.5	140	1.05	37.90	BG15-../DPE08XA4	19	3000	6000	45.5	115	1.3
97	54	3.2	14.67	BG20-../DPE08XA4	22	3050	-	117	44.5	3.9
92	57	3.1	15.58	BG20-../DPE08XA4	22	3100	-	110	47.5	3.7
83	63	2.9	17.31	BG20-../DPE08XA4	22	3200	-	99	53	3.5
72	72	2.7	19.95	BG20-../DPE08XA4	22	3350	-	86	61	3.2
65	80	2.5	22.16	BG20-../DPE08XA4	22	3500	-	78	67	3.0
62	84	2.4	23.22	BG20-../DPE08XA4	22	3550	-	74	70	2.9
56	93	2.2	25.79	BG20-../DPE08XA4	22	3700	-	67	78	2.6
51	102	1.95	27.85	BG20-../DPE08XA4	22	3800	-	62	84	2.4
46	114	1.75	30.94	BG20-../DPE08XA4	22	4000	-	56	93	2.2
43	122	1.65	33.33	BG20-../DPE08XA4	22	4100	-	52	101	2.0
38.5	136	1.45	37.02	BG20-../DPE08XA4	22	4300	-	46.5	112	1.8
34.5	152	1.3	41.76	BG20-../DPE08XA4	22	4500	-	41	128	1.55
31	169	1.2	46.38	BG20-../DPE08XA4	22	4700	-	37	141	1.4
30	175	1.15	47.92	BG20-../DPE08XA4	22	4750	-	36	145	1.4
27	194	1.05	53.22	BG20-../DPE08XA4	22	4950	-	32.5	161	1.25
24.5	210	0.95	59.07	BG20-../DPE08XA4	22	5000	-	29	181	1.1
22	235	0.85	65.62	BG20-../DPE08XA4	22	5000	-	26.5	198	1.0
21.5	240	0.83	67.53	BG20Z-../DPE08XA4	23	5000	-	25.5	205	0.98
56	93	3.2	25.45	BG30-../DPE08XA4	26	4850	-	68	77	3.9
51	102	2.9	28.24	BG30-../DPE08XA4	26	5100	-	61	86	3.5
48	109	2.8	29.83	BG30-../DPE08XA4	26	5200	-	58	90	3.3
43	122	2.5	33.09	BG30-../DPE08XA4	26	5400	-	52	101	3.0
40.5	129	2.3	35.17	BG30-../DPE08XA4	26	5500	-	49	107	2.8
36.5	143	2.1	39.02	BG30-../DPE08XA4	26	5800	-	44	119	2.5
33.5	156	1.9	42.46	BG30-../DPE08XA4	26	5900	-	40.5	129	2.3
30.5	172	1.75	47.11	BG30-../DPE08XA4	26	6000	-	36.5	143	2.1
27.5	191	1.55	52.44	BG30-../DPE08XA4	26	6000	-	33	159	1.9
24.5	210	1.45	58.18	BG30-../DPE08XA4	26	6000	-	29.5	178	1.7
23.5	220	1.35	60.79	BG30-../DPE08XA4	26	6000	-	28.5	184	1.65
21.5	240	1.25	67.44	BG30-../DPE08XA4	26	6000	-	25.5	205	1.45
19.5	265	1.15	73.51	BG30Z-../DPE08XA4	28	6000	-	23.5	220	1.35
17.5	300	1.0	81.55	BG30Z-../DPE08XA4	28	6000	-	21	250	1.2
16.5	315	0.95	86.13	BG30Z-../DPE08XA4	28	6000	-	20	260	1.15
15	350	0.86	95.55	BG30Z-../DPE08XA4	28	6000	-	18	290	1.05
37.5	140	3.0	37.96	BG40-../DPE08XA4	41	7000	-	45.5	115	3.7
35.5	147	2.9	40.19	BG40-../DPE08XA4	41	7000	-	43	122	3.5
32	164	2.6	44.62	BG40-../DPE08XA4	41	7000	-	38.5	136	3.1
29.5	178	2.4	48.36	BG40-../DPE08XA4	41	7000	-	35.5	147	2.9
26.5	198	2.1	53.69	BG40-../DPE08XA4	41	7000	-	32	164	2.6
24	215	2.0	59.64	BG40-../DPE08XA4	41	7000	-	29	181	2.3
21.5	240	1.75	66.20	BG40-../DPE08XA4	41	7000	-	26	200	2.1
21	250	1.7	67.74	BG40Z-../DPE08XA4	44	7000	-	25.5	205	2.1
19	275	1.55	75.19	BG40Z-../DPE08XA4	44	7000	-	23	225	1.9

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

BG-series helical-geared motors

Selection helical-geared motors

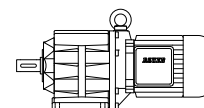
P = 0.55 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
17.5	300	1.4	82.00	BG40Z-../DPE08XA4	44	7000	-	21	250	1.7
16	325	1.3	91.02	BG40Z-../DPE08XA4	44	7000	-	19	275	1.55
15	350	1.2	96.86	BG40Z-../DPE08XA4	44	7000	-	18	290	1.45
13.5	385	1.1	107.5	BG40Z-../DPE08XA4	44	7000	-	16	325	1.3
12	435	0.98	121.3	BG40Z-../DPE08XA4	44	7000	-	14.5	360	1.2
11	475	0.89	134.6	BG40Z-../DPE08XA4	44	7000	-	13	400	1.05
10.5	500	0.85	141.4	BG40Z-../DPE08XA4	44	7000	-	12.5	420	1.0
27.5	191	3.3	52.12	BG50-../DPE08XA4	48	10000	-	33	159	4.0
24	215	2.9	59.42	BG50-../DPE08XA4	48	10000	-	29	181	3.5
22	235	2.7	65.86	BG50-../DPE08XA4	48	10000	-	26	200	3.2
20	260	2.4	71.97	BG50Z-../DPE08XA4	53	10000	-	24	215	2.9
18	290	2.2	79.78	BG50Z-../DPE08XA4	53	10000	-	21.5	240	2.6
15	350	1.8	95.58	BG50Z-../DPE08XA4	53	10000	-	18	290	2.2
13.5	385	1.65	106.0	BG50Z-../DPE08XA4	53	10000	-	16.5	315	2.0
11.5	455	1.4	128.9	BG50Z-../DPE08XA4	53	10000	-	13.5	385	1.65
10	520	1.2	142.9	BG50Z-../DPE08XA4	53	10000	-	12	435	1.45
8.7	600	1.05	164.9	BG50Z-../DPE08XA4	53	10000	-	10.5	500	1.25
7.8	670	0.94	182.8	BG50Z-../DPE08XA4	53	10000	-	9.4	550	1.15
7.0	750	0.84	204.7	BG50Z-../DPE08XA4	53	10000	-	8.4	620	1.0
14.5	360	3.3	101.0	BG60Z-../DPE08XA4	98	16000	-	17	305	3.9
12	435	2.8	119.2	BG60Z-../DPE08XA4	98	16000	-	14.5	360	3.3
11	475	2.5	132.1	BG60Z-../DPE08XA4	98	16000	-	13	400	3.0
9.0	580	2.1	158.0	BG60Z-../DPE08XA4	98	16000	-	11	475	2.5
8.2	640	1.9	175.1	BG60Z-../DPE08XA4	98	16000	-	9.8	530	2.3
7.0	750	1.6	204.6	BG60Z-../DPE08XA4	98	16000	-	8.4	620	1.95
6.3	830	1.45	226.7	BG60Z-../DPE08XA4	98	16000	-	7.6	690	1.75
5.8	900	1.35	247.7	BG60Z-../DPE08XA4	98	16000	-	7.0	750	1.6
5.2	1010	1.2	274.5	BG60Z-../DPE08XA4	98	16000	-	6.3	830	1.45
4.7	980	1.35	306.1	BG60G20-../DPE08XA4	106	16000	-	5.6	800	1.65
4.3	1080	1.2	334.3	BG60G20-../DPE08XA4	106	16000	-	5.2	870	1.5
3.9	1190	1.1	370.5	BG60G20-../DPE08XA4	106	16000	-	4.7	960	1.35
3.3	1420	0.92	437.3	BG60G20-../DPE08XA4	106	16000	-	4.0	1140	1.15
7.4	700	3.3	194.4	BG70Z-../DPE08XA4	138	20000	-	8.8	590	3.9
6.8	770	3.0	210.5	BG70Z-../DPE08XA4	138	20000	-	8.2	640	3.6
5.7	920	2.5	249.8	BG70Z-../DPE08XA4	138	20000	-	6.9	760	3.0
5.6	830	3.0	255.5	BG70G20-../DPE08XA4	136	20000	-	6.7	670	3.7
5.2	890	2.8	276.7	BG70G20-../DPE08XA4	136	20000	-	6.2	730	3.4
4.4	1050	2.4	328.4	BG70G20-../DPE08XA4	136	20000	-	5.3	850	2.9
3.7	1270	1.95	387.6	BG70G20-../DPE08XA4	136	20000	-	4.5	1020	2.5
3.4	1420	1.75	417.8	BG70G20-../DPE08XA4	136	20000	-	4.1	1150	2.2
2.9	1660	1.5	495.9	BG70G20-../DPE08XA4	136	20000	-	3.5	1350	1.85
2.5	1950	1.3	577.3	BG70G20-../DPE08XA4	136	20000	-	3.0	1600	1.55
2.2	2200	1.15	665.8	BG70G20-../DPE08XA4	136	20000	-	2.6	1850	1.35
1.8	2700	0.93	790.2	BG70G20-../DPE08XA4	136	20000	-	2.2	2150	1.15
1.7	2850	0.88	877.6	BG70G20-../DPE08XA4	136	20000	-	2.0	2400	1.05
2.5	1720	2.7	572.0	BG80G40-../DPE08XA4	217	26000	-	3.0	1370	3.4
2.2	1900	2.4	657.8	BG80G40-../DPE08XA4	217	26000	-	2.6	1540	3.0
2.0	2100	2.2	730.3	BG80G40-../DPE08XA4	217	26000	-	2.4	1690	2.7
1.8	2350	1.95	817.4	BG80G40-../DPE08XA4	217	26000	-	2.1	1970	2.3
1.6	2700	1.7	907.6	BG80G40-../DPE08XA4	217	26000	-	1.9	2200	2.1
1.4	3200	1.45	1042	BG80G40-../DPE08XA4	217	26000	-	1.7	2500	1.85
1.2	3800	1.2	1261	BG80G40-../DPE08XA4	217	26000	-	1.4	3200	1.45
1.1	4200	1.1	1400	BG80G40-../DPE08XA4	217	26000	-	1.3	3500	1.3
1.3	3350	2.7	1174	BG90G50-../DPE08XA4	327	65000	-	1.5	2800	3.3

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

P = 0.55 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
1.1	4100	2.2	1301	BG90G50-../DPE08XA4	327	65000	-	1.4	3050	3.0
0.9	5100	1.8	1583	BG90G50-../DPE08XA4	327	65000	-	1.1	4100	2.2
0.85	5500	1.65	1756	BG90G50-../DPE08XA4	327	65000	-	1.0	4550	2.0
0.75	6300	1.45	2026	BG90G50-../DPE08XA4	327	65000	-	0.85	5500	1.65
0.6	8000	1.15	2514	BG90G50-../DPE08XA4	327	65000	-	0.7	6800	1.35
0.55	8800	1.05	2786	BG90G50-../DPE08XA4	327	65000	-	0.65	7400	1.25
0.55	7100	2.6	2656	BG100G50-../DPE08XA4	514	90000	-	0.65	5700	3.2
0.49	8400	2.2	2952	BG100G50-../DPE08XA4	514	90000	-	0.6	6500	2.8
0.44	9400	1.95	3286	BG100G50-../DPE08XA4	514	90000	-	0.55	7000	2.6
0.39	10900	1.7	3644	BG100G50-../DPE08XA4	514	90000	-	0.47	8600	2.2
0.33	13400	1.4	4366	BG100G50-../DPE08XA4	514	90000	-	0.4	10600	1.75
0.3	15000	1.25	4839	BG100G50-../DPE08XA4	514	90000	-	0.36	12000	1.55

6

P = 0.75 kW

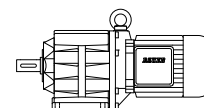
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
510	14	1.3	2.82	BG06-../DPE08XB4	19	470	-	610	11.7	1.55
380	18.8	1.05	3.78	BG06-../DPE08XB4	19	520	-	455	15.7	1.25
315	22.5	0.98	4.54	BG06-../DPE08XB4	19	530	-	380	18.8	1.15
240	29.5	0.81	5.96	BG06-../DPE08XB4	19	570	-	290	24.5	0.98
330	21.5	3.2	4.36	BG10-../DPE08XB4	19	650	910	395	18.1	3.8
270	26.5	2.8	5.34	BG10-../DPE08XB4	19	620	910	325	22	3.4
210	34	2.6	6.89	BG10-../DPE08XB4	19	850	1200	250	28.5	3.1
187	38	2.3	7.63	BG10-../DPE08XB4	19	900	1250	225	31.5	2.8
176	40.5	2.2	8.07	BG10-../DPE08XB4	19	660	920	215	33	2.7
153	46.5	2.1	9.33	BG10-../DPE08XB4	19	950	1330	184	38.5	2.5
138	51	1.95	10.34	BG10-../DPE08XB4	19	1000	1400	166	43	2.3
120	59	1.8	11.92	BG10-../DPE08XB4	19	1030	1440	144	49.5	2.1
108	66	1.65	13.21	BG10-../DPE08XB4	19	1070	1490	130	55	2.0
98	73	1.55	14.58	BG10-../DPE08XB4	19	1100	1540	118	60	1.9
88	81	1.45	16.15	BG10-../DPE08XB4	19	1140	1590	106	67	1.75
77	93	1.3	18.51	BG10-../DPE08XB4	19	1210	1690	93	77	1.55
70	102	1.2	20.51	BG10-../DPE08XB4	19	1290	1800	84	85	1.4
65	110	1.1	22.04	BG10-../DPE08XB4	19	1330	1860	78	91	1.3
59	121	0.99	24.42	BG10-../DPE08XB4	19	1410	1970	71	100	1.2
55	130	0.92	26.26	BG10-../DPE08XB4	19	1460	2000	66	108	1.1
49	146	0.82	29.09	BG10-../DPE08XB4	19	1540	2150	59	121	0.99
53	135	1.1	27.08	BG15-../DPE08XB4	19	3000	6000	64	111	1.35
47.5	150	1.0	30.08	BG15-../DPE08XB4	19	3000	6000	57	125	1.2
42	170	0.88	34.20	BG15-../DPE08XB4	19	3000	6000	50	143	1.05
172	41.5	2.9	8.29	BG20-../DPE08XB4	22	2250	-	210	34	3.6
160	44.5	3.2	8.91	BG20-../DPE08XB4	22	2600	-	192	37	3.9
148	48	2.5	9.65	BG20-../DPE08XB4	22	2250	-	178	40	3.1
135	53	2.9	10.54	BG20-../DPE08XB4	22	2700	-	163	43.5	3.5
122	58	2.7	11.71	BG20-../DPE08XB4	22	2800	-	147	48.5	3.3
108	66	2.5	13.21	BG20-../DPE08XB4	22	2900	-	130	55	3.0
97	73	2.4	14.67	BG20-../DPE08XB4	22	3050	-	117	61	2.8
92	77	2.3	15.58	BG20-../DPE08XB4	22	3100	-	110	65	2.7
83	86	2.1	17.31	BG20-../DPE08XB4	22	3200	-	99	72	2.5
72	99	1.95	19.95	BG20-../DPE08XB4	22	3350	-	86	83	2.3
65	110	1.8	22.16	BG20-../DPE08XB4	22	3500	-	78	91	2.2

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BG-series helical-geared motors

Selection helical-geared motors

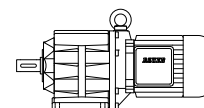
P = 0.75 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
62	115	1.75	23.22	BG20-../DPE08XB4	22	3550	-	74	96	2.1
56	127	1.55	25.79	BG20-../DPE08XB4	22	3700	-	67	106	1.9
51	140	1.45	27.85	BG20-../DPE08XB4	22	3800	-	62	115	1.75
46	155	1.3	30.94	BG20-../DPE08XB4	22	4000	-	56	127	1.55
43	166	1.2	33.33	BG20-../DPE08XB4	22	4100	-	52	137	1.45
38.5	186	1.1	37.02	BG20-../DPE08XB4	22	4300	-	46.5	154	1.3
34.5	205	0.98	41.76	BG20-../DPE08XB4	22	4500	-	41	174	1.15
31	230	0.87	46.38	BG20-../DPE08XB4	22	4700	-	37	193	1.05
30	235	0.85	47.92	BG20-../DPE08XB4	22	4750	-	36	198	1.0
76	94	3.2	18.93	BG30-../DPE08XB4	26	4100	-	91	78	3.8
72	99	3.0	19.99	BG30-../DPE08XB4	26	4200	-	86	83	3.6
65	110	2.7	22.18	BG30-../DPE08XB4	26	4600	-	78	91	3.3
56	127	2.4	25.45	BG30-../DPE08XB4	26	4850	-	68	105	2.9
51	140	2.1	28.24	BG30-../DPE08XB4	26	5100	-	61	117	2.6
48	149	2.0	29.83	BG30-../DPE08XB4	26	5200	-	58	123	2.4
43	166	1.8	33.09	BG30-../DPE08XB4	26	5400	-	52	137	2.2
40.5	176	1.7	35.17	BG30-../DPE08XB4	26	5500	-	49	146	2.1
36.5	196	1.55	39.02	BG30-../DPE08XB4	26	5800	-	44	162	1.85
33.5	210	1.45	42.46	BG30-../DPE08XB4	26	5900	-	40.5	176	1.7
30.5	230	1.3	47.11	BG30-../DPE08XB4	26	6000	-	36.5	196	1.55
27.5	260	1.15	52.44	BG30-../DPE08XB4	26	6000	-	33	215	1.4
24.5	290	1.05	58.18	BG30-../DPE08XB4	26	6000	-	29.5	240	1.25
23.5	300	1.0	60.79	BG30-../DPE08XB4	26	6000	-	28.5	250	1.2
21.5	330	0.91	67.44	BG30-../DPE08XB4	26	6000	-	25.5	280	1.05
19.5	365	0.82	73.51	BG30Z-../DPE08XB4	29	6000	-	23.5	300	1.0
55	130	3.3	26.01	BG40-../DPE08XB4	41	6500	-	66	108	3.9
48.5	147	2.9	29.34	BG40-../DPE08XB4	41	6800	-	59	121	3.5
44	162	2.6	32.57	BG40-../DPE08XB4	41	7000	-	53	135	3.1
42	170	2.5	34.20	BG40-../DPE08XB4	41	7000	-	50	143	3.0
37.5	191	2.2	37.96	BG40-../DPE08XB4	41	7000	-	45.5	157	2.7
35.5	200	2.1	40.19	BG40-../DPE08XB4	41	7000	-	43	166	2.6
32	220	1.95	44.62	BG40-../DPE08XB4	41	7000	-	38.5	186	2.3
29.5	240	1.75	48.36	BG40-../DPE08XB4	41	7000	-	35.5	200	2.1
26.5	270	1.55	53.69	BG40-../DPE08XB4	41	7000	-	32	220	1.95
24	295	1.45	59.64	BG40-../DPE08XB4	41	7000	-	29	245	1.75
21.5	330	1.3	66.20	BG40-../DPE08XB4	41	7000	-	26	275	1.55
21	340	1.25	67.74	BG40Z-../DPE08XB4	44	7000	-	25.5	280	1.5
19	375	1.15	75.19	BG40Z-../DPE08XB4	44	7000	-	23	310	1.35
17.5	405	1.05	82.00	BG40Z-../DPE08XB4	44	7000	-	21	340	1.25
16	445	0.96	91.02	BG40Z-../DPE08XB4	44	7000	-	19	375	1.15
15	475	0.89	96.86	BG40Z-../DPE08XB4	44	7000	-	18	395	1.1
13.5	530	0.8	107.5	BG40Z-../DPE08XB4	44	7000	-	16	445	0.96
37.5	191	3.3	37.89	BG50-../DPE08XB4	49	10000	-	45.5	157	4.0
34	210	3.0	42.00	BG50-../DPE08XB4	49	10000	-	41	174	3.6
30.5	230	2.7	47.02	BG50-../DPE08XB4	49	10000	-	36.5	196	3.2
27.5	260	2.4	52.12	BG50-../DPE08XB4	49	10000	-	33	215	2.9
24	295	2.1	59.42	BG50-../DPE08XB4	49	10000	-	29	245	2.6
22	325	1.95	65.86	BG50-../DPE08XB4	49	10000	-	26	275	2.3
20	355	1.75	71.97	BG50Z-../DPE08XB4	54	10000	-	24	295	2.1
18	395	1.6	79.78	BG50Z-../DPE08XB4	54	10000	-	21.5	330	1.9
15	475	1.35	95.58	BG50Z-../DPE08XB4	54	10000	-	18	395	1.6
13.5	530	1.2	106.0	BG50Z-../DPE08XB4	54	10000	-	16.5	430	1.45
11.5	620	1.0	128.9	BG50Z-../DPE08XB4	54	10000	-	13.5	530	1.2
10	710	0.89	142.9	BG50Z-../DPE08XB4	54	10000	-	12	590	1.05
19	375	3.2	75.71	BG60Z-../DPE08XB4	99	16000	-	23	310	3.9

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

P = 0.75 kW



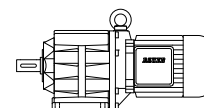
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
16	445	2.7	91.09	BG60Z-../DPE08XB4	99	16000	-	19	375	3.2
14.5	490	2.4	101.0	BG60Z-../DPE08XB4	99	16000	-	17	420	2.9
12	590	2.0	119.2	BG60Z-../DPE08XB4	99	16000	-	14.5	490	2.4
11	650	1.85	132.1	BG60Z-../DPE08XB4	99	16000	-	13	550	2.2
9.0	790	1.5	158.0	BG60Z-../DPE08XB4	99	16000	-	11	650	1.85
8.2	870	1.4	175.1	BG60Z-../DPE08XB4	99	16000	-	9.8	730	1.65
7.0	1020	1.2	204.6	BG60Z-../DPE08XB4	99	16000	-	8.4	850	1.4
6.3	1130	1.05	226.7	BG60Z-../DPE08XB4	99	16000	-	7.6	940	1.3
5.8	1230	0.98	247.7	BG60Z-../DPE08XB4	99	16000	-	7.0	1020	1.2
5.2	1370	0.88	274.5	BG60Z-../DPE08XB4	99	16000	-	6.3	1130	1.05
4.7	1390	0.94	306.1	BG60G20-../DPE08XB4	106	16000	-	5.6	1150	1.15
4.3	1520	0.86	334.3	BG60G20-../DPE08XB4	106	16000	-	5.2	1230	1.05
9.7	730	3.2	147.2	BG70Z-../DPE08XB4	138	20000	-	12	590	3.9
8.7	820	2.8	163.8	BG70Z-../DPE08XB4	138	20000	-	10.5	680	3.4
7.4	960	2.4	194.4	BG70Z-../DPE08XB4	138	20000	-	8.8	810	2.8
6.8	1050	2.2	210.5	BG70Z-../DPE08XB4	138	20000	-	8.2	870	2.6
5.7	1250	1.85	249.8	BG70Z-../DPE08XB4	138	20000	-	6.9	1030	2.2
5.6	1170	2.1	255.5	BG70G20-../DPE08XB4	136	20000	-	6.7	960	2.6
5.2	1260	2.0	276.7	BG70G20-../DPE08XB4	136	20000	-	6.2	1030	2.4
4.4	1490	1.7	328.4	BG70G20-../DPE08XB4	136	20000	-	5.3	1210	2.1
3.7	1780	1.4	387.6	BG70G20-../DPE08XB4	136	20000	-	4.5	1440	1.75
3.4	1980	1.25	417.8	BG70G20-../DPE08XB4	136	20000	-	4.1	1620	1.55
2.9	2300	1.1	495.9	BG70G20-../DPE08XB4	136	20000	-	3.5	1900	1.3
2.5	2700	0.93	577.3	BG70G20-../DPE08XB4	136	20000	-	3.0	2200	1.15
2.2	3050	0.82	665.8	BG70G20-../DPE08XB4	136	20000	-	2.6	2550	0.98
4.0	1450	3.2	360.0	BG80G40-../DPE08XB4	218	26000	-	4.8	1150	4.0
3.6	1610	2.9	399.8	BG80G40-../DPE08XB4	218	26000	-	4.3	1290	3.6
3.3	1830	2.5	436.2	BG80G40-../DPE08XB4	218	26000	-	4.0	1450	3.2
3.0	2000	2.3	484.3	BG80G40-../DPE08XB4	218	26000	-	3.6	1610	2.9
2.5	2450	1.9	572.0	BG80G40-../DPE08XB4	218	26000	-	3.0	2000	2.3
2.2	2750	1.65	657.8	BG80G40-../DPE08XB4	218	26000	-	2.6	2250	2.0
2.0	3050	1.5	730.3	BG80G40-../DPE08XB4	218	26000	-	2.4	2450	1.9
1.8	3450	1.35	817.4	BG80G40-../DPE08XB4	218	26000	-	2.1	2850	1.6
1.6	3900	1.2	907.6	BG80G40-../DPE08XB4	218	26000	-	1.9	3200	1.45
1.4	4550	1.0	1042	BG80G40-../DPE08XB4	218	26000	-	1.7	3650	1.25
1.2	5400	0.85	1261	BG80G40-../DPE08XB4	218	26000	-	1.4	4550	1.0
2.0	2900	3.2	714.2	BG90G50-../DPE08XB4	328	65000	-	2.4	2300	4.0
1.7	3500	2.6	883.7	BG90G50-../DPE08XB4	328	65000	-	2.0	2900	3.2
1.3	4800	1.9	1174	BG90G50-../DPE08XB4	328	65000	-	1.5	4100	2.2
1.1	5800	1.6	1301	BG90G50-../DPE08XB4	328	65000	-	1.4	4400	2.1
0.9	7200	1.3	1583	BG90G50-../DPE08XB4	328	65000	-	1.1	5800	1.6
0.85	7700	1.2	1756	BG90G50-../DPE08XB4	328	65000	-	1.0	6400	1.45
0.75	8800	1.05	2026	BG90G50-../DPE08XB4	328	65000	-	0.85	7700	1.2
1.0	5700	3.2	1444	BG100G50-../DPE08XB4	514	90000	-	1.2	4550	4.1
0.85	6800	2.7	1678	BG100G50-../DPE08XB4	514	90000	-	1.1	4900	3.8
0.8	7100	2.6	1867	BG100G50-../DPE08XB4	514	90000	-	0.95	5700	3.2
0.7	8100	2.3	2154	BG100G50-../DPE08XB4	514	90000	-	0.8	6800	2.7
0.55	10600	1.75	2656	BG100G50-../DPE08XB4	514	90000	-	0.65	8600	2.2
0.49	12300	1.5	2952	BG100G50-../DPE08XB4	514	90000	-	0.6	9600	1.95
0.44	13700	1.35	3286	BG100G50-../DPE08XB4	514	90000	-	0.55	10500	1.75
0.39	15800	1.15	3644	BG100G50-../DPE08XB4	514	90000	-	0.47	12700	1.45

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BG-series helical-geared motors

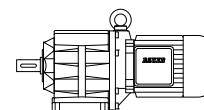
Selection helical-geared motors

P = 1.1 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
580	18.1	3.1	2.52	BG10-../DPE09XA4	30	570	790	700	15	3.7
425	24.5	2.5	3.42	BG10-../DPE09XA4	30	630	880	510	20.5	3.0
335	31	2.2	4.36	BG10-../DPE09XA4	30	650	910	400	26	2.6
270	38.5	1.95	5.34	BG10-../DPE09XA4	30	620	910	330	31.5	2.4
215	48.5	1.65	6.78	BG10-../DPE09XA4	30	660	920	260	40	2.0
210	50	1.75	6.89	BG10-../DPE09XA4	30	850	1200	255	41	2.1
189	55	1.6	7.63	BG10-../DPE09XA4	30	900	1250	230	45.5	1.95
179	58	1.5	8.07	BG10-../DPE09XA4	30	660	920	220	47.5	1.85
155	67	1.45	9.33	BG10-../DPE09XA4	30	950	1330	187	56	1.75
140	75	1.3	10.34	BG10-../DPE09XA4	30	1000	1400	169	62	1.6
121	86	1.2	11.92	BG10-../DPE09XA4	30	1030	1440	146	71	1.5
110	95	1.15	13.21	BG10-../DPE09XA4	30	1070	1490	132	79	1.4
99	106	1.1	14.58	BG10-../DPE09XA4	30	1100	1540	120	87	1.3
90	116	1.0	16.15	BG10-../DPE09XA4	30	1140	1590	108	97	1.2
78	134	0.9	18.51	BG10-../DPE09XA4	30	1210	1690	95	110	1.1
71	147	0.82	20.51	BG10-../DPE09XA4	30	1290	1800	85	123	0.98
330	31.5	3.3	4.38	BG20-../DPE09XA4	32	1990	-	400	26	4.0
265	39.5	2.9	5.49	BG20-../DPE09XA4	32	2100	-	320	32.5	3.5
240	43.5	2.9	6.06	BG20-../DPE09XA4	32	2250	-	290	36	3.5
225	46.5	2.6	6.48	BG20-../DPE09XA4	32	2250	-	270	38.5	3.2
215	48.5	2.7	6.73	BG20-../DPE09XA4	32	2350	2100	260	40	3.3
180	58	2.4	8.02	BG20-../DPE09XA4	32	2500	-	220	47.5	2.9
174	60	2.0	8.29	BG20-../DPE09XA4	32	2250	-	210	50	2.4
162	64	2.2	8.91	BG20-../DPE09XA4	32	2600	-	196	53	2.7
150	70	1.75	9.65	BG20-../DPE09XA4	32	2250	-	181	58	2.1
137	76	2.0	10.54	BG20-../DPE09XA4	32	2700	-	166	63	2.4
123	85	1.85	11.71	BG20-../DPE09XA4	32	2800	-	149	70	2.3
110	95	1.75	13.21	BG20-../DPE09XA4	32	2900	-	132	79	2.1
99	106	1.6	14.67	BG20-../DPE09XA4	32	3050	-	119	88	1.95
93	112	1.6	15.58	BG20-../DPE09XA4	32	3100	-	112	93	1.9
84	125	1.45	17.31	BG20-../DPE09XA4	32	3200	-	101	104	1.75
73	143	1.35	19.95	BG20-../DPE09XA4	32	3350	-	88	119	1.65
65	161	1.25	22.16	BG20-../DPE09XA4	32	3500	-	79	132	1.5
63	166	1.2	23.22	BG20-../DPE09XA4	32	3550	-	75	140	1.45
56	187	1.05	25.79	BG20-../DPE09XA4	32	3700	-	68	154	1.3
52	200	1.0	27.85	BG20-../DPE09XA4	32	3800	-	63	166	1.2
47	220	0.91	30.94	BG20-../DPE09XA4	32	4000	-	57	184	1.1
43.5	240	0.83	33.33	BG20-../DPE09XA4	32	4100	-	53	198	1.0
122	86	3.2	11.82	BG30-../DPE09XA4	37	3200	-	148	70	3.9
105	100	2.9	13.77	BG30-../DPE09XA4	37	3150	-	127	82	3.6
95	110	2.7	15.27	BG30-../DPE09XA4	37	3450	-	114	92	3.3
85	123	2.4	17.06	BG30-../DPE09XA4	37	3700	-	102	102	2.9
77	136	2.2	18.93	BG30-../DPE09XA4	37	4100	-	92	114	2.6
73	143	2.1	19.99	BG30-../DPE09XA4	37	4200	-	88	119	2.5
65	161	1.85	22.18	BG30-../DPE09XA4	37	4600	-	79	132	2.3
57	184	1.65	25.45	BG30-../DPE09XA4	37	4850	-	69	152	1.95
51	205	1.45	28.24	BG30-../DPE09XA4	37	5100	-	62	169	1.8
48.5	215	1.4	29.83	BG30-../DPE09XA4	37	5200	-	59	178	1.7
44	235	1.3	33.09	BG30-../DPE09XA4	37	5400	-	53	198	1.5
41	255	1.2	35.17	BG30-../DPE09XA4	37	5500	-	49.5	210	1.45
37	280	1.05	39.02	BG30-../DPE09XA4	37	5800	-	45	230	1.3
34	305	0.98	42.46	BG30-../DPE09XA4	37	5900	-	41	255	1.2
31	335	0.9	47.11	BG30-../DPE09XA4	37	6000	-	37	280	1.05
80	131	3.2	18.19	BG40-../DPE09XA4	51	5600	-	96	109	3.9
73	143	3.0	19.84	BG40-../DPE09XA4	51	5800	-	88	119	3.6
66	159	2.7	22.02	BG40-../DPE09XA4	51	6000	-	80	131	3.2
62	169	2.5	23.43	BG40-../DPE09XA4	51	6200	-	75	140	3.0
56	187	2.3	26.01	BG40-../DPE09XA4	51	6500	-	67	156	2.7
49.5	210	2.0	29.34	BG40-../DPE09XA4	51	6800	-	60	175	2.4

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



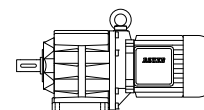
P = 1.1 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
44.5	235	1.8	32.57	BG40-../DPE09XA4	51	7000	-	54	194	2.2
42.5	245	1.75	34.20	BG40-../DPE09XA4	51	7000	-	51	205	2.1
38	275	1.55	37.96	BG40-../DPE09XA4	51	7000	-	46	225	1.9
36	290	1.45	40.19	BG40-../DPE09XA4	51	7000	-	43.5	240	1.75
32.5	320	1.35	44.62	BG40-../DPE09XA4	51	7000	-	39	265	1.6
30	350	1.2	48.36	BG40-../DPE09XA4	51	7000	-	36	290	1.45
27	385	1.1	53.69	BG40-../DPE09XA4	51	7000	-	32.5	320	1.35
24.5	425	1.0	59.64	BG40-../DPE09XA4	51	7000	-	29.5	355	1.2
22	475	0.89	66.20	BG40-../DPE09XA4	51	7000	-	26.5	395	1.1
21.5	485	0.88	67.74	BG40Z-../DPE09XA4	55	7000	-	26	400	1.05
19.5	530	0.8	75.19	BG40Z-../DPE09XA4	55	7000	-	23.5	445	0.96
49	210	3.0	29.62	BG50-../DPE09XA4	59	8000	-	59	178	3.5
44	235	2.7	32.84	BG50-../DPE09XA4	59	8700	-	53	198	3.2
38.5	270	2.3	37.89	BG50-../DPE09XA4	59	10000	-	46	225	2.8
34.5	300	2.1	42.00	BG50-../DPE09XA4	59	10000	-	41.5	250	2.5
31	335	1.9	47.02	BG50-../DPE09XA4	59	10000	-	37.5	280	2.3
28	375	1.7	52.12	BG50-../DPE09XA4	59	10000	-	33.5	310	2.0
24.5	425	1.5	59.42	BG50-../DPE09XA4	59	10000	-	29.5	355	1.75
22	475	1.35	65.86	BG50-../DPE09XA4	59	10000	-	26.5	395	1.6
20.5	510	1.25	71.97	BG50Z-../DPE09XA4	64	10000	-	24.5	425	1.5
18.5	560	1.15	79.78	BG50Z-../DPE09XA4	64	10000	-	22	475	1.35
15.5	670	0.94	95.58	BG50Z-../DPE09XA4	64	10000	-	18.5	560	1.15
14	750	0.84	106.0	BG50Z-../DPE09XA4	64	10000	-	16.5	630	1.0
29	360	3.3	50.31	BG60-../DPE09XA4	90	16000	-	35	300	4.0
26	400	3.0	55.76	BG60-../DPE09XA4	90	16000	-	31.5	330	3.6
24	435	2.8	60.90	BG60-../DPE09XA4	90	16000	-	29	360	3.3
21.5	485	2.5	67.49	BG60-../DPE09XA4	90	16000	-	26	400	3.0
19.5	530	2.3	75.71	BG60Z-../DPE09XA4	109	16000	-	23	455	2.6
16	650	1.85	91.09	BG60Z-../DPE09XA4	109	16000	-	19.5	530	2.3
14.5	720	1.65	101.0	BG60Z-../DPE09XA4	109	16000	-	17.5	600	2.0
12.5	840	1.45	119.2	BG60Z-../DPE09XA4	109	16000	-	15	700	1.7
11	950	1.25	132.1	BG60Z-../DPE09XA4	109	16000	-	13.5	770	1.55
9.2	1140	1.05	158.0	BG60Z-../DPE09XA4	109	16000	-	11.5	910	1.3
8.3	1260	0.95	175.1	BG60Z-../DPE09XA4	109	16000	-	10	1050	1.15
7.1	1470	0.82	204.6	BG60Z-../DPE09XA4	109	16000	-	8.6	1220	0.98
13	800	2.9	113.6	BG70Z-../DPE09XA4	149	20000	-	15.5	670	3.4
12	870	2.6	124.0	BG70Z-../DPE09XA4	149	20000	-	14.5	720	3.2
9.8	1070	2.1	147.2	BG70Z-../DPE09XA4	149	20000	-	12	870	2.6
8.8	1190	1.95	163.8	BG70Z-../DPE09XA4	149	20000	-	11	950	2.4
7.5	1400	1.65	194.4	BG70Z-../DPE09XA4	149	20000	-	9.0	1160	2.0
6.9	1520	1.5	210.5	BG70Z-../DPE09XA4	149	20000	-	8.3	1260	1.85
5.8	1810	1.25	249.8	BG70Z-../DPE09XA4	149	20000	-	7.0	1500	1.55
5.7	1730	1.45	255.5	BG70G20-../DPE09XA4	146	20000	-	6.9	1410	1.75
5.3	1860	1.35	276.7	BG70G20-../DPE09XA4	146	20000	-	6.3	1550	1.6
4.4	2200	1.15	328.4	BG70G20-../DPE09XA4	146	20000	-	5.3	1840	1.35
3.8	2600	0.96	387.6	BG70G20-../DPE09XA4	146	20000	-	4.5	2150	1.15
3.5	2850	0.88	417.8	BG70G20-../DPE09XA4	146	20000	-	4.2	2350	1.05
7.8	1340	3.1	186.8	BG80Z-../DPE09XA4	217	26000	-	9.4	1110	3.8
7.0	1500	2.8	207.4	BG80Z-../DPE09XA4	217	26000	-	8.4	1250	3.4
5.8	1500	3.1	252.3	BG80G40-../DPE09XA4	228	26000	-	6.9	1210	3.8
5.1	1750	2.6	282.8	BG80G40-../DPE09XA4	228	26000	-	6.2	1380	3.3
4.6	1940	2.4	314.0	BG80G40-../DPE09XA4	228	26000	-	5.6	1530	3.0
4.0	2250	2.0	360.0	BG80G40-../DPE09XA4	228	26000	-	4.9	1800	2.6

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

BG-series helical-geared motors

Selection helical-geared motors



P = 1.1 kW

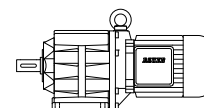
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
3.7	2450	1.9	399.8	BG80G40-../DPE09XA4	228	26000	-	4.4	2000	2.3
3.4	2750	1.65	436.2	BG80G40-../DPE09XA4	228	26000	-	4.0	2250	2.0
3.0	3100	1.5	484.3	BG80G40-../DPE09XA4	228	26000	-	3.6	2500	1.85
2.6	3650	1.25	572.0	BG80G40-../DPE09XA4	228	26000	-	3.1	3000	1.55
2.2	4250	1.1	657.8	BG80G40-../DPE09XA4	228	26000	-	2.7	3400	1.35
2.0	4750	0.97	730.3	BG80G40-../DPE09XA4	228	26000	-	2.4	3850	1.2
1.8	5300	0.87	817.4	BG80G40-../DPE09XA4	228	26000	-	2.2	4250	1.1
2.9	3100	3.0	504.7	BG90G50-../DPE09XA4	338	65000	-	3.5	2500	3.7
2.5	3600	2.6	588.8	BG90G50-../DPE09XA4	338	65000	-	3.0	2900	3.2
2.3	3950	2.3	644.7	BG90G50-../DPE09XA4	338	65000	-	2.7	3250	2.8
2.1	4350	2.1	714.2	BG90G50-../DPE09XA4	338	65000	-	2.5	3550	2.6
1.7	5500	1.65	883.7	BG90G50-../DPE09XA4	338	65000	-	2.0	4550	2.0
1.3	7400	1.25	1174	BG90G50-../DPE09XA4	338	65000	-	1.5	6300	1.45
1.2	8000	1.15	1301	BG90G50-../DPE09XA4	338	65000	-	1.4	6800	1.35
1.8	5800	3.2	845.1	BG100Z-../DPE09XA4	526	90000	-	2.1	5000	3.7
1.4	6100	3.0	1043	BG100G50-../DPE09XA4	525	90000	-	1.7	4750	3.9
1.2	7100	2.6	1204	BG100G50-../DPE09XA4	525	90000	-	1.5	5300	3.5
1.0	9100	2.0	1444	BG100G50-../DPE09XA4	525	90000	-	1.3	6700	2.8
0.9	10000	1.85	1678	BG100G50-../DPE09XA4	525	90000	-	1.1	7900	2.3
0.8	11300	1.65	1867	BG100G50-../DPE09XA4	525	90000	-	0.95	9200	2.0
0.7	12900	1.45	2154	BG100G50-../DPE09XA4	525	90000	-	0.85	10300	1.8
0.55	16700	1.1	2656	BG100G50-../DPE09XA4	525	90000	-	0.7	12600	1.45

P = 1.5 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
580	24.5	2.3	2.52	BG10-../DPE09XB4	30	570	790	700	20	2.8
425	33.5	1.85	3.42	BG10-../DPE09XB4	30	630	880	510	28	2.2
335	42.5	1.6	4.36	BG10-../DPE09XB4	30	650	910	400	35.5	1.9
270	53	1.4	5.34	BG10-../DPE09XB4	30	620	910	330	43	1.75
215	66	1.25	6.78	BG10-../DPE09XB4	30	660	920	260	55	1.45
210	68	1.3	6.89	BG10-../DPE09XB4	30	850	1200	255	56	1.55
189	75	1.2	7.63	BG10-../DPE09XB4	30	900	1250	230	62	1.45
179	80	1.1	8.07	BG10-../DPE09XB4	30	660	920	220	65	1.35
155	92	1.05	9.33	BG10-../DPE09XB4	30	950	1330	187	76	1.3
140	102	0.97	10.34	BG10-../DPE09XB4	30	1000	1400	169	84	1.2
121	118	0.89	11.92	BG10-../DPE09XB4	30	1030	1440	146	98	1.05
110	130	0.85	13.21	BG10-../DPE09XB4	30	1070	1490	132	108	1.0
435	32.5	2.8	3.33	BG20-../DPE09XB4	32	1830	-	530	27	3.4
330	43	2.4	4.38	BG20-../DPE09XB4	32	1990	-	400	35.5	2.9
265	54	2.1	5.49	BG20-../DPE09XB4	32	2100	-	320	44.5	2.6
240	59	2.1	6.06	BG20-../DPE09XB4	32	2250	-	290	49	2.6
225	63	1.95	6.48	BG20-../DPE09XB4	32	2250	-	270	53	2.3
215	66	1.95	6.73	BG20-../DPE09XB4	32	2350	2100	260	55	2.4
180	79	1.75	8.02	BG20-../DPE09XB4	32	2500	-	220	65	2.1
174	82	1.5	8.29	BG20-../DPE09XB4	32	2250	-	210	68	1.8
162	88	1.65	8.91	BG20-../DPE09XB4	32	2600	-	196	73	1.95
150	95	1.3	9.65	BG20-../DPE09XB4	32	2250	-	181	79	1.55
137	104	1.5	10.54	BG20-../DPE09XB4	32	2700	-	166	86	1.8
123	116	1.35	11.71	BG20-../DPE09XB4	32	2800	-	149	96	1.65
110	130	1.3	13.21	BG20-../DPE09XB4	32	2900	-	132	108	1.55

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

P = 1.5 kW



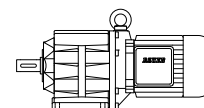
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
99	144	1.2	14.67	BG20-../DPE09XB4	32	3050	-	119	120	1.45
93	154	1.15	15.58	BG20-../DPE09XB4	32	3100	-	112	127	1.4
84	170	1.1	17.31	BG20-../DPE09XB4	32	3200	-	101	141	1.3
73	196	0.99	19.95	BG20-../DPE09XB4	32	3350	-	88	162	1.2
65	220	0.91	22.16	BG20-../DPE09XB4	32	3500	-	79	181	1.1
63	225	0.89	23.22	BG20-../DPE09XB4	32	3550	-	75	191	1.05
215	66	3.3	6.75	BG30-../DPE09XB4	37	1760	-	260	55	3.9
192	74	3.1	7.50	BG30-../DPE09XB4	37	2750	-	235	60	3.9
183	78	2.8	7.91	BG30-../DPE09XB4	37	1760	-	220	65	3.3
168	85	2.9	8.60	BG30-../DPE09XB4	37	2800	-	205	69	3.6
151	94	2.7	9.55	BG30-../DPE09XB4	37	3000	-	183	78	3.3
136	105	2.5	10.65	BG30-../DPE09XB4	37	2950	-	164	87	3.1
122	117	2.3	11.82	BG30-../DPE09XB4	37	3200	-	148	96	2.9
105	136	2.2	13.77	BG30-../DPE09XB4	37	3150	-	127	112	2.6
95	150	2.0	15.27	BG30-../DPE09XB4	37	3450	-	114	125	2.4
85	168	1.8	17.06	BG30-../DPE09XB4	37	3700	-	102	140	2.1
77	186	1.6	18.93	BG30-../DPE09XB4	37	4100	-	92	155	1.95
73	196	1.55	19.99	BG30-../DPE09XB4	37	4200	-	88	162	1.85
65	220	1.35	22.18	BG30-../DPE09XB4	37	4600	-	79	181	1.65
57	250	1.2	25.45	BG30-../DPE09XB4	37	4850	-	69	205	1.45
51	280	1.05	28.24	BG30-../DPE09XB4	37	5100	-	62	230	1.3
48.5	295	1.0	29.83	BG30-../DPE09XB4	37	5200	-	59	240	1.25
44	325	0.92	33.09	BG30-../DPE09XB4	37	5400	-	53	270	1.1
41	345	0.87	35.17	BG30-../DPE09XB4	37	5500	-	49.5	285	1.05
160	89	3.3	9.00	BG40-../DPE09XB4	51	2650	-	194	73	4.0
112	127	3.2	12.86	BG40-../DPE09XB4	51	4500	-	136	105	3.9
101	141	3.0	14.28	BG40-../DPE09XB4	51	4900	-	122	117	3.6
88	162	2.6	16.39	BG40-../DPE09XB4	51	5300	-	107	133	3.2
80	179	2.4	18.19	BG40-../DPE09XB4	51	5600	-	96	149	2.9
73	196	2.2	19.84	BG40-../DPE09XB4	51	5800	-	88	162	2.6
66	215	2.0	22.02	BG40-../DPE09XB4	51	6000	-	80	179	2.4
62	230	1.85	23.43	BG40-../DPE09XB4	51	6200	-	75	191	2.2
56	255	1.65	26.01	BG40-../DPE09XB4	51	6500	-	67	210	2.0
49.5	285	1.5	29.34	BG40-../DPE09XB4	51	6800	-	60	235	1.8
44.5	320	1.35	32.57	BG40-../DPE09XB4	51	7000	-	54	265	1.6
42.5	335	1.25	34.20	BG40-../DPE09XB4	51	7000	-	51	280	1.5
38	375	1.15	37.96	BG40-../DPE09XB4	51	7000	-	46	310	1.35
36	395	1.1	40.19	BG40-../DPE09XB4	51	7000	-	43.5	325	1.3
32.5	440	0.97	44.62	BG40-../DPE09XB4	51	7000	-	39	365	1.15
30	475	0.89	48.36	BG40-../DPE09XB4	51	7000	-	36	395	1.1
27	530	0.8	53.69	BG40-../DPE09XB4	51	7000	-	32.5	440	0.97
66	215	2.9	21.96	BG50-../DPE09XB4	59	8000	-	80	179	3.5
60	235	2.7	24.34	BG50-../DPE09XB4	59	8700	-	72	198	3.2
49	290	2.2	29.62	BG50-../DPE09XB4	59	8000	-	59	240	2.6
44	325	1.95	32.84	BG50-../DPE09XB4	59	8700	-	53	270	2.3
38.5	370	1.7	37.89	BG50-../DPE09XB4	59	10000	-	46	310	2.0
34.5	415	1.5	42.00	BG50-../DPE09XB4	59	10000	-	41.5	345	1.85
31	460	1.35	47.02	BG50-../DPE09XB4	59	10000	-	37.5	380	1.65
28	510	1.25	52.12	BG50-../DPE09XB4	59	10000	-	33.5	425	1.5
24.5	580	1.1	59.42	BG50-../DPE09XB4	59	10000	-	29.5	485	1.3
22	650	0.97	65.86	BG50-../DPE09XB4	59	10000	-	26.5	540	1.15
20.5	690	0.91	71.97	BG50Z-../DPE09XB4	64	10000	-	24.5	580	1.1
18.5	770	0.82	79.78	BG50Z-../DPE09XB4	64	10000	-	22	650	0.97
37.5	380	3.2	38.85	BG60-../DPE09XB4	90	16000	-	45	315	3.8
33.5	425	2.8	43.05	BG60-../DPE09XB4	90	16000	-	40.5	350	3.4
29	490	2.4	50.31	BG60-../DPE09XB4	90	16000	-	35	405	3.0
26	550	2.2	55.76	BG60-../DPE09XB4	90	16000	-	31.5	450	2.7

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

BG-series helical-geared motors

Selection helical-geared motors

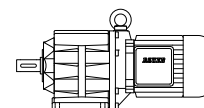
P = 1.5 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
24	590	2.0	60.90	BG60-../DPE09XB4	90	16000	-	29	490	2.4
21.5	660	1.8	67.49	BG60-../DPE09XB4	90	16000	-	26	550	2.2
19.5	730	1.65	75.71	BG60Z-../DPE09XB4	109	16000	-	23	620	1.95
16	890	1.35	91.09	BG60Z-../DPE09XB4	109	16000	-	19.5	730	1.65
14.5	980	1.2	101.0	BG60Z-../DPE09XB4	109	16000	-	17.5	810	1.5
12.5	1140	1.05	119.2	BG60Z-../DPE09XB4	109	16000	-	15	950	1.25
11	1300	0.92	132.1	BG60Z-../DPE09XB4	109	16000	-	13.5	1060	1.15
20	710	3.2	73.82	BG70Z-../DPE09XB4	149	20000	-	24	590	3.9
16.5	860	2.7	87.61	BG70Z-../DPE09XB4	149	20000	-	20	710	3.2
15.5	920	2.5	95.74	BG70Z-../DPE09XB4	149	20000	-	18.5	770	3.0
13	1100	2.1	113.6	BG70Z-../DPE09XB4	149	20000	-	15.5	920	2.5
12	1190	1.95	124.0	BG70Z-../DPE09XB4	149	20000	-	14.5	980	2.3
9.8	1460	1.6	147.2	BG70Z-../DPE09XB4	149	20000	-	12	1190	1.95
8.8	1620	1.4	163.8	BG70Z-../DPE09XB4	149	20000	-	11	1300	1.75
7.5	1910	1.2	194.4	BG70Z-../DPE09XB4	149	20000	-	9.0	1590	1.45
6.9	2050	1.1	210.5	BG70Z-../DPE09XB4	149	20000	-	8.3	1720	1.35
5.8	2450	0.94	249.8	BG70Z-../DPE09XB4	149	20000	-	7.0	2000	1.15
5.7	2400	1.05	255.5	BG70G20-../DPE09XB4	146	20000	-	6.9	1960	1.3
5.3	2550	0.98	276.7	BG70G20-../DPE09XB4	146	20000	-	6.3	2150	1.15
4.4	3100	0.81	328.4	BG70G20-../DPE09XB4	146	20000	-	5.3	2550	0.98
10	1430	2.9	145.4	BG80Z-../DPE09XB4	217	26000	-	12	1190	3.5
9.0	1590	2.6	161.5	BG80Z-../DPE09XB4	217	26000	-	11	1300	3.2
7.8	1830	2.3	186.8	BG80Z-../DPE09XB4	217	26000	-	9.4	1520	2.8
7.0	2000	2.1	207.4	BG80Z-../DPE09XB4	217	26000	-	8.4	1700	2.5
6.4	1950	2.4	227.2	BG80G40-../DPE09XB4	228	26000	-	7.7	1580	2.9
5.8	2150	2.1	252.3	BG80G40-../DPE09XB4	228	26000	-	6.9	1760	2.6
5.1	2500	1.85	282.8	BG80G40-../DPE09XB4	228	26000	-	6.2	2000	2.3
4.6	2750	1.65	314.0	BG80G40-../DPE09XB4	228	26000	-	5.6	2200	2.1
4.0	3200	1.45	360.0	BG80G40-../DPE09XB4	228	26000	-	4.9	2550	1.8
3.7	3450	1.35	399.8	BG80G40-../DPE09XB4	228	26000	-	4.4	2850	1.6
3.4	3850	1.2	436.2	BG80G40-../DPE09XB4	228	26000	-	4.0	3200	1.45
3.0	4350	1.05	484.3	BG80G40-../DPE09XB4	228	26000	-	3.6	3600	1.3
2.6	5100	0.9	572.0	BG80G40-../DPE09XB4	228	26000	-	3.1	4200	1.1
4.0	3100	3.0	360.3	BG90G50-../DPE09XB4	338	65000	-	4.9	2400	3.8
3.4	3800	2.4	435.8	BG90G50-../DPE09XB4	338	65000	-	4.0	3150	2.9
2.9	4450	2.1	504.7	BG90G50-../DPE09XB4	338	65000	-	3.5	3600	2.6
2.5	5100	1.8	588.8	BG90G50-../DPE09XB4	338	65000	-	3.0	4200	2.2
2.3	5600	1.65	644.7	BG90G50-../DPE09XB4	338	65000	-	2.7	4650	2.0
2.1	6100	1.5	714.2	BG90G50-../DPE09XB4	338	65000	-	2.5	5000	1.85
1.7	7700	1.2	883.7	BG90G50-../DPE09XB4	338	65000	-	2.0	6400	1.45
1.3	10300	0.89	1174	BG90G50-../DPE09XB4	338	65000	-	1.5	8800	1.05
1.2	11200	0.82	1301	BG90G50-../DPE09XB4	338	65000	-	1.4	9500	0.97
2.5	5700	3.2	591.1	BG100Z-../DPE09XB4	526	90000	-	3.0	4750	3.9
2.2	6500	2.8	658.1	BG100Z-../DPE09XB4	526	90000	-	2.7	5300	3.5
1.9	7500	2.5	759.0	BG100Z-../DPE09XB4	526	90000	-	2.3	6200	3.0
1.8	7900	2.3	845.1	BG100Z-../DPE09XB4	526	90000	-	2.1	6800	2.7
1.5	7900	2.3	976.1	BG100G50-../DPE09XB4	525	90000	-	1.8	6300	2.9
1.4	8800	2.1	1043	BG100G50-../DPE09XB4	525	90000	-	1.7	7000	2.6
1.2	10300	1.8	1204	BG100G50-../DPE09XB4	525	90000	-	1.5	7900	2.3
1.0	12900	1.45	1444	BG100G50-../DPE09XB4	525	90000	-	1.3	9600	1.95
0.9	14300	1.3	1678	BG100G50-../DPE09XB4	525	90000	-	1.1	11400	1.6
0.8	16100	1.15	1867	BG100G50-../DPE09XB4	525	90000	-	0.95	13200	1.4
0.7	18400	1.0	2154	BG100G50-../DPE09XB4	525	90000	-	0.85	14700	1.25

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

P = 2.2 kW



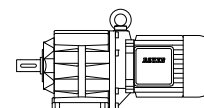
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
580	36	1.55	2.52	BG10-../DPE09XB4C	32	570	790	700	30	1.85
425	49	1.25	3.42	BG10-../DPE09XB4C	32	630	880	510	41	1.5
335	62	1.1	4.36	BG10-../DPE09XB4C	32	650	910	400	52	1.3
275	76	0.99	5.34	BG10-../DPE09XB4C	32	620	910	330	63	1.2
215	97	0.91	6.89	BG10-../DPE09XB4C	32	850	1200	255	82	1.05
191	110	0.81	7.63	BG10-../DPE09XB4C	32	900	1250	230	91	0.98
580	36	2.3	2.52	BG20-../DPE09XB4C	35	1650	-	700	30	2.8
440	47.5	1.95	3.33	BG20-../DPE09XB4C	35	1830	-	530	39.5	2.3
335	62	1.7	4.38	BG20-../DPE09XB4C	35	1990	-	400	52	2.0
265	79	1.45	5.49	BG20-../DPE09XB4C	35	2100	-	320	65	1.75
240	87	1.45	6.06	BG20-../DPE09XB4C	35	2250	-	290	72	1.75
225	93	1.3	6.48	BG20-../DPE09XB4C	35	2250	-	270	77	1.6
220	95	1.35	6.73	BG20-../DPE09XB4C	35	2350	2100	260	80	1.65
181	116	1.2	8.02	BG20-../DPE09XB4C	35	2500	-	220	95	1.45
175	120	1.0	8.29	BG20-../DPE09XB4C	35	2250	-	210	100	1.2
163	128	1.1	8.91	BG20-../DPE09XB4C	35	2600	-	196	107	1.35
151	139	0.88	9.65	BG20-../DPE09XB4C	35	2250	-	181	116	1.05
138	152	1.0	10.54	BG20-../DPE09XB4C	35	2700	-	166	126	1.2
124	169	0.93	11.71	BG20-../DPE09XB4C	35	2800	-	149	141	1.1
110	191	0.87	13.21	BG20-../DPE09XB4C	35	2900	-	132	159	1.05
99	210	0.82	14.67	BG20-../DPE09XB4C	35	3050	-	119	176	0.98
94	220	0.8	15.58	BG20-../DPE09XB4C	35	3100	-	112	187	0.95
430	48.5	2.9	3.40	BG30-../DPE09XB4C	39	1580	-	520	40	3.5
345	60	2.9	4.21	BG30-../DPE09XB4C	39	1630	-	415	50	3.4
270	77	2.6	5.44	BG30-../DPE09XB4C	39	1670	-	320	65	3.1
215	97	2.3	6.76	BG30-../DPE09XB4C	39	2550	-	260	80	2.8
194	108	2.1	7.50	BG30-../DPE09XB4C	39	2750	-	235	89	2.6
184	114	1.9	7.91	BG30-../DPE09XB4C	39	1760	-	220	95	2.3
169	124	2.0	8.60	BG30-../DPE09XB4C	39	2800	-	205	102	2.4
152	138	1.85	9.55	BG30-../DPE09XB4C	39	3000	-	183	114	2.2
137	153	1.75	10.65	BG30-../DPE09XB4C	39	2950	-	164	128	2.1
123	170	1.6	11.82	BG30-../DPE09XB4C	39	3200	-	148	141	1.95
106	198	1.5	13.77	BG30-../DPE09XB4C	39	3150	-	127	165	1.8
95	220	1.35	15.27	BG30-../DPE09XB4C	39	3450	-	114	184	1.65
85	245	1.2	17.06	BG30-../DPE09XB4C	39	3700	-	102	205	1.45
77	270	1.1	18.93	BG30-../DPE09XB4C	39	4100	-	92	225	1.35
73	285	1.05	19.99	BG30-../DPE09XB4C	39	4200	-	88	235	1.3
66	315	0.95	22.18	BG30-../DPE09XB4C	39	4600	-	79	265	1.15
57	365	0.82	25.45	BG30-../DPE09XB4C	39	4850	-	69	300	1.0
235	89	3.3	6.29	BG40-../DPE09XB4C	54	2600	-	280	75	3.9
205	102	3.2	7.11	BG40-../DPE09XB4C	54	3950	-	245	85	3.8
191	110	2.7	7.62	BG40-../DPE09XB4C	54	2650	-	230	91	3.2
175	120	2.9	8.31	BG40-../DPE09XB4C	54	4100	-	210	100	3.4
162	129	2.3	9.00	BG40-../DPE09XB4C	54	2650	-	194	108	2.7
158	132	2.7	9.23	BG40-../DPE09XB4C	54	4350	-	189	111	3.2
141	149	2.5	10.35	BG40-../DPE09XB4C	54	4350	-	169	124	3.0
127	165	2.4	11.49	BG40-../DPE09XB4C	54	4600	-	152	138	2.8
113	185	2.2	12.86	BG40-../DPE09XB4C	54	4500	-	136	154	2.7
102	205	2.1	14.28	BG40-../DPE09XB4C	54	4900	-	122	172	2.4
89	235	1.8	16.39	BG40-../DPE09XB4C	54	5300	-	107	196	2.2
80	260	1.65	18.19	BG40-../DPE09XB4C	54	5600	-	96	215	2.0
74	280	1.5	19.84	BG40-../DPE09XB4C	54	5800	-	88	235	1.8
66	315	1.35	22.02	BG40-../DPE09XB4C	54	6000	-	80	260	1.65
62	335	1.25	23.43	BG40-../DPE09XB4C	54	6200	-	75	280	1.5
56	375	1.15	26.01	BG40-../DPE09XB4C	54	6500	-	67	310	1.35
49.5	420	1.0	29.34	BG40-../DPE09XB4C	54	6800	-	60	350	1.2
45	465	0.91	32.57	BG40-../DPE09XB4C	54	7000	-	54	385	1.1
42.5	490	0.87	34.20	BG40-../DPE09XB4C	54	7000	-	51	410	1.05

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.



BG-series helical-geared motors

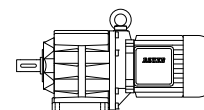
Selection helical-geared motors



P = 2.2 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
121	173	3.3	12.06	BG50-../DPE09XB4C	62	5700	-	145	144	4.0
109	192	3.1	13.36	BG50-../DPE09XB4C	62	6100	-	131	160	3.7
88	235	2.7	16.53	BG50-../DPE09XB4C	62	6500	-	106	198	3.2
80	260	2.4	18.33	BG50-../DPE09XB4C	62	7200	-	95	220	2.9
67	310	2.0	21.96	BG50-../DPE09XB4C	62	8000	-	80	260	2.4
60	350	1.8	24.34	BG50-../DPE09XB4C	62	8700	-	72	290	2.2
49	425	1.5	29.62	BG50-../DPE09XB4C	62	8000	-	59	355	1.75
44.5	470	1.35	32.84	BG50-../DPE09XB4C	62	8700	-	53	395	1.6
38.5	540	1.15	37.89	BG50-../DPE09XB4C	62	10000	-	46	455	1.4
35	600	1.05	42.00	BG50-../DPE09XB4C	62	10000	-	41.5	500	1.25
31	670	0.94	47.02	BG50-../DPE09XB4C	62	10000	-	37.5	560	1.15
28	750	0.84	52.12	BG50-../DPE09XB4C	62	10000	-	33.5	620	1.0
49.5	420	2.9	29.31	BG60-../DPE09XB4C	92	14800	-	60	350	3.4
45	465	2.6	32.48	BG60-../DPE09XB4C	92	15400	-	54	385	3.1
37.5	560	2.1	38.85	BG60-../DPE09XB4C	92	16000	-	45	465	2.6
34	610	1.95	43.05	BG60-../DPE09XB4C	92	16000	-	40.5	510	2.4
29	720	1.65	50.31	BG60-../DPE09XB4C	92	16000	-	35	600	2.0
26.5	790	1.5	55.76	BG60-../DPE09XB4C	92	16000	-	31.5	660	1.8
24	870	1.4	60.90	BG60-../DPE09XB4C	92	16000	-	29	720	1.65
21.5	970	1.25	67.49	BG60-../DPE09XB4C	92	16000	-	26	800	1.5
19.5	1070	1.1	75.71	BG60Z-../DPE09XB4C	112	16000	-	23	910	1.3
16	1310	0.92	91.09	BG60Z-../DPE09XB4C	112	16000	-	19.5	1070	1.1
14.5	1440	0.83	101.0	BG60Z-../DPE09XB4C	112	16000	-	17.5	1200	1.0
29	720	3.2	50.40	BG70-../DPE09XB4C	130	20000	-	35	600	3.8
24.5	850	2.7	59.82	BG70-../DPE09XB4C	130	20000	-	29.5	710	3.2
22.5	930	2.5	64.85	BG70Z-../DPE09XB4C	151	20000	-	27	770	3.0
20	1050	2.2	73.82	BG70Z-../DPE09XB4C	151	20000	-	24	870	2.6
17	1230	1.85	87.61	BG70Z-../DPE09XB4C	151	20000	-	20	1050	2.2
15.5	1350	1.7	95.74	BG70Z-../DPE09XB4C	151	20000	-	18.5	1130	2.0
13	1610	1.45	113.6	BG70Z-../DPE09XB4C	151	20000	-	15.5	1350	1.7
12	1750	1.3	124.0	BG70Z-../DPE09XB4C	151	20000	-	14.5	1440	1.6
9.9	2100	1.1	147.2	BG70Z-../DPE09XB4C	151	20000	-	12	1750	1.3
8.9	2350	0.98	163.8	BG70Z-../DPE09XB4C	151	20000	-	11	1910	1.2
7.5	2800	0.82	194.4	BG70Z-../DPE09XB4C	151	20000	-	9.0	2300	1.0
15.5	1350	3.1	93.89	BG80Z-../DPE09XB4C	219	26000	-	19	1100	3.8
13	1610	2.6	112.4	BG80Z-../DPE09XB4C	219	26000	-	15.5	1350	3.1
12	1750	2.4	124.8	BG80Z-../DPE09XB4C	219	26000	-	14	1500	2.8
10	2100	2.0	145.4	BG80Z-../DPE09XB4C	219	26000	-	12	1750	2.4
9.0	2300	1.85	161.5	BG80Z-../DPE09XB4C	219	26000	-	11	1910	2.2
7.8	2650	1.6	186.8	BG80Z-../DPE09XB4C	219	26000	-	9.4	2200	1.9
7.0	3000	1.4	207.4	BG80Z-../DPE09XB4C	219	26000	-	8.4	2500	1.7
6.4	3000	1.55	227.2	BG80G40-../DPE09XB4C	231	26000	-	7.7	2400	1.9
5.8	3300	1.4	252.3	BG80G40-../DPE09XB4C	231	26000	-	6.9	2700	1.7
5.2	3700	1.25	282.8	BG80G40-../DPE09XB4C	231	26000	-	6.2	3050	1.5
4.7	4100	1.1	314.0	BG80G40-../DPE09XB4C	231	26000	-	5.6	3400	1.35
4.1	4750	0.97	360.0	BG80G40-../DPE09XB4C	231	26000	-	4.9	3950	1.15
3.7	5300	0.87	399.8	BG80G40-../DPE09XB4C	231	26000	-	4.4	4350	1.05
8.2	2550	3.3	178.5	BG90Z-../DPE09XB4C	329	65000	-	9.8	2100	4.0
7.0	3000	2.8	208.3	BG90Z-../DPE09XB4C	329	65000	-	8.4	2500	3.4
6.4	3250	2.6	228.1	BG90Z-../DPE09XB4C	329	65000	-	7.7	2700	3.1
5.6	3300	2.8	262.5	BG90G50-../DPE09XB4C	340	65000	-	6.7	2700	3.4
4.9	4000	2.3	298.8	BG90G50-../DPE09XB4C	340	65000	-	5.9	3250	2.8
4.1	4600	2.0	360.3	BG90G50-../DPE09XB4C	340	65000	-	4.9	3800	2.4
3.4	5700	1.6	435.8	BG90G50-../DPE09XB4C	340	65000	-	4.0	4850	1.9

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



P = 2.2 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
2.9	6700	1.35	504.7	BG90G50-../DPE09XB4C	340	65000	-	3.5	5500	1.65
2.5	7800	1.2	588.8	BG90G50-../DPE09XB4C	340	65000	-	3.0	6400	1.45
2.3	8500	1.1	644.7	BG90G50-../DPE09XB4C	340	65000	-	2.7	7100	1.3
2.1	9300	0.99	714.2	BG90G50-../DPE09XB4C	340	65000	-	2.5	7700	1.2
3.2	6500	2.8	456.7	BG100Z-../DPE09XB4C	528	90000	-	3.9	5300	3.5
2.9	7200	2.6	508.5	BG100Z-../DPE09XB4C	528	90000	-	3.5	6000	3.1
2.5	8400	2.2	591.1	BG100Z-../DPE09XB4C	528	90000	-	3.0	7000	2.6
2.3	9100	2.0	658.1	BG100Z-../DPE09XB4C	528	90000	-	2.7	7700	2.4
2.0	10500	1.75	759.0	BG100Z-../DPE09XB4C	528	90000	-	2.3	9100	2.0
1.8	11600	1.6	845.1	BG100Z-../DPE09XB4C	528	90000	-	2.1	10000	1.85
1.5	12400	1.5	976.1	BG100G50-../DPE09XB4C	527	90000	-	1.8	10000	1.85
1.4	13600	1.35	1043	BG100G50-../DPE09XB4C	527	90000	-	1.7	10900	1.7
1.3	14500	1.3	1204	BG100G50-../DPE09XB4C	527	90000	-	1.5	12300	1.5
1.1	17700	1.05	1444	BG100G50-../DPE09XB4C	527	90000	-	1.3	14700	1.25

P = 3 kW

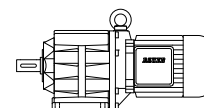
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
550	52	2.5	2.67	BG30-../DPE11LA4	58	1450	-	660	43	3.0
430	66	2.1	3.40	BG30-../DPE11LA4	58	1580	-	520	55	2.5
345	83	2.1	4.21	BG30-../DPE11LA4	58	1630	-	415	69	2.5
270	106	1.9	5.44	BG30-../DPE11LA4	58	1670	-	320	89	2.2
215	133	1.7	6.76	BG30-../DPE11LA4	58	2550	-	260	110	2.1
194	147	1.55	7.50	BG30-../DPE11LA4	58	2750	-	235	121	1.9
184	155	1.4	7.91	BG30-../DPE11LA4	58	1760	-	220	130	1.65
169	169	1.45	8.60	BG30-../DPE11LA4	58	2800	-	205	139	1.75
152	188	1.35	9.55	BG30-../DPE11LA4	58	3000	-	183	156	1.65
137	205	1.3	10.65	BG30-../DPE11LA4	58	2950	-	164	174	1.55
123	230	1.2	11.82	BG30-../DPE11LA4	58	3200	-	148	193	1.4
106	270	1.1	13.77	BG30-../DPE11LA4	58	3150	-	127	225	1.3
95	300	1.0	15.27	BG30-../DPE11LA4	58	3450	-	114	250	1.2
85	335	0.9	17.06	BG30-../DPE11LA4	58	3700	-	102	280	1.05
77	370	0.81	18.93	BG30-../DPE11LA4	58	4100	-	92	310	0.97
370	77	3.2	3.97	BG40-../DPE11LA4	77	2400	-	440	65	3.8
295	97	2.8	4.94	BG40-../DPE11LA4	77	2450	-	355	80	3.4
235	121	2.4	6.29	BG40-../DPE11LA4	77	2600	-	280	102	2.9
230	124	2.5	6.40	BG40-../DPE11LA4	77	3750	-	275	104	3.0
205	139	2.3	7.11	BG40-../DPE11LA4	77	3950	-	245	116	2.8
191	150	1.95	7.62	BG40-../DPE11LA4	77	2650	-	230	124	2.4
175	163	2.1	8.31	BG40-../DPE11LA4	77	4100	-	210	136	2.5
162	176	1.7	9.00	BG40-../DPE11LA4	77	2650	-	194	147	2.0
158	181	1.95	9.23	BG40-../DPE11LA4	77	4350	-	189	151	2.4
141	200	1.9	10.35	BG40-../DPE11LA4	77	4350	-	169	169	2.2
127	225	1.75	11.49	BG40-../DPE11LA4	77	4600	-	152	188	2.1
113	250	1.65	12.86	BG40-../DPE11LA4	77	4500	-	136	210	1.95
102	280	1.5	14.28	BG40-../DPE11LA4	77	4900	-	122	230	1.85
89	320	1.35	16.39	BG40-../DPE11LA4	77	5300	-	107	265	1.6
80	355	1.2	18.19	BG40-../DPE11LA4	77	5600	-	96	295	1.45
74	385	1.1	19.84	BG40-../DPE11LA4	77	5800	-	88	325	1.3
66	430	0.99	22.02	BG40-../DPE11LA4	77	6000	-	80	355	1.2
62	460	0.92	23.43	BG40-../DPE11LA4	77	6200	-	75	380	1.1
56	510	0.83	26.01	BG40-../DPE11LA4	77	6500	-	67	425	1.0

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

BG-series helical-geared motors

Selection helical-geared motors

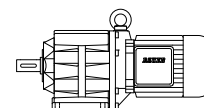
P = 3 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
167	171	3.0	8.70	BG50-../DPE11LA4	86	5300	-	200	143	3.6
151	189	2.8	9.65	BG50-../DPE11LA4	86	5600	-	181	158	3.3
121	235	2.5	12.06	BG50-../DPE11LA4	86	5700	-	145	197	2.9
109	260	2.3	13.36	BG50-../DPE11LA4	86	6100	-	131	215	2.8
88	325	1.95	16.53	BG50-../DPE11LA4	86	6500	-	106	270	2.3
80	355	1.75	18.33	BG50-../DPE11LA4	86	7200	-	95	300	2.1
67	425	1.5	21.96	BG50-../DPE11LA4	86	8000	-	80	355	1.75
60	475	1.35	24.34	BG50-../DPE11LA4	86	8700	-	72	395	1.6
49	580	1.1	29.62	BG50-../DPE11LA4	86	8000	-	59	485	1.3
44.5	640	0.98	32.84	BG50-../DPE11LA4	86	8700	-	53	540	1.15
38.5	740	0.85	37.89	BG50-../DPE11LA4	86	10000	-	46	620	1.0
78	365	3.1	18.62	BG60-../DPE11LA4	119	12400	-	94	300	3.8
65	440	2.7	22.40	BG60-../DPE11LA4	119	13300	-	78	365	3.3
59	485	2.5	24.82	BG60-../DPE11LA4	119	13800	-	71	400	3.0
49.5	570	2.1	29.31	BG60-../DPE11LA4	119	14800	-	60	475	2.5
45	630	1.9	32.48	BG60-../DPE11LA4	119	15400	-	54	530	2.3
37.5	760	1.6	38.85	BG60-../DPE11LA4	119	16000	-	45	630	1.9
34	840	1.45	43.05	BG60-../DPE11LA4	119	16000	-	40.5	700	1.7
29	980	1.2	50.31	BG60-../DPE11LA4	119	16000	-	35	810	1.5
26.5	1080	1.1	55.76	BG60-../DPE11LA4	119	16000	-	31.5	900	1.35
24	1190	1.0	60.90	BG60-../DPE11LA4	119	16000	-	29	980	1.2
21.5	1330	0.9	67.49	BG60-../DPE11LA4	119	16000	-	26	1100	1.1
19.5	1460	0.82	75.71	BG60Z-../DPE11LA4	135	16000	-	23	1240	0.97
41.5	690	3.3	35.24	BG70-../DPE11LA4	149	18300	-	49.5	570	4.0
37	770	3.0	39.22	BG70-../DPE11LA4	149	19100	-	44.5	640	3.6
31.5	900	2.6	46.54	BG70-../DPE11LA4	149	20000	-	37.5	760	3.0
29	980	2.3	50.40	BG70-../DPE11LA4	149	20000	-	35	810	2.8
24.5	1160	2.0	59.82	BG70-../DPE11LA4	149	20000	-	29.5	970	2.4
22.5	1270	1.8	64.85	BG70Z-../DPE11LA4	176	20000	-	27	1060	2.2
20	1430	1.6	73.82	BG70Z-../DPE11LA4	176	20000	-	24	1190	1.95
17	1680	1.35	87.61	BG70Z-../DPE11LA4	176	20000	-	20	1430	1.6
15.5	1840	1.25	95.74	BG70Z-../DPE11LA4	176	20000	-	18.5	1540	1.5
13	2200	1.05	113.6	BG70Z-../DPE11LA4	176	20000	-	15.5	1840	1.25
12	2350	0.98	124.0	BG70Z-../DPE11LA4	176	20000	-	14.5	1970	1.15
9.9	2850	0.81	147.2	BG70Z-../DPE11LA4	176	20000	-	12	2350	0.98
22	1300	3.2	66.40	BG80Z-../DPE11LA4	246	26000	-	26.5	1080	3.9
20	1430	2.9	73.73	BG80Z-../DPE11LA4	246	26000	-	24	1190	3.5
17.5	1630	2.6	84.55	BG80Z-../DPE11LA4	246	26000	-	21	1360	3.1
15.5	1840	2.3	93.89	BG80Z-../DPE11LA4	246	26000	-	19	1500	2.8
13	2200	1.9	112.4	BG80Z-../DPE11LA4	246	26000	-	15.5	1840	2.3
12	2350	1.8	124.8	BG80Z-../DPE11LA4	246	26000	-	14	2000	2.1
10	2850	1.45	145.4	BG80Z-../DPE11LA4	246	26000	-	12	2350	1.8
9.0	3150	1.35	161.5	BG80Z-../DPE11LA4	246	26000	-	11	2600	1.6
7.8	3650	1.15	186.8	BG80Z-../DPE11LA4	246	26000	-	9.4	3000	1.4
7.0	4050	1.05	207.4	BG80Z-../DPE11LA4	246	26000	-	8.4	3400	1.25
6.4	4150	1.1	227.2	BG80G40-../DPE11LA4	254	26000	-	7.7	3400	1.35
5.8	4600	1.0	252.3	BG80G40-../DPE11LA4	254	26000	-	6.9	3800	1.2
5.2	5200	0.88	282.8	BG80G40-../DPE11LA4	254	26000	-	6.2	4300	1.05
4.7	5700	0.81	314.0	BG80G40-../DPE11LA4	254	26000	-	5.6	4750	0.97
10.5	2700	3.1	139.2	BG90Z-../DPE11LA4	348	65000	-	12.5	2250	3.7
8.9	3200	2.6	163.0	BG90Z-../DPE11LA4	348	65000	-	11	2600	3.2
8.2	3450	2.4	178.5	BG90Z-../DPE11LA4	348	65000	-	9.8	2900	2.9
7.0	4050	2.1	208.3	BG90Z-../DPE11LA4	348	65000	-	8.4	3400	2.5
6.4	4450	1.9	228.1	BG90Z-../DPE11LA4	348	65000	-	7.7	3700	2.3

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

P = 3 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
5.6	4650	2.0	262.5	BG90G50-../DPE11LA4	365	65000	-	6.7	3850	2.4
4.9	5500	1.65	298.8	BG90G50-../DPE11LA4	365	65000	-	5.9	4550	2.0
4.1	6500	1.4	360.3	BG90G50-../DPE11LA4	365	65000	-	4.9	5300	1.75
3.4	8000	1.15	435.8	BG90G50-../DPE11LA4	365	65000	-	4.0	6700	1.35
2.9	9300	0.99	504.7	BG90G50-../DPE11LA4	365	65000	-	3.5	7700	1.2
2.5	10800	0.85	588.8	BG90G50-../DPE11LA4	365	65000	-	3.0	8900	1.05
5.6	5100	3.3	259.0	BG100-../DPE11LA4	465	90000	-	6.8	4200	4.0
4.9	5800	3.2	300.4	BG100Z-../DPE11LA4	555	90000	-	5.8	4900	3.8
4.3	6600	2.8	343.6	BG100Z-../DPE11LA4	555	90000	-	5.1	5600	3.3
3.8	7500	2.5	382.6	BG100Z-../DPE11LA4	555	90000	-	4.6	6200	3.0
3.2	8900	2.1	456.7	BG100Z-../DPE11LA4	555	90000	-	3.9	7300	2.5
2.9	9800	1.9	508.5	BG100Z-../DPE11LA4	555	90000	-	3.5	8100	2.3
2.5	11400	1.6	591.1	BG100Z-../DPE11LA4	555	90000	-	3.0	9500	1.95
2.3	12400	1.5	658.1	BG100Z-../DPE11LA4	555	90000	-	2.7	10600	1.75
2.0	14300	1.3	759.0	BG100Z-../DPE11LA4	555	90000	-	2.3	12400	1.5
1.8	15900	1.15	845.1	BG100Z-../DPE11LA4	555	90000	-	2.1	13600	1.35
1.5	17500	1.05	976.1	BG100G50-../DPE11LA4	552	90000	-	1.8	14300	1.3
1.4	19000	0.97	1043	BG100G50-../DPE11LA4	552	90000	-	1.7	15400	1.2
1.3	20400	0.91	1204	BG100G50-../DPE11LA4	552	90000	-	1.5	17400	1.05

P = 4 kW

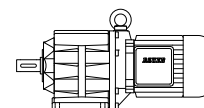
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
550	69	1.85	2.67	BG30-../DPE11LB4	58	1450	-	660	57	2.2
430	88	1.6	3.40	BG30-../DPE11LB4	58	1580	-	520	73	1.9
345	110	1.55	4.21	BG30-../DPE11LB4	58	1630	-	415	92	1.85
270	141	1.4	5.44	BG30-../DPE11LB4	58	1670	-	320	119	1.7
215	177	1.3	6.76	BG30-../DPE11LB4	58	2550	-	260	146	1.55
194	196	1.2	7.50	BG30-../DPE11LB4	58	2750	-	235	162	1.45
184	205	1.05	7.91	BG30-../DPE11LB4	58	1760	-	220	173	1.25
169	225	1.1	8.60	BG30-../DPE11LB4	58	2800	-	205	186	1.3
152	250	1.0	9.55	BG30-../DPE11LB4	58	3000	-	183	205	1.25
137	275	0.97	10.65	BG30-../DPE11LB4	58	2950	-	164	230	1.15
123	310	0.88	11.82	BG30-../DPE11LB4	58	3200	-	148	255	1.05
106	360	0.82	13.77	BG30-../DPE11LB4	58	3150	-	127	300	0.98
590	64	3.2	2.46	BG40-../DPE11LB4	77	2150	-	710	53	3.8
455	83	2.7	3.19	BG40-../DPE11LB4	77	2350	-	550	69	3.2
370	103	2.4	3.97	BG40-../DPE11LB4	77	2400	-	440	86	2.8
295	129	2.1	4.94	BG40-../DPE11LB4	77	2450	-	355	107	2.5
235	162	1.8	6.29	BG40-../DPE11LB4	77	2600	-	280	136	2.2
230	166	1.9	6.40	BG40-../DPE11LB4	77	3750	-	275	138	2.3
205	186	1.75	7.11	BG40-../DPE11LB4	77	3950	-	245	155	2.1
191	200	1.5	7.62	BG40-../DPE11LB4	77	2650	-	230	166	1.8
175	215	1.6	8.31	BG40-../DPE11LB4	77	4100	-	210	181	1.9
162	235	1.25	9.00	BG40-../DPE11LB4	77	2650	-	194	196	1.5
158	240	1.5	9.23	BG40-../DPE11LB4	77	4350	-	189	200	1.8
141	270	1.4	10.35	BG40-../DPE11LB4	77	4350	-	169	225	1.65
127	300	1.3	11.49	BG40-../DPE11LB4	77	4600	-	152	250	1.55
113	335	1.25	12.86	BG40-../DPE11LB4	77	4500	-	136	280	1.45
102	370	1.15	14.28	BG40-../DPE11LB4	77	4900	-	122	310	1.35

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BG-series helical-geared motors

Selection helical-geared motors

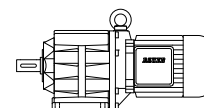
P = 4 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
89	425	1.0	16.39	BG40-../DPE11LB4	77	5300	-	107	355	1.2
80	475	0.89	18.19	BG40-../DPE11LB4	77	5600	-	96	395	1.1
74	510	0.83	19.84	BG40-../DPE11LB4	77	5800	-	88	430	0.99
300	127	3.1	4.91	BG50-../DPE11LB4	86	3500	-	355	107	3.7
240	159	2.8	6.07	BG50-../DPE11LB4	86	4700	-	290	131	3.4
220	173	2.6	6.74	BG50-../DPE11LB4	86	3750	-	260	146	3.1
167	225	2.3	8.70	BG50-../DPE11LB4	86	5300	-	200	191	2.7
151	250	2.1	9.65	BG50-../DPE11LB4	86	5600	-	181	210	2.5
121	315	1.85	12.06	BG50-../DPE11LB4	86	5700	-	145	260	2.2
109	350	1.7	13.36	BG50-../DPE11LB4	86	6100	-	131	290	2.0
88	430	1.45	16.53	BG50-../DPE11LB4	86	6500	-	106	360	1.75
80	475	1.35	18.33	BG50-../DPE11LB4	86	7200	-	95	400	1.6
67	570	1.1	21.96	BG50-../DPE11LB4	86	8000	-	80	475	1.35
60	630	1.0	24.34	BG50-../DPE11LB4	86	8700	-	72	530	1.2
49	770	0.82	29.62	BG50-../DPE11LB4	86	8000	-	59	640	0.98
120	315	3.1	12.16	BG60-../DPE11LB4	119	10800	-	144	265	3.7
108	350	2.9	13.47	BG60-../DPE11LB4	119	11200	-	130	290	3.5
87	435	2.5	16.80	BG60-../DPE11LB4	119	12000	-	104	365	3.0
78	485	2.4	18.62	BG60-../DPE11LB4	119	12400	-	94	405	2.8
65	580	2.1	22.40	BG60-../DPE11LB4	119	13300	-	78	485	2.5
59	640	1.9	24.82	BG60-../DPE11LB4	119	13800	-	71	530	2.3
49.5	770	1.55	29.31	BG60-../DPE11LB4	119	14800	-	60	630	1.9
45	840	1.45	32.48	BG60-../DPE11LB4	119	15400	-	54	700	1.7
37.5	1010	1.2	38.85	BG60-../DPE11LB4	119	16000	-	45	840	1.45
34	1120	1.05	43.05	BG60-../DPE11LB4	119	16000	-	40.5	940	1.3
29	1310	0.92	50.31	BG60-../DPE11LB4	119	16000	-	35	1090	1.1
26.5	1440	0.83	55.76	BG60-../DPE11LB4	119	16000	-	31.5	1210	0.99
54	700	3.3	27.21	BG70-../DPE11LB4	149	16400	-	64	590	3.9
49	770	3.0	29.69	BG70-../DPE11LB4	149	16900	-	59	640	3.6
41.5	920	2.5	35.24	BG70-../DPE11LB4	149	18300	-	49.5	770	3.0
37	1030	2.2	39.22	BG70-../DPE11LB4	149	19100	-	44.5	850	2.7
31.5	1210	1.9	46.54	BG70-../DPE11LB4	149	20000	-	37.5	1010	2.3
29	1310	1.75	50.40	BG70-../DPE11LB4	149	20000	-	35	1090	2.1
24.5	1550	1.5	59.82	BG70-../DPE11LB4	149	20000	-	29.5	1290	1.8
22.5	1690	1.35	64.85	BG70Z-../DPE11LB4	176	20000	-	27	1410	1.65
20	1910	1.2	73.82	BG70Z-../DPE11LB4	176	20000	-	24	1590	1.45
17	2200	1.05	87.61	BG70Z-../DPE11LB4	176	20000	-	20	1910	1.2
15.5	2450	0.94	95.74	BG70Z-../DPE11LB4	176	20000	-	18.5	2050	1.1
30	1270	3.3	48.80	BG80-../DPE11LB4	204	23800	-	36	1060	4.0
25.5	1490	2.8	57.24	BG80-../DPE11LB4	204	25400	-	30.5	1250	3.4
23	1660	2.5	63.56	BG80-../DPE11LB4	204	26000	-	27.5	1380	3.0
22	1730	2.4	66.40	BG80Z-../DPE11LB4	246	26000	-	26.5	1440	2.9
20	1910	2.2	73.73	BG80Z-../DPE11LB4	246	26000	-	24	1590	2.6
17.5	2150	1.95	84.55	BG80Z-../DPE11LB4	246	26000	-	21	1810	2.3
15.5	2450	1.7	93.89	BG80Z-../DPE11LB4	246	26000	-	19	2000	2.1
13	2900	1.45	112.4	BG80Z-../DPE11LB4	246	26000	-	15.5	2450	1.7
12	3150	1.35	124.8	BG80Z-../DPE11LB4	246	26000	-	14	2700	1.55
10	3800	1.1	145.4	BG80Z-../DPE11LB4	246	26000	-	12	3150	1.35
9.0	4200	1.0	161.5	BG80Z-../DPE11LB4	246	26000	-	11	3450	1.2
7.8	4850	0.87	186.8	BG80Z-../DPE11LB4	246	26000	-	9.4	4050	1.05
6.4	5600	0.82	227.2	BG80G40-../DPE11LB4	254	26000	-	7.7	4650	0.99
14	2700	3.1	105.7	BG90Z-../DPE11LB4	348	65000	-	16.5	2300	3.7
11.5	3300	2.5	127.1	BG90Z-../DPE11LB4	348	65000	-	14	2700	3.1
10.5	3600	2.3	139.2	BG90Z-../DPE11LB4	348	65000	-	12.5	3050	2.8

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

P = 4 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
8.9	4250	2.0	163.0	BG90Z-../DPE11LB4	348	65000	-	11	3450	2.4
8.2	4650	1.8	178.5	BG90Z-../DPE11LB4	348	65000	-	9.8	3850	2.2
7.0	5400	1.55	208.3	BG90Z-../DPE11LB4	348	65000	-	8.4	4500	1.85
6.4	5900	1.4	228.1	BG90Z-../DPE11LB4	348	65000	-	7.7	4950	1.7
5.6	6300	1.45	262.5	BG90G50-../DPE11LB4	365	65000	-	6.7	5200	1.75
4.9	7500	1.25	298.8	BG90G50-../DPE11LB4	365	65000	-	5.9	6100	1.5
4.1	8800	1.05	360.3	BG90G50-../DPE11LB4	365	65000	-	4.9	7300	1.25
3.4	10800	0.85	435.8	BG90G50-../DPE11LB4	365	65000	-	4.0	9100	1.0
7.3	5200	3.2	198.8	BG100-../DPE11LB4	465	90000	-	8.8	4300	3.9
6.3	6000	2.8	232.6	BG100-../DPE11LB4	465	90000	-	7.5	5000	3.4
5.6	6800	2.5	259.0	BG100-../DPE11LB4	465	90000	-	6.8	5600	3.0
5.4	7000	2.6	269.8	BG100Z-../DPE11LB4	555	90000	-	6.5	5800	3.2
4.9	7700	2.4	300.4	BG100Z-../DPE11LB4	555	90000	-	5.8	6500	2.8
4.3	8800	2.1	343.6	BG100Z-../DPE11LB4	555	90000	-	5.1	7400	2.5
3.8	10000	1.85	382.6	BG100Z-../DPE11LB4	555	90000	-	4.6	8300	2.2
3.2	11900	1.55	456.7	BG100Z-../DPE11LB4	555	90000	-	3.9	9700	1.9
2.9	13100	1.4	508.5	BG100Z-../DPE11LB4	555	90000	-	3.5	10900	1.7
2.5	15200	1.2	591.1	BG100Z-../DPE11LB4	555	90000	-	3.0	12700	1.45
2.3	16600	1.1	658.1	BG100Z-../DPE11LB4	555	90000	-	2.7	14100	1.3
2.0	19100	0.97	759.0	BG100Z-../DPE11LB4	555	90000	-	2.3	16600	1.1
1.8	21200	0.87	845.1	BG100Z-../DPE11LB4	555	90000	-	2.1	18100	1.0

P = 5.5 kW

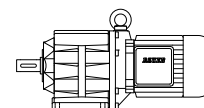
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
550	95	1.35	2.67	BG30-../DPE11LB4C	62	1450	-	660	79	1.6
430	122	1.15	3.40	BG30-../DPE11LB4C	62	1580	-	520	101	1.4
350	150	1.15	4.21	BG30-../DPE11LB4C	62	1630	-	420	125	1.35
270	194	1.05	5.44	BG30-../DPE11LB4C	62	1670	-	325	161	1.25
220	235	0.96	6.76	BG30-../DPE11LB4C	62	2550	-	265	198	1.15
195	265	0.87	7.50	BG30-../DPE11LB4C	62	2750	-	235	220	1.05
170	305	0.81	8.60	BG30-../DPE11LB4C	62	2800	-	205	255	0.96
600	87	2.3	2.46	BG40-../DPE11LB4C	81	2150	-	720	72	2.8
460	114	1.95	3.19	BG40-../DPE11LB4C	81	2350	-	560	93	2.4
370	141	1.75	3.97	BG40-../DPE11LB4C	81	2400	-	445	118	2.1
300	175	1.55	4.94	BG40-../DPE11LB4C	81	2450	-	360	145	1.85
235	220	1.35	6.29	BG40-../DPE11LB4C	81	2600	-	280	187	1.6
230	225	1.4	6.40	BG40-../DPE11LB4C	81	3750	-	275	191	1.65
210	250	1.3	7.11	BG40-../DPE11LB4C	81	3950	-	250	210	1.55
192	270	1.1	7.62	BG40-../DPE11LB4C	81	2650	-	235	220	1.35
176	295	1.15	8.31	BG40-../DPE11LB4C	81	4100	-	215	240	1.45
163	320	0.92	9.00	BG40-../DPE11LB4C	81	2650	-	196	265	1.1
159	330	1.1	9.23	BG40-../DPE11LB4C	81	4350	-	191	275	1.3
142	365	1.05	10.35	BG40-../DPE11LB4C	81	4350	-	171	305	1.25
128	410	0.95	11.49	BG40-../DPE11LB4C	81	4600	-	154	340	1.15
114	460	0.89	12.86	BG40-../DPE11LB4C	81	4500	-	137	380	1.1
103	500	0.84	14.28	BG40-../DPE11LB4C	81	4900	-	124	420	1.0
415	126	2.8	3.55	BG50-../DPE11LB4C	90	3300	-	500	105	3.3
300	175	2.3	4.91	BG50-../DPE11LB4C	90	3500	-	360	145	2.7
245	210	2.1	6.07	BG50-../DPE11LB4C	90	4700	-	290	181	2.4

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BG-series helical-geared motors

Selection helical-geared motors

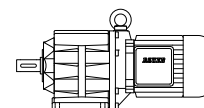
P = 5.5 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
220	235	1.9	6.74	BG50-../DPE11LB4C	90	3750	-	265	198	2.3
168	310	1.65	8.70	BG50-../DPE11LB4C	90	5300	-	205	255	2.0
152	345	1.5	9.65	BG50-../DPE11LB4C	90	5600	-	183	285	1.85
122	430	1.35	12.06	BG50-../DPE11LB4C	90	5700	-	146	355	1.6
110	475	1.25	13.36	BG50-../DPE11LB4C	90	6100	-	132	395	1.5
89	590	1.05	16.53	BG50-../DPE11LB4C	90	6500	-	107	490	1.3
80	650	0.97	18.33	BG50-../DPE11LB4C	90	7200	-	97	540	1.15
67	780	0.81	21.96	BG50-../DPE11LB4C	90	8000	-	81	640	0.98
215	240	3.3	6.88	BG60-../DPE11LB4C	123	8600	-	260	200	3.9
160	325	2.7	9.13	BG60-../DPE11LB4C	123	9800	-	193	270	3.3
145	360	2.5	10.12	BG60-../DPE11LB4C	123	10200	-	174	300	3.0
121	430	2.3	12.16	BG60-../DPE11LB4C	123	10800	-	145	360	2.7
109	480	2.1	13.47	BG60-../DPE11LB4C	123	11200	-	131	400	2.6
87	600	1.85	16.80	BG60-../DPE11LB4C	123	12000	-	105	500	2.2
79	660	1.75	18.62	BG60-../DPE11LB4C	123	12400	-	95	550	2.1
66	790	1.5	22.40	BG60-../DPE11LB4C	123	13300	-	79	660	1.8
59	890	1.35	24.82	BG60-../DPE11LB4C	123	13800	-	71	730	1.65
50	1050	1.15	29.31	BG60-../DPE11LB4C	123	14800	-	61	860	1.4
45	1160	1.05	32.48	BG60-../DPE11LB4C	123	15400	-	55	950	1.25
38	1380	0.87	38.85	BG60-../DPE11LB4C	123	16000	-	45.5	1150	1.05
70	750	3.1	20.98	BG70-../DPE11LB4C	153	14600	-	84	620	3.7
64	820	2.8	22.92	BG70-../DPE11LB4C	153	15100	-	77	680	3.4
54	970	2.4	27.21	BG70-../DPE11LB4C	153	16400	-	65	800	2.9
49.5	1060	2.2	29.69	BG70-../DPE11LB4C	153	16900	-	60	870	2.6
41.5	1260	1.85	35.24	BG70-../DPE11LB4C	153	18300	-	50	1050	2.2
37.5	1400	1.65	39.22	BG70-../DPE11LB4C	153	19100	-	45	1160	2.0
31.5	1660	1.4	46.54	BG70-../DPE11LB4C	153	20000	-	38	1380	1.65
29	1810	1.25	50.40	BG70-../DPE11LB4C	153	20000	-	35	1500	1.55
24.5	2100	1.1	59.82	BG70-../DPE11LB4C	153	20000	-	29.5	1780	1.3
23	2250	1.0	64.85	BG70Z-../DPE11LB4C	180	20000	-	27.5	1910	1.2
20	2600	0.88	73.82	BG70Z-../DPE11LB4C	180	20000	-	24	2150	1.05
38.5	1360	3.1	38.00	BG80-../DPE11LB4C	208	21300	-	46.5	1120	3.8
33.5	1560	2.7	43.94	BG80-../DPE11LB4C	208	22600	-	40.5	1290	3.3
30	1750	2.4	48.80	BG80-../DPE11LB4C	208	23800	-	36.5	1430	2.9
26	2000	2.1	57.24	BG80-../DPE11LB4C	208	25400	-	31	1690	2.5
23	2250	1.85	63.56	BG80-../DPE11LB4C	208	26000	-	28	1870	2.2
22	2350	1.8	66.40	BG80Z-../DPE11LB4C	250	26000	-	27	1940	2.2
20	2600	1.6	73.73	BG80Z-../DPE11LB4C	250	26000	-	24	2150	1.95
17.5	3000	1.4	84.55	BG80Z-../DPE11LB4C	250	26000	-	21	2500	1.7
16	3250	1.3	93.89	BG80Z-../DPE11LB4C	250	26000	-	19	2750	1.55
13	4000	1.05	112.4	BG80Z-../DPE11LB4C	250	26000	-	16	3250	1.3
12	4350	0.97	124.8	BG80Z-../DPE11LB4C	250	26000	-	14.5	3600	1.15
10.5	5000	0.84	145.4	BG80Z-../DPE11LB4C	250	26000	-	12.5	4200	1.0
19.5	2650	3.2	76.61	BG90Z-../DPE11LB4C	352	65000	-	23	2250	3.7
17.5	3000	2.8	83.91	BG90Z-../DPE11LB4C	352	65000	-	21	2500	3.4
15.5	3350	2.5	96.53	BG90Z-../DPE11LB4C	352	65000	-	18.5	2800	3.0
14	3750	2.2	105.7	BG90Z-../DPE11LB4C	352	65000	-	17	3050	2.8
11.5	4550	1.85	127.1	BG90Z-../DPE11LB4C	352	65000	-	14	3750	2.2
10.5	5000	1.7	139.2	BG90Z-../DPE11LB4C	352	65000	-	13	4000	2.1
9.0	5800	1.45	163.0	BG90Z-../DPE11LB4C	352	65000	-	11	4750	1.75
8.2	6400	1.3	178.5	BG90Z-../DPE11LB4C	352	65000	-	9.9	5300	1.6
7.1	7300	1.15	208.3	BG90Z-../DPE11LB4C	352	65000	-	8.5	6100	1.4
6.5	8000	1.05	228.1	BG90Z-../DPE11LB4C	352	65000	-	7.8	6700	1.25
5.6	8900	1.05	262.5	BG90G50-../DPE11LB4C	369	65000	-	6.8	7200	1.3
4.9	10400	0.88	298.8	BG90G50-../DPE11LB4C	369	65000	-	5.9	8600	1.05

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

P = 5.5 kW



50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
9.5	5500	3.1	154.8	BG100-../DPE11LB4C	469	90000	-	11.5	4550	3.7
8.2	6400	2.6	178.6	BG100-../DPE11LB4C	469	90000	-	9.9	5300	3.2
7.4	7000	2.4	198.8	BG100-../DPE11LB4C	469	90000	-	8.9	5900	2.8
6.3	8300	2.0	232.6	BG100-../DPE11LB4C	469	90000	-	7.6	6900	2.4
5.7	9200	1.85	259.0	BG100-../DPE11LB4C	469	90000	-	6.8	7700	2.2
5.5	9500	1.95	269.8	BG100Z-../DPE11LB4C	559	90000	-	6.6	7900	2.3
4.9	10700	1.75	300.4	BG100Z-../DPE11LB4C	559	90000	-	5.9	8900	2.1
4.3	12200	1.5	343.6	BG100Z-../DPE11LB4C	559	90000	-	5.2	10100	1.85
3.9	13400	1.4	382.6	BG100Z-../DPE11LB4C	559	90000	-	4.7	11100	1.65
3.2	16400	1.15	456.7	BG100Z-../DPE11LB4C	559	90000	-	3.9	13400	1.4
2.9	18100	1.0	508.5	BG100Z-../DPE11LB4C	559	90000	-	3.5	15000	1.25
2.5	21000	0.88	591.1	BG100Z-../DPE11LB4C	559	90000	-	3.0	17500	1.05
2.3	22800	0.81	658.1	BG100Z-../DPE11LB4C	559	90000	-	2.7	19400	0.95

P = 7.5 kW

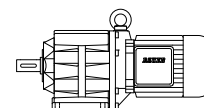
50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
600	119	2.6	2.47	BG50-../DPE13XA4	102	2900	-	720	99	3.1
415	172	2.0	3.55	BG50-../DPE13XA4	102	3300	-	500	143	2.4
300	235	1.7	4.91	BG50-../DPE13XA4	102	3500	-	360	198	2.0
245	290	1.55	6.07	BG50-../DPE13XA4	102	4700	-	290	245	1.8
220	325	1.4	6.74	BG50-../DPE13XA4	102	3750	-	265	270	1.65
168	425	1.2	8.70	BG50-../DPE13XA4	102	5300	-	205	345	1.45
152	470	1.1	9.65	BG50-../DPE13XA4	102	5600	-	183	390	1.35
122	580	0.99	12.06	BG50-../DPE13XA4	102	5700	-	146	490	1.2
110	650	0.91	13.36	BG50-../DPE13XA4	102	6100	-	132	540	1.1
295	240	2.9	4.98	BG60-../DPE13XA4	136	7800	-	355	200	3.4
240	295	2.6	6.16	BG60-../DPE13XA4	136	8500	-	290	245	3.2
215	330	2.4	6.88	BG60-../DPE13XA4	136	8600	-	260	275	2.8
160	445	2.0	9.13	BG60-../DPE13XA4	136	9800	-	193	370	2.4
145	490	1.85	10.12	BG60-../DPE13XA4	136	10200	-	174	410	2.2
121	590	1.7	12.16	BG60-../DPE13XA4	136	10800	-	145	490	2.0
109	650	1.55	13.47	BG60-../DPE13XA4	136	11200	-	131	540	1.9
87	820	1.35	16.80	BG60-../DPE13XA4	136	12000	-	105	680	1.65
79	900	1.25	18.62	BG60-../DPE13XA4	136	12400	-	95	750	1.55
66	1080	1.1	22.40	BG60-../DPE13XA4	136	13300	-	79	900	1.35
59	1210	0.99	24.82	BG60-../DPE13XA4	136	13800	-	71	1000	1.2
50	1430	0.84	29.31	BG60-../DPE13XA4	136	14800	-	61	1170	1.05
95	750	3.1	15.53	BG70-../DPE13XA4	166	12700	-	114	620	3.7
83	860	2.7	17.68	BG70-../DPE13XA4	166	13400	-	100	710	3.2
70	1020	2.3	20.98	BG70-../DPE13XA4	166	14600	-	84	850	2.7
64	1110	2.1	22.92	BG70-../DPE13XA4	166	15100	-	77	930	2.5
54	1320	1.75	27.21	BG70-../DPE13XA4	166	16400	-	65	1100	2.1
49.5	1440	1.6	29.69	BG70-../DPE13XA4	166	16900	-	60	1190	1.95
41.5	1720	1.35	35.24	BG70-../DPE13XA4	166	18300	-	50	1430	1.6
37.5	1910	1.2	39.22	BG70-../DPE13XA4	166	19100	-	45	1590	1.45
31.5	2250	1.0	46.54	BG70-../DPE13XA4	166	20000	-	38	1880	1.2
29	2450	0.94	50.40	BG70-../DPE13XA4	166	20000	-	35	2000	1.15
56	1270	3.3	26.44	BG80-../DPE13XA4	220	17900	-	67	1060	4.0
50	1430	2.9	29.36	BG80-../DPE13XA4	220	18900	-	60	1190	3.5

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

BG-series helical-geared motors

Selection helical-geared motors

P = 7.5 kW



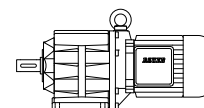
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
43	1660	2.5	34.22	BG80-../DPE13XA4	220	20200	-	52	1370	3.1
38.5	1860	2.3	38.00	BG80-../DPE13XA4	220	21300	-	46.5	1540	2.7
33.5	2100	2.0	43.94	BG80-../DPE13XA4	220	22600	-	40.5	1760	2.4
30	2350	1.8	48.80	BG80-../DPE13XA4	220	23800	-	36.5	1960	2.1
26	2750	1.55	57.24	BG80-../DPE13XA4	220	25400	-	31	2300	1.85
23	3100	1.35	63.56	BG80-../DPE13XA4	220	26000	-	28	2550	1.65
22	3250	1.3	66.40	BG80Z-../DPE13XA4	263	26000	-	27	2650	1.6
20	3550	1.2	73.73	BG80Z-../DPE13XA4	263	26000	-	24	2950	1.4
17.5	4050	1.05	84.55	BG80Z-../DPE13XA4	263	26000	-	21	3400	1.25
16	4450	0.94	93.89	BG80Z-../DPE13XA4	263	26000	-	19	3750	1.1
27.5	2600	3.2	53.46	BG90-../DPE13XA4	309	65000	-	33	2150	3.9
26	2750	2.5	57.04	BG90Z-../DPE13XA4	365	65000	-	31	2300	3.0
23.5	3000	2.5	62.47	BG90Z-../DPE13XA4	365	65000	-	28.5	2500	3.0
19.5	3650	2.3	76.61	BG90Z-../DPE13XA4	365	65000	-	23	3100	2.7
17.5	4050	2.1	83.91	BG90Z-../DPE13XA4	365	65000	-	21	3400	2.5
15.5	4600	1.85	96.53	BG90Z-../DPE13XA4	365	65000	-	18.5	3850	2.2
14	5100	1.65	105.7	BG90Z-../DPE13XA4	365	65000	-	17	4200	2.0
11.5	6200	1.35	127.1	BG90Z-../DPE13XA4	365	65000	-	14	5100	1.65
10.5	6800	1.25	139.2	BG90Z-../DPE13XA4	365	65000	-	13	5500	1.55
9.0	7900	1.05	163.0	BG90Z-../DPE13XA4	365	65000	-	11	6500	1.3
8.2	8700	0.97	178.5	BG90Z-../DPE13XA4	365	65000	-	9.9	7200	1.15
7.1	10000	0.84	208.3	BG90Z-../DPE13XA4	365	65000	-	8.5	8400	1.0
6.7	10300	0.89	219.9	BG90G50-../DPE13XA4	381	65000	-	8.1	8500	1.1
14	5100	3.3	107.5	BG100-../DPE13XA4	481	90000	-	16.5	4300	3.9
12.5	5700	2.9	119.7	BG100-../DPE13XA4	481	90000	-	15	4750	3.5
10.5	6800	2.5	139.1	BG100-../DPE13XA4	481	90000	-	13	5500	3.1
9.5	7500	2.2	154.8	BG100-../DPE13XA4	481	90000	-	11.5	6200	2.7
8.2	8700	1.95	178.6	BG100-../DPE13XA4	481	90000	-	9.9	7200	2.3
7.4	9600	1.75	198.8	BG100-../DPE13XA4	481	90000	-	8.9	8000	2.1
6.3	11300	1.5	232.6	BG100-../DPE13XA4	481	90000	-	7.6	9400	1.8
5.7	12500	1.35	259.0	BG100-../DPE13XA4	481	90000	-	6.8	10500	1.6
5.5	13000	1.4	269.8	BG100Z-../DPE13XA4	572	90000	-	6.6	10800	1.7
4.9	14600	1.25	300.4	BG100Z-../DPE13XA4	572	90000	-	5.9	12100	1.55
4.3	16600	1.1	343.6	BG100Z-../DPE13XA4	572	90000	-	5.2	13700	1.35
3.9	18300	1.0	382.6	BG100Z-../DPE13XA4	572	90000	-	4.7	15200	1.2
3.2	22300	0.83	456.7	BG100Z-../DPE13XA4	572	90000	-	3.9	18300	1.0

P = 9.5 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
600	151	2.0	2.47	BG50-../DPE16LB4	138	2900	-	720	126	2.4
415	215	1.6	3.55	BG50-../DPE16LB4	138	3300	-	500	181	1.9
300	300	1.35	4.91	BG50-../DPE16LB4	138	3500	-	365	245	1.6
245	370	1.2	6.07	BG50-../DPE16LB4	138	4700	-	295	305	1.45
220	410	1.1	6.74	BG50-../DPE16LB4	138	3750	-	265	340	1.3
169	530	0.96	8.70	BG50-../DPE16LB4	138	5300	-	205	440	1.15
153	590	0.89	9.65	BG50-../DPE16LB4	138	5600	-	184	490	1.05
395	225	2.7	3.74	BG60-../DPE16LB4	172	7100	-	475	191	3.2

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

P = 9.5 kW



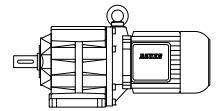
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
300	300	2.3	4.98	BG60-../DPE16LB4	172	7800	-	360	250	2.8
240	375	2.1	6.16	BG60-../DPE16LB4	172	8500	-	290	310	2.5
220	410	1.95	6.82	BG60-../DPE16LB4	172	8900	-	260	345	2.3
215	420	1.85	6.88	BG60-../DPE16LB4	172	8600	-	260	345	2.3
162	560	1.6	9.13	BG60-../DPE16LB4	172	9800	-	194	465	1.9
146	620	1.45	10.12	BG60-../DPE16LB4	172	10200	-	175	510	1.8
121	740	1.35	12.16	BG60-../DPE16LB4	172	10800	-	146	620	1.6
110	820	1.25	13.47	BG60-../DPE16LB4	172	11200	-	132	680	1.5
88	1030	1.1	16.80	BG60-../DPE16LB4	172	12000	-	106	850	1.3
79	1140	1.0	18.62	BG60-../DPE16LB4	172	12400	-	96	940	1.2
66	1370	0.88	22.40	BG60-../DPE16LB4	172	13300	-	80	1130	1.05
123	730	3.2	11.97	BG70-../DPE16LB4	206	11200	-	148	610	3.8
113	800	2.9	13.08	BG70-../DPE16LB4	206	11600	-	136	660	3.5
95	950	2.4	15.53	BG70-../DPE16LB4	206	12700	-	114	790	2.9
84	1080	2.1	17.68	BG70-../DPE16LB4	206	13400	-	101	890	2.6
71	1270	1.8	20.98	BG70-../DPE16LB4	206	14600	-	85	1060	2.2
65	1390	1.65	22.92	BG70-../DPE16LB4	206	15100	-	78	1160	2.0
55	1640	1.4	27.21	BG70-../DPE16LB4	206	16400	-	66	1370	1.7
50	1810	1.25	29.69	BG70-../DPE16LB4	206	16900	-	60	1510	1.5
42	2150	1.05	35.24	BG70-../DPE16LB4	206	18300	-	51	1770	1.3
37.5	2400	0.96	39.22	BG70-../DPE16LB4	206	19100	-	45.5	1990	1.15
32	2800	0.82	46.54	BG70-../DPE16LB4	206	20000	-	38.5	2350	0.98
67	1350	3.1	22.09	BG80-../DPE16LB4	256	16500	-	81	1120	3.8
56	1620	2.6	26.44	BG80-../DPE16LB4	256	17900	-	67	1350	3.1
51	1770	2.4	29.36	BG80-../DPE16LB4	256	18900	-	61	1480	2.8
43	2100	2.0	34.22	BG80-../DPE16LB4	256	20200	-	52	1740	2.4
39	2300	1.85	38.00	BG80-../DPE16LB4	256	21300	-	47	1930	2.2
33.5	2700	1.55	43.94	BG80-../DPE16LB4	256	22600	-	40.5	2200	1.9
30.5	2950	1.4	48.80	BG80-../DPE16LB4	256	23800	-	36.5	2450	1.7
26	3450	1.2	57.24	BG80-../DPE16LB4	256	25400	-	31	2900	1.45
23.5	3850	1.1	63.56	BG80-../DPE16LB4	256	26000	-	28	3200	1.3
22.5	4000	1.05	66.40	BG80Z-../DPE16LB4	299	26000	-	27	3350	1.25
20	4500	0.93	73.73	BG80Z-../DPE16LB4	299	26000	-	24.5	3700	1.15
17.5	5100	0.82	84.55	BG80Z-../DPE16LB4	299	26000	-	21	4300	0.98
35.5	2550	3.3	41.85	BG90-../DPE16LB4	346	65000	-	42.5	2100	4.0
30.5	2950	2.8	48.82	BG90-../DPE16LB4	346	65000	-	36.5	2450	3.4
27.5	3250	2.6	53.46	BG90-../DPE16LB4	346	65000	-	33.5	2700	3.1
26	3450	1.95	57.04	BG90Z-../DPE16LB4	405	65000	-	31.5	2850	2.4
24	3750	2.0	62.47	BG90Z-../DPE16LB4	405	65000	-	28.5	3150	2.4
19.5	4650	1.8	76.61	BG90Z-../DPE16LB4	405	65000	-	23.5	3850	2.2
18	5000	1.7	83.91	BG90Z-../DPE16LB4	405	65000	-	21.5	4200	2.0
15.5	5800	1.45	96.53	BG90Z-../DPE16LB4	405	65000	-	18.5	4900	1.7
14	6400	1.3	105.7	BG90Z-../DPE16LB4	405	65000	-	17	5300	1.6
12	7500	1.1	127.1	BG90Z-../DPE16LB4	405	65000	-	14	6400	1.3
11	8200	1.0	139.2	BG90Z-../DPE16LB4	405	65000	-	13	6900	1.2
9.1	9900	0.85	163.0	BG90Z-../DPE16LB4	405	65000	-	11	8200	1.0
16.5	5400	3.1	90.02	BG100-../DPE16LB4	516	90000	-	20	4500	3.7
14	6400	2.6	107.5	BG100-../DPE16LB4	516	90000	-	16.5	5400	3.1
12.5	7200	2.3	119.7	BG100-../DPE16LB4	516	90000	-	15	6000	2.8
11	8200	2.0	139.1	BG100-../DPE16LB4	516	90000	-	13	6900	2.4
9.5	9500	1.75	154.8	BG100-../DPE16LB4	516	90000	-	11.5	7800	2.2
8.3	10900	1.55	178.6	BG100-../DPE16LB4	516	90000	-	10	9000	1.85
7.4	12200	1.4	198.8	BG100-../DPE16LB4	516	90000	-	9.0	10000	1.7
6.4	14100	1.2	232.6	BG100-../DPE16LB4	516	90000	-	7.7	11700	1.45
5.7	15900	1.05	259.0	BG100-../DPE16LB4	516	90000	-	6.9	13100	1.3

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BG-series helical-geared motors

Selection helical-geared motors

P = 9.5 kW



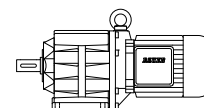
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
5.5	16400	1.15	269.8	BG100Z-../DPE16LB4	608	90000	-	6.6	13700	1.35
4.9	18500	1.0	300.4	BG100Z-../DPE16LB4	608	90000	-	5.9	15300	1.2
4.3	21000	0.88	343.6	BG100Z-../DPE16LB4	608	90000	-	5.2	17400	1.05
3.9	23200	0.8	382.6	BG100Z-../DPE16LB4	608	90000	-	4.7	19300	0.96

P = 11 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
600	175	1.75	2.47	BG50-../DPE16LB4	138	2900	-	720	145	2.1
415	250	1.4	3.55	BG50-../DPE16LB4	138	3300	-	500	210	1.65
300	350	1.15	4.91	BG50-../DPE16LB4	138	3500	-	365	285	1.4
245	425	1.05	6.07	BG50-../DPE16LB4	138	4700	-	295	355	1.25
220	475	0.95	6.74	BG50-../DPE16LB4	138	3750	-	265	395	1.15
169	620	0.82	8.70	BG50-../DPE16LB4	138	5300	-	205	510	1.0
590	178	3.0	2.52	BG60-../DPE16LB4	172	6200	-	710	147	3.6
395	265	2.3	3.74	BG60-../DPE16LB4	172	7100	-	475	220	2.8
300	350	1.95	4.98	BG60-../DPE16LB4	172	7800	-	360	290	2.4
240	435	1.75	6.16	BG60-../DPE16LB4	172	8500	-	290	360	2.1
220	475	1.7	6.82	BG60-../DPE16LB4	172	8900	-	260	400	2.0
215	485	1.6	6.88	BG60-../DPE16LB4	172	8600	-	260	400	1.95
162	640	1.4	9.13	BG60-../DPE16LB4	172	9800	-	194	540	1.65
146	710	1.3	10.12	BG60-../DPE16LB4	172	10200	-	175	600	1.5
121	860	1.15	12.16	BG60-../DPE16LB4	172	10800	-	146	710	1.4
110	950	1.05	13.47	BG60-../DPE16LB4	172	11200	-	132	790	1.3
88	1190	0.93	16.80	BG60-../DPE16LB4	172	12000	-	106	990	1.1
79	1320	0.87	18.62	BG60-../DPE16LB4	172	12400	-	96	1090	1.05
146	710	3.2	10.09	BG70-../DPE16LB4	206	10200	-	176	590	3.9
123	850	2.7	11.97	BG70-../DPE16LB4	206	11200	-	148	700	3.3
113	920	2.5	13.08	BG70-../DPE16LB4	206	11600	-	136	770	3.0
95	1100	2.1	15.53	BG70-../DPE16LB4	206	12700	-	114	920	2.5
84	1250	1.85	17.68	BG70-../DPE16LB4	206	13400	-	101	1040	2.2
71	1470	1.55	20.98	BG70-../DPE16LB4	206	14600	-	85	1230	1.85
65	1610	1.45	22.92	BG70-../DPE16LB4	206	15100	-	78	1340	1.7
55	1910	1.2	27.21	BG70-../DPE16LB4	206	16400	-	66	1590	1.45
50	2100	1.1	29.69	BG70-../DPE16LB4	206	16900	-	60	1750	1.3
42	2500	0.92	35.24	BG70-../DPE16LB4	206	18300	-	51	2050	1.1
37.5	2800	0.82	39.22	BG70-../DPE16LB4	206	19100	-	45.5	2300	1.0
74	1410	3.0	19.89	BG80-../DPE16LB4	256	15500	-	89	1180	3.6
67	1560	2.7	22.09	BG80-../DPE16LB4	256	16500	-	81	1290	3.3
56	1870	2.2	26.44	BG80-../DPE16LB4	256	17900	-	67	1560	2.7
51	2050	2.0	29.36	BG80-../DPE16LB4	256	18900	-	61	1720	2.4
43	2400	1.75	34.22	BG80-../DPE16LB4	256	20200	-	52	2000	2.1
39	2650	1.6	38.00	BG80-../DPE16LB4	256	21300	-	47	2200	1.9
33.5	3100	1.35	43.94	BG80-../DPE16LB4	256	22600	-	40.5	2550	1.65
30.5	3400	1.25	48.80	BG80-../DPE16LB4	256	23800	-	36.5	2850	1.45
26	4000	1.05	57.24	BG80-../DPE16LB4	256	25400	-	31	3350	1.25
23.5	4450	0.94	63.56	BG80-../DPE16LB4	256	26000	-	28	3750	1.1
22.5	4650	0.9	66.40	BG80Z-../DPE16LB4	299	26000	-	27	3850	1.1
20	5200	0.81	73.73	BG80Z-../DPE16LB4	299	26000	-	24.5	4250	0.99
38.5	2700	3.1	38.21	BG90-../DPE16LB4	346	65000	-	46.5	2250	3.7

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

P = 11 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
35.5	2950	2.8	41.85	BG90-../DPE16LB4	346	65000	-	42.5	2450	3.4
30.5	3400	2.5	48.82	BG90-../DPE16LB4	346	65000	-	36.5	2850	2.9
27.5	3800	2.2	53.46	BG90-../DPE16LB4	346	65000	-	33.5	3100	2.7
26	4000	1.7	57.04	BG90Z-../DPE16LB4	405	65000	-	31.5	3300	2.1
24	4350	1.7	62.47	BG90Z-../DPE16LB4	405	65000	-	28.5	3650	2.1
19.5	5300	1.6	76.61	BG90Z-../DPE16LB4	405	65000	-	23.5	4450	1.9
18	5800	1.45	83.91	BG90Z-../DPE16LB4	405	65000	-	21.5	4850	1.75
15.5	6700	1.25	96.53	BG90Z-../DPE16LB4	405	65000	-	18.5	5600	1.5
14	7500	1.1	105.7	BG90Z-../DPE16LB4	405	65000	-	17	6100	1.4
12	8700	0.97	127.1	BG90Z-../DPE16LB4	405	65000	-	14	7500	1.1
11	9500	0.88	139.2	BG90Z-../DPE16LB4	405	65000	-	13	8000	1.05
21	5000	3.2	70.69	BG100-../DPE16LB4	516	90000	-	25.5	4100	3.9
18.5	5600	3.0	80.85	BG100-../DPE16LB4	516	90000	-	22	4750	3.5
16.5	6300	2.7	90.02	BG100-../DPE16LB4	516	90000	-	20	5200	3.2
14	7500	2.2	107.5	BG100-../DPE16LB4	516	90000	-	16.5	6300	2.7
12.5	8400	2.0	119.7	BG100-../DPE16LB4	516	90000	-	15	7000	2.4
11	9500	1.75	139.1	BG100-../DPE16LB4	516	90000	-	13	8000	2.1
9.5	11000	1.55	154.8	BG100-../DPE16LB4	516	90000	-	11.5	9100	1.85
8.3	12600	1.35	178.6	BG100-../DPE16LB4	516	90000	-	10	10500	1.6
7.4	14100	1.2	198.8	BG100-../DPE16LB4	516	90000	-	9.0	11600	1.45
6.4	16400	1.0	232.6	BG100-../DPE16LB4	516	90000	-	7.7	13600	1.25
5.7	18400	0.91	259.0	BG100-../DPE16LB4	516	90000	-	6.9	15200	1.1
5.5	19100	0.97	269.8	BG100Z-../DPE16LB4	608	90000	-	6.6	15900	1.15
4.9	21400	0.86	300.4	BG100Z-../DPE16LB4	608	90000	-	5.9	17800	1.05

P = 15 kW

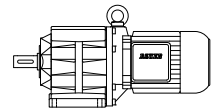
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
600	235	1.3	2.47	BG50-../DPE16XB4	148	2900	-	720	198	1.55
415	345	1.0	3.55	BG50-../DPE16XB4	148	3300	-	500	285	1.2
300	475	0.84	4.91	BG50-../DPE16XB4	148	3500	-	365	390	1.0
590	240	2.2	2.52	BG60-../DPE16XB4	182	6200	-	710	200	2.7
395	360	1.7	3.74	BG60-../DPE16XB4	182	7100	-	475	300	2.0
300	475	1.45	4.98	BG60-../DPE16XB4	182	7800	-	360	395	1.75
240	590	1.3	6.16	BG60-../DPE16XB4	182	8500	-	290	490	1.6
220	650	1.25	6.82	BG60-../DPE16XB4	182	8900	-	260	550	1.45
215	660	1.2	6.88	BG60-../DPE16XB4	182	8600	-	260	550	1.4
162	880	1.0	9.13	BG60-../DPE16XB4	182	9800	-	194	730	1.2
146	980	0.93	10.12	BG60-../DPE16XB4	182	10200	-	175	810	1.15
121	1180	0.84	12.16	BG60-../DPE16XB4	182	10800	-	146	980	1.0
210	680	3.2	7.14	BG70-../DPE16XB4	216	8800	-	250	570	3.8
174	820	2.8	8.48	BG70-../DPE16XB4	216	9500	-	210	680	3.4
146	980	2.3	10.09	BG70-../DPE16XB4	216	10200	-	176	810	2.8
123	1160	2.0	11.97	BG70-../DPE16XB4	216	11200	-	148	960	2.4
113	1260	1.85	13.08	BG70-../DPE16XB4	216	11600	-	136	1050	2.2
95	1500	1.55	15.53	BG70-../DPE16XB4	216	12700	-	114	1250	1.85
84	1700	1.35	17.68	BG70-../DPE16XB4	216	13400	-	101	1410	1.65
71	2000	1.15	20.98	BG70-../DPE16XB4	216	14600	-	85	1680	1.35
65	2200	1.05	22.92	BG70-../DPE16XB4	216	15100	-	78	1830	1.25
55	2600	0.88	27.21	BG70-../DPE16XB4	216	16400	-	66	2150	1.05

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BG-series helical-geared motors

Selection helical-geared motors

P = 15 kW



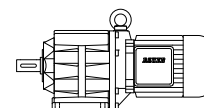
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
50	2850	0.81	29.69	BG70-../DPE16XB4	216	16900	-	60	2350	0.98
95	1500	2.8	15.62	BG80-../DPE16XB4	266	13700	-	114	1250	3.4
85	1680	2.5	17.35	BG80-../DPE16XB4	266	14600	-	103	1390	3.0
74	1930	2.2	19.89	BG80-../DPE16XB4	266	15500	-	89	1600	2.6
67	2100	2.0	22.09	BG80-../DPE16XB4	266	16500	-	81	1760	2.4
56	2550	1.65	26.44	BG80-../DPE16XB4	266	17900	-	67	2100	2.0
51	2800	1.5	29.36	BG80-../DPE16XB4	266	18900	-	61	2300	1.85
43	3300	1.25	34.22	BG80-../DPE16XB4	266	20200	-	52	2750	1.55
39	3650	1.15	38.00	BG80-../DPE16XB4	266	21300	-	47	3000	1.4
33.5	4250	0.99	43.94	BG80-../DPE16XB4	266	22600	-	40.5	3500	1.2
30.5	4650	0.9	48.80	BG80-../DPE16XB4	266	23800	-	36.5	3900	1.1
49.5	2850	2.9	29.78	BG90-../DPE16XB4	356	65000	-	60	2350	3.6
45.5	3100	2.7	32.62	BG90-../DPE16XB4	356	65000	-	55	2600	3.2
38.5	3700	2.3	38.21	BG90-../DPE16XB4	356	65000	-	46.5	3050	2.8
35.5	4000	2.1	41.85	BG90-../DPE16XB4	356	65000	-	42.5	3350	2.5
30.5	4650	1.8	48.82	BG90-../DPE16XB4	356	65000	-	36.5	3900	2.2
27.5	5200	1.6	53.46	BG90-../DPE16XB4	356	65000	-	33.5	4250	2.0
26	5500	1.25	57.04	BG90Z-../DPE16XB4	415	65000	-	31.5	4500	1.5
24	5900	1.25	62.47	BG90Z-../DPE16XB4	415	65000	-	28.5	5000	1.5
19.5	7300	1.15	76.61	BG90Z-../DPE16XB4	415	65000	-	23.5	6000	1.4
18	7900	1.05	83.91	BG90Z-../DPE16XB4	415	65000	-	21.5	6600	1.25
15.5	9200	0.91	96.53	BG90Z-../DPE16XB4	415	65000	-	18.5	7700	1.1
14	10200	0.82	105.7	BG90Z-../DPE16XB4	415	65000	-	17	8400	1.0
32	4450	3.2	46.43	BG100-../DPE16XB4	526	90000	-	38.5	3700	3.8
28.5	5000	2.9	51.70	BG100-../DPE16XB4	526	90000	-	34.5	4150	3.5
23.5	6000	2.6	63.49	BG100-../DPE16XB4	526	90000	-	28	5100	3.0
21	6800	2.3	70.69	BG100-../DPE16XB4	526	90000	-	25.5	5600	2.8
18.5	7700	2.1	80.85	BG100-../DPE16XB4	526	90000	-	22	6500	2.5
16.5	8600	1.95	90.02	BG100-../DPE16XB4	526	90000	-	20	7100	2.4
14	10200	1.65	107.5	BG100-../DPE16XB4	526	90000	-	16.5	8600	1.95
12.5	11400	1.45	119.7	BG100-../DPE16XB4	526	90000	-	15	9500	1.75
11	13000	1.3	139.1	BG100-../DPE16XB4	526	90000	-	13	11000	1.55
9.5	15000	1.1	154.8	BG100-../DPE16XB4	526	90000	-	11.5	12400	1.35
8.3	17200	0.98	178.6	BG100-../DPE16XB4	526	90000	-	10	14300	1.15
7.4	19300	0.87	198.8	BG100-../DPE16XB4	526	90000	-	9.0	15900	1.05

P = 18.5 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
600	290	1.05	2.47	BG50-../DPE18LB4	200	2900	-	720	245	1.25
415	425	0.82	3.55	BG50-../DPE18LB4	200	3300	-	500	350	0.99
590	295	1.8	2.52	BG60-../DPE18LB4	229	6200	-	710	245	2.2
395	445	1.4	3.74	BG60-../DPE18LB4	229	7100	-	475	370	1.65
300	580	1.2	4.98	BG60-../DPE18LB4	229	7800	-	360	490	1.4
215	820	0.95	6.88	BG60-../DPE18LB4	229	8600	-	260	670	1.15
162	1090	0.81	9.13	BG60-../DPE18LB4	229	9800	-	194	910	0.98
300	580	2.6	4.95	BG70-../DPE18LB4	257	6900	-	360	490	3.1
255	690	2.5	5.87	BG70-../DPE18LB4	257	8200	-	305	570	3.1
210	840	2.6	7.14	BG70-../DPE18LB4	257	8800	-	250	700	3.1

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

P = 18.5 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
174	1010	2.3	8.48	BG70-../DPE18LB4	257	9500	-	210	840	2.7
146	1210	1.9	10.09	BG70-../DPE18LB4	257	10200	-	176	1000	2.3
123	1430	1.6	11.97	BG70-../DPE18LB4	257	11200	-	148	1190	1.95
113	1560	1.45	13.08	BG70-../DPE18LB4	257	11600	-	136	1290	1.8
95	1850	1.25	15.53	BG70-../DPE18LB4	257	12700	-	114	1540	1.5
84	2100	1.1	17.68	BG70-../DPE18LB4	257	13400	-	101	1740	1.3
71	2450	0.94	20.98	BG70-../DPE18LB4	257	14600	-	85	2050	1.1
65	2700	0.85	22.92	BG70-../DPE18LB4	257	15100	-	78	2250	1.0
129	1360	3.1	11.43	BG80-../DPE18LB4	311	11600	-	155	1130	3.7
116	1520	2.8	12.69	BG80-../DPE18LB4	311	12400	-	140	1260	3.3
95	1850	2.3	15.62	BG80-../DPE18LB4	311	13700	-	114	1540	2.7
85	2050	2.0	17.35	BG80-../DPE18LB4	311	14600	-	103	1710	2.5
74	2350	1.8	19.89	BG80-../DPE18LB4	311	15500	-	89	1980	2.1
67	2600	1.6	22.09	BG80-../DPE18LB4	311	16500	-	81	2150	1.95
56	3150	1.35	26.44	BG80-../DPE18LB4	311	17900	-	67	2600	1.6
51	3450	1.2	29.36	BG80-../DPE18LB4	311	18900	-	61	2850	1.45
43	4100	1.0	34.22	BG80-../DPE18LB4	311	20200	-	52	3350	1.25
39	4500	0.93	38.00	BG80-../DPE18LB4	311	21300	-	47	3750	1.1
33.5	5200	0.81	43.94	BG80-../DPE18LB4	311	22600	-	40.5	4350	0.97
65	2700	3.1	22.62	BG90-../DPE18LB4	402	65000	-	79	2200	3.8
60	2900	2.9	24.78	BG90-../DPE18LB4	402	65000	-	72	2450	3.4
49.5	3550	2.4	29.78	BG90-../DPE18LB4	402	65000	-	60	2900	2.9
45.5	3850	2.2	32.62	BG90-../DPE18LB4	402	65000	-	55	3200	2.6
38.5	4550	1.85	38.21	BG90-../DPE18LB4	402	65000	-	46.5	3750	2.2
35.5	4950	1.7	41.85	BG90-../DPE18LB4	402	65000	-	42.5	4150	2.0
30.5	5700	1.45	48.82	BG90-../DPE18LB4	402	65000	-	36.5	4800	1.75
27.5	6400	1.3	53.46	BG90-../DPE18LB4	402	65000	-	33.5	5200	1.6
26	6700	1.0	57.04	BG90Z-../DPE18LB4	456	65000	-	31.5	5600	1.2
24	7300	1.05	62.47	BG90Z-../DPE18LB4	456	65000	-	28.5	6100	1.25
19.5	9000	0.93	76.61	BG90Z-../DPE18LB4	456	65000	-	23.5	7500	1.1
18	9800	0.86	83.91	BG90Z-../DPE18LB4	456	65000	-	21.5	8200	1.0
44	4000	3.2	33.71	BG100-../DPE18LB4	572	88500	-	53	3300	3.9
39.5	4450	3.0	37.54	BG100-../DPE18LB4	572	90000	-	47.5	3700	3.6
32	5500	2.6	46.43	BG100-../DPE18LB4	572	90000	-	38.5	4550	3.1
28.5	6100	2.4	51.70	BG100-../DPE18LB4	572	90000	-	34.5	5100	2.8
23.5	7500	2.1	63.49	BG100-../DPE18LB4	572	90000	-	28	6300	2.4
21	8400	1.9	70.69	BG100-../DPE18LB4	572	90000	-	25.5	6900	2.3
18.5	9500	1.75	80.85	BG100-../DPE18LB4	572	90000	-	22	8000	2.1
16.5	10700	1.55	90.02	BG100-../DPE18LB4	572	90000	-	20	8800	1.9
14	12600	1.35	107.5	BG100-../DPE18LB4	572	90000	-	16.5	10700	1.55
12.5	14100	1.2	119.7	BG100-../DPE18LB4	572	90000	-	15	11700	1.45
11	16000	1.05	139.1	BG100-../DPE18LB4	572	90000	-	13	13500	1.25
9.5	18500	0.91	154.8	BG100-../DPE18LB4	572	90000	-	11.5	15300	1.1

P = 22 kW

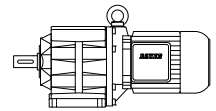
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
300	700	2.1	4.95	BG70-../DPE18XB4	275	6900	-	360	580	2.6
255	820	2.1	5.87	BG70-../DPE18XB4	275	8200	-	305	680	2.6
210	1000	2.2	7.14	BG70-../DPE18XB4	275	8800	-	250	840	2.6
174	1200	1.9	8.48	BG70-../DPE18XB4	275	9500	-	210	1000	2.3

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

BG-series helical-geared motors

Selection helical-geared motors

P = 22 kW



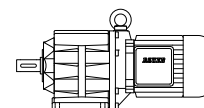
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
146	1430	1.6	10.09	BG70-../DPE18XB4	275	10200	-	176	1190	1.95
123	1700	1.35	11.97	BG70-../DPE18XB4	275	11200	-	148	1410	1.65
113	1850	1.25	13.08	BG70-../DPE18XB4	275	11600	-	136	1540	1.5
95	2200	1.05	15.53	BG70-../DPE18XB4	275	12700	-	114	1840	1.25
84	2500	0.92	17.68	BG70-../DPE18XB4	275	13400	-	101	2050	1.1
250	840	3.2	5.94	BG80-../DPE18XB4	329	8300	-	300	700	3.8
225	930	3.2	6.60	BG80-../DPE18XB4	329	9100	-	270	770	3.8
178	1180	3.2	8.30	BG80-../DPE18XB4	329	10400	-	215	970	3.9
160	1310	3.0	9.21	BG80-../DPE18XB4	329	10800	-	193	1080	3.6
129	1620	2.6	11.43	BG80-../DPE18XB4	329	11600	-	155	1350	3.1
116	1810	2.3	12.69	BG80-../DPE18XB4	329	12400	-	140	1500	2.8
95	2200	1.9	15.62	BG80-../DPE18XB4	329	13700	-	114	1840	2.3
85	2450	1.7	17.35	BG80-../DPE18XB4	329	14600	-	103	2000	2.1
74	2800	1.5	19.89	BG80-../DPE18XB4	329	15500	-	89	2350	1.8
67	3100	1.35	22.09	BG80-../DPE18XB4	329	16500	-	81	2550	1.65
56	3750	1.1	26.44	BG80-../DPE18XB4	329	17900	-	67	3100	1.35
51	4100	1.0	29.36	BG80-../DPE18XB4	329	18900	-	61	3400	1.25
43	4850	0.87	34.22	BG80-../DPE18XB4	329	20200	-	52	4000	1.05
82	2550	3.2	17.96	BG90-../DPE18XB4	420	59800	-	99	2100	3.9
75	2800	3.0	19.67	BG90-../DPE18XB4	420	62400	-	90	2300	3.7
65	3200	2.6	22.62	BG90-../DPE18XB4	420	65000	-	79	2650	3.2
60	3500	2.4	24.78	BG90-../DPE18XB4	420	65000	-	72	2900	2.9
49.5	4200	2.0	29.78	BG90-../DPE18XB4	420	65000	-	60	3500	2.4
45.5	4600	1.85	32.62	BG90-../DPE18XB4	420	65000	-	55	3800	2.2
38.5	5400	1.55	38.21	BG90-../DPE18XB4	420	65000	-	46.5	4500	1.85
35.5	5900	1.4	41.85	BG90-../DPE18XB4	420	65000	-	42.5	4900	1.7
30.5	6800	1.25	48.82	BG90-../DPE18XB4	420	65000	-	36.5	5700	1.45
27.5	7600	1.1	53.46	BG90-../DPE18XB4	420	65000	-	33.5	6200	1.35
26	8000	0.85	57.04	BG90Z-../DPE18XB4	474	65000	-	31.5	6600	1.05
24	8700	0.86	62.47	BG90Z-../DPE18XB4	474	65000	-	28.5	7300	1.05
44	4750	2.7	33.71	BG100-../DPE18XB4	590	88500	-	53	3950	3.3
39.5	5300	2.5	37.54	BG100-../DPE18XB4	590	90000	-	47.5	4400	3.0
32	6500	2.2	46.43	BG100-../DPE18XB4	590	90000	-	38.5	5400	2.6
28.5	7300	2.0	51.70	BG100-../DPE18XB4	590	90000	-	34.5	6000	2.4
23.5	8900	1.75	63.49	BG100-../DPE18XB4	590	90000	-	28	7500	2.1
21	10000	1.6	70.69	BG100-../DPE18XB4	590	90000	-	25.5	8200	1.95
18.5	11300	1.45	80.85	BG100-../DPE18XB4	590	90000	-	22	9500	1.75
16.5	12700	1.3	90.02	BG100-../DPE18XB4	590	90000	-	20	10500	1.6
14	15000	1.1	107.5	BG100-../DPE18XB4	590	90000	-	16.5	12700	1.3
12.5	16800	1.0	119.7	BG100-../DPE18XB4	590	90000	-	15	14000	1.2
11	19100	0.88	139.1	BG100-../DPE18XB4	590	90000	-	13	16100	1.05

P = 30 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
300	950	1.55	4.95	BG70-../DPE20LA4	430	6900	-	365	780	1.9
255	1120	1.55	5.87	BG70-../DPE20LA4	430	8200	-	305	930	1.9
210	1360	1.6	7.14	BG70-../DPE20LA4	430	8800	-	255	1120	1.95
175	1630	1.4	8.48	BG70-../DPE20LA4	430	9500	-	215	1330	1.7
147	1940	1.2	10.09	BG70-../DPE20LA4	430	10200	-	178	1600	1.45
124	2300	1.0	11.97	BG70-../DPE20LA4	430	11200	-	150	1910	1.2

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

P = 30 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
114	2500	0.92	13.08	BG70-../DPE20LA4	430	11600	-	137	2050	1.1
250	1140	2.3	5.94	BG80-../DPE20LA4	482	8300	-	305	930	2.8
225	1270	2.3	6.60	BG80-../DPE20LA4	482	9100	-	275	1040	2.8
179	1600	2.4	8.30	BG80-../DPE20LA4	482	10400	-	220	1300	2.9
161	1770	2.2	9.21	BG80-../DPE20LA4	482	10800	-	195	1460	2.7
130	2200	1.9	11.43	BG80-../DPE20LA4	482	11600	-	157	1820	2.3
117	2400	1.75	12.69	BG80-../DPE20LA4	482	12400	-	142	2000	2.1
95	3000	1.4	15.62	BG80-../DPE20LA4	482	13700	-	115	2450	1.7
86	3300	1.25	17.35	BG80-../DPE20LA4	482	14600	-	104	2750	1.55
75	3800	1.1	19.89	BG80-../DPE20LA4	482	15500	-	90	3150	1.35
67	4250	0.99	22.09	BG80-../DPE20LA4	482	16500	-	82	3450	1.2
56	5100	0.82	26.44	BG80-../DPE20LA4	482	17900	-	68	4200	1.0
136	2100	3.3	10.90	BG90-../DPE20LA4	574	52300	-	165	1730	4.1
111	2550	2.9	13.37	BG90-../DPE20LA4	574	55000	-	134	2100	3.6
102	2800	2.8	14.64	BG90-../DPE20LA4	574	57000	-	123	2300	3.4
83	3450	2.4	17.96	BG90-../DPE20LA4	574	59800	-	100	2850	2.9
76	3750	2.2	19.67	BG90-../DPE20LA4	574	62400	-	92	3100	2.7
66	4300	1.95	22.62	BG90-../DPE20LA4	574	65000	-	80	3550	2.4
60	4750	1.75	24.78	BG90-../DPE20LA4	574	65000	-	73	3900	2.2
50	5700	1.45	29.78	BG90-../DPE20LA4	574	65000	-	61	4650	1.8
45.5	6200	1.35	32.62	BG90-../DPE20LA4	574	65000	-	55	5200	1.6
39	7300	1.15	38.21	BG90-../DPE20LA4	574	65000	-	47	6000	1.4
35.5	8000	1.05	41.85	BG90-../DPE20LA4	574	65000	-	43	6600	1.25
30.5	9300	0.9	48.82	BG90-../DPE20LA4	574	65000	-	37	7700	1.1
28	10200	0.82	53.46	BG90-../DPE20LA4	574	65000	-	33.5	8500	0.99
119	2400	3.0	12.45	BG100-../DPE20LA4	743	72100	-	144	1980	3.7
86	3300	3.1	17.39	BG100-../DPE20LA4	743	82400	-	103	2750	3.7
62	4600	2.4	23.95	BG100-../DPE20LA4	743	87900	-	75	3800	3.0
44	6500	2.0	33.71	BG100-../DPE20LA4	743	88500	-	54	5300	2.4
39.5	7200	1.85	37.54	BG100-../DPE20LA4	743	90000	-	48	5900	2.2
32	8900	1.6	46.43	BG100-../DPE20LA4	743	90000	-	39	7300	1.95
29	9800	1.45	51.70	BG100-../DPE20LA4	743	90000	-	35	8100	1.8
23.5	12100	1.25	63.49	BG100-../DPE20LA4	743	90000	-	28.5	10000	1.55
21	13600	1.15	70.69	BG100-../DPE20LA4	743	90000	-	25.5	11200	1.4
18.5	15400	1.05	80.85	BG100-../DPE20LA4	743	90000	-	22.5	12700	1.3
16.5	17300	0.97	90.02	BG100-../DPE20LA4	743	90000	-	20	14300	1.15
14	20400	0.82	107.5	BG100-../DPE20LA4	743	90000	-	17	16800	1.0

P = 37 kW

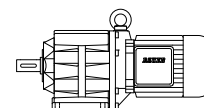
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
300	1170	1.3	4.95	BG70-../DPE22SA4	429	6900	-	365	960	1.55
255	1380	1.25	5.87	BG70-../DPE22SA4	429	8200	-	305	1150	1.55
210	1680	1.3	7.14	BG70-../DPE22SA4	429	8800	-	255	1380	1.55
175	2000	1.15	8.48	BG70-../DPE22SA4	429	9500	-	215	1640	1.4
250	1410	1.9	5.94	BG80-../DPE22SA4	481	8300	-	305	1150	2.3
225	1570	1.9	6.60	BG80-../DPE22SA4	481	9100	-	275	1280	2.3
179	1970	1.9	8.30	BG80-../DPE22SA4	481	10400	-	220	1600	2.4
161	2150	1.85	9.21	BG80-../DPE22SA4	481	10800	-	195	1810	2.2
130	2700	1.55	11.43	BG80-../DPE22SA4	481	11600	-	157	2250	1.85
117	3000	1.4	12.69	BG80-../DPE22SA4	481	12400	-	142	2450	1.7

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

BG-series helical-geared motors

Selection helical-geared motors

P = 37 kW

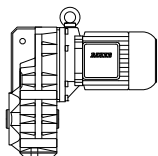


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
95	3700	1.15	15.62	BG80-../DPE22SA4	481	13700	-	115	3050	1.4
86	4100	1.0	17.35	BG80-../DPE22SA4	481	14600	-	104	3350	1.25
186	1890	3.3	7.97	BG90-../DPE22SA4	573	47900	-	225	1570	4.0
149	2350	2.9	9.95	BG90-../DPE22SA4	573	50500	-	180	1960	3.5
136	2550	2.7	10.90	BG90-../DPE22SA4	573	52300	-	165	2100	3.3
111	3150	2.4	13.37	BG90-../DPE22SA4	573	55000	-	134	2600	2.9
102	3450	2.2	14.64	BG90-../DPE22SA4	573	57000	-	123	2850	2.7
83	4250	1.95	17.96	BG90-../DPE22SA4	573	59800	-	100	3500	2.4
76	4600	1.85	19.67	BG90-../DPE22SA4	573	62400	-	92	3800	2.2
66	5300	1.6	22.62	BG90-../DPE22SA4	573	65000	-	80	4400	1.9
60	5800	1.45	24.78	BG90-../DPE22SA4	573	65000	-	73	4800	1.75
50	7000	1.2	29.78	BG90-../DPE22SA4	573	65000	-	61	5700	1.45
45.5	7700	1.1	32.62	BG90-../DPE22SA4	573	65000	-	55	6400	1.3
119	2950	2.5	12.45	BG100-../DPE22SA4	742	72100	-	144	2450	3.0
86	4100	2.5	17.39	BG100-../DPE22SA4	742	82400	-	103	3400	3.0
62	5600	2.0	23.95	BG100-../DPE22SA4	742	87900	-	75	4700	2.4
44	8000	1.6	33.71	BG100-../DPE22SA4	742	88500	-	54	6500	2.0
39.5	8900	1.5	37.54	BG100-../DPE22SA4	742	90000	-	48	7300	1.8
32	11000	1.3	46.43	BG100-../DPE22SA4	742	90000	-	39	9000	1.55
29	12100	1.2	51.70	BG100-../DPE22SA4	742	90000	-	35	10000	1.45
23.5	15000	1.05	63.49	BG100-../DPE22SA4	742	90000	-	28.5	12300	1.25

P = 45 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
250	1710	1.55	5.94	BG80-../DPE22MA4	538	8300	-	305	1400	1.9
225	1910	1.55	6.60	BG80-../DPE22MA4	538	9100	-	275	1560	1.9
179	2400	1.55	8.30	BG80-../DPE22MA4	538	10400	-	220	1950	1.95
161	2650	1.5	9.21	BG80-../DPE22MA4	538	10800	-	195	2200	1.8
130	3300	1.25	11.43	BG80-../DPE22MA4	538	11600	-	157	2700	1.55
117	3650	1.15	12.69	BG80-../DPE22MA4	538	12400	-	142	3000	1.4
230	1860	3.2	6.46	BG90-../DPE22MA4	630	44200	-	280	1530	3.9
205	2050	3.0	7.28	BG90-../DPE22MA4	630	46300	-	250	1710	3.6
186	2300	2.7	7.97	BG90-../DPE22MA4	630	47900	-	225	1910	3.3
149	2850	2.4	9.95	BG90-../DPE22MA4	630	50500	-	180	2350	2.9
136	3150	2.2	10.90	BG90-../DPE22MA4	630	52300	-	165	2600	2.7
111	3850	1.95	13.37	BG90-../DPE22MA4	630	55000	-	134	3200	2.3
102	4200	1.85	14.64	BG90-../DPE22MA4	630	57000	-	123	3450	2.2
83	5100	1.6	17.96	BG90-../DPE22MA4	630	59800	-	100	4250	1.95
76	5600	1.5	19.67	BG90-../DPE22MA4	630	62400	-	92	4650	1.8
66	6500	1.3	22.62	BG90-../DPE22MA4	630	65000	-	80	5300	1.6
60	7100	1.2	24.78	BG90-../DPE22MA4	630	65000	-	73	5800	1.45
119	3600	2.0	12.45	BG100-../DPE22MA4	799	72100	-	144	2950	2.5
86	4950	2.0	17.39	BG100-../DPE22MA4	799	82400	-	103	4150	2.4
62	6900	1.65	23.95	BG100-../DPE22MA4	799	87900	-	75	5700	1.95
44	9700	1.35	33.71	BG100-../DPE22MA4	799	88500	-	54	7900	1.65
39.5	10800	1.2	37.54	BG100-../DPE22MA4	799	90000	-	48	8900	1.5
32	13400	1.05	46.43	BG100-../DPE22MA4	799	90000	-	39	11000	1.3

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.



Page

**BF-series shaft-mounted geared motors
Selection**

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Description of shaft mounted-geared units

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

BF-series shaft-mounted geared motors

Description of shaft-mounted gear units

Sizes

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

Bauer service factors (f_B) for shaft-mounted geared 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 $Z \leq 1/h$

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
I		0,8	1,0	1,2
II		1,05	1,25	1,45
III		1,45	1,55	1,7

Switching duty

Factor f_2 for shock classification and switching frequency

Switching frequency in single- shift operation $t_d \leq 8$ h/d

Shock classification	$1 < Z \leq 100$	$100 < Z \leq 1000$	$1000 < Z$
I	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	$1 < Z \leq 100$	$100 < Z \leq 1000$	$1000 < Z$
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:

- $F_I \leq 1,3$
- $M_x/M_N \leq 1,0$
- Shock-absorbing power transmission components (e.g. highly resilient, zero-play coupling, $\varphi N \geq 5^\circ$)

BF-series shaft-mounted geared motors

Description of shaft-mounted gear units

Shock classification II:

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

- $1,3 < FI \leq 4$
- $1 < M_x/M_N \leq 1,6$
- Shock-neutral power transmission components (e.g. gear wheels, zero-play rigid coupling or resilient coupling with $\varphi_N < 5^\circ$)

Shock classification III:

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

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

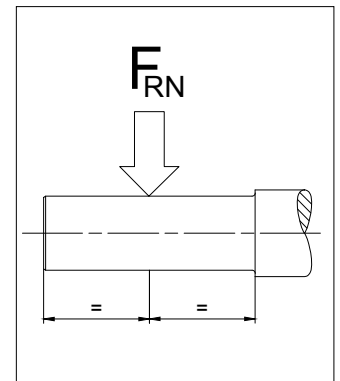
Key to abbreviations

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 (kgm^2)
J_{rot}	Mass moment of inertia of the motor rotor (kgm^2)
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
n_2	Rated speed of the output shaft
i	Gear reduction ratio
M_2	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)



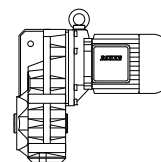
Use the selection tables to determine the size of geared motor required. The codes clearly define the Type of gear unit and output shaft (see chapter 11 „dimensional drawings shaft-mounted gear motors“).

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



P = 0.12 kW

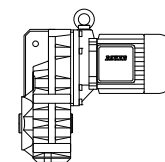
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
150	7.6	9.2	9.21	BF06-../DPE05LA4	10	1900	-	182	6.2	11
115	9.9	7.6	12.07	BF06-../DPE05LA4	10	2000	-	139	8.2	9.1
98	11.6	7.3	14.21	BF06-../DPE05LA4	10	2100	-	118	9.7	8.8
82	13.9	6.8	16.99	BF06-../DPE05LA4	10	2500	-	99	11.5	8.3
68	16.8	5.7	20.42	BF06-../DPE05LA4	10	2700	-	82	13.9	6.8
52	22	4.3	26.76	BF06-../DPE05LA4	10	3000	-	63	18.1	5.2
44	26	3.7	31.50	BF06-../DPE05LA4	10	3200	-	54	21	4.5
37	30.5	3.1	37.69	BF06-../DPE05LA4	10	3500	-	44.5	25.5	3.7
30	38	2.5	46.14	BF06-../DPE05LA4	10	3800	-	36.5	31	3.1
24	47.5	2.0	58.33	BF06-../DPE05LA4	10	4000	-	29	39.5	2.4
21	54	1.75	66.82	BF06-../DPE05LA4	10	4000	-	25	45.5	2.1
17	67	1.4	83.61	BF06-../DPE05LA4	10	4000	-	20	57	1.65
15	76	1.25	95.16	BF06-../DPE05LA4	10	4000	-	18	63	1.5
12.5	91	0.89	110.8	BF06-../DPE05LA4	10	4000	-	15.5	73	1.1
15.5	73	3.3	90.91	BF10-../DPE06LA4	23	5400	-	18.5	61	3.9
14	81	3.0	99.97	BF10-../DPE06LA4	23	5600	-	17	67	3.6
12.5	91	2.6	112.3	BF10-../DPE06LA4	23	5900	-	15	76	3.2
11.5	99	2.4	123.5	BF10-../DPE06LA4	23	6100	-	14	81	3.0
11	104	2.3	128.9	BF10-../DPE06LA4	23	6200	-	13	88	2.7
9.8	116	2.1	141.8	BF10-../DPE06LA4	23	6400	-	12	95	2.5
9.2	124	1.95	151.2	BF10Z-../DPE06LA4	24	6400	-	11.5	99	2.4
8.4	136	1.75	166.2	BF10Z-../DPE06LA4	24	6400	-	10.5	109	2.2
7.7	148	1.6	180.1	BF10Z-../DPE06LA4	24	6400	-	9.3	123	1.95
7.0	163	1.45	198.0	BF10Z-../DPE06LA4	24	6400	-	8.5	134	1.8
6.5	176	1.35	214.5	BF10Z-../DPE06LA4	24	6400	-	7.8	146	1.65
5.9	194	1.25	235.8	BF10Z-../DPE06LA4	24	6400	-	7.1	161	1.5
5.4	210	1.15	257.4	BF10Z-../DPE06LA4	24	6400	-	6.5	176	1.35
4.9	230	1.05	283.1	BF10Z-../DPE06LA4	24	6400	-	5.9	194	1.25
4.3	265	0.91	324.3	BF10Z-../DPE06LA4	24	6400	-	5.2	220	1.1
3.9	290	0.83	356.6	BF10Z-../DPE06LA4	24	6400	-	4.7	240	1.0
3.7	265	0.98	377.9	BF10G06-../DPE06LA4	28	6400	-	4.5	210	1.25
3.3	300	0.87	424.5	BF10G06-../DPE06LA4	28	6400	-	4.0	240	1.1
2.6	260*	1.0	536.0	BF10G06-../DPE06LA4	28	6400	-	3.2	260	1.0
2.2	260*	1.0	643.8	BF10G06-../DPE06LA4	28	6400	-	2.6	260	1.0
1.8	260*	1.0	768.2	BF10G06-../DPE06LA4	28	6400	-	2.2	260	1.0
1.7	260*	1.0	845.1	BF10G06-../DPE06LA4	28	6400	-	2.0	260	1.0
1.4	260*	1.0	994.0	BF10G06-../DPE06LA4	28	6400	-	1.7	260	1.0
1.2	260*	1.0	1190	BF10G06-../DPE06LA4	28	6400	-	1.5	260	1.0
1.0	260*	1.0	1452	BF10G06-../DPE06LA4	28	6400	-	1.2	260	1.0
0.8	260*	1.0	1744	BF10G06-../DPE06LA4	28	6400	-	1.0	260	1.0
0.7	260*	1.0	2096	BF10G06-../DPE06LA4	28	6400	-	0.8	260	1.0
0.6	260*	1.0	2467	BF10G06-../DPE06LA4	28	6400	-	0.7	260	1.0
0.47	260*	1.0	2952	BF10G06-../DPE06LA4	28	6400	-	0.6	260	1.0
0.43	260*	1.0	3220	BF10G06-../DPE06LA4	28	6400	-	0.55	260	1.0
0.36	260*	1.0	3942	BF10G06-../DPE06LA4	28	6400	-	0.43	260	1.0
0.31	260*	1.0	4569	BF10G06-../DPE06LA4	28	6400	-	0.37	260	1.0
0.25	260*	1.0	5709	BF10G06-../DPE06LA4	28	6400	-	0.3	260	1.0
0.22	260*	1.0	6550	BF10G06-../DPE06LA4	28	6400	-	0.26	260	1.0
0.2	260*	1.0	7144	BF10G06-../DPE06LA4	28	6400	-	0.24	260	1.0
0.16	260*	1.0	8681	BF10G06-../DPE06LA4	28	6400	-	0.2	260	1.0
0.15	260*	1.0	9471	BF10G06-../DPE06LA4	28	6400	-	0.18	260	1.0
8.9	128	3.3	155.4	BF20Z-../DPE06LA4	31	7900	-	11	104	4.0
8.4	136	3.1	164.3	BF20Z-../DPE06LA4	31	7900	-	10.5	109	3.9
7.7	148	2.8	180.8	BF20Z-../DPE06LA4	31	7900	-	9.3	123	3.4
7.1	161	2.6	197.1	BF20Z-../DPE06LA4	31	7900	-	8.5	134	3.1
6.4	179	2.3	216.9	BF20Z-../DPE06LA4	31	7900	-	7.7	148	2.8
5.9	194	2.2	235.9	BF20Z-../DPE06LA4	31	7900	-	7.1	161	2.6
5.4	210	2.0	259.6	BF20Z-../DPE06LA4	31	7900	-	6.5	176	2.4

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



BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



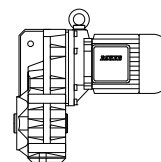
P = 0.12 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
4.7	240	1.75	295.5	BF20Z-../DPE06LA4	31	7900	-	5.7	200	2.1
4.3	265	1.6	325.2	BF20Z-../DPE06LA4	31	7900	-	5.2	220	1.9
4.1	275	1.55	339.1	BF20Z-../DPE06LA4	31	7900	-	5.0	225	1.85
3.7	305	1.4	373.1	BF20Z-../DPE06LA4	31	7900	-	4.5	250	1.7
3.4	335	1.25	418.1	BF20Z-../DPE06LA4	31	7900	-	4.0	285	1.45
3.0	380	1.1	460.0	BF20Z-../DPE06LA4	31	7900	-	3.7	305	1.4
2.7	370	1.25	513.7	BF20G06-../DPE06LA4	34	7900	-	3.3	290	1.6
2.3	435	1.05	617.0	BF20G06-../DPE06LA4	34	7900	-	2.8	345	1.35
1.9	540	0.85	736.1	BF20G06-../DPE06LA4	34	7900	-	2.3	435	1.05
1.8	570	0.81	810.0	BF20G06-../DPE06LA4	34	7900	-	2.1	480	0.96
1.5	460*	1.0	952.7	BF20G06-../DPE06LA4	34	7900	-	1.8	460	1.0
1.3	460*	1.0	1140	BF20G06-../DPE06LA4	34	7900	-	1.5	460	1.0
1.0	460*	1.0	1392	BF20G06-../DPE06LA4	34	7900	-	1.2	460	1.0
0.95	460*	1.0	1533	BF20G06-../DPE06LA4	34	7900	-	1.1	460	1.0
0.8	460*	1.0	1764	BF20G06-../DPE06LA4	34	7900	-	0.95	460	1.0
0.65	460*	1.0	2192	BF20G06-../DPE06LA4	34	7900	-	0.8	460	1.0
0.55	460*	1.0	2579	BF20G06-../DPE06LA4	34	7900	-	0.65	460	1.0
0.49	460*	1.0	2829	BF20G06-../DPE06LA4	34	7900	-	0.6	460	1.0
0.45	460*	1.0	3086	BF20G06-../DPE06LA4	34	7900	-	0.55	460	1.0
0.37	460*	1.0	3778	BF20G06-../DPE06LA4	34	7900	-	0.45	460	1.0
0.32	460*	1.0	4379	BF20G06-../DPE06LA4	34	7900	-	0.39	460	1.0
0.26	460*	1.0	5471	BF20G06-../DPE06LA4	34	7900	-	0.31	460	1.0
0.21	460*	1.0	6847	BF20G06-../DPE06LA4	34	7900	-	0.25	460	1.0
0.17	460*	1.0	8320	BF20G06-../DPE06LA4	34	7900	-	0.21	460	1.0
0.16	460*	1.0	9077	BF20G06-../DPE06LA4	34	7900	-	0.19	460	1.0
6.2	184	3.1	224.8	BF30Z-../DPE06LA4	42	7400	-	7.5	152	3.8
5.6	200	2.9	247.3	BF30Z-../DPE06LA4	42	7400	-	6.8	168	3.4
5.3	215	2.7	263.5	BF30Z-../DPE06LA4	42	7400	-	6.4	179	3.2
4.8	235	2.4	289.8	BF30Z-../DPE06LA4	42	7400	-	5.8	197	2.9
4.5	250	2.3	310.7	BF30Z-../DPE06LA4	42	7400	-	5.4	210	2.7
4.1	275	2.1	341.8	BF30Z-../DPE06LA4	42	7400	-	4.9	230	2.5
3.7	305	1.9	375.1	BF30Z-../DPE06LA4	42	7400	-	4.5	250	2.3
3.4	335	1.7	412.6	BF30Z-../DPE06LA4	42	7400	-	4.1	275	2.1
3.0	380	1.5	463.3	BF30Z-../DPE06LA4	42	7400	-	3.7	305	1.9
2.8	405	1.4	509.6	BF30Z-../DPE06LA4	42	7400	-	3.3	345	1.65
2.6	440	1.3	537.0	BF30Z-../DPE06LA4	42	7400	-	3.2	355	1.6
2.4	475	1.2	590.7	BF30Z-../DPE06LA4	42	7400	-	2.9	395	1.45
2.3	435	1.45	622.4	BF30G06-../DPE06LA4	45	7400	-	2.7	360	1.75
2.0	510	1.25	705.1	BF30G06-../DPE06LA4	45	7400	-	2.4	420	1.5
1.7	600	1.05	817.1	BF30G06-../DPE06LA4	45	7400	-	2.1	475	1.35
1.5	690	0.91	961.1	BF30G06-../DPE06LA4	45	7400	-	1.8	560	1.15
1.2	630*	1.0	1150	BF30G06-../DPE06LA4	45	7400	-	1.5	630	1.0
1.1	630*	1.0	1286	BF30G06-../DPE06LA4	45	7400	-	1.3	630	1.0
1.0	630*	1.0	1404	BF30G06-../DPE06LA4	45	7400	-	1.2	630	1.0
0.85	630*	1.0	1686	BF30G06-../DPE06LA4	45	7400	-	1.0	630	1.0
0.7	630*	1.0	2026	BF30G06-../DPE06LA4	45	7400	-	0.85	630	1.0
0.6	630*	1.0	2386	BF30G06-../DPE06LA4	45	7400	-	0.7	630	1.0
0.49	630*	1.0	2854	BF30G06-../DPE06LA4	45	7400	-	0.6	630	1.0
0.4	630*	1.0	3493	BF30G06-../DPE06LA4	45	7400	-	0.48	630	1.0
0.37	630*	1.0	3811	BF30G06-../DPE06LA4	45	7400	-	0.44	630	1.0
0.32	630*	1.0	4417	BF30G06-../DPE06LA4	45	7400	-	0.38	630	1.0
0.28	630*	1.0	5060	BF30G06-../DPE06LA4	45	7400	-	0.34	630	1.0
0.22	630*	1.0	6333	BF30G06-../DPE06LA4	45	7400	-	0.27	630	1.0
0.2	630*	1.0	7206	BF30G06-../DPE06LA4	45	7400	-	0.24	630	1.0
0.18	630*	1.0	7861	BF30G06-../DPE06LA4	45	7400	-	0.22	630	1.0
0.16	630*	1.0	9157	BF30G06-../DPE06LA4	45	7400	-	0.19	630	1.0
4.0	285	3.2	346.8	BF40Z-../DPE06LA4	53	10600	-	4.9	230	3.9
3.7	305	3.0	381.5	BF40Z-../DPE06LA4	53	10600	-	4.4	260	3.5

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



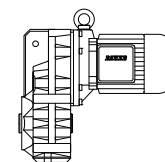
P = 0.12 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
3.4	335	2.7	417.3	BF40Z-../DPE06LA4	53	10600	-	4.1	275	3.3
3.1	365	2.5	459.1	BF40Z-../DPE06LA4	53	10600	-	3.7	305	3.0
2.7	420	2.1	514.6	BF40Z-../DPE06LA4	53	10600	-	3.3	345	2.6
2.5	455	2.0	566.1	BF40Z-../DPE06LA4	53	10600	-	3.0	380	2.4
1.9	395	2.5	731.6	BF40G10-../DPE06LA4	58	10600	-	2.3	290	3.4
1.5	540	1.85	928.9	BF40G10-../DPE06LA4	58	10600	-	1.8	410	2.4
1.3	640	1.55	1106	BF40G10-../DPE06LA4	58	10600	-	1.6	475	2.1
1.1	800	1.25	1324	BF40G10-../DPE06LA4	58	10600	-	1.3	640	1.55
0.95	940	1.05	1484	BF40G10-../DPE06LA4	58	10600	-	1.2	690	1.45
0.8	1000*	1.0	1810	BF40G10-../DPE06LA4	58	10600	-	0.95	1000	1.0
0.7	1000*	1.0	1997	BF40G10-../DPE06LA4	58	10600	-	0.85	1000	1.0
0.55	1000*	1.0	2536	BF40G10-../DPE06LA4	58	10600	-	0.7	1000	1.0
0.5	1000*	1.0	2810	BF40G10-../DPE06LA4	58	10600	-	0.6	1000	1.0
0.42	1000*	1.0	3346	BF40G10-../DPE06LA4	58	10600	-	0.5	1000	1.0
0.35	1000*	1.0	3985	BF40G10-../DPE06LA4	58	10600	-	0.42	1000	1.0
0.29	1000*	1.0	4784	BF40G10-../DPE06LA4	58	10600	-	0.35	1000	1.0
0.26	1000*	1.0	5439	BF40G10-../DPE06LA4	58	10600	-	0.31	1000	1.0
0.22	1000*	1.0	6377	BF40G10-../DPE06LA4	58	10600	-	0.27	1000	1.0
0.18	1000*	1.0	7875	BF40G10-../DPE06LA4	58	10600	-	0.22	1000	1.0
0.16	1000*	1.0	9042	BF40G10-../DPE06LA4	58	10600	-	0.19	1000	1.0
2.8	405	3.2	496.4	BF50Z-../DPE06LA4	82	13600	-	3.4	335	3.9
2.5	455	2.9	555.2	BF50Z-../DPE06LA4	82	13600	-	3.1	365	3.6
1.6	500	2.8	864.5	BF50G10-../DPE06LA4	86	13600	-	2.0	365	3.8
1.4	590	2.4	1029	BF50G10-../DPE06LA4	86	13600	-	1.7	445	3.1
1.2	740	1.9	1203	BF50G10-../DPE06LA4	86	13600	-	1.4	600	2.3
1.1	800	1.75	1359	BF50G10-../DPE06LA4	86	13600	-	1.3	640	2.2
0.95	930	1.5	1520	BF50G10-../DPE06LA4	86	13600	-	1.1	770	1.8
0.85	1060	1.3	1684	BF50G10-../DPE06LA4	86	13600	-	1.0	860	1.65
0.7	1330	1.05	2059	BF50G10-../DPE06LA4	86	13600	-	0.85	1040	1.35
0.6	1400*	1.0	2360	BF50G10-../DPE06LA4	86	13600	-	0.75	1400	1.0
0.5	1400*	1.0	2810	BF50G10-../DPE06LA4	86	13600	-	0.6	1400	1.0
0.42	1400*	1.0	3348	BF50G10-../DPE06LA4	86	13600	-	0.5	1400	1.0
0.35	1400*	1.0	4019	BF50G10-../DPE06LA4	86	13600	-	0.42	1400	1.0
0.28	1400*	1.0	5062	BF50G10-../DPE06LA4	86	13600	-	0.33	1400	1.0
0.24	1400*	1.0	5935	BF50G10-../DPE06LA4	86	13600	-	0.29	1400	1.0
0.19	1400*	1.0	7329	BF50G10-../DPE06LA4	86	13600	-	0.23	1400	1.0
0.17	1400*	1.0	8120	BF50G10-../DPE06LA4	86	13600	-	0.21	1400	1.0
0.15	1400*	1.0	9324	BF50G10-../DPE06LA4	86	13600	-	0.18	1400	1.0
0.95	820	3.0	1494	BF60G20-../DPE06LA4	134	15300	43300	1.2	570	4.4
0.85	920	2.7	1658	BF60G20-../DPE06LA4	134	15300	43300	1.1	620	4.0
0.75	1080	2.3	1955	BF60G20-../DPE06LA4	134	15300	43300	0.9	820	3.0
0.65	1300	1.9	2172	BF60G20-../DPE06LA4	134	15300	43300	0.8	970	2.6
0.5	1790	1.4	2781	BF60G20-../DPE06LA4	134	15300	43300	0.65	1260	2.0
0.43	2150	1.15	3237	BF60G20-../DPE06LA4	134	15300	43300	0.55	1580	1.6
0.36	2500*	1.0	3883	BF60G20-../DPE06LA4	134	15300	43300	0.44	2500	1.0
0.3	2500*	1.0	4646	BF60G20-../DPE06LA4	134	15300	43300	0.36	2500	1.0
0.27	2500*	1.0	5241	BF60G20-../DPE06LA4	134	15300	43300	0.32	2500	1.0
0.23	2500*	1.0	6014	BF60G20-../DPE06LA4	134	15300	43300	0.28	2500	1.0
0.21	2500*	1.0	6679	BF60G20-../DPE06LA4	134	15300	43300	0.26	2500	1.0
0.17	2500*	1.0	8235	BF60G20-../DPE06LA4	134	15300	43300	0.21	2500	1.0
0.49	1840	3.1	2849	BF70G20-../DPE06LA4	212	16100	47700	0.6	1410	4.0
0.41	2300	2.5	3417	BF70G20-../DPE06LA4	212	16100	47700	0.49	1840	3.1
0.34	2850	2.0	4090	BF70G20-../DPE06LA4	212	16100	47700	0.41	2300	2.5
0.31	3200	1.8	4542	BF70G20-../DPE06LA4	212	16100	47700	0.37	2600	2.2
0.27	3750	1.5	5124	BF70G20-../DPE06LA4	212	16100	47700	0.33	2950	1.95
0.25	4050	1.4	5691	BF70G20-../DPE06LA4	212	16100	47700	0.3	3300	1.75
0.22	4700	1.2	6530	BF70G20-../DPE06LA4	212	16100	47700	0.26	3900	1.45

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



P = 0.12 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
0.2	5200	1.1	7248	BF70G20-../DPE06LA4	212	16100	47700	0.24	4250	1.35
0.18	5700*	1.0	8052	BF70G20-../DPE06LA4	212	16100	47700	0.21	5700	1.0

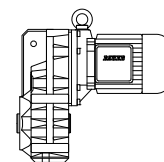
P = 0.18 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
181	9.4	7.2	7.66	BF06-../DPE07LA4	14	1800	-	220	7.8	8.7
150	11.4	6.1	9.21	BF06-../DPE07LA4	14	1900	-	182	9.4	7.4
115	14.9	5.0	12.07	BF06-../DPE07LA4	14	2000	-	139	12.3	6.1
98	17.5	4.9	14.21	BF06-../DPE07LA4	14	2100	-	118	14.5	5.9
82	20.5	4.6	16.99	BF06-../DPE07LA4	14	2500	-	99	17.3	5.5
68	25	3.8	20.42	BF06-../DPE07LA4	14	2700	-	82	20.5	4.6
52	33	2.9	26.76	BF06-../DPE07LA4	14	3000	-	63	27	3.5
44	39	2.4	31.50	BF06-../DPE07LA4	14	3200	-	54	31.5	3.0
37	46	2.1	37.69	BF06-../DPE07LA4	14	3500	-	44.5	38.5	2.5
30	57	1.65	46.14	BF06-../DPE07LA4	14	3800	-	36.5	47	2.0
24	71	1.35	58.33	BF06-../DPE07LA4	14	4000	-	29	59	1.6
21	81	1.15	66.82	BF06-../DPE07LA4	14	4000	-	25	68	1.4
17	101	0.94	83.61	BF06-../DPE07LA4	14	4000	-	20	85	1.1
15	114	0.83	95.16	BF06-../DPE07LA4	14	4000	-	18	95	1.0
22.5	76	3.2	61.55	BF10-../DPE07LA4	26	4700	-	27.5	62	3.9
20.5	83	2.9	67.69	BF10-../DPE07LA4	26	4900	-	25	68	3.5
18	95	2.5	77.55	BF10-../DPE07LA4	26	5100	-	22	78	3.1
16.5	104	2.3	85.27	BF10-../DPE07LA4	26	5300	-	20	85	2.8
15.5	110	2.2	90.91	BF10-../DPE07LA4	26	5400	-	18.5	92	2.6
14	122	1.95	99.97	BF10-../DPE07LA4	26	5600	-	17	101	2.4
12.5	137	1.75	112.3	BF10-../DPE07LA4	26	5900	-	15	114	2.1
11.5	149	1.6	123.5	BF10-../DPE07LA4	26	6100	-	14	122	1.95
11	156	1.55	128.9	BF10-../DPE07LA4	26	6200	-	13	132	1.8
9.8	175	1.35	141.8	BF10-../DPE07LA4	26	6400	-	12	143	1.7
9.2	186	1.3	151.2	BF10Z-../DPE07LA4	27	6400	-	11.5	149	1.6
8.4	200	1.2	166.2	BF10Z-../DPE07LA4	27	6400	-	10.5	163	1.45
7.7	220	1.1	180.1	BF10Z-../DPE07LA4	27	6400	-	9.3	184	1.3
7.0	245	0.98	198.0	BF10Z-../DPE07LA4	27	6400	-	8.5	200	1.2
6.5	260	0.92	214.5	BF10Z-../DPE07LA4	27	6400	-	7.8	220	1.1
5.9	290	0.83	235.8	BF10Z-../DPE07LA4	27	6400	-	7.1	240	1.0
13	132	3.2	110.2	BF20-../DPE07LA4	32	7300	-	15.5	110	3.8
11.5	149	2.8	123.5	BF20-../DPE07LA4	32	7600	-	14	122	3.4
10.5	163	2.6	135.9	BF20-../DPE07LA4	32	7900	-	12.5	137	3.1
9.8	175	2.4	141.2	BF20Z-../DPE07LA4	34	7900	-	12	143	2.9
8.9	193	2.2	155.4	BF20Z-../DPE07LA4	34	7900	-	11	156	2.7
8.4	200	2.1	164.3	BF20Z-../DPE07LA4	34	7900	-	10.5	163	2.6
7.7	220	1.9	180.8	BF20Z-../DPE07LA4	34	7900	-	9.3	184	2.3
7.1	240	1.75	197.1	BF20Z-../DPE07LA4	34	7900	-	8.5	200	2.1
6.4	265	1.6	216.9	BF20Z-../DPE07LA4	34	7900	-	7.7	220	1.9
5.9	290	1.45	235.9	BF20Z-../DPE07LA4	34	7900	-	7.1	240	1.75
5.4	315	1.35	259.6	BF20Z-../DPE07LA4	34	7900	-	6.5	260	1.6
4.7	365	1.15	295.5	BF20Z-../DPE07LA4	34	7900	-	5.7	300	1.4
4.3	395	1.05	325.2	BF20Z-../DPE07LA4	34	7900	-	5.2	330	1.25
4.1	415	1.0	339.1	BF20Z-../DPE07LA4	34	7900	-	5.0	340	1.25

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



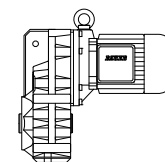
P = 0.18 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
3.7	460	0.91	373.1	BF20Z-../DPE07LA4	34	7900	-	4.5	380	1.1
3.4	500	0.84	418.1	BF20Z-../DPE07LA4	34	7900	-	4.0	425	0.99
9.2	186	3.1	150.7	BF30Z-../DPE07LA4	45	7400	-	11.5	149	3.9
8.4	200	2.9	165.8	BF30Z-../DPE07LA4	45	7400	-	10.5	163	3.5
7.9	215	2.7	176.6	BF30Z-../DPE07LA4	45	7400	-	9.5	180	3.2
7.2	235	2.4	194.3	BF30Z-../DPE07LA4	45	7400	-	8.6	199	2.9
6.2	275	2.1	224.8	BF30Z-../DPE07LA4	45	7400	-	7.5	225	2.6
5.6	305	1.9	247.3	BF30Z-../DPE07LA4	45	7400	-	6.8	250	2.3
5.3	320	1.8	263.5	BF30Z-../DPE07LA4	45	7400	-	6.4	265	2.2
4.8	355	1.6	289.8	BF30Z-../DPE07LA4	45	7400	-	5.8	295	1.95
4.5	380	1.5	310.7	BF30Z-../DPE07LA4	45	7400	-	5.4	315	1.85
4.1	415	1.4	341.8	BF30Z-../DPE07LA4	45	7400	-	4.9	350	1.65
3.7	460	1.25	375.1	BF30Z-../DPE07LA4	45	7400	-	4.5	380	1.5
3.4	500	1.15	412.6	BF30Z-../DPE07LA4	45	7400	-	4.1	415	1.4
3.0	570	1.0	463.3	BF30Z-../DPE07LA4	45	7400	-	3.7	460	1.25
2.8	610	0.94	509.6	BF30Z-../DPE07LA4	45	7400	-	3.3	520	1.1
2.6	660	0.87	537.0	BF30Z-../DPE07LA4	45	7400	-	3.2	530	1.1
2.4	710	0.81	590.7	BF30Z-../DPE07LA4	45	7400	-	2.9	590	0.97
2.3	680	0.93	622.4	BF30G06-../DPE07LA4	47	7400	-	2.7	570	1.1
6.3	270	3.3	222.4	BF40Z-../DPE07LA4	55	10600	-	7.6	225	4.0
5.5	310	2.9	253.2	BF40Z-../DPE07LA4	55	10600	-	6.6	260	3.5
5.0	340	2.6	278.5	BF40Z-../DPE07LA4	55	10600	-	6.0	285	3.2
4.7	365	2.5	295.1	BF40Z-../DPE07LA4	55	10600	-	5.7	300	3.0
4.3	395	2.3	324.7	BF40Z-../DPE07LA4	55	10600	-	5.2	330	2.7
4.0	425	2.1	346.8	BF40Z-../DPE07LA4	55	10600	-	4.9	350	2.6
3.7	460	1.95	381.5	BF40Z-../DPE07LA4	55	10600	-	4.4	390	2.3
3.4	500	1.8	417.3	BF40Z-../DPE07LA4	55	10600	-	4.1	415	2.2
3.1	550	1.65	459.1	BF40Z-../DPE07LA4	55	10600	-	3.7	460	1.95
2.7	630	1.45	514.6	BF40Z-../DPE07LA4	55	10600	-	3.3	520	1.75
2.5	680	1.3	566.1	BF40Z-../DPE07LA4	55	10600	-	3.0	570	1.6
2.4	520	1.9	597.3	BF40G10-../DPE07LA4	61	10600	-	2.8	425	2.4
1.9	690	1.45	731.6	BF40G10-../DPE07LA4	61	10600	-	2.3	540	1.85
1.5	920	1.1	928.9	BF40G10-../DPE07LA4	61	10600	-	1.8	730	1.35
1.3	1080	0.93	1106	BF40G10-../DPE07LA4	61	10600	-	1.6	830	1.2
4.4	390	3.3	316.6	BF50Z-../DPE07LA4	85	13600	-	5.3	320	4.1
3.9	440	3.0	354.0	BF50Z-../DPE07LA4	85	13600	-	4.8	355	3.7
3.6	475	2.7	392.8	BF50Z-../DPE07LA4	85	13600	-	4.3	395	3.3
3.2	530	2.5	439.3	BF50Z-../DPE07LA4	85	13600	-	3.9	440	3.0
2.8	610	2.1	496.4	BF50Z-../DPE07LA4	85	13600	-	3.4	500	2.6
2.5	680	1.9	555.2	BF50Z-../DPE07LA4	85	13600	-	3.1	550	2.4
2.1	620	2.3	680.9	BF50G10-../DPE07LA4	89	13600	-	2.5	495	2.8
1.6	860	1.65	864.5	BF50G10-../DPE07LA4	89	13600	-	2.0	650	2.2
1.4	1000	1.4	1029	BF50G10-../DPE07LA4	89	13600	-	1.7	780	1.8
1.2	1220	1.15	1203	BF50G10-../DPE07LA4	89	13600	-	1.4	1010	1.4
1.1	1320	1.05	1359	BF50G10-../DPE07LA4	89	13600	-	1.3	1080	1.3
1.5	870	2.9	937.6	BF60G20-../DPE07LA4	136	15300	43300	1.8	670	3.7
1.2	1120	2.2	1211	BF60G20-../DPE07LA4	136	15300	43300	1.4	920	2.7
0.95	1430	1.75	1494	BF60G20-../DPE07LA4	136	15300	43300	1.2	1050	2.4
0.85	1600	1.55	1658	BF60G20-../DPE07LA4	136	15300	43300	1.1	1140	2.2
0.75	1840	1.35	1955	BF60G20-../DPE07LA4	136	15300	43300	0.9	1460	1.7
0.65	2150	1.15	2172	BF60G20-../DPE07LA4	136	15300	43300	0.8	1680	1.5
0.75	1850	3.1	1912	BF70G20-../DPE07LA4	215	16100	47700	0.9	1470	3.9
0.6	2350	2.4	2448	BF70G20-../DPE07LA4	215	16100	47700	0.7	1970	2.9
0.49	3000	1.9	2849	BF70G20-../DPE07LA4	215	16100	47700	0.6	2350	2.4

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



P = 0.18 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
0.41	3700	1.55	3417	BF70G20-../DPE07LA4	215	16100	47700	0.49	3000	1.9
0.34	4550	1.25	4090	BF70G20-../DPE07LA4	215	16100	47700	0.41	3700	1.55
0.31	5000	1.15	4542	BF70G20-../DPE07LA4	215	16100	47700	0.37	4150	1.35

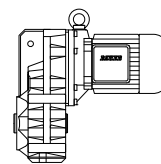
P = 0.25 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
250	9.5	6.5	5.72	BF06-../DPE08MA4	16	1600	-	300	7.9	7.8
186	12.8	5.3	7.66	BF06-../DPE08MA4	16	1800	-	225	10.6	6.4
155	15.4	4.5	9.21	BF06-../DPE08MA4	16	1900	-	186	12.8	5.5
118	20	3.8	12.07	BF06-../DPE08MA4	16	2000	-	142	16.8	4.5
100	23.5	3.6	14.21	BF06-../DPE08MA4	16	2100	-	121	19.7	4.3
84	28	3.4	16.99	BF06-../DPE08MA4	16	2500	-	101	23.5	4.0
70	34	2.8	20.42	BF06-../DPE08MA4	16	2700	-	84	28	3.4
54	44	2.2	26.76	BF06-../DPE08MA4	16	3000	-	64	37	2.6
45.5	52	1.85	31.50	BF06-../DPE08MA4	16	3200	-	55	43	2.2
38	62	1.55	37.69	BF06-../DPE08MA4	16	3500	-	45.5	52	1.85
31	77	1.25	46.14	BF06-../DPE08MA4	16	3800	-	37.5	63	1.5
24.5	97	0.98	58.33	BF06-../DPE08MA4	16	4000	-	29.5	80	1.2
21.5	111	0.86	66.82	BF06-../DPE08MA4	16	4000	-	26	91	1.05
33	72	3.3	43.06	BF10-../DPE08MA4	27	4100	-	40	59	4.1
30	79	3.0	47.35	BF10-../DPE08MA4	27	4250	-	36.5	65	3.7
28	85	2.8	51.28	BF10-../DPE08MA4	27	4400	-	33.5	71	3.4
25.5	93	2.6	56.39	BF10-../DPE08MA4	27	4550	-	30.5	78	3.1
23.5	101	2.4	61.55	BF10-../DPE08MA4	27	4700	-	28	85	2.8
21	113	2.1	67.69	BF10-../DPE08MA4	27	4900	-	25.5	93	2.6
18.5	129	1.85	77.55	BF10-../DPE08MA4	27	5100	-	22.5	106	2.3
17	140	1.7	85.27	BF10-../DPE08MA4	27	5300	-	20.5	116	2.1
16	149	1.6	90.91	BF10-../DPE08MA4	27	5400	-	19	125	1.9
14.5	164	1.45	99.97	BF10-../DPE08MA4	27	5600	-	17.5	136	1.75
13	183	1.3	112.3	BF10-../DPE08MA4	27	5900	-	15.5	154	1.55
11.5	205	1.15	123.5	BF10-../DPE08MA4	27	6100	-	14	170	1.4
9.4	250	0.96	151.2	BF10Z-../DPE08MA4	28	6400	-	11.5	205	1.15
8.6	275	0.87	166.2	BF10Z-../DPE08MA4	28	6400	-	10.5	225	1.05
7.9	300	0.8	180.1	BF10Z-../DPE08MA4	28	6400	-	9.5	250	0.96
16.5	144	2.9	87.31	BF20-../DPE08MA4	33	6600	-	20	119	3.5
14.5	164	2.6	100.2	BF20-../DPE08MA4	33	7000	-	17.5	136	3.1
13	183	2.3	110.2	BF20-../DPE08MA4	33	7300	-	16	149	2.8
11.5	205	2.0	123.5	BF20-../DPE08MA4	33	7600	-	14	170	2.5
10.5	225	1.85	135.9	BF20-../DPE08MA4	33	7900	-	13	183	2.3
9.2	255	1.65	155.4	BF20Z-../DPE08MA4	35	7900	-	11.5	205	2.0
8.7	270	1.55	164.3	BF20Z-../DPE08MA4	35	7900	-	10.5	225	1.85
7.9	300	1.4	180.8	BF20Z-../DPE08MA4	35	7900	-	9.5	250	1.7
7.3	325	1.3	197.1	BF20Z-../DPE08MA4	35	7900	-	8.7	270	1.55
6.6	360	1.15	216.9	BF20Z-../DPE08MA4	35	7900	-	7.9	300	1.4
6.1	390	1.1	235.9	BF20Z-../DPE08MA4	35	7900	-	7.3	325	1.3
5.5	430	0.98	259.6	BF20Z-../DPE08MA4	35	7900	-	6.6	360	1.15
4.9	485	0.87	295.5	BF20Z-../DPE08MA4	35	7900	-	5.8	410	1.0
13.5	176	3.3	107.6	BF30-../DPE08MA4	43	6700	-	16	149	3.9

