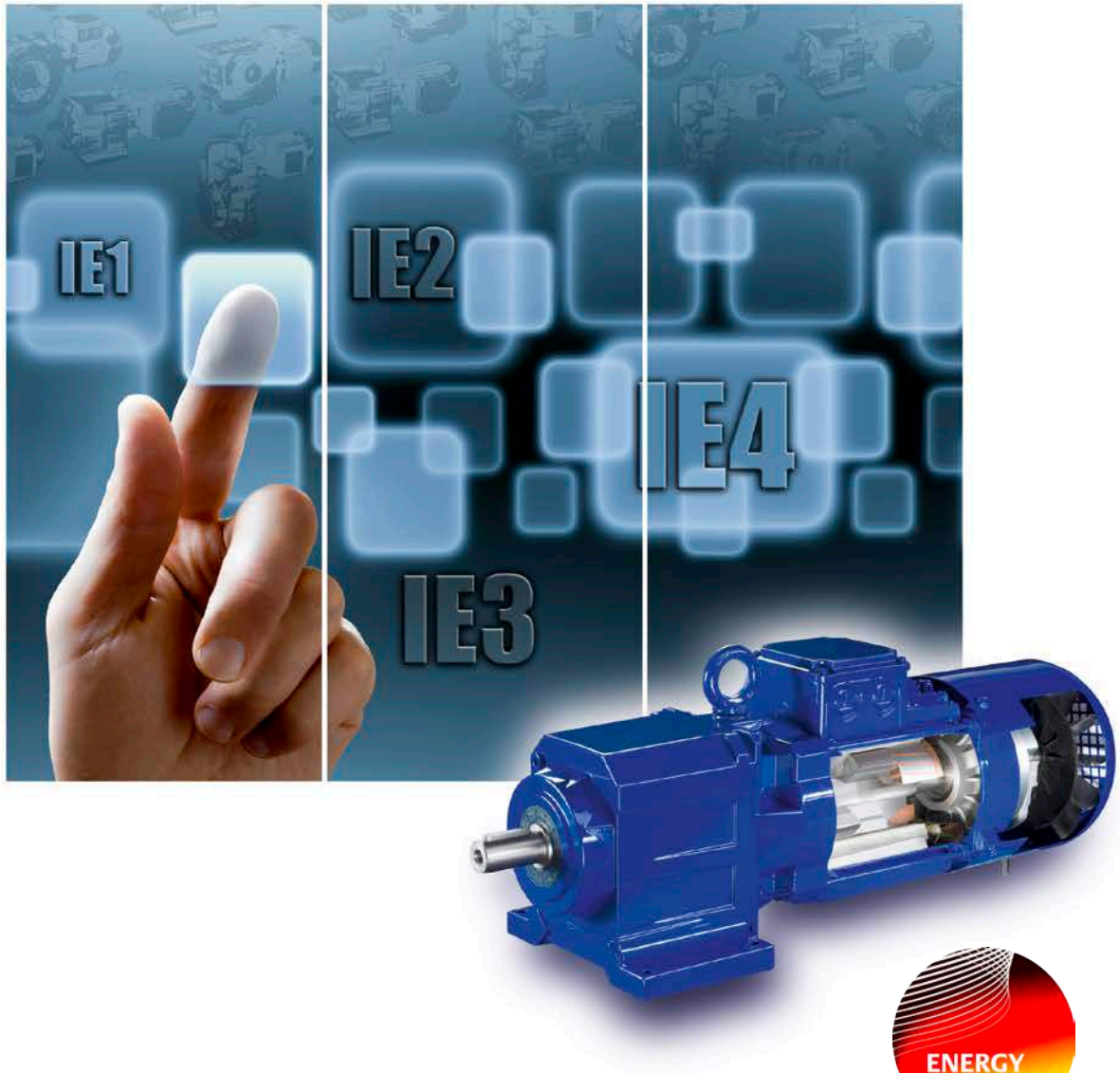


Energy Efficient Geared Motors

Catalog Edition 05/2016 US



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

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

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

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

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

.. = XE Expl.-Motor with increased safety

.. = XD Flame Proof

D = Three-Phase Motor

ES 010 A 9 HN

HA = Hand Release (lockable)

HN = Hand Release (none lockable)

9 = Code for setting torque

A = Design



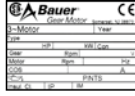

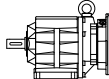
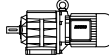
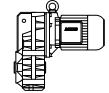
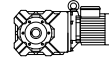

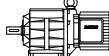
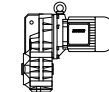
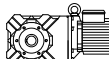


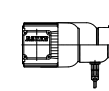
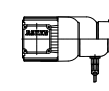
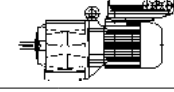

010 = Brake size

ES = Single disk brakes - HOLDING BRAKE

ZS = Double disk brakes - HOLDING BRAKE

ESX = Single disk brakes - WORKING BRAKE

ZSX = Double disk brakes - WORKING BRAKE

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Fast - Flexible - Reliable



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

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

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

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

CD Rom:



Internet:

WWW.BAUERGEARS.COM



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

Catalogue Geared Motors

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

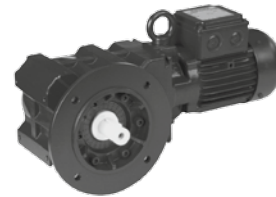
Shaft-Mounted Geared Motor Series BF



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

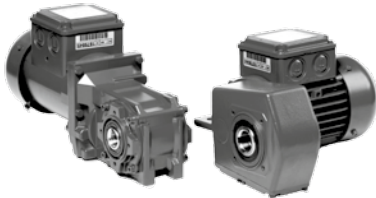
Bevel-Geared Motor Series BK



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

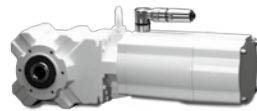
Small Industry Geared Motors KIG



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

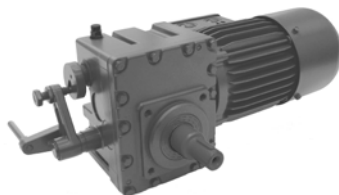
Worm-Geared Motor Series BS



Economical, right-angle, worm-g 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

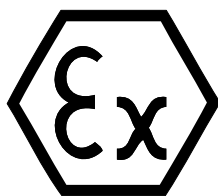
CAGE CLAMP®



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



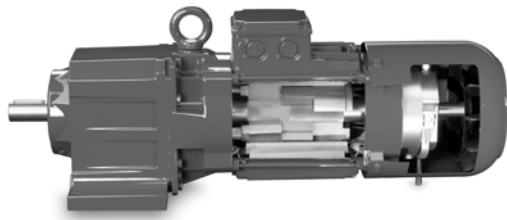
Geared motors suitable for use in explosive areas:

GAS	Zones 1, 2		
DUST	Zones 21, 22		
DXD	Zone 1,	II 2 G Ex d(e) IICT3...T4 Gb	0,12... 75 kW
DXE	Zone 1,	II 2 G Ex e IICT1...T4 Gb	0,12... 11 kW
SXE	Zone 1,	II 2 G Ex e IICT1...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 IIICT160° C IP66 Db	0,03... 30 kW
DXC	Zone 21,	II 2 D Ex tb IIICT120° C IP66 Db	0,03... 22 kW
SXC	Zone 21,	II 2 D Ex tb IIICT120° C...160° C IP66 Db	
DXS	Zone 22,	II 3 D Ex tc IIICT120° 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 IIICT120° C...160° C IP65 Db	0,12... 75 kW
DXE	Zone 1/21,	II 2 G Ex e IICT1...T4 Gb	
		II 2 D Ex tb IIICT120° C...160° C IP66 Db	0,12... 11 kW
SXE	Zone 1/21,	II 2 G Ex e IICT1...T4 Gb	
		II 2 D Ex tb IIICT120° C...160° C IP66 Db	0,55... 15 kW
DXS	Zone 2/22,	II 3 G Ex nA IICT1...T3 Gc	
		II 3 D Ex tc IIICT120° C...160° C IP65 Dc	0,03... 30 kW

Catalogue Geared Motors

General Product Overview

Energy Saving Geared Motors

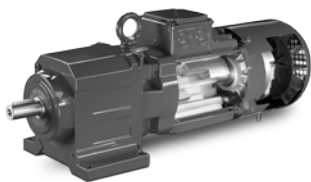


PN [kW]	IE1*	IE2*	IE3*	IE3*	IE4*
0,55	DSE08MA4	DHE08LA4	DPE08LA4		
0,75	DSE08LA4	DHE08XA4	DPE08XB4		SU08MA4
1,1	DSE09SA4	DHE09LA4	DPE09XA4		S08MA4
1,5	DSE09LA4	DHE09XA4	DPE09XA4C	S08LA4	S08LA4
2,2	DSE09XA4	DHE09XA4C	DPE09XB4C	S09SA4	S09SA4
3	DSE11SA4	DHE11MA4	DPE11LA4	S09XA4	S09XA4
4	DSE11MA4	DHE11LA4	DPE11LB4	S11SA6	S11SA6
5,5	DSE11LA4	DHE11LA4C	DPE11LB4C	S11MA6	S11MA6
7,5	DSE13MA4	DHE13LA4	DPE13XA4	S11LA6	S11LA6
9,5	DSE13LA4	DHE16MB4	DPE16LB4		
11	DSE16MB4	DHE16LB4	DPE16LB4		
15	DSE16LB4	DHE16XB4	DPE16XB4		
18,5	DSE16XB4	DHE18LB4	DPE18LB4		
22	DSE18LB4	DHE18XB4	DPE18XB4		
30	DSE18XA4	DHE20LA4	DPE20LA4		
37	DSE22SA4	DHE22SA4	DPE22SA4		
45	DSE22MA4	DHE22MA4	DPE22MA4		

*at 1500 1/min

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 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

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

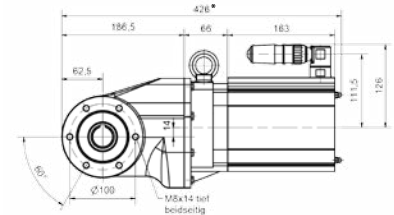
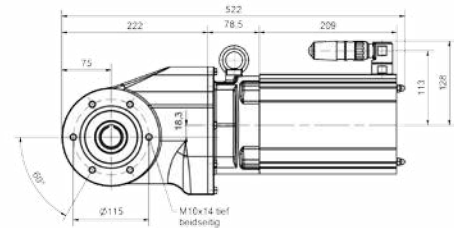
Gearbox BK08

- 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

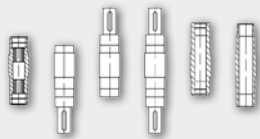
Our Performance

Variance in Materials

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

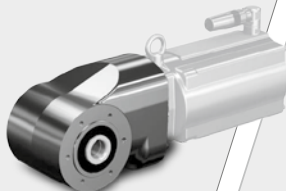
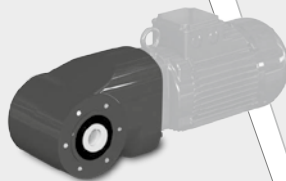
Diversity in Mounting

- 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

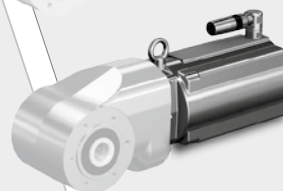
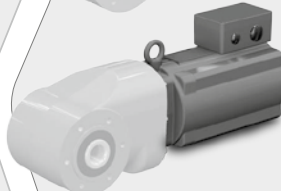
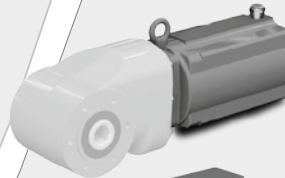
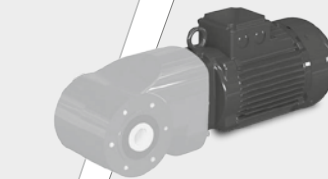
- Asynchronous technology
- Efficiency Class IE1 to IE3
- Permanentmagnettechnology (PSM)
- Efficiency class IE4
- Optimised for partial load acc. to EN 50598

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



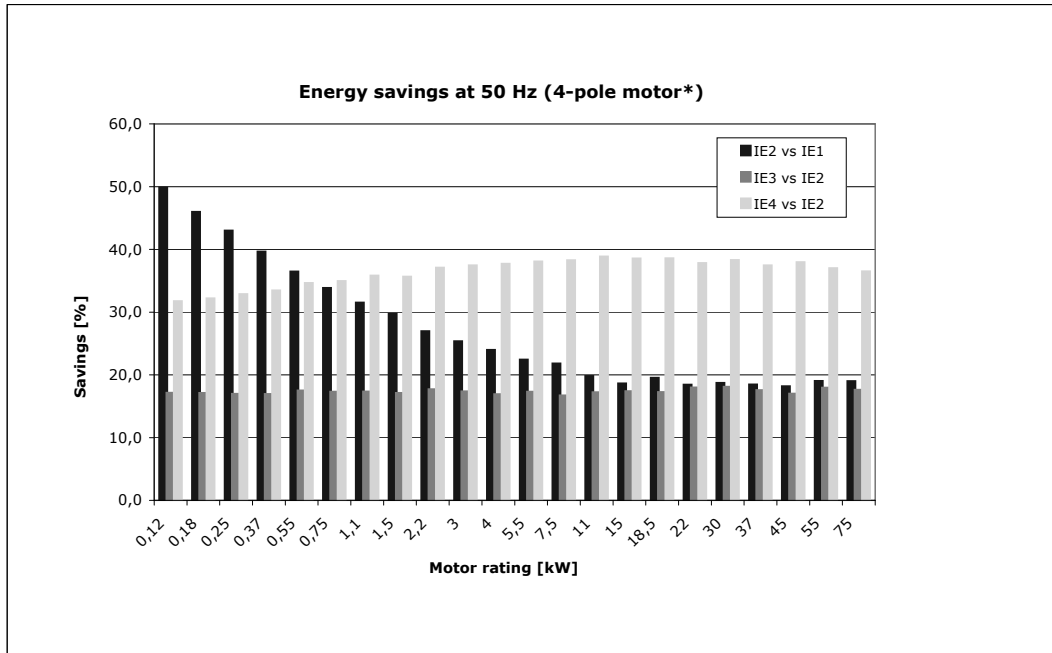
Catalogue Geared Motors

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	DHE11LA4C	DPE11LB4C	S11MA6	S11LA6		S09XA4
7,5	DSE13MA4	DHE13LA4	DPE13XA4	S11LA6		S11SA6	S11MA6
9,5	DSE13LA4	DHE16MA4	DPE16LB4			S11MA6	S11LA6
11	DSE16MB4	DHE16LA4	DPE16LB4			S11MA6	S11LA6
15	DSE16LB4	DHE16XA4	DPE16XB4			S11LA6	
18,5	DSE16XB4	DHE18LA4	DPE18LB4				
22	DSE18LB4	DHE18XA4	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

General

Advantages of Bauer-Geared Motors

1

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 matched 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

- Dust tight and hose Proof IP65 Construction
- Low installation costs through CAGE CLAMP® instead of the classical terminal block connection cost effective
- All efficiency classes in the same motor frame size. No size increase
- 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
- Ideal for frequency inverter duty through insulation class F as standard
- Advantages of energy efficient motor solutions

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, heater)
- Robust design for heavy duty applications
- Enclosure IP65 as standard



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 the operating instructions.

Guards for rotating parts

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

See the Operating Instruction.

Protection against accidental contact

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

Operating noise

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

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

See BAUER special imprint SD18.. for more information.

Paint finish and corrosion protection

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

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

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

Paint finishes up to 200 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.

Product Description

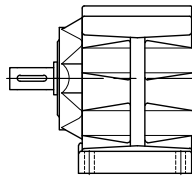
Modular system overview

2

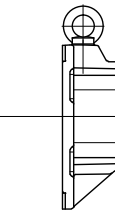
Gear design

Motor terminal box design

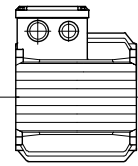
BG



Helical gear

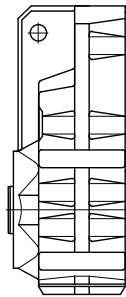


System cover

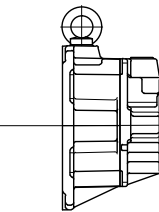


Motor with cast-in terminal box (KAG)

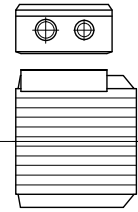
BF



Shaft-mounted gear

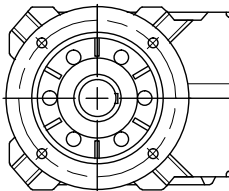


Pre-stage

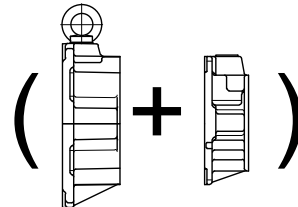


Motor with screw-on terminal box (TB)

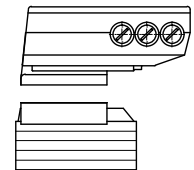
BK



Bevel gear

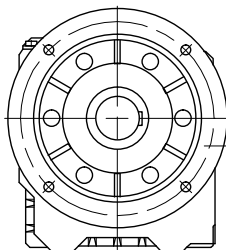


Pre-stage + System cover

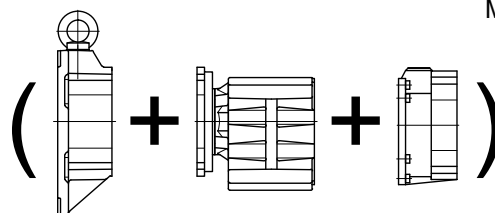


Motor with ETA-K-Inverter

BS



Worm gear

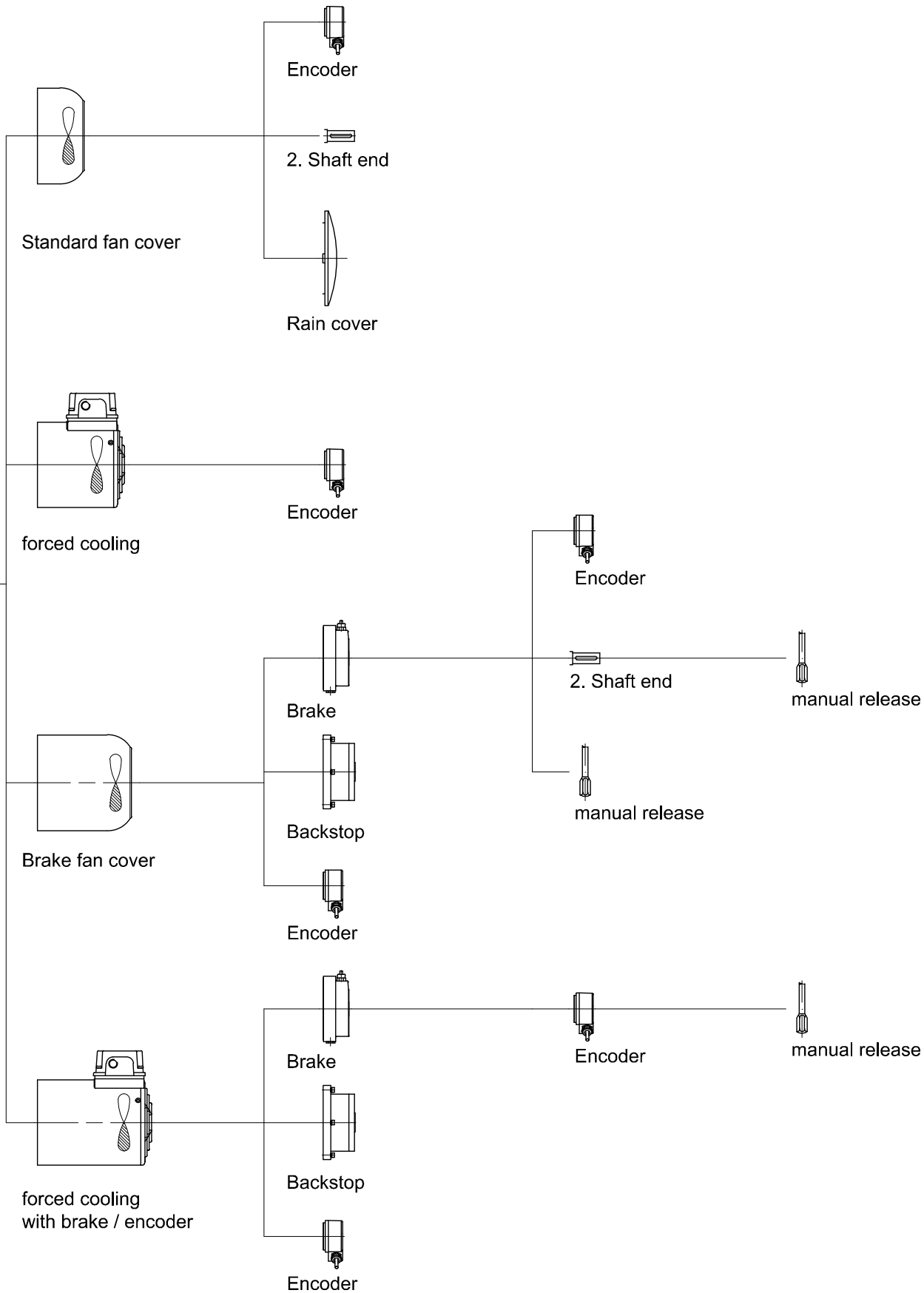



(System cover + Intermediate gear + System cover)

Covers
B-side

Extensions
Standard motor

Extensions
Motor with brake



		CE	
Gear Motor			
G-Motor		Year	
Type			
HP		kW / Con	
Rpm		V	
Motor Rpm		Hz	
COS		A	
PINTS			
Input Cl		IP IM	

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

Codes for gear options

Motor & Motor options

Type Designations

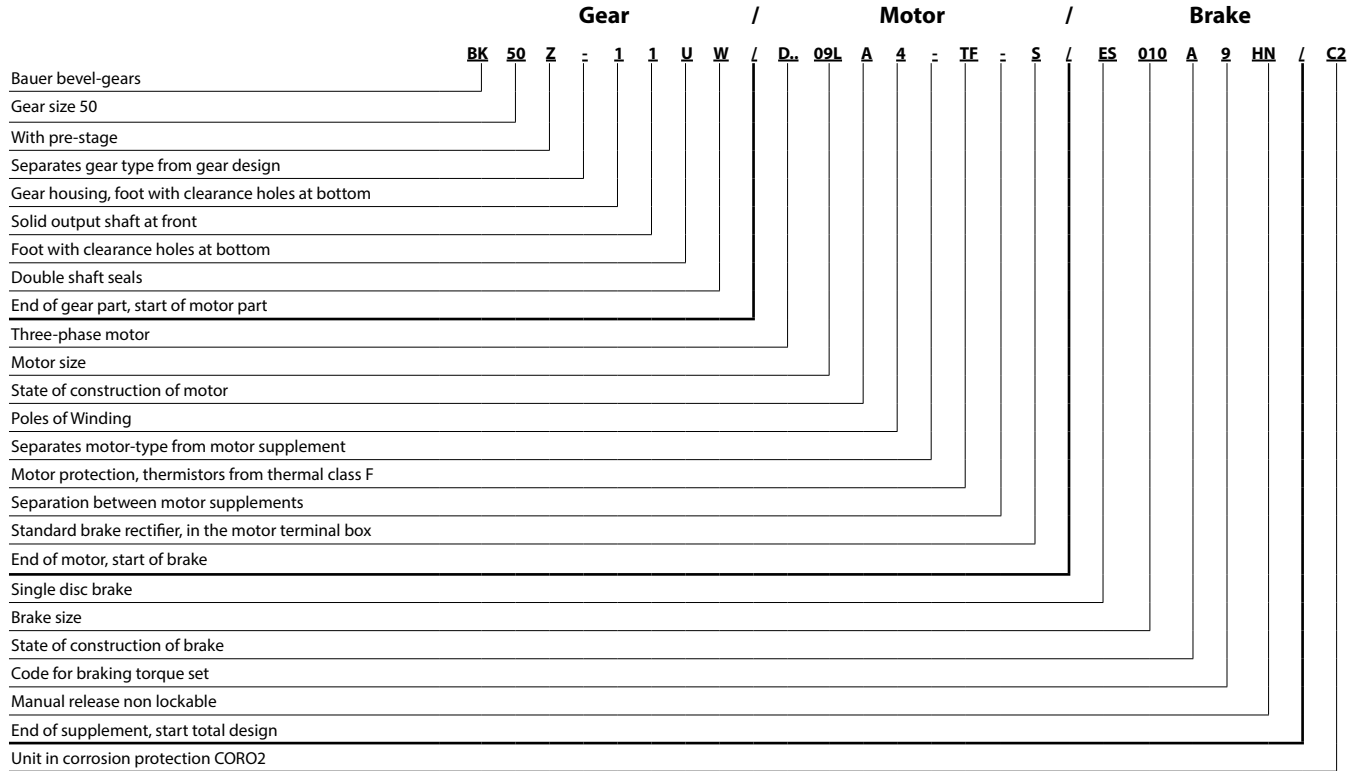
Significance of type designation

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

Significance of type designation

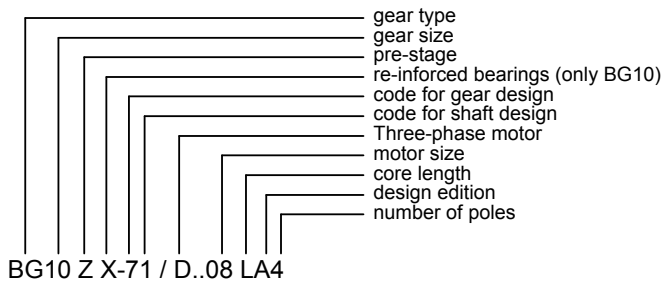
The type designation of a BAUER geared motor is a code designating of almost all features in the drive configuration.

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.



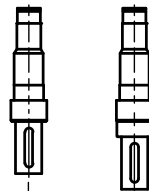
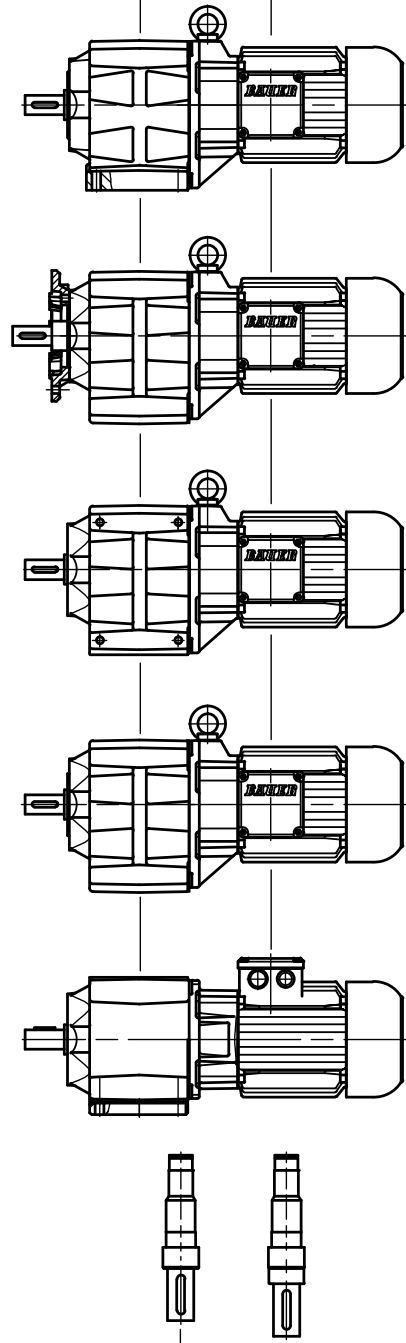
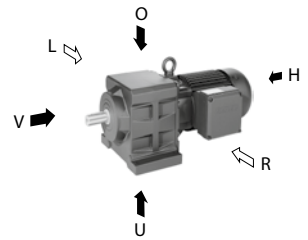
Type Designations

BG-series helical-gear motor



- 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

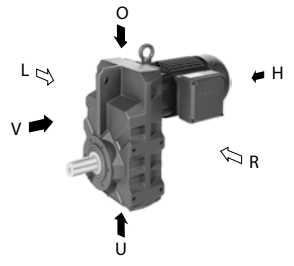
- . 1 solid shaft on gear side V
- . 7 solid shaft on gear side V for flange as from BG10
- . . W double shaft seals



Type Designations

BF-series shaft-mounted geared motor

3



gear type
 gear size
 pre-stage
 re-inforced bearing (≥BF60)
 code for gear design
 code for shaft design
 Three-phase motor
 motor size
 core length
 design edition
 number of poles

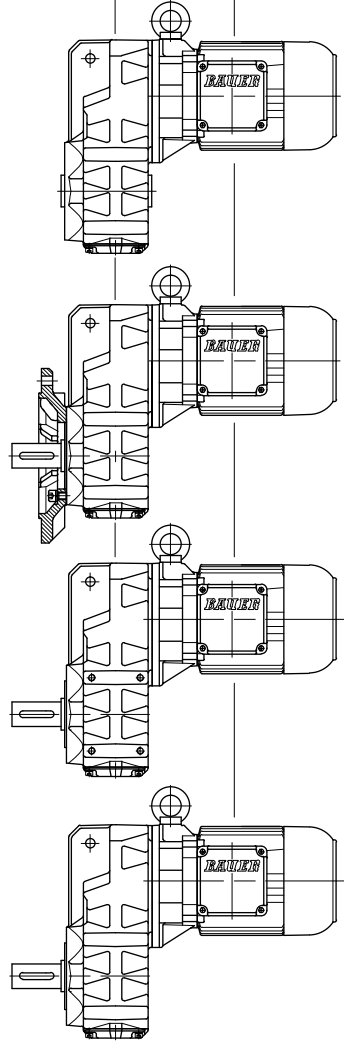
BF70 Z X-74 / D..11 LA4

Z... gear with pre-stage
 X... gear with reinforced bearings
 G... tandem gear
 0 . cast-in torque arm

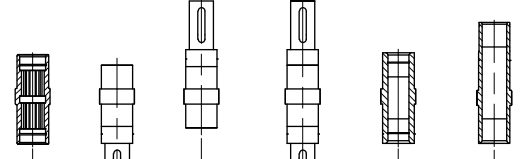
2 . small A-flange with through holes
 3 . standard A-flange with through holes
 4 . large A-flange with through holes

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

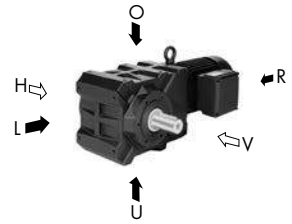


. 0 splined shaft acc. DIN 5480
 . 1 solid shaft on gear side V
 . 2 solid shaft on gear side H
 . 3 solid shaft on gear side V and H
 . 4 hollow shaft with keyway
 . 5 hollow shaft with shrink disk SSV on side H
 . . W double shaft seals
 . . A cover for shrink disk SSV



Type Designations

BK-series bevel-gear motor



3

gear type
 gear size
 pre-stage
 re-reinforced bearing (≥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

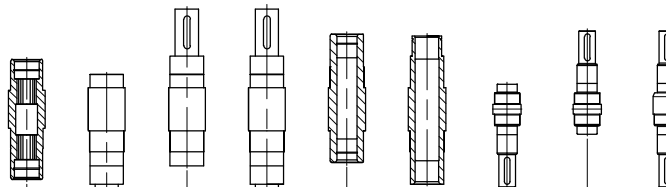
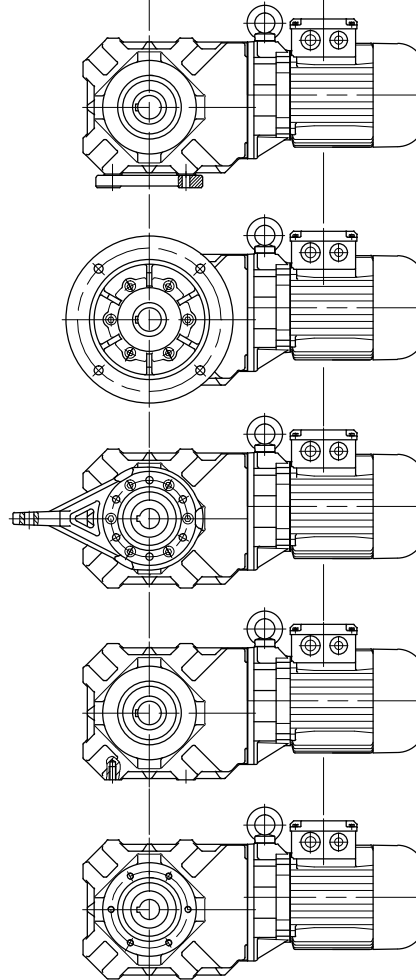
- 1 . U ——— foot with through holes, bottom
- 1 . L ——— foot with through holes, left
- 1 . O ——— foot with through holes, top

- 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

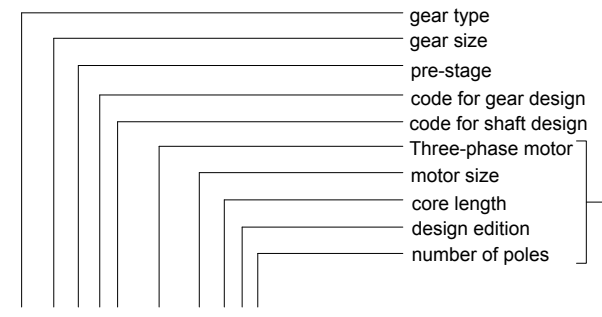
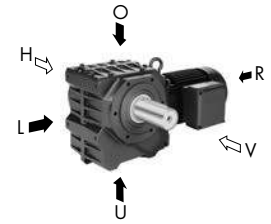


- . 0 Splined shaft acc. DIN 5480
- . 1 solid shaft on gear side V
- . 2 solid shaft on gear side H
- . 3 solid shaft on gear side V and H
- . 4 hollow shaft with keyway
- . 5 hollow shaft with shrink disk SSV on gear side H
- . 7 solid shaft at gear side V for flange (only BK06)
- . 8 solid shaft at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

3



BS40 Z-64U/ D..08 LA4

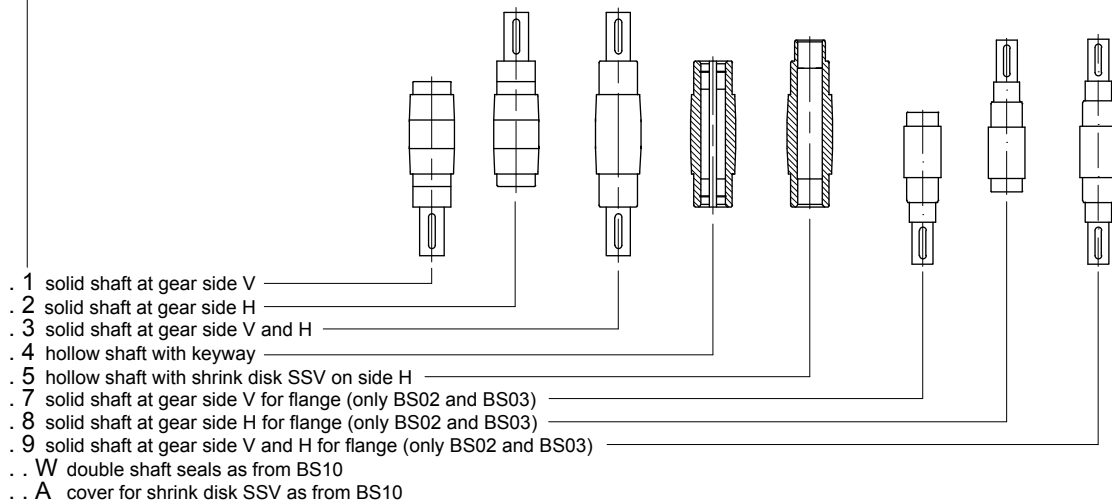
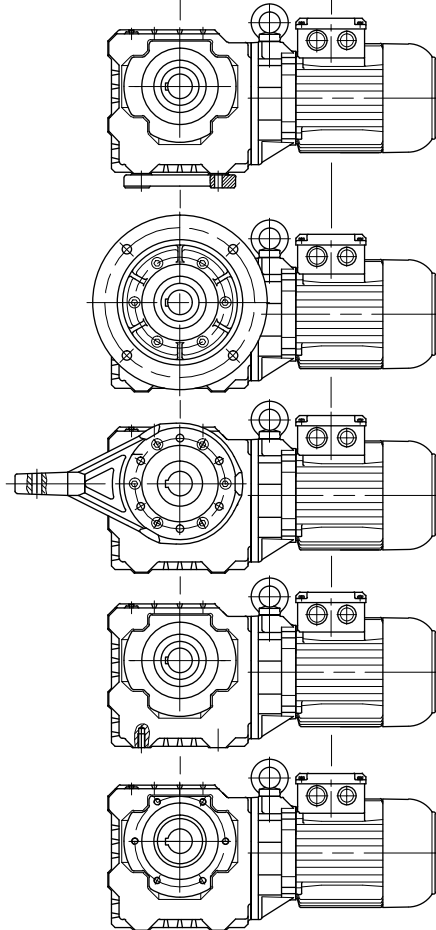
- 1 . U ———— foot with through holes, bottom
- 1 . L ———— foot with through holes, left
- 1 . O ———— foot with through holes, top