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



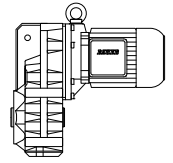
P = 0.25 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
12.5	191	3.0	118.3	BF30-../DPE08MA4	43	7000	-	14.5	164	3.5
11.5	205	2.8	124.7	BF30-../DPE08MA4	43	7100	-	14	170	3.4
10.5	225	2.6	137.1	BF30-../DPE08MA4	43	7400	-	12.5	191	3.0
9.5	250	2.3	150.7	BF30Z-../DPE08MA4	46	7400	-	11.5	205	2.8
8.6	275	2.1	165.8	BF30Z-../DPE08MA4	46	7400	-	10.5	225	2.6
8.1	290	2.0	176.6	BF30Z-../DPE08MA4	46	7400	-	9.7	245	2.3
7.4	320	1.8	194.3	BF30Z-../DPE08MA4	46	7400	-	8.9	265	2.2
6.4	370	1.55	224.8	BF30Z-../DPE08MA4	46	7400	-	7.7	310	1.85
5.8	410	1.4	247.3	BF30Z-../DPE08MA4	46	7400	-	7.0	340	1.7
5.4	440	1.3	263.5	BF30Z-../DPE08MA4	46	7400	-	6.5	365	1.6
4.9	485	1.2	289.8	BF30Z-../DPE08MA4	46	7400	-	6.0	395	1.45
4.6	510	1.15	310.7	BF30Z-../DPE08MA4	46	7400	-	5.6	425	1.35
4.2	560	1.05	341.8	BF30Z-../DPE08MA4	46	7400	-	5.1	465	1.25
3.8	620	0.93	375.1	BF30Z-../DPE08MA4	46	7400	-	4.6	510	1.15
3.5	680	0.85	412.6	BF30Z-../DPE08MA4	46	7400	-	4.2	560	1.05
8.3	285	3.2	171.2	BF40Z-../DPE08MA4	56	10600	-	10	235	3.8
7.6	310	2.9	188.3	BF40Z-../DPE08MA4	56	10600	-	9.1	260	3.5
7.1	335	2.7	202.2	BF40Z-../DPE08MA4	56	10600	-	8.5	280	3.2
6.4	370	2.4	222.4	BF40Z-../DPE08MA4	56	10600	-	7.7	310	2.9
5.7	415	2.2	253.2	BF40Z-../DPE08MA4	56	10600	-	6.8	350	2.6
5.1	465	1.95	278.5	BF40Z-../DPE08MA4	56	10600	-	6.2	385	2.3
4.9	485	1.85	295.1	BF40Z-../DPE08MA4	56	10600	-	5.8	410	2.2
4.4	540	1.65	324.7	BF40Z-../DPE08MA4	56	10600	-	5.3	450	2.0
4.1	580	1.55	346.8	BF40Z-../DPE08MA4	56	10600	-	5.0	475	1.9
3.8	620	1.45	381.5	BF40Z-../DPE08MA4	56	10600	-	4.5	530	1.7
3.5	680	1.3	417.3	BF40Z-../DPE08MA4	56	10600	-	4.1	580	1.55
3.1	770	1.15	459.1	BF40Z-../DPE08MA4	56	10600	-	3.8	620	1.45
2.8	850	1.05	514.6	BF40Z-../DPE08MA4	56	10600	-	3.4	700	1.3
2.6	910	0.99	566.1	BF40Z-../DPE08MA4	56	10600	-	3.1	770	1.15
2.4	800	1.25	597.3	BF40G10-../DPE08MA4	62	10600	-	2.9	630	1.6
2.0	980	1.0	731.6	BF40G10-../DPE08MA4	62	10600	-	2.4	780	1.3
5.8	410	3.2	247.5	BF50Z-../DPE08MA4	86	13600	-	7.0	340	3.8
5.2	455	2.9	276.8	BF50Z-../DPE08MA4	86	13600	-	6.2	385	3.4
4.5	530	2.5	316.6	BF50Z-../DPE08MA4	86	13600	-	5.5	430	3.0
4.1	580	2.2	354.0	BF50Z-../DPE08MA4	86	13600	-	4.9	485	2.7
3.7	640	2.0	392.8	BF50Z-../DPE08MA4	86	13600	-	4.4	540	2.4
3.3	720	1.8	439.3	BF50Z-../DPE08MA4	86	13600	-	3.9	610	2.1
2.9	820	1.6	496.4	BF50Z-../DPE08MA4	86	13600	-	3.5	680	1.9
2.6	910	1.45	555.2	BF50Z-../DPE08MA4	86	13600	-	3.1	770	1.7
2.1	940	1.5	680.9	BF50G10-../DPE08MA4	90	13600	-	2.6	720	1.95
1.7	1190	1.2	864.5	BF50G10-../DPE08MA4	90	13600	-	2.0	980	1.45
1.4	1480	0.95	1029	BF50G10-../DPE08MA4	90	13600	-	1.7	1180	1.2
3.4	700	3.3	421.6	BF60Z-../DPE08MA4	130	15300	43300	4.1	580	4.0
3.1	770	3.0	459.9	BF60Z-../DPE08MA4	130	15300	43300	3.8	620	3.7
2.8	850	2.7	510.3	BF60Z-../DPE08MA4	130	15300	43300	3.4	700	3.3
2.1	840	3.0	689.0	BF60G20-../DPE08MA4	137	15300	43300	2.5	660	3.8
1.8	1020	2.5	813.2	BF60G20-../DPE08MA4	137	15300	43300	2.2	770	3.2
1.6	1210	2.1	937.6	BF60G20-../DPE08MA4	137	15300	43300	1.9	980	2.6
1.2	1680	1.5	1211	BF60G20-../DPE08MA4	137	15300	43300	1.5	1280	1.95
1.0	2000	1.25	1494	BF60G20-../DPE08MA4	137	15300	43300	1.2	1610	1.55
0.9	2200	1.15	1658	BF60G20-../DPE08MA4	137	15300	43300	1.1	1750	1.45
1.1	1810	3.1	1390	BF70G20-../DPE08MA4	216	16100	47700	1.3	1480	3.9
0.9	2200	2.6	1621	BF70G20-../DPE08MA4	216	16100	47700	1.1	1760	3.2
0.75	2700	2.1	1912	BF70G20-../DPE08MA4	216	16100	47700	0.9	2200	2.6

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



P = 0.25 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
0.6	3500	1.65	2448	BF70G20-../DPE08MA4	216	16100	47700	0.7	2900	1.95
0.5	4250	1.35	2849	BF70G20-../DPE08MA4	216	16100	47700	0.65	3150	1.8
0.42	5100	1.1	3417	BF70G20-../DPE08MA4	216	16100	47700	0.55	3850	1.5
0.42	3450	3.0	3461	BF80G40-../DPE08MA4	340	39600	75000	0.5	2550	4.1
0.37	4150	2.5	3843	BF80G40-../DPE08MA4	340	39600	75000	0.45	3000	3.5
0.33	4900	2.1	4411	BF80G40-../DPE08MA4	340	39600	75000	0.39	3800	2.8
0.3	5600	1.9	4895	BF80G40-../DPE08MA4	340	39600	75000	0.35	4500	2.3
0.24	7600	1.4	5926	BF80G40-../DPE08MA4	340	39600	75000	0.29	5900	1.8
0.21	9000	1.15	6999	BF80G40-../DPE08MA4	340	39600	75000	0.25	7200	1.45
0.25	7000	2.6	5888	BF90G50-../DPE08MA4	610	42800	120000	0.3	5400	3.4
0.22	8300	2.2	6529	BF90G50-../DPE08MA4	610	42800	120000	0.27	6300	2.9
0.19	10000	1.85	7533	BF90G50-../DPE08MA4	610	42800	120000	0.23	7800	2.4
0.18	10700	1.75	8350	BF90G50-../DPE08MA4	610	42800	120000	0.21	8800	2.1
0.16	12400	1.5	9348	BF90G50-../DPE08MA4	610	42800	120000	0.19	10000	1.85

7

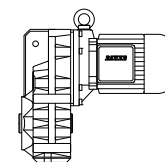
P = 0.37 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
250	14.1	4.4	5.72	BF06-../DPE08LA4	17	1600	-	300	11.7	5.3
186	18.9	3.6	7.66	BF06-../DPE08LA4	17	1800	-	225	15.7	4.3
155	22.5	3.1	9.21	BF06-../DPE08LA4	17	1900	-	186	18.9	3.7
118	29.5	2.5	12.07	BF06-../DPE08LA4	17	2000	-	142	24.5	3.1
100	35	2.4	14.21	BF06-../DPE08LA4	17	2100	-	121	29	2.9
84	42	2.3	16.99	BF06-../DPE08LA4	17	2500	-	101	34.5	2.8
70	50	1.9	20.42	BF06-../DPE08LA4	17	2700	-	84	42	2.3
54	65	1.45	26.76	BF06-../DPE08LA4	17	3000	-	64	55	1.75
45.5	77	1.25	31.50	BF06-../DPE08LA4	17	3200	-	55	64	1.5
38	92	1.05	37.69	BF06-../DPE08LA4	17	3500	-	45.5	77	1.25
31	113	0.84	46.14	BF06-../DPE08LA4	17	3800	-	37.5	94	1.0
45.5	77	3.1	31.31	BF10-../DPE08LA4	28	3600	-	55	64	3.8
39.5	89	2.7	36.15	BF10-../DPE08LA4	28	3800	-	47.5	74	3.2
36	98	2.4	39.75	BF10-../DPE08LA4	28	3950	-	43.5	81	3.0
33	107	2.2	43.06	BF10-../DPE08LA4	28	4100	-	40	88	2.7
30	117	2.1	47.35	BF10-../DPE08LA4	28	4250	-	36.5	96	2.5
28	126	1.9	51.28	BF10-../DPE08LA4	28	4400	-	33.5	105	2.3
25.5	138	1.75	56.39	BF10-../DPE08LA4	28	4550	-	30.5	115	2.1
23.5	150	1.6	61.55	BF10-../DPE08LA4	28	4700	-	28	126	1.9
21	168	1.45	67.69	BF10-../DPE08LA4	28	4900	-	25.5	138	1.75
18.5	191	1.25	77.55	BF10-../DPE08LA4	28	5100	-	22.5	157	1.55
17	205	1.15	85.27	BF10-../DPE08LA4	28	5300	-	20.5	172	1.4
16	220	1.1	90.91	BF10-../DPE08LA4	28	5400	-	19	185	1.3
14.5	240	1.0	99.97	BF10-../DPE08LA4	28	5600	-	17.5	200	1.2
13	270	0.89	112.3	BF10-../DPE08LA4	28	5900	-	15.5	225	1.05
27	130	3.2	53.43	BF20-../DPE08LA4	35	5500	-	32.5	108	3.9
24.5	144	2.9	58.24	BF20-../DPE08LA4	35	5600	-	29.5	119	3.5
22.5	157	2.7	64.08	BF20-../DPE08LA4	35	5900	-	27	130	3.2
20.5	172	2.4	69.70	BF20-../DPE08LA4	35	6100	-	25	141	3.0
19	185	2.3	76.69	BF20-../DPE08LA4	35	6300	-	22.5	157	2.7
16.5	210	2.0	87.31	BF20-../DPE08LA4	35	6600	-	20	176	2.4
14.5	240	1.75	100.2	BF20-../DPE08LA4	35	7000	-	17.5	200	2.1

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



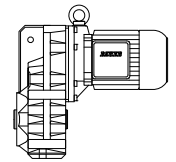
P = 0.37 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
13	270	1.55	110.2	BF20-../DPE08LA4	35	7300	-	16	220	1.9
11.5	305	1.4	123.5	BF20-../DPE08LA4	35	7600	-	14	250	1.7
10.5	335	1.25	135.9	BF20-../DPE08LA4	35	7900	-	13	270	1.55
9.2	380	1.1	155.4	BF20Z-../DPE08LA4	37	7900	-	11.5	305	1.4
8.7	405	1.05	164.3	BF20Z-../DPE08LA4	37	7900	-	10.5	335	1.25
7.9	445	0.94	180.8	BF20Z-../DPE08LA4	37	7900	-	9.5	370	1.15
7.3	480	0.88	197.1	BF20Z-../DPE08LA4	37	7900	-	8.7	405	1.05
20	176	3.3	72.13	BF30-../DPE08LA4	45	5700	-	24	147	3.9
18	196	2.9	79.34	BF30-../DPE08LA4	45	5900	-	22	160	3.6
16.5	210	2.7	87.08	BF30-../DPE08LA4	45	6200	-	20	176	3.3
15	235	2.4	95.79	BF30-../DPE08LA4	45	6400	-	18	196	2.9
13.5	260	2.2	107.6	BF30-../DPE08LA4	45	6700	-	16	220	2.6
12.5	280	2.1	118.3	BF30-../DPE08LA4	45	7000	-	14.5	240	2.4
11.5	305	1.9	124.7	BF30-../DPE08LA4	45	7100	-	14	250	2.3
10.5	335	1.7	137.1	BF30-../DPE08LA4	45	7400	-	12.5	280	2.1
9.5	370	1.55	150.7	BF30Z-../DPE08LA4	48	7400	-	11.5	305	1.9
8.6	410	1.4	165.8	BF30Z-../DPE08LA4	48	7400	-	10.5	335	1.7
8.1	435	1.3	176.6	BF30Z-../DPE08LA4	48	7400	-	9.7	360	1.6
7.4	475	1.2	194.3	BF30Z-../DPE08LA4	48	7400	-	8.9	395	1.45
6.4	550	1.05	224.8	BF30Z-../DPE08LA4	48	7400	-	7.7	455	1.25
5.8	600	0.96	247.3	BF30Z-../DPE08LA4	48	7400	-	7.0	500	1.15
5.4	650	0.88	263.5	BF30Z-../DPE08LA4	48	7400	-	6.5	540	1.05
4.9	720	0.8	289.8	BF30Z-../DPE08LA4	48	7400	-	6.0	580	0.99
13	270	3.3	111.1	BF40-../DPE08LA4	54	9800	-	15.5	225	4.0
11.5	305	3.0	124.5	BF40-../DPE08LA4	54	10200	-	14	250	3.6
10.5	335	2.7	137.0	BF40-../DPE08LA4	54	10600	-	12.5	280	3.2
9.2	380	2.4	155.6	BF40Z-../DPE08LA4	58	10600	-	11	320	2.8
8.3	425	2.1	171.2	BF40Z-../DPE08LA4	58	10600	-	10	350	2.6
7.6	460	1.95	188.3	BF40Z-../DPE08LA4	58	10600	-	9.1	385	2.3
7.1	495	1.8	202.2	BF40Z-../DPE08LA4	58	10600	-	8.5	415	2.2
6.4	550	1.65	222.4	BF40Z-../DPE08LA4	58	10600	-	7.7	455	2.0
5.7	610	1.5	253.2	BF40Z-../DPE08LA4	58	10600	-	6.8	510	1.75
5.1	690	1.3	278.5	BF40Z-../DPE08LA4	58	10600	-	6.2	560	1.6
4.9	720	1.25	295.1	BF40Z-../DPE08LA4	58	10600	-	5.8	600	1.5
4.4	800	1.15	324.7	BF40Z-../DPE08LA4	58	10600	-	5.3	660	1.35
4.1	860	1.05	346.8	BF40Z-../DPE08LA4	58	10600	-	5.0	700	1.3
3.8	920	0.98	381.5	BF40Z-../DPE08LA4	58	10600	-	4.5	780	1.15
3.5	1000	0.9	417.3	BF40Z-../DPE08LA4	58	10600	-	4.1	860	1.05
3.1	1130	0.8	459.1	BF40Z-../DPE08LA4	58	10600	-	3.8	920	0.98
7.8	450	2.9	183.5	BF50Z-../DPE08LA4	88	13600	-	9.4	375	3.5
7.0	500	2.6	205.2	BF50Z-../DPE08LA4	88	13600	-	8.4	420	3.1
5.8	600	2.2	247.5	BF50Z-../DPE08LA4	88	13600	-	7.0	500	2.6
5.2	670	1.95	276.8	BF50Z-../DPE08LA4	88	13600	-	6.2	560	2.3
4.5	780	1.65	316.6	BF50Z-../DPE08LA4	88	13600	-	5.5	640	2.0
4.1	860	1.5	354.0	BF50Z-../DPE08LA4	88	13600	-	4.9	720	1.8
3.7	950	1.35	392.8	BF50Z-../DPE08LA4	88	13600	-	4.4	800	1.65
3.3	1070	1.2	439.3	BF50Z-../DPE08LA4	88	13600	-	3.9	900	1.45
2.9	1210	1.05	496.4	BF50Z-../DPE08LA4	88	13600	-	3.5	1000	1.3
2.6	1350	0.96	555.2	BF50Z-../DPE08LA4	88	13600	-	3.1	1130	1.15
2.1	1490	0.94	680.9	BF50G10-../DPE08LA4	92	13600	-	2.6	1160	1.2
4.9	720	3.2	293.4	BF60Z-../DPE08LA4	131	15300	43300	5.9	590	3.9
4.4	800	2.9	325.6	BF60Z-../DPE08LA4	131	15300	43300	5.3	660	3.5
3.8	920	2.5	380.0	BF60Z-../DPE08LA4	131	15300	43300	4.5	780	2.9
3.4	1030	2.2	421.6	BF60Z-../DPE08LA4	131	15300	43300	4.1	860	2.7

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



P = 0.37 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
3.1	1130	2.0	459.9	BF60Z-../DPE08LA4	131	15300	43300	3.8	920	2.5
2.8	1260	1.85	510.3	BF60Z-../DPE08LA4	131	15300	43300	3.4	1030	2.2
2.5	1170	2.1	569.3	BF60G20-../DPE08LA4	139	15300	43300	3.1	900	2.8
2.1	1390	1.8	689.0	BF60G20-../DPE08LA4	139	15300	43300	2.5	1120	2.2
1.8	1650	1.5	813.2	BF60G20-../DPE08LA4	139	15300	43300	2.2	1290	1.95
1.6	1930	1.3	937.6	BF60G20-../DPE08LA4	139	15300	43300	1.9	1580	1.6
1.2	2600	0.96	1211	BF60G20-../DPE08LA4	139	15300	43300	1.5	2000	1.25
1.7	1820	3.1	872.1	BF70G20-../DPE08LA4	217	16100	47700	2.0	1510	3.8
1.4	2200	2.6	1017	BF70G20-../DPE08LA4	217	16100	47700	1.7	1770	3.2
1.1	2850	2.0	1390	BF70G20-../DPE08LA4	217	16100	47700	1.3	2350	2.4
0.9	3500	1.65	1621	BF70G20-../DPE08LA4	217	16100	47700	1.1	2800	2.0
0.75	4250	1.35	1912	BF70G20-../DPE08LA4	217	16100	47700	0.9	3450	1.65
0.6	5400	1.05	2448	BF70G20-../DPE08LA4	217	16100	47700	0.7	4550	1.25
0.7	3450	3.0	2051	BF80G40-../DPE08LA4	341	39600	75000	0.85	2550	4.1
0.6	4300	2.4	2422	BF80G40-../DPE08LA4	341	39600	75000	0.75	3100	3.4
0.55	4400	2.4	2785	BF80G40-../DPE08LA4	341	39600	75000	0.65	3400	3.1
0.46	5500	1.9	3092	BF80G40-../DPE08LA4	341	39600	75000	0.6	3750	2.8
0.42	6200	1.7	3461	BF80G40-../DPE08LA4	341	39600	75000	0.5	4850	2.2
0.37	7200	1.45	3843	BF80G40-../DPE08LA4	341	39600	75000	0.45	5500	1.9
0.33	8400	1.25	4411	BF80G40-../DPE08LA4	341	39600	75000	0.39	6700	1.55
0.3	9400	1.1	4895	BF80G40-../DPE08LA4	341	39600	75000	0.35	7800	1.35
0.39	6500	2.8	3644	BF90G50-../DPE08LA4	612	42800	120000	0.47	5000	3.7
0.33	8200	2.3	4366	BF90G50-../DPE08LA4	612	42800	120000	0.4	6300	2.9
0.3	9200	2.0	4839	BF90G50-../DPE08LA4	612	42800	120000	0.36	7300	2.5
0.25	11600	1.6	5888	BF90G50-../DPE08LA4	612	42800	120000	0.3	9200	2.0
0.22	13500	1.35	6529	BF90G50-../DPE08LA4	612	42800	120000	0.27	10500	1.75
0.19	16000	1.15	7533	BF90G50-../DPE08LA4	612	42800	120000	0.23	12800	1.45
0.18	17100	1.1	8350	BF90G50-../DPE08LA4	612	42800	120000	0.21	14300	1.3

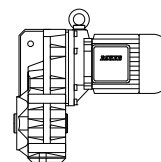
P = 0.55 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
250	21	3.0	5.72	BF06-../DPE08XA4	18	1600	-	300	17.5	3.5
186	28	2.4	7.66	BF06-../DPE08XA4	18	1800	-	225	23	3.0
155	33.5	2.1	9.21	BF06-../DPE08XA4	18	1900	-	186	28	2.5
118	44.5	1.7	12.07	BF06-../DPE08XA4	18	2000	-	142	36.5	2.1
100	52	1.65	14.21	BF06-../DPE08XA4	18	2100	-	121	43	2.0
84	62	1.55	16.99	BF06-../DPE08XA4	18	2500	-	101	52	1.85
70	75	1.25	20.42	BF06-../DPE08XA4	18	2700	-	84	62	1.55
54	97	0.98	26.76	BF06-../DPE08XA4	18	3000	-	64	82	1.15
45.5	115	0.83	31.50	BF06-../DPE08XA4	18	3200	-	55	95	1.0
95	55	3.3	15.04	BF10-../DPE08XA4	30	2800	-	114	46	4.0
71	73	3.3	20.05	BF10-../DPE08XA4	30	3000	-	86	61	3.9
61	86	2.8	23.28	BF10-../DPE08XA4	30	3200	-	74	70	3.4
56	93	2.6	25.60	BF10-../DPE08XA4	30	3350	-	67	78	3.1
50	105	2.3	28.47	BF10-../DPE08XA4	30	3450	-	61	86	2.8
45.5	115	2.1	31.31	BF10-../DPE08XA4	30	3600	-	55	95	2.5
39.5	132	1.8	36.15	BF10-../DPE08XA4	30	3800	-	47.5	110	2.2
36	145	1.65	39.75	BF10-../DPE08XA4	30	3950	-	43.5	120	2.0

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



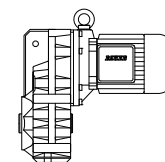
P = 0.55 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
33	159	1.5	43.06	BF10-../DPE08XA4	30	4100	-	40	131	1.85
30	175	1.35	47.35	BF10-../DPE08XA4	30	4250	-	36.5	143	1.7
28	187	1.3	51.28	BF10-../DPE08XA4	30	4400	-	33.5	156	1.55
25.5	205	1.15	56.39	BF10-../DPE08XA4	30	4550	-	30.5	172	1.4
23.5	220	1.1	61.55	BF10-../DPE08XA4	30	4700	-	28	187	1.3
21	250	0.96	67.69	BF10-../DPE08XA4	30	4900	-	25.5	205	1.15
18.5	280	0.86	77.55	BF10-../DPE08XA4	30	5100	-	22.5	230	1.05
40	131	3.2	35.85	BF20-../DPE08XA4	36	4650	-	48	109	3.9
34.5	152	2.8	41.72	BF20-../DPE08XA4	36	4950	-	41	128	3.3
31	169	2.5	45.90	BF20-../DPE08XA4	36	5100	-	37.5	140	3.0
29.5	178	2.4	48.56	BF20-../DPE08XA4	36	5200	-	35.5	147	2.9
27	194	2.2	53.43	BF20-../DPE08XA4	36	5500	-	32.5	161	2.6
24.5	210	2.0	58.24	BF20-../DPE08XA4	36	5600	-	29.5	178	2.4
22.5	230	1.85	64.08	BF20-../DPE08XA4	36	5900	-	27	194	2.2
20.5	255	1.65	69.70	BF20-../DPE08XA4	36	6100	-	25	210	2.0
19	275	1.55	76.69	BF20-../DPE08XA4	36	6300	-	22.5	230	1.85
16.5	315	1.35	87.31	BF20-../DPE08XA4	36	6600	-	20	260	1.6
14.5	360	1.15	100.2	BF20-../DPE08XA4	36	7000	-	17.5	300	1.4
13	400	1.05	110.2	BF20-../DPE08XA4	36	7300	-	16	325	1.3
11.5	455	0.92	123.5	BF20-../DPE08XA4	36	7600	-	14	375	1.1
10.5	500	0.84	135.9	BF20-../DPE08XA4	36	7900	-	13	400	1.05
27.5	191	3.0	52.20	BF30-../DPE08XA4	46	5000	-	33	159	3.6
25	210	2.7	57.41	BF30-../DPE08XA4	46	5200	-	30	175	3.3
23.5	220	2.6	61.17	BF30-../DPE08XA4	46	5300	-	28	187	3.1
21.5	240	2.4	67.28	BF30-../DPE08XA4	46	5500	-	25.5	205	2.8
20	260	2.2	72.13	BF30-../DPE08XA4	46	5700	-	24	215	2.7
18	290	2.0	79.34	BF30-../DPE08XA4	46	5900	-	22	235	2.4
16.5	315	1.85	87.08	BF30-../DPE08XA4	46	6200	-	20	260	2.2
15	350	1.65	95.79	BF30-../DPE08XA4	46	6400	-	18	290	2.0
13.5	385	1.5	107.6	BF30-../DPE08XA4	46	6700	-	16	325	1.75
12.5	420	1.35	118.3	BF30-../DPE08XA4	46	7000	-	14.5	360	1.6
11.5	455	1.25	124.7	BF30-../DPE08XA4	46	7100	-	14	375	1.55
10.5	500	1.15	137.1	BF30-../DPE08XA4	46	7400	-	12.5	420	1.35
9.5	550	1.05	150.7	BF30Z-../DPE08XA4	48	7400	-	11.5	455	1.25
8.6	610	0.94	165.8	BF30Z-../DPE08XA4	48	7400	-	10.5	500	1.15
8.1	640	0.9	176.6	BF30Z-../DPE08XA4	48	7400	-	9.7	540	1.05
7.4	700	0.82	194.3	BF30Z-../DPE08XA4	48	7400	-	8.9	590	0.97
18.5	280	3.2	78.55	BF40-../DPE08XA4	55	8500	-	22	235	3.8
17	305	3.0	83.91	BF40-../DPE08XA4	55	8700	-	20.5	255	3.5
15.5	335	2.7	92.31	BF40-../DPE08XA4	55	9100	-	19	275	3.3
14.5	360	2.5	101.0	BF40-../DPE08XA4	55	9400	-	17	305	3.0
13	400	2.3	111.1	BF40-../DPE08XA4	55	9800	-	15.5	335	2.7
11.5	455	2.0	124.5	BF40-../DPE08XA4	55	10200	-	14	375	2.4
10.5	500	1.8	137.0	BF40-../DPE08XA4	55	10600	-	12.5	420	2.1
9.2	570	1.6	155.6	BF40Z-../DPE08XA4	59	10600	-	11	475	1.9
8.3	630	1.45	171.2	BF40Z-../DPE08XA4	59	10600	-	10	520	1.75
7.6	690	1.3	188.3	BF40Z-../DPE08XA4	59	10600	-	9.1	570	1.6
7.1	730	1.25	202.2	BF40Z-../DPE08XA4	59	10600	-	8.5	610	1.5
6.4	820	1.1	222.4	BF40Z-../DPE08XA4	59	10600	-	7.7	680	1.3
5.7	920	0.98	253.2	BF40Z-../DPE08XA4	59	10600	-	6.8	770	1.15
5.1	1020	0.88	278.5	BF40Z-../DPE08XA4	59	10600	-	6.2	840	1.05
4.9	1070	0.84	295.1	BF40Z-../DPE08XA4	59	10600	-	5.8	900	1.0
12.5	420	3.1	114.0	BF50-../DPE08XA4	84	12900	-	15	350	3.7
11.5	455	2.9	127.5	BF50-../DPE08XA4	84	13600	-	13.5	385	3.4
10.5	500	2.6	138.1	BF50Z-../DPE08XA4	88	13600	-	12.5	420	3.1

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



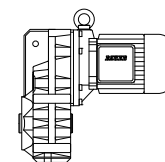
P = 0.55 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
9.2	570	2.3	154.5	BF50Z-../DPE08XA4	88	13600	-	11.5	455	2.9
7.8	670	1.95	183.5	BF50Z-../DPE08XA4	88	13600	-	9.4	550	2.4
7.0	750	1.75	205.2	BF50Z-../DPE08XA4	88	13600	-	8.4	620	2.1
5.8	900	1.45	247.5	BF50Z-../DPE08XA4	88	13600	-	7.0	750	1.75
5.2	1010	1.3	276.8	BF50Z-../DPE08XA4	88	13600	-	6.2	840	1.55
4.5	1160	1.1	316.6	BF50Z-../DPE08XA4	88	13600	-	5.5	950	1.35
4.1	1280	1.0	354.0	BF50Z-../DPE08XA4	88	13600	-	4.9	1070	1.2
3.7	1410	0.92	392.8	BF50Z-../DPE08XA4	88	13600	-	4.4	1190	1.1
3.3	1590	0.82	439.3	BF50Z-../DPE08XA4	88	13600	-	3.9	1340	0.97
7.6	690	3.3	187.7	BF60Z-../DPE08XA4	132	15300	43300	9.2	570	4.0
6.5	800	2.9	221.4	BF60Z-../DPE08XA4	132	15300	43300	7.8	670	3.4
5.8	900	2.6	245.6	BF60Z-../DPE08XA4	132	15300	43300	7.0	750	3.1
4.9	1070	2.1	293.4	BF60Z-../DPE08XA4	132	15300	43300	5.9	890	2.6
4.4	1190	1.95	325.6	BF60Z-../DPE08XA4	132	15300	43300	5.3	990	2.3
3.8	1380	1.65	380.0	BF60Z-../DPE08XA4	132	15300	43300	4.5	1160	2.0
3.4	1540	1.5	421.6	BF60Z-../DPE08XA4	132	15300	43300	4.1	1280	1.8
3.1	1690	1.35	459.9	BF60Z-../DPE08XA4	132	15300	43300	3.8	1380	1.65
2.8	1870	1.25	510.3	BF60Z-../DPE08XA4	132	15300	43300	3.4	1540	1.5
2.5	1860	1.35	569.3	BF60G20-../DPE08XA4	140	15300	43300	3.1	1450	1.7
2.1	2200	1.15	689.0	BF60G20-../DPE08XA4	140	15300	43300	2.5	1810	1.4
1.8	2600	0.96	813.2	BF60G20-../DPE08XA4	140	15300	43300	2.2	2050	1.2
1.6	3000	0.83	937.6	BF60G20-../DPE08XA4	140	15300	43300	1.9	2450	1.0
3.3	1590	3.3	439.2	BF70Z-../DPE08XA4	220	16100	47700	3.9	1340	3.9
2.8	1870	2.8	512.4	BF70Z-../DPE08XA4	220	16100	47700	3.4	1540	3.4
2.5	1850	3.1	577.5	BF70G20-../DPE08XA4	218	16100	47700	3.0	1500	3.8
2.2	2100	2.7	673.6	BF70G20-../DPE08XA4	218	16100	47700	2.6	1730	3.3
1.7	2800	2.0	872.1	BF70G20-../DPE08XA4	218	16100	47700	2.0	2350	2.4
1.4	3450	1.65	1017	BF70G20-../DPE08XA4	218	16100	47700	1.7	2750	2.1
1.1	4400	1.3	1390	BF70G20-../DPE08XA4	218	16100	47700	1.3	3650	1.55
0.9	5400	1.05	1621	BF70G20-../DPE08XA4	218	16100	47700	1.1	4350	1.3
1.5	3500	3.0	990.4	BF80Z-../DPE08XA4	337	39600	75000	1.8	2900	3.6
1.3	4000	2.6	1124	BF80Z-../DPE08XA4	337	39600	75000	1.6	3250	3.2
1.1	3300	3.2	1329	BF80G40-../DPE08XA4	342	39600	75000	1.3	2550	4.1
1.0	3850	2.7	1491	BF80G40-../DPE08XA4	342	39600	75000	1.2	2950	3.6
0.85	4550	2.3	1693	BF80G40-../DPE08XA4	342	39600	75000	1.1	3150	3.3
0.7	5900	1.8	2051	BF80G40-../DPE08XA4	342	39600	75000	0.85	4550	2.3
0.6	7100	1.5	2422	BF80G40-../DPE08XA4	342	39600	75000	0.75	5400	1.95
0.55	7500	1.4	2785	BF80G40-../DPE08XA4	342	39600	75000	0.65	6000	1.75
0.46	9300	1.15	3092	BF80G40-../DPE08XA4	342	39600	75000	0.6	6600	1.6
0.42	10200	1.05	3461	BF80G40-../DPE08XA4	342	39600	75000	0.5	8200	1.3
0.55	7100	2.6	2656	BF90G50-../DPE08XA4	613	42800	120000	0.65	5700	3.2
0.49	8400	2.2	2952	BF90G50-../DPE08XA4	613	42800	120000	0.6	6500	2.8
0.44	9400	1.95	3286	BF90G50-../DPE08XA4	613	42800	120000	0.55	7000	2.6
0.39	10900	1.7	3644	BF90G50-../DPE08XA4	613	42800	120000	0.47	8600	2.2
0.33	13400	1.4	4366	BF90G50-../DPE08XA4	613	42800	120000	0.4	10600	1.75
0.3	15000	1.25	4839	BF90G50-../DPE08XA4	613	42800	120000	0.36	12000	1.55

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



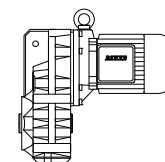
P = 0.75 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
250	28.5	2.2	5.72	BF06-../DPE08XB4	18	1600	-	300	23.5	2.6
186	38.5	1.75	7.66	BF06-../DPE08XB4	18	1800	-	225	31.5	2.2
155	46	1.5	9.21	BF06-../DPE08XB4	18	1900	-	186	38.5	1.8
118	60	1.25	12.07	BF06-../DPE08XB4	18	2000	-	142	50	1.5
100	71	1.2	14.21	BF06-../DPE08XB4	18	2100	-	121	59	1.45
84	85	1.1	16.99	BF06-../DPE08XB4	18	2500	-	101	70	1.35
70	102	0.93	20.42	BF06-../DPE08XB4	18	2700	-	84	85	1.1
120	59	3.1	11.84	BF10-../DPE08XB4	30	2500	-	145	49	3.7
95	75	2.4	15.04	BF10-../DPE08XB4	30	2800	-	114	62	3.0
78	91	2.6	18.23	BF10-../DPE08XB4	30	2900	-	94	76	3.2
71	100	2.4	20.05	BF10-../DPE08XB4	30	3000	-	86	83	2.9
61	117	2.1	23.28	BF10-../DPE08XB4	30	3200	-	74	96	2.5
56	127	1.9	25.60	BF10-../DPE08XB4	30	3350	-	67	106	2.3
50	143	1.7	28.47	BF10-../DPE08XB4	30	3450	-	61	117	2.1
45.5	157	1.55	31.31	BF10-../DPE08XB4	30	3600	-	55	130	1.85
39.5	181	1.35	36.15	BF10-../DPE08XB4	30	3800	-	47.5	150	1.6
36	198	1.2	39.75	BF10-../DPE08XB4	30	3950	-	43.5	164	1.45
33	215	1.1	43.06	BF10-../DPE08XB4	30	4100	-	40	179	1.35
30	235	1.0	47.35	BF10-../DPE08XB4	30	4250	-	36.5	196	1.2
28	255	0.94	51.28	BF10-../DPE08XB4	30	4400	-	33.5	210	1.15
25.5	280	0.86	56.39	BF10-../DPE08XB4	30	4550	-	30.5	230	1.05
23.5	300	0.8	61.55	BF10-../DPE08XB4	30	4700	-	28	255	0.94
59	121	3.3	24.25	BF20-../DPE08XB4	36	3950	-	71	100	4.0
52	137	3.1	27.62	BF20-../DPE08XB4	36	4150	-	62	115	3.7
47	152	2.8	30.40	BF20-../DPE08XB4	36	4400	-	57	125	3.4
44	162	2.6	32.58	BF20-../DPE08XB4	36	4450	-	53	135	3.1
40	179	2.3	35.85	BF20-../DPE08XB4	36	4650	-	48	149	2.8
34.5	205	2.0	41.72	BF20-../DPE08XB4	36	4950	-	41	174	2.4
31	230	1.85	45.90	BF20-../DPE08XB4	36	5100	-	37.5	191	2.2
29.5	240	1.75	48.56	BF20-../DPE08XB4	36	5200	-	35.5	200	2.1
27	265	1.6	53.43	BF20-../DPE08XB4	36	5500	-	32.5	220	1.9
24.5	290	1.45	58.24	BF20-../DPE08XB4	36	5600	-	29.5	240	1.75
22.5	315	1.35	64.08	BF20-../DPE08XB4	36	5900	-	27	265	1.6
20.5	345	1.2	69.70	BF20-../DPE08XB4	36	6100	-	25	285	1.45
19	375	1.1	76.69	BF20-../DPE08XB4	36	6300	-	22.5	315	1.35
16.5	430	0.98	87.31	BF20-../DPE08XB4	36	6600	-	20	355	1.2
14.5	490	0.86	100.2	BF20-../DPE08XB4	36	7000	-	17.5	405	1.05
41	174	3.3	35.00	BF30-../DPE08XB4	46	4200	-	49	146	3.9
37	193	3.0	38.49	BF30-../DPE08XB4	46	4400	-	44.5	160	3.6
35	200	2.9	41.01	BF30-../DPE08XB4	46	4500	-	42	170	3.4
31.5	225	2.6	45.10	BF30-../DPE08XB4	46	4700	-	38	188	3.1
27.5	260	2.2	52.20	BF30-../DPE08XB4	46	5000	-	33	215	2.7
25	285	2.0	57.41	BF30-../DPE08XB4	46	5200	-	30	235	2.4
23.5	300	1.9	61.17	BF30-../DPE08XB4	46	5300	-	28	255	2.3
21.5	330	1.75	67.28	BF30-../DPE08XB4	46	5500	-	25.5	280	2.1
20	355	1.6	72.13	BF30-../DPE08XB4	46	5700	-	24	295	1.95
18	395	1.45	79.34	BF30-../DPE08XB4	46	5900	-	22	325	1.75
16.5	430	1.35	87.08	BF30-../DPE08XB4	46	6200	-	20	355	1.6
15	475	1.2	95.79	BF30-../DPE08XB4	46	6400	-	18	395	1.45
13.5	530	1.1	107.6	BF30-../DPE08XB4	46	6700	-	16	445	1.3
12.5	570	1.0	118.3	BF30-../DPE08XB4	46	7000	-	14.5	490	1.15
11.5	620	0.93	124.7	BF30-../DPE08XB4	46	7100	-	14	510	1.15
10.5	680	0.85	137.1	BF30-../DPE08XB4	46	7400	-	12.5	570	1.0
26.5	270	3.3	53.82	BF40-../DPE08XB4	56	7200	-	32	220	4.1
23.5	300	3.0	61.25	BF40-../DPE08XB4	56	7600	-	28	255	3.5
21.5	330	2.7	67.38	BF40-../DPE08XB4	56	8000	-	25.5	280	3.2
20	355	2.5	71.40	BF40-../DPE08XB4	56	8100	-	24	295	3.1
18.5	385	2.3	78.55	BF40-../DPE08XB4	56	8500	-	22	325	2.8

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



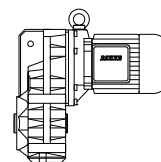
P = 0.75 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
17	420	2.1	83.91	BF40-../DPE08XB4	56	8700	-	20.5	345	2.6
15.5	460	1.95	92.31	BF40-../DPE08XB4	56	9100	-	19	375	2.4
14.5	490	1.85	101.0	BF40-../DPE08XB4	56	9400	-	17	420	2.1
13	550	1.65	111.1	BF40-../DPE08XB4	56	9800	-	15.5	460	1.95
11.5	620	1.45	124.5	BF40-../DPE08XB4	56	10200	-	14	510	1.75
10.5	680	1.3	137.0	BF40-../DPE08XB4	56	10600	-	12.5	570	1.6
9.2	770	1.15	155.6	BF40Z-../DPE08XB4	59	10600	-	11	650	1.4
8.3	860	1.05	171.2	BF40Z-../DPE08XB4	59	10600	-	10	710	1.25
7.6	940	0.96	188.3	BF40Z-../DPE08XB4	59	10600	-	9.1	780	1.15
7.1	1000	0.9	202.2	BF40Z-../DPE08XB4	59	10600	-	8.5	840	1.05
6.4	1110	0.81	222.4	BF40Z-../DPE08XB4	59	10600	-	7.7	930	0.97
17.5	405	3.2	81.33	BF50-../DPE08XB4	84	11300	-	21.5	330	3.9
16	445	2.9	90.24	BF50-../DPE08XB4	84	11800	-	19	375	3.5
14.5	490	2.7	100.9	BF50-../DPE08XB4	84	12300	-	17	420	3.1
12.5	570	2.3	114.0	BF50-../DPE08XB4	84	12900	-	15	475	2.7
11.5	620	2.1	127.5	BF50-../DPE08XB4	84	13600	-	13.5	530	2.5
10.5	680	1.9	138.1	BF50Z-../DPE08XB4	89	13600	-	12.5	570	2.3
9.2	770	1.7	154.5	BF50Z-../DPE08XB4	89	13600	-	11.5	620	2.1
7.8	910	1.45	183.5	BF50Z-../DPE08XB4	89	13600	-	9.4	760	1.7
7.0	1020	1.25	205.2	BF50Z-../DPE08XB4	89	13600	-	8.4	850	1.55
5.8	1230	1.05	247.5	BF50Z-../DPE08XB4	89	13600	-	7.0	1020	1.25
5.2	1370	0.95	276.8	BF50Z-../DPE08XB4	89	13600	-	6.2	1150	1.15
4.5	1590	0.82	316.6	BF50Z-../DPE08XB4	89	13600	-	5.5	1300	1.0
8.4	850	2.7	169.2	BF60Z-../DPE08XB4	133	15300	43300	10.5	680	3.4
7.6	940	2.4	187.7	BF60Z-../DPE08XB4	133	15300	43300	9.2	770	3.0
6.5	1100	2.1	221.4	BF60Z-../DPE08XB4	133	15300	43300	7.8	910	2.5
5.8	1230	1.85	245.6	BF60Z-../DPE08XB4	133	15300	43300	7.0	1020	2.3
4.9	1460	1.6	293.4	BF60Z-../DPE08XB4	133	15300	43300	5.9	1210	1.9
4.4	1620	1.4	325.6	BF60Z-../DPE08XB4	133	15300	43300	5.3	1350	1.7
3.8	1880	1.2	380.0	BF60Z-../DPE08XB4	133	15300	43300	4.5	1590	1.45
3.4	2100	1.1	421.6	BF60Z-../DPE08XB4	133	15300	43300	4.1	1740	1.3
3.1	2300	1.0	459.9	BF60Z-../DPE08XB4	133	15300	43300	3.8	1880	1.2
2.8	2550	0.9	510.3	BF60Z-../DPE08XB4	133	15300	43300	3.4	2100	1.1
2.5	2600	0.96	569.3	BF60G20-../DPE08XB4	140	15300	43300	3.1	2050	1.2
2.1	3100	0.81	689.0	BF60G20-../DPE08XB4	140	15300	43300	2.5	2550	0.98
4.2	1700	3.1	341.7	BF70Z-../DPE08XB4	221	16100	47700	5.1	1400	3.7
3.6	1980	2.6	398.7	BF70Z-../DPE08XB4	221	16100	47700	4.3	1660	3.1
3.3	2150	2.4	439.2	BF70Z-../DPE08XB4	221	16100	47700	3.9	1830	2.8
2.8	2550	2.0	512.4	BF70Z-../DPE08XB4	221	16100	47700	3.4	2100	2.5
2.5	2600	2.2	577.5	BF70G20-../DPE08XB4	219	16100	47700	3.0	2100	2.7
2.2	2950	1.95	673.6	BF70G20-../DPE08XB4	219	16100	47700	2.6	2450	2.3
1.7	3950	1.45	872.1	BF70G20-../DPE08XB4	219	16100	47700	2.0	3300	1.75
1.4	4800	1.2	1017	BF70G20-../DPE08XB4	219	16100	47700	1.7	3900	1.45
1.1	6100	0.93	1390	BF70G20-../DPE08XB4	219	16100	47700	1.3	5100	1.1
2.2	3250	3.2	662.1	BF80Z-../DPE08XB4	338	39600	75000	2.6	2750	3.8
1.9	3750	2.8	770.6	BF80Z-../DPE08XB4	338	39600	75000	2.3	3100	3.4
1.7	4200	2.5	874.6	BF80Z-../DPE08XB4	338	39600	75000	2.0	3550	3.0
1.5	4750	2.2	990.4	BF80Z-../DPE08XB4	338	39600	75000	1.8	3950	2.7
1.3	5500	1.9	1124	BF80Z-../DPE08XB4	338	39600	75000	1.6	4450	2.4
1.1	5000	2.1	1329	BF80G40-../DPE08XB4	343	39600	75000	1.3	4050	2.6
1.0	5700	1.85	1491	BF80G40-../DPE08XB4	343	39600	75000	1.2	4550	2.3
0.85	6800	1.55	1693	BF80G40-../DPE08XB4	343	39600	75000	1.1	4900	2.1
0.7	8600	1.2	2051	BF80G40-../DPE08XB4	343	39600	75000	0.85	6800	1.55

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



P = 0.75 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
0.6	10300	1.0	2422	BF80G40-../DPE08XB4	343	39600	75000	0.75	7900	1.35
1.0	5700	3.2	1444	BF90G50-../DPE08XB4	614	42800	120000	1.2	4550	4.1
0.85	6800	2.7	1678	BF90G50-../DPE08XB4	614	42800	120000	1.1	4900	3.8
0.8	7100	2.6	1867	BF90G50-../DPE08XB4	614	42800	120000	0.95	5700	3.2
0.7	8100	2.3	2154	BF90G50-../DPE08XB4	614	42800	120000	0.8	6800	2.7
0.55	10600	1.75	2656	BF90G50-../DPE08XB4	614	42800	120000	0.65	8600	2.2
0.49	12300	1.5	2952	BF90G50-../DPE08XB4	614	42800	120000	0.6	9600	1.95
0.44	13700	1.35	3286	BF90G50-../DPE08XB4	614	42800	120000	0.55	10500	1.75
0.39	15800	1.15	3644	BF90G50-../DPE08XB4	614	42800	120000	0.47	12700	1.45

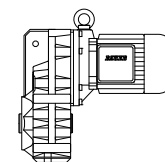
P = 1.1 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
260	40	3.5	5.60	BF10-../DPE09XA4	40	1950	-	315	33	4.2
190	55	2.8	7.58	BF10-../DPE09XA4	40	2200	-	230	45.5	3.4
149	70	2.5	9.69	BF10-../DPE09XA4	40	2350	-	180	58	3.1
122	86	2.1	11.84	BF10-../DPE09XA4	40	2500	-	147	71	2.6
96	109	1.7	15.04	BF10-../DPE09XA4	40	2800	-	116	90	2.0
79	132	1.8	18.23	BF10-../DPE09XA4	40	2900	-	96	109	2.2
72	145	1.65	20.05	BF10-../DPE09XA4	40	3000	-	87	120	2.0
62	169	1.4	23.28	BF10-../DPE09XA4	40	3200	-	75	140	1.7
57	184	1.3	25.60	BF10-../DPE09XA4	40	3350	-	68	154	1.55
51	205	1.15	28.47	BF10-../DPE09XA4	40	3450	-	62	169	1.4
46	225	1.05	31.31	BF10-../DPE09XA4	40	3600	-	56	187	1.3
40	260	0.92	36.15	BF10-../DPE09XA4	40	3800	-	48.5	215	1.1
36.5	285	0.84	39.75	BF10-../DPE09XA4	40	3950	-	44	235	1.0
110	95	3.0	13.18	BF20-../DPE09XA4	46	3300	-	133	78	3.7
93	112	2.8	15.54	BF20-../DPE09XA4	46	3450	-	112	93	3.3
86	122	3.0	16.77	BF20-../DPE09XA4	46	3500	-	104	101	3.6
79	132	2.8	18.45	BF20-../DPE09XA4	46	3600	-	95	110	3.4
66	159	2.5	22.04	BF20-../DPE09XA4	46	3800	-	79	132	3.0
60	175	2.3	24.25	BF20-../DPE09XA4	46	3950	-	72	145	2.8
53	198	2.1	27.62	BF20-../DPE09XA4	46	4150	-	63	166	2.5
47.5	220	1.9	30.40	BF20-../DPE09XA4	46	4400	-	58	181	2.3
44.5	235	1.8	32.58	BF20-../DPE09XA4	46	4450	-	54	194	2.2
40.5	255	1.65	35.85	BF20-../DPE09XA4	46	4650	-	49	210	2.0
35	300	1.4	41.72	BF20-../DPE09XA4	46	4950	-	42	250	1.7
31.5	330	1.25	45.90	BF20-../DPE09XA4	46	5100	-	38	275	1.55
30	350	1.2	48.56	BF20-../DPE09XA4	46	5200	-	36	290	1.45
27	385	1.1	53.43	BF20-../DPE09XA4	46	5500	-	33	315	1.35
25	420	1.0	58.24	BF20-../DPE09XA4	46	5600	-	30	350	1.2
22.5	465	0.9	64.08	BF20-../DPE09XA4	46	5900	-	27.5	380	1.1
21	500	0.84	69.70	BF20-../DPE09XA4	46	6100	-	25	420	1.0
66	159	3.3	21.85	BF30-../DPE09XA4	57	3500	-	80	131	4.0
60	175	3.2	24.03	BF30-../DPE09XA4	57	3600	-	73	143	3.9
52	200	2.9	28.23	BF30-../DPE09XA4	57	3800	-	62	169	3.4
46.5	225	2.6	31.05	BF30-../DPE09XA4	57	4000	-	57	184	3.1
41.5	250	2.3	35.00	BF30-../DPE09XA4	57	4200	-	50	210	2.7
37.5	280	2.1	38.49	BF30-../DPE09XA4	57	4400	-	45.5	230	2.5
35.5	295	1.95	41.01	BF30-../DPE09XA4	57	4500	-	42.5	245	2.3
32	325	1.75	45.10	BF30-../DPE09XA4	57	4700	-	39	265	2.2

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



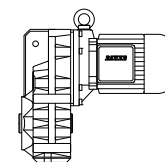
P = 1.1 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
28	375	1.55	52.20	BF30-../DPE09XA4	57	5000	-	33.5	310	1.85
25.5	410	1.4	57.41	BF30-../DPE09XA4	57	5200	-	30.5	340	1.7
24	435	1.3	61.17	BF30-../DPE09XA4	57	5300	-	28.5	365	1.6
21.5	485	1.2	67.28	BF30-../DPE09XA4	57	5500	-	26	400	1.45
20	520	1.1	72.13	BF30-../DPE09XA4	57	5700	-	24.5	425	1.35
18.5	560	1.05	79.34	BF30-../DPE09XA4	57	5900	-	22	475	1.2
17	610	0.94	87.08	BF30-../DPE09XA4	57	6200	-	20	520	1.1
15.5	670	0.86	95.79	BF30-../DPE09XA4	57	6400	-	18.5	560	1.05
38.5	270	3.3	37.64	BF40-../DPE09XA4	66	6200	-	46.5	225	4.0
35	300	3.0	41.42	BF40-../DPE09XA4	66	6500	-	42.5	245	3.7
32	325	2.8	45.56	BF40-../DPE09XA4	66	6800	-	38.5	270	3.3
29.5	355	2.5	48.92	BF40-../DPE09XA4	66	7000	-	36	290	3.1
27	385	2.3	53.82	BF40-../DPE09XA4	66	7200	-	32.5	320	2.8
24	435	2.1	61.25	BF40-../DPE09XA4	66	7600	-	28.5	365	2.5
21.5	485	1.85	67.38	BF40-../DPE09XA4	66	8000	-	26	400	2.3
20.5	510	1.75	71.40	BF40-../DPE09XA4	66	8100	-	24.5	425	2.1
18.5	560	1.6	78.55	BF40-../DPE09XA4	66	8500	-	22.5	465	1.95
17.5	600	1.5	83.91	BF40-../DPE09XA4	66	8700	-	21	500	1.8
16	650	1.4	92.31	BF40-../DPE09XA4	66	9100	-	19	550	1.65
14.5	720	1.25	101.0	BF40-../DPE09XA4	66	9400	-	17.5	600	1.5
13	800	1.15	111.1	BF40-../DPE09XA4	66	9800	-	16	650	1.4
12	870	1.05	124.5	BF40-../DPE09XA4	66	10200	-	14	750	1.2
11	950	0.95	137.0	BF40-../DPE09XA4	66	10600	-	13	800	1.15
10.5	1000	0.9	141.4	BF40Z-../DPE09XA4	70	10600	-	12.5	840	1.05
9.3	1120	0.8	155.6	BF40Z-../DPE09XA4	70	10600	-	11.5	910	0.99
25.5	410	3.2	56.86	BF50-../DPE09XA4	94	9300	-	31	335	3.9
23	455	2.9	63.59	BF50-../DPE09XA4	94	9800	-	27.5	380	3.4
20	520	2.5	72.72	BF50-../DPE09XA4	94	10700	-	24	435	3.0
18	580	2.2	81.33	BF50-../DPE09XA4	94	11300	-	21.5	485	2.7
16	650	2.0	90.24	BF50-../DPE09XA4	94	11800	-	19.5	530	2.5
14.5	720	1.8	100.9	BF50-../DPE09XA4	94	12300	-	17.5	600	2.2
13	800	1.65	114.0	BF50-../DPE09XA4	94	12900	-	15.5	670	1.95
11.5	910	1.45	127.5	BF50-../DPE09XA4	94	13600	-	14	750	1.75
10.5	1000	1.3	138.1	BF50Z-../DPE09XA4	99	13600	-	13	800	1.65
9.4	1110	1.15	154.5	BF50Z-../DPE09XA4	99	13600	-	11.5	910	1.45
7.9	1320	0.98	183.5	BF50Z-../DPE09XA4	99	13600	-	9.5	1100	1.2
7.1	1470	0.88	205.2	BF50Z-../DPE09XA4	99	13600	-	8.5	1230	1.05
14	750	3.1	103.7	BF60-../DPE09XA4	124	14100	39900	17	610	3.8
13	800	2.9	113.1	BF60-../DPE09XA4	124	14600	41300	15.5	670	3.4
11.5	910	2.5	125.5	BF60-../DPE09XA4	124	15300	43300	14	750	3.1
10.5	1000	2.3	140.8	BF60Z-../DPE09XA4	143	15300	43300	12.5	840	2.7
8.6	1220	1.9	169.2	BF60Z-../DPE09XA4	143	15300	43300	10.5	1000	2.3
7.7	1360	1.7	187.7	BF60Z-../DPE09XA4	143	15300	43300	9.3	1120	2.1
6.6	1590	1.45	221.4	BF60Z-../DPE09XA4	143	15300	43300	7.9	1320	1.75
5.9	1780	1.3	245.6	BF60Z-../DPE09XA4	143	15300	43300	7.1	1470	1.55
5.0	2100	1.1	293.4	BF60Z-../DPE09XA4	143	15300	43300	6.0	1750	1.3
4.5	2300	1.0	325.6	BF60Z-../DPE09XA4	143	15300	43300	5.4	1940	1.2
3.8	2750	0.84	380.0	BF60Z-../DPE09XA4	143	15300	43300	4.6	2250	1.0
6.2	1690	3.1	233.0	BF70Z-../DPE09XA4	231	16100	47700	7.5	1400	3.7
5.6	1870	2.8	258.7	BF70Z-../DPE09XA4	231	16100	47700	6.8	1540	3.4
4.8	2150	2.4	301.8	BF70Z-../DPE09XA4	231	16100	47700	5.8	1810	2.9
4.3	2400	2.2	341.7	BF70Z-../DPE09XA4	231	16100	47700	5.1	2050	2.5
3.7	2800	1.85	398.7	BF70Z-../DPE09XA4	231	16100	47700	4.4	2350	2.2
3.3	3150	1.65	439.2	BF70Z-../DPE09XA4	231	16100	47700	4.0	2600	2.0
2.9	3600	1.45	512.4	BF70Z-../DPE09XA4	231	16100	47700	3.4	3050	1.7

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



P = 1.1 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
2.8	3500	1.65	524.1	BF70G20-../DPE09XA4	229	16100	47700	3.4	2850	2.0
2.5	3950	1.45	577.5	BF70G20-../DPE09XA4	229	16100	47700	3.1	3100	1.85
2.2	4450	1.3	673.6	BF70G20-../DPE09XA4	229	16100	47700	2.6	3750	1.5
1.7	5900	0.97	872.1	BF70G20-../DPE09XA4	229	16100	47700	2.0	4950	1.15
1.5	6700	0.85	1017	BF70G20-../DPE09XA4	229	16100	47700	1.8	5500	1.05
3.2	3250	3.2	450.4	BF80Z-../DPE09XA4	348	39600	75000	3.9	2650	4.0
2.9	3600	2.9	511.2	BF80Z-../DPE09XA4	348	39600	75000	3.5	3000	3.5
2.5	4200	2.5	583.4	BF80Z-../DPE09XA4	348	39600	75000	3.0	3500	3.0
2.2	4750	2.2	662.1	BF80Z-../DPE09XA4	348	39600	75000	2.7	3850	2.7
1.9	5500	1.9	770.6	BF80Z-../DPE09XA4	348	39600	75000	2.3	4550	2.3
1.7	6100	1.7	874.6	BF80Z-../DPE09XA4	348	39600	75000	2.0	5200	2.0
1.5	7000	1.5	990.4	BF80Z-../DPE09XA4	348	39600	75000	1.8	5800	1.8
1.3	8000	1.3	1124	BF80Z-../DPE09XA4	348	39600	75000	1.6	6500	1.6
1.1	8100	1.3	1329	BF80G40-../DPE09XA4	353	39600	75000	1.4	6000	1.75
1.0	9100	1.15	1491	BF80G40-../DPE09XA4	353	39600	75000	1.2	7300	1.45
0.9	10000	1.05	1693	BF80G40-../DPE09XA4	353	39600	75000	1.1	7900	1.35
1.8	5800	3.2	845.1	BF90Z-../DPE09XA4	612	42800	120000	2.1	5000	3.7
1.4	6100	3.0	1043	BF90G50-../DPE09XA4	624	42800	120000	1.7	4750	3.9
1.2	7100	2.6	1204	BF90G50-../DPE09XA4	624	42800	120000	1.5	5300	3.5
1.0	9100	2.0	1444	BF90G50-../DPE09XA4	624	42800	120000	1.3	6700	2.8
0.9	10000	1.85	1678	BF90G50-../DPE09XA4	624	42800	120000	1.1	7900	2.3
0.8	11300	1.65	1867	BF90G50-../DPE09XA4	624	42800	120000	0.95	9200	2.0
0.7	12900	1.45	2154	BF90G50-../DPE09XA4	624	42800	120000	0.85	10300	1.8
0.55	16700	1.1	2656	BF90G50-../DPE09XA4	624	42800	120000	0.7	12600	1.45

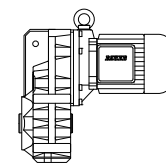
P = 1.5 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
260	55	2.5	5.60	BF10-../DPE09XB4	40	1950	-	315	45	3.1
190	75	2.0	7.58	BF10-../DPE09XB4	40	2200	-	230	62	2.5
149	96	1.85	9.69	BF10-../DPE09XB4	40	2350	-	180	79	2.2
122	117	1.55	11.84	BF10-../DPE09XB4	40	2500	-	147	97	1.9
96	149	1.25	15.04	BF10-../DPE09XB4	40	2800	-	116	123	1.5
79	181	1.35	18.23	BF10-../DPE09XB4	40	2900	-	96	149	1.6
72	198	1.2	20.05	BF10-../DPE09XB4	40	3000	-	87	164	1.45
62	230	1.05	23.28	BF10-../DPE09XB4	40	3200	-	75	191	1.25
57	250	0.96	25.60	BF10-../DPE09XB4	40	3350	-	68	210	1.15
51	280	0.86	28.47	BF10-../DPE09XB4	40	3450	-	62	230	1.05
180	79	2.8	8.00	BF20-../DPE09XB4	46	2850	-	220	65	3.4
138	103	2.5	10.51	BF20-../DPE09XB4	46	3100	-	166	86	3.0
110	130	2.2	13.18	BF20-../DPE09XB4	46	3300	-	133	107	2.7
93	154	2.0	15.54	BF20-../DPE09XB4	46	3450	-	112	127	2.4
86	166	2.2	16.77	BF20-../DPE09XB4	46	3500	-	104	137	2.6
79	181	2.0	18.45	BF20-../DPE09XB4	46	3600	-	95	150	2.5
66	215	1.85	22.04	BF20-../DPE09XB4	46	3800	-	79	181	2.2
60	235	1.7	24.25	BF20-../DPE09XB4	46	3950	-	72	198	2.0
53	270	1.55	27.62	BF20-../DPE09XB4	46	4150	-	63	225	1.85
47.5	300	1.4	30.40	BF20-../DPE09XB4	46	4400	-	58	245	1.7

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



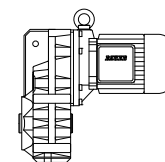
P = 1.5 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
44.5	320	1.3	32.58	BF20-../DPE09XB4	46	4450	-	54	265	1.6
40.5	350	1.2	35.85	BF20-../DPE09XB4	46	4650	-	49	290	1.45
35	405	1.05	41.72	BF20-../DPE09XB4	46	4950	-	42	340	1.25
31.5	450	0.93	45.90	BF20-../DPE09XB4	46	5100	-	38	375	1.1
30	475	0.88	48.56	BF20-../DPE09XB4	46	5200	-	36	395	1.05
145	98	3.3	9.99	BF30-../DPE09XB4	57	2850	-	175	81	4.0
112	127	2.9	12.91	BF30-../DPE09XB4	57	3050	-	135	106	3.5
90	159	2.6	16.00	BF30-../DPE09XB4	57	3250	-	109	131	3.1
82	174	2.8	17.65	BF30-../DPE09XB4	57	3300	-	99	144	3.3
75	191	2.6	19.41	BF30-../DPE09XB4	57	3400	-	90	159	3.2
66	215	2.5	21.85	BF30-../DPE09XB4	57	3500	-	80	179	3.0
60	235	2.4	24.03	BF30-../DPE09XB4	57	3600	-	73	196	2.8
52	275	2.1	28.23	BF30-../DPE09XB4	57	3800	-	62	230	2.5
46.5	305	1.9	31.05	BF30-../DPE09XB4	57	4000	-	57	250	2.3
41.5	345	1.65	35.00	BF30-../DPE09XB4	57	4200	-	50	285	2.0
37.5	380	1.5	38.49	BF30-../DPE09XB4	57	4400	-	45.5	310	1.85
35.5	400	1.45	41.01	BF30-../DPE09XB4	57	4500	-	42.5	335	1.7
32	445	1.3	45.10	BF30-../DPE09XB4	57	4700	-	39	365	1.6
28	510	1.15	52.20	BF30-../DPE09XB4	57	5000	-	33.5	425	1.35
25.5	560	1.05	57.41	BF30-../DPE09XB4	57	5200	-	30.5	465	1.25
24	590	0.97	61.17	BF30-../DPE09XB4	57	5300	-	28.5	500	1.15
21.5	660	0.87	67.28	BF30-../DPE09XB4	57	5500	-	26	550	1.05
20	710	0.81	72.13	BF30-../DPE09XB4	57	5700	-	24.5	580	0.99
67	210	3.3	21.60	BF40-../DPE09XB4	66	5200	-	81	176	4.0
61	230	3.2	23.77	BF40-../DPE09XB4	66	5400	-	74	193	3.8
54	265	2.9	26.86	BF40-../DPE09XB4	66	5600	-	65	220	3.5
49	290	2.8	29.55	BF40-../DPE09XB4	66	5800	-	59	240	3.4
42.5	335	2.6	34.21	BF40-../DPE09XB4	66	6000	-	51	280	3.1
38.5	370	2.4	37.64	BF40-../DPE09XB4	66	6200	-	46.5	305	2.9
35	405	2.2	41.42	BF40-../DPE09XB4	66	6500	-	42.5	335	2.7
32	445	2.0	45.56	BF40-../DPE09XB4	66	6800	-	38.5	370	2.4
29.5	485	1.85	48.92	BF40-../DPE09XB4	66	7000	-	36	395	2.3
27	530	1.7	53.82	BF40-../DPE09XB4	66	7200	-	32.5	440	2.0
24	590	1.55	61.25	BF40-../DPE09XB4	66	7600	-	28.5	500	1.8
21.5	660	1.35	67.38	BF40-../DPE09XB4	66	8000	-	26	550	1.65
20.5	690	1.3	71.40	BF40-../DPE09XB4	66	8100	-	24.5	580	1.55
18.5	770	1.15	78.55	BF40-../DPE09XB4	66	8500	-	22.5	630	1.45
17.5	810	1.1	83.91	BF40-../DPE09XB4	66	8700	-	21	680	1.3
16	890	1.0	92.31	BF40-../DPE09XB4	66	9100	-	19	750	1.2
14.5	980	0.92	101.0	BF40-../DPE09XB4	66	9400	-	17.5	810	1.1
13	1100	0.82	111.1	BF40-../DPE09XB4	66	9800	-	16	890	1.0
34.5	415	3.1	42.15	BF50-../DPE09XB4	94	8500	-	41.5	345	3.8
31	460	2.8	47.14	BF50-../DPE09XB4	94	8900	-	37	385	3.4
25.5	560	2.3	56.86	BF50-../DPE09XB4	94	9300	-	31	460	2.8
23	620	2.1	63.59	BF50-../DPE09XB4	94	9800	-	27.5	520	2.5
20	710	1.85	72.72	BF50-../DPE09XB4	94	10700	-	24	590	2.2
18	790	1.65	81.33	BF50-../DPE09XB4	94	11300	-	21.5	660	1.95
16	890	1.45	90.24	BF50-../DPE09XB4	94	11800	-	19.5	730	1.8
14.5	980	1.35	100.9	BF50-../DPE09XB4	94	12300	-	17.5	810	1.6
13	1100	1.2	114.0	BF50-../DPE09XB4	94	12900	-	15.5	920	1.4
11.5	1240	1.05	127.5	BF50-../DPE09XB4	94	13600	-	14	1020	1.25
10.5	1360	0.96	138.1	BF50Z-../DPE09XB4	99	13600	-	13	1100	1.2
9.4	1520	0.86	154.5	BF50Z-../DPE09XB4	99	13600	-	11.5	1240	1.05
20	710	3.2	72.15	BF60-../DPE09XB4	124	12000	34000	24.5	580	4.0
18	790	2.9	80.05	BF60-../DPE09XB4	124	12600	35600	22	650	3.5
15.5	920	2.5	93.44	BF60-../DPE09XB4	124	13500	38200	19	750	3.1
14	1020	2.3	103.7	BF60-../DPE09XB4	124	14100	39900	17	840	2.7

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



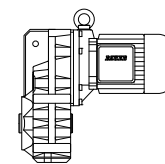
P = 1.5 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
13	1100	2.1	113.1	BF60-../DPE09XB4	124	14600	41300	15.5	920	2.5
11.5	1240	1.85	125.5	BF60-../DPE09XB4	124	15300	43300	14	1020	2.3
10.5	1360	1.7	140.8	BF60Z-../DPE09XB4	143	15300	43300	12.5	1140	2.0
8.6	1660	1.4	169.2	BF60Z-../DPE09XB4	143	15300	43300	10.5	1360	1.7
7.7	1860	1.25	187.7	BF60Z-../DPE09XB4	143	15300	43300	9.3	1540	1.5
6.6	2150	1.05	221.4	BF60Z-../DPE09XB4	143	15300	43300	7.9	1810	1.25
5.9	2400	0.96	245.6	BF60Z-../DPE09XB4	143	15300	43300	7.1	2000	1.15
5.0	2850	0.81	293.4	BF60Z-../DPE09XB4	143	15300	43300	6.0	2350	0.98
8.1	1760	3.0	179.7	BF70Z-../DPE09XB4	231	16100	47700	9.7	1470	3.5
7.3	1960	2.7	199.7	BF70Z-../DPE09XB4	231	16100	47700	8.8	1620	3.2
6.2	2300	2.3	233.0	BF70Z-../DPE09XB4	231	16100	47700	7.5	1910	2.7
5.6	2550	2.0	258.7	BF70Z-../DPE09XB4	231	16100	47700	6.8	2100	2.5
4.8	2950	1.75	301.8	BF70Z-../DPE09XB4	231	16100	47700	5.8	2450	2.1
4.3	3300	1.6	341.7	BF70Z-../DPE09XB4	231	16100	47700	5.1	2800	1.85
3.7	3850	1.35	398.7	BF70Z-../DPE09XB4	231	16100	47700	4.4	3250	1.6
3.3	4300	1.2	439.2	BF70Z-../DPE09XB4	231	16100	47700	4.0	3550	1.45
2.9	4900	1.05	512.4	BF70Z-../DPE09XB4	231	16100	47700	3.4	4200	1.25
2.8	4850	1.2	524.1	BF70G20-../DPE09XB4	229	16100	47700	3.4	3950	1.45
2.5	5400	1.05	577.5	BF70G20-../DPE09XB4	229	16100	47700	3.1	4350	1.3
2.2	6200	0.92	673.6	BF70G20-../DPE09XB4	229	16100	47700	2.6	5200	1.1
4.2	3400	3.1	347.3	BF80Z-../DPE09XB4	348	39600	75000	5.1	2800	3.8
3.7	3850	2.7	394.2	BF80Z-../DPE09XB4	348	39600	75000	4.5	3150	3.3
3.2	4450	2.4	450.4	BF80Z-../DPE09XB4	348	39600	75000	3.9	3650	2.9
2.9	4900	2.1	511.2	BF80Z-../DPE09XB4	348	39600	75000	3.5	4050	2.6
2.5	5700	1.85	583.4	BF80Z-../DPE09XB4	348	39600	75000	3.0	4750	2.2
2.2	6500	1.6	662.1	BF80Z-../DPE09XB4	348	39600	75000	2.7	5300	2.0
1.9	7500	1.4	770.6	BF80Z-../DPE09XB4	348	39600	75000	2.3	6200	1.7
1.7	8400	1.25	874.6	BF80Z-../DPE09XB4	348	39600	75000	2.0	7100	1.5
1.5	9500	1.1	990.4	BF80Z-../DPE09XB4	348	39600	75000	1.8	7900	1.35
1.3	11000	0.95	1124	BF80Z-../DPE09XB4	348	39600	75000	1.6	8900	1.2
1.1	11500	0.91	1329	BF80G40-../DPE09XB4	353	39600	75000	1.4	8700	1.2
1.0	12900	0.81	1491	BF80G40-../DPE09XB4	353	39600	75000	1.2	10500	1.0
2.5	5700	3.2	591.1	BF90Z-../DPE09XB4	612	42800	120000	3.0	4750	3.9
2.2	6500	2.8	658.1	BF90Z-../DPE09XB4	612	42800	120000	2.7	5300	3.5
1.9	7500	2.5	759.0	BF90Z-../DPE09XB4	612	42800	120000	2.3	6200	3.0
1.8	7900	2.3	845.1	BF90Z-../DPE09XB4	612	42800	120000	2.1	6800	2.7
1.5	7900	2.3	976.1	BF90G50-../DPE09XB4	624	42800	120000	1.8	6300	2.9
1.4	8800	2.1	1043	BF90G50-../DPE09XB4	624	42800	120000	1.7	7000	2.6
1.2	10300	1.8	1204	BF90G50-../DPE09XB4	624	42800	120000	1.5	7900	2.3
1.0	12900	1.45	1444	BF90G50-../DPE09XB4	624	42800	120000	1.3	9600	1.95
0.9	14300	1.3	1678	BF90G50-../DPE09XB4	624	42800	120000	1.1	11400	1.6
0.8	16100	1.15	1867	BF90G50-../DPE09XB4	624	42800	120000	0.95	13200	1.4
0.7	18400	1.0	2154	BF90G50-../DPE09XB4	624	42800	120000	0.85	14700	1.25

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



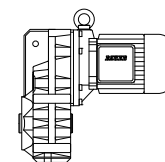
P = 2.2 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
260	80	1.75	5.60	BF10-../DPE09XB4C	43	1950	-	315	66	2.1
192	109	1.4	7.58	BF10-../DPE09XB4C	43	2200	-	230	91	1.7
150	140	1.25	9.69	BF10-../DPE09XB4C	43	2350	-	180	116	1.55
123	170	1.1	11.84	BF10-../DPE09XB4C	43	2500	-	147	142	1.3
97	215	0.85	15.04	BF10-../DPE09XB4C	43	2800	-	116	181	1.0
80	260	0.92	18.23	BF10-../DPE09XB4C	43	2900	-	96	215	1.1
73	285	0.84	20.05	BF10-../DPE09XB4C	43	3000	-	87	240	1.0
245	85	2.4	6.04	BF20-../DPE09XB4C	49	2550	-	290	72	2.8
182	115	1.9	8.00	BF20-../DPE09XB4C	49	2850	-	220	95	2.3
138	152	1.7	10.51	BF20-../DPE09XB4C	49	3100	-	166	126	2.0
111	189	1.5	13.18	BF20-../DPE09XB4C	49	3300	-	133	157	1.8
94	220	1.4	15.54	BF20-../DPE09XB4C	49	3450	-	112	187	1.65
87	240	1.5	16.77	BF20-../DPE09XB4C	49	3500	-	104	200	1.8
79	265	1.4	18.45	BF20-../DPE09XB4C	49	3600	-	95	220	1.7
66	315	1.25	22.04	BF20-../DPE09XB4C	49	3800	-	79	265	1.5
60	350	1.15	24.25	BF20-../DPE09XB4C	49	3950	-	72	290	1.4
53	395	1.05	27.62	BF20-../DPE09XB4C	49	4150	-	63	330	1.25
48	435	0.97	30.40	BF20-../DPE09XB4C	49	4400	-	58	360	1.15
45	465	0.9	32.58	BF20-../DPE09XB4C	49	4450	-	54	385	1.1
40.5	510	0.82	35.85	BF20-../DPE09XB4C	49	4650	-	49	425	0.99
230	91	2.9	6.34	BF30-../DPE09XB4C	59	2400	-	275	76	3.5
180	116	2.5	8.07	BF30-../DPE09XB4C	59	2650	-	220	95	3.0
146	143	2.2	9.99	BF30-../DPE09XB4C	59	2850	-	175	120	2.7
113	185	2.0	12.91	BF30-../DPE09XB4C	59	3050	-	135	155	2.4
91	230	1.75	16.00	BF30-../DPE09XB4C	59	3250	-	109	192	2.1
83	250	1.9	17.65	BF30-../DPE09XB4C	59	3300	-	99	210	2.3
75	280	1.8	19.41	BF30-../DPE09XB4C	59	3400	-	90	230	2.2
67	310	1.7	21.85	BF30-../DPE09XB4C	59	3500	-	80	260	2.0
61	340	1.65	24.03	BF30-../DPE09XB4C	59	3600	-	73	285	1.95
52	400	1.45	28.23	BF30-../DPE09XB4C	59	3800	-	62	335	1.7
47	445	1.3	31.05	BF30-../DPE09XB4C	59	4000	-	57	365	1.6
41.5	500	1.15	35.00	BF30-../DPE09XB4C	59	4200	-	50	420	1.35
38	550	1.05	38.49	BF30-../DPE09XB4C	59	4400	-	45.5	460	1.25
35.5	590	0.97	41.01	BF30-../DPE09XB4C	59	4500	-	42.5	490	1.15
32.5	640	0.9	45.10	BF30-../DPE09XB4C	59	4700	-	39	530	1.1
191	110	3.3	7.62	BF40-../DPE09XB4C	69	3900	-	230	91	4.0
153	137	3.0	9.48	BF40-../DPE09XB4C	69	4150	-	184	114	3.6
123	170	2.7	11.79	BF40-../DPE09XB4C	69	4450	-	148	141	3.3
97	215	2.4	15.02	BF40-../DPE09XB4C	69	4800	-	116	181	2.9
84	250	2.5	17.35	BF40-../DPE09XB4C	69	4950	-	101	205	3.1
76	275	2.4	19.09	BF40-../DPE09XB4C	69	5100	-	92	225	3.0
68	305	2.3	21.60	BF40-../DPE09XB4C	69	5200	-	81	255	2.8
62	335	2.2	23.77	BF40-../DPE09XB4C	69	5400	-	74	280	2.6
54	385	2.0	26.86	BF40-../DPE09XB4C	69	5600	-	65	320	2.4
49.5	420	1.9	29.55	BF40-../DPE09XB4C	69	5800	-	59	355	2.3
42.5	490	1.75	34.21	BF40-../DPE09XB4C	69	6000	-	51	410	2.1
39	530	1.7	37.64	BF40-../DPE09XB4C	69	6200	-	46.5	450	2.0
35.5	590	1.55	41.42	BF40-../DPE09XB4C	69	6500	-	42.5	490	1.85
32	650	1.4	45.56	BF40-../DPE09XB4C	69	6800	-	38.5	540	1.65
30	700	1.3	48.92	BF40-../DPE09XB4C	69	7000	-	36	580	1.55
27	770	1.15	53.82	BF40-../DPE09XB4C	69	7200	-	32.5	640	1.4
24	870	1.05	61.25	BF40-../DPE09XB4C	69	7600	-	28.5	730	1.25
22	950	0.95	67.38	BF40-../DPE09XB4C	69	8000	-	26	800	1.15
20.5	1020	0.88	71.40	BF40-../DPE09XB4C	69	8100	-	24.5	850	1.05
18.5	1130	0.8	78.55	BF40-../DPE09XB4C	69	8500	-	22.5	930	0.97
57	365	3.2	25.88	BF50-../DPE09XB4C	97	7100	-	68	305	3.8
46	455	2.8	31.73	BF50-../DPE09XB4C	97	7500	-	55	380	3.3
41	510	2.5	35.49	BF50-../DPE09XB4C	97	7800	-	49.5	420	3.1

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



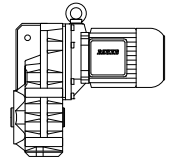
P = 2.2 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
34.5	600	2.2	42.15	BF50-../DPE09XB4C	97	8500	-	41.5	500	2.6
31	670	1.95	47.14	BF50-../DPE09XB4C	97	8900	-	37	560	2.3
26	800	1.65	56.86	BF50-../DPE09XB4C	97	9300	-	31	670	1.95
23	910	1.45	63.59	BF50-../DPE09XB4C	97	9800	-	27.5	760	1.7
20	1050	1.25	72.72	BF50-../DPE09XB4C	97	10700	-	24	870	1.5
18	1160	1.1	81.33	BF50-../DPE09XB4C	97	11300	-	21.5	970	1.35
16.5	1270	1.0	90.24	BF50-../DPE09XB4C	97	11800	-	19.5	1070	1.2
14.5	1440	0.9	100.9	BF50-../DPE09XB4C	97	12300	-	17.5	1200	1.1
13	1610	0.81	114.0	BF50-../DPE09XB4C	97	12900	-	15.5	1350	0.96
27	770	3.0	54.44	BF60-../DPE09XB4C	126	10500	29700	32	650	3.5
24.5	850	2.7	60.40	BF60-../DPE09XB4C	126	11100	31400	29	720	3.2
20.5	1020	2.3	72.15	BF60-../DPE09XB4C	126	12000	34000	24.5	850	2.7
18.5	1130	2.0	80.05	BF60-../DPE09XB4C	126	12600	35600	22	950	2.4
16	1310	1.75	93.44	BF60-../DPE09XB4C	126	13500	38200	19	1100	2.1
14	1500	1.55	103.7	BF60-../DPE09XB4C	126	14100	39900	17	1230	1.85
13	1610	1.45	113.1	BF60-../DPE09XB4C	126	14600	41300	15.5	1350	1.7
12	1750	1.3	125.5	BF60-../DPE09XB4C	126	15300	43300	14	1500	1.55
10.5	2000	1.15	140.8	BF60Z-../DPE09XB4C	146	15300	43300	12.5	1680	1.35
8.6	2400	0.96	169.2	BF60Z-../DPE09XB4C	146	15300	43300	10.5	2000	1.15
7.8	2650	0.87	187.7	BF60Z-../DPE09XB4C	146	15300	43300	9.3	2250	1.0
12	1750	3.0	122.7	BF70-../DPE09XB4C	213	16100	47700	14.5	1440	3.6
11	1910	2.7	133.0	BF70Z-../DPE09XB4C	234	16100	47700	13.5	1550	3.4
9.5	2200	2.4	154.0	BF70Z-../DPE09XB4C	234	16100	47700	11.5	1820	2.9
8.1	2550	2.0	179.7	BF70Z-../DPE09XB4C	234	16100	47700	9.7	2150	2.4
7.3	2850	1.8	199.7	BF70Z-../DPE09XB4C	234	16100	47700	8.8	2350	2.2
6.3	3300	1.6	233.0	BF70Z-../DPE09XB4C	234	16100	47700	7.5	2800	1.85
5.7	3650	1.4	258.7	BF70Z-../DPE09XB4C	234	16100	47700	6.8	3050	1.7
4.9	4250	1.2	301.8	BF70Z-../DPE09XB4C	234	16100	47700	5.8	3600	1.45
4.3	4850	1.05	341.7	BF70Z-../DPE09XB4C	234	16100	47700	5.1	4100	1.25
3.7	5600	0.93	398.7	BF70Z-../DPE09XB4C	234	16100	47700	4.4	4750	1.1
3.4	6100	0.85	439.2	BF70Z-../DPE09XB4C	234	16100	47700	4.0	5200	1.0
7.0	3000	3.2	209.4	BF80-../DPE09XB4C	309	34300	75000	8.4	2500	3.8
6.2	3350	2.8	237.1	BF80-../DPE09XB4C	309	36900	75000	7.4	2800	3.4
5.4	3850	2.5	269.1	BF80-../DPE09XB4C	309	39600	75000	6.5	3200	3.0
5.0	4200	2.5	291.7	BF80Z-../DPE09XB4C	350	39600	75000	6.0	3500	3.0
4.2	5000	2.1	347.3	BF80Z-../DPE09XB4C	350	39600	75000	5.1	4100	2.6
3.7	5600	1.9	394.2	BF80Z-../DPE09XB4C	350	39600	75000	4.5	4650	2.3
3.3	6300	1.65	450.4	BF80Z-../DPE09XB4C	350	39600	75000	3.9	5300	2.0
2.9	7200	1.45	511.2	BF80Z-../DPE09XB4C	350	39600	75000	3.5	6000	1.75
2.5	8400	1.25	583.4	BF80Z-../DPE09XB4C	350	39600	75000	3.0	7000	1.5
2.2	9500	1.1	662.1	BF80Z-../DPE09XB4C	350	39600	75000	2.7	7700	1.35
1.9	11000	0.95	770.6	BF80Z-../DPE09XB4C	350	39600	75000	2.3	9100	1.15
1.7	12300	0.85	874.6	BF80Z-../DPE09XB4C	350	39600	75000	2.0	10500	1.0
3.2	6500	2.8	456.7	BF90Z-../DPE09XB4C	614	42800	120000	3.9	5300	3.5
2.9	7200	2.6	508.5	BF90Z-../DPE09XB4C	614	42800	120000	3.5	6000	3.1
2.5	8400	2.2	591.1	BF90Z-../DPE09XB4C	614	42800	120000	3.0	7000	2.6
2.3	9100	2.0	658.1	BF90Z-../DPE09XB4C	614	42800	120000	2.7	7700	2.4
2.0	10500	1.75	759.0	BF90Z-../DPE09XB4C	614	42800	120000	2.3	9100	2.0
1.8	11600	1.6	845.1	BF90Z-../DPE09XB4C	614	42800	120000	2.1	10000	1.85
1.5	12400	1.5	976.1	BF90G50-../DPE09XB4C	626	42800	120000	1.8	10000	1.85
1.4	13600	1.35	1043	BF90G50-../DPE09XB4C	626	42800	120000	1.7	10900	1.7
1.3	14500	1.3	1204	BF90G50-../DPE09XB4C	626	42800	120000	1.5	12300	1.5
1.1	17700	1.05	1444	BF90G50-../DPE09XB4C	626	42800	120000	1.3	14700	1.25

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



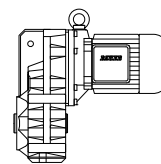
P = 3 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
230	124	2.1	6.34	BF30-../DPE11LA4	78	2400	-	275	104	2.5
180	159	1.8	8.07	BF30-../DPE11LA4	78	2650	-	220	130	2.2
146	196	1.65	9.99	BF30-../DPE11LA4	78	2850	-	175	163	1.95
113	250	1.45	12.91	BF30-../DPE11LA4	78	3050	-	135	210	1.75
91	310	1.3	16.00	BF30-../DPE11LA4	78	3250	-	109	260	1.55
83	345	1.4	17.65	BF30-../DPE11LA4	78	3300	-	99	285	1.7
75	380	1.3	19.41	BF30-../DPE11LA4	78	3400	-	90	315	1.6
67	425	1.25	21.85	BF30-../DPE11LA4	78	3500	-	80	355	1.5
61	465	1.2	24.03	BF30-../DPE11LA4	78	3600	-	73	390	1.4
52	550	1.05	28.23	BF30-../DPE11LA4	78	3800	-	62	460	1.25
47	600	0.96	31.05	BF30-../DPE11LA4	78	4000	-	57	500	1.15
41.5	690	0.83	35.00	BF30-../DPE11LA4	78	4200	-	50	570	1.0
250	114	2.9	5.87	BF40-../DPE11LA4	92	3550	-	300	95	3.5
191	150	2.5	7.62	BF40-../DPE11LA4	92	3900	-	230	124	3.0
153	187	2.2	9.48	BF40-../DPE11LA4	92	4150	-	184	155	2.7
123	230	2.0	11.79	BF40-../DPE11LA4	92	4450	-	148	193	2.4
97	295	1.75	15.02	BF40-../DPE11LA4	92	4800	-	116	245	2.1
84	340	1.85	17.35	BF40-../DPE11LA4	92	4950	-	101	280	2.3
76	375	1.75	19.09	BF40-../DPE11LA4	92	5100	-	92	310	2.1
68	420	1.65	21.60	BF40-../DPE11LA4	92	5200	-	81	350	2.0
62	460	1.6	23.77	BF40-../DPE11LA4	92	5400	-	74	385	1.9
54	530	1.45	26.86	BF40-../DPE11LA4	92	5600	-	65	440	1.75
49.5	570	1.4	29.55	BF40-../DPE11LA4	92	5800	-	59	485	1.65
42.5	670	1.3	34.21	BF40-../DPE11LA4	92	6000	-	51	560	1.55
39	730	1.2	37.64	BF40-../DPE11LA4	92	6200	-	46.5	610	1.45
35.5	800	1.15	41.42	BF40-../DPE11LA4	92	6500	-	42.5	670	1.35
32	890	1.0	45.56	BF40-../DPE11LA4	92	6800	-	38.5	740	1.2
30	950	0.95	48.92	BF40-../DPE11LA4	92	7000	-	36	790	1.15
27	1060	0.85	53.82	BF40-../DPE11LA4	92	7200	-	32.5	880	1.0
136	210	3.2	10.68	BF50-../DPE11LA4	122	5600	-	163	175	3.9
99	285	2.8	14.65	BF50-../DPE11LA4	122	6100	-	119	240	3.3
87	325	2.9	16.70	BF50-../DPE11LA4	122	6200	-	105	270	3.5
78	365	2.7	18.68	BF50-../DPE11LA4	122	6400	-	94	300	3.3
63	450	2.5	23.14	BF50-../DPE11LA4	122	6800	-	76	375	3.0
57	500	2.3	25.88	BF50-../DPE11LA4	122	7100	-	68	420	2.8
46	620	2.0	31.73	BF50-../DPE11LA4	122	7500	-	55	520	2.4
41	690	1.9	35.49	BF50-../DPE11LA4	122	7800	-	49.5	570	2.3
34.5	830	1.55	42.15	BF50-../DPE11LA4	122	8500	-	41.5	690	1.9
31	920	1.4	47.14	BF50-../DPE11LA4	122	8900	-	37	770	1.7
26	1100	1.2	56.86	BF50-../DPE11LA4	122	9300	-	31	920	1.4
23	1240	1.05	63.59	BF50-../DPE11LA4	122	9800	-	27.5	1040	1.25
20	1430	0.91	72.72	BF50-../DPE11LA4	122	10700	-	24	1190	1.1
18	1590	0.82	81.33	BF50-../DPE11LA4	122	11300	-	21.5	1330	0.98
46.5	610	3.1	31.20	BF60-../DPE11LA4	153	8800	24900	56	510	3.7
42	680	2.9	34.62	BF60-../DPE11LA4	153	9100	25700	51	560	3.5
35	810	2.6	41.60	BF60-../DPE11LA4	153	9600	27100	42	680	3.1
31.5	900	2.5	46.16	BF60-../DPE11LA4	153	9900	28000	38	750	3.0
27	1060	2.2	54.44	BF60-../DPE11LA4	153	10500	29700	32	890	2.6
24.5	1160	2.0	60.40	BF60-../DPE11LA4	153	11100	31400	29	980	2.3
20.5	1390	1.65	72.15	BF60-../DPE11LA4	153	12000	34000	24.5	1160	2.0
18.5	1540	1.5	80.05	BF60-../DPE11LA4	153	12600	35600	22	1300	1.75
16	1790	1.3	93.44	BF60-../DPE11LA4	153	13500	38200	19	1500	1.55
14	2000	1.15	103.7	BF60-../DPE11LA4	153	14100	39900	17	1680	1.35
13	2200	1.05	113.1	BF60-../DPE11LA4	153	14600	41300	15.5	1840	1.25
12	2350	0.98	125.5	BF60-../DPE11LA4	153	15300	43300	14	2000	1.15
10.5	2700	0.85	140.8	BF60Z-../DPE11LA4	169	15300	43300	12.5	2250	1.0
18	1590	3.3	81.82	BF70-../DPE11LA4	232	12800	41300	21.5	1330	3.9

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



P = 3 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
15.5	1840	2.8	95.46	BF70-../DPE11LA4	232	14000	43700	18.5	1540	3.4
14	2000	2.6	105.2	BF70-../DPE11LA4	232	14700	45100	17	1680	3.1
12	2350	2.2	122.7	BF70-../DPE11LA4	232	16100	47700	14.5	1970	2.6
11	2600	2.0	133.0	BF70Z-../DPE11LA4	258	16100	47700	13.5	2100	2.5
9.5	3000	1.75	154.0	BF70Z-../DPE11LA4	258	16100	47700	11.5	2450	2.1
8.1	3500	1.5	179.7	BF70Z-../DPE11LA4	258	16100	47700	9.7	2950	1.75
7.3	3900	1.35	199.7	BF70Z-../DPE11LA4	258	16100	47700	8.8	3250	1.6
6.3	4500	1.15	233.0	BF70Z-../DPE11LA4	258	16100	47700	7.5	3800	1.35
5.7	5000	1.05	258.7	BF70Z-../DPE11LA4	258	16100	47700	6.8	4200	1.25
4.9	5800	0.9	301.8	BF70Z-../DPE11LA4	258	16100	47700	5.8	4900	1.05
9.2	3100	3.1	158.5	BF80-../DPE11LA4	328	29000	75000	11	2600	3.7
7.9	3600	2.6	184.5	BF80-../DPE11LA4	328	31800	75000	9.5	3000	3.2
7.0	4050	2.3	209.4	BF80-../DPE11LA4	328	34300	75000	8.4	3400	2.8
6.2	4600	2.1	237.1	BF80-../DPE11LA4	328	36900	75000	7.4	3850	2.5
5.4	5300	1.8	269.1	BF80-../DPE11LA4	328	39600	75000	6.5	4400	2.2
5.0	5700	1.85	291.7	BF80Z-../DPE11LA4	375	39600	75000	6.0	4750	2.2
4.2	6800	1.55	347.3	BF80Z-../DPE11LA4	375	39600	75000	5.1	5600	1.9
3.7	7700	1.35	394.2	BF80Z-../DPE11LA4	375	39600	75000	4.5	6300	1.65
3.3	8600	1.2	450.4	BF80Z-../DPE11LA4	375	39600	75000	3.9	7300	1.45
2.9	9800	1.05	511.2	BF80Z-../DPE11LA4	375	39600	75000	3.5	8100	1.3
2.5	11400	0.92	583.4	BF80Z-../DPE11LA4	375	39600	75000	3.0	9500	1.1
2.2	13000	0.81	662.1	BF80Z-../DPE11LA4	375	39600	75000	2.7	10600	0.99
5.6	5100	3.3	259.0	BF90-../DPE11LA4	581	42800	120000	6.8	4200	4.0
4.9	5800	3.2	300.4	BF90Z-../DPE11LA4	641	42800	120000	5.8	4900	3.8
4.3	6600	2.8	343.6	BF90Z-../DPE11LA4	641	42800	120000	5.1	5600	3.3
3.8	7500	2.5	382.6	BF90Z-../DPE11LA4	641	42800	120000	4.6	6200	3.0
3.2	8900	2.1	456.7	BF90Z-../DPE11LA4	641	42800	120000	3.9	7300	2.5
2.9	9800	1.9	508.5	BF90Z-../DPE11LA4	641	42800	120000	3.5	8100	2.3
2.5	11400	1.6	591.1	BF90Z-../DPE11LA4	641	42800	120000	3.0	9500	1.95
2.3	12400	1.5	658.1	BF90Z-../DPE11LA4	641	42800	120000	2.7	10600	1.75
2.0	14300	1.3	759.0	BF90Z-../DPE11LA4	641	42800	120000	2.3	12400	1.5
1.8	15900	1.15	845.1	BF90Z-../DPE11LA4	641	42800	120000	2.1	13600	1.35
1.5	17500	1.05	976.1	BF90G50-../DPE11LA4	651	42800	120000	1.8	14300	1.3
1.4	19000	0.97	1043	BF90G50-../DPE11LA4	651	42800	120000	1.7	15400	1.2
1.3	20400	0.91	1204	BF90G50-../DPE11LA4	651	42800	120000	1.5	17400	1.05

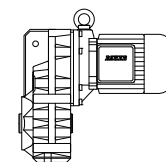
P = 4 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
230	166	1.6	6.34	BF30-../DPE11LB4	78	2400	-	275	138	1.9
180	210	1.35	8.07	BF30-../DPE11LB4	78	2650	-	220	173	1.65
146	260	1.25	9.99	BF30-../DPE11LB4	78	2850	-	175	215	1.5
113	335	1.1	12.91	BF30-../DPE11LB4	78	3050	-	135	280	1.3
91	415	0.98	16.00	BF30-../DPE11LB4	78	3250	-	109	350	1.15
83	460	1.05	17.65	BF30-../DPE11LB4	78	3300	-	99	385	1.25
75	500	1.0	19.41	BF30-../DPE11LB4	78	3400	-	90	420	1.2
67	570	0.93	21.85	BF30-../DPE11LB4	78	3500	-	80	475	1.1
61	620	0.89	24.03	BF30-../DPE11LB4	78	3600	-	73	520	1.05

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



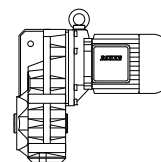
P = 4 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
250	152	2.2	5.87	BF40-../DPE11LB4	92	3550	-	300	127	2.6
191	200	1.85	7.62	BF40-../DPE11LB4	92	3900	-	230	166	2.2
153	245	1.7	9.48	BF40-../DPE11LB4	92	4150	-	184	205	2.0
123	310	1.5	11.79	BF40-../DPE11LB4	92	4450	-	148	255	1.8
97	390	1.35	15.02	BF40-../DPE11LB4	92	4800	-	116	325	1.6
84	450	1.4	17.35	BF40-../DPE11LB4	92	4950	-	101	375	1.7
76	500	1.35	19.09	BF40-../DPE11LB4	92	5100	-	92	415	1.6
68	560	1.25	21.60	BF40-../DPE11LB4	92	5200	-	81	470	1.5
62	610	1.2	23.77	BF40-../DPE11LB4	92	5400	-	74	510	1.45
54	700	1.1	26.86	BF40-../DPE11LB4	92	5600	-	65	580	1.35
49.5	770	1.05	29.55	BF40-../DPE11LB4	92	5800	-	59	640	1.25
42.5	890	0.96	34.21	BF40-../DPE11LB4	92	6000	-	51	740	1.15
39	970	0.92	37.64	BF40-../DPE11LB4	92	6200	-	46.5	820	1.1
35.5	1070	0.84	41.42	BF40-../DPE11LB4	92	6500	-	42.5	890	1.0
189	200	2.8	7.71	BF50-../DPE11LB4	122	5100	-	230	166	3.4
136	280	2.4	10.68	BF50-../DPE11LB4	122	5600	-	163	230	2.9
99	385	2.1	14.65	BF50-../DPE11LB4	122	6100	-	119	320	2.5
87	435	2.2	16.70	BF50-../DPE11LB4	122	6200	-	105	360	2.6
78	485	2.1	18.68	BF50-../DPE11LB4	122	6400	-	94	405	2.5
63	600	1.85	23.14	BF50-../DPE11LB4	122	6800	-	76	500	2.2
57	670	1.75	25.88	BF50-../DPE11LB4	122	7100	-	68	560	2.1
46	830	1.55	31.73	BF50-../DPE11LB4	122	7500	-	55	690	1.85
41	930	1.4	35.49	BF50-../DPE11LB4	122	7800	-	49.5	770	1.7
34.5	1100	1.2	42.15	BF50-../DPE11LB4	122	8500	-	41.5	920	1.4
31	1230	1.05	47.14	BF50-../DPE11LB4	122	8900	-	37	1030	1.25
26	1460	0.89	56.86	BF50-../DPE11LB4	122	9300	-	31	1230	1.05
102	370	3.2	14.24	BF60-../DPE11LB4	153	7100	20000	123	310	3.8
86	440	3.3	16.96	BF60-../DPE11LB4	153	7300	20600	103	370	3.9
78	485	3.1	18.81	BF60-../DPE11LB4	153	7600	21500	93	410	3.7
65	580	2.9	22.58	BF60-../DPE11LB4	153	8000	22600	78	485	3.4
58	650	2.7	25.05	BF60-../DPE11LB4	153	8200	23200	70	540	3.2
46.5	820	2.3	31.20	BF60-../DPE11LB4	153	8800	24900	56	680	2.8
42	900	2.2	34.62	BF60-../DPE11LB4	153	9100	25700	51	740	2.7
35	1090	1.95	41.60	BF60-../DPE11LB4	153	9600	27100	42	900	2.4
31.5	1210	1.85	46.16	BF60-../DPE11LB4	153	9900	28000	38	1000	2.2
27	1410	1.65	54.44	BF60-../DPE11LB4	153	10500	29700	32	1190	1.95
24.5	1550	1.5	60.40	BF60-../DPE11LB4	153	11100	31400	29	1310	1.75
20.5	1860	1.25	72.15	BF60-../DPE11LB4	153	12000	34000	24.5	1550	1.5
18.5	2050	1.1	80.05	BF60-../DPE11LB4	153	12600	35600	22	1730	1.35
16	2350	0.98	93.44	BF60-../DPE11LB4	153	13500	38200	19	2000	1.15
14	2700	0.85	103.7	BF60-../DPE11LB4	153	14100	39900	17	2200	1.05
23.5	1620	3.2	61.94	BF70-../DPE11LB4	232	10800	37400	28.5	1340	3.9
20.5	1860	2.8	72.26	BF70-../DPE11LB4	232	12000	39600	24.5	1550	3.4
18	2100	2.5	81.82	BF70-../DPE11LB4	232	12800	41300	21.5	1770	2.9
15.5	2450	2.1	95.46	BF70-../DPE11LB4	232	14000	43700	18.5	2050	2.5
14	2700	1.95	105.2	BF70-../DPE11LB4	232	14700	45100	17	2200	2.4
12	3150	1.65	122.7	BF70-../DPE11LB4	232	16100	47700	14.5	2600	2.0
11	3450	1.5	133.0	BF70Z-../DPE11LB4	258	16100	47700	13.5	2800	1.85
9.5	4000	1.3	154.0	BF70Z-../DPE11LB4	258	16100	47700	11.5	3300	1.6
8.1	4700	1.1	179.7	BF70Z-../DPE11LB4	258	16100	47700	9.7	3900	1.35
7.3	5200	1.0	199.7	BF70Z-../DPE11LB4	258	16100	47700	8.8	4300	1.2
6.3	6000	0.87	233.0	BF70Z-../DPE11LB4	258	16100	47700	7.5	5000	1.05
12	3150	3.0	122.4	BF80-../DPE11LB4	328	24500	75000	14.5	2600	3.7
10.5	3600	2.6	139.7	BF80-../DPE11LB4	328	26700	75000	12.5	3050	3.1
9.2	4150	2.3	158.5	BF80-../DPE11LB4	328	29000	75000	11	3450	2.8
7.9	4800	2.0	184.5	BF80-../DPE11LB4	328	31800	75000	9.5	4000	2.4

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



P = 4 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
7.0	5400	1.75	209.4	BF80-../DPE11LB4	328	34300	75000	8.4	4500	2.1
6.2	6100	1.55	237.1	BF80-../DPE11LB4	328	36900	75000	7.4	5100	1.85
5.4	7000	1.35	269.1	BF80-../DPE11LB4	328	39600	75000	6.5	5800	1.65
5.0	7600	1.4	291.7	BF80Z-../DPE11LB4	375	39600	75000	6.0	6300	1.65
4.2	9000	1.15	347.3	BF80Z-../DPE11LB4	375	39600	75000	5.1	7400	1.4
3.7	10300	1.0	394.2	BF80Z-../DPE11LB4	375	39600	75000	4.5	8400	1.25
3.3	11500	0.91	450.4	BF80Z-../DPE11LB4	375	39600	75000	3.9	9700	1.1
2.9	13100	0.8	511.2	BF80Z-../DPE11LB4	375	39600	75000	3.5	10900	0.96
7.3	5200	3.2	198.8	BF90-../DPE11LB4	581	36000	111300	8.8	4300	3.9
6.3	6000	2.8	232.6	BF90-../DPE11LB4	581	39900	118300	7.5	5000	3.4
5.6	6800	2.5	259.0	BF90-../DPE11LB4	581	42800	120000	6.8	5600	3.0
5.4	7000	2.6	269.8	BF90Z-../DPE11LB4	641	42800	120000	6.5	5800	3.2
4.9	7700	2.4	300.4	BF90Z-../DPE11LB4	641	42800	120000	5.8	6500	2.8
4.3	8800	2.1	343.6	BF90Z-../DPE11LB4	641	42800	120000	5.1	7400	2.5
3.8	10000	1.85	382.6	BF90Z-../DPE11LB4	641	42800	120000	4.6	8300	2.2
3.2	11900	1.55	456.7	BF90Z-../DPE11LB4	641	42800	120000	3.9	9700	1.9
2.9	13100	1.4	508.5	BF90Z-../DPE11LB4	641	42800	120000	3.5	10900	1.7
2.5	15200	1.2	591.1	BF90Z-../DPE11LB4	641	42800	120000	3.0	12700	1.45
2.3	16600	1.1	658.1	BF90Z-../DPE11LB4	641	42800	120000	2.7	14100	1.3
2.0	19100	0.97	759.0	BF90Z-../DPE11LB4	641	42800	120000	2.3	16600	1.1
1.8	21200	0.87	845.1	BF90Z-../DPE11LB4	641	42800	120000	2.1	18100	1.0

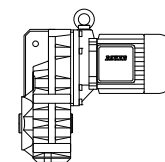
P = 5.5 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
235	220	1.2	6.34	BF30-../DPE11LB4C	82	2400	-	280	187	1.4
181	290	0.99	8.07	BF30-../DPE11LB4C	82	2650	-	220	235	1.2
147	355	0.9	9.99	BF30-../DPE11LB4C	82	2850	-	177	295	1.1
114	460	0.8	12.91	BF30-../DPE11LB4C	82	3050	-	137	380	0.96
250	210	1.6	5.87	BF40-../DPE11LB4C	96	3550	-	300	175	1.9
192	270	1.35	7.62	BF40-../DPE11LB4C	96	3900	-	235	220	1.65
155	335	1.25	9.48	BF40-../DPE11LB4C	96	4150	-	186	280	1.5
124	420	1.1	11.79	BF40-../DPE11LB4C	96	4450	-	150	350	1.35
98	530	0.98	15.02	BF40-../DPE11LB4C	96	4800	-	118	445	1.15
85	610	1.05	17.35	BF40-../DPE11LB4C	96	4950	-	102	510	1.25
77	680	0.98	19.09	BF40-../DPE11LB4C	96	5100	-	93	560	1.2
68	770	0.91	21.60	BF40-../DPE11LB4C	96	5200	-	82	640	1.1
62	840	0.88	23.77	BF40-../DPE11LB4C	96	5400	-	75	700	1.05
55	950	0.82	26.86	BF40-../DPE11LB4C	96	5600	-	66	790	0.98
275	191	2.6	5.38	BF50-../DPE11LB4C	126	4500	-	330	159	3.1
190	275	2.1	7.71	BF50-../DPE11LB4C	126	5100	-	230	225	2.5
137	380	1.8	10.68	BF50-../DPE11LB4C	126	5600	-	165	315	2.1
100	520	1.5	14.65	BF50-../DPE11LB4C	126	6100	-	121	430	1.85
88	590	1.6	16.70	BF50-../DPE11LB4C	126	6200	-	106	495	1.9
79	660	1.5	18.68	BF50-../DPE11LB4C	126	6400	-	95	550	1.8
64	820	1.35	23.14	BF50-../DPE11LB4C	126	6800	-	77	680	1.65
57	920	1.25	25.88	BF50-../DPE11LB4C	126	7100	-	69	760	1.55
46.5	1120	1.15	31.73	BF50-../DPE11LB4C	126	7500	-	56	930	1.35
41.5	1260	1.05	35.49	BF50-../DPE11LB4C	126	7800	-	50	1050	1.25

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



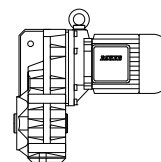
P = 5.5 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
35	1500	0.87	42.15	BF50-../DPE11LB4C	126	8500	-	42	1250	1.05
189	275	3.2	7.74	BF60-../DPE11LB4C	157	6000	16900	230	225	3.9
142	365	2.8	10.31	BF60-../DPE11LB4C	157	6500	18400	171	305	3.3
103	500	2.4	14.24	BF60-../DPE11LB4C	157	7100	20000	124	420	2.8
87	600	2.4	16.96	BF60-../DPE11LB4C	157	7300	20600	104	500	2.9
78	670	2.3	18.81	BF60-../DPE11LB4C	157	7600	21500	94	550	2.8
65	800	2.1	22.58	BF60-../DPE11LB4C	157	8000	22600	78	670	2.5
59	890	1.95	25.05	BF60-../DPE11LB4C	157	8200	23200	71	730	2.4
47	1110	1.7	31.20	BF60-../DPE11LB4C	157	8800	24900	57	920	2.1
42.5	1230	1.6	34.62	BF60-../DPE11LB4C	157	9100	25700	51	1020	1.95
35.5	1470	1.45	41.60	BF60-../DPE11LB4C	157	9600	27100	42.5	1230	1.75
32	1640	1.35	46.16	BF60-../DPE11LB4C	157	9900	28000	38.5	1360	1.65
27	1940	1.2	54.44	BF60-../DPE11LB4C	157	10500	29700	32.5	1610	1.45
24.5	2100	1.1	60.40	BF60-../DPE11LB4C	157	11100	31400	29.5	1780	1.3
20.5	2550	0.9	72.15	BF60-../DPE11LB4C	157	12000	34000	24.5	2100	1.1
18.5	2800	0.82	80.05	BF60-../DPE11LB4C	157	12600	35600	22	2350	0.98
31	1690	3.1	47.82	BF70-../DPE11LB4C	236	9100	34000	37	1410	3.7
26.5	1980	2.6	55.79	BF70-../DPE11LB4C	236	10200	36000	32	1640	3.2
24	2150	2.4	61.94	BF70-../DPE11LB4C	236	10800	37400	28.5	1840	2.8
20.5	2550	2.0	72.26	BF70-../DPE11LB4C	236	12000	39600	24.5	2100	2.5
18	2900	1.8	81.82	BF70-../DPE11LB4C	236	12800	41300	22	2350	2.2
15.5	3350	1.55	95.46	BF70-../DPE11LB4C	236	14000	43700	18.5	2800	1.85
14	3750	1.4	105.2	BF70-../DPE11LB4C	236	14700	45100	17	3050	1.7
12	4350	1.2	122.7	BF70-../DPE11LB4C	236	16100	47700	14.5	3600	1.45
11	4750	1.1	133.0	BF70Z-../DPE11LB4C	262	16100	47700	13.5	3850	1.35
9.5	5500	0.95	154.0	BF70Z-../DPE11LB4C	262	16100	47700	11.5	4550	1.15
8.2	6400	0.81	179.7	BF70Z-../DPE11LB4C	262	16100	47700	9.8	5300	0.98
18	2900	3.3	83.16	BF80-../DPE11LB4C	332	18400	65100	21.5	2400	4.0
15.5	3350	2.8	94.38	BF80-../DPE11LB4C	332	20300	68500	19	2750	3.5
14	3750	2.5	107.9	BF80-../DPE11LB4C	332	22400	72300	16.5	3150	3.0
12	4350	2.2	122.4	BF80-../DPE11LB4C	332	24500	75000	14.5	3600	2.6
10.5	5000	1.9	139.7	BF80-../DPE11LB4C	332	26700	75000	13	4000	2.4
9.3	5600	1.7	158.5	BF80-../DPE11LB4C	332	29000	75000	11.5	4550	2.1
8.0	6500	1.45	184.5	BF80-../DPE11LB4C	332	31800	75000	9.6	5400	1.75
7.0	7500	1.25	209.4	BF80-../DPE11LB4C	332	34300	75000	8.5	6100	1.55
6.2	8400	1.15	237.1	BF80-../DPE11LB4C	332	36900	75000	7.5	7000	1.35
5.5	9500	1.0	269.1	BF80-../DPE11LB4C	332	39600	75000	6.6	7900	1.2
5.1	10200	1.05	291.7	BF80Z-../DPE11LB4C	379	39600	75000	6.1	8600	1.2
4.3	12200	0.86	347.3	BF80Z-../DPE11LB4C	379	39600	75000	5.1	10200	1.05
9.5	5500	3.1	154.8	BF90-../DPE11LB4C	585	30100	100800	11.5	4550	3.7
8.2	6400	2.6	178.6	BF90-../DPE11LB4C	585	33400	106700	9.9	5300	3.2
7.4	7000	2.4	198.8	BF90-../DPE11LB4C	585	36000	111300	8.9	5900	2.8
6.3	8300	2.0	232.6	BF90-../DPE11LB4C	585	39900	118300	7.6	6900	2.4
5.7	9200	1.85	259.0	BF90-../DPE11LB4C	585	42800	120000	6.8	7700	2.2
5.5	9500	1.95	269.8	BF90Z-../DPE11LB4C	645	42800	120000	6.6	7900	2.3
4.9	10700	1.75	300.4	BF90Z-../DPE11LB4C	645	42800	120000	5.9	8900	2.1
4.3	12200	1.5	343.6	BF90Z-../DPE11LB4C	645	42800	120000	5.2	10100	1.85
3.9	13400	1.4	382.6	BF90Z-../DPE11LB4C	645	42800	120000	4.7	11100	1.65
3.2	16400	1.15	456.7	BF90Z-../DPE11LB4C	645	42800	120000	3.9	13400	1.4
2.9	18100	1.0	508.5	BF90Z-../DPE11LB4C	645	42800	120000	3.5	15000	1.25
2.5	21000	0.88	591.1	BF90Z-../DPE11LB4C	645	42800	120000	3.0	17500	1.05
2.3	22800	0.81	658.1	BF90Z-../DPE11LB4C	645	42800	120000	2.7	19400	0.95

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



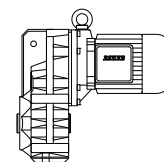
P = 7.5 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
275	260	1.9	5.38	BF50-../DPE13XA4	137	4500	-	330	215	2.3
190	375	1.5	7.71	BF50-../DPE13XA4	137	5100	-	230	310	1.8
137	520	1.3	10.68	BF50-../DPE13XA4	137	5600	-	165	430	1.55
100	710	1.1	14.65	BF50-../DPE13XA4	137	6100	-	121	590	1.35
88	810	1.15	16.70	BF50-../DPE13XA4	137	6200	-	106	670	1.4
79	900	1.1	18.68	BF50-../DPE13XA4	137	6400	-	95	750	1.35
64	1110	1.0	23.14	BF50-../DPE13XA4	137	6800	-	77	930	1.2
57	1250	0.93	25.88	BF50-../DPE13XA4	137	7100	-	69	1030	1.15
46.5	1540	0.82	31.73	BF50-../DPE13XA4	137	7500	-	56	1270	1.0
280	255	3.0	5.22	BF60-../DPE13XA4	170	5200	14800	340	210	3.6
189	375	2.3	7.74	BF60-../DPE13XA4	170	6000	16900	230	310	2.8
142	500	2.0	10.31	BF60-../DPE13XA4	170	6500	18400	171	415	2.4
103	690	1.75	14.24	BF60-../DPE13XA4	170	7100	20000	124	570	2.1
87	820	1.75	16.96	BF60-../DPE13XA4	170	7300	20600	104	680	2.1
78	910	1.65	18.81	BF60-../DPE13XA4	170	7600	21500	94	760	2.0
65	1100	1.5	22.58	BF60-../DPE13XA4	170	8000	22600	78	910	1.8
59	1210	1.45	25.05	BF60-../DPE13XA4	170	8200	23200	71	1000	1.75
47	1520	1.25	31.20	BF60-../DPE13XA4	170	8800	24900	57	1250	1.5
42.5	1680	1.2	34.62	BF60-../DPE13XA4	170	9100	25700	51	1400	1.4
35.5	2000	1.05	41.60	BF60-../DPE13XA4	170	9600	27100	42.5	1680	1.25
32	2200	1.0	46.16	BF60-../DPE13XA4	170	9900	28000	38.5	1860	1.2
27	2650	0.87	54.44	BF60-../DPE13XA4	170	10500	29700	32.5	2200	1.05
40	1790	2.9	36.88	BF70-../DPE13XA4	249	7900	31100	48	1490	3.5
34	2100	2.5	43.02	BF70-../DPE13XA4	249	8700	32800	41	1740	3.0
31	2300	2.3	47.82	BF70-../DPE13XA4	249	9100	34000	37	1930	2.7
26.5	2700	1.95	55.79	BF70-../DPE13XA4	249	10200	36000	32	2200	2.4
24	2950	1.75	61.94	BF70-../DPE13XA4	249	10800	37400	28.5	2500	2.1
20.5	3450	1.5	72.26	BF70-../DPE13XA4	249	12000	39600	24.5	2900	1.8
18	3950	1.3	81.82	BF70-../DPE13XA4	249	12800	41300	22	3250	1.6
15.5	4600	1.15	95.46	BF70-../DPE13XA4	249	14000	43700	18.5	3850	1.35
14	5100	1.0	105.2	BF70-../DPE13XA4	249	14700	45100	17	4200	1.25
12	5900	0.88	122.7	BF70-../DPE13XA4	249	16100	47700	14.5	4900	1.05
11	6500	0.8	133.0	BF70Z-../DPE13XA4	274	16100	47700	13.5	5300	0.98
24	2950	3.2	61.55	BF80-../DPE13XA4	345	14800	58100	29	2450	3.8
21	3400	2.8	69.86	BF80-../DPE13XA4	345	15900	60600	25.5	2800	3.4
18	3950	2.4	83.16	BF80-../DPE13XA4	345	18400	65100	21.5	3300	2.9
15.5	4600	2.1	94.38	BF80-../DPE13XA4	345	20300	68500	19	3750	2.5
14	5100	1.85	107.9	BF80-../DPE13XA4	345	22400	72300	16.5	4300	2.2
12	5900	1.6	122.4	BF80-../DPE13XA4	345	24500	75000	14.5	4900	1.95
10.5	6800	1.4	139.7	BF80-../DPE13XA4	345	26700	75000	13	5500	1.75
9.3	7700	1.25	158.5	BF80-../DPE13XA4	345	29000	75000	11.5	6200	1.55
8.0	8900	1.05	184.5	BF80-../DPE13XA4	345	31800	75000	9.6	7400	1.3
7.0	10200	0.93	209.4	BF80-../DPE13XA4	345	34300	75000	8.5	8400	1.15
6.2	11500	0.83	237.1	BF80-../DPE13XA4	345	36900	75000	7.5	9500	1.0
14	5100	3.3	107.5	BF90-../DPE13XA4	597	22300	86900	16.5	4300	3.9
12.5	5700	2.9	119.7	BF90-../DPE13XA4	597	24500	90800	15	4750	3.5
10.5	6800	2.5	139.1	BF90-../DPE13XA4	597	27700	96300	13	5500	3.1
9.5	7500	2.2	154.8	BF90-../DPE13XA4	597	30100	100800	11.5	6200	2.7
8.2	8700	1.95	178.6	BF90-../DPE13XA4	597	33400	106700	9.9	7200	2.3
7.4	9600	1.75	198.8	BF90-../DPE13XA4	597	36000	111300	8.9	8000	2.1
6.3	11300	1.5	232.6	BF90-../DPE13XA4	597	39900	118300	7.6	9400	1.8
5.7	12500	1.35	259.0	BF90-../DPE13XA4	597	42800	120000	6.8	10500	1.6
5.5	13000	1.4	269.8	BF90Z-../DPE13XA4	658	42800	120000	6.6	10800	1.7
4.9	14600	1.25	300.4	BF90Z-../DPE13XA4	658	42800	120000	5.9	12100	1.55
4.3	16600	1.1	343.6	BF90Z-../DPE13XA4	658	42800	120000	5.2	13700	1.35
3.9	18300	1.0	382.6	BF90Z-../DPE13XA4	658	42800	120000	4.7	15200	1.2

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



P = 7.5 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
3.2	22300	0.83	456.7	BF90Z-../DPE13XA4	658	42800	120000	3.9	18300	1.0

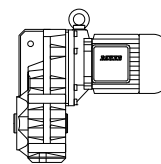
P = 9.5 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
275	325	1.55	5.38	BF50-../DPE16LB4	173	4500	-	330	270	1.85
191	475	1.2	7.71	BF50-../DPE16LB4	173	5100	-	230	390	1.45
138	650	1.05	10.68	BF50-../DPE16LB4	173	5600	-	166	540	1.25
101	890	0.89	14.65	BF50-../DPE16LB4	173	6100	-	121	740	1.05
89	1010	0.94	16.70	BF50-../DPE16LB4	173	6200	-	106	850	1.1
79	1140	0.88	18.68	BF50-../DPE16LB4	173	6400	-	95	950	1.05
285	315	2.4	5.22	BF60-../DPE16LB4	206	5200	14800	340	265	2.8
190	475	1.85	7.74	BF60-../DPE16LB4	206	6000	16900	230	390	2.2
143	630	1.6	10.31	BF60-../DPE16LB4	206	6500	18400	172	520	1.95
104	870	1.35	14.24	BF60-../DPE16LB4	206	7100	20000	125	720	1.65
87	1040	1.4	16.96	BF60-../DPE16LB4	206	7300	20600	105	860	1.7
79	1140	1.35	18.81	BF60-../DPE16LB4	206	7600	21500	95	950	1.6
66	1370	1.2	22.58	BF60-../DPE16LB4	206	8000	22600	79	1140	1.45
59	1530	1.15	25.05	BF60-../DPE16LB4	206	8200	23200	71	1270	1.35
47.5	1910	0.99	31.20	BF60-../DPE16LB4	206	8800	24900	57	1590	1.2
42.5	2100	0.95	34.62	BF60-../DPE16LB4	206	9100	25700	52	1740	1.15
35.5	2550	0.84	41.60	BF60-../DPE16LB4	206	9600	27100	43	2100	1.0
32	2800	0.8	46.16	BF60-../DPE16LB4	206	9900	28000	38.5	2350	0.95
60	1510	3.3	24.55	BF70-../DPE16LB4	289	7000	27700	73	1240	4.1
54	1680	3.1	27.29	BF70-../DPE16LB4	289	7000	28400	65	1390	3.7
46.5	1950	2.7	31.84	BF70-../DPE16LB4	289	7700	30000	56	1620	3.2
40	2250	2.3	36.88	BF70-../DPE16LB4	289	7900	31100	48	1890	2.8
34.5	2600	2.0	43.02	BF70-../DPE16LB4	289	8700	32800	41.5	2150	2.4
31	2900	1.8	47.82	BF70-../DPE16LB4	289	9100	34000	37.5	2400	2.2
26.5	3400	1.55	55.79	BF70-../DPE16LB4	289	10200	36000	32	2800	1.85
24	3750	1.4	61.94	BF70-../DPE16LB4	289	10800	37400	29	3100	1.7
20.5	4400	1.2	72.26	BF70-../DPE16LB4	289	12000	39600	24.5	3700	1.4
18	5000	1.05	81.82	BF70-../DPE16LB4	289	12800	41300	22	4100	1.25
15.5	5800	0.9	95.46	BF70-../DPE16LB4	289	14000	43700	19	4750	1.1
14	6400	0.81	105.2	BF70-../DPE16LB4	289	14700	45100	17	5300	0.98
31	2900	3.0	47.46	BF80-../DPE16LB4	385	13400	53700	37.5	2400	3.6
27.5	3250	2.8	53.86	BF80-../DPE16LB4	385	14000	55800	33	2700	3.3
24	3750	2.5	61.55	BF80-../DPE16LB4	385	14800	58100	29	3100	3.0
21.5	4200	2.3	69.86	BF80-../DPE16LB4	385	15900	60600	25.5	3550	2.7
18	5000	1.9	83.16	BF80-../DPE16LB4	385	18400	65100	21.5	4200	2.3
16	5600	1.7	94.38	BF80-../DPE16LB4	385	20300	68500	19	4750	2.0
14	6400	1.5	107.9	BF80-../DPE16LB4	385	22400	72300	16.5	5400	1.75
12.5	7200	1.3	122.4	BF80-../DPE16LB4	385	24500	75000	14.5	6200	1.55
11	8200	1.15	139.7	BF80-../DPE16LB4	385	26700	75000	13	6900	1.4
9.3	9700	0.98	158.5	BF80-../DPE16LB4	385	29000	75000	11.5	7800	1.2
8.0	11300	0.84	184.5	BF80-../DPE16LB4	385	31800	75000	9.6	9400	1.0
16.5	5400	3.1	90.02	BF90-../DPE16LB4	632	18900	80600	20	4500	3.7
14	6400	2.6	107.5	BF90-../DPE16LB4	632	22300	86900	16.5	5400	3.1
12.5	7200	2.3	119.7	BF90-../DPE16LB4	632	24500	90800	15	6000	2.8
11	8200	2.0	139.1	BF90-../DPE16LB4	632	27700	96300	13	6900	2.4

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



P = 9.5 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
9.5	9500	1.75	154.8	BF90-../DPE16LB4	632	30100	100800	11.5	7800	2.2
8.3	10900	1.55	178.6	BF90-../DPE16LB4	632	33400	106700	10	9000	1.85
7.4	12200	1.4	198.8	BF90-../DPE16LB4	632	36000	111300	9.0	10000	1.7
6.4	14100	1.2	232.6	BF90-../DPE16LB4	632	39900	118300	7.7	11700	1.45
5.7	15900	1.05	259.0	BF90-../DPE16LB4	632	42800	120000	6.9	13100	1.3
5.5	16400	1.15	269.8	BF90Z-../DPE16LB4	694	42800	120000	6.6	13700	1.35
4.9	18500	1.0	300.4	BF90Z-../DPE16LB4	694	42800	120000	5.9	15300	1.2
4.3	21000	0.88	343.6	BF90Z-../DPE16LB4	694	42800	120000	5.2	17400	1.05
3.9	23200	0.8	382.6	BF90Z-../DPE16LB4	694	42800	120000	4.7	19300	0.96

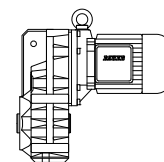
P = 11 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
275	380	1.3	5.38	BF50-../DPE16LB4	173	4500	-	330	315	1.6
191	550	1.05	7.71	BF50-../DPE16LB4	173	5100	-	230	455	1.25
138	760	0.89	10.68	BF50-../DPE16LB4	173	5600	-	166	630	1.05
89	1180	0.81	16.70	BF50-../DPE16LB4	173	6200	-	106	990	0.96
285	365	2.1	5.22	BF60-../DPE16LB4	206	5200	14800	340	305	2.5
190	550	1.6	7.74	BF60-../DPE16LB4	206	6000	16900	230	455	1.9
143	730	1.4	10.31	BF60-../DPE16LB4	206	6500	18400	172	610	1.65
104	1010	1.2	14.24	BF60-../DPE16LB4	206	7100	20000	125	840	1.4
87	1200	1.2	16.96	BF60-../DPE16LB4	206	7300	20600	105	1000	1.45
79	1320	1.15	18.81	BF60-../DPE16LB4	206	7600	21500	95	1100	1.4
66	1590	1.05	22.58	BF60-../DPE16LB4	206	8000	22600	79	1320	1.25
59	1780	0.97	25.05	BF60-../DPE16LB4	206	8200	23200	71	1470	1.2
47.5	2200	0.86	31.20	BF60-../DPE16LB4	206	8800	24900	57	1840	1.05
42.5	2450	0.81	34.62	BF60-../DPE16LB4	206	9100	25700	52	2000	0.99
70	1500	3.1	21.04	BF70-../DPE16LB4	289	6400	26300	85	1230	3.7
60	1750	2.9	24.55	BF70-../DPE16LB4	289	7000	27700	73	1430	3.5
54	1940	2.7	27.29	BF70-../DPE16LB4	289	7000	28400	65	1610	3.2
46.5	2250	2.3	31.84	BF70-../DPE16LB4	289	7700	30000	56	1870	2.8
40	2600	2.0	36.88	BF70-../DPE16LB4	289	7900	31100	48	2150	2.4
34.5	3000	1.75	43.02	BF70-../DPE16LB4	289	8700	32800	41.5	2500	2.1
31	3350	1.55	47.82	BF70-../DPE16LB4	289	9100	34000	37.5	2800	1.85
26.5	3950	1.3	55.79	BF70-../DPE16LB4	289	10200	36000	32	3250	1.6
24	4350	1.2	61.94	BF70-../DPE16LB4	289	10800	37400	29	3600	1.45
20.5	5100	1.0	72.26	BF70-../DPE16LB4	289	12000	39600	24.5	4250	1.2
18	5800	0.9	81.82	BF70-../DPE16LB4	289	12800	41300	22	4750	1.1
44	2350	3.3	33.61	BF80-../DPE16LB4	385	11700	48400	53	1980	3.9
39	2650	3.0	38.14	BF80-../DPE16LB4	385	12200	50300	46.5	2250	3.6
31	3350	2.6	47.46	BF80-../DPE16LB4	385	13400	53700	37.5	2800	3.1
27.5	3800	2.4	53.86	BF80-../DPE16LB4	385	14000	55800	33	3150	2.8
24	4350	2.1	61.55	BF80-../DPE16LB4	385	14800	58100	29	3600	2.6
21.5	4850	1.95	69.86	BF80-../DPE16LB4	385	15900	60600	25.5	4100	2.3
18	5800	1.65	83.16	BF80-../DPE16LB4	385	18400	65100	21.5	4850	1.95
16	6500	1.45	94.38	BF80-../DPE16LB4	385	20300	68500	19	5500	1.75
14	7500	1.25	107.9	BF80-../DPE16LB4	385	22400	72300	16.5	6300	1.5
12.5	8400	1.15	122.4	BF80-../DPE16LB4	385	24500	75000	14.5	7200	1.3
11	9500	1.0	139.7	BF80-../DPE16LB4	385	26700	75000	13	8000	1.2
9.3	11200	0.85	158.5	BF80-../DPE16LB4	385	29000	75000	11.5	9100	1.05

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



P = 11 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
21	5000	3.2	70.69	BF90-../DPE16LB4	632	16800	74700	25.5	4100	3.9
18.5	5600	3.0	80.85	BF90-../DPE16LB4	632	17500	77500	22	4750	3.5
16.5	6300	2.7	90.02	BF90-../DPE16LB4	632	18900	80600	20	5200	3.2
14	7500	2.2	107.5	BF90-../DPE16LB4	632	22300	86900	16.5	6300	2.7
12.5	8400	2.0	119.7	BF90-../DPE16LB4	632	24500	90800	15	7000	2.4
11	9500	1.75	139.1	BF90-../DPE16LB4	632	27700	96300	13	8000	2.1
9.5	11000	1.55	154.8	BF90-../DPE16LB4	632	30100	100800	11.5	9100	1.85
8.3	12600	1.35	178.6	BF90-../DPE16LB4	632	33400	106700	10	10500	1.6
7.4	14100	1.2	198.8	BF90-../DPE16LB4	632	36000	111300	9.0	11600	1.45
6.4	16400	1.0	232.6	BF90-../DPE16LB4	632	39900	118300	7.7	13600	1.25
5.7	18400	0.91	259.0	BF90-../DPE16LB4	632	42800	120000	6.9	15200	1.1
5.5	19100	0.97	269.8	BF90Z-../DPE16LB4	694	42800	120000	6.6	15900	1.15
4.9	21400	0.86	300.4	BF90Z-../DPE16LB4	694	42800	120000	5.9	17800	1.05

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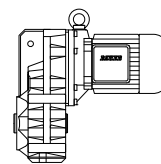
P = 15 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
275	520	0.96	5.38	BF50-../DPE16XB4	183	4500	-	330	430	1.15
285	500	1.5	5.22	BF60-../DPE16XB4	216	5200	14800	340	420	1.8
190	750	1.15	7.74	BF60-../DPE16XB4	216	6000	16900	230	620	1.4
143	1000	1.0	10.31	BF60-../DPE16XB4	216	6500	18400	172	830	1.2
104	1370	0.87	14.24	BF60-../DPE16XB4	216	7100	20000	125	1140	1.05
87	1640	0.88	16.96	BF60-../DPE16XB4	216	7300	20600	105	1360	1.05
79	1810	0.84	18.81	BF60-../DPE16XB4	216	7600	21500	95	1500	1.0
99	1440	2.5	14.90	BF70-../DPE16XB4	299	5900	24000	119	1200	3.0
85	1680	2.5	17.39	BF70-../DPE16XB4	299	6200	25000	102	1400	3.0
70	2000	2.3	21.04	BF70-../DPE16XB4	299	6400	26300	85	1680	2.7
60	2350	2.1	24.55	BF70-../DPE16XB4	299	7000	27700	73	1960	2.6
54	2650	1.95	27.29	BF70-../DPE16XB4	299	7000	28400	65	2200	2.4
46.5	3050	1.7	31.84	BF70-../DPE16XB4	299	7700	30000	56	2550	2.0
40	3550	1.45	36.88	BF70-../DPE16XB4	299	7900	31100	48	2950	1.75
34.5	4150	1.25	43.02	BF70-../DPE16XB4	299	8700	32800	41.5	3450	1.5
31	4600	1.15	47.82	BF70-../DPE16XB4	299	9100	34000	37.5	3800	1.35
26.5	5400	0.96	55.79	BF70-../DPE16XB4	299	10200	36000	32	4450	1.15
24	5900	0.88	61.94	BF70-../DPE16XB4	299	10800	37400	29	4900	1.05
90	1590	3.3	16.49	BF80-../DPE16XB4	395	11400	41400	108	1320	4.0
64	2200	2.9	23.29	BF80-../DPE16XB4	395	11800	44900	76	1880	3.4
49	2900	2.5	30.21	BF80-../DPE16XB4	395	12300	47900	59	2400	3.0
44	3250	2.4	33.61	BF80-../DPE16XB4	395	11700	48400	53	2700	2.9
39	3650	2.2	38.14	BF80-../DPE16XB4	395	12200	50300	46.5	3050	2.6
31	4600	1.85	47.46	BF80-../DPE16XB4	395	13400	53700	37.5	3800	2.3
27.5	5200	1.7	53.86	BF80-../DPE16XB4	395	14000	55800	33	4300	2.1
24	5900	1.6	61.55	BF80-../DPE16XB4	395	14800	58100	29	4900	1.9
21.5	6600	1.45	69.86	BF80-../DPE16XB4	395	15900	60600	25.5	5600	1.7
18	7900	1.2	83.16	BF80-../DPE16XB4	395	18400	65100	21.5	6600	1.45
16	8900	1.05	94.38	BF80-../DPE16XB4	395	20300	68500	19	7500	1.25
14	10200	0.93	107.9	BF80-../DPE16XB4	395	22400	72300	16.5	8600	1.1
12.5	11400	0.83	122.4	BF80-../DPE16XB4	395	24500	75000	14.5	9800	0.97

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



P = 15 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
32	4450	3.2	46.43	BF90-../DPE16XB4	642	13800	65500	38.5	3700	3.8
28.5	5000	2.9	51.70	BF90-../DPE16XB4	642	14600	67800	34.5	4150	3.5
23.5	6000	2.6	63.49	BF90-../DPE16XB4	642	15800	72000	28	5100	3.0
21	6800	2.3	70.69	BF90-../DPE16XB4	642	16800	74700	25.5	5600	2.8
18.5	7700	2.1	80.85	BF90-../DPE16XB4	642	17500	77500	22	6500	2.5
16.5	8600	1.95	90.02	BF90-../DPE16XB4	642	18900	80600	20	7100	2.4
14	10200	1.65	107.5	BF90-../DPE16XB4	642	22300	86900	16.5	8600	1.95
12.5	11400	1.45	119.7	BF90-../DPE16XB4	642	24500	90800	15	9500	1.75
11	13000	1.3	139.1	BF90-../DPE16XB4	642	27700	96300	13	11000	1.55
9.5	15000	1.1	154.8	BF90-../DPE16XB4	642	30100	100800	11.5	12400	1.35
8.3	17200	0.98	178.6	BF90-../DPE16XB4	642	33400	106700	10	14300	1.15
7.4	19300	0.87	198.8	BF90-../DPE16XB4	642	36000	111300	9.0	15900	1.05

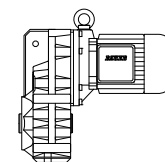
P = 18.5 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
285	610	1.25	5.22	BF60-../DPE18LB4	263	5200	14800	340	510	1.5
190	920	0.94	7.74	BF60-../DPE18LB4	263	6000	16900	230	760	1.15
143	1230	0.82	10.31	BF60-../DPE18LB4	263	6500	18400	172	1020	0.99
143	1230	2.0	10.32	BF70-../DPE18LB4	340	4600	18700	172	1020	2.5
123	1430	2.1	12.04	BF70-../DPE18LB4	340	4900	19700	148	1190	2.5
99	1780	2.1	14.90	BF70-../DPE18LB4	340	5900	24000	119	1480	2.5
85	2050	2.1	17.39	BF70-../DPE18LB4	340	6200	25000	102	1730	2.5
70	2500	1.85	21.04	BF70-../DPE18LB4	340	6400	26300	85	2050	2.2
60	2900	1.75	24.55	BF70-../DPE18LB4	340	7000	27700	73	2400	2.1
54	3250	1.6	27.29	BF70-../DPE18LB4	340	7000	28400	65	2700	1.95
46.5	3750	1.4	31.84	BF70-../DPE18LB4	340	7700	30000	56	3150	1.65
40	4400	1.2	36.88	BF70-../DPE18LB4	340	7900	31100	48	3650	1.4
34.5	5100	1.0	43.02	BF70-../DPE18LB4	340	8700	32800	41.5	4250	1.2
31	5600	0.93	47.82	BF70-../DPE18LB4	340	9100	34000	37.5	4700	1.1
129	1360	2.7	11.42	BF80-../DPE18LB4	436	8900	32200	155	1130	3.2
90	1960	2.7	16.49	BF80-../DPE18LB4	436	11400	41400	108	1630	3.3
64	2750	2.3	23.29	BF80-../DPE18LB4	436	11800	44900	76	2300	2.7
49	3600	2.0	30.21	BF80-../DPE18LB4	436	12300	47900	59	2950	2.4
44	4000	1.95	33.61	BF80-../DPE18LB4	436	11700	48400	53	3300	2.4
39	4500	1.8	38.14	BF80-../DPE18LB4	436	12200	50300	46.5	3750	2.2
31	5600	1.55	47.46	BF80-../DPE18LB4	436	13400	53700	37.5	4700	1.85
27.5	6400	1.4	53.86	BF80-../DPE18LB4	436	14000	55800	33	5300	1.7
24	7300	1.25	61.55	BF80-../DPE18LB4	436	14800	58100	29	6000	1.55
21.5	8200	1.15	69.86	BF80-../DPE18LB4	436	15900	60600	25.5	6900	1.4
18	9800	0.97	83.16	BF80-../DPE18LB4	436	18400	65100	21.5	8200	1.15
16	11000	0.86	94.38	BF80-../DPE18LB4	436	20300	68500	19	9200	1.05
44	4000	3.2	33.71	BF90-../DPE18LB4	688	11900	59300	53	3300	3.9
39.5	4450	3.0	37.54	BF90-../DPE18LB4	688	12700	61500	47.5	3700	3.6
32	5500	2.6	46.43	BF90-../DPE18LB4	688	13800	65500	38.5	4550	3.1
28.5	6100	2.4	51.70	BF90-../DPE18LB4	688	14600	67800	34.5	5100	2.8
23.5	7500	2.1	63.49	BF90-../DPE18LB4	688	15800	72000	28	6300	2.4
21	8400	1.9	70.69	BF90-../DPE18LB4	688	16800	74700	25.5	6900	2.3
18.5	9500	1.75	80.85	BF90-../DPE18LB4	688	17500	77500	22	8000	2.1
16.5	10700	1.55	90.02	BF90-../DPE18LB4	688	18900	80600	20	8800	1.9
14	12600	1.35	107.5	BF90-../DPE18LB4	688	22300	86900	16.5	10700	1.55

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



P = 18.5 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
12.5	14100	1.2	119.7	BF90-../DPE18LB4	688	24500	90800	15	11700	1.45
11	16000	1.05	139.1	BF90-../DPE18LB4	688	27700	96300	13	13500	1.25
9.5	18500	0.91	154.8	BF90-../DPE18LB4	688	30100	100800	11.5	15300	1.1

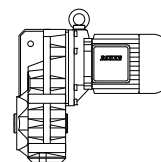
P = 22 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
143	1460	1.7	10.32	BF70-../DPE18XB4	358	4600	18700	172	1220	2.1
123	1700	1.75	12.04	BF70-../DPE18XB4	358	4900	19700	148	1410	2.1
99	2100	1.75	14.90	BF70-../DPE18XB4	358	5900	24000	119	1760	2.1
85	2450	1.75	17.39	BF70-../DPE18XB4	358	6200	25000	102	2050	2.1
70	3000	1.55	21.04	BF70-../DPE18XB4	358	6400	26300	85	2450	1.9
60	3500	1.45	24.55	BF70-../DPE18XB4	358	7000	27700	73	2850	1.75
54	3850	1.35	27.29	BF70-../DPE18XB4	358	7000	28400	65	3200	1.65
46.5	4500	1.15	31.84	BF70-../DPE18XB4	358	7700	30000	56	3750	1.4
40	5200	1.0	36.88	BF70-../DPE18XB4	358	7900	31100	48	4350	1.2
34.5	6000	0.87	43.02	BF70-../DPE18XB4	358	8700	32800	41.5	5000	1.05
129	1620	2.3	11.42	BF80-../DPE18XB4	454	8900	32200	155	1350	2.7
90	2300	2.3	16.49	BF80-../DPE18XB4	454	11400	41400	108	1940	2.7
64	3250	1.95	23.29	BF80-../DPE18XB4	454	11800	44900	76	2750	2.3
49	4250	1.65	30.21	BF80-../DPE18XB4	454	12300	47900	59	3550	2.0
44	4750	1.65	33.61	BF80-../DPE18XB4	454	11700	48400	53	3950	1.95
39	5300	1.5	38.14	BF80-../DPE18XB4	454	12200	50300	46.5	4500	1.8
31	6700	1.3	47.46	BF80-../DPE18XB4	454	13400	53700	37.5	5600	1.55
27.5	7600	1.2	53.86	BF80-../DPE18XB4	454	14000	55800	33	6300	1.4
24	8700	1.05	61.55	BF80-../DPE18XB4	454	14800	58100	29	7200	1.3
21.5	9700	0.98	69.86	BF80-../DPE18XB4	454	15900	60600	25.5	8200	1.15
18	11600	0.82	83.16	BF80-../DPE18XB4	454	18400	65100	21.5	9700	0.98
44	4750	2.7	33.71	BF90-../DPE18XB4	706	11900	59300	53	3950	3.3
39.5	5300	2.5	37.54	BF90-../DPE18XB4	706	12700	61500	47.5	4400	3.0
32	6500	2.2	46.43	BF90-../DPE18XB4	706	13800	65500	38.5	5400	2.6
28.5	7300	2.0	51.70	BF90-../DPE18XB4	706	14600	67800	34.5	6000	2.4
23.5	8900	1.75	63.49	BF90-../DPE18XB4	706	15800	72000	28	7500	2.1
21	10000	1.6	70.69	BF90-../DPE18XB4	706	16800	74700	25.5	8200	1.95
18.5	11300	1.45	80.85	BF90-../DPE18XB4	706	17500	77500	22	9500	1.75
16.5	12700	1.3	90.02	BF90-../DPE18XB4	706	18900	80600	20	10500	1.6
14	15000	1.1	107.5	BF90-../DPE18XB4	706	22300	86900	16.5	12700	1.3
12.5	16800	1.0	119.7	BF90-../DPE18XB4	706	24500	90800	15	14000	1.2
11	19100	0.88	139.1	BF90-../DPE18XB4	706	27700	96300	13	16100	1.05

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors



P = 30 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
144	1980	1.25	10.32	BF70-../DPE20LA4	513	4600	18700	174	1640	1.55
123	2300	1.3	12.04	BF70-../DPE20LA4	513	4900	19700	149	1920	1.55
100	2850	1.3	14.90	BF70-../DPE20LA4	513	5900	24000	121	2350	1.55
86	3300	1.3	17.39	BF70-../DPE20LA4	513	6200	25000	103	2750	1.55
71	4000	1.15	21.04	BF70-../DPE20LA4	513	6400	26300	86	3300	1.4
61	4650	1.1	24.55	BF70-../DPE20LA4	513	7000	27700	73	3900	1.3
55	5200	1.0	27.29	BF70-../DPE20LA4	513	7000	28400	66	4300	1.2
46.5	6100	0.85	31.84	BF70-../DPE20LA4	513	7700	30000	57	5000	1.05
130	2200	1.65	11.42	BF80-../DPE20LA4	609	8900	32200	157	1820	2.0
90	3150	1.7	16.49	BF80-../DPE20LA4	609	11400	41400	109	2600	2.0
64	4450	1.4	23.29	BF80-../DPE20LA4	609	11800	44900	77	3700	1.7
49	5800	1.25	30.21	BF80-../DPE20LA4	609	12300	47900	60	4750	1.5
44.5	6400	1.2	33.61	BF80-../DPE20LA4	609	11700	48400	54	5300	1.45
39	7300	1.1	38.14	BF80-../DPE20LA4	609	12200	50300	47	6000	1.35
31.5	9000	0.96	47.46	BF80-../DPE20LA4	609	13400	53700	38	7500	1.15
27.5	10400	0.86	53.86	BF80-../DPE20LA4	609	14000	55800	33.5	8500	1.05
24.5	11600	0.8	61.55	BF80-../DPE20LA4	609	14800	58100	29.5	9700	0.96
119	2400	3.0	12.45	BF90-../DPE20LA4	859	8000	39700	144	1980	3.6
86	3300	3.1	17.39	BF90-../DPE20LA4	859	10000	49500	103	2750	3.7
62	4600	2.4	23.95	BF90-../DPE20LA4	859	11100	54300	75	3800	3.0
44	6500	2.0	33.71	BF90-../DPE20LA4	859	11900	59300	54	5300	2.4
39.5	7200	1.85	37.54	BF90-../DPE20LA4	859	12700	61500	48	5900	2.2
32	8900	1.6	46.43	BF90-../DPE20LA4	859	13800	65500	39	7300	1.95
29	9800	1.45	51.70	BF90-../DPE20LA4	859	14600	67800	35	8100	1.8
23.5	12100	1.25	63.49	BF90-../DPE20LA4	859	15800	72000	28.5	10000	1.55
21	13600	1.15	70.69	BF90-../DPE20LA4	859	16800	74700	25.5	11200	1.4
18.5	15400	1.05	80.85	BF90-../DPE20LA4	859	17500	77500	22.5	12700	1.3
16.5	17300	0.97	90.02	BF90-../DPE20LA4	859	18900	80600	20	14300	1.15
14	20400	0.82	107.5	BF90-../DPE20LA4	859	22300	86900	17	16800	1.0

P = 37 kW

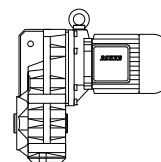
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
144	2450	1.05	10.32	BF70-../DPE22SA4	512	4600	18700	174	2000	1.25
123	2850	1.05	12.04	BF70-../DPE22SA4	512	4900	19700	149	2350	1.25
100	3500	1.05	14.90	BF70-../DPE22SA4	512	5900	24000	121	2900	1.25
86	4100	1.05	17.39	BF70-../DPE22SA4	512	6200	25000	103	3400	1.25
130	2700	1.35	11.42	BF80-../DPE22SA4	608	8900	32200	157	2250	1.65
90	3900	1.35	16.49	BF80-../DPE22SA4	608	11400	41400	109	3200	1.65
64	5500	1.15	23.29	BF80-../DPE22SA4	608	11800	44900	77	4550	1.4
119	2950	2.4	12.45	BF90-../DPE22SA4	858	8000	39700	144	2450	2.9
86	4100	2.5	17.39	BF90-../DPE22SA4	858	10000	49500	103	3400	3.0
62	5600	2.0	23.95	BF90-../DPE22SA4	858	11100	54300	75	4700	2.4
44	8000	1.6	33.71	BF90-../DPE22SA4	858	11900	59300	54	6500	2.0
39.5	8900	1.5	37.54	BF90-../DPE22SA4	858	12700	61500	48	7300	1.8
32	11000	1.3	46.43	BF90-../DPE22SA4	858	13800	65500	39	9000	1.55
29	12100	1.2	51.70	BF90-../DPE22SA4	858	14600	67800	35	10000	1.45
23.5	15000	1.05	63.49	BF90-../DPE22SA4	858	15800	72000	28.5	12300	1.25

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors

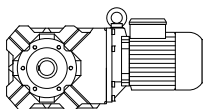
P = 45 kW



50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
130	3300	1.1	11.42	BF80-../DPE22MA4	665	8900	32200	157	2700	1.35
90	4750	1.1	16.49	BF80-../DPE22MA4	665	11400	41400	109	3900	1.35
119	3600	2.0	12.45	BF90-../DPE22MA4	915	8000	39700	144	2950	2.4
86	4950	2.0	17.39	BF90-../DPE22MA4	915	10000	49500	103	4150	2.4
62	6900	1.65	23.95	BF90-../DPE22MA4	915	11100	54300	75	5700	1.95
44	9700	1.35	33.71	BF90-../DPE22MA4	915	11900	59300	54	7900	1.65
39.5	10800	1.2	37.54	BF90-../DPE22MA4	915	12700	61500	48	8900	1.5
32	13400	1.05	46.43	BF90-../DPE22MA4	915	13800	65500	39	11000	1.3

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



Page

BK-series bevel-gear motors Selection

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Description of bevel-gear units

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

Sizes

Bauer BK-series bevel-gear 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 bevel-gear 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 $Z \leq 1/h$

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
I		0,8	1,0	1,2
II		1,05	1,25	1,45
III		1,45	1,55	1,7

Switching duty

Factor f_2 for shock classification and switching frequency

Switching frequency in single- shift operation $t_d \leq 8$ h/d

Shock classification	$1 < Z \leq 100$	$100 < Z \leq 1000$	$1000 < Z$
I	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	$1 < Z \leq 100$	$100 < Z \leq 1000$	$1000 < Z$
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:

- $FI \leq 1,3$

BK-series bevel-gear motors

Description of bevel-gear units

- $M_x/M_N \leq 1,0$
- Shock-absorbing power transmission components (e.g. highly resilient, zero-play coupling, $\varphi N \geq 5^\circ$)

Shock classification II:

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

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

Shock classification III:

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

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

Key to abbreviations

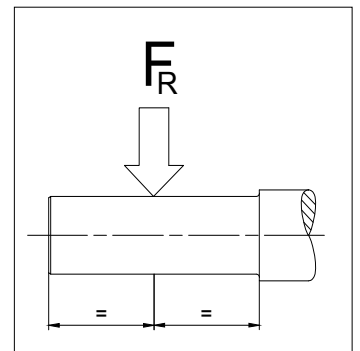
Z	Switching duty number of switching operations per hour
t_d	Daily operating time in hours (h/d)
FI	Factor of inertia $FI = (J_{ext} + J_{rot})/J_{rot}$
J_{ext}	Mass moment of inertia of the machine to be driven, in relation to the motor's rotor shaft (kgm^2)
J_{rot}	Mass moment of inertia of the motor rotor (kgm^2)
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
φN	Torsional offset of the resilient coupling under rated torque

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Selection tables, bevel-gear motors

Key to abbreviations

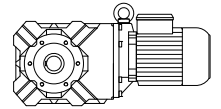
P	Rated output
n_2	Rated speed of the output shaft
i	Gear reduction ratio
M_2	Rated torque at the output shaft
f_B	Bauer service factor
F_{RN}	Maximum permissible radial force with normal bearings
F_{RV}	Maximum permissible radial force with reinforced bearings in each case with standard solid shaft (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 bevel-gear motors").

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)



P = 0.12 kW

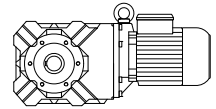
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
119	8.8	9.1	11.67	BK06-../DPE05LA4	9.5	930	-	144	7.3	11
91	11.4	7.0	15.29	BK06-../DPE05LA4	9.5	1020	-	110	9.4	8.5
77	13.3	6.0	18.00	BK06-../DPE05LA4	9.5	1080	-	93	11	7.3
65	15.8	5.1	21.54	BK06-../DPE05LA4	9.5	1150	-	78	13.2	6.1
53	19.4	4.1	26.36	BK06-../DPE05LA4	9.5	1230	-	64	16.1	5.0
41.5	24.5	3.3	33.33	BK06-../DPE05LA4	9.5	1320	-	51	20	4.0
36.5	28	2.9	38.18	BK06-../DPE05LA4	9.5	1380	-	44	23	3.5
29	35	2.3	47.78	BK06-../DPE05LA4	9.5	1500	-	35	29	2.8
25.5	39.5	1.7	54.38	BK06-../DPE05LA4	9.5	1600	-	31	32.5	2.1
22	46	1.4	63.33	BK06-../DPE05LA4	9.5	1700	-	26.5	38	1.65
15.5	64	2.8	89.30	BK10-../DPE06LA4	23	7000	-	19	52	3.4
13.5	72	2.2	102.5	BK10-../DPE06LA4	23	7000	-	16.5	59	2.7
11.5	84	1.65	120.3	BK10Z-../DPE06LA4	24	7000	-	14	69	2.0
9.7	99	1.65	143.2	BK10Z-../DPE06LA4	24	7000	-	12	80	2.0
8.1	117	1.7	170.6	BK10Z-../DPE06LA4	24	7000	-	9.8	97	2.1
6.8	138	1.45	204.7	BK10Z-../DPE06LA4	24	7000	-	8.2	114	1.75
5.4	174	1.15	257.9	BK10Z-../DPE06LA4	24	7000	-	6.5	144	1.4
4.6	200	0.92	302.4	BK10Z-../DPE06LA4	24	7000	-	5.6	165	1.1
4.1	205	1.05	343.2	BK10G06-../DPE06LA4	28	7000	-	4.9	169	1.3
3.4	245	0.9	410.8	BK10G06-../DPE06LA4	28	7000	-	4.1	200	1.1
3.1	270	0.81	459.2	BK10G06-../DPE06LA4	28	7000	-	3.7	225	0.98
2.8	220*	1.0	501.4	BK10G06-../DPE06LA4	28	7000	-	3.4	220	1.0
2.5	220*	1.0	552.3	BK10G06-../DPE06LA4	28	7000	-	3.1	220	1.0
2.2	220*	1.0	635.5	BK10G06-../DPE06LA4	28	7000	-	2.7	220	1.0
1.8	220*	1.0	789.7	BK10G06-../DPE06LA4	28	7000	-	2.2	220	1.0
1.5	220*	1.0	929.3	BK10G06-../DPE06LA4	28	7000	-	1.8	220	1.0
1.3	220*	1.0	1112	BK10G06-../DPE06LA4	28	7000	-	1.6	220	1.0
1.1	220*	1.0	1361	BK10G06-../DPE06LA4	28	7000	-	1.3	220	1.0
0.9	220*	1.0	1577	BK10G06-../DPE06LA4	28	7000	-	1.1	220	1.0
0.75	220*	1.0	1971	BK10G06-../DPE06LA4	28	7000	-	0.85	220	1.0
0.65	220*	1.0	2261	BK10G06-../DPE06LA4	28	7000	-	0.75	220	1.0
0.6	220*	1.0	2467	BK10G06-../DPE06LA4	28	7000	-	0.7	220	1.0
0.49	220*	1.0	2849	BK10G06-../DPE06LA4	28	7000	-	0.6	220	1.0
0.45	220*	1.0	3107	BK10G06-../DPE06LA4	28	7000	-	0.55	220	1.0
0.4	220*	1.0	3537	BK10G06-../DPE06LA4	28	7000	-	0.48	220	1.0
0.34	220*	1.0	4120	BK10G06-../DPE06LA4	28	7000	-	0.41	220	1.0
9.6	100	3.3	144.5	BK20Z-../DPE06LA4	34	8700	9000	12	80	4.1
8.0	118	2.8	173.4	BK20Z-../DPE06LA4	34	8700	9000	9.7	98	3.4
6.7	140	2.4	207.5	BK20Z-../DPE06LA4	34	8700	9000	8.1	116	2.8
5.4	174	1.9	259.9	BK20Z-../DPE06LA4	34	8700	9000	6.5	144	2.3
4.7	197	1.6	298.2	BK20Z-../DPE06LA4	34	8700	9000	5.7	162	1.95
3.8	240	1.2	367.7	BK20Z-../DPE06LA4	34	8700	9000	4.6	199	1.45
3.3	255	1.4	429.7	BK20G06-../DPE06LA4	38	8700	9000	3.9	210	1.7
2.9	290	1.25	480.4	BK20G06-../DPE06LA4	38	8700	9000	3.5	235	1.55
2.7	310	1.15	524.5	BK20G06-../DPE06LA4	38	8700	9000	3.2	260	1.4
2.2	380	0.95	630.0	BK20G06-../DPE06LA4	38	8700	9000	2.7	310	1.15
1.9	445	0.81	757.0	BK20G06-../DPE06LA4	38	8700	9000	2.3	365	0.99
1.6	360*	1.0	891.2	BK20G06-../DPE06LA4	38	8700	9000	1.9	360	1.0
1.3	360*	1.0	1066	BK20G06-../DPE06LA4	38	8700	9000	1.6	360	1.0
1.1	360*	1.0	1305	BK20G06-../DPE06LA4	38	8700	9000	1.3	360	1.0
1.0	360*	1.0	1424	BK20G06-../DPE06LA4	38	8700	9000	1.2	360	1.0
0.85	360*	1.0	1650	BK20G06-../DPE06LA4	38	8700	9000	1.1	360	1.0
0.7	360*	1.0	2062	BK20G06-../DPE06LA4	38	8700	9000	0.85	360	1.0
0.6	360*	1.0	2366	BK20G06-../DPE06LA4	38	8700	9000	0.75	360	1.0
0.55	360*	1.0	2580	BK20G06-../DPE06LA4	38	8700	9000	0.65	360	1.0
0.49	360*	1.0	2831	BK20G06-../DPE06LA4	38	8700	9000	0.6	360	1.0
0.45	360*	1.0	3088	BK20G06-../DPE06LA4	38	8700	9000	0.55	360	1.0

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.



BK-series bevel geared motors

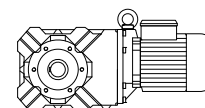
Selection - bevel geared motors



P = 0.12 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
0.4	360*	1.0	3515	BK20G06-../DPE06LA4	38	8700	9000	0.48	360	1.0
0.34	360*	1.0	4094	BK20G06-../DPE06LA4	38	8700	9000	0.41	360	1.0
6.4	146	3.1	216.5	BK30Z-../DPE06LA4	41	11200	12000	7.8	120	3.8
5.5	170	2.6	255.3	BK30Z-../DPE06LA4	41	11200	12000	6.6	142	3.2
4.5	205	1.9	308.3	BK30Z-../DPE06LA4	41	11200	12000	5.5	170	2.3
3.7	250	1.6	380.7	BK30Z-../DPE06LA4	41	11200	12000	4.4	210	1.9
3.2	285	1.35	441.3	BK30Z-../DPE06LA4	41	11200	12000	3.8	240	1.6
3.0	280	1.75	471.5	BK30G06-../DPE06LA4	44	11200	12000	3.6	230	2.1
2.5	335	1.45	567.0	BK30G06-../DPE06LA4	44	11200	12000	3.0	275	1.8
2.2	380	1.3	652.5	BK30G06-../DPE06LA4	44	11200	12000	2.6	320	1.55
1.9	445	1.1	743.0	BK30G06-../DPE06LA4	44	11200	12000	2.3	365	1.35
1.8	470	1.05	810.9	BK30G06-../DPE06LA4	44	11200	12000	2.1	400	1.25
1.5	560	0.88	954.1	BK30G06-../DPE06LA4	44	11200	12000	1.8	465	1.05
1.3	490*	1.0	1142	BK30G06-../DPE06LA4	44	11200	12000	1.5	490	1.0
1.1	490*	1.0	1281	BK30G06-../DPE06LA4	44	11200	12000	1.4	490	1.0
0.9	490*	1.0	1620	BK30G06-../DPE06LA4	44	11200	12000	1.1	490	1.0
0.8	490*	1.0	1767	BK30G06-../DPE06LA4	44	11200	12000	0.95	490	1.0
0.7	490*	1.0	2024	BK30G06-../DPE06LA4	44	11200	12000	0.85	490	1.0
0.55	490*	1.0	2738	BK30G06-../DPE06LA4	44	11200	12000	0.65	490	1.0
0.47	490*	1.0	2986	BK30G06-../DPE06LA4	44	11200	12000	0.6	490	1.0
0.41	490*	1.0	3399	BK30G06-../DPE06LA4	44	11200	12000	0.5	490	1.0
0.35	490*	1.0	3959	BK30G06-../DPE06LA4	44	11200	12000	0.43	490	1.0
4.0	230	2.5	348.7	BK40Z-../DPE06LA4	64	11700	17000	4.8	193	3.0
3.3	275	2.1	430.0	BK40Z-../DPE06LA4	64	11700	17000	3.9	235	2.4
2.6	275	3.1	540.0	BK40G10-../DPE06LA4	68	11700	17000	3.1	220	3.9
2.1	350	2.4	660.2	BK40G10-../DPE06LA4	68	11700	17000	2.6	275	3.1
1.9	395	2.2	756.7	BK40G10-../DPE06LA4	68	11700	17000	2.3	315	2.7
1.7	450	1.9	838.4	BK40G10-../DPE06LA4	68	11700	17000	2.0	370	2.3
1.4	550	1.55	998.3	BK40G10-../DPE06LA4	68	11700	17000	1.7	445	1.9
1.2	650	1.3	1189	BK40G10-../DPE06LA4	68	11700	17000	1.5	510	1.65
1.0	790	1.1	1428	BK40G10-../DPE06LA4	68	11700	17000	1.2	650	1.3
0.8	850*	1.0	1798	BK40G10-../DPE06LA4	68	11700	17000	0.95	850	1.0
0.7	850*	1.0	2108	BK40G10-../DPE06LA4	68	11700	17000	0.8	850	1.0
0.6	850*	1.0	2350	BK40G10-../DPE06LA4	68	11700	17000	0.75	850	1.0
0.55	850*	1.0	2604	BK40G10-../DPE06LA4	68	11700	17000	0.65	850	1.0
0.45	850*	1.0	3077	BK40G10-../DPE06LA4	68	11700	17000	0.55	850	1.0
0.41	850*	1.0	3429	BK40G10-../DPE06LA4	68	11700	17000	0.49	850	1.0
0.37	850*	1.0	3800	BK40G10-../DPE06LA4	68	11700	17000	0.44	850	1.0
0.32	850*	1.0	4363	BK40G10-../DPE06LA4	68	11700	17000	0.39	850	1.0
3.4	265	3.2	414.8	BK50Z-../DPE06LA4	92	14100	26000	4.1	220	3.8
2.2	345	3.3	651.7	BK50G10-../DPE06LA4	96	14100	111000	2.6	280	4.1
2.0	385	3.0	722.2	BK50G10-../DPE06LA4	96	14100	111000	2.4	310	3.7
1.7	460	2.5	859.8	BK50G10-../DPE06LA4	96	14100	111000	2.0	380	3.0
1.4	560	2.1	1024	BK50G10-../DPE06LA4	96	14100	111000	1.7	460	2.5
1.2	670	1.7	1230	BK50G10-../DPE06LA4	96	14100	111000	1.4	560	2.1
1.0	800	1.45	1398	BK50G10-../DPE06LA4	96	14100	111000	1.2	660	1.75
0.9	900	1.3	1549	BK50G10-../DPE06LA4	96	14100	111000	1.1	730	1.6
0.8	1010	1.15	1816	BK50G10-../DPE06LA4	96	14100	111000	0.95	850	1.35
0.7	1150*	1.0	2024	BK50G10-../DPE06LA4	96	14100	111000	0.85	1150	1.0
0.6	1150*	1.0	2450	BK50G10-../DPE06LA4	96	14100	111000	0.7	1150	1.0
0.55	1150*	1.0	2730	BK50G10-../DPE06LA4	96	14100	111000	0.65	1150	1.0
0.46	1150*	1.0	3025	BK50G10-../DPE06LA4	96	14100	111000	0.6	1150	1.0
0.4	1150*	1.0	3492	BK50G10-../DPE06LA4	96	14100	111000	0.48	1150	1.0
0.36	1150*	1.0	3870	BK50G10-../DPE06LA4	96	14100	111000	0.44	1150	1.0
0.32	1150*	1.0	4443	BK50G10-../DPE06LA4	96	14100	111000	0.38	1150	1.0

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.



P = 0.12 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
0.9	860	2.9	1618	BK60G20-../DPE06LA4	123	16600	34000	1.1	630	4.0
0.8	970	2.6	1810	BK60G20-../DPE06LA4	123	16600	34000	0.95	740	3.4
0.7	1160	2.2	2010	BK60G20-../DPE06LA4	123	16600	34000	0.85	870	2.9
0.6	1400	1.8	2371	BK60G20-../DPE06LA4	123	16600	34000	0.75	1020	2.5
0.55	1540	1.6	2733	BK60G20-../DPE06LA4	123	16600	34000	0.65	1220	2.0
0.46	1940	1.3	3036	BK60G20-../DPE06LA4	123	16600	34000	0.6	1360	1.85
0.4	2300	1.1	3533	BK60G20-../DPE06LA4	123	16600	34000	0.48	1830	1.35
0.33	2500*	1.0	4239	BK60G20-../DPE06LA4	123	16600	34000	0.4	2500	1.0
0.28	2500*	1.0	5072	BK60G20-../DPE06LA4	123	16600	34000	0.33	2500	1.0
0.25	2500*	1.0	5721	BK60G20-../DPE06LA4	123	16600	34000	0.3	2500	1.0
0.22	2500*	1.0	6565	BK60G20-../DPE06LA4	123	16600	34000	0.26	2500	1.0
0.19	2500*	1.0	7291	BK60G20-../DPE06LA4	123	16600	34000	0.23	2500	1.0
0.18	2500*	1.0	8093	BK60G20-../DPE06LA4	123	16600	34000	0.21	2500	1.0
0.16	2500*	1.0	8990	BK60G20-../DPE06LA4	123	16600	34000	0.19	2500	1.0
0.46	1840	3.1	3041	BK70G20-../DPE06LA4	201	24100	50000	0.55	1440	4.0
0.4	2150	2.7	3505	BK70G20-../DPE06LA4	201	24100	50000	0.48	1700	3.4
0.36	2450	2.3	3894	BK70G20-../DPE06LA4	201	24100	50000	0.43	1960	2.9
0.31	2950	1.95	4531	BK70G20-../DPE06LA4	201	24100	50000	0.37	2350	2.4
0.26	3700	1.55	5436	BK70G20-../DPE06LA4	201	24100	50000	0.31	2950	1.95
0.22	4500	1.25	6504	BK70G20-../DPE06LA4	201	24100	50000	0.26	3700	1.55
0.17	5700*	1.0	8149	BK70G20-../DPE06LA4	201	24100	50000	0.21	5700	1.0
0.15	5700*	1.0	9351	BK70G20-../DPE06LA4	201	24100	50000	0.18	5700	1.0

P = 0.18 kW

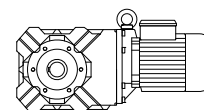
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
143	11	7.3	9.71	BK06-../DPE07LA4	14	880	-	172	9.1	8.8
119	13.2	6.1	11.67	BK06-../DPE07LA4	14	930	-	144	10.9	7.3
91	17.1	4.7	15.29	BK06-../DPE07LA4	14	1020	-	110	14.2	5.6
77	20	4.0	18.00	BK06-../DPE07LA4	14	1080	-	93	16.6	4.8
65	23.5	3.4	21.54	BK06-../DPE07LA4	14	1150	-	78	19.8	4.0
53	29	2.8	26.36	BK06-../DPE07LA4	14	1230	-	64	24	3.3
41.5	37	2.2	33.33	BK06-../DPE07LA4	14	1320	-	51	30	2.7
36.5	42	1.9	38.18	BK06-../DPE07LA4	14	1380	-	44	35	2.3
29	52	1.55	47.78	BK06-../DPE07LA4	14	1500	-	35	43.5	1.85
25.5	59	1.15	54.38	BK06-../DPE07LA4	14	1600	-	31	49	1.4
22	69	0.92	63.33	BK06-../DPE07LA4	14	1700	-	26.5	57	1.1
22.5	67	3.0	61.68	BK10-../DPE07LA4	26	7000	-	27.5	55	3.6
19.5	77	2.6	72.31	BK10-../DPE07LA4	26	7000	-	23.5	64	3.1
15.5	96	1.85	89.30	BK10-../DPE07LA4	26	7000	-	19	78	2.3
13.5	108	1.45	102.5	BK10-../DPE07LA4	26	7000	-	16.5	88	1.8
11.5	127	1.1	120.3	BK10Z-../DPE07LA4	27	7000	-	14	104	1.3
9.7	148	1.1	143.2	BK10Z-../DPE07LA4	27	7000	-	12	120	1.35
8.1	176	1.15	170.6	BK10Z-../DPE07LA4	27	7000	-	9.8	145	1.4
6.8	205	0.98	204.7	BK10Z-../DPE07LA4	27	7000	-	8.2	171	1.15
13	113	2.8	108.6	BK20-../DPE07LA4	35	8700	9000	15.5	95	3.3
11.5	127	2.6	124.2	BK20Z-../DPE07LA4	37	8700	9000	13.5	108	3.1
9.6	150	2.2	144.5	BK20Z-../DPE07LA4	37	8700	9000	12	120	2.8
8.0	178	1.85	173.4	BK20Z-../DPE07LA4	37	8700	9000	9.7	147	2.2
6.7	210	1.55	207.5	BK20Z-../DPE07LA4	37	8700	9000	8.1	174	1.9

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BK-series bevel geared motors

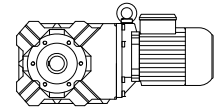
Selection - bevel geared motors

P = 0.18 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
5.4	260	1.25	259.9	BK20Z-../DPE07LA4	37	8700	9000	6.5	215	1.55
4.7	295	1.05	298.2	BK20Z-../DPE07LA4	37	8700	9000	5.7	240	1.3
3.8	360	0.81	367.7	BK20Z-../DPE07LA4	37	8700	9000	4.6	295	0.99
3.3	390	0.92	429.7	BK20G06-../DPE07LA4	40	8700	9000	3.9	330	1.1
2.9	445	0.81	480.4	BK20G06-../DPE07LA4	40	8700	9000	3.5	365	0.99
9.6	150	3.0	145.1	BK30Z-../DPE07LA4	44	11200	12000	12	120	3.8
7.5	190	2.4	184.8	BK30Z-../DPE07LA4	44	11200	12000	9.1	156	2.9
6.4	220	2.0	216.5	BK30Z-../DPE07LA4	44	11200	12000	7.8	180	2.5
5.5	255	1.75	255.3	BK30Z-../DPE07LA4	44	11200	12000	6.6	210	2.1
4.5	310	1.25	308.3	BK30Z-../DPE07LA4	44	11200	12000	5.5	255	1.5
3.7	375	1.05	380.7	BK30Z-../DPE07LA4	44	11200	12000	4.4	315	1.3
3.2	425	0.9	441.3	BK30Z-../DPE07LA4	44	11200	12000	3.8	360	1.05
3.0	430	1.15	471.5	BK30G06-../DPE07LA4	46	11200	12000	3.6	355	1.4
2.5	510	0.96	567.0	BK30G06-../DPE07LA4	46	11200	12000	3.0	430	1.15
2.2	580	0.84	652.5	BK30G06-../DPE07LA4	46	11200	12000	2.6	495	0.99
5.6	245	3.2	246.6	BK40Z-../DPE07LA4	66	11700	17000	6.8	200	3.9
4.8	290	2.4	289.8	BK40Z-../DPE07LA4	66	11700	17000	5.8	240	2.9
4.0	345	1.7	348.7	BK40Z-../DPE07LA4	66	11700	17000	4.8	290	2.0
3.3	415	1.4	430.0	BK40Z-../DPE07LA4	66	11700	17000	3.9	350	1.65
2.9	405	2.1	487.3	BK40G10-../DPE07LA4	71	11700	17000	3.5	325	2.6
2.6	450	1.9	540.0	BK40G10-../DPE07LA4	71	11700	17000	3.1	370	2.3
2.1	560	1.5	660.2	BK40G10-../DPE07LA4	71	11700	17000	2.6	450	1.9
1.9	630	1.35	756.7	BK40G10-../DPE07LA4	71	11700	17000	2.3	510	1.65
1.7	710	1.2	838.4	BK40G10-../DPE07LA4	71	11700	17000	2.0	590	1.45
1.4	870	0.98	998.3	BK40G10-../DPE07LA4	71	11700	17000	1.7	710	1.2
1.2	1020	0.83	1189	BK40G10-../DPE07LA4	71	11700	17000	1.5	810	1.05
4.3	320	3.2	328.2	BK50Z-../DPE07LA4	95	14100	26000	5.1	270	3.7
3.4	400	2.1	414.8	BK50Z-../DPE07LA4	95	14100	26000	4.1	335	2.5
3.0	395	2.9	465.1	BK50G10-../DPE07LA4	99	14100	111000	3.6	320	3.6
2.7	440	2.6	513.4	BK50G10-../DPE07LA4	99	14100	111000	3.3	350	3.3
2.5	480	2.4	568.6	BK50G10-../DPE07LA4	99	14100	111000	3.0	390	2.9
2.2	550	2.1	651.7	BK50G10-../DPE07LA4	99	14100	111000	2.6	455	2.5
2.0	610	1.9	722.2	BK50G10-../DPE07LA4	99	14100	111000	2.4	500	2.3
1.7	720	1.6	859.8	BK50G10-../DPE07LA4	99	14100	111000	2.0	600	1.9
1.4	880	1.3	1024	BK50G10-../DPE07LA4	99	14100	111000	1.7	720	1.6
1.2	1030	1.1	1230	BK50G10-../DPE07LA4	99	14100	111000	1.4	880	1.3
1.0	1240	0.93	1398	BK50G10-../DPE07LA4	99	14100	111000	1.2	1030	1.1
1.4	920	2.7	1016	BK60G20-../DPE07LA4	125	16600	34000	1.7	710	3.5
1.1	1220	2.0	1322	BK60G20-../DPE07LA4	125	16600	34000	1.3	980	2.6
0.9	1500	1.65	1618	BK60G20-../DPE07LA4	125	16600	34000	1.1	1150	2.2
0.8	1690	1.5	1810	BK60G20-../DPE07LA4	125	16600	34000	0.95	1350	1.85
0.7	1980	1.25	2010	BK60G20-../DPE07LA4	125	16600	34000	0.85	1550	1.6
0.6	2350	1.05	2371	BK60G20-../DPE07LA4	125	16600	34000	0.75	1790	1.4
0.7	1940	2.9	2040	BK70G20-../DPE07LA4	204	24100	50000	0.85	1500	3.8
0.55	2500	2.3	2578	BK70G20-../DPE07LA4	204	24100	50000	0.65	2000	2.9
0.46	3050	1.85	3041	BK70G20-../DPE07LA4	204	24100	50000	0.55	2450	2.3
0.4	3600	1.6	3505	BK70G20-../DPE07LA4	204	24100	50000	0.48	2850	2.0
0.36	4050	1.4	3894	BK70G20-../DPE07LA4	204	24100	50000	0.43	3250	1.75
0.31	4800	1.2	4531	BK70G20-../DPE07LA4	204	24100	50000	0.37	3900	1.45

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.



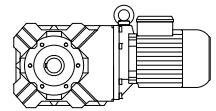
P = 0.25 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
196	11.2	6.5	7.25	BK06-../DPE08MA4	15	800	-	240	9.1	8.0
147	14.9	5.4	9.71	BK06-../DPE08MA4	15	880	-	177	12.4	6.5
122	18	4.4	11.67	BK06-../DPE08MA4	15	930	-	147	14.9	5.4
93	23	3.5	15.29	BK06-../DPE08MA4	15	1020	-	112	19.3	4.1
79	27	3.0	18.00	BK06-../DPE08MA4	15	1080	-	95	22.5	3.6
66	32.5	2.5	21.54	BK06-../DPE08MA4	15	1150	-	80	26.5	3.0
54	39.5	2.0	26.36	BK06-../DPE08MA4	15	1230	-	65	33	2.4
43	49.5	1.6	33.33	BK06-../DPE08MA4	15	1320	-	52	41	1.95
37.5	57	1.4	38.18	BK06-../DPE08MA4	15	1380	-	45	47.5	1.7
30	70	1.15	47.78	BK06-../DPE08MA4	15	1500	-	36	59	1.35
35	61	3.3	40.79	BK10-../DPE08MA4	27	6000	-	42	51	3.9
29.5	72	2.8	48.96	BK10-../DPE08MA4	27	6400	-	35	60	3.3
23.5	90	2.2	61.68	BK10-../DPE08MA4	27	7000	-	28	75	2.7
20	105	1.9	72.31	BK10-../DPE08MA4	27	7000	-	24	87	2.3
16	129	1.4	89.30	BK10-../DPE08MA4	27	7000	-	19.5	106	1.7
12	169	0.81	120.3	BK10Z-../DPE08MA4	28	7000	-	14.5	139	0.99
10	200	0.82	143.2	BK10Z-../DPE08MA4	28	7000	-	12	167	0.98
8.4	235	0.85	170.6	BK10Z-../DPE08MA4	28	7000	-	10.5	188	1.05
18.5	113	2.9	76.79	BK20-../DPE08MA4	36	7500	9000	22.5	93	3.5
16.5	125	2.6	88.12	BK20-../DPE08MA4	36	8000	9000	19.5	106	3.1
13.5	152	2.1	108.6	BK20-../DPE08MA4	36	8700	9000	16	128	2.5
11.5	176	1.9	124.2	BK20Z-../DPE08MA4	38	8700	9000	14	144	2.3
9.9	200	1.65	144.5	BK20Z-../DPE08MA4	38	8700	9000	12	167	2.0
8.2	240	1.4	173.4	BK20Z-../DPE08MA4	38	8700	9000	9.9	200	1.65
6.9	280	1.2	207.5	BK20Z-../DPE08MA4	38	8700	9000	8.3	235	1.4
5.5	355	0.93	259.9	BK20Z-../DPE08MA4	38	8700	9000	6.6	295	1.1
14	144	3.1	102.4	BK30-../DPE08MA4	42	11200	12000	17	119	3.8
11.5	176	2.6	123.9	BK30Z-../DPE08MA4	45	11200	12000	14	144	3.1
9.8	200	2.3	145.1	BK30Z-../DPE08MA4	45	11200	12000	12	167	2.7
7.7	255	1.75	184.8	BK30Z-../DPE08MA4	45	11200	12000	9.3	210	2.1
6.6	295	1.55	216.5	BK30Z-../DPE08MA4	45	11200	12000	7.9	245	1.85
5.6	345	1.3	255.3	BK30Z-../DPE08MA4	45	11200	12000	6.7	290	1.55
4.7	415	0.93	308.3	BK30Z-../DPE08MA4	45	11200	12000	5.6	345	1.1
3.8	500	0.81	380.7	BK30Z-../DPE08MA4	45	11200	12000	4.5	425	0.95
3.1	590	0.83	471.5	BK30G06-../DPE08MA4	50	11200	12000	3.7	495	0.99
6.8	285	2.7	211.5	BK40Z-../DPE08MA4	67	11700	17000	8.1	240	3.3
5.8	330	2.4	246.6	BK40Z-../DPE08MA4	67	11700	17000	7.0	275	2.8
4.9	390	1.75	289.8	BK40Z-../DPE08MA4	67	11700	17000	6.0	320	2.1
4.1	470	1.25	348.7	BK40Z-../DPE08MA4	67	11700	17000	5.0	385	1.5
3.4	560	1.0	430.0	BK40Z-../DPE08MA4	67	11700	17000	4.0	475	1.2
3.0	560	1.5	487.3	BK40G10-../DPE08MA4	72	11700	17000	3.6	465	1.85
2.7	630	1.35	540.0	BK40G10-../DPE08MA4	72	11700	17000	3.2	520	1.65
2.2	780	1.1	660.2	BK40G10-../DPE08MA4	72	11700	17000	2.6	650	1.3
1.9	900	0.94	756.7	BK40G10-../DPE08MA4	72	11700	17000	2.3	740	1.15
1.7	1010	0.84	838.4	BK40G10-../DPE08MA4	72	11700	17000	2.1	810	1.05
5.4	355	3.0	264.5	BK50Z-../DPE08MA4	96	14100	26000	6.5	295	3.6
4.4	435	2.3	328.2	BK50Z-../DPE08MA4	96	14100	26000	5.3	360	2.8
3.5	540	1.55	414.8	BK50Z-../DPE08MA4	96	14100	26000	4.2	450	1.9
3.1	550	2.1	465.1	BK50G10-../DPE08MA4	100	14100	111000	3.7	455	2.5
2.8	610	1.9	513.4	BK50G10-../DPE08MA4	100	14100	111000	3.4	495	2.3
2.5	690	1.65	568.6	BK50G10-../DPE08MA4	100	14100	111000	3.1	550	2.1

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

BK-series bevel geared motors

Selection - bevel geared motors



P = 0.25 kW

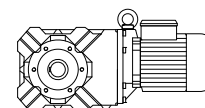
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
2.2	780	1.45	651.7	BK50G10-../DPE08MA4	100	14100	111000	2.7	630	1.85
2.0	870	1.3	722.2	BK50G10-../DPE08MA4	100	14100	111000	2.4	710	1.6
1.7	1020	1.15	859.8	BK50G10-../DPE08MA4	100	14100	111000	2.0	860	1.35
1.4	1250	0.92	1024	BK50G10-../DPE08MA4	100	14100	111000	1.7	1020	1.15
3.1	770	3.0	460.4	BK60Z-../DPE08MA4	119	16600	34000	3.8	620	3.7
2.9	820	2.8	498.0	BK60Z-../DPE08MA4	119	16600	34000	3.5	680	3.4
2.6	910	2.5	557.2	BK60Z-../DPE08MA4	119	16600	34000	3.1	770	3.0
2.3	770	3.2	621.5	BK60G20-../DPE08MA4	126	16600	34000	2.8	590	4.2
1.9	940	2.7	752.1	BK60G20-../DPE08MA4	126	16600	34000	2.3	720	3.5
1.6	1150	2.2	887.8	BK60G20-../DPE08MA4	126	16600	34000	2.0	850	2.9
1.4	1400	1.8	1016	BK60G20-../DPE08MA4	126	16600	34000	1.7	1100	2.3
1.1	1830	1.35	1322	BK60G20-../DPE08MA4	126	16600	34000	1.3	1500	1.65
0.9	2200	1.15	1618	BK60G20-../DPE08MA4	126	16600	34000	1.1	1760	1.4
1.0	1950	2.9	1457	BK70G20-../DPE08MA4	205	24100	50000	1.2	1560	3.7
0.85	2350	2.4	1696	BK70G20-../DPE08MA4	205	24100	50000	1.1	1740	3.3
0.7	2850	2.0	2040	BK70G20-../DPE08MA4	205	24100	50000	0.85	2250	2.5
0.6	3350	1.7	2578	BK70G20-../DPE08MA4	205	24100	50000	0.7	2800	2.0
0.47	4400	1.3	3041	BK70G20-../DPE08MA4	205	24100	50000	0.6	3300	1.75
0.41	5100	1.1	3505	BK70G20-../DPE08MA4	205	24100	50000	0.49	4150	1.35
0.46	3700	3.1	3120	BK80G40-../DPE08MA4	347	30000	75000	0.55	2850	4.0
0.38	4800	2.4	3776	BK80G40-../DPE08MA4	347	30000	75000	0.46	3700	3.1
0.32	6000	1.9	4461	BK80G40-../DPE08MA4	347	30000	75000	0.39	4650	2.5
0.29	6700	1.7	5032	BK80G40-../DPE08MA4	347	30000	75000	0.34	5500	2.1
0.25	8000	1.45	5865	BK80G40-../DPE08MA4	347	30000	75000	0.3	6500	1.75
0.21	9900	1.15	6893	BK80G40-../DPE08MA4	347	30000	75000	0.25	8000	1.45
0.19	11100	1.05	7652	BK80G40-../DPE08MA4	347	30000	75000	0.23	8900	1.3
0.29	6100	3.0	4952	BK90G50-../DPE08MA4	620	49400	120000	0.35	4700	3.9
0.26	7000	2.6	5491	BK90G50-../DPE08MA4	620	49400	120000	0.32	5300	3.5
0.23	8200	2.3	6335	BK90G50-../DPE08MA4	620	49400	120000	0.27	6700	2.8
0.21	9200	2.0	7022	BK90G50-../DPE08MA4	620	49400	120000	0.25	7400	2.5
0.19	10400	1.8	7862	BK90G50-../DPE08MA4	620	49400	120000	0.22	8700	2.1
0.15	13800	1.35	9935	BK90G50-../DPE08MA4	620	49400	120000	0.18	11100	1.65

P = 0.37 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
196	16.5	4.4	7.25	BK06-../DPE08LA4	16	800	-	240	13.5	5.4
147	22	3.6	9.71	BK06-../DPE08LA4	16	880	-	177	18.3	4.4
122	26.5	3.0	11.67	BK06-../DPE08LA4	16	930	-	147	22	3.6
93	34.5	2.3	15.29	BK06-../DPE08LA4	16	1020	-	112	28.5	2.8
79	40	2.0	18.00	BK06-../DPE08LA4	16	1080	-	95	33	2.4
66	48	1.65	21.54	BK06-../DPE08LA4	16	1150	-	80	39.5	2.0
54	58	1.4	26.36	BK06-../DPE08LA4	16	1230	-	65	48.5	1.65
43	73	1.1	33.33	BK06-../DPE08LA4	16	1320	-	52	61	1.3
37.5	84	0.95	38.18	BK06-../DPE08LA4	16	1380	-	45	70	1.15
49.5	64	3.1	28.76	BK10-../DPE08LA4	28	5200	-	60	53	3.8
41.5	76	2.6	34.25	BK10-../DPE08LA4	28	5600	-	50	63	3.2
35	90	2.2	40.79	BK10-../DPE08LA4	28	6000	-	42	75	2.7
29.5	106	1.9	48.96	BK10-../DPE08LA4	28	6400	-	35	89	2.2

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

P = 0.37 kW



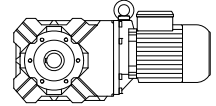
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
23.5	133	1.5	61.68	BK10-../DPE08LA4	28	7000	-	28	112	1.8
20	155	1.3	72.31	BK10-../DPE08LA4	28	7000	-	24	129	1.55
16	192	0.93	89.30	BK10-../DPE08LA4	28	7000	-	19.5	157	1.15
28	112	2.9	51.22	BK20-../DPE08LA4	38	6300	9000	33.5	93	3.5
23.5	133	2.5	61.30	BK20-../DPE08LA4	38	6500	9000	28	112	2.9
18.5	168	1.95	76.79	BK20-../DPE08LA4	38	7500	9000	22.5	138	2.4
16.5	186	1.75	88.12	BK20-../DPE08LA4	38	8000	9000	19.5	157	2.1
13.5	225	1.4	108.6	BK20-../DPE08LA4	38	8700	9000	16	189	1.65
11.5	260	1.25	124.2	BK20Z-../DPE08LA4	40	8700	9000	14	210	1.55
9.9	295	1.1	144.5	BK20Z-../DPE08LA4	40	8700	9000	12	245	1.35
8.2	355	0.93	173.4	BK20Z-../DPE08LA4	40	8700	9000	9.9	295	1.1
6.9	415	0.8	207.5	BK20Z-../DPE08LA4	40	8700	9000	8.3	345	0.96
20	153	2.9	71.56	BK30-../DPE08LA4	44	9700	12000	24	128	3.5
16.5	184	2.4	88.38	BK30-../DPE08LA4	44	10600	12000	19.5	155	2.9
14	210	2.1	102.4	BK30-../DPE08LA4	44	11200	12000	17	176	2.6
11.5	260	1.75	123.9	BK30Z-../DPE08LA4	46	11200	12000	14	210	2.1
9.8	300	1.5	145.1	BK30Z-../DPE08LA4	46	11200	12000	12	245	1.85
7.7	380	1.2	184.8	BK30Z-../DPE08LA4	46	11200	12000	9.3	315	1.45
6.6	435	1.05	216.5	BK30Z-../DPE08LA4	46	11200	12000	7.9	365	1.25
5.6	510	0.88	255.3	BK30Z-../DPE08LA4	46	11200	12000	6.7	430	1.05
12.5	240	3.3	118.2	BK40Z-../DPE08LA4	69	11700	17000	14.5	205	3.8
10	295	2.6	143.0	BK40Z-../DPE08LA4	69	11700	17000	12	245	3.2
8.5	345	2.3	169.0	BK40Z-../DPE08LA4	69	11700	17000	10.5	275	2.8
6.8	425	1.85	211.5	BK40Z-../DPE08LA4	69	11700	17000	8.1	355	2.2
5.8	490	1.6	246.6	BK40Z-../DPE08LA4	69	11700	17000	7.0	405	1.95
4.9	580	1.2	289.8	BK40Z-../DPE08LA4	69	11700	17000	6.0	475	1.45
4.1	690	0.84	348.7	BK40Z-../DPE08LA4	69	11700	17000	5.0	570	1.0
3.0	870	0.98	487.3	BK40G10-../DPE08LA4	73	11700	17000	3.6	720	1.2
2.7	960	0.89	540.0	BK40G10-../DPE08LA4	73	11700	17000	3.2	810	1.05
9.3	315	3.3	153.3	BK50Z-../DPE08LA4	98	14100	26000	11.5	255	4.1
6.9	415	2.5	206.8	BK50Z-../DPE08LA4	98	14100	26000	8.3	345	3.0
5.4	530	2.0	264.5	BK50Z-../DPE08LA4	98	14100	26000	6.5	440	2.4
4.4	650	1.55	328.2	BK50Z-../DPE08LA4	98	14100	26000	5.3	540	1.85
3.5	800	1.05	414.8	BK50Z-../DPE08LA4	98	14100	26000	4.2	670	1.25
3.1	840	1.35	465.1	BK50G10-../DPE08LA4	102	14100	111000	3.7	700	1.65
2.8	940	1.2	513.4	BK50G10-../DPE08LA4	102	14100	111000	3.4	770	1.5
2.5	1050	1.1	568.6	BK50G10-../DPE08LA4	102	14100	111000	3.1	840	1.35
2.2	1190	0.97	651.7	BK50G10-../DPE08LA4	102	14100	111000	2.7	970	1.2
2.0	1310	0.88	722.2	BK50G10-../DPE08LA4	102	14100	111000	2.4	1090	1.05
4.5	780	2.9	317.7	BK60Z-../DPE08LA4	120	16600	34000	5.4	650	3.5
4.0	880	2.6	355.5	BK60Z-../DPE08LA4	120	16600	34000	4.9	720	3.2
3.5	1000	2.3	411.5	BK60Z-../DPE08LA4	120	16600	34000	4.2	840	2.7
3.1	1130	2.0	460.4	BK60Z-../DPE08LA4	120	16600	34000	3.8	920	2.5
2.9	1210	1.9	498.0	BK60Z-../DPE08LA4	120	16600	34000	3.5	1000	2.3
2.6	1350	1.7	557.2	BK60Z-../DPE08LA4	120	16600	34000	3.1	1130	2.0
2.3	1270	1.95	621.5	BK60G20-../DPE08LA4	128	16600	34000	2.8	1000	2.5
1.9	1540	1.6	752.1	BK60G20-../DPE08LA4	128	16600	34000	2.3	1220	2.0
1.6	1870	1.35	887.8	BK60G20-../DPE08LA4	128	16600	34000	2.0	1430	1.75
1.4	2200	1.15	1016	BK60G20-../DPE08LA4	128	16600	34000	1.7	1770	1.4
1.1	2850	0.88	1322	BK60G20-../DPE08LA4	128	16600	34000	1.3	2350	1.05
2.0	1760	3.0	733.6	BK70Z-../DPE08LA4	208	24100	50000	2.4	1470	3.5

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

BK-series bevel geared motors

Selection - bevel geared motors

P = 0.37 kW

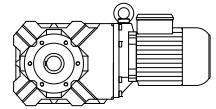


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
1.7	1720	3.3	847.7	BK70G20-../DPE08LA4	206	24100	50000	2.1	1320	4.3
1.5	1950	2.9	964.6	BK70G20-../DPE08LA4	206	24100	50000	1.8	1550	3.7
1.3	2250	2.5	1139	BK70G20-../DPE08LA4	206	24100	50000	1.6	1770	3.2
1.2	2550	2.2	1280	BK70G20-../DPE08LA4	206	24100	50000	1.4	2100	2.7
1.0	3100	1.85	1457	BK70G20-../DPE08LA4	206	24100	50000	1.2	2500	2.3
0.85	3700	1.55	1696	BK70G20-../DPE08LA4	206	24100	50000	1.1	2750	2.1
0.7	4500	1.25	2040	BK70G20-../DPE08LA4	206	24100	50000	0.85	3600	1.6
0.6	5200	1.1	2578	BK70G20-../DPE08LA4	206	24100	50000	0.7	4400	1.3
0.65	4000	2.9	2205	BK80G40-../DPE08LA4	348	30000	75000	0.8	3000	3.8
0.6	4400	2.6	2449	BK80G40-../DPE08LA4	348	30000	75000	0.7	3600	3.2
0.55	4950	2.3	2811	BK80G40-../DPE08LA4	348	30000	75000	0.65	3950	2.9
0.46	6200	1.85	3120	BK80G40-../DPE08LA4	348	30000	75000	0.55	4950	2.3
0.38	7800	1.45	3776	BK80G40-../DPE08LA4	348	30000	75000	0.46	6200	1.85
0.32	9500	1.2	4461	BK80G40-../DPE08LA4	348	30000	75000	0.39	7600	1.5
0.29	10700	1.05	5032	BK80G40-../DPE08LA4	348	30000	75000	0.34	8900	1.3
0.39	6900	2.7	3672	BK90G50-../DPE08LA4	621	49400	120000	0.47	5400	3.4
0.35	7900	2.3	4070	BK90G50-../DPE08LA4	621	49400	120000	0.43	6100	3.0
0.29	10000	1.85	4952	BK90G50-../DPE08LA4	621	49400	120000	0.35	7900	2.3
0.26	11400	1.6	5491	BK90G50-../DPE08LA4	621	49400	120000	0.32	8900	2.1
0.23	13200	1.4	6335	BK90G50-../DPE08LA4	621	49400	120000	0.27	10900	1.7
0.21	14700	1.25	7022	BK90G50-../DPE08LA4	621	49400	120000	0.25	12000	1.55
0.19	16400	1.15	7862	BK90G50-../DPE08LA4	621	49400	120000	0.22	13900	1.35

P = 0.55 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
196	24.5	3.0	7.25	BK06-../DPE08XA4	18	800	-	240	20	3.7
147	32.5	2.5	9.71	BK06-../DPE08XA4	18	880	-	177	27	3.0
122	39.5	2.0	11.67	BK06-../DPE08XA4	18	930	-	147	32.5	2.5
93	51	1.55	15.29	BK06-../DPE08XA4	18	1020	-	112	42.5	1.9
79	59	1.35	18.00	BK06-../DPE08XA4	18	1080	-	95	49.5	1.6
66	71	1.15	21.54	BK06-../DPE08XA4	18	1150	-	80	59	1.35
54	87	0.92	26.36	BK06-../DPE08XA4	18	1230	-	65	72	1.1
120	40	2.9	11.93	BK10-../DPE08XA4	30	3100	-	144	33.5	3.4
84	56	2.4	16.92	BK10-../DPE08XA4	30	3700	-	102	46	3.0
77	61	3.3	18.52	BK10-../DPE08XA4	30	4300	-	93	50	4.0
63	75	2.7	22.65	BK10-../DPE08XA4	30	4650	-	76	62	3.2
49.5	95	2.1	28.76	BK10-../DPE08XA4	30	5200	-	60	78	2.6
41.5	113	1.75	34.25	BK10-../DPE08XA4	30	5600	-	50	94	2.1
35	135	1.5	40.79	BK10-../DPE08XA4	30	6000	-	42	112	1.8
29.5	158	1.25	48.96	BK10-../DPE08XA4	30	6400	-	35	133	1.5
23.5	198	1.0	61.68	BK10-../DPE08XA4	30	7000	-	28	166	1.2
20	230	0.87	72.31	BK10-../DPE08XA4	30	7000	-	24	192	1.05
39	121	2.7	36.69	BK20-../DPE08XA4	39	5400	9000	47	100	3.3
33.5	141	2.3	42.70	BK20-../DPE08XA4	39	5800	9000	40.5	116	2.8
28	166	2.0	51.22	BK20-../DPE08XA4	39	6300	9000	33.5	139	2.4
23.5	198	1.65	61.30	BK20-../DPE08XA4	39	6500	9000	28	166	2.0
18.5	245	1.35	76.79	BK20-../DPE08XA4	39	7500	9000	22.5	205	1.6
16.5	275	1.2	88.12	BK20-../DPE08XA4	39	8000	9000	19.5	230	1.45
13.5	330	0.95	108.6	BK20-../DPE08XA4	39	8700	9000	16	280	1.15

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



P = 0.55 kW

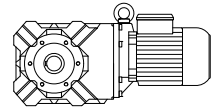
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
11.5	385	0.86	124.2	BK20Z-../DPE08XA4	41	8700	9000	14	315	1.05
33.5	139	3.2	42.89	BK30-../DPE08XA4	45	7800	12000	40	116	3.9
28.5	162	2.8	50.27	BK30-../DPE08XA4	45	8300	12000	34.5	133	3.4
24	192	2.3	59.27	BK30-../DPE08XA4	45	8900	12000	29	159	2.8
20	225	2.0	71.56	BK30-../DPE08XA4	45	9700	12000	24	190	2.4
16.5	270	1.65	88.38	BK30-../DPE08XA4	45	10600	12000	19.5	230	1.95
14	315	1.45	102.4	BK30-../DPE08XA4	45	11200	12000	17	260	1.75
11.5	385	1.15	123.9	BK30Z-../DPE08XA4	48	11200	12000	14	315	1.45
9.8	450	1.0	145.1	BK30Z-../DPE08XA4	48	11200	12000	12	365	1.25
7.7	560	0.8	184.8	BK30Z-../DPE08XA4	48	11200	12000	9.3	465	0.97
17	265	2.9	84.36	BK40-../DPE08XA4	65	10700	17000	20.5	220	3.5
14	315	2.5	104.0	BK40-../DPE08XA4	65	11700	17000	16.5	270	2.9
12.5	355	2.2	118.2	BK40Z-../DPE08XA4	70	11700	17000	14.5	305	2.6
10	440	1.75	143.0	BK40Z-../DPE08XA4	70	11700	17000	12	365	2.1
8.5	510	1.55	169.0	BK40Z-../DPE08XA4	70	11700	17000	10.5	415	1.9
6.8	630	1.25	211.5	BK40Z-../DPE08XA4	70	11700	17000	8.1	530	1.45
5.8	730	1.05	246.6	BK40Z-../DPE08XA4	70	11700	17000	7.0	600	1.3
4.9	860	0.8	289.8	BK40Z-../DPE08XA4	70	11700	17000	6.0	700	0.98
12.5	355	3.0	115.4	BK50Z-../DPE08XA4	98	14100	26000	15	295	3.6
9.3	465	2.3	153.3	BK50Z-../DPE08XA4	98	14100	26000	11.5	375	2.8
6.9	620	1.7	206.8	BK50Z-../DPE08XA4	98	14100	26000	8.3	510	2.1
5.4	780	1.35	264.5	BK50Z-../DPE08XA4	98	14100	26000	6.5	650	1.6
4.4	960	1.05	328.2	BK50Z-../DPE08XA4	98	14100	26000	5.3	800	1.25
3.1	1290	0.89	465.1	BK50G10-../DPE08XA4	103	14100	111000	3.7	1080	1.05
2.8	1420	0.81	513.4	BK50G10-../DPE08XA4	103	14100	111000	3.4	1170	0.98
7.0	750	3.1	205.0	BK60Z-../DPE08XA4	121	16600	34000	8.4	620	3.7
6.0	870	2.6	239.7	BK60Z-../DPE08XA4	121	16600	34000	7.2	720	3.2
5.3	990	2.3	268.2	BK60Z-../DPE08XA4	121	16600	34000	6.4	820	2.8
4.5	1160	2.0	317.7	BK60Z-../DPE08XA4	121	16600	34000	5.4	970	2.4
4.0	1310	1.75	355.5	BK60Z-../DPE08XA4	121	16600	34000	4.9	1070	2.1
3.5	1500	1.55	411.5	BK60Z-../DPE08XA4	121	16600	34000	4.2	1250	1.85
3.1	1690	1.35	460.4	BK60Z-../DPE08XA4	121	16600	34000	3.8	1380	1.65
2.9	1810	1.25	498.0	BK60Z-../DPE08XA4	121	16600	34000	3.5	1500	1.55
2.6	2000	1.15	557.2	BK60Z-../DPE08XA4	121	16600	34000	3.1	1690	1.35
2.3	2000	1.25	621.5	BK60G20-../DPE08XA4	129	16600	34000	2.8	1610	1.55
1.9	2400	1.05	752.1	BK60G20-../DPE08XA4	129	16600	34000	2.3	1960	1.3
1.6	2900	0.86	887.8	BK60G20-../DPE08XA4	129	16600	34000	2.0	2250	1.1
3.3	1590	3.3	432.1	BK70Z-../DPE08XA4	210	24100	50000	4.0	1310	4.0
2.9	1810	2.9	501.8	BK70Z-../DPE08XA4	210	24100	50000	3.5	1500	3.5
2.5	2100	2.5	570.8	BK70Z-../DPE08XA4	210	24100	50000	3.0	1750	3.0
2.3	2250	2.3	644.9	BK70Z-../DPE08XA4	210	24100	50000	2.7	1940	2.7
2.0	2600	2.0	733.6	BK70Z-../DPE08XA4	210	24100	50000	2.4	2150	2.4
1.7	2700	2.1	847.7	BK70G20-../DPE08XA4	207	24100	50000	2.1	2100	2.7
1.5	3050	1.85	964.6	BK70G20-../DPE08XA4	207	24100	50000	1.8	2500	2.3
1.3	3600	1.6	1139	BK70G20-../DPE08XA4	207	24100	50000	1.6	2850	2.0
1.2	4000	1.45	1280	BK70G20-../DPE08XA4	207	24100	50000	1.4	3350	1.7
1.0	4800	1.2	1457	BK70G20-../DPE08XA4	207	24100	50000	1.2	3900	1.45
1.1	3750	3.1	1307	BK80G40-../DPE08XA4	349	30000	75000	1.4	2700	4.3
1.0	4050	2.8	1425	BK80G40-../DPE08XA4	349	30000	75000	1.2	3150	3.7
0.9	4600	2.5	1583	BK80G40-../DPE08XA4	349	30000	75000	1.1	3550	3.2

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

BK-series bevel geared motors

Selection - bevel geared motors

P = 0.55 kW

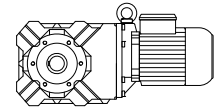


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
0.8	5200	2.2	1775	BK80G40-../DPE08XA4	349	30000	75000	1.0	3950	2.9
0.65	6600	1.75	2205	BK80G40-../DPE08XA4	349	30000	75000	0.8	5100	2.3
0.6	7300	1.6	2449	BK80G40-../DPE08XA4	349	30000	75000	0.7	6000	1.9
0.55	8000	1.45	2811	BK80G40-../DPE08XA4	349	30000	75000	0.65	6600	1.75
0.46	9900	1.15	3120	BK80G40-../DPE08XA4	349	30000	75000	0.55	8000	1.45
0.55	7400	2.5	2764	BK90G50-../DPE08XA4	622	49400	120000	0.65	5900	3.1
0.47	9000	2.1	3065	BK90G50-../DPE08XA4	622	49400	120000	0.6	6600	2.8
0.39	11300	1.65	3672	BK90G50-../DPE08XA4	622	49400	120000	0.47	9000	2.1
0.35	12900	1.45	4070	BK90G50-../DPE08XA4	622	49400	120000	0.43	10100	1.85
0.29	16000	1.15	4952	BK90G50-../DPE08XA4	622	49400	120000	0.35	12900	1.45
0.26	18000	1.05	5491	BK90G50-../DPE08XA4	622	49400	120000	0.32	14300	1.3

P = 0.75 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
196	33.5	2.2	7.25	BK06-../DPE08XB4	18	800	-	240	27	2.7
147	44.5	1.8	9.71	BK06-../DPE08XB4	18	880	-	177	37	2.2
122	54	1.5	11.67	BK06-../DPE08XB4	18	930	-	147	44.5	1.8
93	70	1.15	15.29	BK06-../DPE08XB4	18	1020	-	112	58	1.4
79	81	0.99	18.00	BK06-../DPE08XB4	18	1080	-	95	67	1.2
66	97	0.82	21.54	BK06-../DPE08XB4	18	1150	-	80	80	1.0
185	35.5	3.2	7.68	BK10-../DPE08XB4	30	2400	-	225	29	4.0
152	43	2.7	9.40	BK10-../DPE08XB4	30	2700	-	182	36	3.2
120	54	2.1	11.93	BK10-../DPE08XB4	30	3100	-	144	45.5	2.5
98	65	3.1	14.50	BK10-../DPE08XB4	30	3900	-	118	54	3.7
84	76	1.8	16.92	BK10-../DPE08XB4	30	3700	-	102	63	2.2
77	83	2.4	18.52	BK10-../DPE08XB4	30	4300	-	93	69	2.9
63	102	1.95	22.65	BK10-../DPE08XB4	30	4650	-	76	84	2.4
49.5	130	1.55	28.76	BK10-../DPE08XB4	30	5200	-	60	107	1.85
41.5	155	1.3	34.25	BK10-../DPE08XB4	30	5600	-	50	128	1.55
35	184	1.1	40.79	BK10-../DPE08XB4	30	6000	-	42	153	1.3
29.5	215	0.93	48.96	BK10-../DPE08XB4	30	6400	-	35	182	1.1
82	79	2.9	17.42	BK20-../DPE08XB4	39	3250	9000	99	65	3.6
59	109	3.0	24.29	BK20-../DPE08XB4	39	4500	9000	71	90	3.7
50	128	2.6	28.66	BK20-../DPE08XB4	39	4850	9000	60	107	3.1
39	165	2.0	36.69	BK20-../DPE08XB4	39	5400	9000	47	137	2.4
33.5	192	1.7	42.70	BK20-../DPE08XB4	39	5800	9000	40.5	159	2.1
28	225	1.45	51.22	BK20-../DPE08XB4	39	6300	9000	33.5	190	1.75
23.5	270	1.2	61.30	BK20-../DPE08XB4	39	6500	9000	28	225	1.45
18.5	340	0.97	76.79	BK20-../DPE08XB4	39	7500	9000	22.5	280	1.2
16.5	375	0.88	88.12	BK20-../DPE08XB4	39	8000	9000	19.5	315	1.05
42.5	151	3.0	33.70	BK30-../DPE08XB4	45	7000	12000	51	126	3.6
33.5	190	2.4	42.89	BK30-../DPE08XB4	45	7800	12000	40	159	2.8
28.5	220	2.0	50.27	BK30-../DPE08XB4	45	8300	12000	34.5	182	2.5
24	260	1.75	59.27	BK30-../DPE08XB4	45	8900	12000	29	215	2.1
20	310	1.45	71.56	BK30-../DPE08XB4	45	9700	12000	24	255	1.75
16.5	370	1.2	88.38	BK30-../DPE08XB4	45	10600	12000	19.5	315	1.45
14	430	1.05	102.4	BK30-../DPE08XB4	45	11200	12000	17	355	1.25
11.5	520	0.87	123.9	BK30Z-../DPE08XB4	48	11200	12000	14	430	1.05

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.



P = 0.75 kW

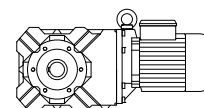
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
24	260	3.0	59.66	BK40-../DPE08XB4	66	9100	17000	29	215	3.6
20.5	300	2.6	70.11	BK40-../DPE08XB4	66	9800	17000	24.5	250	3.1
17	365	2.1	84.36	BK40-../DPE08XB4	66	10700	17000	20.5	300	2.6
14	430	1.8	104.0	BK40-../DPE08XB4	66	11700	17000	16.5	365	2.1
12.5	485	1.6	118.2	BK40Z-../DPE08XB4	70	11700	17000	14.5	415	1.9
10	600	1.3	143.0	BK40Z-../DPE08XB4	70	11700	17000	12	500	1.55
8.5	690	1.15	169.0	BK40Z-../DPE08XB4	70	11700	17000	10.5	560	1.4
6.8	860	0.91	211.5	BK40Z-../DPE08XB4	70	11700	17000	8.1	720	1.1
19	325	3.2	75.40	BK50-../DPE08XB4	94	12600	26000	23	270	3.9
15	410	2.6	95.29	BK50-../DPE08XB4	94	14100	26000	18	340	3.1
12.5	485	2.2	115.4	BK50Z-../DPE08XB4	99	14100	26000	15	405	2.6
9.3	630	1.65	153.3	BK50Z-../DPE08XB4	99	14100	26000	11.5	510	2.1
6.9	850	1.25	206.8	BK50Z-../DPE08XB4	99	14100	26000	8.3	700	1.5
5.4	1070	0.98	264.5	BK50Z-../DPE08XB4	99	14100	26000	6.5	890	1.2
9.3	770	3.0	153.7	BK60Z-../DPE08XB4	122	16600	34000	11.5	620	3.7
7.8	910	2.5	183.2	BK60Z-../DPE08XB4	122	16600	34000	9.4	760	3.0
7.0	1020	2.3	205.0	BK60Z-../DPE08XB4	122	16600	34000	8.4	850	2.7
6.0	1190	1.95	239.7	BK60Z-../DPE08XB4	122	16600	34000	7.2	990	2.3
5.3	1350	1.7	268.2	BK60Z-../DPE08XB4	122	16600	34000	6.4	1110	2.1
4.5	1590	1.45	317.7	BK60Z-../DPE08XB4	122	16600	34000	5.4	1320	1.75
4.0	1790	1.3	355.5	BK60Z-../DPE08XB4	122	16600	34000	4.9	1460	1.6
3.5	2000	1.15	411.5	BK60Z-../DPE08XB4	122	16600	34000	4.2	1700	1.35
3.1	2300	1.0	460.4	BK60Z-../DPE08XB4	122	16600	34000	3.8	1880	1.2
2.9	2450	0.94	498.0	BK60Z-../DPE08XB4	122	16600	34000	3.5	2000	1.15
2.6	2750	0.84	557.2	BK60Z-../DPE08XB4	122	16600	34000	3.1	2300	1.0
2.3	2850	0.88	621.5	BK60G20-../DPE08XB4	129	16600	34000	2.8	2250	1.1
4.3	1660	3.1	333.6	BK70Z-../DPE08XB4	210	24100	50000	5.2	1370	3.8
3.8	1880	2.8	379.9	BK70Z-../DPE08XB4	210	24100	50000	4.6	1550	3.4
3.3	2150	2.4	432.1	BK70Z-../DPE08XB4	210	24100	50000	4.0	1790	2.9
2.9	2450	2.1	501.8	BK70Z-../DPE08XB4	210	24100	50000	3.5	2000	2.6
2.5	2850	1.8	570.8	BK70Z-../DPE08XB4	210	24100	50000	3.0	2350	2.2
2.3	3100	1.7	644.9	BK70Z-../DPE08XB4	210	24100	50000	2.7	2650	1.95
2.0	3550	1.45	733.6	BK70Z-../DPE08XB4	210	24100	50000	2.4	2950	1.75
1.7	3850	1.5	847.7	BK70G20-../DPE08XB4	208	24100	50000	2.1	3050	1.85
1.5	4350	1.3	964.6	BK70G20-../DPE08XB4	208	24100	50000	1.8	3550	1.6
1.3	5000	1.15	1139	BK70G20-../DPE08XB4	208	24100	50000	1.6	4000	1.45
1.2	5500	1.05	1280	BK70G20-../DPE08XB4	208	24100	50000	1.4	4700	1.2
1.0	6700	0.85	1457	BK70G20-../DPE08XB4	208	24100	50000	1.2	5500	1.05
1.5	3850	3.0	963.0	BK80G40-../DPE08XB4	350	30000	75000	1.8	3050	3.8
1.4	4100	2.8	1079	BK80G40-../DPE08XB4	350	30000	75000	1.6	3450	3.3
1.1	5400	2.1	1307	BK80G40-../DPE08XB4	350	30000	75000	1.4	4100	2.8
1.0	5900	1.95	1425	BK80G40-../DPE08XB4	350	30000	75000	1.2	4750	2.4
0.9	6700	1.7	1583	BK80G40-../DPE08XB4	350	30000	75000	1.1	5200	2.2
0.8	7600	1.5	1775	BK80G40-../DPE08XB4	350	30000	75000	1.0	5800	2.0
0.65	9600	1.2	2205	BK80G40-../DPE08XB4	350	30000	75000	0.8	7500	1.55
0.6	10400	1.1	2449	BK80G40-../DPE08XB4	350	30000	75000	0.7	8700	1.3
0.9	6400	2.9	1579	BK90G50-../DPE08XB4	622	49400	120000	1.1	5000	3.7
0.8	7200	2.6	1803	BK90G50-../DPE08XB4	622	49400	120000	0.95	5800	3.2
0.75	7600	2.4	2016	BK90G50-../DPE08XB4	622	49400	120000	0.85	6500	2.8
0.55	10900	1.7	2764	BK90G50-../DPE08XB4	622	49400	120000	0.65	8900	2.1
0.47	13100	1.4	3065	BK90G50-../DPE08XB4	622	49400	120000	0.6	9800	1.9
0.39	16200	1.15	3672	BK90G50-../DPE08XB4	622	49400	120000	0.47	13100	1.4
0.35	18300	1.0	4070	BK90G50-../DPE08XB4	622	49400	120000	0.43	14500	1.3

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BK-series bevel geared motors

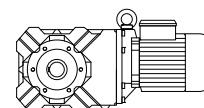
Selection - bevel geared motors

P = 1.1 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
325	29.5	3.2	4.44	BK10-../DPE09XA4	40	1900	-	395	24	4.0
240	40	2.6	6.02	BK10-../DPE09XA4	40	2100	-	290	33	3.2
188	51	2.3	7.68	BK10-../DPE09XA4	40	2400	-	230	42	2.7
154	62	1.85	9.40	BK10-../DPE09XA4	40	2700	-	186	51	2.3
135	70	2.6	10.70	BK10-../DPE09XA4	40	3500	-	163	58	3.1
121	79	1.45	11.93	BK10-../DPE09XA4	40	3100	-	146	66	1.75
100	94	2.1	14.50	BK10-../DPE09XA4	40	3900	-	120	78	2.6
86	109	1.25	16.92	BK10-../DPE09XA4	40	3700	-	103	91	1.5
78	121	1.65	18.52	BK10-../DPE09XA4	40	4300	-	94	100	2.0
64	147	1.35	22.65	BK10-../DPE09XA4	40	4650	-	77	122	1.65
51	185	1.1	28.76	BK10-../DPE09XA4	40	5200	-	61	154	1.3
42.5	220	0.91	34.25	BK10-../DPE09XA4	40	5600	-	51	185	1.1
124	77	3.0	11.69	BK20-../DPE09XA4	50	2400	8800	149	64	3.6
83	115	2.0	17.42	BK20-../DPE09XA4	50	3250	9000	100	95	2.4
75	126	2.6	19.39	BK20-../DPE09XA4	50	4050	9000	90	105	3.1
60	157	2.1	24.29	BK20-../DPE09XA4	50	4500	9000	72	131	2.5
51	185	1.8	28.66	BK20-../DPE09XA4	50	4850	9000	61	154	2.1
39.5	235	1.4	36.69	BK20-../DPE09XA4	50	5400	9000	47.5	199	1.65
34	275	1.2	42.70	BK20-../DPE09XA4	50	5800	9000	41	230	1.45
28.5	325	1.0	51.22	BK20-../DPE09XA4	50	6300	9000	34	270	1.2
23.5	395	0.84	61.30	BK20-../DPE09XA4	50	6500	9000	28.5	325	1.0
70	136	2.4	20.85	BK30-../DPE09XA4	56	5000	12000	84	113	2.8
63	150	3.0	23.20	BK30-../DPE09XA4	56	5900	12000	75	126	3.6
51	185	2.4	28.76	BK30-../DPE09XA4	56	6500	12000	61	154	2.9
43	215	2.1	33.70	BK30-../DPE09XA4	56	7000	12000	52	181	2.5
34	270	1.65	42.89	BK30-../DPE09XA4	56	7800	12000	41	225	2.0
29	315	1.45	50.27	BK30-../DPE09XA4	56	8300	12000	35	260	1.75
24.5	375	1.2	59.27	BK30-../DPE09XA4	56	8900	12000	29.5	310	1.45
20.5	445	1.0	71.56	BK30-../DPE09XA4	56	9700	12000	24.5	370	1.2
16.5	540	0.83	88.38	BK30-../DPE09XA4	56	10600	12000	20	450	1.0
35.5	265	2.9	40.88	BK40-../DPE09XA4	76	7600	17000	43	215	3.6
28.5	320	2.4	51.18	BK40-../DPE09XA4	76	8400	17000	34	270	2.9
24.5	375	2.1	59.66	BK40-../DPE09XA4	76	9100	17000	29.5	310	2.5
21	435	1.8	70.11	BK40-../DPE09XA4	76	9800	17000	25	365	2.1
17.5	520	1.5	84.36	BK40-../DPE09XA4	76	10700	17000	21	435	1.8
14	630	1.25	104.0	BK40-../DPE09XA4	76	11700	17000	17	520	1.5
12.5	710	1.1	118.2	BK40Z-../DPE09XA4	80	11700	17000	15	590	1.3
10.5	840	0.93	143.0	BK40Z-../DPE09XA4	80	11700	17000	12.5	700	1.1
24	385	2.7	60.76	BK50-../DPE09XA4	104	11400	26000	29	315	3.3
19.5	465	2.3	75.40	BK50-../DPE09XA4	104	12600	26000	23.5	385	2.7
15.5	580	1.8	95.29	BK50-../DPE09XA4	104	14100	26000	18.5	485	2.2
12.5	710	1.5	115.4	BK50Z-../DPE09XA4	109	14100	26000	15.5	570	1.85
9.4	920	1.15	153.3	BK50Z-../DPE09XA4	109	14100	26000	11.5	750	1.4
7.0	1230	0.85	206.8	BK50Z-../DPE09XA4	109	14100	26000	8.5	1010	1.05

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



P = 1.1 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
14.5	720	3.2	101.2	BK60-../DPE09XA4	113	13900	34000	17.5	600	3.8
13	800	2.9	113.2	BK60-../DPE09XA4	113	15000	34000	15.5	670	3.4
12	870	2.6	122.5	BK60-../DPE09XA4	113	15500	34000	14.5	720	3.2
11	950	2.4	137.0	BK60-../DPE09XA4	113	16600	34000	13	800	2.9
9.4	1110	2.1	153.7	BK60Z-../DPE09XA4	132	16600	34000	11.5	910	2.5
7.9	1320	1.75	183.2	BK60Z-../DPE09XA4	132	16600	34000	9.5	1100	2.1
7.1	1470	1.55	205.0	BK60Z-../DPE09XA4	132	16600	34000	8.5	1230	1.85
6.1	1720	1.35	239.7	BK60Z-../DPE09XA4	132	16600	34000	7.3	1430	1.6
5.4	1940	1.2	268.2	BK60Z-../DPE09XA4	132	16600	34000	6.5	1610	1.45
4.6	2250	1.0	317.7	BK60Z-../DPE09XA4	132	16600	34000	5.5	1910	1.2
4.1	2550	0.9	355.5	BK60Z-../DPE09XA4	132	16600	34000	4.9	2100	1.1
6.4	1640	3.2	226.2	BK70Z-../DPE09XA4	220	24100	50000	7.7	1360	3.8
5.6	1870	2.8	257.3	BK70Z-../DPE09XA4	220	24100	50000	6.8	1540	3.4
5.0	2100	2.5	293.3	BK70Z-../DPE09XA4	220	24100	50000	6.0	1750	3.0
4.4	2350	2.2	333.6	BK70Z-../DPE09XA4	220	24100	50000	5.3	1980	2.6
3.8	2750	1.9	379.9	BK70Z-../DPE09XA4	220	24100	50000	4.6	2250	2.3
3.4	3050	1.7	432.1	BK70Z-../DPE09XA4	220	24100	50000	4.1	2550	2.0
2.9	3600	1.45	501.8	BK70Z-../DPE09XA4	220	24100	50000	3.5	3000	1.75
2.6	4000	1.3	570.8	BK70Z-../DPE09XA4	220	24100	50000	3.1	3350	1.55
2.3	4550	1.15	644.9	BK70Z-../DPE09XA4	220	24100	50000	2.7	3850	1.35
2.0	5200	1.0	733.6	BK70Z-../DPE09XA4	220	24100	50000	2.4	4350	1.2
1.7	5800	0.98	847.7	BK70G20-../DPE09XA4	218	24100	50000	2.1	4600	1.25
1.5	6500	0.88	964.6	BK70G20-../DPE09XA4	218	24100	50000	1.9	5100	1.1
2.9	3600	3.2	499.5	BK80Z-../DPE09XA4	349	30000	75000	3.5	3000	3.8
2.6	4000	2.9	559.5	BK80Z-../DPE09XA4	349	30000	75000	3.2	3250	3.5
2.4	3600	3.2	607.8	BK80G40-../DPE09XA4	360	30000	75000	2.9	2850	4.0
2.2	3900	2.9	680.9	BK80G40-../DPE09XA4	360	30000	75000	2.6	3200	3.6
2.0	4400	2.6	756.3	BK80G40-../DPE09XA4	360	30000	75000	2.4	3550	3.2
1.7	5200	2.2	847.2	BK80G40-../DPE09XA4	360	30000	75000	2.1	4050	2.8
1.5	6100	1.9	963.0	BK80G40-../DPE09XA4	360	30000	75000	1.9	4600	2.5
1.4	6400	1.8	1079	BK80G40-../DPE09XA4	360	30000	75000	1.7	5100	2.3
1.2	7700	1.5	1307	BK80G40-../DPE09XA4	360	30000	75000	1.4	6400	1.8
1.1	8300	1.4	1425	BK80G40-../DPE09XA4	360	30000	75000	1.3	6900	1.65
0.95	9800	1.15	1583	BK80G40-../DPE09XA4	360	30000	75000	1.1	8300	1.4
0.85	11000	1.05	1775	BK80G40-../DPE09XA4	360	30000	75000	1.0	9200	1.25
1.5	5600	3.3	1008	BK90G50-../DPE09XA4	633	49400	120000	1.8	4450	4.2
1.3	6500	2.8	1127	BK90G50-../DPE09XA4	633	49400	120000	1.6	5000	3.7
1.1	8300	2.2	1363	BK90G50-../DPE09XA4	633	49400	120000	1.3	6800	2.7
0.95	9500	1.95	1579	BK90G50-../DPE09XA4	633	49400	120000	1.2	7200	2.6
0.8	11400	1.6	1803	BK90G50-../DPE09XA4	633	49400	120000	1.0	8700	2.1
0.75	12000	1.55	2016	BK90G50-../DPE09XA4	633	49400	120000	0.9	9700	1.9
0.55	16900	1.1	2764	BK90G50-../DPE09XA4	633	49400	120000	0.65	14000	1.3

P = 1.5 kW

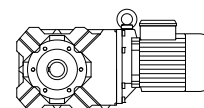
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
325	40.5	2.3	4.44	BK10-../DPE09XB4	40	1900	-	395	33	2.9
240	54	1.95	6.02	BK10-../DPE09XB4	40	2100	-	290	45	2.3
188	70	1.65	7.68	BK10-../DPE09XB4	40	2400	-	230	57	2.0

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BK-series bevel geared motors

Selection - bevel geared motors

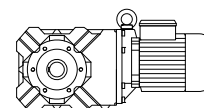
P = 1.5 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
154	85	1.35	9.40	BK10-../DPE09XB4	40	2700	-	186	70	1.65
135	95	1.9	10.70	BK10-../DPE09XB4	40	3500	-	163	79	2.3
121	108	1.05	11.93	BK10-../DPE09XB4	40	3100	-	146	90	1.3
100	128	1.55	14.50	BK10-../DPE09XB4	40	3900	-	120	107	1.85
86	149	0.91	16.92	BK10-../DPE09XB4	40	3700	-	103	125	1.1
78	165	1.2	18.52	BK10-../DPE09XB4	40	4300	-	94	137	1.45
64	200	1.0	22.65	BK10-../DPE09XB4	40	4650	-	77	167	1.2
51	250	0.8	28.76	BK10-../DPE09XB4	40	5200	-	61	210	0.95
183	72	3.2	7.91	BK20-../DPE09XB4	50	1330	7600	220	59	3.9
146	90	2.6	9.91	BK20-../DPE09XB4	50	1910	8300	176	74	3.1
130	99	3.0	11.14	BK20-../DPE09XB4	50	3300	8100	157	82	3.7
124	106	2.2	11.69	BK20-../DPE09XB4	50	2400	8800	149	88	2.6
98	131	2.5	14.75	BK20-../DPE09XB4	50	3650	9000	118	109	3.0
83	157	1.45	17.42	BK20-../DPE09XB4	50	3250	9000	100	130	1.8
75	171	1.95	19.39	BK20-../DPE09XB4	50	4050	9000	90	143	2.3
60	210	1.55	24.29	BK20-../DPE09XB4	50	4500	9000	72	179	1.85
51	250	1.3	28.66	BK20-../DPE09XB4	50	4850	9000	61	210	1.55
39.5	325	1.0	36.69	BK20-../DPE09XB4	50	5400	9000	47.5	270	1.2
34	375	0.88	42.70	BK20-../DPE09XB4	50	5800	9000	41	310	1.05
121	108	3.0	11.93	BK30-../DPE09XB4	56	3650	12000	146	90	3.6
104	125	2.6	13.98	BK30-../DPE09XB4	56	4050	12000	125	104	3.1
81	159	2.8	17.95	BK30-../DPE09XB4	56	5300	12000	97	132	3.4
70	186	1.7	20.85	BK30-../DPE09XB4	56	5000	12000	84	155	2.1
63	200	2.3	23.20	BK30-../DPE09XB4	56	5900	12000	75	171	2.6
51	250	1.8	28.76	BK30-../DPE09XB4	56	6500	12000	61	210	2.1
43	295	1.55	33.70	BK30-../DPE09XB4	56	7000	12000	52	245	1.85
34	370	1.2	42.89	BK30-../DPE09XB4	56	7800	12000	41	310	1.45
29	430	1.05	50.27	BK30-../DPE09XB4	56	8300	12000	35	360	1.25
24.5	510	0.88	59.27	BK30-../DPE09XB4	56	8900	12000	29.5	425	1.05
51	250	3.1	28.59	BK40-../DPE09XB4	76	6300	17000	61	210	3.7
42	305	2.6	34.61	BK40-../DPE09XB4	76	6900	17000	51	250	3.1
35.5	360	2.2	40.88	BK40-../DPE09XB4	76	7600	17000	43	295	2.6
28.5	440	1.75	51.18	BK40-../DPE09XB4	76	8400	17000	34	370	2.1
24.5	510	1.55	59.66	BK40-../DPE09XB4	76	9100	17000	29.5	425	1.85
21	590	1.3	70.11	BK40-../DPE09XB4	76	9800	17000	25	495	1.6
17.5	710	1.1	84.36	BK40-../DPE09XB4	76	10700	17000	21	590	1.3
14	860	0.91	104.0	BK40-../DPE09XB4	76	11700	17000	17	710	1.1
12.5	970	0.8	118.2	BK40Z-../DPE09XB4	80	11700	17000	15	810	0.96
30.5	415	2.5	47.50	BK50-../DPE09XB4	104	10100	25700	37	340	3.1
24	520	2.0	60.76	BK50-../DPE09XB4	104	11400	26000	29	430	2.4
19.5	630	1.65	75.40	BK50-../DPE09XB4	104	12600	26000	23.5	530	2.0
15.5	790	1.35	95.29	BK50-../DPE09XB4	104	14100	26000	18.5	660	1.6
12.5	970	1.1	115.4	BK50Z-../DPE09XB4	109	14100	26000	15.5	780	1.35
9.4	1260	0.83	153.3	BK50Z-../DPE09XB4	109	14100	26000	11.5	1030	1.0
18.5	770	3.0	78.13	BK60-../DPE09XB4	113	11900	34000	22.5	630	3.7
16.5	860	2.7	87.41	BK60-../DPE09XB4	113	12900	34000	20	710	3.2
14.5	980	2.3	101.2	BK60-../DPE09XB4	113	13900	34000	17.5	810	2.8
13	1100	2.1	113.2	BK60-../DPE09XB4	113	15000	34000	15.5	920	2.5
12	1190	1.95	122.5	BK60-../DPE09XB4	113	15500	34000	14.5	980	2.3
11	1300	1.75	137.0	BK60-../DPE09XB4	113	16600	34000	13	1100	2.1
9.4	1520	1.5	153.7	BK60Z-../DPE09XB4	132	16600	34000	11.5	1240	1.85
7.9	1810	1.25	183.2	BK60Z-../DPE09XB4	132	16600	34000	9.5	1500	1.55
7.1	2000	1.15	205.0	BK60Z-../DPE09XB4	132	16600	34000	8.5	1680	1.35
6.1	2300	1.0	239.7	BK60Z-../DPE09XB4	132	16600	34000	7.3	1960	1.15

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

P = 1.5 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
5.4	2650	0.87	268.2	BK60Z-../DPE09XB4	132	16600	34000	6.5	2200	1.05
8.2	1740	3.0	175.7	BK70-../DPE09XB4	199	24100	50000	10	1430	3.6
7.6	1880	2.8	190.4	BK70Z-../DPE09XB4	220	24100	50000	9.2	1550	3.4
6.4	2200	2.4	226.2	BK70Z-../DPE09XB4	220	24100	50000	7.7	1860	2.8
5.6	2550	2.0	257.3	BK70Z-../DPE09XB4	220	24100	50000	6.8	2100	2.5
5.0	2850	1.8	293.3	BK70Z-../DPE09XB4	220	24100	50000	6.0	2350	2.2
4.4	3250	1.6	333.6	BK70Z-../DPE09XB4	220	24100	50000	5.3	2700	1.95
3.8	3750	1.4	379.9	BK70Z-../DPE09XB4	220	24100	50000	4.6	3100	1.7
3.4	4200	1.25	432.1	BK70Z-../DPE09XB4	220	24100	50000	4.1	3450	1.5
2.9	4900	1.05	501.8	BK70Z-../DPE09XB4	220	24100	50000	3.5	4050	1.3
2.6	5500	0.95	570.8	BK70Z-../DPE09XB4	220	24100	50000	3.1	4600	1.15
2.3	6200	0.84	644.9	BK70Z-../DPE09XB4	220	24100	50000	2.7	5300	0.98
3.8	3750	3.1	389.0	BK80Z-../DPE09XB4	349	30000	75000	4.5	3150	3.7
3.4	4200	2.7	435.7	BK80Z-../DPE09XB4	349	30000	75000	4.0	3550	3.2
2.9	4900	2.3	499.5	BK80Z-../DPE09XB4	349	30000	75000	3.5	4050	2.8
2.6	5500	2.1	559.5	BK80Z-../DPE09XB4	349	30000	75000	3.2	4450	2.6
2.4	5200	2.2	607.8	BK80G40-../DPE09XB4	360	30000	75000	2.9	4150	2.8
2.2	5600	2.1	680.9	BK80G40-../DPE09XB4	360	30000	75000	2.6	4650	2.5
2.0	6300	1.85	756.3	BK80G40-../DPE09XB4	360	30000	75000	2.4	5100	2.3
1.7	7500	1.55	847.2	BK80G40-../DPE09XB4	360	30000	75000	2.1	5900	1.95
1.5	8600	1.35	963.0	BK80G40-../DPE09XB4	360	30000	75000	1.9	6600	1.75
1.4	9200	1.25	1079	BK80G40-../DPE09XB4	360	30000	75000	1.7	7400	1.55
1.2	10900	1.05	1307	BK80G40-../DPE09XB4	360	30000	75000	1.4	9200	1.25
1.1	11800	0.97	1425	BK80G40-../DPE09XB4	360	30000	75000	1.3	9800	1.15
2.3	6200	3.0	637.7	BK90Z-../DPE09XB4	622	49400	120000	2.8	5100	3.6
2.1	6800	2.7	713.5	BK90Z-../DPE09XB4	622	49400	120000	2.5	5700	3.2
1.8	6600	2.8	821.0	BK90G50-../DPE09XB4	633	49400	120000	2.2	5100	3.6
1.7	7200	2.6	882.3	BK90G50-../DPE09XB4	633	49400	120000	2.0	5900	3.1
1.5	8200	2.3	1008	BK90G50-../DPE09XB4	633	49400	120000	1.8	6600	2.8
1.3	9500	1.95	1127	BK90G50-../DPE09XB4	633	49400	120000	1.6	7400	2.5
1.1	11800	1.55	1363	BK90G50-../DPE09XB4	633	49400	120000	1.3	9800	1.9
0.95	13500	1.35	1579	BK90G50-../DPE09XB4	633	49400	120000	1.2	10400	1.8
0.8	16100	1.15	1803	BK90G50-../DPE09XB4	633	49400	120000	1.0	12600	1.45
0.75	17100	1.1	2016	BK90G50-../DPE09XB4	633	49400	120000	0.9	13900	1.35

P = 2.2 kW

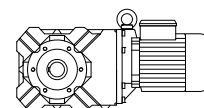
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
330	58	1.65	4.44	BK10-../DPE09XB4C	43	1900	-	395	48.5	1.95
245	78	1.35	6.02	BK10-../DPE09XB4C	43	2100	-	290	66	1.6
189	102	1.15	7.68	BK10-../DPE09XB4C	43	2400	-	230	84	1.35
155	124	0.93	9.40	BK10-../DPE09XB4C	43	2700	-	186	103	1.1
136	139	1.3	10.70	BK10-../DPE09XB4C	43	3500	-	163	116	1.55
100	189	1.05	14.50	BK10-../DPE09XB4C	43	3900	-	120	157	1.25
79	235	0.85	18.52	BK10-../DPE09XB4C	43	4300	-	94	200	1.0
320	60	3.3	4.54	BK20-../DPE09XB4C	52	520	6100	385	50	3.9
245	78	2.8	6.02	BK20-../DPE09XB4C	52	580	6800	290	66	3.3
184	105	2.2	7.91	BK20-../DPE09XB4C	52	1330	7600	220	87	2.7

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BK-series bevel geared motors

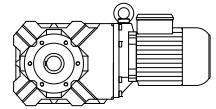
Selection - bevel geared motors

P = 2.2 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
147	131	1.75	9.91	BK20-../DPE09XB4C	52	1910	8300	176	109	2.1
131	144	2.1	11.14	BK20-../DPE09XB4C	52	3300	8100	157	120	2.5
125	154	1.5	11.69	BK20-../DPE09XB4C	52	2400	8800	149	129	1.8
99	191	1.75	14.75	BK20-../DPE09XB4C	52	3650	9000	118	160	2.1
84	225	1.05	17.42	BK20-../DPE09XB4C	52	3250	9000	100	191	1.2
75	250	1.3	19.39	BK20-../DPE09XB4C	52	4050	9000	90	210	1.55
60	315	1.05	24.29	BK20-../DPE09XB4C	52	4500	9000	72	260	1.25
51	370	0.89	28.66	BK20-../DPE09XB4C	52	4850	9000	61	305	1.1
310	62	3.1	4.73	BK30-../DPE09XB4C	58	1550	8800	370	52	3.7
245	78	2.7	6.02	BK30-../DPE09XB4C	58	1690	9600	290	66	3.2
195	99	2.7	7.45	BK30-../DPE09XB4C	58	2200	10400	235	82	3.3
151	128	2.5	9.63	BK30-../DPE09XB4C	58	3150	11500	181	106	3.0
128	147	2.8	11.39	BK30-../DPE09XB4C	58	4150	11000	153	123	3.4
122	158	2.0	11.93	BK30-../DPE09XB4C	58	3650	12000	146	132	2.4
104	183	1.75	13.98	BK30-../DPE09XB4C	58	4050	12000	125	152	2.1
100	189	2.4	14.50	BK30-../DPE09XB4C	58	4900	12000	120	157	2.9
81	230	1.95	17.95	BK30-../DPE09XB4C	58	5300	12000	97	194	2.3
70	270	1.2	20.85	BK30-../DPE09XB4C	58	5000	12000	84	225	1.4
63	300	1.5	23.20	BK30-../DPE09XB4C	58	5900	12000	75	250	1.8
51	370	1.2	28.76	BK30-../DPE09XB4C	58	6500	12000	61	305	1.5
43.5	430	1.05	33.70	BK30-../DPE09XB4C	58	7000	12000	52	360	1.25
34	540	0.83	42.89	BK30-../DPE09XB4C	58	7800	12000	41	455	0.99
123	157	3.1	11.86	BK40-../DPE09XB4C	79	1770	12200	147	131	3.8
65	290	2.7	22.44	BK40-../DPE09XB4C	79	5500	16500	78	240	3.3
51	370	2.1	28.59	BK40-../DPE09XB4C	79	6300	17000	61	305	2.6
42	450	1.75	34.61	BK40-../DPE09XB4C	79	6900	17000	51	370	2.1
35.5	530	1.45	40.88	BK40-../DPE09XB4C	79	7600	17000	43	435	1.8
28.5	640	1.2	51.18	BK40-../DPE09XB4C	79	8400	17000	34	540	1.45
24.5	750	1.05	59.66	BK40-../DPE09XB4C	79	9100	17000	29.5	620	1.25
21	870	0.9	70.11	BK40-../DPE09XB4C	79	9800	17000	25	730	1.05
81	235	3.1	17.92	BK50-../DPE09XB4C	107	4600	16800	98	195	3.7
55	340	3.1	26.51	BK50-../DPE09XB4C	107	7800	21200	66	285	3.7
41.5	455	2.3	35.21	BK50-../DPE09XB4C	107	8700	23100	49.5	380	2.8
31	600	1.75	47.50	BK50-../DPE09XB4C	107	10100	25700	37	500	2.1
24	770	1.35	60.76	BK50-../DPE09XB4C	107	11400	26000	29	630	1.65
19.5	930	1.15	75.40	BK50-../DPE09XB4C	107	12600	26000	23.5	770	1.35
15.5	1160	0.91	95.29	BK50-../DPE09XB4C	107	14100	26000	18.5	970	1.1
29	720	3.2	50.40	BK60-../DPE09XB4C	115	9100	29800	35	600	3.8
25	840	2.7	58.95	BK60-../DPE09XB4C	115	9900	31500	30	700	3.3
22	950	2.4	65.95	BK60-../DPE09XB4C	115	10900	33000	26.5	790	2.9
19	1100	2.1	78.13	BK60-../DPE09XB4C	115	11900	34000	22.5	930	2.5
17	1230	1.85	87.41	BK60-../DPE09XB4C	115	12900	34000	20	1050	2.2
14.5	1440	1.6	101.2	BK60-../DPE09XB4C	115	13900	34000	17.5	1200	1.9
13	1610	1.45	113.2	BK60-../DPE09XB4C	115	15000	34000	15.5	1350	1.7
12	1750	1.3	122.5	BK60-../DPE09XB4C	115	15500	34000	14.5	1440	1.6
11	1910	1.2	137.0	BK60-../DPE09XB4C	115	16600	34000	13	1610	1.45
9.5	2200	1.05	153.7	BK60Z-../DPE09XB4C	135	16600	34000	11.5	1820	1.25
8.0	2600	0.88	183.2	BK60Z-../DPE09XB4C	135	16600	34000	9.5	2200	1.05
12.5	1680	3.1	120.2	BK70-../DPE09XB4C	202	18600	50000	14.5	1440	3.6
11	1910	2.7	136.7	BK70-../DPE09XB4C	202	20700	50000	13	1610	3.2
9.4	2200	2.4	154.4	BK70-../DPE09XB4C	202	21900	50000	11.5	1820	2.9
8.3	2500	2.1	175.7	BK70-../DPE09XB4C	202	24100	50000	10	2100	2.5
7.7	2700	1.95	190.4	BK70Z-../DPE09XB4C	223	24100	50000	9.2	2250	2.3
6.5	3200	1.65	226.2	BK70Z-../DPE09XB4C	223	24100	50000	7.7	2700	1.95
5.7	3650	1.4	257.3	BK70Z-../DPE09XB4C	223	24100	50000	6.8	3050	1.7

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



P = 2.2 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
5.0	4200	1.25	293.3	BK70Z-../DPE09XB4C	223	24100	50000	6.0	3500	1.5
4.4	4750	1.1	333.6	BK70Z-../DPE09XB4C	223	24100	50000	5.3	3950	1.3
3.9	5300	0.98	379.9	BK70Z-../DPE09XB4C	223	24100	50000	4.6	4550	1.15
3.4	6100	0.85	432.1	BK70Z-../DPE09XB4C	223	24100	50000	4.1	5100	1.0
5.8	3600	3.2	253.3	BK80Z-../DPE09XB4C	351	30000	75000	6.9	3000	3.8
4.9	4250	2.7	300.6	BK80Z-../DPE09XB4C	351	30000	75000	5.8	3600	3.2
4.4	4750	2.4	336.7	BK80Z-../DPE09XB4C	351	30000	75000	5.2	4000	2.9
3.8	5500	2.1	389.0	BK80Z-../DPE09XB4C	351	30000	75000	4.5	4650	2.5
3.4	6100	1.9	435.7	BK80Z-../DPE09XB4C	351	30000	75000	4.0	5200	2.2
3.0	7000	1.65	499.5	BK80Z-../DPE09XB4C	351	30000	75000	3.5	6000	1.9
2.6	8000	1.45	559.5	BK80Z-../DPE09XB4C	351	30000	75000	3.2	6500	1.75
2.4	8000	1.45	607.8	BK80G40-../DPE09XB4C	363	30000	75000	2.9	6400	1.8
2.2	8700	1.3	680.9	BK80G40-../DPE09XB4C	363	30000	75000	2.6	7200	1.6
2.0	9600	1.2	756.3	BK80G40-../DPE09XB4C	363	30000	75000	2.4	7900	1.45
1.8	10700	1.05	847.2	BK80G40-../DPE09XB4C	363	30000	75000	2.1	9000	1.3
1.6	12200	0.94	963.0	BK80G40-../DPE09XB4C	363	30000	75000	1.9	10100	1.15
1.4	13900	0.83	1079	BK80G40-../DPE09XB4C	363	30000	75000	1.7	11300	1.0
3.4	6100	3.0	435.3	BK90Z-../DPE09XB4C	624	49400	120000	4.0	5200	3.6
3.0	7000	2.6	499.2	BK90Z-../DPE09XB4C	624	49400	120000	3.5	6000	3.1
2.6	8000	2.3	558.5	BK90Z-../DPE09XB4C	624	49400	120000	3.2	6500	2.8
2.3	9100	2.0	637.7	BK90Z-../DPE09XB4C	624	49400	120000	2.8	7500	2.5
2.1	10000	1.85	713.5	BK90Z-../DPE09XB4C	624	49400	120000	2.5	8400	2.2
1.8	10300	1.8	821.0	BK90G50-../DPE09XB4C	635	49400	120000	2.2	8200	2.3
1.7	11100	1.65	882.3	BK90G50-../DPE09XB4C	635	49400	120000	2.0	9300	2.0
1.5	12600	1.45	1008	BK90G50-../DPE09XB4C	635	49400	120000	1.8	10300	1.8
1.3	14600	1.25	1127	BK90G50-../DPE09XB4C	635	49400	120000	1.6	11600	1.6
1.1	17800	1.05	1363	BK90G50-../DPE09XB4C	635	49400	120000	1.3	14900	1.25

8

P = 3 kW

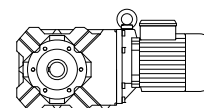
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
310	85	2.3	4.73	BK30-../DPE11LA4	76	1550	8800	370	71	2.7
245	107	2.0	6.02	BK30-../DPE11LA4	76	1690	9600	290	90	2.4
195	135	2.0	7.45	BK30-../DPE11LA4	76	2200	10400	235	112	2.4
151	174	1.85	9.63	BK30-../DPE11LA4	76	3150	11500	181	145	2.2
128	200	2.1	11.39	BK30-../DPE11LA4	76	4150	11000	153	168	2.5
122	215	1.5	11.93	BK30-../DPE11LA4	76	3650	12000	146	180	1.8
104	250	1.3	13.98	BK30-../DPE11LA4	76	4050	12000	125	205	1.55
100	255	1.75	14.50	BK30-../DPE11LA4	76	4900	12000	120	210	2.1
81	315	1.45	17.95	BK30-../DPE11LA4	76	5300	12000	97	265	1.7
63	405	1.1	23.20	BK30-../DPE11LA4	76	5900	12000	75	340	1.3
51	500	0.9	28.76	BK30-../DPE11LA4	76	6500	12000	61	420	1.05
156	168	2.9	9.31	BK40-../DPE11LA4	102	1040	11200	187	140	3.5
123	210	2.3	11.86	BK40-../DPE11LA4	102	1770	12200	147	179	2.8
100	255	3.1	14.50	BK40-../DPE11LA4	102	4500	14300	120	210	3.7
81	315	2.5	18.05	BK40-../DPE11LA4	102	4900	15300	97	265	2.9
65	395	1.95	22.44	BK40-../DPE11LA4	102	5500	16500	78	330	2.4
51	500	1.55	28.59	BK40-../DPE11LA4	102	6300	17000	61	420	1.85
42	610	1.3	34.61	BK40-../DPE11LA4	102	6900	17000	51	500	1.55
35.5	720	1.1	40.88	BK40-../DPE11LA4	102	7600	17000	43	590	1.3

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

BK-series bevel geared motors

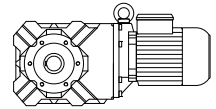
Selection - bevel geared motors

P = 3 kW



50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
81	320	2.3	17.92	BK50-../DPE11LA4	132	4600	16800	98	265	2.7
76	335	3.1	19.33	BK50-../DPE11LA4	132	6900	19200	91	280	3.8
55	465	2.3	26.51	BK50-../DPE11LA4	132	7800	21200	66	390	2.7
41.5	620	1.7	35.21	BK50-../DPE11LA4	132	8700	23100	49.5	520	2.0
31	820	1.3	47.50	BK50-../DPE11LA4	132	10100	25700	37	680	1.55
24	1050	1.0	60.76	BK50-../DPE11LA4	132	11400	26000	29	860	1.2
19.5	1270	0.83	75.40	BK50-../DPE11LA4	132	12600	26000	23.5	1060	0.99
38.5	740	3.1	37.80	BK60-../DPE11LA4	142	7300	26500	46.5	610	3.8
32.5	880	2.6	45.05	BK60-../DPE11LA4	142	8200	28300	39	730	3.2
29	980	2.3	50.40	BK60-../DPE11LA4	142	9100	29800	35	810	2.8
25	1140	2.0	58.95	BK60-../DPE11LA4	142	9900	31500	30	950	2.4
22	1300	1.75	65.95	BK60-../DPE11LA4	142	10900	33000	26.5	1080	2.1
19	1500	1.55	78.13	BK60-../DPE11LA4	142	11900	34000	22.5	1270	1.8
17	1680	1.35	87.41	BK60-../DPE11LA4	142	12900	34000	20	1430	1.6
14.5	1970	1.15	101.2	BK60-../DPE11LA4	142	13900	34000	17.5	1630	1.4
13	2200	1.05	113.2	BK60-../DPE11LA4	142	15000	34000	15.5	1840	1.25
12	2350	0.98	122.5	BK60-../DPE11LA4	142	15500	34000	14.5	1970	1.15
11	2600	0.88	137.0	BK60-../DPE11LA4	142	16600	34000	13	2200	1.05
16	1790	2.9	90.96	BK70-../DPE11LA4	221	15300	49900	19.5	1460	3.6
14.5	1970	2.6	103.5	BK70-../DPE11LA4	221	17200	50000	17	1680	3.1
12.5	2250	2.3	120.2	BK70-../DPE11LA4	221	18600	50000	14.5	1970	2.6
11	2600	2.0	136.7	BK70-../DPE11LA4	221	20700	50000	13	2200	2.4
9.4	3000	1.75	154.4	BK70-../DPE11LA4	221	21900	50000	11.5	2450	2.1
8.3	3450	1.5	175.7	BK70-../DPE11LA4	221	24100	50000	10	2850	1.8
7.7	3700	1.4	190.4	BK70Z-../DPE11LA4	247	24100	50000	9.2	3100	1.7
6.5	4400	1.2	226.2	BK70Z-../DPE11LA4	247	24100	50000	7.7	3700	1.4
5.7	5000	1.05	257.3	BK70Z-../DPE11LA4	247	24100	50000	6.8	4200	1.25
5.0	5700	0.91	293.3	BK70Z-../DPE11LA4	247	24100	50000	6.0	4750	1.1
4.4	6500	0.8	333.6	BK70Z-../DPE11LA4	247	24100	50000	5.3	5400	0.96
8.5	3350	3.1	171.5	BK80-../DPE11LA4	336	30000	75000	10.5	2700	3.9
8.2	3450	3.3	177.6	BK80Z-../DPE11LA4	378	30000	75000	9.8	2900	4.0
7.3	3900	2.9	198.9	BK80Z-../DPE11LA4	378	30000	75000	8.8	3250	3.5
6.5	4400	2.6	226.1	BK80Z-../DPE11LA4	378	30000	75000	7.7	3700	3.1
5.8	4900	2.3	253.3	BK80Z-../DPE11LA4	378	30000	75000	6.9	4150	2.8
4.9	5800	2.0	300.6	BK80Z-../DPE11LA4	378	30000	75000	5.8	4900	2.3
4.4	6500	1.75	336.7	BK80Z-../DPE11LA4	378	30000	75000	5.2	5500	2.1
3.8	7500	1.55	389.0	BK80Z-../DPE11LA4	378	30000	75000	4.5	6300	1.85
3.4	8400	1.35	435.7	BK80Z-../DPE11LA4	378	30000	75000	4.0	7100	1.6
3.0	9500	1.2	499.5	BK80Z-../DPE11LA4	378	30000	75000	3.5	8100	1.4
2.6	11000	1.05	559.5	BK80Z-../DPE11LA4	378	30000	75000	3.2	8900	1.3
2.4	11100	1.05	607.8	BK80G40-../DPE11LA4	386	30000	75000	2.9	9100	1.25
2.2	12100	0.95	680.9	BK80G40-../DPE11LA4	386	30000	75000	2.6	10100	1.15
2.0	13500	0.85	756.3	BK80G40-../DPE11LA4	386	30000	75000	2.4	11100	1.05
5.0	5700	3.2	295.6	BK90Z-../DPE11LA4	643	49400	120000	5.9	4850	3.8
4.4	6500	2.8	330.7	BK90Z-../DPE11LA4	643	49400	120000	5.3	5400	3.4
3.8	7500	2.5	389.1	BK90Z-../DPE11LA4	643	49400	120000	4.5	6300	2.9
3.4	8400	2.2	435.3	BK90Z-../DPE11LA4	643	49400	120000	4.0	7100	2.6
3.0	9500	1.95	499.2	BK90Z-../DPE11LA4	643	49400	120000	3.5	8100	2.3
2.6	11000	1.7	558.5	BK90Z-../DPE11LA4	643	49400	120000	3.2	8900	2.1
2.3	12400	1.5	637.7	BK90Z-../DPE11LA4	643	49400	120000	2.8	10200	1.8
2.1	13600	1.35	713.5	BK90Z-../DPE11LA4	643	49400	120000	2.5	11400	1.6
1.8	14500	1.3	821.0	BK90G50-../DPE11LA4	660	49400	120000	2.2	11600	1.6
1.7	15600	1.2	882.3	BK90G50-../DPE11LA4	660	49400	120000	2.0	13100	1.4

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



P = 3 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
1.5	17700	1.05	1008	BK90G50-../DPE11LA4	660	49400	120000	1.8	14500	1.3
1.3	20500	0.9	1127	BK90G50-../DPE11LA4	660	49400	120000	1.6	16400	1.15

P = 4 kW

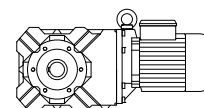
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
310	113	1.7	4.73	BK30-../DPE11LB4	76	1550	8800	370	94	2.1
245	143	1.5	6.02	BK30-../DPE11LB4	76	1690	9600	290	121	1.75
195	180	1.5	7.45	BK30-../DPE11LB4	76	2200	10400	235	149	1.8
151	230	1.4	9.63	BK30-../DPE11LB4	76	3150	11500	181	194	1.65
128	265	1.55	11.39	BK30-../DPE11LB4	76	4150	11000	153	220	1.9
122	285	1.1	11.93	BK30-../DPE11LB4	76	3650	12000	146	240	1.35
104	330	0.97	13.98	BK30-../DPE11LB4	76	4050	12000	125	275	1.15
100	340	1.3	14.50	BK30-../DPE11LB4	76	4900	12000	120	285	1.6
81	420	1.05	17.95	BK30-../DPE11LB4	76	5300	12000	97	350	1.3
63	540	0.83	23.20	BK30-../DPE11LB4	76	5900	12000	75	455	0.99
245	143	3.3	6.02	BK40-../DPE11LB4	102	470	9800	290	121	3.9
194	181	2.7	7.49	BK40-../DPE11LB4	102	750	10500	235	149	3.3
156	225	2.2	9.31	BK40-../DPE11LB4	102	1040	11200	187	187	2.6
130	260	2.8	11.17	BK40-../DPE11LB4	102	4100	13100	156	220	3.3
123	285	1.75	11.86	BK40-../DPE11LB4	102	1770	12200	147	235	2.1
100	340	2.3	14.50	BK40-../DPE11LB4	102	4500	14300	120	285	2.7
81	420	1.85	18.05	BK40-../DPE11LB4	102	4900	15300	97	350	2.2
65	520	1.5	22.44	BK40-../DPE11LB4	102	5500	16500	78	440	1.75
51	670	1.15	28.59	BK40-../DPE11LB4	102	6300	17000	61	560	1.4
42	810	0.96	34.61	BK40-../DPE11LB4	102	6900	17000	51	670	1.15
35.5	960	0.81	40.88	BK40-../DPE11LB4	102	7600	17000	43	790	0.99
104	330	3.2	13.95	BK50-../DPE11LB4	132	6100	17400	125	275	3.8
96	355	3.0	15.19	BK50-../DPE11LB4	132	6300	18000	115	295	3.6
81	425	1.7	17.92	BK50-../DPE11LB4	132	4600	16800	98	350	2.1
76	450	2.3	19.33	BK50-../DPE11LB4	132	6900	19200	91	375	2.8
55	620	1.7	26.51	BK50-../DPE11LB4	132	7800	21200	66	520	2.0
41.5	820	1.3	35.21	BK50-../DPE11LB4	132	8700	23100	49.5	690	1.5
31	1090	0.96	47.50	BK50-../DPE11LB4	132	10100	25700	37	910	1.15
53	720	3.2	27.36	BK60-../DPE11LB4	142	5600	23200	64	590	3.9
43	880	2.6	33.78	BK60-../DPE11LB4	142	6500	25200	52	730	3.2
38.5	990	2.3	37.80	BK60-../DPE11LB4	142	7300	26500	46.5	820	2.8
32.5	1170	1.95	45.05	BK60-../DPE11LB4	142	8200	28300	39	970	2.4
29	1310	1.75	50.40	BK60-../DPE11LB4	142	9100	29800	35	1090	2.1
25	1520	1.5	58.95	BK60-../DPE11LB4	142	9900	31500	30	1270	1.8
22	1730	1.35	65.95	BK60-../DPE11LB4	142	10900	33000	26.5	1440	1.6
19	2000	1.15	78.13	BK60-../DPE11LB4	142	11900	34000	22.5	1690	1.35
17	2200	1.05	87.41	BK60-../DPE11LB4	142	12900	34000	20	1910	1.2
14.5	2600	0.88	101.2	BK60-../DPE11LB4	142	13900	34000	17.5	2150	1.05
24	1590	3.3	61.60	BK70-../DPE11LB4	221	11500	42800	28.5	1340	3.9
21	1810	2.9	70.23	BK70-../DPE11LB4	221	12500	44800	25	1520	3.4
18.5	2050	2.5	79.89	BK70-../DPE11LB4	221	14300	47600	22	1730	3.0
16	2350	2.2	90.96	BK70-../DPE11LB4	221	15300	49900	19.5	1950	2.7
14.5	2600	2.0	103.5	BK70-../DPE11LB4	221	17200	50000	17	2200	2.4
12.5	3050	1.7	120.2	BK70-../DPE11LB4	221	18600	50000	14.5	2600	2.0
11	3450	1.5	136.7	BK70-../DPE11LB4	221	20700	50000	13	2900	1.8

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

BK-series bevel geared motors

Selection - bevel geared motors

P = 4 kW



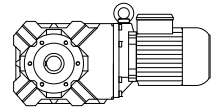
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
9.4	4050	1.3	154.4	BK70-../DPE11LB4	221	21900	50000	11.5	3300	1.6
8.3	4600	1.15	175.7	BK70-../DPE11LB4	221	24100	50000	10	3800	1.35
7.7	4950	1.05	190.4	BK70Z-../DPE11LB4	247	24100	50000	9.2	4150	1.25
6.5	5800	0.9	226.2	BK70Z-../DPE11LB4	247	24100	50000	7.7	4950	1.05
11.5	3300	3.2	131.6	BK80-../DPE11LB4	336	24900	75000	13.5	2800	3.8
9.5	4000	2.6	153.1	BK80-../DPE11LB4	336	27200	75000	11.5	3300	3.2
8.5	4450	2.4	171.5	BK80-../DPE11LB4	336	30000	75000	10.5	3600	2.9
8.2	4650	2.5	177.6	BK80Z-../DPE11LB4	378	30000	75000	9.8	3850	3.0
7.3	5200	2.2	198.9	BK80Z-../DPE11LB4	378	30000	75000	8.8	4300	2.7
6.5	5800	2.0	226.1	BK80Z-../DPE11LB4	378	30000	75000	7.7	4950	2.3
5.8	6500	1.75	253.3	BK80Z-../DPE11LB4	378	30000	75000	6.9	5500	2.1
4.9	7700	1.5	300.6	BK80Z-../DPE11LB4	378	30000	75000	5.8	6500	1.75
4.4	8600	1.35	336.7	BK80Z-../DPE11LB4	378	30000	75000	5.2	7300	1.6
3.8	10000	1.15	389.0	BK80Z-../DPE11LB4	378	30000	75000	4.5	8400	1.35
3.4	11200	1.05	435.7	BK80Z-../DPE11LB4	378	30000	75000	4.0	9500	1.2
3.0	12700	0.91	499.5	BK80Z-../DPE11LB4	378	30000	75000	3.5	10900	1.05
6.2	6100	3.0	234.6	BK90Z-../DPE11LB4	643	49400	120000	7.5	5000	3.7
5.6	6800	2.7	262.5	BK90Z-../DPE11LB4	643	49400	120000	6.7	5700	3.2
5.0	7600	2.4	295.6	BK90Z-../DPE11LB4	643	49400	120000	5.9	6400	2.9
4.4	8600	2.2	330.7	BK90Z-../DPE11LB4	643	49400	120000	5.3	7200	2.6
3.8	10000	1.85	389.1	BK90Z-../DPE11LB4	643	49400	120000	4.5	8400	2.2
3.4	11200	1.65	435.3	BK90Z-../DPE11LB4	643	49400	120000	4.0	9500	1.95
3.0	12700	1.45	499.2	BK90Z-../DPE11LB4	643	49400	120000	3.5	10900	1.7
2.6	14600	1.25	558.5	BK90Z-../DPE11LB4	643	49400	120000	3.2	11900	1.55
2.3	16600	1.1	637.7	BK90Z-../DPE11LB4	643	49400	120000	2.8	13600	1.35
2.1	18100	1.0	713.5	BK90Z-../DPE11LB4	643	49400	120000	2.5	15200	1.2
1.8	19800	0.93	821.0	BK90G50-../DPE11LB4	660	49400	120000	2.2	16000	1.15
1.7	21200	0.87	882.3	BK90G50-../DPE11LB4	660	49400	120000	2.0	17900	1.05

P = 5.5 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
310	155	1.25	4.73	BK30-../DPE11LB4C	80	1550	8800	375	128	1.5
245	197	1.1	6.02	BK30-../DPE11LB4C	80	1690	9600	295	163	1.3
196	245	1.1	7.45	BK30-../DPE11LB4C	80	2200	10400	240	200	1.35
152	315	1.0	9.63	BK30-../DPE11LB4C	80	3150	11500	183	260	1.25
129	365	1.15	11.39	BK30-../DPE11LB4C	80	4150	11000	155	300	1.4
123	390	0.82	11.93	BK30-../DPE11LB4C	80	3650	12000	148	325	0.98
101	465	0.97	14.50	BK30-../DPE11LB4C	80	4900	12000	122	385	1.15
320	151	2.9	4.63	BK40-../DPE11LB4C	106	430	8900	385	125	3.4
245	197	2.4	6.02	BK40-../DPE11LB4C	106	470	9800	295	163	2.9
195	245	2.0	7.49	BK40-../DPE11LB4C	106	750	10500	235	205	2.4
157	305	1.6	9.31	BK40-../DPE11LB4C	106	1040	11200	190	250	1.95
131	360	2.0	11.17	BK40-../DPE11LB4C	106	4100	13100	158	295	2.4
124	385	1.3	11.86	BK40-../DPE11LB4C	106	1770	12200	149	320	1.55
101	465	1.7	14.50	BK40-../DPE11LB4C	106	4500	14300	122	385	2.0
81	580	1.35	18.05	BK40-../DPE11LB4C	106	4900	15300	98	480	1.65
66	710	1.1	22.44	BK40-../DPE11LB4C	106	5500	16500	79	590	1.3
52	900	0.87	28.59	BK40-../DPE11LB4C	106	6300	17000	62	760	1.05

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

P = 5.5 kW



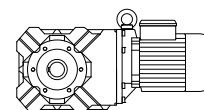
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
151	310	3.0	9.73	BK50-../DPE11LB4C	136	5400	15400	181	260	3.6
146	330	2.5	10.00	BK50-../DPE11LB4C	136	1220	13200	176	270	3.0
105	450	2.3	13.95	BK50-../DPE11LB4C	136	6100	17400	127	370	2.8
97	485	2.2	15.19	BK50-../DPE11LB4C	136	6300	18000	116	405	2.6
82	580	1.25	17.92	BK50-../DPE11LB4C	136	4600	16800	99	480	1.5
76	620	1.7	19.33	BK50-../DPE11LB4C	136	6900	19200	92	510	2.1
56	840	1.25	26.51	BK50-../DPE11LB4C	136	7800	21200	67	700	1.5
41.5	1130	0.93	35.21	BK50-../DPE11LB4C	136	8700	23100	50	940	1.1
72	720	3.1	20.54	BK60-../DPE11LB4C	146	4400	20600	86	610	3.7
60	870	2.6	24.45	BK60-../DPE11LB4C	146	4850	22000	72	720	3.2
54	970	2.4	27.36	BK60-../DPE11LB4C	146	5600	23200	65	800	2.9
43.5	1200	1.9	33.78	BK60-../DPE11LB4C	146	6500	25200	53	990	2.3
39	1340	1.7	37.80	BK60-../DPE11LB4C	146	7300	26500	47	1110	2.1
32.5	1610	1.45	45.05	BK60-../DPE11LB4C	146	8200	28300	39.5	1320	1.75
29	1810	1.25	50.40	BK60-../DPE11LB4C	146	9100	29800	35	1500	1.55
25	2100	1.1	58.95	BK60-../DPE11LB4C	146	9900	31500	30	1750	1.3
22.5	2300	1.0	65.95	BK60-../DPE11LB4C	146	10900	33000	27	1940	1.2
19	2750	0.84	78.13	BK60-../DPE11LB4C	146	11900	34000	23	2250	1.0
32.5	1610	3.2	45.59	BK70-../DPE11LB4C	225	9000	37900	39	1340	3.8
27	1940	2.7	54.15	BK70-../DPE11LB4C	225	9900	40200	33	1590	3.3
24	2150	2.4	61.60	BK70-../DPE11LB4C	225	11500	42800	29	1810	2.9
21	2500	2.1	70.23	BK70-../DPE11LB4C	225	12500	44800	25.5	2050	2.5
18.5	2800	1.85	79.89	BK70-../DPE11LB4C	225	14300	47600	22.5	2300	2.3
16.5	3150	1.65	90.96	BK70-../DPE11LB4C	225	15300	49900	19.5	2650	1.95
14.5	3600	1.45	103.5	BK70-../DPE11LB4C	225	17200	50000	17.5	3000	1.75
12.5	4200	1.25	120.2	BK70-../DPE11LB4C	225	18600	50000	15	3500	1.5
11	4750	1.1	136.7	BK70-../DPE11LB4C	225	20700	50000	13	4000	1.3
9.5	5500	0.95	154.4	BK70-../DPE11LB4C	225	21900	50000	11.5	4550	1.15
8.4	6200	0.84	175.7	BK70-../DPE11LB4C	225	24100	50000	10.5	5000	1.05
16	3250	3.2	91.53	BK80-../DPE11LB4C	340	18300	74200	19.5	2650	3.9
14.5	3600	2.9	102.5	BK80-../DPE11LB4C	340	20500	75000	17.5	3000	3.5
12.5	4200	2.5	117.5	BK80-../DPE11LB4C	340	22300	75000	15	3500	3.0
11.5	4550	2.3	131.6	BK80-../DPE11LB4C	340	24900	75000	13.5	3850	2.7
9.6	5400	1.95	153.1	BK80-../DPE11LB4C	340	27200	75000	11.5	4550	2.3
8.6	6100	1.7	171.5	BK80-../DPE11LB4C	340	30000	75000	10.5	5000	2.1
8.3	6300	1.85	177.6	BK80Z-../DPE11LB4C	382	30000	75000	10	5200	2.2
7.4	7000	1.65	198.9	BK80Z-../DPE11LB4C	382	30000	75000	8.9	5900	1.95
6.5	8000	1.45	226.1	BK80Z-../DPE11LB4C	382	30000	75000	7.8	6700	1.7
5.8	9000	1.3	253.3	BK80Z-../DPE11LB4C	382	30000	75000	7.0	7500	1.55
4.9	10700	1.05	300.6	BK80Z-../DPE11LB4C	382	30000	75000	5.9	8900	1.3
4.4	11900	0.97	336.7	BK80Z-../DPE11LB4C	382	30000	75000	5.3	9900	1.15
3.8	13800	0.83	389.0	BK80Z-../DPE11LB4C	382	30000	75000	4.6	11400	1.0
8.4	6200	3.0	174.7	BK90Z-../DPE11LB4C	647	49400	120000	10.5	5000	3.7
7.5	7000	2.6	195.4	BK90Z-../DPE11LB4C	647	49400	120000	9.1	5700	3.2
6.3	8300	2.2	234.6	BK90Z-../DPE11LB4C	647	49400	120000	7.6	6900	2.7
5.6	9300	2.0	262.5	BK90Z-../DPE11LB4C	647	49400	120000	6.8	7700	2.4
5.0	10500	1.75	295.6	BK90Z-../DPE11LB4C	647	49400	120000	6.0	8700	2.1
4.5	11600	1.6	330.7	BK90Z-../DPE11LB4C	647	49400	120000	5.4	9700	1.9
3.8	13800	1.35	389.1	BK90Z-../DPE11LB4C	647	49400	120000	4.6	11400	1.6
3.4	15400	1.2	435.3	BK90Z-../DPE11LB4C	647	49400	120000	4.1	12800	1.45
3.0	17500	1.05	499.2	BK90Z-../DPE11LB4C	647	49400	120000	3.6	14500	1.3
2.7	19400	0.95	558.5	BK90Z-../DPE11LB4C	647	49400	120000	3.2	16400	1.15
2.3	22800	0.81	637.7	BK90Z-../DPE11LB4C	647	49400	120000	2.8	18700	0.99

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

BK-series bevel geared motors

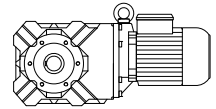
Selection - bevel geared motors

P = 7.5 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
400	164	4.4	3.67	BK50-../DPE13XA4	147	115	9400	480	137	5.2
280	235	3.5	5.26	BK50-../DPE13XA4	147	130	10700	335	196	4.1
205	320	2.5	7.29	BK50-../DPE13XA4	147	620	111000	245	265	3.1
151	425	2.2	9.73	BK50-../DPE13XA4	147	5400	15400	181	355	2.6
146	450	1.8	10.00	BK50-../DPE13XA4	147	1220	13200	176	370	2.2
105	610	1.7	13.95	BK50-../DPE13XA4	147	6100	17400	127	500	2.1
97	660	1.6	15.19	BK50-../DPE13XA4	147	6300	18000	116	550	1.9
82	790	0.92	17.92	BK50-../DPE13XA4	147	4600	16800	99	650	1.1
76	840	1.25	19.33	BK50-../DPE13XA4	147	6900	19200	92	700	1.5
56	1150	0.91	26.51	BK50-../DPE13XA4	147	7800	21200	67	960	1.1
135	530	3.2	10.82	BK60-../DPE13XA4	159	3200	17000	163	435	3.9
118	600	3.1	12.38	BK60-../DPE13XA4	159	3500	17400	143	500	3.8
106	670	2.9	13.85	BK60-../DPE13XA4	159	3850	18000	128	550	3.6
102	700	2.8	14.41	BK60-../DPE13XA4	159	3650	18600	123	580	3.3
91	780	2.5	16.05	BK60-../DPE13XA4	159	4050	18800	110	650	3.0
80	890	2.5	18.36	BK60-../DPE13XA4	159	4000	19900	96	740	3.0
72	990	2.3	20.54	BK60-../DPE13XA4	159	4400	20600	86	830	2.7
60	1190	1.95	24.45	BK60-../DPE13XA4	159	4850	22000	72	990	2.3
54	1320	1.75	27.36	BK60-../DPE13XA4	159	5600	23200	65	1100	2.1
43.5	1640	1.4	33.78	BK60-../DPE13XA4	159	6500	25200	53	1350	1.7
39	1830	1.25	37.80	BK60-../DPE13XA4	159	7300	26500	47	1520	1.5
32.5	2200	1.05	45.05	BK60-../DPE13XA4	159	8200	28300	39.5	1810	1.25
29	2450	0.94	50.40	BK60-../DPE13XA4	159	9100	29800	35	2000	1.15
25	2850	0.81	58.95	BK60-../DPE13XA4	159	9900	31500	30	2350	0.98
47.5	1500	3.0	30.90	BK70-../DPE13XA4	238	7500	33600	57	1250	3.6
42	1700	2.8	35.15	BK70-../DPE13XA4	238	8000	35000	51	1400	3.4
36.5	1960	2.5	40.08	BK70-../DPE13XA4	238	8300	36300	44	1620	3.0
32.5	2200	2.3	45.59	BK70-../DPE13XA4	238	9000	37900	39	1830	2.8
27	2650	1.95	54.15	BK70-../DPE13XA4	238	9900	40200	33	2150	2.4
24	2950	1.75	61.60	BK70-../DPE13XA4	238	11500	42800	29	2450	2.1
21	3400	1.55	70.23	BK70-../DPE13XA4	238	12500	44800	25.5	2800	1.85
18.5	3850	1.35	79.89	BK70-../DPE13XA4	238	14300	47600	22.5	3150	1.65
16.5	4300	1.2	90.96	BK70-../DPE13XA4	238	15300	49900	19.5	3650	1.4
14.5	4900	1.05	103.5	BK70-../DPE13XA4	238	17200	50000	17.5	4050	1.3
12.5	5700	0.91	120.2	BK70-../DPE13XA4	238	18600	50000	15	4750	1.1
11	6500	0.8	136.7	BK70-../DPE13XA4	238	20700	50000	13	5500	0.95
24.5	2900	3.2	59.60	BK80-../DPE13XA4	352	15700	65500	30	2350	3.9
21	3400	2.8	70.72	BK80-../DPE13XA4	352	16600	68700	25	2850	3.4
18.5	3850	2.6	79.22	BK80-../DPE13XA4	352	17600	71300	22.5	3150	3.2
16	4450	2.3	91.53	BK80-../DPE13XA4	352	18300	74200	19.5	3650	2.8
14.5	4900	2.1	102.5	BK80-../DPE13XA4	352	20500	75000	17.5	4050	2.6
12.5	5700	1.85	117.5	BK80-../DPE13XA4	352	22300	75000	15	4750	2.2
11.5	6200	1.7	131.6	BK80-../DPE13XA4	352	24900	75000	13.5	5300	2.0
9.6	7400	1.4	153.1	BK80-../DPE13XA4	352	27200	75000	11.5	6200	1.7
8.6	8300	1.25	171.5	BK80-../DPE13XA4	352	30000	75000	10.5	6800	1.55
8.3	8600	1.35	177.6	BK80Z-../DPE13XA4	395	30000	75000	10	7100	1.6
7.4	9600	1.2	198.9	BK80Z-../DPE13XA4	395	30000	75000	8.9	8000	1.45
6.5	11000	1.05	226.1	BK80Z-../DPE13XA4	395	30000	75000	7.8	9100	1.25
5.8	12300	0.93	253.3	BK80Z-../DPE13XA4	395	30000	75000	7.0	10200	1.15
12.5	5700	2.9	117.0	BK90-../DPE13XA4	604	39200	113000	15.5	4600	3.7
11.5	6200	2.7	130.9	BK90-../DPE13XA4	604	42700	119400	13.5	5300	3.2
9.8	7300	2.3	149.5	BK90-../DPE13XA4	604	45600	120000	12	5900	2.8
8.8	8100	2.1	167.2	BK90-../DPE13XA4	604	49400	120000	11	6500	2.6
8.4	8500	2.2	174.7	BK90Z-../DPE13XA4	660	49400	120000	10.5	6800	2.7
7.5	9500	1.95	195.4	BK90Z-../DPE13XA4	660	49400	120000	9.1	7800	2.4
6.3	11300	1.65	234.6	BK90Z-../DPE13XA4	660	49400	120000	7.6	9400	1.95

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



P = 7.5 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
5.6	12700	1.45	262.5	BK90Z-../DPE13XA4	660	49400	120000	6.8	10500	1.75
5.0	14300	1.3	295.6	BK90Z-../DPE13XA4	660	49400	120000	6.0	11900	1.55
4.5	15900	1.15	330.7	BK90Z-../DPE13XA4	660	49400	120000	5.4	13200	1.4
3.8	18800	0.98	389.1	BK90Z-../DPE13XA4	660	49400	120000	4.6	15500	1.2
3.4	21000	0.88	435.3	BK90Z-../DPE13XA4	660	49400	120000	4.1	17400	1.05

P = 9.5 kW

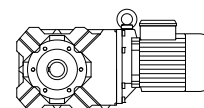
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
405	205	3.5	3.67	BK50-../DPE16LB4	183	115	9400	485	172	4.2
280	295	2.8	5.26	BK50-../DPE16LB4	183	130	10700	340	245	3.3
205	405	2.0	7.29	BK50-../DPE16LB4	183	620	111000	245	340	2.4
152	530	1.75	9.73	BK50-../DPE16LB4	183	5400	15400	182	445	2.1
147	560	1.45	10.00	BK50-../DPE16LB4	183	1220	13200	177	470	1.75
106	770	1.35	13.95	BK50-../DPE16LB4	183	6100	17400	127	640	1.65
97	840	1.25	15.19	BK50-../DPE16LB4	183	6300	18000	117	690	1.5
77	1060	0.99	19.33	BK50-../DPE16LB4	183	6900	19200	92	880	1.2
205	440	3.3	7.29	BK60-../DPE16LB4	195	2800	14900	245	370	4.0
136	660	2.5	10.82	BK60-../DPE16LB4	195	3200	17000	164	550	3.0
119	760	2.5	12.38	BK60-../DPE16LB4	195	3500	17400	143	630	3.0
107	840	2.3	13.85	BK60-../DPE16LB4	195	3850	18000	128	700	2.8
103	880	2.2	14.41	BK60-../DPE16LB4	195	3650	18600	123	730	2.6
92	980	2.0	16.05	BK60-../DPE16LB4	195	4050	18800	111	810	2.4
81	1120	1.95	18.36	BK60-../DPE16LB4	195	4000	19900	97	930	2.3
72	1260	1.8	20.54	BK60-../DPE16LB4	195	4400	20600	87	1040	2.2
61	1480	1.55	24.45	BK60-../DPE16LB4	195	4850	22000	73	1240	1.85
54	1680	1.35	27.36	BK60-../DPE16LB4	195	5600	23200	65	1390	1.65
44	2050	1.1	33.78	BK60-../DPE16LB4	195	6500	25200	53	1710	1.35
39	2300	1.0	37.80	BK60-../DPE16LB4	195	7300	26500	47	1930	1.2
33	2700	0.85	45.05	BK60-../DPE16LB4	195	8200	28300	39.5	2250	1.0
97	930	3.3	15.16	BK70-../DPE16LB4	278	5600	25800	117	770	4.0
86	1050	3.3	17.24	BK70-../DPE16LB4	278	6500	29200	103	880	4.0
68	1330	3.1	21.88	BK70-../DPE16LB4	278	6500	30200	81	1120	3.6
60	1510	2.8	24.89	BK70-../DPE16LB4	278	7000	31500	72	1260	3.4
48	1890	2.4	30.90	BK70-../DPE16LB4	278	7500	33600	58	1560	2.9
42	2150	2.2	35.15	BK70-../DPE16LB4	278	8000	35000	51	1770	2.7
37	2450	2.0	40.08	BK70-../DPE16LB4	278	8300	36300	44.5	2000	2.4
32.5	2750	1.85	45.59	BK70-../DPE16LB4	278	9000	37900	39	2300	2.2
27.5	3250	1.6	54.15	BK70-../DPE16LB4	278	9900	40200	33	2700	1.95
24	3750	1.4	61.60	BK70-../DPE16LB4	278	11500	42800	29	3100	1.7
21	4300	1.2	70.23	BK70-../DPE16LB4	278	12500	44800	25.5	3550	1.45
18.5	4900	1.05	79.89	BK70-../DPE16LB4	278	14300	47600	22.5	4000	1.3
16.5	5400	0.96	90.96	BK70-../DPE16LB4	278	15300	49900	19.5	4650	1.1
14.5	6200	0.84	103.5	BK70-../DPE16LB4	278	17200	50000	17.5	5100	1.0
35.5	2550	3.2	41.78	BK80-../DPE16LB4	388	13500	58700	42.5	2100	3.9
31.5	2850	3.0	46.80	BK80-../DPE16LB4	388	14300	60900	38	2350	3.7
28	3200	2.8	53.21	BK80-../DPE16LB4	388	14800	63100	33.5	2700	3.3
25	3600	2.6	59.60	BK80-../DPE16LB4	388	15700	65500	30	3000	3.1
21	4300	2.2	70.72	BK80-../DPE16LB4	388	16600	68700	25.5	3550	2.7
19	4750	2.1	79.22	BK80-../DPE16LB4	388	17600	71300	22.5	4000	2.5
16.5	5400	1.95	91.53	BK80-../DPE16LB4	388	18300	74200	19.5	4650	2.2
14.5	6200	1.7	102.5	BK80-../DPE16LB4	388	20500	75000	17.5	5100	2.1

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

BK-series bevel geared motors

Selection - bevel geared motors

P = 9.5 kW



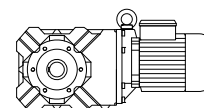
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
13	6900	1.5	117.5	BK80-../DPE16LB4	388	22300	75000	15.5	5800	1.8
11.5	7800	1.35	131.6	BK80-../DPE16LB4	388	24900	75000	13.5	6700	1.55
9.7	9300	1.15	153.1	BK80-../DPE16LB4	388	27200	75000	12	7500	1.4
8.6	10500	1.0	171.5	BK80-../DPE16LB4	388	30000	75000	10.5	8600	1.2
8.3	10900	1.05	177.6	BK80Z-../DPE16LB4	431	30000	75000	10	9000	1.3
7.4	12200	0.94	198.9	BK80Z-../DPE16LB4	431	30000	75000	8.9	10100	1.15
6.6	13700	0.84	226.1	BK80Z-../DPE16LB4	431	30000	75000	7.9	11400	1.0
16.5	5400	3.1	91.19	BK90-../DPE16LB4	641	33300	101000	19.5	4650	3.6
14.5	6200	2.7	102.0	BK90-../DPE16LB4	641	36600	107000	17.5	5100	3.3
13	6900	2.4	117.0	BK90-../DPE16LB4	641	39200	113000	15.5	5800	2.9
11.5	7800	2.2	130.9	BK90-../DPE16LB4	641	42700	119400	14	6400	2.6
9.9	9100	1.85	149.5	BK90-../DPE16LB4	641	45600	120000	12	7500	2.2
8.8	10300	1.65	167.2	BK90-../DPE16LB4	641	49400	120000	11	8200	2.0
8.5	10600	1.75	174.7	BK90Z-../DPE16LB4	700	49400	120000	10.5	8600	2.2
7.6	11900	1.55	195.4	BK90Z-../DPE16LB4	700	49400	120000	9.1	9900	1.85
6.3	14400	1.3	234.6	BK90Z-../DPE16LB4	700	49400	120000	7.6	11900	1.55
5.6	16200	1.15	262.5	BK90Z-../DPE16LB4	700	49400	120000	6.8	13300	1.4
5.0	18100	1.0	295.6	BK90Z-../DPE16LB4	700	49400	120000	6.0	15100	1.25
4.5	20100	0.92	330.7	BK90Z-../DPE16LB4	700	49400	120000	5.4	16800	1.1

P = 11 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
405	235	3.1	3.67	BK50-../DPE16LB4	183	115	9400	485	199	3.6
280	345	2.4	5.26	BK50-../DPE16LB4	183	130	10700	340	280	2.9
205	470	1.75	7.29	BK50-../DPE16LB4	183	620	111000	245	390	2.1
152	620	1.5	9.73	BK50-../DPE16LB4	183	5400	15400	182	510	1.85
147	650	1.25	10.00	BK50-../DPE16LB4	183	1220	13200	177	540	1.5
106	890	1.2	13.95	BK50-../DPE16LB4	183	6100	17400	127	740	1.4
97	970	1.1	15.19	BK50-../DPE16LB4	183	6300	18000	117	800	1.3
77	1220	0.86	19.33	BK50-../DPE16LB4	183	6900	19200	92	1020	1.05
205	510	2.9	7.29	BK60-../DPE16LB4	195	2800	14900	245	425	3.4
136	770	2.2	10.82	BK60-../DPE16LB4	195	3200	17000	164	640	2.6
119	880	2.1	12.38	BK60-../DPE16LB4	195	3500	17400	143	730	2.6
107	980	2.0	13.85	BK60-../DPE16LB4	195	3850	18000	128	820	2.4
103	1010	1.9	14.41	BK60-../DPE16LB4	195	3650	18600	123	850	2.3
92	1140	1.75	16.05	BK60-../DPE16LB4	195	4050	18800	111	940	2.1
81	1290	1.7	18.36	BK60-../DPE16LB4	195	4000	19900	97	1080	2.0
72	1450	1.55	20.54	BK60-../DPE16LB4	195	4400	20600	87	1200	1.9
61	1720	1.35	24.45	BK60-../DPE16LB4	195	4850	22000	73	1430	1.6
54	1940	1.2	27.36	BK60-../DPE16LB4	195	5600	23200	65	1610	1.45
44	2350	0.98	33.78	BK60-../DPE16LB4	195	6500	25200	53	1980	1.15
39	2650	0.87	37.80	BK60-../DPE16LB4	195	7300	26500	47	2200	1.05
108	970	3.1	13.70	BK70-../DPE16LB4	278	5400	24800	130	800	3.8
97	1080	2.8	15.16	BK70-../DPE16LB4	278	5600	25800	117	890	3.4
86	1220	2.9	17.24	BK70-../DPE16LB4	278	6500	29200	103	1010	3.5
68	1540	2.6	21.88	BK70-../DPE16LB4	278	6500	30200	81	1290	3.2
60	1750	2.4	24.89	BK70-../DPE16LB4	278	7000	31500	72	1450	2.9
48	2150	2.1	30.90	BK70-../DPE16LB4	278	7500	33600	58	1810	2.5
42	2500	1.9	35.15	BK70-../DPE16LB4	278	8000	35000	51	2050	2.3

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

P = 11 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
37	2800	1.75	40.08	BK70-../DPE16LB4	278	8300	36300	44.5	2350	2.1
32.5	3200	1.6	45.59	BK70-../DPE16LB4	278	9000	37900	39	2650	1.95
27.5	3800	1.35	54.15	BK70-../DPE16LB4	278	9900	40200	33	3150	1.65
24	4350	1.2	61.60	BK70-../DPE16LB4	278	11500	42800	29	3600	1.45
21	5000	1.05	70.23	BK70-../DPE16LB4	278	12500	44800	25.5	4100	1.25
18.5	5600	0.93	79.89	BK70-../DPE16LB4	278	14300	47600	22.5	4650	1.1
16.5	6300	0.83	90.96	BK70-../DPE16LB4	278	15300	49900	19.5	5300	0.98
43	2400	3.3	34.22	BK80-../DPE16LB4	388	12600	55400	52	2000	3.9
35.5	2950	2.8	41.78	BK80-../DPE16LB4	388	13500	58700	42.5	2450	3.4
31.5	3300	2.6	46.80	BK80-../DPE16LB4	388	14300	60900	38	2750	3.1
28	3750	2.4	53.21	BK80-../DPE16LB4	388	14800	63100	33.5	3100	2.9
25	4200	2.2	59.60	BK80-../DPE16LB4	388	15700	65500	30	3500	2.6
21	5000	1.95	70.72	BK80-../DPE16LB4	388	16600	68700	25.5	4100	2.3
19	5500	1.85	79.22	BK80-../DPE16LB4	388	17600	71300	22.5	4650	2.2
16.5	6300	1.65	91.53	BK80-../DPE16LB4	388	18300	74200	19.5	5300	1.95
14.5	7200	1.45	102.5	BK80-../DPE16LB4	388	20500	75000	17.5	6000	1.75
13	8000	1.3	117.5	BK80-../DPE16LB4	388	22300	75000	15.5	6700	1.55
11.5	9100	1.15	131.6	BK80-../DPE16LB4	388	24900	75000	13.5	7700	1.35
9.7	10800	0.97	153.1	BK80-../DPE16LB4	388	27200	75000	12	8700	1.2
8.6	12200	0.86	171.5	BK80-../DPE16LB4	388	30000	75000	10.5	10000	1.05
8.3	12600	0.91	177.6	BK80Z-../DPE16LB4	431	30000	75000	10	10500	1.1
7.4	14100	0.82	198.9	BK80Z-../DPE16LB4	431	30000	75000	8.9	11800	0.97
19	5500	3.1	77.51	BK90-../DPE16LB4	641	30300	94400	23	4550	3.7
16.5	6300	2.7	91.19	BK90-../DPE16LB4	641	33300	101000	19.5	5300	3.2
14.5	7200	2.3	102.0	BK90-../DPE16LB4	641	36600	107000	17.5	6000	2.8
13	8000	2.1	117.0	BK90-../DPE16LB4	641	39200	113000	15.5	6700	2.5
11.5	9100	1.85	130.9	BK90-../DPE16LB4	641	42700	119400	14	7500	2.2
9.9	10600	1.6	149.5	BK90-../DPE16LB4	641	45600	120000	12	8700	1.95
8.8	11900	1.4	167.2	BK90-../DPE16LB4	641	49400	120000	11	9500	1.75
8.5	12300	1.5	174.7	BK90Z-../DPE16LB4	700	49400	120000	10.5	10000	1.85
7.6	13800	1.35	195.4	BK90Z-../DPE16LB4	700	49400	120000	9.1	11500	1.6
6.3	16600	1.1	234.6	BK90Z-../DPE16LB4	700	49400	120000	7.6	13800	1.35
5.6	18700	0.99	262.5	BK90Z-../DPE16LB4	700	49400	120000	6.8	15400	1.2
5.0	21000	0.88	295.6	BK90Z-../DPE16LB4	700	49400	120000	6.0	17500	1.05

8

P = 15 kW

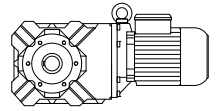
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
405	325	2.2	3.67	BK50-../DPE16XB4	193	115	9400	485	270	2.7
280	470	1.75	5.26	BK50-../DPE16XB4	193	130	10700	340	385	2.1
205	640	1.25	7.29	BK50-../DPE16XB4	193	620	111000	245	530	1.55
152	840	1.1	9.73	BK50-../DPE16XB4	193	5400	15400	182	700	1.35
147	890	0.91	10.00	BK50-../DPE16XB4	193	1220	13200	177	740	1.1
106	1210	0.87	13.95	BK50-../DPE16XB4	193	6100	17400	127	1010	1.05
97	1320	0.8	15.19	BK50-../DPE16XB4	193	6300	18000	117	1100	0.95
205	690	2.1	7.29	BK60-../DPE16XB4	205	2800	14900	245	580	2.5
136	1050	1.6	10.82	BK60-../DPE16XB4	205	3200	17000	164	870	1.95
119	1200	1.55	12.38	BK60-../DPE16XB4	205	3500	17400	143	1000	1.9
107	1330	1.5	13.85	BK60-../DPE16XB4	205	3850	18000	128	1110	1.8
103	1390	1.4	14.41	BK60-../DPE16XB4	205	3650	18600	123	1160	1.65

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

BK-series bevel geared motors

Selection - bevel geared motors

P = 15 kW

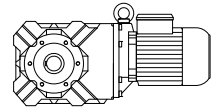


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
92	1550	1.25	16.05	BK60-../DPE16XB4	205	4050	18800	111	1290	1.55
81	1760	1.25	18.36	BK60-../DPE16XB4	205	4000	19900	97	1470	1.5
72	1980	1.15	20.54	BK60-../DPE16XB4	205	4400	20600	87	1640	1.35
61	2300	1.0	24.45	BK60-../DPE16XB4	205	4850	22000	73	1960	1.15
54	2650	0.87	27.36	BK60-../DPE16XB4	205	5600	23200	65	2200	1.05
108	1320	2.3	13.70	BK70-../DPE16XB4	288	5400	24800	130	1100	2.8
97	1470	2.1	15.16	BK70-../DPE16XB4	288	5600	25800	117	1220	2.5
86	1660	2.1	17.24	BK70-../DPE16XB4	288	6500	29200	103	1390	2.5
68	2100	1.95	21.88	BK70-../DPE16XB4	288	6500	30200	81	1760	2.3
60	2350	1.8	24.89	BK70-../DPE16XB4	288	7000	31500	72	1980	2.2
48	2950	1.55	30.90	BK70-../DPE16XB4	288	7500	33600	58	2450	1.85
42	3400	1.4	35.15	BK70-../DPE16XB4	288	8000	35000	51	2800	1.7
37	3850	1.25	40.08	BK70-../DPE16XB4	288	8300	36300	44.5	3200	1.5
32.5	4400	1.15	45.59	BK70-../DPE16XB4	288	9000	37900	39	3650	1.4
27.5	5200	1.0	54.15	BK70-../DPE16XB4	288	9900	40200	33	4300	1.2
24	5900	0.88	61.60	BK70-../DPE16XB4	288	11500	42800	29	4900	1.05
48.5	2950	2.5	30.56	BK80-../DPE16XB4	398	11900	53400	58	2450	3.1
43	3300	2.4	34.22	BK80-../DPE16XB4	398	12600	55400	52	2750	2.8
35.5	4000	2.1	41.78	BK80-../DPE16XB4	398	13500	58700	42.5	3350	2.5
31.5	4500	1.9	46.80	BK80-../DPE16XB4	398	14300	60900	38	3750	2.3
28	5100	1.75	53.21	BK80-../DPE16XB4	398	14800	63100	33.5	4250	2.1
25	5700	1.6	59.60	BK80-../DPE16XB4	398	15700	65500	30	4750	1.95
21	6800	1.4	70.72	BK80-../DPE16XB4	398	16600	68700	25.5	5600	1.7
19	7500	1.35	79.22	BK80-../DPE16XB4	398	17600	71300	22.5	6300	1.6
16.5	8600	1.2	91.53	BK80-../DPE16XB4	398	18300	74200	19.5	7300	1.4
14.5	9800	1.05	102.5	BK80-../DPE16XB4	398	20500	75000	17.5	8100	1.3
13	11000	0.95	117.5	BK80-../DPE16XB4	398	22300	75000	15.5	9200	1.15
11.5	12400	0.85	131.6	BK80-../DPE16XB4	398	24900	75000	13.5	10600	0.99
27	5300	3.0	54.98	BK90-../DPE16XB4	651	24000	81000	32.5	4400	3.7
24	5900	2.8	61.52	BK90-../DPE16XB4	651	25500	84600	29	4900	3.4
21.5	6600	2.5	69.27	BK90-../DPE16XB4	651	27200	88900	26	5500	3.1
19	7500	2.2	77.51	BK90-../DPE16XB4	651	30300	94400	23	6200	2.7
16.5	8600	1.95	91.19	BK90-../DPE16XB4	651	33300	101000	19.5	7300	2.3
14.5	9800	1.7	102.0	BK90-../DPE16XB4	651	36600	107000	17.5	8100	2.1
13	11000	1.55	117.0	BK90-../DPE16XB4	651	39200	113000	15.5	9200	1.85
11.5	12400	1.35	130.9	BK90-../DPE16XB4	651	42700	119400	14	10200	1.65
9.9	14400	1.15	149.5	BK90-../DPE16XB4	651	45600	120000	12	11900	1.4
8.8	16200	1.05	167.2	BK90-../DPE16XB4	651	49400	120000	11	13000	1.3
8.5	16800	1.1	174.7	BK90Z-../DPE16XB4	710	49400	120000	10.5	13600	1.35
7.6	18800	0.98	195.4	BK90Z-../DPE16XB4	710	49400	120000	9.1	15700	1.2
6.3	22700	0.81	234.6	BK90Z-../DPE16XB4	710	49400	120000	7.6	18800	0.98

P = 18.5 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
405	400	1.8	3.67	BK50-../DPE18LB4	245	115	9400	485	335	2.1
280	580	1.4	5.26	BK50-../DPE18LB4	245	130	10700	340	475	1.7
205	790	1.05	7.29	BK50-../DPE18LB4	245	620	111000	245	660	1.25
205	860	1.7	7.29	BK60-../DPE18LB4	252	2800	14900	245	720	2.0
136	1290	1.3	10.82	BK60-../DPE18LB4	252	3200	17000	164	1070	1.55

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



P = 18.5 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
103	1710	1.15	14.41	BK60-../DPE18LB4	252	3650	18600	123	1430	1.35
81	2150	1.0	18.36	BK60-../DPE18LB4	252	4000	19900	97	1820	1.2
72	2450	0.92	20.54	BK60-../DPE18LB4	252	4400	20600	87	2000	1.15
61	2850	0.81	24.45	BK60-../DPE18LB4	252	4850	22000	73	2400	0.96
97	1820	1.7	15.16	BK70-../DPE18LB4	329	5600	25800	117	1510	2.0
86	2050	1.7	17.24	BK70-../DPE18LB4	329	6500	29200	103	1710	2.0
68	2550	1.6	21.88	BK70-../DPE18LB4	329	6500	30200	81	2150	1.9
60	2900	1.45	24.89	BK70-../DPE18LB4	329	7000	31500	72	2450	1.75
48	3650	1.25	30.90	BK70-../DPE18LB4	329	7500	33600	58	3000	1.5
42	4200	1.15	35.15	BK70-../DPE18LB4	329	8000	35000	51	3450	1.35
37	4750	1.05	40.08	BK70-../DPE18LB4	329	8300	36300	44.5	3950	1.25
32.5	5400	0.95	45.59	BK70-../DPE18LB4	329	9000	37900	39	4500	1.15
27.5	6400	0.81	54.15	BK70-../DPE18LB4	329	9900	40200	33	5300	0.98
103	1710	2.5	14.34	BK80-../DPE18LB4	443	7900	36200	124	1420	3.0
93	1890	2.5	15.88	BK80-../DPE18LB4	443	8400	38600	112	1570	3.0
83	2100	2.5	17.79	BK80-../DPE18LB4	443	9400	42100	100	1760	3.0
76	2300	2.5	19.35	BK80-../DPE18LB4	443	9500	44000	92	1920	3.0
67	2600	2.6	22.19	BK80-../DPE18LB4	443	10500	48500	80	2200	3.1
60	2900	2.4	24.85	BK80-../DPE18LB4	443	11200	50400	72	2450	2.9
48.5	3600	2.1	30.56	BK80-../DPE18LB4	443	11900	53400	58	3000	2.5
43	4100	1.9	34.22	BK80-../DPE18LB4	443	12600	55400	52	3350	2.3
35.5	4950	1.65	41.78	BK80-../DPE18LB4	443	13500	58700	42.5	4150	2.0
31.5	5600	1.55	46.80	BK80-../DPE18LB4	443	14300	60900	38	4600	1.85
28	6300	1.4	53.21	BK80-../DPE18LB4	443	14800	63100	33.5	5200	1.7
25	7000	1.3	59.60	BK80-../DPE18LB4	443	15700	65500	30	5800	1.6
21	8400	1.15	70.72	BK80-../DPE18LB4	443	16600	68700	25.5	6900	1.4
19	9200	1.1	79.22	BK80-../DPE18LB4	443	17600	71300	22.5	7800	1.3
16.5	10700	0.97	91.53	BK80-../DPE18LB4	443	18300	74200	19.5	9000	1.15
14.5	12100	0.87	102.5	BK80-../DPE18LB4	443	20500	75000	17.5	10000	1.05
36	4900	3.0	40.94	BK90-../DPE18LB4	698	21400	73100	43.5	4050	3.7
32.5	5400	2.9	45.80	BK90-../DPE18LB4	698	22700	76300	39	4500	3.4
27	6500	2.5	54.98	BK90-../DPE18LB4	698	24000	81000	32.5	5400	3.0
24	7300	2.3	61.52	BK90-../DPE18LB4	698	25500	84600	29	6000	2.8
21.5	8200	2.0	69.27	BK90-../DPE18LB4	698	27200	88900	26	6700	2.5
19	9200	1.85	77.51	BK90-../DPE18LB4	698	30300	94400	23	7600	2.2
16.5	10700	1.55	91.19	BK90-../DPE18LB4	698	33300	101000	19.5	9000	1.85
14.5	12100	1.4	102.0	BK90-../DPE18LB4	698	36600	107000	17.5	10000	1.7
13	13500	1.25	117.0	BK90-../DPE18LB4	698	39200	113000	15.5	11300	1.5
11.5	15300	1.1	130.9	BK90-../DPE18LB4	698	42700	119400	14	12600	1.35
9.9	17800	0.94	149.5	BK90-../DPE18LB4	698	45600	120000	12	14700	1.15
8.8	20000	0.84	167.2	BK90-../DPE18LB4	698	49400	120000	11	16000	1.05
8.5	20700	0.89	174.7	BK90Z-../DPE18LB4	751	49400	120000	10.5	16800	1.1
7.6	23200	0.8	195.4	BK90Z-../DPE18LB4	751	49400	120000	9.1	19400	0.95

P = 22 kW

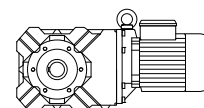
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
97	2150	1.4	15.16	BK70-../DPE18XB4	347	5600	25800	117	1790	1.7
86	2400	1.45	17.24	BK70-../DPE18XB4	347	6500	29200	103	2000	1.75
68	3050	1.35	21.88	BK70-../DPE18XB4	347	6500	30200	81	2550	1.6
60	3500	1.2	24.89	BK70-../DPE18XB4	347	7000	31500	72	2900	1.45

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

BK-series bevel geared motors

Selection - bevel geared motors

P = 22 kW



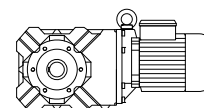
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
48	4350	1.05	30.90	BK70-../DPE18XB4	347	7500	33600	58	3600	1.25
42	5000	0.95	35.15	BK70-../DPE18XB4	347	8000	35000	51	4100	1.15
37	5600	0.87	40.08	BK70-../DPE18XB4	347	8300	36300	44.5	4700	1.05
32.5	6400	0.8	45.59	BK70-../DPE18XB4	347	9000	37900	39	5300	0.97
103	2000	2.1	14.34	BK80-../DPE18XB4	461	7900	36200	124	1690	2.5
93	2250	2.1	15.88	BK80-../DPE18XB4	461	8400	38600	112	1870	2.6
83	2500	2.1	17.79	BK80-../DPE18XB4	461	9400	42100	100	2100	2.5
76	2750	2.1	19.35	BK80-../DPE18XB4	461	9500	44000	92	2250	2.6
67	3100	2.2	22.19	BK80-../DPE18XB4	461	10500	48500	80	2600	2.6
60	3500	2.0	24.85	BK80-../DPE18XB4	461	11200	50400	72	2900	2.4
48.5	4300	1.75	30.56	BK80-../DPE18XB4	461	11900	53400	58	3600	2.1
43	4850	1.6	34.22	BK80-../DPE18XB4	461	12600	55400	52	4000	1.95
35.5	5900	1.4	41.78	BK80-../DPE18XB4	461	13500	58700	42.5	4900	1.7
31.5	6600	1.3	46.80	BK80-../DPE18XB4	461	14300	60900	38	5500	1.55
28	7500	1.2	53.21	BK80-../DPE18XB4	461	14800	63100	33.5	6200	1.45
25	8400	1.1	59.60	BK80-../DPE18XB4	461	15700	65500	30	7000	1.3
21	10000	0.96	70.72	BK80-../DPE18XB4	461	16600	68700	25.5	8200	1.15
19	11000	0.91	79.22	BK80-../DPE18XB4	461	17600	71300	22.5	9300	1.1
16.5	12700	0.82	91.53	BK80-../DPE18XB4	461	18300	74200	19.5	10700	0.97
48.5	4300	3.1	30.47	BK90-../DPE18XB4	716	19100	65900	59	3550	3.8
43.5	4800	2.9	34.09	BK90-../DPE18XB4	716	20300	68800	52	4000	3.5
36	5800	2.5	40.94	BK90-../DPE18XB4	716	21400	73100	43.5	4800	3.1
32.5	6400	2.4	45.80	BK90-../DPE18XB4	716	22700	76300	39	5300	2.9
27	7700	2.1	54.98	BK90-../DPE18XB4	716	24000	81000	32.5	6400	2.5
24	8700	1.95	61.52	BK90-../DPE18XB4	716	25500	84600	29	7200	2.3
21.5	9700	1.75	69.27	BK90-../DPE18XB4	716	27200	88900	26	8000	2.1
19	11000	1.55	77.51	BK90-../DPE18XB4	716	30300	94400	23	9100	1.85
16.5	12700	1.3	91.19	BK90-../DPE18XB4	716	33300	101000	19.5	10700	1.55
14.5	14400	1.15	102.0	BK90-../DPE18XB4	716	36600	107000	17.5	12000	1.4
13	16100	1.05	117.0	BK90-../DPE18XB4	716	39200	113000	15.5	13500	1.25
11.5	18200	0.92	130.9	BK90-../DPE18XB4	716	42700	119400	14	15000	1.1

P = 30 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
98	2900	1.05	15.16	BK70-../DPE20LA4	502	5600	25800	119	2400	1.25
86	3300	1.05	17.24	BK70-../DPE20LA4	502	6500	29200	104	2750	1.25
68	4200	0.97	21.88	BK70-../DPE20LA4	502	6500	30200	82	3450	1.2
60	4750	0.9	24.89	BK70-../DPE20LA4	502	7000	31500	72	3950	1.1
104	2750	1.55	14.34	BK80-../DPE20LA4	614	7900	36200	125	2250	1.9
94	3000	1.6	15.88	BK80-../DPE20LA4	614	8400	38600	113	2500	1.9
84	3400	1.55	17.79	BK80-../DPE20LA4	614	9400	42100	101	2800	1.9
77	3700	1.55	19.35	BK80-../DPE20LA4	614	9500	44000	93	3050	1.9
67	4250	1.6	22.19	BK80-../DPE20LA4	614	10500	48500	81	3500	1.95
60	4750	1.5	24.85	BK80-../DPE20LA4	614	11200	50400	73	3900	1.8
48.5	5900	1.25	30.56	BK80-../DPE20LA4	614	11900	53400	59	4850	1.55
43.5	6500	1.2	34.22	BK80-../DPE20LA4	614	12600	55400	53	5400	1.45
35.5	8000	1.05	41.78	BK80-../DPE20LA4	614	13500	58700	43	6600	1.25
32	8900	0.96	46.80	BK80-../DPE20LA4	614	14300	60900	38.5	7400	1.15
28	10200	0.87	53.21	BK80-../DPE20LA4	614	14800	63100	34	8400	1.05
25	11400	0.81	59.60	BK80-../DPE20LA4	614	15700	65500	30.5	9300	0.99

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

P = 30 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
92	3100	3.3	16.21	BK90-../DPE20LA4	869	15400	52400	111	2550	4.0
82	3450	3.3	18.07	BK90-../DPE20LA4	869	15600	54400	100	2850	4.0
74	3850	3.1	20.21	BK90-../DPE20LA4	869	16600	56700	89	3200	3.8
67	4250	2.9	22.29	BK90-../DPE20LA4	869	16900	59100	81	3500	3.5
60	4750	2.7	24.94	BK90-../DPE20LA4	869	18000	61700	72	3950	3.3
49	5800	2.3	30.47	BK90-../DPE20LA4	869	19100	65900	59	4850	2.8
43.5	6500	2.2	34.09	BK90-../DPE20LA4	869	20300	68800	53	5400	2.6
36.5	7800	1.9	40.94	BK90-../DPE20LA4	869	21400	73100	44	6500	2.3
32.5	8800	1.75	45.80	BK90-../DPE20LA4	869	22700	76300	39.5	7200	2.1
27	10600	1.5	54.98	BK90-../DPE20LA4	869	24000	81000	33	8600	1.9
24.5	11600	1.45	61.52	BK90-../DPE20LA4	869	25500	84600	29.5	9700	1.75
21.5	13300	1.25	69.27	BK90-../DPE20LA4	869	27200	88900	26	11000	1.55
19.5	14600	1.15	77.51	BK90-../DPE20LA4	869	30300	94400	23.5	12100	1.4
16.5	17300	0.97	91.19	BK90-../DPE20LA4	869	33300	101000	20	14300	1.15
15	19100	0.88	102.0	BK90-../DPE20LA4	869	36600	107000	18	15900	1.05

P = 37 kW

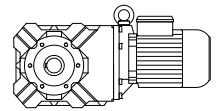
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
104	3350	1.3	14.34	BK80-../DPE22SA4	613	7900	36200	125	2800	1.55
94	3750	1.3	15.88	BK80-../DPE22SA4	613	8400	38600	113	3100	1.55
84	4200	1.25	17.79	BK80-../DPE22SA4	613	9400	42100	101	3450	1.5
77	4550	1.25	19.35	BK80-../DPE22SA4	613	9500	44000	93	3750	1.55
67	5200	1.3	22.19	BK80-../DPE22SA4	613	10500	48500	81	4350	1.55
60	5800	1.2	24.85	BK80-../DPE22SA4	613	11200	50400	73	4800	1.5
48.5	7200	1.05	30.56	BK80-../DPE22SA4	613	11900	53400	59	5900	1.25
103	3400	2.7	14.49	BK90-../DPE22SA4	868	14500	50400	124	2800	3.3
92	3800	2.7	16.21	BK90-../DPE22SA4	868	15400	52400	111	3150	3.3
82	4300	2.7	18.07	BK90-../DPE22SA4	868	15600	54400	100	3500	3.3
74	4750	2.5	20.21	BK90-../DPE22SA4	868	16600	56700	89	3950	3.0
67	5200	2.4	22.29	BK90-../DPE22SA4	868	16900	59100	81	4350	2.8
60	5800	2.2	24.94	BK90-../DPE22SA4	868	18000	61700	72	4900	2.6
49	7200	1.9	30.47	BK90-../DPE22SA4	868	19100	65900	59	5900	2.3
43.5	8100	1.75	34.09	BK90-../DPE22SA4	868	20300	68800	53	6600	2.1
36.5	9600	1.55	40.94	BK90-../DPE22SA4	868	21400	73100	44	8000	1.85
32.5	10800	1.45	45.80	BK90-../DPE22SA4	868	22700	76300	39.5	8900	1.75
27	13000	1.25	54.98	BK90-../DPE22SA4	868	24000	81000	33	10700	1.5
24.5	14400	1.15	61.52	BK90-../DPE22SA4	868	25500	84600	29.5	11900	1.4
21.5	16400	1.0	69.27	BK90-../DPE22SA4	868	27200	88900	26	13500	1.25

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

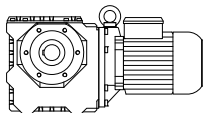
BK-series bevel geared motors

Selection - bevel geared motors

P = 45 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
104	4100	1.05	14.34	BK80-../DPE22MA4	670	7900	36200	125	3400	1.25
94	4550	1.05	15.88	BK80-../DPE22MA4	670	8400	38600	113	3800	1.25
84	5100	1.05	17.79	BK80-../DPE22MA4	670	9400	42100	101	4250	1.25
77	5500	1.05	19.35	BK80-../DPE22MA4	670	9500	44000	93	4600	1.25
67	6400	1.05	22.19	BK80-../DPE22MA4	670	10500	48500	81	5300	1.3
60	7100	1.0	24.85	BK80-../DPE22MA4	670	11200	50400	73	5800	1.2
103	4150	2.2	14.49	BK90-../DPE22MA4	925	14500	50400	124	3450	2.7
92	4650	2.2	16.21	BK90-../DPE22MA4	925	15400	52400	111	3850	2.7
82	5200	2.2	18.07	BK90-../DPE22MA4	925	15600	54400	100	4250	2.7
74	5800	2.1	20.21	BK90-../DPE22MA4	925	16600	56700	89	4800	2.5
67	6400	1.9	22.29	BK90-../DPE22MA4	925	16900	59100	81	5300	2.3
60	7100	1.8	24.94	BK90-../DPE22MA4	925	18000	61700	72	5900	2.2
49	8700	1.55	30.47	BK90-../DPE22MA4	925	19100	65900	59	7200	1.9
43.5	9800	1.45	34.09	BK90-../DPE22MA4	925	20300	68800	53	8100	1.75
36.5	11700	1.25	40.94	BK90-../DPE22MA4	925	21400	73100	44	9700	1.5
32.5	13200	1.15	45.80	BK90-../DPE22MA4	925	22700	76300	39.5	10800	1.45
27	15900	1.0	54.98	BK90-../DPE22MA4	925	24000	81000	33	13000	1.25



BS-series worm-gear motors Selection

Description of worm-gearred units

- Sizes
- Efficiency
- Bauer service factors (f_b) for worm-gearred motors
- Continuous operation without switching frequency $Z \leq 1/h$
- Switching duty
- Ambient temperature
- Bauer service factor
- Explanation of shock classification
- Key to abbreviations
- Selection tables, worm-gearred motors

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.

Continuous operation without switching frequency $Z \leq 1/h$

Factor f_1 for shock classification and operating time

Shock classification	Operating hours per day $t_d \leq 10 \text{ min}$	$\leq 1 \text{ h}$	$> 1 \text{ h}$	$> 4 \text{ h}$	$> 8 \text{ h}$	$> 16 \text{ h}$
		$\leq 4 \text{ h}$	$\leq 8 \text{ h}$	$\leq 16 \text{ h}$	$\leq 24 \text{ h}$	
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

BS-series worm-gear motors

Description of worm-gear units

Switching duty

Factor f_2 or shock classification and switching frequency

Switching frequency in single- shift operation $t_d \leq 8$ h/d

Shock classification	$1 < Z \leq 100$	$100 < Z \leq 1000$	$1000 < Z$
I	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	$1 < Z \leq 100$	$100 < Z \leq 1000$	$1000 < Z$
I	1,4	1,6	1,8
II	1,8	2,0	2,2
III	2,0	2,2	2,5

Ambient temperature

Factor f_3 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 = 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:

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

Shock classification II:

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

- $1,3 < FI \leq 2$
- $1 \leq M_x/M_N \leq 1,4$
- Shock-neutral power transmission components (e.g. gear wheels, zero-play rigid coupling or resilient coupling with $\varphi N < 5^\circ$)

Shock classification III:

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

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

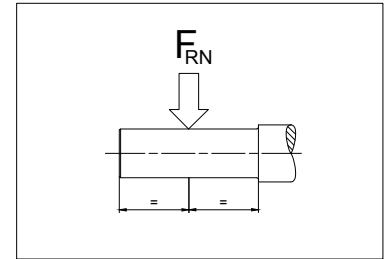
Key to abbreviations

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 (kgm^2)
J_{rot}	Mass moment of inertia of the motor rotor (kgm^2)
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 ($^{\circ}\text{C}$)

Selection tables, worm-geared motors

Key to abbreviations

P	Rated output
n_2	Rated speed of the output shaft
i	Gear reduction ratio
M_2	Rated torque at the output shaft
f_B	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 worm-geared motors").

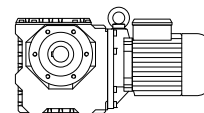
Motor power overload protection

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).

BS-series worm-geared motors

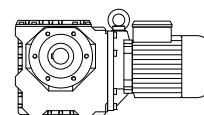
Selection - worm-geared motors

P = 0.12 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
300	3.35	4.5	4.60	BS02-../DPE05LA4	5.3	1000	-	365	2.75	5.5
260	3.85	5.2	5.40	BS02-../DPE05LA4	5.3	1000	-	310	3.25	6.2
205	4.8	5.2	6.75	BS02-../DPE05LA4	5.3	1000	-	250	3.9	6.4
168	5.7	4.4	8.25	BS02-../DPE05LA4	5.3	1100	-	205	4.65	5.4
130	7.2	3.5	10.67	BS02-../DPE05LA4	5.3	1250	-	157	5.9	4.2
103	8.6	2.9	13.50	BS02-../DPE05LA4	5.3	1250	-	124	7.2	3.5
77	11	2.3	18.00	BS02-../DPE05LA4	5.3	1250	-	93	9.1	2.7
63	12.7	1.95	22.00	BS02-../DPE05LA4	5.3	1250	-	76	10.5	2.4
52	13.8	1.8	27.00	BS02-../DPE05LA4	5.3	1250	-	62	11.6	2.2
42	16.3	1.55	33.00	BS02-../DPE05LA4	5.3	1250	-	51	13.4	1.85
32.5	21.5	1.1	43.00	BS02-../DPE05LA4	5.3	1250	-	39	18.2	1.3
26	25	0.88	54.00	BS02-../DPE05LA4	5.3	1250	-	31	21	1.05
42	16.6	3.3	33.00	BS03-../DPE05LA4	5.4	1950	-	51	13.7	4.0
35.5	20.5	2.7	39.00	BS03-../DPE05LA4	5.4	1950	-	43	17	3.2
28	23.5	2.3	50.00	BS03-../DPE05LA4	5.4	1950	-	33.5	19.8	2.8
22.5	26.5	1.8	62.00	BS03-../DPE05LA4	5.4	1950	-	27	22	2.2
18.5	31.5	1.25	75.00	BS03-../DPE05LA4	5.4	1950	-	22.5	25.5	1.55
77	10.5	3.2	18.00	BS04-../DPE05LA4	5.8	1950	-	93	8.7	3.9
66	13.1	2.8	20.96	BS04-../DPE05LA4	5.8	2100	-	80	10.8	3.4
57	15.2	2.2	24.25	BS04-../DPE05LA4	5.8	2250	-	69	12.6	2.7
53	15.3	2.5	26.21	BS04-../DPE05LA4	5.8	2250	-	64	12.7	3.0
44	18.2	2.1	31.50	BS04-../DPE05LA4	5.8	2250	-	54	14.8	2.6
36	21.5	1.7	38.42	BS04-../DPE05LA4	5.8	2250	-	43.5	18.1	2.0
29	26.5	1.45	47.86	BS04-../DPE05LA4	5.8	2250	-	35	22	1.75
22	32.5	1.1	64.06	BS04-../DPE05LA4	5.8	2250	-	26.5	27	1.35
19.5	38.5	0.99	71.18	BS04-../DPE05LA4	5.8	2250	-	23.5	32	1.2
18	38.5	0.99	77.00	BS04-../DPE05LA4	5.8	2250	-	22	31.5	1.2
15	45	0.84	93.92	BS04-../DPE05LA4	5.8	2250	-	18	37.5	1.0
28.5	28.5	3.1	48.60	BS06-../DPE05LA4	10	3500	-	34.5	23.5	3.7
24	33.5	2.7	58.15	BS06-../DPE05LA4	10	3500	-	29	28	3.3
22	35	2.3	64.06	BS06-../DPE05LA4	10	3500	-	26.5	29	2.8
19.5	41.5	2.3	71.18	BS06-../DPE05LA4	10	3500	-	23.5	34.5	2.7
18	42.5	2.0	77.00	BS06-../DPE05LA4	10	3500	-	22	34.5	2.5
15.5	51	1.9	90.00	BS06-../DPE05LA4	10	3500	-	19	42	2.3
13.5	58	1.7	103.1	BS06-../DPE05LA4	10	3500	-	16.5	47.5	2.1
12	62	1.5	118.8	BS06-../DPE05LA4	10	3500	-	14.5	51	1.85
11	69	1.5	129.0	BS06-../DPE05LA4	10	3500	-	13	59	1.75
9.5	78	1.35	146.8	BS06-../DPE05LA4	10	3500	-	11.5	64	1.65
8.0	85	1.15	174.0	BS06-../DPE05LA4	10	3500	-	9.6	71	1.4
6.3	107	0.92	220.0	BS06-../DPE05LA4	10	3500	-	7.6	88	1.1
5.5	120	0.83	252.0	BS06-../DPE05LA4	10	3500	-	6.7	99	1.0
16.5	51	2.9	84.36	BS10-../DPE06LA4	23	5300	-	20	42	3.6
13.5	54	3.0	103.4	BS10-../DPE06LA4	23	5600	-	16.5	44	3.6
12	70	1.75	119.6	BS10-../DPE06LA4	23	6000	-	14	60	2.0
11	66	2.5	130.3	BS10-../DPE06LA4	23	6000	-	13	56	2.9
9.1	80	2.1	152.7	BS10-../DPE06LA4	23	6000	-	11	66	2.5
7.4	99	1.7	188.6	BS10-../DPE06LA4	23	6000	-	8.9	82	2.1
6.4	114	1.6	216.6	BS10-../DPE06LA4	23	6000	-	7.8	94	1.9
5.5	133	1.35	254.0	BS10Z-../DPE06LA4	24	6000	-	6.6	111	1.6
4.6	154	1.25	302.5	BS10Z-../DPE06LA4	24	6000	-	5.6	126	1.5
3.9	182	1.05	360.3	BS10Z-../DPE06LA4	24	6000	-	4.7	151	1.25
3.2	215	0.88	432.4	BS10Z-../DPE06LA4	24	6000	-	3.9	179	1.05
1.5	160*	1.0	969.9	BS10G06-../DPE06LA4	28	6000	-	1.8	160	1.0
1.2	160*	1.0	1166	BS10G06-../DPE06LA4	28	6000	-	1.5	160	1.0
1.1	160*	1.0	1342	BS10G06-../DPE06LA4	28	6000	-	1.3	160	1.0
0.95	160*	1.0	1528	BS10G06-../DPE06LA4	28	6000	-	1.1	160	1.0

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



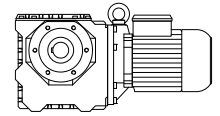
P = 0.12 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
0.85	160*	1.0	1668	BS10G06-../DPE06LA4	28	6000	-	1.1	160	1.0
0.75	160*	1.0	1963	BS10G06-../DPE06LA4	28	6000	-	0.9	160	1.0
0.6	160*	1.0	2348	BS10G06-../DPE06LA4	28	6000	-	0.75	160	1.0
0.55	160*	1.0	2635	BS10G06-../DPE06LA4	28	6000	-	0.65	160	1.0
0.48	160*	1.0	2875	BS10G06-../DPE06LA4	28	6000	-	0.6	160	1.0
0.42	160*	1.0	3332	BS10G06-../DPE06LA4	28	6000	-	0.55	160	1.0
0.38	160*	1.0	3635	BS10G06-../DPE06LA4	28	6000	-	0.46	160	1.0
0.34	160*	1.0	4163	BS10G06-../DPE06LA4	28	6000	-	0.41	160	1.0
0.29	160*	1.0	4776	BS10G06-../DPE06LA4	28	6000	-	0.35	160	1.0
0.27	160*	1.0	5209	BS10G06-../DPE06LA4	28	6000	-	0.33	160	1.0
0.23	164*	1.0	6019	BS10G06-../DPE06LA4	28	6000	-	0.28	164	1.0
0.22	164*	1.0	6565	BS10G06-../DPE06LA4	28	6000	-	0.26	164	1.0
0.19	164*	1.0	7471	BS10G06-../DPE06LA4	28	6000	-	0.23	164	1.0
0.16	164*	1.0	8703	BS10G06-../DPE06LA4	28	6000	-	0.2	164	1.0
8.7	86	3.2	159.4	BS20-../DPE06LA4	34	8000	-	10.5	72	3.8
7.6	99	2.8	183.0	BS20-../DPE06LA4	34	8000	-	9.2	82	3.4
6.2	118	2.5	225.6	BS20-../DPE06LA4	34	8000	-	7.5	97	3.0
5.4	135	2.2	257.8	BS20Z-../DPE06LA4	35	8000	-	6.5	112	2.6
4.6	156	1.9	300.1	BS20Z-../DPE06LA4	35	8000	-	5.6	128	2.3
3.9	182	1.75	359.9	BS20Z-../DPE06LA4	35	8000	-	4.7	151	2.1
3.3	210	1.55	430.8	BS20Z-../DPE06LA4	35	8000	-	3.9	179	1.85
2.6	240	1.5	539.7	BS20Z-../DPE06LA4	35	8000	-	3.1	200	1.85
2.3	265	1.25	619.2	BS20Z-../DPE06LA4	35	8000	-	2.7	225	1.45
1.9	325	0.95	763.4	BS20Z-../DPE06LA4	35	8000	-	2.2	280	1.1
1.7	270*	1.0	831.7	BS20G06-../DPE06LA4	38	8000	-	2.1	270	1.0
1.4	270*	1.0	1000	BS20G06-../DPE06LA4	38	8000	-	1.7	270	1.0
1.1	270*	1.0	1311	BS20G06-../DPE06LA4	38	8000	-	1.3	270	1.0
0.9	270*	1.0	1543	BS20G06-../DPE06LA4	38	8000	-	1.1	270	1.0
0.85	270*	1.0	1683	BS20G06-../DPE06LA4	38	8000	-	1.0	270	1.0
0.7	270*	1.0	2014	BS20G06-../DPE06LA4	38	8000	-	0.85	270	1.0
0.6	270*	1.0	2465	BS20G06-../DPE06LA4	38	8000	-	0.7	270	1.0
0.49	270*	1.0	2857	BS20G06-../DPE06LA4	38	8000	-	0.6	270	1.0
0.45	270*	1.0	3117	BS20G06-../DPE06LA4	38	8000	-	0.55	270	1.0
0.39	270*	1.0	3570	BS20G06-../DPE06LA4	38	8000	-	0.47	270	1.0
0.34	270*	1.0	4096	BS20G06-../DPE06LA4	38	8000	-	0.41	270	1.0
0.29	270*	1.0	4910	BS20G06-../DPE06LA4	38	8000	-	0.35	270	1.0
0.24	270*	1.0	5880	BS20G06-../DPE06LA4	38	8000	-	0.29	270	1.0
0.19	275*	1.0	7363	BS20G06-../DPE06LA4	38	8000	-	0.23	275	1.0
0.18	275*	1.0	8031	BS20G06-../DPE06LA4	38	8000	-	0.21	275	1.0
0.15	280*	1.0	9220	BS20G06-../DPE06LA4	38	8000	-	0.19	280	1.0
3.9	215	1.85	359.6	BS30Z-../DPE06LA4	54	10000	-	4.7	180	2.2
3.6	205	2.9	390.2	BS30Z-../DPE06LA4	54	10000	-	4.3	173	3.4
3.1	235	2.6	457.3	BS30Z-../DPE06LA4	54	10000	-	3.7	198	3.0
2.6	280	2.1	539.3	BS30Z-../DPE06LA4	54	10000	-	3.1	235	2.6
2.2	310	1.85	651.0	BS30Z-../DPE06LA4	54	10000	-	2.6	260	2.2
1.8	365	1.3	804.1	BS30Z-../DPE06LA4	54	10000	-	2.1	315	1.5
1.5	435	1.05	932.0	BS30Z-../DPE06LA4	54	10000	-	1.8	360	1.25
1.4	560	0.88	1022	BS30G06-../DPE06LA4	56	10000	-	1.7	465	1.05
1.2	490*	1.0	1176	BS30G06-../DPE06LA4	56	10000	-	1.5	490	1.0
0.95	490*	1.0	1461	BS30G06-../DPE06LA4	56	10000	-	1.2	490	1.0
0.9	490*	1.0	1576	BS30G06-../DPE06LA4	56	10000	-	1.1	490	1.0
0.75	490*	1.0	1886	BS30G06-../DPE06LA4	56	10000	-	0.9	490	1.0
0.6	490*	1.0	2308	BS30G06-../DPE06LA4	56	10000	-	0.75	490	1.0
0.55	490*	1.0	2518	BS30G06-../DPE06LA4	56	10000	-	0.7	490	1.0
0.48	490*	1.0	2919	BS30G06-../DPE06LA4	56	10000	-	0.6	490	1.0
0.42	490*	1.0	3344	BS30G06-../DPE06LA4	56	10000	-	0.5	490	1.0
0.38	490*	1.0	3647	BS30G06-../DPE06LA4	56	10000	-	0.46	490	1.0

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

BS-series worm-geared motors

Selection - worm-geared motors



P = 0.12 kW

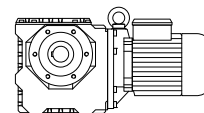
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
0.33	490*	1.0	4184	BS30G06-../DPE06LA4	56	10000	-	0.4	490	1.0
0.29	510*	1.0	4905	BS30G06-../DPE06LA4	56	10000	-	0.35	510	1.0
0.24	520*	1.0	5783	BS30G06-../DPE06LA4	56	10000	-	0.29	520	1.0
0.22	520*	1.0	6308	BS30G06-../DPE06LA4	56	10000	-	0.27	520	1.0
0.2	520*	1.0	7179	BS30G06-../DPE06LA4	56	10000	-	0.24	520	1.0
0.17	520*	1.0	8362	BS30G06-../DPE06LA4	56	10000	-	0.2	520	1.0
2.3	300	3.0	612.1	BS40Z-../DPE06LA4	68	15000	-	2.8	245	3.7
1.9	360	2.1	736.5	BS40Z-../DPE06LA4	68	15000	-	2.3	295	2.6
1.6	420	1.75	908.2	BS40Z-../DPE06LA4	68	15000	-	1.9	355	2.1
1.5	530	1.65	965.5	BS40G10-../DPE06LA4	73	15000	-	1.8	445	2.0
1.2	660	1.35	1180	BS40G10-../DPE06LA4	73	15000	-	1.5	530	1.65
0.95	840	1.05	1499	BS40G10-../DPE06LA4	73	15000	-	1.2	660	1.35
0.8	880*	1.0	1785	BS40G10-../DPE06LA4	73	15000	-	0.95	880	1.0
0.65	880*	1.0	2126	BS40G10-../DPE06LA4	73	15000	-	0.8	880	1.0
0.6	880*	1.0	2304	BS40G10-../DPE06LA4	73	15000	-	0.75	880	1.0
0.55	880*	1.0	2552	BS40G10-../DPE06LA4	73	15000	-	0.7	880	1.0
0.48	880*	1.0	2902	BS40G10-../DPE06LA4	73	15000	-	0.6	880	1.0
0.43	880*	1.0	3215	BS40G10-../DPE06LA4	73	15000	-	0.55	880	1.0
0.37	880*	1.0	3769	BS40G10-../DPE06LA4	73	15000	-	0.45	880	1.0
0.33	880*	1.0	4201	BS40G10-../DPE06LA4	73	15000	-	0.4	880	1.0
0.3	880*	1.0	4655	BS40G10-../DPE06LA4	73	15000	-	0.36	880	1.0
0.26	900*	1.0	5498	BS40G10-../DPE06LA4	73	15000	-	0.31	900	1.0
0.23	950*	1.0	6214	BS40G10-../DPE06LA4	73	15000	-	0.27	950	1.0
0.21	950*	1.0	6885	BS40G10-../DPE06LA4	73	15000	-	0.25	950	1.0
0.18	950*	1.0	7905	BS40G10-../DPE06LA4	73	15000	-	0.22	950	1.0

P = 0.18 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
300	5.0	3.0	4.60	BS02-../DPE07LA4	9.3	1000	-	365	4.1	3.7
260	5.8	3.4	5.40	BS02-../DPE07LA4	9.3	1000	-	310	4.85	4.1
205	7.2	3.5	6.75	BS02-../DPE07LA4	9.3	1000	-	250	5.9	4.2
168	8.5	2.9	8.25	BS02-../DPE07LA4	9.3	1100	-	205	7.0	3.6
130	10.8	2.3	10.67	BS02-../DPE07LA4	9.3	1250	-	157	8.9	2.8
103	13	1.9	13.50	BS02-../DPE07LA4	9.3	1250	-	124	10.8	2.3
77	16.5	1.5	18.00	BS02-../DPE07LA4	9.3	1250	-	93	13.6	1.85
63	19.1	1.3	22.00	BS02-../DPE07LA4	9.3	1250	-	76	15.8	1.6
52	20.5	1.2	27.00	BS02-../DPE07LA4	9.3	1250	-	62	17.4	1.45
42	24.5	1.0	33.00	BS02-../DPE07LA4	9.3	1250	-	51	20	1.25
73	17.8	3.1	19.00	BS03-../DPE07LA4	9.4	1950	-	88	14.8	3.7
56	21	2.6	25.00	BS03-../DPE07LA4	9.4	1950	-	67	17.7	3.1
42	24.5	2.2	33.00	BS03-../DPE07LA4	9.4	1950	-	51	20.5	2.7
35.5	30.5	1.8	39.00	BS03-../DPE07LA4	9.4	1950	-	43	25.5	2.2
28	35.5	1.55	50.00	BS03-../DPE07LA4	9.4	1950	-	33.5	29.5	1.85
22.5	40	1.2	62.00	BS03-../DPE07LA4	9.4	1950	-	27	33.5	1.45
18.5	47	0.85	75.00	BS03-../DPE07LA4	9.4	1950	-	22.5	38.5	1.05
129	10.3	3.1	10.73	BS04-../DPE07LA4	9.8	1600	-	156	8.5	3.8
106	12.4	2.7	13.09	BS04-../DPE07LA4	9.8	1760	-	128	10.3	3.2
85	15.5	2.3	16.31	BS04-../DPE07LA4	9.8	1970	-	103	12.8	2.7
77	15.8	2.2	18.00	BS04-../DPE07LA4	9.8	1950	-	93	13.1	2.6
66	19.7	1.9	20.96	BS04-../DPE07LA4	9.8	2100	-	80	16.3	2.3
57	22.5	1.5	24.25	BS04-../DPE07LA4	9.8	2250	-	69	18.9	1.8

The torques marked (*) are maximum permissible torques for service factor f_B=1.0.

P = 0.18 kW



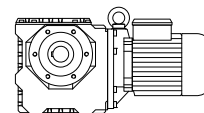
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
53	23	1.65	26.21	BS04-../DPE07LA4	9.8	2250	-	64	19	2.0
44	27	1.4	31.50	BS04-../DPE07LA4	9.8	2250	-	54	22	1.75
36	32.5	1.15	38.42	BS04-../DPE07LA4	9.8	2250	-	43.5	27	1.35
29	40	0.95	47.86	BS04-../DPE07LA4	9.8	2250	-	35	33	1.15
57	24	3.2	24.25	BS06-../DPE07LA4	14	2600	-	69	19.9	3.9
53	23.5	3.3	26.21	BS06-../DPE07LA4	14	3000	-	64	19.6	3.9
44	28.5	2.8	31.50	BS06-../DPE07LA4	14	3200	-	54	23	3.5
33.5	36.5	2.4	41.29	BS06-../DPE07LA4	14	3500	-	40.5	30.5	2.8
28.5	43	2.0	48.60	BS06-../DPE07LA4	14	3500	-	34.5	35.5	2.5
24	50	1.8	58.15	BS06-../DPE07LA4	14	3500	-	29	42	2.2
22	53	1.5	64.06	BS06-../DPE07LA4	14	3500	-	26.5	44	1.8
19.5	62	1.5	71.18	BS06-../DPE07LA4	14	3500	-	23.5	51	1.85
18	63	1.35	77.00	BS06-../DPE07LA4	14	3500	-	22	52	1.65
15.5	77	1.25	90.00	BS06-../DPE07LA4	14	3500	-	19	63	1.55
13.5	87	1.15	103.1	BS06-../DPE07LA4	14	3500	-	16.5	71	1.4
12	93	1.0	118.8	BS06-../DPE07LA4	14	3500	-	14.5	77	1.2
11	104	1.0	129.0	BS06-../DPE07LA4	14	3500	-	13	88	1.2
9.5	117	0.91	146.8	BS06-../DPE07LA4	14	3500	-	11.5	97	1.1
29	44	3.3	47.59	BS10-../DPE07LA4	26	4050	-	35.5	36	4.0
24.5	51	2.9	57.12	BS10-../DPE07LA4	26	4350	-	29.5	43	3.5
23	50	3.0	60.74	BS10-../DPE07LA4	26	4550	-	27.5	41.5	3.6
19.5	65	2.5	71.96	BS10-../DPE07LA4	26	5000	-	23.5	54	3.0
16.5	77	1.95	84.36	BS10-../DPE07LA4	26	5300	-	20	63	2.4
13.5	81	2.0	103.4	BS10-../DPE07LA4	26	5600	-	16.5	66	2.4
12	106	1.15	119.6	BS10-../DPE07LA4	26	6000	-	14	90	1.35
11	100	1.65	130.3	BS10-../DPE07LA4	26	6000	-	13	84	1.95
9.1	120	1.4	152.7	BS10-../DPE07LA4	26	6000	-	11	100	1.65
7.4	148	1.15	188.6	BS10-../DPE07LA4	26	6000	-	8.9	123	1.4
6.4	171	1.05	216.6	BS10-../DPE07LA4	26	6000	-	7.8	141	1.3
5.5	200	0.9	254.0	BS10Z-../DPE07LA4	27	6000	-	6.6	166	1.1
4.6	230	0.83	302.5	BS10Z-../DPE07LA4	27	6000	-	5.6	190	1.0
14	90	2.8	101.1	BS20-../DPE07LA4	36	7100	-	17	74	3.4
13	87	3.1	106.3	BS20-../DPE07LA4	36	7600	-	16	70	3.9
11	103	2.6	127.3	BS20-../DPE07LA4	36	8000	-	13.5	84	3.2
8.7	130	2.1	159.4	BS20-../DPE07LA4	36	8000	-	10.5	108	2.5
7.6	149	1.9	183.0	BS20-../DPE07LA4	36	8000	-	9.2	123	2.3
6.2	177	1.65	225.6	BS20-../DPE07LA4	36	8000	-	7.5	146	2.0
5.4	200	1.5	257.8	BS20Z-../DPE07LA4	38	8000	-	6.5	169	1.75
4.6	235	1.3	300.1	BS20Z-../DPE07LA4	38	8000	-	5.6	193	1.55
3.9	270	1.2	359.9	BS20Z-../DPE07LA4	38	8000	-	4.7	225	1.4
3.3	315	1.05	430.8	BS20Z-../DPE07LA4	38	8000	-	3.9	265	1.25
2.6	360	1.0	539.7	BS20Z-../DPE07LA4	38	8000	-	3.1	300	1.2
2.3	400	0.83	619.2	BS20Z-../DPE07LA4	38	8000	-	2.7	340	0.97
6.4	177	2.9	216.4	BS30-../DPE07LA4	54	10000	-	7.8	145	3.6
5.3	210	2.7	261.6	BS30Z-../DPE07LA4	56	10000	-	6.4	177	3.2
4.6	240	2.4	306.6	BS30Z-../DPE07LA4	56	10000	-	5.5	200	2.9
3.9	325	1.2	359.6	BS30Z-../DPE07LA4	56	10000	-	4.7	270	1.45
3.6	310	1.9	390.2	BS30Z-../DPE07LA4	56	10000	-	4.3	255	2.3
3.1	350	1.7	457.3	BS30Z-../DPE07LA4	56	10000	-	3.7	295	2.0
2.6	420	1.45	539.3	BS30Z-../DPE07LA4	56	10000	-	3.1	350	1.7
2.2	465	1.25	651.0	BS30Z-../DPE07LA4	56	10000	-	2.6	395	1.45
1.8	550	0.87	804.1	BS30Z-../DPE07LA4	56	10000	-	2.1	470	1.0
4.8	265	2.7	287.7	BS40Z-../DPE07LA4	70	15000	-	5.9	215	3.3
3.1	345	2.9	446.8	BS40Z-../DPE07LA4	70	15000	-	3.8	280	3.5

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

BS-series worm-geared motors

Selection - worm-geared motors

P = 0.18 kW



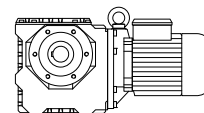
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
2.7	400	2.8	520.8	BS40Z-../DPE07LA4	70	15000	-	3.3	325	3.4
2.3	455	2.0	612.1	BS40Z-../DPE07LA4	70	15000	-	2.8	370	2.5
1.9	540	1.4	736.5	BS40Z-../DPE07LA4	70	15000	-	2.3	445	1.7
1.6	630	1.2	908.2	BS40Z-../DPE07LA4	70	15000	-	1.9	530	1.4
1.5	800	1.1	965.5	BS40G10-../DPE07LA4	76	15000	-	1.8	660	1.35
1.2	1000	0.88	1180	BS40G10-../DPE07LA4	76	15000	-	1.5	800	1.1

P = 0.25 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
310	6.7	6.0	4.60	BS03-../DPE08MA4	10	1070	-	375	5.6	7.1
240	8.7	5.1	6.00	BS03-../DPE08MA4	10	1170	-	285	7.3	6.0
178	11.5	4.2	8.00	BS03-../DPE08MA4	10	1320	-	215	9.5	5.1
142	14.1	3.7	10.00	BS03-../DPE08MA4	10	1450	-	171	11.7	4.4
106	17.5	3.1	13.50	BS03-../DPE08MA4	10	1600	-	127	14.6	3.8
75	24	2.3	19.00	BS03-../DPE08MA4	10	1950	-	90	20	2.8
57	28.5	1.95	25.00	BS03-../DPE08MA4	10	1950	-	69	23.5	2.3
43.5	33	1.65	33.00	BS03-../DPE08MA4	10	1950	-	52	28	1.95
36.5	41.5	1.35	39.00	BS03-../DPE08MA4	10	1950	-	44	34.5	1.6
28.5	48.5	1.15	50.00	BS03-../DPE08MA4	10	1950	-	34.5	40	1.4
86	22	3.3	16.56	BS06-../DPE08MA4	16	2400	-	104	18.3	3.9
72	26.5	2.8	19.82	BS06-../DPE08MA4	16	2500	-	87	21.5	3.5
59	32	2.4	24.25	BS06-../DPE08MA4	16	2600	-	71	26.5	2.9
55	31.5	2.4	26.21	BS06-../DPE08MA4	16	3000	-	66	26	3.0
45.5	38	2.1	31.50	BS06-../DPE08MA4	16	3200	-	55	31.5	2.5
34.5	49.5	1.75	41.29	BS06-../DPE08MA4	16	3500	-	41.5	41	2.1
29.5	58	1.5	48.60	BS06-../DPE08MA4	16	3500	-	35.5	48	1.85
24.5	69	1.3	58.15	BS06-../DPE08MA4	16	3500	-	29.5	57	1.6
22.5	72	1.1	64.06	BS06-../DPE08MA4	16	3500	-	27	60	1.35
20	84	1.1	71.18	BS06-../DPE08MA4	16	3500	-	24.5	69	1.35
18.5	86	0.99	77.00	BS06-../DPE08MA4	16	3500	-	22.5	71	1.2
16	104	0.94	90.00	BS06-../DPE08MA4	16	3500	-	19	87	1.15
14	117	0.85	103.1	BS06-../DPE08MA4	16	3500	-	17	96	1.05
42.5	42.5	3.2	33.55	BS10-../DPE08MA4	27	3550	-	51	35.5	3.8
36	49.5	2.8	39.96	BS10-../DPE08MA4	27	3800	-	43	41.5	3.4
30	59	2.5	47.59	BS10-../DPE08MA4	27	4050	-	36	49.5	2.9
25	70	2.1	57.12	BS10-../DPE08MA4	27	4350	-	30	58	2.6
23.5	68	2.2	60.74	BS10-../DPE08MA4	27	4550	-	28.5	56	2.7
20	88	1.8	71.96	BS10-../DPE08MA4	27	5000	-	24	73	2.2
17	103	1.45	84.36	BS10-../DPE08MA4	27	5300	-	20.5	86	1.75
14	109	1.45	103.4	BS10-../DPE08MA4	27	5600	-	17	89	1.8
11	138	1.2	130.3	BS10-../DPE08MA4	27	6000	-	13.5	113	1.45
9.3	164	1.0	152.7	BS10-../DPE08MA4	27	6000	-	11.5	132	1.25
7.6	200	0.85	188.6	BS10-../DPE08MA4	27	6000	-	9.1	167	1.0
19	82	3.3	76.18	BS20-../DPE08MA4	37	6600	-	22.5	70	3.9
16.5	95	2.8	88.67	BS20-../DPE08MA4	37	7000	-	19.5	80	3.4
14.5	121	2.1	101.1	BS20-../DPE08MA4	37	7100	-	17	103	2.4
13.5	116	2.3	106.3	BS20-../DPE08MA4	37	7600	-	16.5	95	2.8
11.5	137	1.95	127.3	BS20-../DPE08MA4	37	8000	-	13.5	116	2.3
9.0	175	1.55	159.4	BS20-../DPE08MA4	37	8000	-	11	143	1.9
7.8	200	1.4	183.0	BS20-../DPE08MA4	37	8000	-	9.4	167	1.7
6.3	240	1.2	225.6	BS20-../DPE08MA4	37	8000	-	7.6	200	1.45

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

P = 0.25 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
5.6	270	1.1	257.8	BS20Z-../DPE08MA4	39	8000	-	6.7	225	1.3
4.8	310	0.97	300.1	BS20Z-../DPE08MA4	39	8000	-	5.7	260	1.15
4.0	370	0.86	359.9	BS20Z-../DPE08MA4	39	8000	-	4.8	305	1.05
9.4	170	3.2	151.1	BS30-../DPE08MA4	55	9500	-	11.5	139	3.9
7.7	200	2.7	186.7	BS30-../DPE08MA4	55	10000	-	9.2	171	3.2
6.6	235	2.2	216.4	BS30-../DPE08MA4	55	10000	-	8.0	196	2.7
5.5	285	1.95	261.6	BS30Z-../DPE08MA4	58	10000	-	6.6	235	2.4
4.7	330	1.75	306.6	BS30Z-../DPE08MA4	58	10000	-	5.6	275	2.1
4.0	440	0.9	359.6	BS30Z-../DPE08MA4	58	10000	-	4.8	365	1.1
3.7	415	1.4	390.2	BS30Z-../DPE08MA4	58	10000	-	4.4	350	1.7
3.2	475	1.25	457.3	BS30Z-../DPE08MA4	58	10000	-	3.8	400	1.5
2.7	560	1.05	539.3	BS30Z-../DPE08MA4	58	10000	-	3.2	475	1.25
2.2	650	0.89	651.0	BS30Z-../DPE08MA4	58	10000	-	2.7	530	1.1
7.3	240	2.9	197.1	BS40Z-../DPE08MA4	71	15000	-	8.7	200	3.5
5.0	350	2.0	287.7	BS40Z-../DPE08MA4	71	15000	-	6.0	290	2.5
4.0	375	2.9	356.8	BS40Z-../DPE08MA4	71	15000	-	4.8	310	3.5
3.2	470	2.1	446.8	BS40Z-../DPE08MA4	71	15000	-	3.9	385	2.6
2.8	530	2.1	520.8	BS40Z-../DPE08MA4	71	15000	-	3.3	455	2.4
2.4	600	1.5	612.1	BS40Z-../DPE08MA4	71	15000	-	2.8	520	1.75
2.0	710	1.05	736.5	BS40Z-../DPE08MA4	71	15000	-	2.4	590	1.3
1.6	880	0.84	908.2	BS40Z-../DPE08MA4	71	15000	-	1.9	740	1.0

P = 0.37 kW

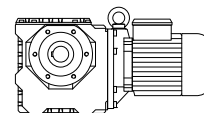
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
310	10	4.0	4.60	BS03-../DPE08LA4	12	1070	-	375	8.2	4.9
240	12.9	3.4	6.00	BS03-../DPE08LA4	12	1170	-	285	10.9	4.0
178	17	2.8	8.00	BS03-../DPE08LA4	12	1320	-	215	14.1	3.4
142	20.5	2.5	10.00	BS03-../DPE08LA4	12	1450	-	171	17.3	3.0
106	26	2.1	13.50	BS03-../DPE08LA4	12	1600	-	127	21.5	2.6
75	35.5	1.55	19.00	BS03-../DPE08LA4	12	1950	-	90	29.5	1.85
57	42.5	1.3	25.00	BS03-../DPE08LA4	12	1950	-	69	35	1.55
43.5	49.5	1.1	33.00	BS03-../DPE08LA4	12	1950	-	52	41	1.35
36.5	61	0.9	39.00	BS03-../DPE08LA4	12	1950	-	44	51	1.1
133	21.5	3.0	10.73	BS06-../DPE08LA4	17	1850	-	160	17.8	3.7
101	28	2.4	14.07	BS06-../DPE08LA4	17	2200	-	122	23	3.0
86	32.5	2.2	16.56	BS06-../DPE08LA4	17	2400	-	104	27	2.7
72	39	1.9	19.82	BS06-../DPE08LA4	17	2500	-	87	32	2.3
59	47.5	1.6	24.25	BS06-../DPE08LA4	17	2600	-	71	39.5	1.95
55	46.5	1.65	26.21	BS06-../DPE08LA4	17	3000	-	66	39	1.95
45.5	56	1.45	31.50	BS06-../DPE08LA4	17	3200	-	55	46.5	1.7
34.5	73	1.2	41.29	BS06-../DPE08LA4	17	3500	-	41.5	61	1.4
29.5	86	1.0	48.60	BS06-../DPE08LA4	17	3500	-	35.5	71	1.25
24.5	102	0.89	58.15	BS06-../DPE08LA4	17	3500	-	29.5	85	1.05
66	42.5	2.9	21.61	BS10-../DPE08LA4	28	3000	-	80	35	3.6
63	38.5	3.0	22.60	BS10-../DPE08LA4	28	3200	-	76	32	3.7
54	51	2.5	26.42	BS10-../DPE08LA4	28	3250	-	65	42	3.1
46.5	52	2.5	30.63	BS10-../DPE08LA4	28	3550	-	56	43.5	3.0
42.5	63	2.1	33.55	BS10-../DPE08LA4	28	3550	-	51	52	2.6
36	73	1.9	39.96	BS10-../DPE08LA4	28	3800	-	43	61	2.3

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

BS-series worm-geared motors

Selection - worm-geared motors

P = 0.37 kW



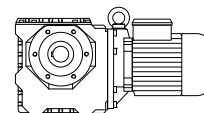
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
30	88	1.65	47.59	BS10-../DPE08LA4	28	4050	-	36	73	2.0
25	104	1.45	57.12	BS10-../DPE08LA4	28	4350	-	30	87	1.7
23.5	100	1.5	60.74	BS10-../DPE08LA4	28	4550	-	28.5	83	1.8
20	130	1.25	71.96	BS10-../DPE08LA4	28	5000	-	24	108	1.5
17	153	0.98	84.36	BS10-../DPE08LA4	28	5300	-	20.5	127	1.2
14	161	0.99	103.4	BS10-../DPE08LA4	28	5600	-	17	133	1.2
11	205	0.8	130.3	BS10-../DPE08LA4	28	6000	-	13.5	167	0.98
28.5	83	3.3	50.44	BS20-../DPE08LA4	39	5700	-	34	69	3.9
24.5	108	2.6	58.74	BS20-../DPE08LA4	39	5900	-	29.5	89	3.1
20.5	129	2.3	70.30	BS20-../DPE08LA4	39	6300	-	24.5	108	2.8
19	122	2.2	76.18	BS20-../DPE08LA4	39	6600	-	22.5	103	2.6
16.5	141	1.9	88.67	BS20-../DPE08LA4	39	7000	-	19.5	119	2.3
14.5	180	1.4	101.1	BS20-../DPE08LA4	39	7100	-	17	153	1.65
13.5	172	1.55	106.3	BS20-../DPE08LA4	39	7600	-	16.5	141	1.9
11.5	200	1.35	127.3	BS20-../DPE08LA4	39	8000	-	13.5	172	1.55
9.0	255	1.1	159.4	BS20-../DPE08LA4	39	8000	-	11	210	1.3
7.8	295	0.95	183.0	BS20-../DPE08LA4	39	8000	-	9.4	245	1.15
6.3	355	0.82	225.6	BS20-../DPE08LA4	39	8000	-	7.6	295	0.98
17.5	155	2.6	83.48	BS30-../DPE08LA4	56	6800	-	20.5	132	3.1
16	152	3.2	90.59	BS30-../DPE08LA4	56	7700	-	19	128	3.8
13.5	177	2.9	106.2	BS30-../DPE08LA4	56	8200	-	16.5	145	3.5
11.5	205	2.5	125.2	BS30-../DPE08LA4	56	8700	-	14	171	3.0
9.4	250	2.2	151.1	BS30-../DPE08LA4	56	9500	-	11.5	205	2.6
7.7	300	1.8	186.7	BS30-../DPE08LA4	56	10000	-	9.2	250	2.2
6.6	350	1.5	216.4	BS30-../DPE08LA4	56	10000	-	8.0	290	1.8
5.5	420	1.35	261.6	BS30Z-../DPE08LA4	59	10000	-	6.6	350	1.6
4.7	485	1.2	306.6	BS30Z-../DPE08LA4	59	10000	-	5.6	410	1.4
3.7	620	0.95	390.2	BS30Z-../DPE08LA4	59	10000	-	4.4	520	1.15
3.2	700	0.86	457.3	BS30Z-../DPE08LA4	59	10000	-	3.8	590	1.0
8.0	285	2.9	178.2	BS40-../DPE08LA4	69	15000	-	9.6	235	3.5
6.5	340	2.3	219.7	BS40-../DPE08LA4	69	15000	-	7.8	285	2.8
5.7	390	2.3	249.6	BS40Z-../DPE08LA4	73	15000	-	6.9	320	2.8
5.0	520	1.4	287.7	BS40Z-../DPE08LA4	73	15000	-	6.0	435	1.65
4.8	460	2.3	302.1	BS40Z-../DPE08LA4	73	15000	-	5.7	390	2.7
4.0	550	1.95	356.8	BS40Z-../DPE08LA4	73	15000	-	4.8	460	2.3
3.2	690	1.45	446.8	BS40Z-../DPE08LA4	73	15000	-	3.9	570	1.75
2.8	790	1.4	520.8	BS40Z-../DPE08LA4	73	15000	-	3.3	670	1.65
2.4	890	1.0	612.1	BS40Z-../DPE08LA4	73	15000	-	2.8	760	1.2

P = 0.55 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
310	14.9	2.7	4.60	BS03-../DPE08XA4	13	1070	-	375	12.3	3.3
240	19.2	2.3	6.00	BS03-../DPE08XA4	13	1170	-	285	16.2	2.7
178	25	1.9	8.00	BS03-../DPE08XA4	13	1320	-	215	21	2.3
142	31	1.7	10.00	BS03-../DPE08XA4	13	1450	-	171	25.5	2.0
106	38.5	1.45	13.50	BS03-../DPE08XA4	13	1600	-	127	32	1.7
75	53	1.05	19.00	BS03-../DPE08XA4	13	1950	-	90	44	1.25
57	63	0.87	25.00	BS03-../DPE08XA4	13	1950	-	69	52	1.05
215	19.7	2.8	6.67	BS06-../DPE08XA4	18	1550	-	260	16.3	3.4

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

P = 0.55 kW



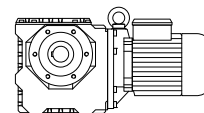
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
160	26.5	2.3	8.93	BS06-../DPE08XA4	18	1710	-	192	22	2.8
133	31.5	2.1	10.73	BS06-../DPE08XA4	18	1850	-	160	26.5	2.5
101	42	1.6	14.07	BS06-../DPE08XA4	18	2200	-	122	34.5	1.95
86	48.5	1.5	16.56	BS06-../DPE08XA4	18	2400	-	104	40	1.8
72	58	1.3	19.82	BS06-../DPE08XA4	18	2500	-	87	48	1.55
59	71	1.1	24.25	BS06-../DPE08XA4	18	2600	-	71	59	1.3
55	69	1.1	26.21	BS06-../DPE08XA4	18	3000	-	66	58	1.35
45.5	84	0.95	31.50	BS06-../DPE08XA4	18	3200	-	55	69	1.15
114	36.5	3.0	12.49	BS10-../DPE08XA4	30	2400	-	137	30.5	3.5
84	50	2.4	16.92	BS10-../DPE08XA4	30	2700	-	102	41	2.9
66	63	2.0	21.61	BS10-../DPE08XA4	30	3000	-	80	52	2.4
63	57	2.1	22.60	BS10-../DPE08XA4	30	3200	-	76	47.5	2.5
54	75	1.75	26.42	BS10-../DPE08XA4	30	3250	-	65	63	2.1
46.5	77	1.7	30.63	BS10-../DPE08XA4	30	3550	-	56	64	2.0
42.5	93	1.45	33.55	BS10-../DPE08XA4	30	3550	-	51	78	1.75
36	109	1.3	39.96	BS10-../DPE08XA4	30	3800	-	43	91	1.55
30	131	1.1	47.59	BS10-../DPE08XA4	30	4050	-	36	109	1.35
25	155	0.97	57.12	BS10-../DPE08XA4	30	4350	-	30	129	1.15
23.5	149	1.0	60.74	BS10-../DPE08XA4	30	4550	-	28.5	123	1.2
20	194	0.82	71.96	BS10-../DPE08XA4	30	5000	-	24	161	0.99
51	80	3.1	27.86	BS20-../DPE08XA4	40	4450	-	62	66	3.8
46.5	81	3.1	30.63	BS20-../DPE08XA4	40	4750	-	56	67	3.7
43.5	92	2.9	32.87	BS20-../DPE08XA4	40	4750	-	53	76	3.6
35.5	106	2.5	40.25	BS20-../DPE08XA4	40	5300	-	42.5	88	3.0
34	117	2.3	42.08	BS20-../DPE08XA4	40	5200	-	41	97	2.8
28.5	123	2.2	50.44	BS20-../DPE08XA4	40	5700	-	34	103	2.6
24.5	160	1.75	58.74	BS20-../DPE08XA4	40	5900	-	29.5	133	2.1
20.5	192	1.55	70.30	BS20-../DPE08XA4	40	6300	-	24.5	160	1.9
19	182	1.5	76.18	BS20-../DPE08XA4	40	6600	-	22.5	154	1.75
16.5	210	1.3	88.67	BS20-../DPE08XA4	40	7000	-	19.5	177	1.55
14.5	265	0.94	101.1	BS20-../DPE08XA4	40	7100	-	17	225	1.1
13.5	255	1.05	106.3	BS20-../DPE08XA4	40	7600	-	16.5	210	1.3
11.5	300	0.9	127.3	BS20-../DPE08XA4	40	8000	-	13.5	255	1.05
28.5	141	3.2	50.04	BS30-../DPE08XA4	57	5900	-	34.5	117	3.8
24.5	165	2.8	58.64	BS30-../DPE08XA4	57	6900	-	29.5	137	3.4
20	183	2.6	71.17	BS30-../DPE08XA4	57	7000	-	24.5	150	3.2
17.5	230	1.8	83.48	BS30-../DPE08XA4	57	6800	-	20.5	197	2.1
16	225	2.2	90.59	BS30-../DPE08XA4	57	7700	-	19	190	2.6
13.5	260	1.95	106.2	BS30-../DPE08XA4	57	8200	-	16.5	215	2.4
11.5	310	1.7	125.2	BS30-../DPE08XA4	57	8700	-	14	255	2.0
9.4	370	1.45	151.1	BS30-../DPE08XA4	57	9500	-	11.5	305	1.75
7.7	450	1.2	186.7	BS30-../DPE08XA4	57	10000	-	9.2	375	1.45
6.6	520	1.0	216.4	BS30-../DPE08XA4	57	10000	-	8.0	430	1.2
5.5	630	0.89	261.6	BS30Z-../DPE08XA4	60	10000	-	6.6	520	1.1
4.7	720	0.81	306.6	BS30Z-../DPE08XA4	60	10000	-	5.6	600	0.97
11.5	305	3.2	126.0	BS40-../DPE08XA4	70	14900	-	14	250	3.9
9.6	355	2.7	148.1	BS40-../DPE08XA4	70	15000	-	12	280	3.5
8.0	425	1.95	178.2	BS40-../DPE08XA4	70	15000	-	9.6	355	2.3
6.5	500	1.6	219.7	BS40-../DPE08XA4	70	15000	-	7.8	420	1.9
5.7	580	1.55	249.6	BS40Z-../DPE08XA4	74	15000	-	6.9	475	1.9
5.0	770	0.93	287.7	BS40Z-../DPE08XA4	74	15000	-	6.0	640	1.1
4.8	680	1.55	302.1	BS40Z-../DPE08XA4	74	15000	-	5.7	580	1.85
4.0	820	1.3	356.8	BS40Z-../DPE08XA4	74	15000	-	4.8	680	1.6
3.2	1030	0.96	446.8	BS40Z-../DPE08XA4	74	15000	-	3.9	840	1.2
2.8	1180	0.93	520.8	BS40Z-../DPE08XA4	74	15000	-	3.3	1000	1.1

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

BS-series worm-geared motors

Selection - worm-geared motors

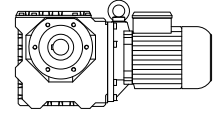
P = 0.75 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
310	20	2.0	4.60	BS03-../DPE08XB4	13	1070	-	375	16.8	2.4
240	26	1.7	6.00	BS03-../DPE08XB4	13	1170	-	285	22	2.0
178	34.5	1.4	8.00	BS03-../DPE08XB4	13	1320	-	215	28.5	1.7
142	42	1.25	10.00	BS03-../DPE08XB4	13	1450	-	171	35	1.5
106	52	1.05	13.50	BS03-../DPE08XB4	13	1600	-	127	43.5	1.25
215	26.5	2.1	6.67	BS06-../DPE08XB4	19	1550	-	260	22	2.5
160	36	1.7	8.93	BS06-../DPE08XB4	19	1710	-	192	30	2.1
133	43.5	1.5	10.73	BS06-../DPE08XB4	19	1850	-	160	36	1.8
101	57	1.2	14.07	BS06-../DPE08XB4	19	2200	-	122	47.5	1.45
86	66	1.1	16.56	BS06-../DPE08XB4	19	2400	-	104	55	1.3
72	79	0.95	19.82	BS06-../DPE08XB4	19	2500	-	87	65	1.15
55	95	0.81	26.21	BS06-../DPE08XB4	19	3000	-	66	79	0.97
114	50	2.2	12.49	BS10-../DPE08XB4	30	2400	-	137	41.5	2.6
84	68	1.75	16.92	BS10-../DPE08XB4	30	2700	-	102	56	2.1
66	86	1.45	21.61	BS10-../DPE08XB4	30	3000	-	80	71	1.75
63	78	1.5	22.60	BS10-../DPE08XB4	30	3200	-	76	65	1.8
54	103	1.25	26.42	BS10-../DPE08XB4	30	3250	-	65	85	1.55
46.5	106	1.25	30.63	BS10-../DPE08XB4	30	3550	-	56	88	1.5
42.5	128	1.05	33.55	BS10-../DPE08XB4	30	3550	-	51	106	1.25
36	149	0.94	39.96	BS10-../DPE08XB4	30	3800	-	43	124	1.15
30	179	0.81	47.59	BS10-../DPE08XB4	30	4050	-	36	149	0.97
84	69	3.2	16.92	BS20-../DPE08XB4	40	3700	-	102	56	3.9
64	90	2.6	22.23	BS20-../DPE08XB4	40	4100	-	77	75	3.1
62	83	2.7	23.13	BS20-../DPE08XB4	40	4300	-	74	69	3.3
51	109	2.3	27.86	BS20-../DPE08XB4	40	4450	-	62	90	2.8
46.5	110	2.3	30.63	BS20-../DPE08XB4	40	4750	-	56	92	2.7
43.5	126	2.1	32.87	BS20-../DPE08XB4	40	4750	-	53	104	2.6
35.5	145	1.8	40.25	BS20-../DPE08XB4	40	5300	-	42.5	121	2.1
34	160	1.7	42.08	BS20-../DPE08XB4	40	5200	-	41	132	2.0
28.5	168	1.6	50.44	BS20-../DPE08XB4	40	5700	-	34	141	1.9
24.5	215	1.3	58.74	BS20-../DPE08XB4	40	5900	-	29.5	182	1.55
20.5	260	1.15	70.30	BS20-../DPE08XB4	40	6300	-	24.5	215	1.4
19	245	1.1	76.18	BS20-../DPE08XB4	40	6600	-	22.5	210	1.3
16.5	285	0.95	88.67	BS20-../DPE08XB4	40	7000	-	19.5	240	1.15
42.5	138	3.0	33.55	BS30-../DPE08XB4	58	5200	-	51	115	3.7
37.5	143	2.9	37.92	BS30-../DPE08XB4	58	5500	-	45.5	118	3.6
36.5	158	2.7	39.31	BS30-../DPE08XB4	58	5500	-	44	131	3.3
28.5	193	2.3	50.04	BS30-../DPE08XB4	58	5900	-	34.5	159	2.8
24.5	225	2.0	58.64	BS30-../DPE08XB4	58	6900	-	29.5	186	2.5
20	250	1.9	71.17	BS30-../DPE08XB4	58	7000	-	24.5	200	2.4
17.5	315	1.3	83.48	BS30-../DPE08XB4	58	6800	-	20.5	265	1.55
16	305	1.6	90.59	BS30-../DPE08XB4	58	7700	-	19	260	1.9
13.5	360	1.4	106.2	BS30-../DPE08XB4	58	8200	-	16.5	295	1.75
11.5	420	1.25	125.2	BS30-../DPE08XB4	58	8700	-	14	345	1.5
9.4	510	1.05	151.1	BS30-../DPE08XB4	58	9500	-	11.5	415	1.3
7.7	610	0.89	186.7	BS30-../DPE08XB4	58	10000	-	9.2	510	1.05
20.5	265	2.8	69.60	BS40-../DPE08XB4	71	11800	-	25	220	3.4
16.5	295	3.1	86.33	BS40-../DPE08XB4	71	12900	-	20	245	3.7
13.5	355	2.7	108.1	BS40-../DPE08XB4	71	14000	-	16	295	3.2
11.5	415	2.4	126.0	BS40-../DPE08XB4	71	14900	-	14	340	2.9
9.6	480	2.0	148.1	BS40-../DPE08XB4	71	15000	-	12	385	2.5
8.0	580	1.4	178.2	BS40-../DPE08XB4	71	15000	-	9.6	480	1.7
6.5	690	1.15	219.7	BS40-../DPE08XB4	71	15000	-	7.8	570	1.4
5.7	790	1.15	249.6	BS40Z-../DPE08XB4	74	15000	-	6.9	650	1.4
4.8	940	1.15	302.1	BS40Z-../DPE08XB4	74	15000	-	5.7	790	1.35
4.0	1120	0.96	356.8	BS40Z-../DPE08XB4	74	15000	-	4.8	940	1.15

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

P = 1.1 kW



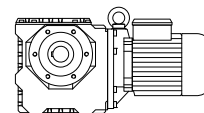
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
116	72	1.5	12.49	BS10-../DPE09XA4	40	2400	-	140	60	1.8
86	97	1.25	16.92	BS10-../DPE09XA4	40	2700	-	103	81	1.5
67	125	1.0	21.61	BS10-../DPE09XA4	40	3000	-	81	103	1.2
64	113	1.05	22.60	BS10-../DPE09XA4	40	3200	-	77	94	1.25
55	148	0.88	26.42	BS10-../DPE09XA4	40	3250	-	66	124	1.05
47.5	152	0.86	30.63	BS10-../DPE09XA4	40	3550	-	57	127	1.0
113	75	2.7	12.77	BS20-../DPE09XA4	50	3350	-	137	62	3.2
86	98	2.2	16.92	BS20-../DPE09XA4	50	3700	-	103	82	2.7
65	130	1.75	22.23	BS20-../DPE09XA4	50	4100	-	79	107	2.1
63	120	1.9	23.13	BS20-../DPE09XA4	50	4300	-	76	99	2.3
52	157	1.6	27.86	BS20-../DPE09XA4	50	4450	-	63	130	1.9
47.5	159	1.55	30.63	BS20-../DPE09XA4	50	4750	-	57	132	1.9
44	183	1.5	32.87	BS20-../DPE09XA4	50	4750	-	53	152	1.8
36	210	1.25	40.25	BS20-../DPE09XA4	50	5300	-	43.5	173	1.5
34.5	230	1.15	42.08	BS20-../DPE09XA4	50	5200	-	41.5	192	1.4
29	240	1.15	50.44	BS20-../DPE09XA4	50	5700	-	34.5	200	1.35
25	315	0.89	58.74	BS20-../DPE09XA4	50	5900	-	30	260	1.1
69	126	3.0	20.94	BS30-../DPE09XA4	68	4300	-	84	103	3.7
60	131	2.8	24.06	BS30-../DPE09XA4	68	4600	-	73	107	3.4
54	161	2.5	27.07	BS30-../DPE09XA4	68	4750	-	65	134	3.0
47.5	165	2.4	30.63	BS30-../DPE09XA4	68	5000	-	57	138	2.9
43	200	2.1	33.55	BS30-../DPE09XA4	68	5200	-	52	165	2.5
38	205	2.0	37.92	BS30-../DPE09XA4	68	5500	-	46	171	2.5
37	225	1.9	39.31	BS30-../DPE09XA4	68	5500	-	44.5	191	2.3
29	275	1.65	50.04	BS30-../DPE09XA4	68	5900	-	35	230	1.95
25	320	1.45	58.64	BS30-../DPE09XA4	68	6900	-	30	265	1.75
20.5	355	1.35	71.17	BS30-../DPE09XA4	68	7000	-	24.5	300	1.6
17.5	460	0.89	83.48	BS30-../DPE09XA4	68	6800	-	21	385	1.05
16	450	1.1	90.59	BS30-../DPE09XA4	68	7700	-	19.5	370	1.3
14	510	1.0	106.2	BS30-../DPE09XA4	68	8200	-	16.5	430	1.2
12	590	0.88	125.2	BS30-../DPE09XA4	68	8700	-	14	510	1.0
30.5	265	3.1	47.69	BS40-../DPE09XA4	81	9600	-	36.5	220	3.8
24	310	2.8	60.38	BS40-../DPE09XA4	81	11200	-	29	255	3.4
21	385	1.95	69.60	BS40-../DPE09XA4	81	11800	-	25	320	2.3
20	365	2.4	73.09	BS40-../DPE09XA4	81	12100	-	24	305	2.9
17	425	2.1	86.33	BS40-../DPE09XA4	81	12900	-	20.5	350	2.6
13.5	520	1.85	108.1	BS40-../DPE09XA4	81	14000	-	16.5	425	2.2
11.5	610	1.6	126.0	BS40-../DPE09XA4	81	14900	-	14	500	1.95
9.8	690	1.4	148.1	BS40-../DPE09XA4	81	15000	-	12	560	1.75
8.1	840	0.98	178.2	BS40-../DPE09XA4	81	15000	-	9.8	690	1.2

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

BS-series worm-geared motors

Selection - worm-geared motors

P = 1.5 kW



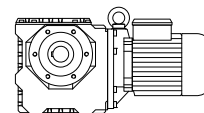
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
116	98	1.1	12.49	BS10-../DPE09XB4	40	2400	-	140	81	1.35
86	133	0.9	16.92	BS10-../DPE09XB4	40	2700	-	103	111	1.1
113	102	1.95	12.77	BS20-../DPE09XB4	50	3350	-	137	84	2.4
86	134	1.65	16.92	BS20-../DPE09XB4	50	3700	-	103	112	1.95
65	178	1.3	22.23	BS20-../DPE09XB4	50	4100	-	79	146	1.6
63	163	1.4	23.13	BS20-../DPE09XB4	50	4300	-	76	135	1.7
52	210	1.2	27.86	BS20-../DPE09XB4	50	4450	-	63	177	1.4
47.5	215	1.15	30.63	BS20-../DPE09XB4	50	4750	-	57	180	1.4
44	250	1.1	32.87	BS20-../DPE09XB4	50	4750	-	53	205	1.3
36	285	0.91	40.25	BS20-../DPE09XB4	50	5300	-	43.5	235	1.1
34.5	315	0.86	42.08	BS20-../DPE09XB4	50	5200	-	41.5	260	1.05
29	330	0.82	50.44	BS20-../DPE09XB4	50	5700	-	34.5	275	0.98
109	109	3.0	13.29	BS30-../DPE09XB4	68	3600	-	131	90	3.7
86	138	2.6	16.92	BS30-../DPE09XB4	68	3950	-	103	115	3.1
69	172	2.2	20.94	BS30-../DPE09XB4	68	4300	-	84	141	2.7
60	179	2.1	24.06	BS30-../DPE09XB4	68	4600	-	73	147	2.5
54	220	1.8	27.07	BS30-../DPE09XB4	68	4750	-	65	182	2.2
47.5	225	1.8	30.63	BS30-../DPE09XB4	68	5000	-	57	188	2.1
43	270	1.55	33.55	BS30-../DPE09XB4	68	5200	-	52	225	1.85
38	280	1.5	37.92	BS30-../DPE09XB4	68	5500	-	46	230	1.85
37	310	1.4	39.31	BS30-../DPE09XB4	68	5500	-	44.5	260	1.65
29	380	1.2	50.04	BS30-../DPE09XB4	68	5900	-	35	315	1.45
25	440	1.05	58.64	BS30-../DPE09XB4	68	6900	-	30	365	1.25
20.5	485	0.99	71.17	BS30-../DPE09XB4	68	7000	-	24.5	405	1.2
16	610	0.8	90.59	BS30-../DPE09XB4	68	7700	-	19.5	500	0.98
43.5	260	3.0	33.35	BS40-../DPE09XB4	81	8300	-	53	215	3.6
38	275	2.8	38.13	BS40-../DPE09XB4	81	9400	-	46	225	3.5
36	310	2.6	40.37	BS40-../DPE09XB4	81	9000	-	43.5	260	3.1
30.5	365	2.3	47.69	BS40-../DPE09XB4	81	9600	-	36.5	305	2.7
24	420	2.0	60.38	BS40-../DPE09XB4	81	11200	-	29	350	2.5
21	520	1.45	69.60	BS40-../DPE09XB4	81	11800	-	25	440	1.7
20	500	1.75	73.09	BS40-../DPE09XB4	81	12100	-	24	415	2.1
17	580	1.55	86.33	BS40-../DPE09XB4	81	12900	-	20.5	480	1.9
13.5	710	1.35	108.1	BS40-../DPE09XB4	81	14000	-	16.5	580	1.65
11.5	830	1.2	126.0	BS40-../DPE09XB4	81	14900	-	14	680	1.45
9.8	950	1.0	148.1	BS40-../DPE09XB4	81	15000	-	12	770	1.25

P = 2.2 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
114	149	1.35	12.77	BS20-../DPE09XB4C	53	3350	-	137	124	1.6
86	197	1.1	16.92	BS20-../DPE09XB4C	53	3700	-	103	165	1.35
66	255	0.9	22.23	BS20-../DPE09XB4C	53	4100	-	79	215	1.05
63	240	0.95	23.13	BS20-../DPE09XB4C	53	4300	-	76	199	1.15
53	305	0.82	27.86	BS20-../DPE09XB4C	53	4450	-	63	260	0.96
110	158	2.1	13.29	BS30-../DPE09XB4C	71	3600	-	131	133	2.5
86	200	1.8	16.92	BS30-../DPE09XB4C	71	3950	-	103	169	2.1
70	245	1.55	20.94	BS30-../DPE09XB4C	71	4300	-	84	205	1.85
61	255	1.45	24.06	BS30-../DPE09XB4C	71	4600	-	73	215	1.7
54	320	1.25	27.07	BS30-../DPE09XB4C	71	4750	-	65	265	1.5
47.5	330	1.2	30.63	BS30-../DPE09XB4C	71	5000	-	57	275	1.45
43.5	395	1.05	33.55	BS30-../DPE09XB4C	71	5200	-	52	330	1.25

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

P = 2.2 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
38.5	405	1.05	37.92	BS30-../DPE09XB4C	71	5500	-	46	340	1.25
37	455	0.95	39.31	BS30-../DPE09XB4C	71	5500	-	44.5	380	1.15
29	550	0.82	50.04	BS30-../DPE09XB4C	71	5900	-	35	460	0.98
86	205	3.3	16.92	BS40-../DPE09XB4C	84	6400	-	103	173	3.9
69	245	2.9	21.06	BS40-../DPE09XB4C	84	6900	-	83	205	3.5
62	250	2.7	23.59	BS40-../DPE09XB4C	84	7900	-	74	210	3.3
56	305	2.4	26.18	BS40-../DPE09XB4C	84	7500	-	67	255	2.9
47.5	325	2.3	30.63	BS40-../DPE09XB4C	84	8700	-	57	270	2.8
43.5	385	2.0	33.35	BS40-../DPE09XB4C	84	8300	-	53	315	2.5
38.5	395	1.95	38.13	BS40-../DPE09XB4C	84	9400	-	46	330	2.4
36	460	1.75	40.37	BS40-../DPE09XB4C	84	9000	-	43.5	380	2.1
30.5	530	1.55	47.69	BS40-../DPE09XB4C	84	9600	-	36.5	445	1.85
24.5	600	1.45	60.38	BS40-../DPE09XB4C	84	11200	-	29	510	1.7
21	770	0.97	69.60	BS40-../DPE09XB4C	84	11800	-	25	640	1.15
20	730	1.2	73.09	BS40-../DPE09XB4C	84	12100	-	24	610	1.45
17	850	1.05	86.33	BS40-../DPE09XB4C	84	12900	-	20.5	700	1.3
13.5	1040	0.91	108.1	BS40-../DPE09XB4C	84	14000	-	16.5	850	1.1
12	1170	0.84	126.0	BS40-../DPE09XB4C	84	14900	-	14	1000	0.98

P = 3 kW

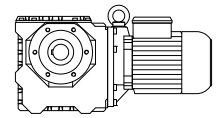
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
110	215	1.55	13.29	BS30-../DPE11LA4	89	3600	-	131	181	1.85
86	275	1.3	16.92	BS30-../DPE11LA4	89	3950	-	103	230	1.55
70	335	1.15	20.94	BS30-../DPE11LA4	89	4300	-	84	280	1.35
61	350	1.05	24.06	BS30-../DPE11LA4	89	4600	-	73	290	1.25
54	440	0.91	27.07	BS30-../DPE11LA4	89	4750	-	65	365	1.1
47.5	450	0.89	30.63	BS30-../DPE11LA4	89	5000	-	57	375	1.05
112	215	2.9	13.03	BS40-../DPE11LA4	107	5800	-	134	181	3.4
86	280	2.4	16.92	BS40-../DPE11LA4	107	6400	-	103	235	2.9
69	340	2.1	21.06	BS40-../DPE11LA4	107	6900	-	83	280	2.5
62	340	2.0	23.59	BS40-../DPE11LA4	107	7900	-	74	285	2.4
56	415	1.8	26.18	BS40-../DPE11LA4	107	7500	-	67	350	2.1
47.5	445	1.7	30.63	BS40-../DPE11LA4	107	8700	-	57	370	2.0
43.5	520	1.5	33.35	BS40-../DPE11LA4	107	8300	-	53	430	1.8
38.5	540	1.45	38.13	BS40-../DPE11LA4	107	9400	-	46	450	1.75
36	620	1.3	40.37	BS40-../DPE11LA4	107	9000	-	43.5	520	1.55
30.5	730	1.15	47.69	BS40-../DPE11LA4	107	9600	-	36.5	610	1.35
24.5	830	1.05	60.38	BS40-../DPE11LA4	107	11200	-	29	700	1.25
20	1000	0.88	73.09	BS40-../DPE11LA4	107	12100	-	24	830	1.05

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

BS-series worm-geared motors

Selection - worm-geared motors

P = 4 kW



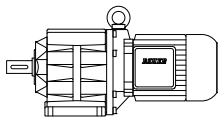
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
110	285	1.15	13.29	BS30-../DPE11LB4	89	3600	-	131	240	1.4
86	365	0.99	16.92	BS30-../DPE11LB4	89	3950	-	103	305	1.2
70	450	0.84	20.94	BS30-../DPE11LB4	89	4300	-	84	375	1.0
112	285	2.2	13.03	BS40-../DPE11LB4	107	5800	-	134	240	2.6
86	375	1.8	16.92	BS40-../DPE11LB4	107	6400	-	103	315	2.1
69	450	1.6	21.06	BS40-../DPE11LB4	107	6900	-	83	375	1.9
62	455	1.5	23.59	BS40-../DPE11LB4	107	7900	-	74	380	1.8
56	550	1.35	26.18	BS40-../DPE11LB4	107	7500	-	67	465	1.6
47.5	590	1.25	30.63	BS40-../DPE11LB4	107	8700	-	57	495	1.5
43.5	700	1.1	33.35	BS40-../DPE11LB4	107	8300	-	53	570	1.35
38.5	720	1.1	38.13	BS40-../DPE11LB4	107	9400	-	46	600	1.3
36	830	0.96	40.37	BS40-../DPE11LB4	107	9000	-	43.5	690	1.15
30.5	970	0.86	47.69	BS40-../DPE11LB4	107	9600	-	36.5	810	1.0

P = 5.5 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
110	395	0.84	13.29	BS30-../DPE11LB4C	93	3600	-	133	325	1.0
113	395	1.55	13.03	BS40-../DPE11LB4C	111	5800	-	136	325	1.9
87	510	1.3	16.92	BS40-../DPE11LB4C	111	6400	-	105	425	1.6
70	610	1.15	21.06	BS40-../DPE11LB4C	111	6900	-	84	510	1.4
62	620	1.1	23.59	BS40-../DPE11LB4C	111	7900	-	75	510	1.35
56	760	0.97	26.18	BS40-../DPE11LB4C	111	7500	-	68	630	1.15
48	800	0.94	30.63	BS40-../DPE11LB4C	111	8700	-	58	670	1.1
44	950	0.82	33.35	BS40-../DPE11LB4C	111	8300	-	53	790	0.99

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

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Page

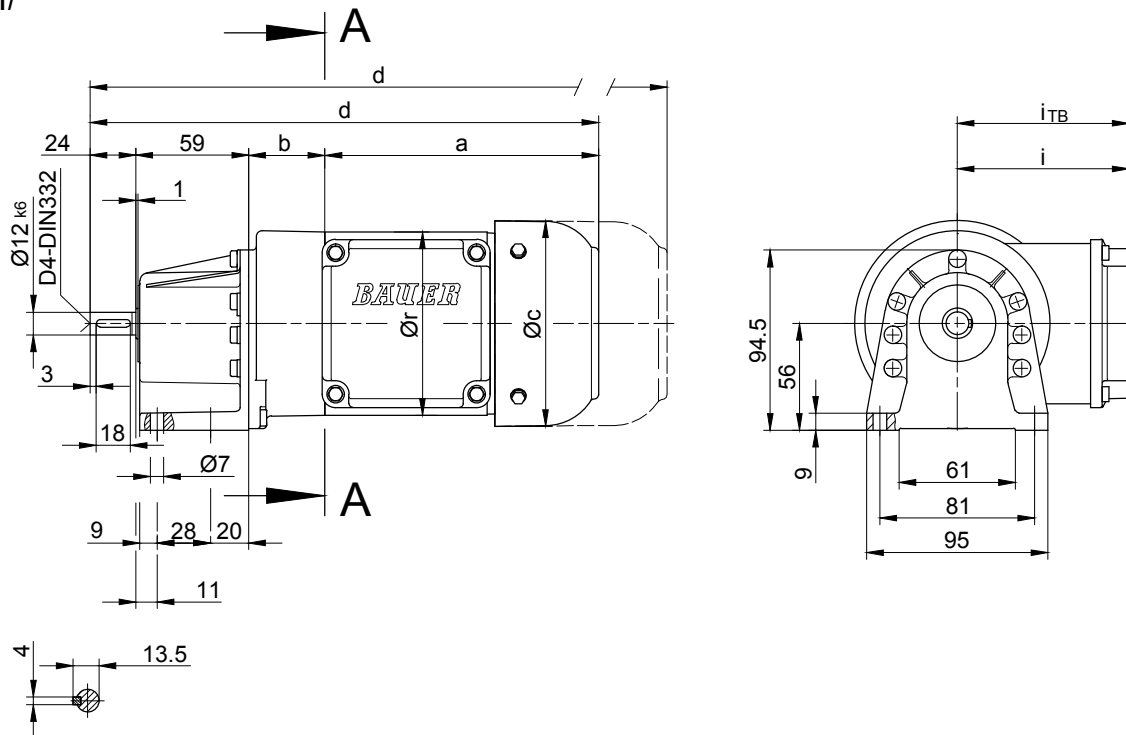
Dimensional drawings helical-gear motors

209-262

- Standard
- Tandem Gearbox

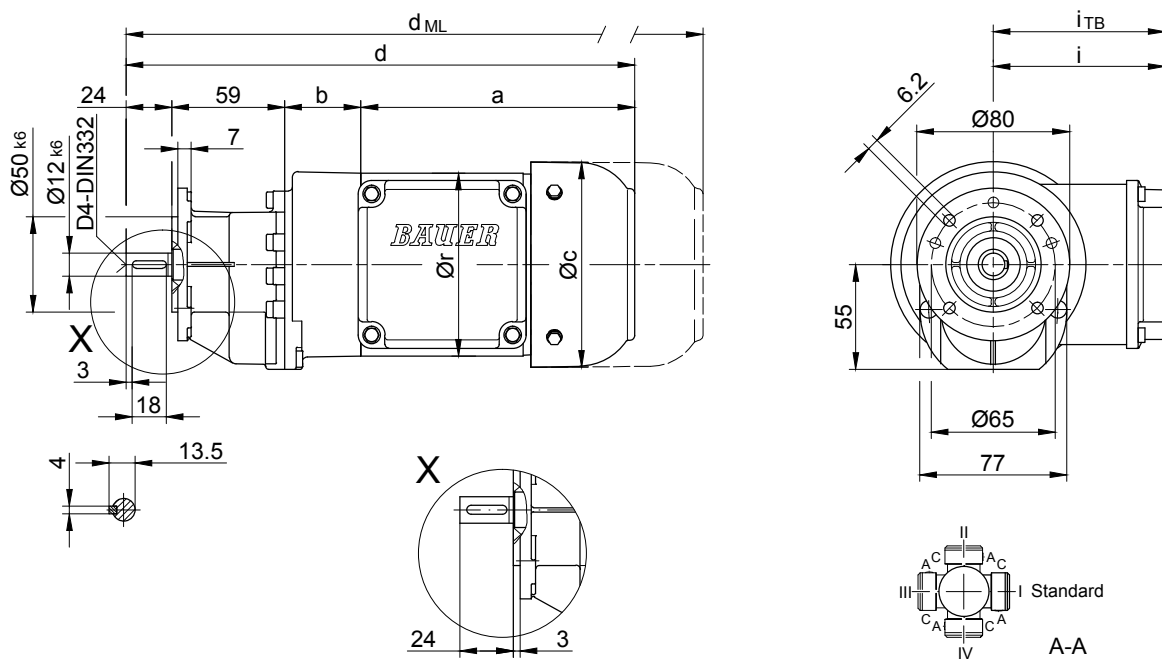
Foot mounting

Code -11/



Flange with clearance holes

Code -31/



10

Type	a	b	c	d	i	r	Design with motor extensions				
							i _{TB}	E..	G	E.-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG04-../D04..	143	40	111	266	90	96	112	309.5	328.5	371.5	-

The actual gearbox design can vary from the geometry shown.