- 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

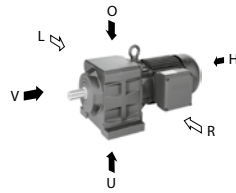
- 7 . V ———— C-flange with threaded holes, front
- 7 . H ———— C-flange with threaded holes, rear
- 7 . VH ———— C-flange with threaded holes, front and rear
- 8 . ———— completely machined



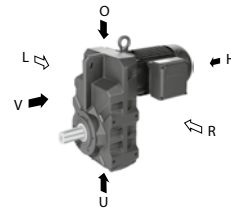
- . 1 solid shaft at gear side V
- . 2 solid shaft at gear side H
- . 3 solid shaft at gear side V and H
- . 4 hollow shaft with keyway
- . 5 hollow shaft with shrink disk SSV on side H
- . 7 solid shaft at gear side V for flange (only BS02 and BS03)
- . 8 solid shaft at gear side H for flange (only 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

BG and BF series

BG series: mounting position B3



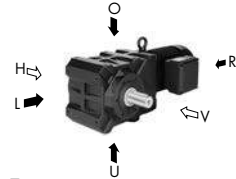
BF series: mounting position H4



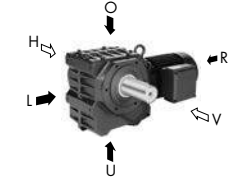
- V = Front
The side of the gear unit facing away from the motor or the source of motive power
- H = Rear
The side of the gear unit facing toward the motor or the source of motive power
- L = Left
The left side of the gear unit as viewed from the output shaft side of mounting position B3 for the BG series or mounting position H4 for the BF series
- R = Right
The right side of the gear unit as viewed from the output shaft side of mounting position B3 for the BG series or mounting position H4 for the BF series

BK and BS series

BK series: mounting position H1



BS series: mounting position H1

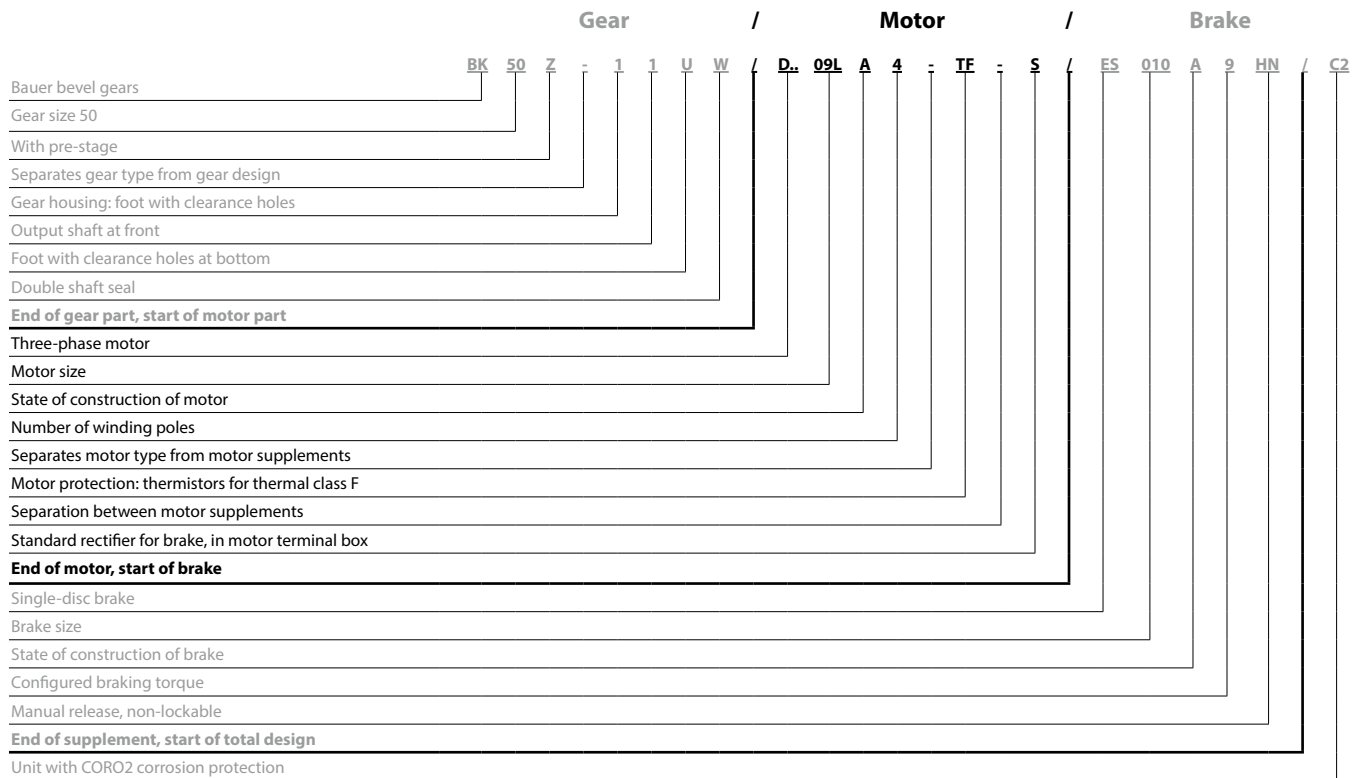


- V = Front
The side of the gear unit facing toward the viewer looking toward the unit - mounting position H1
- H = Rear
The side of the gear unit facing away from the viewer looking toward the unit - mounting position H1
- L = Links
The left side of the gear unit as viewed from the output shaft side of mounting position H1, or the torque arm oriented to the left
- O = Top
The top side of the gear unit as viewed from the output shaft side of mounting position H1, or the torque arm oriented upwards
- U = Bottom
The bottom side of the gear unit as viewed from the output shaft side of mounting position H1, or the torque arm oriented downwards

Type Designations

Motor & Motor options

3



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 ST = Harting (other)

Heavy-duty fan SL

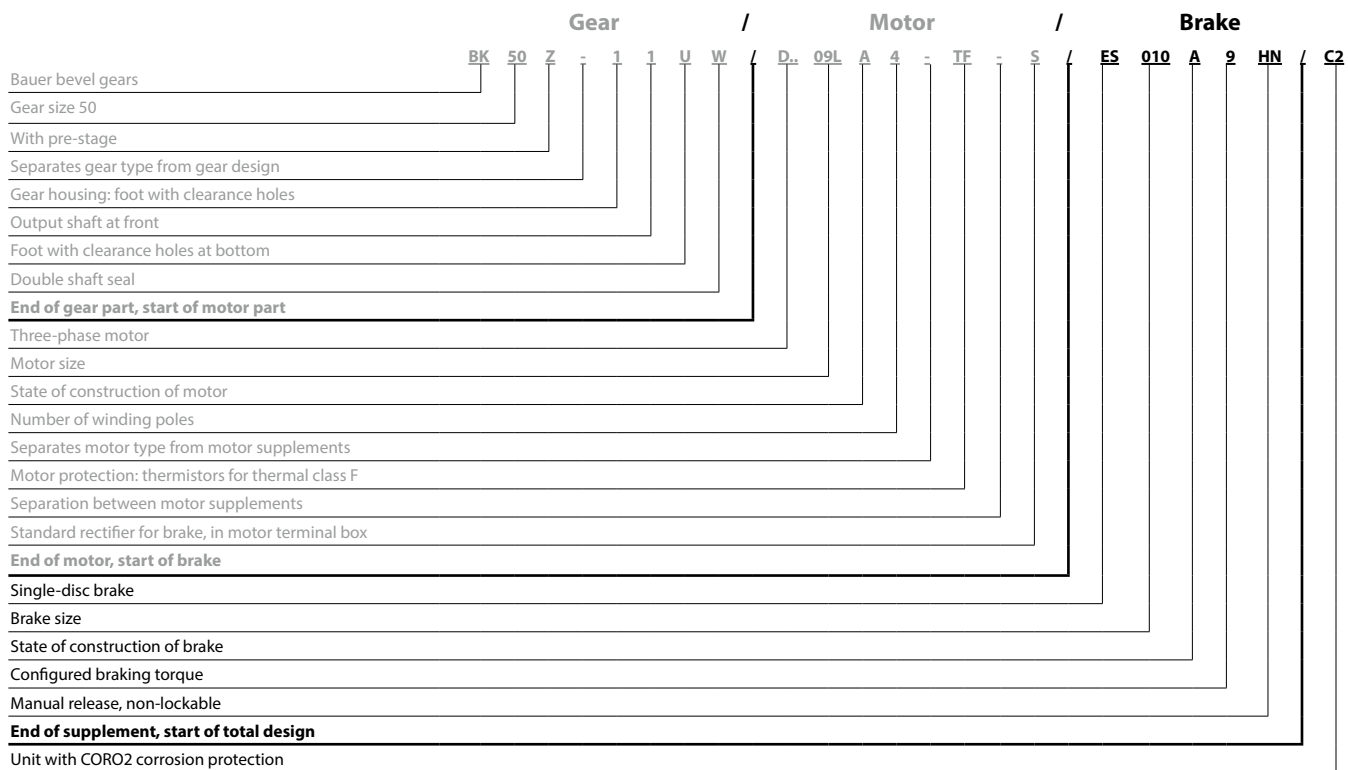
Protective cover D

CleanDrive CD = Aseptic drive with cable

Type Designations

Motor & Motor options

3



Brake

E	= Single-disc brake
ES	= Single-disc holding brake
EH	= Single-disc holding brake in heavy duty version
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-catalog version



Geared Motor Selection

29-46

- Questionnaire for geared motor selection
 - Drive configuration
 - Motor configuration
 - Radial and axial forces on the output shaft
 - Sizing based on efficiency
 - Shock loads of machinery
-

Gear Motor Selection

Questionnaire for geared motor selection

RFQ data

Order

Bauer Gear Motor LLC. 31, Schoolhouse Rd. Somerset, N.J. 08873-1212

Order / RFQ no.: _____

Fax: (732)469-8773 Phone (732)469-8770

Contact data: _____

Email: bauer.us@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 E2 E3

Type _____

Power _____ kW _____ HP

Output shaft speeds _____ 1/min

Torque _____ lbf-in Service factor $f_B =$ _____

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 _____ F Altitude (NN) [ft] _____

Ambient conditions & installation site _____

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

Radial force on output shaft _____ lbf at a distance x from the shaft junction _____ in

Axial force on output shaft _____ lbf

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 = _____ in
- 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 = _____ lbf-in

Supply voltage = _____ VAC _____ Hz or _____ V DC

manual release yes no

Microswitch yes no

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 in the questionnaire for geared motor selection, 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 _a	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 chapter Motors 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 (motor data see in chapter Motors) 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:

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

Determining the shock load

The shock load (see chapter 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 chapter 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 working brake. See chapter Motor Mounted Components 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 chapter Motor Mounted Components 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.

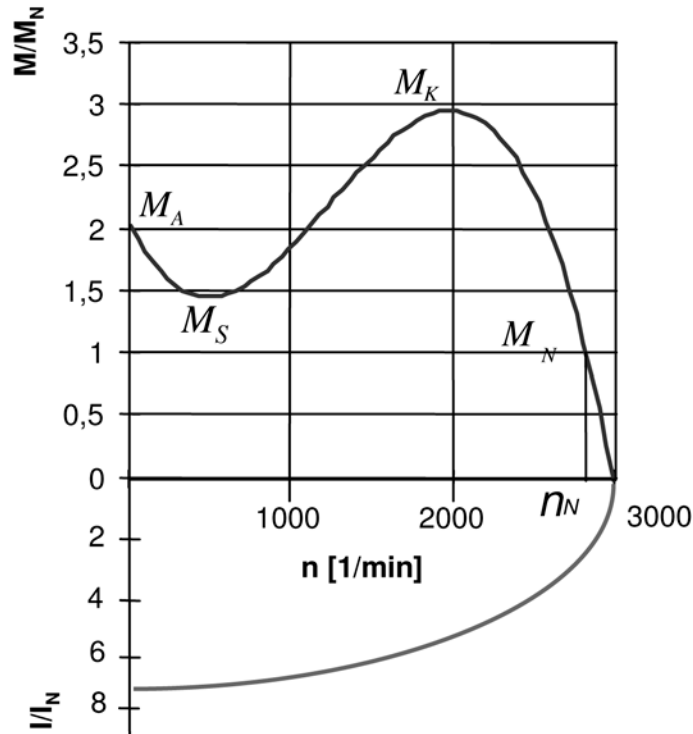
Gear Motor Selection

Motor configuration

Torque–speed characteristic

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 inverter is discussed separately.

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 .

Dynamic power

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

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

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

Static power

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

$$P_s = \frac{F_f \times v}{\eta}$$

- P_s Static power [W]
- F_f Travel resistance [N]

Total power P_G

$$P_G = P_{dyn} + P_s$$

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

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

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 [HP]	P_N [kW]	Type	Z_0 [c/h]
0.075	0.055	D04LA4	122000
0.1	0.075	D04LA4	95000
0.12	0.09	D04LA4	82000
0.15	0.11	D04LA4	70000
0.1	0.075	D05LA4	95000
0.12	0.09	D05LA4	82000
0.15	0.11	D05LA4	70000
0.25	0.18	D05LA4	47000
0.33	0.25	D05LA4	36000
0.4	0.3	D05LA4	31000
0.1	0.075	D06LA4	95000
0.12	0.09	D06LA4	82000
0.15	0.11	D06LA4	70000
0.25	0.18	D06LA4	47000
0.33	0.25	D06LA4	36000
0.4	0.3	D06LA4	31000
0.5	0.37	D07LA4	27000
0.75	0.55	D08MA4	19000
1	0.75	DPE08XB4	15000
1.5	1.1	DPE09XA4	11000
2	1.5	DPE09XB4	8700
3	2.2	DPE09XB4C	6400
4	3	DPE11LA4	5000
5	3.7	DPE11LA4	4200
5.4	4	DPE11LB4	4000
7.5	5.5	DPE11LB4C	3100
10	7.5	DPE13XA4	2400
12.5	9.5	DPE16LB4	2000
15	11	DPE16LB4	1800
20	15	DPE16XB4	1400
25	18.5	DPE18LB4	1200
30	22	DPE18XB4	1000
40	30	DPE20LA4	790
50	37	DPE22SA4	670
60	45	DPE22MA4	570

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

Load factor K_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:

$$K_{L100} = 1 - \left(\frac{P}{P_n} \right)^{1.5}$$

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

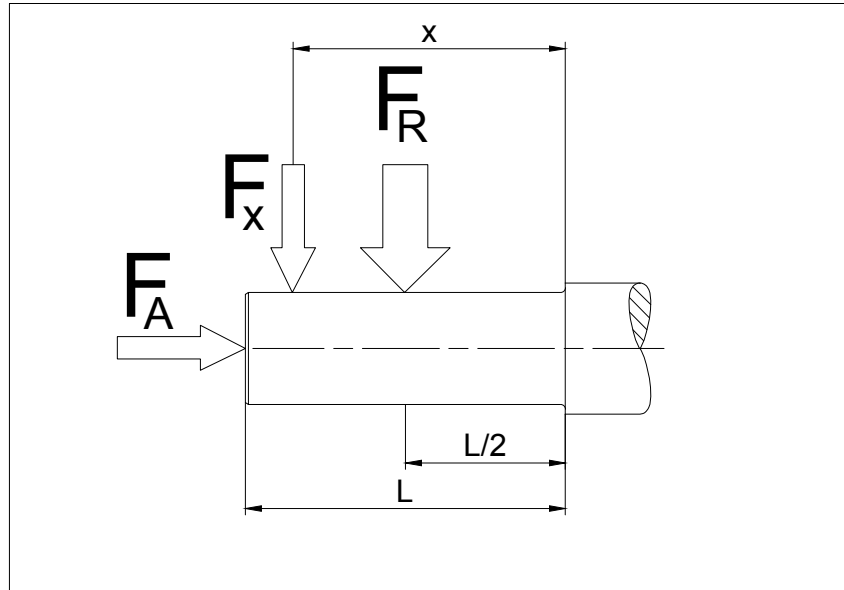
Gear Motor Selection

Radial and axial forces on the output shaft

Radial and axial forces on the output shaft

For each geared motor with a solid shaft, the allowable radial force $F_{R(N,V)}$ referred to the center 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 center, the allowable radial force must be recalculated taking into account the bearing life-time and the shaft strength.

Maximum allowable radial force at force application point X



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 Bauer Gear Motor.

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} taken 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	-
BG15	normal	-.1	50	0.6100	2.2500	-
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	-

Gear Motor Selection

Radial and axial forces on the output shaft

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

Gear Motor Selection

Radial and axial forces on the output shaft

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

Radial and axial forces on the output shaft

Factor f_z for the type of transmission component

Transmission component	Safety factor f_z	Note
Gearwheel	1	= > 17 teeth
Gearwheel	1,15	< 17 teeth
Chainwheel	1	= > 17 teeth
Chainwheel	1,25	< 17 teeth
Toothed rack	1,15	< 17 teeth (pinion)
V-belt	2.....2,5	From tensioning force
Flat belt	2...3	From tensioning force
Friction wheel	3...4	

4

Axial force

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

$$F_A = 0,5 \times F_{R(N,V)}$$

Please consult Bauer Gear Motor in case of larger axial forces.

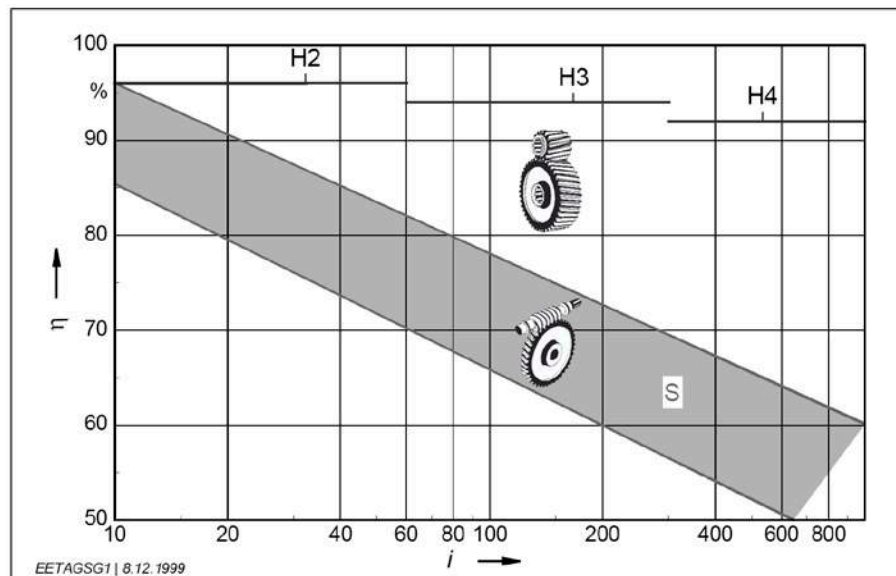
Consequently, the most cost-effective motor selection must be based on the following factors.

- 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 optimize 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 toothing, according to manufacturer's data	0.94–0.98

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 a shock load class of III, this is justified. On the other hand, under favorable conditions a belt conveyor could have a 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		

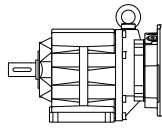
Gear Motor Selection

Shock loads of machinery

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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 dyeing 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

47-74

Standard fitting positions

- 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 grease nipple for gearbox designs with

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

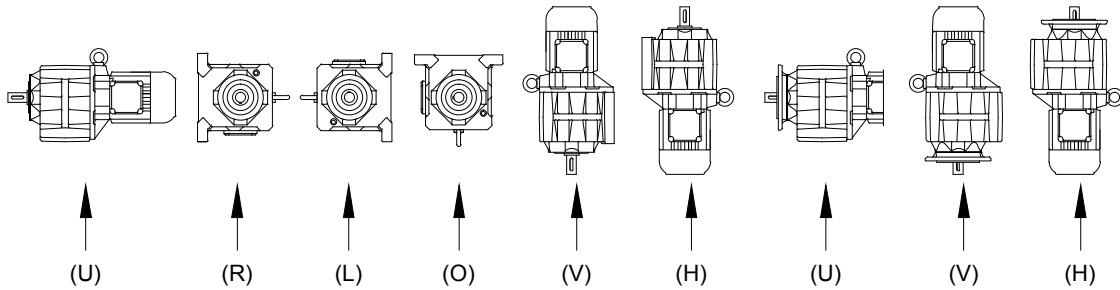
Position of the drain plugs in the System Cover

Gearboxes & Lubrication

Standard fitting positions

BG Series

Gear side



Mounting position (foot housing)
cast foot with clearance holes (Code -1.)

B3 B6 B7 B8 V5 V6

Mounting position

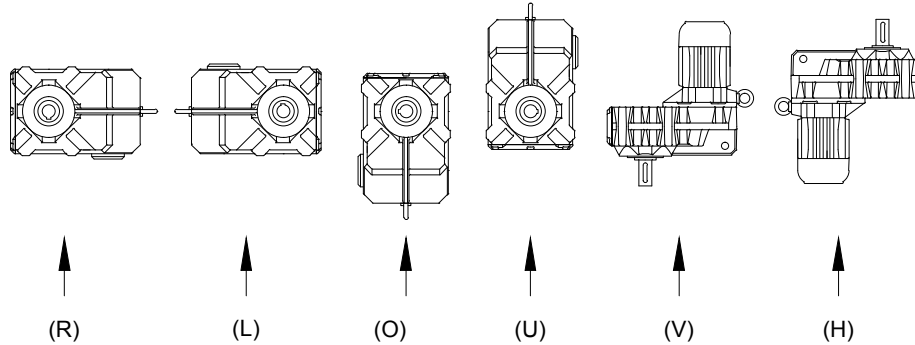
(attachment housing with flange or foot mounting)
flange with threaded holes (Code -2./Code -3./Code -4./Code -7.)

foot with threaded holes (Code -6.)
foot with clearance holes (Code -9.)

H4 H1 H2 H3 H5 H6 B5 V1 V3

BF series

Gear side

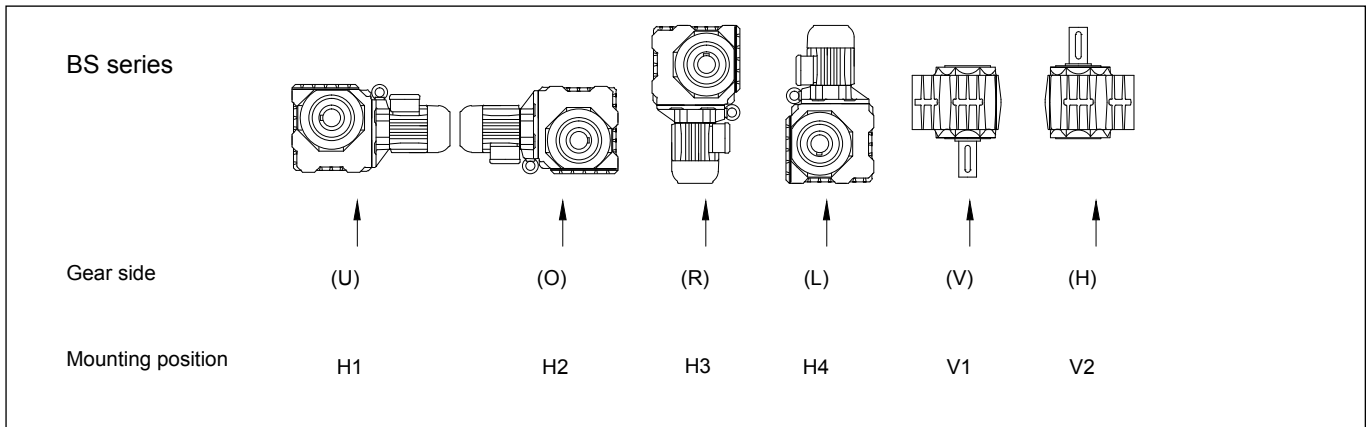
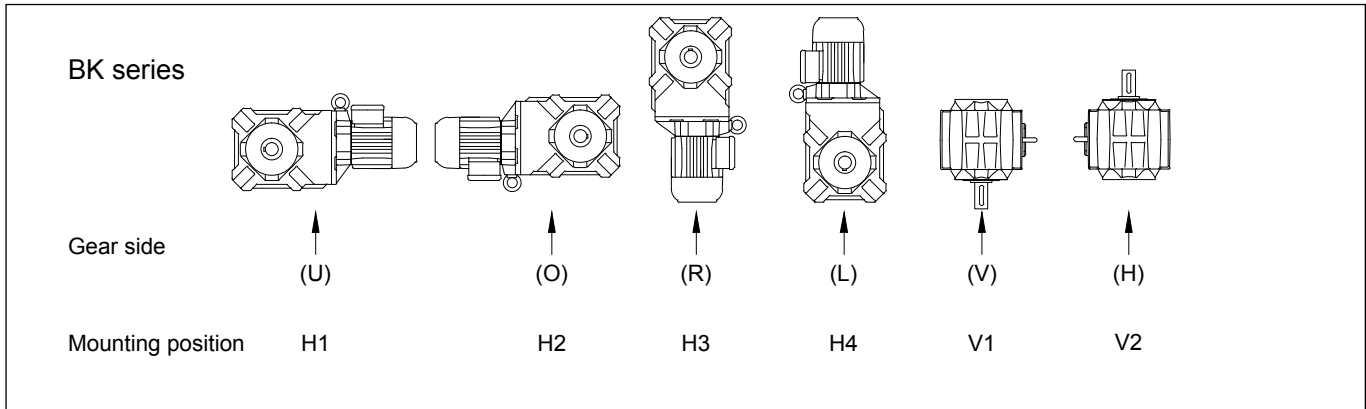


Mounting position

H1 H2 H3 H4 V1 V2

Gearboxes & Lubrication

Standard fitting positions



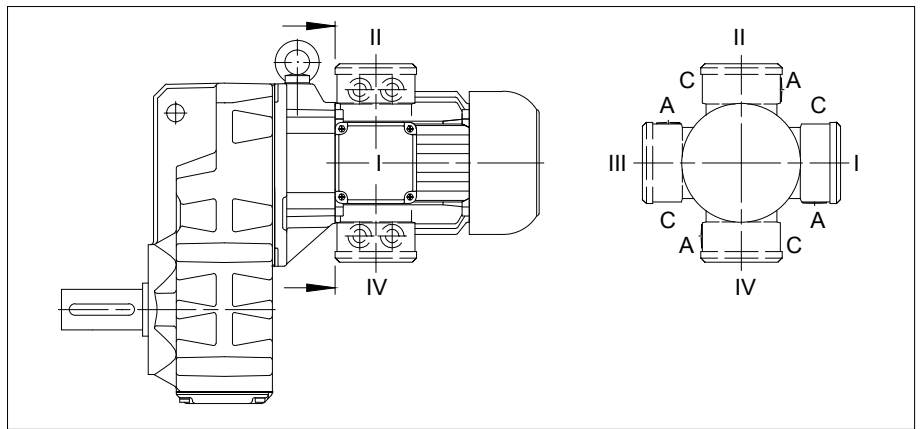
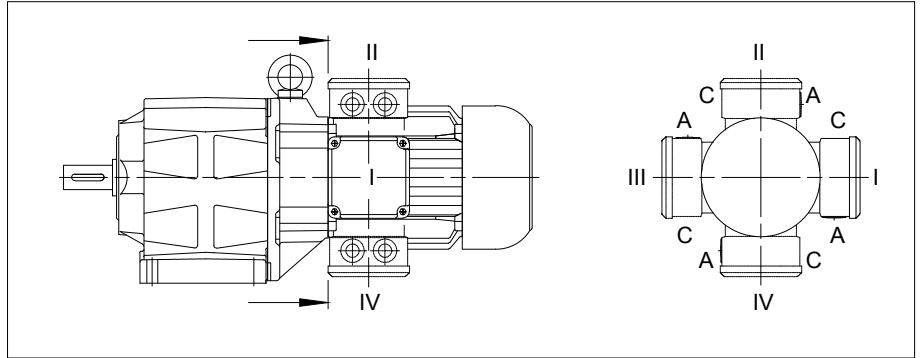
5

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.

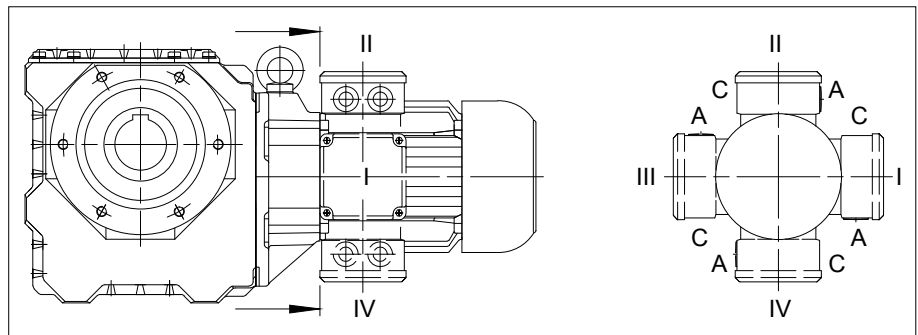
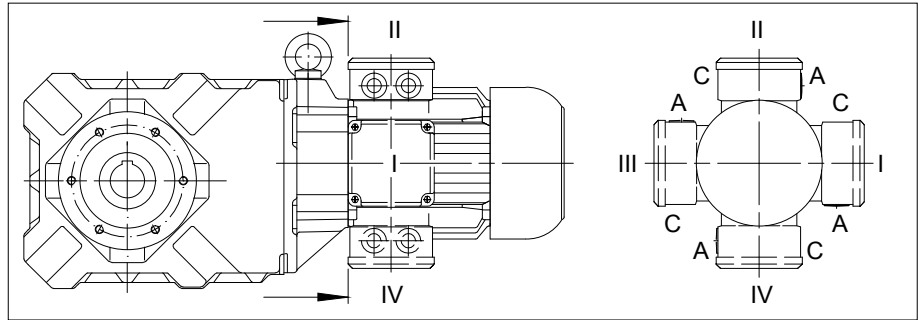


Turning or rotating the gearbox in space in the different mounting positions according to DIN 42950 does not influence the marking as shown. The details of the terminal box always show the position of the terminal box and the cable entry in relation to the gearbox and not in space. The mounting according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

Gearboxes & Lubrication

Gearboxes

Radial and axial forces at the output shaft

The output shafts and output-shaft bearings are matched to the motor torques. It is advisable to locate the drive-transmission element's point of application as close as possible to the shaft collar to ensure that the load imposed by external radial forces is not unnecessarily high. Permissible values for radial forces referred to the output shaft center line 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

The output shaft and second motor shaft extension together with keyways are machined to the following standards:

Solid shafts

Suffix letters		AV Dimensions and tolerances	AM or CS or none		
			Dimensions	Tolerances	Dimensions
					up to 50 mm dia
Output dia	shaft	ANSI B4.1	ISO R 775	k6	m6
Keyway		ANSI B17.1	ISO R 773	P9	P9
Keyway shape	high	ANSI B17.1	ISO R 773	h9	h9
Bore of power transmission elements		AGMA 511.02	ISO R 286	H7	H7

Hollow shafts with keyway

Suffix letters		AV Dimensions and tolerances	AM or CS or none	
			and	Tolerances
		Dimensions	Dimensions	Tolerances
Bore dia		ANSI B4.1	ISO R 775	H7
Keyway		ANSI B17.1	ISO R 773	JS9
Keyway shape	high	ANSI B17.1	ISO R 773	h9
Countershaft		ANSI B4.1	ISO R 286	h6

Plain hollow shafts without keyway for shrink disk connection (SSV)

Suffix letters		AV Dimensions and tolerances	AM or CS or none	
			and	Tolerances
		Dimensions	Dimensions	Tolerances
External dia		ANSI B4.1	manufacturer's standard	f7
Internal dia		ANSI B4.1	manufacturer's standard	H7
Countershaft		ANSI B4.1	ISO R 286	h6

H7 permits the following tolerances:

Boring diameter (mm)	Limiting tolerances (1/1000 mm)
above 6 to 10	0 to +15
above 10 to 18	0 to +18
above 18 to 30	0 to +21
above 30 to 50	0 to +25
above 50 to 80	0 to +30
above 80 to 120	0 to +35
above 120 to 140	0 to +40

Boring diameter (inch)	Limiting tolerances (1/1000 inch)
above 0 to 0.12	0 to -0.4
above 0.12 to 0.24	0 to -0.5
above 0.24 to 0.40	0 to -0.6
above 0.40 to 0.71	0 to -0.7
above 0.71 to 1.19	0 to -0.8
above 1.19 to 1.97	0 to -1.0
above 1.97 to 3.15	0 to -1.2
above 3.15 to 4.73	0 to -1.4
above 4.73 to 7.09	0 to -1.6
above 7.09 to 9.85	0 to -1.8
above 9.85 to 12.41	0 to -2.0
above 12.41 to 15.75	0 to -2.2
above 15.75 to 19.69	0 to -2.5

H 6 permits the following tolerances:

Boring diameter (mm)	Limiting tolerances (1/1000 mm)
above 30 to 50	0 to -16
above 50 to 80	0 to -19
above 80 to 120	0 to -22
above 120 to 180	0 to -25

Boring diameter (inch)	Limiting tolerances (1/1000 inch)
above 0 to 0.12	0 to -0.25
above 0.12 to 0.24	0 to -0.3
above 0.24 to 0.40	0 to -0.4
above 0.40 to 0.71	0 to -0.4
above 0.71 to 1.19	0 to -0.5
above 1.19 to 1.97	0 to -0.6
above 1.97 to 3.15	0 to -0.7
above 3.15 to 4.73	0 to -0.9
above 4.73 to 7.09	0 to -1.0
above 7.09 to 9.85	0 to -1.2
above 9.85 to 12.41	0 to -1.2
above 12.41 to 15.75	0 to -1.4
above 15.75 to 19.69	0 to -1.6

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.

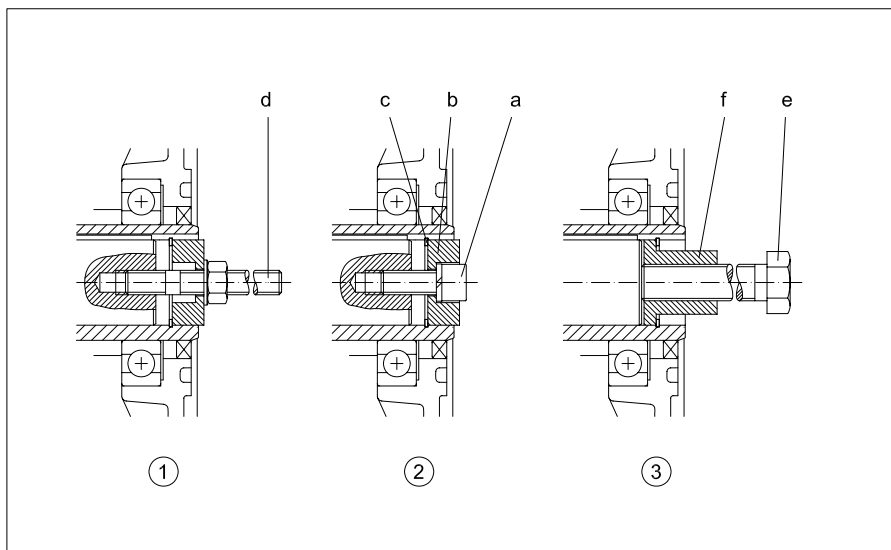
(2) Axial fastening

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 optimized for the desired installed position as is stated on the nameplate. The type of lubricant is stated in the Operating Instructions. Lubricants for other temperature ranges or special applications available on request.