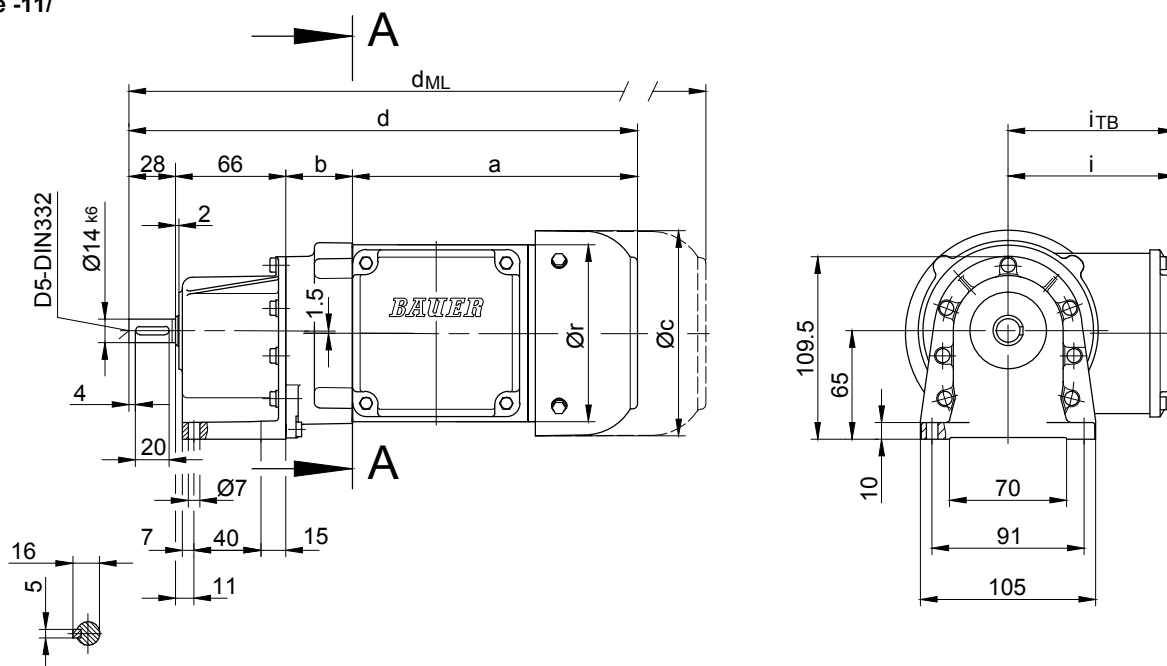
BG-series helical-geared motors

Dimension

BG05

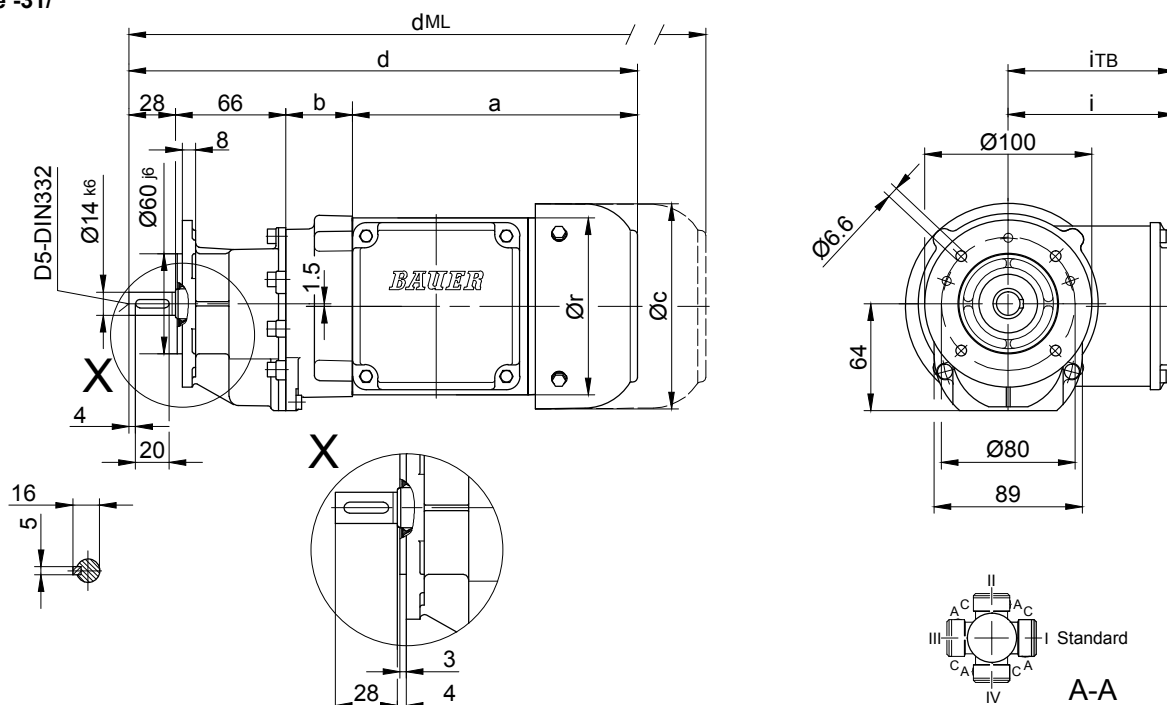
Foot mounting

Code -11/



Flange with clearance holes

Code -31/

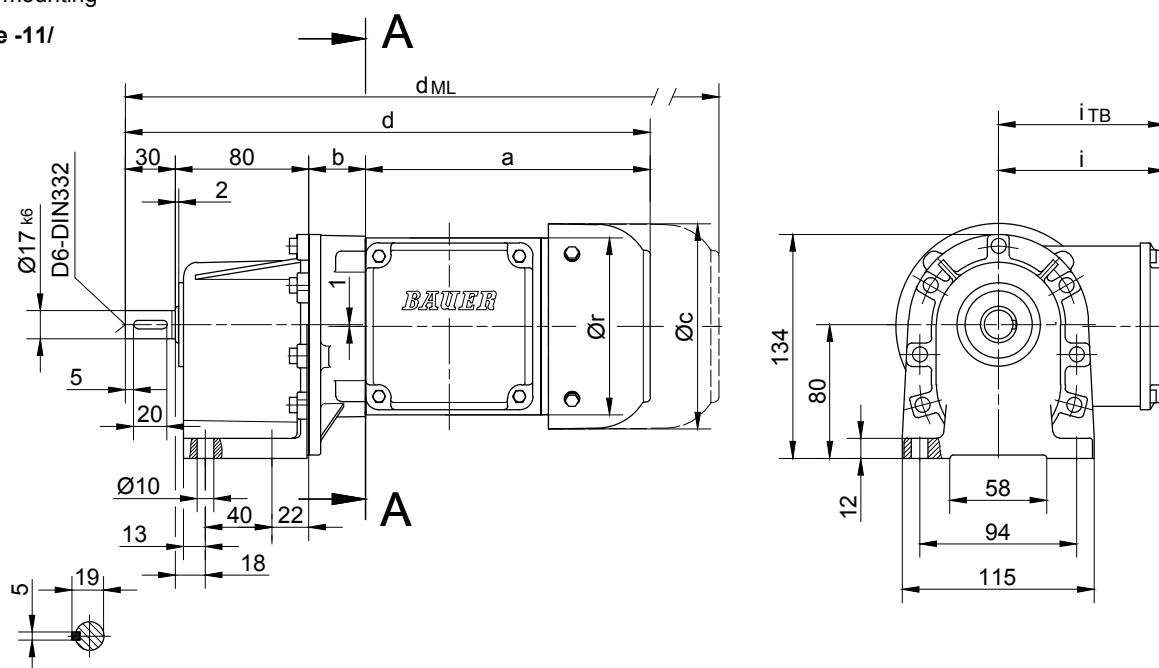


Type	a	b	c	d	i	r	Design with motor extensions				
							i _{TB}	E.. d _{ML}	G d _{ML}	E..-G d _{ML}	RR/RL d _{ML}
BG05-../D04..	143	38	111	275	90	96	112	318.5	337.5	380.5	-
BG05-../D05..	170	40	123	304	100	106	117	346	407	448.5	-
BG05-../D06..	170	40	123	304	100	121	119	346	407	448.5	-
BG05-../D07..	190	40	123	324	100	121	119	366	427	468.5	-

The actual gearbox design can vary from the geometry shown.

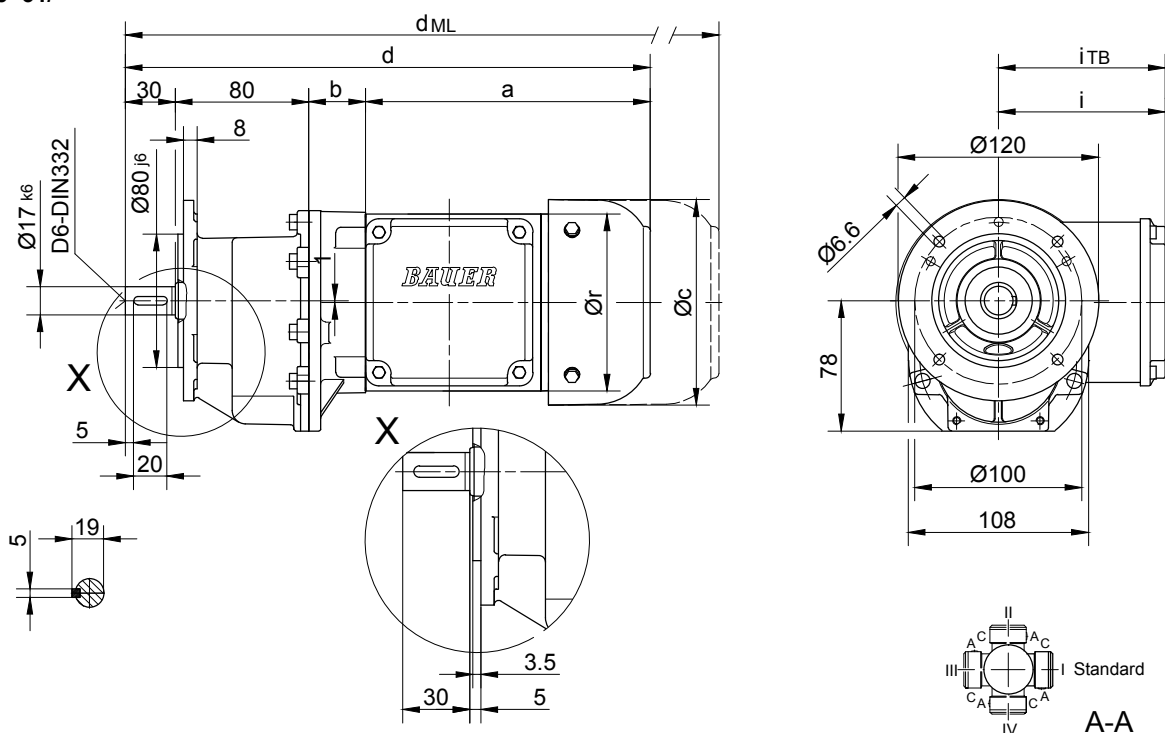
Foot mounting

Code -11/



Flange with clearance holes

Code -31/



10

Type	a	b	c	d	i	r	Design with motor extensions				
							i _{TB}	E./ES..	G	E./ES.-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG06-.../D04..	143	32	111	285	90	96	112	328.5	347.5	390.5	-
BG06-.../D05..	170	34	123	314	100	106	117	356	417	458.5	-
BG06-.../D06..	170	34	123	314	100	121	119	356	417	458.5	-
BG06-.../D07..	190	34	123	334	100	121	119	376	437	478.5	-
BG06-.../D..08..	200	78	156	388	115	156	136.5	454	495	561.5	454



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

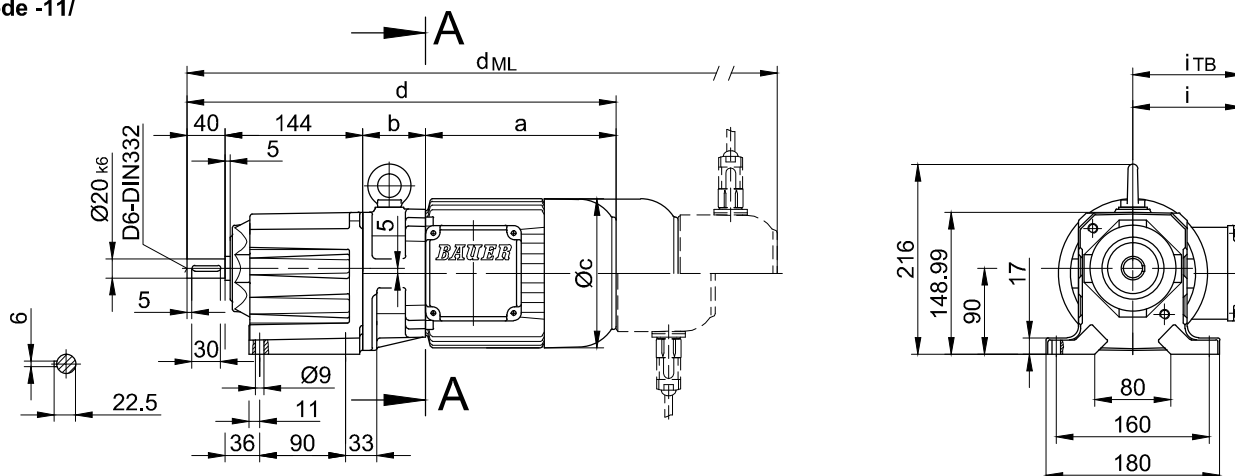
BG-series helical-geared motors

Dimension

BG10 - BG10Z

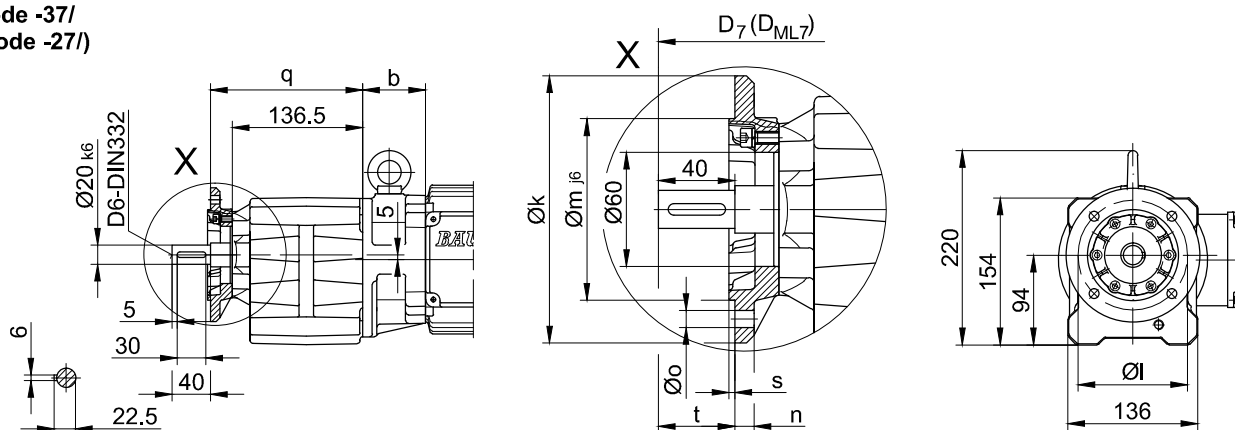
Foot mounting with clearance holes

Code -11/



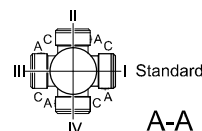
Flange with clearance holes

Code -37/
(Code -27/)



Flange dimensions

BG10(Z)	k	l	m	n	o	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



Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							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-../D..08..	200	66	156	450	115	136.5	516	557	623.5	516
BG10Z-../D..08..	200	132	156	516	115	136.5	582	623	689.5	582
BG10-../D..09..	251	80.5	181	515.5	124	158	608.5	622.5	713	608.5



The dimensions "a", "d" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

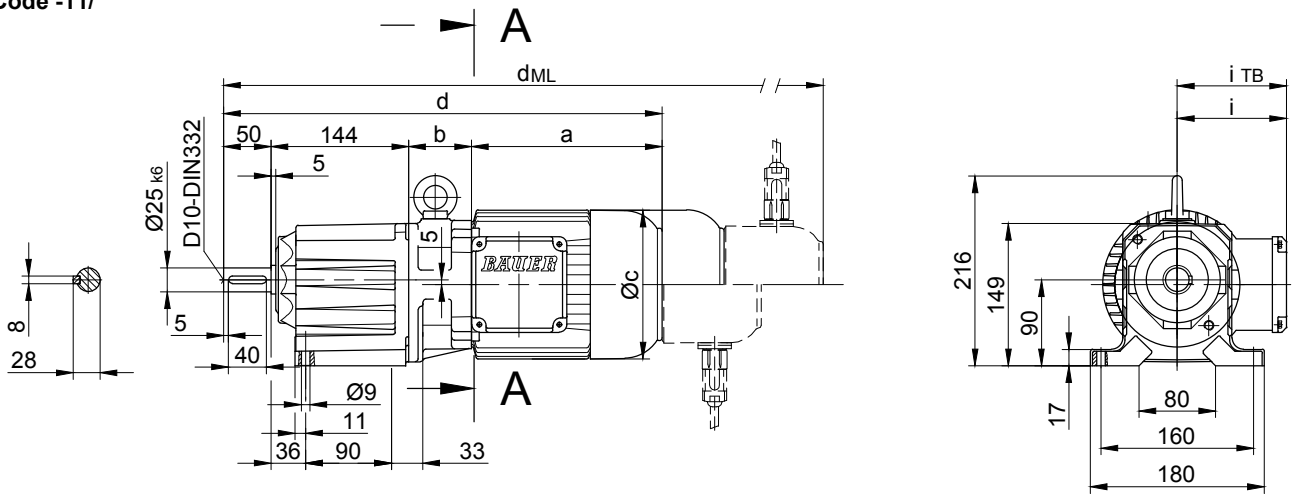
BG-series helical-geared motors

Dimension

BG10X - BG10XZ

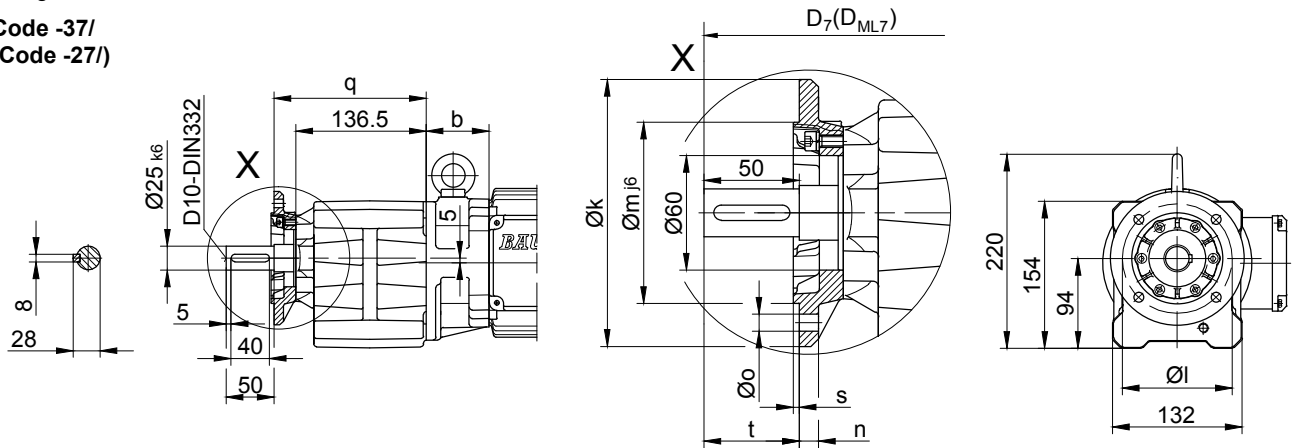
Foot mounting with clearance holes

Code -11/



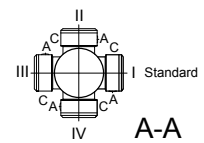
Flange with clearance holes

Code -37/
(Code -27/)



Flange dimensions

BG10X(Z)	k	l	m	n	o	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



Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BG10XZ-.1/D04..	143	86	111	423	90	112	466.5	485.5	528.5	-
BG10X-.1/D05..	170	62	123	426	100	117	468	529	570.5	-
BG10XZ-.1/D05..	170	88	123	452	100	117	494	555	596.5	-
BG10X-.1/D06..	170	62	123	426	100	119	468	529	570.5	-
BG10XZ-.1/D06..	170	88	123	452	100	119	494	555	596.5	-
BG10X-.1/D07..	190	62	123	446	100	119	488	549	590.5	-
BG10XZ-.1/D07..	190	88	123	472	100	119	514	575	616.5	-
BG10X-.1/D..08..	200	66	156	460	115	136.5	526	567	633.5	526
BG10XZ-.1/D..08..	200	132	156	526	115	136.5	592	633	699.5	592
BG10X-.1/D..09..	251	80.5	176	525.5	124	158	618.5	632.5	723	618.5



The dimensions "a", "d" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

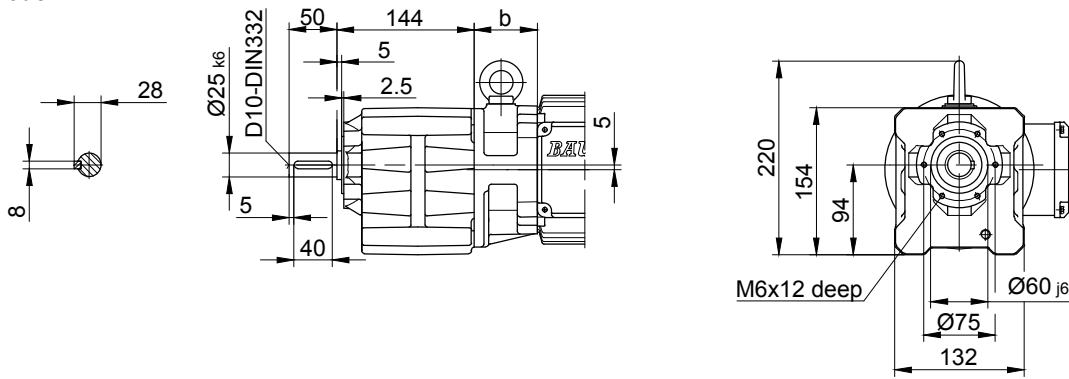
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BG10X - BG10XZ

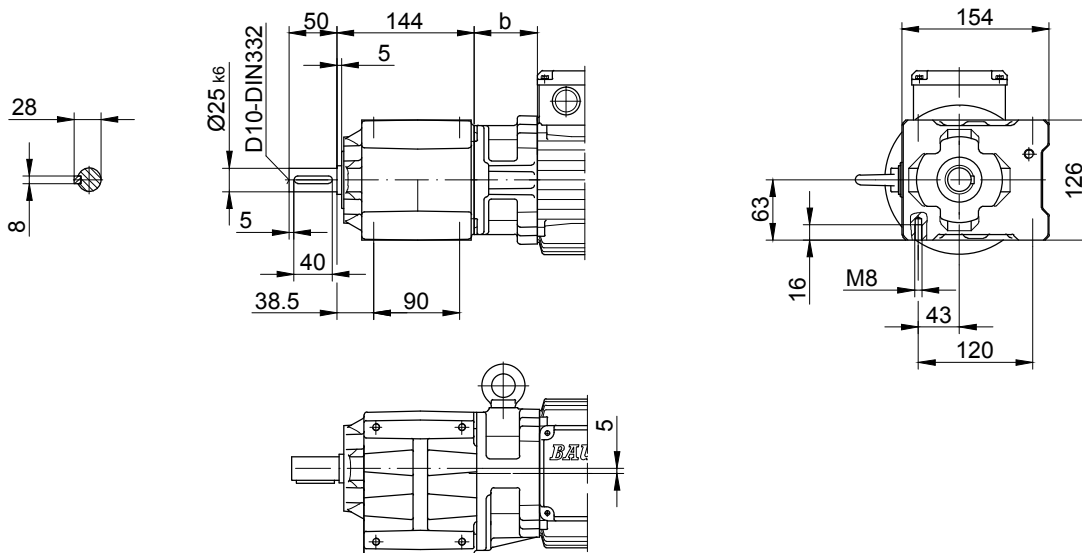
Flange with tapped holes

Code -71/



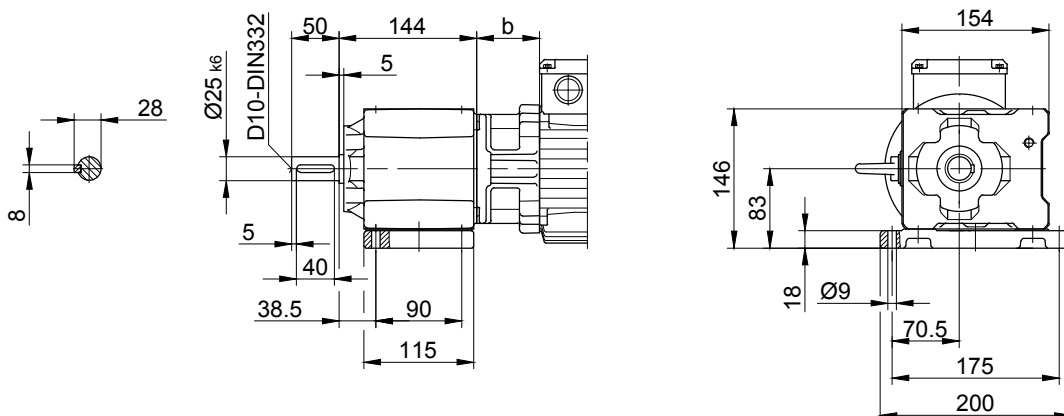
Foot with tapped holes left and right

Code -61LR/



Foot plate left

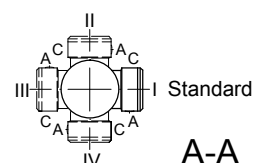
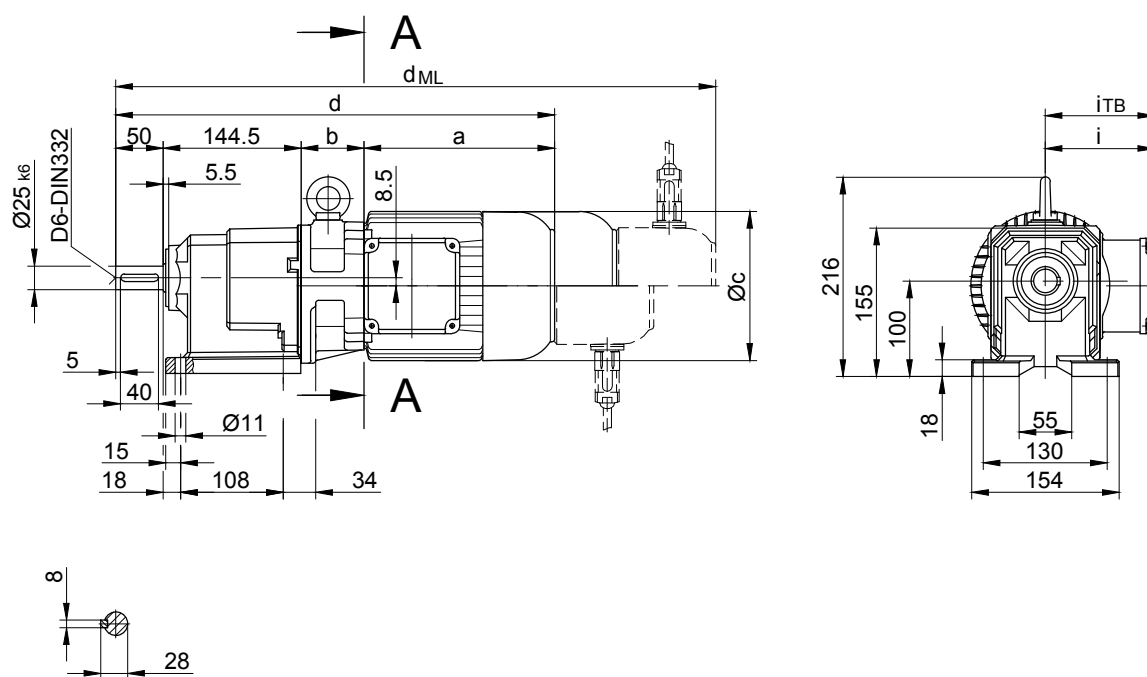
Code -91L/



The actual gearbox design can vary from the geometry shown.

Foot mounting with clearance holes

Code -11/



Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							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-../D..08..	200	66	156	460.5	115	149.5	526.5	567.5	634	527.5
BG15-../D..09..	251	80.5	181	526	124	164	619	633	723.5	619



The dimensions "a*", "d*" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

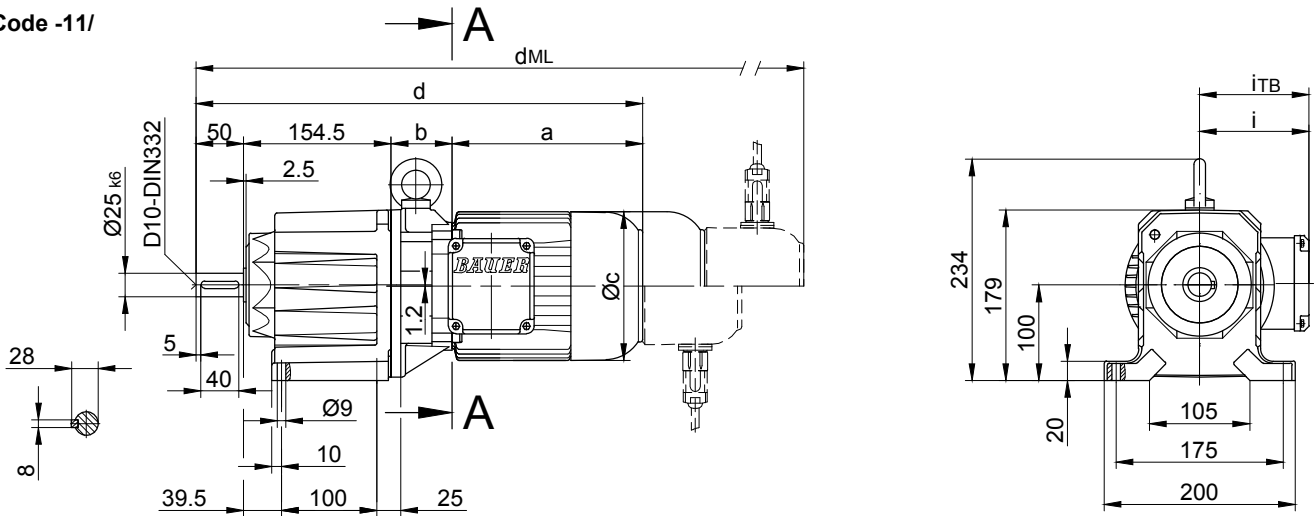
BG-series helical-geared motors

Dimension

BG20 - BG20Z

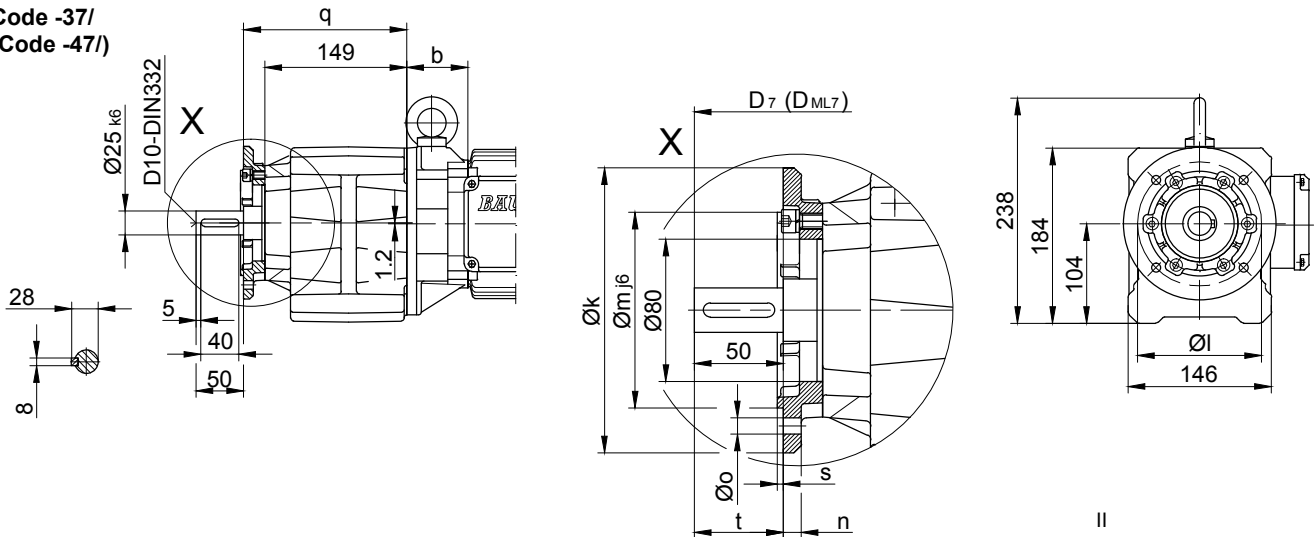
Foot mounting with clearance holes

Code -11/



Flange with clearance holes

Code -37/
(Code -47/)



Flange dimensions

BG20(Z)	k	l	m	n	o	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

Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES.. d _{ML}	G d _{ML}	E../ES..-G d _{ML}	RR/RL 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-../D..08..	200	64	156	468.5	115	136.5	534.5	575.5	642	534.5
BG20Z-../D..08..	200	146	156	550.5	115	136.5	616.5	657.5	724	616.5
BG20-../D..09..	251	78.5	181	534	124	158	627	641	731.5	627



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

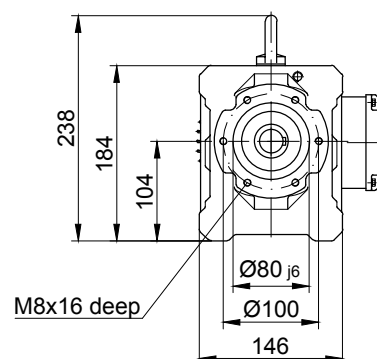
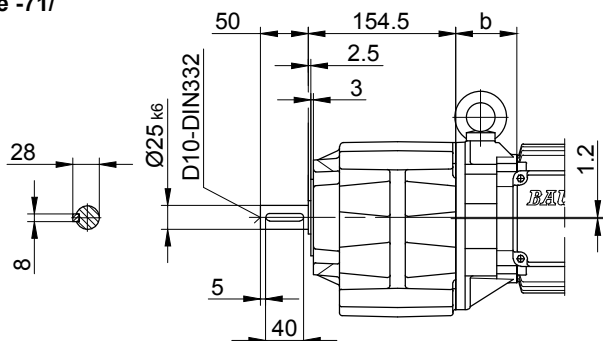
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BG20 - BG20Z

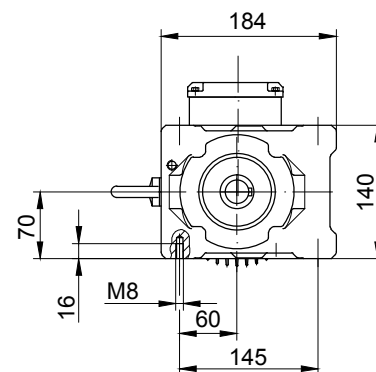
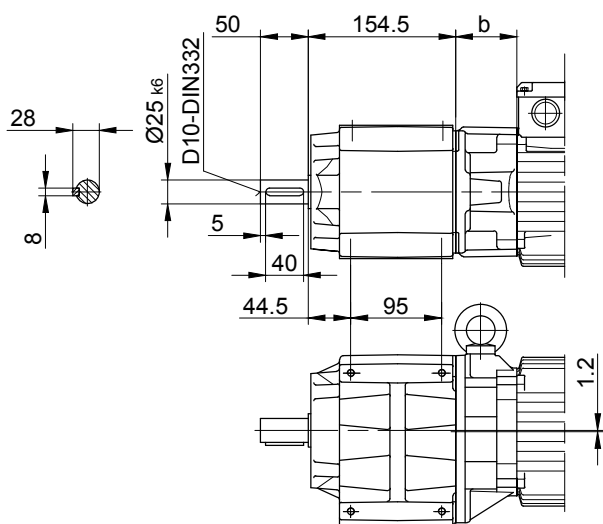
Flange with tapped holes

Code -71/



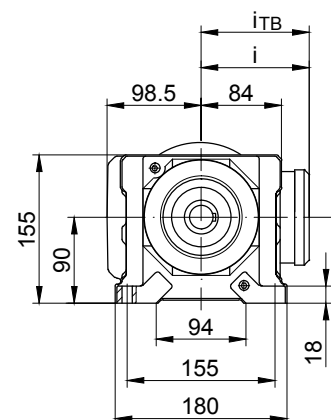
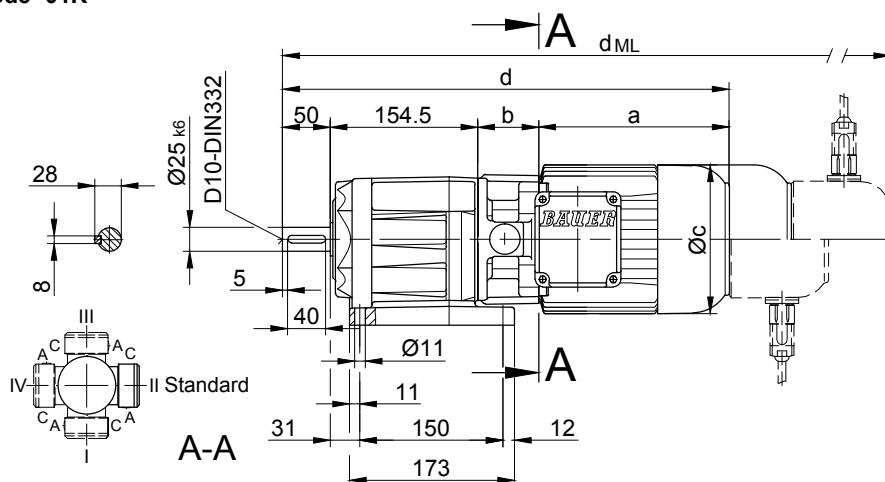
Foot with tapped holes left and right

Code -61LR/



Foot mounting right with clearance holes

Code -01R



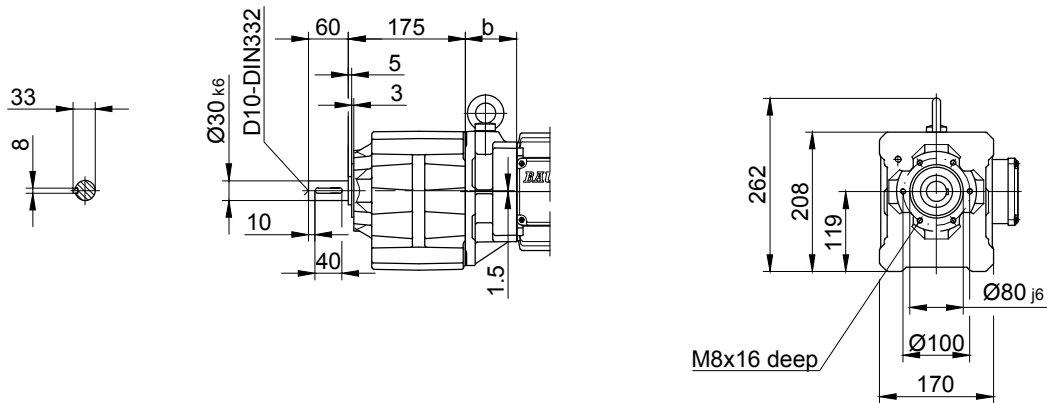
only for BG20-01R !

The actual gearbox design can vary from the geometry shown.

BG30 - BG30Z

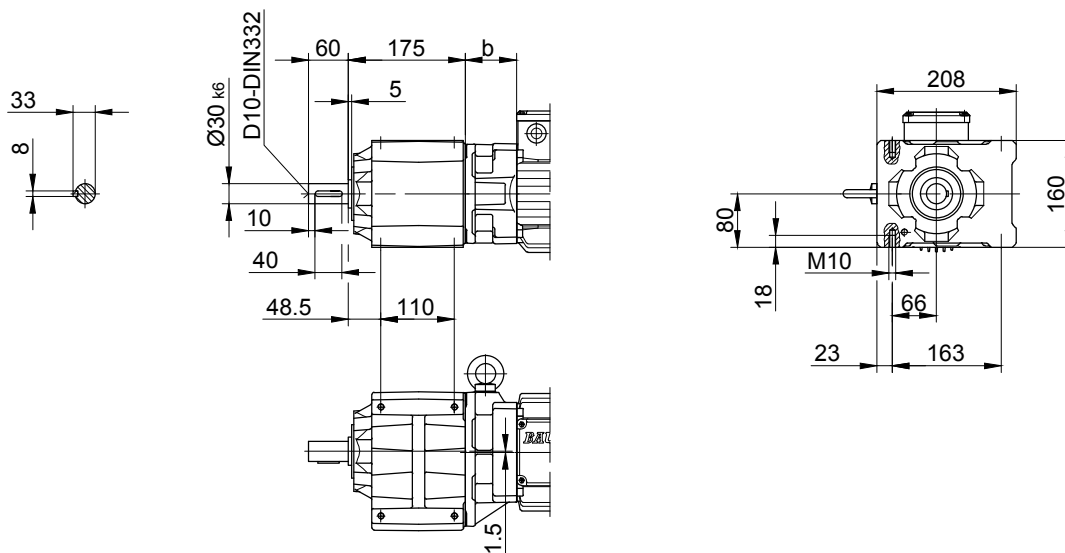
Flange with tapped holes

Code -71/



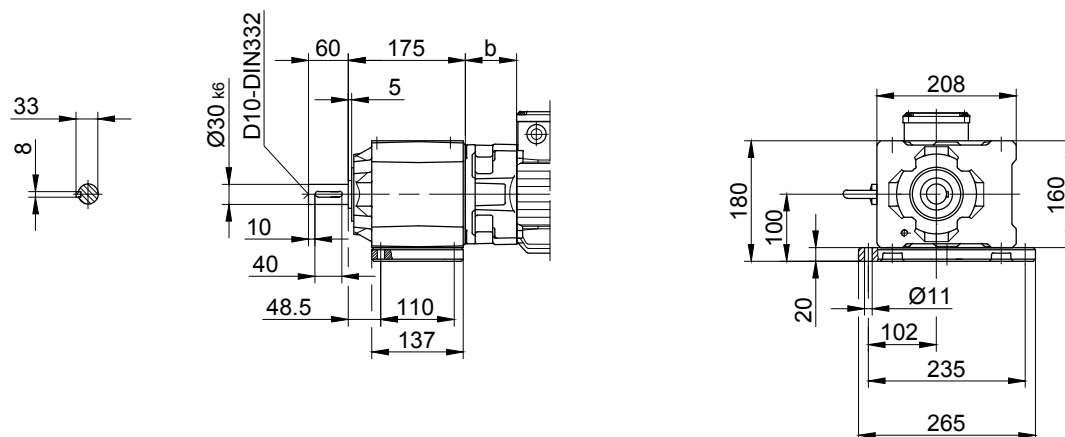
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/

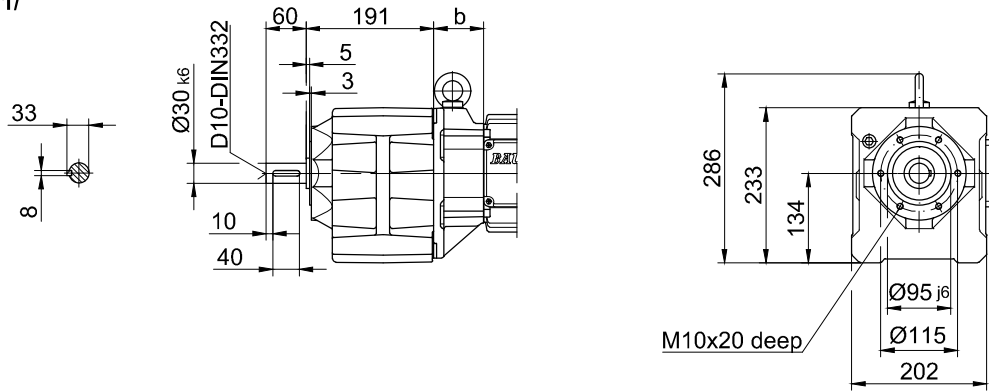


The actual gearbox design can vary from the geometry shown.

BG40 - BG40Z

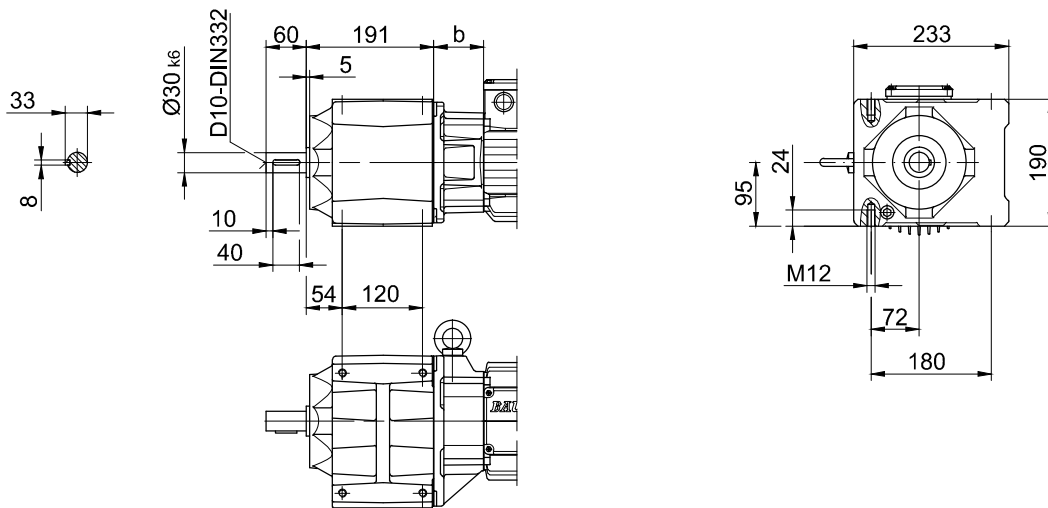
Flange with tapped holes

Code -71/



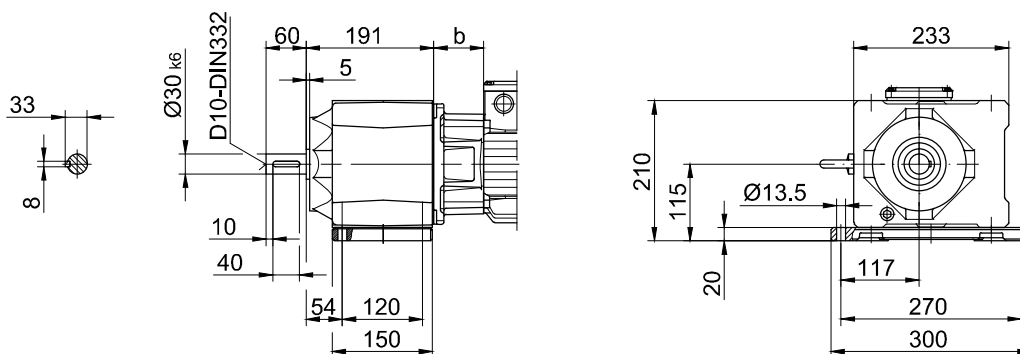
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/



The actual gearbox design can vary from the geometry shown.

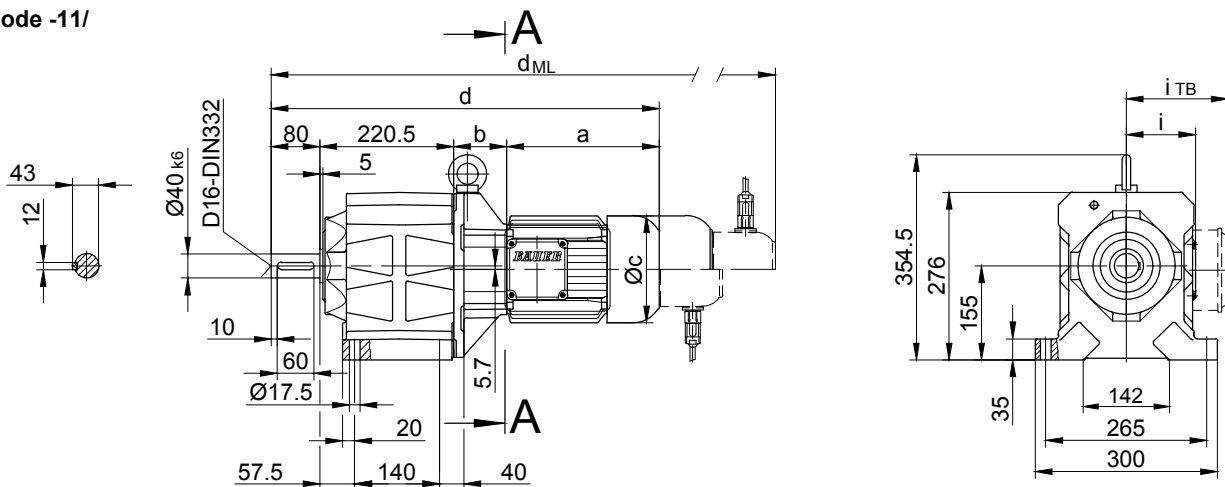
BG-series helical-geared motors

Dimension

BG50 - BG50Z

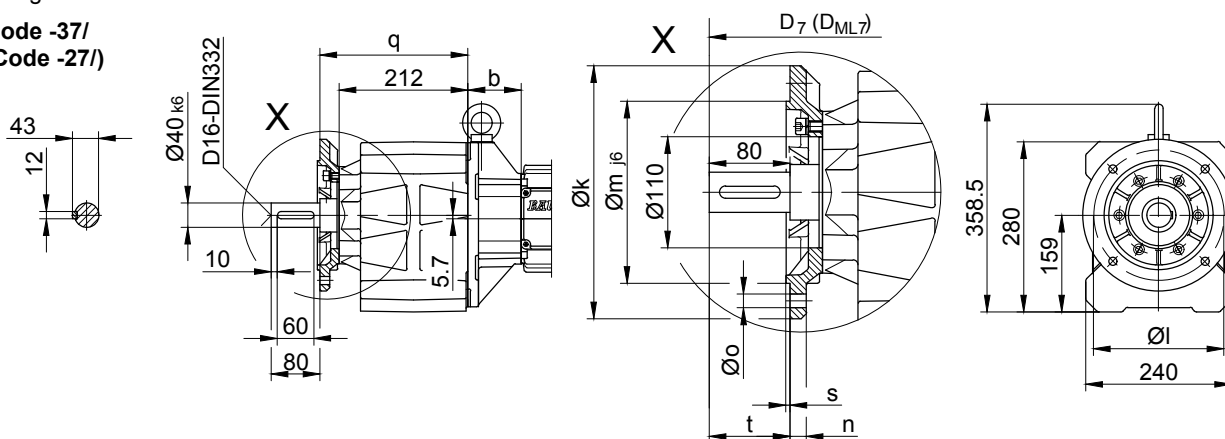
Foot mounting with clearance holes

Code -11/



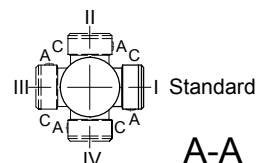
Flange with clearance holes

Code -37/
(Code -27/)



Flange dimensions

BG50(Z)	k	l	m	n	o	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



Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES.. d _{ML}	G d _{ML}	E../ES..-G d _{ML}	RR/RL 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-../D..08..	200	73	156	573.5	115	136.5	639.5	680.5	746	639.5
BG50Z-../D..08..	200	159	156	659.5	115	136.5	725.5	766.5	832	725.5
BG50-../D..09..	251	87.5	181	639	124	158	732	746	833	732
BG50Z-../D..09..	251	173.5	181	725	124	158	818	832	919	818
BG50-../D..11..	319	94	228	713.5	181	181	811.5	820.5	917	811.5
BG50-../D..13..	393	107	258	800.5	218	218	911.5	907.5	1006	911.5
BG50-../D..16..	454.5	121	310	876	244	244	1019.5	983	1123.5	1019.5
BG50-../D..18..	542	143	348	985.5	288	288	1135	1092.5	1239	1135



The dimensions "a**", "d**" and "d_{ML}**" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

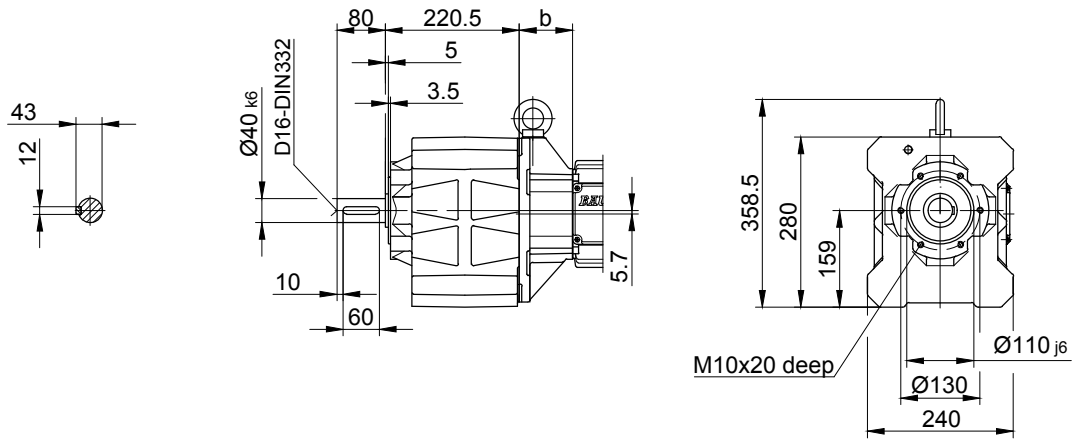
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BG50 - BG50Z

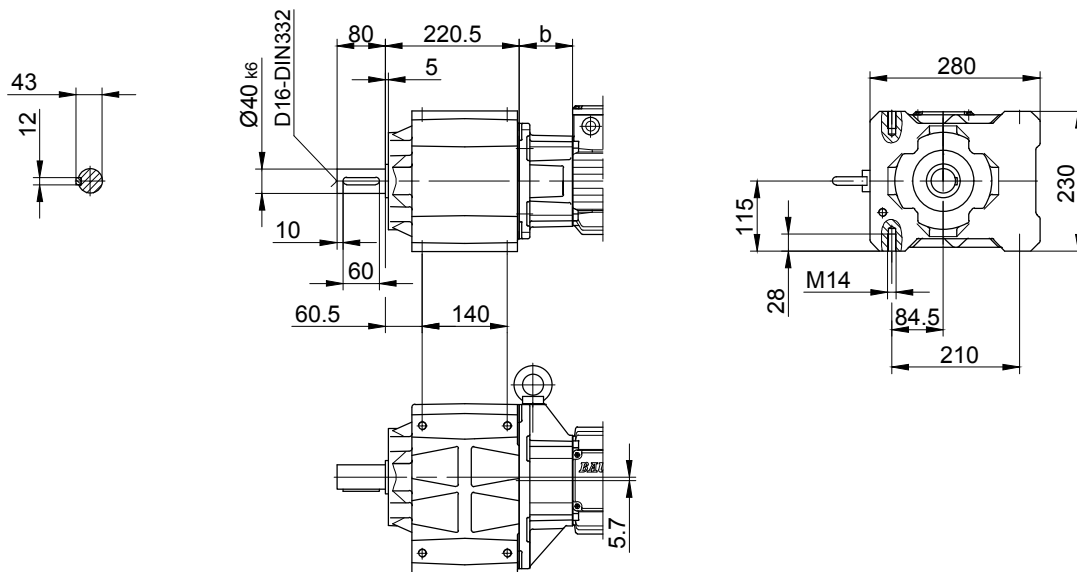
Flange with tapped holes

Code -71/



Foot with tapped holes left and right

Code -61LR/



The actual gearbox design can vary from the geometry shown.

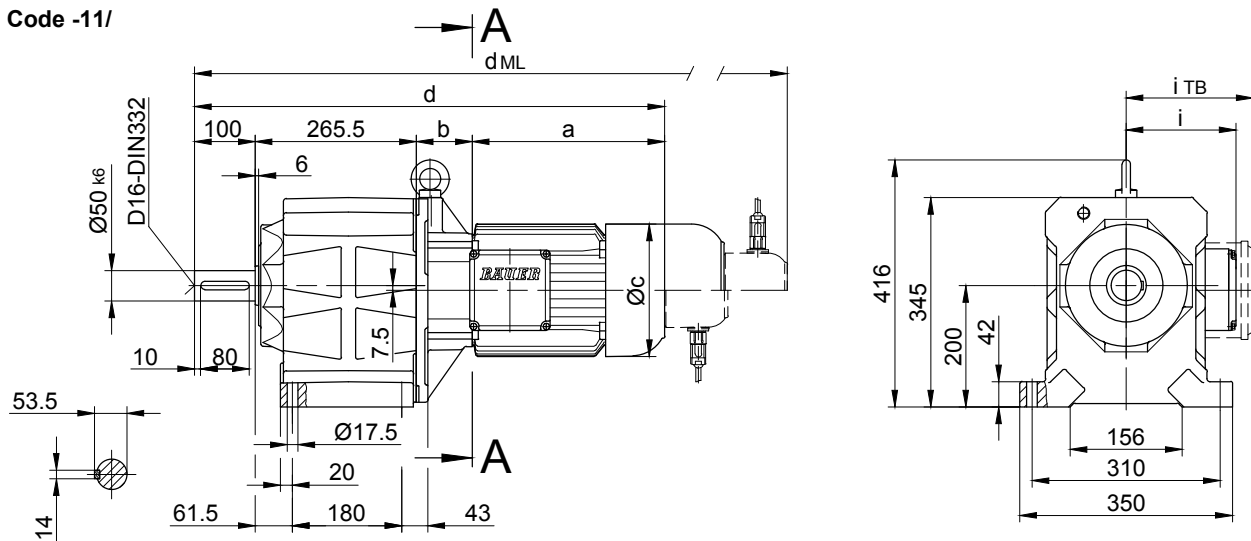
BG-series helical-geared motors

Dimension

BG60 - BG60Z

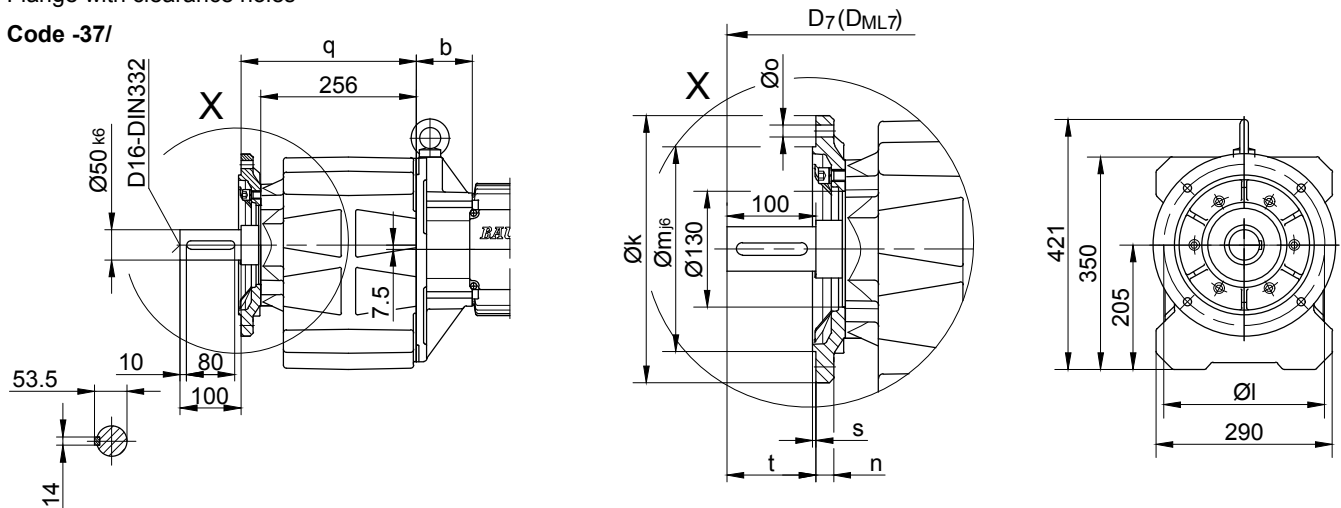
Foot mounting with clearance holes

Code -11/



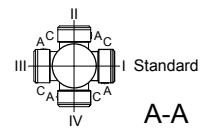
Flange with clearance holes

Code -37/



Flange dimensions

BG60(Z)	k	l	m	n	o	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



Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG60Z-../D..08..	200	181	156	746.6	115	136.5	812.5	853.5	920	812.5
BG60-../D..09..	251	85.5	181	702	124	158	795	809	899.5	795
BG60Z-../D..09..	251	195.5	181	812	124	158	905	919	1009.5	905
BG60-../D..11..	319	92	228	776.5	181	181	874.5	883.5	979	874.5
BG60Z-../D..11..	319	202	228	886.5	181	181	984.5	993.5	1089	984.5
BG60-../D..13..	393	105	258	863.5	218	218	974.5	970.5	1079	974.5
BG60-../D..16..	454.5	119	310	939	244	244	1182.5	1046	1186.5	1182.5
BG60-../D..18..	542	272	348	1179.5	288	288	1329	1286.5	1433	1329



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

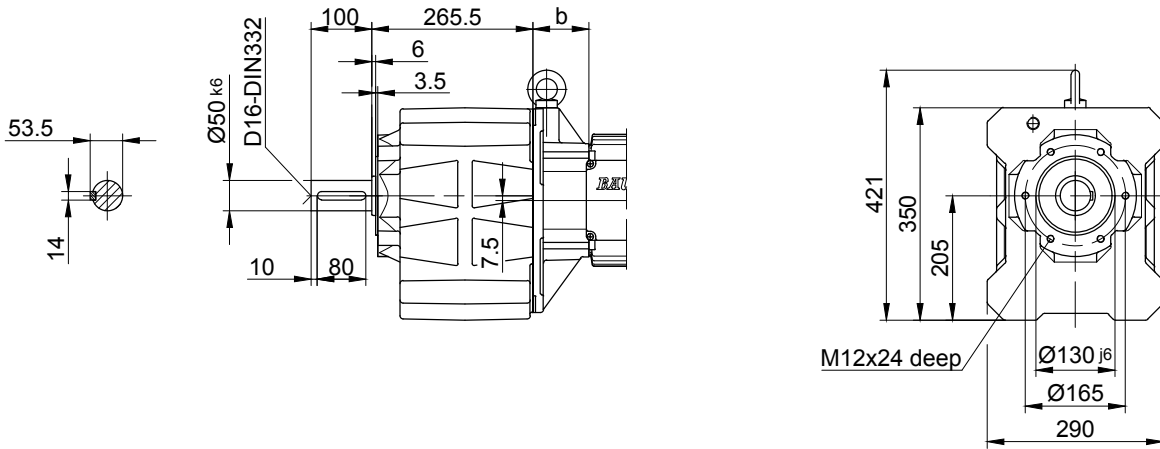
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BG60 - BG60Z

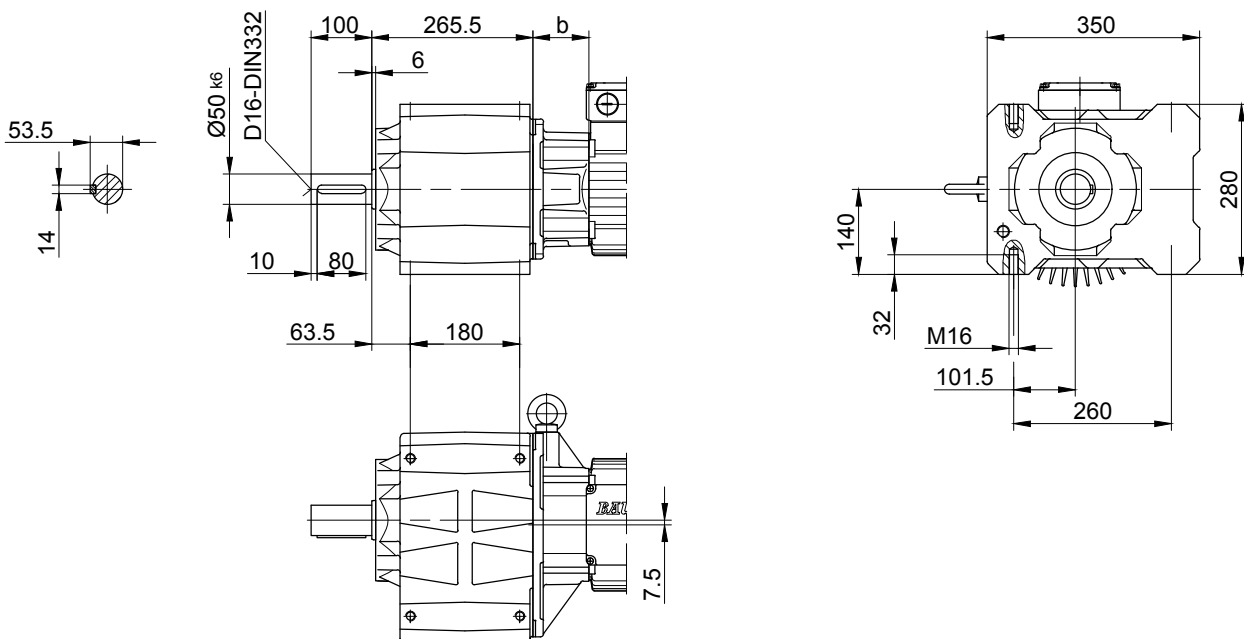
Flange with tapped holes

Code -71/



Foot with tapped holes left and right

Code -61LR/



The actual gearbox design can vary from the geometry shown.

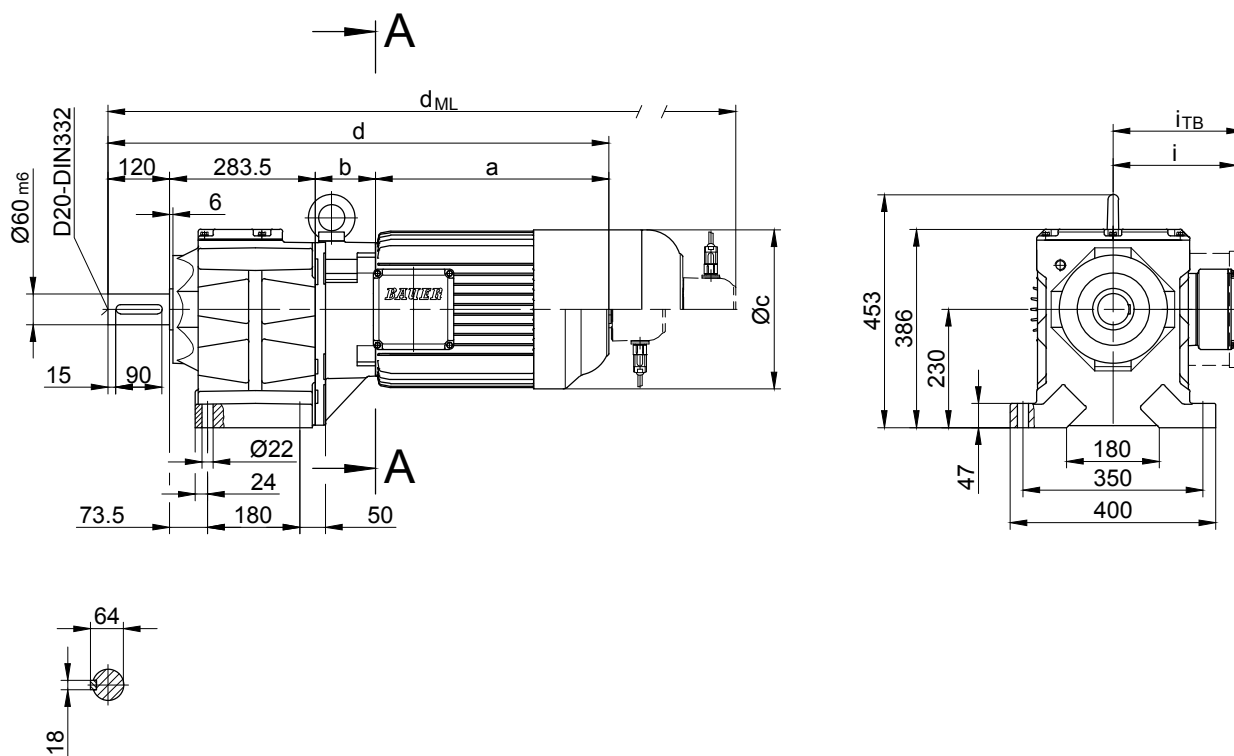
BG-series helical-geared motors

Dimension

BG70 - BG70Z

Foot mounting with clearance holes

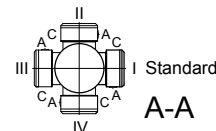
Code -11/



10

Flange dimensions

BG70(Z)	k	l	m	n	o	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



Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG70Z-../D..08..	200	202	156	805.5	115	136.5	871.5	912.5	979	871
BG70-../D..09..	251	83.5	181	738	124	158	831	845	935.5	831
BG70Z-../D..09..	251	216.5	181	871	124	158	964	978	1068.5	964
BG70-../D..11..	319	90	228	812.5	181	181	910.5	919.5	1015	910.5
BG70Z-../D..11..	319	223	228	945.5	181	181	1043.5	1052.5	1148	1043.5
BG70-../D..13..	393	103	258	899.5	218	218	1010.5	1006.5	1115	1010.5
BG70Z-../D..13..	393	236	258	1032.5	218	218	1143.5	1139.5	1248	1143.5
BG70-../D..16..	454.5	117	310	975	244	244	1118.5	1082	1222.5	1118.5
BG70Z-../D..16..	454.5	250	310	1108	244	244	1251.5	1215	1355.5	1251.5
BG70-../D..18..	542	139	348	1084.5	288	288	1234	1191.5	1338	1234
BG70Z-../D..18..	542	272	348	1217.5	288	288	1367	1324.5	1471	1367
BG70-../D..20L	643.5	156	363	1203	303.5	303.5	1203	1330.5	1436.5	1330.5
BG70-../D..22S	703.5	156	363	1263	303.5	303.5	1390.5	1369	1496.5	1390.5



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

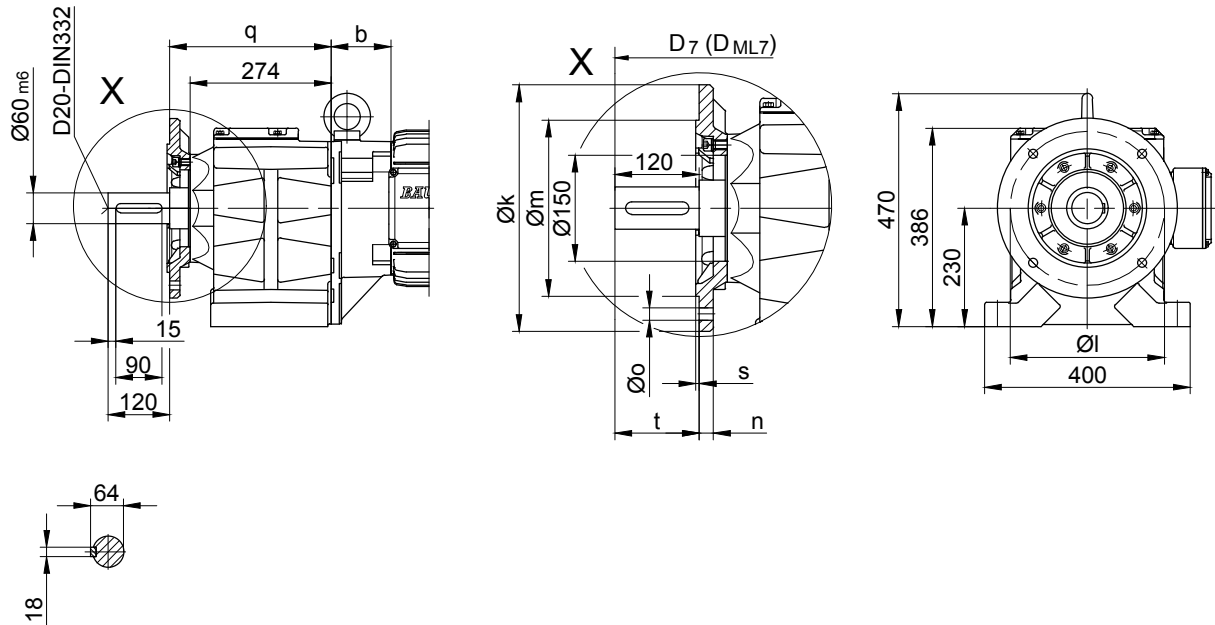
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BG70 - BG70Z

Flange with clearance holes

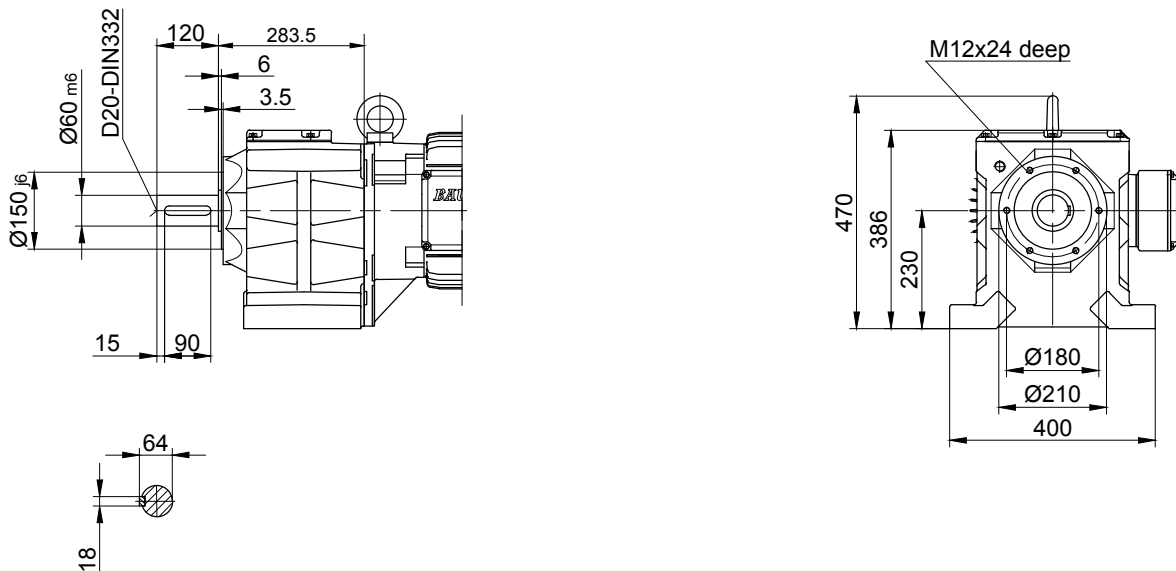
Code -37/
(Code -27/)



Flange with tapped holes

Code -71/

10



The actual gearbox design can vary from the geometry shown.

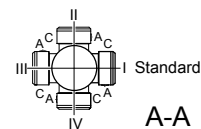
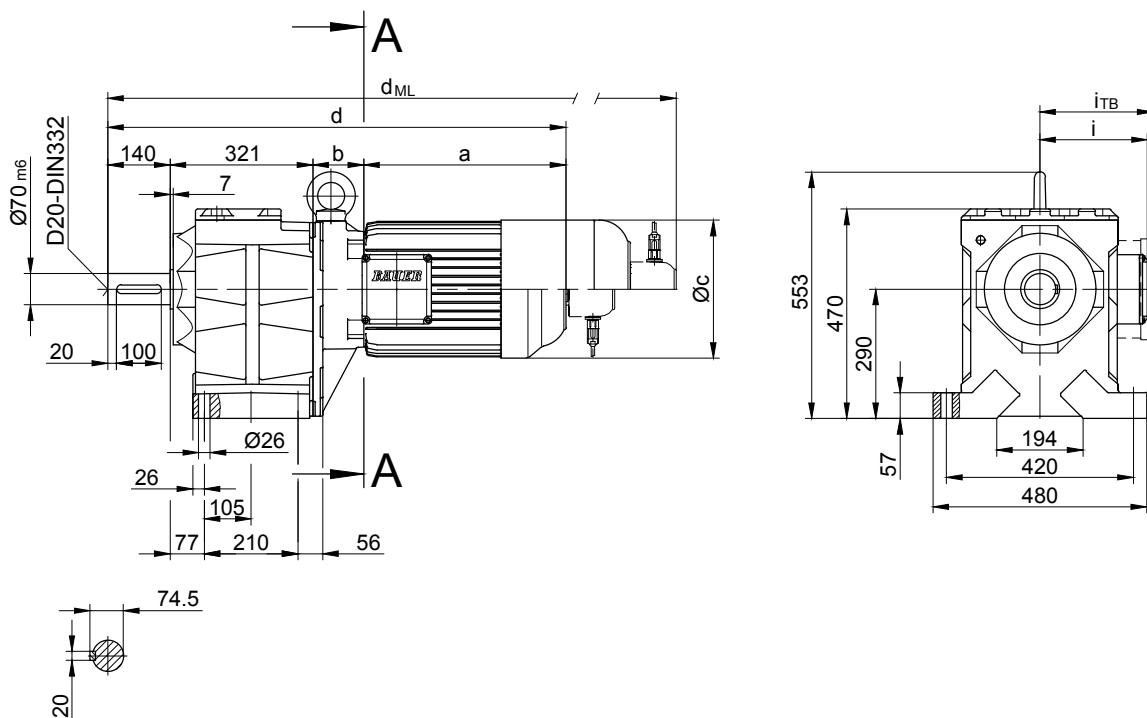
BG-series helical-geared motors

Dimension

BG80 - BG80Z

Foot mounting with clearance holes

Code -11/



Flange dimensions

BG80(Z)	k	l	m	n	o	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

Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BG80Z-../D..09..	251	252.5	181	964.5	124	158	1057.5	1071.5	1162	1057.5
BG80-../D..11..	319	87	228	867	181	181	965	974	1069.5	965
BG80Z-../D..11..	319	259	228	1039	181	181	1137	1146	1241.5	1137
BG80-../D..13..	393	100	258	954	218	218	1065	1061	1169.5	1065
BG80Z-../D..13..	393	272	258	1126	218	218	1237	1233	1341.5	1237
BG80-../D..16..	454.5	114	310	1029.5	244	244	1173	1136.5	1277	1173
BG80Z-../D..16..	454.5	286	310	1201.5	244	244	1345	1308.5	1449	1345
BG80-../D..18..	542	136	348	1139	288	288	1288.5	1246	1392.5	1288.5
BG80Z-../D..18..	542	308	348	1311	288	288	1460.5	1418	1564.5	1460.5
BG80-../D..20L	643.5	153	363	1257.5	303.5	303.5	1385	1363.5	1491	1385
BG80-../D..22S	703.5	153	363	1317.5	303.5	303.5	1445	1423.5	1551	1445
BG80-../D..22M	703.5	153	363	1317.5	303.5	303.5	1445	1423.5	1551	1445



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

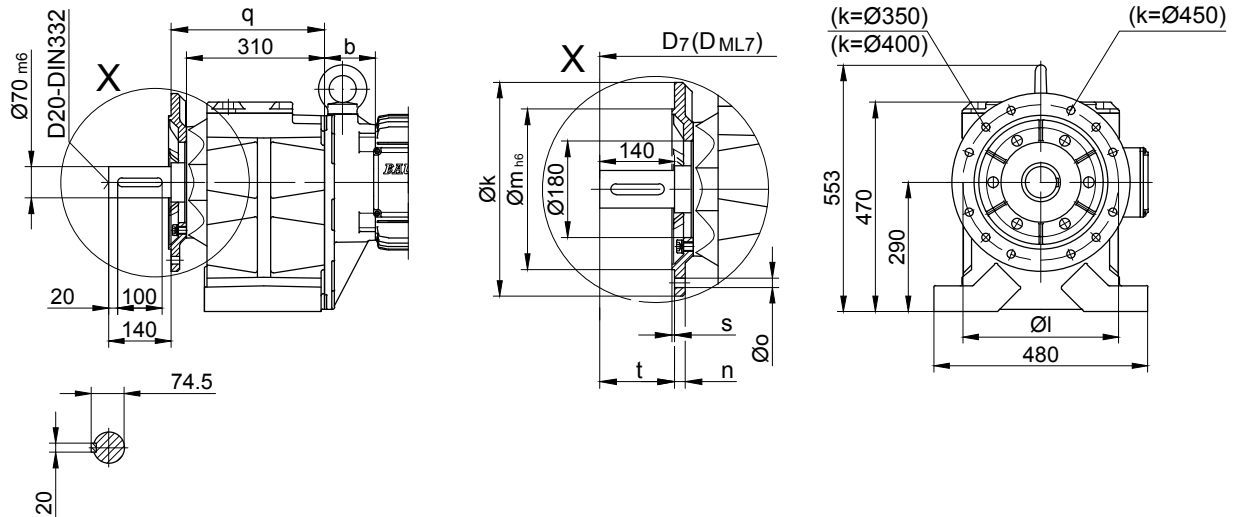
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BG80 - BG80Z

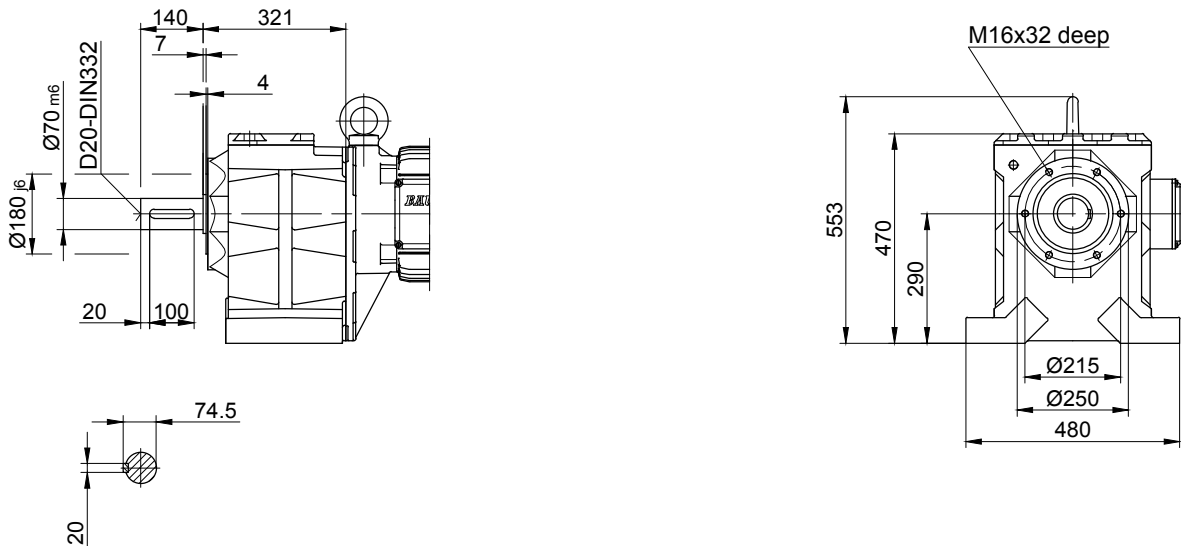
Flange with clearance holes

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



Flange with tapped holes

Code -71/



10

The actual gearbox design can vary from the geometry shown.

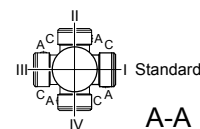
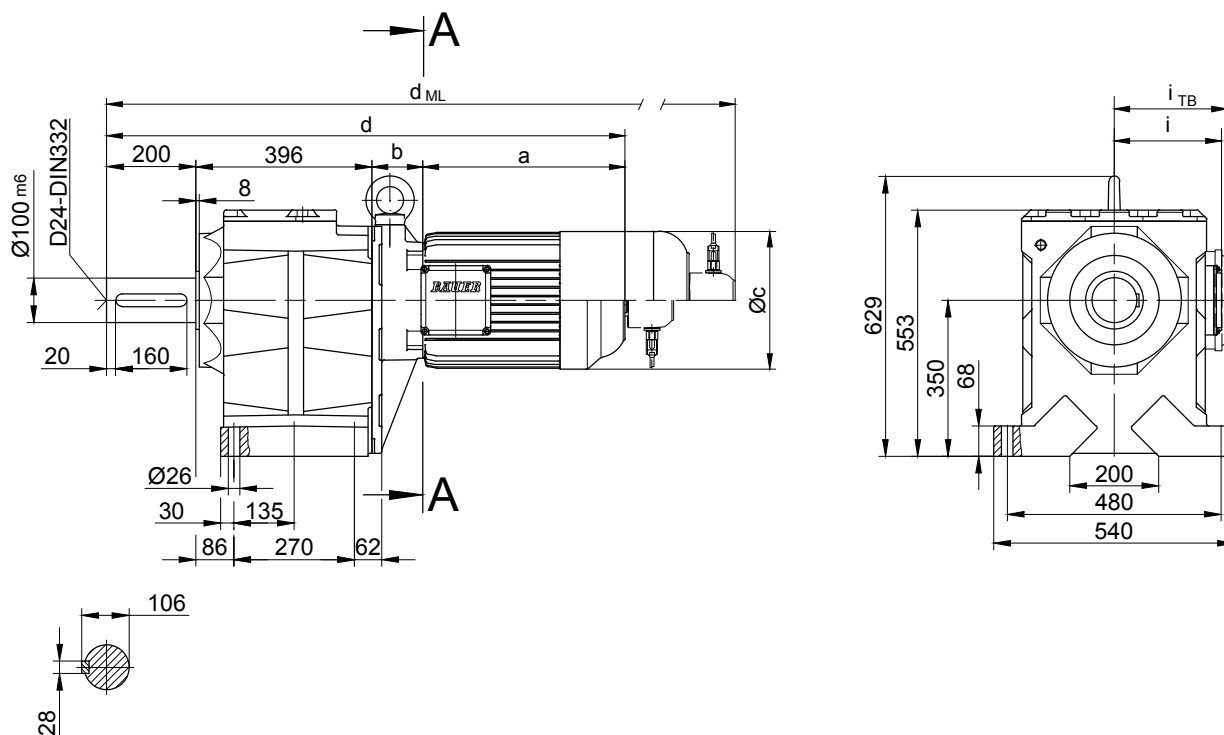
BG-series helical-geared motors

Dimension

BG90 - BG90Z

Foot mounting with clearance holes

Code -11/



Flange dimensions

BG90(Z)	k	l	m	n	o	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

Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG90Z-../D..09..	251	267	181	1114	124	158	1207	1221	1311	1207
BG90Z-../D..11..	319	273.5	228	1188.5	181	181	1286.5	1295.5	1388.5	1286.5
BG90-../D..13..	393	100	258	1015	218	218	1200	1196	1301	1200
BG90Z-../D..13..	393	286.5	258	1275.5	218	218	1386.5	1382.5	1487.5	1386.5
BG90-../D..16..	454.5	114	310	1164.5	244	244	1308	1271.5	1412	1308
BG90Z-../D..16..	454.5	300.5	310	1351	244	244	1494.5	1458	1598.5	1494.5
BG90-../D..18..	542	136	348	1274	288	288	1423.5	1381	1527.5	1423.5
BG90Z-../D..18..	542	322.5	348	1460.5	288	288	1610	1567.5	1714	1610
BG90-../D..20L	643.5	153	363	1392.5	303.5	303.5	1520	1498.5	1626	1520
BG90-../D..22S	703.5	153	363	1452.5	303.5	303.5	1580	1558.5	1686	1580
BG90-../D..22M	703.5	153	363	1452.5	303.5	303.5	1580	1558.5	1686	1580



The dimensions "a", "d" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

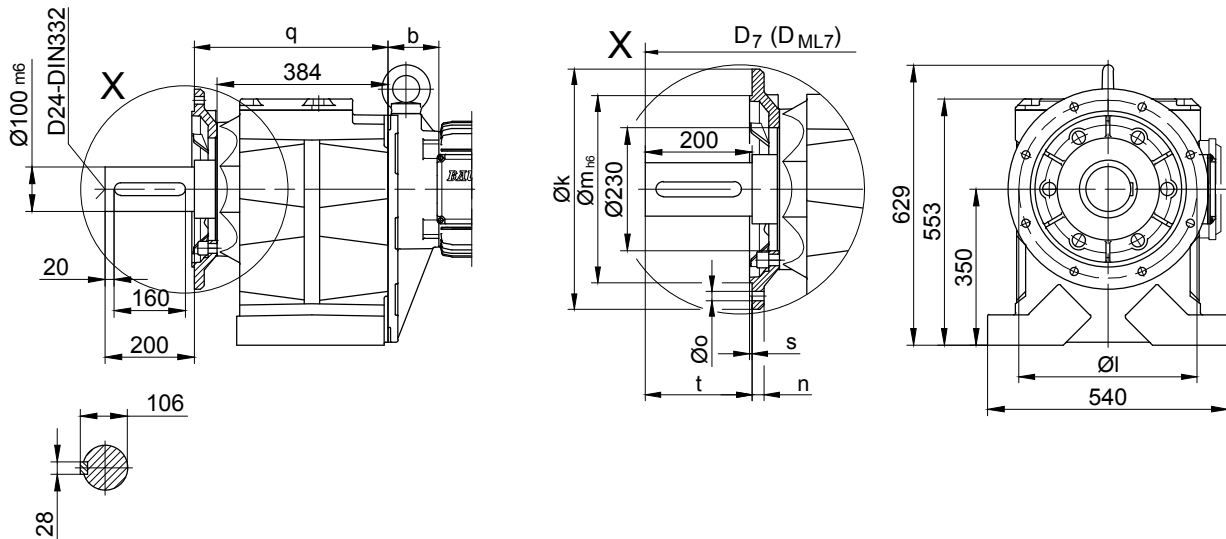
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BG90 - BG90Z

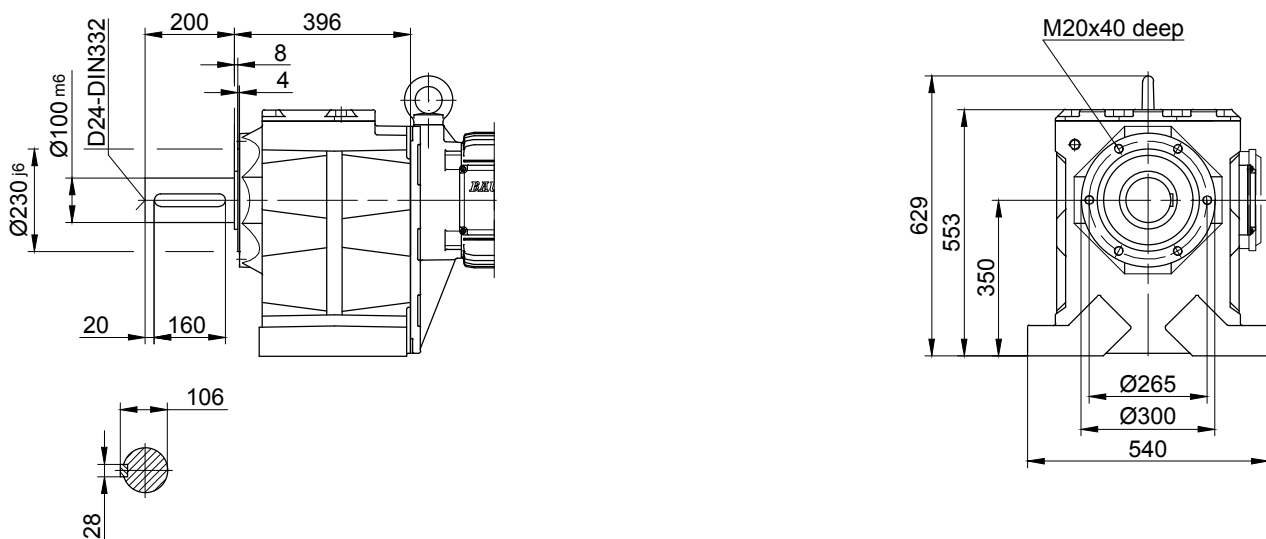
Flange with clearance holes

Code -37/
(Code -47)



Flange with tapped holes

Code -71/



10

The actual gearbox design can vary from the geometry shown.

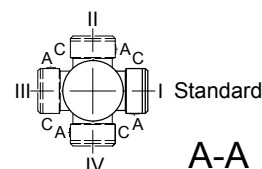
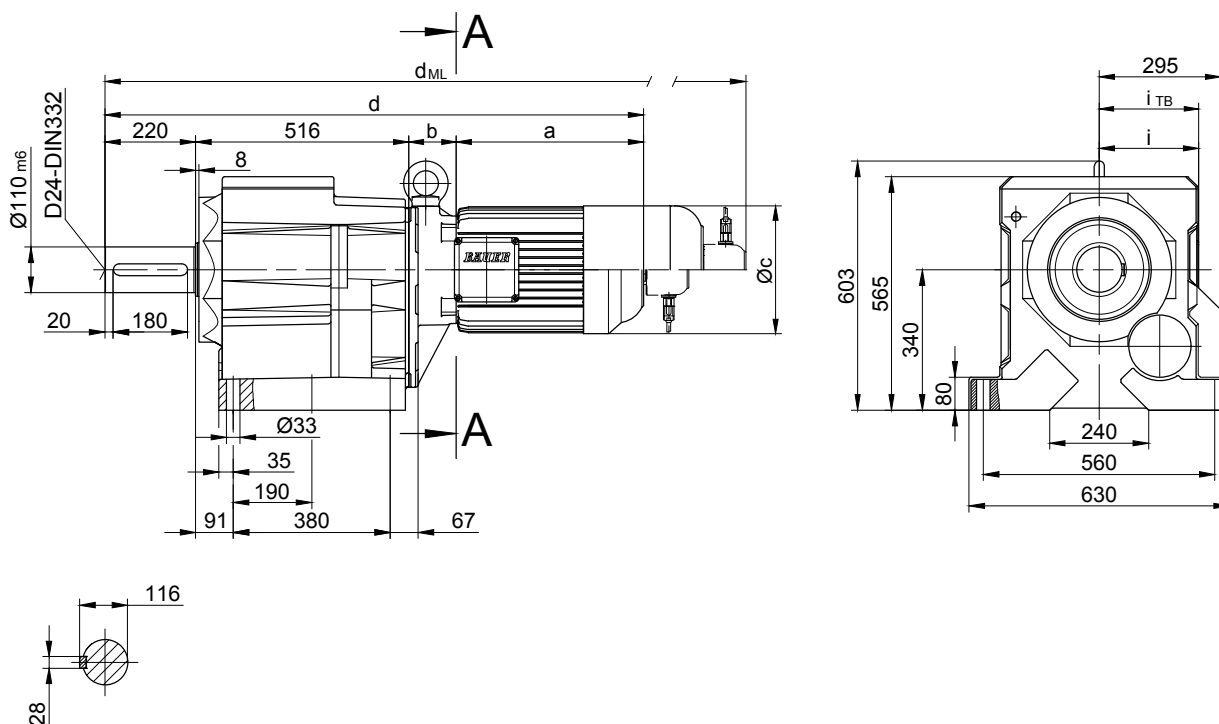
BG-series helical-geared motors

Dimension

BG100 - BG100Z

Foot mounting with clearance holes

Code -11/



Flange dimensions

BG100(Z)	k	l	m	n	o	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

Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS.-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG100Z-../D..09..	251	252.5	181	1239.5	124	158	1332.5	1346.5	1437	1332.5
BG100-../D..11..	319	87	228	1142	181	181	1240	1249	1344.5	1240
BG100Z-../D..11..	319	259	228	1314	181	181	1412	1421	1516.5	1412
BG100-../D..13..	393	100	258	1229	218	218	1340	1336	1444.5	1340
BG100Z-../D..13..	393	272	258	1401	218	218	1512	1508	1616.5	1512
BG100-../D..16..	454.5	114	310	1304.5	244	244	1448	1411.5	1552	1448
BG100Z-../D..16..	454.5	286	310	1476.5	244	244	1620	1583.5	1724	1620
BG100-../D..18..	542	136	348	1414	288	288	1563.5	1521	1667.5	1563.5
BG100Z-../D..18..	542	308	348	1586	288	288	1735.5	1693	1839.5	1735.5
BG100-../D..20L	643.5	153	363	1532.5	303.5	303.5	1660	1638.5	1766	1660
BG100-../D..22S	703.5	153	363	1592.5	303.5	303.5	1720	1698.5	1826	1720
BG100-../D..22M	703.5	153	363	1592.5	303.5	303.5	1720	1698.5	1826	1720



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

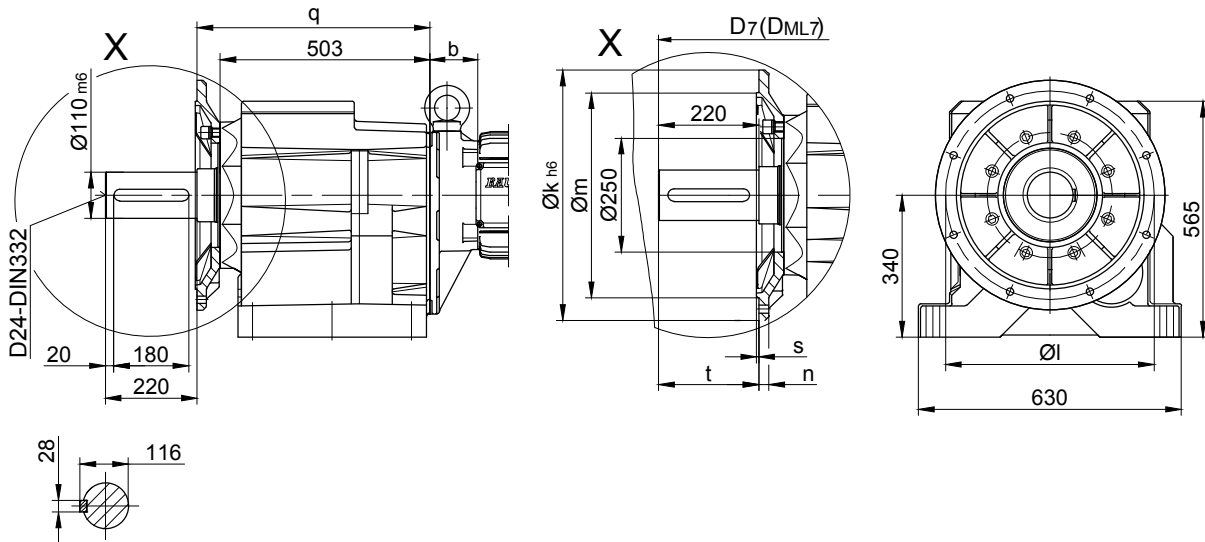
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BG100 - BG100Z

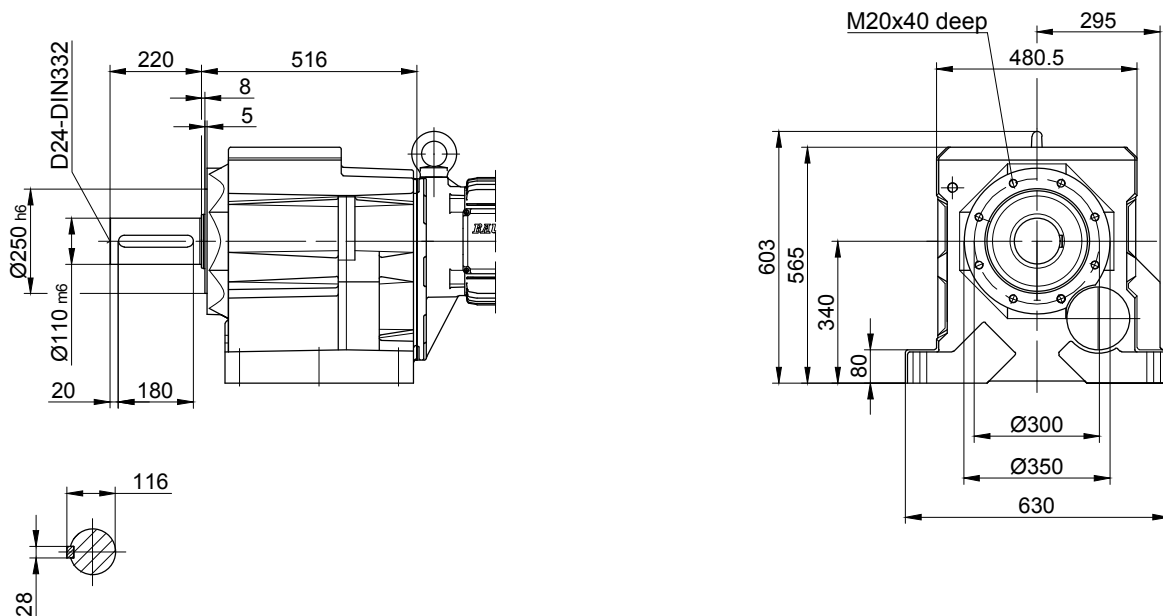
Flange with clearance holes

Code -37/
(Code -47/)



Flange with tapped holes

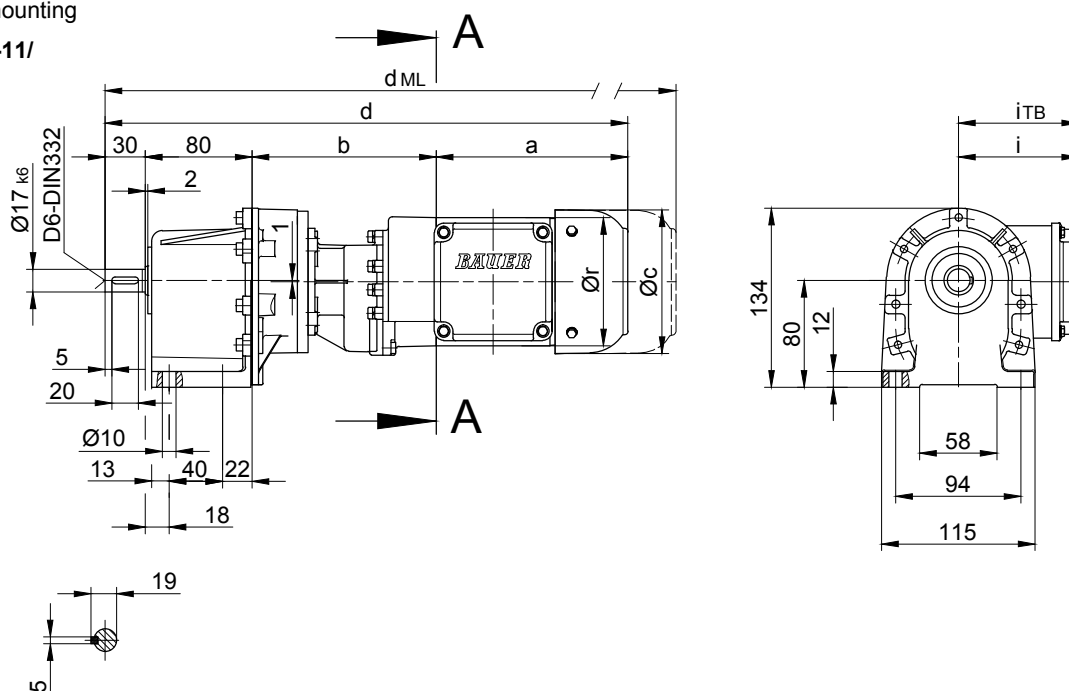
Code 71/



The actual gearbox design can vary from the geometry shown.

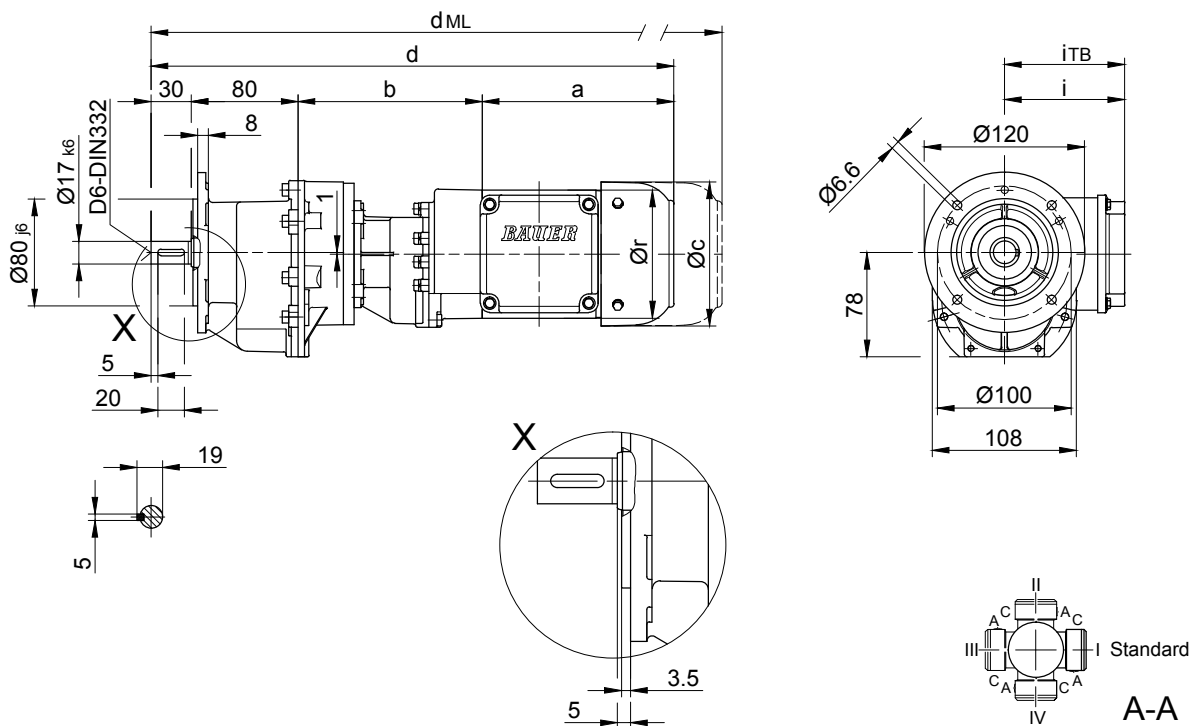
Foot mounting

Code -11/



Flange with clearance holes

Code -31/



10

Type	a	b	c	d	i	r	Design with motor extensions				
							i _{TB}	E..	G	E.-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG06G04-../D04..	143	135	111	388	90	96	112	431.5	450.5	493.5	-

The actual gearbox design can vary from the geometry shown.

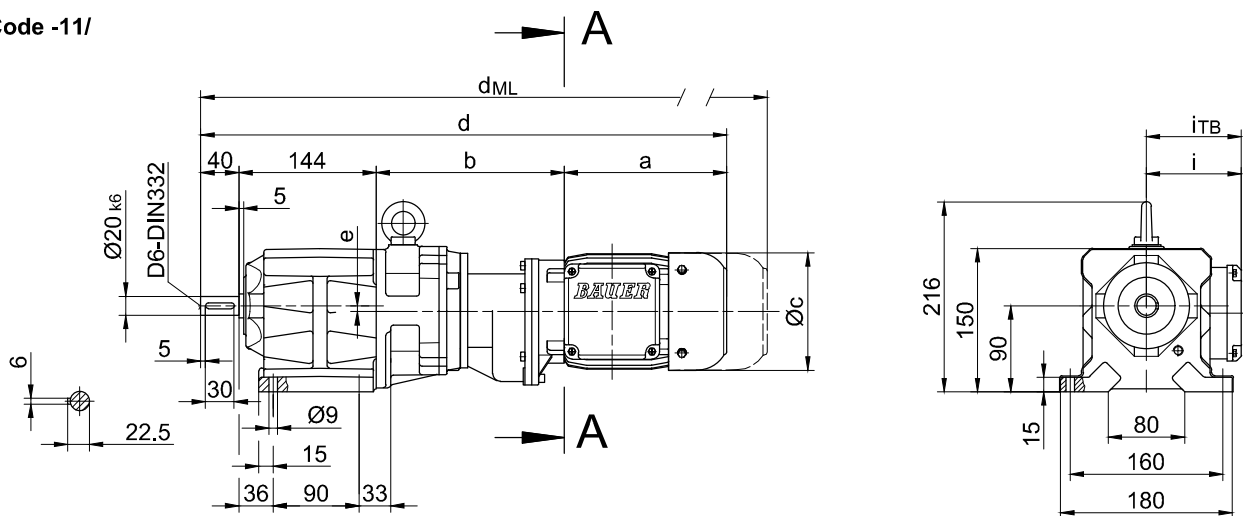
BG-series helical-geared motors

Dimension

BG10G06

Foot mounting with clearance holes

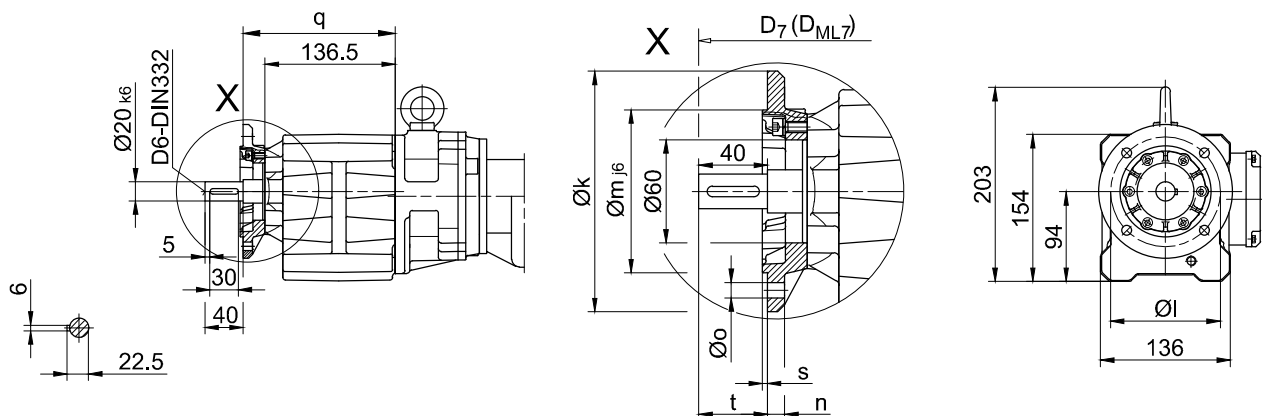
Code -11/



Flange with clearance holes

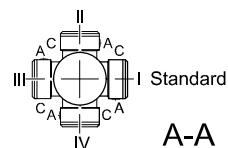
Code -37/

(Code -27/)



Flange dimensions

BG10G..	k	l	m	n	o	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



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
								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-./D..08..	200	241	156	625	6	115	136.5	691	732	798.5	691



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08XA4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08XB4

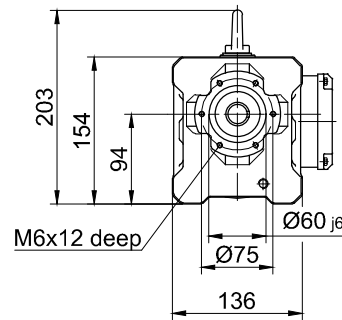
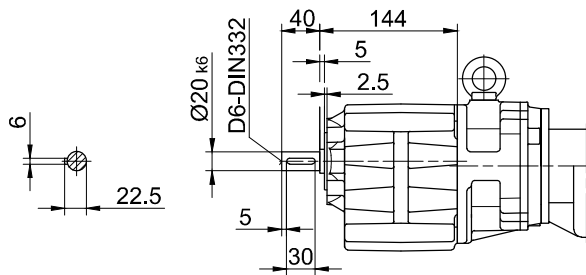
Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BG10G06

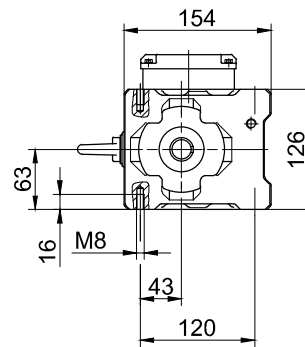
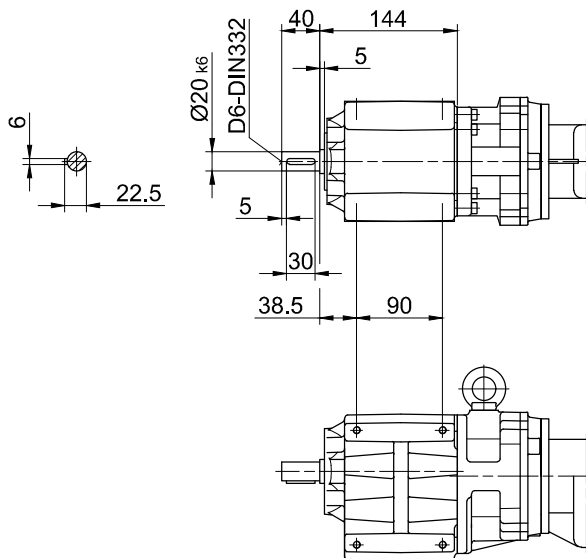
Flange with tapped holes

Code -71/



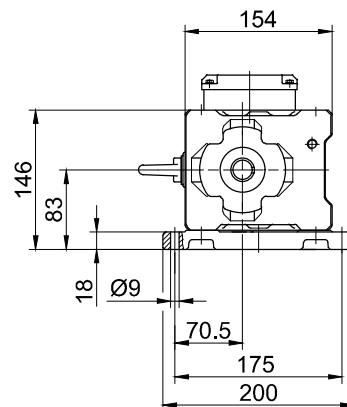
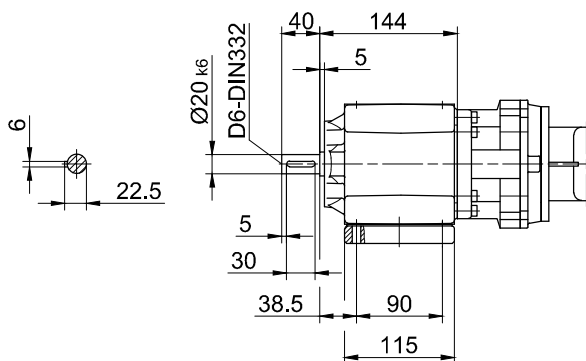
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/



The actual gearbox design can vary from the geometry shown.

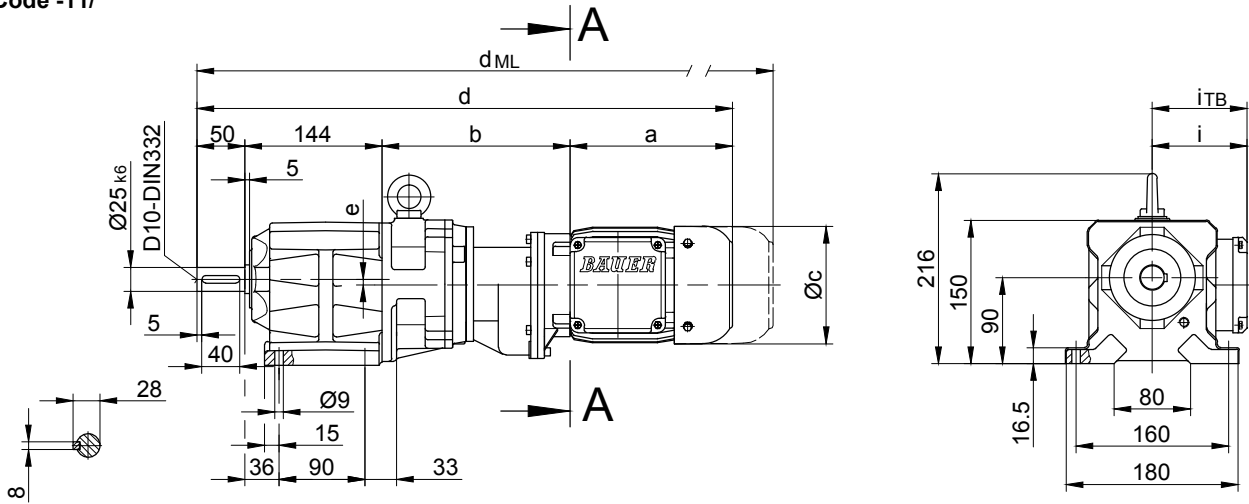
BG-series helical-geared motors

Dimension

BG10XG06

Foot mounting with clearance holes

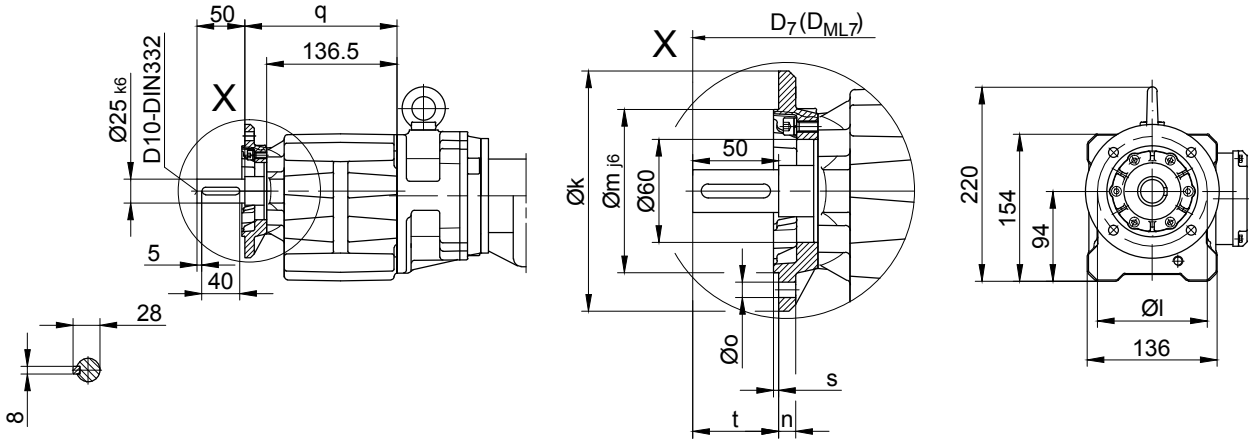
Code -11/



Flange with clearance holes

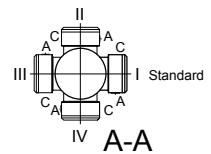
Code -37/

(Code -27/)



Flange dimensions

BG10XG..	k	l	m	n	o	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



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	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-../D..08..	200	241	156	635	6	115	136.5	701	742	808.5	701



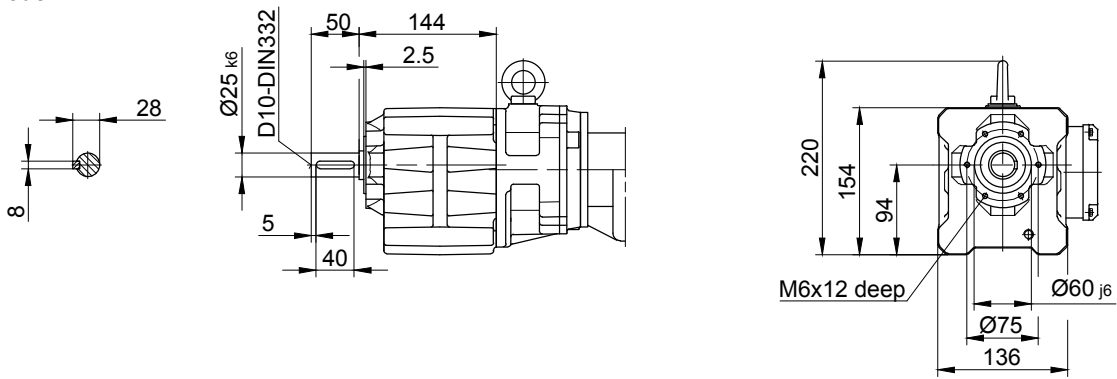
The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

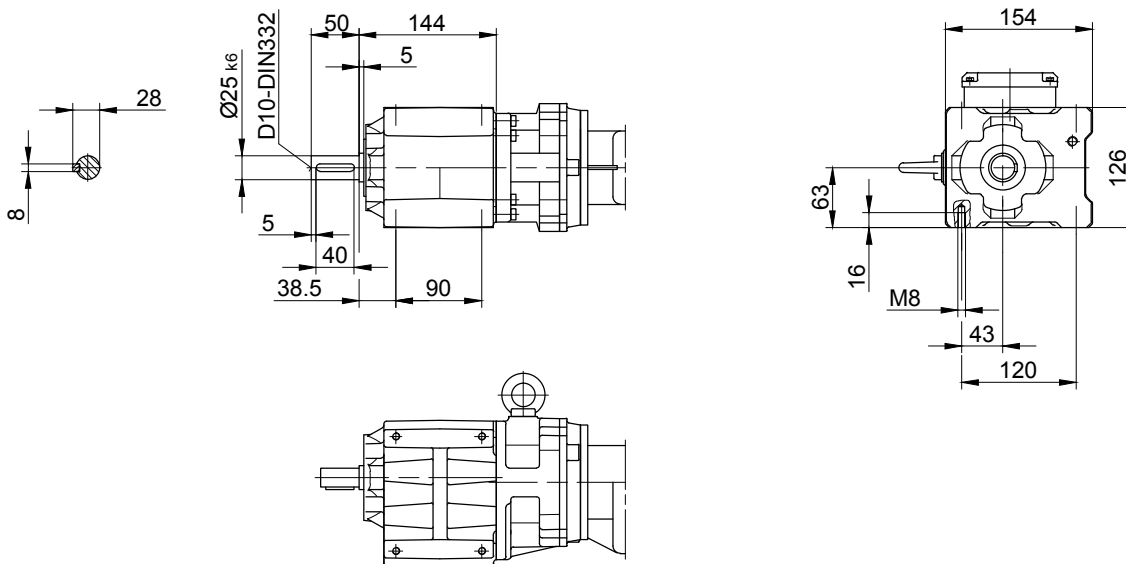
Flange with tapped holes

Code -71/



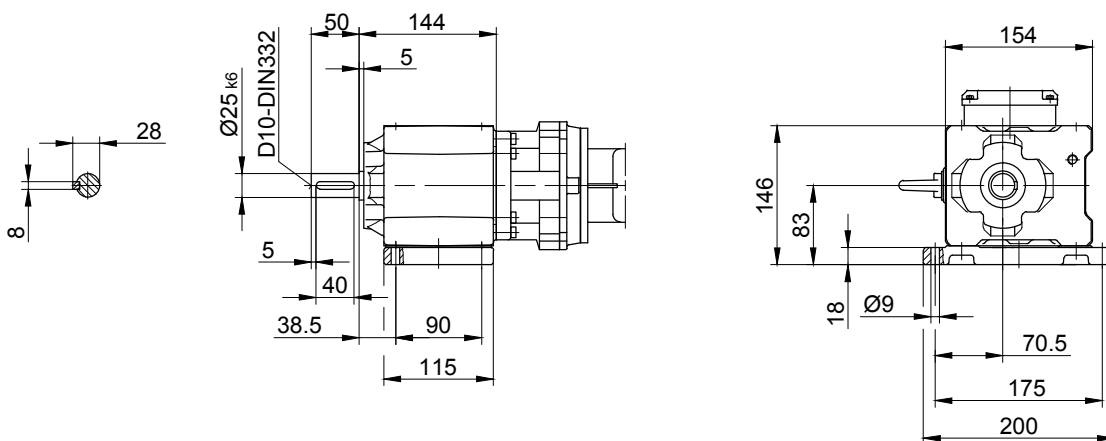
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/



The actual gearbox design can vary from the geometry shown.

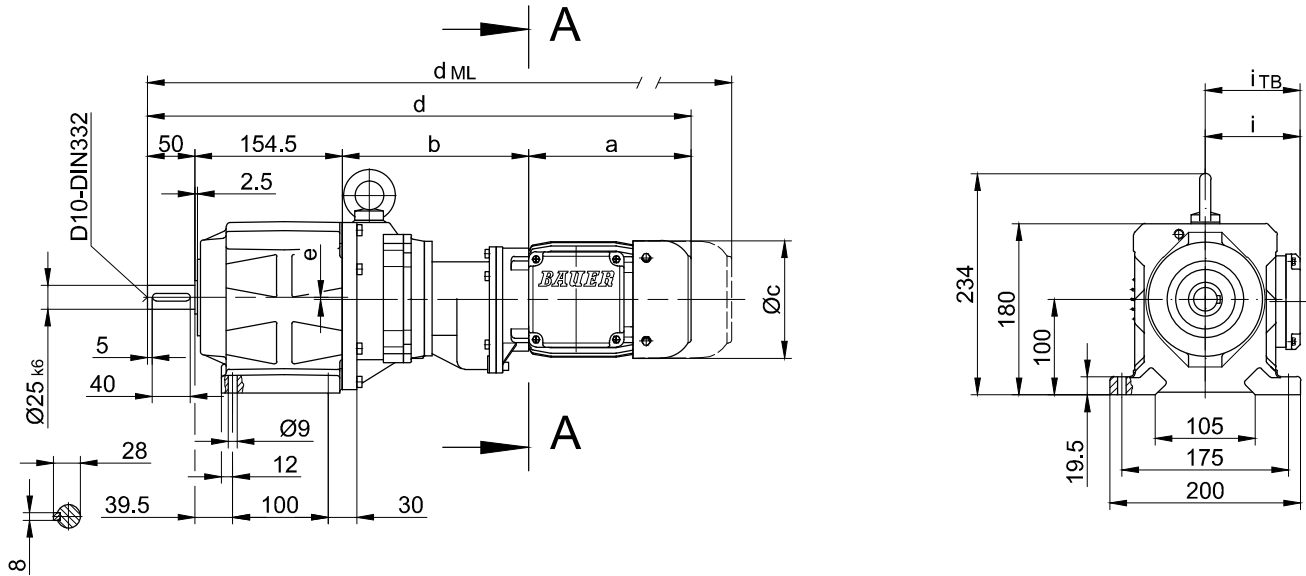
BG-series helical-geared motors

Dimension

BG20G06

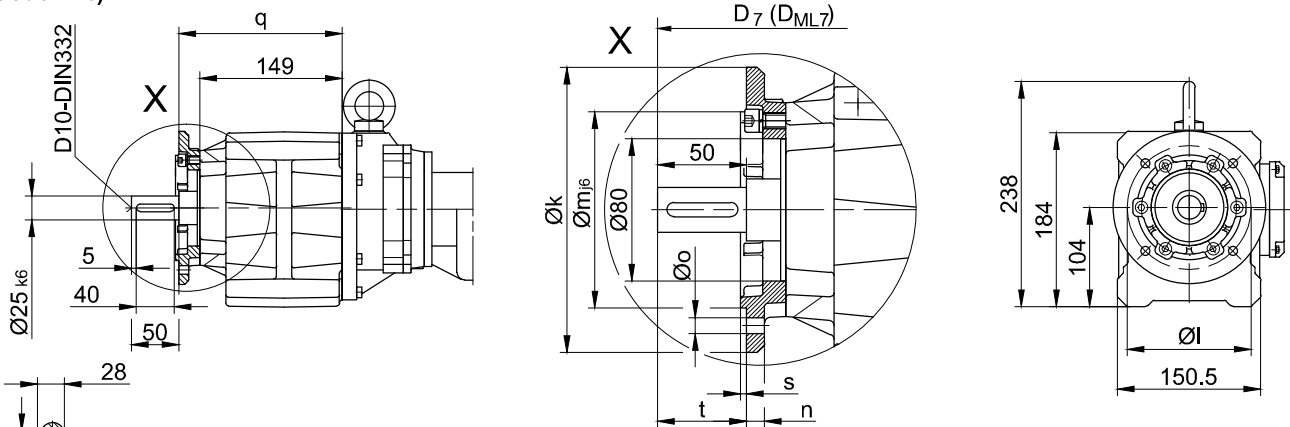
Foot mounting with clearance holes

Code -11/



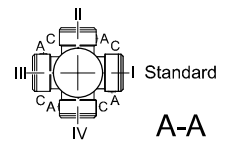
Flange with clearance holes

Code -37/
(Code -47/)



Flange dimensions

BG20G..	k	l	m	n	o	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



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	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-./D..08..	200	239	156	643.5	2	115	136.5	709.5	750.5	817	709.5



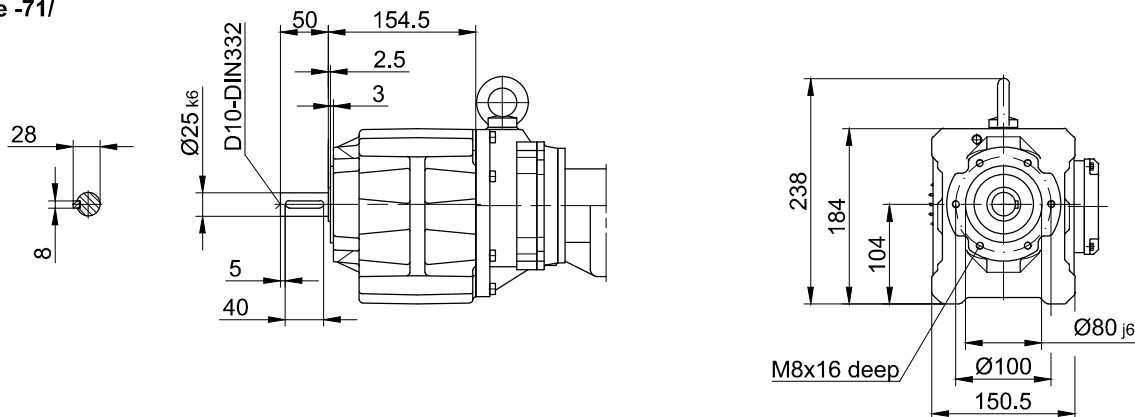
The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

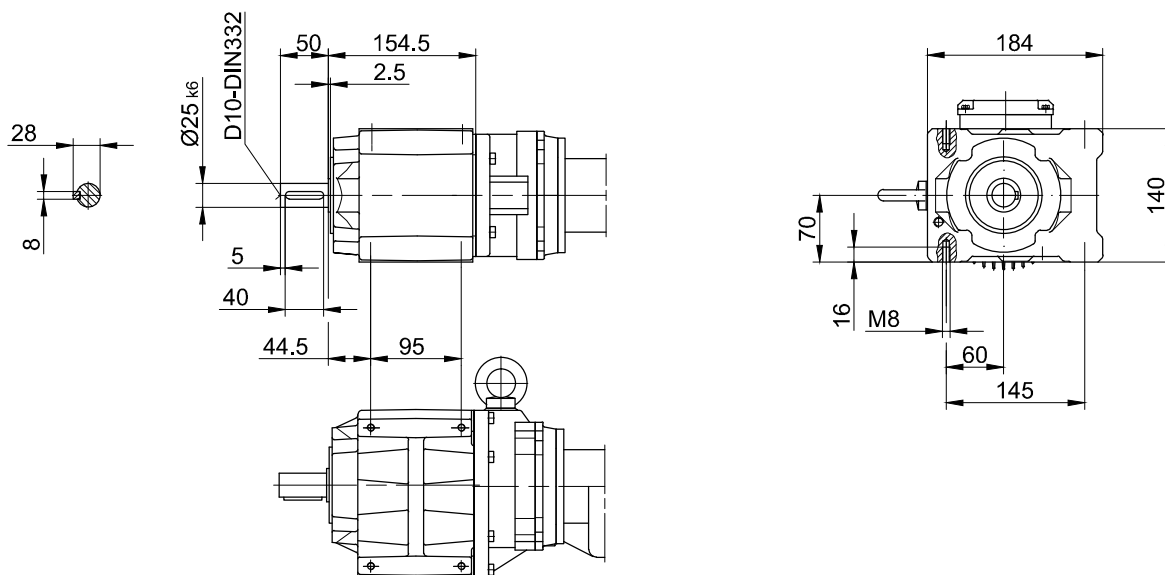
Fange with tapped holes

Code -71/



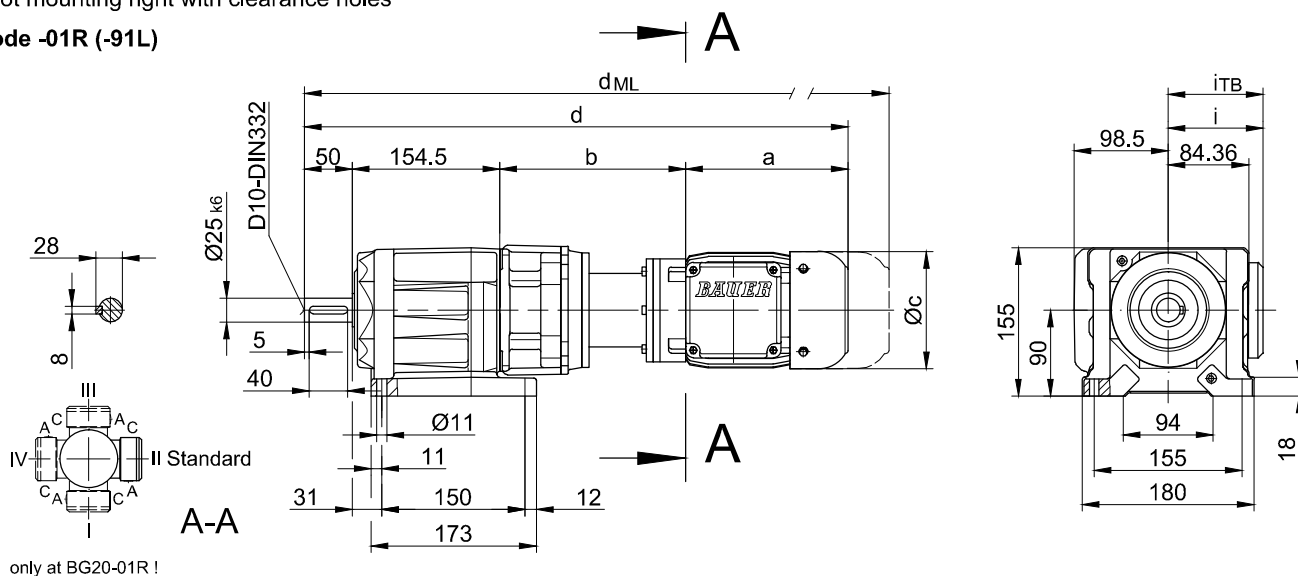
Foot with tapped holes left and right

Code -61LR/



Foot mounting right with clearance holes

Code -01R (-91L)



only at BG20-01R !

The actual gearbox design can vary from the geometry shown.

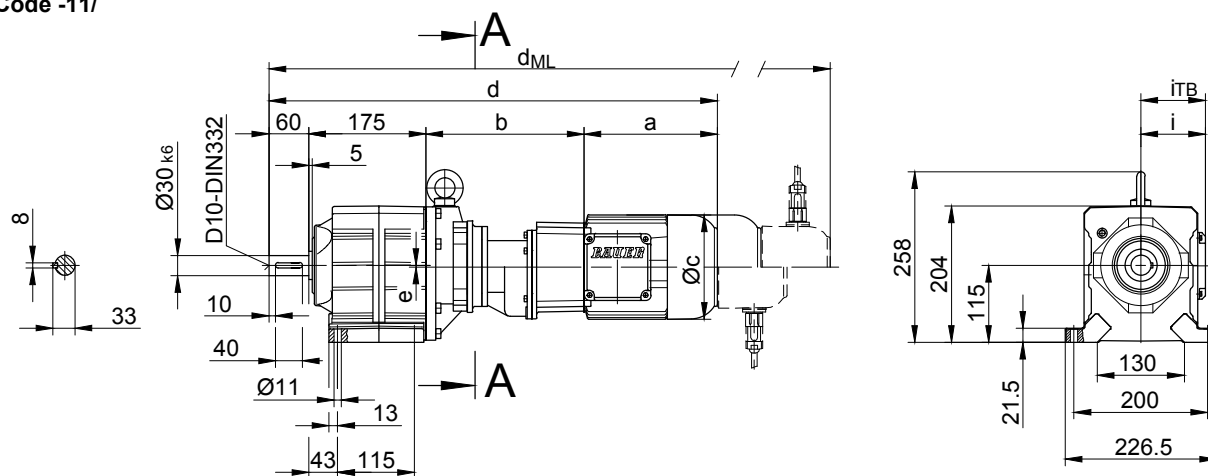
BG-series helical-geared motors

Dimension

BG30G06

Foot mounting with clearance holes

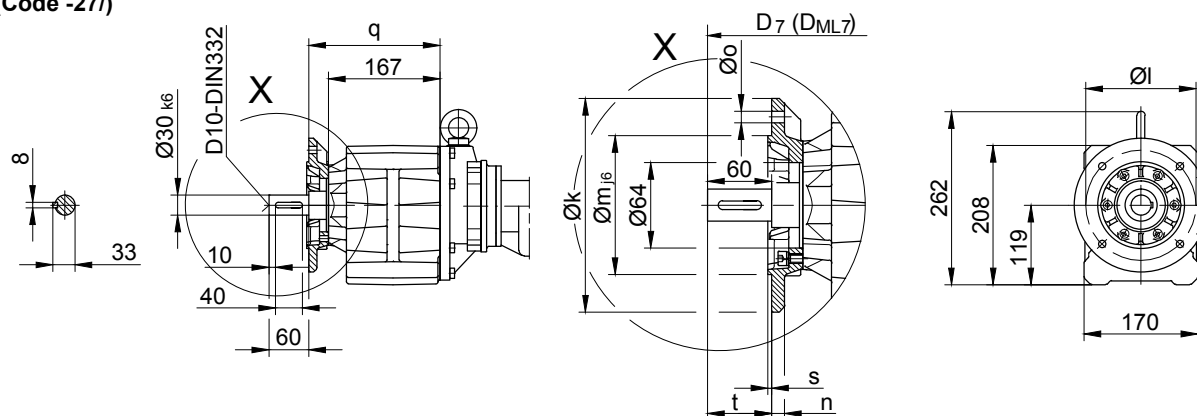
Code -11/



Flange with clearance holes

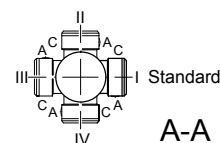
Code -37/

(Code -27/)



Flange dimensions

BG30G..	k	l	m	n	o	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



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							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-../D..08..	200	237	156	672	3	115	136.5	738	779	845.5	738



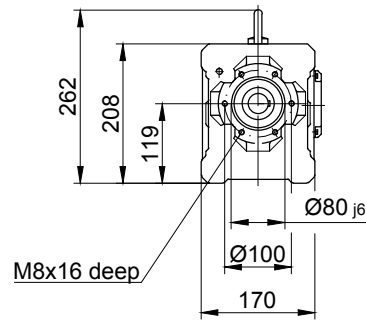
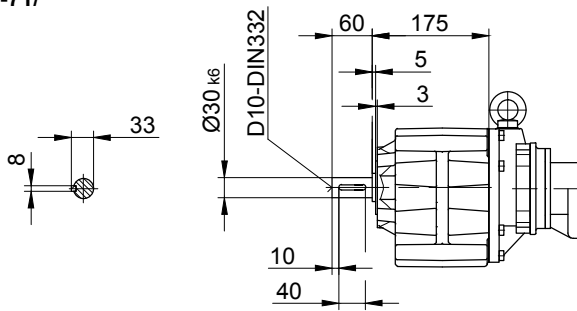
The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

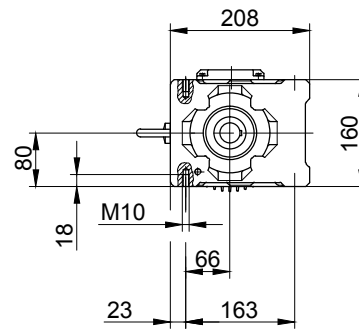
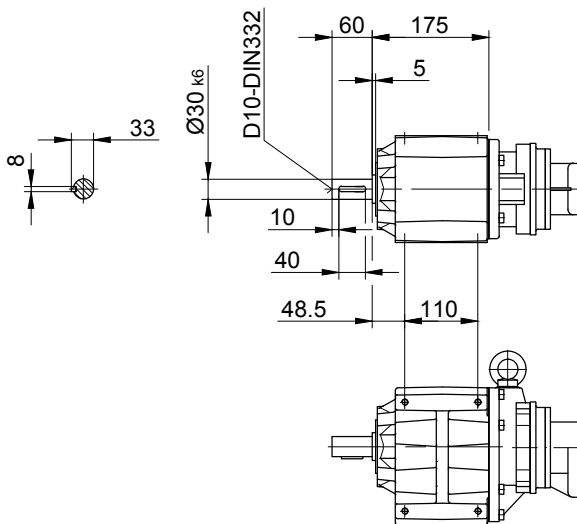
Flange with tapped holes

Code -71/



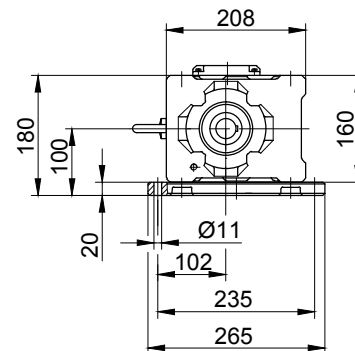
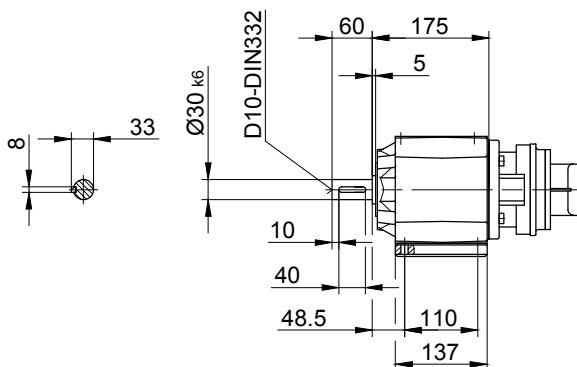
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/



The actual gearbox design can vary from the geometry shown.

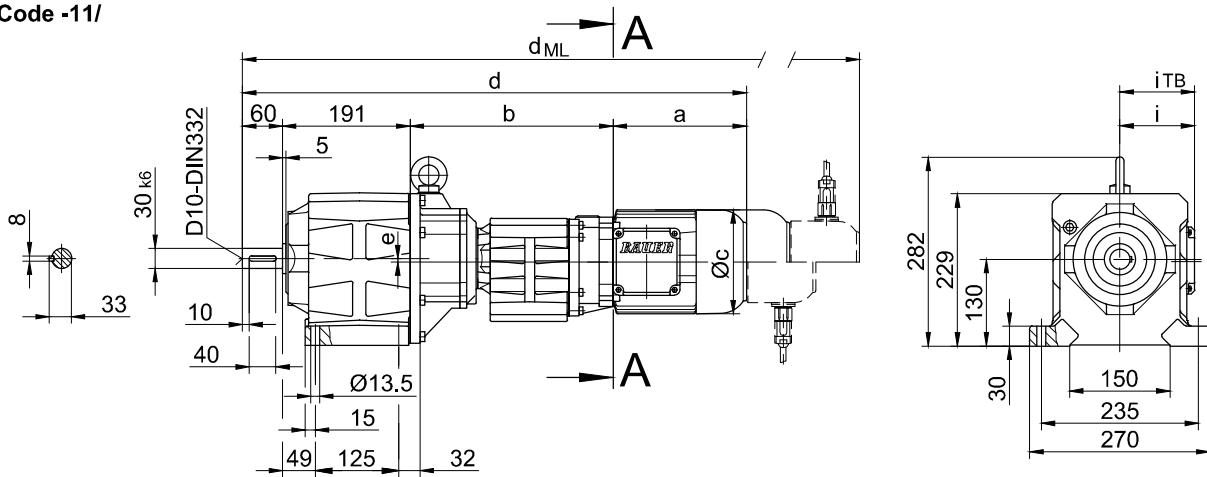
BG-series helical-geared motors

Dimension

BG40G10

Foot mounting with clearance holes

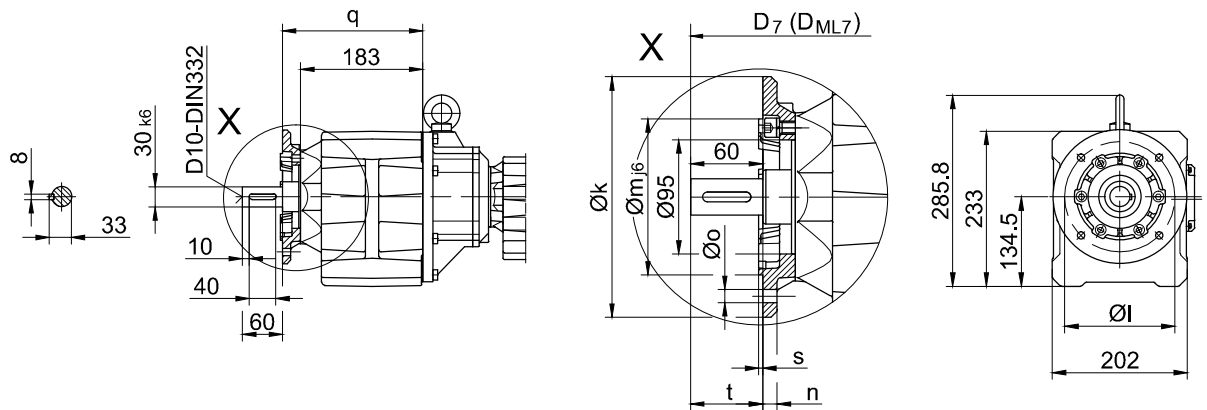
Code -11/



Flange with clearance holes

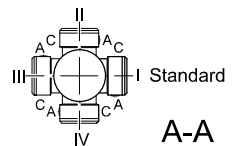
Code -37/

(Code -47/)



Flange dimensions

BG40G..	k	l	m	n	o	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



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E./ES..	G	E./ES..-G	RR/RL
								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-./D..08..	200	304	156	755	5	115	136.5	821	862	928.5	821
BG40G10-./D..09..	251	318.5	181	820.5	5	124	158	913.5	927.5	1018	913.5



The dimensions "a", "d" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

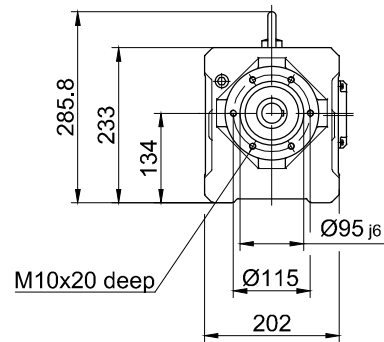
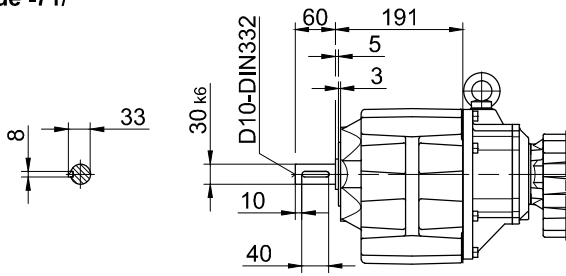
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BG40G10

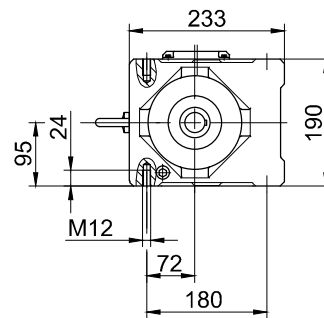
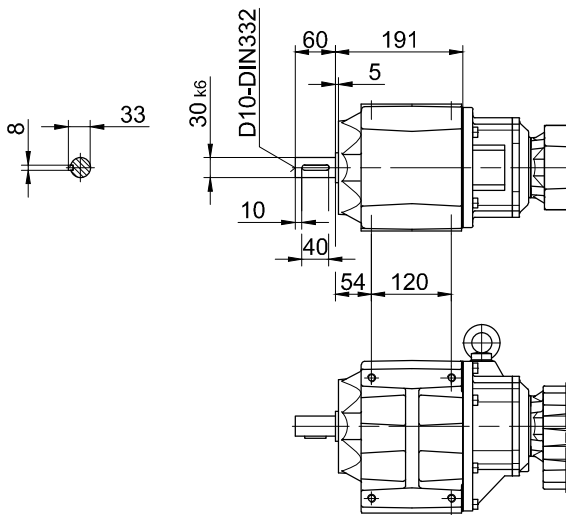
Flange with tapped holes

Code -71/



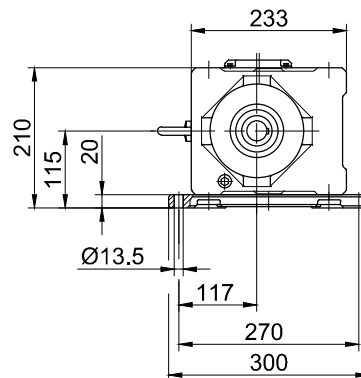
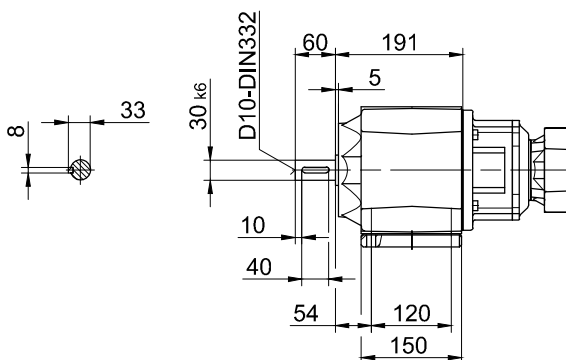
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/



The actual gearbox design can vary from the geometry shown.

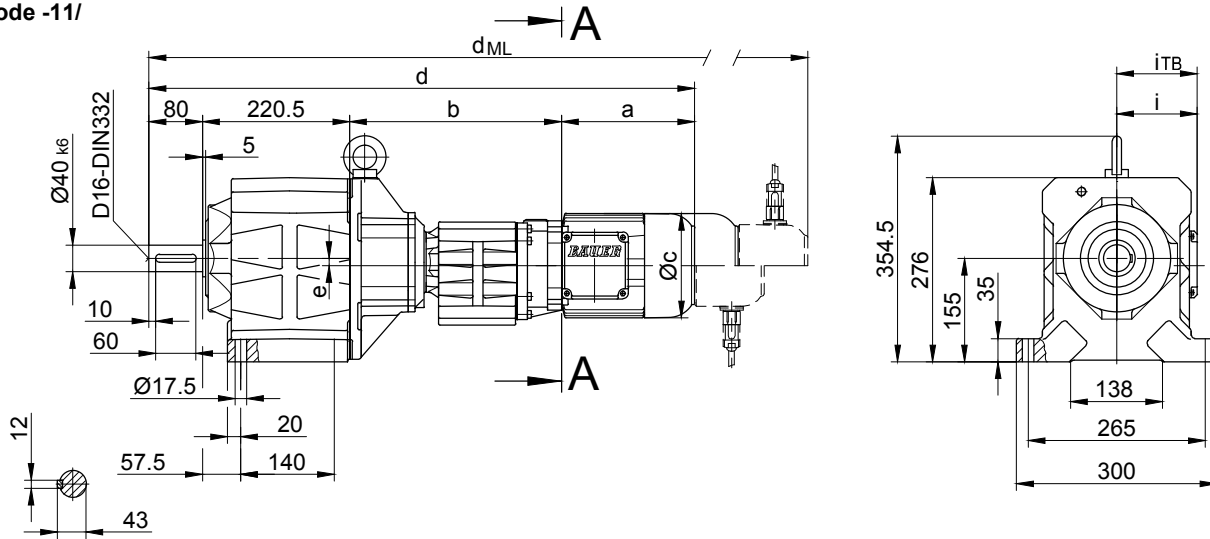
BG-series helical-geared motors

Dimension

BG50G10

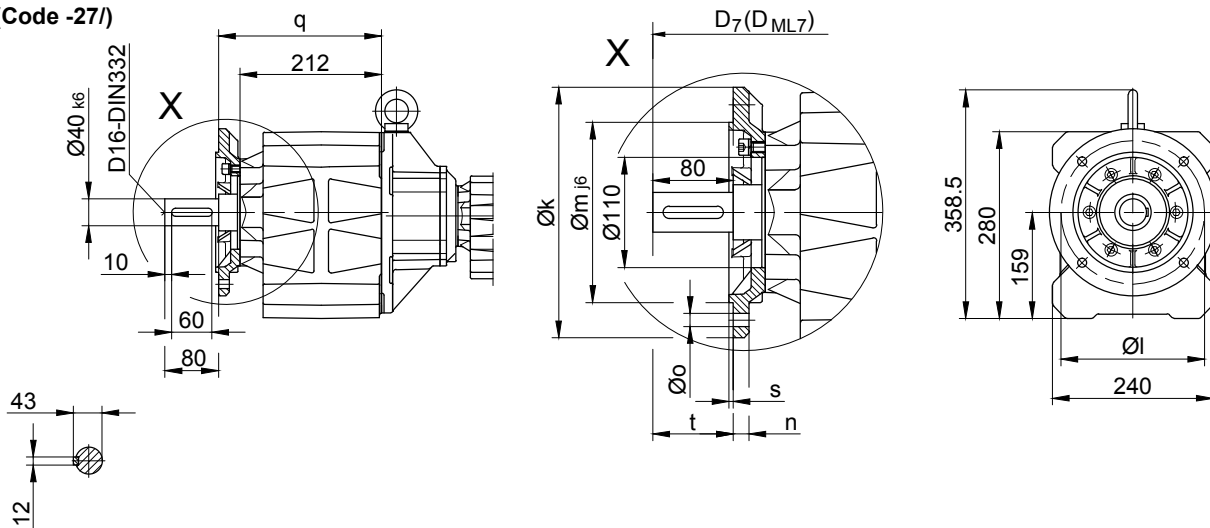
Foot mounting with clearance holes

Code -11/



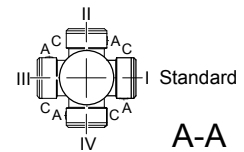
Flange with clearance holes

Code -37/
(Code -27/)



Flange dimensions

BG50G..	k	l	m	n	o	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



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							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-../D..08..	200	317	156	817.5	11	115	136.5	883.5	924.5	991	883.5
BG50G10-../D..09..	251	331.5	181	883	11	124	158	976	990	1080.5	976



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

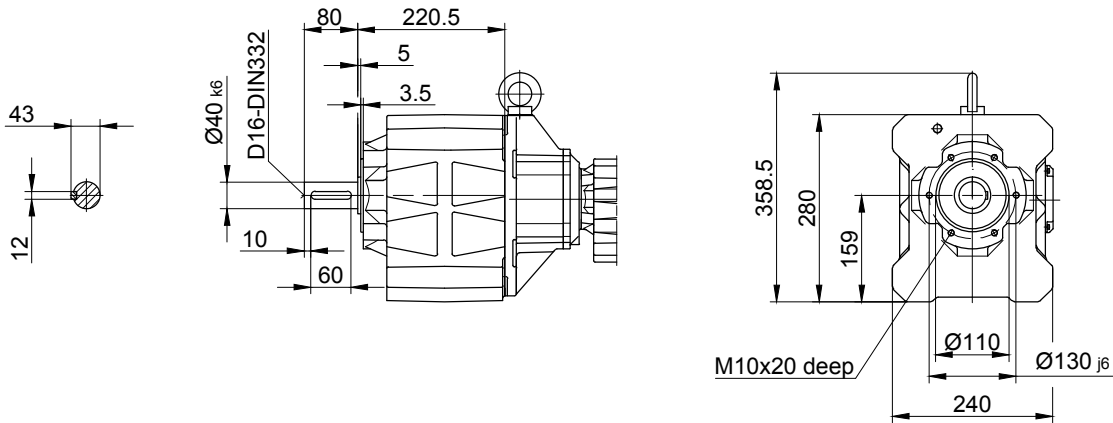
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BG50G10

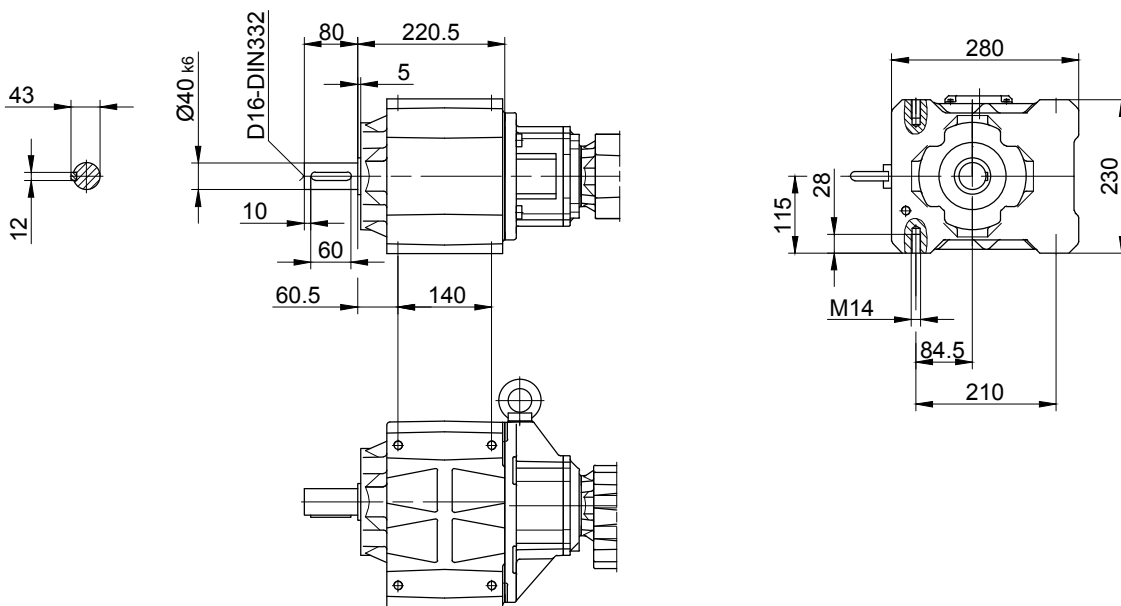
Flange with tapped holes

Code -71/



Foot with tapped holes left and right

Code -61LR/



The actual gearbox design can vary from the geometry shown.

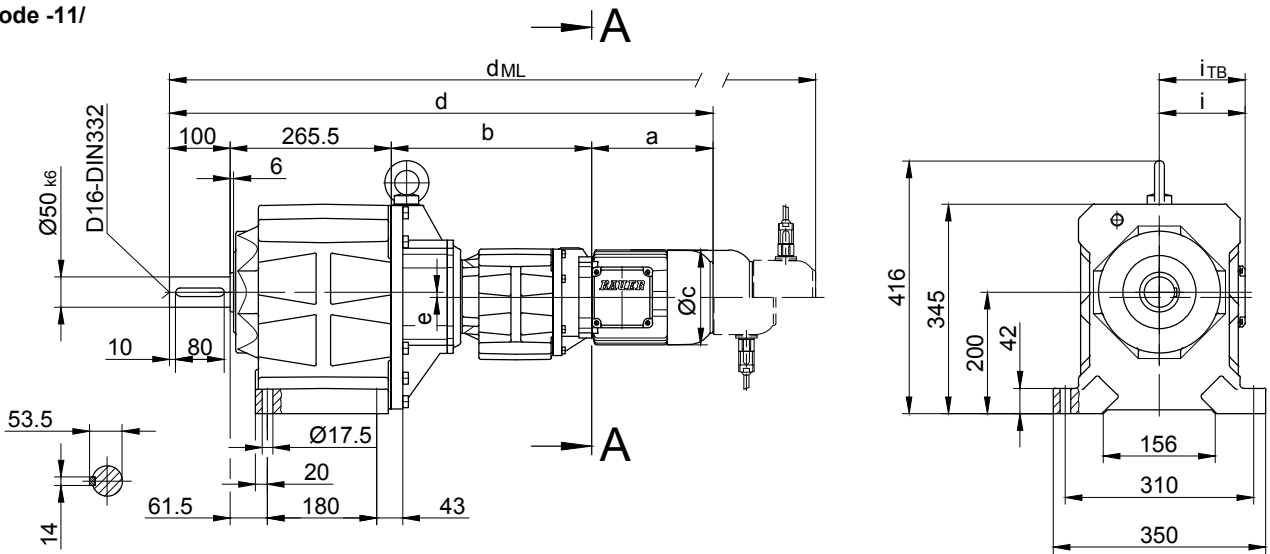
BG-series helical-geared motors

Dimension

BG60G20

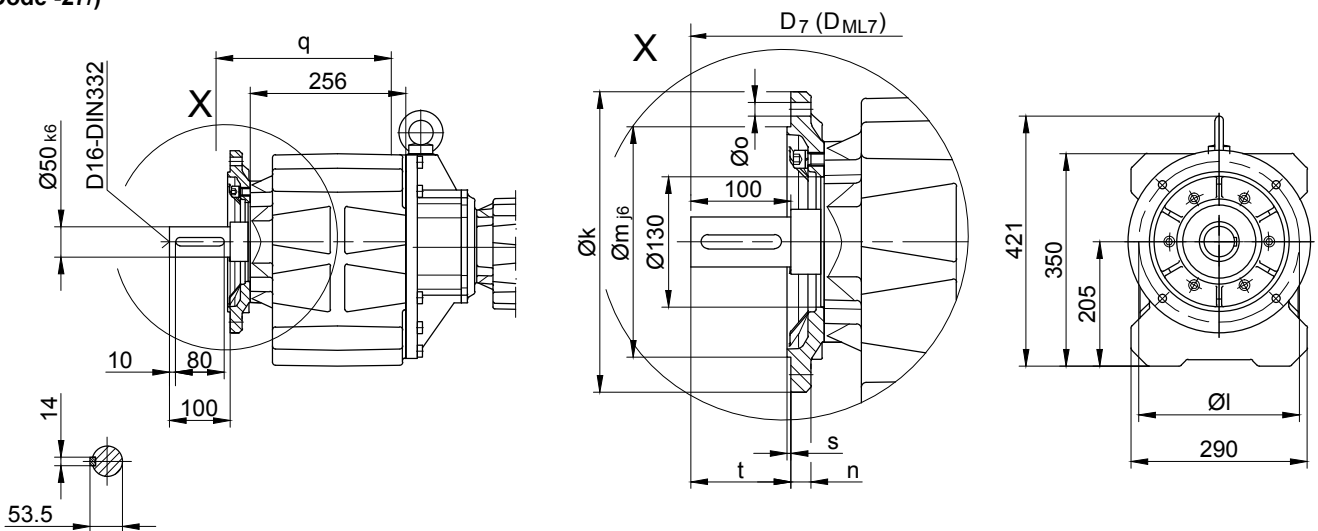
Foot mounting with clearance holes

Code -11/



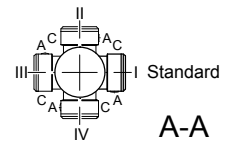
Flange with clearance holes

Code -37/
(Code -27/)



Flange dimensions

BG60G..	k	l	m	n	o	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



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	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-../D..08..	200	330	156	895.5	8.5	115	136.5	961.5	1002.5	1069	961.5
BG60G20-../D..09..	251	344.5	181	961	8.5	124	158	1054	1068	1158.5	1054



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

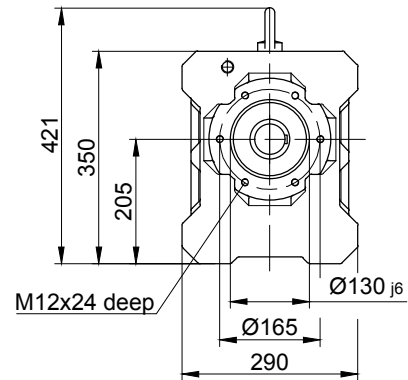
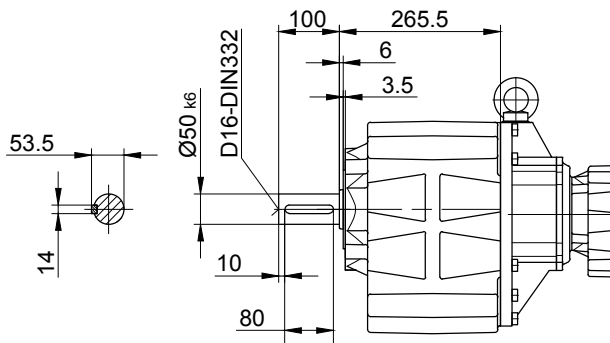
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BG60G20

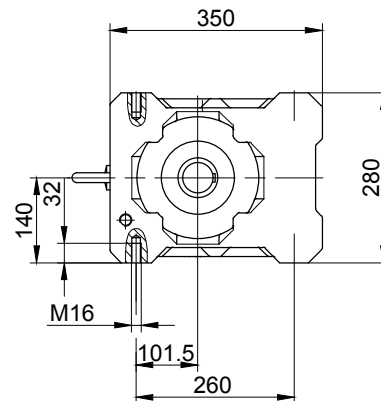
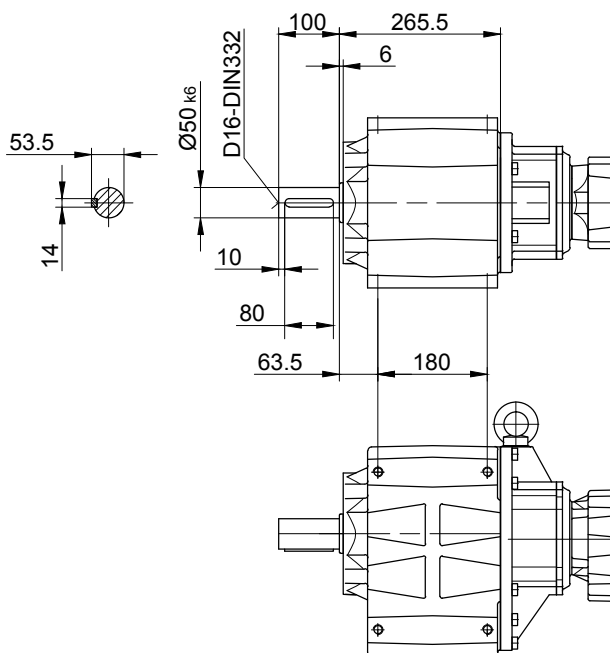
Flange with tapped holes

Code -71/



Foot with tapped holes left and right

Code -61LR/



10

The actual gearbox design can vary from the geometry shown.