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

	Lubricant type					
	Mineral Oil	Synthetic Oil		USDA H1 Oil		
	ISO VG 220	ISO VG 68		ISO VG 220	ISO VG 460	ISO VG 220
Disposal No.	ASN13 02 05	ASN 13 02 06	ASN 13 02 06	ASN 13 02 06	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"). Unless a Sight Glass is present oil should Never Be Topped UP. Information about the quantity of lubricant required for other types of installation can be obtained from the factory.

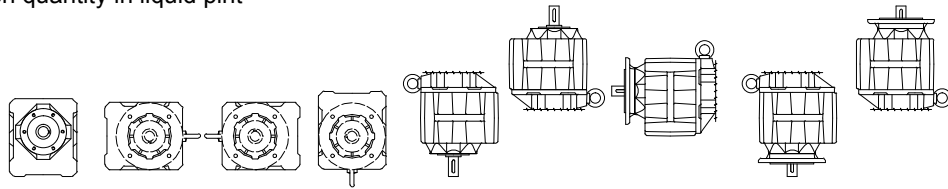
Gearboxes & Lubrication

Lubricants

Lubricant quantities, BG-series gears

Lubrication quantity in liquid pint

Gearbox type



BG04-BG100 (gear-housing with flange or foot)

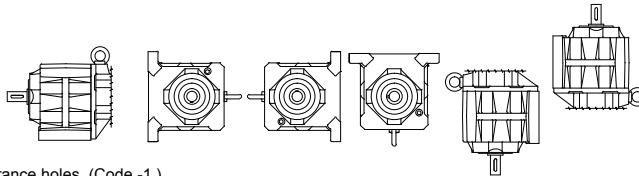
Flange (Code-2./Code-3./Code-4./Code-7.)
Foot with threads (Code-6.)

Foot with clearance holes (Code-9.)
[Completely machined (Code-8.)]

H4 H1 H2 H3 H5 H6 B5 V1 V3

BG04-BG100

(Gearbox housing)


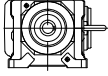
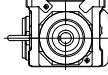

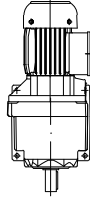
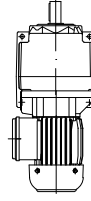


cast-on-foot with clearance holes (Code -1.)

B3 B6 B7 B8 V5 V6

BG04	*	-	0.06	0.06	0.06	-	-	0.06	0.11	0.11	
	**	0.11	0.11	0.11	0.11	0.21	0.11	-	-	-	
BG05	*	-	0.11	0.11	0.11	-	-	0.11	0.17	0.17	
	**	0.17	0.17	0.17	0.17	0.34	0.17	-	-	-	
BG06	*	-	0.17	0.17	0.17	-	-	0.17	0.32	0.32	
	**	0.25	0.25	0.25	0.25	0.51	0.32	-	-	-	
BG10	*	1.37	1.37	1.37	1.80	2.22	1.80	1.37	2.22	1.80	
	**	0.95	0.95	0.95	1.27	1.59	1.27	-	-	-	
BG15	**	0.85	0.85	0.85	0.74	1.31	1.16	-	-	-	
	*	1.69	1.69	1.69	2.32	2.96	2.32	1.69	2.96	2.32	
BG20	**	1.27	1.27	1.27	2.11	2.43	1.90	-	-	-	
	*	2.11	2.11	2.11	3.59	5.07	3.38	2.11	5.07	3.38	
BG30	**	2.11	2.11	2.11	3.59	4.86	3.59	-	-	-	
	*	3.59	3.59	3.59	5.28	7.40	4.44	3.59	7.40	4.44	
BG40	**	3.59	3.59	3.59	5.28	7.40	4.44	-	-	-	
	*	6.34	6.34	6.34	9.51	11.62	6.97	6.34	11.62	6.97	
BG50	**	6.34	6.34	6.34	9.51	11.62	6.97	-	-	-	
	*	11.62	11.62	11.62	14.79	23.04	13.53	11.62	23.04	13.53	
BG60	**	11.62	11.62	11.62	14.79	23.04	13.53	-	-	-	
		13.74	13.74	13.74	16.91	28.53	19.02	13.74	28.53	19.02	
BG70		23.25	23.25	23.25	23.25	47.55	31.70	23.25	47.55	31.70	
BG80		40.15	40.15	40.15	40.15	84.54	54.95	40.15	84.54	54.95	
BG90		73.97	73.97	116.24	105.67	139.48	105.67	73.97	139.48	105.67	
BG100											
		*	Attachment housing				**	Gearbox housing			

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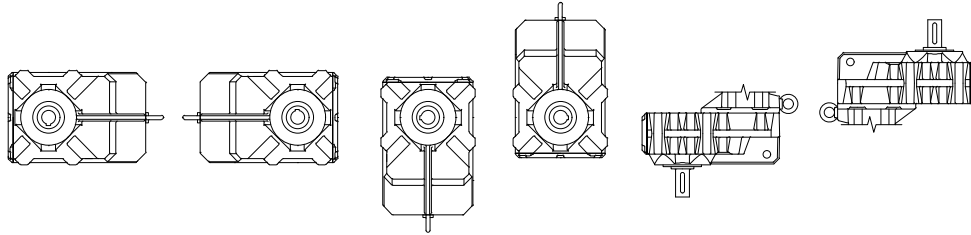
Lubrication quantity in liquid pint						
Gear type						
	H4	H1	H2	H3	V5	V6
BG20R	1.69	2.11	1.69	2.96	3.49	2.11

Gearboxes & Lubrication

Lubricants

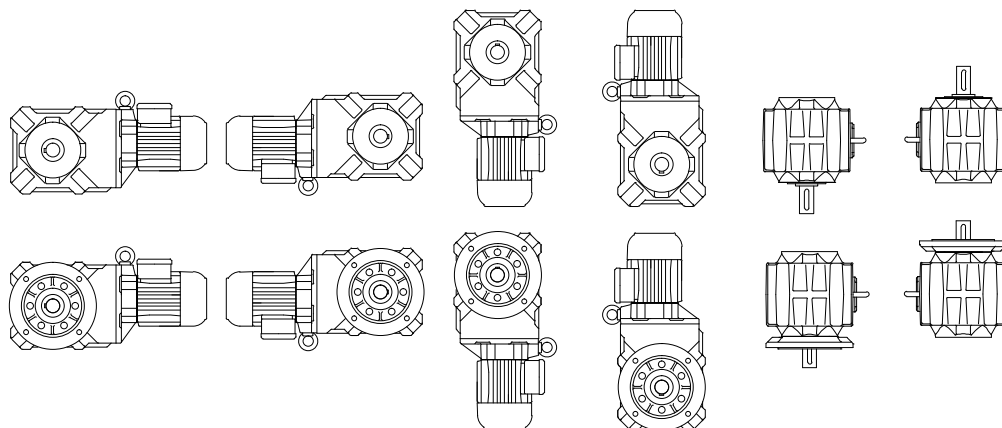
Lubricant quantities, BF-series gears

Lubrication quantity in liquid pint



Gear type	H1	H2	H3	H4	V1	V2
BF06	0.53	0.53	0.53	0.78	0.74	0.63
BF10	1.80	1.80	1.80	2.32	3.06	3.17
BF20	2.75	2.75	2.75	3.59	4.65	4.76
BF30	3.59	3.59	3.59	4.65	6.76	6.34
BF40	5.71	5.71	5.71	7.40	10.36	10.14
BF50	8.03	8.03	8.03	10.57	14.16	14.16
BF60	14.16	14.16	14.16	19.02	25.99	25.36
BF70	25.78	25.78	25.78	33.81	51.14	46.07
BF80	35.93	35.93	35.93	44.38	68.05	58.12
BF90	67.63	67.63	67.63	86.65	131.03	112.01

Lubrication quantity in liquid pint



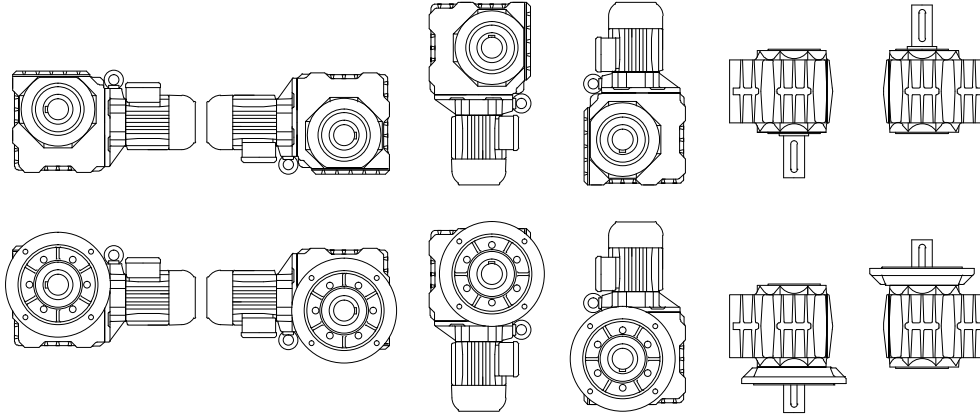
Gear box type	H1	H2	H3	H4	V1	V2
BK06	0.32	0.49	0.61	0.66	0.38	0.49
BK10	1.75	1.75	1.94	3.70	1.94	1.94
BK17	2.11	3.59	3.80	5.49	2.75	3.80
BK20	3.17	3.17	3.38	6.13	3.49	3.49
BK30	4.65	4.65	4.86	9.30	5.07	5.07
BK40	7.40	7.40	7.40	14.16	7.82	7.82
BK50	12.26	12.26	12.26	24.30	12.68	12.68
BK60	12.68	18.39	14.58	25.36	18.18	18.18
BK70	21.56	31.70	24.30	43.32	28.53	30.64
BK80	38.04	53.89	40.15	78.20	49.67	53.89
BK90	69.74	101.44	76.08	145.83	95.10	101.44

Gearboxes & Lubrication

Lubricants

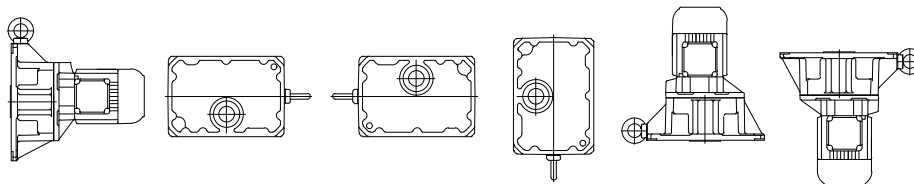
Lubricant quantities, BS-series gears

Lubrication quantity in liquid pint



Gear type	H1	H2	H3	H4	V1	V2
BS02	0.13	0.13	0.13	0.13	0.13	0.13
BS03	0.36	0.36	0.36	0.36	0.36	0.36
BS04	0.23	0.36	0.23	0.42	0.23	0.23
BS06	0.51	0.76	0.51	0.95	0.51	0.51
BS10	1.90	2.75	1.90	3.38	1.90	1.90
BS20	3.17	4.44	3.17	5.71	3.17	3.17
BS30	4.65	6.34	4.65	8.03	4.65	4.65
BS40	7.40	9.93	7.40	12.68	7.40	7.40

Lubrication quantity in liquid pint



	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	0.21	0.11	0.25	0.15	0.34	0.15	
BG20Z BF20Z BK20Z BS20Z	0.32	0.15	0.40	0.36	0.57	0.21	
BG30Z BF30Z BK30Z BS30Z BM30Z	0.42*	0.21	0.74	0.46	0.74	0.40	
BG40Z BF40Z BK40Z BS40Z BM40Z	0.68*	0.36	1.06	0.78	1.27	0.68	
BG50Z BF50Z BK50Z	1.06	0.63	1.94	1.48	2.43	1.06	
BG60Z BF60Z BK60Z	1.90	1.06	3.28	2.32	4.23	1.48	
BG70Z BF70Z BK70Z BF80Z	2.54	1.27	3.80	3.38	5.07	2.96	
BG80Z BF90Z BK80Z BG100Z	6.55	2.75	8.45	5.49	10.99	4.23	
BG90Z BK90Z	8.88	3.17	11.41	7.40	16.27	6.34	
*: The lubricant of the pre-stage for BM30Z/BM40Z is filled in the main gearbox.							

Gearboxes & Lubrication

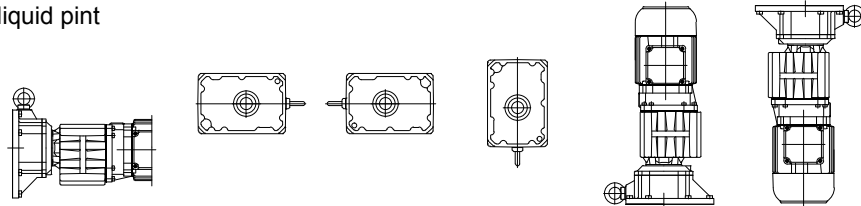
Threaded plugs

Lubrication quantity for intermediate gear

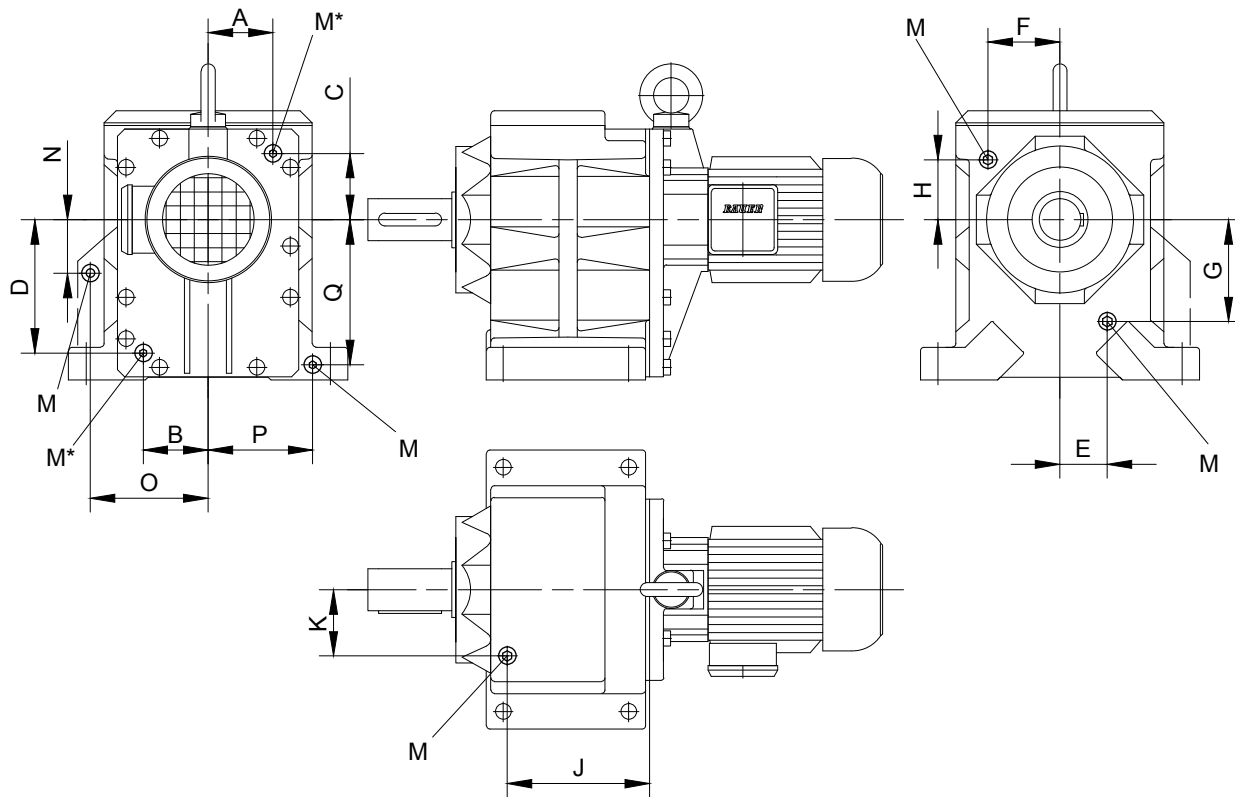
Definition of the terminal box position

Terminal box position for intermediate gear is similar to the main gearbox that means
 Main gearbox BG,BF terminal box pos. I
 -> intermediate gearbox terminal box pos. 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								
BG06G04 BS06G04 BK06G04		0.06	0.06	0.06	0.06	0.11	0.11	
BG10G06 BF10G06 BK10G06 BS10G06		0.17	0.17	0.17	0.17	0.32	0.32	
BG20G06 BF20G06 BK20G06 BS20G06		0.17	0.17	0.17	0.17	0.32	0.32	
BG30G06 BF30G06 BK30G06 BS30G06		0.17	0.17	0.17	0.17	0.32	0.32	
BG40G10 BF40G10 BK40G10 BS40G10		1.37	1.37	1.37	1.80	2.22	1.80	
BG50G10 BF50G10 BK50G10		1.37	1.37	1.37	1.80	2.22	1.80	
BG60G20 BF60G20 BK60G20		1.69	1.69	1.69	2.32	2.96	2.32	
BG70G20 BF70G20 BK70G20		1.69	1.69	1.69	2.32	2.96	2.32	
BG80G40 BF80G40 BK80G40		3.59	3.59	3.59	5.28	6.97	4.44	
BG90G50 BF90G50 BK90G50 BG100G50		6.34	6.34	6.34	9.51	11.62	6.97	



M = Plug according to DIN 908

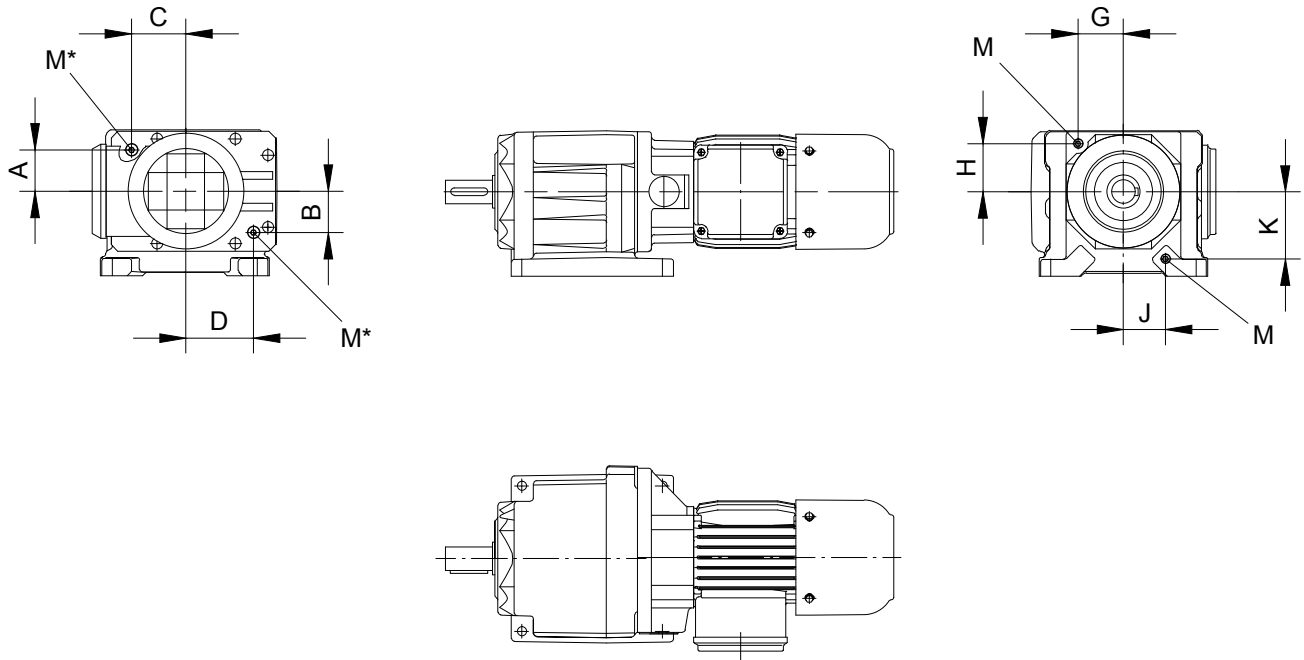
Type	A	B	C	D	E	F	G	H	J	K	N	O	P	Q	M
BG10 Foot housing	see position of the oil drain and filler plugs on the system cover	Tab.I-Tab.III size B10			1.30	1.65	1.89	1.63	-	-	-	-	-	-	M10x1
BG10 Attachment housing		Tab.I-Tab.III size B10			1.06	-	2.87	-	-	-	-	-	-	-	M10x1
BG15 Foot housing		Tab.I-Tab.III size B10			-	-	-	-	-	-	-	-	-	-	-
BG20 Foot housing		Tab.I-Tab.III size B20			-	1.85	-	2.07	-	-	-	-	-	-	M10x1
BG20 Attachment housing		Tab.I-Tab.III size B20			-	1.10	-	2.68	-	-	-	-	-	-	M10x1
BG30 Foot housing		Tab.I-Tab.III size B30			-	2.13	-	2.28	-	-	-	-	-	-	M10x1
BG30 Attachment housing		Tab.I-Tab.III size B30			-	2.28	-	1.89	-	-	-	-	-	-	M10x1
BG40 Foot housing		Tab.I-Tab.III size B40			-	2.95	-	1.89	-	-	-	-	-	-	M14x1.5
BG40 Attachment housing		Tab.I-Tab.III size B40			-	2.95	-	1.89	-	-	-	-	-	-	M14x1.5
BG50 Foot housing		Tab.I-Tab.III size B50			-	2.09	-	3.94	-	-	-	-	-	-	M14x1.5
BG50 Attachment housing		Tab.I-Tab.III size B50			-	2.09	-	3.94	-	-	-	-	-	-	M14x1.5
BG60 Foot housing		Tab.I-Tab.III size B60			-	2.76	-	4.69	-	-	-	-	-	-	M20x1.5
BG60 Attachment housing		Tab.I-Tab.III size B60			-	2.76	-	4.69	-	-	-	-	-	-	M20x1.5
BG70		Tab.I-Tab.III size B70			-	4.06	-	3.39	8.03	3.74	-	-	-	-	M20x1.5
BG80		Tab.I-Tab.III size B80			-	5.24	-	4.33	9.33	4.37	-	-	-	-	M20x1.5
BG90		Tab.I-Tab.III size B90			-	6.50	-	4.88	11.69	5.51	-	-	-	-	M24x1.5
BG100		Tab.I-Tab.III size B80			-	7.95	-	5.04	16.54	6.50	5.32	10.35	7.95	11.54	M24x1.5

M* =Factor and position of the drain plug see page 71.

Gearboxes & Lubrication

Threaded plugs

Position of threaded plugs, BG-20-01R



M = Plug according to DIN 908

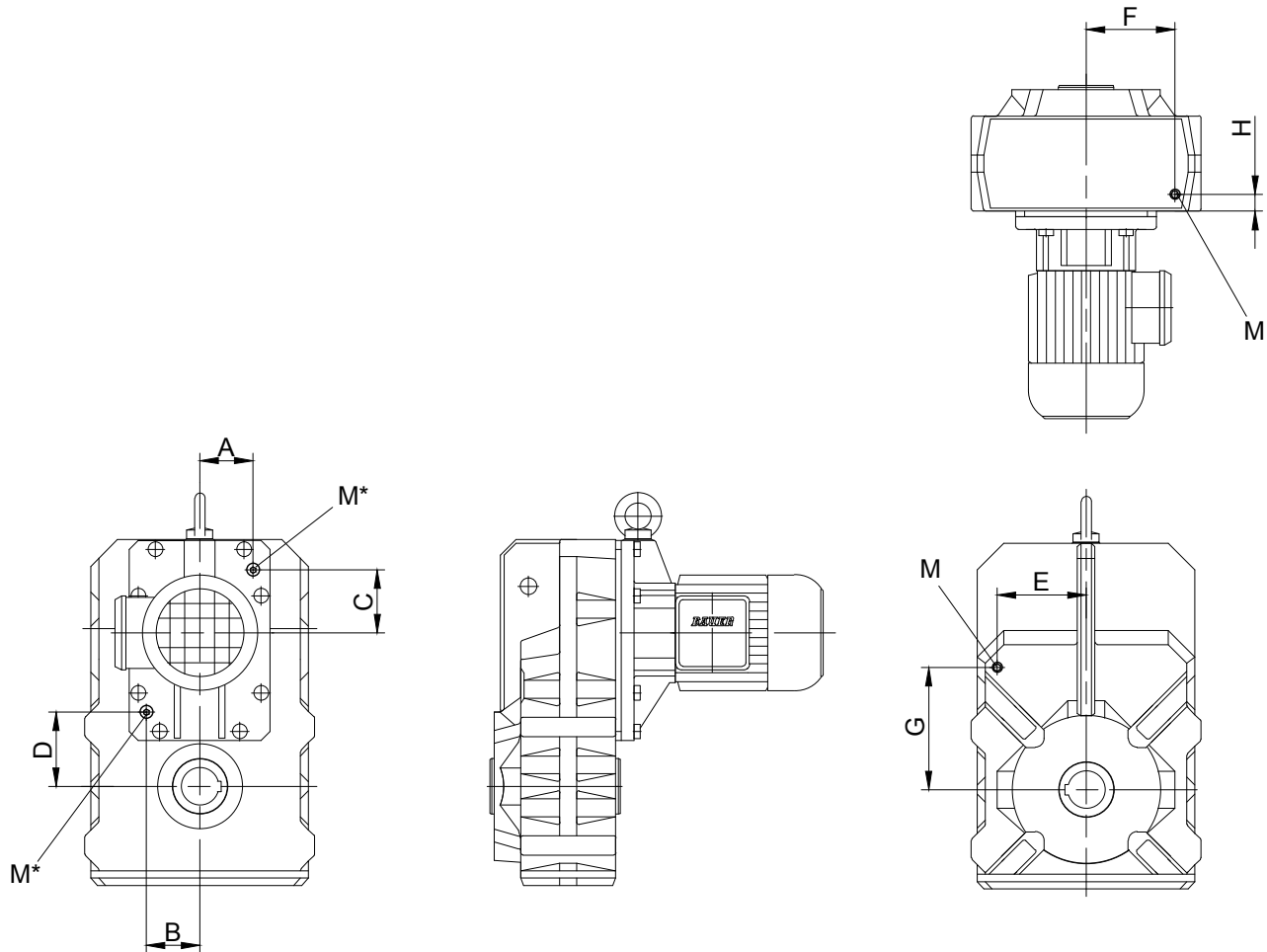
Type	A	B	C	D	G	H	J	K	M
BG20-01R Rollerbed	see Position of the oil drain and filler plugs on the system cover Tab.I-Tab.III size B20				48.5	51.5	45	71.5	M10x1

M* =Factor and position of the drain plug see page 71.

Gearboxes & Lubrication

Threaded plugs

Position of threaded plugs, BF-series gears



M = Plug according to DIN 908

Type	A	B	C	D	E	F	G	H	M
BF06	see position of the oil drain and filler plugs on the system cover		on request						
BF10			Tab.I - Tab.III size B.10	2.52	2.56	3.82	1.10	M10x1	
BF20			Tab.I - Tab.III size B.20	3.03	2.76	4.53	1.20	M10x1	
BF30			Tab.I - Tab.III size B.30	3.46	3.23	4.92	1.44	M10x1	
BF40			Tab.I - Tab.III size B.40	3.94	3.39	5.55	1.30	M14x1.5	
BF50			Tab.I - Tab.III size B.50	4.72	4.13	6.50	1.67	M14x1.5	
BF60			Tab.I - Tab.III size B.60	5.51	5.71	7.87	1.99	M20x1.5	
BF70			Tab.I - Tab.III size B.70	6.50	6.97	9.25	2.07	M20x1.5	
BF80			Tab.I - Tab.III size B.70	5.71	5.83	10.04	4.84	M20x1.5	
BF90			Tab.I - Tab.III size B.80	6.10	6.93	13.68	10.24	M24x1.5	

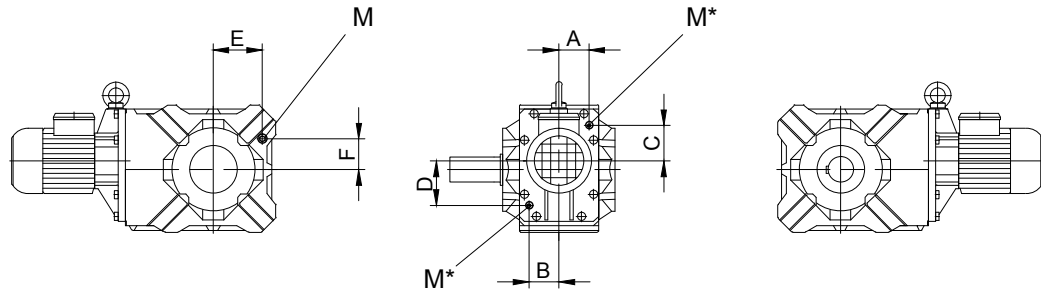
M* =Factor and position of the drain plug see page 71.

Gearboxes & Lubrication

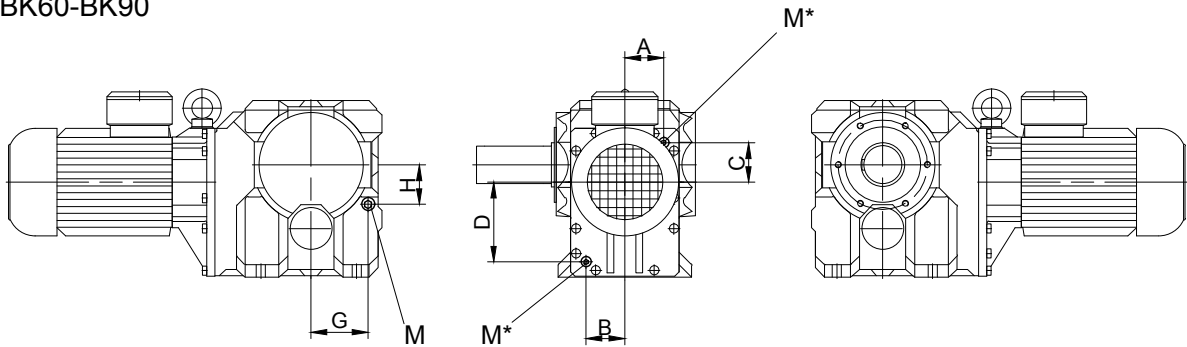
Threaded plugs

Position of threaded plugs, BK-series gears

BK10-BK50



BK60-BK90

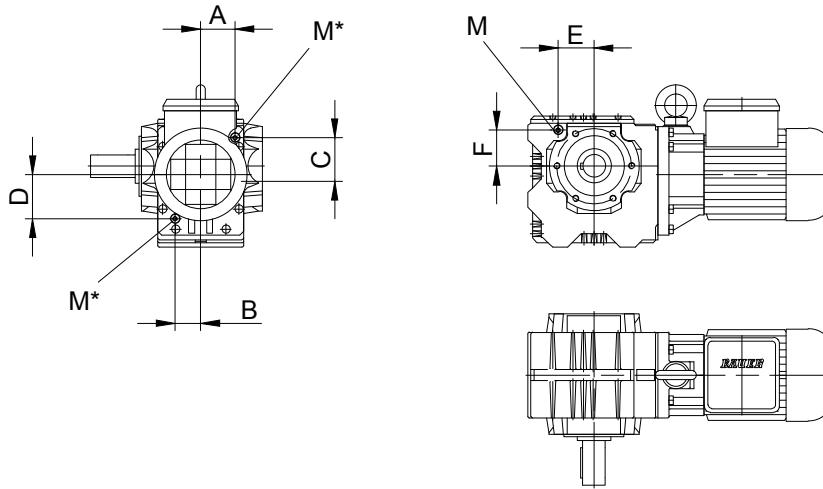


M = Plug according to DIN 908

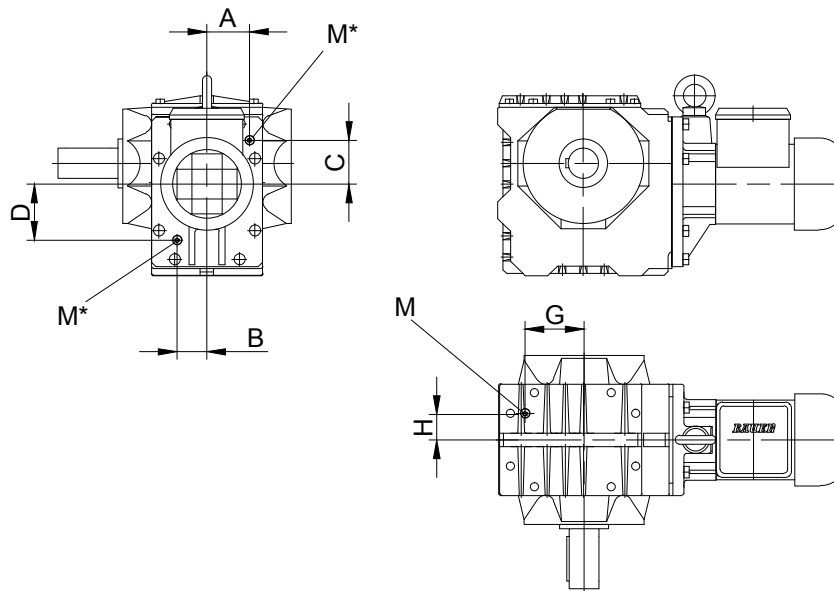
Type	A	B	C	D	E	F	G	H	M
BK06		on request							
BK10	see position of the oil drain and filler plugs on the system cover	Tab.I- Tab.III size B.10			2.44	1.28	-	-	M10x1
BK20		Tab.I- Tab.III size B.20			2.89	1.48	-	-	M10x1
BK30		Tab.I- Tab.III size B.30			3.15	1.69	-	-	M10x1
BK40		Tab.I- Tab.III size B.40			3.46	1.93	-	-	M14x1.5
BK50		Tab.I- Tab.III size B.50			4.65	2.91	-	-	M14x1.5
BK60		Tab.I- Tab.III size B.60			-	-	3.66	3.43	M20x1.5
BK70		Tab.I- Tab.III size B.70			-	-	5.39	3.74	M20x1.5
BK80		Tab.I- Tab.III size B.80			-	-	5.91	4.61	M20x1.5
BK90		Tab.I- Tab.III size B.90			-	-	8.19	5.32	M24x1.5

M* =Factor and position of the drain plug see page 71.

BS10 - BS20



BS30 - BS40



M = Plug according to DIN 908

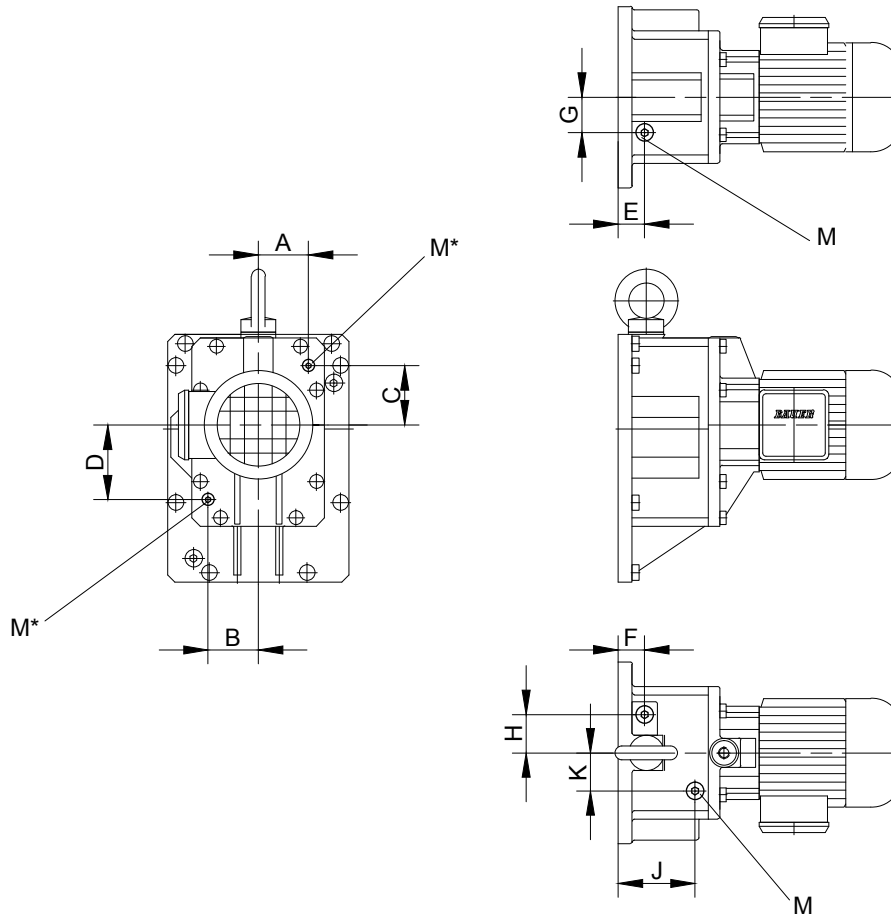
Type	A	B	C	D	E	F	G	H	M
BS10	see position of the oil drain and filler plugs on the system cover		Tab.I-Tab.III size B.10		1.89	1.97	-	-	M10x1
BS20			Tab.I-Tab.III size B.20		2.32	2.48	-	-	M10x1
BS30			Tab.I-Tab.III size B.30		-	-	3.11	1.38	M10x1
BS40			Tab.I-Tab.III size B.40		-	-	3.68	1.63	M14x1.5

M* =Factor and position of the drain plug see page 71.

Gearboxes & Lubrication

Threaded plugs

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

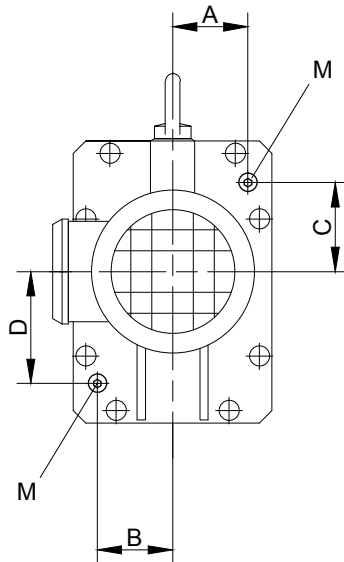


M = Plug according to DIN 908

Gear	A	B	C	D	E	F	G	H	J	K	M
BG10(Z);BK10(Z); BF10(Z);BS10(Z)	-	-	-	-	0.98	-	0.69	-	1.73	0.98	M10x1
BG20(Z);BK20(Z); BF20(Z);BS20(Z)	-	-	-	-	1.93	-	1.12	-	0.93	1.10	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	-	0.94	-	1.18	-	-	-	-	M10x1
BG40(Z);BK40(Z); BF40(Z);BS40(Z)		Tab.I u. II size B.20	-	1.08	-	1.44	-	-	-	-	M14x1.5
BG50(Z);BK50(Z); BF50(Z)		Tab.I u. II size B.30	-	-	-	-	1.14	1.69	-	-	M14x1.5
BG60(Z);BK60(Z); BF60(Z)		Tab.I u. II size B.40	-	1.30	-	1.89	-	-	-	-	M20x1.5
BG70(Z);BK70(Z); BF70(Z);BF80(Z)		Tab.I u. II size B.50	-	1.50	-	2.17	-	-	-	-	M20x1.5
BG80(Z);BK80(Z); BF90(Z);BG100(Z)		Tab.I u. II size B.60	-	1.77	-	2.87	-	-	-	-	M20x1.5
BG90(Z);BK90(Z)		Tab.I u. II size B.70	-	1.77	-	2.44	-	-	-	-	M24x1.5

M* =Factor and position of the drain plug see page 71.

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	1.42	1.34	1.71	2.32	M10x1
BG15	D05-D..09	1.42	1.34	1.71	2.32	M10x1
BG20(Z); BK20(Z); BF20(Z); BS20(Z)	D05-D..09	1.73	1.73	2.28	2.85	M10x1
BG30(Z); BK30(Z); BF30(Z); BS30(Z)	D05-D..09	2.22	1.57	2.29	2.95	M10x1
BG40(Z); BK40(Z); BF40(Z); BS40(Z)	D..08-D..11	2.60	2.80	2.80	3.70	M14x1.5
BG50(Z); BK50(Z); BF50(Z)	D..08-D..11	2.83	2.91	3.35	4.29	M14x1.5
	D..13-D..16	3.07	2.91	3.23	4.29	M14x1.5
BG60(Z); BK60(Z); BF60(Z)	D..09-D..13	3.31	3.19	4.72	6.10	M20x1.5
	D..16	3.39	3.19	4.72	6.10	M20x1.5
BG70(Z); BK70(Z); BF70(Z); BF80(Z)	D..09-D..18	3.74	3.35	3.82	7.60	M20x1.5
BG80(Z); BK80(Z); BF90(Z); BG100(Z)	D..11-D..18	4.65	4.65	4.33	9.65	M20x1.5
BG90(Z); BK90(Z)	D..13-D..18	5.71	5.71	4.57	11.57	M24x1.5

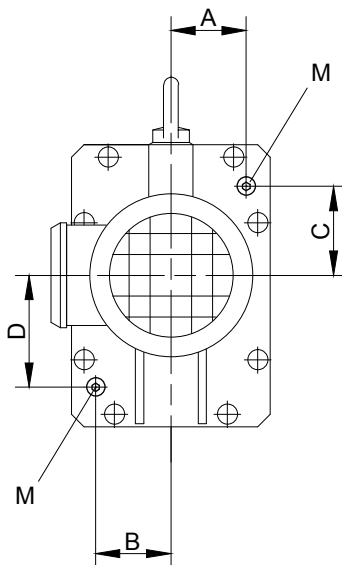
Position of the drain plugs for BG, BK, BS and BF gear ranges and pre-stages.

Gearboxes & Lubrication

Threaded plugs

Position of the drain plugs in the System Cover

Design with pre-stage Z

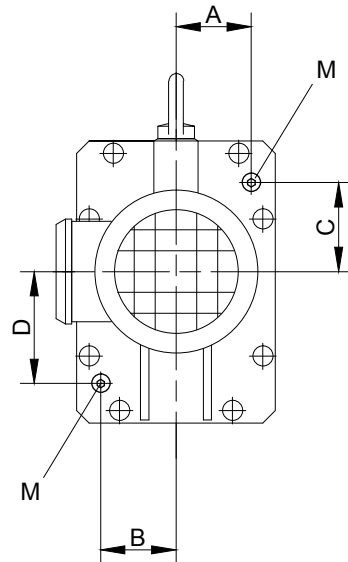


M = Plug according to DIN 908

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

Gear	A	B	C	D	M
BG10(Z); BK10(Z); BF10(Z); BS10(Z)	1.34	1.34	1.59	2.24	M10x1
BG15	1.34	1.34	1.59	2.24	M10x1
BG20(Z); BK20(Z); BF20(Z); BS20(Z)	1.73	1.73	2.24	2.83	M10x1
BG30(Z); BK30(Z); BF30(Z); BS30(Z)	2.30	1.61	2.27	3.03	M10x1
BG40(Z); BK40(Z); BF40(Z); BS40(Z)	2.72	2.87	2.76	3.82	M14x1.5
BG50(Z); BK50(Z); BF50(Z)	2.95	2.95	3.23	4.33	M14x1.5
BG60(Z); BK60(Z); BF60(Z)	3.31	3.19	4.69	6.10	M20x1.5
BG70(Z); BK70(Z); BF70(Z); BF80(Z)	3.78	3.74	3.78	7.60	M20x1.5
BG80(Z); BK80(Z); BF90(Z); BG100(Z)	4.65	4.65	4.33	9.65	M20x1.5
BG90(Z); BK90(Z)	5.71	5.71	4.57	11.57	M24x1.5

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



M = Plug according to DIN 908

Table III: Design with pre-stage Z

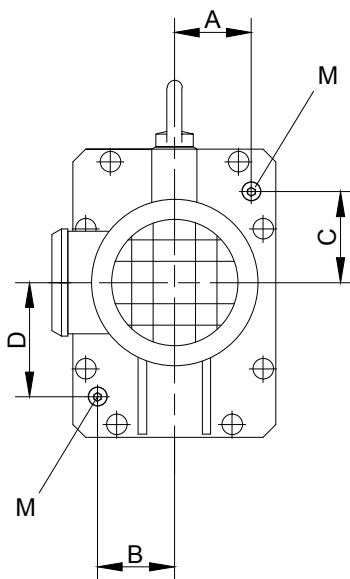
Gear	A	B	C	D	M
B.10	1.50	1.56	1.73	2.42	M10x1
B.20	1.73	1.73	2.28	2.83	M10x1
B.30	2.32	1.65	2.29	3.03	M10x1
B.40	2.60	2.80	2.80	3.78	M14x1.5
B.50	2.83	2.87	3.35	4.37	M14x1.5
B.60	3.35	3.19	4.72	7.56	M20x1.5
B.70	3.74	3.74	3.82	7.60	M20x1.5
B.80	4.65	4.65	4.33	9.65	M20x1.5
B.90	5.47	5.47	4.88	11.89	M24x1.5

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

Gearboxes & Lubrication

Threaded plugs

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

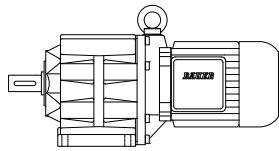


M = Plug according to DIN 908

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

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

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



BG-series helical-geared motors
Selection

75-124

Description of helical-geared units

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

BG-series helical-geared motors

Description of helical-geared units

Sizes

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

Bauer service factors (f_B) for helical-geared 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)

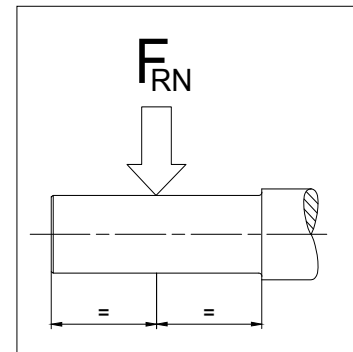
Key to abbreviations

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

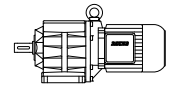
Motor power overload protection

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

BG-series helical-geared motors

Selection helical-geared motors

0.1 HP (0.075 kW)



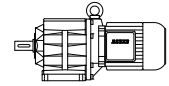
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
650	3.6	10	1.1	BG04-../D04LA4	2.51	76	340	-	-	46	21
445	3.1	14	1.6	BG04-../D04LA4	3.65	88	390	-	-	46	21
370	3.6	17	1.93	BG04-../D04LA4	4.39	85	380	-	-	46	21
305	3.9	20	2.3	BG04-../D04LA4	5.36	85	380	-	-	46	21
245	3.4	26	2.9	BG04-../D04LA4	6.67	92	410	-	-	46	21
189	2.9	33	3.75	BG04-../D04LA4	8.58	92	410	-	-	46	21
180	3.0	35	3.95	BG04-../D04LA4	9.00	106	470	-	-	46	21
164	3.0	39	4.35	BG04-../D04LA4	9.90	108	480	-	-	46	21
150	2.9	42	4.75	BG04-../D04LA4	10.82	108	480	-	-	46	21
137	2.9	46	5.2	BG04-../D04LA4	11.90	110	490	-	-	46	21
130	2.7	49	5.5	BG04-../D04LA4	12.55	110	490	-	-	46	21
123	2.8	51	5.8	BG04-../D04LA4	13.20	112	500	-	-	10	4.4
112	2.7	56	6.3	BG04-../D04LA4	14.52	115	510	-	-	10	4.4
99	2.5	64	7.2	BG04-../D04LA4	16.44	119	530	-	-	10	4.4
90	2.3	70	7.9	BG04-../D04LA4	18.08	121	540	-	-	10	4.4
87	3.2	73	8.2	BG05-../D04LA4	18.82	153	680	-	-	10	4.4
79	3.0	80	9.0	BG05-../D04LA4	20.53	157	700	-	-	10	4.4
77	2.0	82	9.3	BG04-../D04LA4	21.12	126	560	-	-	10	4.4
70	1.95	90	10.2	BG04-../D04LA4	23.23	135	600	-	-	10	4.4
68	2.7	93	10.5	BG05-../D04LA4	24.00	166	740	-	-	10	4.4
67	1.9	94	10.6	BG04-../D04LA4	24.45	137	610	-	-	10	4.4
62	2.5	102	11.5	BG05-../D04LA4	26.18	171	760	-	-	10	4.4
61	1.7	104	11.7	BG04-../D04LA4	26.89	146	650	-	-	10	4.4
59	2.5	107	12.1	BG05-../D04LA4	27.82	173	770	-	-	10	4.4
54	2.3	117	13.2	BG05-../D04LA4	30.35	171	760	-	-	10	4.4
53	1.5	119	13.5	BG04-../D04LA4	30.91	155	690	-	-	10	4.4
51	3.2	124	14	BG06-../D04LA4	32.22	200	890	-	-	10	4.4
48	1.35	132	14.9	BG04-../D04LA4	34.00	162	720	-	-	10	4.4
46.5	1.95	136	15.4	BG05-../D04LA4	35.00	182	810	-	-	10	4.4
46.5	2.9	136	15.4	BG06-../D04LA4	35.15	198	880	-	-	10	4.4
46	1.3	137	15.5	BG04-../D04LA4	35.35	164	730	-	-	10	4.4
44	2.8	143	16.2	BG06-../D04LA4	36.91	200	890	-	-	11	5.1
42.5	1.8	149	16.8	BG05-../D04LA4	38.18	191	850	-	-	10	4.4
42	1.2	150	17	BG04-../D04LA4	38.89	169	750	-	-	10	4.4
41	1.7	154	17.4	BG05-../D04LA4	39.94	193	860	-	-	10	4.4
40.5	2.6	156	17.6	BG06-../D04LA4	40.26	200	890	-	-	11	5.1
38.5	1.1	165	18.6	BG04-../D04LA4	42.24	169	750	-	-	10	4.4
37.5	1.55	169	19.1	BG05-../D04LA4	43.57	202	900	-	-	10	4.4
35.5	2.3	177	20	BG06-../D04LA4	46.19	200	890	-	-	11	5.1
34.5	0.98	181	20.5	BG04-../D04LA4	47.52	169	750	-	-	10	4.4
34.5	1.45	181	20.5	BG05-../D04LA4	47.00	209	930	-	-	10	4.4
32.5	2.0	195	22	BG06-../D04LA4	50.38	211	940	-	-	11	5.1
32	1.35	195	22	BG05-../D04LA4	51.27	218	970	-	-	10	4.4
31	0.87	204	23	BG04-../D04LA4	52.28	169	750	-	-	10	4.4
31	1.95	204	23	BG06-../D04LA4	52.56	214	950	-	-	11	5.1
30.5	1.3	204	23	BG05-../D04LA4	53.44	220	980	-	-	10	4.4
29.5	0.83	212	24	BG04-../D04LA4	54.97	169	750	-	-	10	4.4
28.5	1.8	221	25	BG06-../D04LA4	57.34	225	1000	-	-	11	5.1
28	1.2	226	25.5	BG05-../D04LA4	58.30	225	1000	-	-	10	4.4
26.5	1.65	239	27	BG06-../D04LA4	61.22	229	1020	-	-	11	5.1
24.5	1.55	257	29	BG06-../D04LA4	66.79	241	1070	-	-	11	5.1
21.5	1.3	274	31	BG06G04-../D04LA4	75.99	241	1070	-	-	11	5.1
20	1.3	296	33.5	BG06G04-../D04LA4	82.89	241	1070	-	-	11	5.1
19	3.2	332	37.5	BG10Z-../D06LA4	85.76	450	2000	629	2800	11	5.1
18	3.0	350	39.5	BG10Z-../D06LA4	92.19	450	2000	629	2800	31	14
17.5	1.2	336	38	BG06G04-../D04LA4	93.00	241	1070	-	-	11	5.1
16	1.1	367	41.5	BG06G04-../D04LA4	101.5	241	1070	-	-	11	5.1
16	2.7	394	44.5	BG10Z-../D06LA4	102.1	450	2000	629	2800	31	14
15	2.5	420	47.5	BG10Z-../D06LA4	109.8	450	2000	629	2800	31	14
13.5	0.92	434	49	BG06G04-../D04LA4	122.0	241	1070	-	-	11	5.1
13.5	2.3	469	53	BG10Z-../D06LA4	121.7	450	2000	629	2800	31	14
12.5	2.1	504	57	BG10Z-../D06LA4	131.8	450	2000	629	2800	31	14

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

BG-series helical-geared motors

Selection helical-geared motors

0.1 HP (0.075 kW)



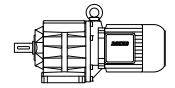
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
11.5	1.95	549	62	BG10Z-../D06LA4	146.0	450	2000	629	2800	31	14
11.5	3.2	549	62	BG20Z-../D06LA4	141.3	1124	5000	-	-	31	14
10.5	2.9	602	68	BG20Z-../D06LA4	157.0	1124	5000	-	-	31	14
10	2.8	628	71	BG20Z-../D06LA4	162.2	1124	5000	-	-	31	14
9.8	1.65	646	73	BG10Z-../D06LA4	166.0	450	2000	629	2800	31	14
9.0	2.5	699	79	BG20Z-../D06LA4	180.1	1124	5000	-	-	31	14
8.9	1.5	708	80	BG10Z-../D06LA4	184.0	450	2000	629	2800	31	14
8.4	1.4	752	85	BG10Z-../D06LA4	194.6	450	2000	629	2800	31	14
8.2	2.3	770	87	BG20Z-../D06LA4	199.9	1124	5000	-	-	31	14
7.6	1.3	832	94	BG10Z-../D06LA4	215.7	450	2000	629	2800	31	14
7.3	2.0	867	98	BG20Z-../D06LA4	222.1	1124	5000	-	-	31	14
7.2	3.0	876	99	BG30Z-../D06LA4	225.9	1349	6000	-	-	44	20
6.8	1.15	929	105	BG10Z-../D06LA4	240.4	450	2000	629	2800	31	14
6.6	2.7	726	82	BG20G06-../D06LA4	248.0	1124	5000	-	-	31	14
6.5	2.7	974	110	BG30Z-../D06LA4	250.6	1349	6000	-	-	44	20
6.2	2.6	1018	115	BG30Z-../D06LA4	261.9	1349	6000	-	-	49	22
5.9	0.99	1071	121	BG10Z-../D06LA4	276.0	450	2000	629	2800	31	14
5.6	2.4	1124	127	BG30Z-../D06LA4	290.5	1349	6000	-	-	49	22
5.5	2.2	894	101	BG20G06-../D06LA4	297.9	1124	5000	-	-	31	14
5.3	0.89	1195	135	BG10Z-../D06LA4	305.8	450	2000	629	2800	31	14
5.3	3.1	929	105	BG30G06-../D06LA4	306.2	1349	6000	-	-	49	22
4.9	1.15	1000	113	BG10G06-../D06LA4	332.0	450	2000	629	2800	31	14
4.7	1.75	1097	124	BG20G06-../D06LA4	352.1	1124	5000	-	-	31	14
4.7	2.6	1097	124	BG30G06-../D06LA4	346.8	1349	6000	-	-	49	22
4.3	0.96	1195	135	BG10G06-../D06LA4	379.6	450	2000	629	2800	31	14
4.2	1.6	1230	139	BG20G06-../D06LA4	391.1	1124	5000	-	-	31	14
4.1	2.3	1257	142	BG30G06-../D06LA4	401.9	1349	6000	-	-	49	22
3.8	0.85	1354	153	BG10G06-../D06LA4	435.9	450	2000	629	2800	31	14
3.6	1.35	1452	164	BG20G06-../D06LA4	460.0	1124	5000	-	-	31	14
3.5	1.9	1496	169	BG30G06-../D06LA4	472.8	1349	6000	-	-	49	22
3.0	1.1	1770	200	BG20G06-../D06LA4	550.6	1124	5000	-	-	44	20
2.9	1.6	1814	205	BG30G06-../D06LA4	565.8	1349	6000	-	-	49	22
2.6	2.9	1434	162	BG40G10-../D06LA4	640.0	1574	7000	-	-	49	22
2.5	0.9	2168	245	BG20G06-../D06LA4	671.9	1124	5000	-	-	44	20
2.4	1.25	2257	255	BG30G06-../D06LA4	690.6	1349	6000	-	-	49	22
2.3	2.5	1646	186	BG40G10-../D06LA4	710.9	1574	7000	-	-	49	22
2.2	1.15	2478	280	BG30G06-../D06LA4	760.7	1349	6000	-	-	49	22
2.1	2.3	1770	200	BG40G10-../D06LA4	789.1	1574	7000	-	-	49	22
2.0	1.05	2744	310	BG30G06-../D06LA4	829.5	1349	6000	-	-	49	22
1.7	0.87	3319	375	BG30G06-../D06LA4	996.8	1349	6000	-	-	49	22
1.7	1.7	2390	270	BG40G10-../D06LA4	965.2	1574	7000	-	-	49	22
1.7	2.6	2390	270	BG50G10-../D06LA4	960.2	2248	10000	-	-	49	22
1.4	1.35	3098	350	BG40G10-../D06LA4	1225	1574	7000	-	-	49	22
1.4	1.95	3098	350	BG50G10-../D06LA4	1219	2248	10000	-	-	49	22
1.2	1.05	3850	435	BG40G10-../D06LA4	1459	1574	7000	-	-	49	22
1.2	1.6	3850	435	BG50G10-../D06LA4	1452	2248	10000	-	-	49	22
0.95	1.15	5222	590	BG50G10-../D06LA4	1729	2248	10000	-	-	49	22
0.95	2.7	4248	480	BG60G20-../D06LA4	1741	3597	16000	-	-	49	22
0.9	2.5	4602	520	BG60G20-../D06LA4	1880	3597	16000	-	-	49	22
0.75	1.9	6019	680	BG60G20-../D06LA4	2249	3597	16000	-	-	95	43
0.6	1.4	8143	920	BG60G20-../D06LA4	2818	3597	16000	-	-	95	43
0.6	2.6	8408	950	BG70G20-../D06LA4	2774	4496	20000	-	-	95	43
0.55	1.25	9116	1030	BG60G20-../D06LA4	3234	3597	16000	-	-	95	43
0.55	2.4	9382	1060	BG70G20-../D06LA4	3184	4496	20000	-	-	95	43
0.46	1.0	11329	1280	BG60G20-../D06LA4	3592	3597	16000	-	-	95	43
0.42	1.7	12922	1460	BG70G20-../D06LA4	3925	4496	20000	-	-	95	43

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

BG-series helical-geared motors

Selection helical-geared motors

0.12 HP (0.09 kW)



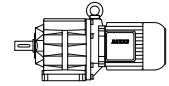
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
650	3.0	12	1.32	BG04-../D04LA4	2.51	76	340	-	-	95	43
445	2.6	17	1.93	BG04-../D04LA4	3.65	88	390	-	-	95	43
370	3.0	20	2.3	BG04-../D04LA4	4.39	85	380	-	-	95	43
305	3.2	25	2.8	BG04-../D04LA4	5.36	85	380	-	-	95	43
245	2.9	31	3.5	BG04-../D04LA4	6.67	92	410	-	-	95	43
189	2.4	40	4.5	BG04-../D04LA4	8.58	92	410	-	-	95	43
180	2.5	42	4.75	BG04-../D04LA4	9.00	106	470	-	-	95	43
164	2.5	46	5.2	BG04-../D04LA4	9.90	108	480	-	-	95	43
150	2.5	50	5.7	BG04-../D04LA4	10.82	108	480	-	-	95	43
137	2.4	55	6.2	BG04-../D04LA4	11.90	110	490	-	-	95	43
135	3.3	56	6.3	BG05-../D04LA4	12.05	115	510	-	-	10	4.4
130	2.3	58	6.6	BG04-../D04LA4	12.55	110	490	-	-	95	43
129	3.3	58	6.6	BG05-../D04LA4	12.60	137	610	-	-	10	4.4
123	2.3	61	6.9	BG04-../D04LA4	13.20	112	500	-	-	95	43
118	3.2	64	7.2	BG05-../D04LA4	13.75	142	630	-	-	10	4.4
112	2.2	67	7.6	BG04-../D04LA4	14.52	115	510	-	-	95	43
107	3.0	71	8.0	BG05-../D04LA4	15.23	144	640	-	-	10	4.4
99	2.1	76	8.6	BG04-../D04LA4	16.44	119	530	-	-	95	43
98	2.9	77	8.7	BG05-../D04LA4	16.62	148	660	-	-	11	5.1
90	1.9	84	9.5	BG04-../D04LA4	18.08	121	540	-	-	10	4.4
87	2.7	87	9.8	BG05-../D04LA4	18.82	153	680	-	-	11	5.1
79	2.5	96	10.8	BG05-../D04LA4	20.53	157	700	-	-	11	5.1
77	1.7	98	11.1	BG04-../D04LA4	21.12	126	560	-	-	10	4.4
70	1.65	108	12.2	BG04-../D04LA4	23.23	135	600	-	-	10	4.4
68	2.2	112	12.6	BG05-../D04LA4	24.00	166	740	-	-	11	5.1
67	1.55	113	12.8	BG04-../D04LA4	24.45	137	610	-	-	10	4.4
62	2.1	122	13.8	BG05-../D04LA4	26.18	171	760	-	-	11	5.1
61	1.45	124	14	BG04-../D04LA4	26.89	146	650	-	-	10	4.4
59	2.1	128	14.5	BG05-../D04LA4	27.82	173	770	-	-	11	5.1
59	3.1	128	14.5	BG06-../D04LA4	27.80	189	840	-	-	11	5.1
54	1.9	141	15.9	BG05-../D04LA4	30.35	171	760	-	-	11	5.1
53	1.25	143	16.2	BG04-../D04LA4	30.91	155	690	-	-	10	4.4
51	2.7	149	16.8	BG06-../D04LA4	32.22	200	890	-	-	11	5.1
48	1.1	158	17.9	BG04-../D04LA4	34.00	162	720	-	-	10	4.4
46.5	1.65	163	18.4	BG05-../D04LA4	35.00	182	810	-	-	11	5.1
46.5	2.4	163	18.4	BG06-../D04LA4	35.15	198	880	-	-	11	5.1
46	1.1	165	18.6	BG04-../D04LA4	35.35	164	730	-	-	10	4.4
44	2.3	173	19.5	BG06-../D04LA4	36.91	200	890	-	-	13	6.1
42.5	1.5	177	20	BG05-../D04LA4	38.18	191	850	-	-	11	5.1
42	1.0	177	20	BG04-../D04LA4	38.89	169	750	-	-	10	4.4
41	1.45	181	20.5	BG05-../D04LA4	39.94	193	860	-	-	11	5.1
40.5	2.1	186	21	BG06-../D04LA4	40.26	200	890	-	-	13	6.1
38.5	0.91	195	22	BG04-../D04LA4	42.24	169	750	-	-	10	4.4
37.5	1.35	199	22.5	BG05-../D04LA4	43.57	202	900	-	-	11	5.1
35.5	1.9	212	24	BG06-../D04LA4	46.19	200	890	-	-	13	6.1
34.5	0.82	217	24.5	BG04-../D04LA4	47.52	169	750	-	-	10	4.4
34.5	1.2	217	24.5	BG05-../D04LA4	47.00	209	930	-	-	11	5.1
32.5	1.75	230	26	BG06-../D04LA4	50.38	211	940	-	-	13	6.1
32	1.15	235	26.5	BG05-../D04LA4	51.27	218	970	-	-	11	5.1
31	1.65	243	27.5	BG06-../D04LA4	52.56	214	950	-	-	13	6.1
30.5	1.05	248	28	BG05-../D04LA4	53.44	220	980	-	-	11	5.1
28.5	1.5	266	30	BG06-../D04LA4	57.34	225	1000	-	-	13	6.1
28	0.98	270	30.5	BG05-../D04LA4	58.30	225	1000	-	-	11	5.1
26.5	1.4	283	32	BG06-../D04LA4	61.22	229	1020	-	-	13	6.1
24.5	1.3	310	35	BG06-../D04LA4	66.79	241	1070	-	-	13	6.1
22.5	3.2	336	38	BG10-../D06LA4	73.13	450	2000	629	2800	13	6.1
21.5	1.05	332	37.5	BG06G04-../D04LA4	75.99	241	1070	-	-	13	6.1
21	3.0	358	40.5	BG10Z-../D06LA4	77.40	450	2000	629	2800	13	6.1
20	1.05	358	40.5	BG06G04-../D04LA4	82.89	241	1070	-	-	13	6.1
19	2.7	398	45	BG10Z-../D06LA4	85.76	450	2000	629	2800	13	6.1
18	2.5	420	47.5	BG10Z-../D06LA4	92.19	450	2000	629	2800	13	6.1
17.5	0.97	412	46.5	BG06G04-../D04LA4	93.00	241	1070	-	-	13	6.1

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

BG-series helical-geared motors

Selection helical-geared motors

0.12 HP (0.09 kW)



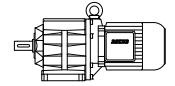
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
16	0.9	443	50	BG06G04-../D04LA4	101.5	241	1070	-	-	13	6.1
16	2.3	469	53	BG10Z-../D06LA4	102.1	450	2000	629	2800	13	6.1
15	2.1	504	57	BG10Z-../D06LA4	109.8	450	2000	629	2800	13	6.1
13.5	1.9	558	63	BG10Z-../D06LA4	121.7	450	2000	629	2800	13	6.1
13	3.0	584	66	BG20Z-../D06LA4	125.3	1124	5000	-	-	29	13
12.5	1.75	602	68	BG10Z-../D06LA4	131.8	450	2000	629	2800	13	6.1
11.5	1.6	655	74	BG10Z-../D06LA4	146.0	450	2000	629	2800	29	13
11.5	2.7	655	74	BG20Z-../D06LA4	141.3	1124	5000	-	-	29	13
10.5	2.5	717	81	BG20Z-../D06LA4	157.0	1124	5000	-	-	29	13
10	2.4	752	85	BG20Z-../D06LA4	162.2	1124	5000	-	-	29	13
9.8	1.4	770	87	BG10Z-../D06LA4	166.0	450	2000	629	2800	29	13
9.0	2.1	841	95	BG20Z-../D06LA4	180.1	1124	5000	-	-	29	13
8.9	1.25	850	96	BG10Z-../D06LA4	184.0	450	2000	629	2800	29	13
8.9	3.1	850	96	BG30Z-../D06LA4	182.9	1349	6000	-	-	35	16
8.4	1.2	903	102	BG10Z-../D06LA4	194.6	450	2000	629	2800	29	13
8.2	1.9	920	104	BG20Z-../D06LA4	199.9	1124	5000	-	-	29	13
8.0	2.8	947	107	BG30Z-../D06LA4	202.9	1349	6000	-	-	35	16
7.6	1.05	1000	113	BG10Z-../D06LA4	215.7	450	2000	629	2800	29	13
7.3	1.7	1036	117	BG20Z-../D06LA4	222.1	1124	5000	-	-	29	13
7.2	2.5	1053	119	BG30Z-../D06LA4	225.9	1349	6000	-	-	35	16
6.8	0.95	1115	126	BG10Z-../D06LA4	240.4	450	2000	629	2800	29	13
6.6	2.1	912	103	BG20G06-../D06LA4	248.0	1124	5000	-	-	29	13
6.6	3.3	1151	130	BG40Z-../D06LA4	246.5	1574	7000	-	-	35	16
6.5	2.3	1168	132	BG30Z-../D06LA4	250.6	1349	6000	-	-	35	16
6.2	2.2	1221	138	BG30Z-../D06LA4	261.9	1349	6000	-	-	35	16
6.0	3.0	1266	143	BG40Z-../D06LA4	273.6	1574	7000	-	-	35	16
5.9	0.83	1283	145	BG10Z-../D06LA4	276.0	450	2000	629	2800	29	13
5.6	1.95	1354	153	BG30Z-../D06LA4	290.5	1349	6000	-	-	35	16
5.5	1.75	1124	127	BG20G06-../D06LA4	297.9	1124	5000	-	-	29	13
5.3	2.5	1168	132	BG30G06-../D06LA4	306.2	1349	6000	-	-	35	16
4.9	0.91	1266	143	BG10G06-../D06LA4	332.0	450	2000	629	2800	29	13
4.7	1.45	1363	154	BG20G06-../D06LA4	352.1	1124	5000	-	-	29	13
4.7	2.1	1363	154	BG30G06-../D06LA4	346.8	1349	6000	-	-	35	16
4.2	1.25	1531	173	BG20G06-../D06LA4	391.1	1124	5000	-	-	29	13
4.1	1.85	1567	177	BG30G06-../D06LA4	401.9	1349	6000	-	-	35	16
3.6	1.1	1770	200	BG20G06-../D06LA4	460.0	1124	5000	-	-	29	13
3.5	1.55	1859	210	BG30G06-../D06LA4	472.8	1349	6000	-	-	35	16
3.1	2.9	1416	160	BG40G10-../D06LA4	534.2	1574	7000	-	-	49	22
3.0	0.9	2168	245	BG20G06-../D06LA4	550.6	1124	5000	-	-	29	13
2.9	1.25	2257	255	BG30G06-../D06LA4	565.8	1349	6000	-	-	35	16
2.6	2.2	1903	215	BG40G10-../D06LA4	640.0	1574	7000	-	-	49	22
2.4	1.05	2788	315	BG30G06-../D06LA4	690.6	1349	6000	-	-	35	16
2.3	1.9	2168	245	BG40G10-../D06LA4	710.9	1574	7000	-	-	49	22
2.3	2.8	2168	245	BG50G10-../D06LA4	708.3	2248	10000	-	-	49	22
2.2	0.94	3054	345	BG30G06-../D06LA4	760.7	1349	6000	-	-	35	16
2.1	1.7	2390	270	BG40G10-../D06LA4	789.1	1574	7000	-	-	49	22
2.1	2.6	2390	270	BG50G10-../D06LA4	785.1	2248	10000	-	-	49	22
2.0	0.84	3408	385	BG30G06-../D06LA4	829.5	1349	6000	-	-	35	16
1.7	1.35	3098	350	BG40G10-../D06LA4	965.2	1574	7000	-	-	49	22
1.7	1.95	3142	355	BG50G10-../D06LA4	960.2	2248	10000	-	-	49	22
1.4	1.0	4027	455	BG40G10-../D06LA4	1225	1574	7000	-	-	49	22
1.4	1.5	4027	455	BG50G10-../D06LA4	1219	2248	10000	-	-	49	22
1.3	3.3	3496	395	BG60G20-../D06LA4	1346	3597	16000	-	-	95	43
1.2	0.85	4868	550	BG40G10-../D06LA4	1459	1574	7000	-	-	49	22
1.2	1.25	4868	550	BG50G10-../D06LA4	1452	2248	10000	-	-	49	22
1.1	2.5	4514	510	BG60G20-../D06LA4	1496	3597	16000	-	-	95	43
0.95	2.1	5576	630	BG60G20-../D06LA4	1741	3597	16000	-	-	95	43
0.9	1.9	6019	680	BG60G20-../D06LA4	1880	3597	16000	-	-	95	43
0.85	3.2	6815	770	BG70G20-../D06LA4	1994	4496	20000	-	-	95	43
0.75	1.5	7700	870	BG60G20-../D06LA4	2249	3597	16000	-	-	95	43
0.75	2.8	7966	900	BG70G20-../D06LA4	2215	4496	20000	-	-	95	43
0.6	1.1	10267	1160	BG60G20-../D06LA4	2818	3597	16000	-	-	95	43

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

BG-series helical-geared motors

Selection helical-geared motors

0.12 HP (0.09 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
0.6	2.1	10532	1190	BG70G20-../D06LA4	2774	4496	20000	-	-	220	100
0.55	1.0	11417	1290	BG60G20-../D06LA4	3234	3597	16000	-	-	95	43
0.55	1.9	11683	1320	BG70G20-../D06LA4	3184	4496	20000	-	-	220	100
0.42	1.4	15931	1800	BG70G20-../D06LA4	3925	4496	20000	-	-	220	100