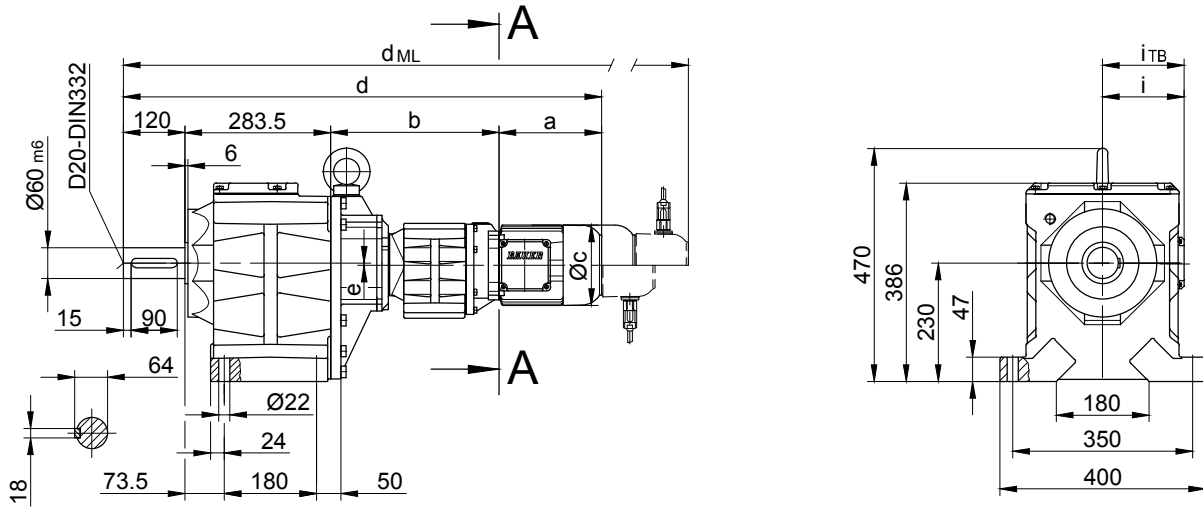
BG-series helical-geared motors

Dimension

BG70G20

Foot mounting with clearance holes

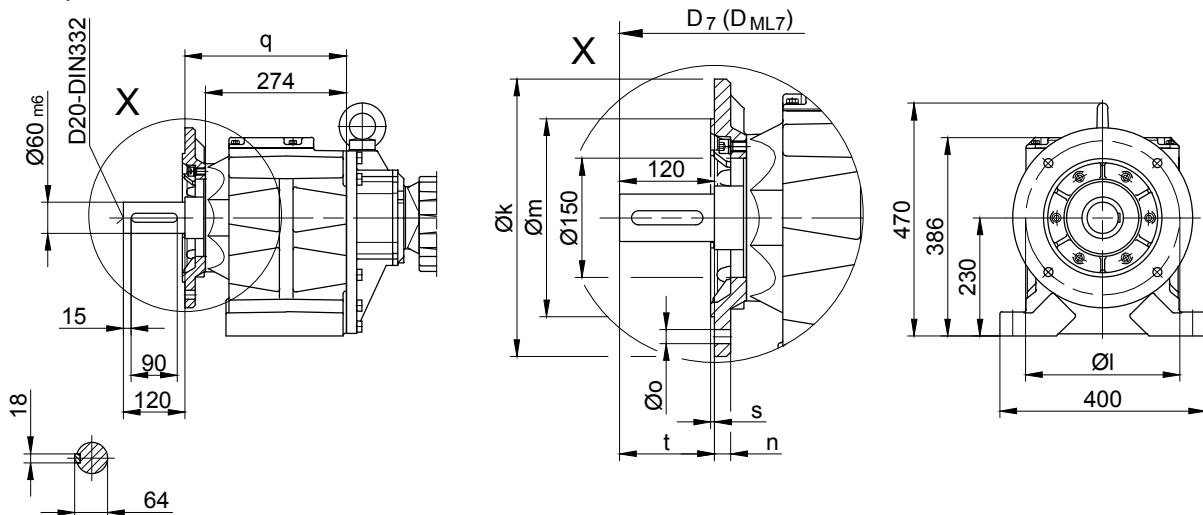
Code -11/



Flange with clearance holes

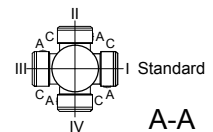
Code -37/

(Code -27/)



Flange dimensions

BG70G..	k	l	m	n	o	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



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	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-../D..08..	200	328	156	931.5	1	115	136.5	997.5	1038.5	1105	997.5
BG70G20-../D..09..	251	342.5	181	997	1	124	158	1090	1104	1194.5	1090



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

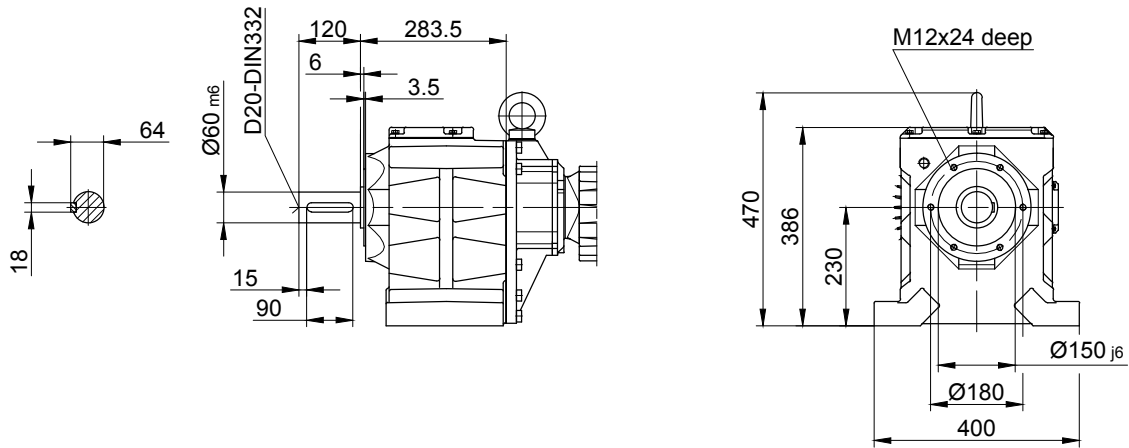
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BG70G20

Flange with tapped holes

Code -71/



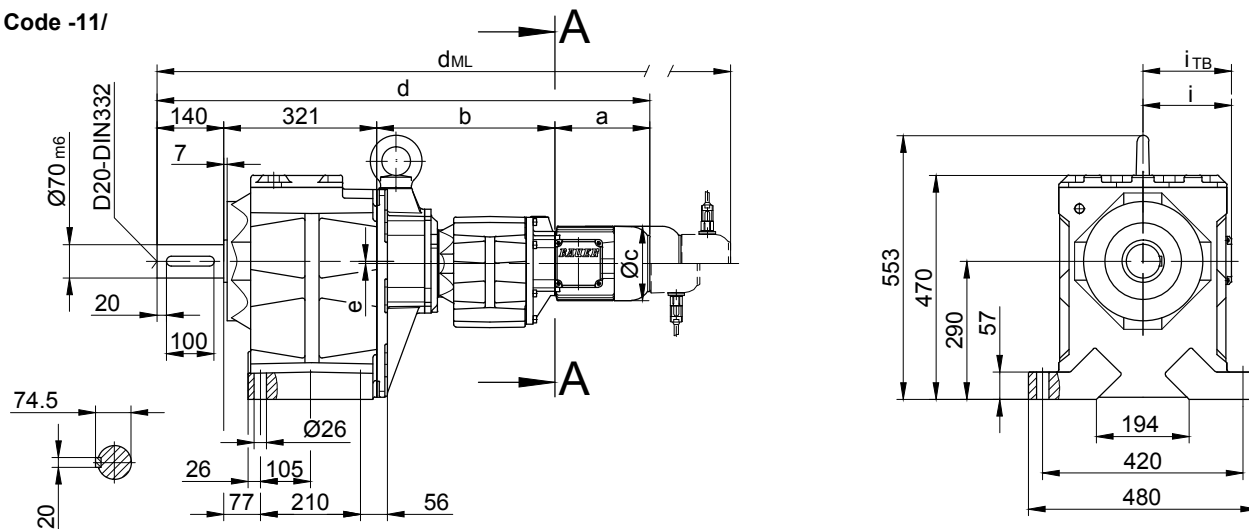
BG-series helical-geared motors

Dimension

BG80G40

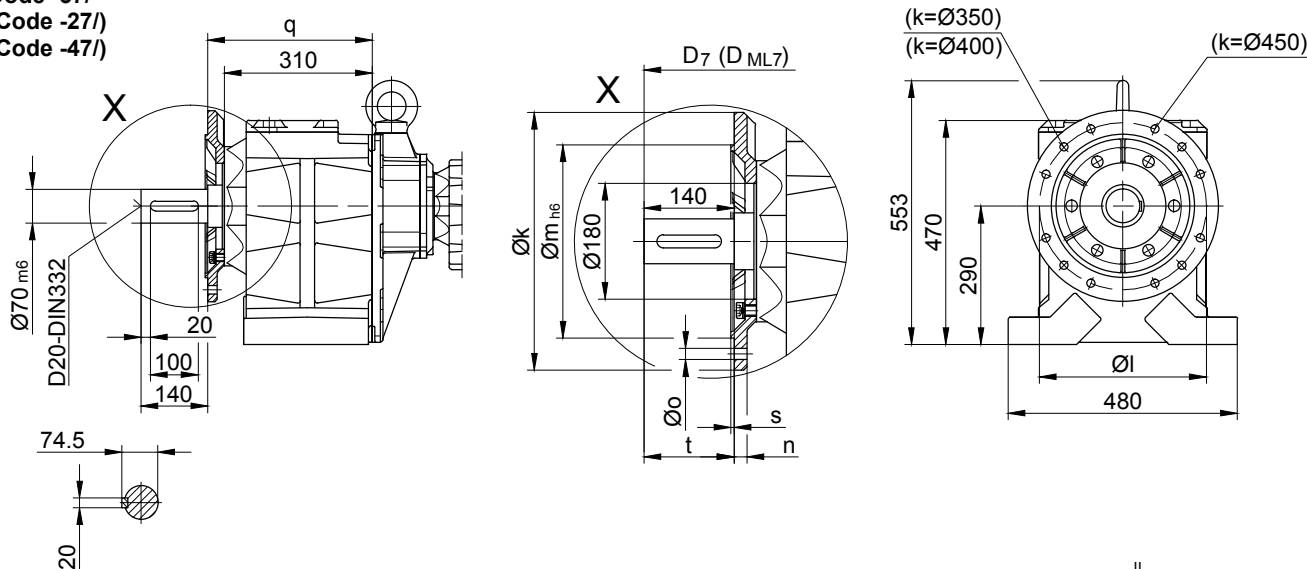
Foot mounting with clearance holes

Code -11/



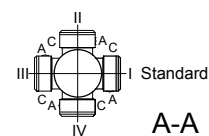
Flange with clearance holes

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



Flange dimensions

BG80G..	k	l	m	n	o	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



Type	a	b	c	d	e	i	Design with motor extensions				
							ES..	G	ES../ZS..-G	RR/RL	
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BG80G40-../D..08..	200	373	156	1034	-	115	136.5	1100	1141	1207.5	1100
BG80G40-../D..09..	251	387.5	181	1099.5	-	124	158	1192.5	1206.5	1297	1192.5
BG80G40-../D..11..	319	394	228	1174	-	181	181	1272	1281	1376.5	1272



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
Type Example: BK70-74V/DPE08XA4
Comment: No change to the dimensions shown

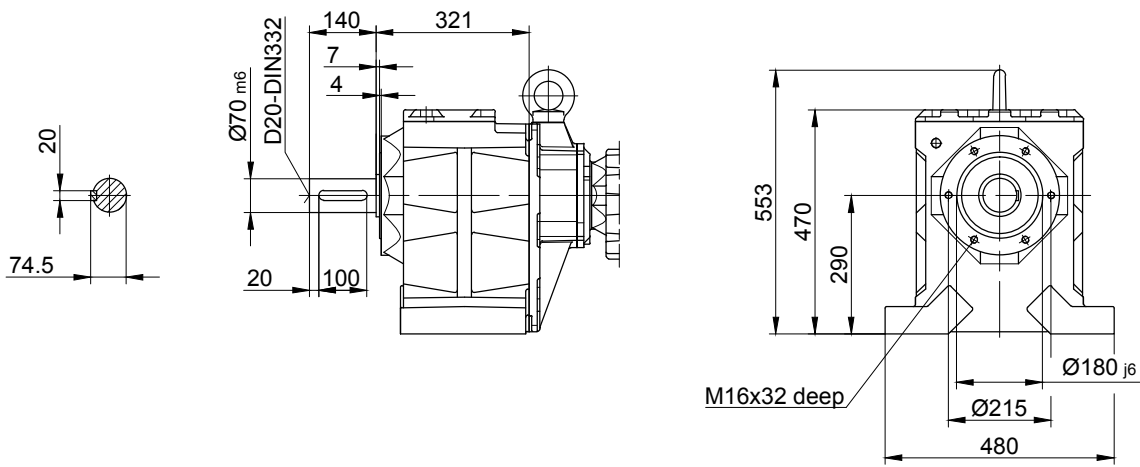
Design state "B" = Extended Length
Type Example: BK70-74V/DPE08XB4
Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BG80G40

Flange with tapped holes

Code -71/



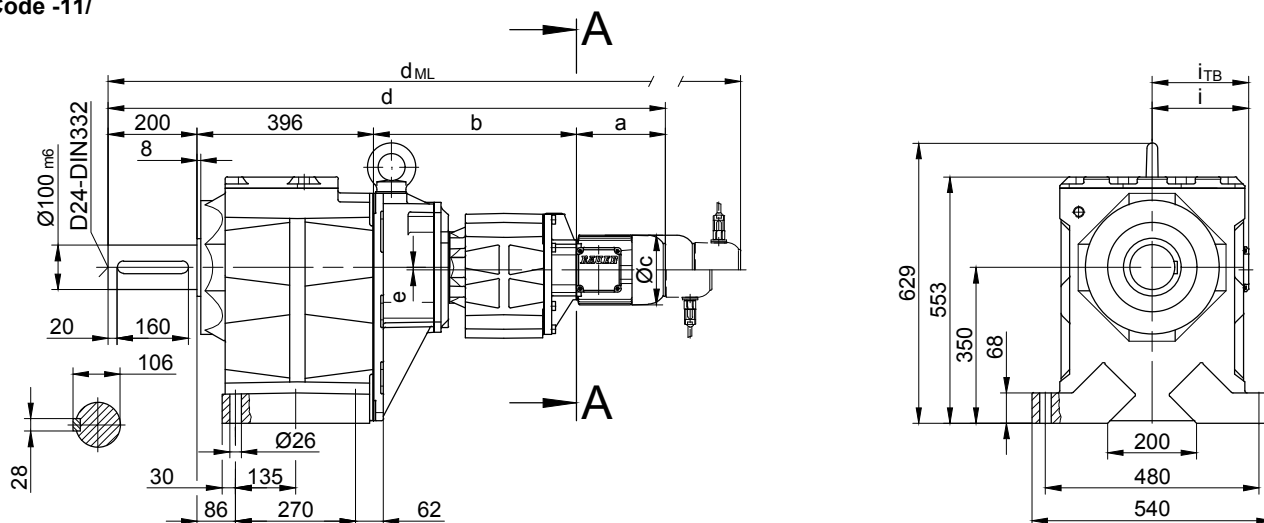
BG-series helical-geared motors

Dimension

BG90G50

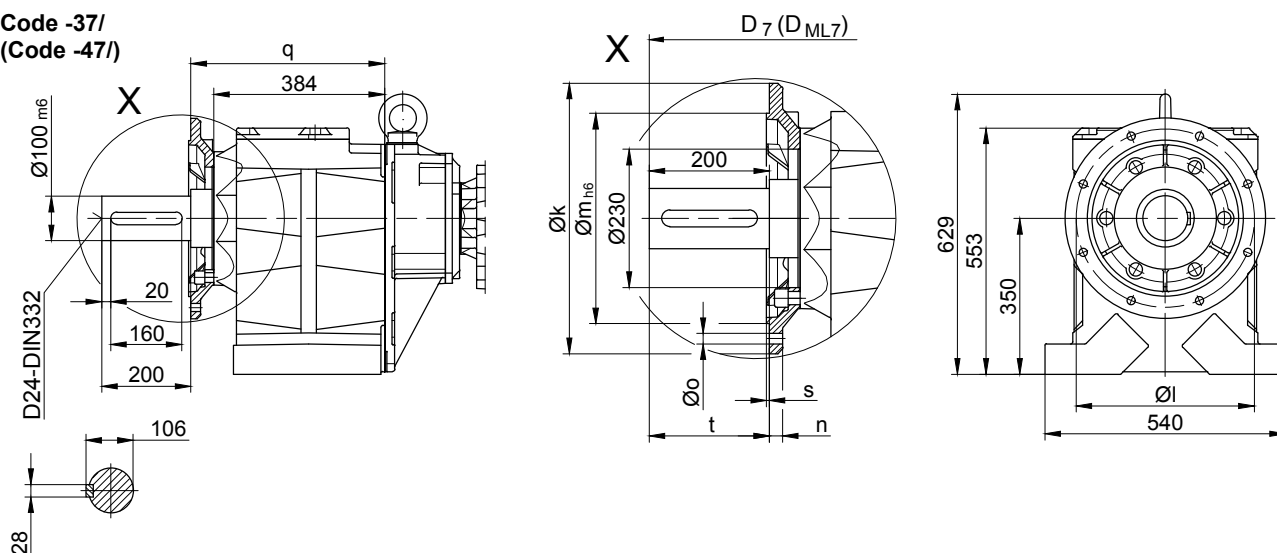
Foot mounting with clearance holes

Code -11/



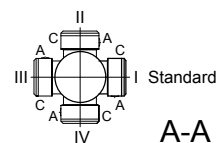
Flange with clearance holes

Code -37/
(Code -47/)



Flange dimensions

BG90G...	k	l	m	n	o	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



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BG90G50-../D..08..	200	456	156	1252	6	115	136.5	1318	1359	1425.5	1318
BG90G50-../D..09..	251	470.5	181	1317.5	6	124	158	1410.5	1424.5	1514	1410.5
BG90G50-../D..11..	319	477	228	1392	6	181	181	1490	1499	1594.5	1490
BG90G50-../D..13..	393	490	258	1479	6	218	218	1590	1586	1694.5	1590
BG90G50-../D..16..	454.5	504	310	1554.5	6	244	244	1698	1661.5	1802	1698
BG90G50-../D..18..	542	535	348	1673	6	244	244	1822.5	1780	1926.5	1822.5



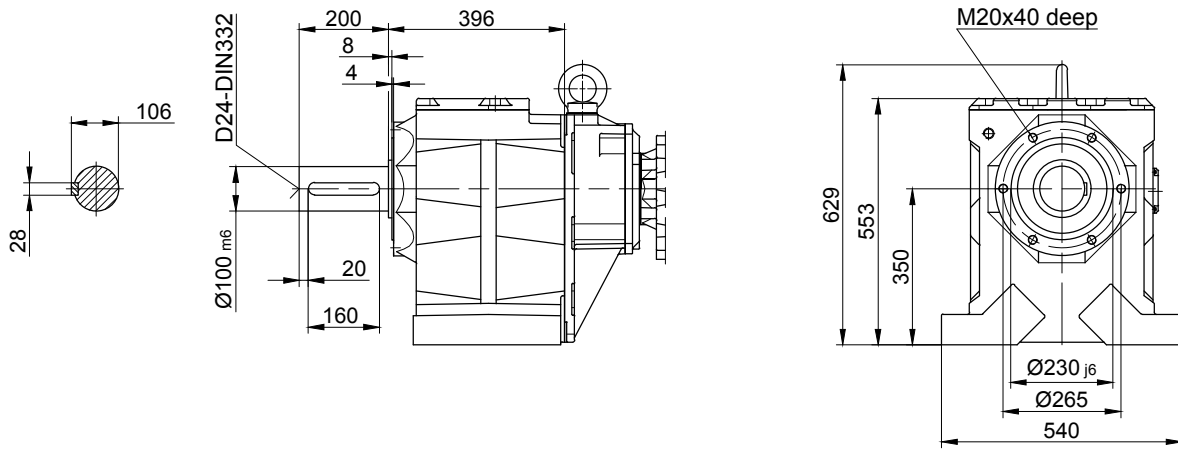
The dimensions "a", "d" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BG90G50

Flange with tapped holes
Code -71/



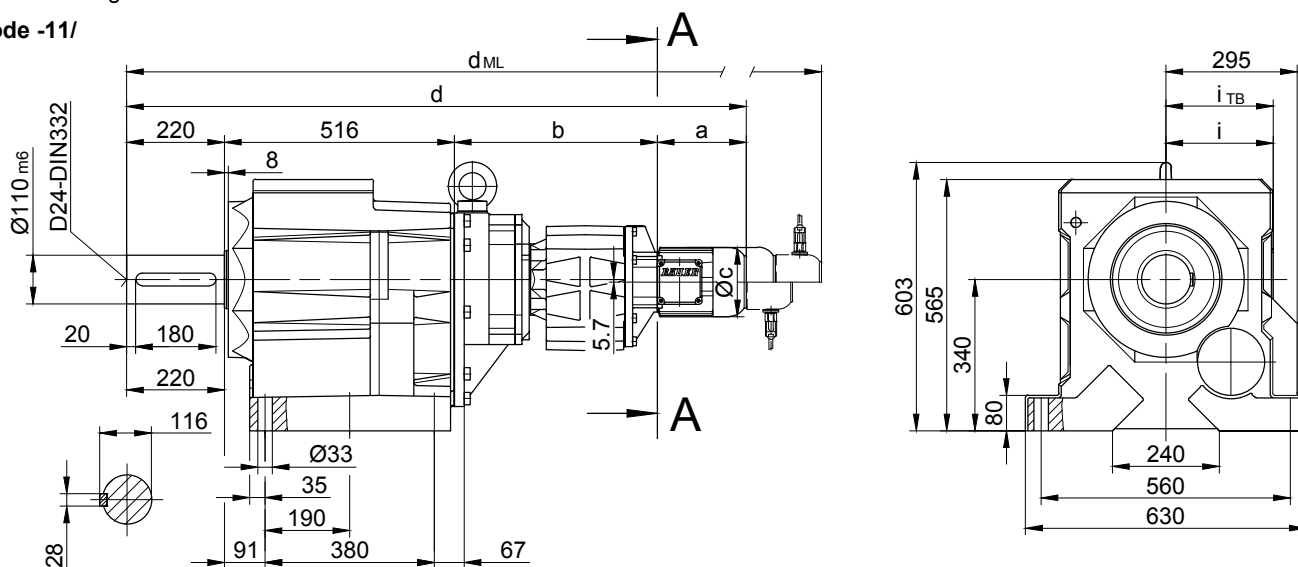
BG-series helical-geared motors

Dimension

BG100G50

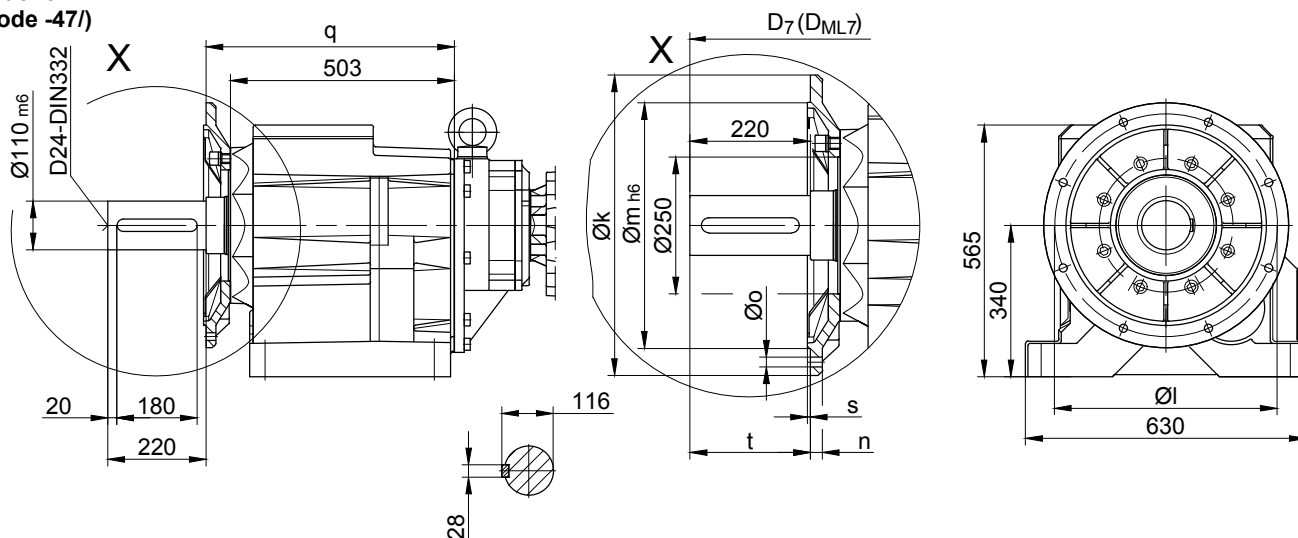
Foot mounting with clearance holes

Code -11/



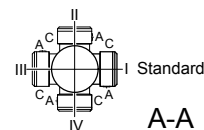
Flange with clearance holes

Code -37/
(Code -47/)



Flange dimensions

BG100G...	k	l	m	n	o	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



Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG100G50-../D..08..	200	456	156	1392	115	136.5	1458	1499	1565.5	1458
BG100G50-../D..09..	251	470.5	181	1457.5	124	158	1550.5	1564.5	1655	1550.5
BG100G50-../D..11..	319	477	228	1532	181	181	1630	1639	1734.5	1630
BG100G50-../D..13..	393	490	258	1619	218	218	1730	1726	1834.5	1730
BG100G50-../D..16..	454.5	504	310	1694.5	244	244	1838	1801.5	1942	1838
BG100G50-../D..18..	542	535	348	1813	288	288	1962.5	1920	2066.5	1962.5



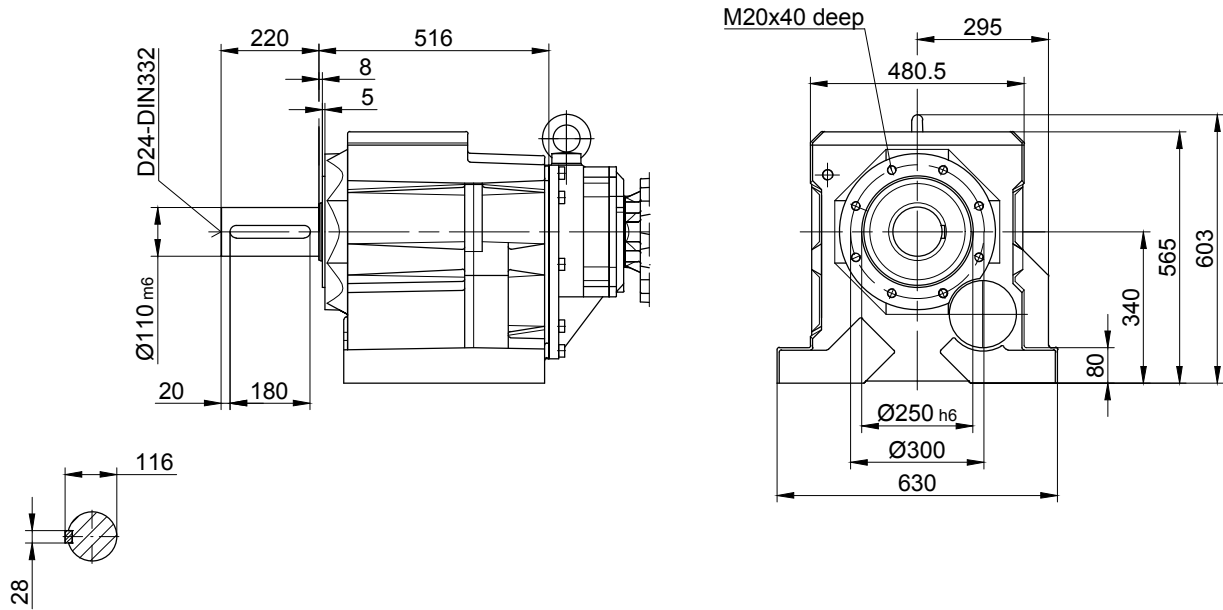
The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

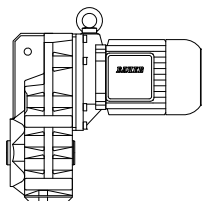
The actual gearbox design can vary from the geometry shown.

Flange with tapped holes

Code 71/



11



Page

Dimensional drawings shaft-mounted-geared motors 263-314

- Standard
- Tandem Gearbox

Additional Dimension Sheet

- Splined shaft acc. DIN 5480
 - Shrink disc (SSV)
 - Shrink disc 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)
-

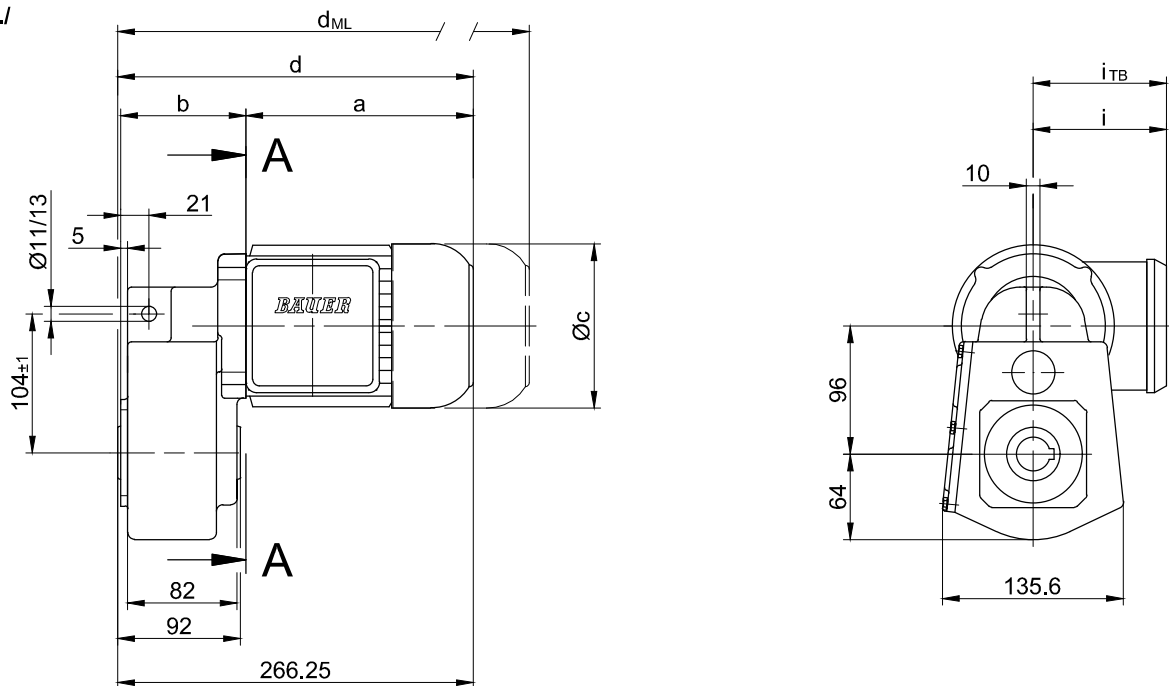
BF-series shaft-mounted geared motors

Dimension

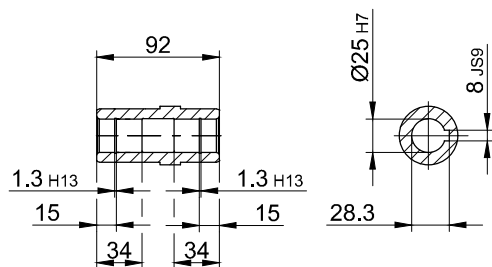
BF06

With torque arm

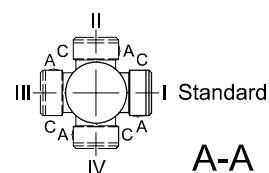
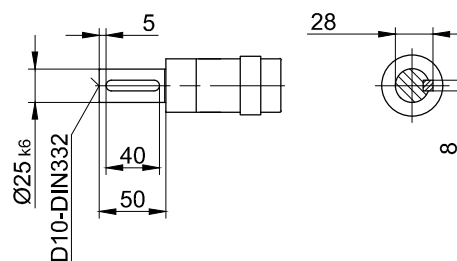
Code -0./



Code -4/



Code -1/



A-A

Type	a	b	c	d	i	Design with motor extensions				
						i_{TB}	E../ES..	G	E../ES..-G	RR/RL
							d_{ML}	d_{ML}	d_{ML}	d_{ML}
BF06-../D05..	170	93.5	123	266	100	117	308	369	410.5	-
BF06-../D06..	170	93.5	123	266	100	119	308	369	410.5	-
BF06-../D07..	190	94.5	123	286	100	119	328	389	430.5	-
BF06-../D08..	200	141	156	343.5	115	136.5	409.5	450.5	517.5	409.5



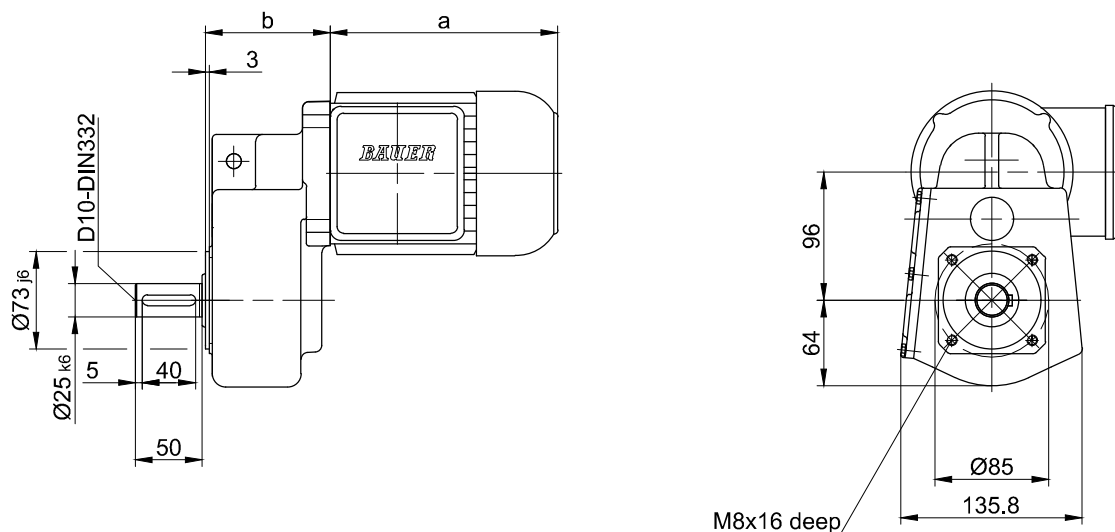
The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

Flange with tapped holes

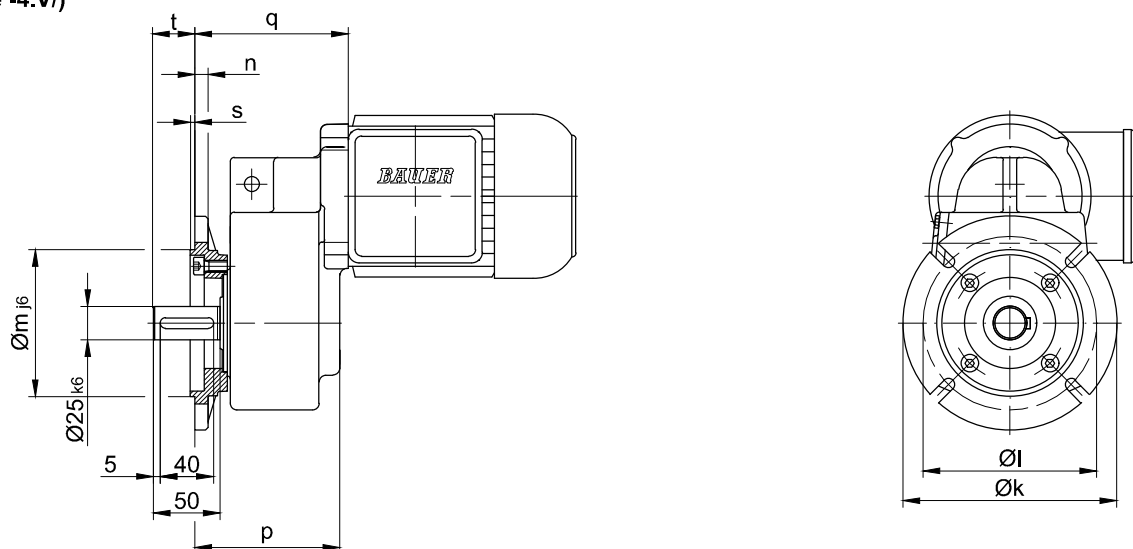
Code -7./



Flange with clearance holes

Code -3.V/

(Code -4.V/)



Flange dimensions

BF06	k	l	m	n	o	p	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..

The actual gearbox design can vary from the geometry shown.

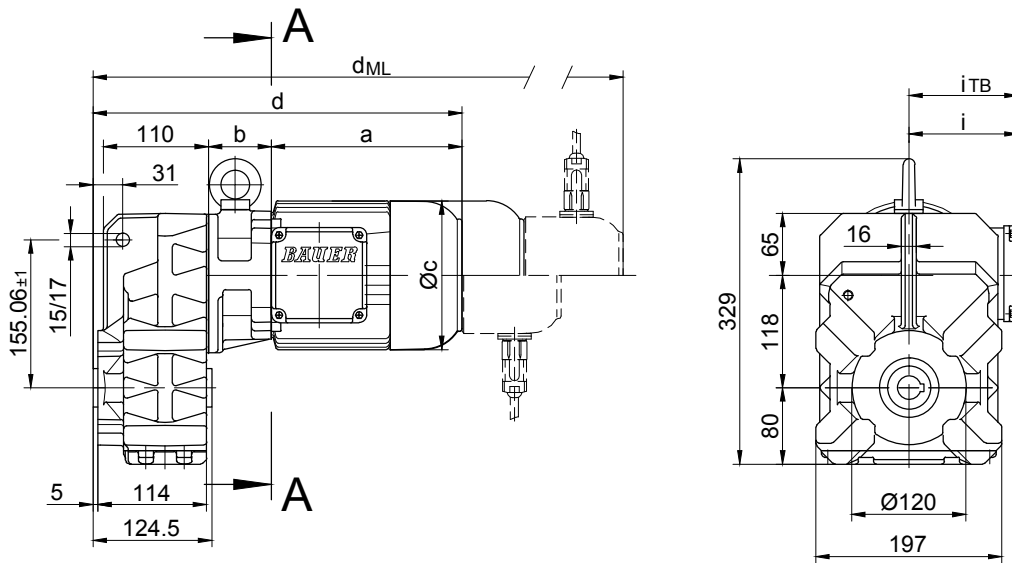
BF-series shaft-mounted geared motors

Dimension

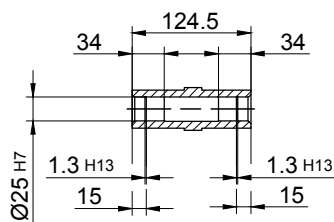
BF10 - BF10Z

With torque arm

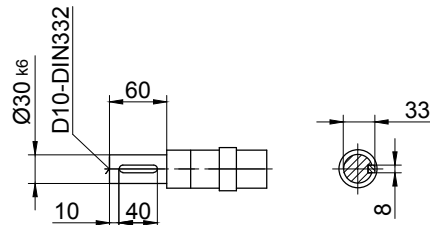
Code -0./



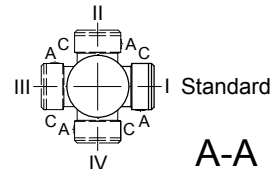
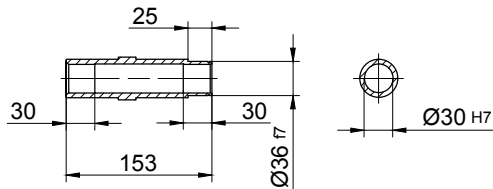
Code -4/



Code -1/



Code -5/



Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							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-../D..08..	200	66	156	387	115	136.5	453	494	560.5	453
BF10Z-../D..08..	200	132	156	453	115	136.5	519	560	526.5	519
BF10-../D..09..	251	80.5	181	452.5	124	158	545.5	559.5	650	545.5



The dimensions "a*", "d*" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

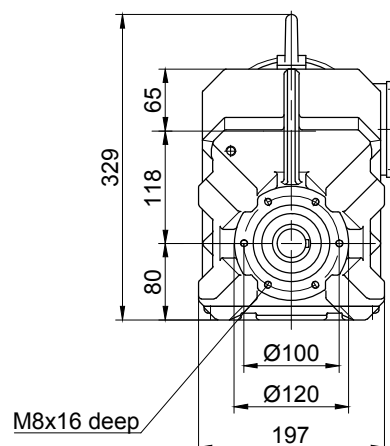
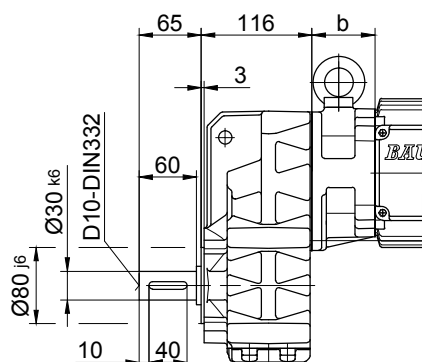
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BF10 - BF10Z

Flange with tapped holes

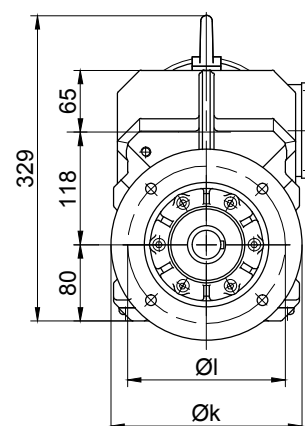
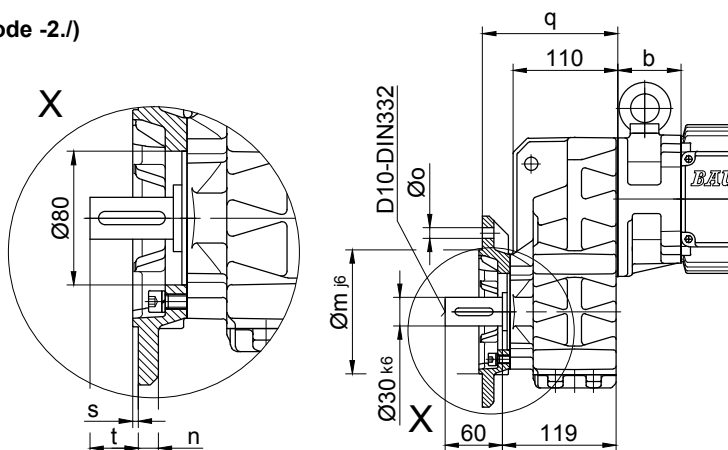
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

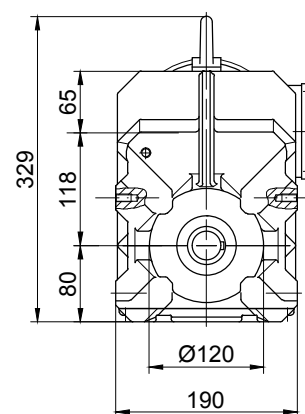
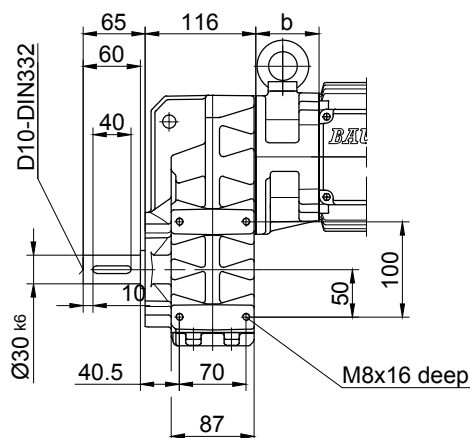


Flange dimensions

BF10(Z)	k	l	m	n	o	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/



The actual gearbox design can vary from the geometry shown.

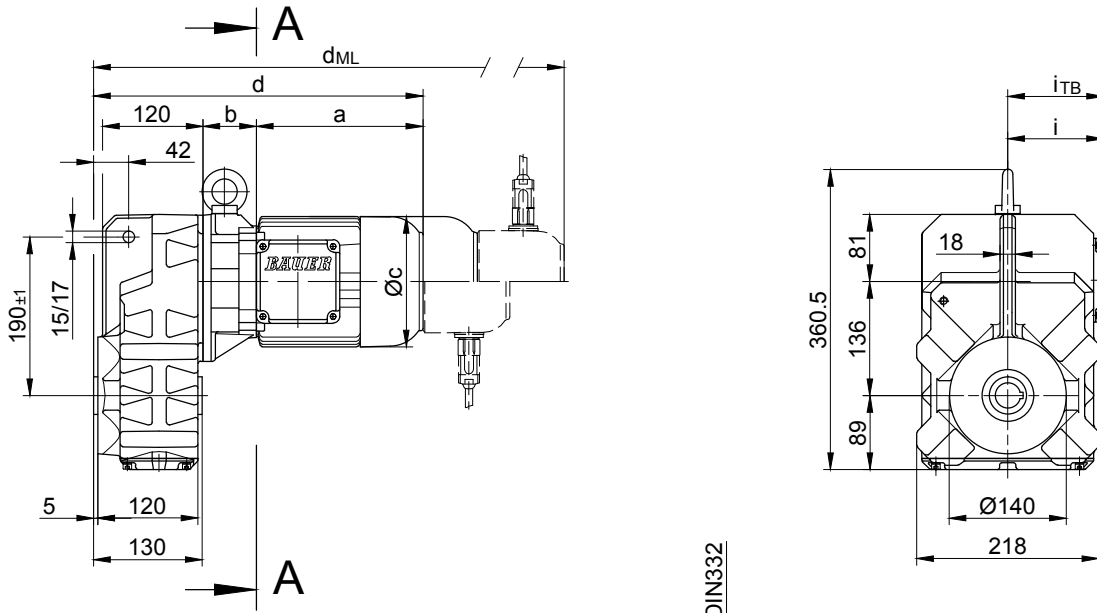
BF-series shaft-mounted geared motors

Dimension

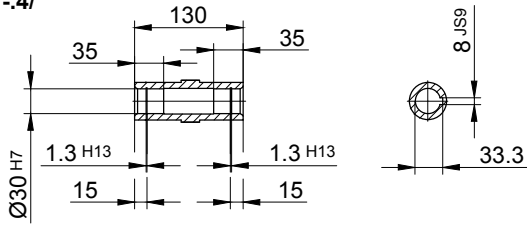
BF20 - BF20Z

With torque arm

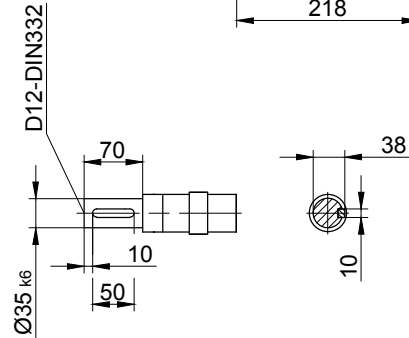
Code -0./



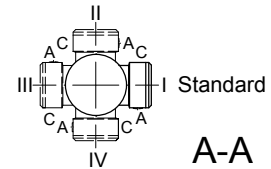
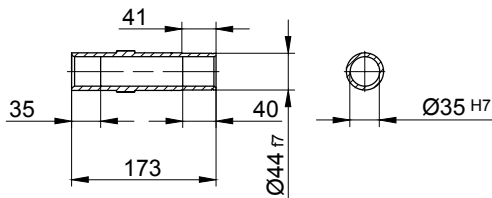
Code -4/



Code -1/



Code -5/



Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES..	G	E../ES..-G	RR/RL
						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-../D..08..	200	64	156	395	115	136.5	461	502	568.5	461
BF20Z-../D..08..	200	146	156	477	115	136.5	543	584	650.5	543
BF20-../D..09..	251	78.5	181	460.5	124	158	553.5	567.5	658	553.5



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

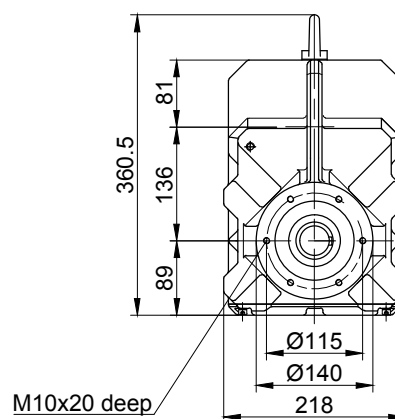
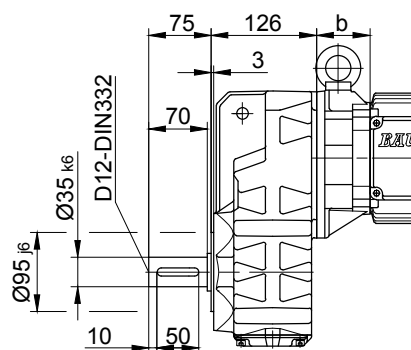
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BF20 - BF20Z

Flange with tapped holes

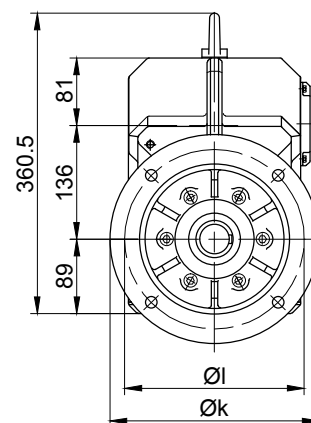
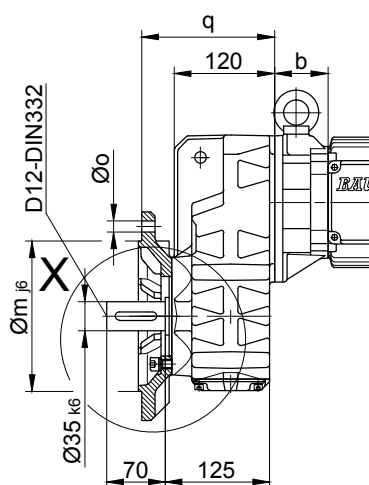
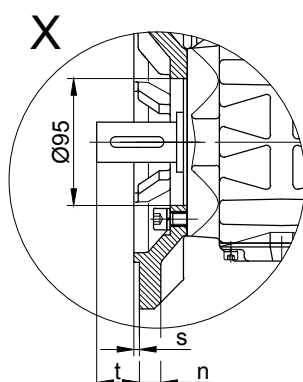
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

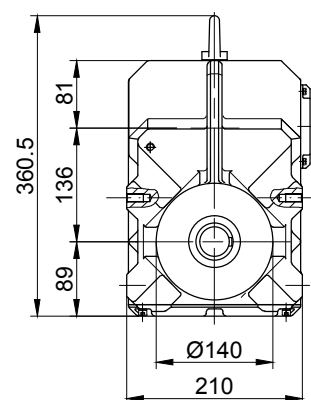
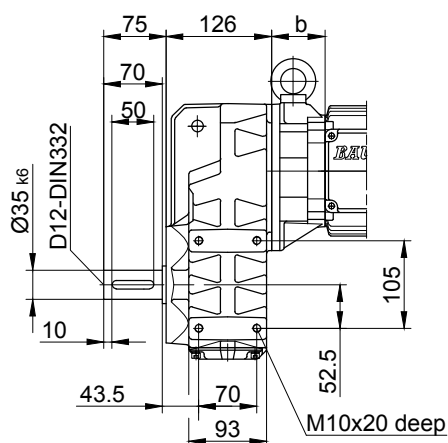


Flange dimensions

BF20(Z)	k	l	m	n	o	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/

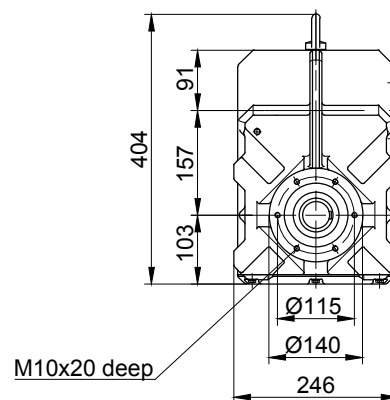
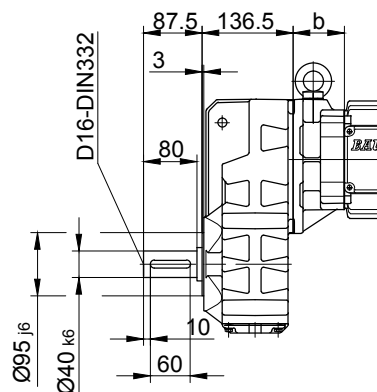


The actual gearbox design can vary from the geometry shown.

BF30 - BF30Z

Flange with tapped holes

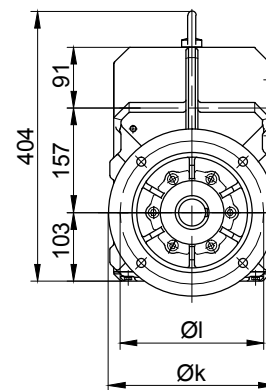
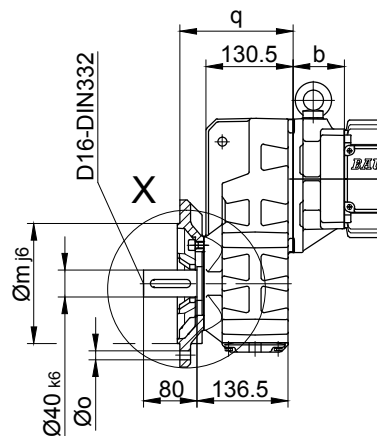
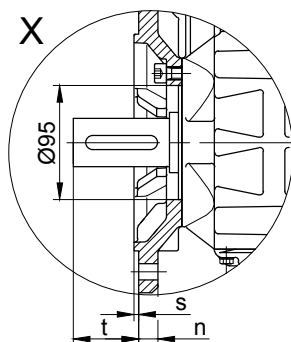
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

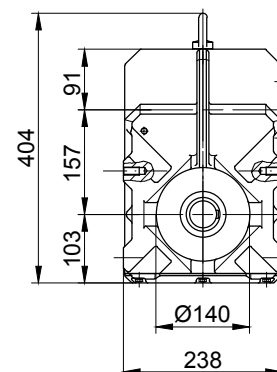
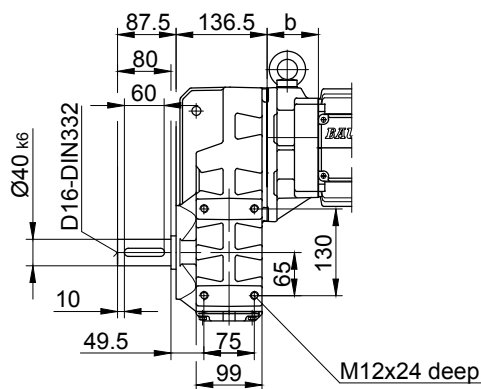


Flange dimensions

BF30(Z)	k	l	m	n	o	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/



The actual gearbox design can vary from the geometry shown.

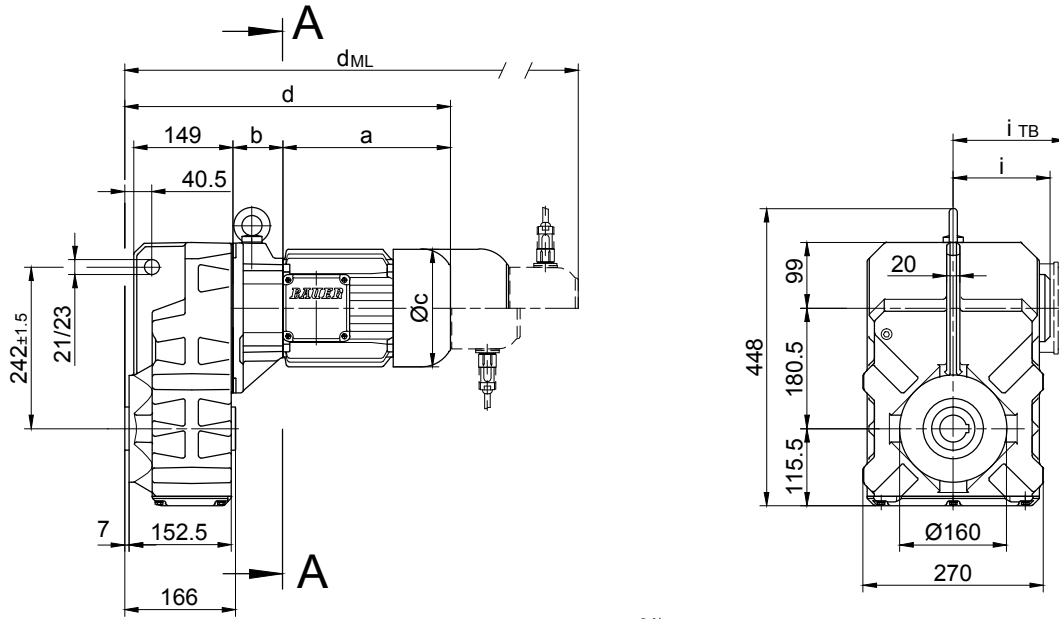
BF-series shaft-mounted geared motors

Dimension

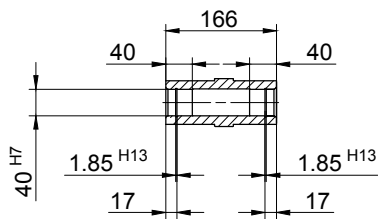
BF40 - BF40Z

With torque arm

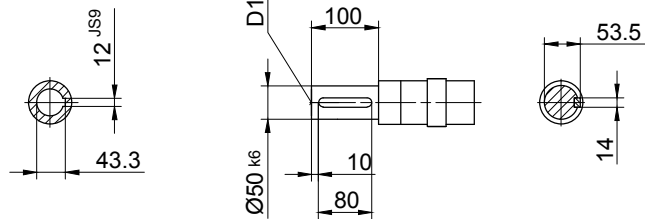
Code -0./



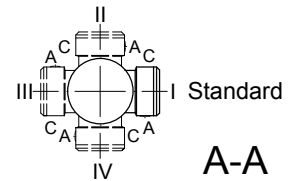
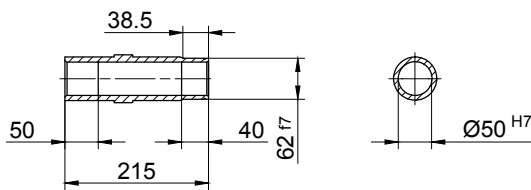
Code -4/



Code -1/



Code -5/



A-A

Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E./ES..	G	E./ES..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BF40Z-../D05..	170	138.5	123	471	100	117	513	574	615.5	-
BF40Z-../D06..	170	138.5	123	471	100	119	513	574	615.5	-
BF40Z-../D07..	190	138.5	123	491	100	119	533	594	637.5	-
BF40-../D..08..	200	60	156	422.5	115	136.5	488.5	529.5	596	488.5
BF40Z-../D..08..	200	142.5	156	505	115	136.5	571	612	678.5	571
BF40-../D..09..	251	74.5	181	488	124	158	581	595	685.5	581
BF40Z-../D..09..	251	157	181	570.5	124	158	663.5	677.5	768	663.5
BF40-../D..11..	319	81	228	562.5	181	181	660.5	669.5	765	660.5



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

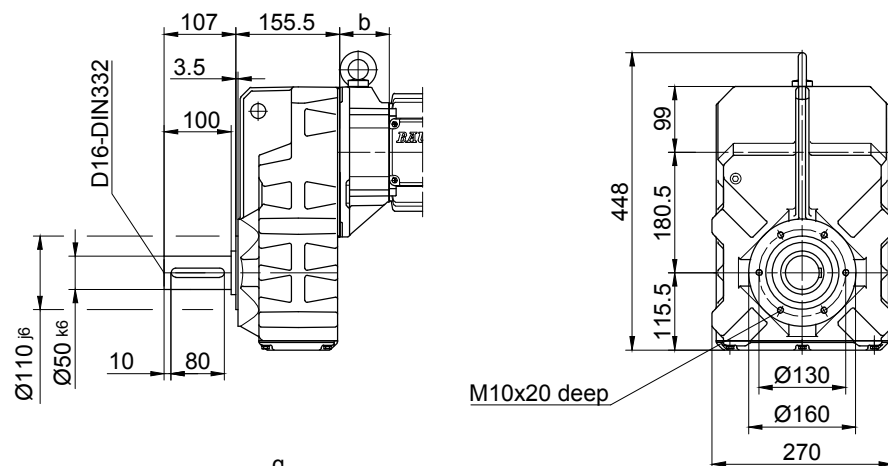
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BF40 - BF40Z

Flange with tapped holes

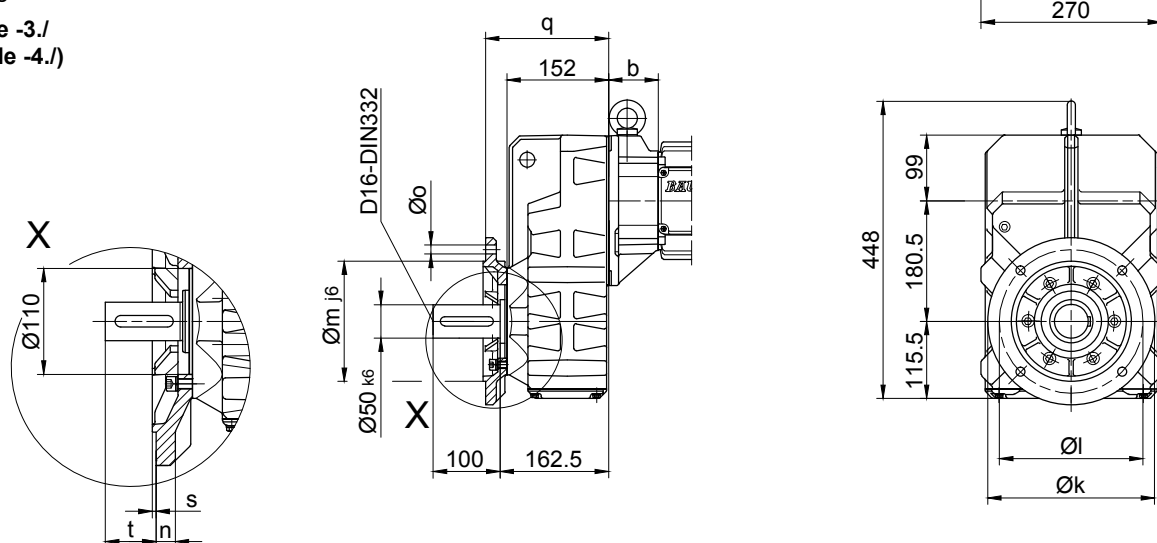
Code -7./



Flange with clearance holes

Code -3./

(Code -4./)

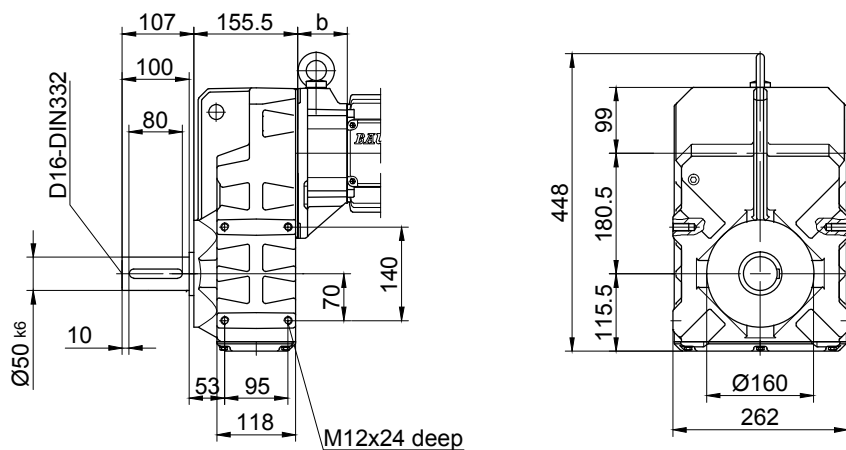


Flange dimensions

BF40(Z)	k	l	m	n	o	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/



The actual gearbox design can vary from the geometry shown.

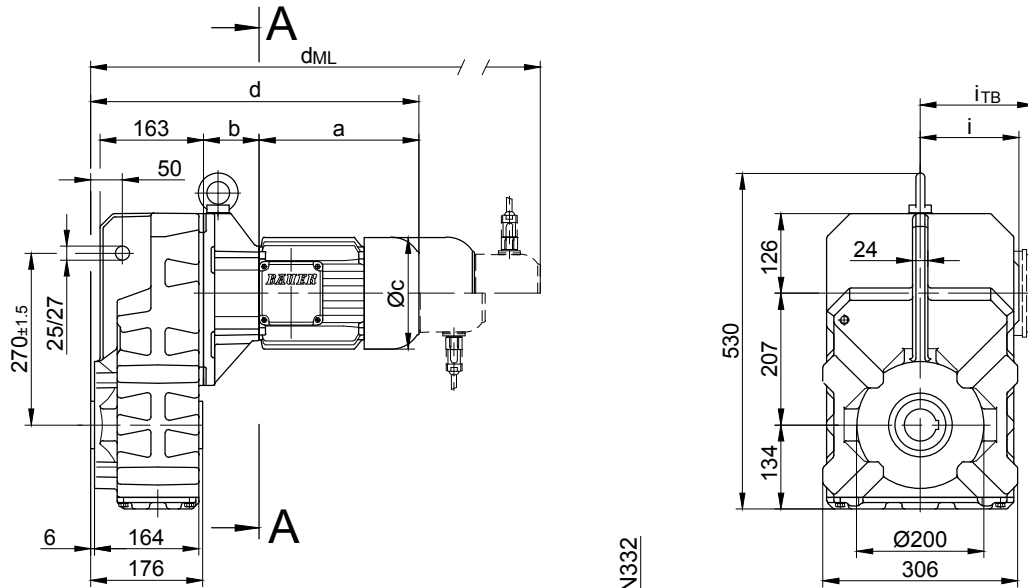
BF-series shaft-mounted geared motors

Dimension

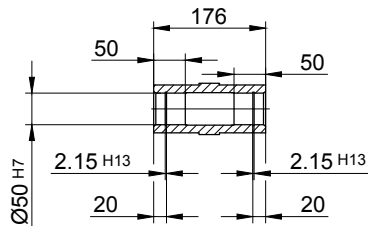
BF50 - BF50Z

With torque arm

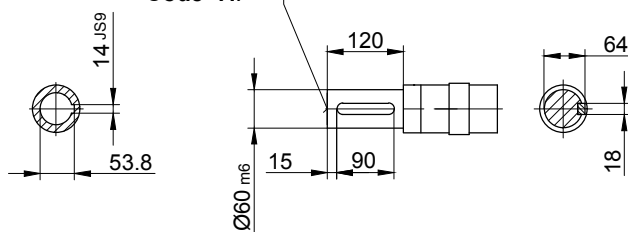
Code -0./



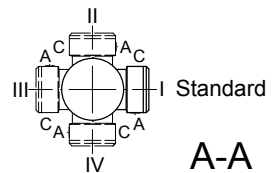
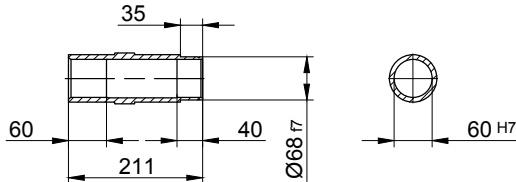
Code -.4/



Code -.1/



Code -.5/



Type	a	b	c	d	i	i _{TB}	Design with motor extensions			
							E./ES./ZS	G	E./ES./ZS-G	RR/RL
							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-../D..08..	200	73	156	450.5	115	136.5	516.5	557.5	624	516.5
BF50Z-../D..08..	200	159	156	536	115	136.5	602.5	643.5	710	602.5
BF50-../D..09..	251	87.5	181	516	124	158	609	623	713.5	609
BF50Z-../D..09..	251	173.5	181	602	124	158	695	709	799.5	695
BF50-../D..11..	319	94	228	590.5	181	181	688.5	697.5	793	688.5
BF50-../D..13..	393	107	258	677.5	218	218	788.5	784.5	893	788.5
BF50-../D..16..	454.5	121	310	753	244	244	896.5	860	1000.5	896.5
BF50-../D..18..	542	143	348	862.5	288	288	1012	969.5	1115.5	1012



The dimensions "a*", "d*" and "d_{ML}"* change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

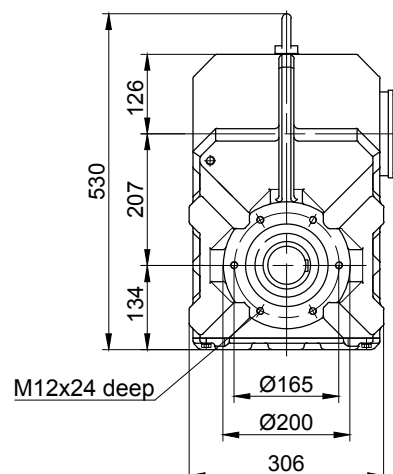
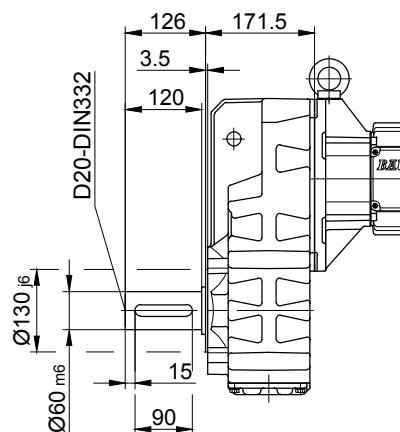
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BF50 - BF50Z

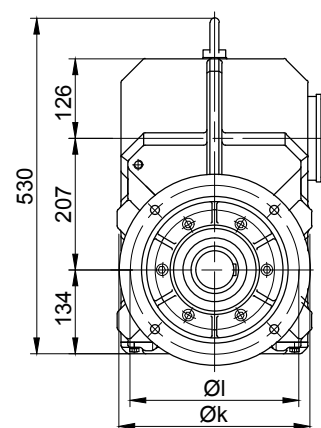
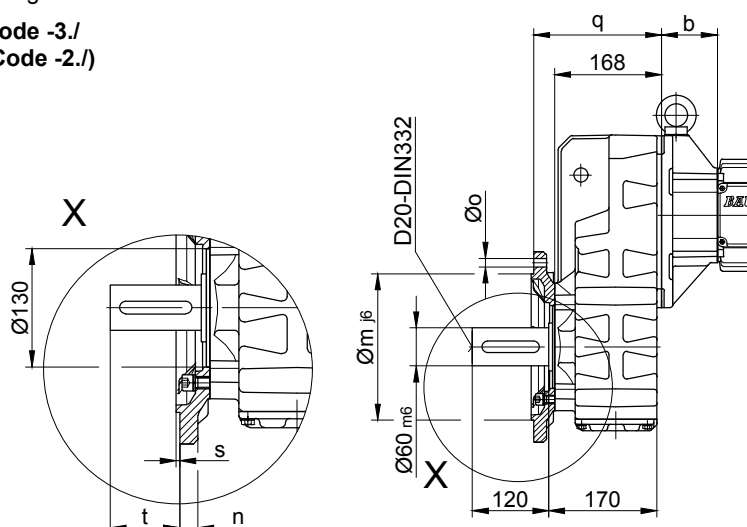
Flange with tapped holes

Code -7./



Flange with clearance holes

Code -3./
(Code -2./)

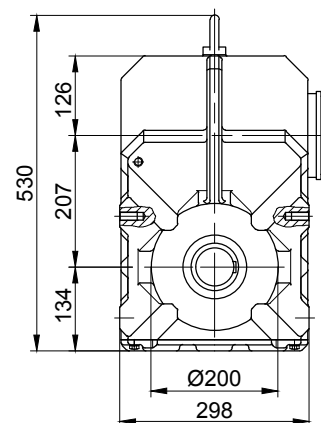
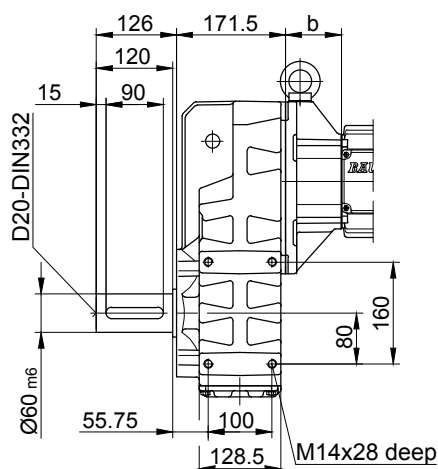


Flange dimensions

BF50(Z)	k	l	m	n	o	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/



The actual gearbox design can vary from the geometry shown.

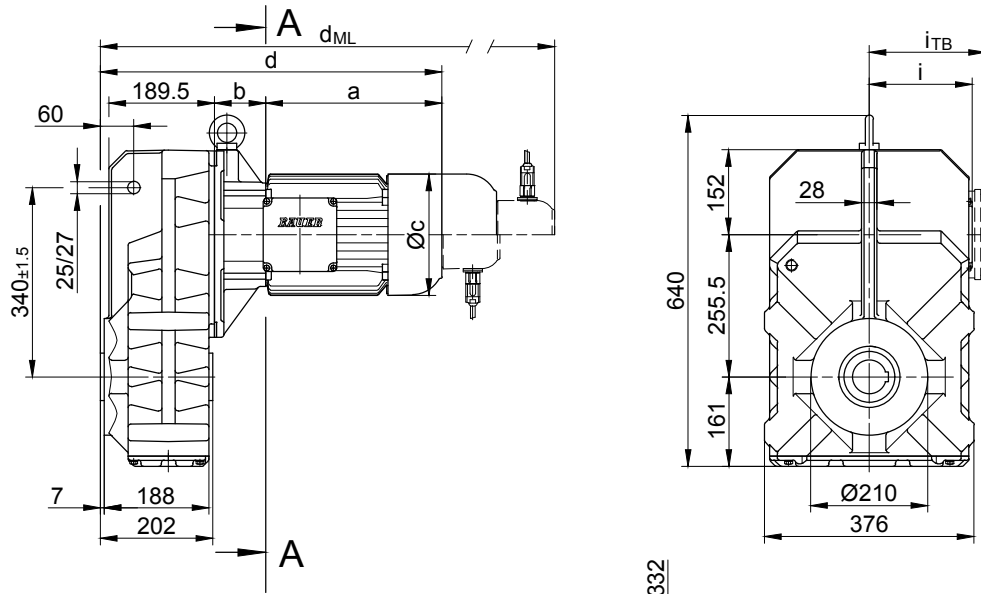
BF-series shaft-mounted geared motors

Dimension

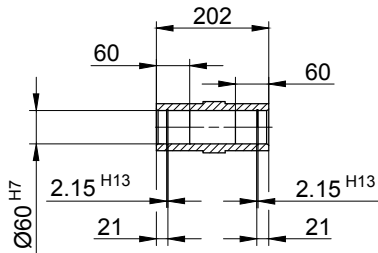
BF60 - BF60Z

With torque arm

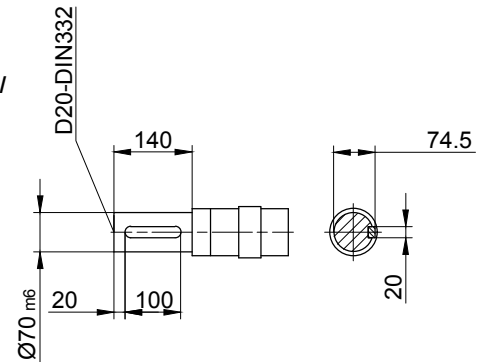
Code -0./



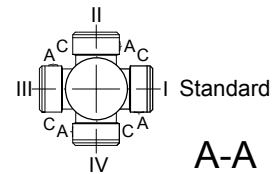
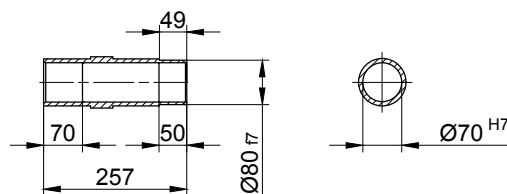
Code -4/



Code -1/



Code -5/



Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BF60Z-../D..08..	200	181	156	586	115	136.5	652	693	759.5	652
BF60-../D..09..	251	85.5	181	541.5	124	158	634.5	648.5	739	634.5
BF60Z-../D..09..	251	195.5	181	651.5	124	158	744.5	758.5	849	744.5
BF60-../D..11..	319	92	228	616	181	181	714	723	818.5	714
BF60Z-../D..11..	319	202	228	726	181	181	824	833	928.5	824
BF60-../D..13..	393	105	258	703	218	218	814	810	918.5	814
BF60-../D..16..	454.5	119	310	778.5	244	244	922	885.5	1026	922
BF60-../D..18..	542	141	348	888	288	288	1037.5	995	1141.5	1037.5



The dimensions "a*", "d*" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

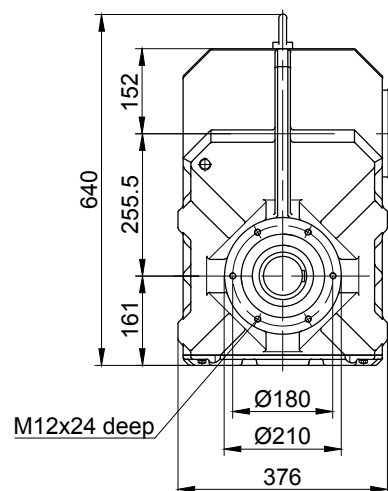
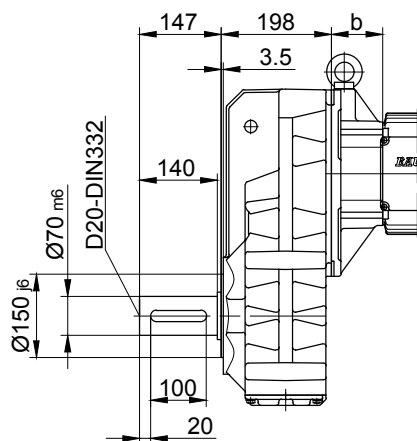
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BF60 - BF60Z

Flange with tapped holes

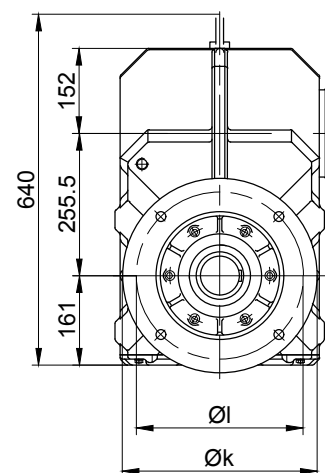
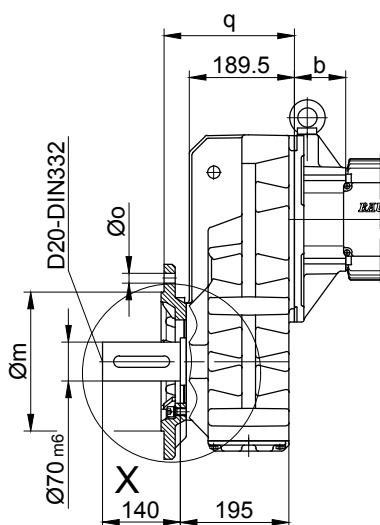
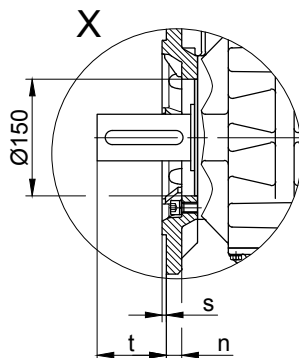
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

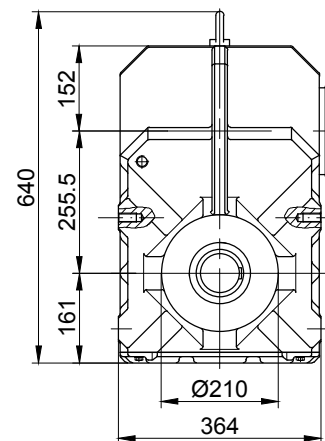
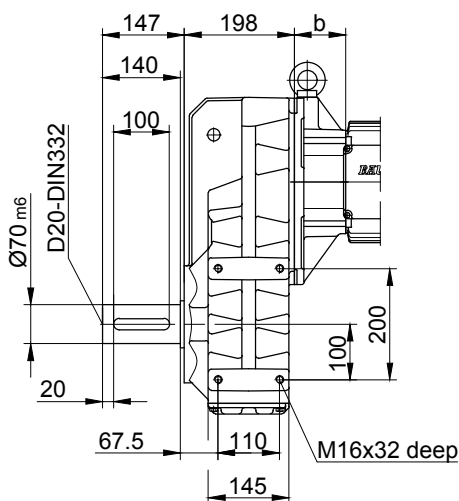


Flange dimensions

BF60(Z)	k	l	m	n	o	q	s	t
Standard -3./	350	300	250 _{h6}	20	17.5	234.5	5	110.5
small -2./	300	265	230 _{j6}	20	13.5	242.5	4	102.5

Foot with tapped holes left and right

Code -6.LR/



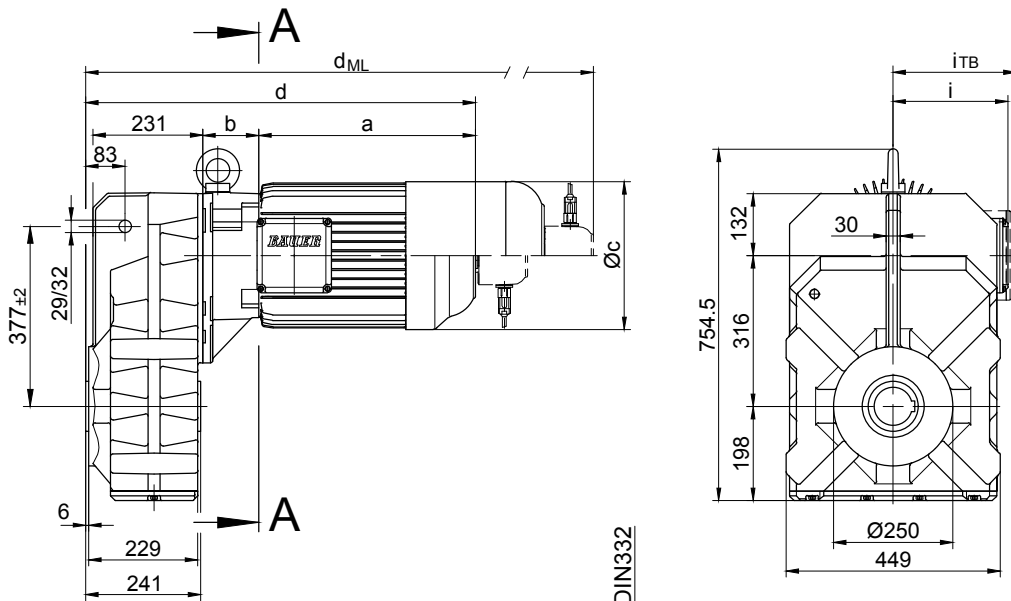
The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

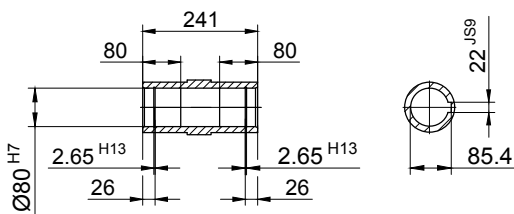
Dimension

BF70 - BF70Z

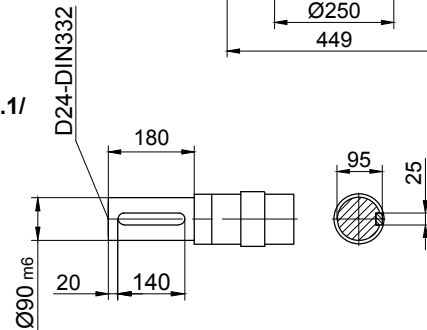
With torque arm
Code -0./



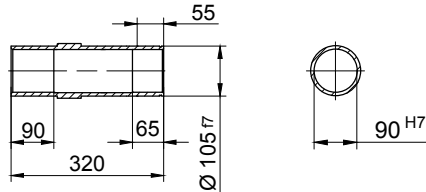
Code -4/



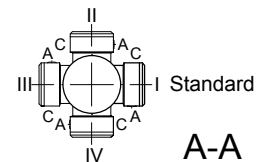
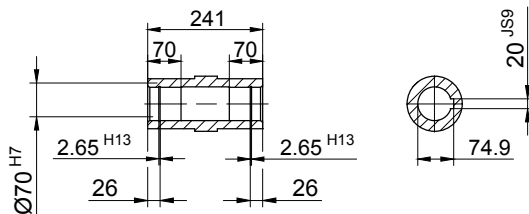
Code -1/



Code -5/



Code -4/K70



Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BF70Z-../D..08..	200	202	156	648	115	136.5	714	755	821.5	714
BF70-../D..09..	251	83.5	181	580.5	124	158	673.5	687.5	778	673.5
BF70Z-../D..09..	251	216.5	181	713.5	124	158	806.5	820.5	911	806.5
BF70-../D..11..	319	90	228	655	181	181	753	762	857.5	753
BF70Z-../D..11..	319	223	228	788	181	181	886	895	990.5	886
BF70-../D..13..	393	103	258	742	218	218	853	849	957.5	853
BF70Z-../D..13..	393	236	258	875	218	217	986	982	1090.5	986
BF70-../D..16..	454.5	117	310	817.5	244	243	961	924.5	1064.5	961
BF70Z-../D..16..	454.5	250	310	950.5	244	243	1094	1057.5	1198	1094
BF70-../D..18..	542	139	348	927	288	288	1076.5	1034	1180.5	1076.5
BF70Z-../D..18..	542	272	348	1060	288	288	1209.5	1167	1313.5	1209.5
BF70-../D..20L	643.5	156	363	1045.5	303.5	303.5	1173	1151.5	1279	1173
BF70-../D..22S	703.5	156	363	1105.5	303.5	303.5	1233	1211.5	1339	1233



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
Type Example: BK70-74V/DPE08XA4
Comment: No change to the dimensions shown

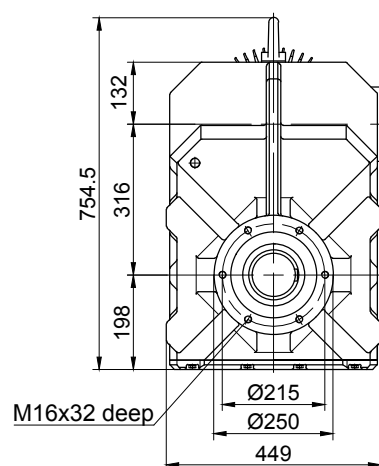
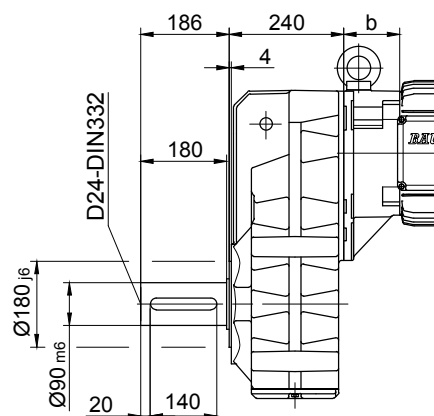
Design state "B" = Extended Length
Type Example: BK70-74V/DPE08XB4
Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BF70 - BF70Z

Flange with tapped holes

Code -7./

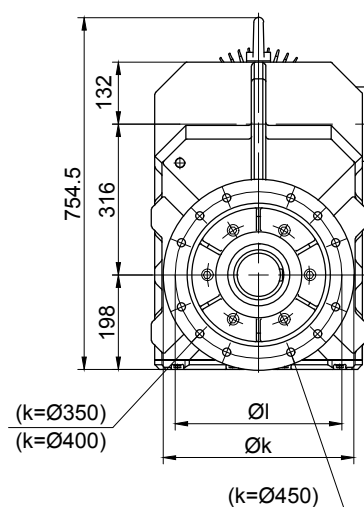
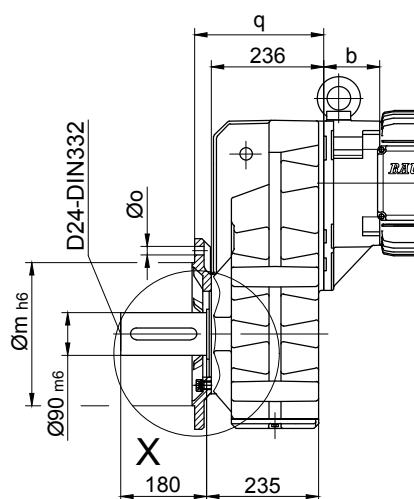
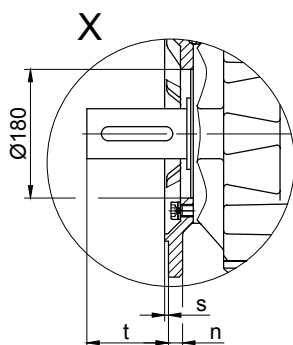


Flange with clearance holes

Code -3./

(Code -2./)

(Code -4./)

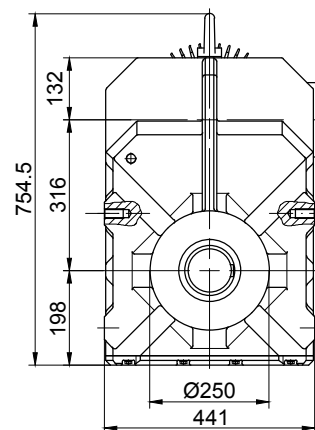
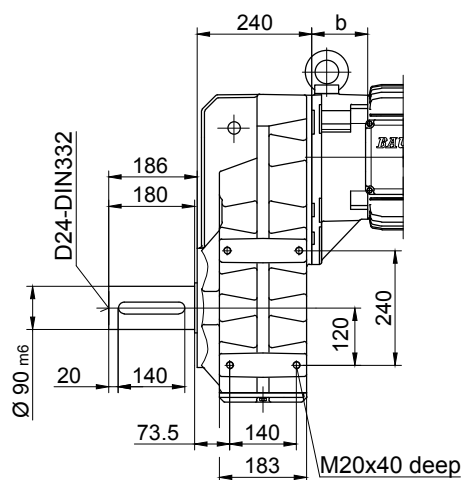


Flange dimensions

BF70(Z)	k	l	m	n	o	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/



The actual gearbox design can vary from the geometry shown.

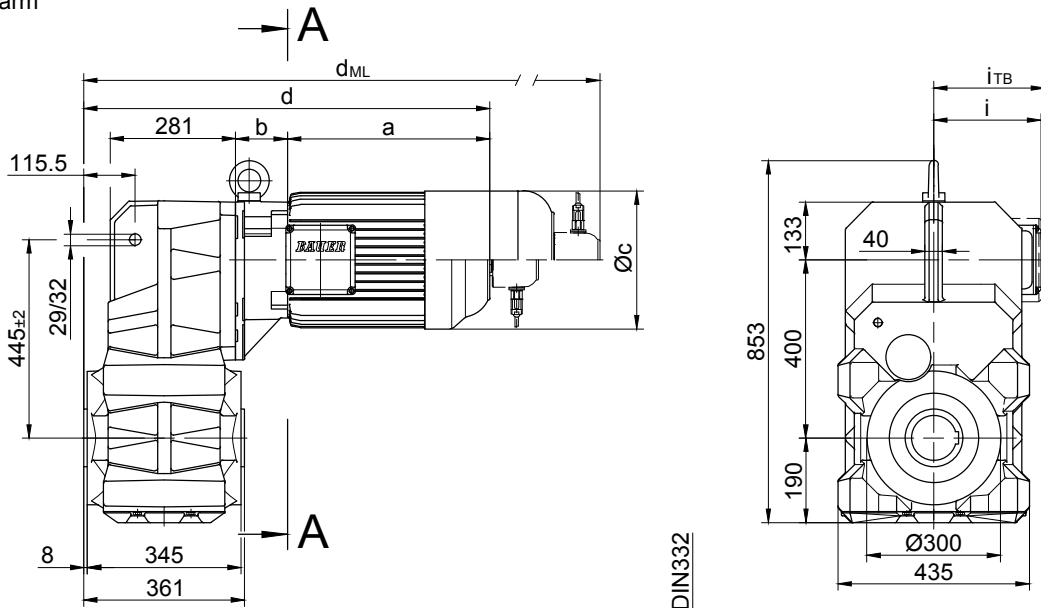
BF-series shaft-mounted geared motors

Dimension

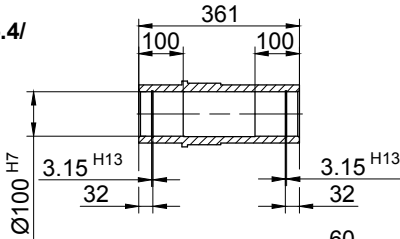
BF80 - BF80Z

With torque arm

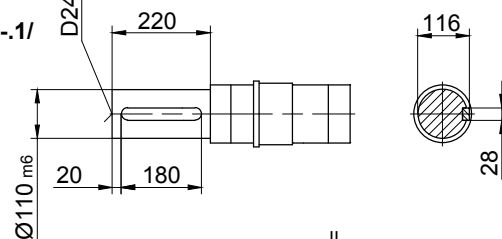
Code -0./



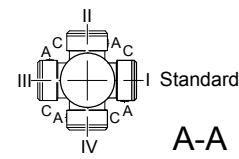
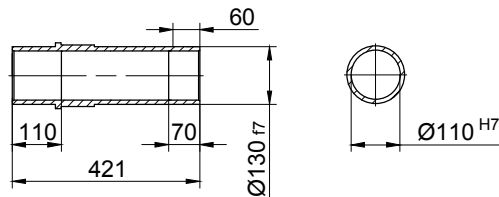
Code -4/



Code -1/



Code -5/



Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BF80Z-../D..08..	200	202	156	742.5	115	136.5	808.5	849.5	916	808.5
BF80-../D..09..	251	83.5	181	675	124	158	768	782	872.5	768
BF80Z-../D..09..	251	216.5	181	808	124	158	901	915	1005.5	901
BF80-../D..11..	319	90	228	749.5	181	181	847.5	856.5	952	847.5
BF80Z-../D..11..	319	223	228	882.5	181	181	980.5	989.5	1085	980.5
BF80-../D..13..	393	103	258	836.5	218	218	947.5	943.5	1052	947.5
BF80Z-../D..13..	393	236	258	969.5	218	218	1080.5	1076.5	1185	1080.5
BF80-../D..16..	454.5	117	310	912	244	244	1055.5	1019	1159.5	1055.5
BF80Z-../D..16..	454.5	250	310	1045	244	244	1188.5	1152	1292.5	1188.5
BF80-../D..18..	542	139	348	1021.5	288	288	1171	1128.5	1275	1171
BF80Z-../D..18..	542	272	348	1154.5	288	288	1304	1261.5	1408	1304
BF80-../D..20L	643.5	153	363	1137	303.5	303.5	1264	1243	1370.5	1264
BF80-../D..22S	703.5	153	363	1197	303.5	303.5	1324	1303	1430.5	1324
BF80-../D..22M	703.5	153	363	1197	303.5	303.5	1324	1303	1430.5	1324



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

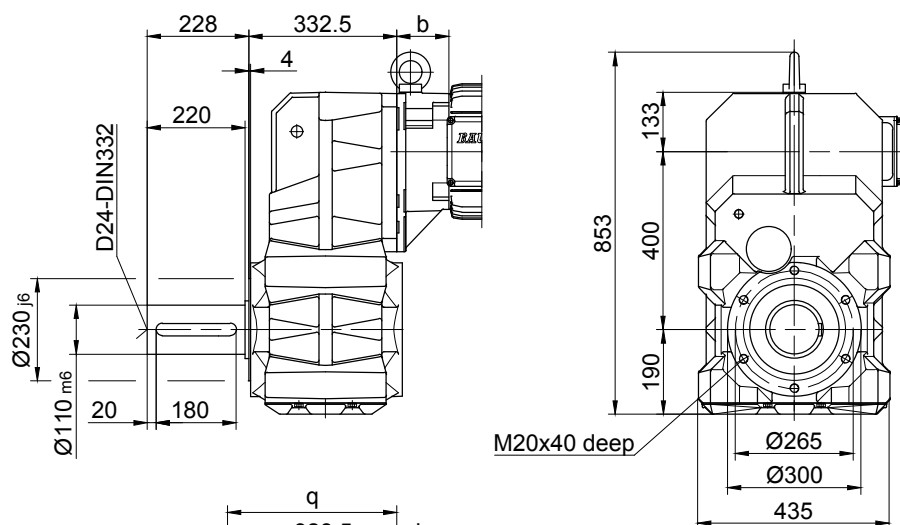
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BF80 - BF80Z

Flange with tapped holes

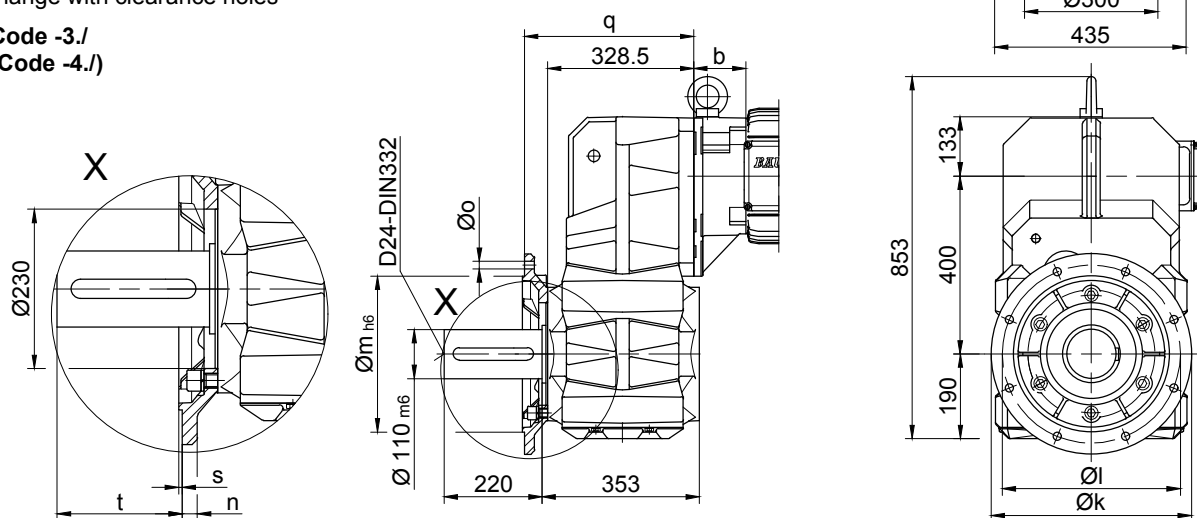
Code -7./



Flange with clearance holes

Code -3./

(Code -4./)

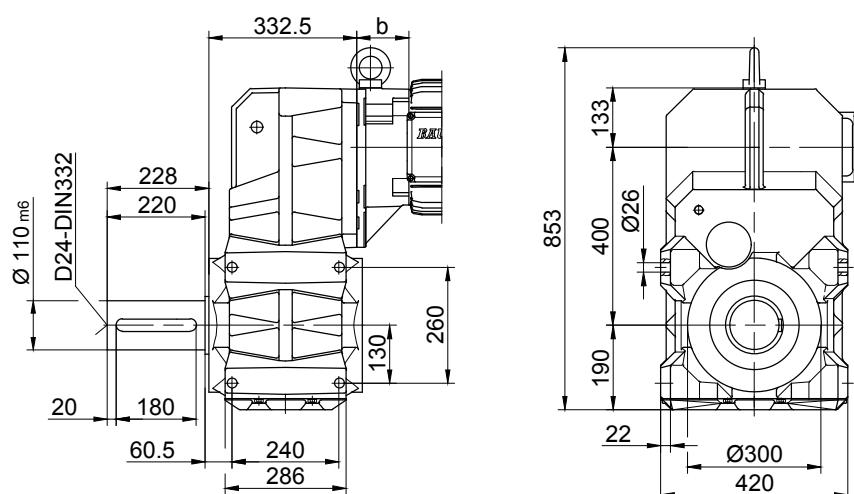


Flange dimensions

BF80(Z)	k	l	m	n	o	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/



The actual gearbox design can vary from the geometry shown.

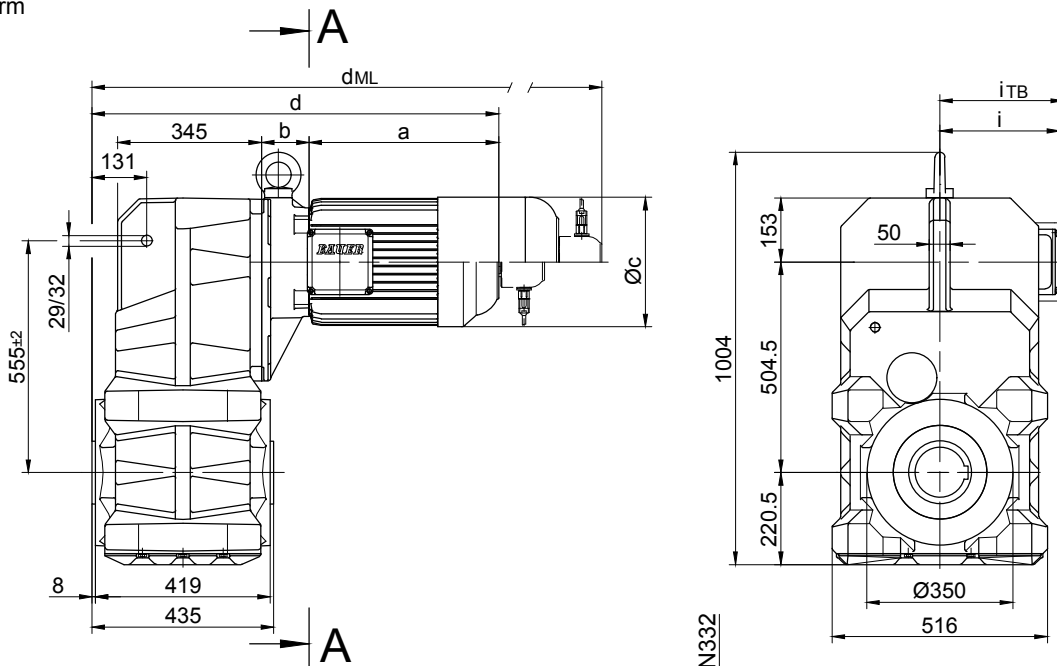
BF-series shaft-mounted geared motors

Dimension

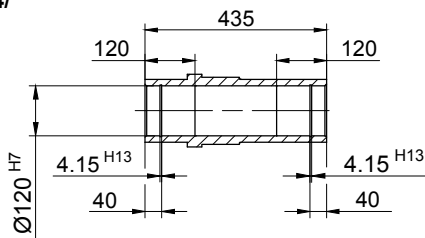
BF90 - BF90Z

With torque arm

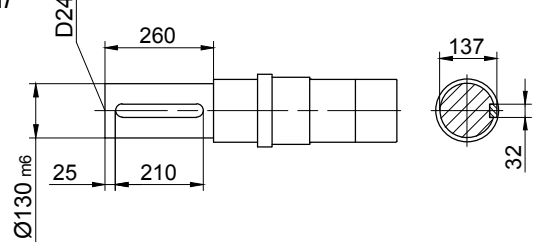
Code -0./



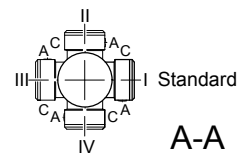
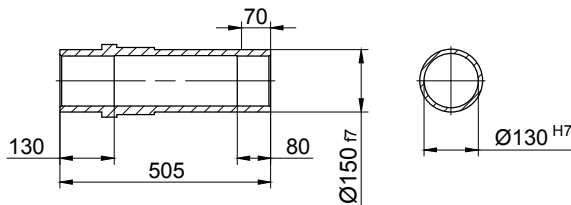
Code -4/



Code -1/



Code -5/



Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}	d _{ML}
BF90Z-../D..09..	251	252.5	181	909.5	124	158	1002.5	1016.5	1107	1002.5
BF90-../D..11..	319	87	228	812	181	181	910	919	1014.5	910
BF90Z-../D..11..	319	259	228	984	181	181	1082	1091	1186.5	1082
BF90-../D..13..	393	100	258	899	218	218	997	1006	1101.5	997
BF90Z-../D..13..	393	272	258	1071	218	218	1182	1176	1286.5	1182
BF90-../D..16..	454.5	114	310	974.5	244	244	1118	1081.5	1222	1118
BF90Z-../D..16..	454.5	286	310	1146.5	244	244	1290	1253.5	1394	1290
BF90-../D..18..	542	136	348	1084	288	288	1233.5	1191	1337.5	1233.5
BF90Z-../D..18..	542	308	348	1254	288	288	1403.5	1361	1507.5	1403.5
BF90-../D..20L	643.5	156	363	1205.5	303.5	303.5	1333	1311.5	1439	1333
BF90-../D..22S	703.5	156	363	1265.5	303.5	303.5	1393	1371.5	1499	1393
BF90-../D..22M	703.5	156	363	1265.5	303.5	303.5	1393	1371.5	1499	1393



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

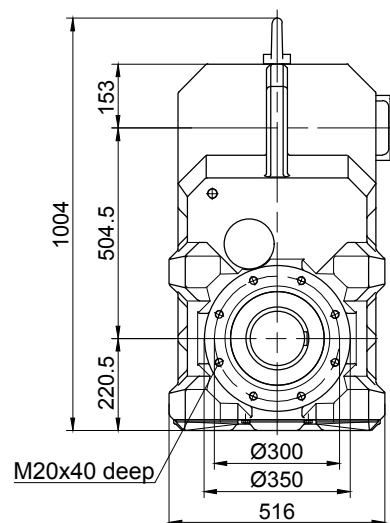
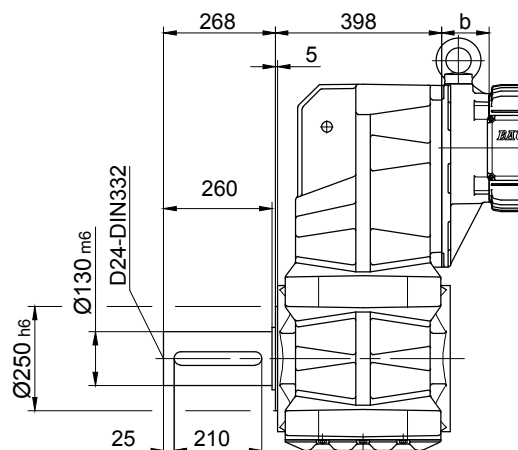
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BF90 - BF90Z

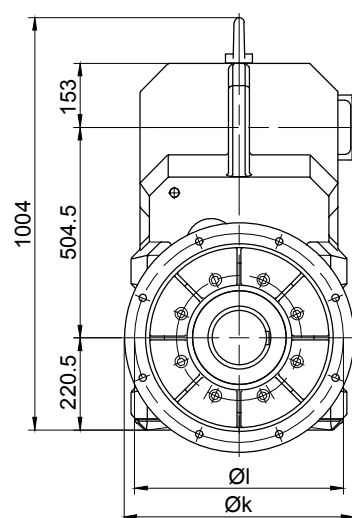
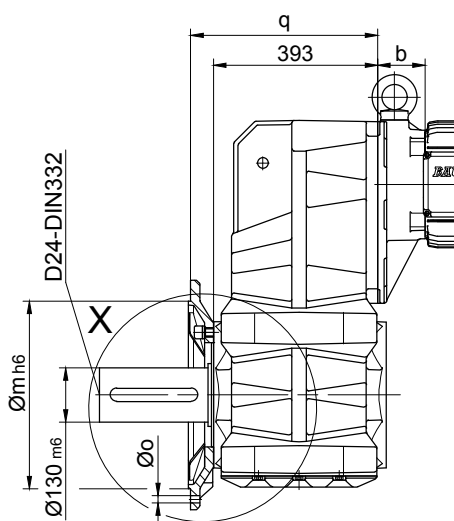
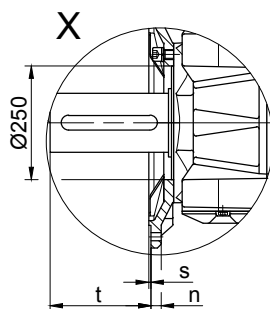
Flange with tapped holes

Code -7./



Flange with clearance holes

Code -3./
(Code -4./)

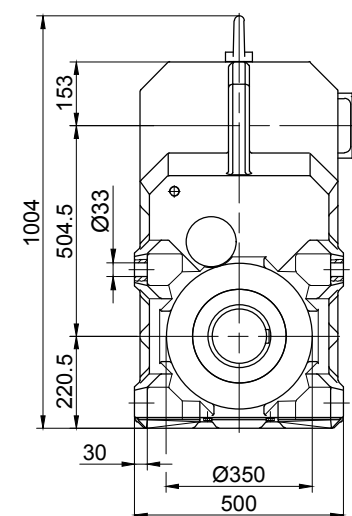
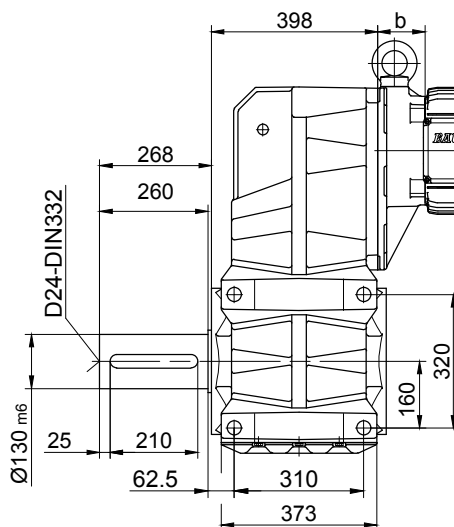


Flange dimensions

BF90(Z)	k	l	m	n	o	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/



The actual gearbox design can vary from the geometry shown.

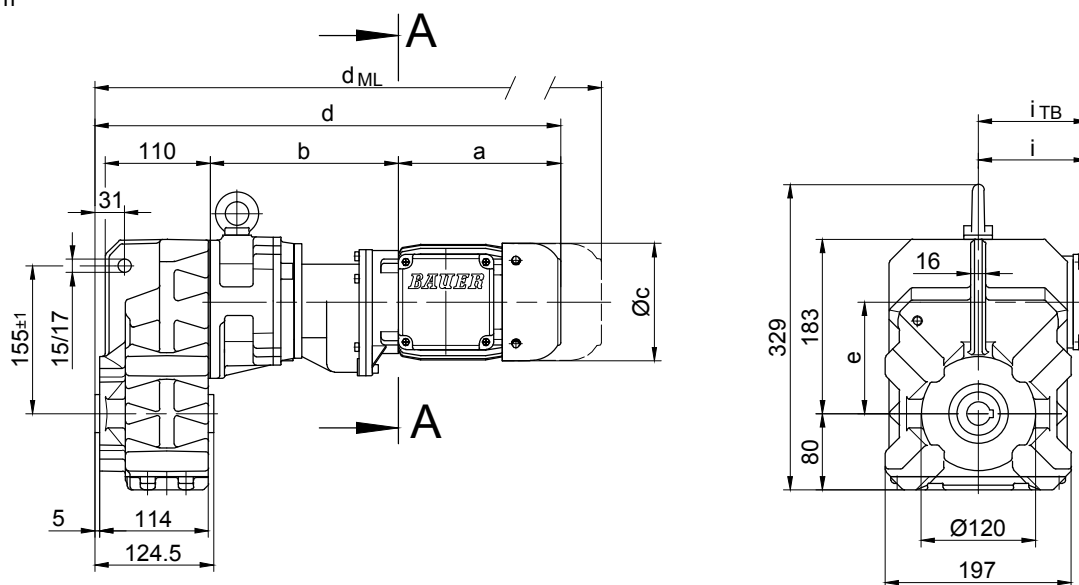
BF-series shaft-mounted geared motors

Dimension

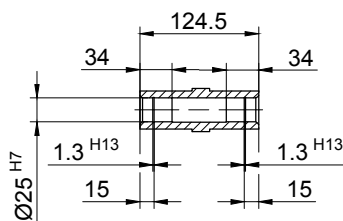
BF10G06

With torque arm

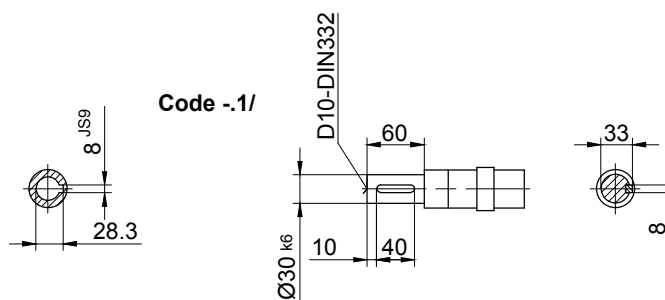
Code -0./



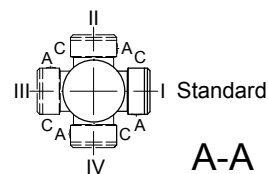
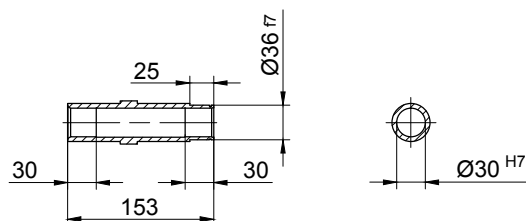
Code -4/



Code -1/



Code -5/



A-A

Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BF10G06-../D04..	143	195	111	459	117	90	112	502.5	521.5	564.5	-
BF10G06-../D05..	170	197	123	488	117	100	117	530	591	632.5	-
BF10G06-../D06..	170	197	123	488	117	100	119	530	591	632.5	-
BF10G06-../D07..	190	197	123	508	117	100	119	550	611	652.5	-
BF10G06-../D..08..	200	241	156	562	117	115	136.5	628	669	735.5	628



The dimensions "a", "d" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

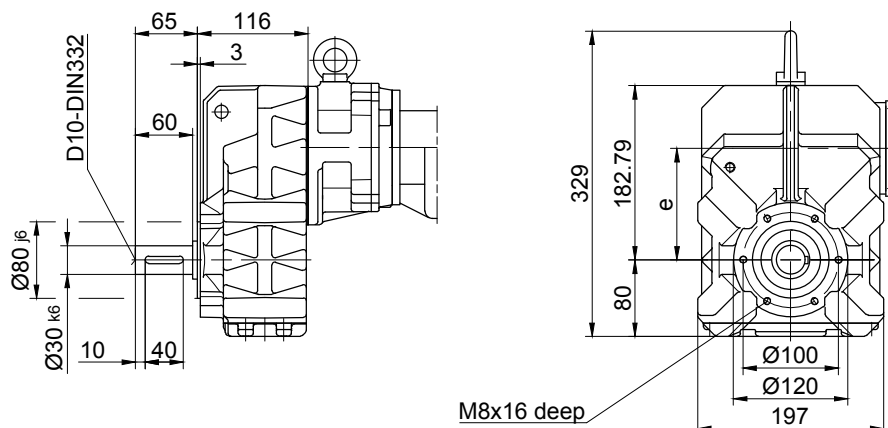
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BF10G06

Flange with tapped holes

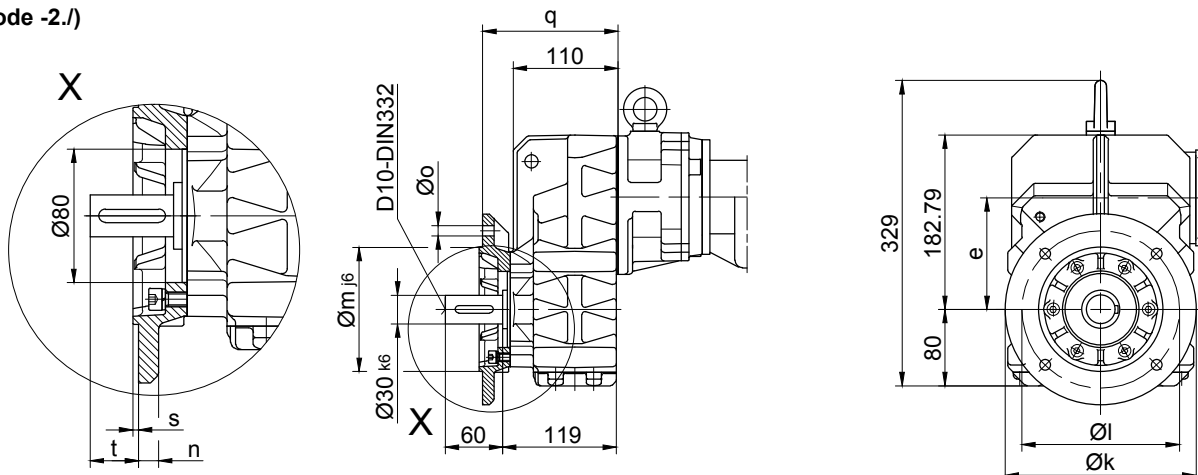
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

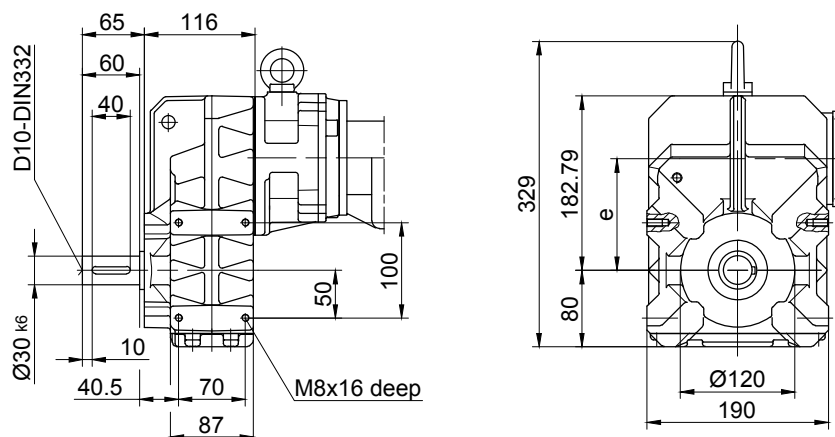


Flange dimensions

BF10G..	k	l	m	n	o	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/



The actual gearbox design can vary from the geometry shown.

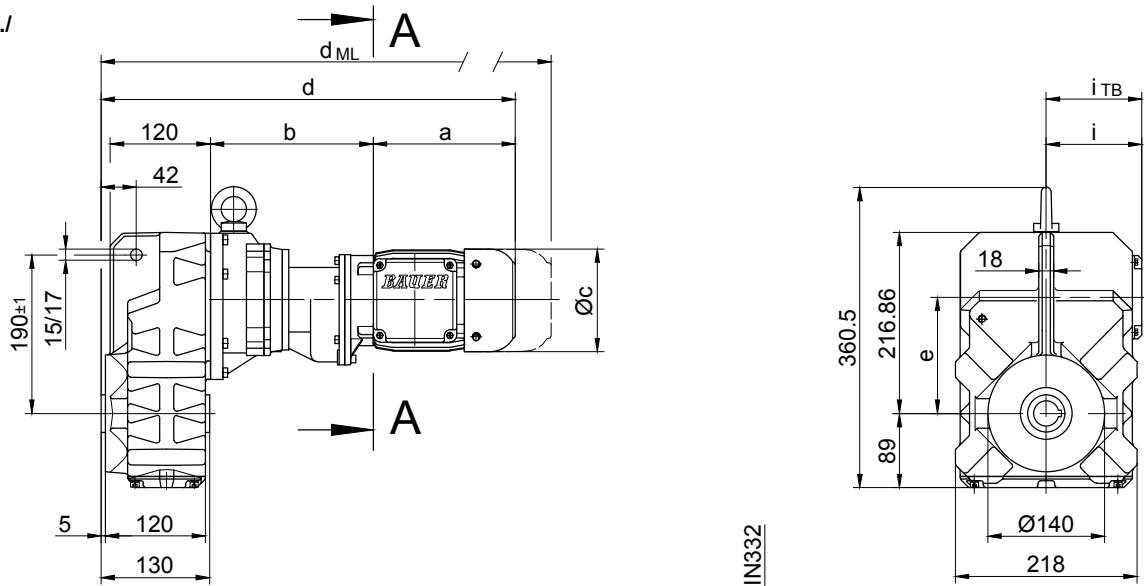
BF-series shaft-mounted geared motors

Dimension

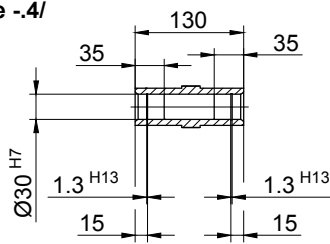
BF20G06

With torque arm

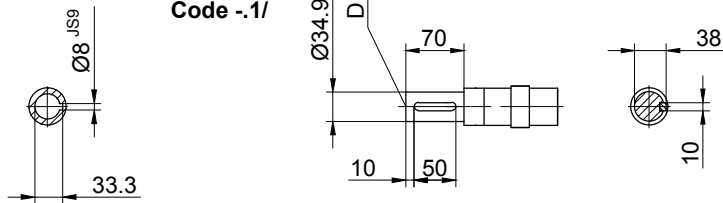
Code -0./



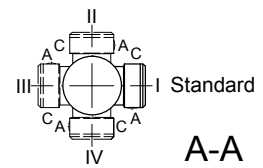
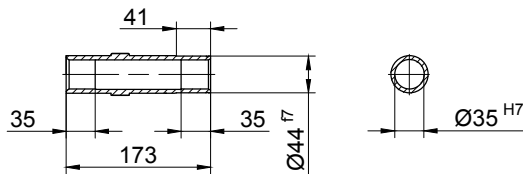
Code -4./



Code -1/



Code -5/



A-A

Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
								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	496	135	100	117	538	599	640.5	-
BF20G06-../D06..	170	195	123	496	135	100	119	538	599	640.5	-
BF20G06-../D07..	190	195	123	516	135	100	119	558	619	660.5	-
BF20G06-../D..08..	200	239	156	570	135	115	136.5	636	677	743.5	636



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

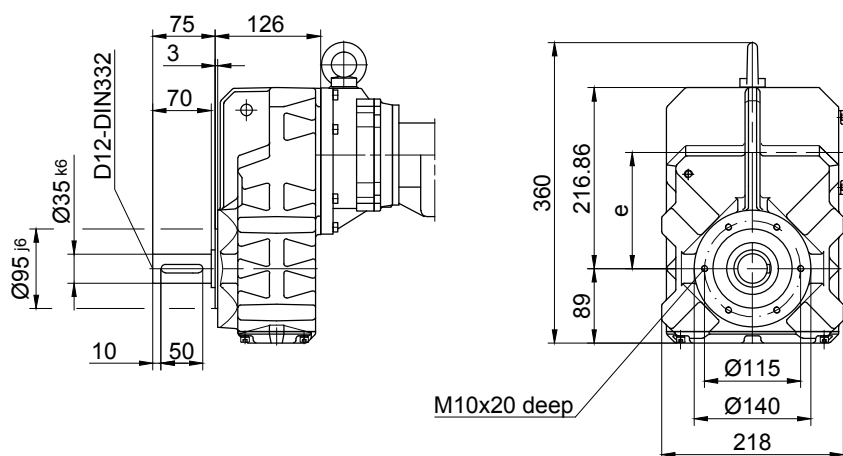
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BF20G06

Flange with tapped holes

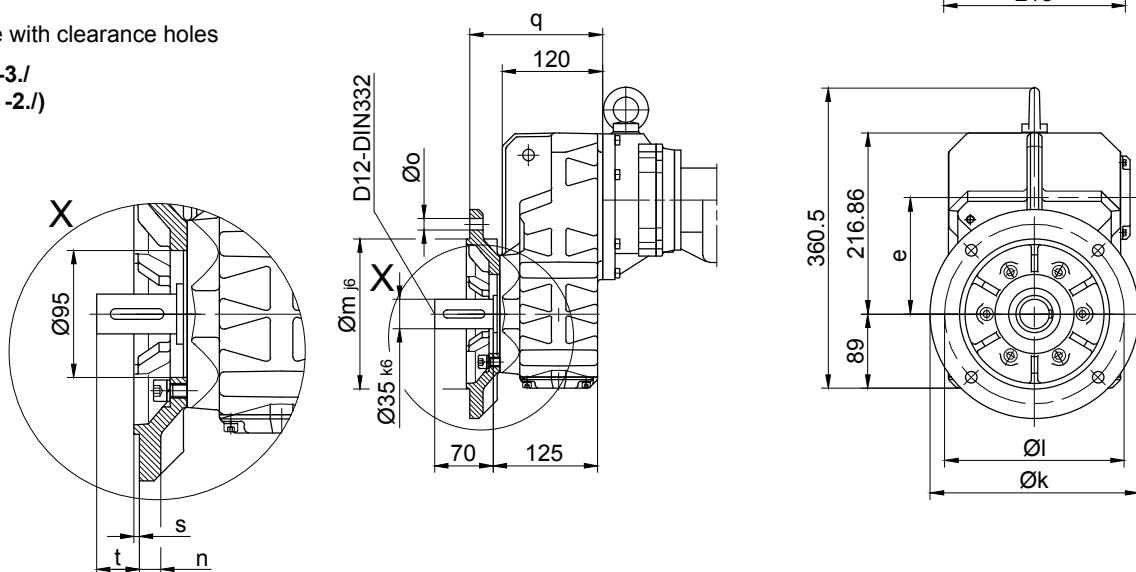
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

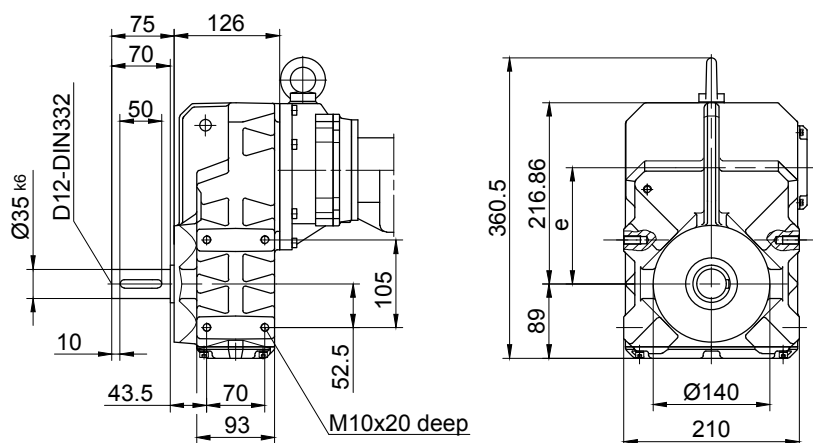


Flange dimensions

BF20G..	k	l	m	n	o	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/



The actual gearbox design can vary from the geometry shown.

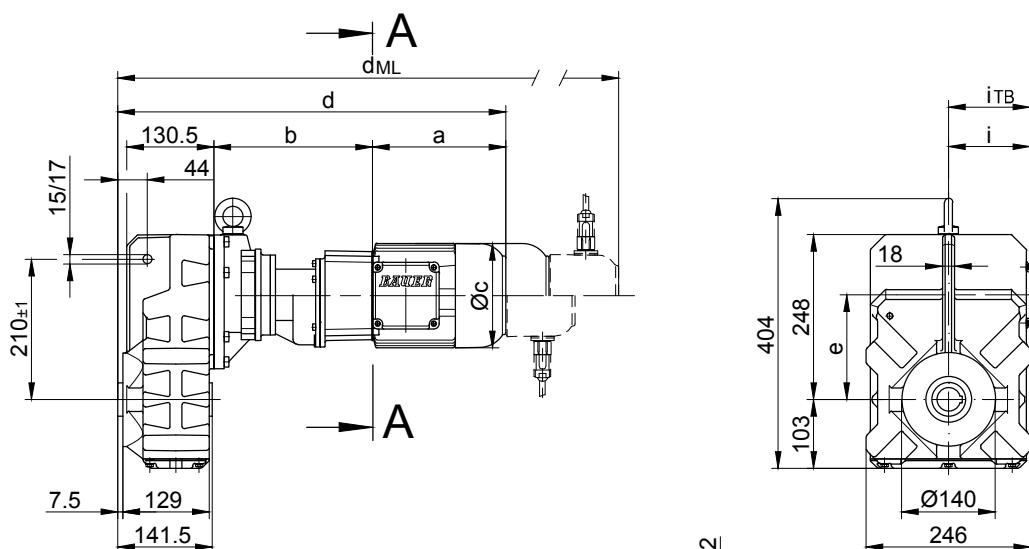
BF-series shaft-mounted geared motors

Dimension

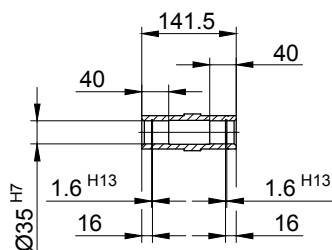
BF30G06

With torque arm

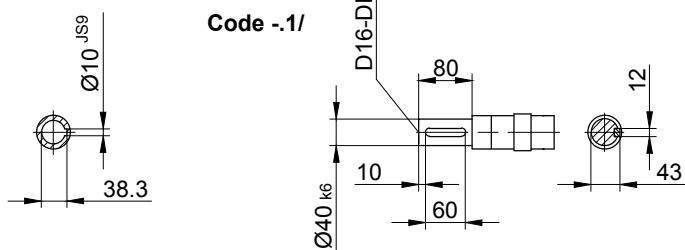
Code -0./



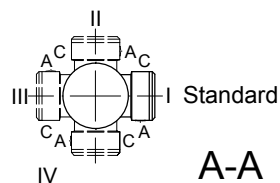
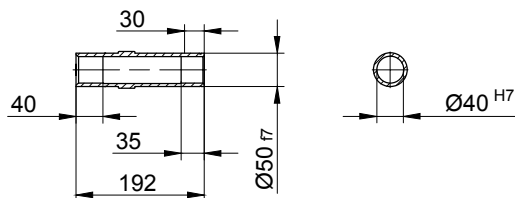
Code -4./



Code -1./



Code -5./



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							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	507	156	100	117	549	610	651.5	-
BF30G06-../D06..	170	193	123	507	156	100	119	549	610	651.5	-
BF30G06-../D07..	190	193	123	527	156	100	119	569	630	671.5	-
BF30G06-../D..08..	200	237	156	581	156	115	136.5	647	688	754.5	647



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

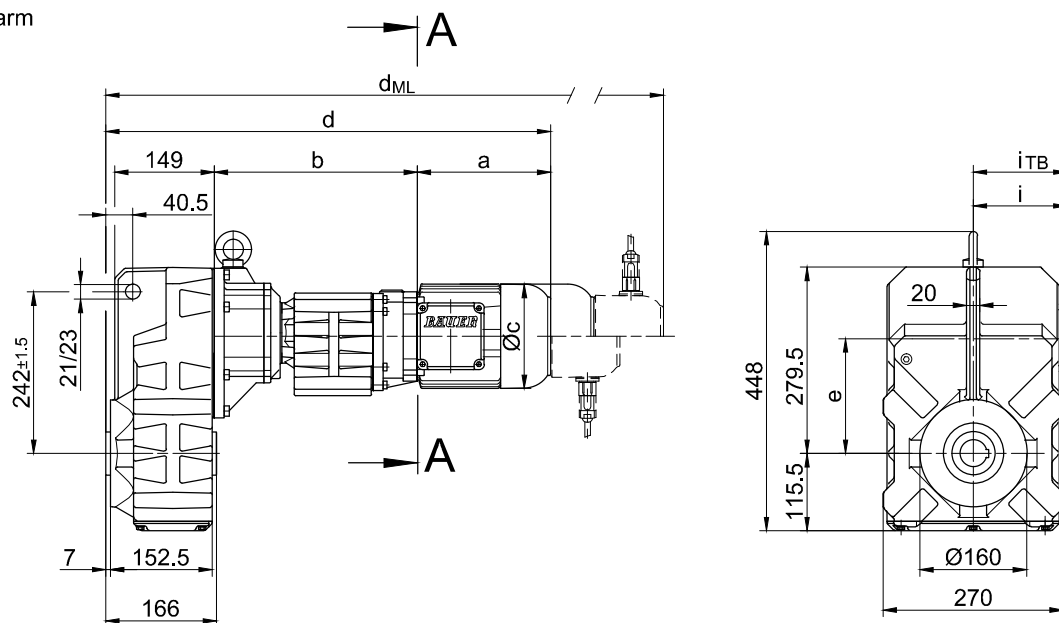
BF-series shaft-mounted geared motors

Dimension

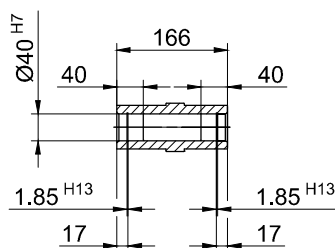
BF40G10

With torque arm

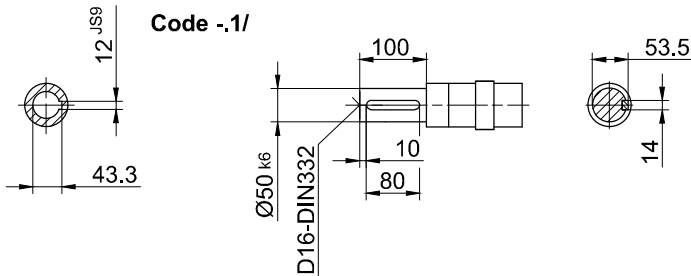
Code -0/



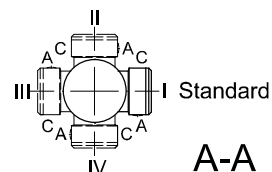
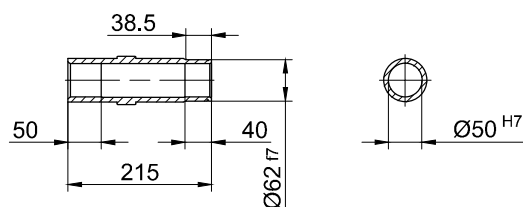
Code -4/



Code -1/



Code -5/



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BF40G10-../D05..	170	300	123	632.5	176	100	117	674.5	735.5	777	-
BF40G10-../D06..	170	300	123	632.5	176	100	119	674.5	735.5	777	-
BF40G10-../D07..	190	300	123	652.5	176	100	119	694.5	755.5	797	-
BF40G10-../D..08..	200	304	156	666.5	176	115	136.5	732.5	773.5	840	732.5
BF40G10-../D..09..	251	318.5	181	732	176	124	158	825	839	929.5	825



The dimensions "a*", "d*" and "d_{ML}"* change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

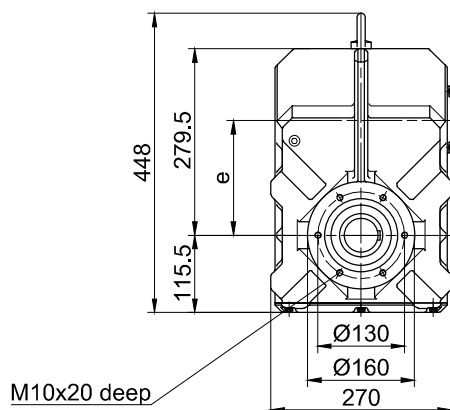
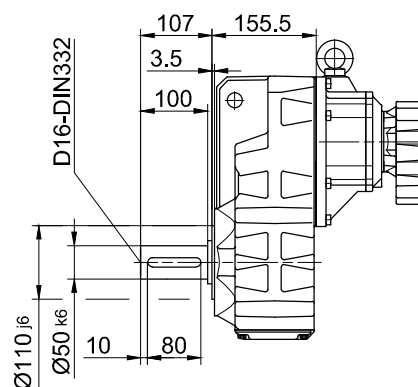
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BF40G10

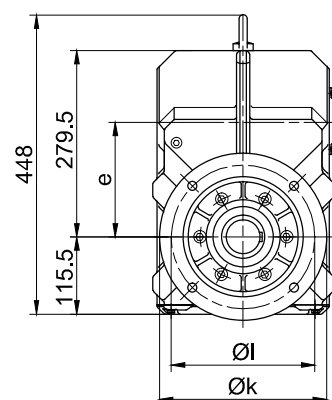
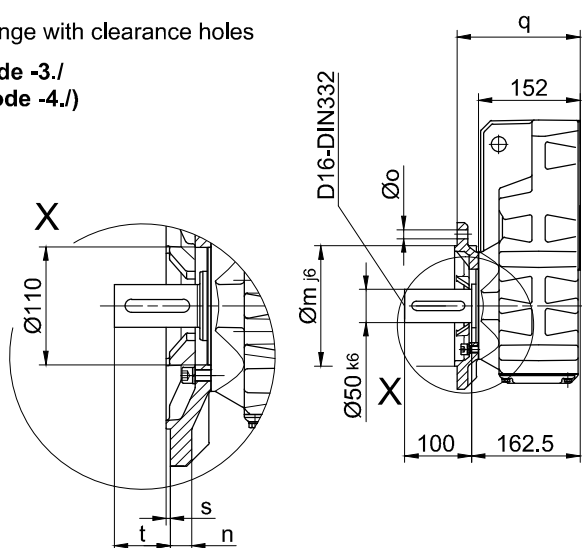
Flange with tapped holes

Code -7./



Flange with clearance holes

Code -3./
(Code -4./)

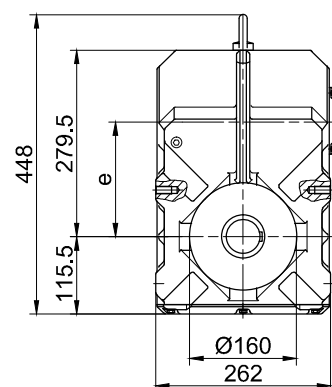
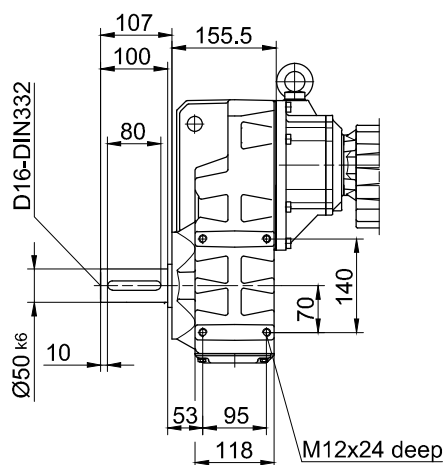


Flange dimensions

BF40G..	k	l	m	n	o	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/



The actual gearbox design can vary from the geometry shown.

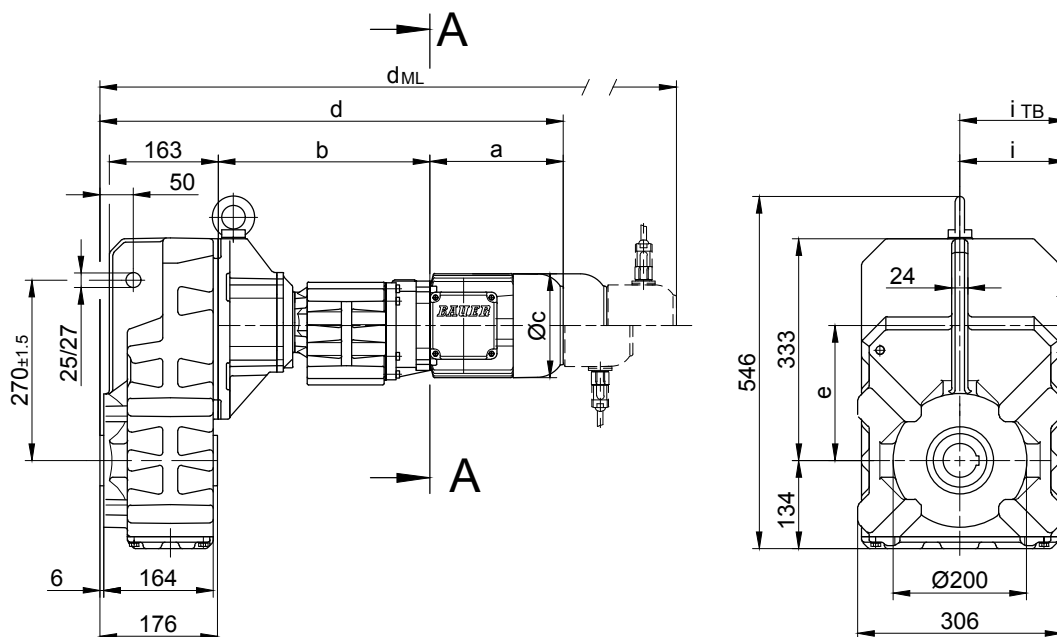
BF-series shaft-mounted geared motors

Dimension

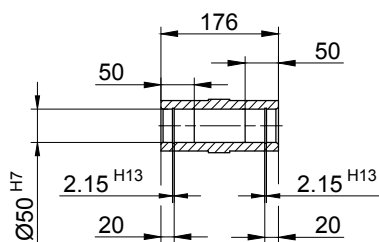
BF50G10

With torque arm

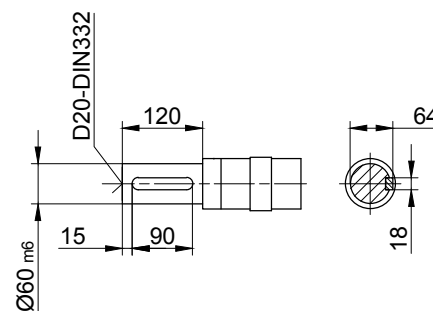
Code -0./



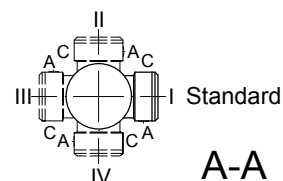
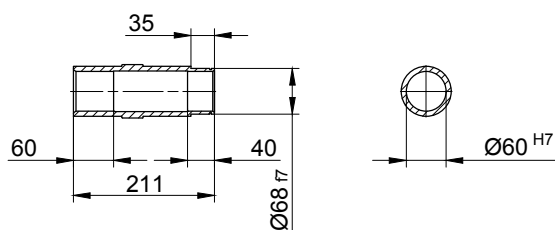
Code -4/



Code -1/



Code -5/



A-A

Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	d _{ML}
BF50G10-../D05..	170	313	123	660.5	202	100	117	702.5	763.5	805	-
BF50G10-../D06..	170	313	123	660.5	202	100	119	702.5	763.5	805	-
BF50G10-../D07..	190	313	123	680.5	202	100	119	722.5	783.5	825	-
BF50G10-../D..08..	200	317	156	694.5	202	115	136.5	760.5	801.5	868	760.5
BF50G10-../D..09..	251	331.5	181	760	202	124	158	853	867	957.5	853



The dimensions "a", "d" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

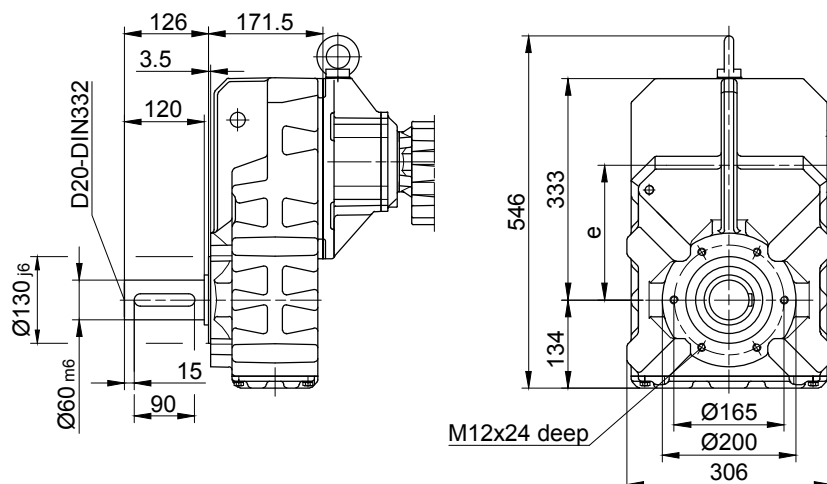
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BF50G10

Flange with tapped holes

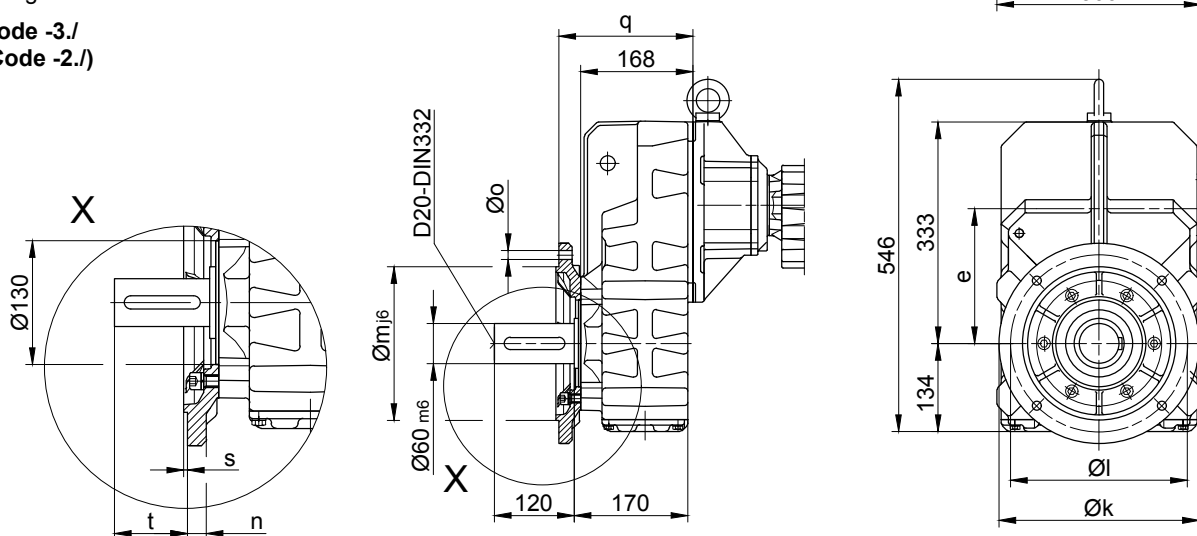
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

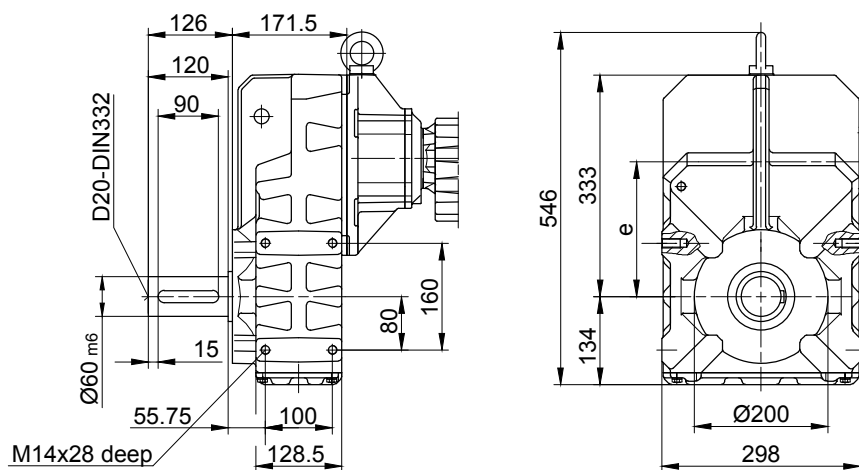


Flange dimensions

BF50G..	k	l	m	n	o	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/



The actual gearbox design can vary from the geometry shown.

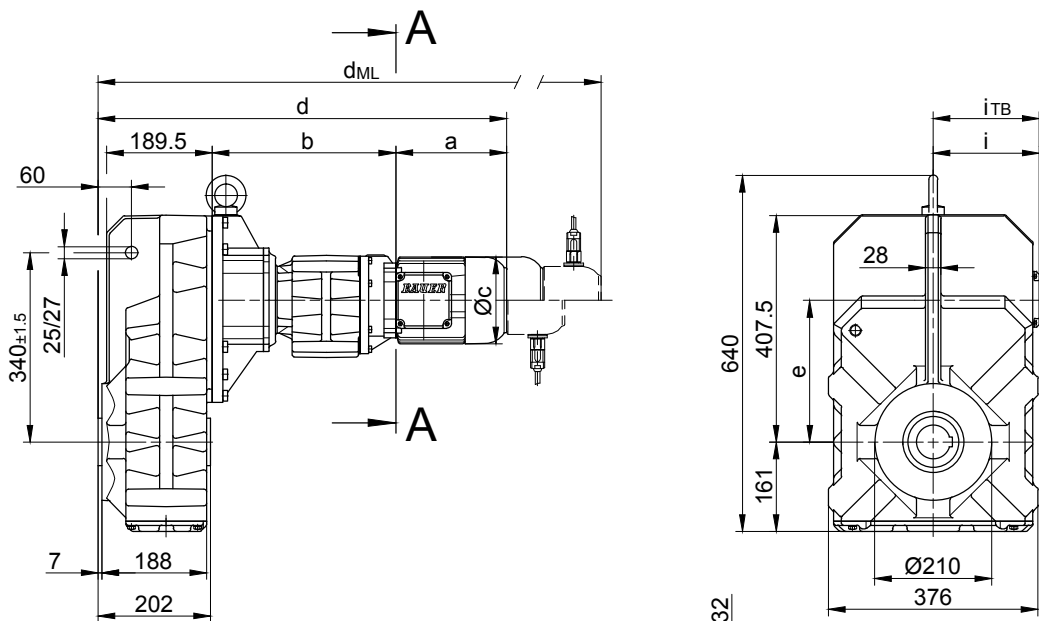
BF-series shaft-mounted geared motors

Dimension

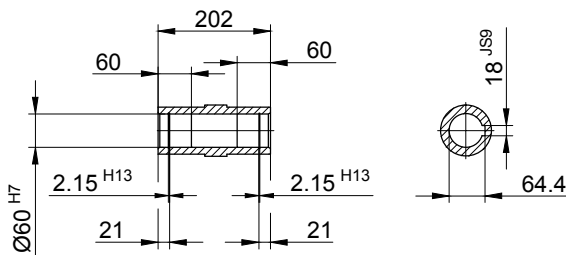
BF60G20

With torque arm

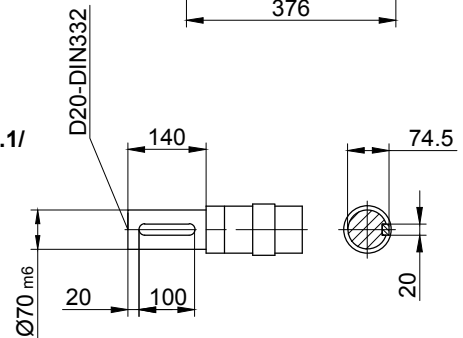
Code -0./



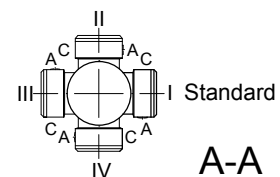
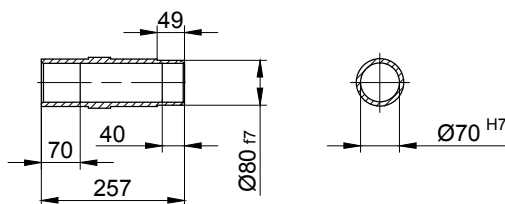
Code -4/



Code -1/



Code -5/



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BF60G20-../D05..	170	326	123	701	254	100	117	743	804	845.5	-
BF60G20-../D06..	170	326	123	701	254	100	119	743	804	845.5	-
BF60G20-../D07..	190	326	123	721	254	100	119	763	824	865.5	-
BF60G20-../D..08..	200	330	156	735	254	115	136.5	801	842	908.5	801
BF60G20-../D..09..	251	344.5	181	800.5	254	124	158	893.5	907.5	998	893.5



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

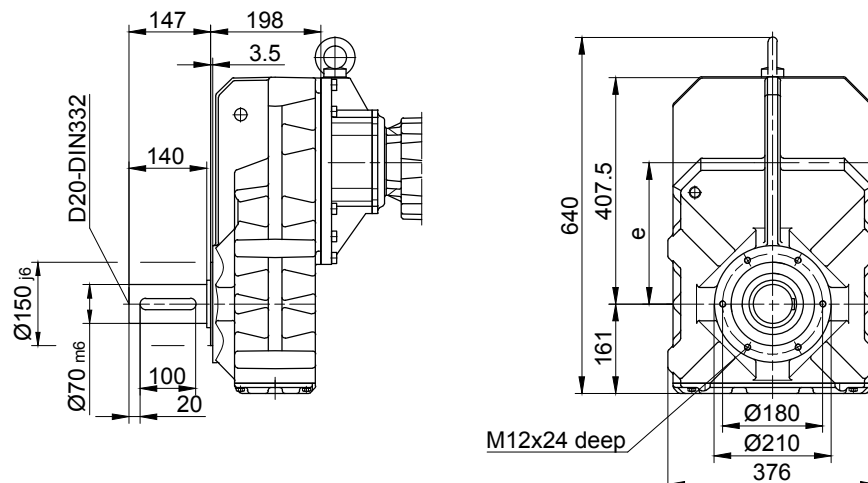
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BF60G20

Flange with tapped holes

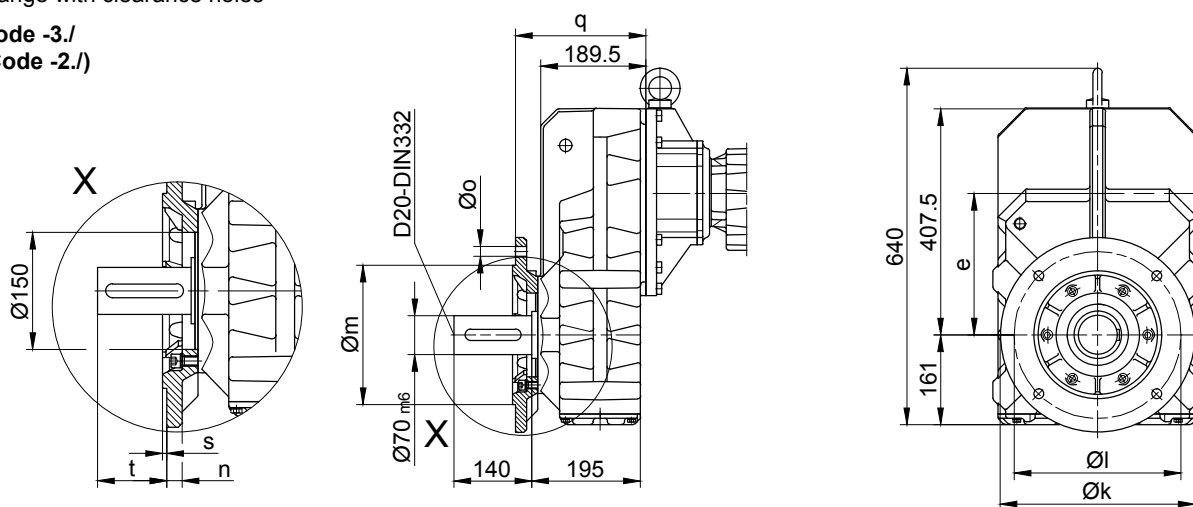
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

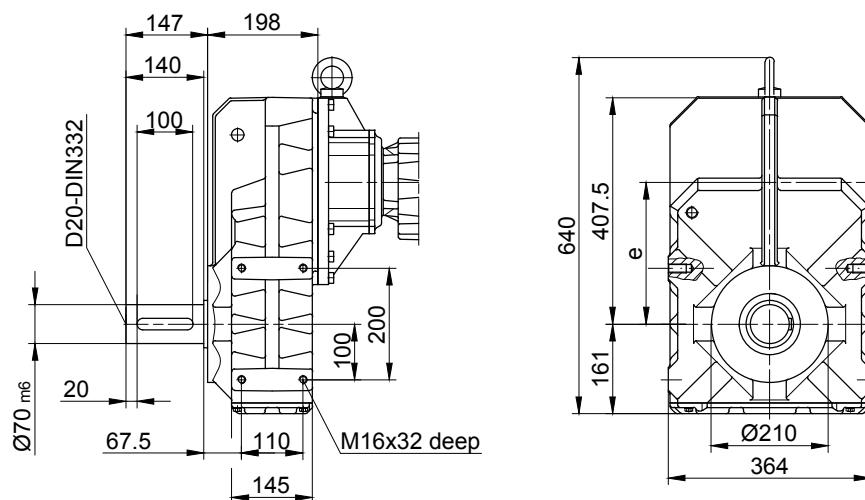


Flange dimensions

BF60G..	k	l	m	n	o	q	s	t
Standard -3./	350	300	250 _{h6}	20	17.5	234.5	5	110.5
small -2./	300	265	230 _{j6}	20	13.5	242.5	4	102.5

Foot with tapped holes left and right

Code -6.LR/

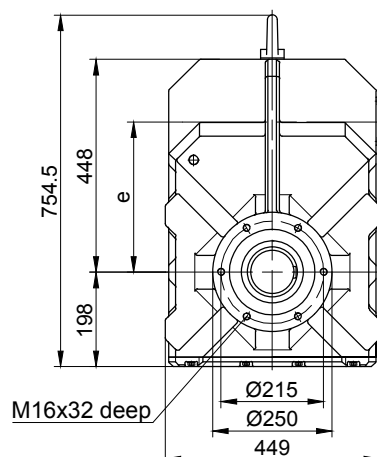
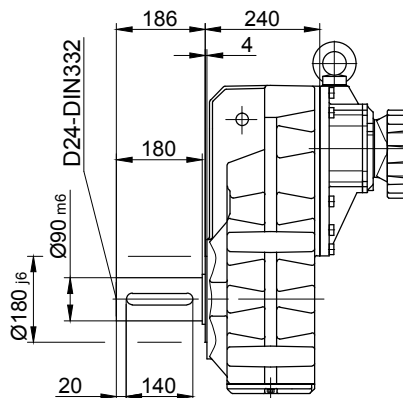


The actual gearbox design can vary from the geometry shown.

BF70G20

Flange with tapped holes

Code -7./

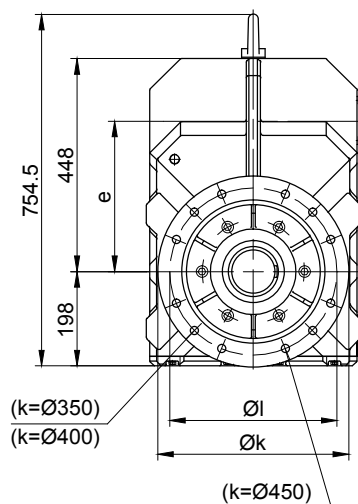
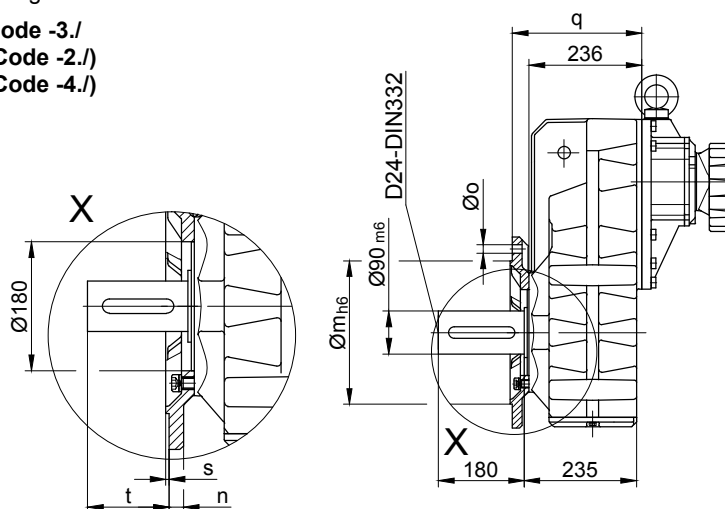


Flange with clearance holes

Code -3./

(Code -2./)

(Code -4./)

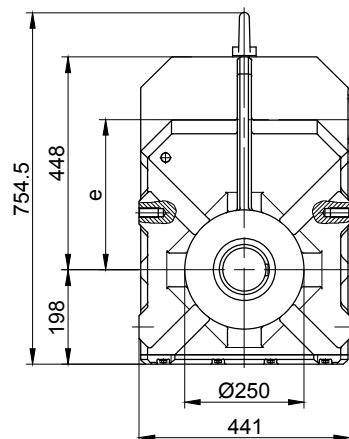
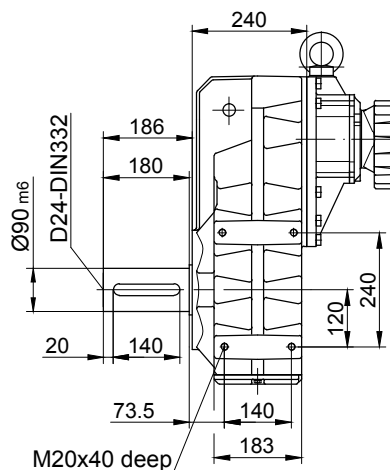


Flange dimensions

BF70G..	k	l	m	n	o	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/



The actual gearbox design can vary from the geometry shown.

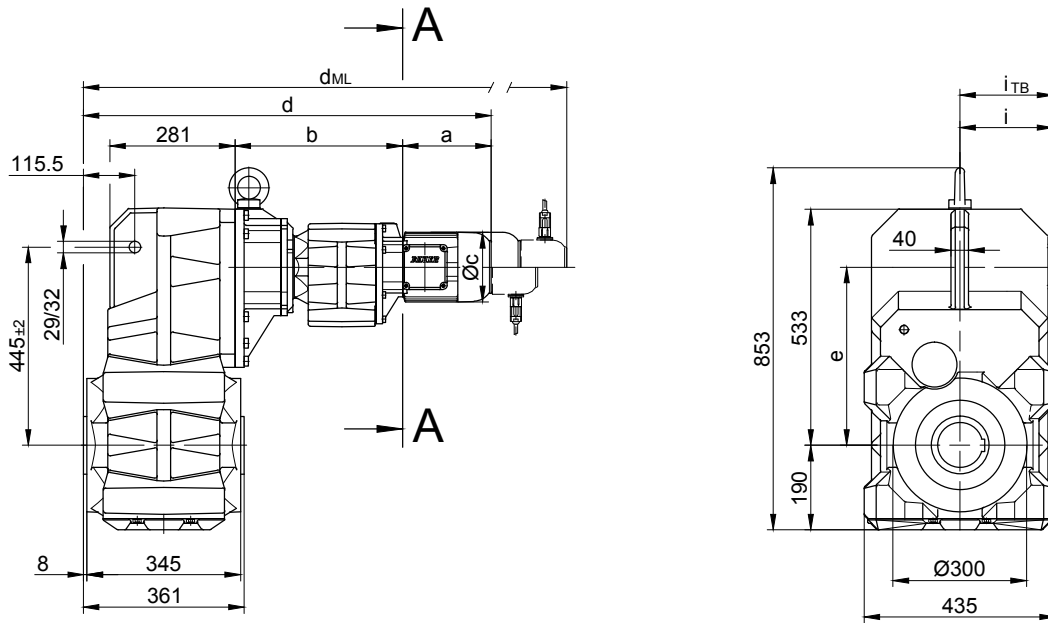
BF-series shaft-mounted geared motors

Dimension

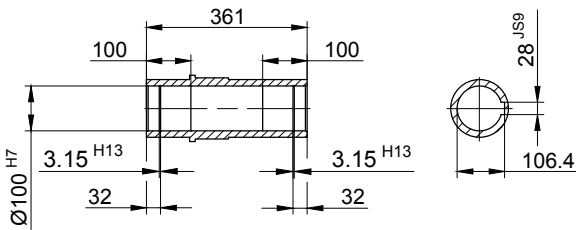
BF80G40

With torque arm

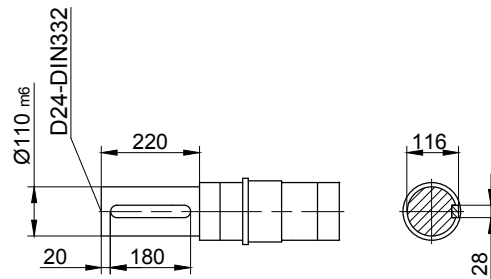
Code -0./



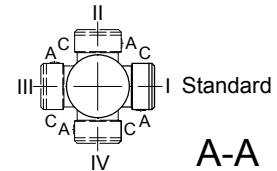
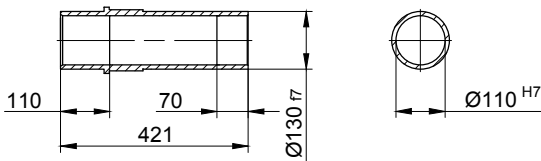
Code -4/



Code -1/



Code -5/



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	ES..	G	ES.-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BF80G40-../D..08..	200	376	156	916.5	400	115	136.5	982.5	1023.5	1090	982.5
BF80G40-../D..09..	251	390.5	181	982	400	124	158	1075	1089	1179.5	1075
BF80G40-../D..11..	319	397	228	1056.5	400	181	181	1154.5	1163.5	1259	1154.5



The dimensions "a*", "d*" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

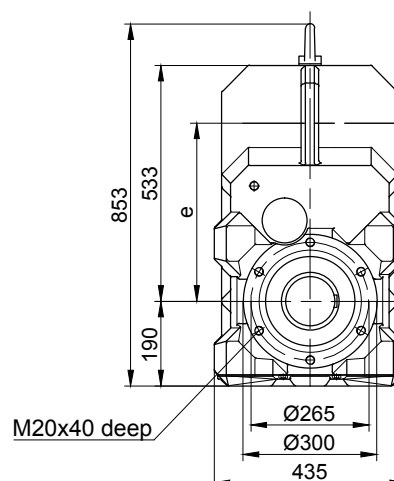
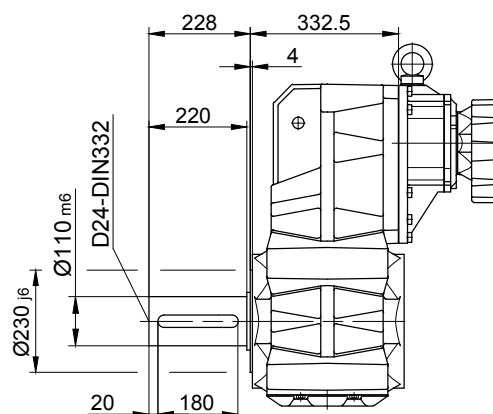
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BF80G40

Flange with tapped holes

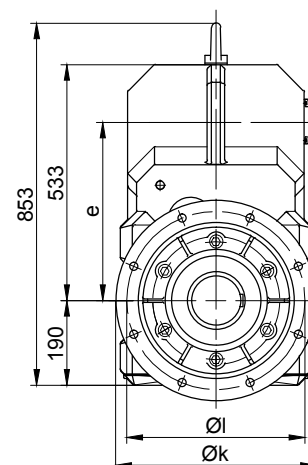
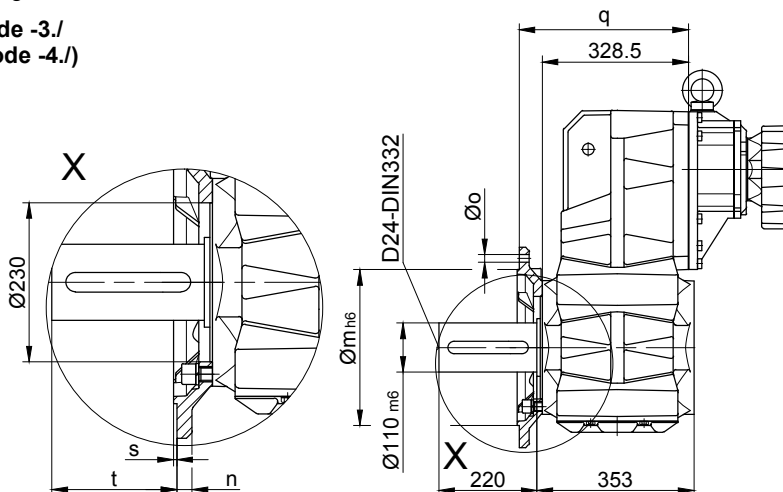
Code -7./



Flange with clearance holes

Code -3./

(Code -4./)

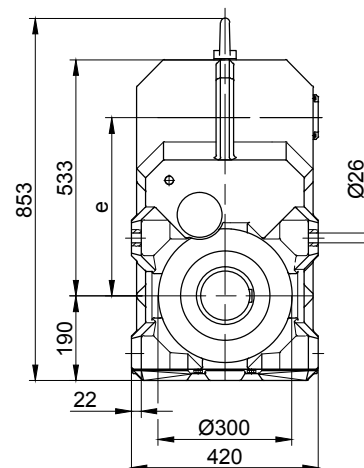
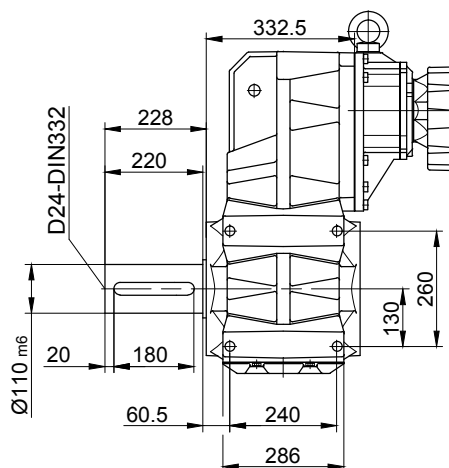


Flange dimensions

BF80G..	k	l	m	n	o	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/



The actual gearbox design can vary from the geometry shown.

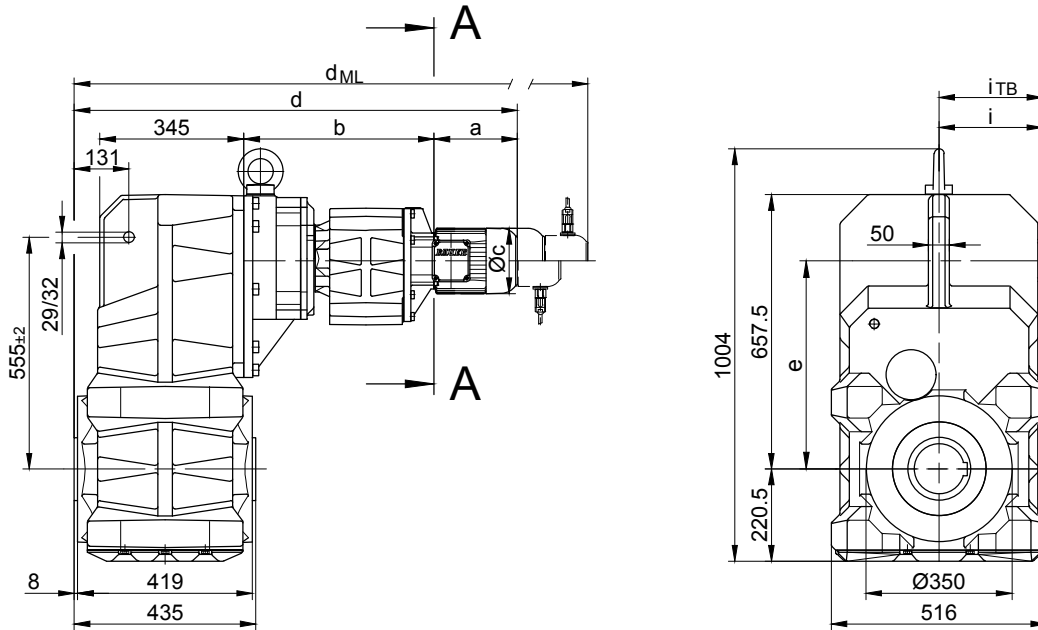
BF-series shaft-mounted geared motors

Dimension

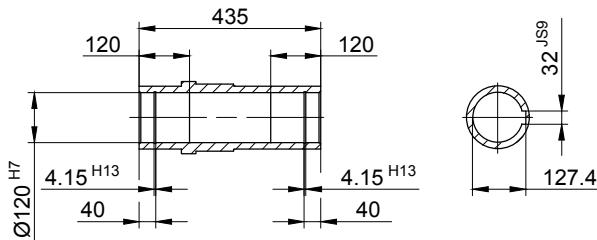
BF90G50

With torque arm

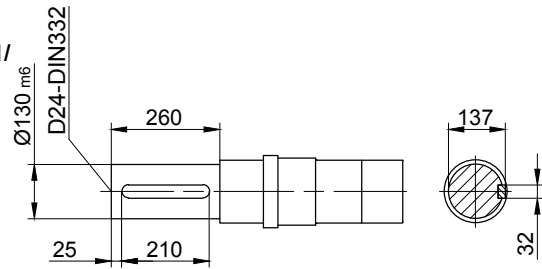
Code -0./



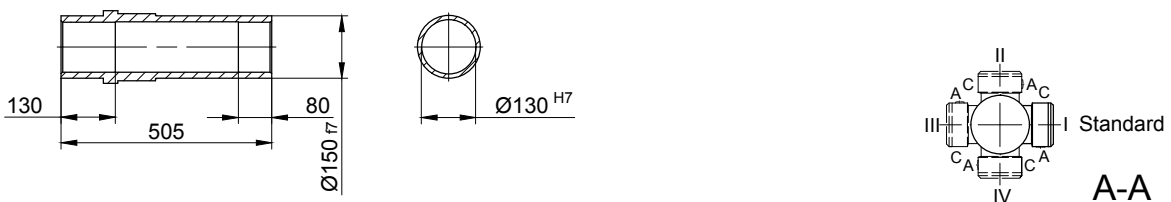
Code -4/



Code -1/



Code -5/



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BF90G50-../D..08..	200	456	156	1062	503	115	136.5	1128	1169	1235.5	1128
BF90G50-../D..09..	251	470.5	181	1127.5	499	124	158	1220.5	1234.5	1325	1220.5
BF90G50-../D..11..	319	477	228	1202	499	181	181	1300	1309	1404.5	1300
BF90G50-../D..13..	393	490	258	1289	499	218	218	1400	1396	1504.5	1400
BF90G50-../D..16..	454.5	504	310	1384.5	499	244	244	1508	1471.5	1612	1508
BF90G50-../D..18..	542	535	348	1483	499	288	288	1632.5	1590	1736.5	1632.5



The dimensions "a", "d" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

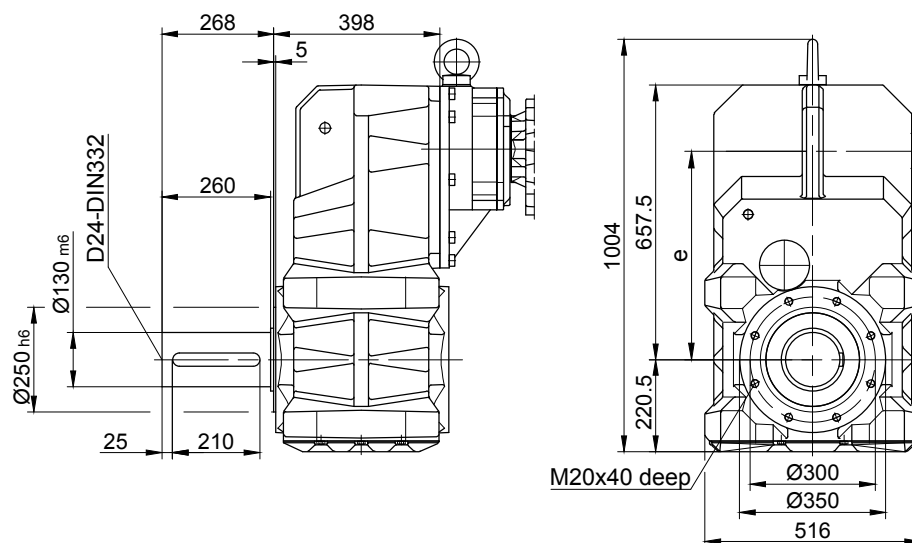
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BF90G50

Flange with tapped holes

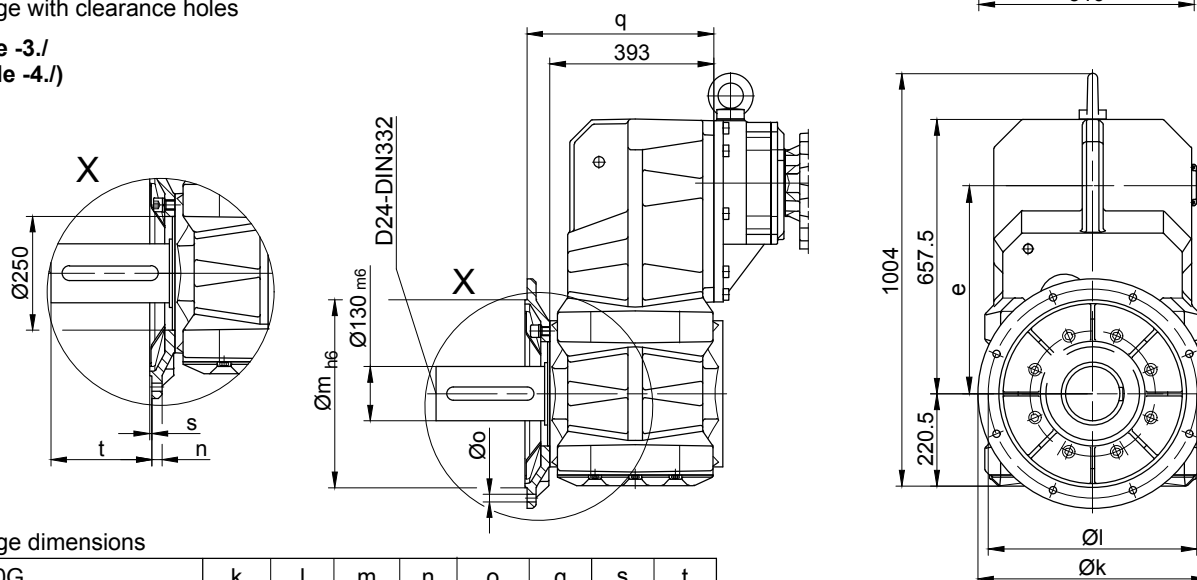
Code -7./



Flange with clearance holes

Code -3./

(Code -4./)

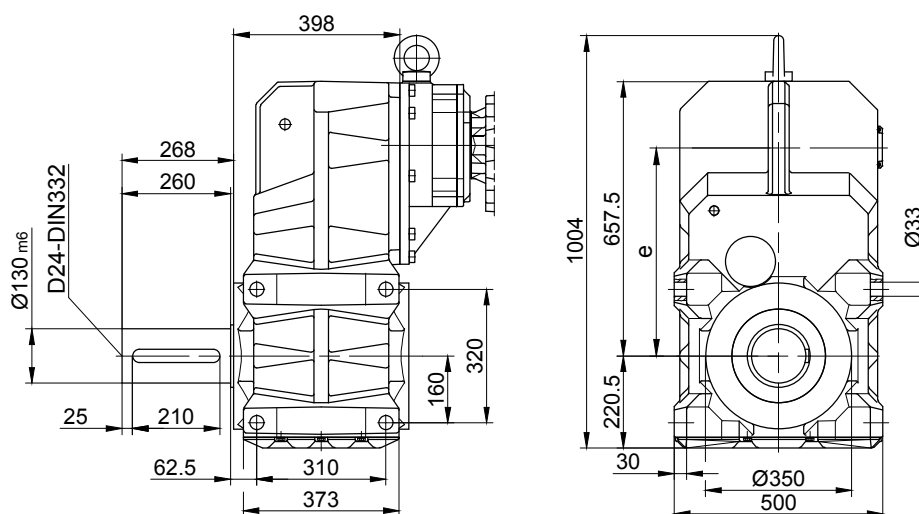


Flange dimensions

BF90G..	k	l	m	n	o	q	s	t
Standard -3./	550	500	450	22	17.5	448	5	218
big -4./	660	600	550	25	22	442	6	224

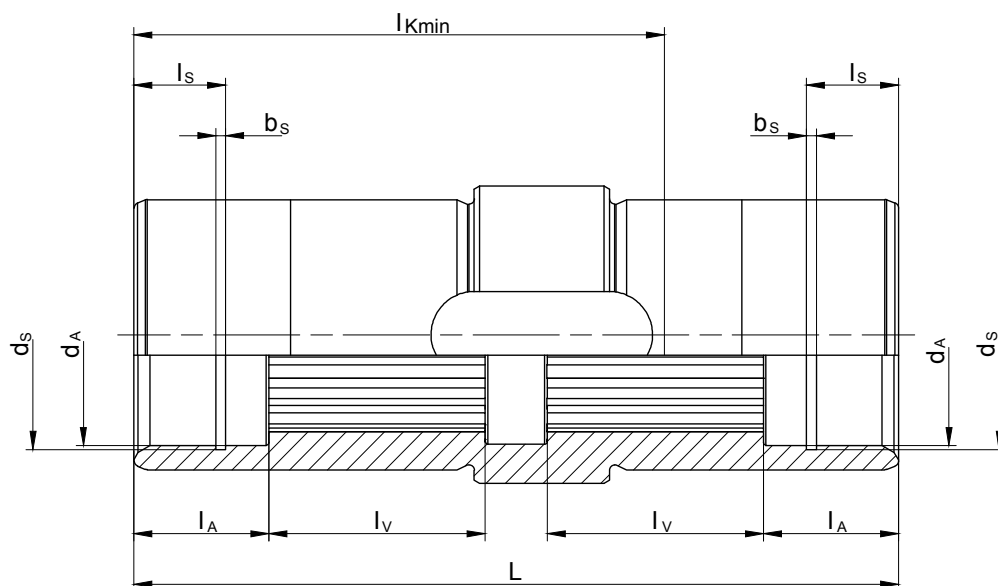
Foot with clearance holes left and right

Code -1.LR/



The actual gearbox design can vary from the geometry shown.

Splined shaft BF



Type	Spline acc. DIN 5480	d_A (mm)	l_A (mm)	l_V (mm)	l_{Kmin} (mm)	L (mm)	d_s (mm)	l_s (mm)	b_s (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}

The actual gearbox design can vary from the geometry shown.

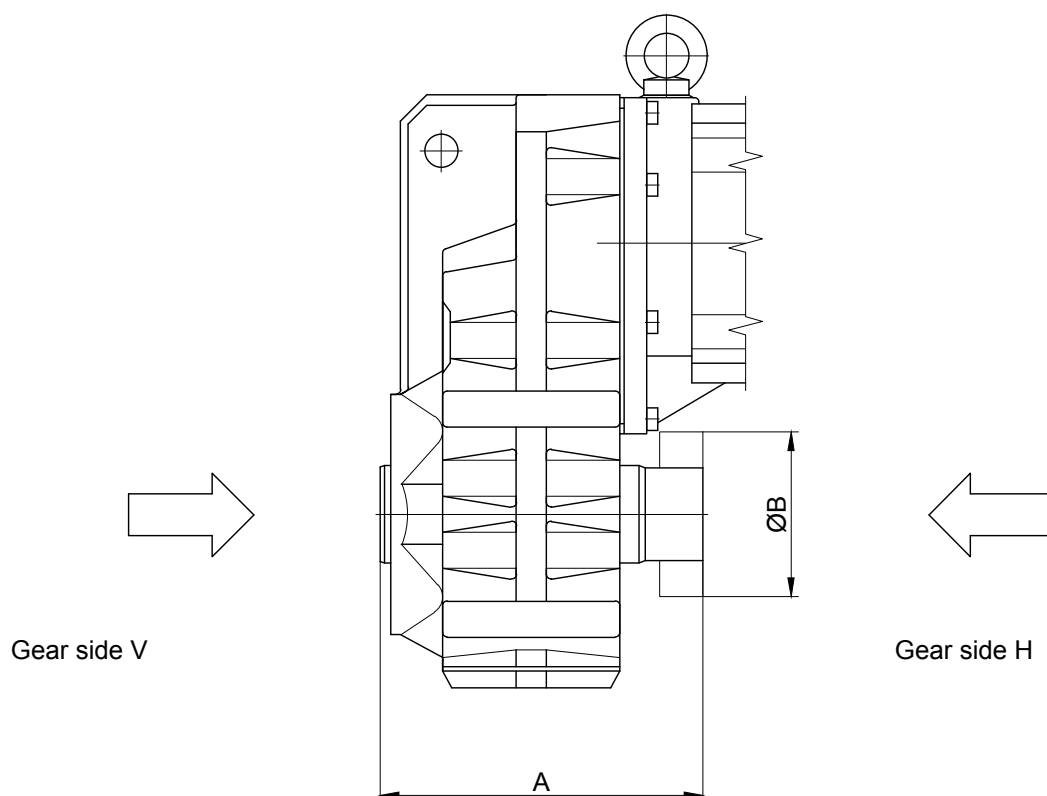
BF-series shaft-mounted geared motors

Additional Dimension Sheet

Shrink disc coupling (SSV)

(Code BF10-.5/...)

(Code BF10Z-.5/...)



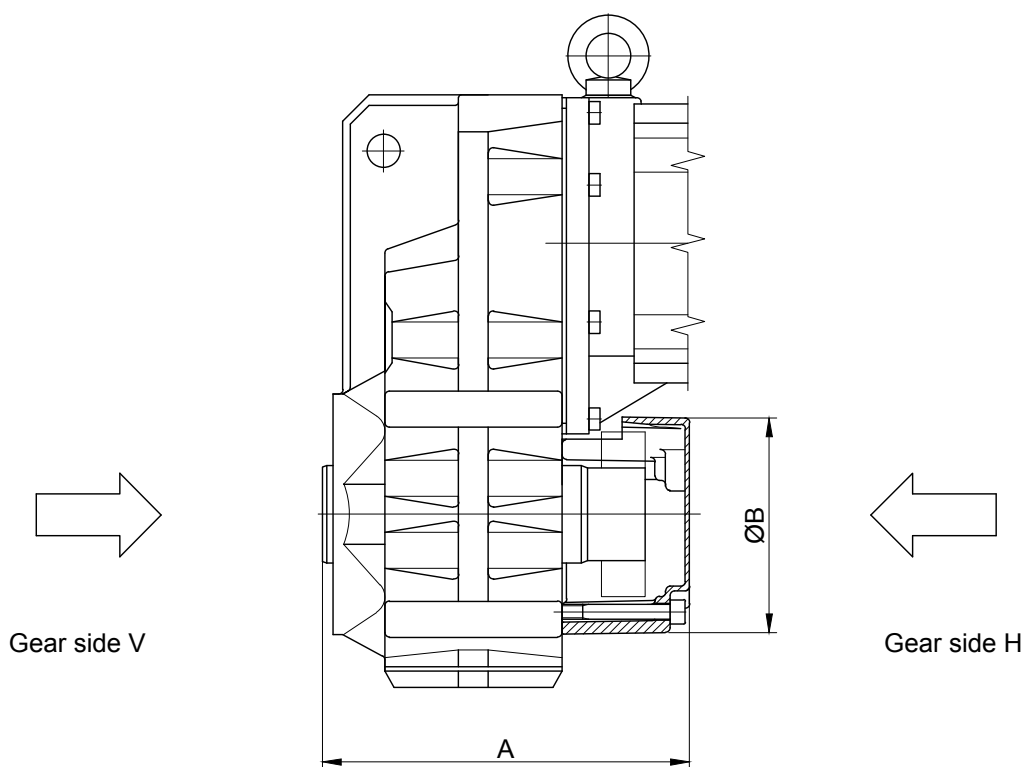
Type	SSV Ringfeder	SSV STÜWE	A	B
BF10	RfN 4161 036x072	HSD 36-22x36	153	72
BF20	RfN 4161 044x080	HSD 44-22x44	173	80
BF30	RfN 4161 050x090	HSD 50-22x50	192	90
BF40	RfN 4161 062x110	HSD 62-22x62	215	110
BF50	RfN 4161 068x115	HSD 68-22x68	211	115
BF60	RfN 4161 080x141	HSD 80-22x80	257	140
BF70	RfN 4161 105x185	HSD 110-22x105	320	185
BF80	RfN 4161 130x215	HSD 125-22x130	421	215
BF90	RfN 4161 150x263	HSD 155-22x150	505	263

The actual gearbox design can vary from the geometry shown.

Shrink disc coupling with (SSV) cover

(Code BF10-.5A/...)

(Code BF10Z-.5A/...)



Type	SSV Ringfeder	SSV STÜWE	A	B
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

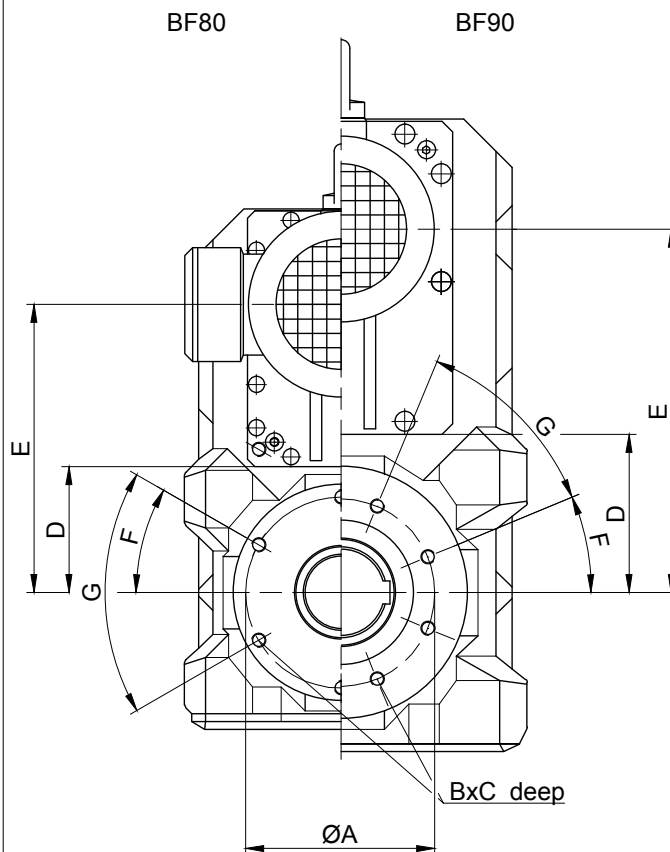
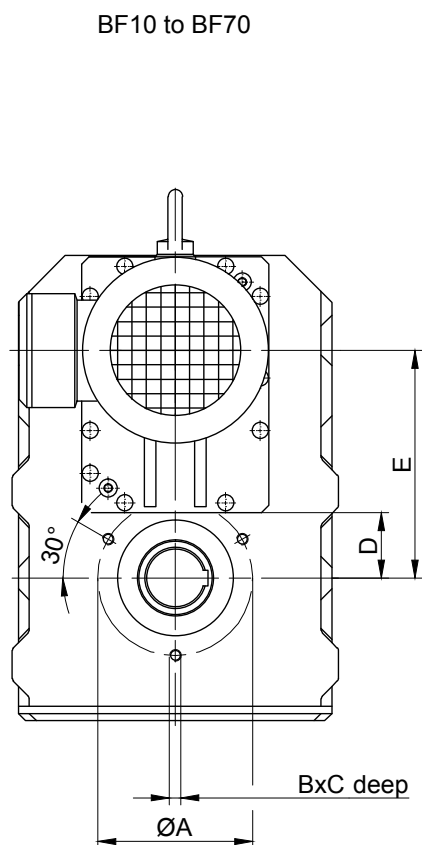
The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

Additional Dimension Sheet

Screw Holes Side (H)

→ Shaft Cover



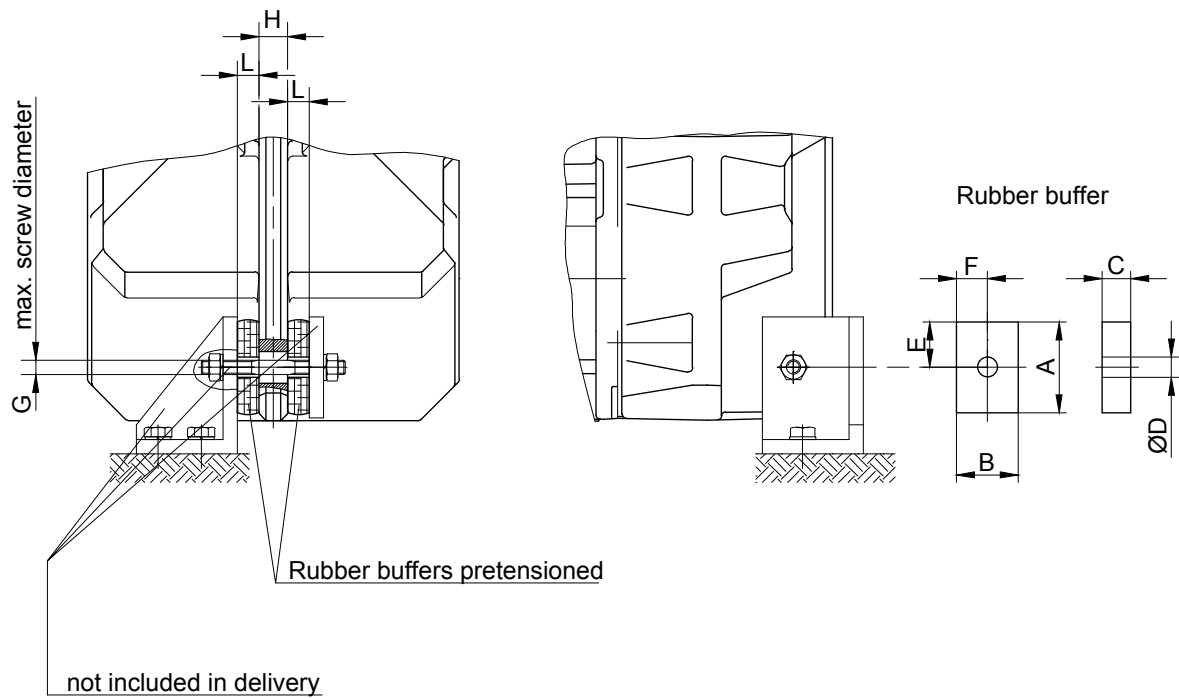
Gear	Dimensions (mm)						
	A	B	C	D	E	F	G
BF10	100	M8	16	35	118	-	-
BF20	115	M10	20	39	136	-	-
BF30	115	M10	20	44	157	-	-
BF40	130	M10	20	52	180.5	-	-
BF50	165	M12	24	60	207	-	-
BF60	180	M12	24	69	255.5	-	-
BF70	215	M16	32	89	316	-	-
BF80	265	M20	40	173	400	30°	6x60°
BF90	300	M20	40	219	504.5	22.5°	8x45°

The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

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

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Gear	Pos.	Dimensions (mm)								
		A	B	C	D	E	F	G	H	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

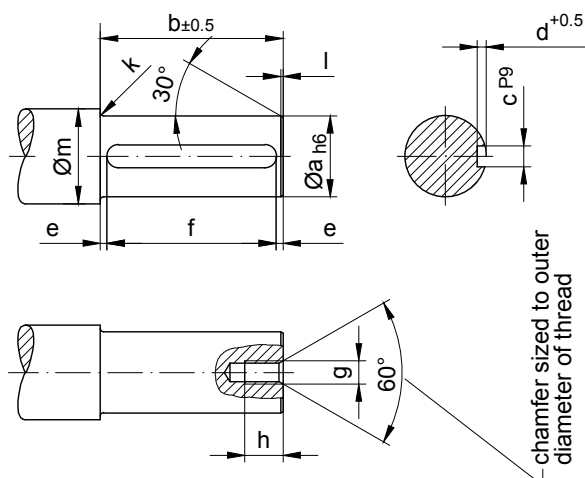
The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

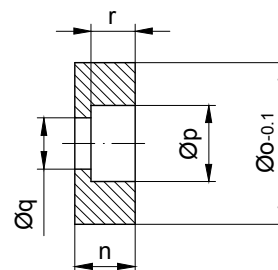
Additional Dimension Sheet

Assembly tools for hollow shaft and keyway

Pos.1 Shaft

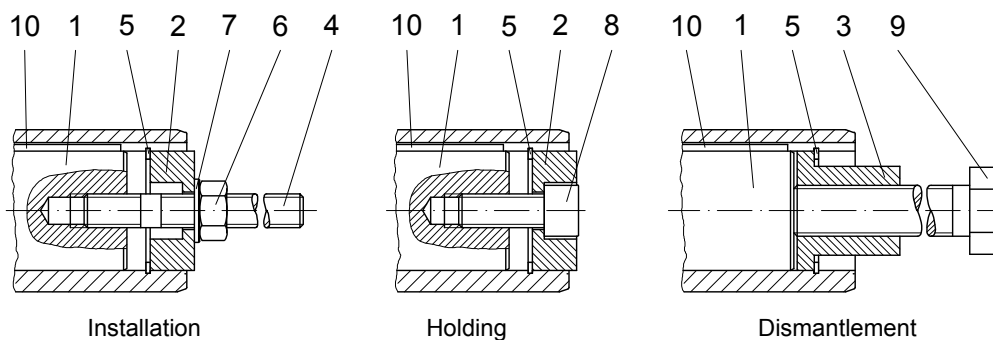


*Pos.2 Disc



✓^x, edges cut
Material:
C45 DIN 17200

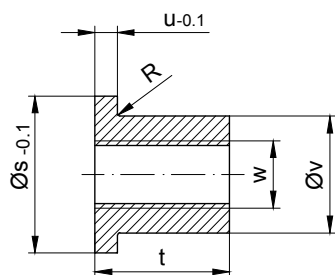
Type	Dimensions (mm)															
	Pos.1 Shaft											Pos.2 Disc				
	a	b	c	d	e	f	g	h	k	l	m	n	o	p	q	r
BF06	25	70	8	4	3.5	63 ^{+0.5}	M8	18	2	1.5	33	13.5	24.8	15	9	8.5
BF10	25	102	8	4	6	90 ^{+0.5}	M8	18	2.5	1.5	33	13.5	24.8	15	9	8.5
BF20	30	108	8	4	9	90 ^{+0.5}	M10	20	3	1.5	38	15	29.8	18	11	10
BF30	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 necessary for assembly. ONLY *specified parts are enclosed in the assembly kit. Suitable measures are to be used to secure Bolt Pos.9 against loosening.