0.15 HP (0.11 kW)

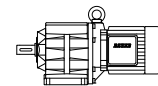
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
650	2.5	14	1.61	BG04-../D04LA4	2.51	76	340	-	-	287	130
445	2.1	21	2.35	BG04-../D04LA4	3.65	88	390	-	-	287	130
370	2.5	25	2.8	BG04-../D04LA4	4.39	85	380	-	-	287	130
305	2.6	30	3.4	BG04-../D04LA4	5.36	85	380	-	-	287	130
245	2.4	38	4.25	BG04-../D04LA4	6.67	92	410	-	-	10	4.4
189	2.0	49	5.5	BG04-../D04LA4	8.58	92	410	-	-	10	4.4
180	2.1	51	5.8	BG04-../D04LA4	9.00	106	470	-	-	10	4.4
164	2.0	57	6.4	BG04-../D04LA4	9.90	108	480	-	-	10	4.4
153	2.9	60	6.8	BG05-../D04LA4	10.59	133	590	-	-	10	4.4
150	2.0	62	7.0	BG04-../D04LA4	10.82	108	480	-	-	10	4.4
141	2.8	65	7.4	BG05-../D04LA4	11.55	135	600	-	-	10	4.4
137	1.95	67	7.6	BG04-../D04LA4	11.90	110	490	-	-	10	4.4
135	2.7	68	7.7	BG05-../D04LA4	12.05	115	510	-	-	10	4.4
130	1.9	71	8.0	BG04-../D04LA4	12.55	110	490	-	-	10	4.4
129	2.7	72	8.1	BG05-../D04LA4	12.60	137	610	-	-	10	4.4
123	1.9	75	8.5	BG04-../D04LA4	13.20	112	500	-	-	10	4.4
118	2.6	79	8.9	BG05-../D04LA4	13.75	142	630	-	-	10	4.4
112	1.85	82	9.3	BG04-../D04LA4	14.52	115	510	-	-	10	4.4
107	2.4	87	9.8	BG05-../D04LA4	15.23	144	640	-	-	11	5.1
99	1.7	94	10.6	BG04-../D04LA4	16.44	119	530	-	-	10	4.4
98	2.3	95	10.7	BG05-../D04LA4	16.62	148	660	-	-	11	5.1
90	1.55	103	11.6	BG04-../D04LA4	18.08	121	540	-	-	10	4.4
87	2.2	106	12	BG05-../D04LA4	18.82	153	680	-	-	11	5.1
86	3.3	108	12.2	BG06-../D04LA4	18.98	173	770	-	-	11	5.1
79	2.0	117	13.2	BG05-../D04LA4	20.53	157	700	-	-	11	5.1
78	3.0	119	13.4	BG06-../D04LA4	20.82	180	800	-	-	11	5.1
77	1.4	120	13.6	BG04-../D04LA4	21.12	126	560	-	-	10	4.4
72	3.0	128	14.5	BG06-../D04LA4	22.71	182	810	-	-	11	5.1
70	1.35	133	15	BG04-../D04LA4	23.23	135	600	-	-	10	4.4
68	1.8	136	15.4	BG05-../D04LA4	24.00	166	740	-	-	11	5.1
67	1.3	138	15.6	BG04-../D04LA4	24.45	137	610	-	-	10	4.4
64	2.7	145	16.4	BG06-../D04LA4	25.48	191	850	-	-	11	5.1
62	1.7	150	16.9	BG05-../D04LA4	26.18	171	760	-	-	11	5.1
61	1.15	152	17.2	BG04-../D04LA4	26.89	146	650	-	-	10	4.4
59	1.7	158	17.8	BG05-../D04LA4	27.82	173	770	-	-	11	5.1
59	2.5	158	17.8	BG06-../D04LA4	27.80	189	840	-	-	11	5.1
54	1.55	172	19.4	BG05-../D04LA4	30.35	171	760	-	-	11	5.1
53	1.0	175	19.8	BG04-../D04LA4	30.91	155	690	-	-	10	4.4
51	2.2	181	20.5	BG06-../D04LA4	32.22	200	890	-	-	11	5.1
48	0.93	190	21.5	BG04-../D04LA4	34.00	162	720	-	-	10	4.4
46.5	1.35	199	22.5	BG05-../D04LA4	35.00	182	810	-	-	11	5.1
46.5	2.0	199	22.5	BG06-../D04LA4	35.15	198	880	-	-	11	5.1
46	0.89	199	22.5	BG04-../D04LA4	35.35	164	730	-	-	10	4.4
44	1.9	208	23.5	BG06-../D04LA4	36.91	200	890	-	-	11	5.1
42.5	1.2	217	24.5	BG05-../D04LA4	38.18	191	850	-	-	11	5.1
42	0.8	221	25	BG04-../D04LA4	38.89	169	750	-	-	10	4.4
41	1.2	226	25.5	BG05-../D04LA4	39.94	193	860	-	-	11	5.1
40.5	1.75	226	25.5	BG06-../D04LA4	40.26	200	890	-	-	11	5.1
37.5	1.05	248	28	BG05-../D04LA4	43.57	202	900	-	-	11	5.1

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

BG-series helical-geared motors

Selection helical-geared motors

0.15 HP (0.11 kW)



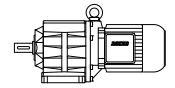
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
35.5	1.55	261	29.5	BG06-../D04LA4	46.19	200	890	-	-	11	5.1
34.5	1.0	266	30	BG05-../D04LA4	47.00	209	930	-	-	11	5.1
32.5	1.4	283	32	BG06-../D04LA4	50.38	211	940	-	-	11	5.1
32	0.92	288	32.5	BG05-../D04LA4	51.27	218	970	-	-	11	5.1
31	1.35	296	33.5	BG06-../D04LA4	52.56	214	950	-	-	13	6.1
30.5	0.88	301	34	BG05-../D04LA4	53.44	220	980	-	-	11	5.1
28.5	1.25	323	36.5	BG06-../D04LA4	57.34	225	1000	-	-	13	6.1
28.5	3.3	323	36.5	BG10-../D06LA4	57.48	450	2000	629	2800	13	6.1
28	0.8	332	37.5	BG05-../D04LA4	58.30	225	1000	-	-	11	5.1
26.5	1.15	350	39.5	BG06-../D04LA4	61.22	229	1020	-	-	13	6.1
25.5	2.9	363	41	BG10-../D06LA4	63.69	450	2000	629	2800	13	6.1
25	2.9	372	42	BG10-../D06LA4	66.00	450	2000	629	2800	13	6.1
24.5	1.05	376	42.5	BG06-../D04LA4	66.79	241	1070	-	-	13	6.1
22.5	2.6	412	46.5	BG10-../D06LA4	73.13	450	2000	629	2800	13	6.1
21.5	0.86	412	46.5	BG06G04-../D04LA4	75.99	241	1070	-	-	13	6.1
21	2.4	443	50	BG10Z-../D06LA4	77.40	450	2000	629	2800	13	6.1
20	0.86	443	50	BG06G04-../D04LA4	82.89	241	1070	-	-	13	6.1
19	2.2	487	55	BG10Z-../D06LA4	85.76	450	2000	629	2800	13	6.1
18	2.1	513	58	BG10Z-../D06LA4	92.19	450	2000	629	2800	13	6.1
17.5	3.3	531	60	BG20Z-../D06LA4	94.27	1124	5000	-	-	31	14
16	1.85	575	65	BG10Z-../D06LA4	102.1	450	2000	629	2800	13	6.1
15.5	3.0	593	67	BG20Z-../D06LA4	104.7	1124	5000	-	-	31	14
15	1.7	620	70	BG10Z-../D06LA4	109.8	450	2000	629	2800	31	14
14.5	2.8	637	72	BG20Z-../D06LA4	112.8	1124	5000	-	-	31	14
13.5	1.55	682	77	BG10Z-../D06LA4	121.7	450	2000	629	2800	31	14
13	2.5	708	80	BG20Z-../D06LA4	125.3	1124	5000	-	-	31	14
12.5	1.45	743	84	BG10Z-../D06LA4	131.8	450	2000	629	2800	31	14
11.5	1.3	805	91	BG10Z-../D06LA4	146.0	450	2000	629	2800	31	14
11.5	2.2	805	91	BG20Z-../D06LA4	141.3	1124	5000	-	-	31	14
11.5	3.3	805	91	BG30Z-../D06LA4	142.5	1349	6000	-	-	35	16
11	3.2	841	95	BG30Z-../D06LA4	151.5	1349	6000	-	-	44	20
10.5	2.0	885	100	BG20Z-../D06LA4	157.0	1124	5000	-	-	31	14
10	1.9	929	105	BG20Z-../D06LA4	162.2	1124	5000	-	-	31	14
9.8	1.1	947	107	BG10Z-../D06LA4	166.0	450	2000	629	2800	31	14
9.7	2.8	956	108	BG30Z-../D06LA4	168.1	1349	6000	-	-	44	20
9.0	1.7	1027	116	BG20Z-../D06LA4	180.1	1124	5000	-	-	31	14
8.9	1.0	1044	118	BG10Z-../D06LA4	184.0	450	2000	629	2800	31	14
8.9	2.5	1044	118	BG30Z-../D06LA4	182.9	1349	6000	-	-	44	20
8.4	0.96	1106	125	BG10Z-../D06LA4	194.6	450	2000	629	2800	31	14
8.2	1.55	1133	128	BG20Z-../D06LA4	199.9	1124	5000	-	-	31	14
8.2	3.3	1133	128	BG40Z-../D06LA4	199.9	1574	7000	-	-	44	20
8.0	2.3	1159	131	BG30Z-../D06LA4	202.9	1349	6000	-	-	44	20
7.6	0.87	1221	138	BG10Z-../D06LA4	215.7	450	2000	629	2800	31	14
7.4	3.0	1248	141	BG40Z-../D06LA4	221.9	1574	7000	-	-	55	25
7.3	1.4	1266	143	BG20Z-../D06LA4	222.1	1124	5000	-	-	35	16
7.2	2.1	1283	145	BG30Z-../D06LA4	225.9	1349	6000	-	-	44	20
6.8	1.0	1142	129	BG10G06-../D06LA4	240.7	450	2000	629	2800	31	14
6.6	1.65	1168	132	BG20G06-../D06LA4	248.0	1124	5000	-	-	35	16
6.6	2.7	1407	159	BG40Z-../D06LA4	246.5	1574	7000	-	-	55	25
6.5	1.85	1425	161	BG30Z-../D06LA4	250.6	1349	6000	-	-	44	20
6.2	1.8	1496	169	BG30Z-../D06LA4	261.9	1349	6000	-	-	44	20
6.0	2.4	1549	175	BG40Z-../D06LA4	273.6	1574	7000	-	-	55	25
5.9	0.88	1310	148	BG10G06-../D06LA4	276.4	450	2000	629	2800	31	14
5.6	1.6	1655	187	BG30Z-../D06LA4	290.5	1349	6000	-	-	44	20
5.5	1.35	1434	162	BG20G06-../D06LA4	297.9	1124	5000	-	-	35	16
5.3	1.95	1487	168	BG30G06-../D06LA4	306.2	1349	6000	-	-	44	20
4.7	1.15	1726	195	BG20G06-../D06LA4	352.1	1124	5000	-	-	35	16
4.7	1.65	1726	195	BG30G06-../D06LA4	346.8	1349	6000	-	-	44	20
4.2	1.0	1903	215	BG20G06-../D06LA4	391.1	1124	5000	-	-	35	16
4.1	1.5	1947	220	BG30G06-../D06LA4	401.9	1349	6000	-	-	44	20
3.7	2.6	1558	176	BG40G10-../D06LA4	448.8	1574	7000	-	-	55	25
3.6	0.86	2257	255	BG20G06-../D06LA4	460.0	1124	5000	-	-	35	16

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

BG-series helical-geared motors

Selection helical-geared motors

0.15 HP (0.11 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
3.5	1.25	2345	265	BG30G06-../D06LA4	472.8	1349	6000	-	-	44	20
3.1	2.1	1947	220	BG40G10-../D06LA4	534.2	1574	7000	-	-	55	25
3.1	3.1	1947	220	BG50G10-../D06LA4	531.5	2248	10000	-	-	55	25
2.9	1.0	2832	320	BG30G06-../D06LA4	565.8	1349	6000	-	-	44	20
2.7	2.5	2434	275	BG50G10-../D06LA4	621.3	2248	10000	-	-	55	25
2.6	1.6	2567	290	BG40G10-../D06LA4	640.0	1574	7000	-	-	55	25
2.4	0.82	3496	395	BG30G06-../D06LA4	690.6	1349	6000	-	-	44	20
2.3	1.4	2921	330	BG40G10-../D06LA4	710.9	1574	7000	-	-	55	25
2.3	2.1	2921	330	BG50G10-../D06LA4	708.3	2248	10000	-	-	112	51
2.1	1.3	3186	360	BG40G10-../D06LA4	789.1	1574	7000	-	-	55	25
2.1	1.9	3186	360	BG50G10-../D06LA4	785.1	2248	10000	-	-	112	51
1.7	1.0	4116	465	BG40G10-../D06LA4	965.2	1574	7000	-	-	55	25
1.7	1.5	4116	465	BG50G10-../D06LA4	960.2	2248	10000	-	-	112	51
1.6	3.1	3673	415	BG60G20-../D06LA4	1051	3597	16000	-	-	112	51
1.4	1.15	5222	590	BG50G10-../D06LA4	1219	2248	10000	-	-	112	51
1.4	2.6	4425	500	BG60G20-../D06LA4	1168	3597	16000	-	-	112	51
1.3	2.4	4779	540	BG60G20-../D06LA4	1346	3597	16000	-	-	220	100
1.2	0.97	6284	710	BG50G10-../D06LA4	1452	2248	10000	-	-	112	51
1.1	1.9	6019	680	BG60G20-../D06LA4	1496	3597	16000	-	-	220	100
1.0	3.1	7169	810	BG70G20-../D06LA4	1666	4496	20000	-	-	220	100
0.95	1.55	7346	830	BG60G20-../D06LA4	1741	3597	16000	-	-	220	100
0.9	1.45	7877	890	BG60G20-../D06LA4	1880	3597	16000	-	-	220	100
0.85	2.5	8762	990	BG70G20-../D06LA4	1994	4496	20000	-	-	220	100
0.75	1.15	10001	1130	BG60G20-../D06LA4	2249	3597	16000	-	-	220	100
0.75	2.2	10267	1160	BG70G20-../D06LA4	2215	4496	20000	-	-	220	100
0.6	1.65	13365	1510	BG70G20-../D06LA4	2774	4496	20000	-	-	220	100
0.55	1.5	14781	1670	BG70G20-../D06LA4	3184	4496	20000	-	-	220	100
0.42	1.1	19914	2250	BG70G20-../D06LA4	3925	4496	20000	-	-	287	130

0.25 HP (0.18 kW)

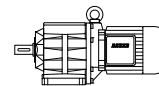
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
620	3.3	24	2.75	BG05-../D05LA4	2.64	94	420	-	-	287	130
480	2.8	31	3.55	BG05-../D05LA4	3.38	103	460	-	-	287	130
355	2.5	42	4.8	BG05-../D05LA4	4.59	110	490	-	-	287	130
300	2.5	50	5.7	BG05-../D05LA4	5.46	110	490	-	-	287	130
250	2.4	60	6.8	BG05-../D05LA4	6.60	115	510	-	-	287	130
210	2.2	72	8.1	BG05-../D05LA4	7.80	119	530	-	-	287	130
199	2.1	76	8.6	BG05-../D05LA4	8.15	115	510	-	-	287	130
194	3.2	78	8.8	BG06-../D05LA4	8.39	135	600	-	-	15	7.0
191	2.1	80	9.0	BG05-../D05LA4	8.51	124	550	-	-	287	130
173	3.0	88	9.9	BG06-../D05LA4	9.38	144	640	-	-	15	7.0
159	2.9	96	10.8	BG06-../D05LA4	10.24	144	640	-	-	15	7.0
153	1.8	99	11.2	BG05-../D05LA4	10.59	133	590	-	-	287	130
144	2.7	105	11.9	BG06-../D05LA4	11.28	151	670	-	-	15	7.0
141	1.75	107	12.1	BG05-../D05LA4	11.55	135	600	-	-	287	130
135	1.65	112	12.7	BG05-../D05LA4	12.05	115	510	-	-	287	130
132	2.5	115	13	BG06-../D05LA4	12.30	151	670	-	-	15	7.0
129	1.65	118	13.3	BG05-../D05LA4	12.60	137	610	-	-	15	7.0
125	2.4	121	13.7	BG06-../D05LA4	12.98	135	600	-	-	15	7.0
118	1.6	128	14.5	BG05-../D05LA4	13.75	142	630	-	-	15	7.0
110	2.2	138	15.6	BG06-../D05LA4	14.78	164	730	-	-	15	7.0
107	1.5	142	16	BG05-../D05LA4	15.23	144	640	-	-	15	7.0
101	2.1	150	17	BG06-../D05LA4	16.13	166	740	-	-	15	7.0
98	1.45	155	17.5	BG05-../D05LA4	16.62	148	660	-	-	15	7.0
94	2.1	161	18.2	BG06-../D05LA4	17.40	171	760	-	-	15	7.0
87	1.3	174	19.7	BG05-../D05LA4	18.82	153	680	-	-	15	7.0

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

BG-series helical-geared motors

Selection helical-geared motors

0.25 HP (0.18 kW)



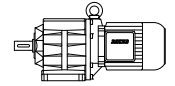
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
86	2.0	176	19.9	BG06-../D05LA4	18.98	173	770	-	-	15	7.0
79	1.25	190	21.5	BG05-../D05LA4	20.53	157	700	-	-	15	7.0
78	1.8	195	22	BG06-../D05LA4	20.82	180	800	-	-	18	8.0
72	1.85	208	23.5	BG06-../D05LA4	22.71	182	810	-	-	18	8.0
68	1.1	221	25	BG05-../D05LA4	24.00	166	740	-	-	15	7.0
64	1.7	235	26.5	BG06-../D05LA4	25.48	191	850	-	-	18	8.0
62	1.05	243	27.5	BG05-../D05LA4	26.18	171	760	-	-	15	7.0
59	1.05	257	29	BG05-../D05LA4	27.82	173	770	-	-	15	7.0
59	1.55	257	29	BG06-../D05LA4	27.80	189	840	-	-	18	8.0
54	0.95	279	31.5	BG05-../D05LA4	30.35	171	760	-	-	15	7.0
51	1.35	296	33.5	BG06-../D05LA4	32.22	200	890	-	-	18	8.0
46.5	0.82	323	36.5	BG05-../D05LA4	35.00	182	810	-	-	15	7.0
46.5	1.25	323	36.5	BG06-../D05LA4	35.15	198	880	-	-	18	8.0
46.5	3.3	323	36.5	BG10-../D06LA4	34.92	380	1690	528	2350	18	8.0
44	1.15	345	39	BG06-../D05LA4	36.91	200	890	-	-	18	8.0
41	2.9	367	41.5	BG10-../D06LA4	39.70	400	1780	551	2450	18	8.0
40.5	1.05	372	42	BG06-../D05LA4	40.26	200	890	-	-	18	8.0
37	2.6	407	46	BG10-../D06LA4	43.99	423	1880	585	2600	18	8.0
35.5	0.94	425	48	BG06-../D05LA4	46.19	200	890	-	-	18	8.0
35	2.4	434	49	BG10-../D06LA4	46.55	432	1920	596	2650	18	8.0
32.5	0.87	460	52	BG06-../D05LA4	50.38	211	940	-	-	18	8.0
31.5	2.2	478	54	BG10-../D06LA4	51.57	450	2000	629	2800	18	8.0
31	0.82	487	55	BG06-../D05LA4	52.56	214	950	-	-	18	8.0
28.5	2.0	531	60	BG10-../D06LA4	57.48	450	2000	629	2800	18	8.0
27.5	3.2	549	62	BG20-../D06LA4	59.07	1124	5000	-	-	31	14
25.5	1.8	593	67	BG10-../D06LA4	63.69	450	2000	629	2800	18	8.0
25	1.75	602	68	BG10-../D06LA4	66.00	450	2000	629	2800	18	8.0
25	2.9	602	68	BG20-../D06LA4	65.62	1124	5000	-	-	31	14
24	2.8	628	71	BG20Z-../D06LA4	67.53	1124	5000	-	-	31	14
22.5	1.6	673	76	BG10-../D06LA4	73.13	450	2000	629	2800	18	8.0
22	2.6	690	78	BG20Z-../D06LA4	75.00	1124	5000	-	-	31	14
21	1.5	717	81	BG10Z-../D06LA4	77.40	450	2000	629	2800	18	8.0
21	2.5	717	81	BG20Z-../D06LA4	78.60	1124	5000	-	-	31	14
19	1.35	797	90	BG10Z-../D06LA4	85.76	450	2000	629	2800	18	8.0
19	2.2	797	90	BG20Z-../D06LA4	87.30	1124	5000	-	-	31	14
19	3.3	797	90	BG30Z-../D06LA4	86.13	1349	6000	-	-	35	16
18	1.25	841	95	BG10Z-../D06LA4	92.19	450	2000	629	2800	18	8.0
17.5	2.0	867	98	BG20Z-../D06LA4	94.27	1124	5000	-	-	31	14
17	3.0	894	101	BG30Z-../D06LA4	95.55	1349	6000	-	-	35	16
16	1.1	947	107	BG10Z-../D06LA4	102.1	450	2000	629	2800	31	14
15.5	1.8	974	110	BG20Z-../D06LA4	104.7	1124	5000	-	-	35	16
15	1.05	1009	114	BG10Z-../D06LA4	109.8	450	2000	629	2800	31	14
15	2.6	1009	114	BG30Z-../D06LA4	109.6	1349	6000	-	-	35	16
14.5	1.7	1044	118	BG20Z-../D06LA4	112.8	1124	5000	-	-	35	16
13.5	0.94	1124	127	BG10Z-../D06LA4	121.7	450	2000	629	2800	31	14
13.5	3.3	1124	127	BG40Z-../D06LA4	121.3	1574	7000	-	-	49	22
13	1.5	1168	132	BG20Z-../D06LA4	125.3	1124	5000	-	-	35	16
13	2.3	1168	132	BG30Z-../D06LA4	128.5	1349	6000	-	-	35	16
12.5	0.88	1213	137	BG10Z-../D06LA4	131.8	450	2000	629	2800	31	14
12.5	3.1	1213	137	BG40Z-../D06LA4	134.6	1574	7000	-	-	49	22
11.5	0.81	1319	149	BG10Z-../D06LA4	146.0	450	2000	629	2800	31	14
11.5	1.35	1319	149	BG20Z-../D06LA4	141.3	1124	5000	-	-	35	16
11.5	2.0	1319	149	BG30Z-../D06LA4	142.5	1349	6000	-	-	35	16
11.5	2.9	1319	149	BG40Z-../D06LA4	141.4	1574	7000	-	-	49	22
11	0.93	1239	140	BG10G06-../D06LA4	150.1	450	2000	629	2800	31	14
11	1.9	1381	156	BG30Z-../D06LA4	151.5	1349	6000	-	-	35	16
10.5	1.25	1443	163	BG20Z-../D06LA4	157.0	1124	5000	-	-	35	16
10.5	2.6	1443	163	BG40Z-../D06LA4	156.9	1574	7000	-	-	49	22
10	1.15	1513	171	BG20Z-../D06LA4	162.2	1124	5000	-	-	35	16
9.8	0.83	1390	157	BG10G06-../D06LA4	166.3	450	2000	629	2800	31	14
9.8	2.4	1549	175	BG40Z-../D06LA4	166.1	1574	7000	-	-	49	22
9.7	1.7	1567	177	BG30Z-../D06LA4	168.1	1349	6000	-	-	35	16

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

BG-series helical-geared motors

Selection helical-geared motors

0.25 HP (0.18 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
9.0	1.05	1690	191	BG20Z-.../D06LA4	180.1	1124	5000	-	-	35	16
8.9	1.55	1708	193	BG30Z-.../D06LA4	182.9	1349	6000	-	-	35	16
8.9	3.3	1708	193	BG50Z-.../D06LA4	182.8	2248	10000	-	-	55	25
8.8	2.2	1726	195	BG40Z-.../D06LA4	184.4	1574	7000	-	-	49	22
8.2	0.98	1814	205	BG20Z-.../D06LA4	199.9	1124	5000	-	-	35	16
8.2	2.1	1814	205	BG40Z-.../D06LA4	199.9	1574	7000	-	-	55	25
8.0	1.45	1859	210	BG30Z-.../D06LA4	202.9	1349	6000	-	-	35	16
8.0	3.0	1859	210	BG50Z-.../D06LA4	204.7	2248	10000	-	-	84	38
7.4	1.85	2036	230	BG40Z-.../D06LA4	221.9	1574	7000	-	-	55	25
7.3	0.85	2080	235	BG20Z-.../D06LA4	222.1	1124	5000	-	-	35	16
7.2	1.3	2080	235	BG30Z-.../D06LA4	225.9	1349	6000	-	-	35	16
7.2	2.7	2080	235	BG50Z-.../D06LA4	226.9	2248	10000	-	-	84	38
6.6	0.96	2036	230	BG20G06-.../D06LA4	248.0	1124	5000	-	-	35	16
6.6	1.65	2301	260	BG40Z-.../D06LA4	246.5	1574	7000	-	-	55	25
6.5	1.15	2301	260	BG30Z-.../D06LA4	250.6	1349	6000	-	-	49	22
6.3	2.3	2390	270	BG50Z-.../D06LA4	258.6	2248	10000	-	-	84	38
6.2	1.1	2434	275	BG30Z-.../D06LA4	261.9	1349	6000	-	-	49	22
6.0	1.5	2522	285	BG40Z-.../D06LA4	273.6	1574	7000	-	-	55	25
5.7	2.2	1859	210	BG40G10-.../D06LA4	288.6	1574	7000	-	-	55	25
5.7	2.1	2655	300	BG50Z-.../D06LA4	286.7	2248	10000	-	-	84	38
5.6	0.98	2699	305	BG30Z-.../D06LA4	290.5	1349	6000	-	-	49	22
5.3	1.1	2567	290	BG30G06-.../D06LA4	306.2	1349	6000	-	-	49	22
4.7	0.97	2965	335	BG30G06-.../D06LA4	346.8	1349	6000	-	-	49	22
4.7	2.6	2345	265	BG50G10-.../D06LA4	351.7	2248	10000	-	-	84	38
4.6	1.7	2390	270	BG40G10-.../D06LA4	353.5	1574	7000	-	-	55	25
4.1	0.84	3408	385	BG30G06-.../D06LA4	401.9	1349	6000	-	-	49	22
3.7	1.3	3142	355	BG40G10-.../D06LA4	448.8	1574	7000	-	-	55	25
3.7	1.95	3142	355	BG50G10-.../D06LA4	446.5	2248	10000	-	-	84	38
3.1	1.05	3850	435	BG40G10-.../D06LA4	534.2	1574	7000	-	-	55	25
3.1	1.6	3850	435	BG50G10-.../D06LA4	531.5	2248	10000	-	-	84	38
2.9	3.1	3762	425	BG60G20-.../D06LA4	559.5	3597	16000	-	-	84	38
2.7	1.35	4602	520	BG50G10-.../D06LA4	621.3	2248	10000	-	-	84	38
2.6	0.86	4779	540	BG40G10-.../D06LA4	640.0	1574	7000	-	-	55	25
2.5	2.5	4602	520	BG60G20-.../D06LA4	651.3	3597	16000	-	-	112	51
2.3	1.1	5487	620	BG50G10-.../D06LA4	708.3	2248	10000	-	-	84	38
2.1	1.0	6019	680	BG50G10-.../D06LA4	785.1	2248	10000	-	-	84	38
2.1	2.1	5399	610	BG60G20-.../D06LA4	804.5	3597	16000	-	-	112	51
1.9	1.95	5930	670	BG60G20-.../D06LA4	891.5	3597	16000	-	-	112	51
1.7	0.8	7612	860	BG50G10-.../D06LA4	960.2	2248	10000	-	-	84	38
1.6	1.55	7346	830	BG60G20-.../D06LA4	1051	3597	16000	-	-	112	51
1.6	2.9	7523	850	BG70G20-.../D06LA4	1035	4496	20000	-	-	112	51
1.4	1.35	8674	980	BG60G20-.../D06LA4	1168	3597	16000	-	-	112	51
1.4	2.5	8762	990	BG70G20-.../D06LA4	1193	4496	20000	-	-	112	51
1.3	1.25	9293	1050	BG60G20-.../D06LA4	1346	3597	16000	-	-	112	51
1.2	2.1	10532	1190	BG70G20-.../D06LA4	1389	4496	20000	-	-	112	51
1.1	1.0	11417	1290	BG60G20-.../D06LA4	1496	3597	16000	-	-	112	51
1.1	1.9	11683	1320	BG70G20-.../D06LA4	1543	4496	20000	-	-	112	51
1.0	1.7	13011	1470	BG70G20-.../D06LA4	1666	4496	20000	-	-	112	51
0.85	1.4	15754	1780	BG70G20-.../D06LA4	1994	4496	20000	-	-	112	51
0.75	1.2	18144	2050	BG70G20-.../D06LA4	2215	4496	20000	-	-	112	51

0.33 HP (0.25 kW)

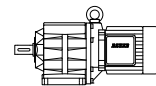
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
620	2.3	34	3.85	BG05-.../D05LA4	2.64	94	420	-	-	112	51
480	2.0	44	4.95	BG05-.../D05LA4	3.38	103	460	-	-	112	51
360	3.3	58	6.6	BG06-.../D05LA4	4.54	119	530	-	-	15	7.0

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

BG-series helical-geared motors

Selection helical-geared motors

0.33 HP (0.25 kW)



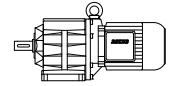
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
355	1.8	59	6.7	BG05-../D05LA4	4.59	110	490	-	-	287	130
300	1.75	70	7.9	BG05-../D05LA4	5.46	110	490	-	-	287	130
275	2.8	76	8.6	BG06-../D05LA4	5.96	128	570	-	-	15	7.0
250	1.7	84	9.5	BG05-../D05LA4	6.60	115	510	-	-	287	130
235	2.6	89	10.1	BG06-../D05LA4	7.01	130	580	-	-	15	7.0
210	1.6	100	11.3	BG05-../D05LA4	7.80	119	530	-	-	287	130
199	1.5	105	11.9	BG05-../D05LA4	8.15	115	510	-	-	287	130
194	2.3	109	12.3	BG06-../D05LA4	8.39	135	600	-	-	15	7.0
191	1.5	111	12.5	BG05-../D05LA4	8.51	124	550	-	-	287	130
173	2.2	122	13.8	BG06-../D05LA4	9.38	144	640	-	-	15	7.0
159	2.1	133	15	BG06-../D05LA4	10.24	144	640	-	-	15	7.0
153	1.3	138	15.6	BG05-../D05LA4	10.59	133	590	-	-	287	130
144	1.95	146	16.5	BG06-../D05LA4	11.28	151	670	-	-	15	7.0
141	1.25	150	16.9	BG05-../D05LA4	11.55	135	600	-	-	287	130
135	1.2	156	17.6	BG05-../D05LA4	12.05	115	510	-	-	287	130
132	1.85	159	18	BG06-../D05LA4	12.30	151	670	-	-	15	7.0
129	1.2	164	18.5	BG05-../D05LA4	12.60	137	610	-	-	287	130
125	1.75	169	19.1	BG06-../D05LA4	12.98	135	600	-	-	15	7.0
118	1.15	177	20	BG05-../D05LA4	13.75	142	630	-	-	15	7.0
110	1.6	190	21.5	BG06-../D05LA4	14.78	164	730	-	-	15	7.0
107	1.1	195	22	BG05-../D05LA4	15.23	144	640	-	-	15	7.0
101	1.5	208	23.5	BG06-../D05LA4	16.13	166	740	-	-	15	7.0
98	1.05	212	24	BG05-../D05LA4	16.62	148	660	-	-	15	7.0
94	1.5	221	25	BG06-../D05LA4	17.40	171	760	-	-	15	7.0
87	0.96	239	27	BG05-../D05LA4	18.82	153	680	-	-	15	7.0
86	1.45	243	27.5	BG06-../D05LA4	18.98	173	770	-	-	15	7.0
79	0.9	266	30	BG05-../D05LA4	20.53	157	700	-	-	15	7.0
78	1.3	270	30.5	BG06-../D05LA4	20.82	180	800	-	-	15	7.0
72	1.3	292	33	BG06-../D05LA4	22.71	182	810	-	-	15	7.0
68	0.8	310	35	BG05-../D05LA4	24.00	166	740	-	-	15	7.0
64	1.2	327	37	BG06-../D05LA4	25.48	191	850	-	-	15	7.0
62	3.1	341	38.5	BG10-../D06LA4	26.26	328	1460	450	2000	18	8.0
59	1.15	354	40	BG06-../D05LA4	27.80	189	840	-	-	15	7.0
56	2.8	376	42.5	BG10-../D06LA4	29.09	346	1540	483	2150	18	8.0
52	2.6	403	45.5	BG10-../D06LA4	31.52	360	1600	495	2200	18	8.0
51	0.97	412	46.5	BG06-../D05LA4	32.22	200	890	-	-	18	8.0
47.5	3.0	443	50	BG15-../D06LA4	34.20	674	3000	1349	6000	29	13
46.5	0.88	451	51	BG06-../D05LA4	35.15	198	880	-	-	18	8.0
46.5	2.4	451	51	BG10-../D06LA4	34.92	380	1690	528	2350	18	8.0
44	0.83	478	54	BG06-../D05LA4	36.91	200	890	-	-	18	8.0
43	2.7	487	55	BG15-../D06LA4	37.90	674	3000	1349	6000	29	13
41	2.1	513	58	BG10-../D06LA4	39.70	400	1780	551	2450	18	8.0
39	3.3	540	61	BG20-../D06LA4	41.76	1012	4500	-	-	29	13
37	1.9	566	64	BG10-../D06LA4	43.99	423	1880	585	2600	18	8.0
35	1.75	602	68	BG10-../D06LA4	46.55	432	1920	596	2650	18	8.0
35	2.9	602	68	BG20-../D06LA4	46.38	1057	4700	-	-	29	13
34	2.9	620	70	BG20-../D06LA4	47.92	1068	4750	-	-	29	13
31.5	1.6	664	75	BG10-../D06LA4	51.57	450	2000	629	2800	18	8.0
30.5	2.6	690	78	BG20-../D06LA4	53.22	1113	4950	-	-	29	13
28.5	1.45	735	83	BG10-../D06LA4	57.48	450	2000	629	2800	18	8.0
27.5	2.3	761	86	BG20-../D06LA4	59.07	1124	5000	-	-	29	13
25.5	1.3	823	93	BG10-../D06LA4	63.69	450	2000	629	2800	18	8.0
25	1.25	841	95	BG10-../D06LA4	66.00	450	2000	629	2800	18	8.0
25	2.1	841	95	BG20-../D06LA4	65.62	1124	5000	-	-	29	13
24.5	3.1	859	97	BG30-../D06LA4	67.44	1349	6000	-	-	35	16
24	2.0	876	99	BG20Z-../D06LA4	67.53	1124	5000	-	-	29	13
22.5	1.15	938	106	BG10-../D06LA4	73.13	450	2000	629	2800	29	13
22.5	2.8	938	106	BG30Z-../D06LA4	73.51	1349	6000	-	-	35	16
22	1.85	956	108	BG20Z-../D06LA4	75.00	1124	5000	-	-	29	13
21	1.05	1000	113	BG10Z-../D06LA4	77.40	450	2000	629	2800	29	13
21	1.75	1000	113	BG20Z-../D06LA4	78.60	1124	5000	-	-	29	13
20	2.5	1053	119	BG30Z-../D06LA4	81.55	1349	6000	-	-	35	16