Assembly tools for hollow shaft and keyway

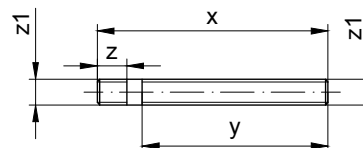
Pos.3 Sleeve



√^x, edges cut

Material: C45 DIN 17200

Pos.4 Stud Bolt



Material: Steel, tensile strength $\geq 1000\text{N/mm}^2$
threads rolled

Type	Dimensions (mm)										* Retainer ring DIN 472	Hexagon nut DIN 934-8	Disc DIN 125-St	* 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						
	Pos.3 Sleeve						Pos.4 Stud Bolt											Pos.5	Pos.6	Pos.7	Pos.8	Pos.9	Pos.10
	s	t	u	v	w	R	x	y	z	z1													
BF06	24.8	24	5	15.4	M12	0.8	160	130	20	M8	25x1.2	M8	8.4	M8x30	5	M12x110	A 8x7x63						
BF10	24.8	24	5	15.4	M12	0.8	160	130	20	M8	25x1.2	M8	8.4	M8x30		M12x140	A 8x7x90						
BF20	29.8	28	5	19.8	M14	0.8	170	135	23	M10	30x1.2	M10	10.5	M10x30	8	M14x150	A 8x7x90						
BF30	34.8	28	5	23	M14	-	180	145	23	M10	35x1.5	M10	10.5	M10x35		M14x160	A 10x8x100						
BF40	39.8	40	6	27.7	M20	0.8	210	170	28	M12	40x1.75	M12	13	M12x35	16	M20x200	A 12x8x125						
BF50	49.8	48	6	36	M24	-	230	175	37	M16	50x2.0	M16	17	M16x40	30	M24x210	A 14x9x125						
BF60	59.8	60	6	44	M30	-	270	205	45	M20	60x2.0	M20	21	M20x50	42	M30x250	A 18x11x160						
BF70	79.8	60	8	55	M30	-	310	240	45	M20	80x2.5	M20	21	M20x50		M30x280	A 22x14x180						
BF70-K70	69.8	60	8	53	M30	-	310	240	45	M20	70x2.5	M20	21	M20x50		M30x280	A 20x12x180						
BF80	99.8	72	10	75	M36	-	440	360	55	M24	100x3.0	M24	25	M24x60	100	M36x410	A 28x16x280						
BF90	119.8	72	10	80	M36	-	510	430	55	M24	120x4.0	M24	25	M24x60		M36x480	A 32x18x360						

The parts shown are necessary 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	Ø s	Order Text
	BF06	25	Id.Nr.4103921 Assembly tool "holding"
	BF10	25	Id.Nr.4103921 Assembly tool "holding"
	BF20	30	Id.Nr.4103939 Assembly tool "holding"
	BF30	35	Id.Nr.4103947 Assembly tool "holding"
	BF40	40	Id.Nr.4103955 Assembly tool "holding"
	BF50	50	Id.Nr.4103963 Assembly tool "holding"
	BF60	60	Id.Nr.4103971 Assembly tool "holding"
	BF70	80	Id.Nr.4103980 Assembly tool "holding"
	BF70-K70	70	Id.Nr.4104765 Assembly tool "holding"
	BF80	100	Id.Nr.4103998 Assembly tool "holding"
	BF90	120	Id.Nr.4104005 Assembly tool "holding"

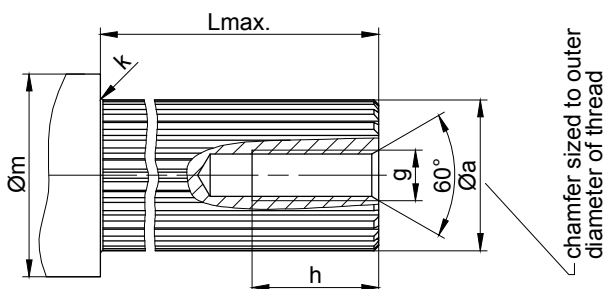
The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

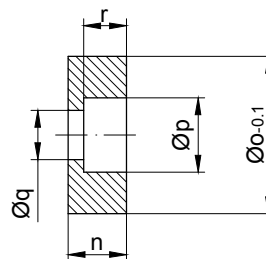
Additional Dimension Sheet

Assembly tools for shaft mounted gears with splined shaft

Pos.1 Shaft

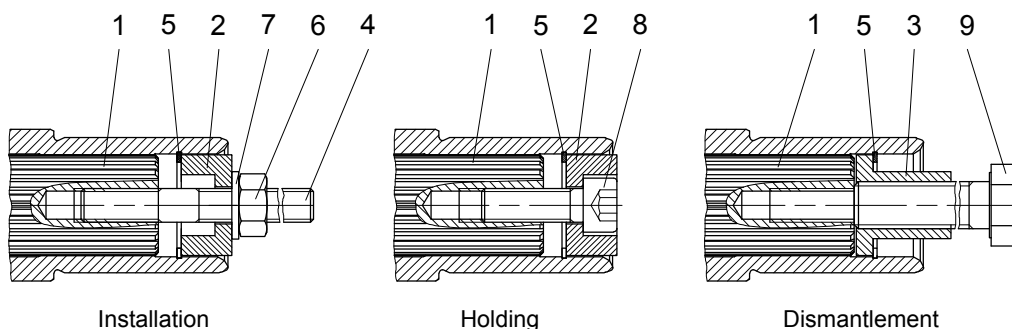


*Pos.2 Disc



√^x, edges cut
Material:
C45 DIN 17200

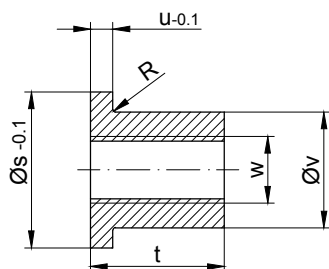
Type	Dimensions (mm)										
	Pos.1 Shaft						Pos.2 Disc				
	a	g	h	k	Lmax.	m	n	o	p	q	r
BF06	DIN 5480-W25x1.25x18x8f	M8	20	2	70	37	13	29.9	15	9	8
BF10	DIN 5480-W30x1.25x22x8f	M10	25	2.5	100	38	15	30.4	18	11	10
BF20	DIN 5480-W35x2x16x8f	M10	25	3	110	43	14	35.9	18	11	10
BF30	DIN 5480-W40x2x18x8f	M12	30	3	117	48	18	40.9	20	13.5	12
BF40	DIN 5480-W50x2x24x8f	M16	35	3	145	60	17.5	50.9	26	17.5	12.5
BF50	DIN 5480-W60x2x28x8f	M20	40	3.5	150	69	24	60.9	33	22	18
BF60	DIN 5480-W70x2x34x8f	M20	40	3.5	175	80	24	71.9	33	22	18
BF70	DIN 5480-W85x3x27x8f	M20	40	4	215	96	22	85.9	33	22	16
BF80	DIN 5480-W110x3x35x8f	M24	50	4	315	122	32	111.9	40	26	25
BF90	DIN 5480-W130x5x24x8f	M24	50	4.5	390	141	25	131.4	40	26	18



The parts shown are necessary for assembly. ONLY *specified parts are enclosed in the assembly kit. Suitable measures are to be used to secure Bolt Pos.9 against loosening.

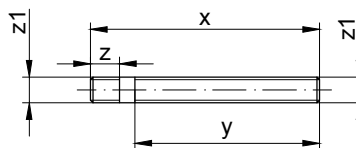
Assembly tools for shaft mounted gears with splined shaft

Pos.3 Sleeve



✓^x, edges cut
Material:
C45 DIN 17200

Pos.4 Stud Bolt



Material: Steel, tensile strength
≥ 1000N/mm²
threads rolled

Type	Dimensions (mm)										* Retainer ring DIN 472	Hexagon nut DIN 934-8	Disc DIN 125-St	* Fillet head screw DIN 7984-8.8	Starting torque (Nm)	Hexagon bolt DIN EN 24017-8.8					
	Pos.3 Sleeve						Pos.4 Stud Bolt										Pos.5	Pos.6	Pos.7	Pos.8	Pos.9
	s	t	u	v	w	R	x	y	z	z1											
BF06	29.9	24	5	15.4	M12	0.8	160	130	20	M8	25x1.2	M8	8.4	M8x30	5	M12x110					
BF10	30.4	28	5	19.8	M14	-	170	135	23	M10	30x1.2	M10	10.5	M10x30	8	M14x150					
BF20	35.9	28	5	23	M14	-	180	145	23	M10	35x1.5	M10	10.5	M10x35		M14x160					
BF30	40.9	40	6	27.7	M20	-	210	170	28	M12	40x1.75	M12	13	M12x35	16	M20x200					
BF40	50.9	48	6	36	M24	0.8	230	175	37	M16	50x2.0	M16	17	M16x40	30	M24x210					
BF50	60.9	60	6	44	M30	-	270	205	45	M20	60x2.0	M20	21	M20x50	42	M30x250					
BF60	71.9	60	6	53	M30	0.8	310	240	45	M20	70x2.5	M20	21	M20x50		M30x280					
BF70	85.9	60	8	65	M30	0.8	310	240	45	M20	85x3	M20	21	M20x50		M30x280					
BF80	111.9	72	10	85	M36	0.8	440	360	55	M24	112x4	M24	25	M24x60	100	M36x410					
BF90	131.4	72	10	95	M36	0.8	510	430	55	M24	130x4	M24	25	M24x60		M36x480					

The parts shown are necessary for assembly. ONLY *specified parts are enclosed in the assembly kit. Suitable measures are to be used to secure Bolt Pos.9 against loosening.

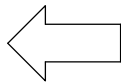
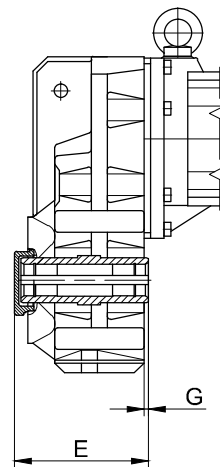
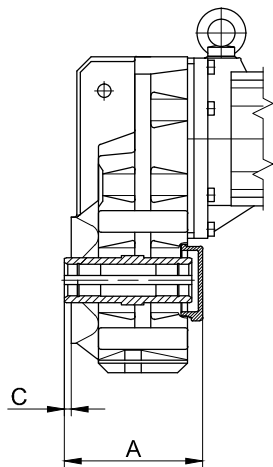
Optional:	Type	Ø s	Order Text
	BF06	30	Id.Nr.4105125 Assembly tool "holding"
	BF10	30.5	Id.Nr.4105133 Assembly tool "holding"
	BF20	36	Id.Nr.4105141 Assembly tool "holding"
	BF30	41	Id.Nr.4105150 Assembly tool "holding"
	BF40	51	Id.Nr.4105168 Assembly tool "holding"
	BF50	61	Id.Nr.4105176 Assembly tool "holding"
	BF60	72	Id.Nr.4105184 Assembly tool "holding"
	BF70	86	Id.Nr.4105192 Assembly tool "holding"
	BF80	112	Id.Nr.4105206 Assembly tool "holding"
	BF90	131.5	Id.Nr.4105214 Assembly tool "holding"

The actual gearbox design can vary from the geometry shown.

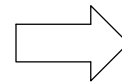
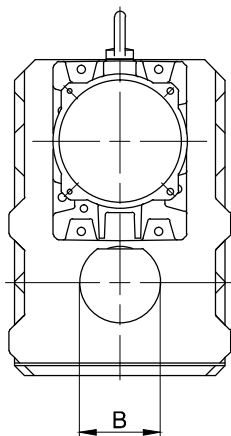
BF-series shaft-mounted geared motors

Additional Dimension Sheet

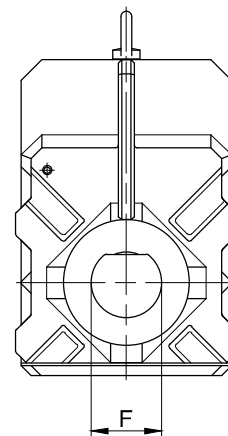
Shaft Cap (VK)



Gear side R



Gear side F



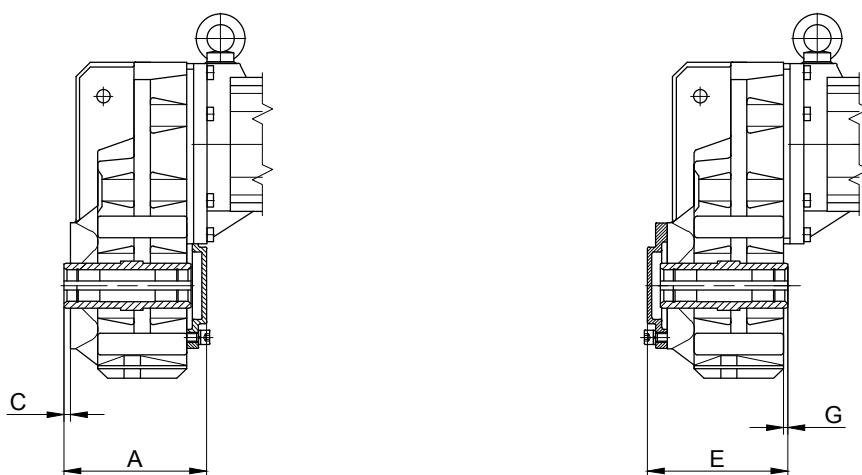
11

Sealing cap REAR			
Type	A	B	C
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

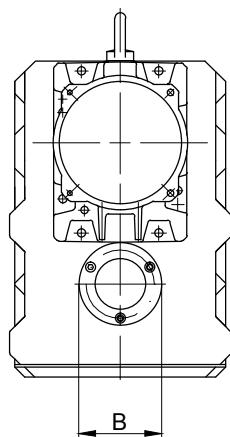
Sealing cap FRONT			
Type	E	F	G
BF30	149	78	7.5
BF50	189.5	110	6
BF70	262	130	6

The actual gearbox design can vary from the geometry shown.

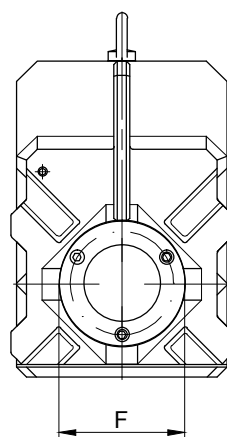
Shaft Cover (VD)



←
Gear side REAR (H)

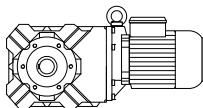


→
Gear side FRONT (V)



Sealing cover REAR			
Type	A	B	C
BF80	376	300	8
BF90	442	350	8

Sealing cover FRONT			
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



Page

Dimensional drawings bevel-gear motors

315-368

- Standard
- Tandem Gearbox

Additional Dimension Sheet

- Splined shaft acc. DIN 5480
 - Additional dimension sheet
 - Shrink disc connection with cover (SSV)
 - Rubber buffer for torque restraint
 - Position 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)
-

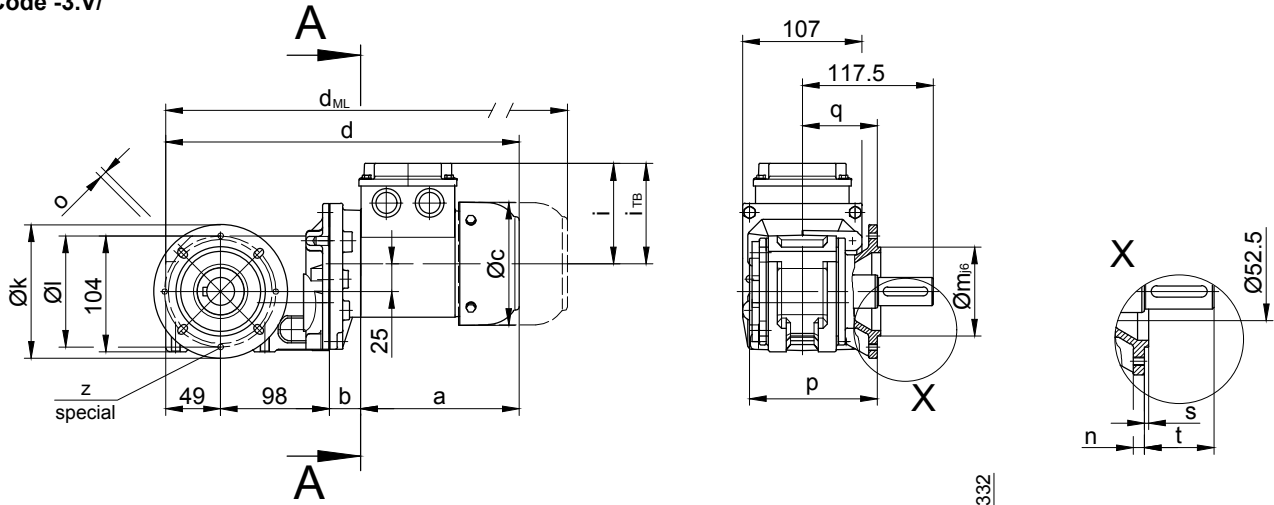
BK-series bevel-geared motors

Dimension

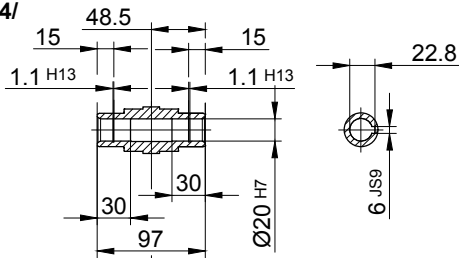
BK06

Flange with clearance holes at front

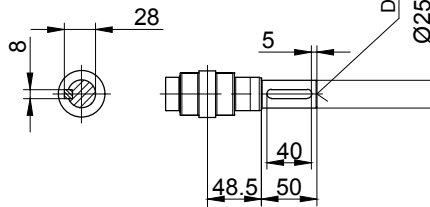
Code -3.V/



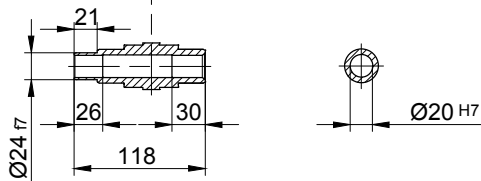
Code -4/



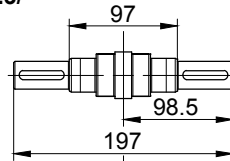
Code -1/



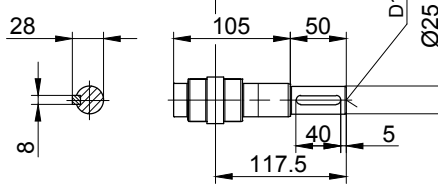
Code -5/



Code -3/

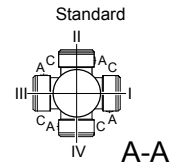


Code -7/



Flange dimensions

BK06	k	l	m	n	o	p	q	s	t	z
standard -37V/	120	100	80	8	6.6	115	67.5	3	50	-
special -37V	120	100	80	8	6.6	115	67.5	3	50	4xM6



Type	a	b	c	d	Øv	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BK06-../D04..	143	28	111	318	70	90	112	361.5	380.5	423.5	-
BK06-../D05..	170	30	123	347	70	100	117	389	450	491.5	-
BK06-../D06..	170	30	123	347	70	100	119	389	450	491.5	-
BK06-../D07..	190	30	123	367	70	100	119	409	470	511.5	-
BK06-../D..08..	200	74	156	421	-	115	136.5	487	528	594.5	487

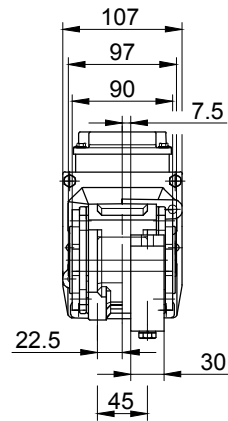
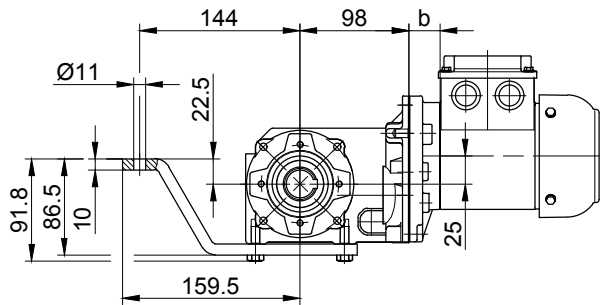


The dimensions "a*", "d*" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

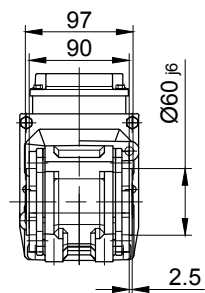
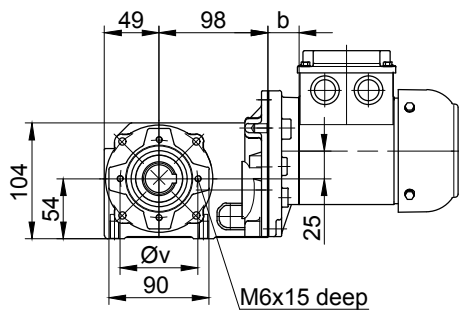
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

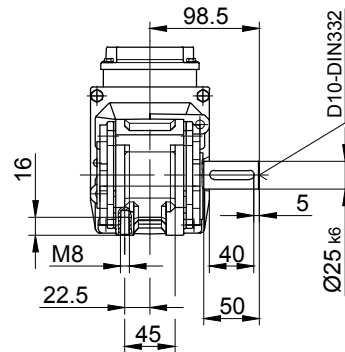
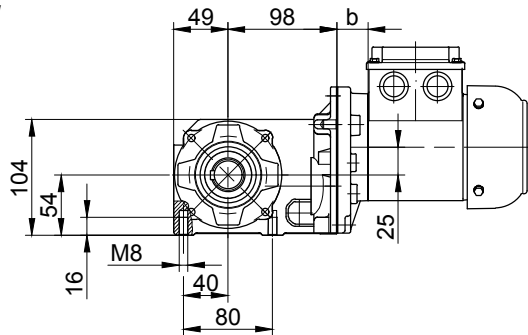
Torque arm at front
Code -5.V/



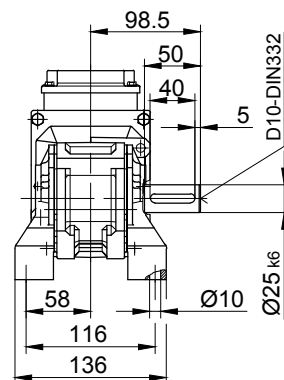
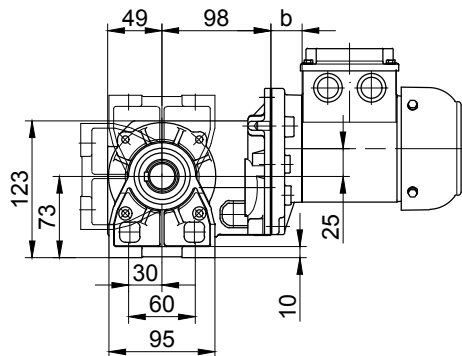
Flange with tapped holes at front
Code -7.V/



Foot with tapped holes at bottom
Code -6.U/



Foot with clearance holes at bottom
Code -1.U/

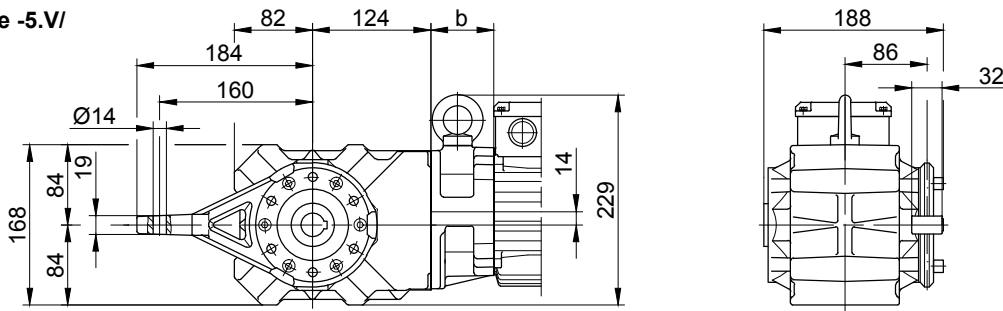


The actual gearbox design can vary from the geometry shown.

BK10 - BK10Z

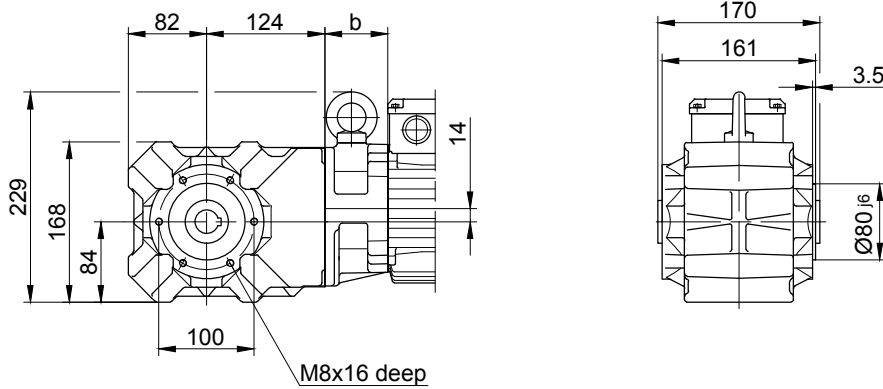
Torque arm at front

Code -5.V/



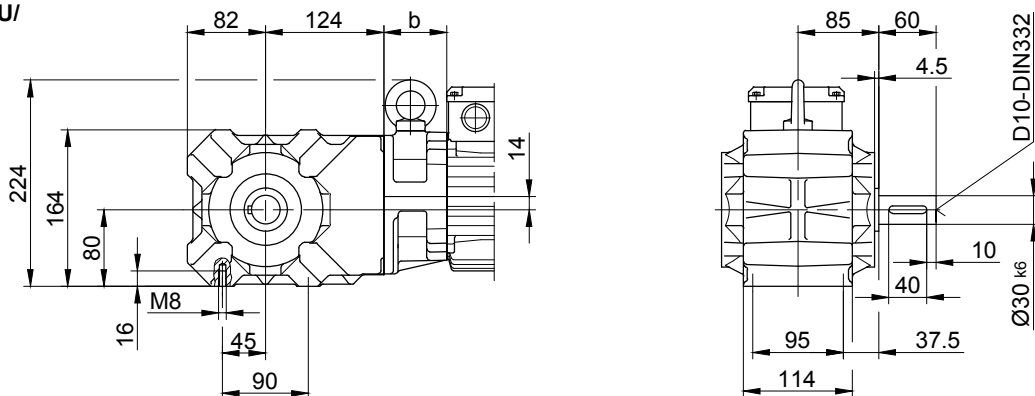
Flange with tapped holes at front

Code -7.V/



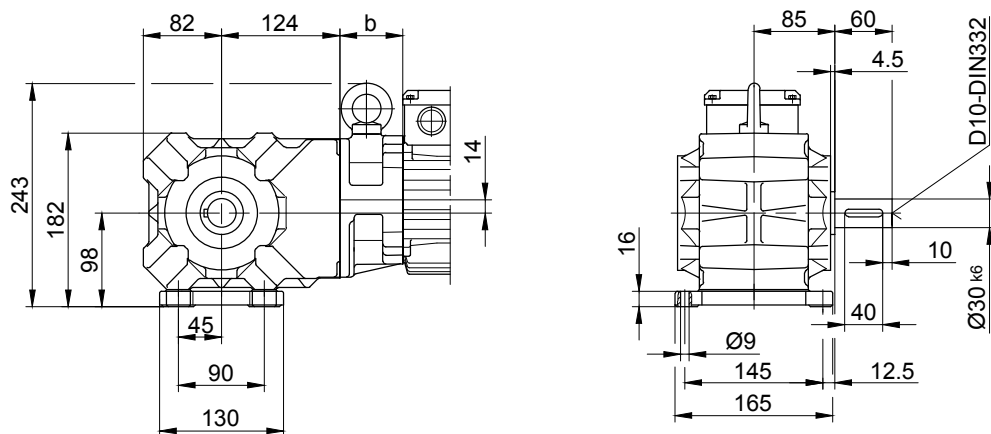
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

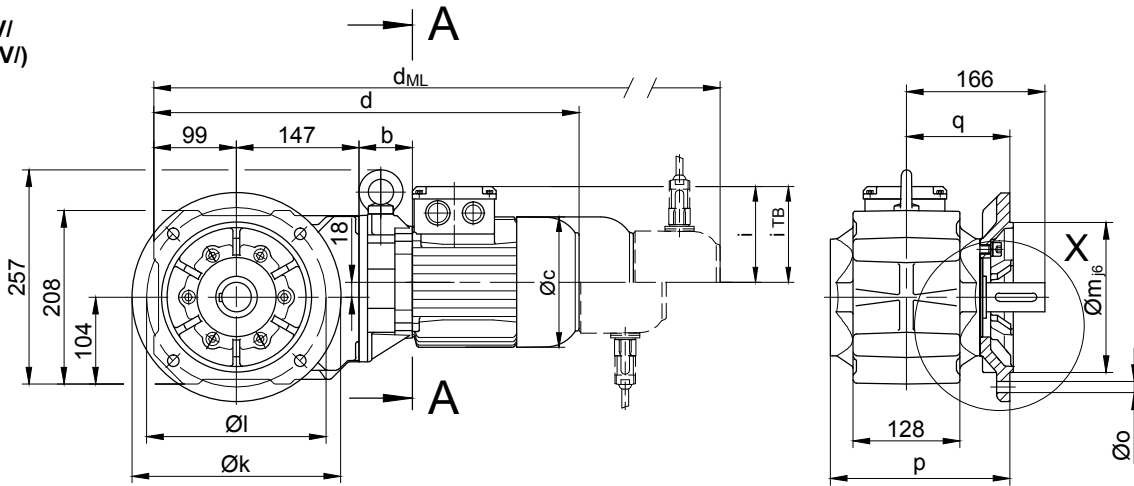
BK-series bevel-geared motors

Dimension

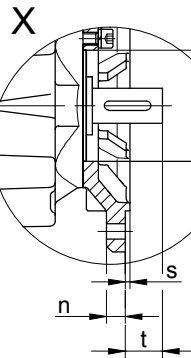
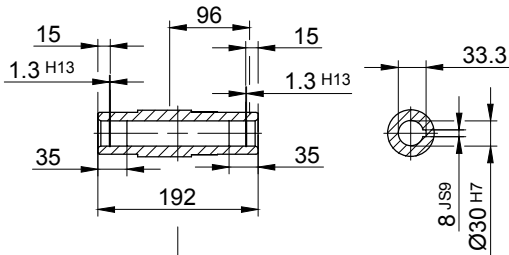
BK20 - BK20Z

Flange with clearance holes at front

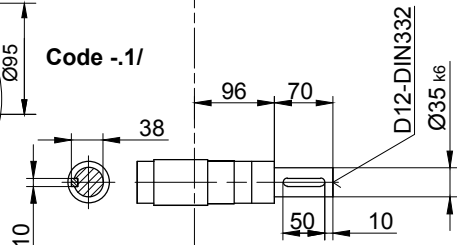
Code -3.V/
(Code -2.V/)



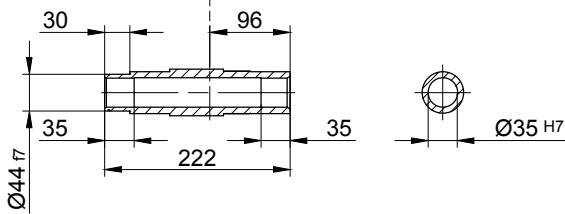
Code -4/



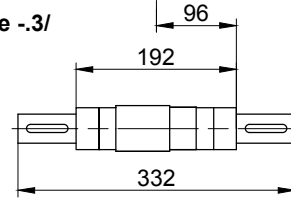
Code -1/



Code -5/

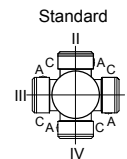


Code -3/



Flange dimensions

BK20(Z)	k	l	m	n	o	p	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



A-A

Type	a	b	c	d	i	i _{TB}	Design with motor extensions			
							ES../ZS..	G	E../ES..-G	RR/RL
							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-../D..08..	200	64	156	510	115	136.5	576	617	683.5	576
BK20Z-../D..08..	200	146	156	592	115	136.5	658	699	765.5	658
BK20-../D..09..	251	78.5	181	575.5	124	158	668.5	682.5	773	668.5



The dimensions "a", "d" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

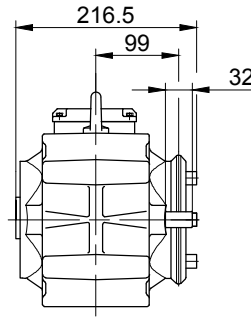
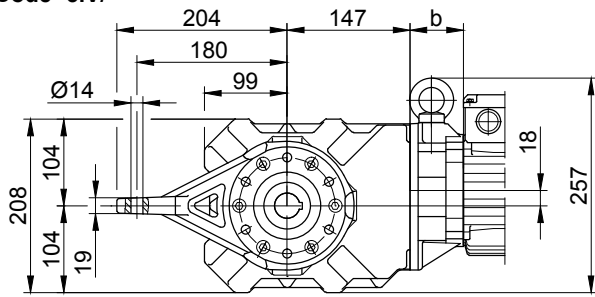
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BK20 - BK20Z

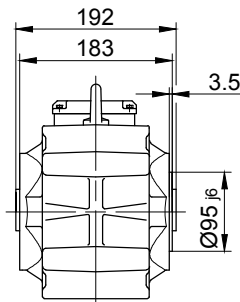
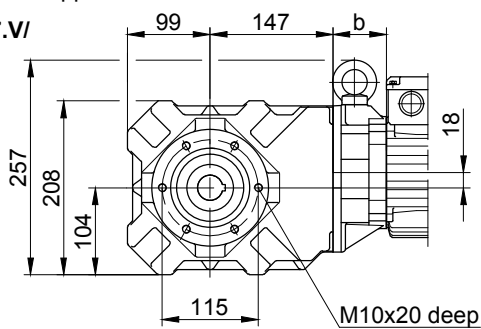
Torque arm at front

Code -5.V/



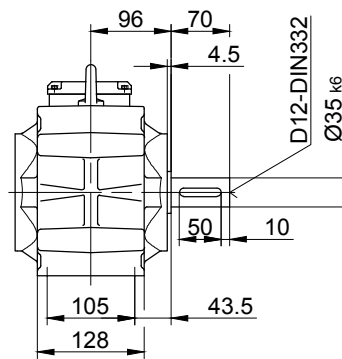
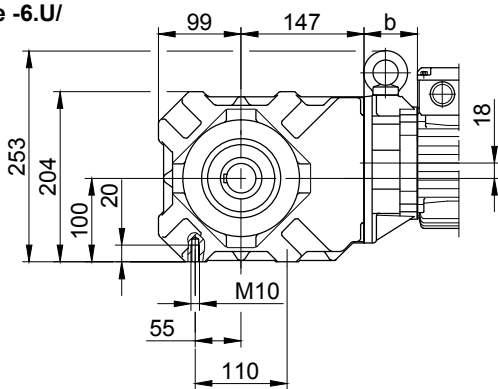
Flange with tapped holes at front

Code -7.V/



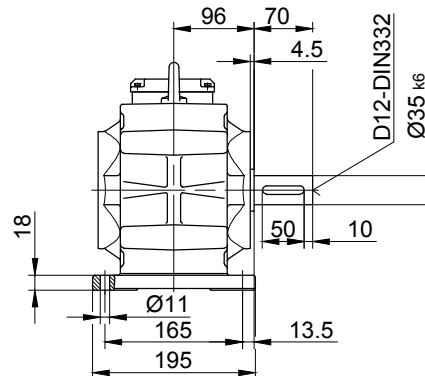
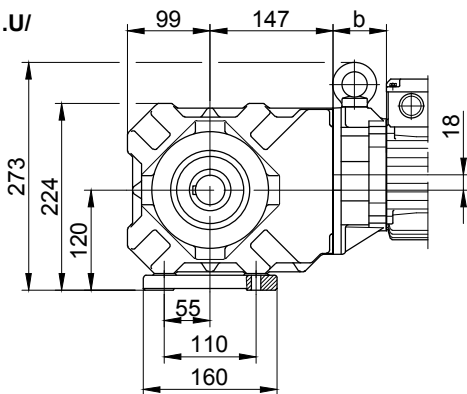
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

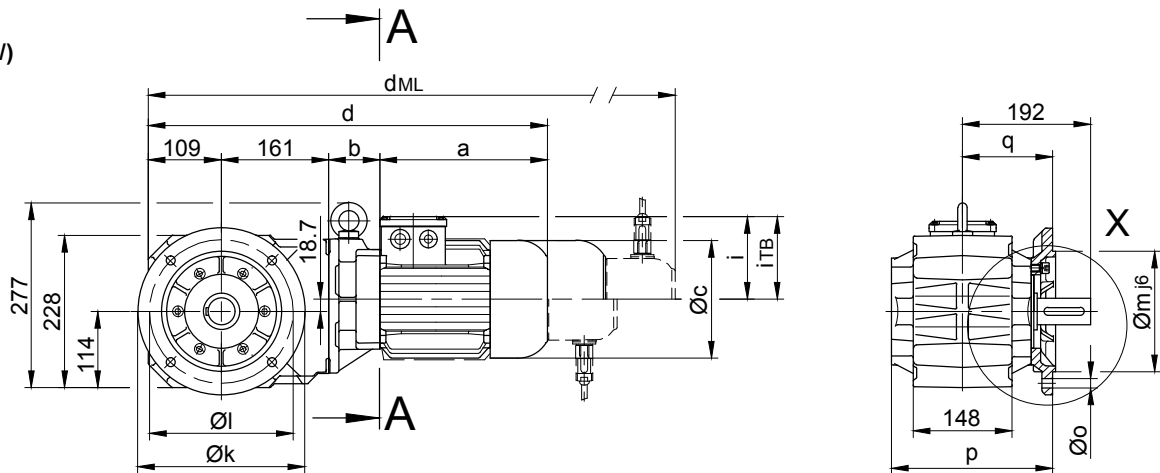
BK-series bevel-geared motors

Dimension

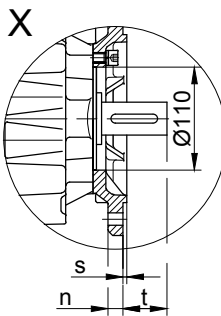
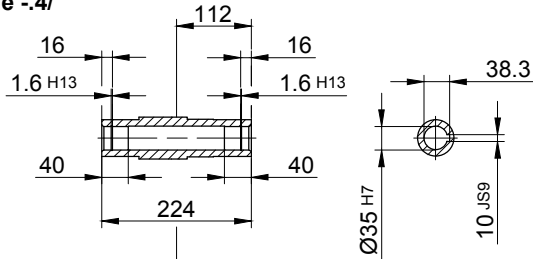
BK30 - BK30Z

Flange with clearance holes at front

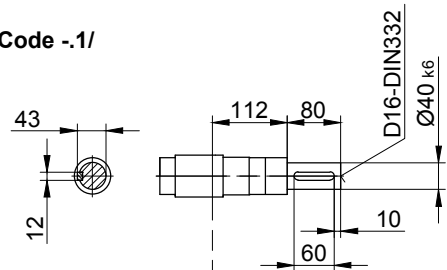
Code -3.V/
(Code -2.V/)



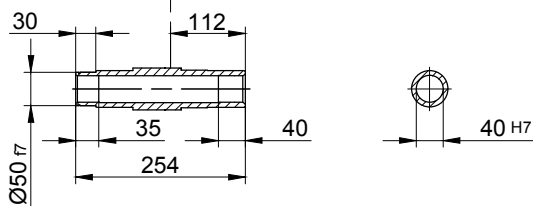
Code -4/



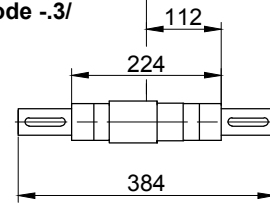
Code -1/



Code -5/

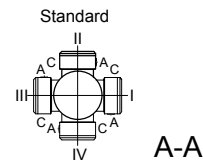


Code -3/



Flange dimensions

BK30(Z)	k	l	m	n	o	p	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



Type	a	b	c	d	i	i _{TB}	Design with motor extensions			
							E./ES.. d _{ML}	G d _{ML}	E./ES..-G d _{ML}	RR/RL 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-../D..08..	200	62	156	532	115	136.5	598	639	705.5	598
BK30Z-../D..08..	200	137.5	156	607.5	115	136.5	673.5	714.5	781	673.5
BK30-../D..09..	251	76.5	181	597.5	124	158	690.5	704.5	795	690.5
BK30Z-../D..09..	251	152	181	673	124	158	766	780	870.5	766
BK30-../D..11..	319	83	228	672	181	181	770	779	874.5	770



The dimensions "a*", "d*" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
Type Example: BK70-74V/DPE08XA4
Comment: No change to the dimensions shown

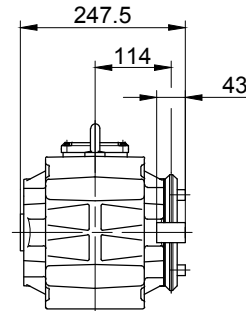
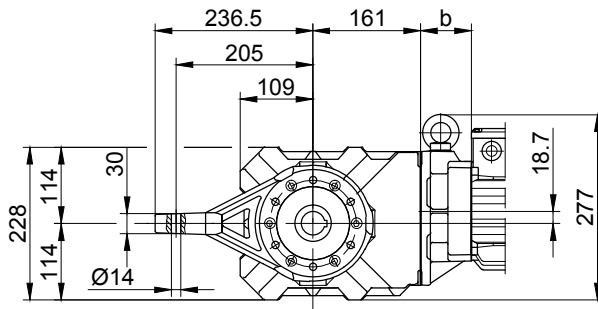
Design state "B" = Extended Length
Type Example: BK70-74V/DPE08XB4
Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BK30 - BK30Z

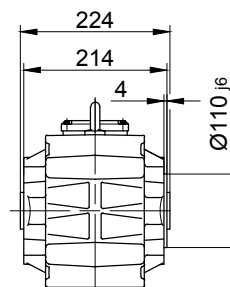
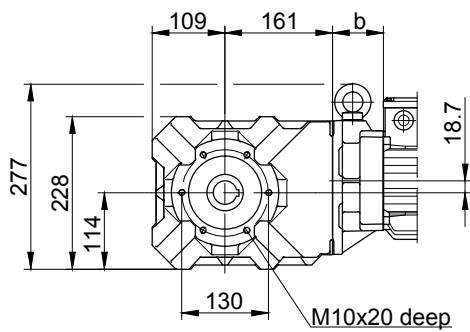
Torque arm at front

Code -5.V/



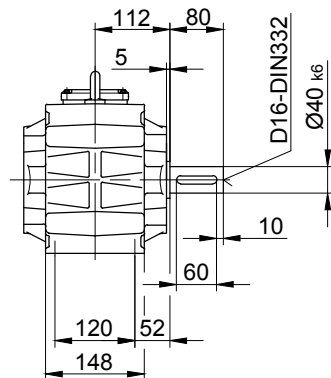
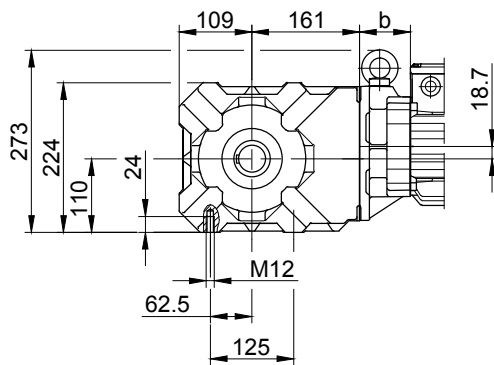
Flange with tapped holes at front

Code -7.V/



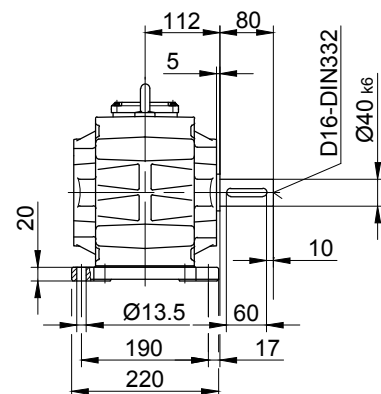
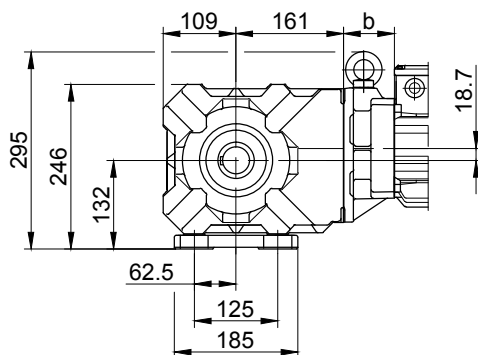
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

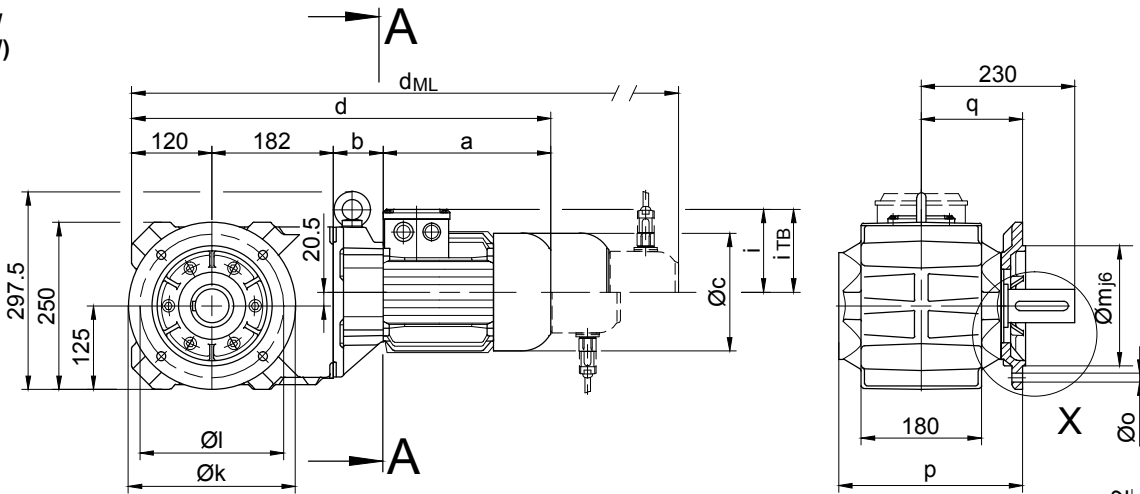
BK-series bevel-geared motors

Dimension

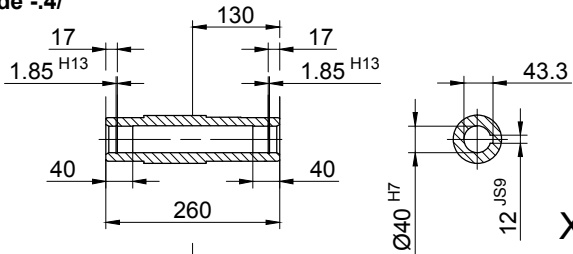
BK40 - BK40Z

Flange with clearance holes at front

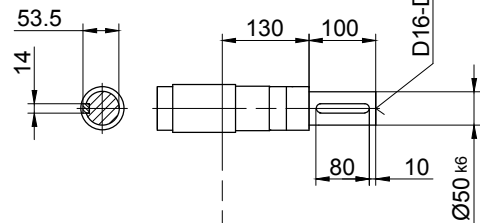
Code **-3.V/**
(Code **4.V/**)



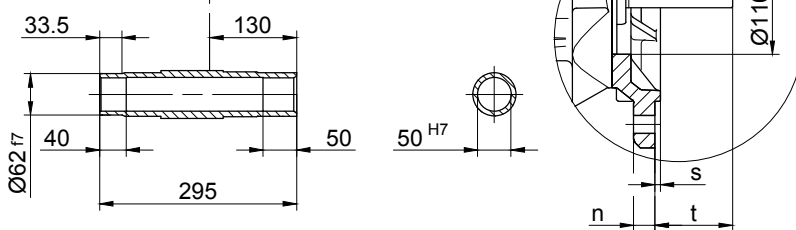
Code **-4/**



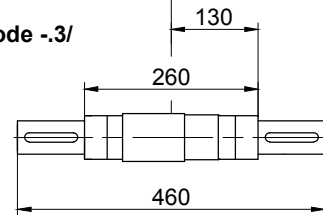
Code **-.1/**



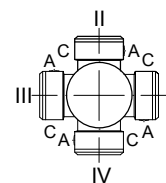
Code **-5/**



Code **-.3/**



Standard



A-A

Flange dimensions

BK40(Z)	k	l	m	n	o	p	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

Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							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-../D..08..	200	60	156	562	115	136.5	628	669	735.5	628
BK40Z-../D..08..	200	142.5	156	644.5	115	136.5	710.5	751.5	818	710.5
BK40-../D..09..	251	74.5	181	627.5	124	158	720.5	734.5	825	720.5
BK40Z-../D..09..	251	157	181	710	124	158	803	817	907.5	803
BK40-../D..11..	319	81	228	702	181	181	800	809	904.5	800



The dimensions "a", "d" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

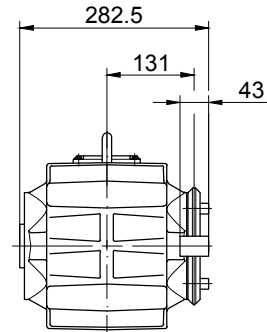
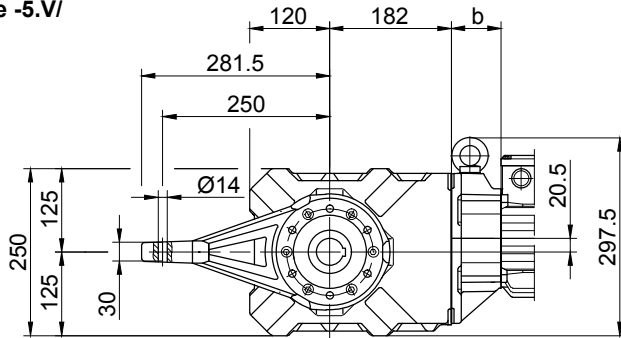
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BK40 - BK40Z

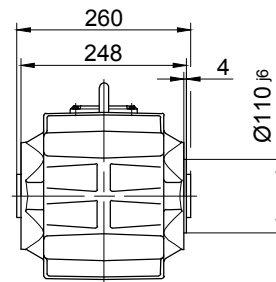
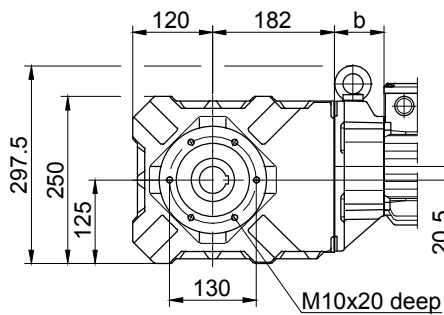
Torque arm at front

Code -5.V/



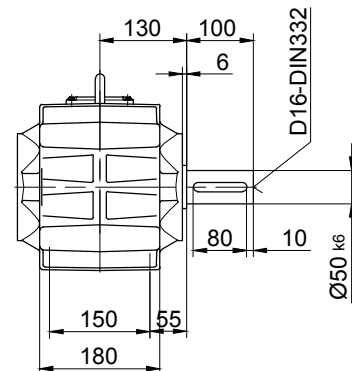
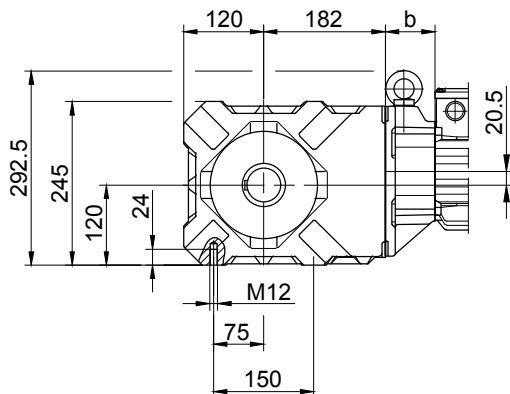
Flange with tapped holes at front

Code -7.V/



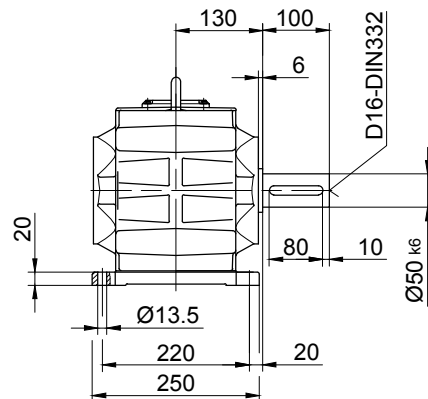
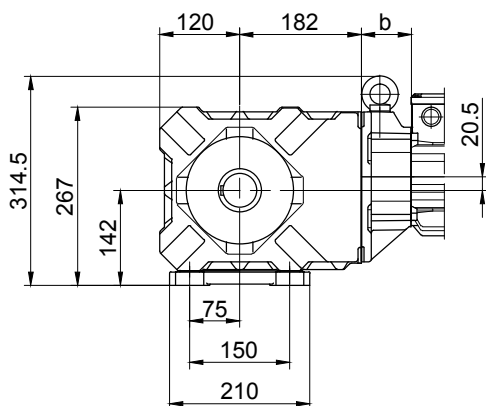
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

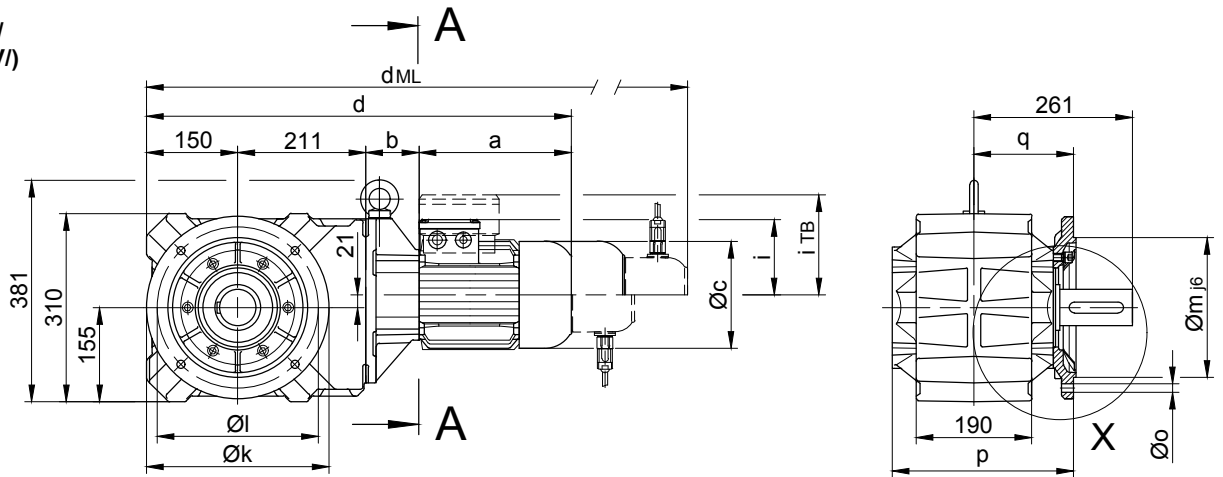
BK-series bevel-geared motors

Dimension

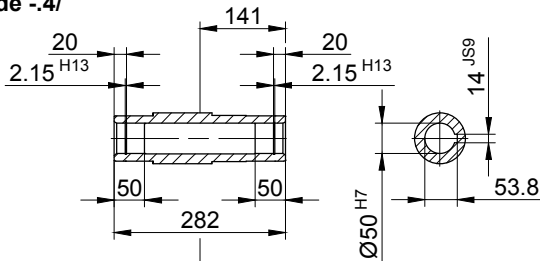
BK50 - BK50Z

Flange with clearance holes at front

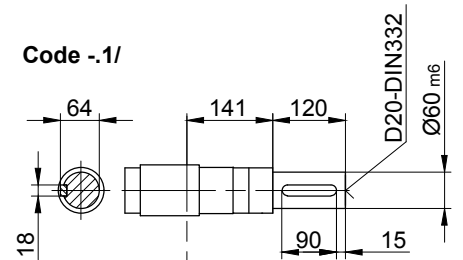
Code -3.V/
(Code -2.V/)



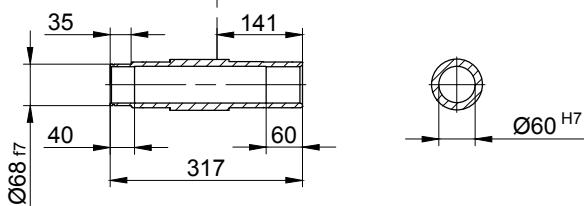
Code -4/



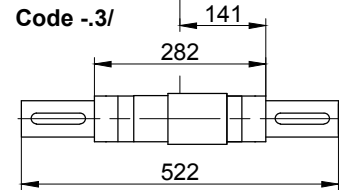
Code -1/



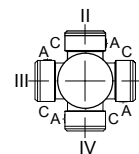
Code -5/



Code -3/



Standard



A-A

Flange dimensions

BK50(Z)	k	l	m	n	o	p	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

Type	a	b	c	d	i	Design with motor extensions				
						iTB	E..ES../ZS..	G	E..ES../ZS.-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}	
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-../D..08..	200	73	156	634	115	136.5	700	741	807.5	700
BK50Z-../D..08..	200	159	156	720	115	136.5	786	827	893.5	786
BK50-../D..09..	251	87.5	181	699.5	124	158	792.5	806.5	897	792.5
BK50Z-../D..09..	251	173.5	181	785.5	124	158	878.5	892.5	983	878.5
BK50-../D..11..	319	94	228	774	181	181	872	881	976.5	872
BK50-../D..13..	393	107	258	861	218	218	972	968	1076.5	972
BK50-../D..16..	454.5	121	310	936.5	244	244	1080	1043.5	1184	1080
BK50-../D..18..	542	143	348	1046	288	288	1195.5	1153	1299.5	1195.5



The dimensions "a", "d" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
Type Example: BK70-74V/DPE08XA4
Comment: No change to the dimensions shown

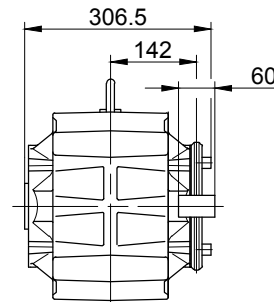
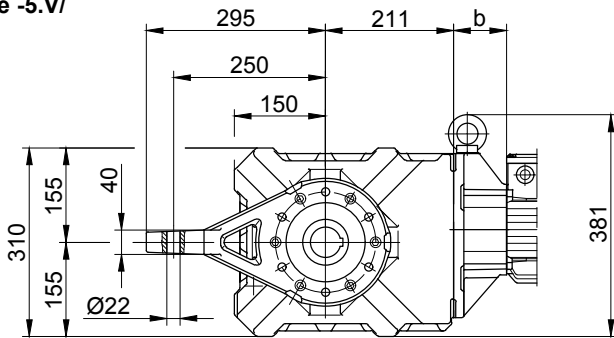
Design state "B" = Extended Length
Type Example: BK70-74V/DPE08XB4
Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BK50 - BK50Z

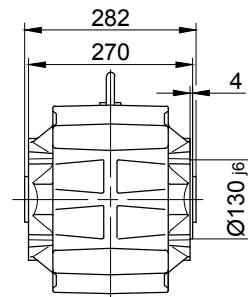
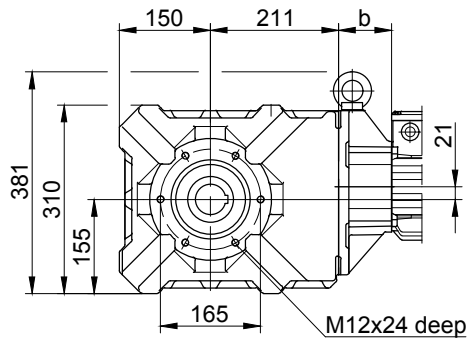
Torque arm at front

Code -5.V/



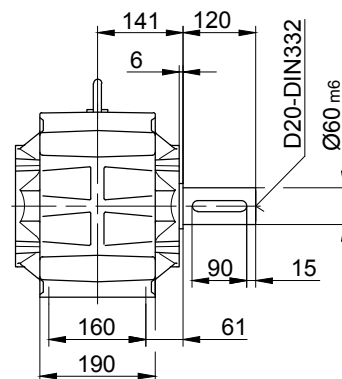
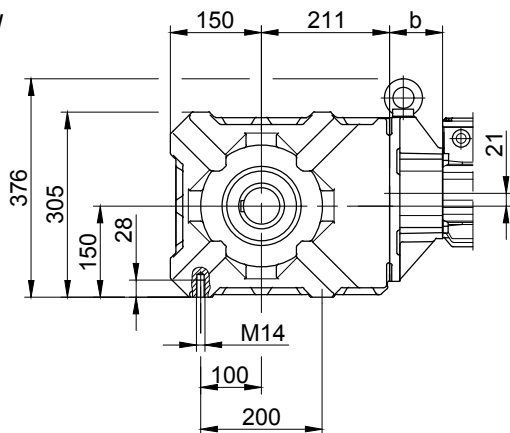
Flange with tapped holes at front

Code -7.V/



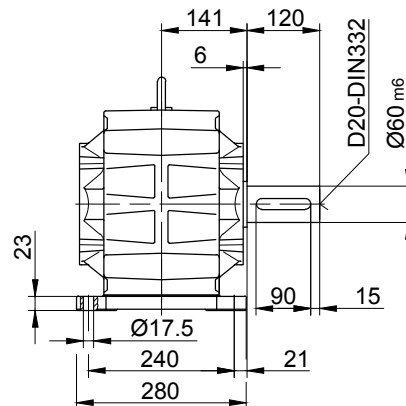
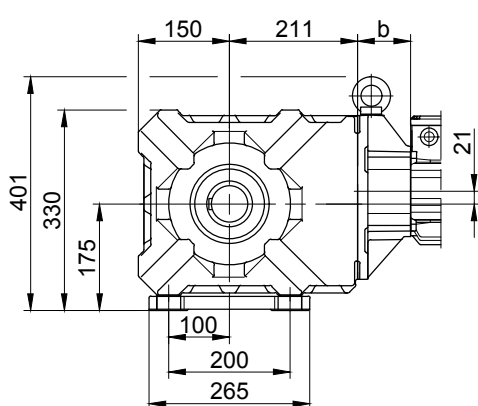
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

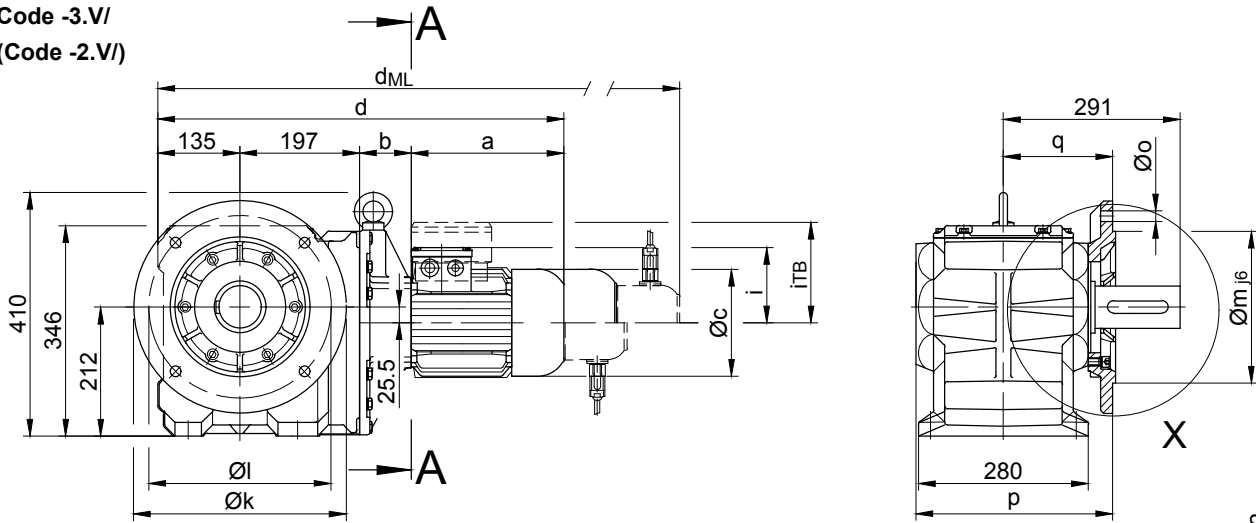
BK-series bevel-geared motors

Dimension

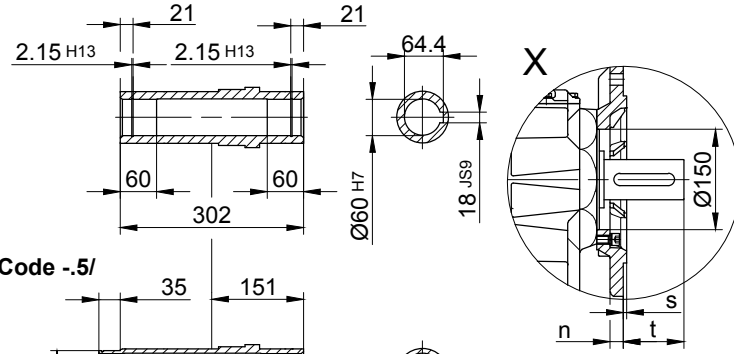
BK60 - BK60Z

Flange with clearance holes at front

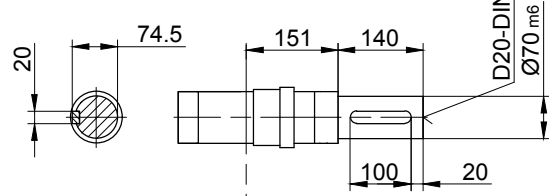
Code -3.V/
(Code -2.V/)



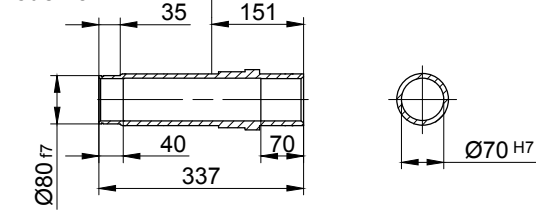
Code -4/



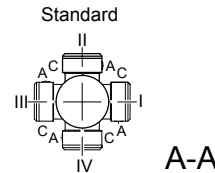
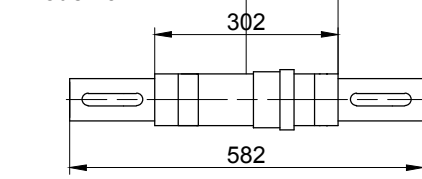
Code -1/



Code -5/



Code -3/



Flange dimensions

BK60(Z)	k	l	m	n	o	p	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

Type	a	b	c	d	i	i _{TB}	Design with motor extensions			
							ES../ZS..	G	ES../ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BK60Z-../D..08..	200	181	156	713	115	136.5	779	820	886.5	779
BK60-../D..09..	251	85.5	181	668.5	124	158	761.5	775.5	866	761.5
BK60Z-../D..09..	251	195.5	181	778.5	124	158	871.5	885.5	976	871.5
BK60-../D..11..	319	92	228	743	181	181	841	850	945.5	841
BK60Z-../D..11..	319	202	228	853	181	181	951	960	1055.5	951
BK60-../D..13..	393	105	258	830	218	218	941	937	1045.5	941
BK60-../D..16..	454.5	119	310	905.5	244	244	1049	1012.5	1153	1049
BK60-../D..18..	542	141	348	1015	288	288	1164.5	1122	1268.5	1164.5



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

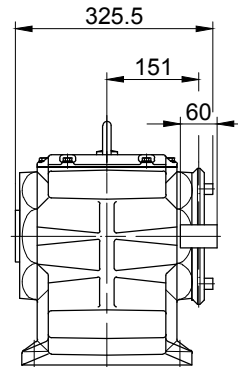
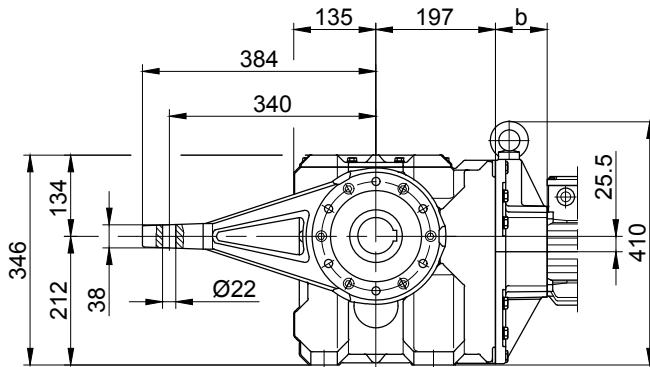
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BK60 - BK60Z

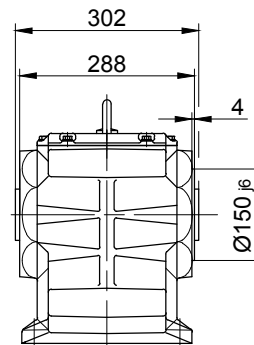
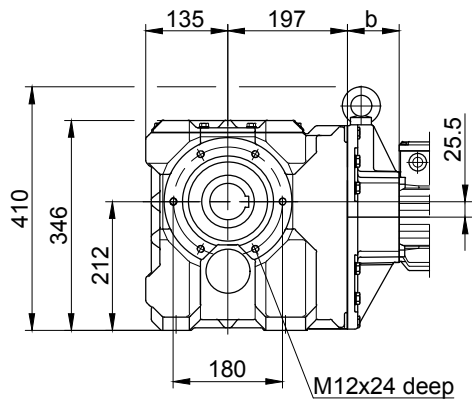
Torque arm at front

Code -5.V/



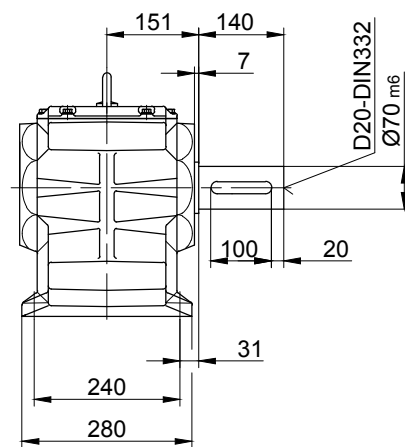
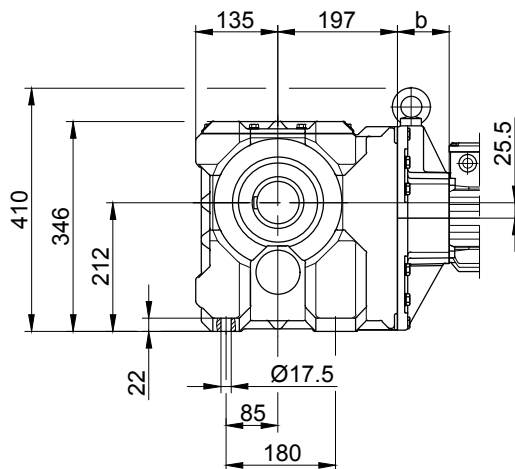
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

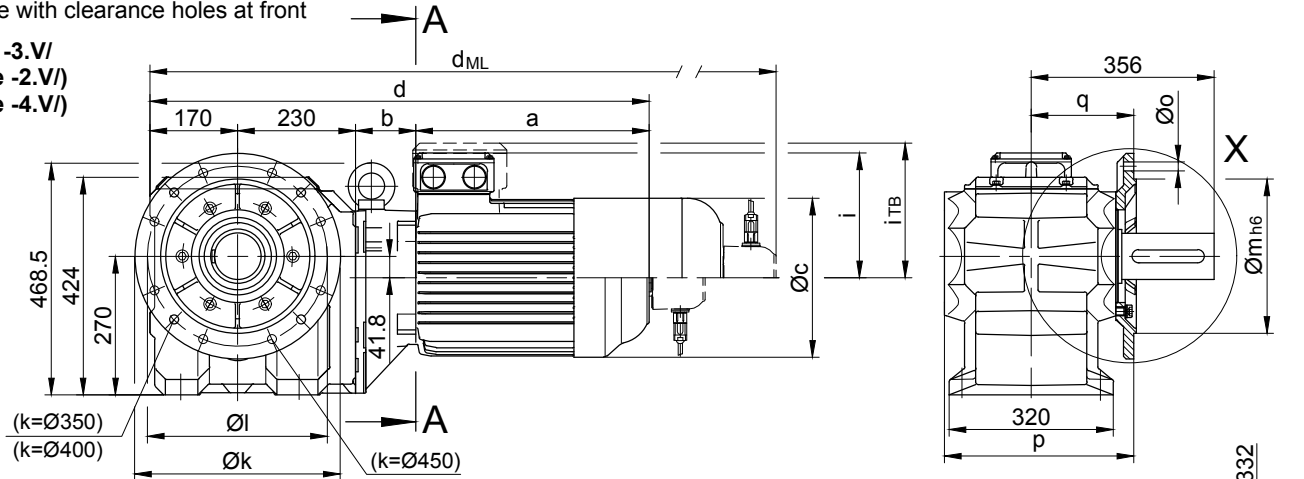
BK-series bevel-geared motors

Dimension

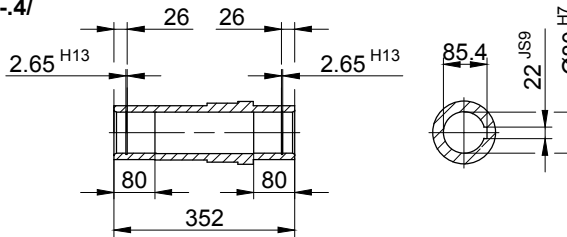
BK70 - BK70Z

Flange with clearance holes at front

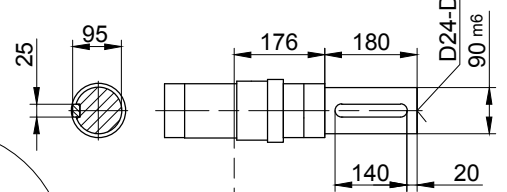
Code -3.V/
(Code -2.V/
(Code -4.V/)



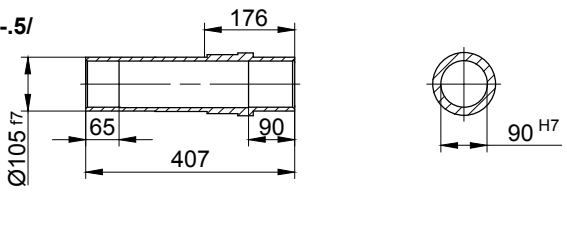
Code -4/



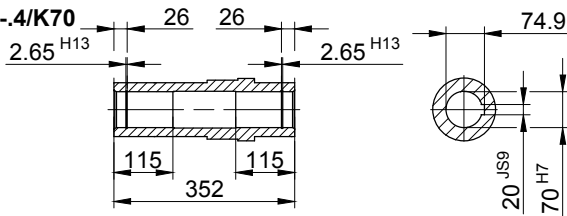
Code -1/



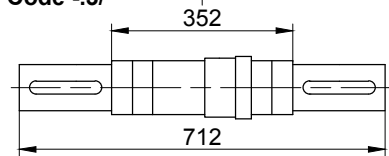
Code -5/



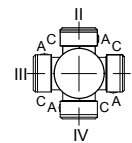
Code -4/K70



Code -3/



Standard



A-A

Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BK70Z-../D..08..	200	202	156	802	115	136.5	868	909	975.5	868
BK70-../D..09..	251	83.5	181	734.5	124	158	827.5	841.5	932	827.5
BK70Z-../D..09..	251	216.5	181	867.5	124	158	960.5	974.5	1065	960.5
BK70-../D..11..	319	90	228	809	181	181	907	916	1011.5	907
BK70Z-../D..11..	319	223	228	942	181	181	1040	1049	1144.5	1040
BK70-../D..13..	393	103	258	896	218	218	1007	1003	1111.5	1007
BK70Z-../D..13..	393	236	258	1029	218	218	1140	1136	1244.5	1140
BK70-../D..16..	454.5	117	310	971.5	244	244	1115	1078.5	1219	1115
BK70Z-../D..16..	454.5	250	310	1104.5	244	244	1248	1211.5	1352	1248
BK70-../D..18..	542	139	348	1081	288	288	1230.5	1188	1334.5	1230.5
BK70Z-../D..18..	542	272	348	1214	288	288	1363.5	1321	1467.5	1363.5
BK70-../D..20L	643.5	156	363	1199.5	303.5	303.5	1327	1305.5	1433	1327
BK70-../D..22S	703.5	156	363	1259.5	303.5	303.5	1299.5	1365.5	1493	1299.5



The dimensions "a*", "d*" and "d_{ML}"* change dependent on the motor design.
Design state "A" = Standard Length
Type Example: BK70-74V/DPE08XA4
Comment: No change to the dimensions shown

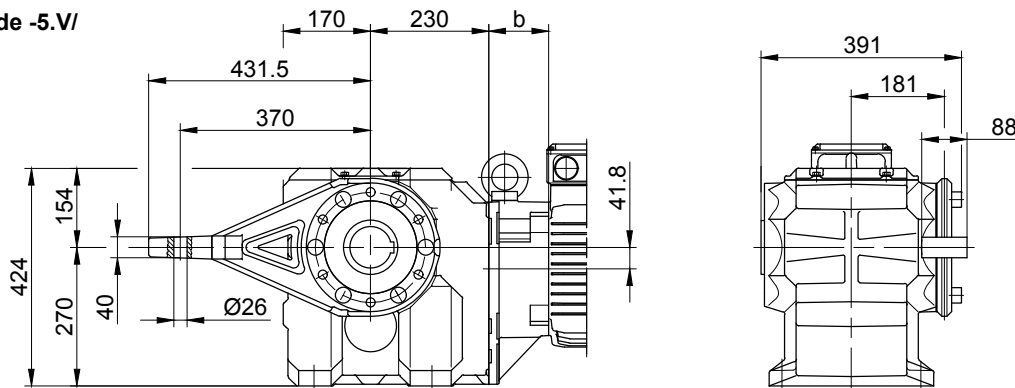
Design state "B" = Extended Length
Type Example: BK70-74V/DPE08XB4
Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BK70 - BK70Z

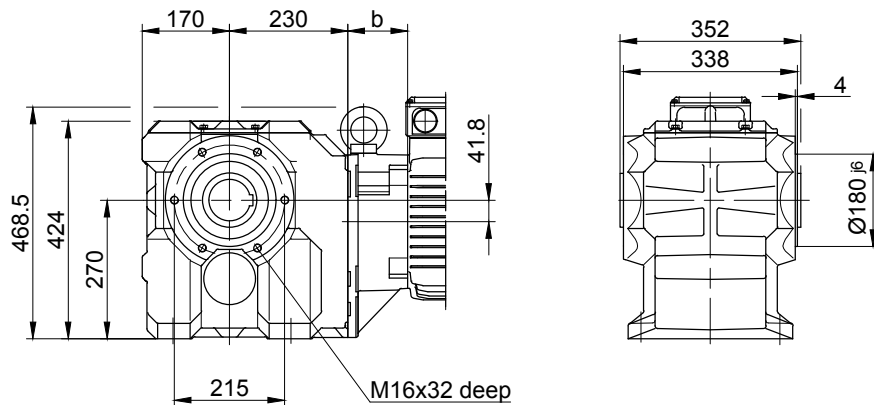
Torque arm at front

Code -5.V/



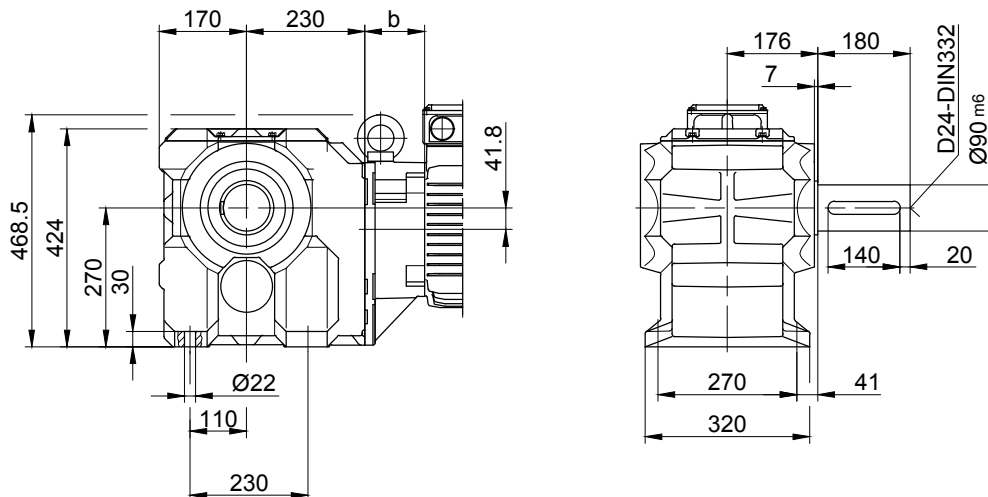
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/



Flange dimensions

BK70(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	400	350	300	20	4 x Ø17.5	369	200	5	156
small -2.V/	350	300	250	20	4 x Ø17.5	369	200	5	156
big -4.V/	450	400	350	22	8 x Ø17.5	379	210	5	146

The actual gearbox design can vary from the geometry shown.

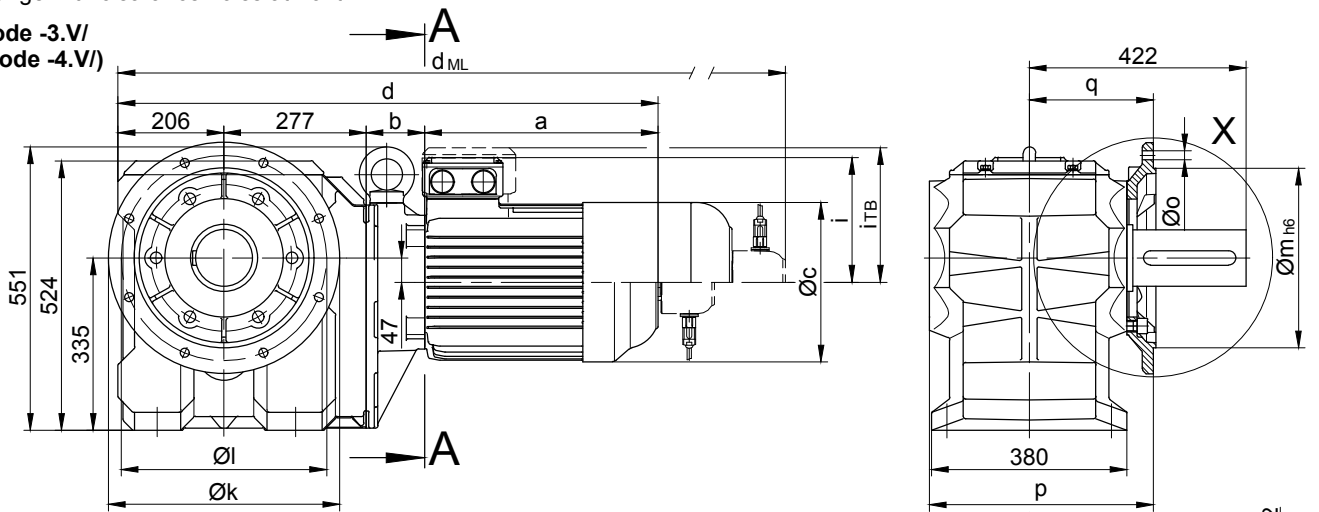
BK-series bevel-geared motors

Dimension

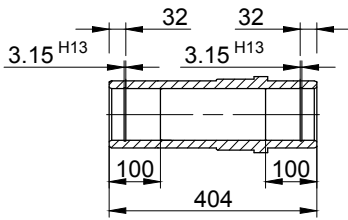
BK80 - BK80Z

Flange with clearance holes at front

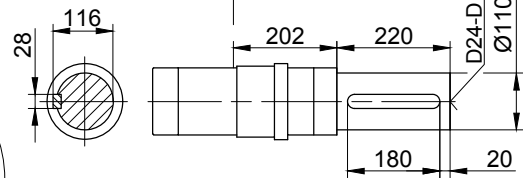
Code -3.V/
(Code -4.VI)



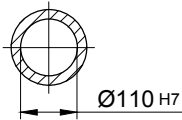
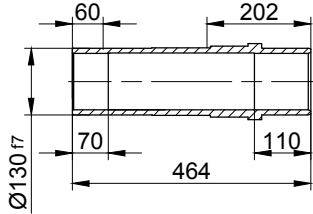
Code -4/



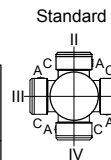
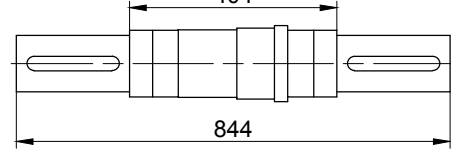
Code -1/



Code -5/



Code -3/



A-A

Type	a	b	c	d	i	i _{TB}	Design with motor extensions			
							ES../ZS..	G	ES../ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BK80Z-../D..09..	251	252.5	181	986.5	124	158	1079.5	1093.5	1184	1079.5
BK80-../D..11..	319	87	228	889	181	182	987	996	1091.5	987
BK80Z-../D..11..	319	259	228	1061	181	182	1159	1168	1263.5	1159
BK80-../D..13..	393	100	258	976	218	218	1087	1083	1191.5	1087
BK80Z-../D..13..	393	272	258	1148	218	218	1259	1255	1363.5	1259
BK80-../D..16..	454.5	114	310	1051.5	244	244	1195	1158.5	1296	1195
BK80Z-../D..16..	454.5	286	310	1223.5	244	244	1367	1330.5	1471	1637
BK80-../D..18..	542	136	348	1161	288	288	1310.5	1268	1414.5	1310.5
BK80Z-../D..18..	542	308	348	1333	288	288	1482.5	1440	1586.5	1482.5
BK80-../D..20L	643.5	153	363	1279.5	303.5	303.5	1407	1385.5	1513	1407
BK80-../D..22S	703.5	153	363	1339.5	303.5	303.5	1467	1445.5	1573	1467
BK80-../D..22M	703.5	153	363	1339.5	303.5	303.5	1467	1445.5	1573	1467



The dimensions "a", "d" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

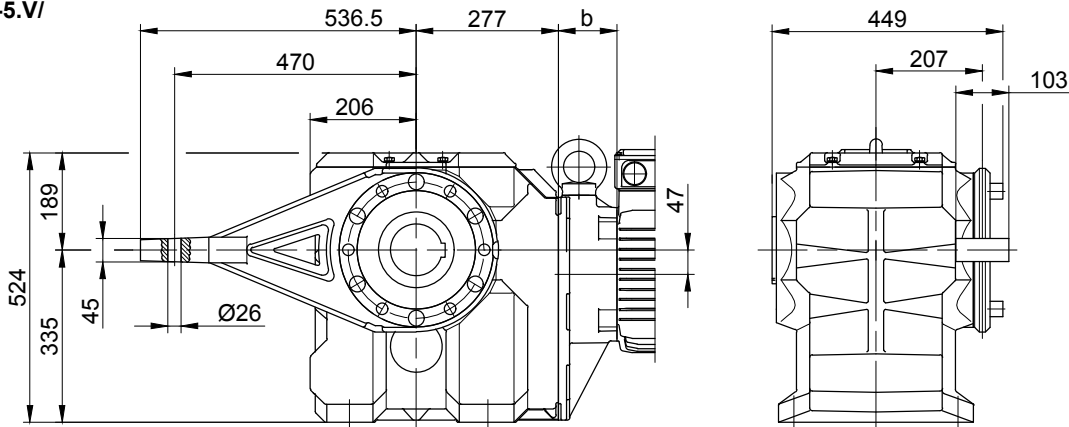
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BK80 - BK80Z

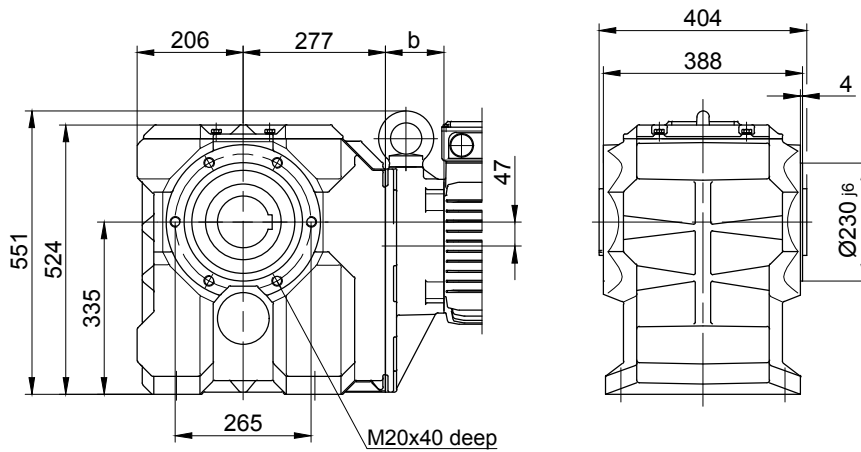
Torque arm at front

Code -5.V/



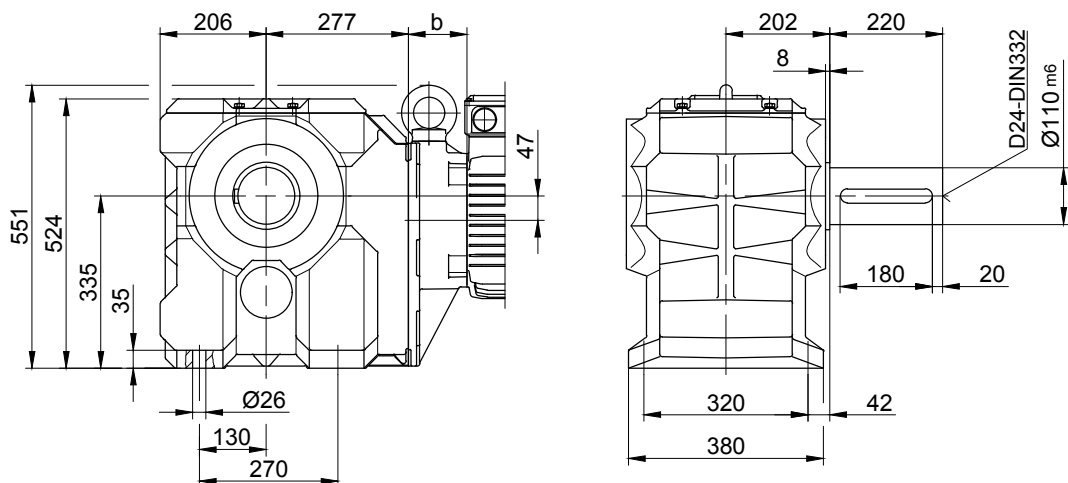
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/



Flange dimensions

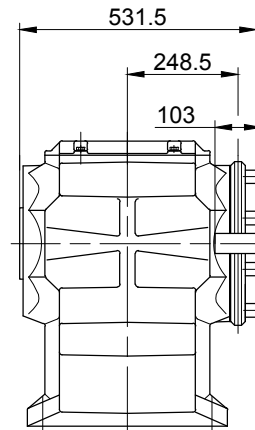
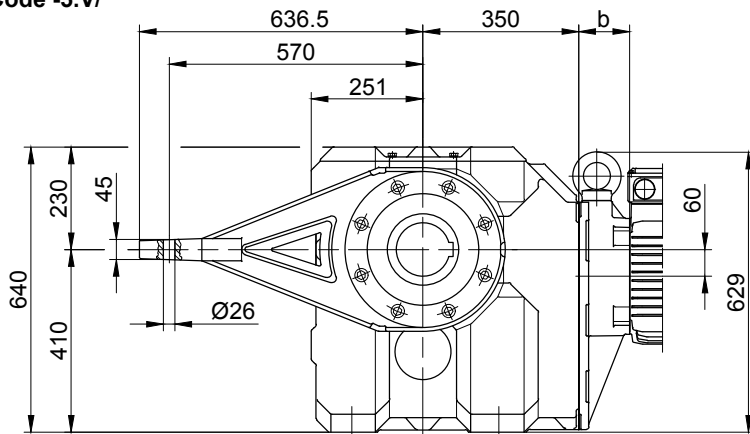
BK80(Z)	k	l	m	n	o	p	q	s	t
standard -3.V/	450	400	350	22	17.5	439	245	5	177
big -4.V/	550	500	450	22	17.5	444	250	5	172

The actual gearbox design can vary from the geometry shown.

BK90 - BK90Z

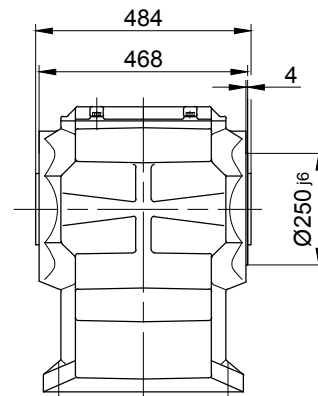
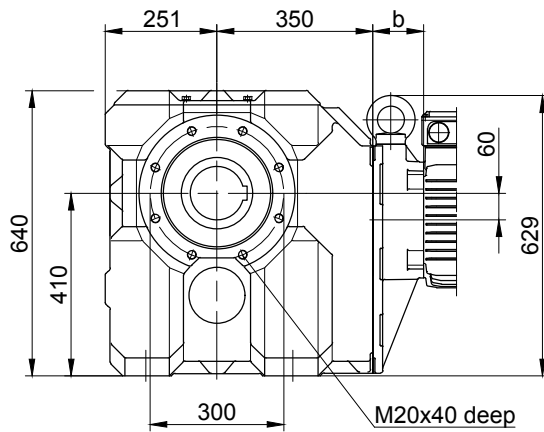
Torque arm at front

Code -5.V/



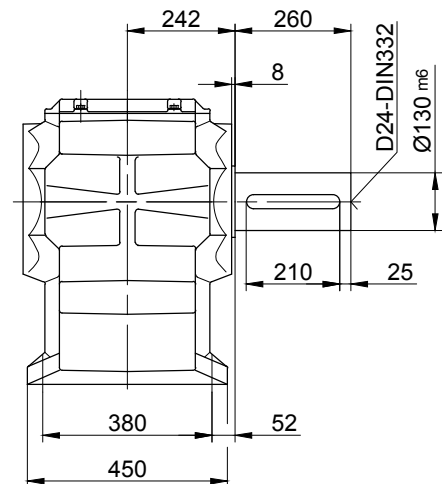
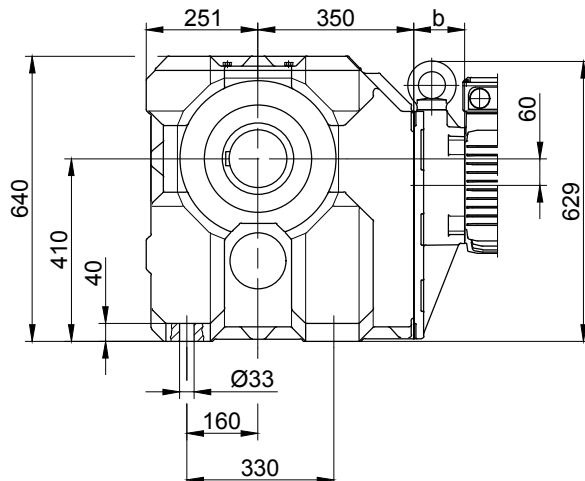
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/



Flange dimensions

BK90(Z)	k	l	m	n	o	p	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

The actual gearbox design can vary from the geometry shown.

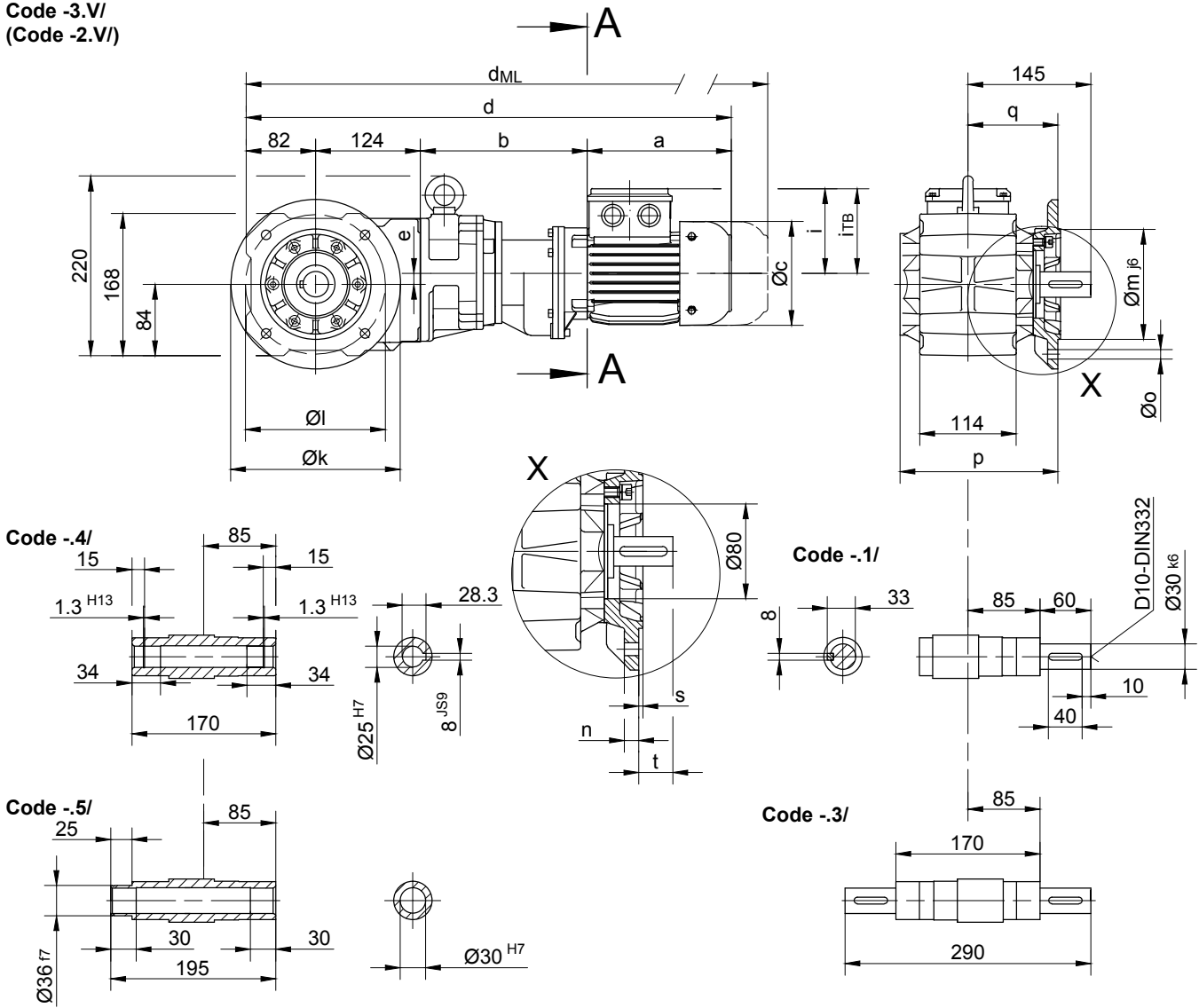
BK-series bevel-geared motors

Dimension

BK10G06

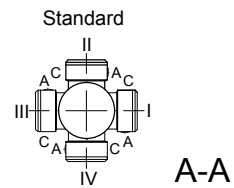
Flange with clearance holes at front

Code -3.V/
(Code -2.V/)



Flange dimensions

BK10G..	k	l	m	n	o	p	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



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
								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-../D..08..	200	241	156	647	13	115	136.5	713	754	820.5	713



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

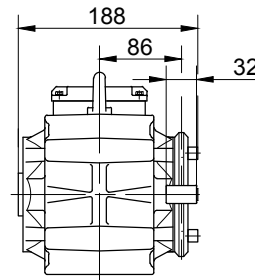
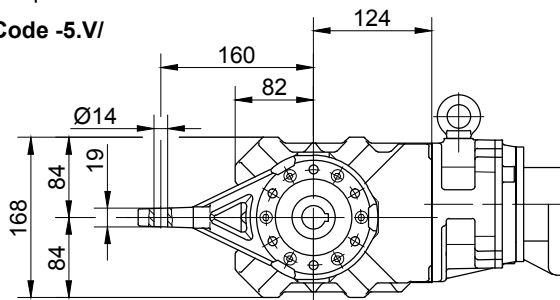
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BK10G06

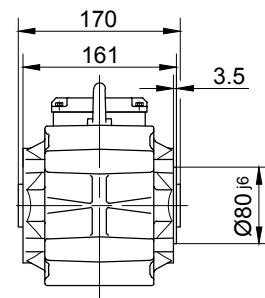
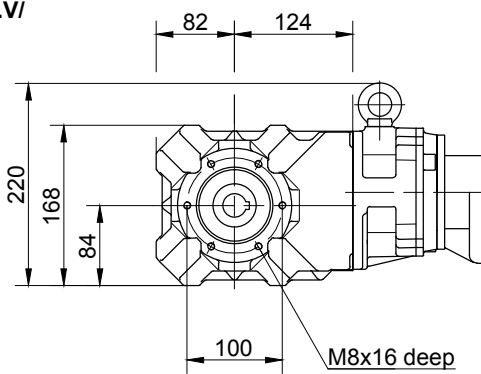
Torque arm at front

Code -5.V/



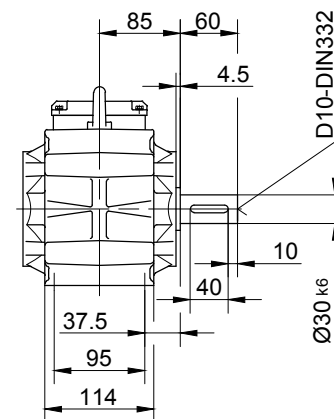
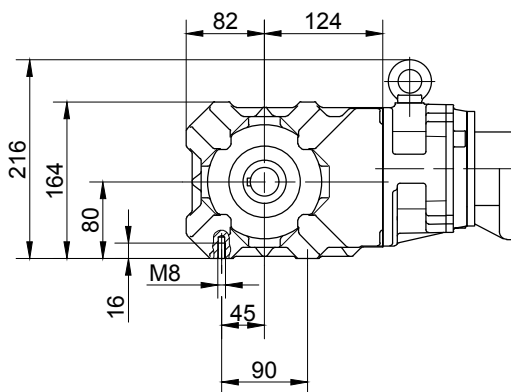
Flange with tapped holes at front

Code -7.V/



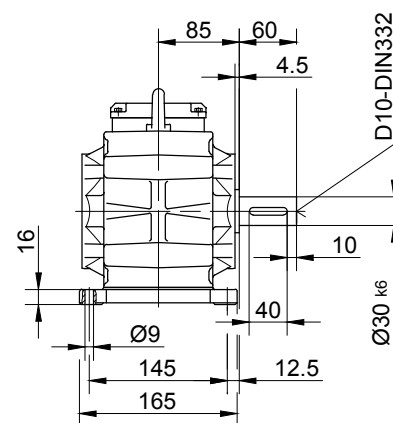
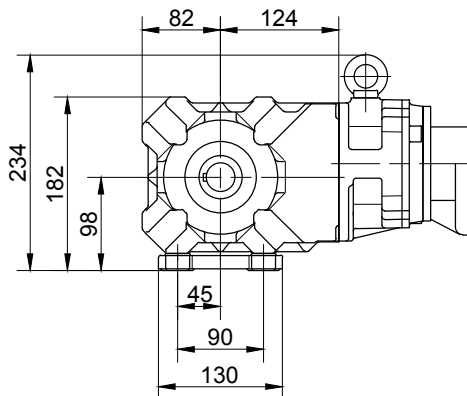
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/

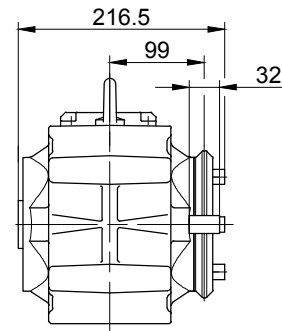
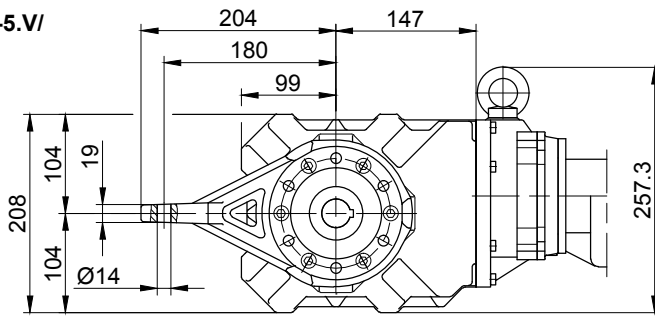


The actual gearbox design can vary from the geometry shown.

BK20G06

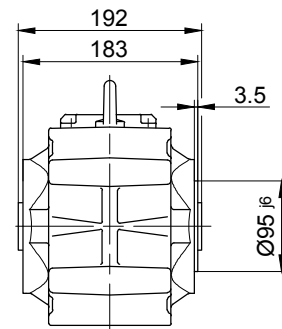
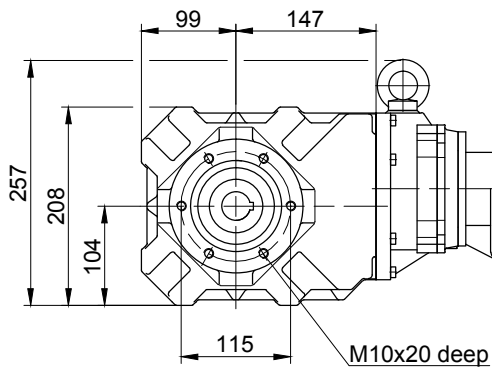
Torque arm at front

Code -5.V/



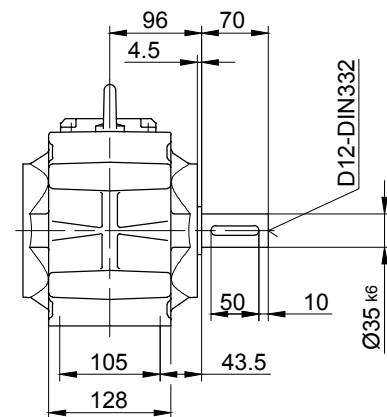
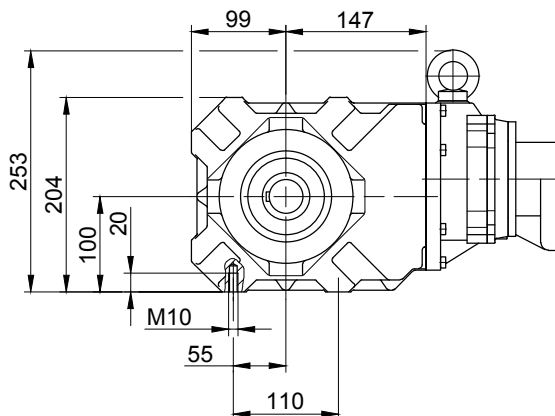
Flange with tapped holes at front

Code -7.V/



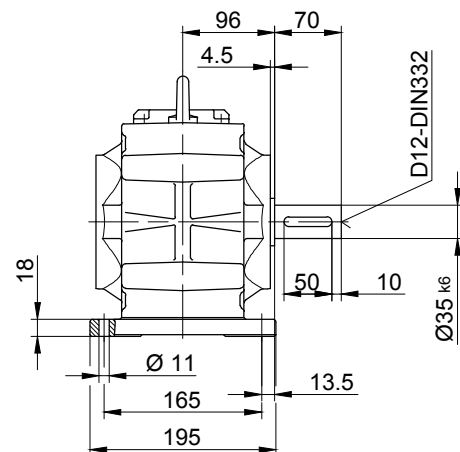
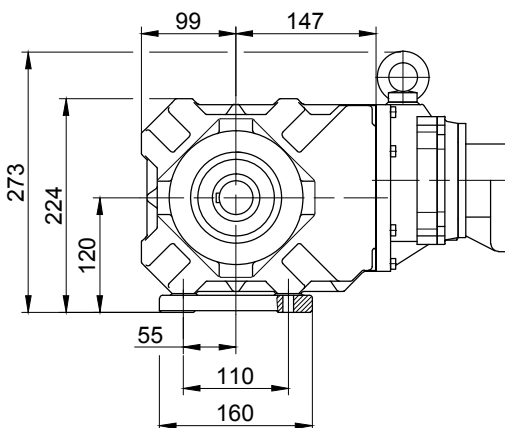
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

BK-series bevel-geared motors

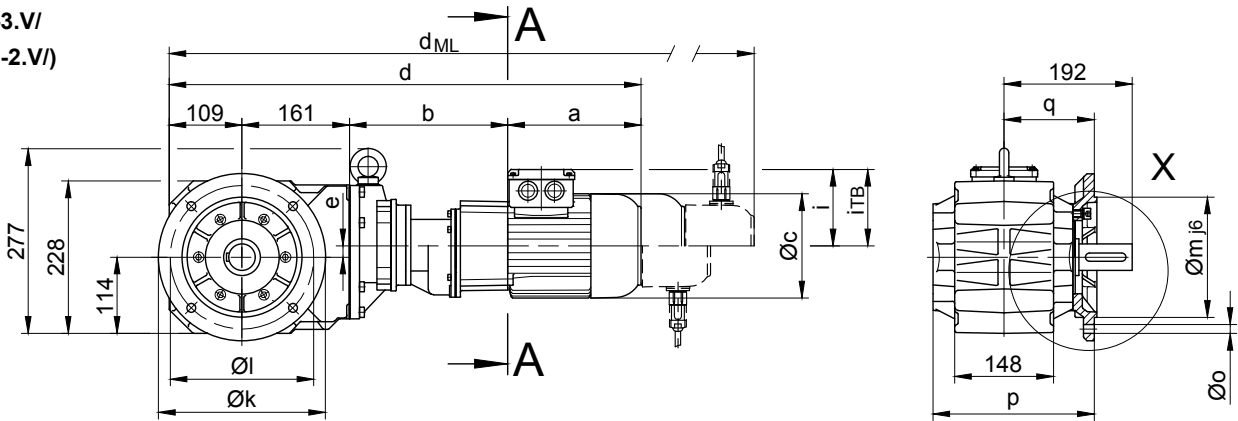
Dimension

BK30G06

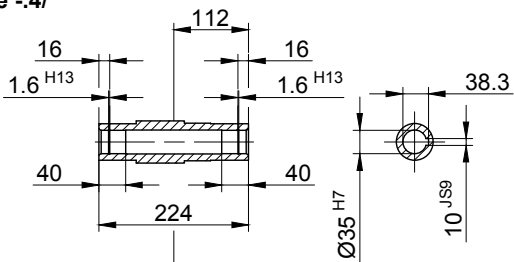
Flange with clearance holes at front

Code -3.V/

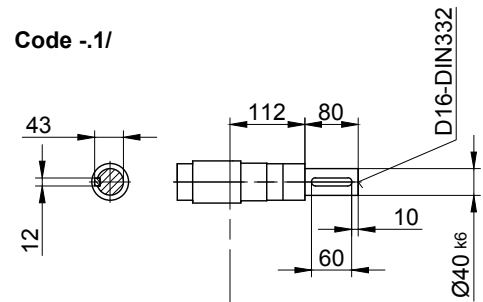
(Code -2.V/)



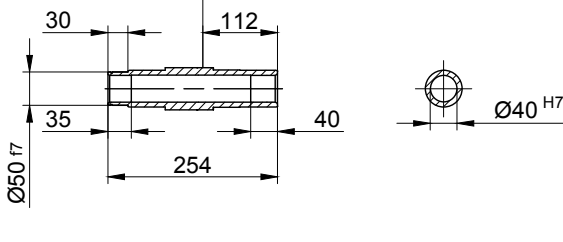
Code -4/



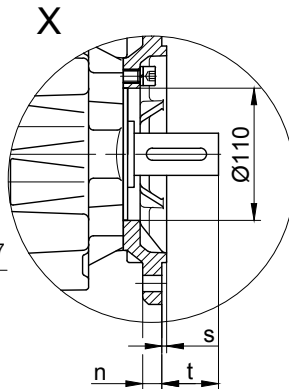
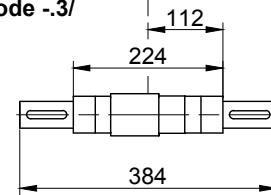
Code -1/



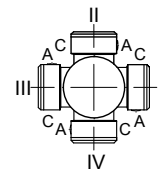
Code -5/



Code -3/



Standard



A-A

Flange dimensions

BK30G..	k	l	m	n	o	p	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

Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
								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-../D..08..	200	237	156	707	17	115	136.5	773	814	880.5	773



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

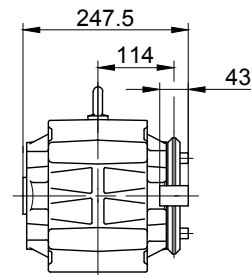
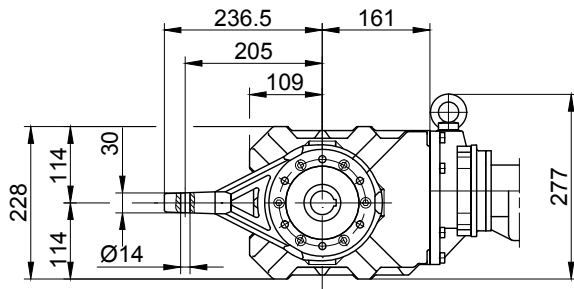
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BK30G06

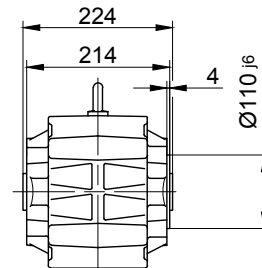
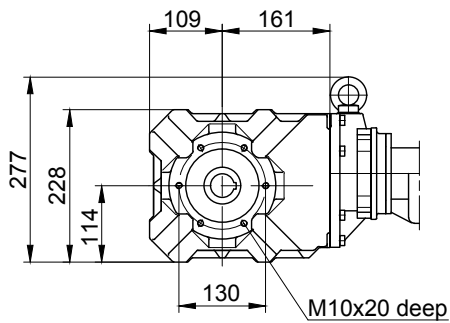
Torque arm at front

Code -5.V/



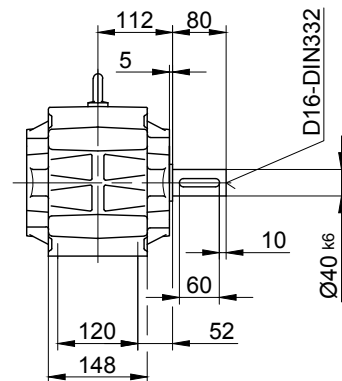
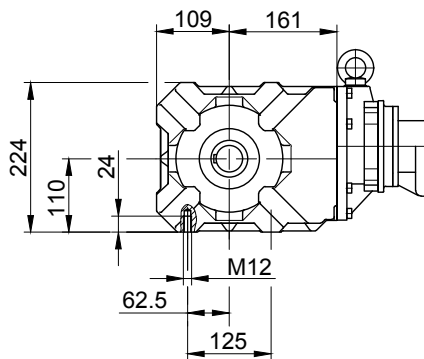
Flange with tapped holes at front

Code -7.V/



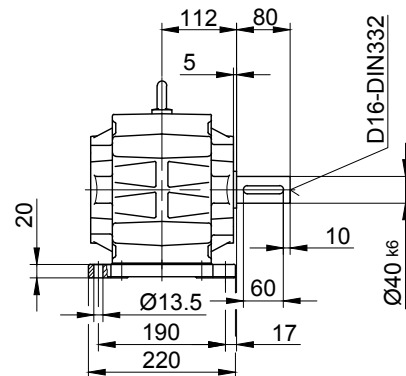
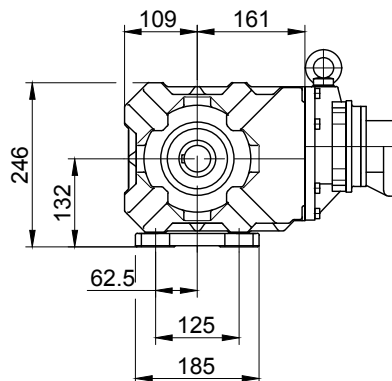
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

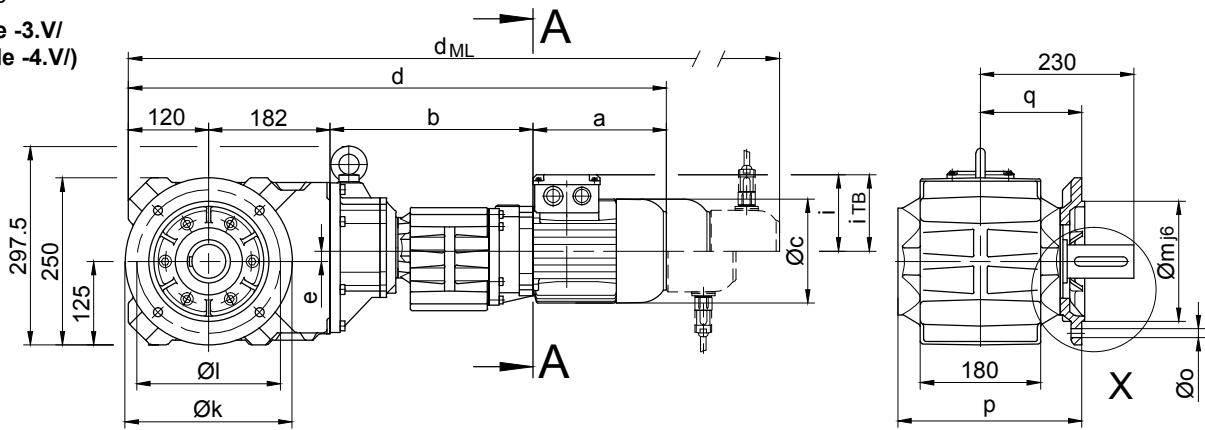
BK-series bevel-geared motors

Dimension

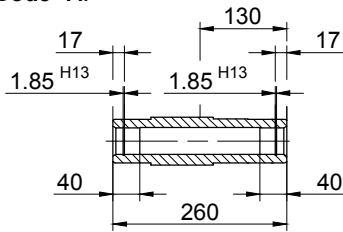
BK40G10

Flange with clearance holes at front

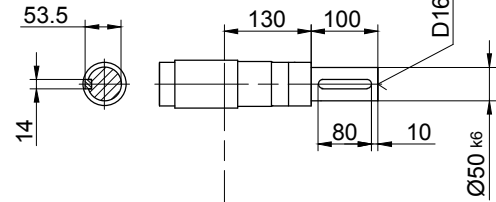
Code -3.V/
(Code -4.V/)



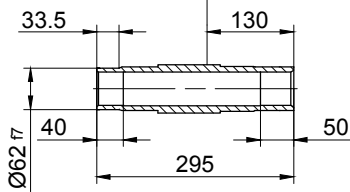
Code -4/



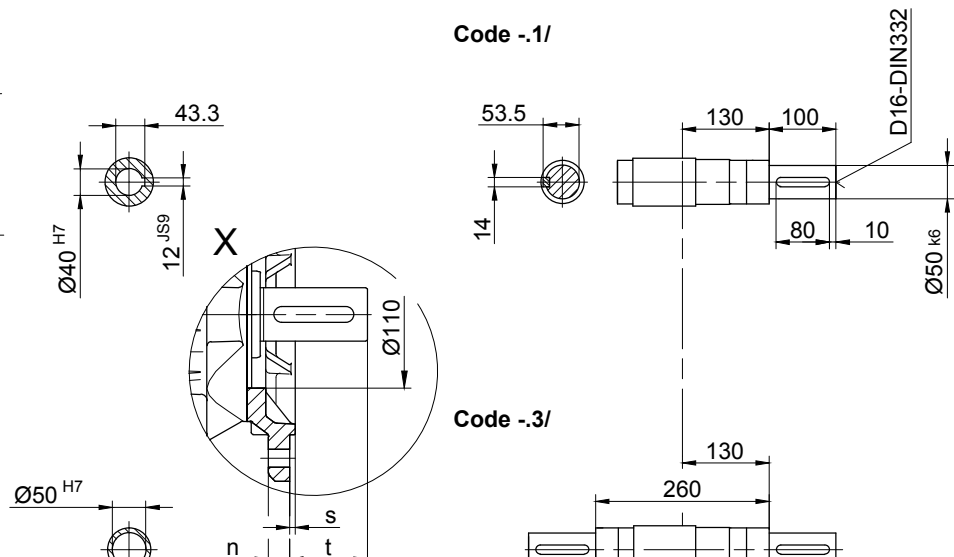
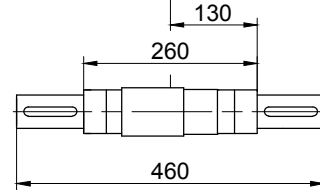
Code -1/



Code -5/



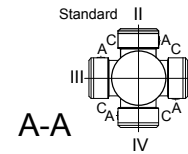
Code -3/



12

Flange dimensions

BK40G..	k	l	m	n	o	p	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



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
								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-../D..08..	200	304	156	806	15.5	115	136.5	872	913	979.5	872
BK40G10-../D..09..	251	318.5	181	871.5	15.5	124	158	964.5	978.5	1069	964.5



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

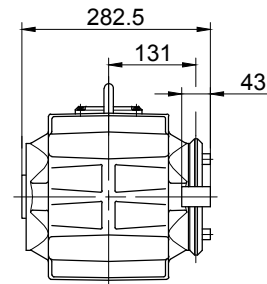
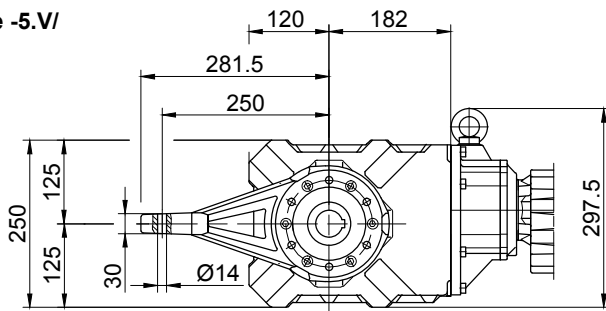
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BK40G10

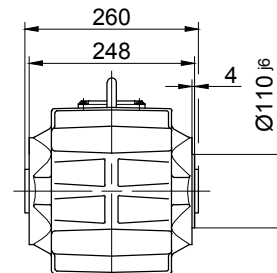
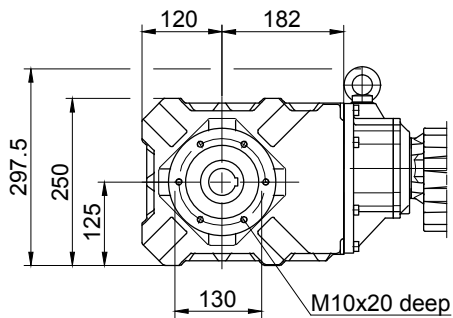
Torque arm at front

Code -5.V/



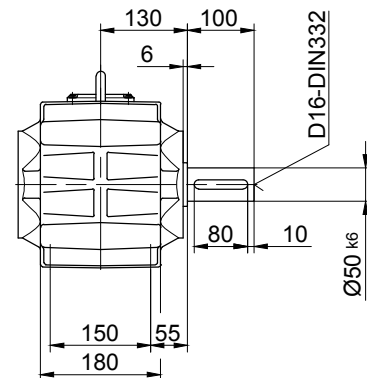
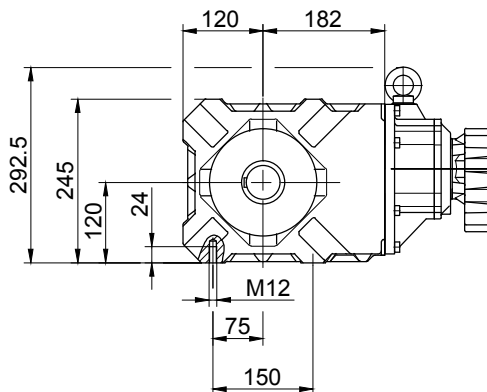
Flange with tapped holes at front

Code -7.V/



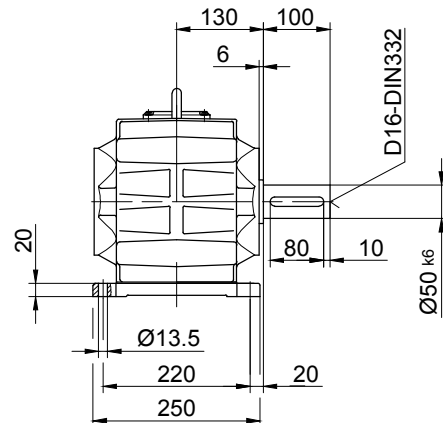
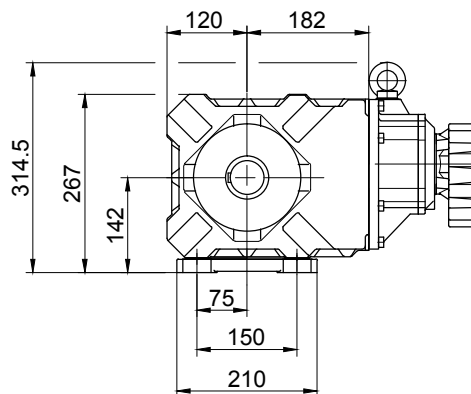
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

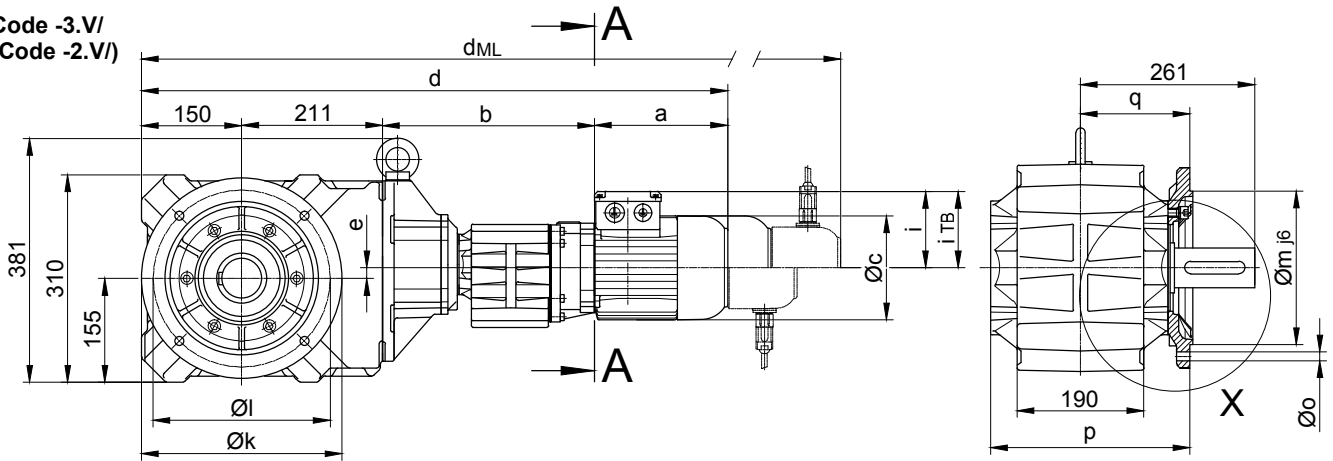
BK-series bevel-geared motors

Dimension

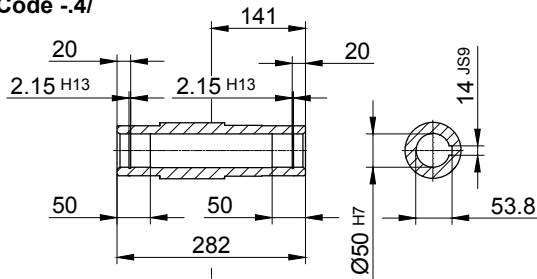
BK50G10

Flange with clearance holes at front

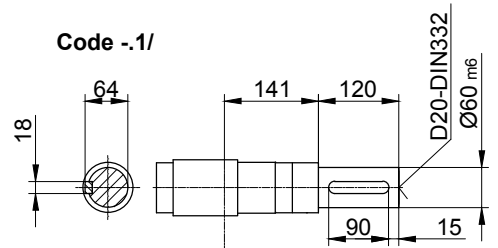
Code -3.V/
(Code -2.V/)



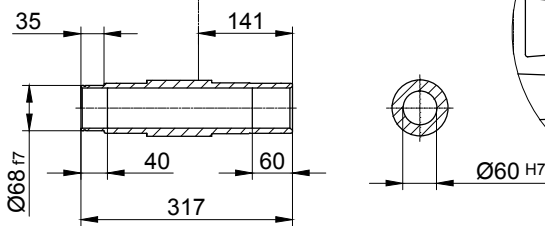
Code -4/



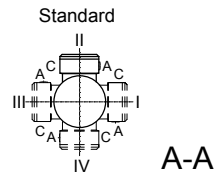
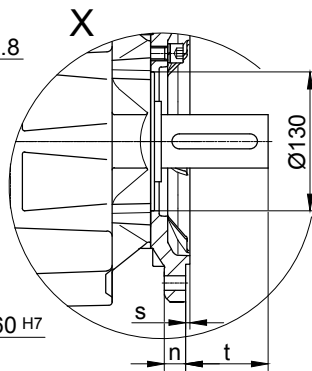
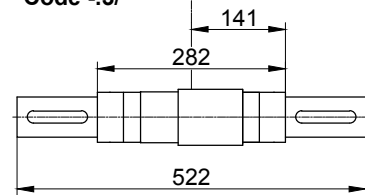
Code -1/



Code -5/



Code -3/



Flange dimensions

BK50G..	k	l	m	n	o	p	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

Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RL/RR
								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-../D..08..	200	317	156	878	16	115	136.5	944	985	1051.5	944
BK50G10-../D..09..	251	331.5	181	943.5	16	124	158	1036.5	1050.5	1141	1036.5



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

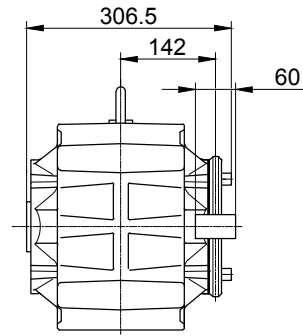
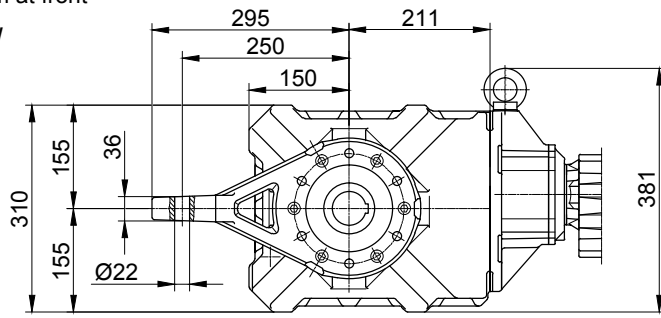
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BK50G10

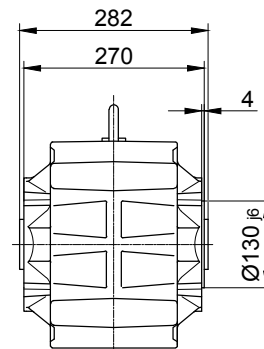
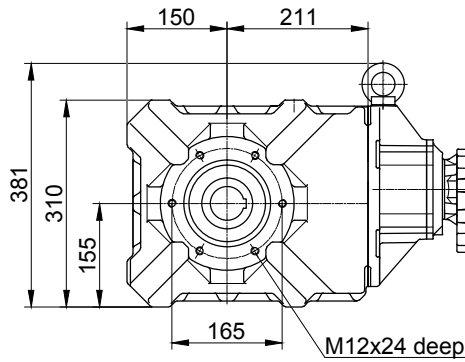
Torque arm at front

Code -5.V/



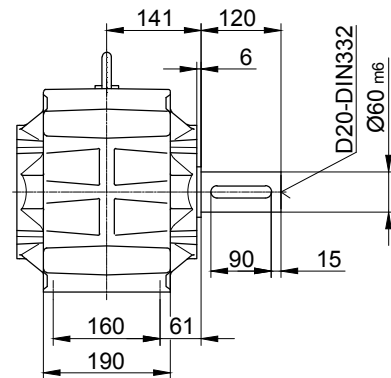
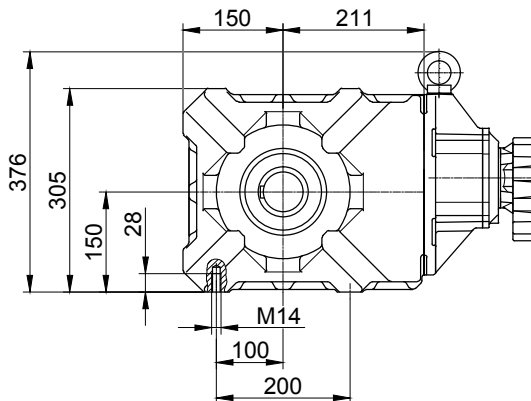
Flange with tapped holes at front

Code -7.V/



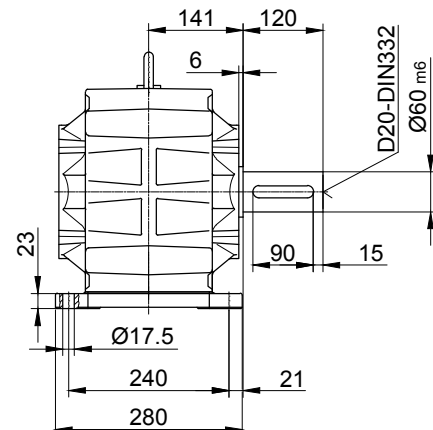
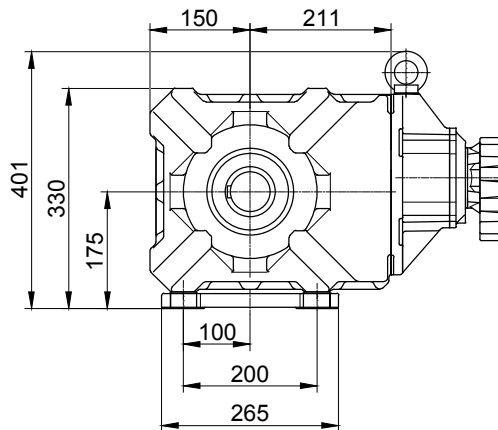
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



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The actual gearbox design can vary from the geometry shown.

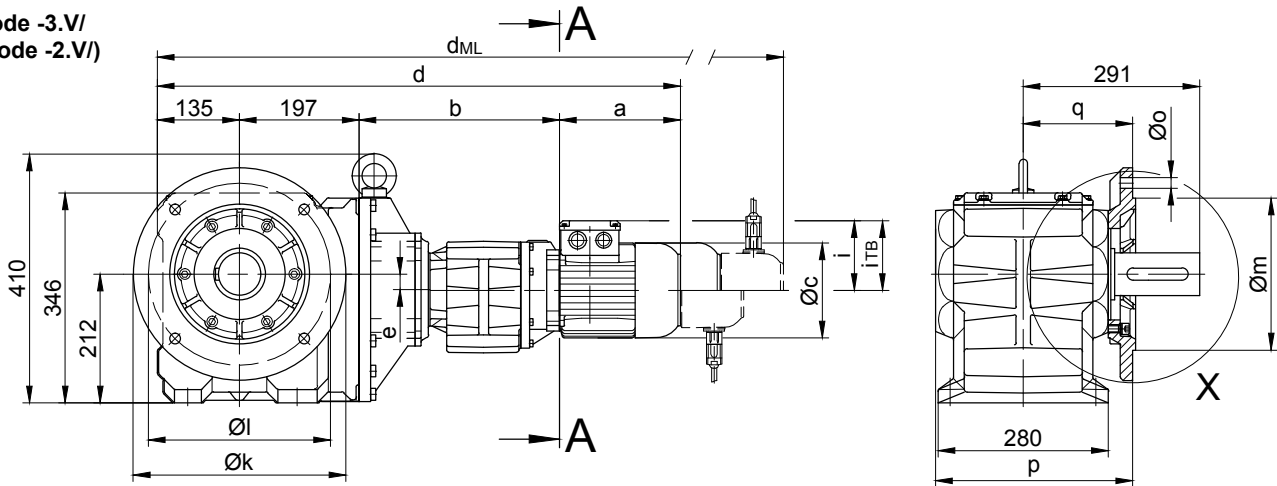
BK-series bevel-geared motors

Dimension

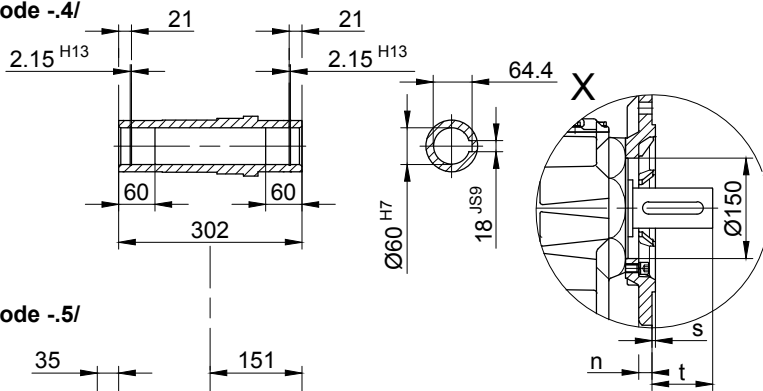
BK60G20

Flange with clearance holes at front

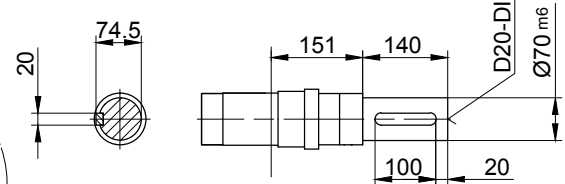
Code -3.V/
(Code -2.V/)



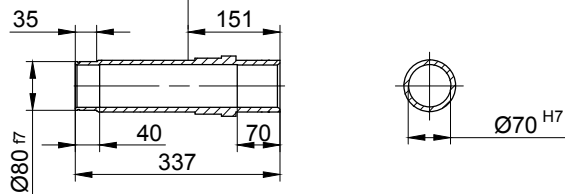
Code -4/



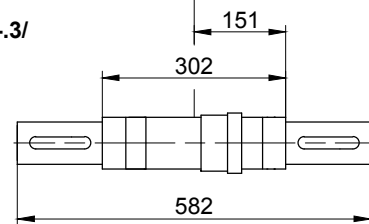
Code -1/



Code -5/

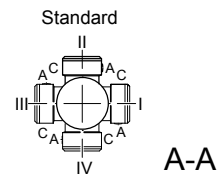


Code -3/



Flange dimensions

BK60G..	k	l	m	n	o	p	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



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
								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-../D..08..	200	330	156	862	27	115	136.5	928	969	1035.5	928
BK60G20-../D..09..	251	344.5	181	927.5	27	124	158	1020.5	1034.5	1125	1020.5



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

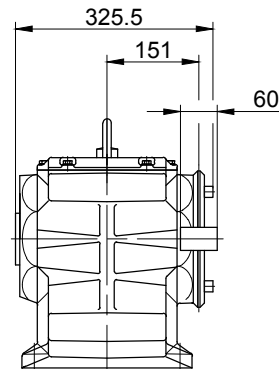
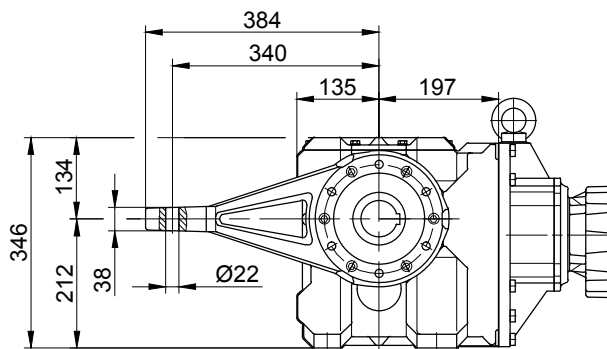
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BK60G20

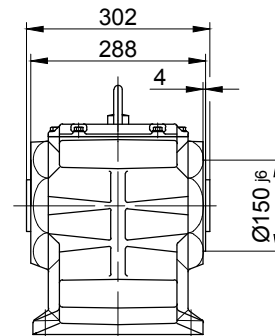
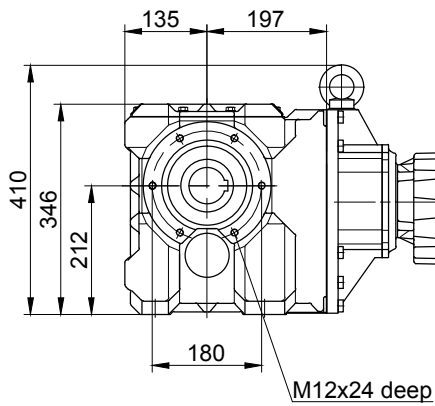
Torque arm at front

Code -5.V/



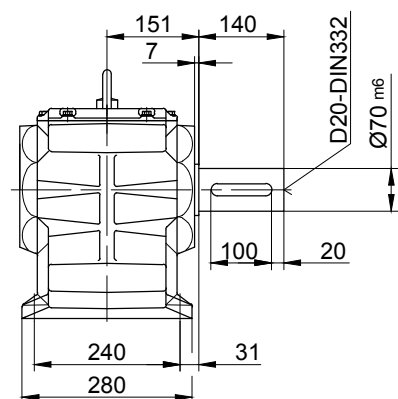
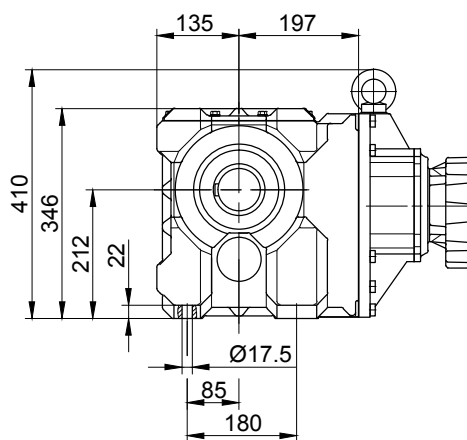
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

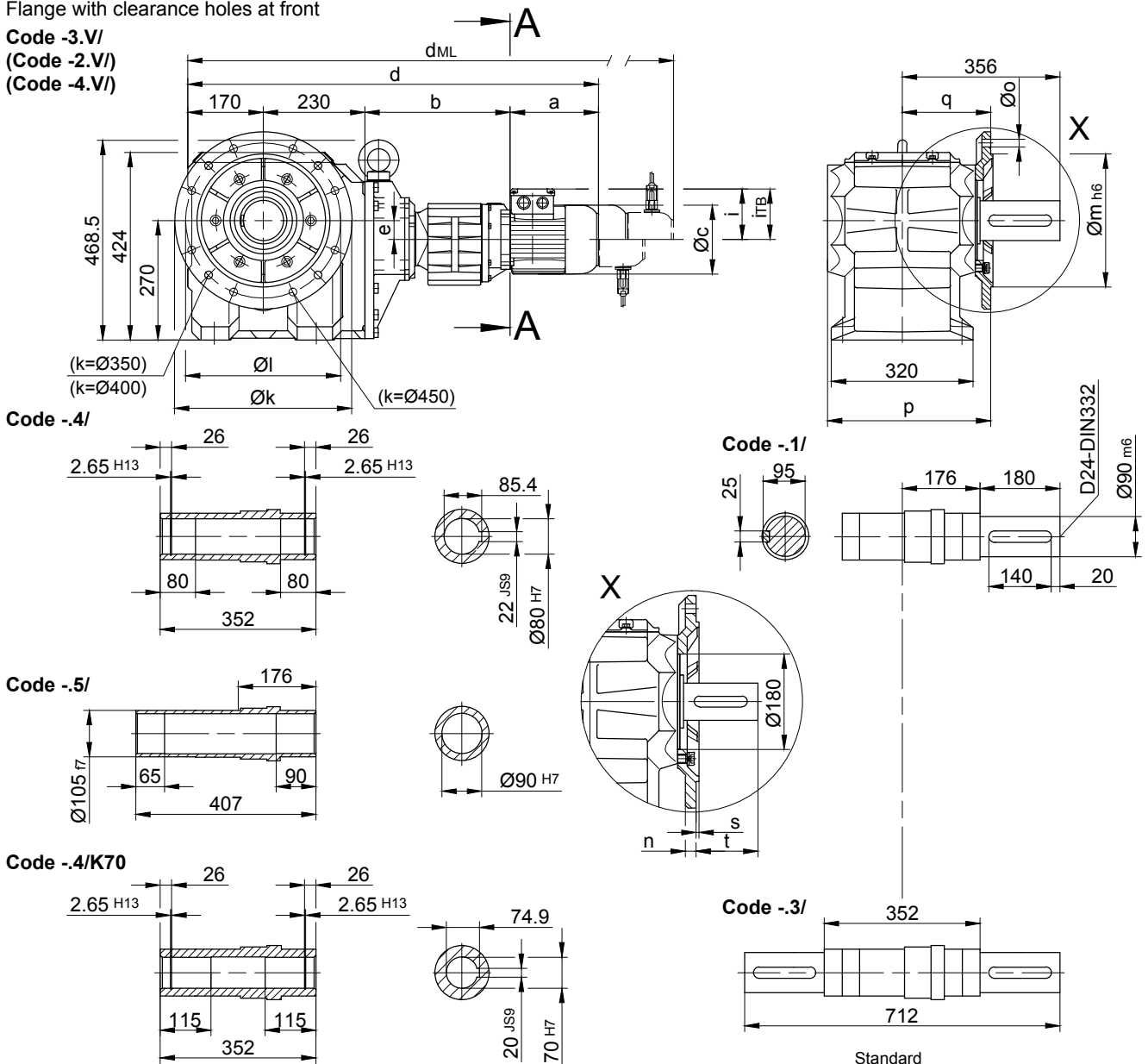
BK-series bevel-geared motors

Dimension

BK70G20

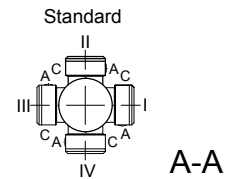
Flange with clearance holes at front

Code -3.V/
(Code -2.V/
(Code -4.V/)



Flange dimensions

BK70G..	k	l	m	n	o	p	q	s	t
Standard -3.V/	400	350	300	20	4 x 17.5	369	200	5	156
small -2.V/	350	300	250	20	4 x 17.5	369	200	5	156
big -4.V/	450	400	350	22	8 x 17.5	379	210	5	146



Type	a	b	c	d	e	i	i _{TB}	Design with motor extensions			
								E../ES..	G	E../ES...G	RR/RL
								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-../D..08..	200	328	156	928	43	115	136.5	994	1035	1101.5	994
BK70G20-../D..09..	251	342.5	181	993.5	43	124	158	1086.5	1100.5	1191	1086.5



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
Type Example: BK70-74V/DPE08XA4
Comment: No change to the dimensions shown

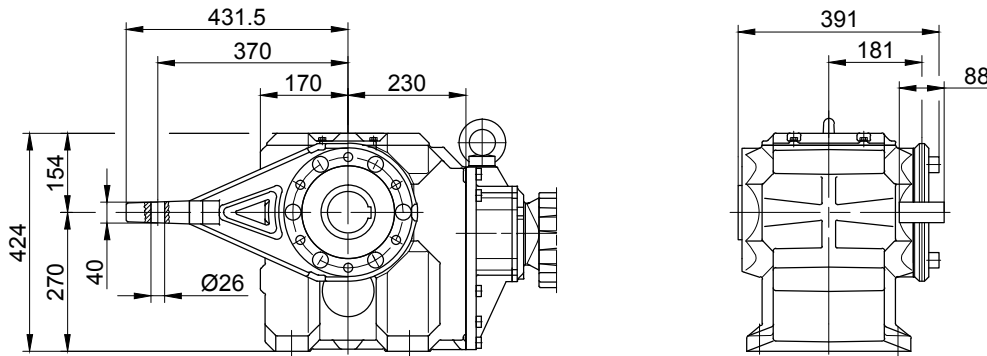
Design state "B" = Extended Length
Type Example: BK70-74V/DPE08XB4
Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BK70G20

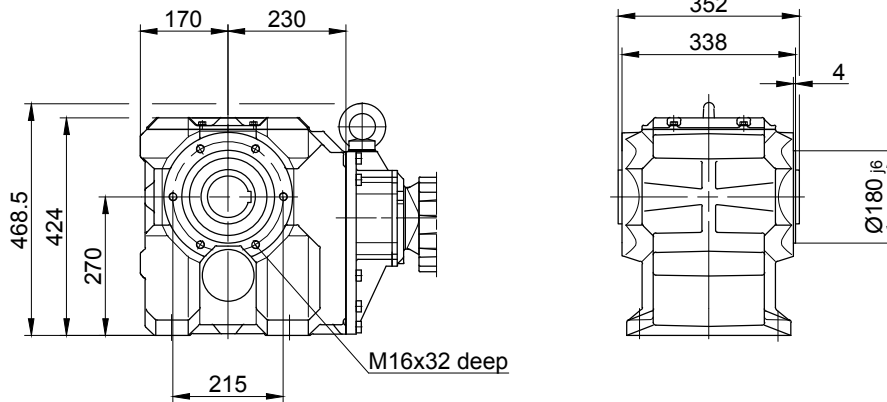
Torque arm at front

Code -5.V/



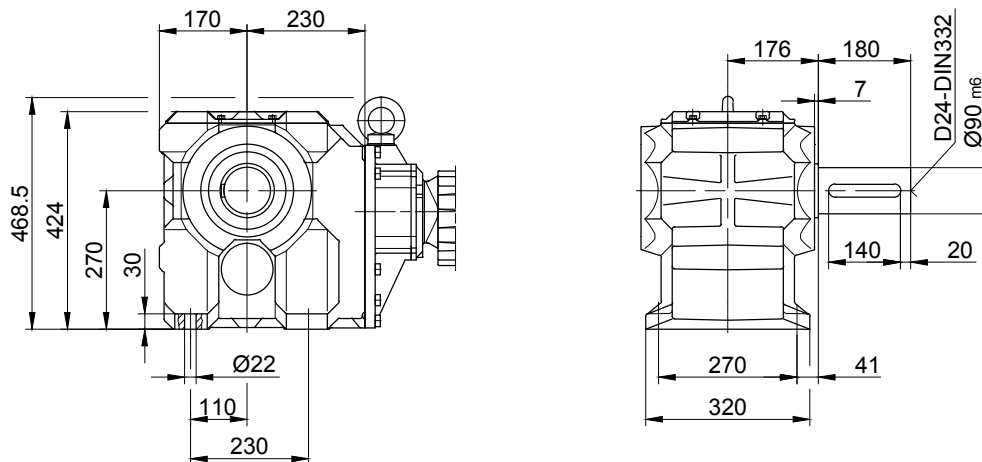
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

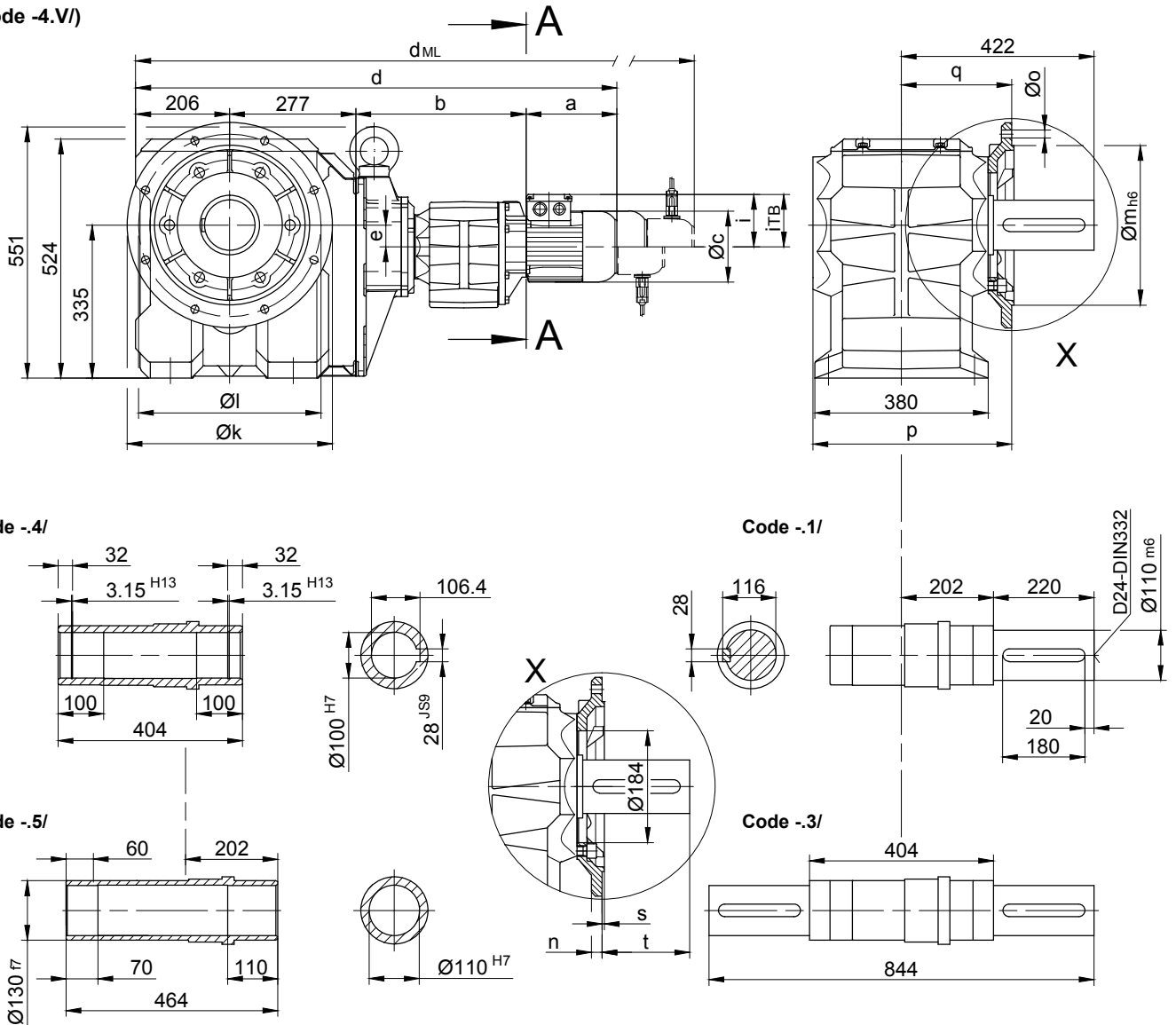
BK-series bevel-geared motors

Dimension

BK80G40

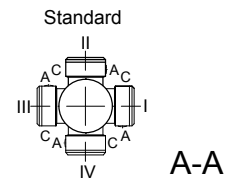
Flange with clearance holes at front

Code -3.V/
(Code -4.V)



Flange dimensions

BK80G..	k	l	m	n	o	p	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



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	ES..	G	ES..-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BK80G40-../D..08..	200	373	156	1056	47	115	136.5	1122	1163	1229.5	1122
BK80G40-../D..09..	251	387.5	181	1121.5	47	124	158	1214.5	1228.5	1319	1214.5
BK80G40-../D..11..	319	394	228	1196	47	181	181	1294	1303	1398.5	1294



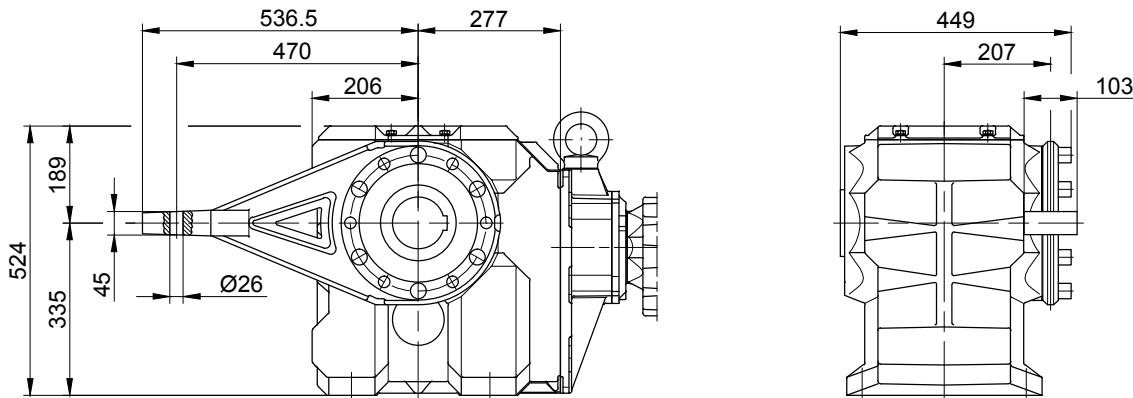
The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

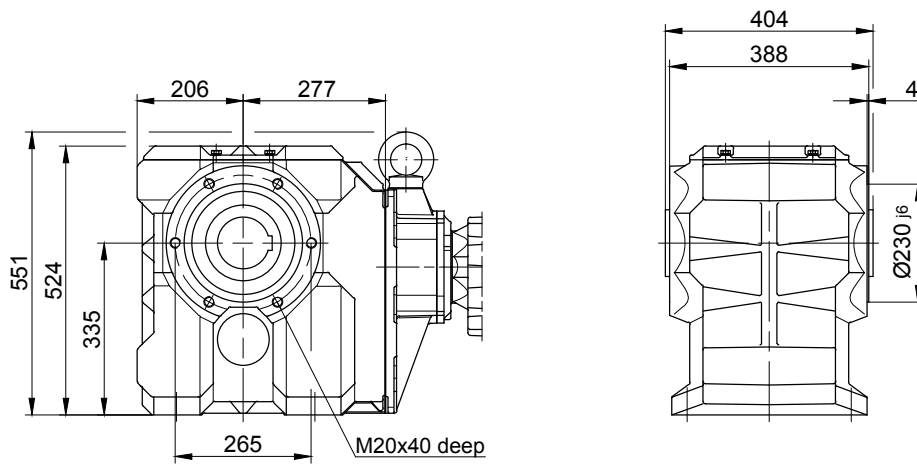
The actual gearbox design can vary from the geometry shown.

BK80G40

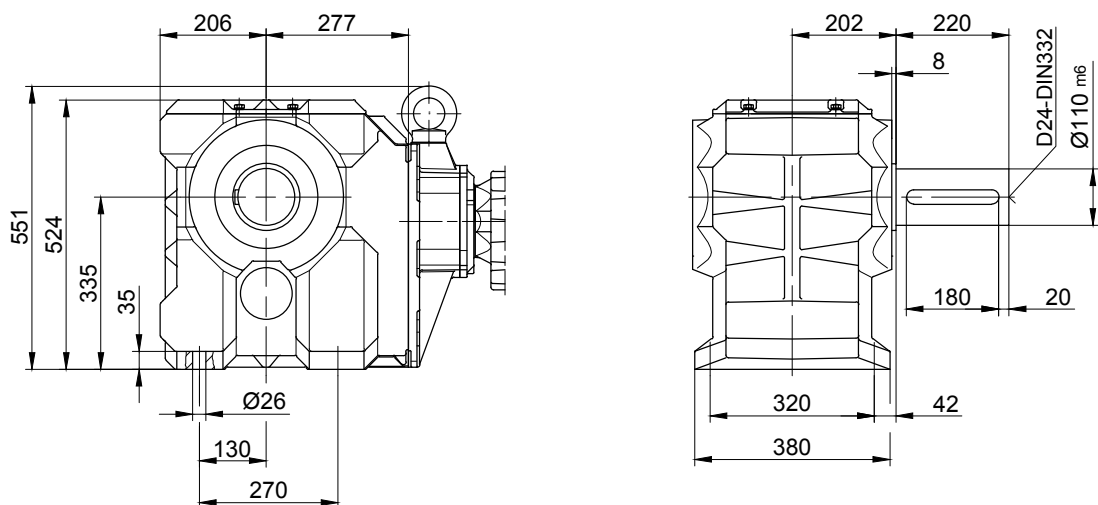
Torque arm at front
Code -5.V/



Flange with tapped holes at front
Code -7.V/



Foot with clearance holes at bottom
Code -1.U/



The actual gearbox design can vary from the geometry shown.

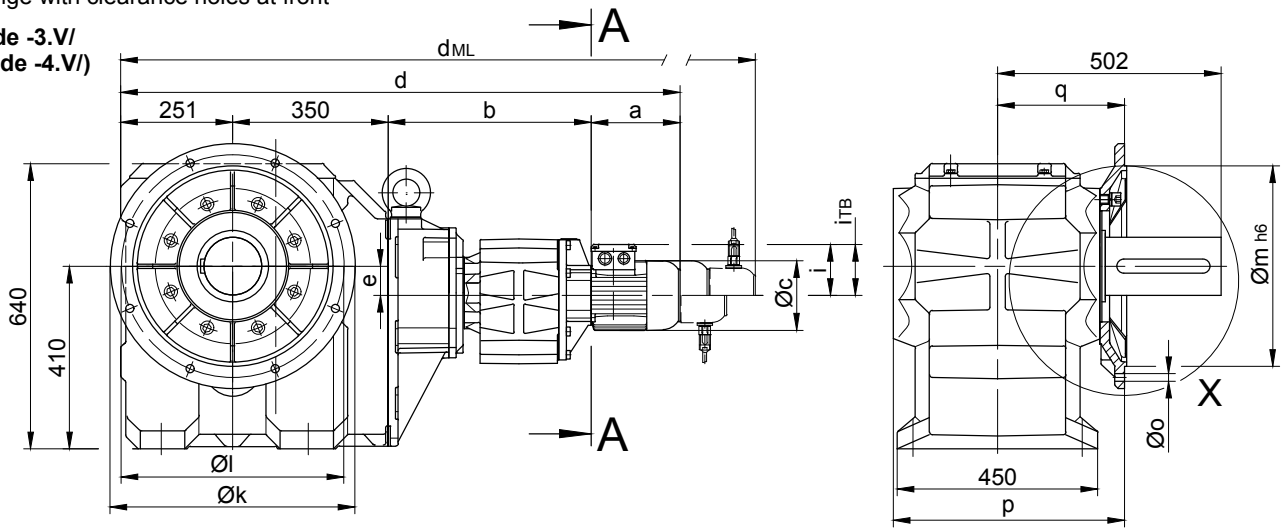
BK-series bevel-geared motors

Dimension

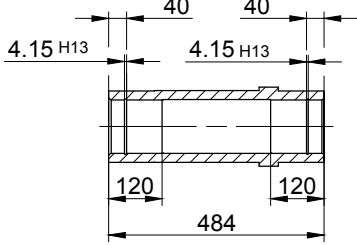
BK90G50

Flange with clearance holes at front

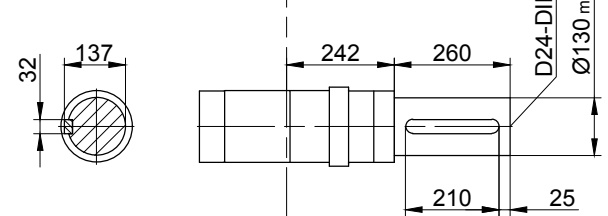
Code -3.V/
(Code -4.V/)



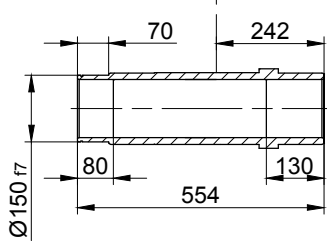
Code -4/



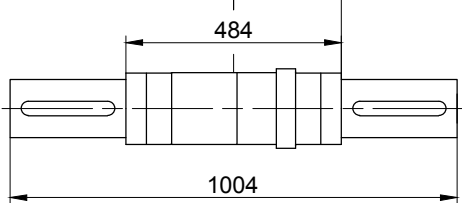
Code -1/



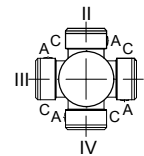
Code -5/



Code -3/



Standard



A-A

Flange dimensions

BK90G..	k	l	m	n	o	p	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

Type	a	b	c	d	e	i	i _{TB}	Design with motor extensions			
								ES../ZS..	G	ES../ZS..-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BK90G50-../D..08..	200	456	156	1257	66	115	136.5	1323	1364	1430.5	1323
BK90G50-../D..09..	251	470.5	181	1322.5	66	124	158	1415.5	1429.5	1520	1415.5
BK90G50-../D..11..	319	477	228	1397	66	181	181	1495	1504	1599.5	1495
BK90G50-../D..13..	393	490	258	1484	66	218	218	1595	1591	1699.5	1595
BK90G50-../D..16..	454.5	504	310	1559.5	66	244	244	1703	1666.5	1806.5	1703
BK90G50-../D..18..	542	535	348	1678	66	288	288	1827.5	1785	1931.5	1827.5



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

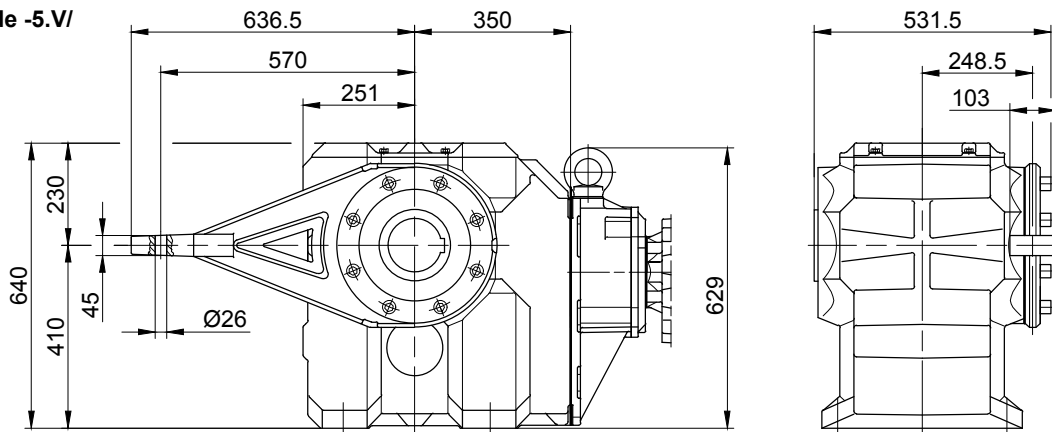
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BK90G50

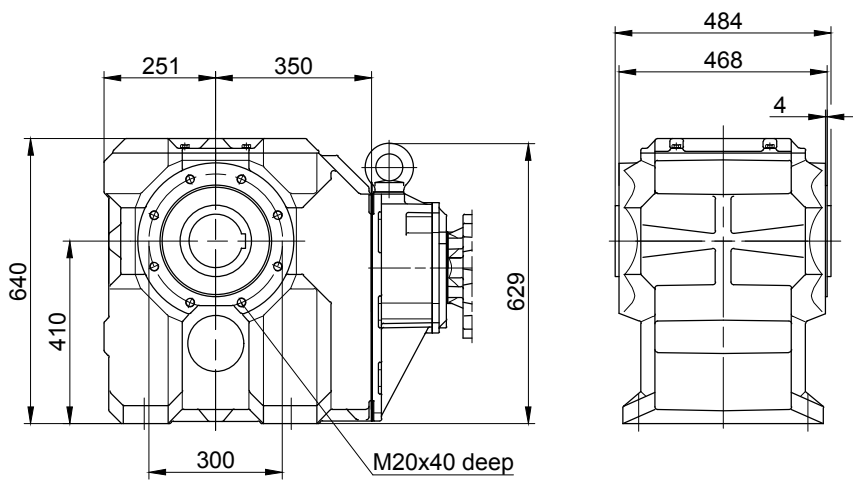
Torque arm at front

Code -5.V/



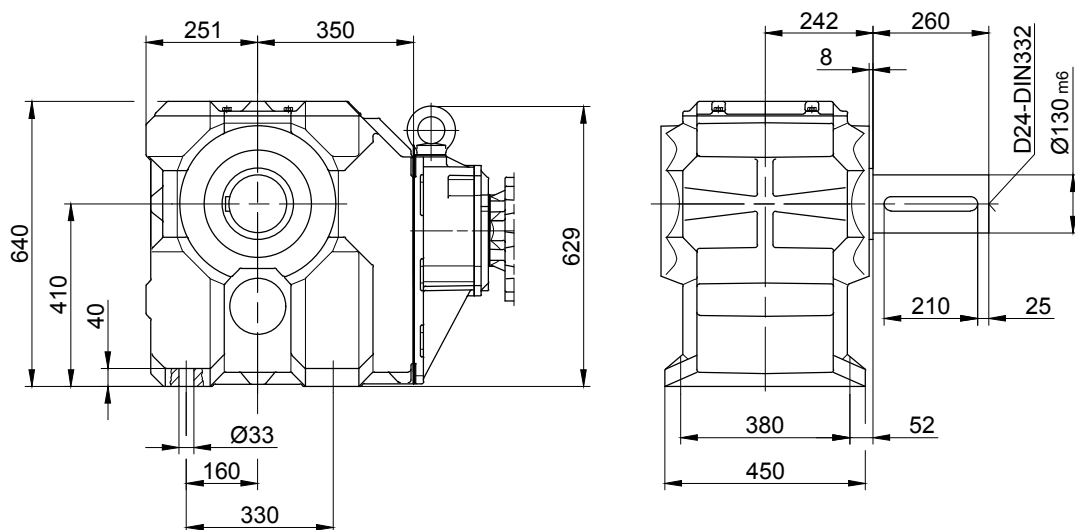
Flange with tapped holes at front

Code -7.V/



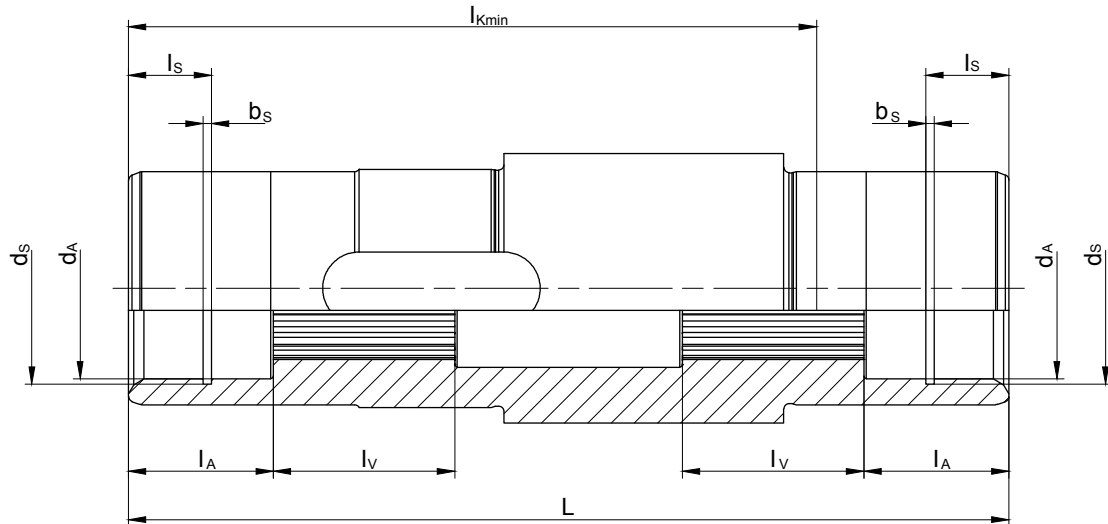
Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

Splined shaft BK



Type	Spline acc. DIN 5480	d_A (mm)	l_A (mm)	l_V (mm)	l_{Kmin} (mm)	L (mm)	d_s (mm)	l_s (mm)	b_s (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}

The actual gearbox design can vary from the geometry shown.

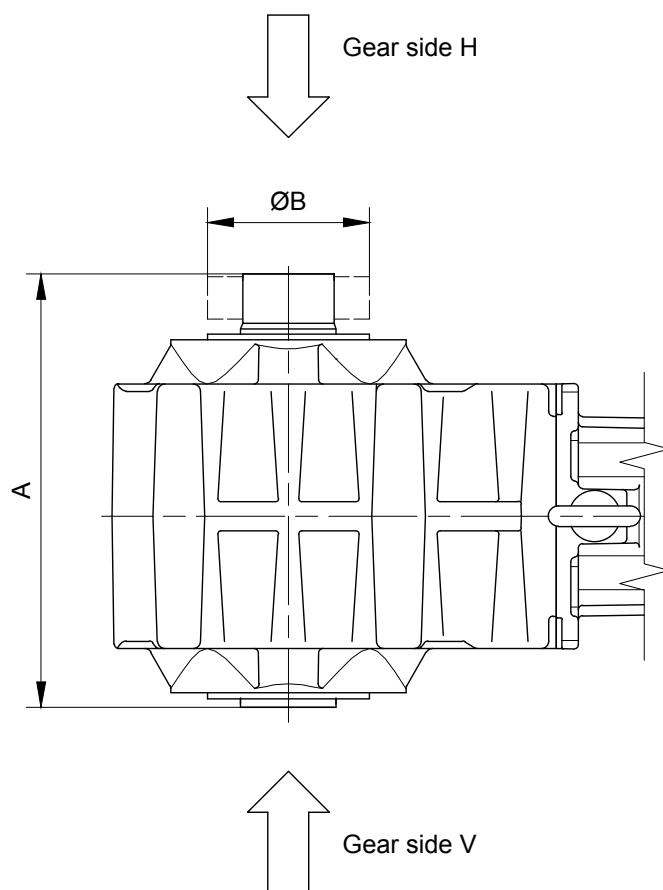
BK-series bevel-gear motors

Additional Dimension Sheet

Shrink disc couplings (SSV)

(Code BK10-.5/...)

(Code BK10Z-.5/...)



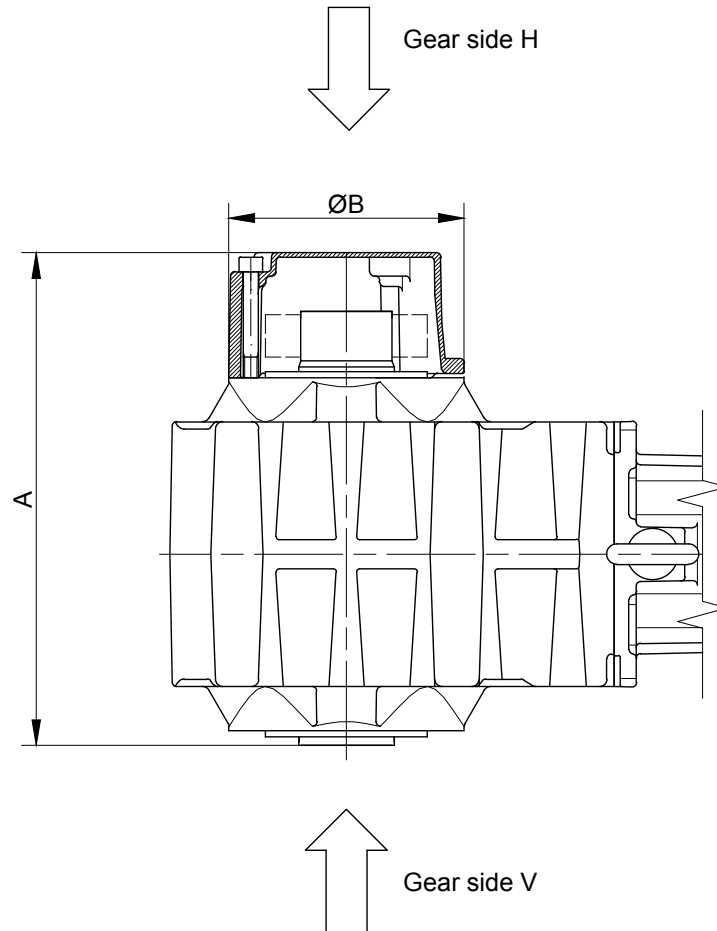
12

Type	SSV Ringfeder	SSV STÜWE	A	B
BK06	RfN 4161 024x050	HSD 24-22x24	118	50
BK10	RfN 4161 036x072	HSD 36-22x36	195	72
BK17	RfN 4161 044x080	HSD 44-22x44	194	80
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

The actual gearbox design can vary from the geometry shown.

Shrink disc connection with cover (SSV)

(Code BK10-.5A/...)
(Code BK10Z-.5A/...)



12

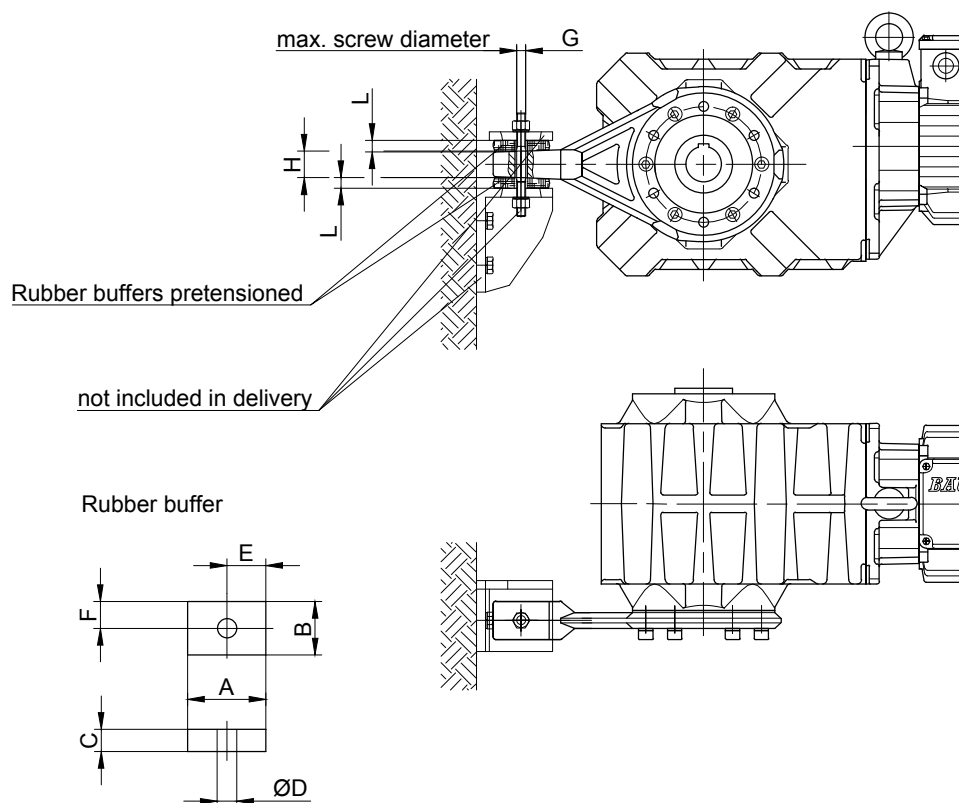
Type	SSV Ringfeder	SSV STÜWE	A	B
BK10	RfN 4161 036x072	HSD 36-22x36	217	120
BK17	RfN 4161 044x080	HSD 44-22x44	242	140
BK20	RfN 4161 044x080	HSD 44-22x44	270	140
BK30	RfN 4161 050x090	HSD 50-22x50	300	160
BK40	RfN 4161 062x110	HSD 62-22x62	335	160
BK50	RfN 4161 068x115	HSD 68-22x68	329	200
BK60	RfN 4161 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

The actual gearbox design can vary from the geometry shown.

BK-series bevel-gear motors

Additional Dimension Sheet

Rubber buffer for torque arm



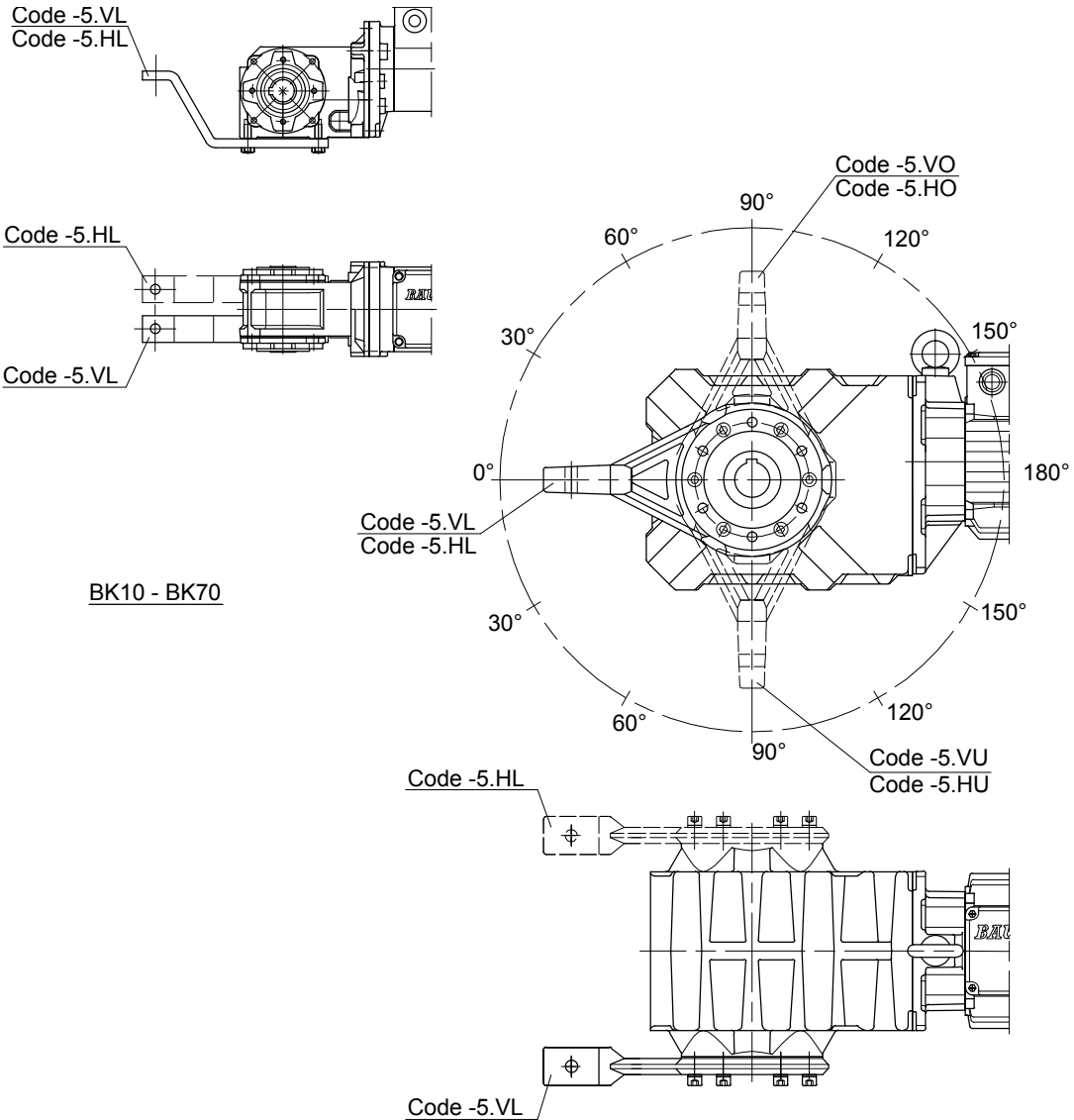
Material: Natural rubber
Hardness 50±5 Shore A

Dimensions of the transverse hole:
see dimensioned sketch of the respective
shaft mounted gearbox

Gear	Pos.	Dimensions (mm)								
		A	B	C	D	E	F	G	H	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
BK17	Pos.1	48	32	15	14	24	16	M10	19	13
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

The actual gearbox design can vary from the geometry shown.

Position of the torque arm



Possible locations.

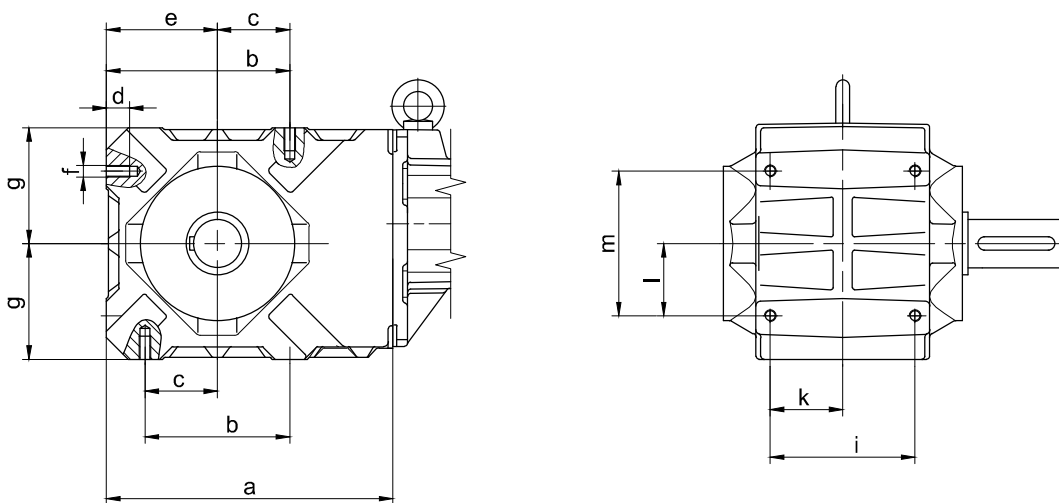
Position	VL / HL	VO / HO VU / HU				VR / HR	
BK06	0°	-	-	-	-	-	-
BK10	0°	30°	60°	90°	120°	150°	-
BK17	0°	30°	60°	90°	120°	-	-
BK20	0°	30°	60°	90°	120°	150°	-
BK30	0°	30°	60°	90°	120°	150°	-
BK40	0°	30°	60°	90°	120°	150°	-
BK50	0°	30°	60°	90°	120°	150°	-
BK60	0°	30°	60°	90°	120°	150°	-
BK70	0°	30°	60°	90°	120°	150°	-
BK80	0°	30°	60°	90°	120°	150°	-
BK90	0°	45°		90°	135°		-

The actual gearbox design can vary from the geometry shown.

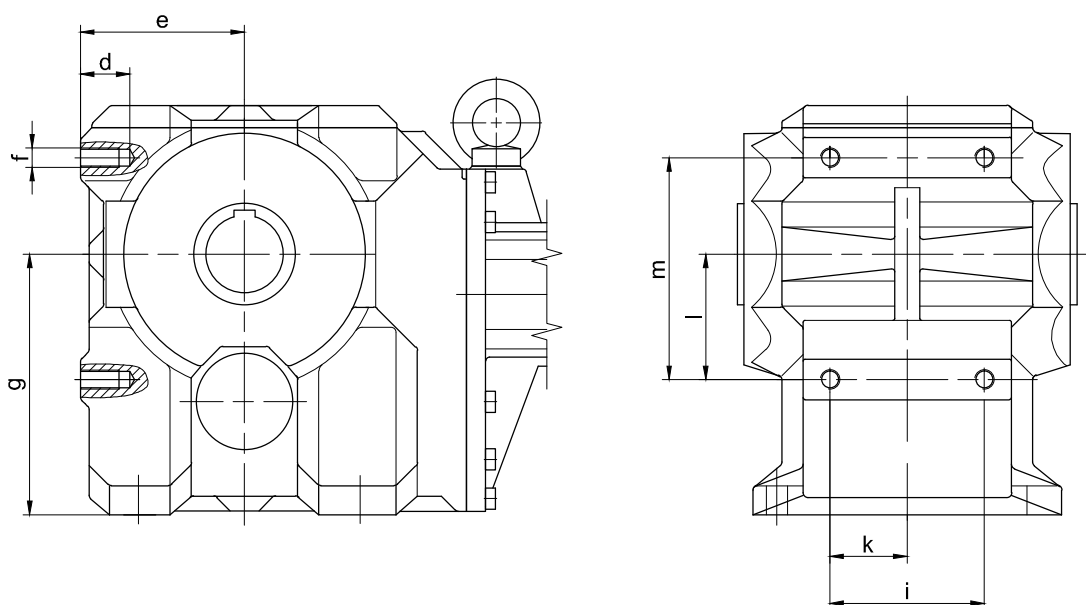
BK-series bevel-gear motors

Additional Dimension Sheet

Foot with tapped bores



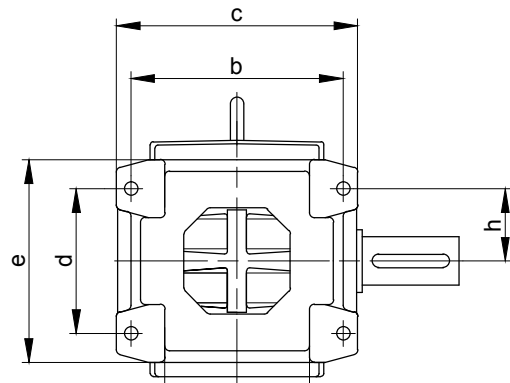
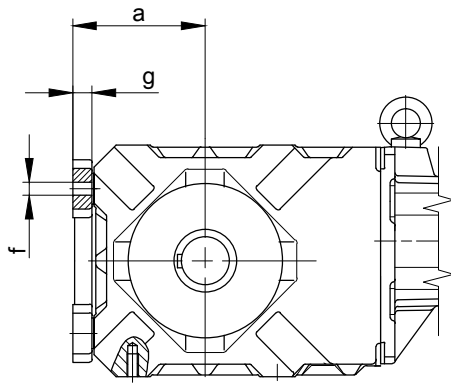
Type	a	b	c	d	e	f	g	i	k	l	m
BK10-BK10Z	202	90	45	16	78	M8	80	95	47.5	45	90
BK20-BK20Z	242	110	55	20	95	M10	100	105	52.5	55	110
BK30-BK30Z	266	125	62.5	24	105	M12	110	120	60	62.5	125
BK40-BK40Z	297	150	75	24	115	M12	120	150	75	75	150
BK50-BK50Z	356	200	100	28	145	M14	150	160	80	100	200



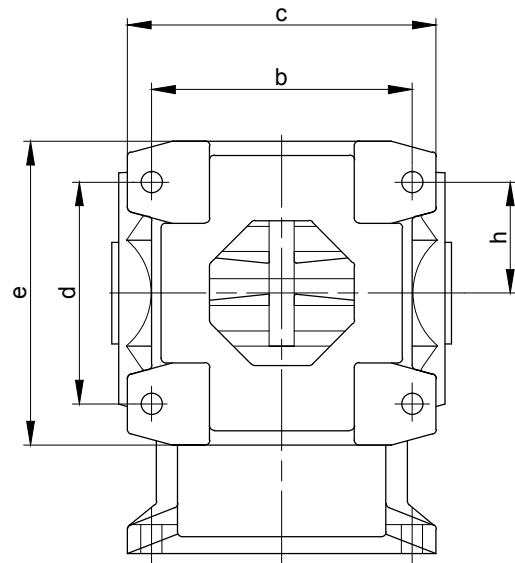
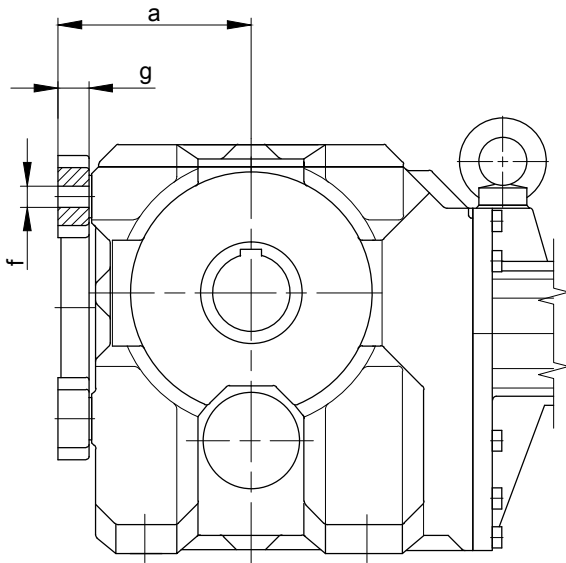
Type	a	b	c	d	e	f	g	i	k	l	m
BK60-BK60Z	-	-	-	40	130	M20	212	160	80	145	230
BK70-BK70Z	-	-	-	40	165	M20	270	160	80	130	230
BK80-BK80Z	-	-	-	60	200	M30	335	210	105	240	360
BK90-BK90Z	-	-	-	60	245	M30	410	210	105	215	360

The actual gearbox design can vary from the geometry shown.

Foot plate with through holes



Type	a	b	c	d	e	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



Type	a	b	c	d	e	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

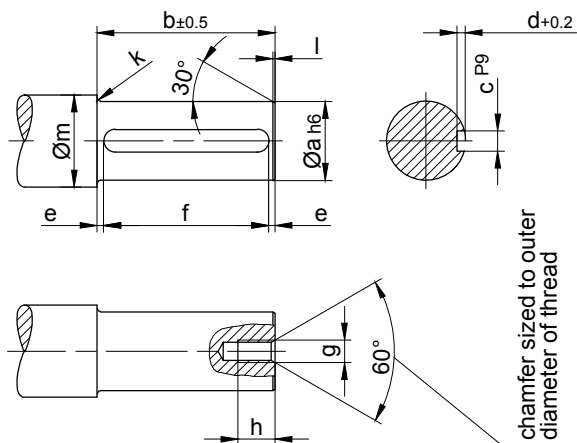
The actual gearbox design can vary from the geometry shown.

BK-series bevel-geared motors

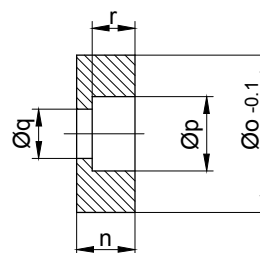
Additional Dimension Sheet

Assembly tools for shaft mounted gears with splined shaft

Pos.1 Shaft

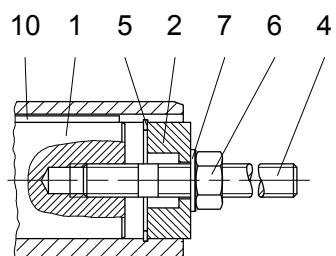


*Pos.2 Disc

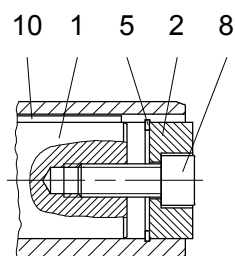


^{x/} edges cut
Material:
C45 DIN 17200

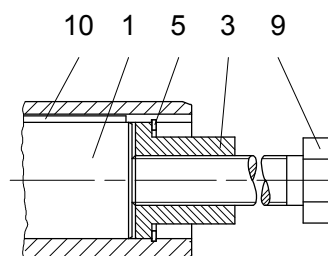
Type	Dimensions (mm)															
	Pos.1 Shaft											Pos.2 Disc				
	a	b	c	d	e	f	g	h	k	l	m	n	o	p	q	r
BK06	20	75	6	3.5	6	63 ^{+0.3}	M6	16	2	1	28	13.5	19.8	11	6.6	6.5
BK10	25	148	8	4	11.5	125 ^{+0.5}	M8	18	2.5	1.5	33	13.5	24.8	15	9	8.5
BK17	30	142	8	4	16	110 ^{+0.5}	M10	20	3	1.5	38	15	29.8	18	11	10
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



Installation



Holding



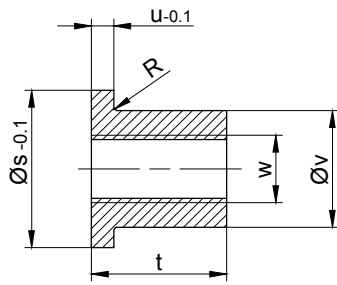
Dismantlement

The parts shown are necessary 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.

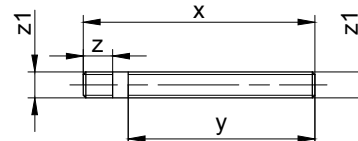
Assembly tools for shaft mounted gears with splined shaft

Pos.3 Sleeve



\sqrt{x} , edges cut
Material: C45 DIN 17200

Pos.4 Stud Bolt



Material: Steel, tensile strength $\geq 1000\text{N/mm}^2$
threads rolled

Type	Dimensions (mm)										* Retainer ring DIN 472	Hexagon nut DIN 934-8	Disc DIN 125-St	* 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						
	Pos.3 Sleeve						Pos.4 Stud Bolt											Pos.5	Pos.6	Pos.7	Pos.8	Pos.9	Pos.10
	s	t	u	v	w	R	x	y	z	z1													
BK06	19.8	20	5	11.1	M8	0.8	130	100	20	M6	20x1	M6	6.4	M6x30	5	M6x120	A 6x6x63						
BK10	24.8	24	5	15.4	M12	0.8	200	170	20	M8	25x1.2	M8	8.4	M8x30		M12x190	A 8x7x125						
BK17	29.8	28	5	19.8	M14	0.8	230	195	23	M10	30x1.2	M10	10.5	M10x30	8	M14x210	A 8x7x140						
BK20	29.8	28	5	19.8	M14	0.8	230	195	23	M10	30x1.2	M10	10.5	M10x30		M14x210	A 8x7x110						
BK30	34.8	28	5	23	M14	-	260	220	23	M10	35x1.5	M10	10.5	M10x35		M14x240	A 10x8x180						
BK40	39.8	40	6	27.7	M20	0.8	300	260	28	M12	40x1.75	M12	13	M12x35	16	M20x290	A 12x8x200						
BK50	49.8	48	6	36	M24	-	340	290	37	M16	50x2.0	M16	17	M16x40	30	M24x320	A 14x9x220						
BK60	59.8	60	6	44	M30	-	370	310	45	M20	60x2.0	M20	21	M20x50	42	M30x350	A 18x11x250						
BK70	79.8	60	8	55	M30	-	420	360	45	M20	80x2.5	M20	21	M20x50		M30x400	A 22x14x280						
BK70-K70	69.8	60	8	53	M30	-	420	360	45	M20	70x2.5	M20	21	M20x50		M30x400	A 20x12x280						
BK80	99.8	72	10	75	M36	-	480	410	55	M24	100x3.0	M24	25	M24x60	100	M36x450	A 28x16x320						
BK90	119.8	72	10	80	M36	-	560	480	55	M24	120x4.0	M24	25	M24x60		M36x520	A 32x18x400						

The parts shown are necessary 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	Ø s	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"

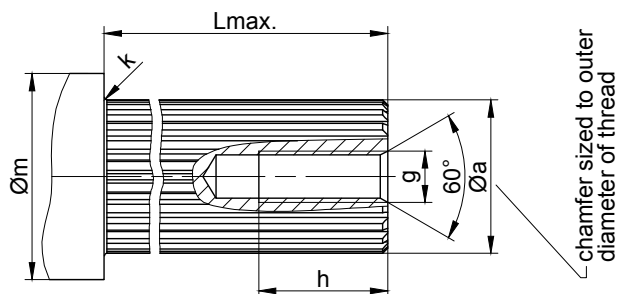
The actual gearbox design can vary from the geometry shown.

BK-series bevel-geared motors

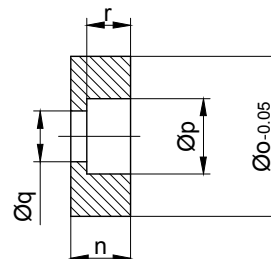
Additional Dimension Sheet

Assembly tools for shaft mounted gears with splined shaft

Pos.1 Shaft

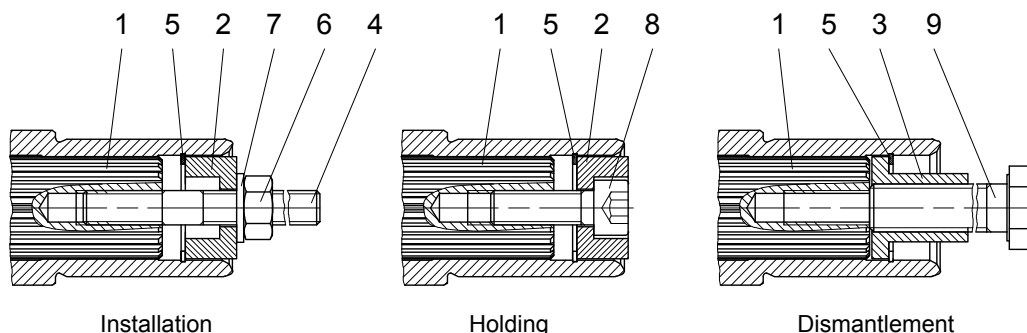


*Pos.2 Disc



✓^x, edges cut
Material:
C45 DIN 17200

Type	Dimensions (mm)										
	Pos.1 Shaft						Pos.2 Disc				
	a	g	h	k	Lmax.	m	n	o	p	q	r
BK10	DIN 5480-W30x1.25x22	M10	25	2.5	145	42	15	34.9	18	11	10
BK20	DIN 5480-W35x2x16	M10	25	3	167	44	14	35.9	18	11	10
BK30	DIN 5480-W40x2x18	M12	30	3	200	49	18	40.9	20	13.5	12
BK40	DIN 5480-W50x2x24	M16	35	3	235	59	17.5	50.9	26	17.5	12.5
BK50	DIN 5480-W60x2x28	M20	40	3.5	255	69	24	60.9	33	22	18
BK60	DIN 5480-W70x2x34	M20	40	3.5	275	80	24	71.9	33	22	18
BK70	DIN 5480-W85x3x27	M20	40	4	323	96	22	85.9	33	22	16
BK80	DIN 5480-W110x3x35	M24	50	4	360	122	32	111.9	40	26	25
BK90	DIN 5480-W130x5x24	M24	50	4.5	440	143	25	131.4	40	26	18

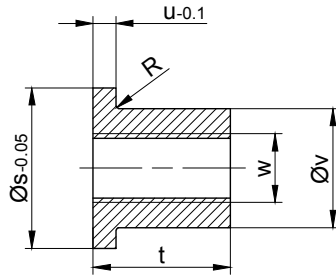


The parts shown are necessary for assembly. ONLY *specified parts are enclosed in the assembly kit. Suitable measures are to be used to secure Bolt Pos.9 against loosening.

The actual gearbox design can vary from the geometry shown.

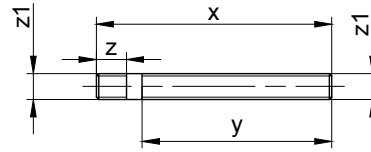
Assembly tools for shaft mounted gears with splined shaft

Pos.3 Sleeve



√^x, edges cut
Material:
C45 DIN 17200

Pos.4 Stud Bolt



Material: Steel, tensile strength
≥ 1000N/mm²
threads rolled

Type	Dimensions (mm)										* Retainer ring DIN 472	Hexagon nut DIN 934-8	Disc DIN 125-St	* Filister head screw DIN 7984-8.8	Starting torque (Nm)	Hexagon bolt DIN EN 24017-8.8					
	Pos.3 Sleeve						Pos.4 Stud Bolt										Pos.5	Pos.6	Pos.7	Pos.8	Pos.9
	s	t	u	v	w	R	x	y	z	z1											
BK10	30.4	28	5	19.8	M14	-	200	170	23	M10	35x1.5	M10	10.5	M10x30	8	M14x190					
BK20	35.9	28	5	23	M14	-	230	195	23	M10	35x1.5	M10	10.5	M10x35		M14x210					
BK30	40.9	40	6	27.7	M20	-	260	220	28	M12	40x1.75	M12	13	M12x35	16	M20x240					
BK40	50.9	48	6	36	M24	0.8	300	260	37	M16	50x2.0	M16	17	M16x40	30	M24x290					
BK50	60.9	60	6	44	M30	-	340	290	45	M20	60x2.0	M20	21	M20x50	42	M30x320					
BK60	71.9	60	6	53	M30	0.8	370	310	45	M20	70x2.5	M20	21	M20x50		M30x350					
BK70	85.9	60	8	65	M30	0.8	420	360	45	M20	85x3	M20	21	M20x50		M30x400					
BK80	111.9	72	10	85	M36	0.8	480	410	55	M24	112x4	M24	25	M24x60	100	M36x450					
BK90	131.4	72	10	95	M36	0.8	560	480	55	M24	130x4	M24	25	M24x60		M36x520					

The parts shown are necessary for assembly. ONLY *specified parts are enclosed in the assembly kit. Suitable measures are to be used to secure Bolt Pos.9 against loosening.

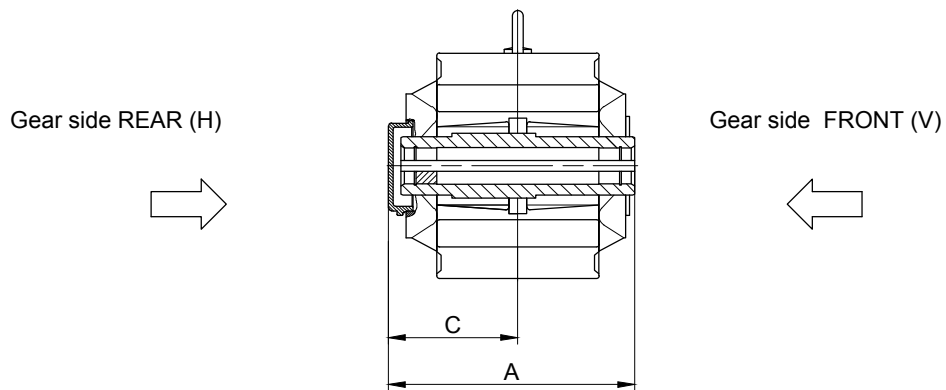
Optional:	Type	Ø s	Order Text
	BK10	30.5	Id.Nr.4105133 Assembly tool "holding"
	BK20	36	Id.Nr.4105141 Assembly tool "holding"
	BK30	41	Id.Nr.4105150 Assembly tool "holding"
	BK40	51	Id.Nr.4105168 Assembly tool "holding"
	BK50	61	Id.Nr.4105176 Assembly tool "holding"
	BK60	72	Id.Nr.4105184 Assembly tool "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"

The actual gearbox design can vary from the geometry shown.

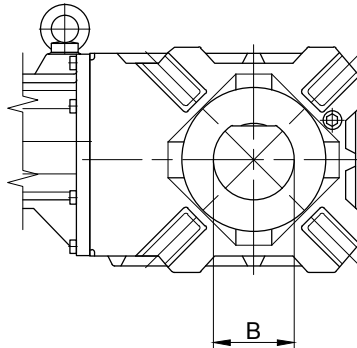
BK-series bevel-gear motors

Additional Dimension Sheet

Shaft Cap (VK)



Gear side REAR (H)

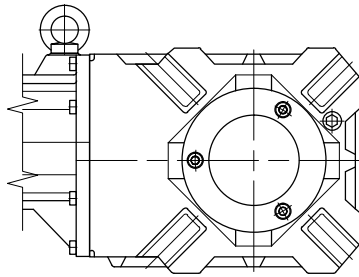


Type	A	B	C
BK10	182.5	85	97.5
BK17	-	-	-
BK20	204.5	90	108.5
BK40	273.5	100	143.5
BK50	298	115	157
BK60	322	130	171
BK70	370	160	194

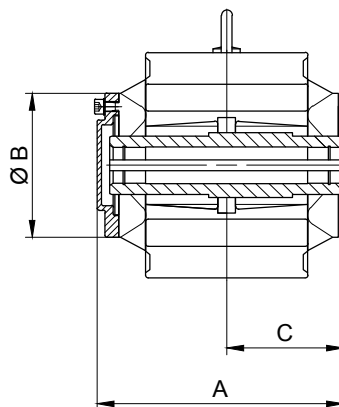
The actual gearbox design can vary from the geometry shown.

Shaft Cover (VD)

Gear side REAR (H)



Gear side REAR (H)

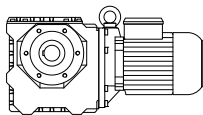


Gear side FRONT (V)



Type	A	B	C
BK10	181	120	85
BK17	178	139.5	82
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

The actual gearbox design can vary from the geometry shown.



Page

Dimensional drawings worm-geared motors

369-406

- 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)
-

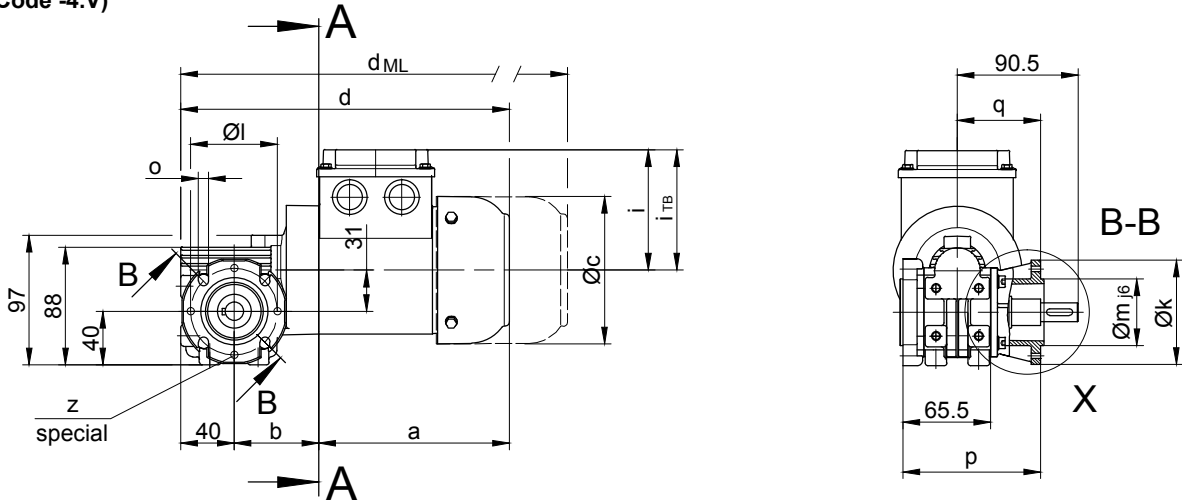
BS-series worm-gear motors

Dimension

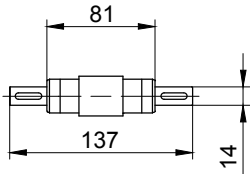
BS02

Flange with clearance holes at front

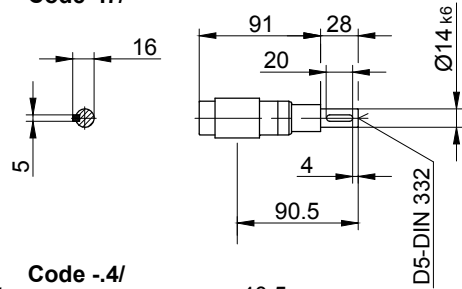
Code -3.V
(Code -4.V)



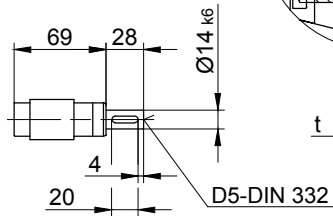
Code -3/



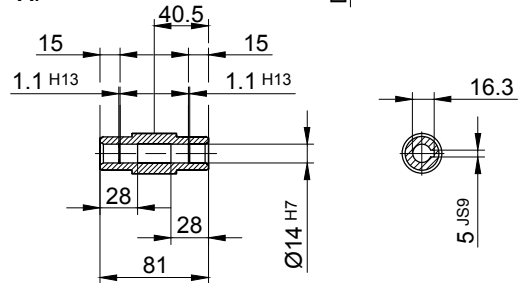
Code -7/



Code -1/

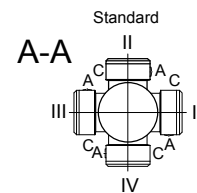


Code -4/



Flange dimensions

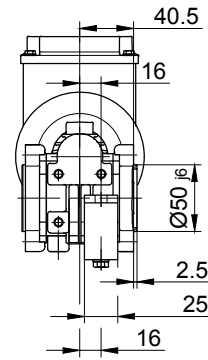
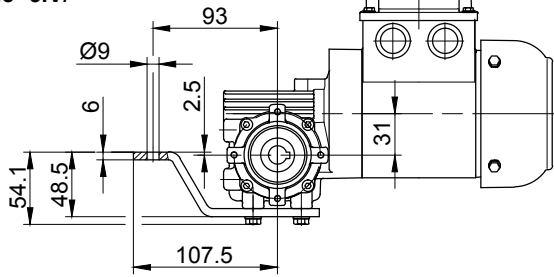
BS02	k	l	m	n	o	p	q	s	t	z
standard -37V/	80	65	50	7	5.5	103	62.5	2.5	28	-
spezial -37V/	80	65	50	7	5.5	103	62.5	2.5	28	4xM5
big -47V/	110	80	60	8	6.6	103	62.5	2.5	28	-
spezial -47V/	110	80	60	8	6.6	103	62.5	2.5	28	4xM6



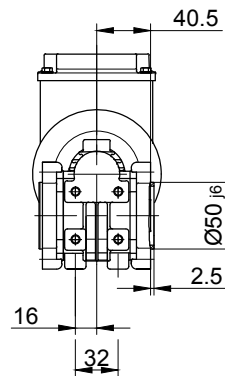
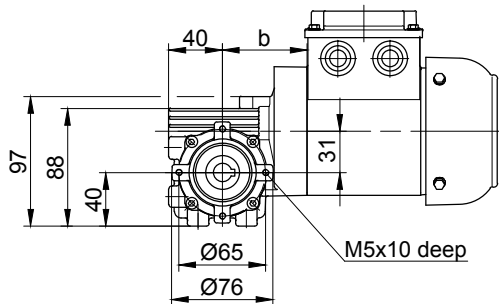
Type	a	b	c	d	u	i	Design with motor extensions				
							i _{TB}	E..	G	E..-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BS02-../D04..	143	63.5	111	246.5	178	90	112	290	309	352	-
BS02-../D05..	170	65.5	123	275.5	188	100	117	317.5	378.5	420	-
BS02-../D06..	170	65.5	123	275.5	188	100	119	317.5	378.5	420	-
BS02-../D07..	190	65.5	123	295.5	188	100	119	337.5	398.5	440	-

The actual gearbox design can vary from the geometry shown.

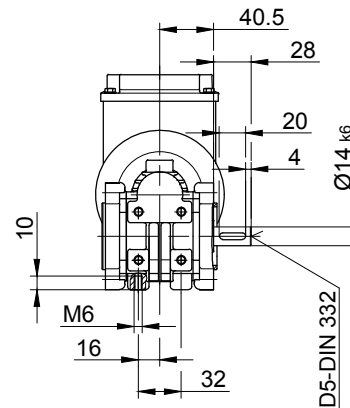
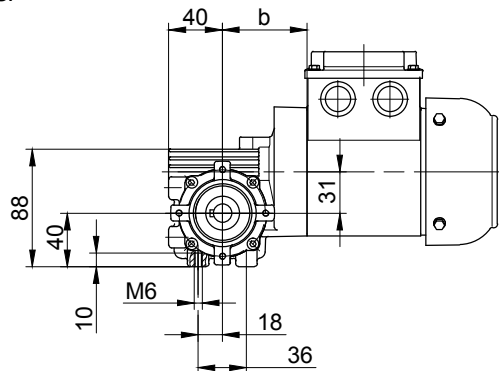
Torque arm at front
Code -5.V/



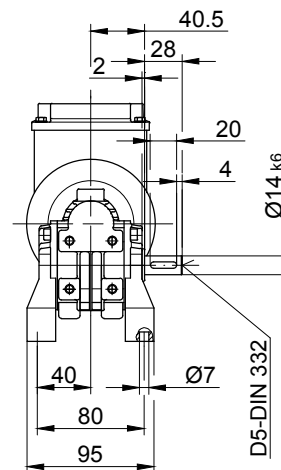
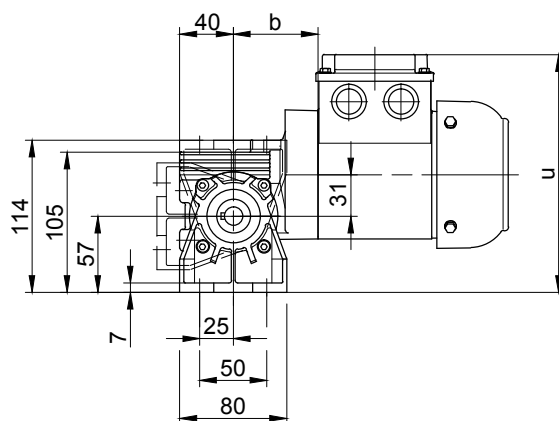
Flange with tapped holes at front
Code -7.V/



Foot with tapped holes at bottom
Code -6.U/



Foot with clearance holes at bottom
Code -1.U/



The actual gearbox design can vary from the geometry shown.

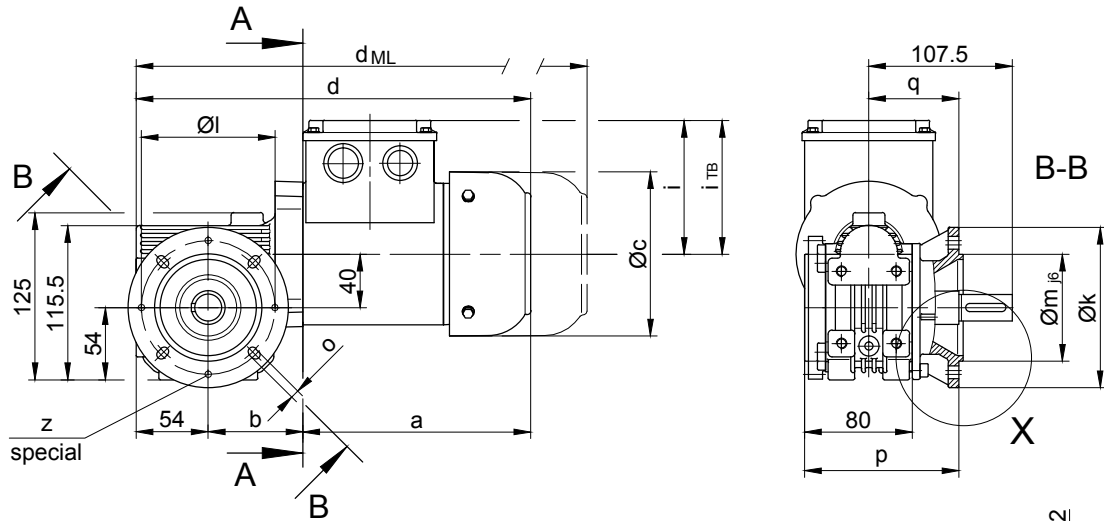
BS-series worm-geared motors

Dimension

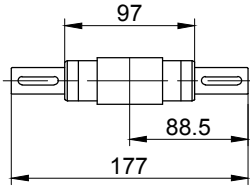
BS03

Flange with clearance holes at front

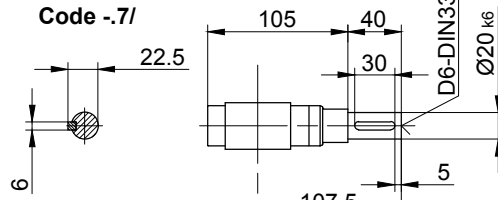
Code -3.V/



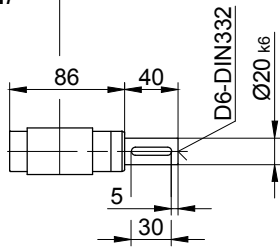
Code -3/



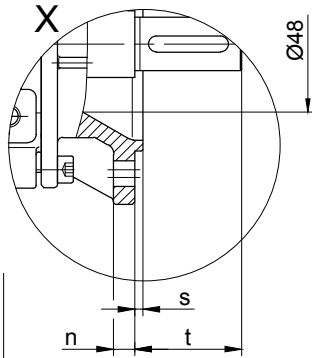
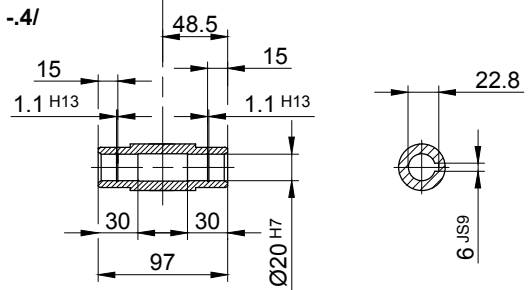
Code -7/



Code -1/

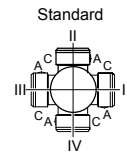


Code -4/



Flange dimensions

BS03	k	l	m	n	o	p	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



A-A

Type	a	b	c	d	u	v	i	Design with motor extensions				
								i_{TB}	E../ES..	G	E../ES..-G	RR/RL
								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-../D..08..	200	115	156	425	228	-	115	136.5	491	532	598.5	491

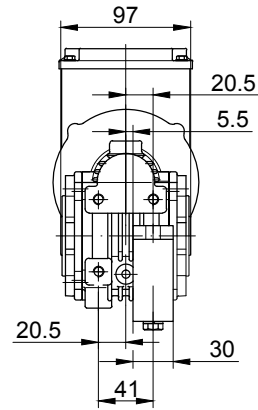
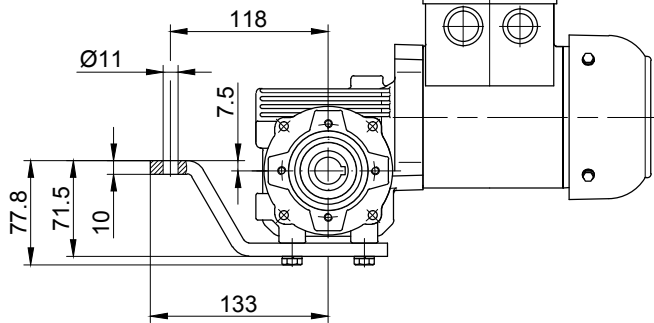


The dimensions "a*", "d*" and "d_{ML}"* change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

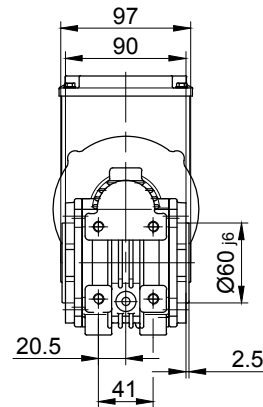
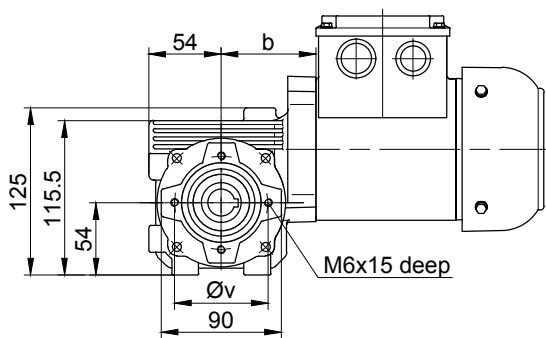
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

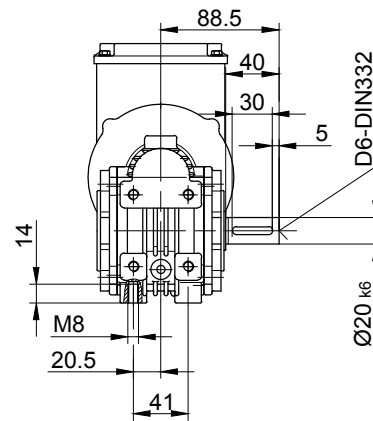
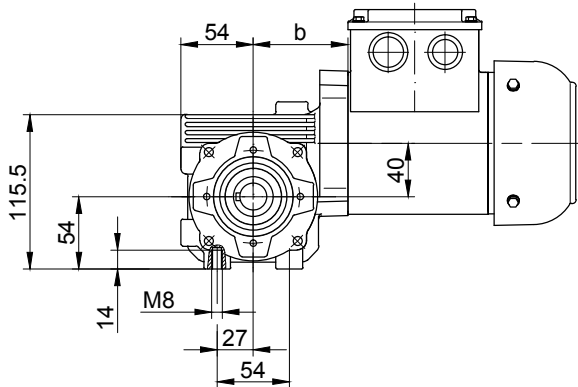
Torque arm at front
Code -5.V/



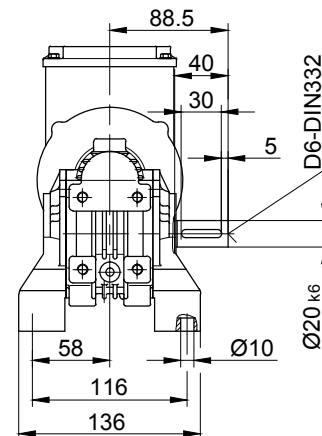
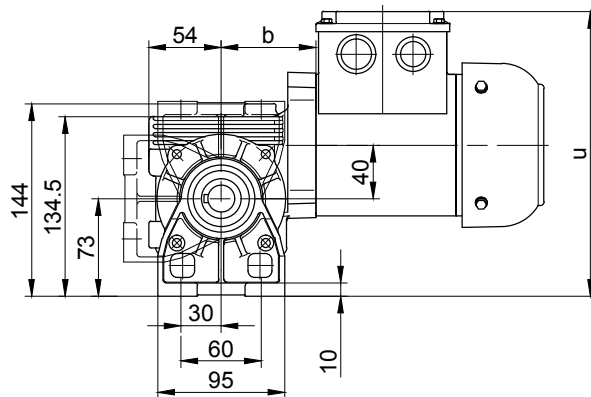
Flange with tapped holes at front
Code -7.V/



Foot with tapped holes at bottom
Code -6.U/



Foot with clearance holes at bottom
Code -1.U/



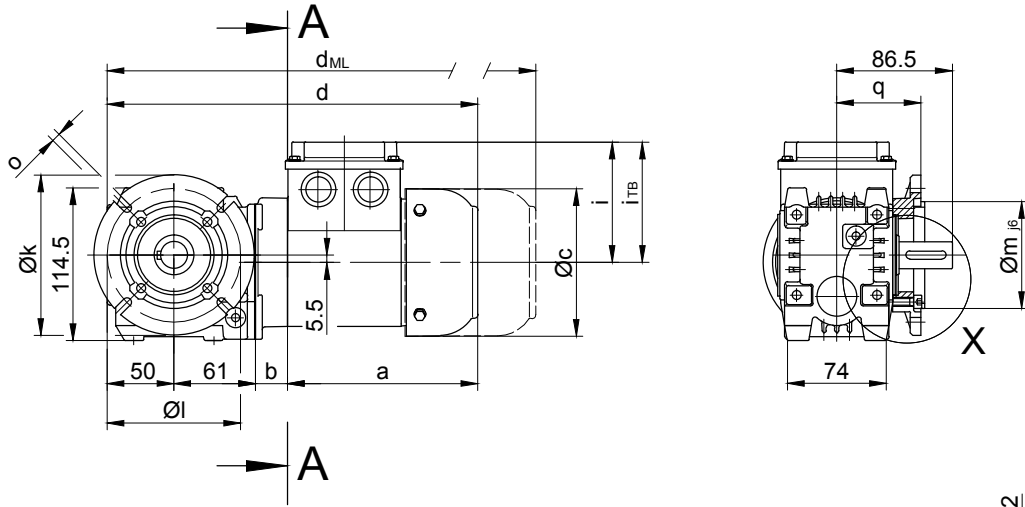
The actual gearbox design can vary from the geometry shown.

BS-series worm-gear motors

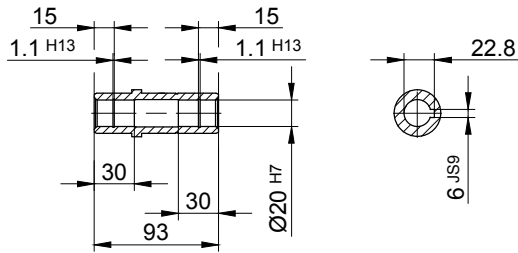
Dimension

BS04

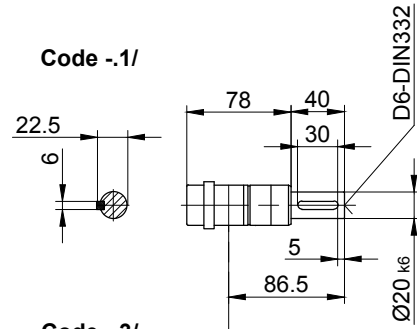
Flange with clearance holes at front
Code -3.V/



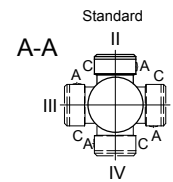
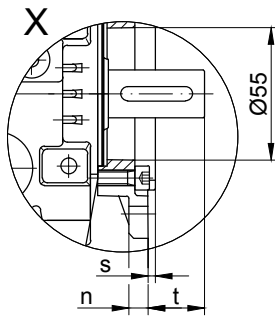
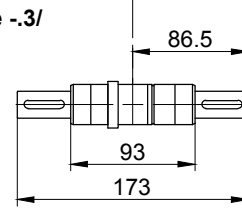
Code -4/



Code -1/



Code -3/



Flange dimensions

BS04	k	l	m	n	o	p	q	s	t
Standard -3.V/	120	100	80	8	6.6	110.5	63	3	23.5

Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E..	G	E..-G	RR/RL
							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	-

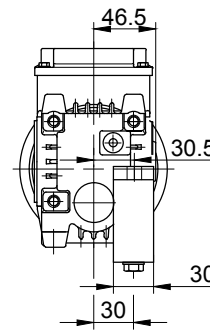
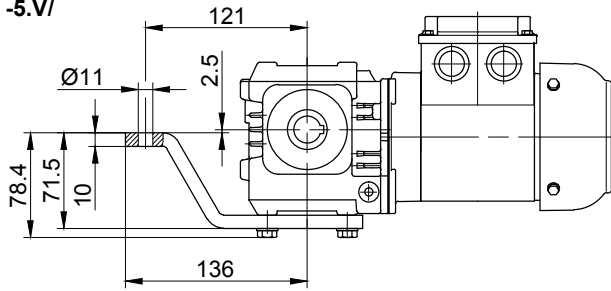


The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
Type Example: BK70-74V/DPE08XA4
Comment: No change to the dimensions shown

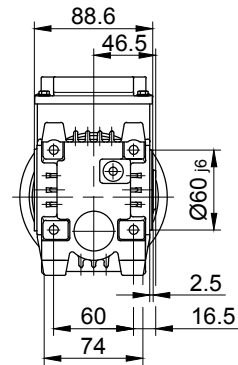
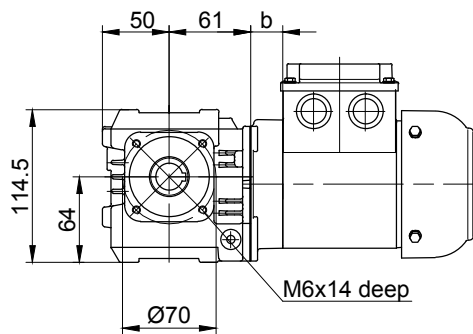
Design state "B" = Extended Length
Type Example: BK70-74V/DPE08XB4
Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

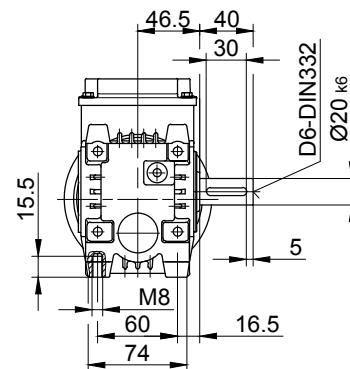
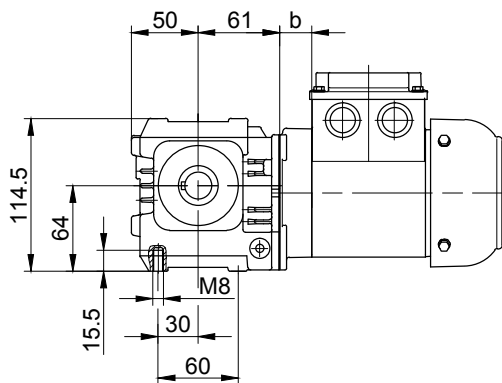
Torque arm at front
Code -5.V/



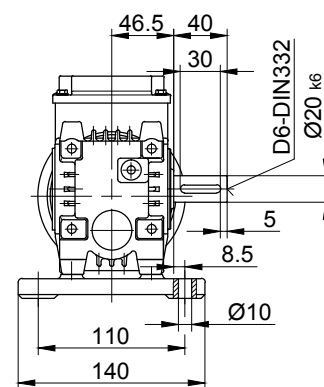
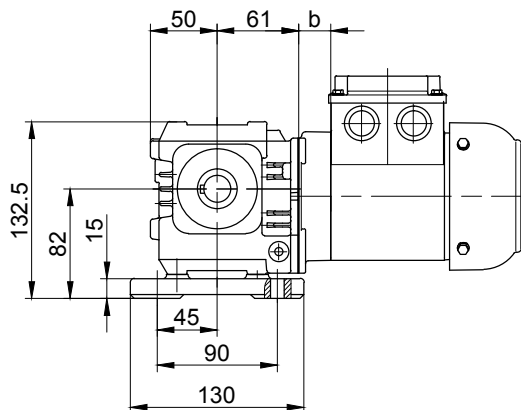
Flange with tapped holes at front
Code -7.V/



Foot with tapped holes at bottom
Code -6.U/



Foot with clearance holes at bottom
Code -1.U/



The actual gearbox design can vary from the geometry shown.

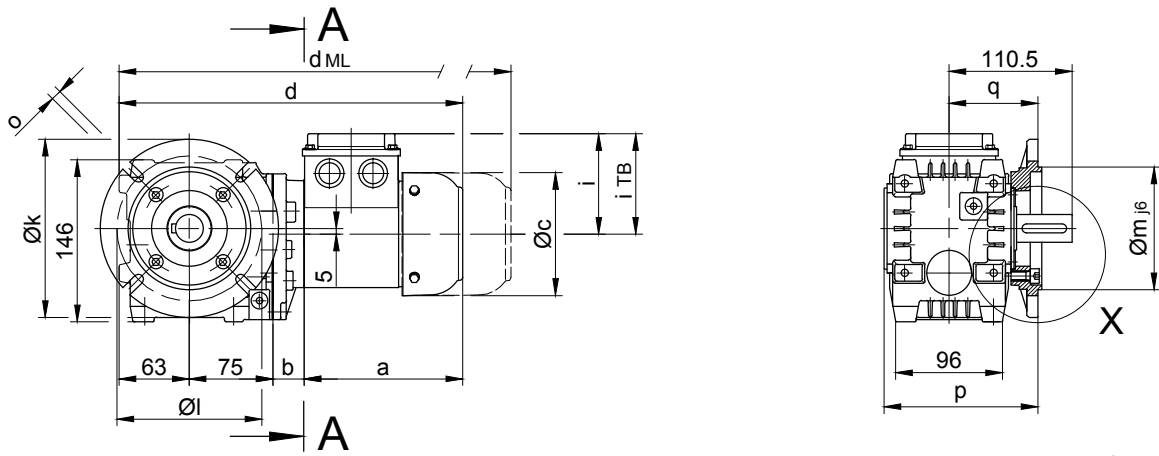
BS-series worm-geared motors

Dimension

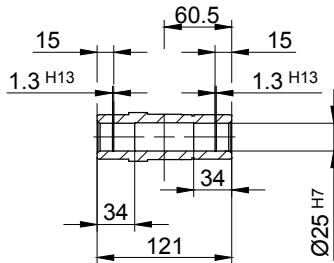
BS06

Flange with clearance holes at front

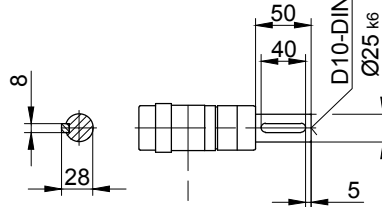
Code -3.V/
(Code -4.V/)



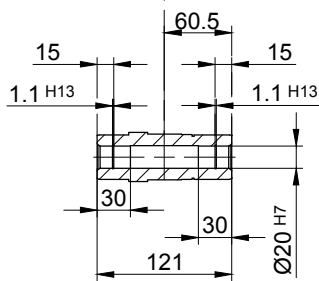
Code -4/
Standard



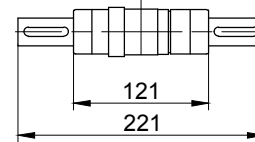
Code -1/



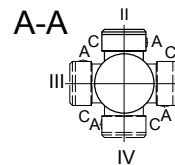
Code -4/K20



Code -3/



Standard



Flange dimensions

BS06	k	l	m	n	o	p	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

Type	a	b	c	d	i	i _{TB}	Design with motor extensions			
							E../ES..	G	E../ES..-G	RR/RL
							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-../D..08..	200	74	156	412	115	136.5	478	519	585.5	478



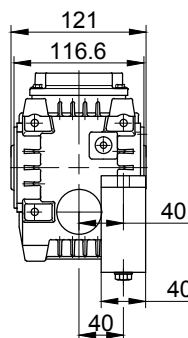
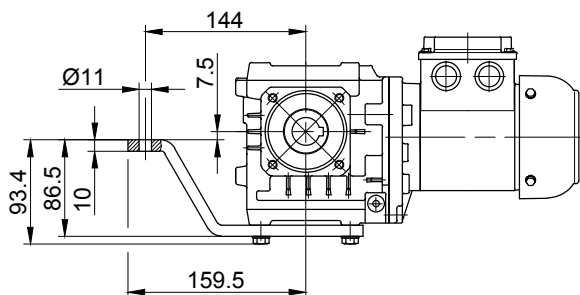
The dimensions "a*", "d*" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

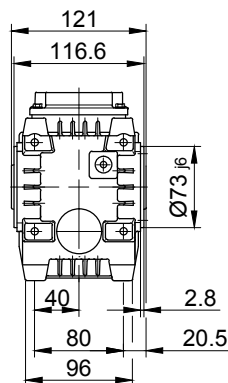
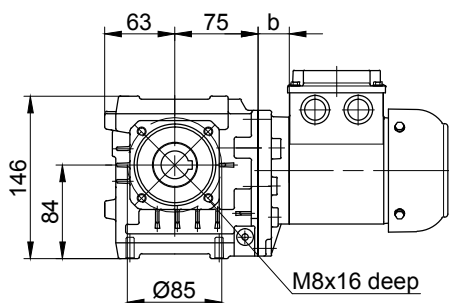
Torque arm at front

Code -5.V/



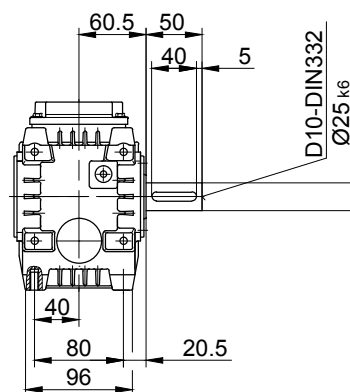
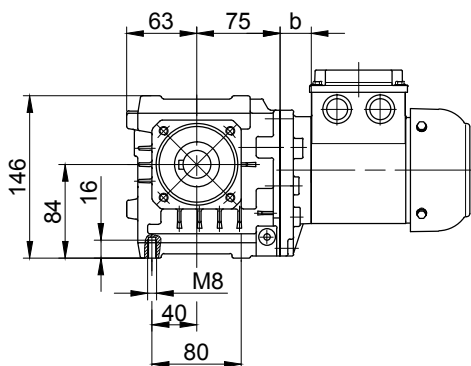
Flange with tapped holes at front

Code -7.V/



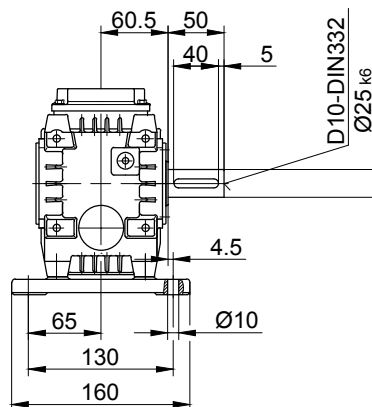
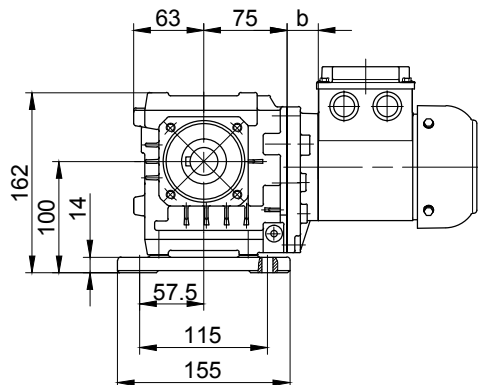
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

BS-series worm-geared motors

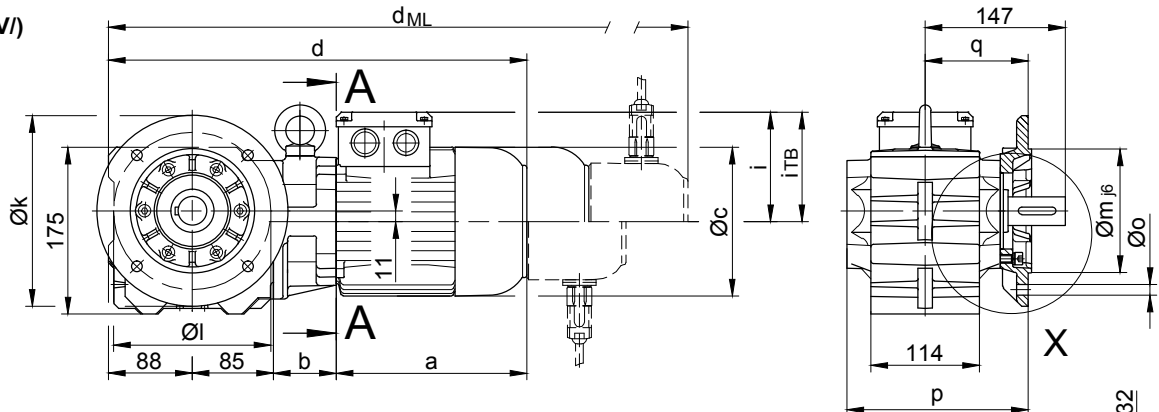
Dimension

BS10 - BS10Z

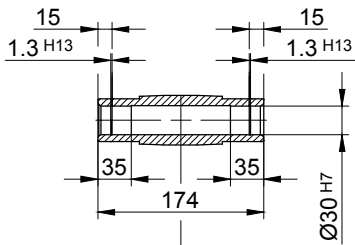
Flange with clearance holes at front

Code -3.V/

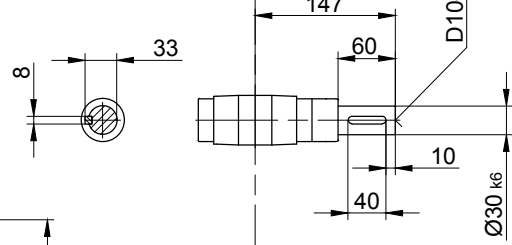
(Code -2.V/)



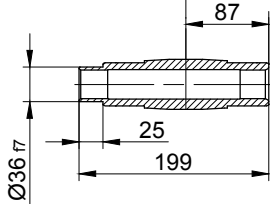
Code -4/



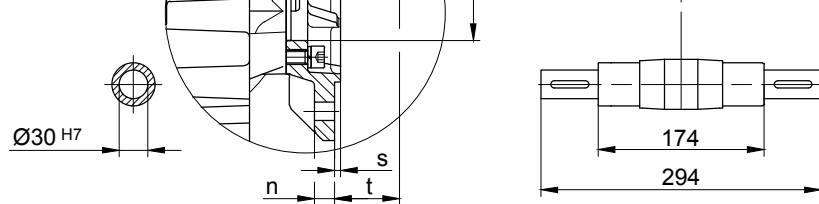
Code -1/



Code -5/

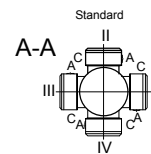


Code -3/



Flange dimensions

BS10(Z)	k	l	m	n	o	p	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



Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							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-../D..08..	200	66	156	439	115	136.5	505	546	612.5	505
BS10Z-../D..08..	200	132	156	505	115	136.5	571	612	678.5	571
BS10-../D..09..	251	80.5	181	504.5	124	158	597.5	611.5	702	597.5



The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

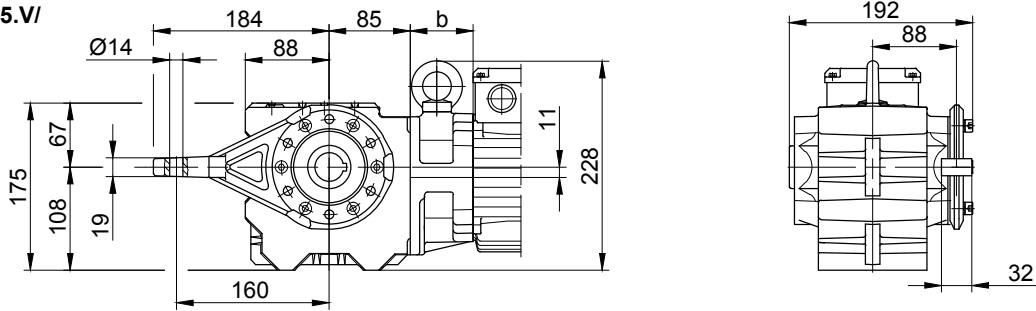
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BS10 - BS10Z

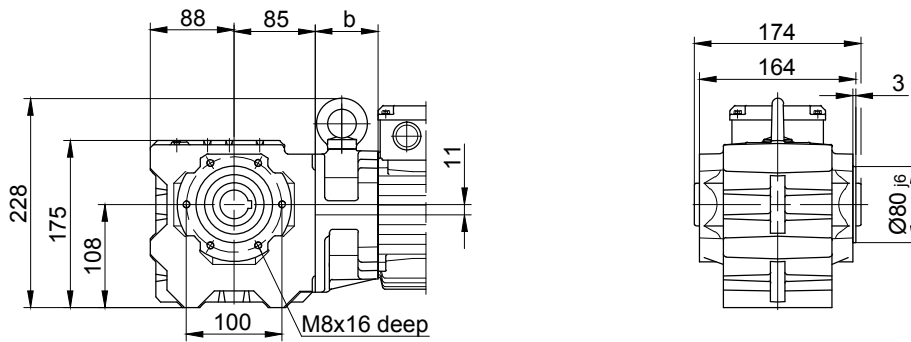
Torque arm at front

Code -5.V/



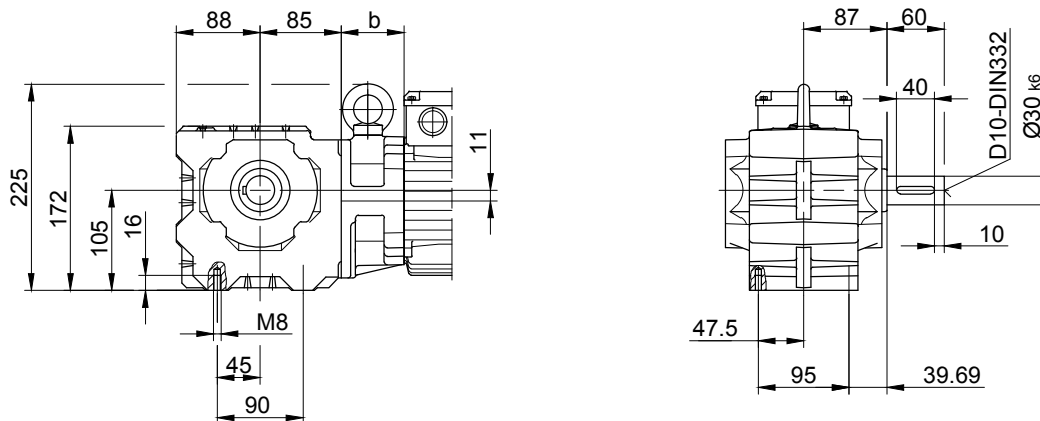
Flange with tapped holes at front

Code -7.V/



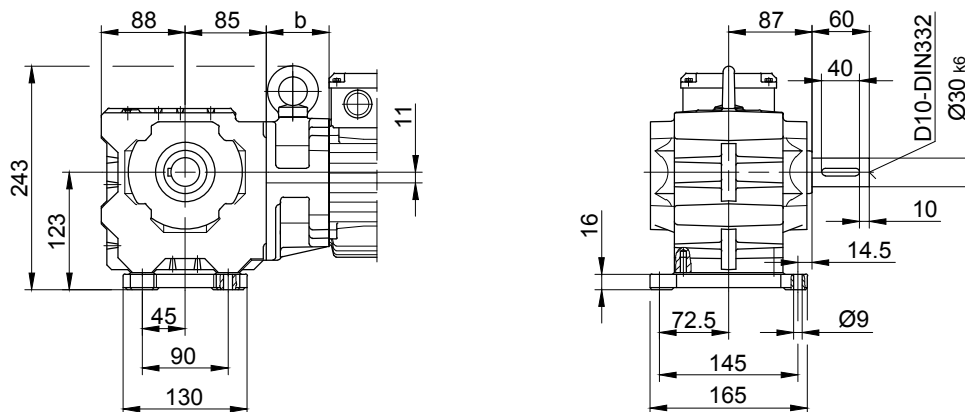
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

BS-series worm-geared motors

Dimension

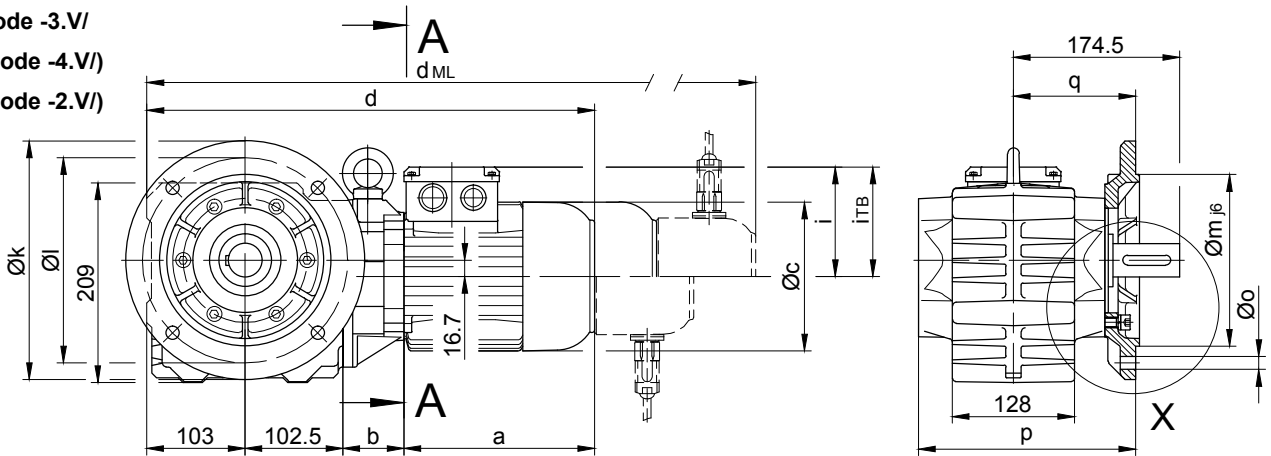
BS20 - BS20Z

Flange with clearance holes at front

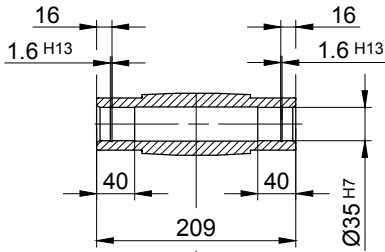
Code -3.V/

(Code -4.V/)

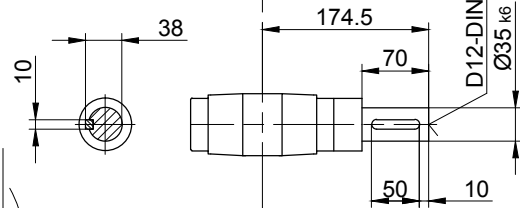
(Code -2.V/)



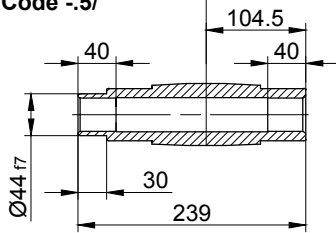
Code -4/



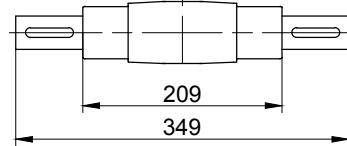
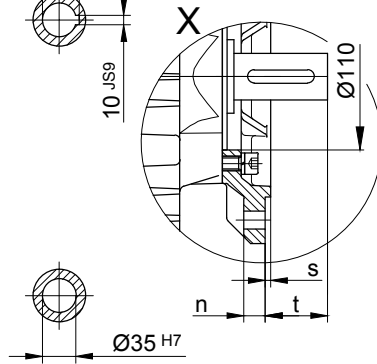
Code -1/



Code -5/

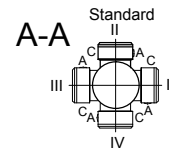


Code -3/



Flange dimensions

BS20(Z)	k	l	m	n	o	p	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



Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							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-../D..08..	200	64	156	469.5	115	136.5	535.5	576.5	643	535.5
BS20Z-../D..08..	200	146	156	551.5	115	136.5	617.5	658.5	725	617.5
BS20-../D..09..	251	78.5	181	535	124	158	628	642	732.5	628



The dimensions "a", "d" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

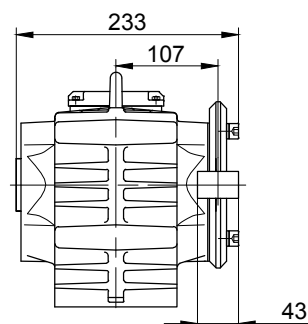
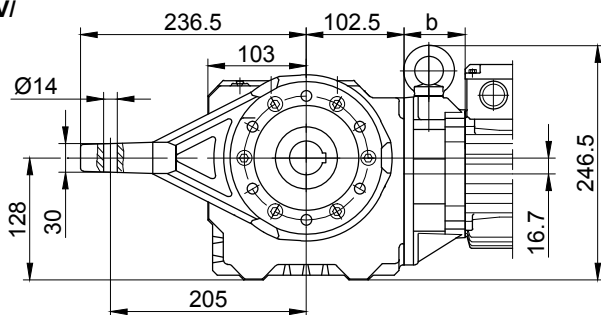
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BS20 - BS20Z

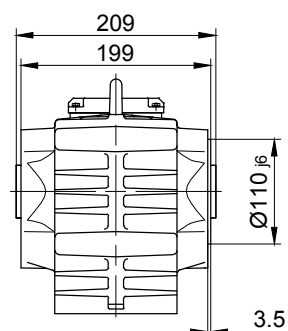
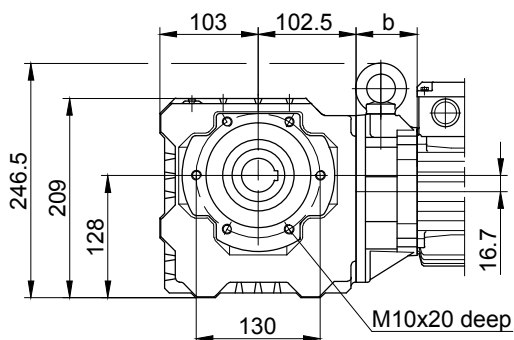
Torque arm at front

Code -5.V/



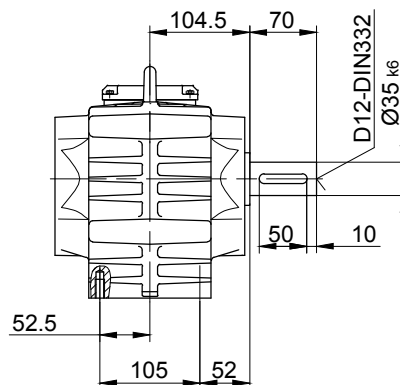
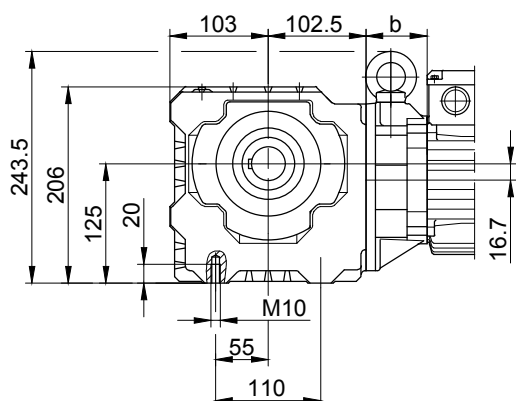
Flange with tapped holes at front

Code -7.V/



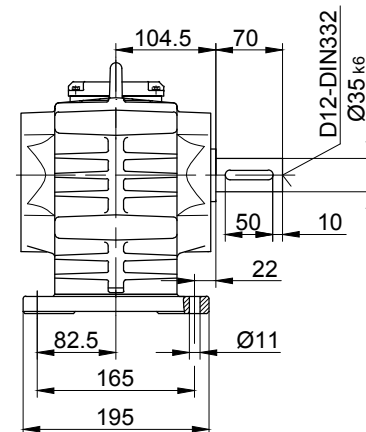
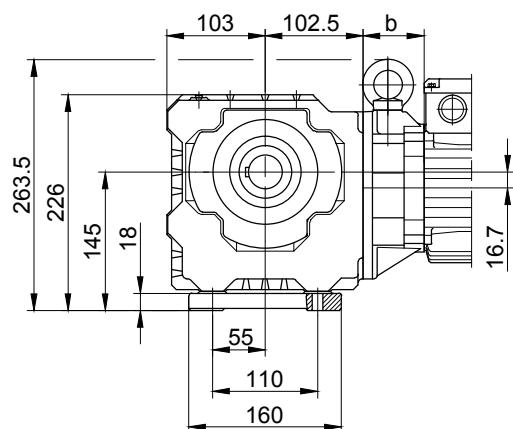
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

BS-series worm-geared motors

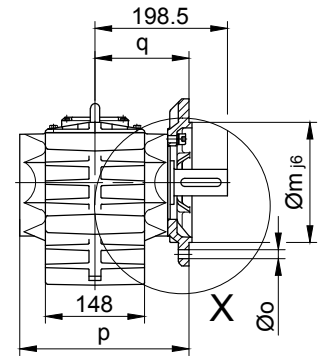
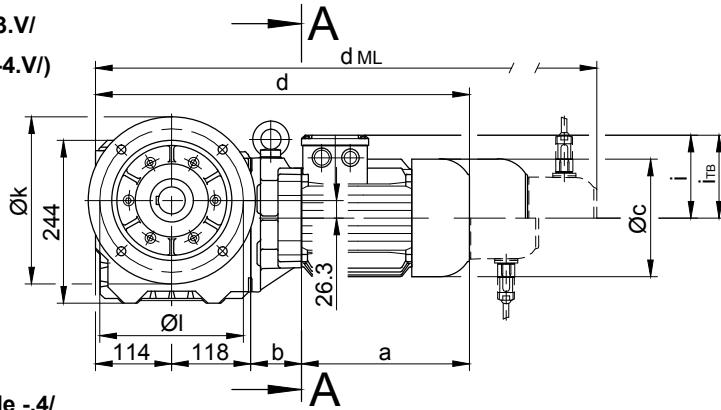
Dimension

BS30 - BS30Z

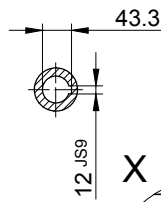
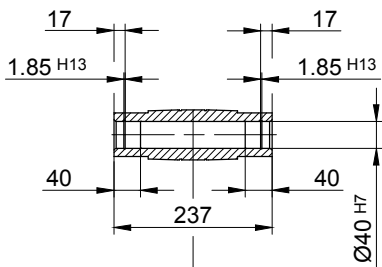
Flange with clearance holes at front

Code -3.V/

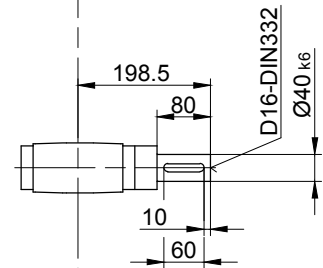
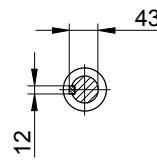
(Code -4.V/)



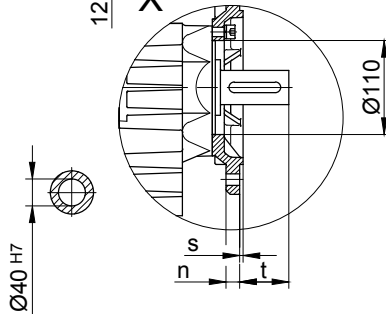
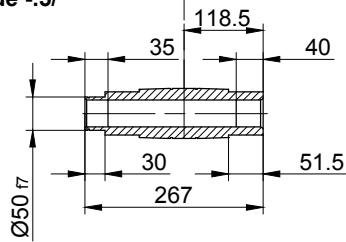
Code -4/



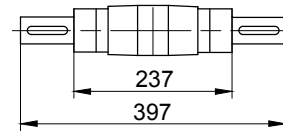
Code -1/



Code -5/

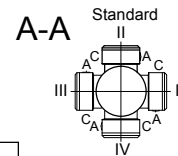


Code -3/



Flange dimensions

BS30(Z)	k	l	m	n	o	p	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



Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							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-../D..08..	200	62	156	494	115	136.5	560	601	667.5	560
BS30Z-../D..08..	200	137.5	156	569.5	115	136.5	635.5	676.5	743	635.5
BS30-../D..09..	251	76.5	181	559.5	124	158	652.5	666.5	757	652.5
BS30Z-../D..09..	251	152	181	635	124	158	728	742	832.5	728
BS30-../D..11..	319	83	228	634	181	181	732	741	836.5	732



The dimensions "a*", "d*" and "d_{ML}" change dependent on the motor design.

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08XA4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

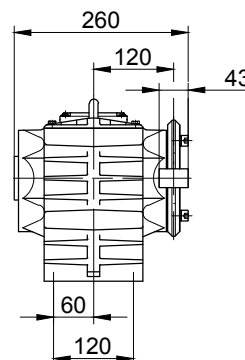
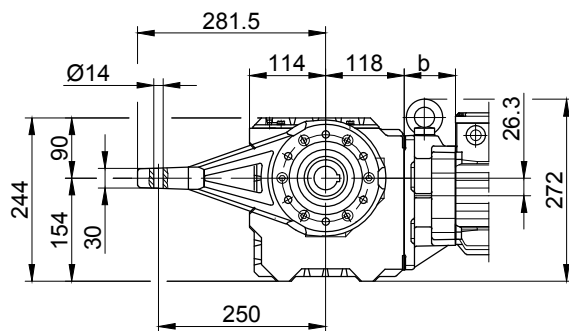
Type Example: BK70-74V/DPE08XB4

Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

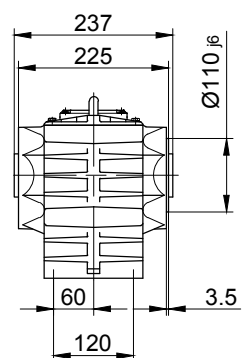
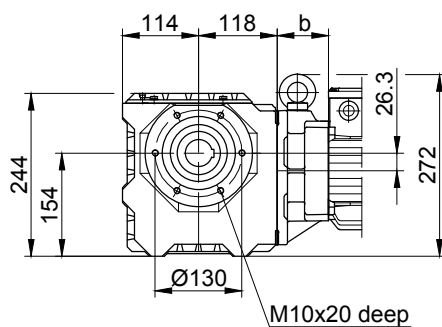
Torque arm at front

Code -5.V/



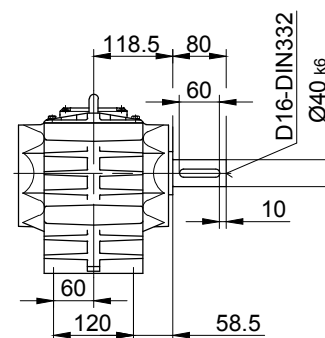
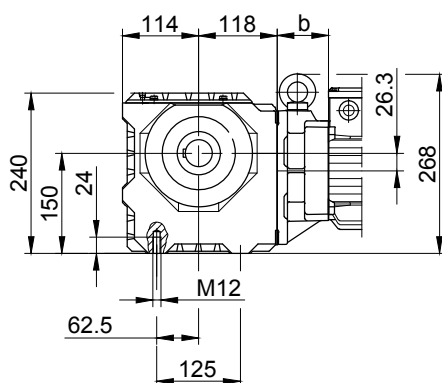
Flange with tapped holes at front

Code -7.V/



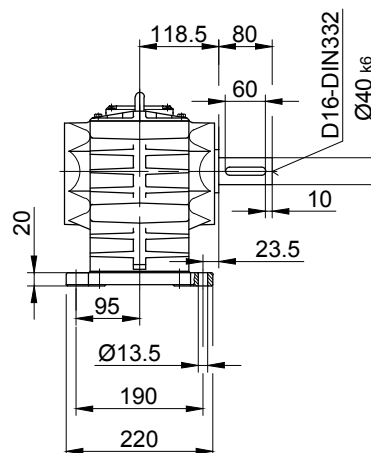
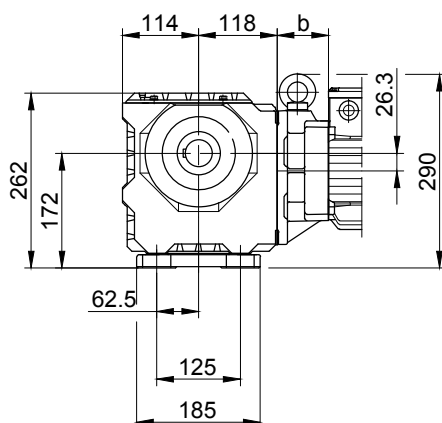
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/

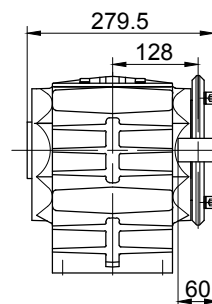
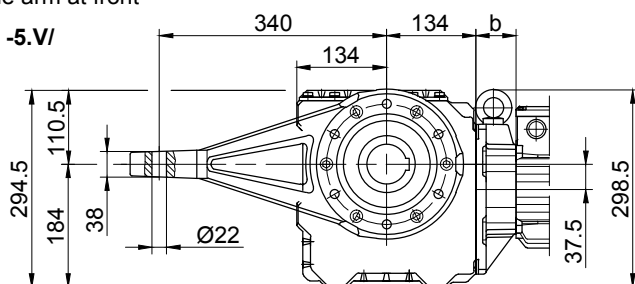


The actual gearbox design can vary from the geometry shown.

BS40 - BS40Z

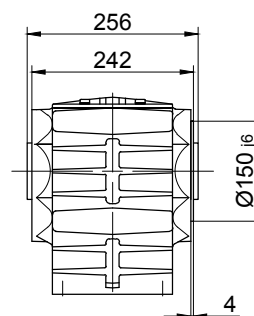
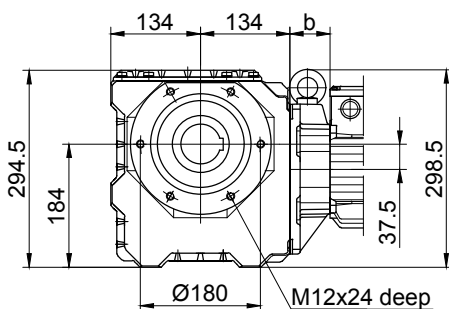
Torque arm at front

Code -5.V/



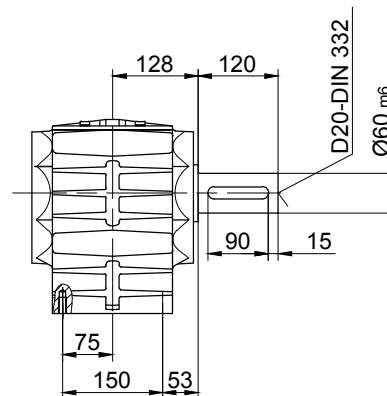
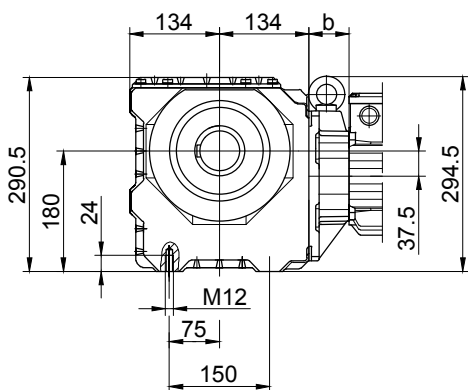
Flange with tapped holes at front

Code -7.V/



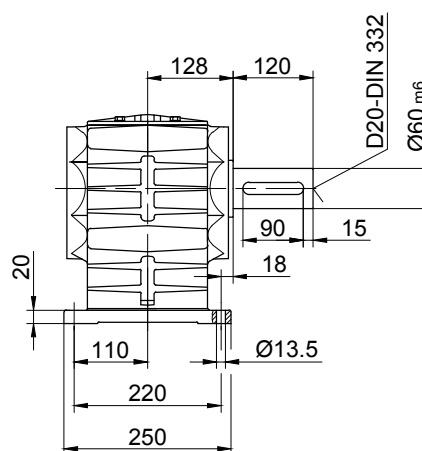
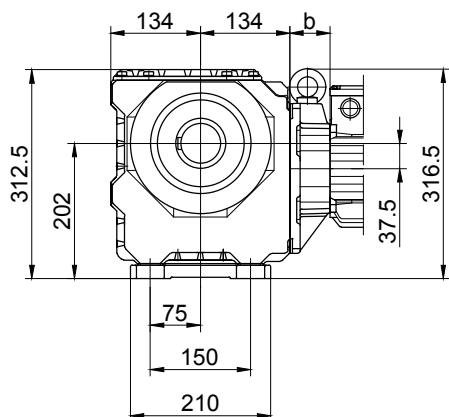
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

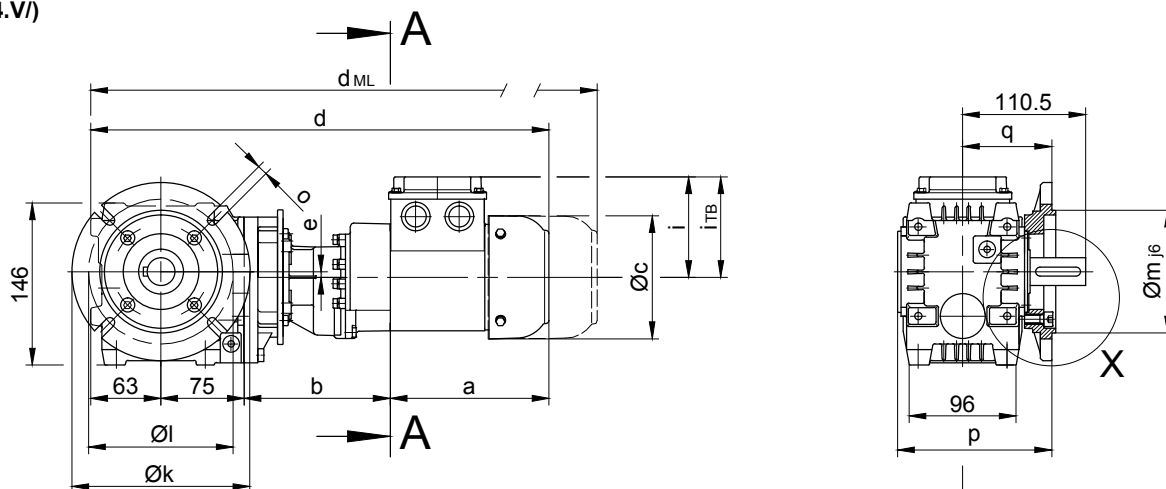
BS-series worm-gear motors

Dimension

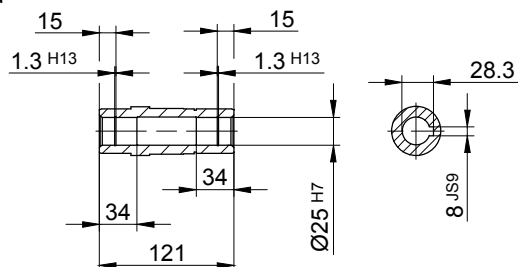
BS06G04

Flange with clearance holes at front

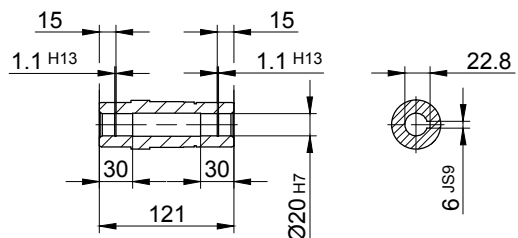
Code -3.V/
(Code -4.V/)



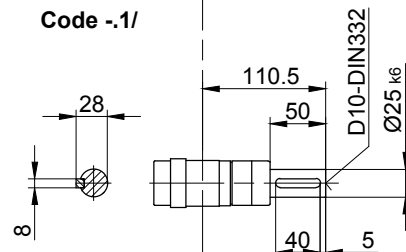
Code -4/
Standard



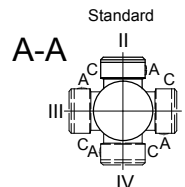
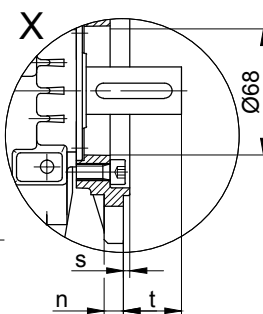
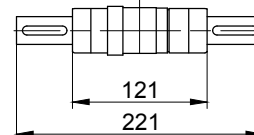
Code -4/K20



Code -1/



Code -3/



Flange dimensions

BS06G...	k	l	m	n	o	p	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

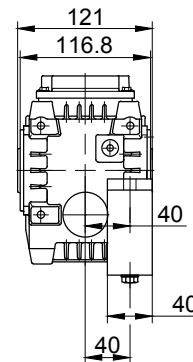
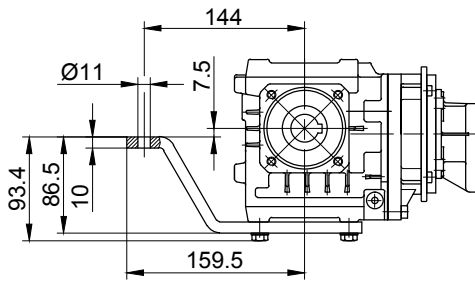
Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E..	G	E..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BS06G04-.../D04..	143	135	111	416	5	90	112	459.5	478.5	521.5	-

The actual gearbox design can vary from the geometry shown.

BS06G04

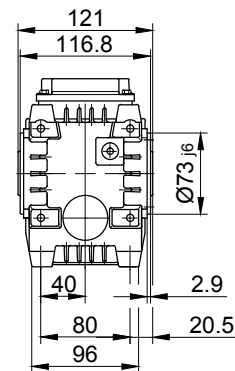
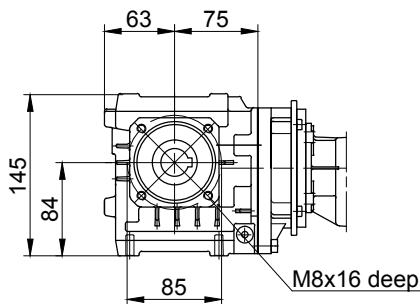
Torque arm at front

Code -5.V/



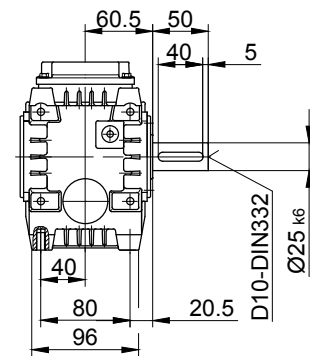
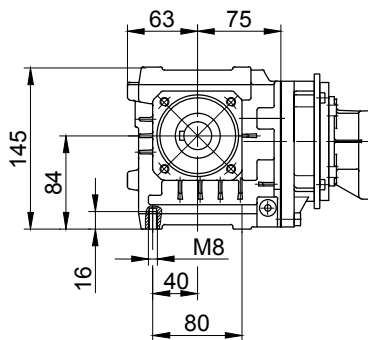
Flange with tapped holes at front

Code -7.V/



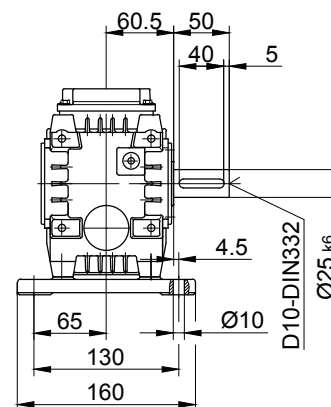
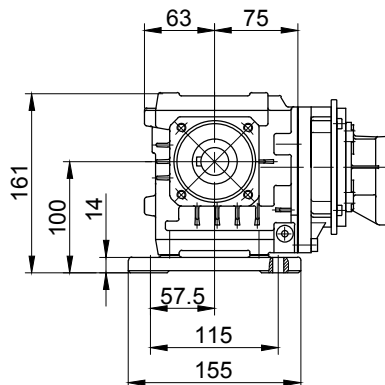
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



13

The actual gearbox design can vary from the geometry shown.

BS-series worm-geared motors

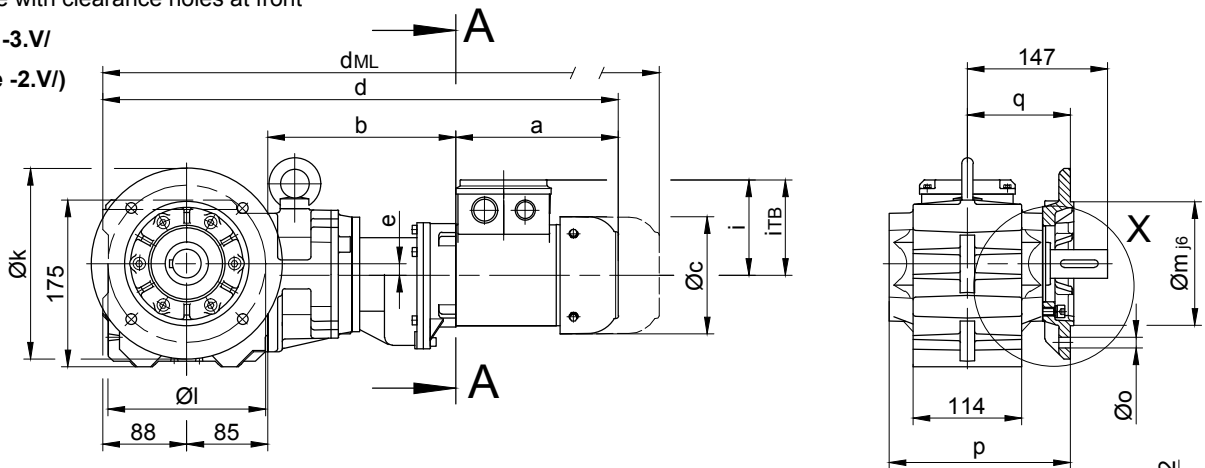
Dimension

BS10G06

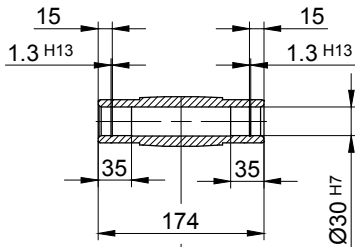
Flange with clearance holes at front

Code -3.V/

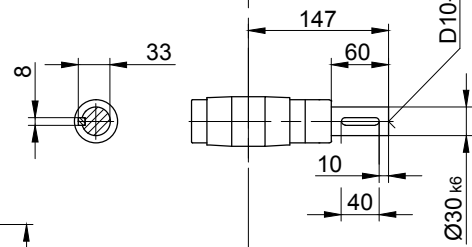
(Code -2.V/)



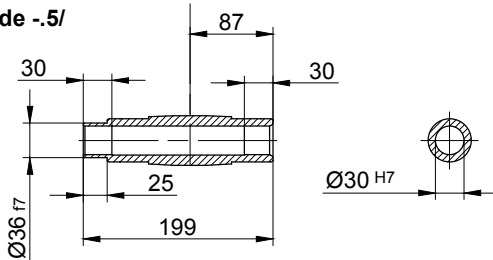
Code -4/



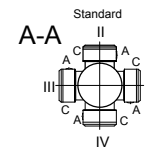
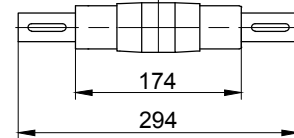
Code -1/



Code -5/



Code -3/



Flange dimensions

BS10G..	k	l	m	n	o	p	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

Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
								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-../D..08..	200	241	156	614	12	115	136.5	680	721	787.5	680



The dimensions "a*", "d*" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

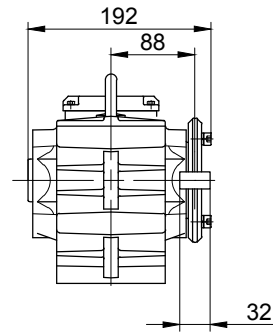
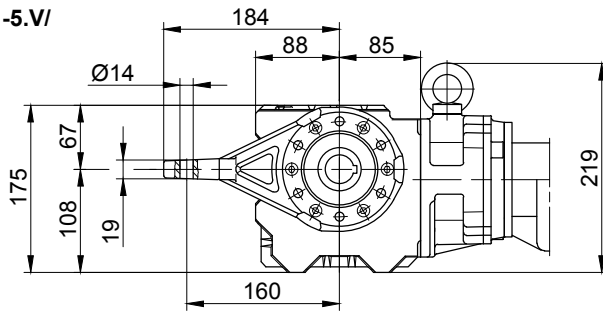
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BS10G06

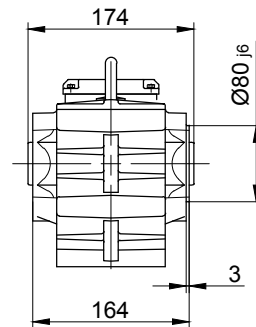
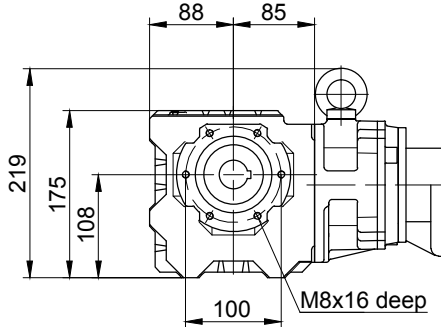
Torque arm at front

Code -5.V/



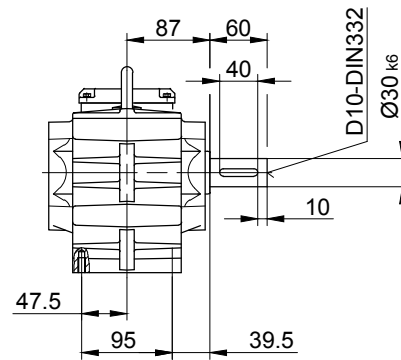
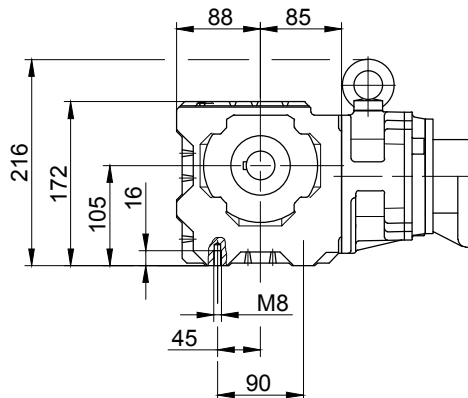
Flange with tapped holes at front

Code -7.V/



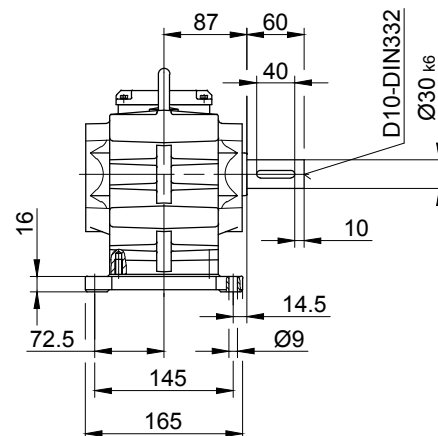
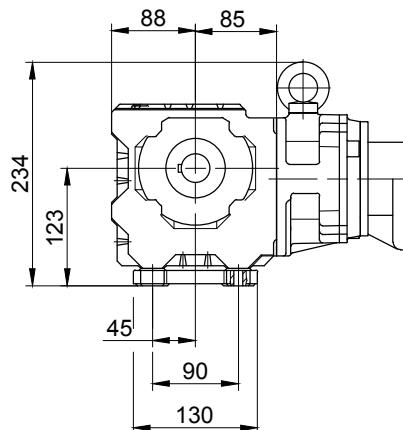
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

BS-series worm-geared motors

Dimension

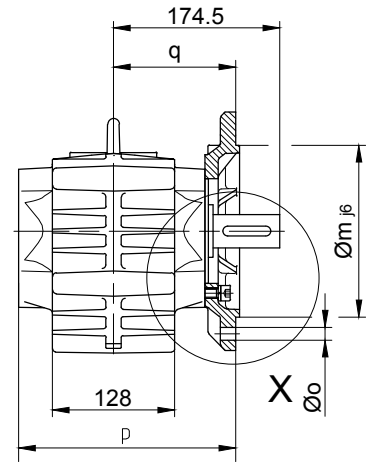
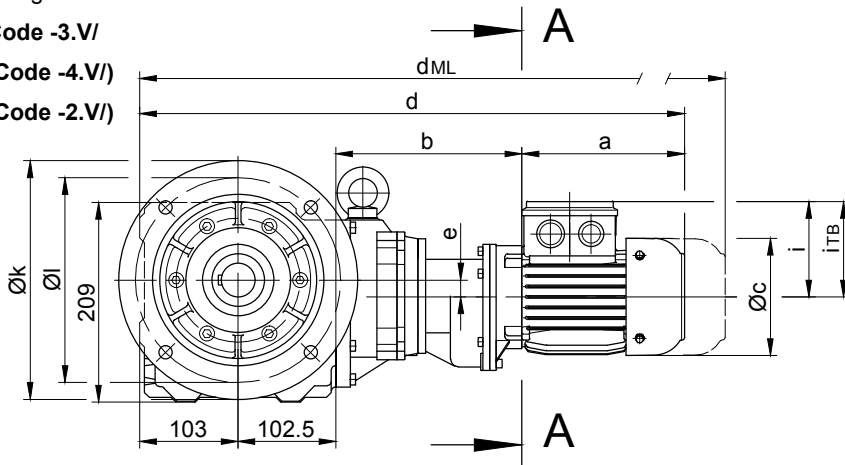
BS20G06

Flange with clearance holes at front

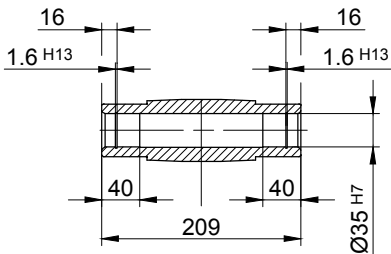
Code -3.V/

(Code -4.V/)

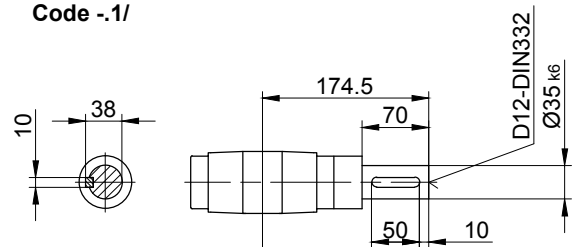
(Code -2.V/)



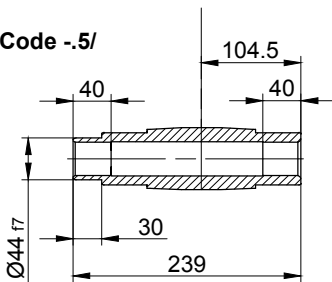
Code -4/



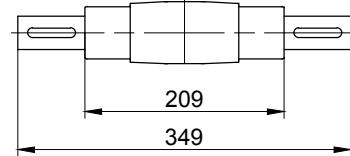
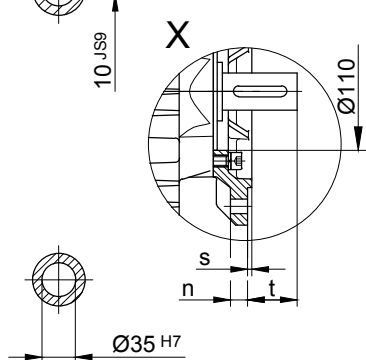
Code -1/



Code -5/

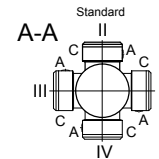


Code -3/



Flange dimensions

BS20G..	k	l	m	n	o	p	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



Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
								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-../D..08..	200	239	156	644.5	18	115	136.5	710.5	751.5	818	710.5



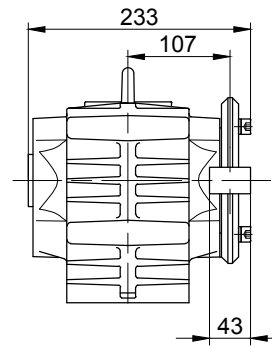
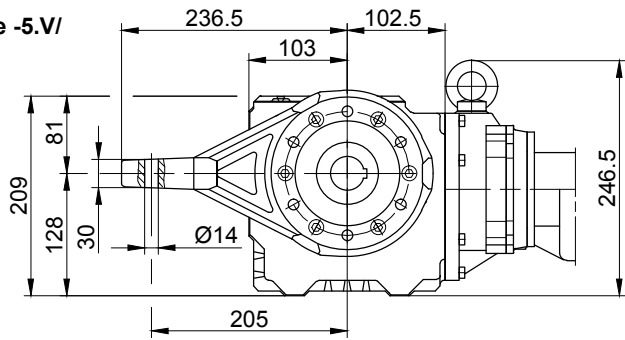
The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

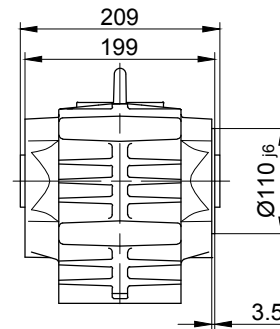
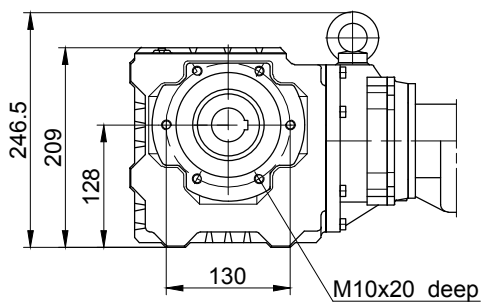
Torque arm at front

Code -5.V/



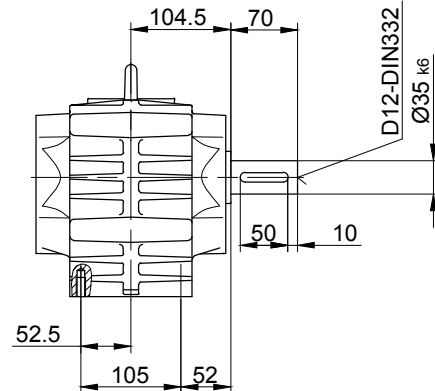
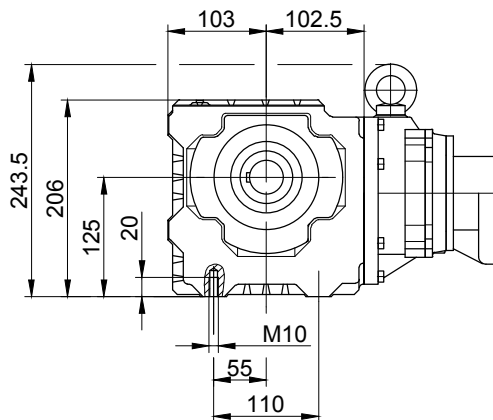
Flange with tapped holes at front

Code -7.V/



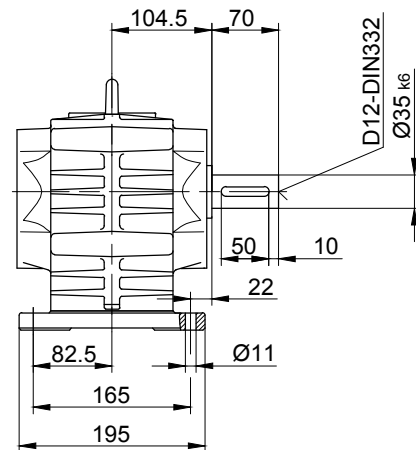
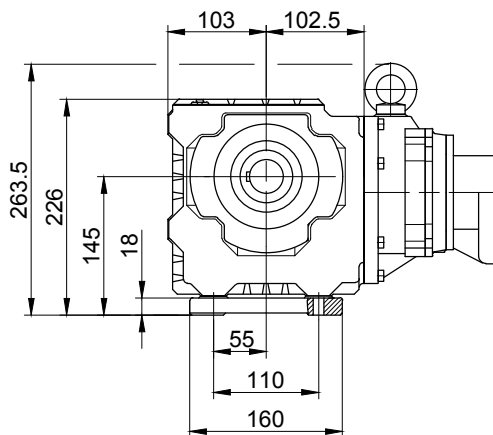
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

BS-series worm-geared motors

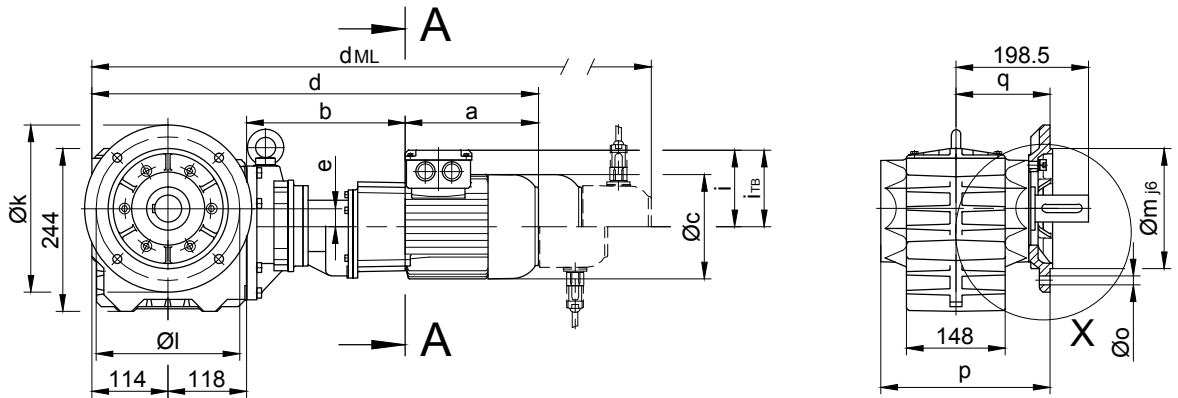
Dimension

BS30G06

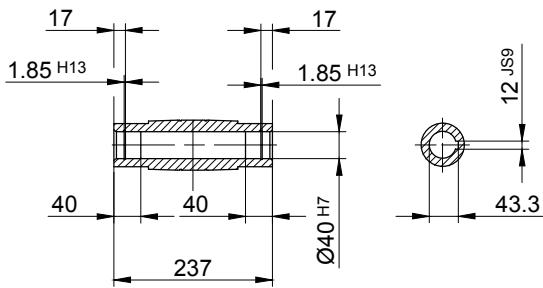
Flange with clearance holes at front

Code -3.V/

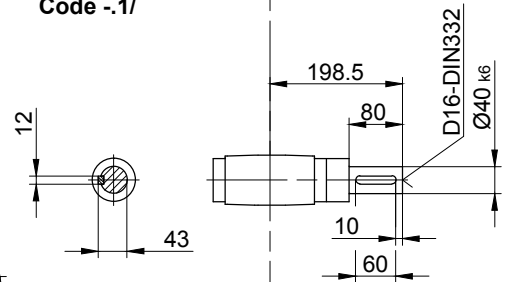
(Code -4.V/)



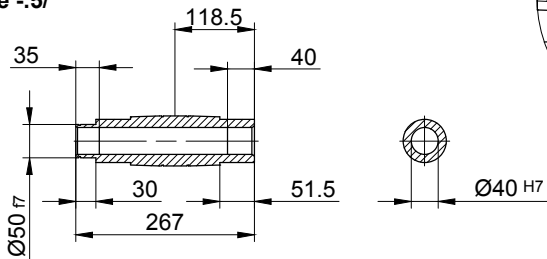
Code -4/



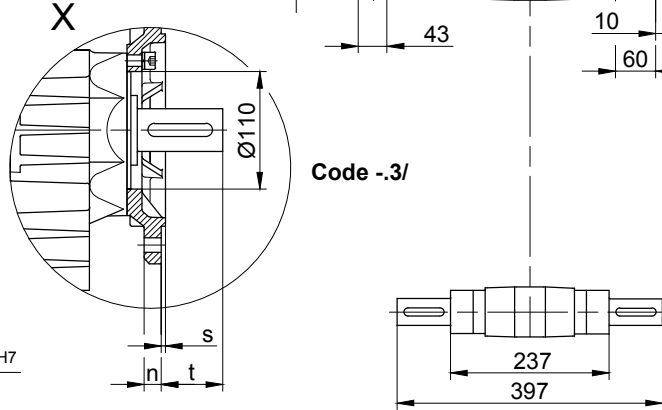
Code -1/



Code -5/



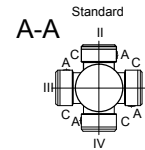
Code -3/



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Flange dimensions

BS30G..	k	l	m	n	o	p	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



Type	a	b	c	d	e	i	Design with motor extensions				
							i_{TB}	E../ES..	G	E../ES..-G	RR/RL
							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-../D..08..	200	237	156	669	27	115	136.5	735	776	842.5	735



The dimensions "a", "d" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

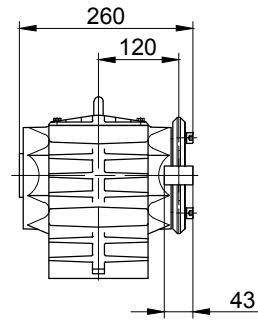
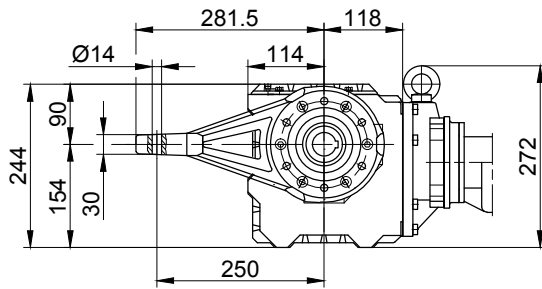
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BS30G06

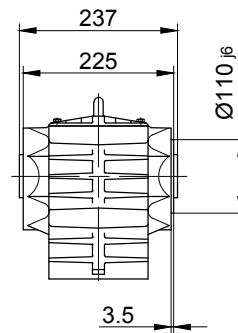
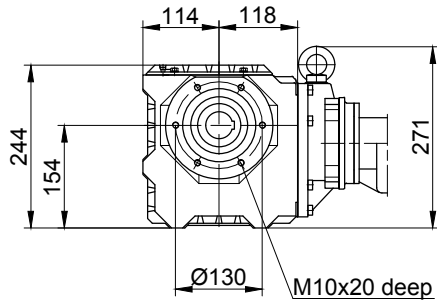
Torque arm at front

Code -5.V/



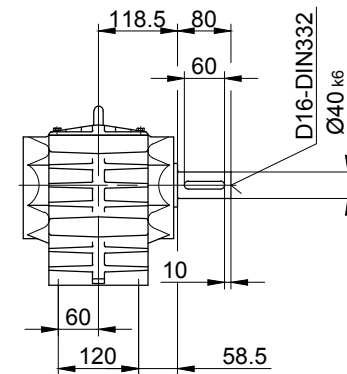
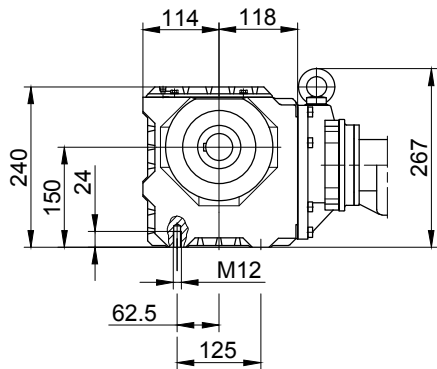
Flange with tapped holes at front

Code -7.V/



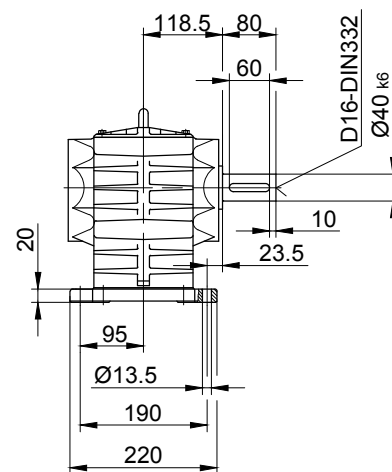
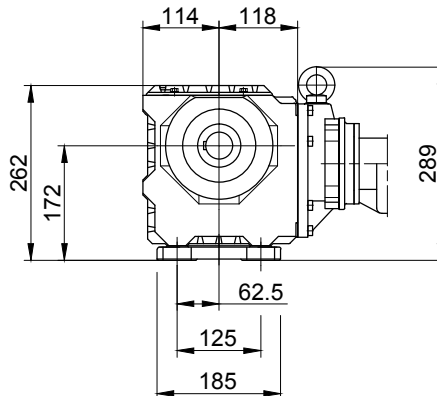
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

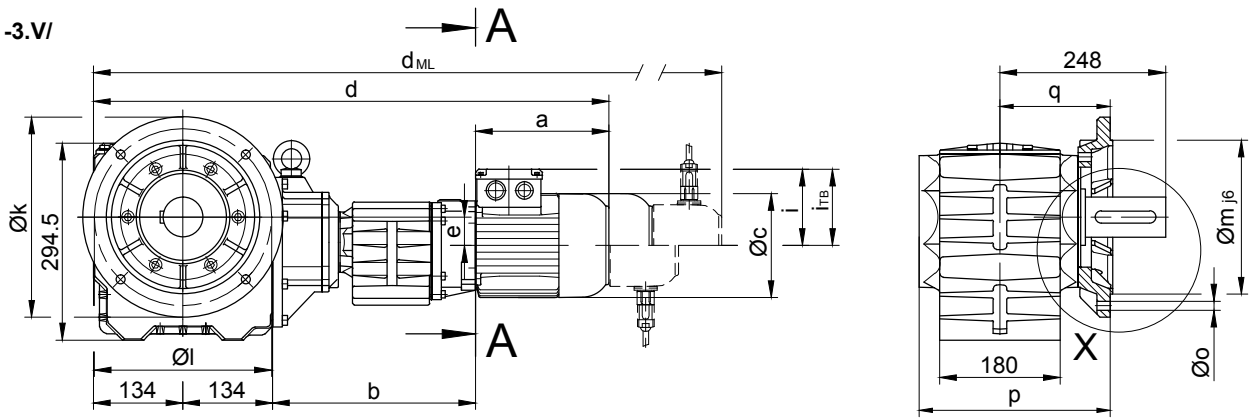
BS-series worm-geared motors

Dimension

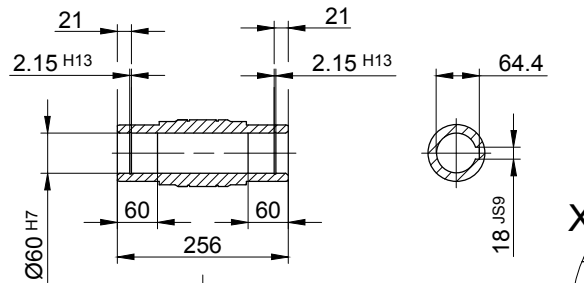
BS40G10

Flange with clearance holes at front

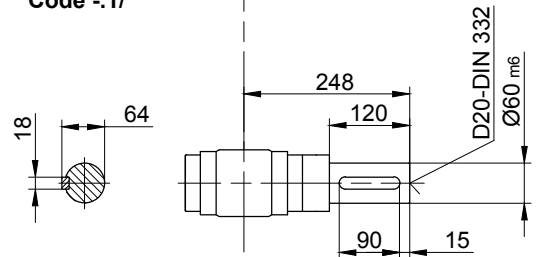
Code -3.V/



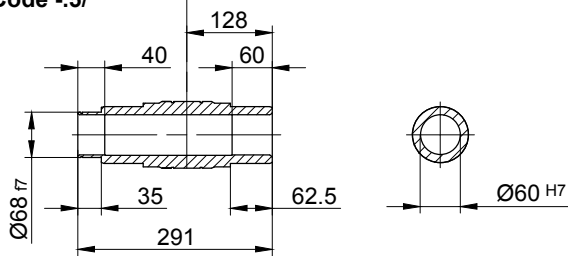
Code -4/



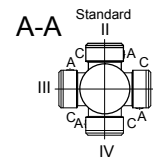
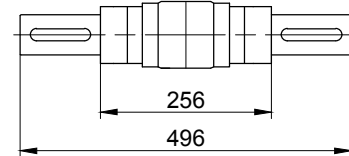
Code -1/



Code -5/



Code -3/



Flange dimensions

BS40G..	k	l	m	n	o	p	q	s	t
Standard -3.V/	300	265	230	20	13.5	286	165	4	83

Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
								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-../D..08..	200	304	156	772	43	115	136.5	838	879	945.5	838
BS40G10-../D..09..	251	318.5	181	837.5	43	124	158	930.5	944.5	1035	930.5



The dimensions "a", "d" and "d_{ML}" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08XA4
 Comment: No change to the dimensions shown

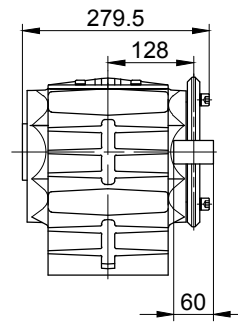
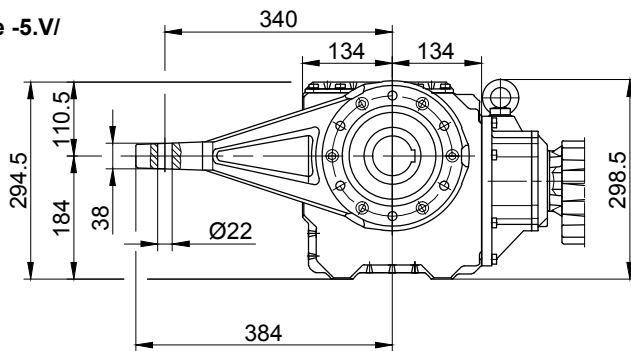
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08XB4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BS40G10

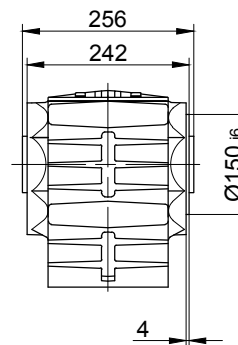
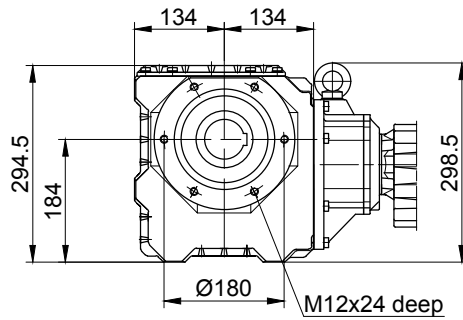
Torque arm at front

Code -5.V/



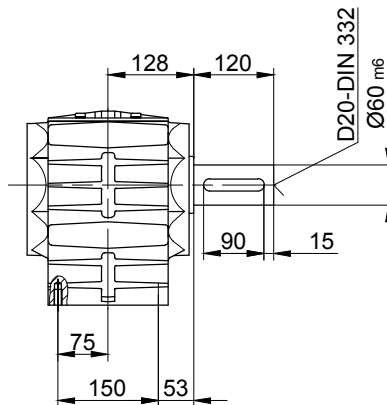
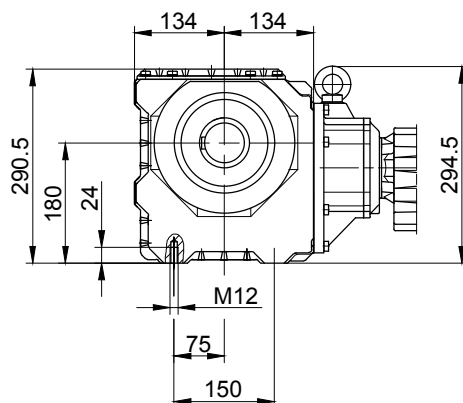
Flange with tapped holes at front

Code -7.V/



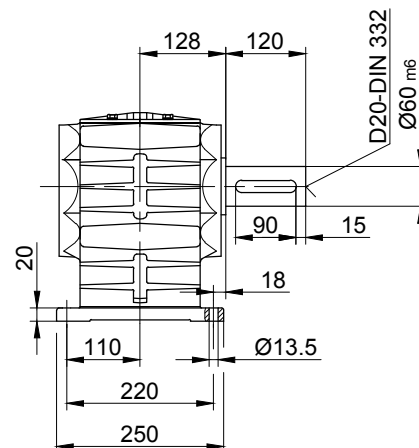
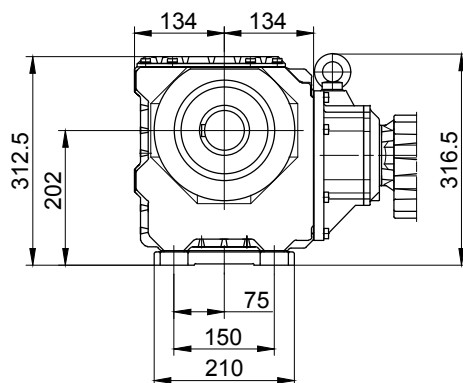
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

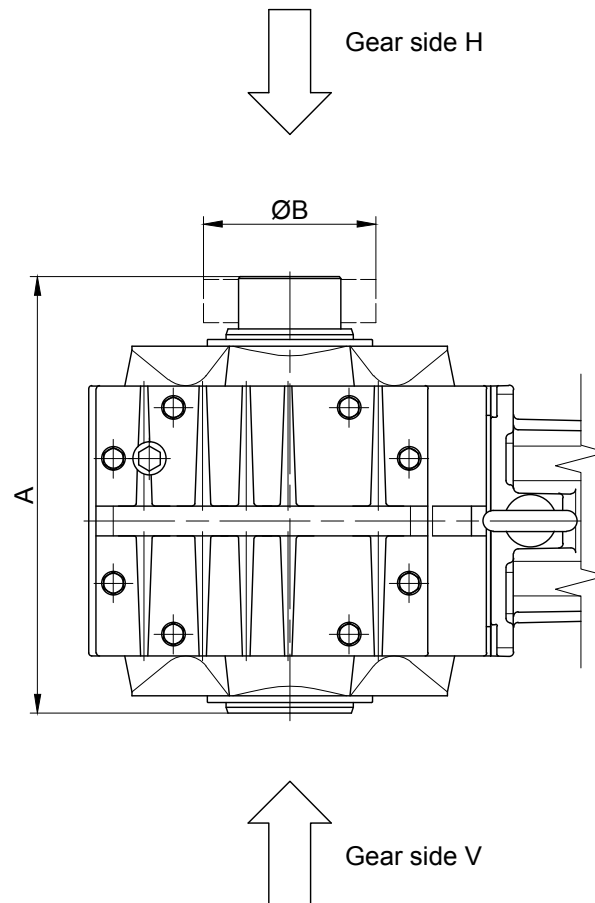
BS-series worm-geared motors

Additional Dimension Sheet

Shrink disc couplings (SSV)

(Code BS10Z-.5/...)

(Code BS10Z-.5A/...)



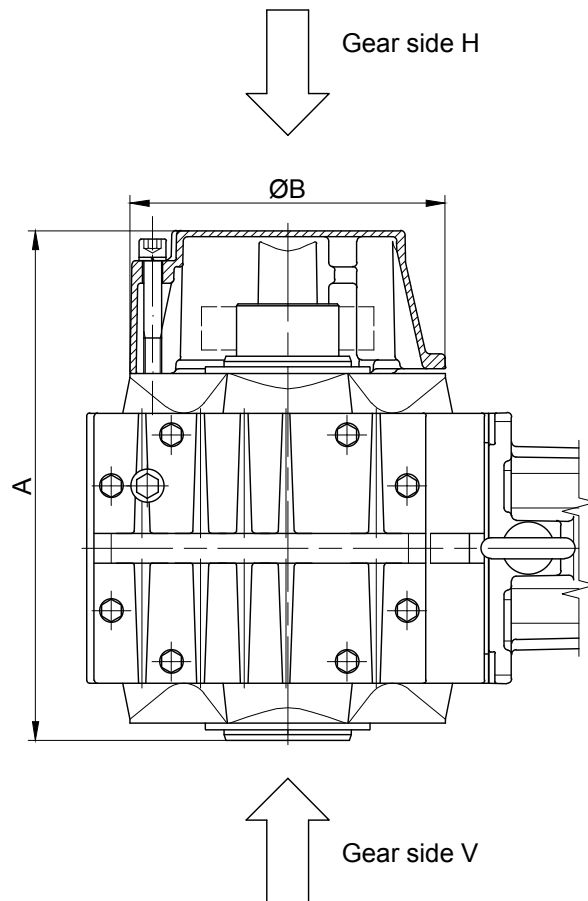
Type	SSV Ringfeder	SSV STÜWE	A	B
BS10	RfN 4161 036x072	HSD 36-22x36	199	72
BS20	RfN 4161 044x080	HSD 44-22x44	239	80
BS30	RfN 4161 050x090	HSD 50-22x50	267	90
BS40	RfN 4161 062x110	HSD 68-22x68	291	115

The actual gearbox design can vary from the geometry shown.

Shrink disc couplings with (SSV) cover

(Code BS10Z-.5A/...)

(Code BS10Z-.5A/...)



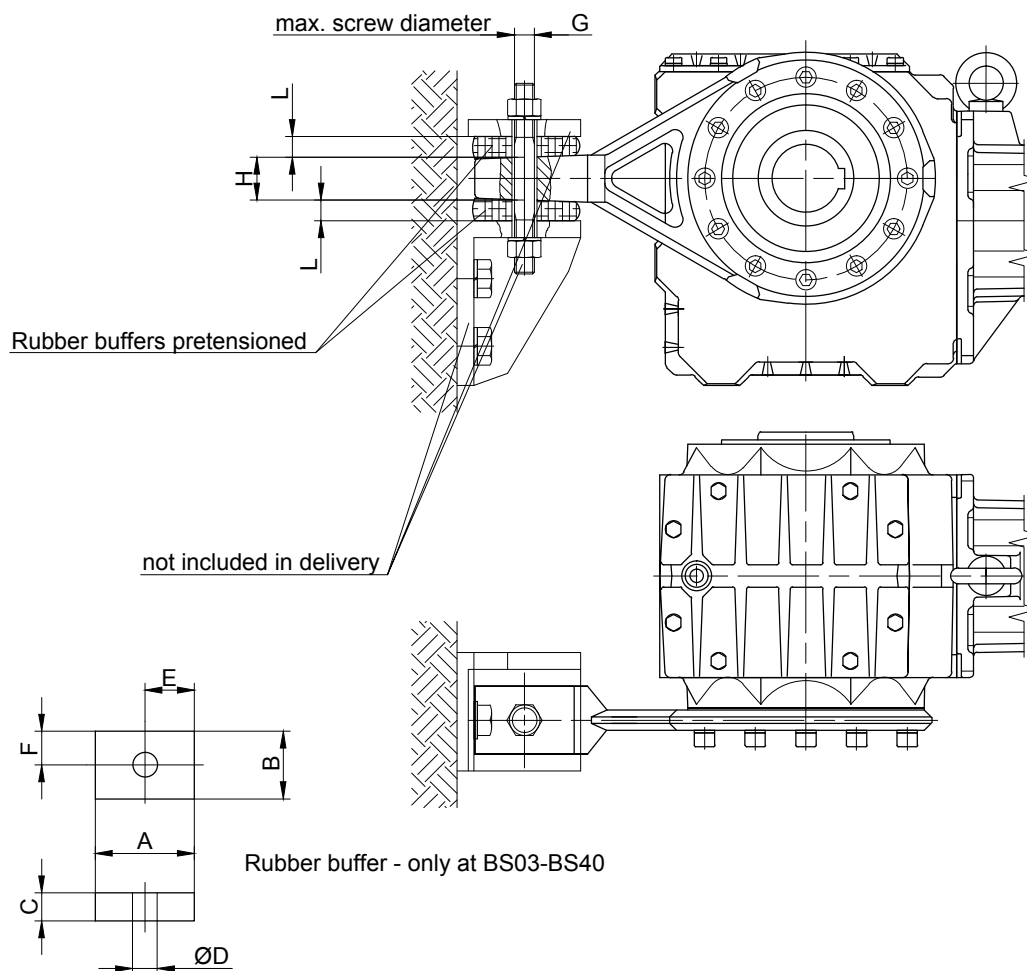
Type	SSV Ringfeder	SSV STÜWE	A	B
BS10	RfN 4161 036x072	HSD 36-22x36	221	120
BS20	RfN 4161 044x080	HSD 44-22x44	286	160
BS30	RfN 4161 050x090	HSD 50-22x50	313	160
BS40	RfN 4161 062x110	HSD 68-22x68	340	210

The actual gearbox design can vary from the geometry shown.

BS-series worm-gear motors

Additional Dimension Sheet

Rubber buffer for torque arm



Material: Natural rubber
Hardness 50±5 Shore A

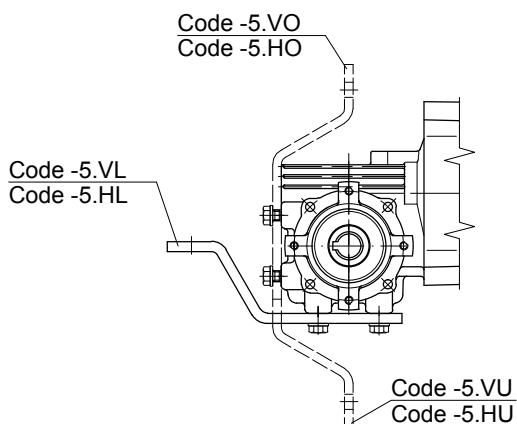
Dimensions of the transverse hole:
see dimensioned sketch of the respective
shaft mounted gearbox

Gear	Pos.	Dimensions (mm)								
		A	B	C	D	E	F	G	H	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

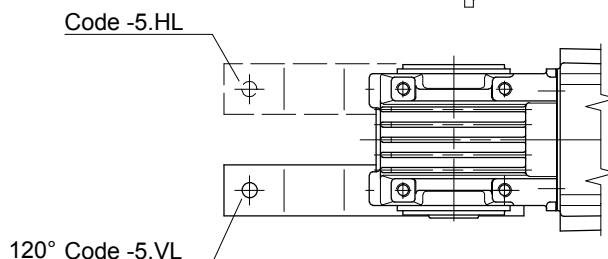
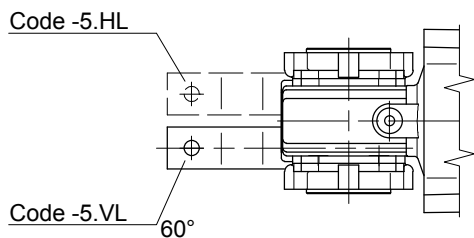
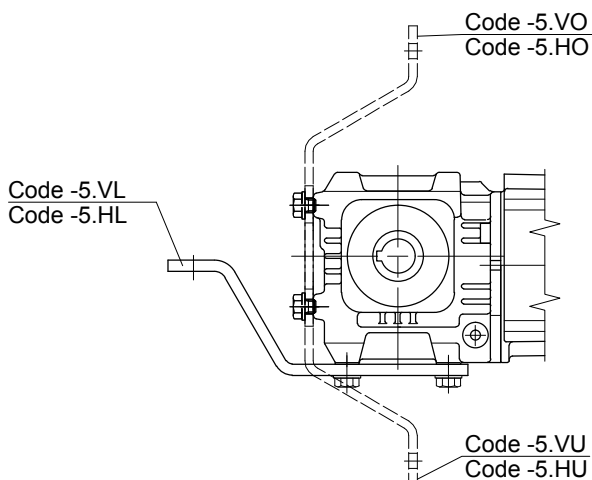
The actual gearbox design can vary from the geometry shown.

Position of the torque arm

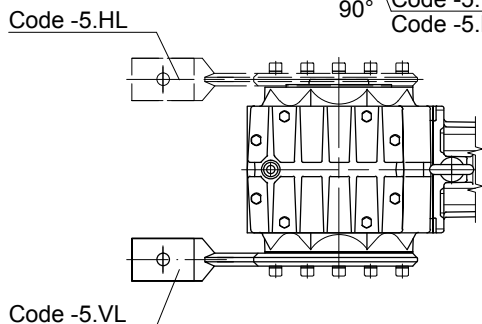
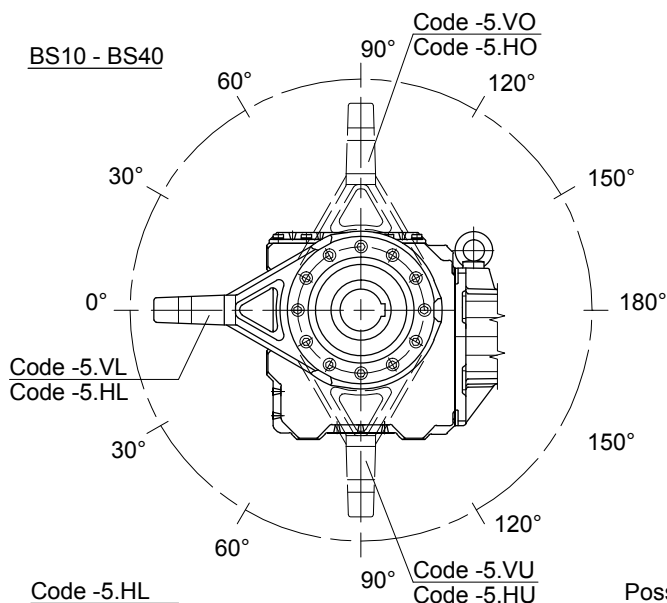
BS02 / BS03



BS04 / BS06



BS10 - BS40



Possible locations.

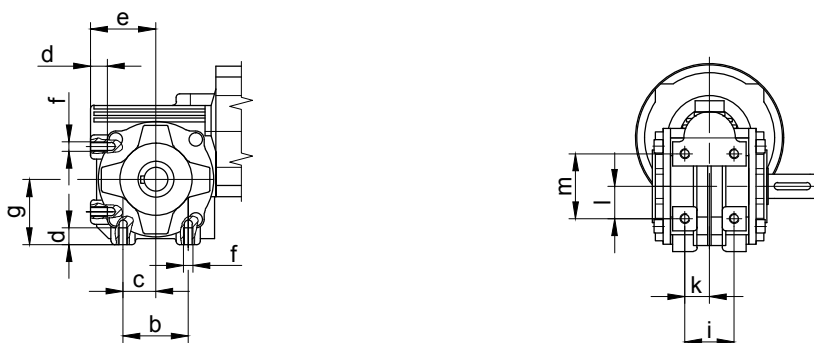
Position	VL/HL	VO / HO VU / HU					VR/HR
BS10	0°	30°	60°	90°	120°	150°	-
BS20	0°	30°	60°	90°	120°	150°	-
BS30	0°	30°	60°	90°	120°	150°	-
BS40	0°	30°	60°	90°	120°	150°	-

The actual gearbox design can vary from the geometry shown.

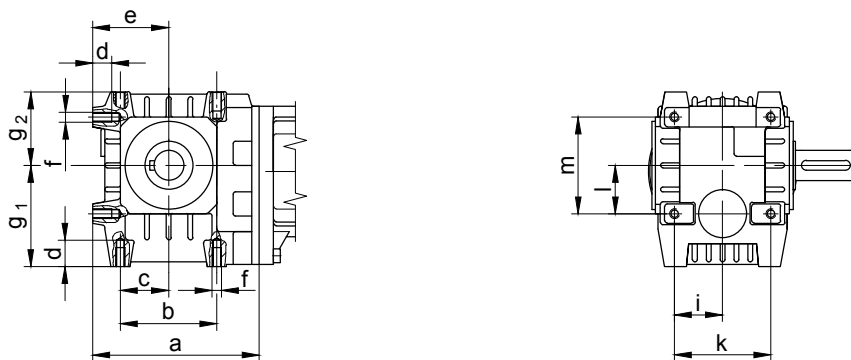
BS-series worm-gear motors

Additional Dimension Sheet

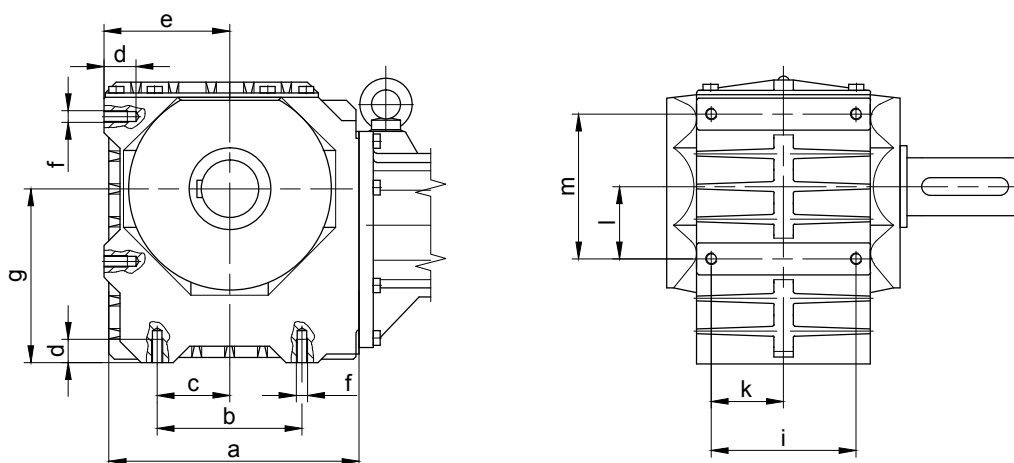
Threaded foot, left



Type	a	b	c	d	e	f	g	-	i	k	l	m
BS02	-	36	18	10	40	M6	40	-	32	16	18	36
BS03	-	54	27	14	54	M8	54	-	41	20.5	27	54



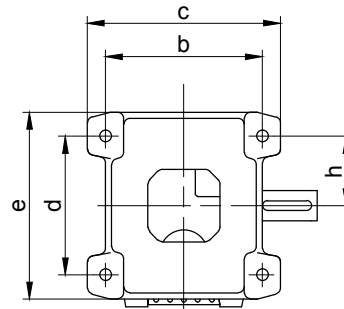
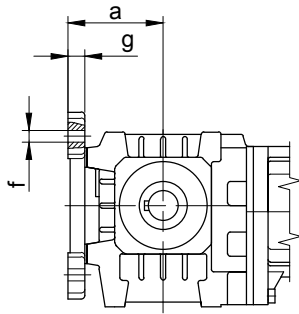
Type	a	b	c	d	e	f	g ₁	g ₂	i	k	l	m
BS04	111	60	30	15.5	50	M8	64	49.5	30	60	30	60
BS06	138	80	40	16	63	M8	84	61	40	80	40	80



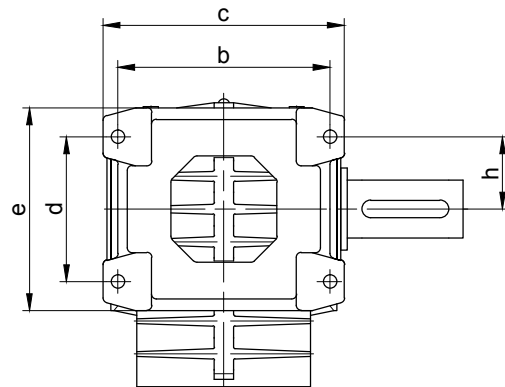
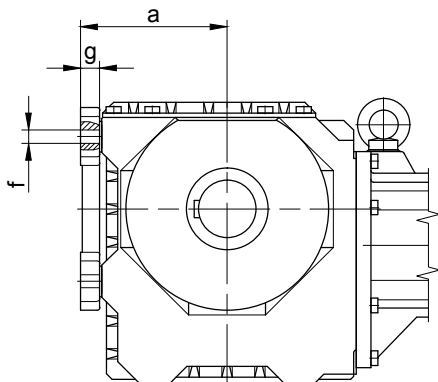
Type	a	b	c	d	e	f	g	-	i	k	l	m
BS10-BS10Z	170	90	45	16	85	M8	105	-	95	47.5	45	90
BS20-BS20Z	202.5	110	55	20	100	M10	125	-	105	52.5	55	110
BS30-BS30Z	228	125	62.5	24	110	M12	150	-	120	60	62.5	125
BS40-BS40Z	264	150	75	24	130	M12	180	-	150	75	75	150

The actual gearbox design can vary from the geometry shown.

Foot plate, left



Type	a	b	c	d	e	f	g	h
BS04	68	110	140	90	130	10	15	45
BS06	79	130	160	115	155	10	14	57.5



Type	a	b	c	d	e	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

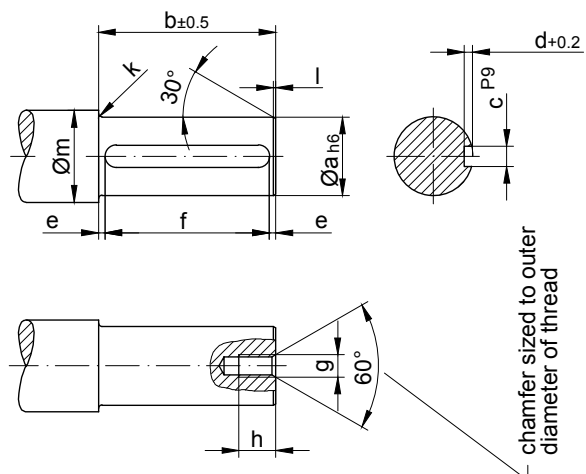
The actual gearbox design can vary from the geometry shown.

BS-series worm-geared motors

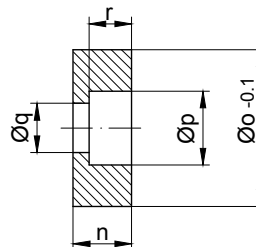
Additional Dimension Sheet

Assembly tools for hollow shaft and keyway

Pos.1 Shaft

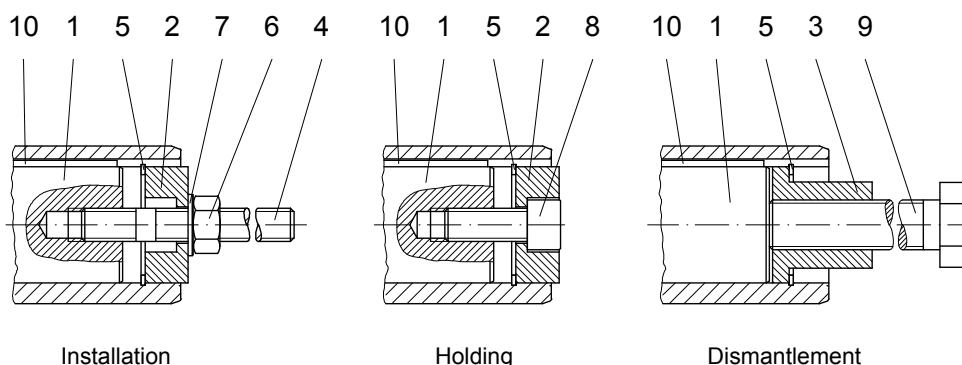


*Pos.2 Disc



√ edges cut
Material:
C45 DIN 17200

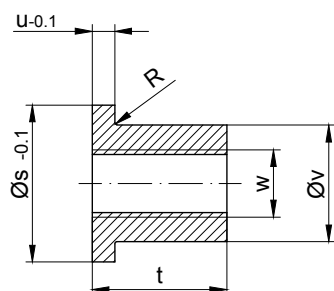
Type	Dimensions (mm)															
	Pos.1 Shaft											Pos.2 Disc				
	a	b	c	d	e	f	g	h	k	l	m	n	o	p	q	r
BS03	20	75	6	3.5	6	63 ^{+0.3}	M6	16	2	1.5	28	13.5	19.8	11	6.6	6.5
BS04	20	71	6	3.5	7.5	56 ^{+0.3}	M6	16	2	1.5	28	13.5	19.8	11	6.6	6.5
BS06	25	99	8	4	9.5	80 ^{+0.3}	M8	18	2.5	1.5	33	13.5	24.8	15	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 necessary for assembly. ONLY *specified parts are enclosed in the assembly kit. Suitable measures are to be used to secure Bolt Pos.9 against loosening.

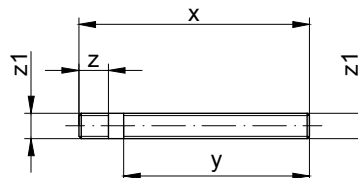
Assembly tools for hollow shaft and keyway

Pos.3 Sleeve



\sqrt{x} , edges cut
Material: C45 DIN 17200

Pos.4 Stud bolt



Material: Steel, tensile strength $\geq 1000\text{N/mm}^2$
threads rolled

Type	Dimensions (mm)										* Retainer ring DIN 472	Hexagon nut DIN 934-8	Disc DIN 125-St	* 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						
	Pos.3 Sleeve						Pos.4 Stud bolt											Pos.5	Pos.6	Pos.7	Pos.8	Pos.9	Pos.10
	s	t	u	v	w	R	x	y	z	z1													
BS03	19.8	24	5	11	M8	-	120	90	18	M6	20x1.0	M6	6.4	M6x25	5	M8x110	A 8x7x63						
BS04	19.8	24	5	11	M8	-	120	90	18	M6	20x1.0	M6	6.4	M6x25		M8x110	A 8x7x56						
BS06	19.8	24	5	15.4	M12	0.8	150	120	20	M8	25x1.2	M8	8.4	M8x30		M12x140	A 8x7x80						
BS10	29.8	28	5	19.8	M14	0.8	210	175	23	M10	30x1.2	M10	10.5	M10x30	8	M14x190	A 8x7x140						
BS20	34.9	28	5	23	M14	-	250	215	23	M10	35x1.5	M10	10.5	M10x35		M14x230	A10x8x160						
BS30	39.9	40	6	27.7	M20	0.8	280	240	28	M12	40x1.75	M12	13	M12x35	16	M20x270	A 12x8x200						
BS40	59.8	60	6	44	M30	-	320	260	45	M20	60x2.0	M20	21	M20x50	42	M30x310	A 18x11x200						

The parts shown are necessary for assembly. ONLY *specified parts are enclosed in the assembly kit.
Suitable measures are to be used to secure Bolt Pos.9 against loosening.

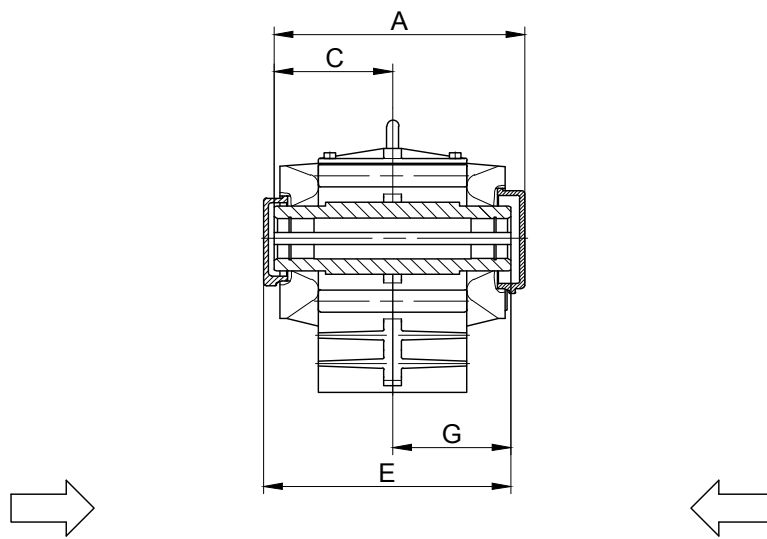
Optional:	Type	Order Text
	BS03	Id.Nr.4104013 Assembly tool "holding"
	BS04	Id.Nr.4104013 Assembly tool "holding"
	BS06	Id.Nr.4103921 Assembly tool "holding"
	BS10	Id.Nr.4103939 Assembly tool "holding"
	BS20	Id.Nr.4103947 Assembly tool "holding"
	BS30	Id.Nr.4103955 Assembly tool "holding"
	BS40	Id.Nr.4103971 Assembly tool "holding"

The actual gearbox design can vary from the geometry shown.

BS-series worm-gearred motors

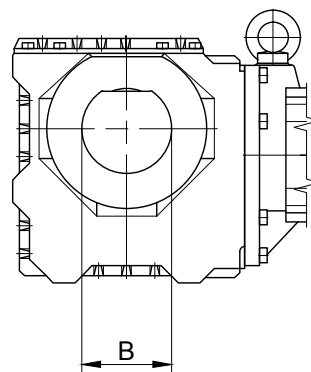
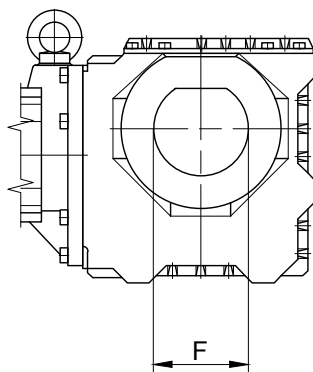
Additional Dimension Sheet

Shaft Cap (VK)



Gear side REAR (H)

Gear side FRONT (V)



13

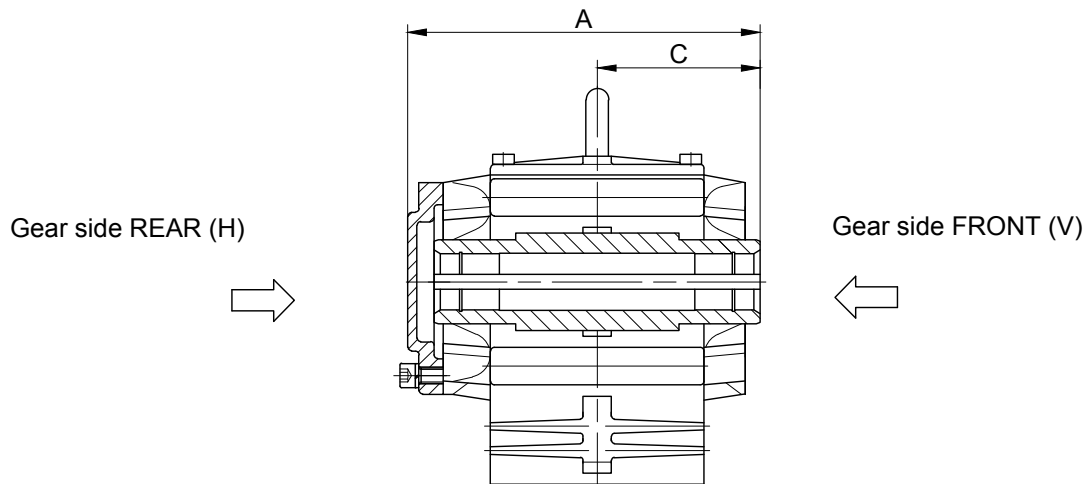
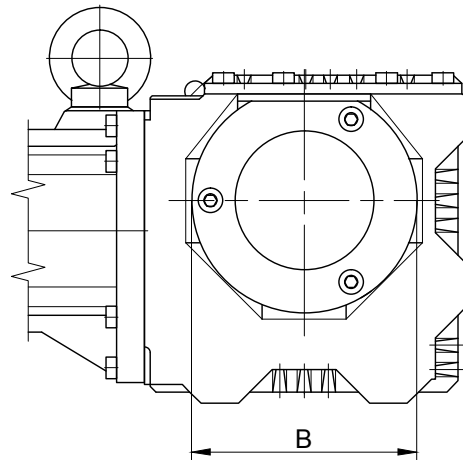
Sealing cap REAR			
Type	E	F	G
BS10	186	68	87
BS30	250.5	100	132
BS40	276	130	128

Sealing cap FRONT			
Type	A	B	C
BS20	221	78	104.5

The actual gearbox design can vary from the geometry shown.

Shaft Cover (VD)

Gear side REAR (H)



Type	A	B	C
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

The actual gearbox design can vary from the geometry shown.

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Page

Motors

407-442

General

Duty Cycles acc. to DIN EN 60034

Operation with frequency converter

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.

IEC 60034-30-1

Rotating electrical machines. Efficiency classes of line operated AC motors (IE-code)

This new edition of IEC 60034-30-1 specifies efficiency classes for single-speed electric motors that are rated according to IEC 60034-1 or IEC 60079-0, are rated for operation on a sinusoidal voltage supply IEC 60034-30-1 widens the product range with no distinction between motor technologies, supply voltage and frequency. All technical constructions of electric motors are covered as long as they are rated for on-line operation including Line-Start-Permanent-Magnet-Motors.

This IEC standard provides for the global harmonization of energy-efficiency classes IE1, IE2, IE3 and IE4 of electric motors.

Efficiency class designation		Comparison with CEMEP classification	
Efficiency	Code	Efficiency	Logo
Super Premium	IE4	-	-
Premium	IE3	-	-
High	IE2	High	
Standard	IE1	Improved	
Lower than Standard	No designation	Standard	

General

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
- 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
- At altitudes exceeding 4000 meters above sea-level
- Where ambient air temperatures exceed 60° C
- Where ambient air temperatures are less than -30° C
- From 16 June 2011 onward: IE1 motors for none S1 duty destined for the European market
- Explosion-proof motors (explosion protection has higher priority)
- Brake motors
- as from 2015/2017, IE2-Motors for use with variable speed drives (Additional name plate)

Example :



**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

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.

Torques

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.

Line voltages

BAUER motors are available as standard for the following three-phase line voltages:

Motor size	Standard voltages:
D04LA4 - D09XA4	220 V Δ/ 380 V Y 50 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/ 415 V Y 50 Hz**
	440 V Y / 60 Hz 460 V Y / 60 Hz
	380 V Δ/ 660 V Y 50 Hz
	400 V Δ/ 690 V Y 50 Hz*
	415 V Δ / 50 Hz**
	440 V Δ/ 60 Hz
	460 V Δ/ 60 Hz

*Voltage recommended world-wide by IEC 38 and in Europe by CENELEC.

**= Insulation Class F is necessary.

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 +/- 5 %, in accordance with IEC 60034-1.

The D04 to D18 motors in 4 pole design can be operated within a tolerance of +/- 10 % of the rated voltage (400 V 50 Hz).

Catalogue geared motors IE3 Motors

General

Line frequencies

All motors are available with the same power ratings for either 50 or 60 Hz . Increased power models are available on request.

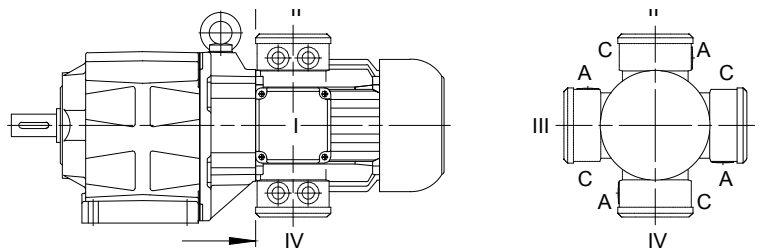
Rating plate

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).

Bauer		D-73734 Esslingen	
3-Mot.-No.	A/	46/2014	
Type BF40-74W/DPE09XA4-TX/C2-SP			
1,1 kW/cosφ		0,76	S1
50 Hz	Y	400 V	2,45 A
n ₁ 1440	n ₂	21,5 r/min	67,38
		485 Nm	
IM H2/V1 35 °IP 65		4,9 L CLP 220	
		IE3 - 85,0 %	
t _{amb} -20... 40°C		66,1 kg	
		SCH01 EN 60034	

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.

General

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.

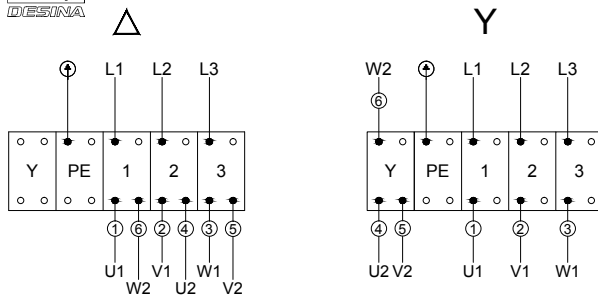
Catalogue geared motors IE3 Motors

General

Terminal connections for single speed motors

Standard connection of three phase motors via CAGE CLAMP®. D..04 - D..09

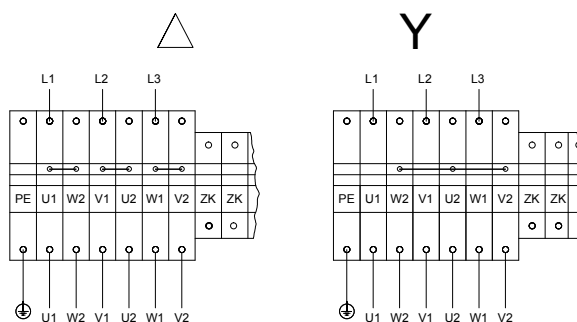
Three Phase motor means of CAGE CLAMP®



	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 T6	black blue brown yellow red violet
Δ	Connections for the low rated voltage (e.g.: 230 V)		
Y	Connections for the high rated voltage (e.g.: 400 V)		

D..11 - D..18

Connection of three phase motor via CAGE CLAMP



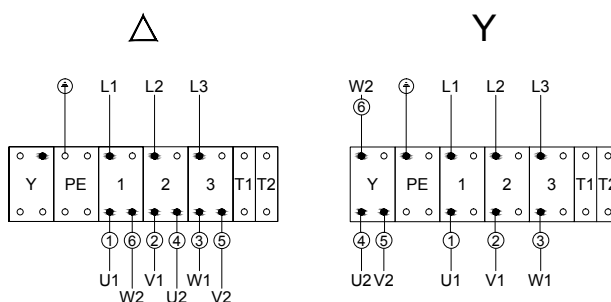
	IEC / EN 60034-8	NEMA MG 1	Colour
Supply lines	L1 L2 L3	L1 L2 L3	
Motor winding	U1 V1 W1 U2 V2 W2	T1 T2 T3 T4 T5 T6	black blue brown yellow red violet
Δ	Connections for the low rated voltage (e.g.: 230 V)		
Y	Connections for the high rated voltage (e.g.: 400 V)		
ZK	Optional additional connection		

General

Terminal connections for single speed motors with thermal motor protection

Standard connection of three phase motors with thermal motor protection via CAGE CLAMP®.
D..04 - D..09

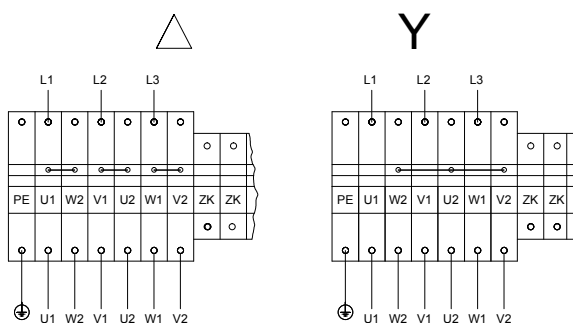
Three Phase motor and thermal protection connection by means of CAGE CLAMP®



	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 T6	black blue brown yellow red violet
Δ	Connections for the low rated voltage (e.g.: 230 V)		
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 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 for the low rated voltage (e.g.: 230 V)		
Y	Connections for the high rated voltage (e.g.: 400 V)		
ZK	Optional additional connection		

Catalogue geared motors IE3 Motors

General

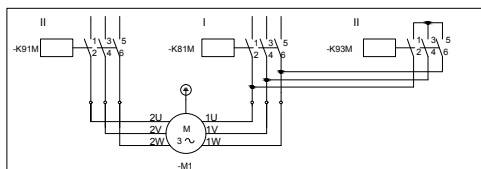
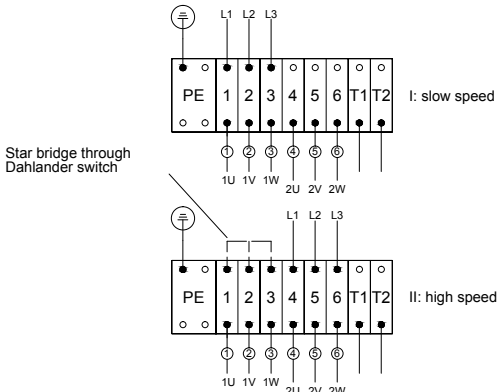
Terminal connections for pole changing motors in Dahlander connection (Δ/YY or Y/YY)

Standard connection of three phase motors without motor protection via CAGE CLAMP®. D04 ... D..09

3-phase Gear (Motors) Dimensional Sheets

Standard connector three-phase motor D04...D09 terminal block

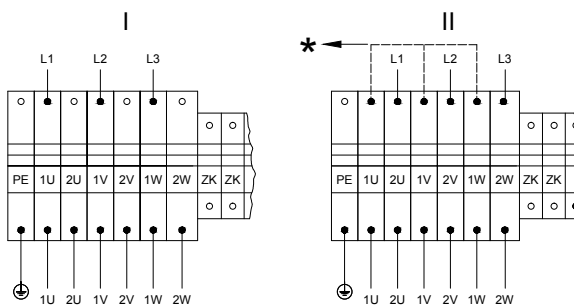
Motor 2 Speeds, Dahlander connection D/YY or Y/YY
(T1-T2 Thermal Motor protection optional)



	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
	2U 2V 2W	T5 T6 T4	yellow red violet
I	Low speed		
II	High speed		

D..11 ...D..18.

Connection of three phase motor via CAGE CLAMP®
Pole changing for 2 speeds; Dahlander connection Δ/YY



	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
	2U 2V 2W	T4 T5 T6	yellow red violet
I	Low speed		
II	High speed		
ZK	Optional additional connection		
*	Star point over Dahlander Relay		

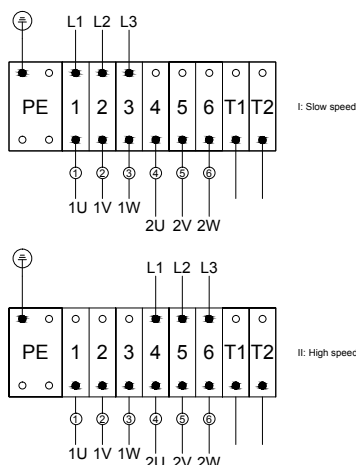
14

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

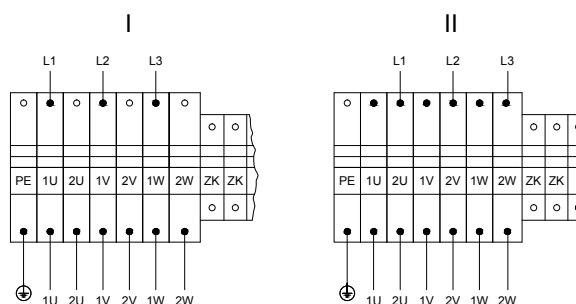
Pole change motor
2 Speeds, 2 windings Y/Y or D/D
(T1-T2 Thermal Motor protection optional)



	IEC / EN 60034-8	NEMA MG 1	Colour
Supply lines	L1 L2 L3	L1 L2 L3	
Motor winding	1U 1V 1W 2U 2V 2W	T1 T2 T3 T11 T12 T13	black blue brown yellow red violet
I	Low speed		
II	High speed		
T1 T2	Thermal motor protection		

D..11 ... D..18

Connection of three phase motor via CAGE CLAMP
Pole changing for 2 speeds; separate windings Y/Y or Δ/Δ



	IEC / EN 60034-8	NEMA MG 1	Colour
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 additional connection		

Catalogue geared motors IE3 Motors

General

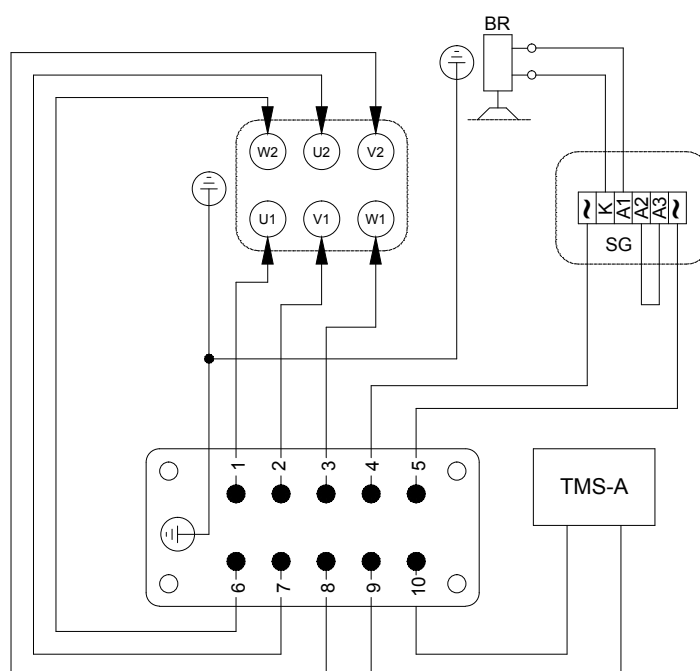
Plug-and-socket connection

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.

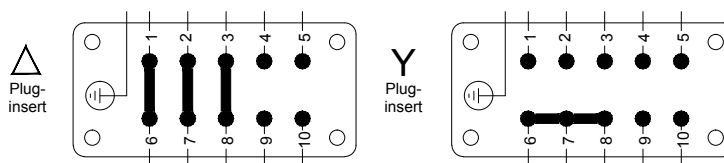
The standard plug-and-socket type connection incorporates the attachment housing, pin insert and cover. Grommet-type housings and jack inserts are available on request at extra cost. Pin assignments on request (dimensional drawing, see chapter 17 "Dimensional drawing, plug-connector terminal box").



A design with single clamp lever according to the DESINA regulation of the „Verbandes Deutscher Werkzeugmaschinenhersteller“ (VDW) is also available.



Δ - or Y-Connection in the plughousing or installation cabinet is performed by the machine manufacturer.



Han 10ESS

Caution !

Motor shaft rotates clockwise for this connection (A-side).
The rotation of the gear shaft is dependent on the gear design.

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

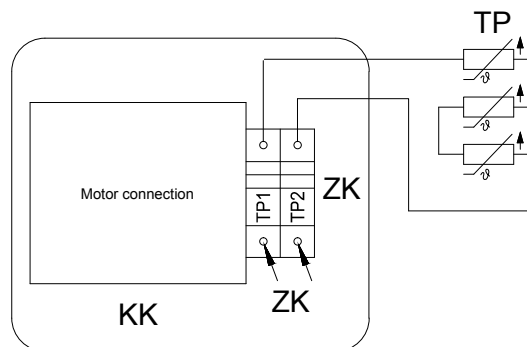
Motor protection



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 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.

Catalogue geared motors IE3 Motors

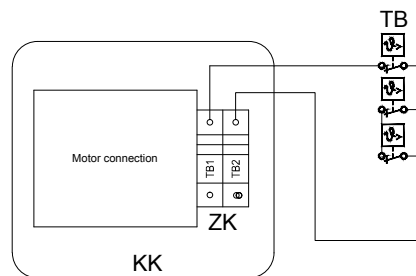
General

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).

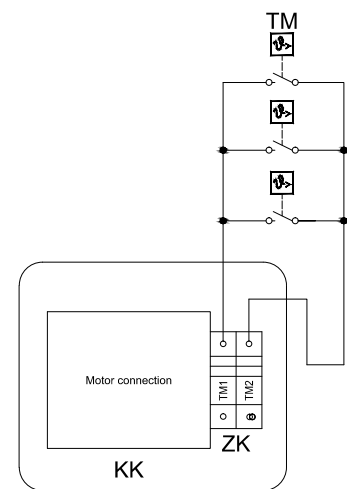
Thermal motor protection with thermostats
(with normally closed contacts)



KK	Terminal box
ZK	Additional terminals
TB	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.

Thermal motor protection with thermostats
(with normally opened contacts)



KK	Terminal box
ZK	Additional terminals
TB	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.

General

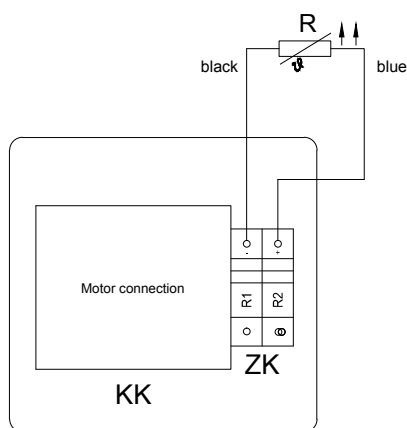
KTY sensors

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.

Working principle: 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° 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.

Catalogue geared motors IE3 Motors

General

PT100 sensors

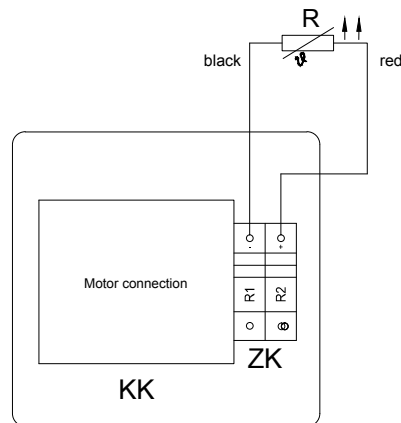
Precise monitoring of motor temperatures is necessary in many fields of industry. Pt100 sensors feature high accuracy, short response time and long-term stability, and they are suitable for use over a wide range of temperatures. Pt100 sensors are available for all motor types at additional cost.

Specifications

Nominal resistance: 100 Ω at 0° 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.

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 IP54, on request in IP65 at extra cost. The motor terminal box is always IP65.

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

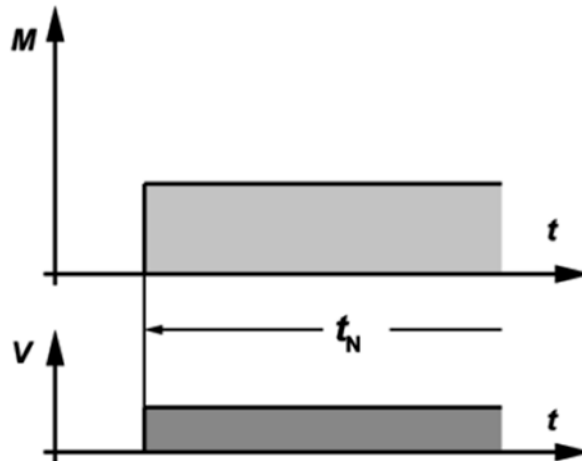
The rated speeds in the selection tables are guidelines for load at rated power. Speed can vary depending on degree of load and temperature (particularly in the case of relatively small motors). Combination gear units for lower speeds are available on request.

Duty types as defined by EN 60034

General

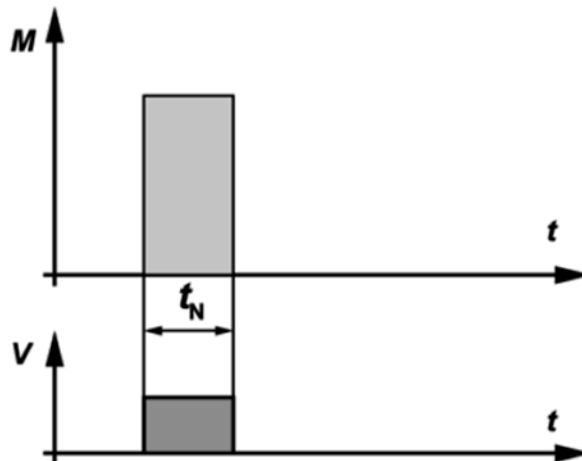
Aside from special drives (such as lifting equipment), standard motors are always designed for continuous running duty. If the drive is operated with frequent on/off cycles, it may be necessary to select a larger motor with a special design. On the other hand, with pronounced short-time duty it is often 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)

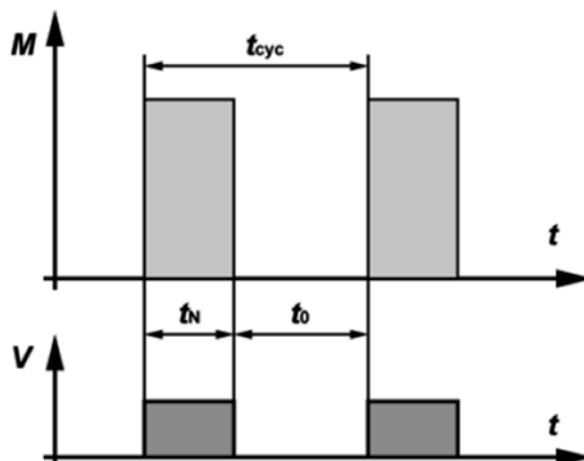


The operating time under rated load is short compared with the subsequent rest period. The standard operating times are 10, 30, 60 and 90 minutes. The equipment can operate for this period under the rated load without exceeding the allowable temperature.

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.

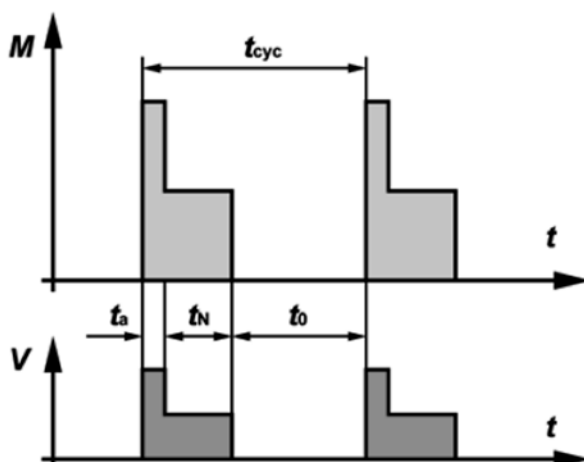
Intermittent periodic duty means that a state of thermal equilibrium is not reached during the load interval.

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)



Duty types as defined by EN 60034

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.

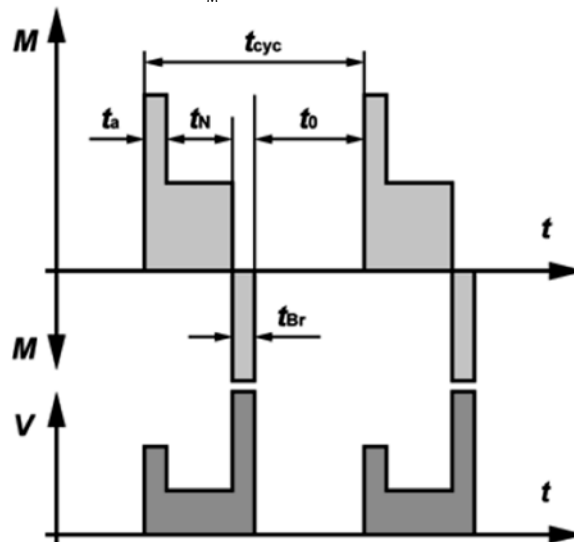
The load cycle corresponds to mode S3, but with additional heating during the starting time that must be taken into account.

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_a and the braking time t_{Br} taken into account.

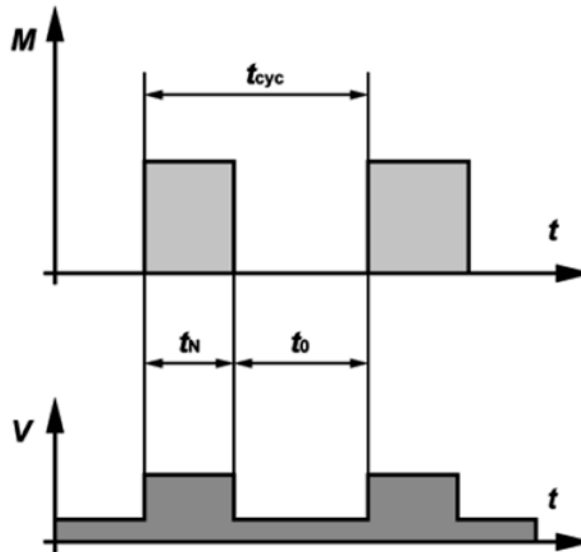
The duty cycle can be determined as follows:

$$ED = \frac{(t_a + t_N + t_{Br})}{t_{cyc}} \times 100\% = \frac{t_a + t_N + t_{Br}}{t_a + t_N + t_{Br} + t_0} \times 100\%$$

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)



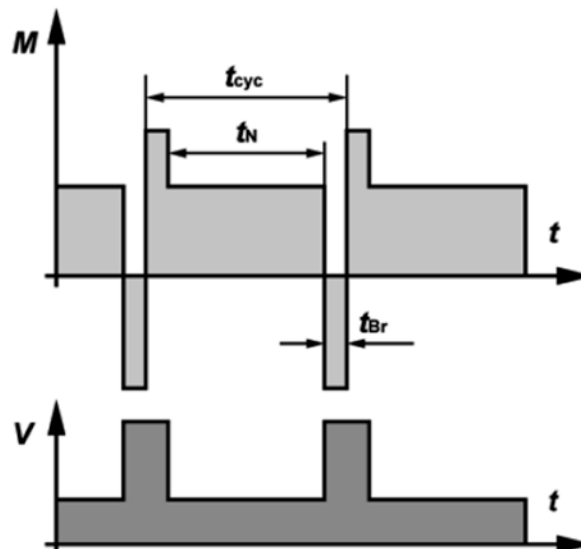
This type of duty corresponds to S3, with the exception that the equipment remains energised during the rest periods. In other words, it operates with no load during these periods. The duty cycle and cycle duration are specified the same way as for S3 duty.

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)



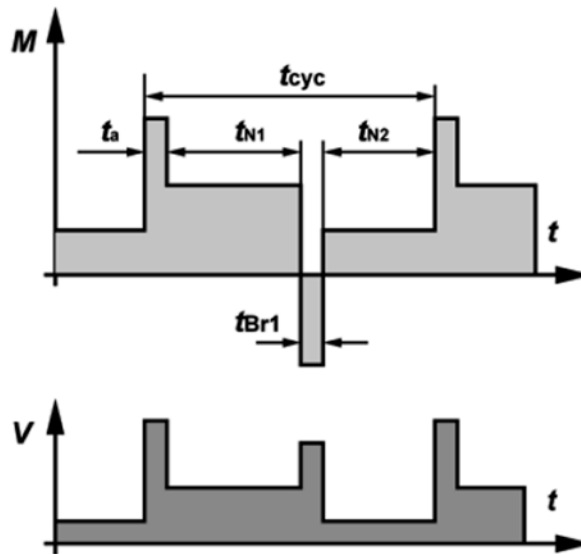
The machine starts up, operates under load, and then is braked electrically, for example by feeding it from a DC power source. Following this, it starts up again immediately. The machine can operate continuously in this manner if the specified moments of inertia of the motor J_M and of the load J_{ext} 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 = 1

Example: S7 – $J_M = 0.4 \text{ kgm}^2$, $J_{ext} = 7.5 \text{ kgm}^2$

Duty types as defined by EN 60034

Continuous-operation periodic duty with relative load/speed changes (S8)



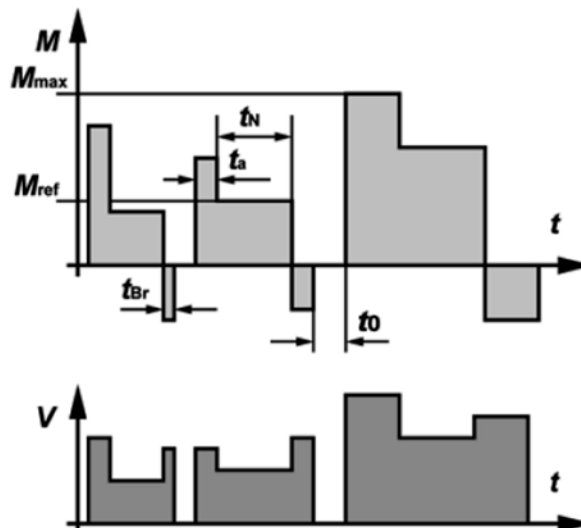
The machine runs continuously under variable load with frequent speed variations. The machine can operate continuously in this manner if at each speed the specified values are not exceeded (moments of inertia J_M and J_{Ext} cycle duration (if other than 10 minutes), rated output and duty cycle. With a moment of inertia of 1 kg m^2 , 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)

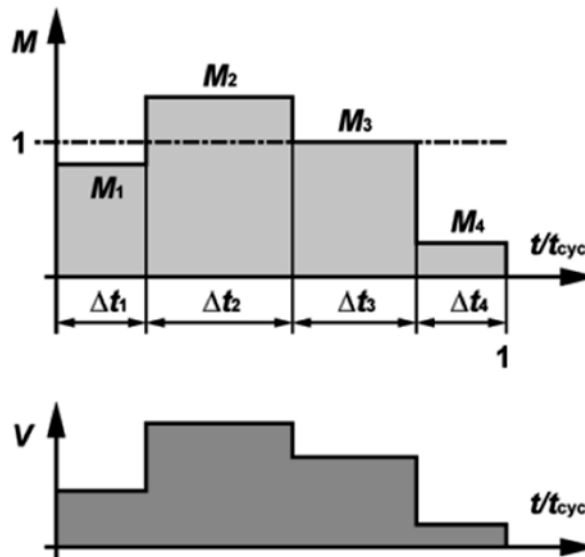


In S9 duty the load and the speed vary non-periodically within the permissible operating range. This includes frequently applied overloads, which must never exceed the reference load.