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

BG-series helical-geared motors

Selection helical-geared motors

0.33 HP (0.25 kW)



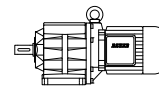
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
19	0.96	1106	125	BG10Z-../D06LA4	85.76	450	2000	629	2800	29	13
19	1.6	1106	125	BG20Z-../D06LA4	87.30	1124	5000	-	-	29	13
19	2.4	1106	125	BG30Z-../D06LA4	86.13	1349	6000	-	-	35	16
18	0.91	1168	132	BG10Z-../D06LA4	92.19	450	2000	629	2800	29	13
18	3.2	1168	132	BG40Z-../D06LA4	91.02	1574	7000	-	-	35	16
17.5	1.45	1204	136	BG20Z-../D06LA4	94.27	1124	5000	-	-	29	13
17	2.1	1239	140	BG30Z-../D06LA4	95.55	1349	6000	-	-	35	16
17	3.0	1239	140	BG40Z-../D06LA4	96.86	1574	7000	-	-	35	16
16	0.81	1319	149	BG10Z-../D06LA4	102.1	450	2000	629	2800	29	13
15.5	1.3	1363	154	BG20Z-../D06LA4	104.7	1124	5000	-	-	29	13
15.5	2.8	1363	154	BG40Z-../D06LA4	107.5	1574	7000	-	-	35	16
15	1.9	1407	159	BG30Z-../D06LA4	109.6	1349	6000	-	-	35	16
14.5	1.2	1452	164	BG20Z-../D06LA4	112.8	1124	5000	-	-	29	13
13.5	2.4	1558	176	BG40Z-../D06LA4	121.3	1574	7000	-	-	35	16
13	1.1	1620	183	BG20Z-../D06LA4	125.3	1124	5000	-	-	29	13
13	1.65	1620	183	BG30Z-../D06LA4	128.5	1349	6000	-	-	35	16
12.5	2.2	1690	191	BG40Z-../D06LA4	134.6	1574	7000	-	-	35	16
11.5	0.98	1814	205	BG20Z-../D06LA4	141.3	1124	5000	-	-	29	13
11.5	1.45	1814	205	BG30Z-../D06LA4	142.5	1349	6000	-	-	35	16
11.5	2.1	1814	205	BG40Z-../D06LA4	141.4	1574	7000	-	-	35	16
11.5	3.1	1814	205	BG50Z-../D06LA4	142.9	2248	10000	-	-	84	38
11	1.4	1903	215	BG30Z-../D06LA4	151.5	1349	6000	-	-	35	16
10.5	0.89	1991	225	BG20Z-../D06LA4	157.0	1124	5000	-	-	29	13
10.5	1.9	1991	225	BG40Z-../D06LA4	156.9	1574	7000	-	-	35	16
10	0.85	2080	235	BG20Z-../D06LA4	162.2	1124	5000	-	-	35	16
9.9	2.6	2124	240	BG50Z-../D06LA4	164.9	2248	10000	-	-	84	38
9.8	1.75	2124	240	BG40Z-../D06LA4	166.1	1574	7000	-	-	35	16
9.7	1.2	2168	245	BG30Z-../D06LA4	168.1	1349	6000	-	-	35	16
8.9	1.15	2345	265	BG30Z-../D06LA4	182.9	1349	6000	-	-	35	16
8.9	2.4	2345	265	BG50Z-../D06LA4	182.8	2248	10000	-	-	84	38
8.8	1.55	2390	270	BG40Z-../D06LA4	184.4	1574	7000	-	-	35	16
8.2	1.45	2567	290	BG40Z-../D06LA4	199.9	1574	7000	-	-	35	16
8.0	1.0	2611	295	BG30Z-../D06LA4	202.9	1349	6000	-	-	35	16
8.0	2.1	2611	295	BG50Z-../D06LA4	204.7	2248	10000	-	-	84	38
7.4	1.35	2832	320	BG40Z-../D06LA4	221.9	1574	7000	-	-	35	16
7.2	0.91	2921	330	BG30Z-../D06LA4	225.9	1349	6000	-	-	35	16
7.2	1.9	2921	330	BG50Z-../D06LA4	226.9	2248	10000	-	-	84	38
6.6	1.2	3186	360	BG40Z-../D06LA4	246.5	1574	7000	-	-	84	38
6.5	0.82	3231	365	BG30Z-../D06LA4	250.6	1349	6000	-	-	35	16
6.4	0.94	3054	345	BG30G06-../D06LA4	254.9	1349	6000	-	-	35	16
6.3	1.7	3319	375	BG50Z-../D06LA4	258.6	2248	10000	-	-	84	38
6.0	1.1	3496	395	BG40Z-../D06LA4	273.6	1574	7000	-	-	84	38
5.7	1.45	2876	325	BG40G10-../D06LA4	288.6	1574	7000	-	-	84	38
5.7	1.5	3673	415	BG50Z-../D06LA4	286.7	2248	10000	-	-	84	38
4.7	1.7	3585	405	BG50G10-../D06LA4	351.7	2248	10000	-	-	84	38
4.6	1.1	3673	415	BG40G10-../D06LA4	353.5	1574	7000	-	-	84	38
3.8	2.8	4071	460	BG60G20-../D06LA4	437.3	3597	16000	-	-	84	38
3.7	0.88	4691	530	BG40G10-../D06LA4	448.8	1574	7000	-	-	84	38
3.7	1.3	4691	530	BG50G10-../D06LA4	446.5	2248	10000	-	-	84	38
3.3	2.3	5045	570	BG60G20-../D06LA4	504.9	3597	16000	-	-	84	38
3.1	1.05	5753	650	BG50G10-../D06LA4	531.5	2248	10000	-	-	84	38
2.9	2.0	5753	650	BG60G20-../D06LA4	559.5	3597	16000	-	-	84	38
2.7	0.9	6815	770	BG50G10-../D06LA4	621.3	2248	10000	-	-	84	38
2.5	1.65	6992	790	BG60G20-../D06LA4	651.3	3597	16000	-	-	84	38
2.5	3.2	6904	780	BG70G20-../D06LA4	665.8	4496	20000	-	-	84	38
2.1	1.4	8231	930	BG60G20-../D06LA4	804.5	3597	16000	-	-	84	38
2.1	2.7	8231	930	BG70G20-../D06LA4	790.2	4496	20000	-	-	84	38
1.9	1.25	9116	1030	BG60G20-../D06LA4	891.5	3597	16000	-	-	84	38
1.9	2.4	9293	1050	BG70G20-../D06LA4	877.6	4496	20000	-	-	84	38
1.6	1.05	11063	1250	BG60G20-../D06LA4	1051	3597	16000	-	-	84	38
1.6	1.95	11240	1270	BG70G20-../D06LA4	1035	4496	20000	-	-	84	38
1.4	0.9	12834	1450	BG60G20-../D06LA4	1168	3597	16000	-	-	84	38

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

BG-series helical-geared motors

Selection helical-geared motors

0.33 HP (0.25 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
1.4	1.7	13011	1470	BG70G20-../D06LA4	1193	4496	20000	-	-	84	38
1.3	0.83	13896	1570	BG60G20-../D06LA4	1346	3597	16000	-	-	84	38
1.2	1.45	15489	1750	BG70G20-../D06LA4	1389	4496	20000	-	-	84	38
1.1	1.3	17082	1930	BG70G20-../D06LA4	1543	4496	20000	-	-	287	130
1.0	1.2	18587	2100	BG70G20-../D06LA4	1666	4496	20000	-	-	287	130

0.4 HP (0.3 kW)

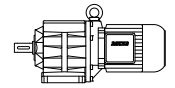
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
620	1.95	41	4.6	BG05-../D05LA4	2.64	94	420	-	-	287	130
480	1.7	52	5.9	BG05-../D05LA4	3.38	103	460	-	-	287	130
430	3.0	58	6.6	BG06-../D05LA4	3.78	117	520	-	-	287	130
360	2.8	70	7.9	BG06-../D05LA4	4.54	119	530	-	-	287	130
355	1.5	71	8.0	BG05-../D05LA4	4.59	110	490	-	-	287	130
300	1.45	84	9.5	BG05-../D05LA4	5.46	110	490	-	-	287	130
275	2.3	92	10.4	BG06-../D05LA4	5.96	128	570	-	-	287	130
250	1.4	101	11.4	BG05-../D05LA4	6.60	115	510	-	-	287	130
235	2.1	107	12.1	BG06-../D05LA4	7.01	130	580	-	-	287	130
210	1.3	120	13.6	BG05-../D05LA4	7.80	119	530	-	-	287	130
199	1.25	127	14.3	BG05-../D05LA4	8.15	115	510	-	-	287	130
194	1.9	130	14.7	BG06-../D05LA4	8.39	135	600	-	-	287	130
191	1.25	133	15	BG05-../D05LA4	8.51	124	550	-	-	287	130
173	1.8	146	16.5	BG06-../D05LA4	9.38	144	640	-	-	287	130
159	1.7	159	18	BG06-../D05LA4	10.24	144	640	-	-	15	7.0
153	1.05	166	18.7	BG05-../D05LA4	10.59	133	590	-	-	287	130
144	1.6	175	19.8	BG06-../D05LA4	11.28	151	670	-	-	15	7.0
141	1.05	177	20	BG05-../D05LA4	11.55	135	600	-	-	287	130
135	1.0	186	21	BG05-../D05LA4	12.05	115	510	-	-	287	130
132	1.55	190	21.5	BG06-../D05LA4	12.30	151	670	-	-	15	7.0
129	1.0	195	22	BG05-../D05LA4	12.60	137	610	-	-	287	130
125	1.45	199	22.5	BG06-../D05LA4	12.98	135	600	-	-	15	7.0
118	0.96	212	24	BG05-../D05LA4	13.75	142	630	-	-	287	130
110	1.3	230	26	BG06-../D05LA4	14.78	164	730	-	-	15	7.0
107	0.91	235	26.5	BG05-../D05LA4	15.23	144	640	-	-	287	130
101	1.25	248	28	BG06-../D05LA4	16.13	166	740	-	-	15	7.0
98	0.86	257	29	BG05-../D05LA4	16.62	148	660	-	-	287	130
94	1.25	266	30	BG06-../D05LA4	17.40	171	760	-	-	15	7.0
87	0.8	288	32.5	BG05-../D05LA4	18.82	153	680	-	-	287	130
86	1.2	292	33	BG06-../D05LA4	18.98	173	770	-	-	15	7.0
79	3.3	319	36	BG10-../D06LA4	20.51	290	1290	405	1800	18	8.0
78	1.1	323	36.5	BG06-../D05LA4	20.82	180	800	-	-	15	7.0
74	3.1	341	38.5	BG10-../D06LA4	22.04	299	1330	418	1860	18	8.0
72	1.1	350	39.5	BG06-../D05LA4	22.71	182	810	-	-	15	7.0
67	2.8	376	42.5	BG10-../D06LA4	24.42	317	1410	443	1970	18	8.0
64	1.0	394	44.5	BG06-../D05LA4	25.48	191	850	-	-	15	7.0
62	2.6	407	46	BG10-../D06LA4	26.26	328	1460	450	2000	18	8.0
60	3.2	420	47.5	BG15-../D06LA4	27.08	674	3000	1349	6000	29	13
59	0.93	429	48.5	BG06-../D05LA4	27.80	189	840	-	-	18	8.0
56	2.4	451	51	BG10-../D06LA4	29.09	346	1540	483	2150	18	8.0
54	2.8	469	53	BG15-../D06LA4	30.08	674	3000	1349	6000	29	13
52	2.2	487	55	BG10-../D06LA4	31.52	360	1600	495	2200	18	8.0
51	0.8	496	56	BG06-../D05LA4	32.22	200	890	-	-	18	8.0
47.5	2.5	531	60	BG15-../D06LA4	34.20	674	3000	1349	6000	29	13
46.5	1.95	540	61	BG10-../D06LA4	34.92	380	1690	528	2350	18	8.0
44	3.1	575	65	BG20-../D06LA4	37.02	967	4300	-	-	29	13
43	2.3	584	66	BG15-../D06LA4	37.90	674	3000	1349	6000	29	13
41	1.75	611	69	BG10-../D06LA4	39.70	400	1780	551	2450	18	8.0

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

BG-series helical-geared motors

Selection helical-geared motors

0.4 HP (0.3 kW)



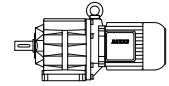
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
39	2.7	646	73	BG20-../D06LA4	41.76	1012	4500	-	-	29	13
37	1.55	682	77	BG10-../D06LA4	43.99	423	1880	585	2600	18	8.0
35	1.5	717	81	BG10-../D06LA4	46.55	432	1920	596	2650	18	8.0
35	2.5	717	81	BG20-../D06LA4	46.38	1057	4700	-	-	29	13
34	2.4	743	84	BG20-../D06LA4	47.92	1068	4750	-	-	29	13
31.5	1.35	797	90	BG10-../D06LA4	51.57	450	2000	629	2800	18	8.0
31	3.3	814	92	BG30-../D06LA4	52.44	1349	6000	-	-	29	13
30.5	2.2	823	93	BG20-../D06LA4	53.22	1113	4950	-	-	29	13
28.5	1.2	885	100	BG10-../D06LA4	57.48	450	2000	629	2800	18	8.0
28	2.9	903	102	BG30-../D06LA4	58.18	1349	6000	-	-	29	13
27.5	1.9	920	104	BG20-../D06LA4	59.07	1124	5000	-	-	29	13
27	2.8	938	106	BG30-../D06LA4	60.79	1349	6000	-	-	29	13
25.5	1.05	991	112	BG10-../D06LA4	63.69	450	2000	629	2800	18	8.0
25	1.05	1009	114	BG10-../D06LA4	66.00	450	2000	629	2800	29	13
25	1.75	1009	114	BG20-../D06LA4	65.62	1124	5000	-	-	29	13
24.5	2.6	1027	116	BG30-../D06LA4	67.44	1349	6000	-	-	29	13
24	1.7	1053	119	BG20Z-../D06LA4	67.53	1124	5000	-	-	29	13
22.5	0.94	1124	127	BG10-../D06LA4	73.13	450	2000	629	2800	29	13
22.5	2.4	1124	127	BG30Z-../D06LA4	73.51	1349	6000	-	-	29	13
22	1.55	1151	130	BG20Z-../D06LA4	75.00	1124	5000	-	-	29	13
22	3.3	1151	130	BG40Z-../D06LA4	75.19	1574	7000	-	-	35	16
21	0.88	1204	136	BG10Z-../D06LA4	77.40	450	2000	629	2800	29	13
21	1.45	1204	136	BG20Z-../D06LA4	78.60	1124	5000	-	-	29	13
20	2.1	1266	143	BG30Z-../D06LA4	81.55	1349	6000	-	-	29	13
20	3.0	1266	143	BG40Z-../D06LA4	82.00	1574	7000	-	-	35	16
19	0.8	1328	150	BG10Z-../D06LA4	85.76	450	2000	629	2800	29	13
19	1.35	1328	150	BG20Z-../D06LA4	87.30	1124	5000	-	-	29	13
19	2.0	1328	150	BG30Z-../D06LA4	86.13	1349	6000	-	-	29	13
18	2.7	1407	159	BG40Z-../D06LA4	91.02	1574	7000	-	-	35	16
17.5	1.25	1443	163	BG20Z-../D06LA4	94.27	1124	5000	-	-	29	13
17	1.8	1487	168	BG30Z-../D06LA4	95.55	1349	6000	-	-	29	13
17	2.5	1487	168	BG40Z-../D06LA4	96.86	1574	7000	-	-	35	16
15.5	1.1	1629	184	BG20Z-../D06LA4	104.7	1124	5000	-	-	29	13
15.5	2.3	1629	184	BG40Z-../D06LA4	107.5	1574	7000	-	-	49	22
15	1.55	1690	191	BG30Z-../D06LA4	109.6	1349	6000	-	-	29	13
14.5	1.0	1744	197	BG20Z-../D06LA4	112.8	1124	5000	-	-	29	13
13.5	2.0	1859	210	BG40Z-../D06LA4	121.3	1574	7000	-	-	49	22
13	0.91	1947	220	BG20Z-../D06LA4	125.3	1124	5000	-	-	29	13
13	1.35	1947	220	BG30Z-../D06LA4	128.5	1349	6000	-	-	29	13
13	2.9	1947	220	BG50Z-../D06LA4	128.9	2248	10000	-	-	49	22
12.5	1.9	1991	225	BG40Z-../D06LA4	134.6	1574	7000	-	-	49	22
11.5	0.82	2168	245	BG20Z-../D06LA4	141.3	1124	5000	-	-	29	13
11.5	1.2	2168	245	BG30Z-../D06LA4	142.5	1349	6000	-	-	29	13
11.5	1.75	2168	245	BG40Z-../D06LA4	141.4	1574	7000	-	-	49	22
11.5	2.6	2168	245	BG50Z-../D06LA4	142.9	2248	10000	-	-	49	22
11	1.15	2301	260	BG30Z-../D06LA4	151.5	1349	6000	-	-	35	16
10.5	1.55	2390	270	BG40Z-../D06LA4	156.9	1574	7000	-	-	49	22
9.9	2.2	2522	285	BG50Z-../D06LA4	164.9	2248	10000	-	-	49	22
9.8	1.45	2567	290	BG40Z-../D06LA4	166.1	1574	7000	-	-	49	22
9.7	1.0	2611	295	BG30Z-../D06LA4	168.1	1349	6000	-	-	35	16
8.9	0.94	2832	320	BG30Z-../D06LA4	182.9	1349	6000	-	-	35	16
8.9	1.95	2832	320	BG50Z-../D06LA4	182.8	2248	10000	-	-	49	22
8.8	1.3	2876	325	BG40Z-../D06LA4	184.4	1574	7000	-	-	49	22
8.2	1.25	3054	345	BG40Z-../D06LA4	199.9	1574	7000	-	-	49	22
8.0	0.85	3142	355	BG30Z-../D06LA4	202.9	1349	6000	-	-	35	16
8.0	1.75	3142	355	BG50Z-../D06LA4	204.7	2248	10000	-	-	49	22
7.4	1.1	3408	385	BG40Z-../D06LA4	221.9	1574	7000	-	-	49	22
7.2	1.6	3496	395	BG50Z-../D06LA4	226.9	2248	10000	-	-	49	22
6.6	0.99	3806	430	BG40Z-../D06LA4	246.5	1574	7000	-	-	49	22
6.3	1.4	3983	450	BG50Z-../D06LA4	258.6	2248	10000	-	-	84	38
6.0	0.89	4204	475	BG40Z-../D06LA4	273.6	1574	7000	-	-	49	22
5.7	1.15	3629	410	BG40G10-../D06LA4	288.6	1574	7000	-	-	49	22

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

BG-series helical-geared motors

Selection helical-geared motors

0.4 HP (0.3 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·in	Nm			lb·f	N	lb·f	N	lb	kg
5.7	1.25	4425	500	BG50Z-../D06LA4	286.7	2248	10000	-	-	84	38
5.3	3.2	3629	410	BG60G20-../D06LA4	306.1	3597	16000	-	-	84	38
4.9	3.0	3894	440	BG60G20-../D06LA4	334.3	3597	16000	-	-	84	38
4.7	1.35	4514	510	BG50G10-../D06LA4	351.7	2248	10000	-	-	84	38
4.6	0.89	4602	520	BG40G10-../D06LA4	353.5	1574	7000	-	-	49	22
4.4	2.6	4381	495	BG60G20-../D06LA4	370.5	3597	16000	-	-	84	38
3.8	2.2	5133	580	BG60G20-../D06LA4	437.3	3597	16000	-	-	84	38
3.7	1.05	5841	660	BG50G10-../D06LA4	446.5	2248	10000	-	-	84	38
3.3	1.85	6284	710	BG60G20-../D06LA4	504.9	3597	16000	-	-	84	38
3.1	0.86	7081	800	BG50G10-../D06LA4	531.5	2248	10000	-	-	84	38
2.9	1.6	7258	820	BG60G20-../D06LA4	559.5	3597	16000	-	-	84	38
2.9	3.0	7435	840	BG70G20-../D06LA4	577.3	4496	20000	-	-	220	100
2.5	1.35	8674	980	BG60G20-../D06LA4	651.3	3597	16000	-	-	84	38
2.5	2.6	8585	970	BG70G20-../D06LA4	665.8	4496	20000	-	-	220	100
2.1	1.1	10267	1160	BG60G20-../D06LA4	804.5	3597	16000	-	-	84	38
2.1	2.2	10267	1160	BG70G20-../D06LA4	790.2	4496	20000	-	-	220	100
1.9	1.0	11329	1280	BG60G20-../D06LA4	891.5	3597	16000	-	-	220	100
1.9	1.9	11506	1300	BG70G20-../D06LA4	877.6	4496	20000	-	-	220	100
1.6	0.84	13719	1550	BG60G20-../D06LA4	1051	3597	16000	-	-	220	100
1.6	1.6	13896	1570	BG70G20-../D06LA4	1035	4496	20000	-	-	220	100
1.4	1.4	16020	1810	BG70G20-../D06LA4	1193	4496	20000	-	-	220	100
1.2	1.2	18587	2100	BG70G20-../D06LA4	1389	4496	20000	-	-	220	100
1.1	1.05	20799	2350	BG70G20-../D06LA4	1543	4496	20000	-	-	220	100
1.0	0.96	23012	2600	BG70G20-../D06LA4	1666	4496	20000	-	-	220	100

6

0.5 HP (0.37 kW)

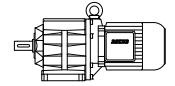
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·in	Nm			lb·f	N	lb·f	N	lb	kg
620	1.6	50	5.6	BG05-../D07LA4	2.64	94	420	-	-	220	100
480	1.35	65	7.3	BG05-../D07LA4	3.38	103	460	-	-	220	100
430	2.4	73	8.2	BG06-../D07LA4	3.78	117	520	-	-	287	130
360	2.2	87	9.8	BG06-../D07LA4	4.54	119	530	-	-	287	130
355	1.2	88	9.9	BG05-../D07LA4	4.59	110	490	-	-	220	100
300	1.2	104	11.7	BG05-../D07LA4	5.46	110	490	-	-	220	100
275	1.9	113	12.8	BG06-../D07LA4	5.96	128	570	-	-	287	130
250	1.15	125	14.1	BG05-../D07LA4	6.60	115	510	-	-	220	100
235	1.75	133	15	BG06-../D07LA4	7.01	130	580	-	-	287	130
210	1.05	149	16.8	BG05-../D07LA4	7.80	119	530	-	-	220	100
199	1.0	157	17.7	BG05-../D07LA4	8.15	115	510	-	-	220	100
194	1.55	161	18.2	BG06-../D07LA4	8.39	135	600	-	-	287	130
191	1.05	164	18.5	BG05-../D07LA4	8.51	124	550	-	-	287	130
173	1.5	177	20	BG06-../D07LA4	9.38	144	640	-	-	287	130
159	1.4	195	22	BG06-../D07LA4	10.24	144	640	-	-	287	130
153	0.87	204	23	BG05-../D07LA4	10.59	133	590	-	-	287	130
144	1.3	217	24.5	BG06-../D07LA4	11.28	151	670	-	-	287	130
141	0.84	221	25	BG05-../D07LA4	11.55	135	600	-	-	287	130
135	0.81	230	26	BG05-../D07LA4	12.05	115	510	-	-	287	130
132	1.25	235	26.5	BG06-../D07LA4	12.30	151	670	-	-	287	130
129	0.81	239	27	BG05-../D07LA4	12.60	137	610	-	-	287	130
125	1.2	248	28	BG06-../D07LA4	12.98	135	600	-	-	287	130
110	1.05	283	32	BG06-../D07LA4	14.78	164	730	-	-	287	130
101	1.0	305	34.5	BG06-../D07LA4	16.13	166	740	-	-	287	130
94	1.0	332	37.5	BG06-../D07LA4	17.40	171	760	-	-	287	130
88	3.0	354	40	BG10-../D07LA4	18.51	272	1210	380	1690	287	130
86	0.98	363	41	BG06-../D07LA4	18.98	173	770	-	-	287	130
79	2.7	394	44.5	BG10-../D07LA4	20.51	290	1290	405	1800	287	130
78	0.89	398	45	BG06-../D07LA4	20.82	180	800	-	-	287	130

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

BG-series helical-gear motors

Selection helical-gear motors

0.5 HP (0.37 kW)



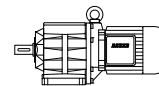
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
74	2.5	420	47.5	BG10-../D07LA4	22.04	299	1330	418	1860	287	130
72	0.88	434	49	BG06-../D07LA4	22.71	182	810	-	-	287	130
67	2.3	460	52	BG10-../D07LA4	24.42	317	1410	443	1970	33	15
64	0.82	487	55	BG06-../D07LA4	25.48	191	850	-	-	287	130
62	2.1	496	56	BG10-../D07LA4	26.26	328	1460	450	2000	33	15
60	2.6	513	58	BG15-../D07LA4	27.08	674	3000	1349	6000	33	15
56	1.9	558	63	BG10-../D07LA4	29.09	346	1540	483	2150	33	15
54	2.3	575	65	BG15-../D07LA4	30.08	674	3000	1349	6000	33	15
53	3.0	584	66	BG20-../D07LA4	30.94	899	4000	-	-	33	15
52	1.8	593	67	BG10-../D07LA4	31.52	360	1600	495	2200	33	15
49	2.8	637	72	BG20-../D07LA4	33.33	922	4100	-	-	33	15
47.5	2.0	655	74	BG15-../D07LA4	34.20	674	3000	1349	6000	33	15
46.5	1.6	664	75	BG10-../D07LA4	34.92	380	1690	528	2350	33	15
44	2.5	708	80	BG20-../D07LA4	37.02	967	4300	-	-	33	15
43	1.85	726	82	BG15-../D07LA4	37.90	674	3000	1349	6000	33	15
41	1.4	761	86	BG10-../D07LA4	39.70	400	1780	551	2450	33	15
39	2.2	797	90	BG20-../D07LA4	41.76	1012	4500	-	-	33	15
38.5	3.3	805	91	BG30-../D07LA4	42.46	1326	5900	-	-	42	19
37	1.25	841	95	BG10-../D07LA4	43.99	423	1880	585	2600	33	15
35	1.2	885	100	BG10-../D07LA4	46.55	432	1920	596	2650	33	15
35	2.0	885	100	BG20-../D07LA4	46.38	1057	4700	-	-	33	15
34.5	2.9	903	102	BG30-../D07LA4	47.11	1349	6000	-	-	42	19
34	1.95	912	103	BG20-../D07LA4	47.92	1068	4750	-	-	33	15
31.5	1.05	991	112	BG10-../D07LA4	51.57	450	2000	629	2800	33	15
31	2.7	1000	113	BG30-../D07LA4	52.44	1349	6000	-	-	42	19
30.5	1.75	1018	115	BG20-../D07LA4	53.22	1113	4950	-	-	33	15
28.5	0.98	1089	123	BG10-../D07LA4	57.48	450	2000	629	2800	33	15
28	2.4	1115	126	BG30-../D07LA4	58.18	1349	6000	-	-	42	19
27.5	1.55	1133	128	BG20-../D07LA4	59.07	1124	5000	-	-	33	15
27	2.3	1151	130	BG30-../D07LA4	60.79	1349	6000	-	-	42	19
25.5	0.87	1221	138	BG10-../D07LA4	63.69	450	2000	629	2800	33	15
25	0.85	1248	141	BG10-../D07LA4	66.00	450	2000	629	2800	33	15
25	1.4	1248	141	BG20-../D07LA4	65.62	1124	5000	-	-	33	15
24.5	2.1	1275	144	BG30-../D07LA4	67.44	1349	6000	-	-	42	19
24	1.35	1301	147	BG20Z-../D07LA4	67.53	1124	5000	-	-	33	15
24	2.9	1301	147	BG40Z-../D07LA4	67.74	1574	7000	-	-	42	19
22.5	1.9	1390	157	BG30Z-../D07LA4	73.51	1349	6000	-	-	42	19
22	1.25	1416	160	BG20Z-../D07LA4	75.00	1124	5000	-	-	33	15
22	2.7	1416	160	BG40Z-../D07LA4	75.19	1574	7000	-	-	55	25
21	1.2	1487	168	BG20Z-../D07LA4	78.60	1124	5000	-	-	33	15
20	1.7	1558	176	BG30Z-../D07LA4	81.55	1349	6000	-	-	42	19
20	2.4	1558	176	BG40Z-../D07LA4	82.00	1574	7000	-	-	55	25
19	1.1	1637	185	BG20Z-../D07LA4	87.30	1124	5000	-	-	33	15
19	1.6	1637	185	BG30Z-../D07LA4	86.13	1349	6000	-	-	42	19
18	2.2	1735	196	BG40Z-../D07LA4	91.02	1574	7000	-	-	55	25
17.5	1.0	1770	200	BG20Z-../D07LA4	94.27	1124	5000	-	-	42	19
17	1.45	1814	205	BG30Z-../D07LA4	95.55	1349	6000	-	-	42	19
17	2.1	1814	205	BG40Z-../D07LA4	96.86	1574	7000	-	-	55	25
17	3.1	1814	205	BG50Z-../D07LA4	95.58	2248	10000	-	-	88	40
15.5	0.89	1991	225	BG20Z-../D07LA4	104.7	1124	5000	-	-	42	19
15.5	1.9	1991	225	BG40Z-../D07LA4	107.5	1574	7000	-	-	55	25
15.5	2.8	1991	225	BG50Z-../D07LA4	106.0	2248	10000	-	-	88	40
15	1.3	2080	235	BG30Z-../D07LA4	109.6	1349	6000	-	-	42	19
14.5	0.83	2124	240	BG20Z-../D07LA4	112.8	1124	5000	-	-	42	19
13.5	1.65	2301	260	BG40Z-../D07LA4	121.3	1574	7000	-	-	55	25
13	1.1	2390	270	BG30Z-../D07LA4	128.5	1349	6000	-	-	42	19
13	2.3	2390	270	BG50Z-../D07LA4	128.9	2248	10000	-	-	88	40
12.5	1.5	2478	280	BG40Z-../D07LA4	134.6	1574	7000	-	-	55	25
11.5	0.98	2699	305	BG30Z-../D07LA4	142.5	1349	6000	-	-	42	19
11.5	1.4	2699	305	BG40Z-../D07LA4	141.4	1574	7000	-	-	55	25
11.5	2.1	2699	305	BG50Z-../D07LA4	142.9	2248	10000	-	-	88	40
11	0.94	2832	320	BG30Z-../D07LA4	151.5	1349	6000	-	-	42	19

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

BG-series helical-geared motors

Selection helical-geared motors

0.5 HP (0.37 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
10.5	1.25	2965	335	BG40Z-../D07LA4	156.9	1574	7000	-	-	55	25
9.9	1.75	3142	355	BG50Z-../D07LA4	164.9	2248	10000	-	-	88	40
9.8	1.2	3186	360	BG40Z-../D07LA4	166.1	1574	7000	-	-	55	25
9.7	0.83	3186	360	BG30Z-../D07LA4	168.1	1349	6000	-	-	42	19
8.9	1.6	3496	395	BG50Z-../D07LA4	182.8	2248	10000	-	-	88	40
8.8	1.05	3540	400	BG40Z-../D07LA4	184.4	1574	7000	-	-	55	25
8.2	0.99	3806	430	BG40Z-../D07LA4	199.9	1574	7000	-	-	55	25
8.0	1.45	3894	440	BG50Z-../D07LA4	204.7	2248	10000	-	-	88	40
7.4	0.89	4204	475	BG40Z-../D07LA4	221.9	1574	7000	-	-	88	40
7.2	1.3	4337	490	BG50Z-../D07LA4	226.9	2248	10000	-	-	88	40
6.6	0.8	4691	530	BG40Z-../D07LA4	246.5	1574	7000	-	-	88	40
6.3	1.15	4956	560	BG50Z-../D07LA4	258.6	2248	10000	-	-	88	40
5.9	2.7	4248	480	BG60G20-../D07LA4	276.2	3597	16000	-	-	88	40
5.7	0.89	4602	520	BG40G10-../D07LA4	288.6	1574	7000	-	-	88	40
5.7	1.05	5399	610	BG50Z-../D07LA4	286.7	2248	10000	-	-	88	40
5.3	2.5	4691	530	BG60G20-../D07LA4	306.1	3597	16000	-	-	88	40
4.9	2.2	5133	580	BG60G20-../D07LA4	334.3	3597	16000	-	-	88	40
4.7	1.05	5753	650	BG50G10-../D07LA4	351.7	2248	10000	-	-	88	40
4.4	2.0	5664	640	BG60G20-../D07LA4	370.5	3597	16000	-	-	88	40
3.9	3.2	6904	780	BG70G20-../D07LA4	417.8	4496	20000	-	-	88	40
3.8	1.7	6727	760	BG60G20-../D07LA4	437.3	3597	16000	-	-	88	40
3.7	0.82	7435	840	BG50G10-../D07LA4	446.5	2248	10000	-	-	88	40
3.3	1.4	8143	920	BG60G20-../D07LA4	504.9	3597	16000	-	-	88	40
3.3	2.7	8143	920	BG70G20-../D07LA4	495.9	4496	20000	-	-	88	40
2.9	1.25	9293	1050	BG60G20-../D07LA4	559.5	3597	16000	-	-	88	40
2.9	2.3	9470	1070	BG70G20-../D07LA4	577.3	4496	20000	-	-	88	40
2.5	1.05	10975	1240	BG60G20-../D07LA4	651.3	3597	16000	-	-	88	40
2.5	2.0	10975	1240	BG70G20-../D07LA4	665.8	4496	20000	-	-	110	50
2.1	0.88	13011	1470	BG60G20-../D07LA4	804.5	3597	16000	-	-	88	40
2.1	1.7	13099	1480	BG70G20-../D07LA4	790.2	4496	20000	-	-	110	50
1.9	0.8	14427	1630	BG60G20-../D07LA4	891.5	3597	16000	-	-	88	40
1.9	1.5	14604	1650	BG70G20-../D07LA4	877.6	4496	20000	-	-	110	50
1.6	1.25	17524	1980	BG70G20-../D07LA4	1035	4496	20000	-	-	110	50
1.4	1.1	19914	2250	BG70G20-../D07LA4	1193	4496	20000	-	-	110	50
1.2	0.93	23897	2700	BG70G20-../D07LA4	1389	4496	20000	-	-	291	132
1.1	0.85	26110	2950	BG70G20-../D07LA4	1543	4496	20000	-	-	291	132

6

0.75 HP (0.55 kW)

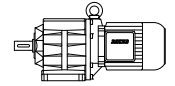
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
600	2.1	77	8.7	BG06-../D08MA4	2.82	106	470	-	-	291	132
445	1.7	104	11.8	BG06-../D08MA4	3.78	117	520	-	-	291	132
375	1.55	124	14	BG06-../D08MA4	4.54	119	530	-	-	291	132
285	1.3	163	18.4	BG06-../D08MA4	5.96	128	570	-	-	291	132
240	1.2	190	21.5	BG06-../D08MA4	7.01	130	580	-	-	291	132
205	1.1	226	25.5	BG06-../D08MA4	8.39	135	600	-	-	291	132
181	3.3	257	29	BG10-../D08MA4	9.33	214	950	299	1330	291	132
180	1.05	257	29	BG06-../D08MA4	9.38	144	640	-	-	291	132
165	0.98	279	31.5	BG06-../D08MA4	10.24	144	640	-	-	291	132
163	3.1	283	32	BG10-../D08MA4	10.34	225	1000	315	1400	291	132
149	0.91	310	35	BG06-../D08MA4	11.28	151	670	-	-	291	132
141	2.8	327	37	BG10-../D08MA4	11.92	232	1030	324	1440	35	16
137	0.87	336	38	BG06-../D08MA4	12.30	151	670	-	-	291	132
130	0.83	354	40	BG06-../D08MA4	12.98	135	600	-	-	291	132
128	2.7	363	41	BG10-../D08MA4	13.21	241	1070	335	1490	35	16
116	2.5	398	45	BG10-../D08MA4	14.58	247	1100	346	1540	35	16
105	2.3	443	50	BG10-../D08MA4	16.15	256	1140	357	1590	35	16