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 $p/\Delta t = 1.1/0.4, 1/0.3, 0.9/0.2, r/0.1; TL = 0.6$

Catalogue geared motors IE3 Motors

4-pole IE3 motors for continuous operation S1, line frequency 50 Hz

P _N	Type	n _N	M _N	I _N	Connection	cos φ	η	η	η	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot}	Brake
kW		1/min	Nm	(400 V) A			(100% - Last) %	(75% - Last) %	(50% - Last) %					kgm ²	
0,12	DPE05LA4	1380	0,83	0,42	Y	0,61	67,9	66,0	59,4	3,5	3,0	2,9	3,0	0,000295	E003
0,12	DPE06LA4	1380	0,83	0,42	Y	0,61	68,4	66,4	60,4	3,5	3,0	2,9	3,0	0,000295	E003
0,18	DPE07LA4	1380	1,25	0,55	Y	0,68	70,4	69,8	63,6	3,0	2,8	2,7	2,8	0,000385	E003, E004
0,25	DPE08MA4	1420	1,68	0,75	Y	0,66	74,5	73,9	69,9	5,2	2,3	2,2	2,6	0,00115	
0,37	DPE08LA4	1420	2,5	0,97	Y	0,69	79,0	79,5	77,3	5,0	2,8	2,5	3,0	0,0015	ES(X)010
0,55	DPE08XA4	1420	3,7	1,4	Y	0,69	81,8	81,2	78,1	5,6	3,1	2,9	3,4	0,0017	EH(X)027
0,75	DPE08XB4	1420	5,0	1,85	Y	0,71	82,7	83,3	81,7	5,2	3,0	2,8	3,2	0,0020	
0,75	DPE09LA4	1450	4,9	1,68	Y	0,76	84,0	82,9	79,5	6,6	3,3	2,7	3,7	0,0032	
1,1	DPE09XA4	1440	7,3	2,4	Y	0,76	85,0	84,1	81,2	7,1	3,6	3,2	4,0	0,0038	ES(X)010/027
1,5	DPE09XB4	1440	9,9	3,1	Y	0,83	85,4	85,7	83,9	6,9	3,1	2,7	3,5	0,0049	EH(X)040
2,2	DPE09XB4C	1450	14,5	4,6	Y	0,80	86,8	87,3	86,1	7,0	2,4	2,1	3,5	0,0069	
2,2	DPE11MA4	1450	14,5	4,5	Y	0,81	87,0	86,5	84,6	7,8	3,7	3,0	4,0	0,0105	
3	DPE11LA4	1450	20	6	D	0,81	87,7	87,9	86,2	8,5	3,7	3,1	4,3	0,0140	ES(X)027/040/070
4	DPE11LB4	1450	26	7,9	D	0,83	89,4	90,1	89,4	8,0	3,5	2,9	4,0	0,0170	EH(X)125
5,5	DPE11LB4C	1460	36	11	D	0,80	89,6	89,8	88,7	7,6	2,8	2,4	4,0	0,022	
7,5	DPE13XA4	1460	49	14,8	D	0,81	90,4	90,0	89,3	8,5	3,3	2,9	3,5	0,040	ES(X)040/070/125 EH(X)200
9,5	DPE16LB4	1470	62	19	D	0,79	91,6	91,8	90,9	8,3	3,5	2,8	3,7	0,076	ES(X)125/200
11	DPE16LB4	1470	71	22	D	0,79	91,4	91,6	90,8	7,8	3,3	2,7	3,5	0,076	EH(X)400
15	DPE16XB4	1470	97	28,8	D	0,82	92,1	92,7	92,6	7,6	3,2	2,5	3,3	0,097	ZS(X)300
18,5	DPE18LB4	1470	120	36	D	0,80	92,8	93,1	92,6	8,8	4,3	3,5	3,9	0,170	ES(X)250, EH(X)400
22	DPE18XB4	1470	143	41,5	D	0,82	93,0	93,4	93,1	8,5	4,0	3,2	3,6	0,195	ZS(X)500
30	DPE20LA4	1480	194	54	D	0,86	93,6	93,6	93,2	8,3	2,9	2,5	3,4	0,352	ES(X)250 ZS(X)500/800
37	DPE22SA4	1480	239	65	D	0,88	93,9	94,1	94,0	7,9	2,9	2,5	3,3	0,389	ES(X)250
45	DPE22MA4	1480	290	81	D	0,85	94,2	94,1	93,9	9,2	3,1	2,2	3,9	0,432	ZS(X)500/800

- 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
- I_A/I_N Relative starting current
- M_A/M_N Relative breakaway torque
- M_S/M_N Relative pull-up torque
- M_K/M_N Relative breakdown torque
- 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.

All motors are suitable for the voltage range 380...420 V or 400 V +/- 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.

4-pole IE3 motors for continuous operation S1, line frequency 60 Hz

P _N	Type	n _N	M _N	I _N	Connection	cos φ	η	η	η	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot}	Brake
kW		1/min	Nm	(400 V) A			(100% - Last) %	(75% - Last) %	(50% - Last) %					kgm ²	
0,12															
0,18															
0,25															
0,37															
0,55															
0,75															
0,75	DPE08XA4	1740	3,0	1,25	Y	0,66	83,3	81,9	77,8	6,1	3,5	3,2	4,0	0,0017	
0,75	DPE08XB4	1740	4,1	1,65	Y	0,68	84,8	84,5	82,0	6,4	3,6	3,1	3,8	0,0020	ES(X)010
0,75	DPE09LA4	1750	4,1	1,5	Y	0,73	85,8	84,4	81,3	7,2	3,6	3,2	4,2	0,0032	
1,1	DPE09XA4	1750	6,0	2,1	Y	0,73	86,7	84,8	81,5	8,0	4,2	3,7	4,5	0,0038	ES(X)010/027
1,5	DPE09XB4	1750	8,2	2,7	Y	0,81	86,7	86,4	83,9	7,9	3,4	3,0	4,2	0,0049	EH(X)040
2,2	DPE09XB4C	1760	11,9	4	Y	0,77	89,5	89,1	86,8	8,2	2,7	2,3	4,1	0,0069	
2,2	DPE11MA4	1760	11,9	4	Y	0,78	89,5	89,0	86,5	8,5	4,5	3,6	4,9	0,0105	
3	DPE11LA4	1760	16,3	5,4	D	0,78	89,5	89,3	87,1	9,9	4,3	3,7	5,2	0,0140	ES(X)027/040/070
4	DPE11LB4	1760	22	6,9	D	0,81	90,7	90,6	89,3	9,4	3,6	3,1	4,6	0,0170	EH(X)125
5,5	DPE11LB4C	1760	30	9,7	D	0,78	91,7	91,5	89,9	9,0	3,0	2,6	4,8	0,022	
7,5	DPE13XA4	1760	41	12,9	D	0,80	91,7	91,7	90,3	9,3	3,9	3,5	4,2	0,040	ES(X)040/070/125 EH(X)200
9,5	DPE16LB4	1770	51	16,6	D	0,78	92,4	91,8	90,2	9,1	3,8	3,1	4,1	0,076	ES(X)125/200
11	DPE16LB4	1770	59	19,2	D	0,78	92,4	92,2	90,6	9,0	3,6	3,0	3,8	0,076	EH(X)400
15	DPE16XB4	1770	81	25,1	D	0,81	93,0	93,0	92,6	8,8	3,7	3,0	3,8	0,097	ZS(X)300
18,5	DPE18LB4	1770	100	31,5	D	0,79	93,6	93,5	92,1	9,6	4,7	3,8	4,3	0,170	ES(X)250, EH(X)400
22	DPE18XB4	1770	119	36	D	0,82	93,6	93,6	92,8	9,7	4,8	3,9	4,4	0,195	ZS(X)500
30	DPE20LA4	1780	161	47	D	0,85	94,1	93,7	93,6	9,5	3,5	3,1	4,1	0,352	ES(X)250 ZS(X)500/800
37	DPE22SA4	1780	199	56	D	0,87	94,6	94,7	94,2	9,4	3,5	2,3	4,1	0,389	ES(X)250
45	DPE22MA4	1780	241	71	D	0,84	95,0	95,0	94,5	9,8	3,5	2,4	4,4	0,432	ZS(X)500/800

on application

- P Rated power 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 φ Power factor
I_A/I_N Relative starting current
M_A/M_N Relative breakaway torque
M_S/M_N Relative pull-up torque
M_K/M_N Relative breakdown torque
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 460 V / 60 Hz.

All motors are suitable for the voltage range 440...480 V or 460 V +/- 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.

Catalogue geared motors IE3 Motors

4-pole IE2 motors for continuous operation S1, line frequency 50 Hz

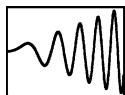
P_N	Type	n_n	M_N	I_N	Connection	$\cos\varphi$	η	η	η	I_A/I_N	M_A/M_N	M_S/M_N	M_R/M_N	J_{rot}	Brake
kW		1/min	Nm	(400 V) A			(100% - Last) %	(75% - Last) %	(50% - Last) %					kgm ²	
0,12	DHE05LA4	1350	0,85	0,42	Y	0,61	67,9	66		3,5	3	2,9	3	0,000295	E003
0,18	DHE05LA4	1350	1,28	0,6	Y	0,66	65,8	64,5		3,2	2,5	2,5	2,5	0,000295	
0,12	DHE06LA4	1350	0,85	0,42	Y	0,61	68,4	66,4		3,5	3	2,9	3	0,000295	E003
0,18	DHE06LA4	1350	1,28	0,59	Y	0,66	67,2	66,5		3,2	2,5	2,5	2,5	0,000295	
0,25	DHE07LA4	1350	1,75	0,78	Y	0,67	69,5	68		3,3	2,5	2,4	2,5	0,000385	E003, E004
0,37	DHE08MA4	1420	2,4	1,1	Y	0,66	75,2	73,9		5,2	2,3	2,2	2,6	0,00115	ES(X)010
0,55	DHE08LA4	1420	3,7	1,36	Y	0,74	78,4	78,8		4,3	2,1	2	2,4	0,0015	EH(X)027

4-pole IE2 motors for continuous operation S1, line frequency 60 Hz

P_N	Type	n_n	M_N	I_N	Connection	$\cos\varphi$	η	η	η	I_A/I_N	M_A/M_N	M_S/M_N	M_R/M_N	J_{rot}	Brake
kW		1/min	Nm	(400 V) A			(100% - Last) %	(75% - Last) %	(50% - Last) %					kgm ²	
0,12	DHE05LA4	1660	0,7	0,37	Y	0,59	69	67		3,8	3,3	3,2	3,3	0,000295	E003
0,18	DHE05LA4	1660	1,06	0,52	Y	0,64	68	67,2		3,5	2,8	2,8	2,8	0,000295	
0,12	DHE06LA4	1660	0,7	0,37	Y	0,59	69,3	67		3,8	3,3	3,2	3,3	0,000295	E003
0,18	DHE06LA4	1660	1,06	0,52	Y	0,64	68,2	67,4		3,5	2,8	2,8	2,8	0,000295	
0,25	DHE07LA4	1660	1,47	0,7	Y	0,64	70,5	70		3,6	2,8	2,7	2,8	0,000385	E003, E004
0,37	DHE08MA4	1720	2	0,96	Y	0,66	75,2	73,9		5,7	2,8	2,7	3,2	0,00115	ES(X)010
0,55	DHE08LA4	1720	3	1,2	Y	0,74	77,5	77,8		4,7	2,3	2,2	2,7	0,0015	EH(X)027

- P** Rated power at 50 Hz/60 Hz line frequency
n Guideline value for rated speed at the rotor shaft at 50 Hz/60 Hz line frequency
 M_N Rated torque at the rotor shaft
 I_N (the current can be converted as inverse ratios of voltages to the desired special voltage)
 $\cos\varphi$ Power factor
 I_A/I_N Relative starting current
 M_A/M_N Relative breakaway torque
 M_S/M_N Relative pull-up torque
 M_R/M_N Relative breakdown torque
 J_{rot} Mass moment of inertia of the rotor
Brake recommended standard brake for normal requirements (see chapter 16)

See "www.bauergears.com" for more information.



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 %).

IE3 Motor torques for frequency-converter range 5 Hz - 70 Hz, line frequency 50 Hz

P kW	Type	Conne- ction	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
			M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	I A	I A	I A	I A	I A	I A
0,12	DPE05LA4	Y	0,51	0,63	0,76	0,83	0,85	0,85	0,72	0,39	0,4	0,415	0,42	0,42	0,475	0,475
0,12	DPE06LA4	Y	0,51	0,63	0,76	0,83	0,85	0,85	0,72	0,39	0,4	0,415	0,42	0,42	0,475	0,475
0,18	DPE07LA4	Y	0,76	0,95	1,14	1,25	1,27	1,27	1,08	0,54	0,55	0,55	0,55	0,55	0,63	0,63
0,25	DPE08MA4	Y	0,99	1,23	1,48	1,62	1,65	1,65	1,36	0,68	0,71	0,73	0,75	0,75	0,85	0,83
0,37	DPE08LA4	Y	1,5	1,87	2,2	2,4	2,5	2,5	2,1	0,88	0,91	0,95	0,97	0,97	1,1	1,1
0,55	DPE08XA4	Y	2,1	2,7	3,2	3,6	3,6	3,6	3,1	1,19	1,26	1,35	1,4	1,4	1,58	1,59
0,75	DPE08XB4	Y	3	3,8	4,5	4,9	5	5	4,2	1,56	1,66	1,77	1,84	1,85	2,1	2,1
0,75	DPE09LA4	Y	2,9	3,6	4,4	4,8	4,9	4,9	4,2	1,35	1,47	1,59	1,67	1,68	1,9	1,9
1,1	DPE09XA4	Y	4,3	5,4	6,5	7,1	7,2	7,2	6,2	1,97	2,2	2,4	2,5	2,5	2,8	2,8
1,5	DPE09XB4	Y	6	7,5	9	9,8	10	10	8,5	2,3	2,6	2,9	3,1	3,1	3,5	3,6
2,2	DPE09XB4C	Y	8,7	10,8	13	14,3	14,5	14,5	12,4	3,6	4	4,4	4,6	4,6	5,2	5,3
2,2	DPE11MA4	Y	8,7	10,8	13	14,3	14,5	14,5	12,4	3,5	3,8	4,2	4,5	4,5	5,1	5,1
3	DPE11LA4	Y	11,8	14,7	17,7	19,4	19,7	19,7	16,8	4,6	5,1	5,7	6	6	6,8	6,8
4	DPE11LB4	Y	15,9	19,8	23,5	26	26,5	26,5	22,5	5,9	6,6	7,4	7,9	7,9	9	9
5,5	DPE11LB4C	Y	21,5	27	32	35,5	36	36	30,5	8,5	9,4	10,3	11	11	12,5	12,5
7,5	DPE13XA4	Y	29	36,5	44	48	49	49	42	10,9	12,3	13,8	14,7	14,8	16,7	16,8
9,5	DPE16LB4	Y	36,5	45,5	54	60	61	61	52	14,2	15,9	17,7	18,9	19	21,5	21,5
11	DPE16LB4	Y	42,5	53	64	70	71	71	61	16,7	18,5	21	22	22	25	25
15	DPE16XB4	Y	58	73	87	96	97	97	83	20,5	23,5	26,5	29	29	32,5	33
18,5	DPE18LB4	Y	72	90	108	118	120	120	102	26,5	30	33,5	36	36	41	41
22	DPE18XB4	Y	85	106	127	140	142	142	121	29,5	34	38,5	41,5	41,5	47	47
30	DPE20LA4	Y	117	146	175	192	195	195	167	37,5	43	49,5	54	54	61	62
37	DPE22SA4	Y	144	180	215	235	240	240	205	43,5	51	60	65	65	74	74
45	DPE22MA4	Y	169	210	250	275	280	280	240	56	65	74	81	81	92	92

Field weakening for frequencies above 50 Hz, winding for standard voltage **400 V Y / 50 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 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.

Catalogue geared motors IE3 Motors

Operation with frequency converter

IE3 Motor torques for frequency-converter range 5 Hz - 100 Hz, line frequency 50 Hz

P KW	Type	Conne- tion	M5 Hz Nm	M8,7 Hz Nm	M10 Hz Nm	M20 Hz Nm	M87 Hz Nm	M100 Hz Nm	M120 Hz Nm	I5 Hz A	I8,7 Hz A	I10 Hz A	I20 Hz A	I87 Hz A	I100 Hz A	I120 Hz A
0,12	DPE05LA4	D	0,51	0,61	0,63	0,76	0,85	0,85	0,73	0,68	0,69	0,7	0,72	0,73	0,8	0,83
0,12	DPE06LA4	D	0,51	0,61	0,63	0,76	0,85	0,85	0,73	0,68	0,69	0,7	0,72	0,73	0,8	0,83
0,18	DPE07LA4	D	0,76	0,91	0,95	1,14	1,27	1,27	1,1	0,94	0,94	0,95	0,95	0,96	1,05	1,08
0,25	DPE08MA4	D	0,99	1,18	1,23	1,48	1,65	1,65	1,4	1,17	1,21	1,22	1,27	1,3	1,43	1,45
0,37	DPE08LA4	D	1,5	1,79	1,87	2,2	2,5	2,5	2,1	1,52	1,56	1,58	1,64	1,69	1,85	1,9
0,55	DPE08XA4	D	2,1	2,6	2,7	3,2	3,6	3,6	3,1	2,1	2,2	2,2	2,4	2,5	2,7	2,8
0,75	DPE08XB4	D	3	3,6	3,8	4,5	5	5	4,3	2,7	2,8	2,9	3,1	3,2	3,6	3,7
0,75	DPE09LA4	D	2,9	3,5	3,6	4,4	4,9	4,9	4,2	2,4	2,5	2,6	2,8	3	3,2	3,3
1,1	DPE09XA4	D	4,3	5,2	5,4	6,5	7,2	7,2	6,3	3,5	3,7	3,7	4	4,2	4,7	4,8
1,5	DPE09XB4	D	6	7,1	7,5	9	10	10	8,7	4	4,4	4,5	5	5,4	5,9	6,1
2,2	DPE09XB4C	D	8,7	10,4	10,8	13	14,5	14,5	12,6	6,3	6,7	6,9	7,5	8	8,8	9,1
2,2	DPE11MA4	D	8,7	10,4	10,8	13	14,5	14,5	12,6	6,1	6,6	6,7	7,4	7,8	8,6	8,9
3	DPE11LA4	D	11,8	14,1	14,7	17,7	19,7	19,7	17,1	7,9	8,6	8,8	9,8	10,4	11,4	11,8
4	DPE11LB4	D	15,9	19	19,8	23,5	26,5	26,5	23	10,1	11,1	11,4	12,7	13,7	15,1	15,5
5,5	DPE11LB4C	D	21,5	25,5	27	32	36	36	31	14,7	15,9	16,2	17,9	19,1	21	22
7,5	DPE13XA4	D	29	35	36,5	44	49	49	42,5	18,9	21	21,5	24	26	28,5	29
9,5	DPE16LB4	D	36,5	43,5	45,5	54	61	61	53	25	27	27,5	31	33	36,5	37,5
11	DPE16LB4	D	42,5	51	53	64	71	71	62	29	31,5	32,5	36	38,5	42	43,5
15	DPE16XB4	D	58	70	73	87	97	97	84	35,5	39,5	40,5	46	50	55	57
18,5	DPE18LB4	D	72	86	90	108	120	120	104	46	51	52	58	63	69	71
22	DPE18XB4	D	85	102	106	127	142	142	123	52	57	59	67	72	79	82
30	DPE20LA4	D	117	140	146	175	195	195	169	65	73	75	86	94	103	106
37	DPE22SA4	D	144	172	180	215	240	240	205	76	86	88	103	113	124	128
45	DPE22MA4	D	169	200	210	250	280	280	245	96	108	112	129	141	154	159

Field weakening for frequencies above 87 Hz, winding for standard voltage **230 V Y / 50 Hz**
($U_{max} = 400 \text{ V } \Delta / 87 \text{ Hz}$), 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

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.

Operation with frequency converter

IE3 Motor torques for frequency-converter range 5 Hz - 80 Hz, line frequency 60 Hz

P kW	Type	Conne- ction	5 Hz	10 Hz	20 Hz	30 Hz	60 Hz	70 Hz	80 Hz	5 Hz	10 Hz	20 Hz	30 Hz	60 Hz	70 Hz	80 Hz
			M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	I A	I A	I A	I A	I A	I A
0,55	DPE08XA4	Y	1,8	2,2	2,7	2,9	3	3	2,7	1,08	1,14	1,21	1,25	1,25	1,39	1,42
0,75	DPE08XB4	Y	2,4	3,1	3,7	4,1	4,1	4,1	3,7	1,41	1,5	1,59	1,65	1,65	1,83	1,87
0,75	DPE09LA4	Y	2,4	3	3,6	4	4,1	4,1	3,6	1,24	1,33	1,43	1,5	1,5	1,67	1,7
1,1	DPE09XA4	Y	3,6	4,5	5,4	5,9	6	6	5,4	1,81	1,93	2,1	2,2	2,2	2,4	2,5
1,5	DPE09XB4	Y	5	6,2	7,4	8,1	8,3	8,3	7,4	2,1	2,3	2,6	2,7	2,7	3	3,1
2,2	DPE09XB4C	Y	7,2	9	10,8	11,8	12	12	10,8	3,2	3,5	3,8	4	4	4,5	4,5
2,2	DPE11MA4	Y	7,2	9	10,8	11,8	12	12	10,8	3,4	3,6	3,8	4	4	4,5	4,5
3	DPE11LA4	Y	9,7	12,2	14,6	16,1	16,3	16,3	14,6	4,2	4,6	5,1	5,4	5,4	6	6,2
3,7	DPE11LA4	Y	12	15	18	19,7	20	20	18	5,3	5,8	6,4	6,7	6,7	7,5	7,6
4	DPE11LB4	Y	13,2	16,5	19,8	21,5	22	22	19,8	5,2	5,8	6,5	6,9	6,9	7,7	7,8
5,5	DPE11LB4C	Y	18	22,5	27	29,5	30	30	27	7,6	8,3	9,2	9,7	9,7	10,8	11
7,5	DPE13XA4	Y	24	30	36,5	40	40,5	40,5	36,5	9,8	10,9	12,1	12,8	12,9	14,3	14,6
9,5	DPE16LB4	Y	30	37,5	45	49	50	50	45	12,7	14,1	15,6	16,5	16,6	18,4	18,8
11	DPE16LB4	Y	35	44	53	58	59	59	53	14,6	16,2	18	19,1	19,2	21,5	22
15	DPE16XB4	Y	48,5	60	72	80	81	81	72	17,9	20,5	23,5	25	25,5	28	28,5
18,5	DPE18LB4	Y	60	75	90	98	100	100	90	23,5	26,5	29,5	31,5	31,5	35	36
22	DPE18XB4	Y	70	88	106	116	118	118	106	26,5	30	33,5	36	36	40	41
30	DPE20LA4	Y	96	120	144	158	160	160	144	33,5	38	43,5	47	47	53	54
37	DPE22SA4	Y	120	150	180	197	200	200	180	39	45	52	56	57	63	64
45	DPE22MA4	Y	140	175	210	230	230	230	210	49	57	65	71	71	79	81

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 inverter. 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.

Catalogue geared motors IE3 Motors

Operation with frequency converter

IE3 Motor torques for frequency-converter range 5 Hz - 120 Hz, line frequency 60 Hz

P KW	Type	Connection	5 Hz	10 Hz	20 Hz	30 Hz	104 Hz	120 Hz	5 Hz	10 Hz	20 Hz	30 Hz	104 Hz	120 Hz
			M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	I A	I A	I A	I A	I A	I A
0,55	DPE08XA4	D	1,8	2,2	2,7	2,9	3	3	1,86	1,97	2,1	2,2	2,2	2,4
0,75	DPE08XB4	D	2,4	3,1	3,7	4,1	4,1	4,1	2,5	2,6	2,8	2,8	2,9	3,2
0,75	DPE09LA4	D	2,4	3	3,6	4	4,1	4,1	2,2	2,3	2,5	2,6	2,6	2,9
1,1	DPE09XA4	D	3,6	4,5	5,4	5,9	6	6	3,2	3,4	3,6	3,8	3,8	4,1
1,5	DPE09XB4	D	5	6,2	7,4	8,1	8,3	8,3	3,6	4	4,4	4,7	4,7	5,2
2,2	DPE09XB4C	D	7,2	9	10,8	11,8	12	12	5,6	6,1	6,6	6,9	7	7,7
2,2	DPE11MA4	D	7,2	9	10,8	11,8	12	12	5,8	6,2	6,6	6,9	7	7,7
3	DPE11LA4	D	9,7	12,2	14,6	16,1	16,3	16,3	7,3	8	8,8	9,3	9,4	10,3
3,7	DPE11LA4	D	12	15	18	19,7	20	20	9,2	10	11	11,6	11,7	12,8
4	DPE11LB4	D	13,2	16,5	19,8	21,5	22	22	8,9	10	11,2	11,9	12	13,2
4,5	DPE11LB4	D	14,3	17,9	21,5	23,5	23,5	23,5	9,5	10,8	12,2	13,1	13,2	14,5
5,5	DPE11LB4C	D	18	22,5	27	29,5	30	30	13,1	14,4	15,8	16,7	16,9	18,5
7,5	DPE13XA4	D	24	30	36,5	40	40,5	40,5	16,9	18,8	21	22,5	22,5	25
9,5	DPE16LB4	D	30	37,5	45	49	50	50	22	24,5	27	29	29	32
11	DPE16LB4	D	35	44	53	58	59	59	25,5	28	31,5	33	33,5	37
15	DPE16XB4	D	48,5	60	72	80	81	81	31	35,5	40,5	43,5	43,5	48
18,5	DPE18LB4	D	60	75	90	98	100	100	41	45,5	51	55	55	60
22	DPE18XB4	D	70	88	106	116	118	118	45,5	52	58	62	63	69
30	DPE20LA4	D	96	120	144	158	160	160	58	66	75	81	82	90
37	DPE22SA4	D	120	150	180	197	200	200	67	78	90	97	98	108
45	DPE22MA4	D	140	175	210	230	230	230	85	98	113	122	123	136

Field weakening for frequencies above 104 Hz, winding for standard voltage **265 V Y / 60 Hz**
($U_{max} = 460 \text{ V } \Delta / 104 \text{ Hz}$), 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

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 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.

Operation with frequency converter

IE3 Motor torques for frequency-converter range 5 Hz - 70 Hz, line frequency 50 Hz

P kW	Type	Conne- ction	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
			M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	I A	I A	I A	I A	I A	I A
0,12	DHE05LA4	Y	0,51	0,63	0,76	0,83	0,85	0,85	0,72	0,39	0,4	0,415	0,42	0,42	0,475	0,475
0,18	DHE05LA4	Y	0,76	0,96	1,15	1,26	1,28	1,28	1,02	0,55	0,57	0,59	0,6	0,6	0,68	0,64
0,12	DHE06LA4	Y	0,51	0,63	0,76	0,83	0,85	0,85	0,72	0,39	0,4	0,415	0,42	0,42	0,475	0,475
0,18	DHE06LA4	Y	0,76	0,96	1,15	1,26	1,28	1,28	1,02	0,55	0,56	0,58	0,59	0,59	0,67	0,63
0,25	DHE07LA4	Y	1,05	1,31	1,57	1,72	1,75	1,75	1,39	0,7	0,73	0,76	0,78	0,78	0,88	0,83
0,37	DHE08MA4	Y	1,47	1,83	2,2	2,4	2,4	2,4	2	1	1,03	1,08	1,1	1,1	1,25	1,21
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	DHE08XA4	Y	3	3,8	4,5	4,9	5	5	4,2	1,6	1,7	1,81	1,88	1,88	2,2	2,2
0,75	DHE09SA4	Y	3	3,8	4,5	4,9	5	5	4,2	1,54	1,63	1,73	1,8	1,8	2,1	2,1
1,1	DHE09LA4	Y	4,3	5,4	6,5	7,2	7,3	7,3	6,2	2,1	2,2	2,5	2,6	2,6	2,9	2,9
1,5	DHE09XA4	Y	5,9	7,4	8,9	9,8	9,9	9,9	8,5	2,7	2,9	3,2	3,4	3,4	3,8	3,8
2,2	DHE09XB4	Y	8,8	11,1	13,3	14,6	14,8	14,8	12,6	3,7	4	4,5	4,7	4,7	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	Y	15,9	19,8	23,5	26	26,5	26,5	22,5	6,9	7,4	8	8,4	8,4	9,5	9,5
5,5	DHE11LA4C	Y	21,5	27	32	35,5	36	36	30,5	8,2	9,2	10,3	11	11	12,5	12,5
5,5	DHE11LB4	Y	21,5	27	32	35,5	36	36	30,5	8,3	9,2	10,3	11	11	12,5	12,5
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	Y	29	36,5	44	48	49	49	42	11,2	12,6	14,1	15	15,1	17,1	17,1
9,5	DHE16MB4	Y	37	46,5	55	61	62	62	53	14,8	16,5	18,4	19,6	19,7	22,5	22,5
11	DHE16LB4	Y	42,5	53	64	70	71	71	61	17,2	19	21,5	22,5	22,5	25,5	25,5
15	DHE16XB4	Y	58	73	87	96	97	97	83	24	26,5	29,5	31	31	35	35,5
18,5	DHE18LB4	Y	72	90	108	118	120	120	102	25	28,5	32,5	35	35	39,5	40
22	DHE18XB4	Y	85	106	127	140	142	142	121	33,5	37	41	43,5	43,5	49,5	49,5
30	DNFHE20LA4	Y	117	146	175	192	195	195	167	37,5	43,5	50	54	55	62	62
37	DNFHE22SA4	Y	144	180	215	235	240	240	205	46	53	62	67	67	76	76
45	DNFHE22MA4	Y	174	215	260	285	290	290	245	55	64	73	80	80	91	91

Field weakening for frequencies above 50 Hz, winding for standard voltage **400 V Y / 50 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 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.

Catalogue geared motors IE3 Motors

Operation with frequency converter

IE2 Motor torques for frequency-converter range 5 Hz - 120 Hz, line frequency 50 Hz

P kW	Type	Conne- ction	M5 Hz	M8,7 Hz	M10 Hz	M20 Hz	M87 Hz	M100 Hz	M120 Hz	I5 Hz	I8,7 Hz	I10 Hz	I20 Hz	I87 Hz	I100 Hz	I120 Hz
			Nm	Nm	Nm	Nm	Nm	Nm	Nm	Nm	A	A	A	A	A	A
0,12	DHE05LA4	D	0,51	0,61	0,63	0,76	0,85	0,85	0,73	0,68	0,69	0,7	0,72	0,73	0,8	0,83
0,18	DHE05LA4	D	0,76	0,92	0,96	1,15	1,28	1,28	1,05	0,95	0,98	0,98	1,02	1,04	1,14	1,11
0,12	DHE06LA4	D	0,51	0,61	0,63	0,76	0,85	0,85	0,73	0,68	0,69	0,7	0,72	0,73	0,8	0,83
0,18	DHE06LA4	D	0,76	0,92	0,96	1,15	1,28	1,28	1,05	0,94	0,97	0,97	1	1,03	1,13	1,1
0,25	DHE07LA4	D	1,05	1,25	1,31	1,57	1,75	1,75	1,43	1,22	1,25	1,26	1,32	1,36	1,49	1,45
0,37	DHE08MA4	D	1,47	1,76	1,83	2,2	2,4	2,4	2	1,72	1,78	1,79	1,86	1,91	2,1	2,2
0,55	DHE08LA4	D	2,2	2,6	2,8	3,3	3,7	3,7	2,9	1,95	2,1	2,1	2,2	2,4	2,6	2,5
0,75	DHE08XA4	D	3	3,6	3,8	4,5	5	5	4,3	2,8	2,9	3	3,2	3,3	3,6	3,7
0,75	DHE09SA4	D	3	3,6	3,8	4,5	5	5	4,3	2,7	2,8	2,8	3	3,2	3,5	3,6
1,1	DHE09LA4	D	4,3	5,2	5,4	6,5	7,3	7,3	6,3	3,6	3,8	3,9	4,2	4,5	4,9	5
1,5	DHE09XA4	D	5,9	7,1	7,4	8,9	9,9	9,9	8,6	4,6	5	5,1	5,5	5,9	6,4	6,6
2,2	DHE09XB4	D	8,8	10,6	11,1	13,3	14,8	14,8	12,8	6,4	6,9	7	7,7	8,2	9	9,3
2,2	DHE11SA4	D	8,7	10,4	10,8	13	14,5	14,5	12,6	6,2	6,7	6,8	7,5	8	8,8	9,1
3	DHE11MA4	D	12	14,3	15	18	20	20	17,4	8,4	9,1	9,3	10,3	11	12	12,4
4	DHE11LA4	D	15,9	19	19,8	23,5	26,5	26,5	23	11,9	12,6	12,8	13,9	14,6	16	16,5
5,5	DHE11LA4C	D	21,5	25,5	27	32	36	36	31	14,2	15,6	15,9	17,8	19,1	21	22
5,5	DHE11LB4	D	21,5	25,5	27	32	36	36	31	14,3	15,6	15,9	17,8	19,1	21	22
5,5	DHE13MA4	D	21,5	25,5	27	32	36	36	31	14,1	15,5	15,8	17,7	19,1	21	22
7,5	DHE13LA4	D	29	35	36,5	44	49	49	42,5	19,3	21,5	22	24,5	26,5	29	30
9,5	DHE16MB4	D	37	44,5	46,5	55	62	62	53	26	28	29	32	34,5	37,5	39
11	DHE16LB4	D	42,5	51	53	64	71	71	62	30	32,5	33	36,5	39	43	44,5
15	DHE16XB4	D	58	70	73	87	97	97	84	41,5	45	46	51	54	59	61
18,5	DHE18LB4	D	72	86	90	108	120	120	104	43,5	48	49,5	56	61	67	69
22	DHE18XB4	D	85	102	106	127	142	142	123	58	63	64	71	76	83	86
30	DNFHE20LA4	D	117	140	146	175	195	195	169	65	73	75	87	95	104	107
37	DNFHE22SA4	D	144	172	180	215	240	240	205	79	90	92	106	117	128	132
45	DNFHE22MA4	D	174	205	215	260	290	290	250	94	106	110	127	139	152	157

Field weakening for frequencies above 87 Hz, winding for
230 V Δ/ 50 Hz ($U_{max} = 400 \text{ V } \Delta/87 \text{ Hz}$), Temperature Class F.

- P Rated output
- n Guideline value for rated speed at the rotor shaft
- M P0ermissible 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

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.

Operation with frequency converter

IE2 Motor torques for frequency-converter range 5 Hz - 80 Hz, line frequency 60 Hz

P kW	Type	Conne- tion	5 Hz	10 Hz	20 Hz	30 Hz	60 Hz	70 Hz	80 Hz	5 Hz	10 Hz	20 Hz	30 Hz	60 Hz	70 Hz	80 Hz
			M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	I A	I A	I A	I A	I A
0,12	DHE05LA4	Y	0,42	0,52	0,63	0,69	0,7	0,7	0,63	0,34	0,35	0,365	0,37	0,37	0,41	0,42
0,18	DHE05LA4	Y	0,63	0,79	0,95	1,04	1,06	1,06	0,95	0,485	0,5	0,51	0,52	0,52	0,58	0,59
0,12	DHE06LA4	Y	0,42	0,52	0,63	0,69	0,7	0,7	0,63	0,34	0,35	0,365	0,37	0,37	0,41	0,42
0,18	DHE06LA4	Y	0,63	0,79	0,95	1,04	1,06	1,06	0,95	0,485	0,5	0,51	0,52	0,52	0,58	0,59
0,25	DHE07LA4	Y	0,88	1,1	1,32	1,45	1,47	1,47	1,32	0,63	0,66	0,68	0,7	0,7	0,78	0,8
0,37	DHE08MA4	Y	1,2	1,5	1,8	1,97	2	2	1,8	0,96	0,96	0,96	0,96	0,96	1,07	1,09
0,55	DHE08LA4	Y	1,83	2,2	2,7	3	3	3	2,7	1	1,07	1,15	1,2	1,2	1,33	1,36
0,75	DHE08XA4	Y	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	Y	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
1,1	DHE09LA4	Y	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
1,5	DHE09XA4	Y	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	DHE09XB4	Y	7,2	9	10,8	11,9	12,1	12,1	10,8	3,2	3,6	3,9	4,1	4,1	4,5	4,7
2,2	DHE11SA4	Y	7,2	9	10,8	11,8	12	12	10,8	3,1	3,5	3,8	4	4	4,5	4,5
3	DHE11MA4	Y	9,9	12,3	14,8	16,2	16,5	16,5	14,8	4,2	4,7	5,2	5,5	5,5	6,1	6,3
4	DHE11LA4	Y	13	16,2	19,5	21	21,5	21,5	19,5	6,2	6,6	7	7,3	7,3	8,1	8,3
5,5	DHE11LB4	Y	18	22,5	27	29,5	30	30	27	7,5	8,2	9,1	9,6	9,6	10,7	10,9
5,5	DHE13MA4	Y	18	22,5	27	29,5	30	30	27	7,3	8,1	9,1	9,7	9,7	10,8	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
9,5	DHE16LB4	Y	30,5	38	45,5	50	51	51	45,5	12,4	13,9	15,4	16,4	16,5	18,3	18,7
11	DHE16LB4	Y	35	44	53	58	59	59	53	15	16,6	18,4	19,5	19,6	22	22,5
15	DHE16XB4	Y	48,5	60	72	80	81	81	72	21	23	25,5	27	27	30	31
18,5	DHE18LB4	Y	60	75	90	98	100	100	90	22	25,5	29	31	31	34,5	35,5
22	DHE18XB4	Y	70	88	106	116	118	118	106	29,5	32,5	36	38,5	38,5	43	43,5

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.

Catalogue geared motors IE3 Motors

Operation with frequency converter

IE2 Motor torques for frequency-converter range 5 Hz - 120 Hz, line frequency 60 Hz

P kW	Type	Connec- tion	6 Hz	12 Hz	24 Hz	36 Hz	104 Hz	120 Hz	6 Hz	12 Hz	24 Hz	36 Hz	104 Hz	120 Hz
			M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	I A	I A	I A	I A	I A
0,12	DHE05LA4	D	0,42	0,52	0,63	0,69	0,7	0,7	0,59	0,61	0,63	0,64	0,65	0,71
0,18	DHE05LA4	D	0,63	0,79	0,95	1,04	1,06	1,06	0,84	0,86	0,89	0,9	0,91	0,99
0,12	DHE06LA4	D	0,42	0,52	0,63	0,69	0,7	0,7	0,59	0,61	0,63	0,64	0,65	0,71
0,18	DHE06LA4	D	0,63	0,79	0,95	1,04	1,06	1,06	0,84	0,86	0,89	0,9	0,91	0,99
0,25	DHE07LA4	D	0,88	1,1	1,32	1,45	1,47	1,47	1,09	1,13	1,18	1,21	1,22	1,34
0,37	DHE08MA4	D	1,2	1,5	1,8	1,97	2	2	1,67	1,67	1,67	1,67	1,67	1,83
0,55	DHE08LA4	D	1,83	2,2	2,7	3	3	3	1,73	1,85	1,99	2,1	2,1	2,3
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	DHE09XB4	D	7,2	9	10,8	11,9	12,1	12,1	5,7	6,2	6,7	7,1	7,2	7,9
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	DHE11LB4	D	18	22,5	27	29,5	30	30	12,9	14,2	15,6	16,5	16,7	18,3
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	DHE16LB4	D	30,5	38	45,5	50	51	51	21,5	24	27	28,5	29	31,5
11	DHE16LB4	D	35	44	53	58	59	59	26	29	32	34	34	37,5
15	DHE16XB4	D	48,5	60	72	80	81	81	36,5	40	44	46,5	47	52
18,5	DHE18LB4	D	60	75	90	98	100	100	38	43,5	49,5	54	54	60
22	DHE18XB4	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**
($U_{max} = 460 \text{ V } \Delta / 104 \text{ Hz}$), 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

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.

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).

Increased torque with reduced duty factor

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 requirement - approximate
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

Increased torque with external fan

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.

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

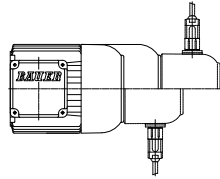
Regenerative torques (braking torques) are required for motors used in lifting gear, for example. In conjunction with high quality frequency inverters, the motor torques listed in the table can also be applied as regenerative torques. As with motor torque, an increase in regenerative torque with reduced duty factor is permissible.

Notes on operation with other-make 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.

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Page

Motor-mounted components

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- Brake
- Encoder system
- Incremental encoder
- Absolute encoder
- Modular motor system

Motor Mounted Components

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

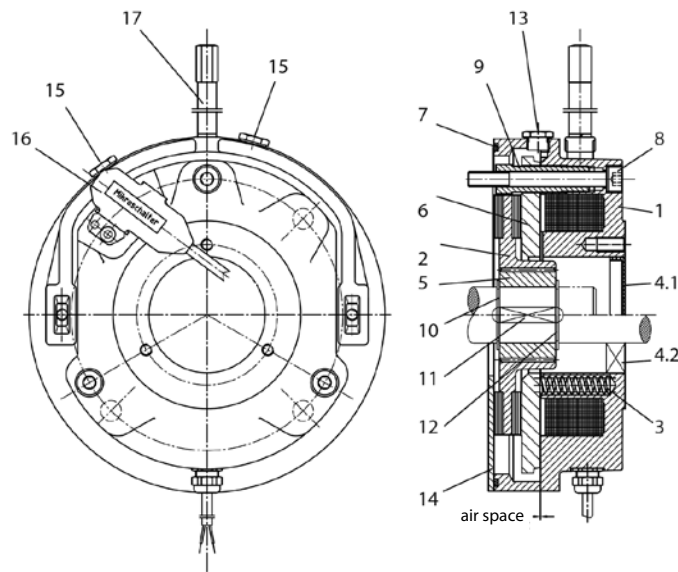


Figure 1: Construction of ES(X) brake

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

- | | |
|-----|--|
| 1 | Electromagnet housing |
| 2 | Brake disc |
| 3 | Compression spring |
| 4.1 | Cover plate with closed brake |
| 4.2 | Shaft seal with through shaft |
| 5 | Drive bush |
| 6 | Anchor disc |
| 7 | O-ring |
| 8 | Fitting screw with copper washer |
| 9 | Hollow screw |
| 10 | Retaining ring |
| 11 | Key |
| 12 | Retaining ring |
| 13 | Screw plug for checking air gap |
| 14 | Friction plate (only with motor size Dxx08 or Dxx09) |
| 15 | Screw plug for checking microswitch setting |
| 16 | Microswitch (optional) |
| 17 | Manual release (optional) |

Product description of type ZS(X) spring-actuated brakes

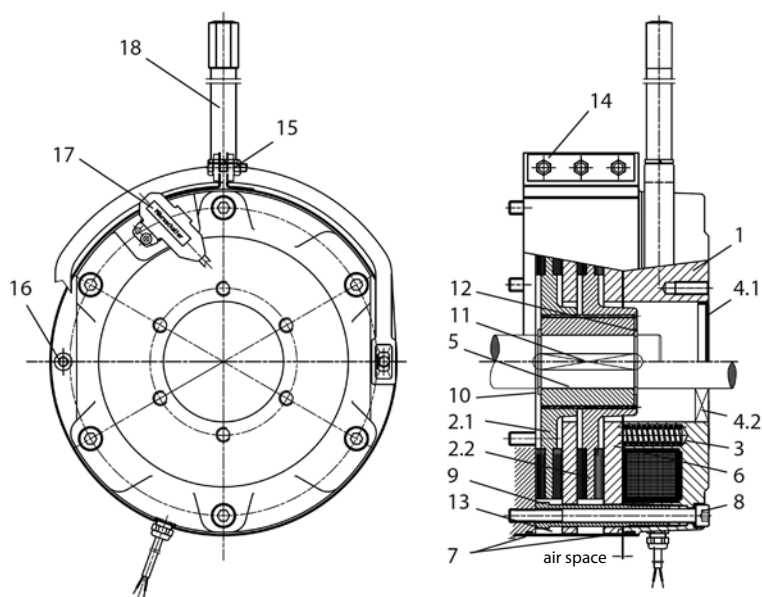


Figure 2: ZS(X) brake construction

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 bush
6	Anchor disc
7	O-ring
8	Fitting screw with copper washer
9	Hollow screw
10	Retaining ring
11	Key
12	Retaining ring
13	Cover
14	Fitting screws
15	Bracket
16	Assembly screw/assembly aid
17	Microswitch (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

$$J_{\text{ext}} = \frac{J_{\text{ext1}} \times n_1^2 + J_{\text{ext2}} \times n_2^2 + \dots + J_{\text{extn}} \times n_n^2}{i^2}$$

or the external moment of inertia reduced by the gear ratio of the gear unit to the value at the rotor shaft.

$$J_{\text{ext}'} = \frac{J_{\text{ext}}}{i^2}$$

J_{ext}	Total external moment of inertia [kgm ²]
$J_{\text{ext}'}$	Total external moment of inertia referenced to the rotor shaft [kgm ²]
$J_{\text{ext}1,2,\dots}$	Individual external moments of inertia [kgm ²]
i	Gear reduction ratio
n	Rotor shaft speed
$n_{1,2,\dots}$	Speeds of the individual moments of inertia [rpm]

Load torque under static load

$$M_L = F \times r$$

M_L	Load torque [Nm]
F	Force [N]
r	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.

$$M_a = \frac{J_{\text{ges}} \times n_a}{9,55 \times (t_a - t_A)} = \frac{(J_{\text{ext}'} + J_{\text{rot}} + J_{\text{Br}}) \times n_a}{9,55 \times (t_a - t_A)}$$

J_{Br}	Moment of inertia of the brake [kgm ²]
J_{rot}	Moment of inertia of the rotor shaft and rotor [kgm ²]
M_a	Deceleration torque [Nm]
n_a	Initial speed at start of deceleration [rpm]
t_a	Total deceleration time (from switch-off until drive is stationary) [s]
t_A	The response time of the brake for braking corresponds to t_{AC} or t_{DC} in the specification tables [s]

Dynamic and static loads

In most application situations, both static and dynamic loads are present.

$$M_{\text{Berf}} = (M_a \pm M_L) \times K \quad \text{where} \quad M_{\text{Berf}} \leq M_{\text{Br}} \quad \text{must hold true.}$$

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. This amounts to

$$W = \frac{J_{\text{ges}} \times n^2}{182,5} = \frac{(J_{\text{ext}'} + J_{\text{rot}} + J_{\text{Br}}) \times n_a^2}{182,5} \quad \text{where} \quad W \leq W_{\text{max}} \quad \text{must hold true.}$$

W	Braking energy for each brake cycle [J]
M_{max}	Maximum permissible frictional energy per brake cycle (see brake tables)

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

W_z Braking energy with Z brake cycles

Z 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

W_L 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:

$$t_a = \frac{J_{ges} \times n_a}{9,55 \times (M_{Br} \pm M_L)}$$

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 (I_{release}) before it overcomes the spring force and starts to release the brake.

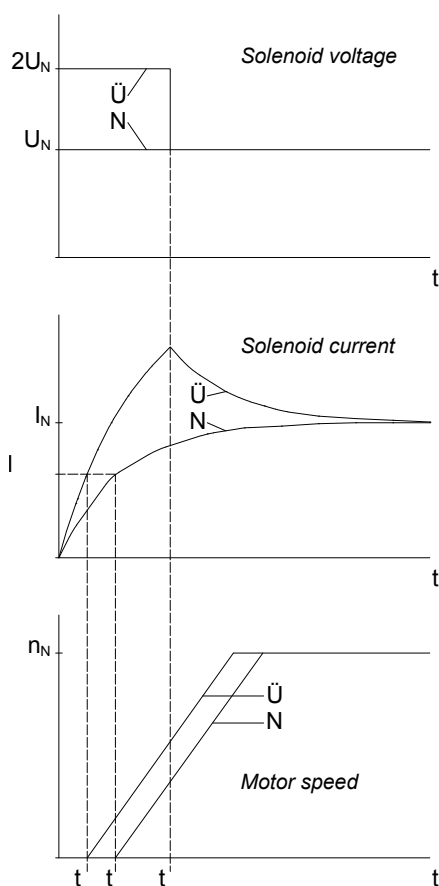


Figure 3: Idealised curves of coil voltage, coil current and motor speed with normal excitation (N) and overexcitation (Ü).
 $t_{\text{Ü}}$: overexcitation time; t_{AN} , t_{AU} : Response time with normal excitation and overexcitation.

Two different situations can arise during the response time t_A , 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.

M_A : locked rotor torque of the motor; M_L : load torque; M_{Br} : 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 I_{hold} , 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 t_{A1} : 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_{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.

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_{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.

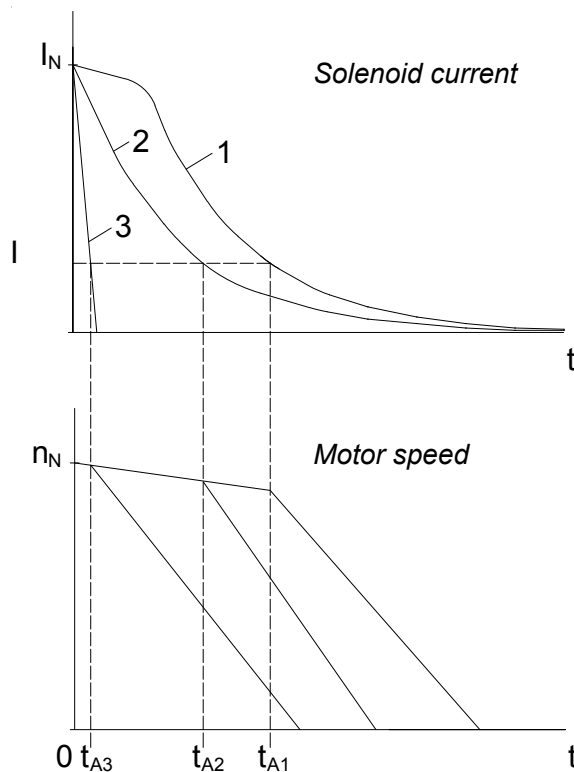


Figure 4: Idealised coil current and motor speed curves after switching off power on the AC side (1 and 2) or DC side (3)

If the circuit is interrupted on the DC side, a high voltage u_q is induced 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.

Motor Mounted Components

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.

Type	M _{Br} [Nm]	W _{max} [10 ³ J]	W _{th} [10 ³ J]	W _L [10 ⁶ J]	t _A [ms]	t _{AC} [ms]	t _{DC} [ms]	P _{el} [W]	J [10 ⁻³ kgm ²]
E003B9	3	1,5	-	-	35	150	15	20	0,01
E003B7	2,2	1,8	-	-	28	210	20		
E003B4	1,5	2,1	-	-	21	275	30		
E004B9	5	2,5	-	-	37	125	15	30	0,017
E004B8	4	3	-	-	30	160	18		
E004B6	2,8	3,6	-	-	23	230	26		
E004B4	2	4,1	-	-	18	290	37		
E004B2	1,4	4,8	-	-	15	340	47		
ES010AX	15*	3	-	-	110	-	30	35	0,045
ES010A9	10	3	-	-	60	100	15		
ES010A8	8	3	-	-	55	150	20		
ES010A5	5	3	-	-	45	220	20		
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	50	0,172
ES/EH027A7	20	2,5	-	-	100	130	20		
ES/EH027A6	16	2,5	-	-	80	170	25		
ES/EH040A9	40	3,5	-	-	100	100	20	65	0,45
ES/EH040A8	34	3,5	-	-	80	200	25		
ES/EH040A7	27	3,5	-	-	70	250	30		
ES070AX	90*	3,5	-	-	120	-	40	85	0,86
ES070A9	70	3,5	-	-	120	150	18		
ES070A8	63	3,5	-	-	120	200	20		
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		
ES125A5	57	4,5	-	-	100	600	40		
ES125A3	42	4,5	-	-	90	700	45	105	2,85
ES/EH200A9	200	8	-	-	400	150	22		
ES/EH200A8	150	8	-	-	280	250	35		
ES/EH200A7	140	8	-	-	200	320	35		
ES250AX	350*	9	-	-	180	-	70		
ES250A9	250	9	-	-	300	500	45		
ES250A8	200	9	-	-	200	960	60		
ES250A6	150	9	-	-	160	1100	60		
ES250A5	125	9	-	-	150	1500	90		
ES250A4	105	9	-	-	130	1800	110		
ZS300A9	300	8	-	-	280	220	35	75	5,7
ZS300A8	250	8	-	-	210	380	45		
EH400A9	400	10	-	-	300	600	60		
EH400A7	300	10	-	-	200	850	75		
EH400A5	200	10	-	-	150	1400	85		
ZS500A9	500	9	-	-	320	320	50	100	13,3
ZS500A8	400	9	-	-	260	600	60		
ZS800A9	800	20	-	-	400	550	65		
ZS800A7	600	20	-	-	320	920	80		
ZS800A5	400	20	-	-	250	1450	100		

* Requires overexcitation; permissible only with MSG rectifier

Braking torque tolerance: -10 / +30 %

W_{th} and W_L 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.

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.

Type	M _{Br} [Nm]	W _{max} [10 ³ J]	W _{th} [10 ³ J]	W _L [10 ⁶ J]		t _A [ms]	t _{AC} [ms]	t _{DC} [ms]	P _{el} [W]	J [10 ⁻³ kgm ²]
				without HL	with HL					
E003B9	3	1,5	36	55	55	35	150	15	20	0,01
E003B7	2,2	1,8	36	90	90	28	210	20		
E003B4	1,5	2,1	36	140	140	21	275	30		
E004B9	5	2,5	60	50	50	37	125	15	30	0,017
E004B8	4	3	60	100	100	30	160	18		
E004B6	2,8	3,6	60	180	180	23	230	26		
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		
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	50	0,172
ESX/EHX027A9	22	10	350	150	150	120	100	15		
ESX/EHX027A7	16	10	350	300	300	100	130	20		
ESX/EHX027A6	13	10	350	350	350	80	170	25		
ESX/EHX040A9	32	20	450	420	420	100	100	20	65	0,45
ESX/EHX040A8	27	20	450	560	490	80	200	25		
ESX/EHX040A7	22	20	450	700	490	70	250	30		
ESX070AX	72*	28	550	700	700	120	-	40	85	0,86
ESX070A9	58	28	550	500	500	120	150	18		
ESX070A8	50	28	550	800	700	120	200	20		
ESX070A7	40	28	550	1200	700	90	220	25		
ESX/EHX125AX	100*	40	700	1900	1900	100	-	70	105	1,22
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		
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	105	2,85
ESX/EHX200A9	120	60	850	1700	1700	280	250	35		
ESX/EHX200A8	110	60	850	2600	2600	200	320	35		
ESX250AX	280*	84	1000	2300	2300	180	-	70	135	6,65
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		
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	75	5,7
ZSX300A8	200	60	850	2000	2000	210	380	45		
EHX400A9	320	120	1100	3000	3000	300	600	60	180	19,5
EHX400A7	240	120	1100	4800	4800	200	850	75		
EHX400A5	160	120	1100	6000	4800	150	1400	85		
ZSX500A9	400	84	1000	2800	2800	320	320	50	100	13,3
ZSX500A8	320	84	1000	4000	4000	260	600	60		
ZSX800A9	640	120	1150	1550	1550	400	550	65		
ZSX800A7	480	120	1150	1550	1550	320	920	80	140	38,5
ZSX800A5	320	120	1150	1550	1550	250	1450	100		

* 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 t_A and t_{DC} apply for operation with an MSG rectifier; i.e. t_A for overexcitation or t_{DC} 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.

Key to symbols

M_{Br}	Rated braking torque
W_{max}	Maximum allowable friction energy for an emergency stop with a holding brake
W_{max}	Maximum allowable friction energy for each brake cycle with service brakes
W_{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
t _A	Response time for release with normal excitation. Overexcitation with a type MSG special rectifier reduces the response time by approximately 50 %.
t _{AC}	Response time for brakes with AC-side switch-off, i.e. by 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.
J	Moment of inertia of the drive bush and brake disc(s)

Connection

The electrical connections to the brake are made in the motor terminal box using terminals or the rectifier. Standard voltages are:

380–420 V 50/60 Hz (brake coil voltage 180 V DC)

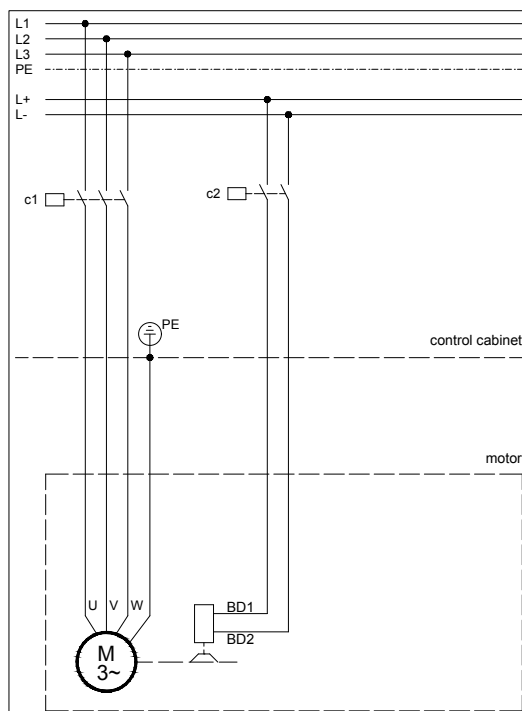
220–230 V 50/60 Hz (brake coil voltage 105 V DC)

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.



Motor Mounted Components

Brake

Standard rectifier (S)

Working principle

Half-wave rectifier with switch contacts for DC-side circuit interruption

Input voltage U_1

max. 575 VAC +5 %

Output voltage

$0.45 \times U_1$ 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

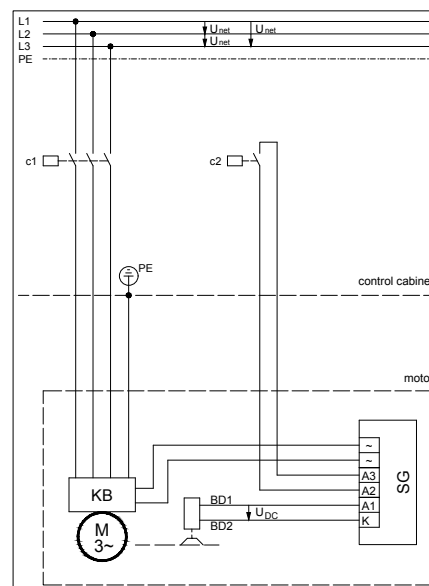
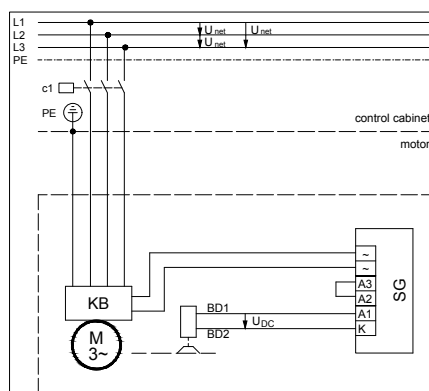
max. 1.5 mm² with wire end sleeve

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.

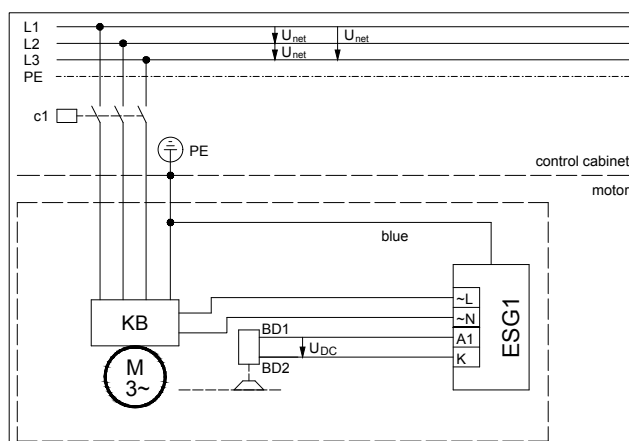


Voltage connection for the rectifier from the motor terminal block or cage clamp (see Rectifier Connection on Motor Terminal Block or Cage Clamp)

Rectifier for electronic rapid shutdown (E)

Working principle	Half-wave rectifier with electronic DC-side circuit interruption
Input voltage U_1	220–460 V AC $\pm 5\%$, 50/60 Hz
Output voltage	$0.45 \times U_1$ V DC
Max. output current	1 A DC
Ambient temperature	-20°C to $+40^\circ\text{C}$
Clampable conductor cross-section	max. 1.5 mm^2

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)

Motor Mounted Components

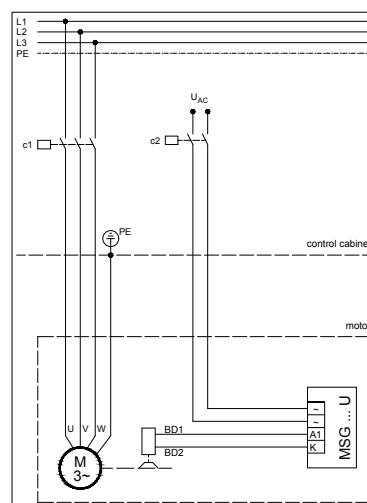
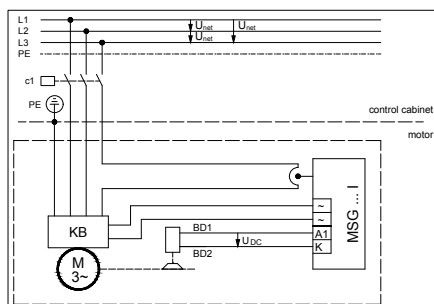
Brake

Standard rectifier (M)

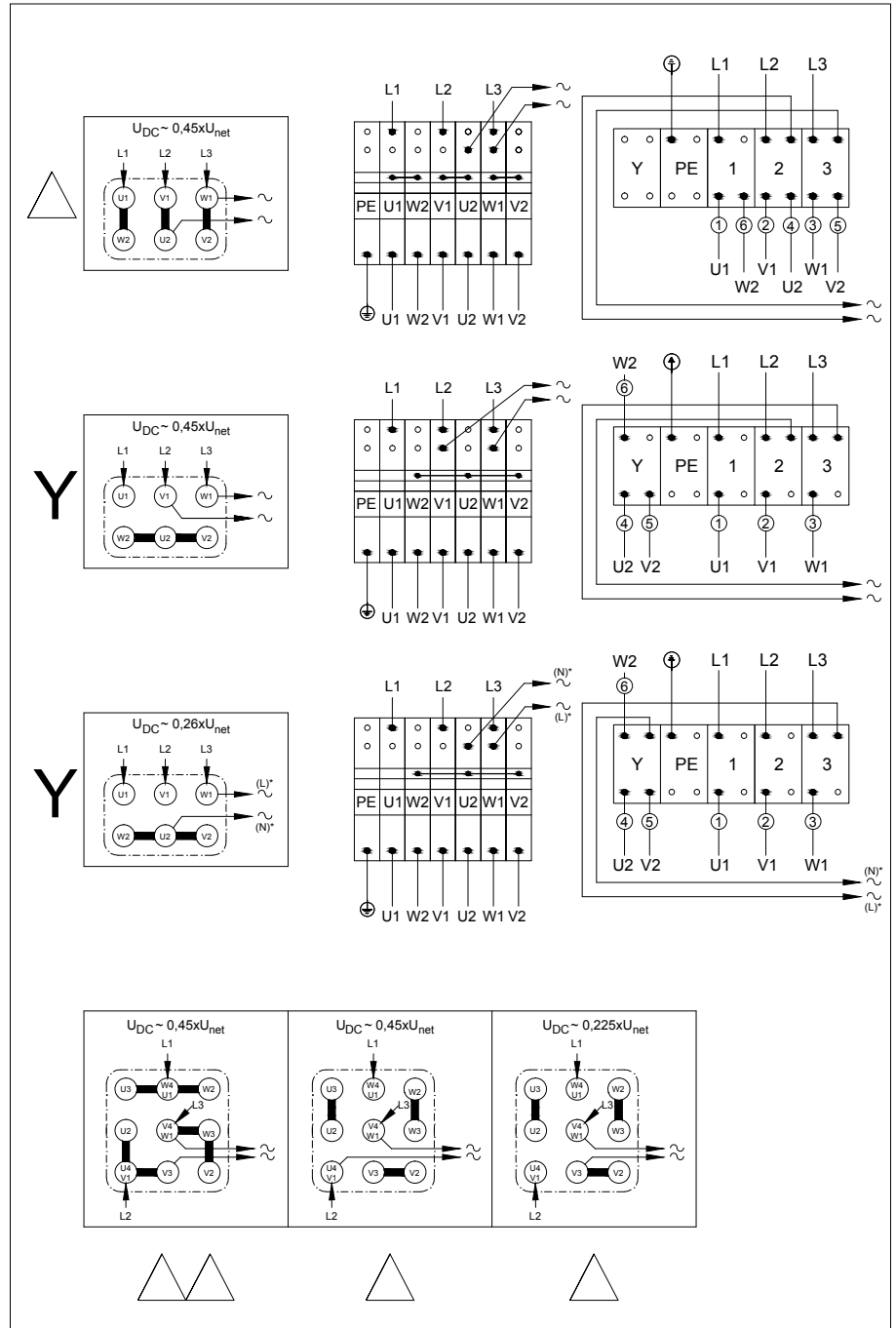
Working principle	MSG 1.5.480I Half-wave rectifier with time-limited overexcitation and electronic DC-side circuit interruption Fast shutdown due to no motor current in one phase
Input voltage U_1	220–480 V AC +6 / -10 %, 50/60 Hz
Output voltage	0.9 x U_1 V DC during overexcitation 0.45 x U_1 V DC over overexcitation period
Overexcitation time	0.3 s
Max. output current	1.5 A DC
Ambient temperature	-20° C to +40° C
Clampable conductor cross-section	max. 1.5 mm ²

Working principle	MSG 1.5.500U Half-wave rectifier with time-limited overexcitation and electronic DC-side circuit interruption Fast shutdown due to the absence of input voltage
Input voltage U_1	220–500 V AC ±10 %, 50/60 Hz
Output voltage	0.9 x U_1 V DC during overexcitation 0.45 x U_1 V DC over overexcitation period
Overexcitation time	0.3 s
Max. output current	1.5 A DC
Ambient temperature	-20° C to +40° C
Clampable conductor cross-section	max. 1.5 mm ²

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.



Rectifier Connection on Motor Terminal Block or Cage Clamp



Motor Mounted Components

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 separate 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 separate 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 IP65.

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 (1,1 kW) up to D..18 (30 kW) are available with backstop. The locking rotational direction clockwise (RR) or anticlockwise (RL) is to be 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.

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 of voltage		max. permissible current	max. power input
			50 Hz	60 Hz		
		(mm)			(A)	W
1 ~ Δ (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 ~ Δ	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

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 (0,18 kW) are protected against mechanical damage by means of a protective cover (Additional Dimension Sheet see chapter 17).

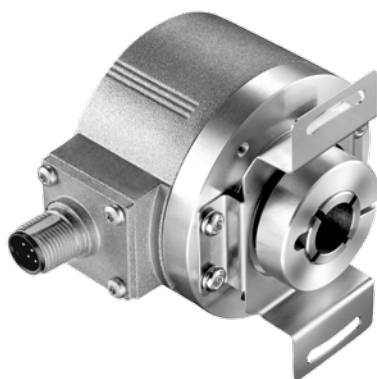
Special features: standard incremental encoder:

- 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 V DC
- Loss efficiency (no load): ≤ 3 Watt
- Output driver: RS-422 (2-wire)

Functional description



Incremental encoders are used to determine motor shaft positions. An incremental encoder detects rotary motion and converts 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:	8–30 V DC with HTL 5 V DC with differential TTL
Output signals:	HTL A, B and N tracks; optional TTL
Pulses per revolution:	1024 Optional 1...65536
Enclosure rating:	IP65 (optional IP67)
Temperature range:	-40° C to +100° C

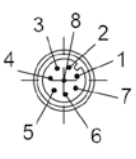
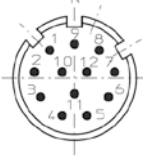
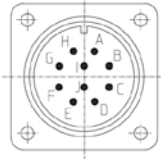
Electrical specifications

Output voltage	RS 422 (TTL compatible)	RS 422 (TTL compatible)	Differential	Differential (7272)
Supply voltage	5–30 V DC	5 V ±5%	8–30 V DC	5–30 V DC
No-load current consumption With inversion:	max. 70 mA	max. 70 mA	max. 70 mA	max. 70 mA
Allowable load per channel: Pulse rate:	max. ±20 mA max. 300 kHz	max. ±20 mA max. 300 kHz	max. ±20 mA max. 160 kHz	max. ±20 mA max. 160 kHz
High signal level:	min. 2.5 V	min. 2.5 V	min. UB – 3 V	min. UB – 3 V
Low signal level:	max. 0.5 V	max. 0.5 V	max. 1 V	max. 1 V

Motor Mounted Components

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			
Order code:	8.5000.XXX3.XXXX 8.5000.XXX4.XXXX	8.5000.XXX7.XXXX 8.5000.XXX8.XXXX	8.5000XXX.YXXXX
Mating 05.CMB-8181-0 connector:		8.0000.5012.0000	8.0000.5062.0000

Signal assignments

Signal:	0 V GND	+U _B	0 V Sens	+U _B Sens	A	A	B	B	Z	Z	Shield
M23 Multifast, 12-pin connector; pin assignments: M12 Eurofast, 8-pin connector; pin assignments:	10 1	12 2	11	2	5 3	6 4	8 5	1 6	3 7	4 8	1) 1)
Military version; 10-pin connector; pin assignments:	F	D		E	A	G	B	H	C	I	J ¹⁾
Cable; lead colour:	WH	BN	GY PK	RD BU	GN	YE	GY	PK	BU	RD	Shield

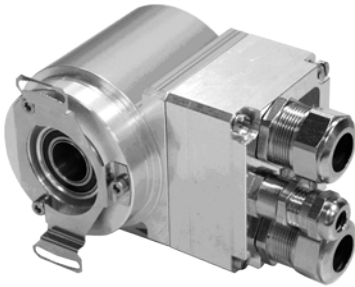
¹ Shield connected to plug housing.

Insulate unused outputs before putting into service.

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	≤ 8,192 / ≤ 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	≥ 3.9 x 10 ¹⁰ revolutions at
- speed	≤ 6,000 rpm
- operating temperature	≤ 60 °C
Shaft diameter [mm]	10H7
Permissible angular acceleration	≤ 10 ⁴ rad/s ²
Moment of inertia	2.5 x 10 ⁻⁶ kg m ² (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)	≤ 100 m/s ² , sinusoidal 50–2,000 Hz
Shock (EN 60068-2-27:1995)	≤ 1000 m/s ² , 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	IP65

² With mating connector fitted and/or cable glands fitted and tightened

Motor Mounted Components

Absolute rotary encoders

SSI interface



Specifications

Supply voltage	11–27 VDC
No-load current consumption	< 350 mA
Total resolution ¹	≤ 25 bits
Number of steps per revolution ¹	≤ 8,192
Number of rotations, standard ¹	≤ 4,096
Number of rotations, extended ¹	≤ 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	$16 \mu s \leq t_M \leq 25 \mu s$ (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
F/R ¹	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	≥ 3.9×10^{10} revolutions at
- speed	≤ 6,000 rpm
- operating temperature	≤ 60 °C
Shaft diameter [mm]	10H7
Permissible angular acceleration	≤ 10^4 rad/s ²
Moment of inertia	2.5×10^{-6} kg m ² (typical)
Start-up torque at 20 °C	2 Ncm (typical)
Weight	0.3–0.5 kg
Optional	- incremental signals, RS422 levels K1+, K1-, K2+, K2- with 1024 or 2048 pulses

¹⁾ Configurable parameter

Ambient conditions

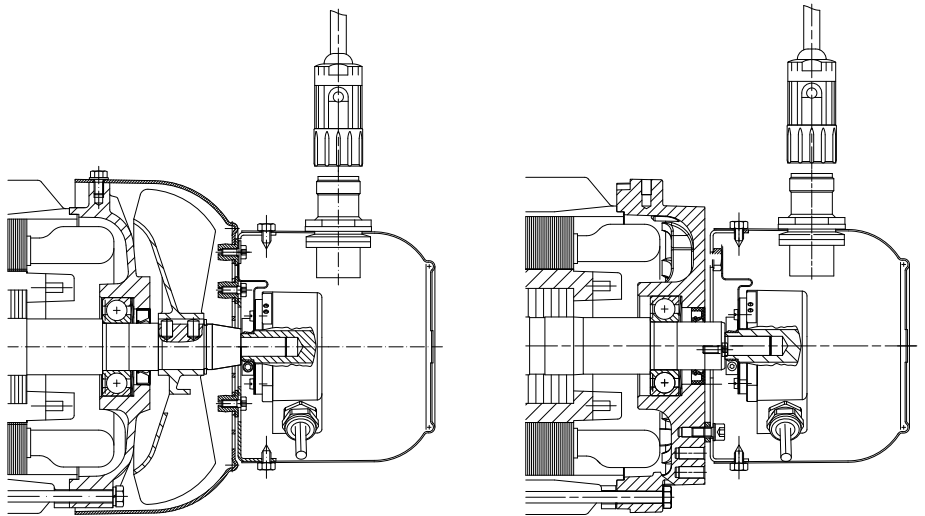
Vibration (EN 60068-2-6:1996)	≤ 100 m/s ² , sinusoidal 50–2,000 Hz
Shock (EN 60068-2-27:1995)	≤ 1000 m/s ² , half-cycle sinusoidal 11 ms
EMC	- Interference emission compliant with EN 61000-6-3:2007 - Interference immunity compliant with EN 61000-6-2:2006
Operating temperature	0° C to +60° C; optionally -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	IP65

²⁾ With mating connector fitted and/or cable glands fitted and tightened

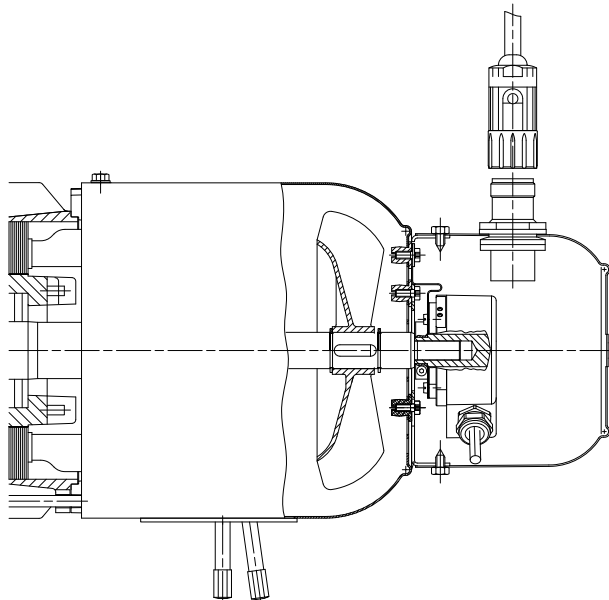
In addition to the angular position within a rotation, multiturn encoders detect multiple rotations. An internal reduction gear mechanism connected to the motor shaft is used to detect the number of turns. Consequently, the value measured by a multiturn encoder consists of the current angular position 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.

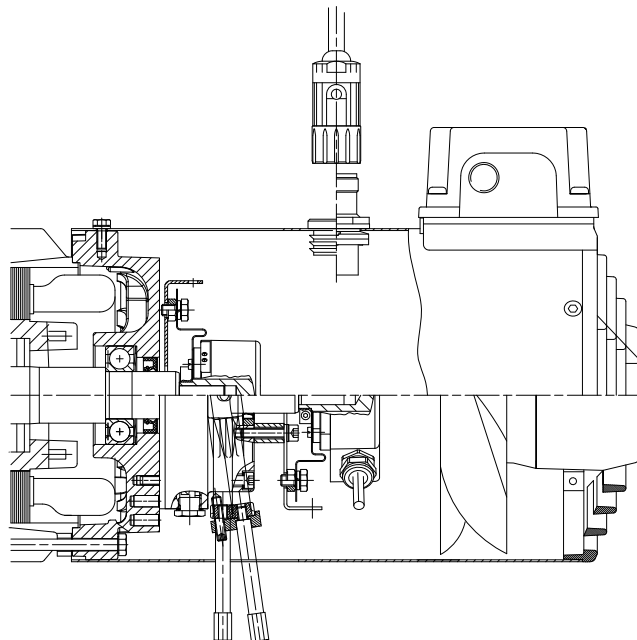
Motor and encoder

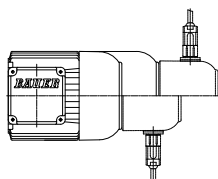


Motor, brake and encoder



Motor and forced ventilation





Page

Additional dimensional drawings for motor-mounted components

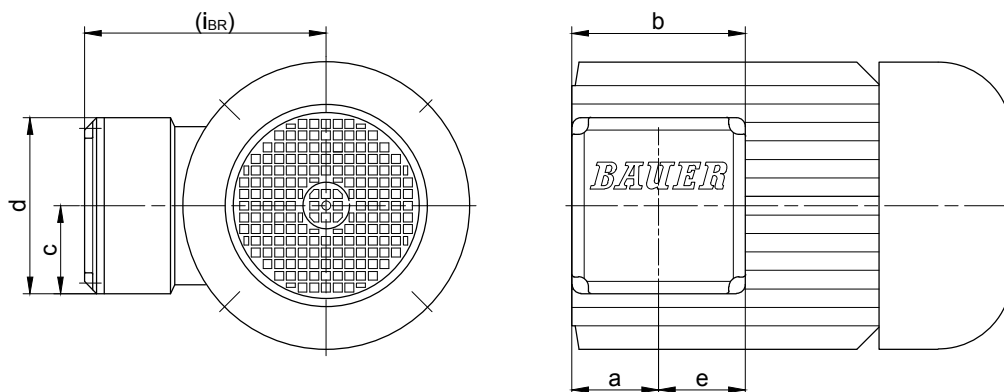
469-490

- 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**
- Motor Length Comparison**

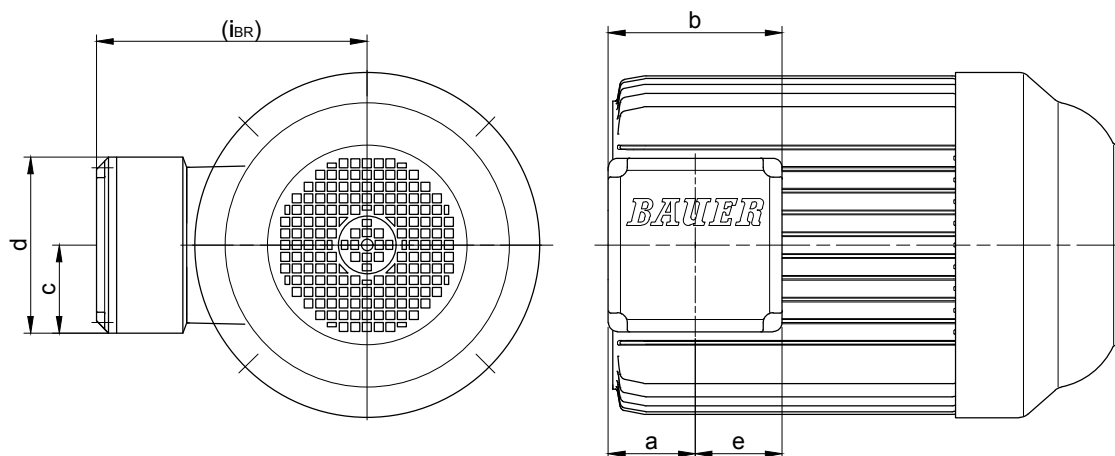
Motor-mounted components

Dimension

Standard terminal box



D04 - D..13



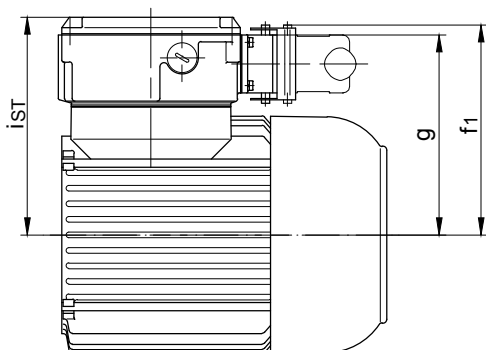
D..16 - D..22

Motor/ Motor with Brake	Dimensions (mm)						Code	Cable entry Major (M) Minor (N)	max. wrench size for cable entry gland
	a	b	c	d	e	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
D..08..	50	100	50	100	50	115	KAG2	M=2xM25x1.5	29 mm
D..09..	50	100	50	100	50	124	KAG2	M=2xM25x1.5	29 mm
D..11..	62	132	66.5	135	66	181	TB222	M=2xM32x1.5; N=2xM25x1.5	-
D..13..	78	156	78.5	158	78	217	TB322	M=2xM40x1.5; N=2xM25x1.5	-
D..16..	74	156	78.5	158	78	243	TB322	M=2xM40x1.5; N=2xM25x1.5	-
D..18..	94	200	100.5	201	100	288	TB422	M=2xM50x1.5; N=2xM25x1.5	-
D..20L	100	200	100.5	201	100	303.5	TB422	M=2xM50x1.5; N=2xM25x1.5	-
D..22S	100	200	100.5	201	100	303.5	TB422	M=2xM50x1.5; N=2xM25x1.5	-
D..22M	100	200	100.5	201	100	303.5	TB422	M=2xM50x1.5; N=2xM25x1.5	-

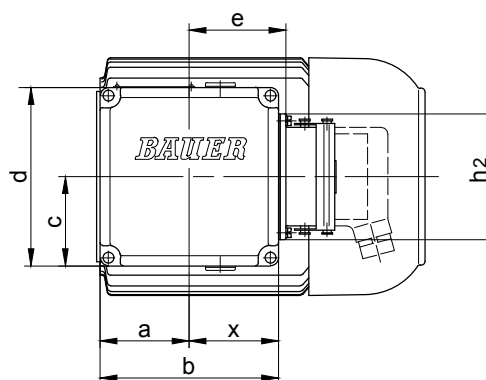
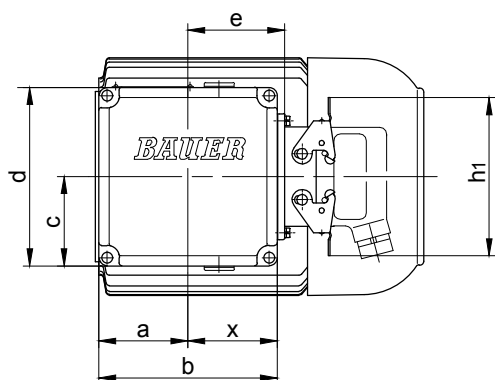
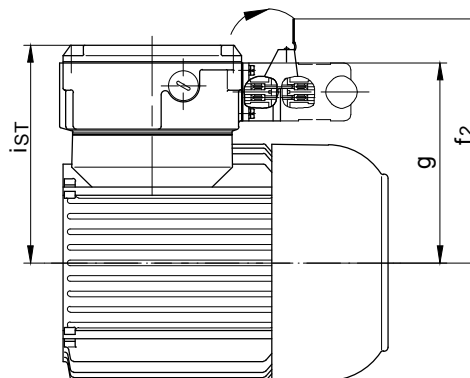
The actual gearbox design can vary from the geometry shown.

Plug-connector terminal box

Standard design (two brackets)



Optional for DESINA (one bracket)



Fan cover geometry for D..16 - D..22, see dimensional drawing: terminal box as standard version

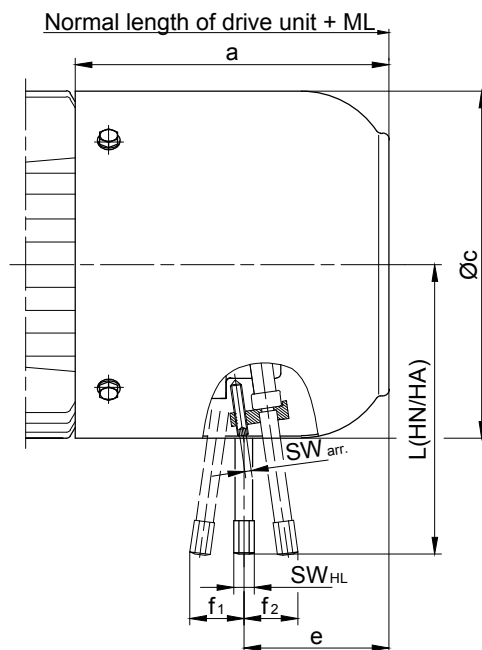
Motor	Size of terminal box	a	b	c	d	e	f ₁	f ₂	g	h ₁	h ₂	IST	x
D04	TBS1	30	90	52.5	106	49	118.5	147	111	117	93	124.5	46
D05	TBS1	57	90	52.5	106	49	123.5	152	116	117	93	129.5	46
D06	TBS1	45	90	52.5	106	49	125.5	154	118	117	93	131.5	46
D07	TBS1	45	90	52.5	106	49	125.5	154	118	117	93	131.5	46
D..08	TBS1	45	90	52.5	106	49	143.5	172	136	117	93	149.5	46
D..09	TBS2	62	132	66	135	71.5	158.5	187	158	117	93	164	68.5
D..11	TBS2	62	132	66	135	71.5	175.5	191	166	117	93	181	68.5
D..13	TBS3	78	156	78	158	83.5	199	227.5	191.5	117	93	216	79.5
D..16	TBS3	74	156	78	158	83.5	225	253.5	225	117	93	242	79.5
D..18	TBS4	94	200	100	201	105.5	257	299	257	117	93	287	100.5
D..20L	TBS4	94	200	100	201	105.5	274	299	266.5	117	93	303.5	100.5
D..22S	TBS4	94	200	100	201	105.5	274	299	266.5	117	93	303.5	100.5
D..22M													

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

Dimension

Standard brakes



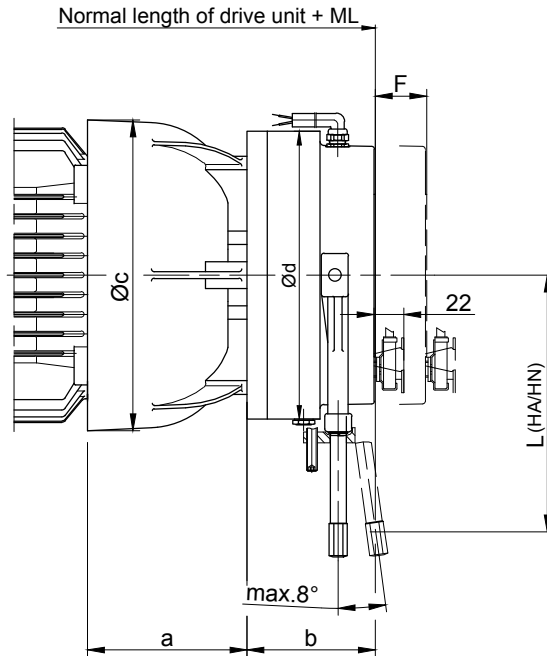
Motor Type	Brake Type	ML(mm) Additional length with brake	Dimensions (mm)								Add. weight kg		
			a	Øc	e	f ₁	f ₂	L(HN/HA)	SW _{HL}	SW _{arr.}			
D04	E003	43.5	97	110.5	58.5	20.5	24	96/102	11	11	1.0		
D05		42	102	123	60								
D06					58.5								
D07					E003 / E004								
D..08	ES(X)010	66	141	156	68	-	29	132	8	2.5	2.6		
D..09	ES(X)010	93	173	176	99	-	29	132	8	2.5	2.7		
	ES(X)027				91	-	35.5	162			4.2		
D..11	ES(X)027	98	195	218	103	-	35.5	162	8	2.5	4.5		
	ES(X)040				100	-	37	172			6.3		
	ES(X)070				96	-	34.5	190			12	4	8.5
	ES(X)040				111	225	258	125			-	41	202
ES(X)070	121	-	38	225				8.5					
ES(X)125	116	-	45	223				12.5					
D..16	ES(X)125	144	290	310	148	-	48.5	244	12	4	13.5		
	ES(X)200				141	-	50	256			19		
	ZS(X)300				112	-					22		
D..18	ES(X)250	150	339	348	153	-	58.5	286	12	4	28		
	ZS(X)500				123	-			19	5	30		
D..20L	ES(X)250	127.5	399	363	183	49	-	286	19	5	27.5		
	ZS(X)500				152.5								
	ZS(X)800				149			313					
D..22S	ES(X)250	127.5	399	363	183	49	-	286	19	5	27.7		
	ZS(X)500				152.5								
	ZS(X)800				149			313					
D..22M	ES(X)250	127.5	399	363	183	49	-	286	19	5	61.5		
	ZS(X)500				152.5								
	ZS(X)800				149			313					

HN = Manual release non-locking

HA = Manual release locking

The actual gearbox design can vary from the geometry shown.

“Heavy-Duty“- brake



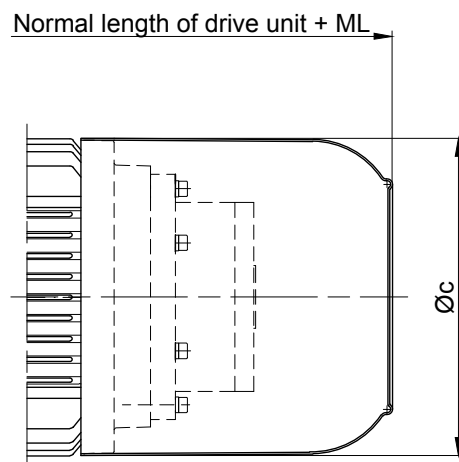
Motor	Brake	ML(mm) Additional length with brake		Dimensions (mm)					Add. weight kg
		Standard	Micro s.	a	b	c	Ød	L (HA/HN)	
D..08	EH(X)027	79	101	83.5	66.5	166	145	162	5.5
D..09	EH(X)040	90	112	102	73	191	168	172	8.3
D..11	EH(X)125	114	136	120	95	231	213	208.5	19.5
D..13	EH(X)200	128	150	140	106	274.5	245	221	29.3
D..16	EH(X)400	141	163	155	124	326	324	313	55.8
D..18		152	174	183		366			61

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

Dimension

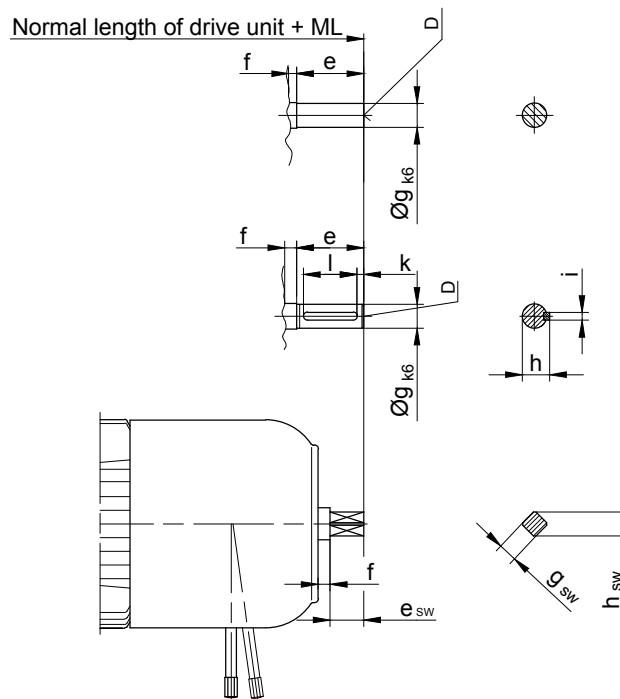
Motor with back stop



Motor	ML (mm) Add. length with backstop	Dimensions (mm)	Add. weight
		c	kg
D..08	66	156	6.5
D..09	93	181	6.5
D..11	98	228	8
D..13	111	258	13.5
D..16	144	310	16
D..18	150	348	17
D..20L	-	363	9.5
D..22S			
D..22M			

The actual gearbox design can vary from the geometry shown.

Motors with brake and second shaft end



Motor	Brake	Additional length		Dimensions (mm)											Center D DIN332	
		ML	ML _{SW}	e	e _{SW}	f	g	g _{SW}	h	h _{SW}	i	k	l	Center D	SW	
D04	E003	63	-	15	-	5	8	-	-	-	-	-	-	-	-	-
D05				20			10									
D06				20			10									
D07				20			10									
D..08	ES(X)..	121	96*	50	25*	5	18	SW14*	20.5	18*	6	5	40	D6	D4*	
D..09		98	123*	50*	25		20*	SW14	22.5*	18	6*	5*	40*	D6*	D4	
D..11		153.5*	128	60*	40		4.5	28*	SW22	31*	28		8*	50*	D10*	D10
D..13		176*	156													
D..16	ES(X).. / ZS(X)..	208.5*	188.5	60*	40	5	28*	SW22	31*	28	8*	5*	50*	D10*	D10	
D..18		359*	194.5													
D..20L	ES(X).. / ZS(X)..	127.5*	172.5	60*	40	5	28*	SW22	31*	28	8*	5*	50*	D10*	D10	
D..22S																
D..22M																

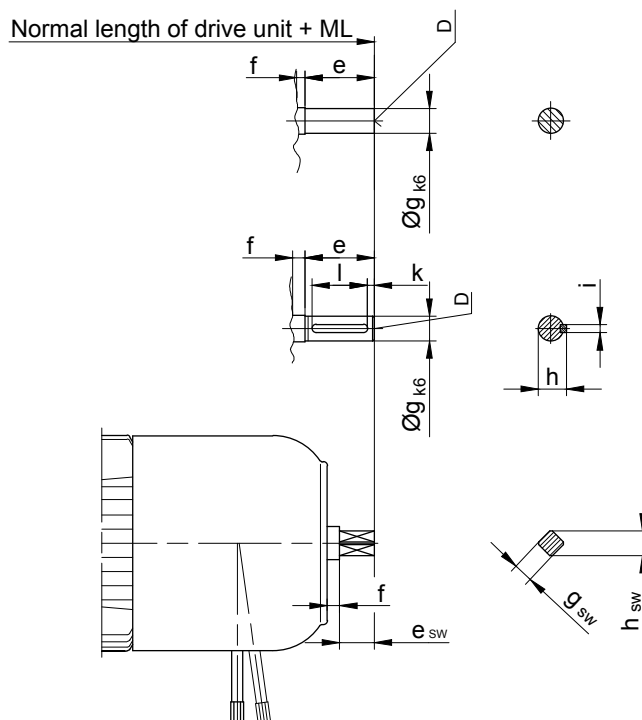
* Special design with manual release

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

Dimension

Motors with brake and second shaft end

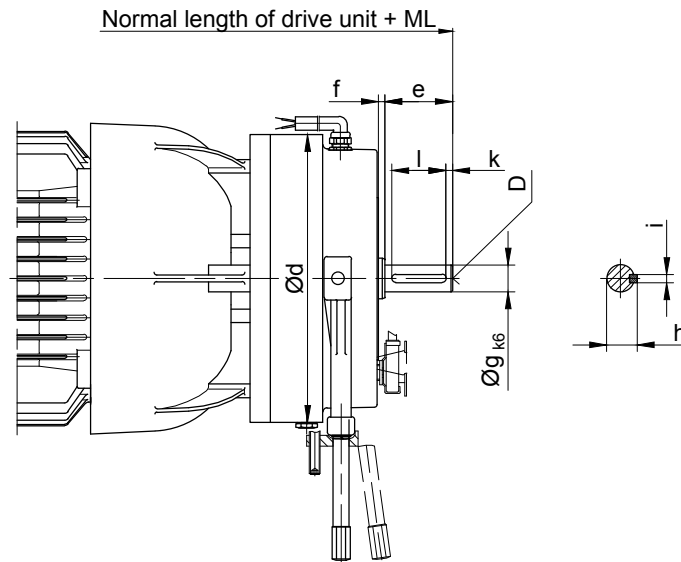


Motor	Brake	Additional length		Dimensions (mm)											Center D DIN332	
		ML	ML _{SW}	e	e _{SW}	f	g	g _{SW}	h	h _{SW}	i	k	l	sw		
D04	E003	63	-	15	-	5	8	-	-	-	-	-	-	-	-	-
D05				20			10									
D06				20			10									
D07				20			10									
D..08	ES(X)..	121	96*	50	25*	5	18	SW14*	20.5	18*	6	5	40	D6	D4*	
D..09		98	123*				18	SW14*	20.5	18*	6	5	40	D6	D4*	
D..11		153.5*	128	50*	25		20*	SW14	22.5*	18	6*	40*	D6*	D4		
D..13		176*	156	20*	SW14		22.5*	18	6*	40*	D6*	D4				
D..16	ES(X).. / ZS(X)..	208.5*	188.5	60*	40	4.5	28*	SW22	31*	28	8*	5*	50*	D10*	D10	
D..18		359*	194.5	5	28*	SW22	31*	28	8*	5*	50*	D10*	D10			
D..20L	ES(X).. / ZS(X)..	127.5*	172.5	60*	40	5	28*	SW22	31*	28	8*	5*	50*	D10*	D10	
D..22S																
D..22M																

* Special design with manual release

The actual gearbox design can vary from the geometry shown.

Motor with "heavy duty" brake and second shaft end



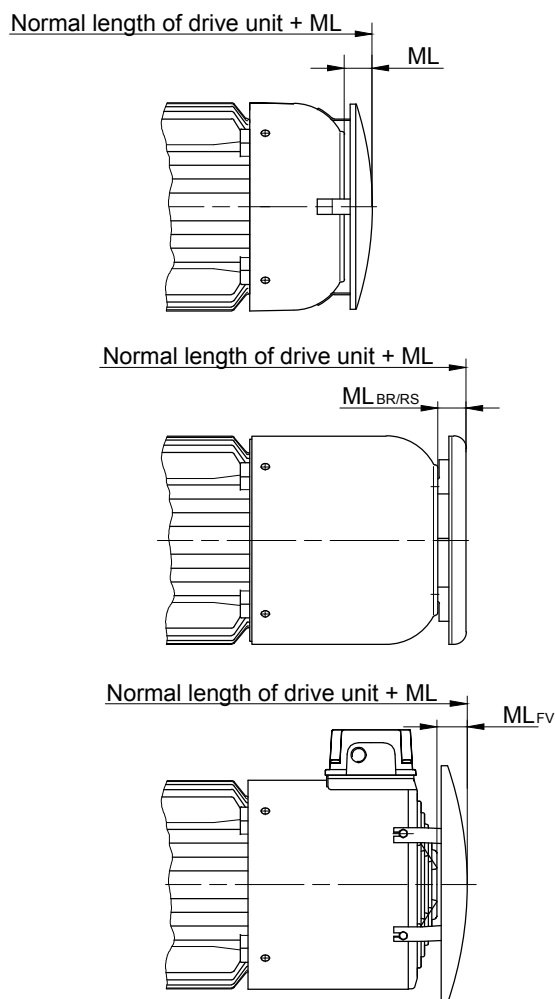
Motor	Brake	ML(mm) Additional length with brake and encoder	Dimensions (mm)								Centring D 332	Add. weight kg	
			Ød	e	f	g	h	i	k	k			
D..08	EH(X)027	132	145	50	4	18	20.5	6	5	6	D6	6	
D..09	EH(X)040	144	168		18	22.5	6			6		9	
D..11	EH(X)125	169	213		20	22.5	6			6		20	
D..13	EH(X)200	192	245	60	5	28	31	8	8	D10	29.5		
D..16	EH(X)400	205.5	324			28	31				8	8	56
D..18		216.5	324			30	33				8	8	61

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

Dimension

Motor with protective hood



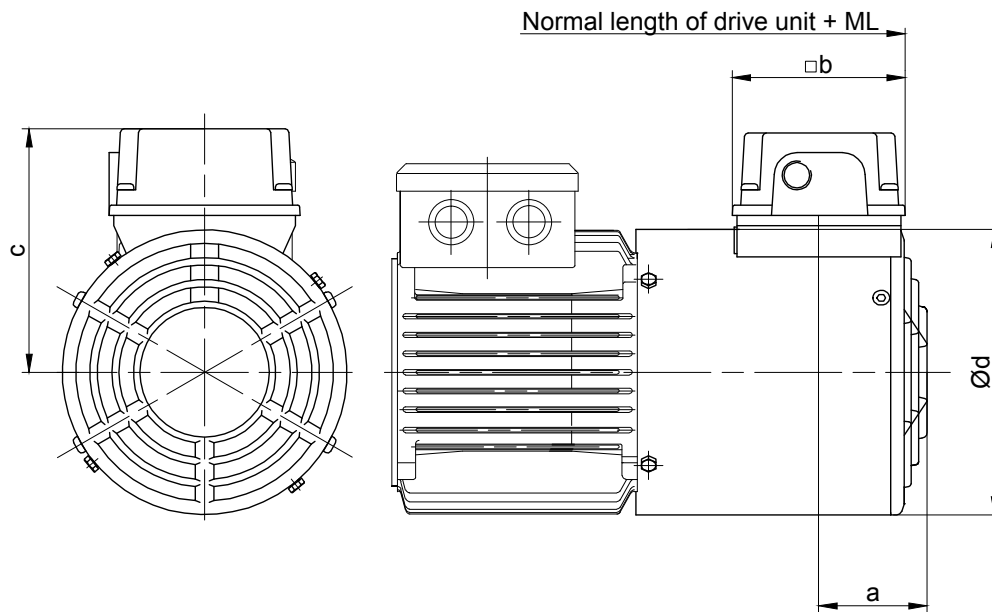
Fan cover geometry for D..16 - D..22,
see dimensional drawing: terminal box as standard version

Motor	ML(mm) Add. length with attached protective cover				Add. weight kg
	ML	ML _{BR}	ML _{RS}	ML _{FV}	
D06	18	-	-	-	0.15
D07	18	-	-	-	0.15
D..08	14.5	24.5	24.5	40	0.20
D..09	22	24.5	24.5	30	0.30
D..11	29	29.5	29.5	33	0.40
D..13	30	29.5	29.5	25	0.6
D..16	30.5	34.5	34.5	32	1.8
D..18	30.5	34.5	34.5	32	5.5
D..20L	31	31	31	31	6.4
D..22S	31	31	31	31	6.4
D..22M	31	31	31	31	6.4

The actual gearbox design can vary from the geometry shown.

The actual gearbox design can vary from the geometry shown.

Motor with independent fan



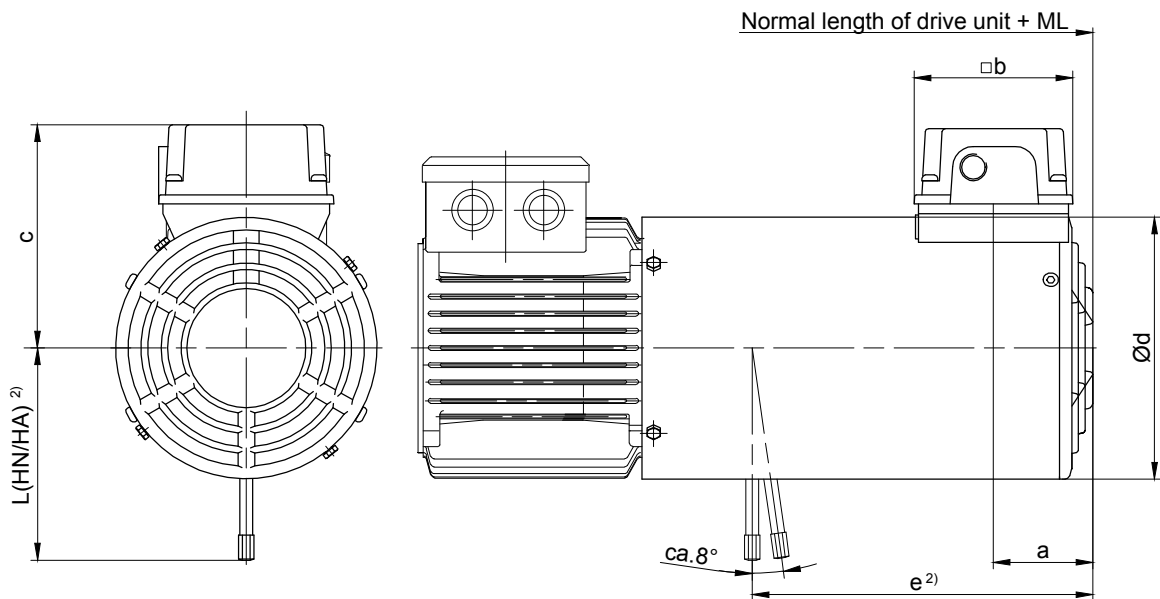
Drive Motor Type	Fan Motor Type	kW	r/min	400 V A	ML (mm) Additional length forced vent.	Dimensions (mm)				Add. weight ~ kg
						a	b	c	d	
D..08	FV D08	0.019	2670	0.029	92	69.5	95	131.5	157	2.2
D..09	FV D09	0.046	2820	0.106	97	69.5	95	141.5	176	2.7
D..11	FV D11	0.051	2660	0.110	97	79.5	95	162.5	219	3.2
D..13	FV D13	0.073	2820	0.169	119	78.8	95	182	258	4.6
D..16*	FV D16	0.154	2760	0.347	144	78.8	95	208.5	311	6.4
D..18*	FV D18	0.154	2760	0.347	303	78.8	95	208.5	348	8.4

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

Dimension

Motor with brake and independent fan



Motor	Brake	ML (mm) ¹⁾ Additional length with attached brake and forced ventilation	Dimensions (mm)						Add. weight ~kg
			a	b	c	Ød	e ²⁾	L(HN/HA) ²⁾	
D..08	ES(X)010	202	59	95	131.5	157	204	132	5.0
D..09	ES(X)010	214	69.5	95	141.5	176	220	132	5.5
	212						162	7.5	
D..11*	ES(X)027	221	69.5	95	162.5	219	226	162	8.0
	ES(X)040						223	172	10
	ES(X)070						218	184	12
D..13*	ES(X)040	237	79.5	95	182	258	254	202	11.5
	ES(X)070						250	225	13.5
	ES(X)125						245	223	17.5
D..16*	ES(X)125	294	78.8	95	208.5	311	298	244	19.5
	ES(X)200						291	256	25
	ZS(X)300						262		27
D..18*	ES(X)250	303	78.8	95	208.5	348	307	286	37
	ZS(X)500						277		38.5

* bayonet joint

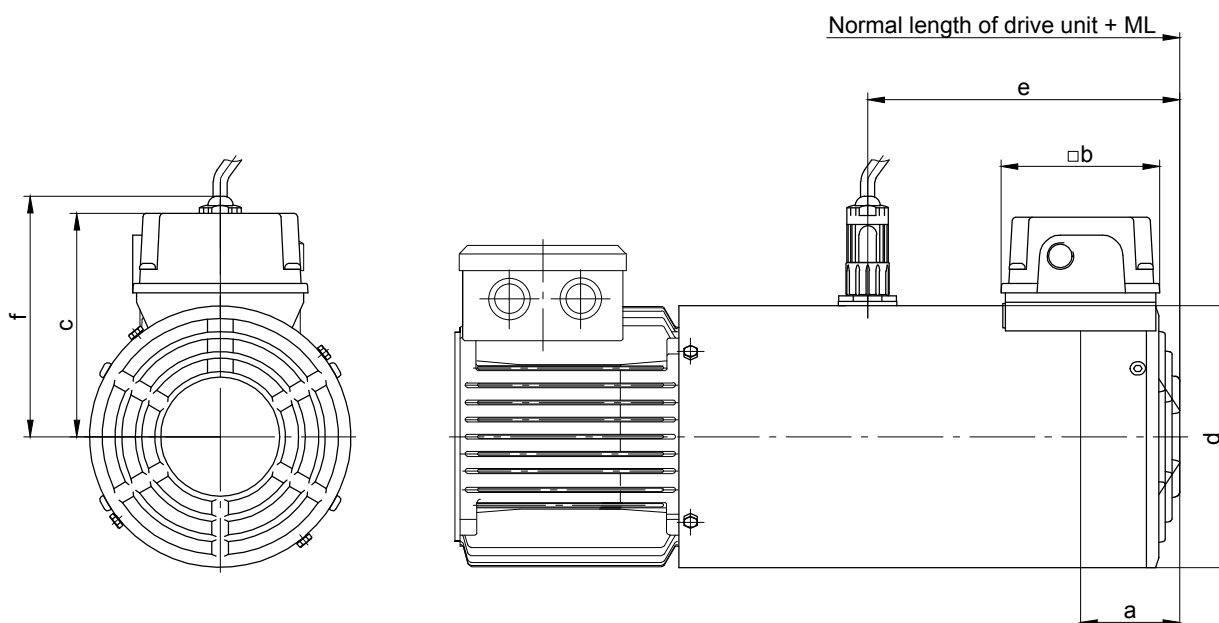
1) The additional length is for normal motor unit without brake.

Other dimensions see the appropriate normal dimensioned sketch

2) Brake release on request

The actual gearbox design can vary from the geometry shown.

Motor with encoder with built-on independent fan



Motor	ML(mm) ¹⁾ Additional length with attached encoder and forced ventilation	Dimensions (mm)						Add. weight ~ kg
		a	b	c	d	e	f	
D..08	202	59	95	131.5	157	187	144	2.6
D..09	214	69.5	95	141.5	176	192	153.5	3.3
D..11*	221	69.5	95	162.5	218	192	-	4.0
D..13*	240	79.5	95	182	258	217	-	5.7
D..16*	294	78.8	95	208.5	311	252	-	7.9
D..18*	303	78.8	95	208.5	348	267	-	10.9

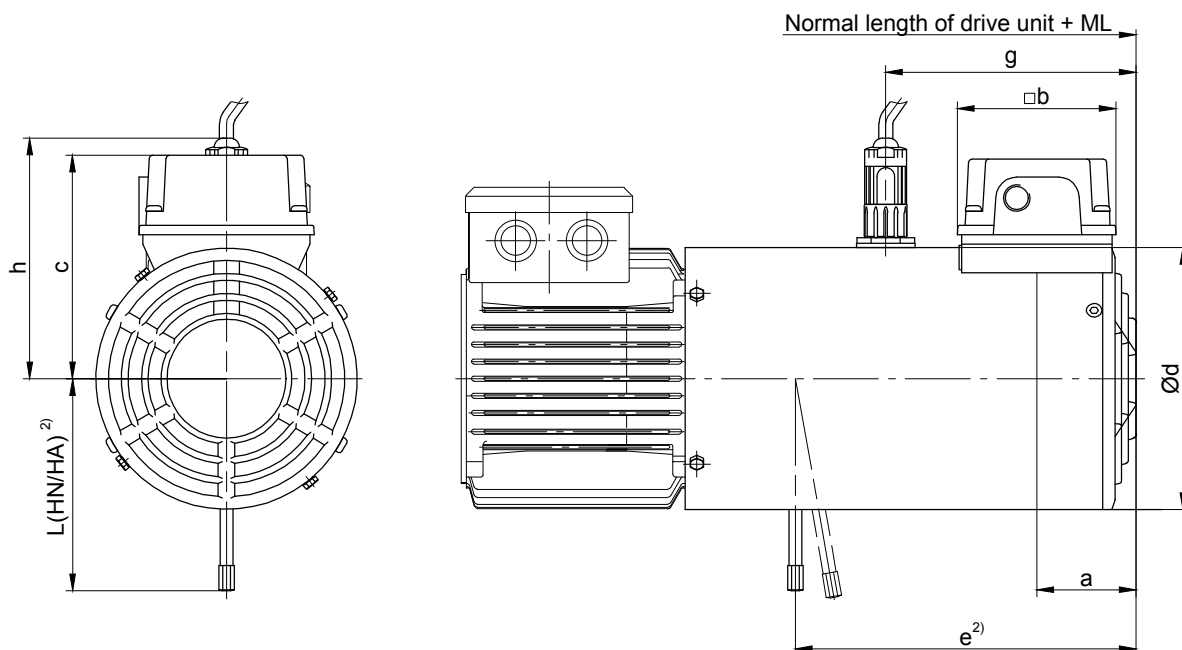
* with bayonet joint

1) The additional length is for normal motor unit without brake.
Other dimensions see the appropriate normal dimensioned sketch

Motor-mounted components

Dimension

Motor with brake and encoder with built-on independent fan



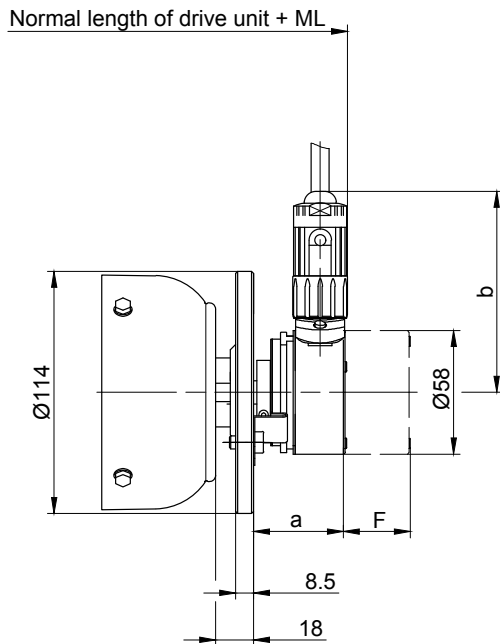
Motor	Brake	ML (mm) ¹⁾ Additional length with attached brake, encoder and forced ventilation	Dimensions (mm)								Add. weight ~ kg
			a	b	c	Ød	e ²⁾	g	h	L(HN/HA) ²⁾	
D..08	ES(X)010	202	59	95	131.5	157	204	150	150	132	6.0
D..09	ES(X)010	214	69.5	95	141.5	176	220	160	160	132	6.5
	212						160	162		8.5	
D..11*	ES(X)027	221	69.5	95	162.5	219	226	155	155	162	9.0
	ES(X)040						223	155		172	11.5
	ES(X)070						218	155		184	13.5
D..13*	ES(X)040	240	79.5	95	182	258	254	175	175	202	13
	ES(X)070						250	175		225	15
	ES(X)125						245	175		223	19
D..16*	ES(X)125	294	78.8	95	208.5	311	298	195	195	244	21
	ES(X)200						291	195		256	27
	ZS(X)300						262	195			29
D..18*	ES(X)250	303	78.8	95	208.5	348	207	212	212	286	39
	ZS(X)500						277	212			40.5

bayonet joint

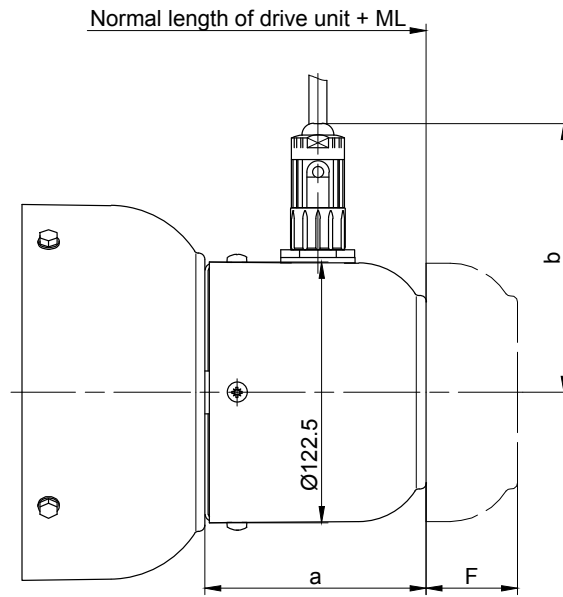
- 1) The additional length is for normal motor unit without brake.
Other dimensions see the appropriate normal dimensioned sketch
- 2) Brake release on request

The actual gearbox design can vary from the geometry shown.

Motor with encoder



D04



D05 - D..22

Fan cover geometry for D..16 - D..22, see dimensional drawing: terminal box as standard version

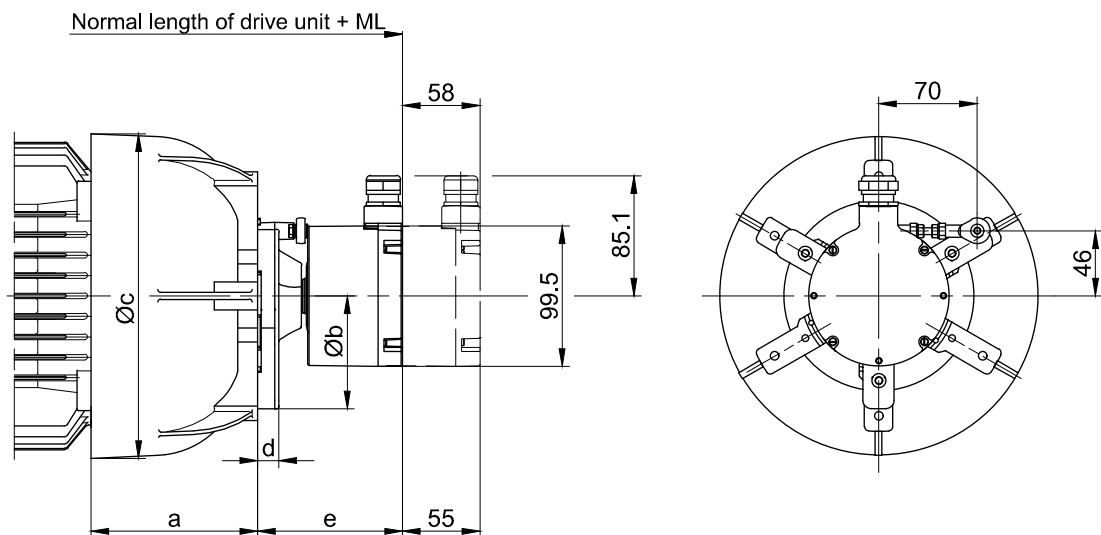
Motor	ML(mm) Additional length with encoder	Dimensions (mm)				Add. weight kg	Free space for removing encoder "F"	
		incremental encoder Fa. Kübler Typ 5820		absolute encoder Fa. TR Typ CS58-M			incremental encoder Fa. Baumer EIL580	absolute encoder Fa. TR Typ CS58-M
		a	b	a	b			
D04	62.5	43.5	95	69.5	109.5	0.7	30	55
D05	103	98.5	127	98.5	127	0.9	63	88
D06								
D07								
D..08	107	104	127	104	127	0.8	43	68
D..09								
D..11								
D..13								
D..16	110	106	127	106	127	0.8	43	68
D..18								
D..20L	106	106	127	106	127	1.2	43	68
D..22S								
D..22M								

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

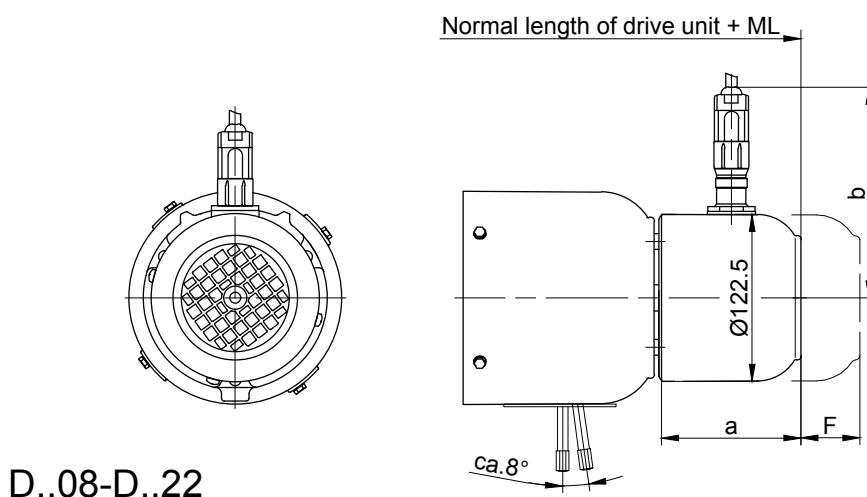
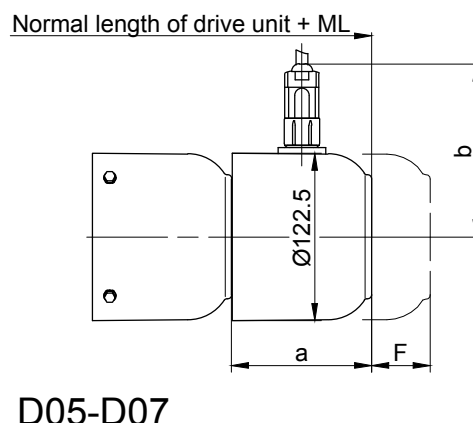
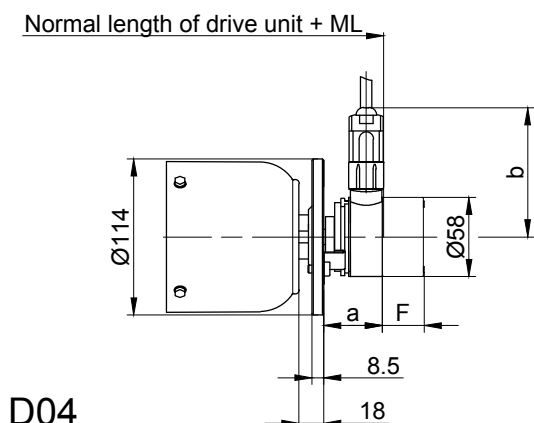
Dimension

Motor with "heavy duty" encoder



Motor	ML(mm) Additional length with encoder	Dimensions (mm)					Add. weight kg
		a	b	c	d	e	
D..08	114	83.5	160	166	15	102.5	2
D..09	118.5	102		191			
D..11	121.5	120	185	231	17	94.5	5.4
D..13	115.5	140		274.5			8.6
D..16	113.5	155		326			9.6
D..18	122.5	183	366	11.5			

Motor with brake and encoder



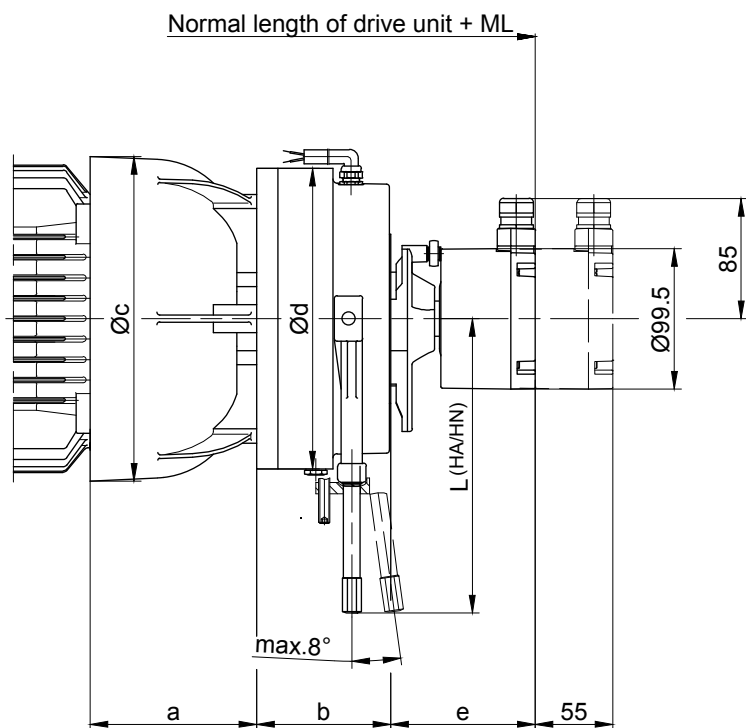
Motor	Brake	ML(mm) Additional length with brake and encoder	Dimensions (mm)				Add. weight kg	Free space for removing encoder "F"	
			incremental encoder		absolute encoder			incremental encoder	absolute encoder
			Fa. Kübler Typ 5820		Fa. TR Typ CS58-M				
a	b	a	b	Fa. Baumer EIL580	Fa. TR Typ CS58-M				
D04	E003	105.5	43.5	95	69.5	109.5	0.7	30	55
D05		145	102	127	102	127	0.9	63	88
D06									
D07		E003 / E004							
D..08	ES(X)..	173.5					104	0.8	49
D..09	ES(X)..	197							
D..11	ES(X)..	200							
D..13	ES(X)..	212							
D..16	ES(X).. / ZS(X)..	248	106	1.2					
D..18	ES(X).. / ZS(X)..	247.5							
D..20L	ES(X).. / ZS(X)..	233.5	106	1.2					
D..22S	ES(X).. / ZS(X)..								
D..22M	ES(X).. / ZS(X)..								

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

Dimension

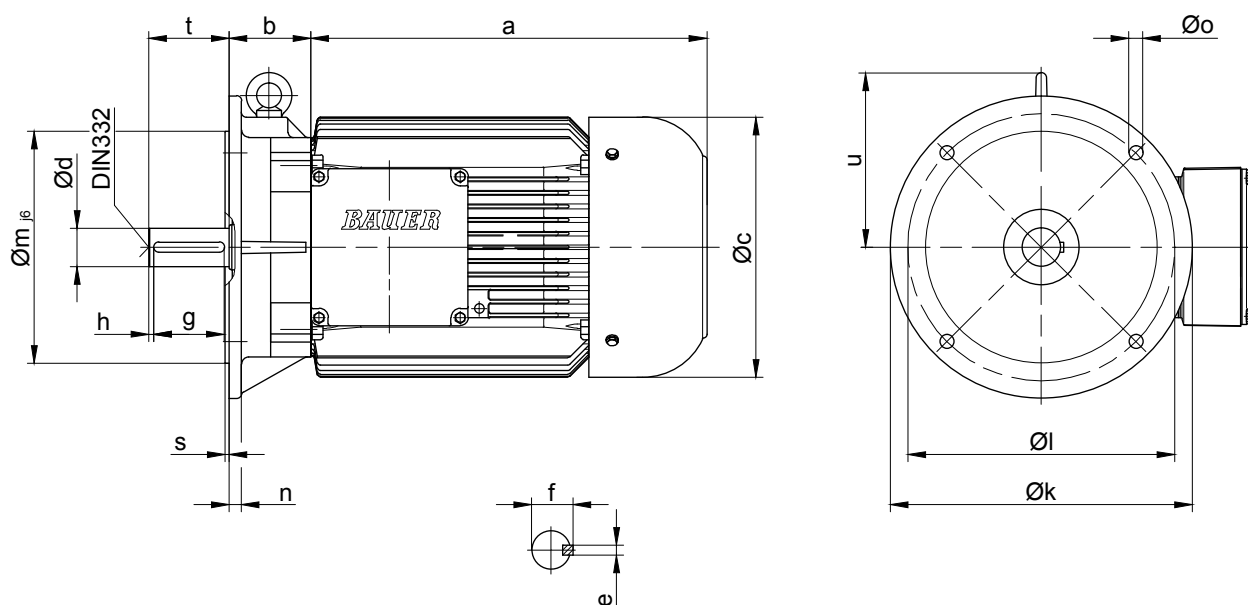
Motor with "heavy duty" brake and encoder



Motor	Brake	ML(mm) Additional length with brake and encoder	Dimensions (mm)						Add. weight kg
			a	b	c	Ød	e	L (HA/HN)	
D..08	EH(X)027	180.5	83.5	66.5	166	145	102.5	162	7.1
D..09	EH(X)040	191.5	102	73	191	168		172	10
D..11	EH(X)125	216.5	120	95	231	213		208.5	21.4
D..13	EH(X)200	259	140	106	274.5	245	94.5	221	32
D..16	EH(X)400	243	155	124	326	324		313	58
D..18		254	183		366			61	

The actual gearbox design can vary from the geometry shown.

Motor in IEC design



Fan cover geometry for D..16 and D..18, see dimensional drawing: terminal box as standard version

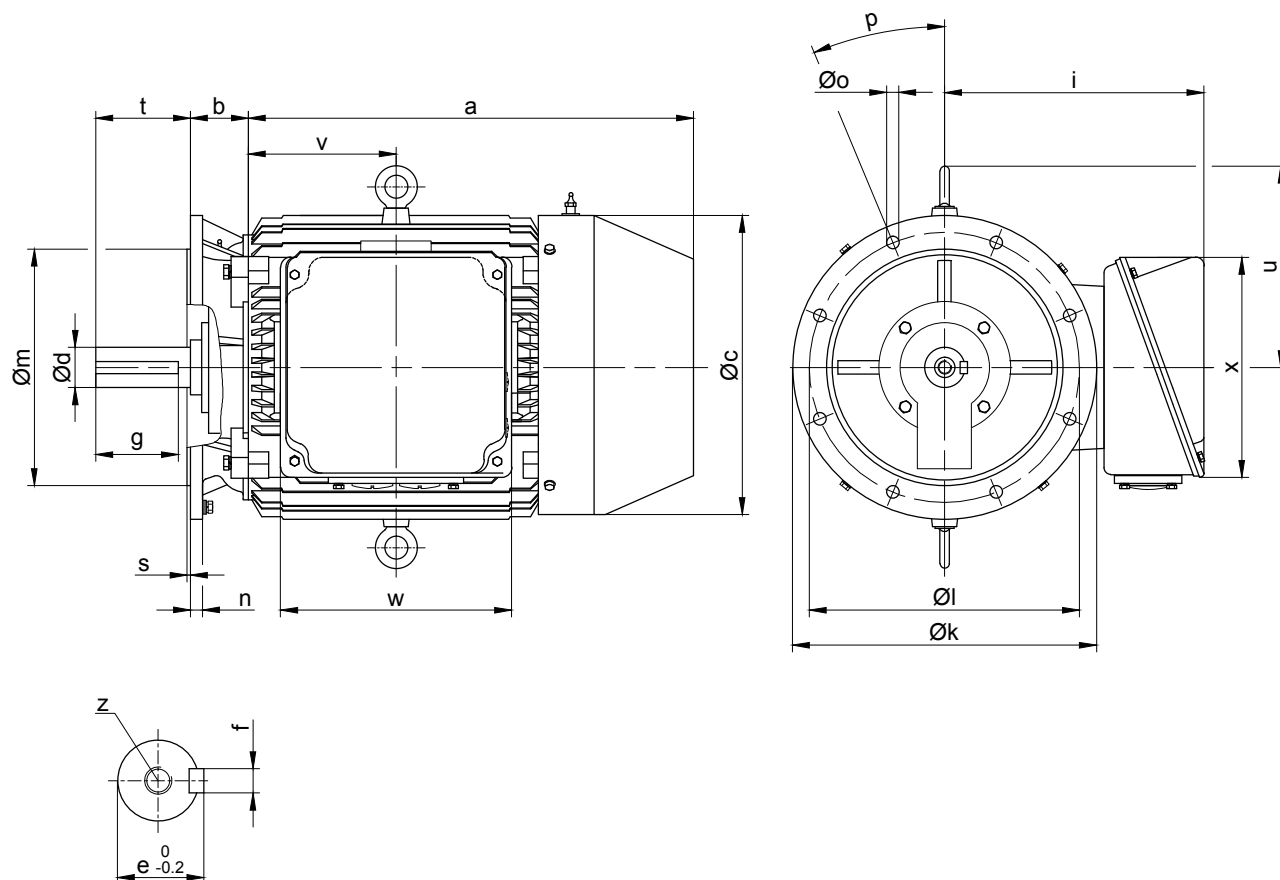
Motor	Dimensions (mm)																Center DIN 332
	a	b	c	d	e	f	g	h	k	l	m	n	o	s	t	u	
D06	170	45	123	11_{j6}	4	12.5	18	2.5	140	115	95	9	10	2.75	23	-	D4
D07	190	45	123	11_{j6}	4	12.5	18	2.5	140	115	95	9	10	2.75	23	-	D4
D..08	200	49	156	19_{j6}	6	21.5	35	2.5	200	165	130	10	12	3.5	40	-	D4
D..09	251	66	176	24_{j6}	8	27	40	5	200	165	130	10	12	3.5	50	128.5	D6
D..11	319	75	218	28_{j6}	8	31	50	5	250	215	180	11	14.5	4	60	145.5	D10
D..13	393	81	266	38_{k6}	10	41	70	5	300	265	230	12	14	4	80	173	D12
D..16	454.5	98.5	310	42_{k6}	12	45	90	10	350	300	250	13	18.5	5	110	215.5	D16

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

Dimension

Motor in IEC-design

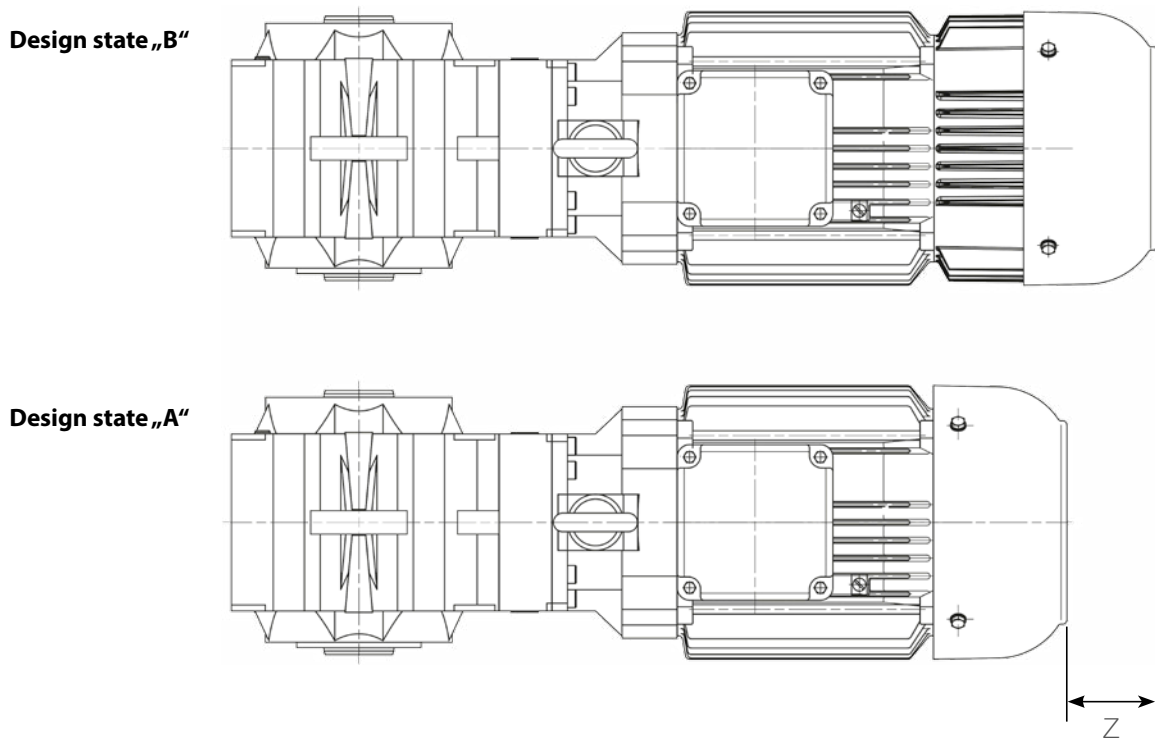


Motor	Dimensions (mm)																
	a	b	c	d	e	f	g	i	k	l	m	n	o	p	s	t	u
DNF18	551	79	355	48 ^{+0.018} / _{+0.002}	14	51.5	80	293	350	300	250	16	Ø19	4x45°	5	110	240
DNF20	613	82	395	55 ^{+0.030} / _{+0.011}	16	59	91	313	400	350	300	16	Ø19	4x45°	5	110	270
DNF22	659	86	442	60 ^{+0.030} / _{+0.011}	18	64	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			z	Weight kg
	v	w	x		
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

The actual gearbox design can vary from the geometry shown.

Motor Length Comparison



Motor Frame Size ¹	Additional length Design state „A“ to „B“
	z [mm]
DPE08.B4	30
DPE09.B4	58
DPE11.B4	68

¹ all motors in design state "A" remain unchanged



Motors in design state "B" = Extended Length

Type Example: BK70-74/DPE08**B**4

Comment: Dimension "z" is to be added to the dimensions "a*", "d*" and "d_{ML}*" taken from the standard dimension sheet.

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Page

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**International Organisation
Bauer Gear Centre Germany
Service Partner Companies Germany
Service Stations Germany**



North America



Canada	Bauer MLD	4020B Sladeview Crescent, Unit 5 Mississauga, Ontario L5L 6B1	Phone +1 (905) 814 5152 Fax +1 (905) 814 5153	http://www.bauerml.com
United States	Bauer Gear Motor LLC.	31, Schoolhouse Rd N.J. 08873-1212 Somerset	Phone +1 (732) 4698770 Fax +1 (732) 4698773	bauer.us@bauergears.com http://us.bauergears.com
United States	Edwin L. Heim Company	1918 Greenwood Street 17104 Harrisburg	Phone +1 (717) 2338711 Fax +1 (717) 2338840	heimservice@elheim.com www.elheim.com
United States	Gatterdam Electric	114 N. 30th Street KY 40212 Louisville	Phone +1 (502) 7763937 Fax +1 (502) 7769929	info@gatterdam.com http://www.gatterdam.com



Latin America



Brazil	MKN Acionamentos LTDA	Rua Marco Gagliano 264 Americanópolis 04412-120 São Paulo-SP	Phone Fax	+55 (11) 56215574 +55 (11) 56211406	mkn.aciona@terra.com.br
Chile	Jung y Cia LTDA	Huerfanos 757 Of 310 Casilla 14478 Correo 21 8320167 Santiago de Chile	Phone Fax	+56 (2) 26383731 +56 (2) 26323506	jung@jung.cl
Colombia	Transmisiones LTDA.	Cra. 69 B No. 21 A - 24 Parque Industrial Salitre 77158 Bogota	Phone Fax	+57 (1) 4126898 +57 (1) 2929737	aguerrero@transmisiones.de http://www.transmisiones.de
Guatemala	Juan Niemann & Cia. Ltda.	Apartado Postal 290 C/Mariscal Cruz, C.A. Guatemala Ciudad, C.A.	Phone Fax	+502 (331) 5454 +502 (334) 7453	jcniemann@jcniemann.com http://www.jcniemann.com/motorreductores
Mexico	Opeasa-Zugastek	Blvd. Hnos. Serdan # 45 PH 72760 Col. Amor 72170 Puebla	Phone	+52 (222) 4036242	info@zugastek.com http://www.zugastek.com
Peru	Transmisiones & Servicios S.A.C.	Alcanfores 981. of 601. 18 Miraflores - Lima	Phone Fax	+51 (1) 242 0862 +51 (1) 242 086221	info@transmisiones.pe http://www.transmisiones.pe
Uruguay	Tradinter S.R.L.	Pereira de la luz 1327 11300 Montevideo	Phone Fax	+598 (2) 6221130 +598 (2) 6284691	
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) 2715261 +58 (212) 2711838	ventas@emotecs.com http://www.emotecs.com



Europe



Austria	BIS Chemserv GmbH	Haiminger-Straße 1 84489 Burghausen / Germany	Phone Fax	+49 (867) 7977507 +49 (867) 7977510	http://www.chemserv.at
Austria	BIS Chemserv GmbH	Bau 28 St. Peter-Straße 25 Postfach 750 4021 Linz	Phone Fax	+43 (732) 69172278 +43 (732) 69173322	service@chemserv.at http://www.chemserv.at
Austria	ESKO Elektromaschinenbau GmbH	Ankerweg 8 8753 Fohnsdorf	Phone Fax	+43 (3573) 27570 +43 (3573) 27570-4	office@esko.at http://www.esko.at
Austria	Mangold Elektromaschinen GmbH	Holzriedstraße 33 6960 Wolfurt	Phone Fax	+43 (5574) 64072-0 +43 (5574) 64072-9	info@mangoldgmbh.at http://www.mangoldgmbh.at
Belgium	Bauer Gear Motor Europe GmbH	EEBIC bedrijventrum Researchdreef 12 Allée de la recherche 1070 Brussel (Anderlecht)	Phone Fax	+32 (0) 25295943 +32 (0) 25295944	info.be@bauergears.com http://be.bauergears.com
Belgium	n.v. EMR s.a.	Voorhavenlaan 22b B-9000 Gent	Phone Fax	+32 (9) 2515956 +32 (9) 2515891	emr@nvemr.be http://www.nvemr.be
Bulgaria	NASA - D Ltd.	kv. Mladost IV bl.602, vh.1 (In front of Business Park Sofia) 1715 Sofia	Phone Fax	+359 (2) 9755065 +359 (2) 9755067	office@nasa-d.com http://www.nasa-d.com
Bulgaria	NASA - D Ltd.	12, Bitolya str. 9002 Varna	Phone Fax	+359 (52) 605995 +359 (52) 600498	varna@nasa-d.com http://www.nasa-d.com
Croatia	Pogonska Tehnika d.o.o.	Horvatovac 94 10000 Zagreb	Phone Fax	+385 1 46 80 174 +385 1 46 80 271	boris.kosuljandic@pot.hr http://www.pot.hr
Czech Republic	Huber CS s.r.o.	Cihlarska 19 602 00 Brno	Phone Fax	+420 541215635 +420 541216835	doskocil@hubercs.cz http://www.hubercs.cz
Czech Republic	IHR Technika s.r.o.	Boleslavská 902 29306 Kosmonosy	Phone Fax	+420 (326) 722716 +420 (326) 320119	Bauer@ihr-tech.cz http://www.ihr-tech.cz
Czech Republic	Jan Komárek-HMF	Sturova 15 CZ-415 02 Teplice	Phone Fax	+420 (417) 564456 +420 (417) 565688	tomas.abraham@navijama-hmf.cz http://www.navijarna-hmf.cz
Denmark	Eegholm A/S	Grundtvigs allé 165-169 (Main office) Jyllandsgade 30, Hal 2 (Stock) DK 6400 Sønderborg	Phone Fax	+45 (73) 121212 +45 (73) 121213	eegholm@eegholm.dk http://www.eegholm.dk
Estonia	LAAGRI- JA TIHENDIKESKUS OÜ,	Laki 26 12915 Tallinn	Phone	+372 65 30163	laager@laager.ee http://www.laager.ee
Finland	Bauer Gear Motor Finland Oy Ab	Teknobulevardi 3-5 01530 Vantaa	Phone Fax	+358 (207)189700 +358 (207) 189701	info.fi@bauergears.com http://fi.bauergears.com
Finland	Sähkö-Team Oy	Pulttitie 10 00880 Helsinki	Phone Fax	+358 (207) 862330 +358 (207) 862339	korjaamo@sahko-team.fi http://www.sahko-team.fi
Finland	Tornion Sähköpojat Oy	Raidekatu 29 95420 Tornio	Phone Fax	+358 (400) 222401 +358 (16) 446853	markku.rantapaa@sahkopoijat.fi http://www.sahkopoijat.fi
France	Bauer Gear Motor Europe GmbH	46, avenue des Frères Lumière F-78190 Trappes	Phone Fax	+33 (0) 130137371 +33 (0) 130132088	info.fr@bauergears.com http://fr.bauergears.com
France	Avenel	1, rue Lucien Fromage BP 1 76160 Darnetal (Nord-Quest/Normandie)	Phone Fax	+33 (0) 235085353 +33 (0) 235085608	infos@avenel.fr http://www.avenel.fr
France	Diceep	17-19 Route Nationale 54 280 Nancy-Laneuvelette (Nord-Est)	Phone Fax	+33 (0) 383290343 +33 (0) 383214613	diceep@diceep.fr http://www.diceep.fr
France	FAEP	135 rue du Général de Gaulle 13510 Eguilles	Phone Fax	+33 (4) 42925039 +33 (4) 42923917	faep@wanadoo.fr
France	Petit	Zone industrielle de Bruèges Nord 310 Avenue Monge 30100 Ales (Sud-Est)	Phone Fax	+33 (0) 466306822 +33 (0) 466305985	olivier.lionel@etspetit.com http://www.moteur-pompe.com
France	Secco	161 Avenue Roger Salengro 69120 Vaulx en-Velin (Rhône-Alpes)	Phone Fax	+33 (0) 472375131 +33 (0) 478269904	secco@wanadoo.fr
France	CETIB-DEXIS	ZI du Brezet 19, rue des Frères Lumière 63016 Clermont Ferrand (Centre-Sud)	Phone Fax	+33 (0) 47398149 +33 (0) 47398149	clermont.cetib@dexis.eu
Germany	Bauer Gear Motor GmbH	Eberhard-Bauer-Straße 37 73734 Esslingen	Phone Fax	+49 (711) 3518 0 +49 (711) 3518 381	info@bauergears.com http://www.bauergears.com
Germany	Bär - Elektromaschinen	Töberheide 10 39340 Haldensleben	Phone Fax	+49 (390) 465669 +49 (390) 4462589	info@baer-ema.de http://www.baer-ema.de
Germany	Bauer Elektromotoren GmbH	Burbacher Straße 216 53129 Bonn	Phone Fax	+49 (228) 917850 +49 (228) 9178516	info@bauerbonn.de http://www.bauerbonn.de



Europe





Germany	Beck Elektrotechnik	Nürnberger Straße 109 97076 Würzburg	Phone Fax	+49 (931) 20050 +49 (931) 2005200	info@team-elektro-beck http://www.beck-elektrotechnik.de
Germany	Boss Elektromaschinen + Pumpentechnik GmbH	Tankweg 27 44147 Dortmund	Phone Fax	+49 (231) 9820220 +49 (231) 98202241	elektromaschinen@boss-gruppe.de http://www.boss-gruppe.de
Germany	Brenner GmbH Elektrotechnik	Lorcher Straße 10 68642 Bürstadt	Phone Fax	+49 (6206) 98060 +49 (6206) 980616	info@brenner-gmbh.de http://www.brenner-gmbh.de
Germany	Bühler & Sell Elektromotoren KG	Sprendlinger Landstraße 180 63069 Offenbach	Phone Fax	+49 (69) 423076 +49 (69) 423078	info@buehler-sell.de http://www.buehler-sell.de
Germany	CEFIP- Consulting & Engineering für Industrie-Produkte GmbH	Heidstraße 80 44649 Herne	Phone Fax	+49 (2325) 972580 +49 (2325) 9725825	cefip@yahoo.de http://www.cefip.de
Germany	Dent Elektromaschinen GmbH	Rudolf-Diesel-Straße 8/1 78532 Tuttlingen	Phone Fax	+49 (7461) 9697270 +49 (7461) 96972719	info@dent-elektromaschinen.de http://www.motorenpartner.de
Germany	Elektromaschinenbau Dipl.-Ing. Kögel & Ernst & Co. GmbH	Am Markbach 2 76547 Sinzheim	Phone Fax	+49 (7221) 50950 +49 (7221) 509527	info@koegel-ernst.de http://www.koegel-ernst.de
Germany	Elektro-Maschinen-Bau Bogner GmbH & Co. KG	Industriegebiet 5 35463 Fernwald-Annerod	Phone Fax	+49 (641) 41023 +49 (641) 492840	info@elektromaschinenbau-bogner.de http://www.elektromaschinenbau-bogner.de
Germany	elektrotechnik + automation Ulrich Brodbeck GmbH	Gutenbergstraße 5 72631 Aichtal	Phone Fax	+49 (7127) 95830 +49 (7127) 958317	info@elektrotechnik-automation.de http://www.elektrotechnik-automation.de
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Germany	EMS Elektromotoren GmbH	Gewerbegebiet Egelsee 15 93354 Siegenburg	Phone Fax	+49 (9444) 9760 +49 (9444) 976177	bauergear@ems-elektromotoren.de http://www.ems-elektromotoren.de
Germany	Fuchs Elektromaschinenbau und Vertriebs GmbH	Kaiserstraße 4d 66133 Saarbrücken-Scheidt	Phone Fax	+49 (681) 98821690 +49 (681) 98821699	fuch_sb@t-online.de http://www.elektromaschinenbau-fuchs.de
Germany	Greif GmbH Elektrotechnik	Mushardstraße 11 27570 Bremerhaven	Phone Fax	+49 (471) 31997 +49 (471) 303694	info@greif-elektrotechnik.de http://www.greif-elektrotechnik.de
Germany	Janssen Elektromaschinen GmbH	Leerer Landstraße 35-41 26603 Aurich	Phone Fax	+49 (4941) 174257 +49 (4941) 174260	info.ema@rolf-janssen.de http://www.janssen-ema.de
Germany	Klebs & Hartmann GmbH & Co. KG	August-Heller-Straße 3 67065 Ludwigshafen	Phone Fax	+49 (621) 579000 +49 (621) 5790024	e-technik@klebs-hartmann.de http://www.klebs-hartmann.de
Germany	Wilhelm Kleeberg GmbH & Co.KG E-Motoren E-Werkzeuge	Graf-Zeppelin-Straße 5 24941 Flensburg	Phone Fax	+49 (461) 43054110 +49 (461) 43054114	info@kleeberg-fl.de www.kleeberg-fl.de
Germany	Wilhelm Klörs KG	Bieberer Straße 254 63071 Offenbach	Phone Fax	+49 (69) 543369 +49 (69) 543313	wilhelm.kloers@arcor.de
Germany	Mangold Elektromaschinen- bau GmbH	Lindauer Straße 116 88046 Friedrichshafen	Phone Fax	+49 (7541) 500622 +49 (7541) 500630	info@mangold-fn.de http://www.mangold-fn.de
Germany	Hans Mayer Elektrotechnik GmbH	Simonshofer Straße 41 91207 Lauf a.d. Pegnitz	Phone Fax	+49 (912) 32041 +49 (912) 382661	info@hans-mayer-elektrotechnik.de http://www.hans-mayer-elektrotechnik.de
Germany	Motoren Franke GmbH	Ringstraße 18 01468 Boxdorf	Phone Fax	+49 (351) 207680 +49 (351) 2076829	info@motoren-franke.de http://www.motoren-franke.de
Germany	Polzin Elektromaschinenbau	Kunzestraße 20 04249 Leipzig	Phone Fax	+493414250107 +493414250108	polzin.antriebstechnik@t-online.de http://www.polzin-antriebstechnik.de
Germany	Rülke GbR Jens und Uwe Rülke	Auestraße 36 08371 Glauchau	Phone Fax	+49 (3763) 50890 +49 (3763) 5632	info@ruelke-glauchau.de http://www.ruelke-glauchau.de
Germany	Scheib Elektrotechnik GmbH	Martinstraße 38-42 40223 Düsseldorf	Phone Fax	+49 (211) 901480 +49 (211) 9014811	info@scheib-gmbh.de http://www.scheib-gmbh.de
Germany	Schulz Systemtechnik GmbH	Schneiderkruger Straße 12 49429 Visbek	Phone Fax	+49 (4445) 897-0 +49 (4445) 897-300	info@schulz.st http://www.schulz-elektrotechnik.de
Germany	Siebert Elektromaschinen- bau GmbH	Bunsenstraße 5-7 64293 Darmstadt	Phone Fax	+49 (6151) 824462 +49 (6151) 895590	info@siebertgmbh.de http://www.siebertgmbh.de
Germany	Sroczyński GmbH	Pferdestraße 24 48084 Osnabrück	Phone Fax	+49 (541) 588443 +49 (541) 588609	info@sroczyński.de http://www.sroczyński.de/



Europe



Germany	Steinlen Elektromaschinenbau GmbH	Ehlbeek 21 30938 Burgwedel	Phone Fax	+49 (5139) 80700 +49 (5139) 807060	info@steinlen.de http://www.steinlen.de
Germany	Steinlen Elektromaschinenbau GmbH	Am Schiffbekerberg 18 22111 Hamburg	Phone Fax	+49 (40) 7320307 +49 (40) 7322228	info@steinlen.de http://www.steinlen.de
Germany	UAS Meßtechnik GmbH	Prof.-Hermann-Staudinger-Straße 4 94234 Viechtach	Phone Fax	+49 (9942) 94860 +49 (9942) 948610	info@uas.de http://www.uas.de
Greece	Drivetech e.p.e.	Chrysostomou Smyrnis 124 18345 Moschato	Phone Fax	+30 (210) 7233318 +30 (210) 7233357	info@drivetech.gr http://www.drivetech.gr
Hungary	BC Ongroelektro. Kft.	Bolyai tér 1. HU-3702 Kazincbarcika (East Hungary)	Phone Fax	+36 (48) 511186 +36 (48) 712771	toth.tibor@borsodchem.hu
Hungary	Schorch Hungary Ltd. Industrial Site	Gyari Street 1 P.O. box 85 3580 Tiszaujvaros	Phone Fax	+36 (49) 440877 +36 (49) 440877	info@schorchhungaria.hu http://www.schorchhungaria.hu
Italy	Bauer Gear Motor Europe GmbH	Via Kennedy 43 36040 Grisignano di Zocco (VI)	Phone Fax	+39 (0444) 414392 +39 (0444) 417448	bauer.it@bauergears.com http://it.bauergears.com
Italy	Assyservice	Via Torino,88A 10074 Lanzo Torinese (TO)	Phone Fax	+39 (0123) 660136 +39 (0123) 660146	alessandro.luise@gmail.com www.assyservice.com
Italy	Bauer Gear Motor Europe GmbH	Via Fratelli Bandiera 48 20099 Sesto San Giovanni	Phone Fax	+39 (02) 24839719	bauer.it@bauergears.com http://it.bauergears.com
Italy	Ma.In s.n.c.	Via Pola, 8 I-10135 Torino	Phone Fax	+39 (011) 34733 25 +39 (011) 39133 56	dibello.e@ma-in.com http://www.ma-in.com
Latvia	Laagri- JA Tihendikeskus OÜ Masinaelemendid OÜ	Laki 26 12915 Tallinn / Estonia	Phone Fax	+372 65 30163	laager@laager.ee http://www.laager.ee
Lithuania	Laagri- JA Tihendikeskus OÜ Masinaelemendid OÜ	Laki 26 12915 Tallinn / Estonia	Phone Fax	+372 65 30163	laager@laager.ee http://www.laager.ee
Netherlands	Bauer Gear Motor Europe GmbH Branch Office Belgium	p/a EEBIC bedrijventrum Joseph Wybranlaan 40 1070 Brussel (Anderlecht) Belgium	Phone Fax	+32 (2) 5295941 +32 (2) 5295944	info.be@bauergears.com http://be.bauergears.com
Netherlands	De Bruyn B.V. Power Repairs	Van Konijnenburgweg 105 NL-4612 PL Bergen op Zoom	Phone Fax	+31 (164) 234302 +31 (164) 255140	repair@de-bruyn.nl http://www.de-bruyn.nl
Netherlands	Vos Gekas & Boot West B.V.	Nijverheidscentrum 36 2761 JP Zevenhuizen	Phone Fax	+31 (180) 633488 +31 (180) 633562	zevenhuizen@vos-gekasenboot.com http://www.gekasenboot.nl
Netherlands	Vos Gekas & Boot Noord B.V.	Holepolder 1 9902 SM Appingedam	Phone Fax	+31 (596) 363600 +31 (596) 680763	appingedam@vos-gekasenboot.com appingedam@vos-gekasenboot.com
Netherlands	Vos Gekas & Boot West B.V.	Grote Tocht 25 1507 CG Zaandam	Phone Fax	+31 (75) 6701901 +31 (75) 6165162	zaanstad@gekasenboot.nl http://www.gekasenboot.nl
Netherlands	Vos Gekas & Boot West B.V.	Eekhorstweg 21 7942 JC Meppel	Phone Fax	+31 (522) 63242 +31 (522) 40535	meppel@vos-gekasenboot.com www.vos-gekasenboot.com/nl
Norway	BAUER Gearmotorer AS	Postboks 221 NO-2021 Skedsmokorset	Phone Fax	+47 (63) 875950	bauergear@bauergear.no http://www.bauergear.no
Poland	Steinlen Polska Sp. z o.o.	ul. W. Grabskiego 4/8 63-500 Ostrzeszów	Phone Fax	+48 (62) 7322352 +48 (62) 7322351	biuro@steinlenpolska.pl http://www.steinlenpolska.pl
Portugal	TEM S.L. Bauer Gear Center for Spain and Portugal Transmisiones Electromecánicas, S.L.	Pol. Industrial Les Comes Calle Italia 11 Nave 9 08700 Igualada (Barcelona) Spain	Phone Fax	+34 (93) 8056021 +34 (93) 8056022	info@tem-sl.com
Romania	BIBUS SES srl	Calea Lugojuului 134/1 307200 Ghiroda, Timis	Phone Fax	+40 (0) 256 200	office@bibus.ro http://www.bibus.ro
Serbia & Montenegro	Indas Industry Assistance d.o.o.	Heroja Pinkija 95 YU-21000 Novi Sad	Phone Fax	+381 (21) 4804800 +381 (21) 4804808	office@indas.rs http://www.indas.rs
Slovakia	Bauer Gear Motor Slovakia	Továrenská 49 953 36 Zlaté Moravce	Phone Fax	+421 (37) 6926158 +421 (37) 6926181	bauer.sk@bauergears.com http://sk.bauergears.com
Slovakia	Transmisie Engineering a.s.	P. Mudrona 10 036 01 Martin	Phone Fax	+421 (43) 4133157 +421 (43) 4223818	dps@transmisie.sk http://www.transmisie.sk
Slovenia	TALER ING d.o.o.	Jelovška cesta 43A 4264 Bohinjska Bistrica	Phone Fax	+386 (4) 5747128 +386 (4) 5747129	info@taler-ing.si http://www.taler-ing.si

		E u r o p e				
Spain	TEM S.L. Bauer Gear Center for Spain and Portugal Transmisiones Electromecánicas, S.L.	Pol. Industrial Les Comes Calle Italia 11 Nave 9 08700 Igualada (Barcelona)	Phone Fax	+34 (93) 8056021 +34 (93) 8056022	info@tem-sl.com	
Sweden	BAUER Gearmotorer Sverige AB	Årjängsvägen 4 66693 Gustavfors	Phone Fax	+46 (531) 20050 +46 (531) 20040	postmaster@bauergear.net	
Switzerland	Electro Müller AG	Bözingenstrasse 37 2500 Biel	Phone Fax	+41 (32) 344 10 10 +41 (32) 344 10 19	info@electro-mueller.ch http://www.electro-mueller.ch	
Switzerland	Küffer Elektro-Technik AG	Industrie Neuhof 31 3422 Kirchberg	Phone Fax	+41 (34) 445 26 26	info@ketag.ch http://www.ketag.ch	
United Kingdom	Bauer Gear Motor Limited	Unit1 Nat Lane Business Park CW7 3BS Winsford	Phone Fax	+44 (1606) 868600 +44 (1606) 868603	info.uk@bauergears.com http://uk.bauergears.com	



Eastern Europe



Belarus	Energopro	prospekt Nezavisimosti, 169 220114 Minsk	Phone	+375 172181177	inverter@energopro.by
Kazakhstan	Silumin-Vostok	Revolucionnaya st., 10 070010 Ust-Kamenogorsk	Phone Fax	+7 (7232) 558982 +7 (7232) 552058	info@silumin.kz
Russian Federation	Altra Industrial Motion OOO	Volokolamskoye sh., 142 Bldg 6 Business Center „Irbis“ 125464 Moscow	Phone Fax	+7 (495) 6420468 +7 (495) 6420469	info.ru@bauergears.com http://ru.bauergears.com
Russian Federation	Epos Plus	Turgenevskaya st., 72 344002 Rostov-na-Donu	Phone Fax	+7 (863) 2623570 +7 (863) 2623570	ermakova@epos-plus.ru http://www.epos-plus.ru
Russian Federation	NPF Inger	423800 Naberezhnye Chelny, BSI	Phone Fax	+7 8552778300	info@inger.ru
Russian Federation	Pribor-Service	Uchebnaya st, 90 644010 Omsk	Phone Fax	+7 (3812) 534598 +7 (3812) 534598	info@pribor-servis.ru http://www.pribor-servis.ru
Russian Federation	Privod Service	Nikitina st., 20 634062 Tomsk	Phone Fax	+7 (3822) 535347 +7 (3822) 535347	privodservice@bk.ru http://ps.tomsk.ru
Russian Federation	Privod+	16th Parkovaya st, 30 105484 Moscow	Phone Fax	+7 (495) 9885773 +7 (495) 9885774	info@privodplus.ru http://www.privodplus.ru
Russian Federation	SP Reduktor	Perovskoe st, 21 Moscow	Phone Fax	+7 (495) 2585460 +7 (495) 2585460	derevitskiy_a@privod.ru
Russian Federation	S-Tek	Karl Marks st, 29a 443082 Samara	Phone Fax	+7 (846) 2790479 +7 (846) 2790479	s-tec@tec.ru http://www.s-tec.ru
Russian Federation	Stek-Master	Kosmonavtov st. 39 B 420061 Kazan	Phone Fax	+7 (843) 2796468 +7 (843) 2796468	master@stekmaster.ru http://www.stekmaster.ru
Russian Federation	Tet-RS	Borisa Bogatkova st., 63 630008 Novosibirsk	Phone Fax	+7 (383) 2135521 +7 (383) 2663326	koroleva@tet-rs.ru http://www.tet-rs.ru
Russian Federation	TTK Eurasia	Krestinskogo St., 46-a 620073 Ekaterinburg	Phone Fax	+7 (343)345 28 22	info@ttc-eurasia.ru http://www.ttc-eurasia.ru
Russian Federation	Uraltehmarket	Serafima Deryabninoy st., 24 20149 Ekaterinburg	Phone Fax	+7 (343) 3805141 +7 (343) 3805141	info@uraltm.ru http://www.uraltm.ru
Russian Federation	Uralteplotpribor	Elkina st., 14 455016 Magnitogorsk	Phone Fax	+7 (3519) 489633 +7 (3519) 489633	smv_utp@mail.ru
Ukraine	Bauer Gear Motor GmbH	47m Mandrykovskaya str. OC «DnZMO», office 508 49000 Dnipropetrovsk	Phone Fax	+38 (095) 2680598 +38 (056) 3774084	Andriy.Balanyuk@bauergears.com http://www.bauergears.com
Ukraine	CHP Rychko	Artelnaya str, 10 49081 Dnepropetrovsk	Phone Fax	+38 (067) 5654420	serg_64@ua.fm
Ukraine	Comfort Company	N.Grinchenko str., 4 03038 Kyiv	Phone Fax	+38 (044) 3623676 +38 (044) 3623686	info@comfort-co.com http://www.comfort-co.com
Ukraine	Comfort Group	Bykova str., 16 50036 Krivoy Rog	Phone Fax	+38 (050) 3218998	dir@komfortgroup.com.ua http://www.comfortgroup.com.ua
Ukraine	LLC "Alyansprombud"	Ordzhonikidze str. 44/1 Dnepropetrovsk region 50005 Krivoy Rog	Phone Fax	+38 (056) 4041049 +38 (056) 4041049	sale@alianspb.com.ua www.alianspb.com.ua
Ukraine	Leko Trade	V.Khvoyki, 15 04080 Kiev	Phone Fax	+38 (095) 8453760	timoshenko@leko-trade.com.ua www.leko.dn.ua
Ukraine	LTD „Kompleksni Industrialni Tekhnologii“	Perspektivniy str 10 36007 Poltava	Phone Fax	+38 (096) 9387393 +38 (096) 9387393	st@citek.com.ua
Ukraine	Service-Avtomatika	Peremogi st, 56 04080 Kiev	Phone Fax	+38 (044) 3325423 +38 (044) 2230913	serv-avtomatika@ukr.net http://www.s-a.org.ua



Middle East & Africa



India	International Combustion (India) Ltd.	Infinity Benchmark, 11th Floor, Plot – G1, Block – EP & GP, Salt Lake Electronics Complex, 700 091 Kolkata	Phone Fax	+91 (33) 33153000 +91 (33) 23576653	info@internationalcombustion.in
South Africa	Bauer a Division of Hudaco Trading (Pty) Ltd.	72 Acacia Road 1401 Primrose	Phone Fax	+27 (11) 8289715 +27 (11) 8224135	johnB@gbauer.co.za
Turkey	CEFIP - Makina & Endüstriyel Ürünler San. ve Dis Tic. Ltd. Sti.	Perpa Ticaret Merkezi A Blok Kat: 2 No: 9-0033 34384 Okmeydani - Istanbul	Phone Fax	+90 (212) 2101890 +90 (212) 2101597	cefip@cefip.com.tr http://www.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) 4695555 +90 (232) 4334371	senka@senka.org
United Arab Emirates	Dubai Drydocks Afloat Repair Division	P.O. BOX 8988 Dubai	Phone Fax	+971 (4) 3451353 +971 (4) 3450116	drydocks@drydocks.gov.ae http://www.drydocks.gov.ae
United Arab Emirates	KUHNEZUG AG MIDDLE EAST LLC	P.O. BOX 235024 Dubai	Phone Fax	+971 4 2525711 +971 4 2567125	www.kuhnezugag.ae Krane@eim.ae



A P A C



Australia	Altra Industrial Motion	Unit 51/9 Hoyle Avenue, Castle Hill N.S.W. 2153 - Australia	Phone	+61 (2) 98940133	http://www.altramotion.com
Australia	Transmission Australia Pty Ltd	22 Corporate Ave PO Box 2334 VIC 3178 Rowville	Phone Fax	+61 (3) 97554444 +61 (3) 97554411	info@transaus.com.au http://www.transaus.com.au
Indonesia	PT. Cahaya Mekar Sejati	Jl. Agung Utara Raya Blok A36 D/46 14350 Jakarta	Phone Fax	+62 (21) 6401803 +62 (21) 64715082	cahkarti@cbn.net.id http://www.bauergearmotor.com
Japan	Leybold Co., Ltd.	5th Floor, Tokyo Tatemono Bldg 1-9-9, Yaesu 1-Chome, Chuo-Ku 103-0028 Tokyo	Phone Fax	+81 (3) 32721861 +81 (3) 32814490	koki@leybold-kk.com
Korea, Republic Of	Chemiko Trading Co. Ltd.	Rm 1612, Namwoon Officetel, 229-10, Mooguh-Dong Nam-Gu Ulsan	Phone Fax	+82 (52) 2772107 +82 (52) 2472195	chemiko@choillian.net http://www.chemiko.net
Korea, Republic Of	Chemiko Trading Co. Ltd.	Chung Rok Bldg, 721-29 Yeoksam – Dong, Kangnam-Gu Seoul	Phone Fax	+82 (2) 5675336 +82 (2) 5541284	chemiko@chol.com http://www.chemiko.net
Malaysia	Greenvi Technologies (M) Sdn Bhd Industrial Automation	No. 64-02, Jalan Molek 2/2 Taman Molek 81100 Johor Bahru, Johor	Phone Fax	+60 (7) 3543006 +60 (7) 3542006	bpchin@greenvi-tech.com http://www.greenvi-tech.com
Malaysia	AVM DIESEL (M) SDN BHD	No. 20-1, Jalan Kemuning Prima F33/F Kemuning Utama, Seksyen 33 Shah Alam 40400 Selangor	Phone Fax	+60 (3) 51201281 +60 (3) 51201281	sales@avmdiesel.com http://www.avmdiesel.com
Philippines	Optima Equipment Corporation	Unit 503 I-Care Building 167 Legazpi St. Corner Dela Rosa St. 1229 Legazpi Village, Makati City	Phone Fax	+63 (2) 845-0765 +63 (2) 893-6768	vandel@optima-equipment.com
Singapore	Altra Industrial Motion	16 Boon Lay Way, #01-47 Singapore 609965	Phone Fax	+65 64874464 +65 64876674	http://www.altramotion.com
Singapore	AVM Diesel (F.E.) Pte Ltd Gear Centre Southeast Asia	BLK 27 TUAS AVE 13 #01-23 638993 Singapore	Phone Fax	+65 (6) 8636933 +65 (6) 8636900	sales@avmdiesel.com http://www.avmdiesel.com
Taiwan	Saturn Power Ltd.	9F, No. 69-5, Sec. 2 Chung Cheng E. Rd. Tanshui District 105 New Taipei City	Phone Fax	+886 (2) 28095890 +886 (2) 28096770	sales@saturnpowerltd.com http://www.saturnpowerltd.com
Thailand	Kasetphand Industry Co.,LTD	100 M. 3 SOI Suksawad 76 Suksawad rd. Bangjark, Phrapradaeng 10130 Samutprakarn	Phone Fax	+66 (2) 8176410 +66 (2) 8176437	sakchai_engineer@hotmail.com http://www.ksp.co.th
Vietnam	GNN CO., LTD.	33 Hoa hong 2, W. 2 Phu Nhuan District	Phone Fax	+84 (8) 35174923 +84 (8) 35174924	http://www.gnnvietnam.com

Catalogue geared motors IE3

International Organisation



C h i n a



China	Altra Industrial Motion (ShenZhen) Co., Ltd	Central International Trade Center, Suite No. 1802 Tower D, No. 6A Jianguomenwai Avenue, Chaoyang District 100022 Beijing	Phone Fax	+86 (10) 85679488 +86 (10) 85679058	info.china@bauergears.com.cn http://www.bauergears.com
China	Altra Industrial Motion (ShenZhen) Co., Ltd.	Suite 703, Universal Mansion 168 Yuyuan Road 200040 Shanghai	Phone Fax	+86 (21) 5169 9255 +86 (21) 6248 5387	info.china@bauergears.com.cn
China	Shanghai Jinxin Inverter Company	No. 248-5, Xinshi Road 200083 Shanghai	Phone Fax	+86 (21) 65618877 +86 (21) 65600454	http://www.sinodrive.com
China	Shanghai Ruixing Mechanical & Electronic Technology Co. Ltd	Building 5, New Shanghai Villa, 290 South Laiting Road 201615 Shanghai	Phone Fax	+86 (21) 64329131 +86 (21) 64329133	http://www.shruixing.com
Hong Kong	A-CALL Company	Flat 8A, 8th Floor Wing Cheong Industrial Building 109 How Ming Street Kwun Tong Kowloon	Phone Fax	+852 (27) 930250 +852 (27) 930620	kent@a-call.com.hk http://www.a-call.com.hk

WORLD FIRST

Energy Efficient Drive Technology for Explosion Hazardous Areas

EU Regulation 640/2009/EC exempts motors for use in explosion hazardous areas from the minimum efficiency requirements for placing new products on the market, because explosion protection takes precedence over the energy savings that can be achieved with motors. This does not mean that there is no potential for energy savings with the electric motors used in the chemical industry.

This is why the VIK pamphlet „VIK Recommendation 1: Three-Phase Induction Motors – Technical Requirements“ recommends the use of efficiency class IE2 (High Efficiency) for motors with explosion protection types Ex d and Ex nA and efficiency class IE1 (Standard Efficiency) for motors with explosion protection type Ex e.

For many years, only encapsulated motors (type Ex d) could be used for variable speed operation in explosion hazardous areas. With the launch of motors with explosion protection type Ex e for use next to the inverter, customers now have a economical alternative to encapsulated motors when procuring motors for use in explosion hazardous areas.

Variable speed drives create opportunities for major energy savings. For applications in explosion hazardous areas as well as other areas, retrofitting frequency inverters in existing plants and achieving higher energy savings by using highly efficient motors are both attractive options.

Most currently available variable-speed three-phase induction motors with explosion protection type Ex e are only available in standard efficiency class IE1. This means that potential energy savings are only partially utilised.

For the **first time ever**, the S series of permanent magnet synchronous motors (PMSM) from **Bauer Gear Motor GmbH** offers variable-speed motors in **efficiency class IE4** for use in explosion hazardous areas. This is the highest energy efficiency that can be achieved with the current state of motor technology.

Bauer Gear Motor GmbH helps the chemical industry fully exploit potential energy savings with high efficiency IE4 motors, even at the highest level.

PMSM S-series in IE4 for explosion hazardous areas

Design torque M_N :

5 Nm – 48 Nm

Rated power P_N :

0,75 kW – 15 kW

Protection type: Increased Safety – Zone 1

 **II 2 G Ex e IIC T1 - T3 Gb**

S.XE.08MA4
S.XE.08LA4
S.XE.09SA4
S.XE.09XA4
S.XE.11SA6
S.XE.11MA6
S.XE.11LA6

Dust explosion protection – Zone 21

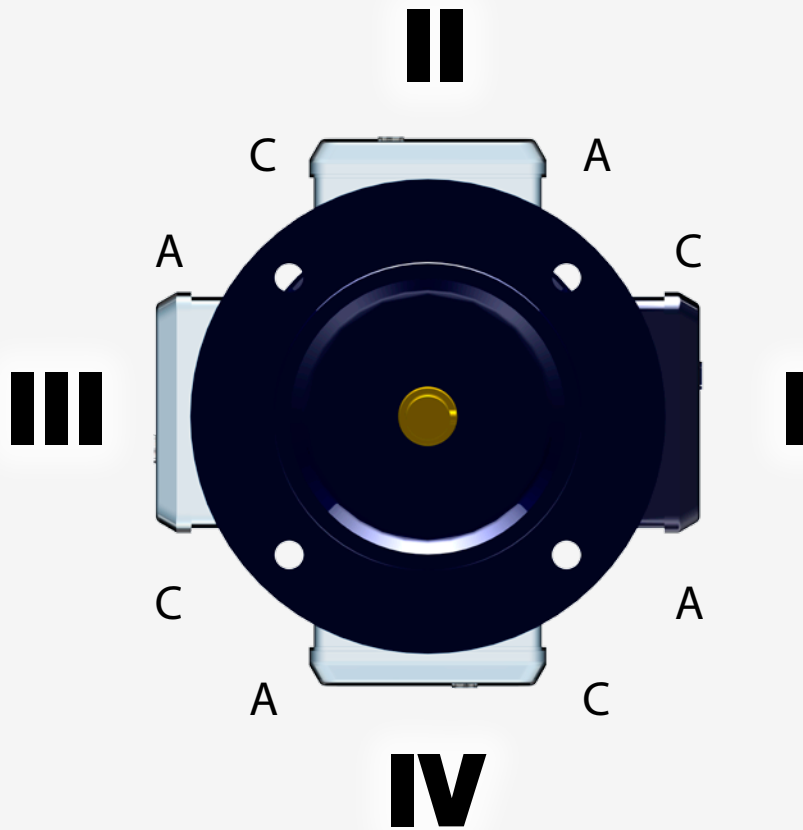
 **II 2 D Ex tb IIIC T 160°C ... 120° Db**

S.XC.08MA4
S.XC.08LA4
S.XC.09SA4
S.XC.09XA4
S.XC.11SA6
S.XC.11MA6
S.XC.11LA6

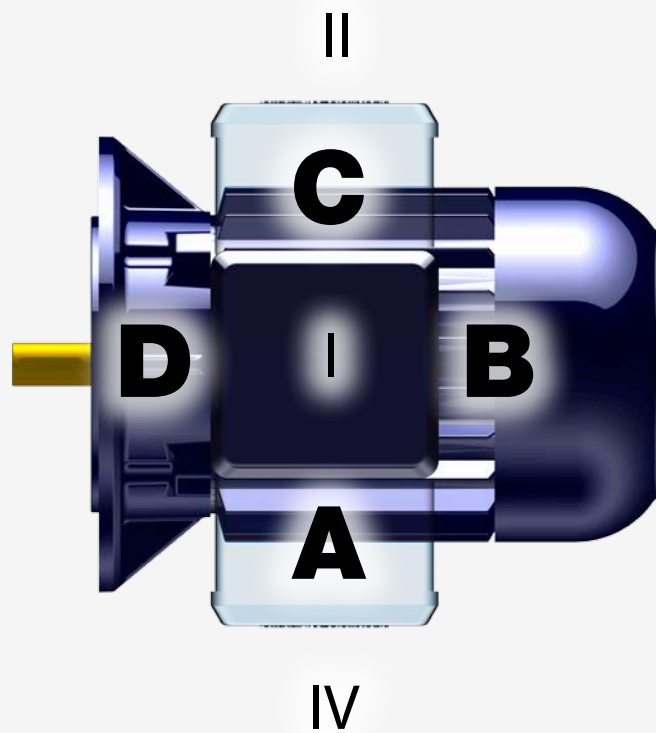


Terminal Box

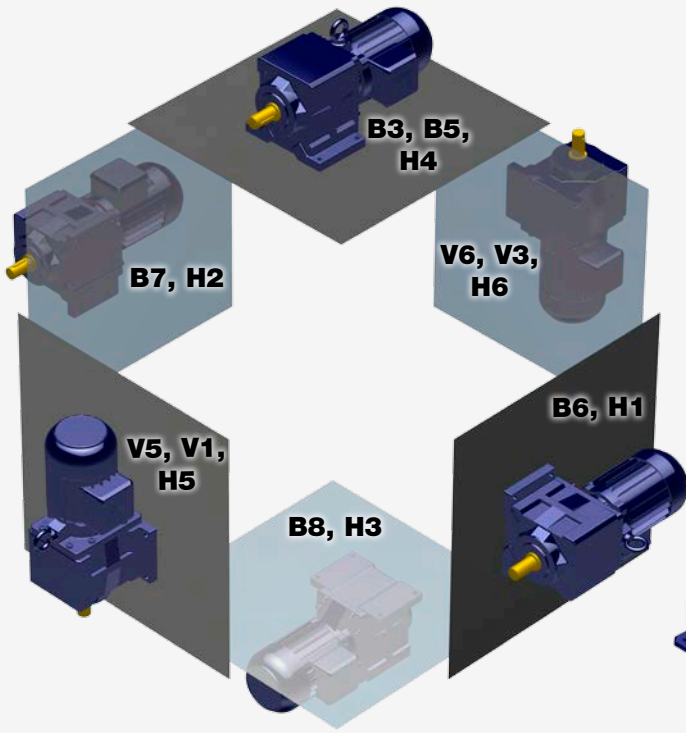
Terminal Box Position



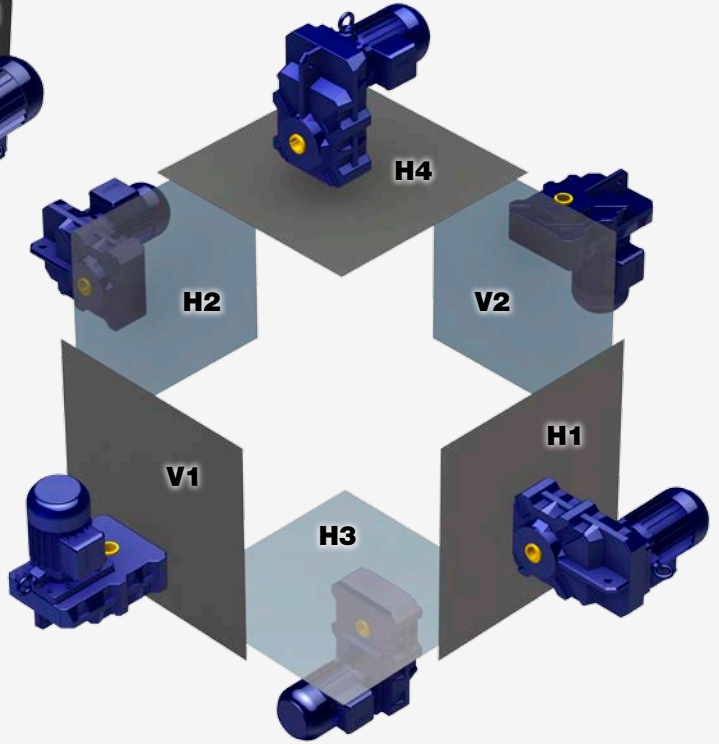
Cable entry Position



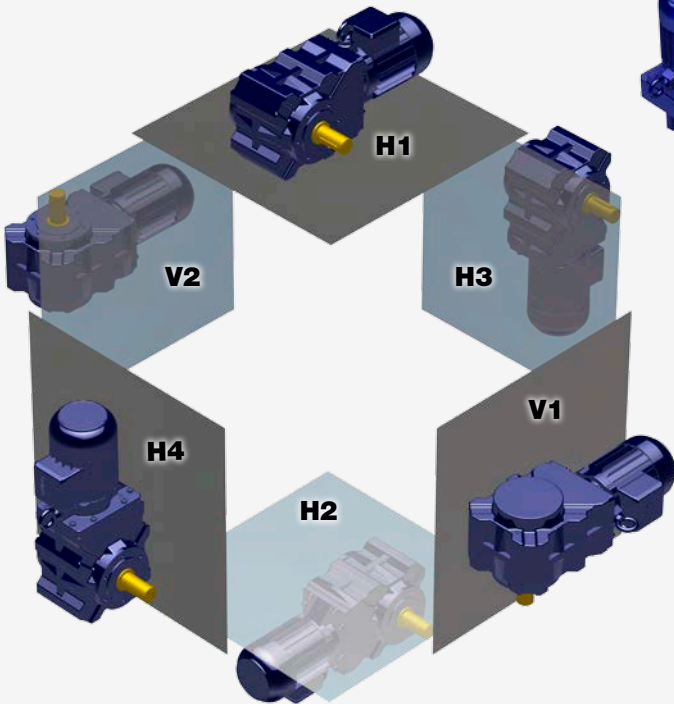
Mounting Positions



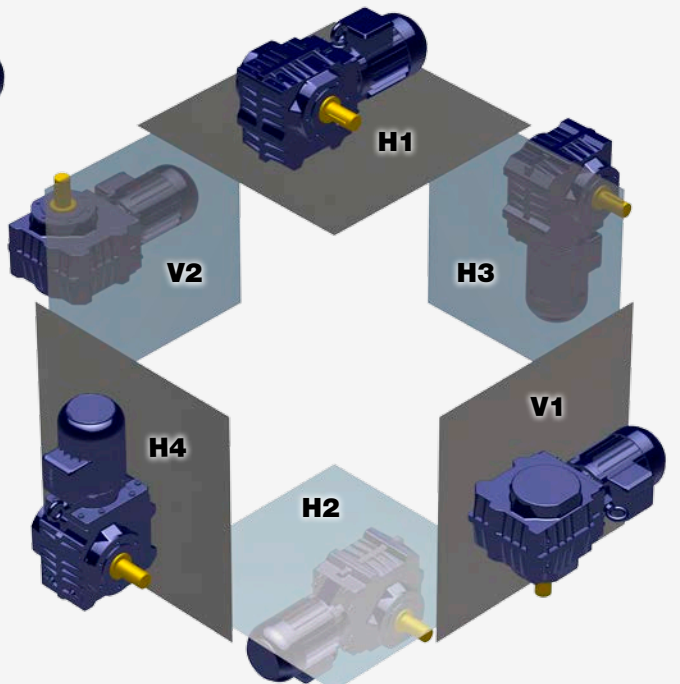
Helical Geared Motors



Parallel Shaft Geared Motors



Bevel Geared Motors



Worm Geared Motors

Alle Kundenservicenummern sind fett gedruckt

Couplings

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 (0) 11 918 4270

TB 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
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Lamiflex Couplings

Flexible Couplings, Bearing Isolators,
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São Paulo, SP - Brasil
+55 (11) 5679-6533

Guardian Couplings

Flywheel, Jaw, Shear, Gear, Grid,
Disc and Engine Couplings

Michigan City, IN - USA
1-219-874-5248

Engineered Bearing Assemblies

Kilian Manufacturing

Engineered Bearing Assemblies
Syracuse, NY - USA
1-315-432-0700

Electromagnetic Clutches and Brakes

Warner Electric

Electromagnetic Clutches
and Brakes
New Hartford, CT - USA
1-800-825-6544

For application assistance:
1-800-825-9050

Saint Barthélemy d'Anjou, France
+33 (0) 2 41 21 24 24

Precision Electric Coils and Electro-
magnetic 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 Over-
running 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

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

Heavy Duty Clutches and Brakes

Wichita Clutch

Pneumatic Clutches and Brakes
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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

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1-262-547-3357

Svendborg Brakes

Industrial Brakes and
Brake Systems

Vejrstrup, Denmark
+45 63 255 255

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
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Bauer Gear Motor

Bauer Gear Motor GmbH

Eberhard-Bauer-Straße 37
73734 Esslingen - Germany
+49 711 3518 0
+49 711 3518 381 (Fax)

Bauer Gear Motor Slovakia s.r.o.

Tovarenská 49
953 01 Zlate Moravce - Slovakia

+421 37 6926100
+421 37 6926181 (Fax)

Bauer Gear Motor Limited

Nat Lane Business Park
Winsford, Cheshire
CW7 3BS - United Kingdom

+44 1606 868600
+44 1606 868603 (Fax)

Bauer Gear Motor LLC

31 Schoolhouse Rd.
Somerset NJ 08873-1212 - USA

+1 732 469 8770
+1 732 469 8773 (Fax)

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)

Altra Industrial Motion 000

Volokolamskoye sh., 142, bldg 6
Business Center „Irbis“
125464 Moscow - Russia

+7 495 6420468
+7 495 6420469 (Fax)

Customer Centre Finland

01510 Vantaa
+358 207 189700

Customer Centre France-Benelux

Brussel (Anderlecht)
+32 2 5295941

Customer Centre Italy

Grisignano di Zocco (VI)
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www.bauergears.com

Eberhard-Bauer-Straße 37
73734 Esslingen - Germany
Tel.: +49 711 3518-0
Fax: +49 711 3518-381