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

BG-series helical-geared motors

Selection helical-geared motors

0.75 HP (0.55 kW)



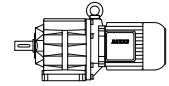
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
91	2.1	504	57	BG10-../D08MA4	18.51	272	1210	380	1690	35	16
85	3.2	540	61	BG20-../D08MA4	19.95	753	3350	-	-	35	16
82	1.9	566	64	BG10-../D08MA4	20.51	290	1290	405	1800	35	16
77	1.75	602	68	BG10-../D08MA4	22.04	299	1330	418	1860	35	16
76	2.9	611	69	BG20-../D08MA4	22.16	787	3500	-	-	35	16
73	2.8	628	71	BG20-../D08MA4	23.22	798	3550	-	-	35	16
69	1.6	673	76	BG10-../D08MA4	24.42	317	1410	443	1970	35	16
66	2.5	699	79	BG20-../D08MA4	25.79	832	3700	-	-	35	16
64	1.45	726	82	BG10-../D08MA4	26.26	328	1460	450	2000	35	16
63	1.8	735	83	BG15-../D08MA4	27.08	674	3000	1349	6000	35	16
61	2.3	761	86	BG20-../D08MA4	27.85	854	3800	-	-	35	16
58	1.35	797	90	BG10-../D08MA4	29.09	346	1540	483	2150	35	16
57	3.3	814	92	BG30-../D08MA4	29.83	1169	5200	-	-	42	19
56	1.6	823	93	BG15-../D08MA4	30.08	674	3000	1349	6000	35	16
55	2.1	841	95	BG20-../D08MA4	30.94	899	4000	-	-	35	16
54	1.25	859	97	BG10-../D08MA4	31.52	360	1600	495	2200	35	16
51	1.95	903	102	BG20-../D08MA4	33.33	922	4100	-	-	35	16
51	2.9	903	102	BG30-../D08MA4	33.09	1214	5400	-	-	42	19
49.5	1.4	938	106	BG15-../D08MA4	34.20	674	3000	1349	6000	35	16
48.5	1.1	956	108	BG10-../D08MA4	34.92	380	1690	528	2350	35	16
48	2.8	965	109	BG30-../D08MA4	35.17	1236	5500	-	-	42	19
45.5	1.75	1018	115	BG20-../D08MA4	37.02	967	4300	-	-	35	16
44.5	1.25	1044	118	BG15-../D08MA4	37.90	674	3000	1349	6000	35	16
43.5	2.5	1062	120	BG30-../D08MA4	39.02	1304	5800	-	-	42	19
42.5	0.98	1089	123	BG10-../D08MA4	39.70	400	1780	551	2450	35	16
40.5	1.55	1142	129	BG20-../D08MA4	41.76	1012	4500	-	-	35	16
40	2.3	1159	131	BG30-../D08MA4	42.46	1326	5900	-	-	42	19
38.5	0.88	1204	136	BG10-../D08MA4	43.99	423	1880	585	2600	35	16
38	3.1	1221	138	BG40-../D08MA4	44.62	1574	7000	-	-	57	26
36.5	0.84	1266	143	BG10-../D08MA4	46.55	432	1920	596	2650	35	16
36.5	1.4	1266	143	BG20-../D08MA4	46.38	1057	4700	-	-	35	16
36	2.1	1283	145	BG30-../D08MA4	47.11	1349	6000	-	-	42	19
35.5	1.35	1301	147	BG20-../D08MA4	47.92	1068	4750	-	-	35	16
35	2.8	1328	150	BG40-../D08MA4	48.36	1574	7000	-	-	57	26
32.5	1.85	1425	161	BG30-../D08MA4	52.44	1349	6000	-	-	42	19
32	1.2	1452	164	BG20-../D08MA4	53.22	1113	4950	-	-	35	16
31.5	2.6	1469	166	BG40-../D08MA4	53.69	1574	7000	-	-	57	26
29	1.65	1602	181	BG30-../D08MA4	58.18	1349	6000	-	-	42	19
28.5	1.1	1629	184	BG20-../D08MA4	59.07	1124	5000	-	-	35	16
28.5	2.3	1629	184	BG40-../D08MA4	59.64	1574	7000	-	-	57	26
28	1.6	1655	187	BG30-../D08MA4	60.79	1349	6000	-	-	42	19
26	1.0	1770	200	BG20-../D08MA4	65.62	1124	5000	-	-	42	19
26	3.2	1770	200	BG50-../D08MA4	65.86	2248	10000	-	-	93	42
25.5	2.1	1814	205	BG40-../D08MA4	66.20	1574	7000	-	-	57	26
25	0.95	1859	210	BG20Z-../D08MA4	67.53	1124	5000	-	-	42	19
25	1.45	1859	210	BG30-../D08MA4	67.44	1349	6000	-	-	42	19
25	2.0	1859	210	BG40Z-../D08MA4	67.74	1574	7000	-	-	57	26
23.5	2.9	1947	220	BG50Z-../D08MA4	71.97	2248	10000	-	-	93	42
23	1.35	1991	225	BG30Z-../D08MA4	73.51	1349	6000	-	-	42	19
22.5	0.87	2036	230	BG20Z-../D08MA4	75.00	1124	5000	-	-	42	19
22.5	1.85	2036	230	BG40Z-../D08MA4	75.19	1574	7000	-	-	57	26
21.5	0.83	2124	240	BG20Z-../D08MA4	78.60	1124	5000	-	-	42	19
21.5	2.6	2124	240	BG50Z-../D08MA4	79.78	2248	10000	-	-	93	42
21	1.2	2213	250	BG30Z-../D08MA4	81.55	1349	6000	-	-	42	19
20.5	1.65	2257	255	BG40Z-../D08MA4	82.00	1574	7000	-	-	57	26
20	1.15	2301	260	BG30Z-../D08MA4	86.13	1349	6000	-	-	42	19
18.5	1.5	2478	280	BG40Z-../D08MA4	91.02	1574	7000	-	-	57	26
18	1.05	2567	290	BG30Z-../D08MA4	95.55	1349	6000	-	-	42	19
18	2.2	2567	290	BG50Z-../D08MA4	95.58	2248	10000	-	-	93	42
17.5	1.4	2655	300	BG40Z-../D08MA4	96.86	1574	7000	-	-	57	26
16	1.3	2876	325	BG40Z-../D08MA4	107.5	1574	7000	-	-	57	26
16	1.95	2876	325	BG50Z-../D08MA4	106.0	2248	10000	-	-	93	42

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

BG-series helical-geared motors

Selection helical-geared motors

0.75 HP (0.55 kW)



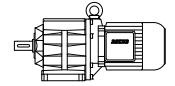
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
15.5	0.9	2965	335	BG30Z-../D08MA4	109.6	1349	6000	-	-	42	19
14.5	3.3	3186	360	BG60Z-../D08MA4	119.2	3597	16000	-	-	121	55
14	0.8	3319	375	BG30Z-../D08MA4	121.6	1349	6000	-	-	57	26
14	1.15	3319	375	BG40Z-../D08MA4	121.3	1574	7000	-	-	57	26
13.5	1.65	3408	385	BG50Z-../D08MA4	128.9	2248	10000	-	-	93	42
13	3.0	3540	400	BG60Z-../D08MA4	132.1	3597	16000	-	-	121	55
12.5	1.0	3717	420	BG40Z-../D08MA4	134.6	1574	7000	-	-	57	26
12	0.98	3850	435	BG40Z-../D08MA4	141.4	1574	7000	-	-	57	26
12	1.45	3850	435	BG50Z-../D08MA4	142.9	2248	10000	-	-	93	42
11	0.89	4204	475	BG40Z-../D08MA4	156.9	1574	7000	-	-	57	26
11	2.5	4204	475	BG60Z-../D08MA4	158.0	3597	16000	-	-	121	55
10.5	0.85	4425	500	BG40Z-../D08MA4	166.1	1574	7000	-	-	93	42
10.5	1.25	4425	500	BG50Z-../D08MA4	164.9	2248	10000	-	-	93	42
9.6	2.2	4779	540	BG60Z-../D08MA4	175.1	3597	16000	-	-	121	55
9.2	1.1	5045	570	BG50Z-../D08MA4	182.8	2248	10000	-	-	93	42
8.3	1.0	5576	630	BG50Z-../D08MA4	204.7	2248	10000	-	-	93	42
8.3	1.9	5576	630	BG60Z-../D08MA4	204.6	3597	16000	-	-	121	55
7.5	0.9	6196	700	BG50Z-../D08MA4	226.9	2248	10000	-	-	93	42
7.5	1.7	6196	700	BG60Z-../D08MA4	226.7	3597	16000	-	-	121	55
6.8	1.55	6815	770	BG60Z-../D08MA4	247.7	3597	16000	-	-	121	55
6.8	3.0	6815	770	BG70Z-../D08MA4	249.8	4496	20000	-	-	227	103
6.2	1.45	7435	840	BG60Z-../D08MA4	274.5	3597	16000	-	-	212	96
6.1	1.75	6550	740	BG60G20-../D08MA4	276.2	3597	16000	-	-	212	96
5.9	0.86	7081	800	BG50G10-../D08MA4	287.1	2248	10000	-	-	121	55
5.5	1.6	7258	820	BG60G20-../D08MA4	306.1	3597	16000	-	-	212	96
5.2	2.9	7700	870	BG70G20-../D08MA4	328.4	4496	20000	-	-	227	103
5.1	1.5	7789	880	BG60G20-../D08MA4	334.3	3597	16000	-	-	212	96
4.6	1.35	8674	980	BG60G20-../D08MA4	370.5	3597	16000	-	-	212	96
4.4	2.4	9205	1040	BG70G20-../D08MA4	387.6	4496	20000	-	-	227	103
4.1	2.2	10178	1150	BG70G20-../D08MA4	417.8	4496	20000	-	-	227	103
3.9	1.1	10444	1180	BG60G20-../D08MA4	437.3	3597	16000	-	-	227	103
3.4	0.94	12303	1390	BG60G20-../D08MA4	504.9	3597	16000	-	-	227	103
3.4	1.8	12303	1390	BG70G20-../D08MA4	495.9	4496	20000	-	-	227	103
3.1	0.86	13453	1520	BG60G20-../D08MA4	559.5	3597	16000	-	-	227	103
3.0	1.55	14161	1600	BG70G20-../D08MA4	577.3	4496	20000	-	-	227	103
2.6	1.35	16374	1850	BG70G20-../D08MA4	665.8	4496	20000	-	-	227	103
2.6	3.0	13630	1540	BG80G40-../D08MA4	657.8	5845	26000	-	-	293	133
2.4	2.7	14958	1690	BG80G40-../D08MA4	730.3	5845	26000	-	-	293	133
2.2	1.15	19029	2150	BG70G20-../D08MA4	790.2	4496	20000	-	-	227	103
2.1	2.3	17436	1970	BG80G40-../D08MA4	817.4	5845	26000	-	-	293	133
2.0	1.05	21242	2400	BG70G20-../D08MA4	877.6	4496	20000	-	-	227	103
1.9	2.1	19472	2200	BG80G40-../D08MA4	907.6	5845	26000	-	-	293	133
1.7	0.88	25225	2850	BG70G20-../D08MA4	1035	4496	20000	-	-	293	133
1.7	1.85	22127	2500	BG80G40-../D08MA4	1042	5845	26000	-	-	293	133
1.5	3.3	24782	2800	BG90G50-../D08MA4	1174	14613	65000	-	-	293	133
1.4	1.45	28322	3200	BG80G40-../D08MA4	1261	5845	26000	-	-	293	133
1.3	2.7	29650	3350	BG90G50-../D08MA4	1301	14613	65000	-	-	293	133
1.2	1.2	33633	3800	BG80G40-../D08MA4	1400	5845	26000	-	-	293	133
1.1	1.1	37173	4200	BG80G40-../D08MA4	1653	5845	26000	-	-	293	133
1.1	2.2	36288	4100	BG90G50-../D08MA4	1583	14613	65000	-	-	293	133
1.0	2.0	40271	4550	BG90G50-../D08MA4	1756	14613	65000	-	-	474	215
0.85	1.65	48679	5500	BG90G50-../D08MA4	2026	14613	65000	-	-	474	215
0.7	1.35	60185	6800	BG90G50-../D08MA4	2514	14613	65000	-	-	474	215
0.65	1.25	65496	7400	BG90G50-../D08MA4	2786	14613	65000	-	-	474	215
0.65	3.2	50449	5700	BG100G50-../D08MA4	2656	20233	90000	-	-	474	215
0.6	2.8	57530	6500	BG100G50-../D08MA4	2952	20233	90000	-	-	474	215
0.55	1.05	77887	8800	BG90G50-../D08MA4	3177	14613	65000	-	-	474	215
0.55	2.6	61955	7000	BG100G50-../D08MA4	3286	20233	90000	-	-	474	215
0.47	2.2	76116	8600	BG100G50-../D08MA4	3644	20233	90000	-	-	1129	512
0.39	1.7	96473	10900	BG100G50-../D08MA4	4366	20233	90000	-	-	1129	512
0.35	1.5	110634	12500	BG100G50-../D08MA4	4839	20233	90000	-	-	1129	512
0.29	1.2	138072	15600	BG100G50-../D08MA4	5888	20233	90000	-	-	1129	512

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

BG-series helical-geared motors

Selection helical-geared motors

0.75 HP (0.55 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
0.26	1.05	155773	17600	BG100G50-../D08MA4	6529	20233	90000	-	-	1129	512

1 HP (0.75 kW)

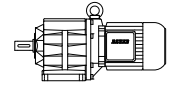
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
620	1.55	102	11.5	BG06-../DPE08XB4	2.82	106	470	-	-	1129	512
465	1.3	136	15.4	BG06-../DPE08XB4	3.78	117	520	-	-	0	0
385	1.2	165	18.6	BG06-../DPE08XB4	4.54	119	530	-	-	0	0
295	1.0	212	24	BG06-../DPE08XB4	5.96	128	570	-	-	0	0
255	3.1	248	28	BG10-../DPE08XB4	6.89	191	850	270	1200	0	0
250	0.91	252	28.5	BG06-../DPE08XB4	7.01	130	580	-	-	0	0
230	0.9	274	31	BG06-../DPE08XB4	7.65	130	580	-	-	0	0
230	2.9	274	31	BG10-../DPE08XB4	7.63	202	900	281	1250	0	0
220	2.7	288	32.5	BG10-../DPE08XB4	8.07	148	660	207	920	0	0
210	0.82	301	34	BG06-../DPE08XB4	8.39	135	600	-	-	0	0
187	2.6	336	38	BG10-../DPE08XB4	9.33	214	950	299	1330	0	0
181	3.1	350	39.5	BG20-../DPE08XB4	9.65	506	2250	-	-	42	19
169	2.4	372	42	BG10-../DPE08XB4	10.34	225	1000	315	1400	0	0
149	3.3	425	48	BG20-../DPE08XB4	11.71	629	2800	-	-	42	19
146	2.1	434	49	BG10-../DPE08XB4	11.92	232	1030	324	1440	42	19
132	2.0	478	54	BG10-../DPE08XB4	13.21	241	1070	335	1490	42	19
132	3.1	478	54	BG20-../DPE08XB4	13.21	652	2900	-	-	42	19
120	1.95	522	59	BG10-../DPE08XB4	14.58	247	1100	346	1540	42	19
119	2.9	531	60	BG20-../DPE08XB4	14.67	686	3050	-	-	42	19
112	2.8	558	63	BG20-../DPE08XB4	15.58	697	3100	-	-	42	19
108	1.75	584	66	BG10-../DPE08XB4	16.15	256	1140	357	1590	42	19
101	2.6	620	70	BG20-../DPE08XB4	17.31	719	3200	-	-	42	19
95	1.6	664	75	BG10-../DPE08XB4	18.51	272	1210	380	1690	42	19
88	2.4	717	81	BG20-../DPE08XB4	19.95	753	3350	-	-	42	19
85	1.45	743	84	BG10-../DPE08XB4	20.51	290	1290	405	1800	42	19
79	1.35	797	90	BG10-../DPE08XB4	22.04	299	1330	418	1860	42	19
79	2.2	797	90	BG20-../DPE08XB4	22.16	787	3500	-	-	42	19
79	3.3	797	90	BG30-../DPE08XB4	22.18	1034	4600	-	-	66	30
75	2.1	841	95	BG20-../DPE08XB4	23.22	798	3550	-	-	42	19
72	1.2	876	99	BG10-../DPE08XB4	24.42	317	1410	443	1970	42	19
69	2.9	912	103	BG30-../DPE08XB4	25.45	1090	4850	-	-	66	30
68	1.9	929	105	BG20-../DPE08XB4	25.79	832	3700	-	-	42	19
67	1.15	938	106	BG10-../DPE08XB4	26.26	328	1460	450	2000	42	19
65	1.35	974	110	BG15-../DPE08XB4	27.08	674	3000	1349	6000	62	28
63	1.75	1000	113	BG20-../DPE08XB4	27.85	854	3800	-	-	42	19
62	2.6	1018	115	BG30-../DPE08XB4	28.24	1147	5100	-	-	66	30
60	1.0	1053	119	BG10-../DPE08XB4	29.09	346	1540	483	2150	42	19
59	2.5	1071	121	BG30-../DPE08XB4	29.83	1169	5200	-	-	66	30
58	1.2	1089	123	BG15-../DPE08XB4	30.08	674	3000	1349	6000	62	28
57	1.6	1106	125	BG20-../DPE08XB4	30.94	899	4000	-	-	42	19
56	0.94	1124	127	BG10-../DPE08XB4	31.52	360	1600	495	2200	42	19
54	3.2	1168	132	BG40-../DPE08XB4	32.57	1574	7000	-	-	75	34
53	1.5	1195	135	BG20-../DPE08XB4	33.33	922	4100	-	-	42	19
53	2.2	1195	135	BG30-../DPE08XB4	33.09	1214	5400	-	-	66	30
51	1.05	1239	140	BG15-../DPE08XB4	34.20	674	3000	1349	6000	62	28
51	3.0	1239	140	BG40-../DPE08XB4	34.20	1574	7000	-	-	75	34
50	0.84	1266	143	BG10-../DPE08XB4	34.92	380	1690	528	2350	42	19
49.5	2.1	1275	144	BG30-../DPE08XB4	35.17	1236	5500	-	-	66	30
47.5	1.35	1328	150	BG20-../DPE08XB4	37.02	967	4300	-	-	42	19
46	0.97	1372	155	BG15-../DPE08XB4	37.90	674	3000	1349	6000	62	28
46	2.7	1372	155	BG40-../DPE08XB4	37.96	1574	7000	-	-	75	34
45	1.9	1407	159	BG30-../DPE08XB4	39.02	1304	5800	-	-	66	30

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

BG-series helical-geared motors

Selection helical-geared motors

1 HP (0.75 kW)



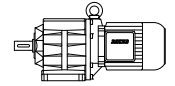
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
43.5	2.6	1452	164	BG40-../DPE08XB4	40.19	1574	7000	-	-	75	34
42	1.2	1505	170	BG20-../DPE08XB4	41.76	1012	4500	-	-	42	19
41	1.7	1540	174	BG30-../DPE08XB4	42.46	1326	5900	-	-	66	30
39	2.3	1620	183	BG40-../DPE08XB4	44.62	1574	7000	-	-	75	34
38	1.05	1664	188	BG20-../DPE08XB4	46.38	1057	4700	-	-	42	19
37.5	3.3	1690	191	BG50-../DPE08XB4	47.02	2248	10000	-	-	110	50
37	1.55	1708	193	BG30-../DPE08XB4	47.11	1349	6000	-	-	66	30
36.5	1.0	1735	196	BG20-../DPE08XB4	47.92	1068	4750	-	-	42	19
36	2.1	1752	198	BG40-../DPE08XB4	48.36	1574	7000	-	-	75	34
33.5	1.45	1859	210	BG30-../DPE08XB4	52.44	1349	6000	-	-	57	26
33.5	3.0	1859	210	BG50-../DPE08XB4	52.12	2248	10000	-	-	110	50
33	0.93	1903	215	BG20-../DPE08XB4	53.22	1113	4950	-	-	42	19
32.5	1.95	1947	220	BG40-../DPE08XB4	53.69	1574	7000	-	-	90	41
30	1.3	2080	235	BG30-../DPE08XB4	58.18	1349	6000	-	-	57	26
29.5	0.83	2124	240	BG20-../DPE08XB4	59.07	1124	5000	-	-	42	19
29.5	1.75	2124	240	BG40-../DPE08XB4	59.64	1574	7000	-	-	90	41
29.5	2.6	2124	240	BG50-../DPE08XB4	59.42	2248	10000	-	-	110	50
29	1.2	2168	245	BG30-../DPE08XB4	60.79	1349	6000	-	-	57	26
26.5	1.55	2390	270	BG40-../DPE08XB4	66.20	1574	7000	-	-	90	41
26.5	2.3	2390	270	BG50-../DPE08XB4	65.86	2248	10000	-	-	110	50
26	1.1	2434	275	BG30-../DPE08XB4	67.44	1349	6000	-	-	57	26
26	1.55	2434	275	BG40Z-../DPE08XB4	67.74	1574	7000	-	-	90	41
24.5	2.2	2567	290	BG50Z-../DPE08XB4	71.97	2248	10000	-	-	110	50
24	1.0	2611	295	BG30Z-../DPE08XB4	73.51	1349	6000	-	-	57	26
23.5	1.4	2655	300	BG40Z-../DPE08XB4	75.19	1574	7000	-	-	90	41
22	1.95	2876	325	BG50Z-../DPE08XB4	79.78	2248	10000	-	-	110	50
21.5	0.91	2921	330	BG30Z-../DPE08XB4	81.55	1349	6000	-	-	57	26
21.5	1.3	2921	330	BG40Z-../DPE08XB4	82.00	1574	7000	-	-	90	41
20.5	0.87	3054	345	BG30Z-../DPE08XB4	86.13	1349	6000	-	-	57	26
19.5	1.15	3231	365	BG40Z-../DPE08XB4	91.02	1574	7000	-	-	90	41
19.5	3.3	3231	365	BG60Z-../DPE08XB4	91.09	3597	16000	-	-	128	58
18.5	1.65	3408	385	BG50Z-../DPE08XB4	95.58	2248	10000	-	-	110	50
18	1.1	3496	395	BG40Z-../DPE08XB4	96.86	1574	7000	-	-	90	41
17.5	3.0	3585	405	BG60Z-../DPE08XB4	101.0	3597	16000	-	-	128	58
16.5	0.99	3806	430	BG40Z-../DPE08XB4	107.5	1574	7000	-	-	90	41
16.5	1.45	3806	430	BG50Z-../DPE08XB4	106.0	2248	10000	-	-	110	50
15	2.5	4204	475	BG60Z-../DPE08XB4	119.2	3597	16000	-	-	128	58
14.5	0.87	4337	490	BG40Z-../DPE08XB4	121.3	1574	7000	-	-	90	41
13.5	1.2	4691	530	BG50Z-../DPE08XB4	128.9	2248	10000	-	-	110	50
13.5	2.3	4691	530	BG60Z-../DPE08XB4	132.1	3597	16000	-	-	128	58
12.5	1.1	5045	570	BG50Z-../DPE08XB4	142.9	2248	10000	-	-	110	50
12	1.0	1151*	130*	BG10G06-../DPE08XB4	150.1	450	2000	629	2800	42	19
11.5	1.95	5487	620	BG60Z-../DPE08XB4	158.0	3597	16000	-	-	128	58
11	0.97	5753	650	BG50Z-../DPE08XB4	164.9	2248	10000	-	-	110	50
10.5	1.0	1151*	130*	BG10G06-../DPE08XB4	166.3	450	2000	629	2800	42	19
10	1.7	6284	710	BG60Z-../DPE08XB4	175.1	3597	16000	-	-	128	58
9.6	0.85	6550	740	BG50Z-../DPE08XB4	182.8	2248	10000	-	-	119	54
9.0	1.0	1151*	130*	BG10G06-../DPE08XB4	194.9	450	2000	629	2800	42	19
9.0	2.9	6992	790	BG70Z-../DPE08XB4	194.4	4496	20000	-	-	234	106
8.6	1.45	7346	830	BG60Z-../DPE08XB4	204.6	3597	16000	-	-	128	58
8.3	2.7	7612	860	BG70Z-../DPE08XB4	210.5	4496	20000	-	-	234	106
7.7	1.3	8231	930	BG60Z-../DPE08XB4	226.7	3597	16000	-	-	128	58
7.3	1.0	1151*	130*	BG10G06-../DPE08XB4	240.7	450	2000	629	2800	42	19
7.1	1.0	1947*	220*	BG20G06-../DPE08XB4	248.0	1124	5000	472	2100	42	19
7.1	1.2	8851	1000	BG60Z-../DPE08XB4	247.7	3597	16000	-	-	218	99
7.0	2.3	9028	1020	BG70Z-../DPE08XB4	249.8	4496	20000	-	-	234	106
6.9	1.0	2876*	325*	BG30G06-../DPE08XB4	254.9	1349	6000	-	-	57	26
6.9	2.7	8231	930	BG70G20-../DPE08XB4	255.5	4496	20000	-	-	234	106
6.4	1.1	9824	1110	BG60Z-../DPE08XB4	274.5	3597	16000	-	-	218	99
6.3	1.0	1151*	130*	BG10G06-../DPE08XB4	276.4	450	2000	629	2800	42	19
6.3	1.25	9028	1020	BG60G20-../DPE08XB4	276.2	3597	16000	-	-	218	99
6.3	2.5	9028	1020	BG70G20-../DPE08XB4	276.7	4496	20000	-	-	234	106

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

BG-series helical-gear motors

Selection helical-gear motors

1 HP (0.75 kW)



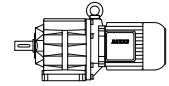
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
6.1	1.0	4116*	465*	BG40G10-../DPE08XB4	288.6	1574	7000	-	-	90	41
6.1	1.0	6107*	690*	BG50G10-../DPE08XB4	287.1	2248	10000	-	-	119	54
5.9	1.0	1947*	220*	BG20G06-../DPE08XB4	297.9	1124	5000	472	2100	42	19
5.7	1.0	2876*	325*	BG30G06-../DPE08XB4	306.2	1349	6000	-	-	57	26
5.7	1.15	9913	1120	BG60G20-../DPE08XB4	306.1	3597	16000	-	-	218	99
5.3	1.0	1151*	130*	BG10G06-../DPE08XB4	332.0	450	2000	629	2800	42	19
5.3	1.05	10709	1210	BG60G20-../DPE08XB4	334.3	3597	16000	-	-	218	99
5.3	2.1	10709	1210	BG70G20-../DPE08XB4	328.4	4496	20000	-	-	234	106
5.1	1.0	2876*	325*	BG30G06-../DPE08XB4	346.8	1349	6000	-	-	57	26
5.0	1.0	1947*	220*	BG20G06-../DPE08XB4	352.1	1124	5000	472	2100	42	19
5.0	1.0	4116*	465*	BG40G10-../DPE08XB4	353.5	1574	7000	-	-	90	41
5.0	1.0	6107*	690*	BG50G10-../DPE08XB4	351.7	2248	10000	-	-	119	54
4.7	0.96	12037	1360	BG60G20-../DPE08XB4	370.5	3597	16000	-	-	218	99
4.6	1.0	1151*	130*	BG10G06-../DPE08XB4	379.6	450	2000	629	2800	42	19
4.5	1.0	1947*	220*	BG20G06-../DPE08XB4	391.1	1124	5000	472	2100	66	30
4.5	1.75	12745	1440	BG70G20-../DPE08XB4	387.6	4496	20000	-	-	234	106
4.4	1.0	2876*	325*	BG30G06-../DPE08XB4	401.9	1349	6000	-	-	57	26
4.2	1.6	13984	1580	BG70G20-../DPE08XB4	417.8	4496	20000	-	-	234	106
4.0	1.0	1151*	130*	BG10G06-../DPE08XB4	435.9	450	2000	629	2800	42	19
4.0	0.8	14338	1620	BG60G20-../DPE08XB4	437.3	3597	16000	-	-	218	99
4.0	3.2	12834	1450	BG80G40-../DPE08XB4	436.2	5845	26000	-	-	300	136
3.9	1.0	4116*	465*	BG40G10-../DPE08XB4	448.8	1574	7000	-	-	90	41
3.9	1.0	6107*	690*	BG50G10-../DPE08XB4	446.5	2248	10000	-	-	119	54
3.8	1.0	1947*	220*	BG20G06-../DPE08XB4	460.0	1124	5000	472	2100	66	30
3.7	1.0	2876*	325*	BG30G06-../DPE08XB4	472.8	1349	6000	-	-	57	26
3.6	1.35	16285	1840	BG70G20-../DPE08XB4	495.9	4496	20000	-	-	234	106
3.6	2.9	14250	1610	BG80G40-../DPE08XB4	484.3	5845	26000	-	-	300	136
3.5	1.0	11506*	1300*	BG60G20-../DPE08XB4	504.9	3597	16000	-	-	218	99
3.4	1.0	1151*	130*	BG10G06-../DPE08XB4	512.6	450	2000	629	2800	42	19
3.3	1.0	4116*	465*	BG40G10-../DPE08XB4	534.2	1574	7000	-	-	90	41
3.3	1.0	6107*	690*	BG50G10-../DPE08XB4	531.5	2248	10000	-	-	119	54
3.2	1.0	1947*	220*	BG20G06-../DPE08XB4	550.6	1124	5000	472	2100	66	30
3.2	1.0	11506*	1300*	BG60G20-../DPE08XB4	559.5	3597	16000	-	-	218	99
3.1	1.0	2876*	325*	BG30G06-../DPE08XB4	565.8	1349	6000	-	-	57	26
3.1	1.15	19029	2150	BG70G20-../DPE08XB4	577.3	4496	20000	-	-	234	106
3.1	2.4	17082	1930	BG80G40-../DPE08XB4	572.0	5845	26000	-	-	300	136
2.9	1.0	1151*	130*	BG10G06-../DPE08XB4	613.6	450	2000	629	2800	42	19
2.9	1.0	6107*	690*	BG50G10-../DPE08XB4	621.3	2248	10000	-	-	119	54
2.8	1.0	4116*	465*	BG40G10-../DPE08XB4	640.0	1574	7000	-	-	90	41
2.7	1.0	11506*	1300*	BG60G20-../DPE08XB4	651.3	3597	16000	-	-	218	99
2.7	1.0	21684	2450	BG70G20-../DPE08XB4	665.8	4496	20000	-	-	304	138
2.7	2.1	19029	2150	BG80G40-../DPE08XB4	657.8	5845	26000	-	-	300	136
2.6	1.0	1947*	220*	BG20G06-../DPE08XB4	671.9	1124	5000	472	2100	66	30
2.6	1.0	2876*	325*	BG30G06-../DPE08XB4	690.6	1349	6000	-	-	57	26
2.5	1.0	4116*	465*	BG40G10-../DPE08XB4	710.9	1574	7000	-	-	90	41
2.5	1.0	6107*	690*	BG50G10-../DPE08XB4	708.3	2248	10000	-	-	119	54
2.4	1.0	1151*	130*	BG10G06-../DPE08XB4	748.9	450	2000	629	2800	62	28
2.4	1.9	21684	2450	BG80G40-../DPE08XB4	730.3	5845	26000	-	-	300	136
2.3	1.0	2876*	325*	BG30G06-../DPE08XB4	760.7	1349	6000	-	-	57	26
2.3	1.0	4116*	465*	BG40G10-../DPE08XB4	789.1	1574	7000	-	-	90	41
2.3	1.0	6107*	690*	BG50G10-../DPE08XB4	785.1	2248	10000	-	-	119	54
2.3	0.86	25667	2900	BG70G20-../DPE08XB4	790.2	4496	20000	-	-	304	138
2.2	1.0	1947*	220*	BG20G06-../DPE08XB4	807.1	1124	5000	472	2100	66	30
2.2	1.0	11506*	1300*	BG60G20-../DPE08XB4	804.5	3597	16000	-	-	234	106
2.2	1.7	23897	2700	BG80G40-../DPE08XB4	817.4	5845	26000	-	-	481	218
2.1	1.0	2876*	325*	BG30G06-../DPE08XB4	829.5	1349	6000	-	-	57	26
2.0	1.0	1151*	130*	BG10G06-../DPE08XB4	899.5	450	2000	629	2800	62	28
2.0	1.0	11506*	1300*	BG60G20-../DPE08XB4	891.5	3597	16000	-	-	234	106
2.0	1.0	22127*	2500*	BG70G20-../DPE08XB4	877.6	4496	20000	-	-	304	138
2.0	1.55	26552	3000	BG80G40-../DPE08XB4	907.6	5845	26000	-	-	481	218
2.0	3.2	25667	2900	BG90G50-../DPE08XB4	883.7	14613	65000	-	-	481	218
1.9	1.0	4116*	465*	BG40G10-../DPE08XB4	965.2	1574	7000	-	-	90	41

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

BG-series helical-geared motors

Selection helical-geared motors

1 HP (0.75 kW)



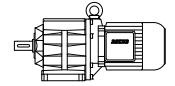
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
1.9	1.0	6107*	690*	BG50G10-../DPE08XB4	960.2	2248	10000	-	-	119	54
1.8	1.0	1947*	220*	BG20G06-../DPE08XB4	969.9	1124	5000	472	2100	66	30
1.8	1.0	2876*	325*	BG30G06-../DPE08XB4	996.8	1349	6000	-	-	75	34
1.7	1.0	1151*	130*	BG10G06-../DPE08XB4	1081	450	2000	629	2800	62	28
1.7	1.0	11506*	1300*	BG60G20-../DPE08XB4	1051	3597	16000	-	-	234	106
1.7	1.0	22127*	2500*	BG70G20-../DPE08XB4	1035	4496	20000	-	-	304	138
1.7	1.25	32305	3650	BG80G40-../DPE08XB4	1042	5845	26000	-	-	481	218
1.6	1.0	1947*	220*	BG20G06-../DPE08XB4	1142	1124	5000	472	2100	66	30
1.6	1.0	2876*	325*	BG30G06-../DPE08XB4	1088	1349	6000	-	-	75	34
1.5	1.0	4116*	465*	BG40G10-../DPE08XB4	1225	1574	7000	-	-	90	41
1.5	1.0	6107*	690*	BG50G10-../DPE08XB4	1219	2248	10000	-	-	119	54
1.5	1.0	11506*	1300*	BG60G20-../DPE08XB4	1168	3597	16000	-	-	234	106
1.5	1.0	22127*	2500*	BG70G20-../DPE08XB4	1193	4496	20000	-	-	304	138
1.5	2.2	36288	4100	BG90G50-../DPE08XB4	1174	14613	65000	-	-	481	218
1.4	1.0	1151*	130*	BG10G06-../DPE08XB4	1272	450	2000	629	2800	62	28
1.4	1.0	2876*	325*	BG30G06-../DPE08XB4	1280	1349	6000	-	-	75	34
1.4	1.0	40271	4550	BG80G40-../DPE08XB4	1261	5845	26000	-	-	481	218
1.4	2.1	38943	4400	BG90G50-../DPE08XB4	1301	14613	65000	-	-	481	218
1.3	1.0	1947*	220*	BG20G06-../DPE08XB4	1366	1124	5000	472	2100	66	30
1.3	1.0	2876*	325*	BG30G06-../DPE08XB4	1404	1349	6000	-	-	75	34
1.3	1.0	11506*	1300*	BG60G20-../DPE08XB4	1346	3597	16000	-	-	234	106
1.3	1.0	22127*	2500*	BG70G20-../DPE08XB4	1389	4496	20000	-	-	304	138
1.3	0.93	43811	4950	BG80G40-../DPE08XB4	1400	5845	26000	-	-	481	218
1.2	1.0	1151*	130*	BG10G06-../DPE08XB4	1523	450	2000	629	2800	62	28
1.2	1.0	4116*	465*	BG40G10-../DPE08XB4	1459	1574	7000	-	-	90	41
1.2	1.0	6107*	690*	BG50G10-../DPE08XB4	1452	2248	10000	-	-	119	54
1.2	1.0	11506*	1300*	BG60G20-../DPE08XB4	1496	3597	16000	-	-	234	106
1.2	1.0	22127*	2500*	BG70G20-../DPE08XB4	1543	4496	20000	-	-	304	138
1.1	1.0	1947*	220*	BG20G06-../DPE08XB4	1672	1124	5000	472	2100	66	30
1.1	1.0	2876*	325*	BG30G06-../DPE08XB4	1718	1349	6000	-	-	75	34
1.1	1.0	4116*	465*	BG40G10-../DPE08XB4	1738	1574	7000	-	-	110	50
1.1	1.0	6107*	690*	BG50G10-../DPE08XB4	1729	2248	10000	-	-	119	54
1.1	1.0	22127*	2500*	BG70G20-../DPE08XB4	1666	4496	20000	-	-	304	138
1.1	1.0	40713*	4600*	BG80G40-../DPE08XB4	1653	5845	26000	-	-	481	218
1.1	1.6	51334	5800	BG90G50-../DPE08XB4	1583	14613	65000	-	-	481	218
1.0	1.0	1947*	220*	BG20G06-../DPE08XB4	1824	1124	5000	472	2100	66	30
1.0	1.0	11506*	1300*	BG60G20-../DPE08XB4	1741	3597	16000	-	-	234	106
1.0	1.45	56645	6400	BG90G50-../DPE08XB4	1756	14613	65000	-	-	481	218
0.95	1.0	1151*	130*	BG10G06-../DPE08XB4	1863	450	2000	629	2800	62	28
0.95	1.0	2876*	325*	BG30G06-../DPE08XB4	1875	1349	6000	-	-	75	34
0.95	1.0	11506*	1300*	BG60G20-../DPE08XB4	1880	3597	16000	-	-	234	106
0.95	3.2	50449	5700	BG100G50-../DPE08XB4	1867	20233	90000	-	-	481	218
0.9	1.0	22127*	2500*	BG70G20-../DPE08XB4	1994	4496	20000	-	-	300	136
0.9	1.3	63725	7200	BG90G50-../DPE08XB4	2026	14613	65000	-	-	481	218
0.85	1.0	1947*	220*	BG20G06-../DPE08XB4	2114	1124	5000	472	2100	66	30
0.85	1.0	2876*	325*	BG30G06-../DPE08XB4	2173	1349	6000	-	-	75	34
0.85	1.0	4116*	465*	BG40G10-../DPE08XB4	2087	1574	7000	-	-	110	50
0.85	1.0	6107*	690*	BG50G10-../DPE08XB4	2076	2248	10000	-	-	119	54
0.85	1.0	40713*	4600*	BG80G40-../DPE08XB4	2070	5845	26000	-	-	481	218
0.85	2.9	55760	6300	BG100G50-../DPE08XB4	2154	20233	90000	-	-	481	218
0.8	1.0	11506*	1300*	BG60G20-../DPE08XB4	2249	3597	16000	-	-	234	106
0.8	1.0	22127*	2500*	BG70G20-../DPE08XB4	2215	4496	20000	-	-	300	136
0.75	1.0	1151*	130*	BG10G06-../DPE08XB4	2356	450	2000	629	2800	62	28
0.75	1.0	1947*	220*	BG20G06-../DPE08XB4	2422	1124	5000	472	2100	66	30
0.75	1.0	40713*	4600*	BG80G40-../DPE08XB4	2413	5845	26000	-	-	481	218
0.7	1.0	1947*	220*	BG20G06-../DPE08XB4	2642	1124	5000	472	2100	66	30
0.7	1.0	4116*	465*	BG40G10-../DPE08XB4	2628	1574	7000	-	-	110	50
0.7	1.0	6107*	690*	BG50G10-../DPE08XB4	2615	2248	10000	-	-	119	54
0.7	1.0	81427*	9200*	BG90G50-../DPE08XB4	2514	14613	65000	-	-	481	218
0.7	2.4	69036	7800	BG100G50-../DPE08XB4	2656	20233	90000	-	-	481	218
0.65	1.0	1151*	130*	BG10G06-../DPE08XB4	2699	450	2000	629	2800	62	28
0.65	1.0	2876*	325*	BG30G06-../DPE08XB4	2715	1349	6000	-	-	75	34

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

BG-series helical-geared motors

Selection helical-geared motors

1 HP (0.75 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lbf	N	lbf	N	lb	kg
0.65	1.0	11506*	1300*	BG60G20-../DPE08XB4	2818	3597	16000	-	-	234	106
0.65	1.0	22127*	2500*	BG70G20-../DPE08XB4	2774	4496	20000	-	-	300	136
0.65	1.0	40713*	4600*	BG80G40-../DPE08XB4	2836	5845	26000	-	-	481	218
0.65	1.0	81427*	9200*	BG90G50-../DPE08XB4	2786	14613	65000	-	-	481	218
0.6	1.0	1151*	130*	BG10G06-../DPE08XB4	2944	450	2000	629	2800	62	28
0.6	1.0	1947*	220*	BG20G06-../DPE08XB4	3031	1124	5000	472	2100	66	30
0.6	1.0	2876*	325*	BG30G06-../DPE08XB4	3115	1349	6000	-	-	75	34
0.6	1.0	4116*	465*	BG40G10-../DPE08XB4	3082	1574	7000	-	-	110	50
0.6	1.0	6107*	690*	BG50G10-../DPE08XB4	3066	2248	10000	-	-	128	58
0.6	1.95	84967	9600	BG100G50-../DPE08XB4	2952	20233	90000	-	-	481	218
0.55	1.0	1151*	130*	BG10G06-../DPE08XB4	3378	450	2000	629	2800	62	28
0.55	1.0	1947*	220*	BG20G06-../DPE08XB4	3306	1124	5000	472	2100	66	30
0.55	1.0	2876*	325*	BG30G06-../DPE08XB4	3398	1349	6000	-	-	75	34
0.55	1.0	11506*	1300*	BG60G20-../DPE08XB4	3234	3597	16000	-	-	234	106
0.55	1.0	22127*	2500*	BG70G20-../DPE08XB4	3184	4496	20000	-	-	300	136
0.55	1.0	40713*	4600*	BG80G40-../DPE08XB4	3413	5845	26000	-	-	481	218
0.55	1.0	81427*	9200*	BG90G50-../DPE08XB4	3177	14613	65000	-	-	481	218
0.55	1.75	92933	10500	BG100G50-../DPE08XB4	3286	20233	90000	-	-	481	218
0.5	1.0	81427*	9200*	BG90G50-../DPE08XB4	3521	14613	65000	-	-	481	218
0.49	1.0	11506*	1300*	BG60G20-../DPE08XB4	3592	3597	16000	-	-	234	106
0.48	1.0	1151*	130*	BG10G06-../DPE08XB4	3684	450	2000	629	2800	62	28
0.48	1.5	109749	12400	BG100G50-../DPE08XB4	3644	20233	90000	-	-	481	218
0.46	1.0	4116*	465*	BG40G10-../DPE08XB4	3805	1574	7000	-	-	110	50
0.46	1.0	6107*	690*	BG50G10-../DPE08XB4	3786	2248	10000	-	-	128	58
0.46	1.0	40713*	4600*	BG80G40-../DPE08XB4	3791	5845	26000	-	-	481	218
0.45	1.0	22127*	2500*	BG70G20-../DPE08XB4	3925	4496	20000	-	-	300	136
0.42	1.0	4116*	465*	BG40G10-../DPE08XB4	4216	1574	7000	-	-	110	50
0.42	1.0	6107*	690*	BG50G10-../DPE08XB4	4195	2248	10000	-	-	128	58
0.42	1.0	40713*	4600*	BG80G40-../DPE08XB4	4208	5845	26000	-	-	481	218
0.4	1.0	11506*	1300*	BG60G20-../DPE08XB4	4429	3597	16000	-	-	234	106
0.4	1.2	136301	15400	BG100G50-../DPE08XB4	4366	20233	90000	-	-	481	218
0.36	1.05	153118	17300	BG100G50-../DPE08XB4	4839	20233	90000	-	-	481	218
0.3	1.0	163739*	18500*	BG100G50-../DPE08XB4	5888	20233	90000	-	-	481	218
0.27	1.0	163739*	18500*	BG100G50-../DPE08XB4	6529	20233	90000	-	-	481	218
0.24	1.0	163739*	18500*	BG100G50-../DPE08XB4	7533	20233	90000	-	-	481	218
0.21	1.0	163739*	18500*	BG100G50-../DPE08XB4	8350	20233	90000	-	-	481	218
0.19	1.0	163739*	18500*	BG100G50-../DPE08XB4	9348	20233	90000	-	-	1133	514
0.15	1.0	163739*	18500*	BG100G50-../DPE08XB4	11813	20233	90000	-	-	1133	514

1.5 HP (1.1 kW)

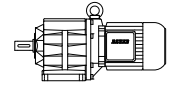
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lbf	N	lbf	N	lb	kg
700	3.7	133	15	BG10-../DPE09XA4	2.52	128	570	178	790	1133	514
520	3.1	177	20	BG10-../DPE09XA4	3.42	142	630	198	880	1133	514
405	2.7	226	25.5	BG10-../DPE09XA4	4.36	146	650	205	910	1133	514
330	2.4	279	31.5	BG10-../DPE09XA4	5.34	139	620	205	910	1133	514
275	3.2	336	38	BG20-../DPE09XA4	6.48	506	2250	-	-	66	30
265	3.3	350	39.5	BG20-../DPE09XA4	6.73	528	2350	472	2100	66	30
255	2.1	363	41	BG10-../DPE09XA4	6.89	191	850	270	1200	1133	514
230	1.95	403	45.5	BG10-../DPE09XA4	7.63	202	900	281	1250	1133	514
220	1.85	420	47.5	BG10-../DPE09XA4	8.07	148	660	207	920	1133	514
220	2.9	420	47.5	BG20-../DPE09XA4	8.02	562	2500	-	-	66	30
215	2.5	429	48.5	BG20-../DPE09XA4	8.29	506	2250	-	-	66	30
197	2.7	469	53	BG20-../DPE09XA4	8.91	585	2600	-	-	66	30
188	1.75	487	55	BG10-../DPE09XA4	9.33	214	950	299	1330	1133	514
182	2.1	504	57	BG20-../DPE09XA4	9.65	506	2250	-	-	66	30
170	1.6	540	61	BG10-../DPE09XA4	10.34	225	1000	315	1400	1133	514

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

BG-series helical-geared motors

Selection helical-geared motors

1.5 HP (1.1 kW)



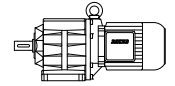
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
167	2.5	549	62	BG20-../DPE09XA4	10.54	607	2700	-	-	66	30
150	2.3	620	70	BG20-../DPE09XA4	11.71	629	2800	-	-	66	30
147	1.5	628	71	BG10-../DPE09XA4	11.92	232	1030	324	1440	1133	514
133	1.4	690	78	BG10-../DPE09XA4	13.21	241	1070	335	1490	66	30
133	2.1	690	78	BG20-../DPE09XA4	13.21	652	2900	-	-	66	30
121	1.35	761	86	BG10-../DPE09XA4	14.58	247	1100	346	1540	66	30
120	2.0	770	87	BG20-../DPE09XA4	14.67	686	3050	-	-	66	30
115	3.3	805	91	BG30-../DPE09XA4	15.27	776	3450	-	-	71	32
113	1.9	814	92	BG20-../DPE09XA4	15.58	697	3100	-	-	66	30
109	1.2	850	96	BG10-../DPE09XA4	16.15	256	1140	357	1590	66	30
103	3.0	894	101	BG30-../DPE09XA4	17.06	832	3700	-	-	71	32
102	1.8	903	102	BG20-../DPE09XA4	17.31	719	3200	-	-	66	30
95	1.1	974	110	BG10-../DPE09XA4	18.51	272	1210	380	1690	66	30
93	2.7	991	112	BG30-../DPE09XA4	18.93	922	4100	-	-	71	32
88	1.65	1053	119	BG20-../DPE09XA4	19.95	753	3350	-	-	66	30
88	2.5	1053	119	BG30-../DPE09XA4	19.99	944	4200	-	-	71	32
86	0.98	1080	122	BG10-../DPE09XA4	20.51	290	1290	405	1800	66	30
80	0.92	1159	131	BG10-../DPE09XA4	22.04	299	1330	418	1860	66	30
80	3.2	1159	131	BG40-../DPE09XA4	22.02	1349	6000	-	-	82	37
79	1.5	1168	132	BG20-../DPE09XA4	22.16	787	3500	-	-	66	30
79	2.3	1168	132	BG30-../DPE09XA4	22.18	1034	4600	-	-	71	32
76	1.45	1221	138	BG20-../DPE09XA4	23.22	798	3550	-	-	71	32
75	3.0	1239	140	BG40-../DPE09XA4	23.43	1394	6200	-	-	82	37
72	0.83	1283	145	BG10-../DPE09XA4	24.42	317	1410	443	1970	66	30
69	1.95	1345	152	BG30-../DPE09XA4	25.45	1090	4850	-	-	71	32
68	1.3	1363	154	BG20-../DPE09XA4	25.79	832	3700	-	-	71	32
68	2.8	1363	154	BG40-../DPE09XA4	26.01	1461	6500	-	-	82	37
65	0.93	1425	161	BG15-../DPE09XA4	27.08	674	3000	1349	6000	66	30
63	1.2	1469	166	BG20-../DPE09XA4	27.85	854	3800	-	-	71	32
62	1.8	1496	169	BG30-../DPE09XA4	28.24	1147	5100	-	-	82	37
60	2.4	1549	175	BG40-../DPE09XA4	29.34	1529	6800	-	-	82	37
59	0.84	1575	178	BG15-../DPE09XA4	30.08	674	3000	1349	6000	66	30
59	1.7	1575	178	BG30-../DPE09XA4	29.83	1169	5200	-	-	82	37
57	1.1	1629	184	BG20-../DPE09XA4	30.94	899	4000	-	-	71	32
54	2.2	1717	194	BG40-../DPE09XA4	32.57	1574	7000	-	-	82	37
54	3.2	1717	194	BG50-../DPE09XA4	32.84	1956	8700	-	-	112	51
53	1.0	1752	198	BG20-../DPE09XA4	33.33	922	4100	-	-	71	32
53	1.5	1752	198	BG30-../DPE09XA4	33.09	1214	5400	-	-	82	37
52	2.1	1770	200	BG40-../DPE09XA4	34.20	1574	7000	-	-	82	37
50	1.45	1859	210	BG30-../DPE09XA4	35.17	1236	5500	-	-	82	37
47.5	0.91	1947	220	BG20-../DPE09XA4	37.02	967	4300	-	-	71	32
46.5	1.9	1991	225	BG40-../DPE09XA4	37.96	1574	7000	-	-	82	37
46.5	2.8	1991	225	BG50-../DPE09XA4	37.89	2248	10000	-	-	112	51
45	1.3	2036	230	BG30-../DPE09XA4	39.02	1304	5800	-	-	82	37
44	1.8	2080	235	BG40-../DPE09XA4	40.19	1574	7000	-	-	82	37
42	0.8	2213	250	BG20-../DPE09XA4	41.76	1012	4500	-	-	71	32
42	2.5	2213	250	BG50-../DPE09XA4	42.00	2248	10000	-	-	112	51
41.5	1.2	2213	250	BG30-../DPE09XA4	42.46	1326	5900	-	-	82	37
39.5	1.6	2345	265	BG40-../DPE09XA4	44.62	1574	7000	-	-	82	37
37.5	1.05	2478	280	BG30-../DPE09XA4	47.11	1349	6000	-	-	82	37
37.5	2.3	2478	280	BG50-../DPE09XA4	47.02	2248	10000	-	-	112	51
36.5	1.5	2522	285	BG40-../DPE09XA4	48.36	1574	7000	-	-	82	37
34	2.1	2699	305	BG50-../DPE09XA4	52.12	2248	10000	-	-	112	51
33.5	0.97	2744	310	BG30-../DPE09XA4	52.44	1349	6000	-	-	82	37
33	1.35	2788	315	BG40-../DPE09XA4	53.69	1574	7000	-	-	82	37
30.5	0.88	3009	340	BG30-../DPE09XA4	58.18	1349	6000	-	-	82	37
29.5	1.2	3142	355	BG40-../DPE09XA4	59.64	1574	7000	-	-	82	37
29.5	1.75	3142	355	BG50-../DPE09XA4	59.42	2248	10000	-	-	112	51
29	0.83	3186	360	BG30-../DPE09XA4	60.79	1349	6000	-	-	82	37
29	3.3	3186	360	BG60-../DPE09XA4	60.90	3597	16000	-	-	130	59
27	1.65	3408	385	BG50-../DPE09XA4	65.86	2248	10000	-	-	112	51
26.5	1.1	3496	395	BG40-../DPE09XA4	66.20	1574	7000	-	-	82	37

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

BG-series helical-geared motors

Selection helical-geared motors

1.5 HP (1.1 kW)



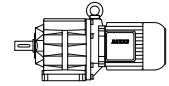
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
26	1.05	3540	400	BG40Z-../DPE09XA4	67.74	1574	7000	-	-	82	37
26	3.0	3540	400	BG60-../DPE09XA4	67.49	3597	16000	-	-	130	59
24.5	1.5	3762	425	BG50Z-../DPE09XA4	71.97	2248	10000	-	-	112	51
23.5	0.96	3939	445	BG40Z-../DPE09XA4	75.19	1574	7000	-	-	112	51
23.5	2.7	3939	445	BG60Z-../DPE09XA4	75.71	3597	16000	-	-	130	59
22	1.35	4204	475	BG50Z-../DPE09XA4	79.78	2248	10000	-	-	112	51
21.5	0.88	4293	485	BG40Z-../DPE09XA4	82.00	1574	7000	-	-	112	51
19.5	0.8	4691	530	BG40Z-../DPE09XA4	91.02	1574	7000	-	-	112	51
19.5	2.3	4691	530	BG60Z-../DPE09XA4	91.09	3597	16000	-	-	130	59
18.5	1.15	4956	560	BG50Z-../DPE09XA4	95.58	2248	10000	-	-	112	51
17.5	2.0	5310	600	BG60Z-../DPE09XA4	101.0	3597	16000	-	-	130	59
17	1.05	5399	610	BG50Z-../DPE09XA4	106.0	2248	10000	-	-	130	59
15	1.7	6196	700	BG60Z-../DPE09XA4	119.2	3597	16000	-	-	130	59
14.5	3.2	6373	720	BG70Z-../DPE09XA4	124.0	4496	20000	-	-	240	109
14	0.84	6638	750	BG50Z-../DPE09XA4	128.9	2248	10000	-	-	130	59
13.5	1.55	6815	770	BG60Z-../DPE09XA4	132.1	3597	16000	-	-	130	59
12	2.6	7700	870	BG70Z-../DPE09XA4	147.2	4496	20000	-	-	240	109
11.5	1.3	8054	910	BG60Z-../DPE09XA4	158.0	3597	16000	-	-	130	59
11	2.4	8408	950	BG70Z-../DPE09XA4	163.8	4496	20000	-	-	240	109
10	1.15	9293	1050	BG60Z-../DPE09XA4	175.1	3597	16000	-	-	130	59
9.1	2.0	10178	1150	BG70Z-../DPE09XA4	194.4	4496	20000	-	-	240	109
8.6	0.98	10798	1220	BG60Z-../DPE09XA4	204.6	3597	16000	-	-	240	109
8.4	1.85	11063	1250	BG70Z-../DPE09XA4	210.5	4496	20000	-	-	240	109
7.8	0.9	11860	1340	BG60Z-../DPE09XA4	226.7	3597	16000	-	-	240	109
7.1	0.82	13011	1470	BG60Z-../DPE09XA4	247.7	3597	16000	-	-	240	109
7.1	1.55	13011	1470	BG70Z-../DPE09XA4	249.8	4496	20000	-	-	240	109
6.9	1.75	12480	1410	BG70G20-../DPE09XA4	255.5	4496	20000	-	-	240	109
6.4	0.86	13453	1520	BG60G20-../DPE09XA4	276.2	3597	16000	-	-	240	109
6.4	1.65	13453	1520	BG70G20-../DPE09XA4	276.7	4496	20000	-	-	240	109
6.2	3.3	12214	1380	BG80G40-../DPE09XA4	282.8	5845	26000	-	-	322	146
5.6	3.0	13542	1530	BG80G40-../DPE09XA4	314.0	5845	26000	-	-	322	146
5.4	1.4	15931	1800	BG70G20-../DPE09XA4	328.4	4496	20000	-	-	240	109
4.9	2.6	15931	1800	BG80G40-../DPE09XA4	360.0	5845	26000	-	-	322	146
4.6	1.2	18587	2100	BG70G20-../DPE09XA4	387.6	4496	20000	-	-	240	109
4.4	2.3	17701	2000	BG80G40-../DPE09XA4	399.8	5845	26000	-	-	503	228
4.2	1.05	20799	2350	BG70G20-../DPE09XA4	417.8	4496	20000	-	-	322	146
4.1	2.1	19472	2200	BG80G40-../DPE09XA4	436.2	5845	26000	-	-	503	228
3.7	1.9	21684	2450	BG80G40-../DPE09XA4	484.3	5845	26000	-	-	503	228
3.6	0.91	24340	2750	BG70G20-../DPE09XA4	495.9	4496	20000	-	-	322	146
3.1	1.55	26552	3000	BG80G40-../DPE09XA4	572.0	5845	26000	-	-	503	228
3.0	3.2	25667	2900	BG90G50-../DPE09XA4	588.8	14613	65000	-	-	745	338
2.8	3.0	27437	3100	BG90G50-../DPE09XA4	644.7	14613	65000	-	-	745	338
2.7	1.35	30093	3400	BG80G40-../DPE09XA4	657.8	5845	26000	-	-	503	228
2.5	2.6	31420	3550	BG90G50-../DPE09XA4	714.2	14613	65000	-	-	745	338
2.4	1.2	34075	3850	BG80G40-../DPE09XA4	730.3	5845	26000	-	-	503	228
2.2	1.1	37616	4250	BG80G40-../DPE09XA4	817.4	5845	26000	-	-	503	228
2.0	0.98	41599	4700	BG80G40-../DPE09XA4	907.6	5845	26000	-	-	503	228
2.0	2.0	40271	4550	BG90G50-../DPE09XA4	883.7	14613	65000	-	-	745	338
1.7	0.82	49564	5600	BG80G40-../DPE09XA4	1042	5845	26000	-	-	503	228
1.5	1.45	55760	6300	BG90G50-../DPE09XA4	1174	14613	65000	-	-	745	338
1.4	1.35	60185	6800	BG90G50-../DPE09XA4	1301	14613	65000	-	-	745	338
1.3	2.8	59300	6700	BG100G50-../DPE09XA4	1444	20233	90000	-	-	1157	525
1.2	1.15	70806	8000	BG90G50-../DPE09XA4	1583	14613	65000	-	-	745	338
1.1	2.3	69921	7900	BG100G50-../DPE09XA4	1678	20233	90000	-	-	1157	525
1.0	0.94	86737	9800	BG90G50-../DPE09XA4	1756	14613	65000	-	-	745	338
0.95	2.0	81427	9200	BG100G50-../DPE09XA4	1867	20233	90000	-	-	1157	525
0.85	1.8	91163	10300	BG100G50-../DPE09XA4	2154	20233	90000	-	-	1157	525
0.7	1.45	111519	12600	BG100G50-../DPE09XA4	2656	20233	90000	-	-	1157	525
0.6	1.2	134531	15200	BG100G50-../DPE09XA4	2952	20233	90000	-	-	1157	525
0.55	1.1	146037	16500	BG100G50-../DPE09XA4	3286	20233	90000	-	-	1157	525

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

BG-series helical-geared motors

Selection helical-geared motors

2 HP (1.5 kW)



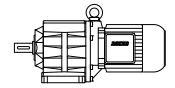
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
700	2.8	177	20	BG10-../DPE09XA4	2.52	128	570	178	790	1157	525
510	2.2	248	28	BG10-../DPE09XA4	3.42	142	630	198	880	1157	525
400	1.9	314	35.5	BG10-../DPE09XA4	4.36	146	650	205	910	1157	525
400	2.9	314	35.5	BG20-../DPE09XA4	4.38	447	1990	-	-	66	30
330	1.75	381	43	BG10-../DPE09XA4	5.34	139	620	205	910	1157	525
320	2.6	394	44.5	BG20-../DPE09XA4	5.49	472	2100	-	-	66	30
290	2.6	434	49	BG20-../DPE09XA4	6.06	506	2250	-	-	71	32
270	2.3	469	53	BG20-../DPE09XA4	6.48	506	2250	-	-	71	32
260	2.4	487	55	BG20-../DPE09XA4	6.73	528	2350	472	2100	71	32
255	1.55	496	56	BG10-../DPE09XA4	6.89	191	850	270	1200	66	30
230	1.45	549	62	BG10-../DPE09XA4	7.63	202	900	281	1250	66	30
220	1.35	575	65	BG10-../DPE09XA4	8.07	148	660	207	920	66	30
220	2.1	575	65	BG20-../DPE09XA4	8.02	562	2500	-	-	71	32
220	3.3	575	65	BG30-../DPE09XA4	7.91	396	1760	-	-	71	32
210	1.8	602	68	BG20-../DPE09XA4	8.29	506	2250	-	-	71	32
196	1.95	646	73	BG20-../DPE09XA4	8.91	585	2600	-	-	71	32
187	1.3	673	76	BG10-../DPE09XA4	9.33	214	950	299	1330	66	30
183	3.3	690	78	BG30-../DPE09XA4	9.55	674	3000	-	-	71	32
181	1.55	699	79	BG20-../DPE09XA4	9.65	506	2250	-	-	71	32
169	1.2	743	84	BG10-../DPE09XA4	10.34	225	1000	315	1400	66	30
166	1.8	761	86	BG20-../DPE09XA4	10.54	607	2700	-	-	71	32
164	3.1	770	87	BG30-../DPE09XA4	10.65	663	2950	-	-	71	32
149	1.65	850	96	BG20-../DPE09XA4	11.71	629	2800	-	-	71	32
148	2.9	850	96	BG30-../DPE09XA4	11.82	719	3200	-	-	71	32
146	1.05	867	98	BG10-../DPE09XA4	11.92	232	1030	324	1440	66	30
132	1.0	956	108	BG10-../DPE09XA4	13.21	241	1070	335	1490	66	30
132	1.55	956	108	BG20-../DPE09XA4	13.21	652	2900	-	-	71	32
127	2.6	991	112	BG30-../DPE09XA4	13.77	708	3150	-	-	71	32
120	0.96	1053	119	BG10-../DPE09XA4	14.58	247	1100	346	1540	66	30
119	1.45	1062	120	BG20-../DPE09XA4	14.67	686	3050	-	-	71	32
114	2.4	1106	125	BG30-../DPE09XA4	15.27	776	3450	-	-	71	32
112	1.4	1124	127	BG20-../DPE09XA4	15.58	697	3100	-	-	71	32
108	0.89	1168	132	BG10-../DPE09XA4	16.15	256	1140	357	1590	66	30
107	3.2	1177	133	BG40-../DPE09XA4	16.39	1191	5300	-	-	82	37
102	2.1	1239	140	BG30-../DPE09XA4	17.06	832	3700	-	-	71	32
101	1.3	1248	141	BG20-../DPE09XA4	17.31	719	3200	-	-	71	32
96	2.9	1319	149	BG40-../DPE09XA4	18.19	1259	5600	-	-	82	37
95	0.8	1328	150	BG10-../DPE09XA4	18.51	272	1210	380	1690	66	30
92	1.95	1372	155	BG30-../DPE09XA4	18.93	922	4100	-	-	71	32
88	1.2	1434	162	BG20-../DPE09XA4	19.95	753	3350	-	-	71	32
88	1.85	1434	162	BG30-../DPE09XA4	19.99	944	4200	-	-	71	32
88	2.6	1434	162	BG40-../DPE09XA4	19.84	1304	5800	-	-	82	37
80	2.4	1584	179	BG40-../DPE09XA4	22.02	1349	6000	-	-	82	37
79	1.1	1602	181	BG20-../DPE09XA4	22.16	787	3500	-	-	71	32
79	1.65	1602	181	BG30-../DPE09XA4	22.18	1034	4600	-	-	71	32
75	1.05	1690	191	BG20-../DPE09XA4	23.22	798	3550	-	-	71	32
75	2.2	1690	191	BG40-../DPE09XA4	23.43	1394	6200	-	-	82	37
72	3.2	1752	198	BG50-../DPE09XA4	24.34	1956	8700	-	-	112	51
69	1.45	1814	205	BG30-../DPE09XA4	25.45	1090	4850	-	-	71	32
68	0.95	1859	210	BG20-../DPE09XA4	25.79	832	3700	-	-	71	32
67	2.0	1859	210	BG40-../DPE09XA4	26.01	1461	6500	-	-	82	37
63	0.89	1991	225	BG20-../DPE09XA4	27.85	854	3800	-	-	71	32
62	1.3	2036	230	BG30-../DPE09XA4	28.24	1147	5100	-	-	71	32
60	1.8	2080	235	BG40-../DPE09XA4	29.34	1529	6800	-	-	82	37
59	1.25	2124	240	BG30-../DPE09XA4	29.83	1169	5200	-	-	71	32
59	2.6	2124	240	BG50-../DPE09XA4	29.62	1798	8000	-	-	112	51
57	0.8	2213	250	BG20-../DPE09XA4	30.94	899	4000	-	-	71	32
54	1.6	2345	265	BG40-../DPE09XA4	32.57	1574	7000	-	-	82	37
53	1.1	2390	270	BG30-../DPE09XA4	33.09	1214	5400	-	-	71	32
53	2.3	2390	270	BG50-../DPE09XA4	32.84	1956	8700	-	-	112	51
51	1.5	2478	280	BG40-../DPE09XA4	34.20	1574	7000	-	-	82	37
49.5	1.05	2522	285	BG30-../DPE09XA4	35.17	1236	5500	-	-	71	32

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

BG-series helical-geared motors

Selection helical-geared motors

2 HP (1.5 kW)

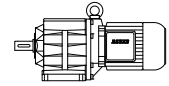


RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
46	1.35	2744	310	BG40-../DPE09XA4	37.96	1574	7000	-	-	82	37
46	2.0	2744	310	BG50-../DPE09XA4	37.89	2248	10000	-	-	112	51
45	0.95	2788	315	BG30-../DPE09XA4	39.02	1304	5800	-	-	71	32
43.5	1.3	2876	325	BG40-../DPE09XA4	40.19	1574	7000	-	-	112	51
41.5	1.85	3054	345	BG50-../DPE09XA4	42.00	2248	10000	-	-	112	51
41	0.87	3054	345	BG30-../DPE09XA4	42.46	1326	5900	-	-	82	37
39	1.15	3231	365	BG40-../DPE09XA4	44.62	1574	7000	-	-	112	51
37.5	1.65	3363	380	BG50-../DPE09XA4	47.02	2248	10000	-	-	112	51
36	1.1	3496	395	BG40-../DPE09XA4	48.36	1574	7000	-	-	112	51
35	3.0	3585	405	BG60-../DPE09XA4	50.31	3597	16000	-	-	130	59
33.5	1.5	3762	425	BG50-../DPE09XA4	52.12	2248	10000	-	-	112	51
32.5	0.97	3894	440	BG40-../DPE09XA4	53.69	1574	7000	-	-	112	51
31.5	2.7	3983	450	BG60-../DPE09XA4	55.76	3597	16000	-	-	130	59
29.5	0.88	4293	485	BG40-../DPE09XA4	59.64	1574	7000	-	-	112	51
29.5	1.3	4293	485	BG50-../DPE09XA4	59.42	2248	10000	-	-	112	51
29	2.4	4337	490	BG60-../DPE09XA4	60.90	3597	16000	-	-	130	59
26.5	1.15	4779	540	BG50-../DPE09XA4	65.86	2248	10000	-	-	130	59
26	2.2	4868	550	BG60-../DPE09XA4	67.49	3597	16000	-	-	130	59
25.5	2.1	4956	560	BG60Z-../DPE09XA4	68.32	3597	16000	-	-	130	59
24.5	1.1	5133	580	BG50Z-../DPE09XA4	71.97	2248	10000	-	-	130	59
23	1.95	5487	620	BG60Z-../DPE09XA4	75.71	3597	16000	-	-	130	59
22	0.97	5753	650	BG50Z-../DPE09XA4	79.78	2248	10000	-	-	130	59
20	3.2	6284	710	BG70Z-../DPE09XA4	87.61	4496	20000	-	-	198	90
19.5	1.65	6461	730	BG60Z-../DPE09XA4	91.09	3597	16000	-	-	130	59
18.5	0.82	6815	770	BG50Z-../DPE09XA4	95.58	2248	10000	-	-	130	59
18.5	3.0	6815	770	BG70Z-../DPE09XA4	95.74	4496	20000	-	-	198	90
17.5	1.5	7169	810	BG60Z-../DPE09XA4	101.0	3597	16000	-	-	130	59
15.5	2.5	8143	920	BG70Z-../DPE09XA4	113.6	4496	20000	-	-	198	90
15	1.25	8408	950	BG60Z-../DPE09XA4	119.2	3597	16000	-	-	130	59
14.5	2.3	8674	980	BG70Z-../DPE09XA4	124.0	4496	20000	-	-	198	90
13.5	1.15	9382	1060	BG60Z-../DPE09XA4	132.1	3597	16000	-	-	198	90
12	1.95	10532	1190	BG70Z-../DPE09XA4	147.2	4496	20000	-	-	198	90
11.5	0.97	10975	1240	BG60Z-../DPE09XA4	158.0	3597	16000	-	-	198	90
11	1.75	11506	1300	BG70Z-../DPE09XA4	163.8	4496	20000	-	-	198	90
11	3.2	11506	1300	BG80Z-../DPE09XA4	161.5	5845	26000	-	-	328	149
10	0.84	12657	1430	BG60Z-../DPE09XA4	175.1	3597	16000	-	-	198	90
9.4	2.8	13453	1520	BG80Z-../DPE09XA4	186.8	5845	26000	-	-	328	149
9.0	1.45	14073	1590	BG70Z-../DPE09XA4	194.4	4496	20000	-	-	328	149
8.4	2.5	15046	1700	BG80Z-../DPE09XA4	207.4	5845	26000	-	-	328	149
8.3	1.35	15223	1720	BG70Z-../DPE09XA4	210.5	4496	20000	-	-	328	149
7.7	2.9	13984	1580	BG80G40-../DPE09XA4	227.2	5845	26000	-	-	478	217
7.0	1.15	17701	2000	BG70Z-../DPE09XA4	249.8	4496	20000	-	-	328	149
6.9	1.3	17347	1960	BG70G20-../DPE09XA4	255.5	4496	20000	-	-	328	149
6.9	2.6	15577	1760	BG80G40-../DPE09XA4	252.3	5845	26000	-	-	478	217
6.3	1.15	19029	2150	BG70G20-../DPE09XA4	276.7	4496	20000	-	-	328	149
6.2	2.3	17701	2000	BG80G40-../DPE09XA4	282.8	5845	26000	-	-	478	217
5.6	2.1	19472	2200	BG80G40-../DPE09XA4	314.0	5845	26000	-	-	478	217
5.3	0.98	22569	2550	BG70G20-../DPE09XA4	328.4	4496	20000	-	-	328	149
4.9	1.8	22569	2550	BG80G40-../DPE09XA4	360.0	5845	26000	-	-	478	217
4.5	0.83	26552	3000	BG70G20-../DPE09XA4	387.6	4496	20000	-	-	328	149
4.4	1.6	25225	2850	BG80G40-../DPE09XA4	399.8	5845	26000	-	-	478	217
4.0	1.45	28322	3200	BG80G40-../DPE09XA4	436.2	5845	26000	-	-	478	217
4.0	2.9	27880	3150	BG90G50-../DPE09XA4	435.8	14613	65000	-	-	478	217
3.6	1.3	31863	3600	BG80G40-../DPE09XA4	484.3	5845	26000	-	-	478	217
3.5	2.6	31863	3600	BG90G50-../DPE09XA4	504.7	14613	65000	-	-	478	217
3.1	1.1	37173	4200	BG80G40-../DPE09XA4	572.0	5845	26000	-	-	478	217
3.0	2.2	37173	4200	BG90G50-../DPE09XA4	588.8	14613	65000	-	-	478	217
2.7	0.96	42484	4800	BG80G40-../DPE09XA4	657.8	5845	26000	-	-	478	217
2.7	2.0	41156	4650	BG90G50-../DPE09XA4	644.7	14613	65000	-	-	478	217
2.5	1.85	44254	5000	BG90G50-../DPE09XA4	714.2	14613	65000	-	-	478	217
2.4	0.85	47794	5400	BG80G40-../DPE09XA4	730.3	5845	26000	-	-	478	217
2.3	3.0	54875	6200	BG100Z-../DPE09XA4	759.0	20233	90000	-	-	745	338

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

BG-series helical-geared motors

Selection helical-geared motors



2 HP (1.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
2.1	2.7	60185	6800	BG100Z-../DPE09XA4	845.1	20233	90000	-	-	745	338
2.0	1.45	56645	6400	BG90G50-../DPE09XA4	883.7	14613	65000	-	-	478	217
1.8	2.9	55760	6300	BG100G50-../DPE09XA4	976.1	20233	90000	-	-	745	338
1.7	2.6	61955	7000	BG100G50-../DPE09XA4	1043	20233	90000	-	-	745	338
1.5	1.05	77887	8800	BG90G50-../DPE09XA4	1174	14613	65000	-	-	745	338
1.5	2.3	69921	7900	BG100G50-../DPE09XA4	1204	20233	90000	-	-	745	338
1.4	0.97	84082	9500	BG90G50-../DPE09XA4	1301	14613	65000	-	-	745	338
1.3	1.95	84967	9600	BG100G50-../DPE09XA4	1444	20233	90000	-	-	745	338
1.1	1.6	100899	11400	BG100G50-../DPE09XA4	1678	20233	90000	-	-	745	338
0.95	1.4	116830	13200	BG100G50-../DPE09XA4	1867	20233	90000	-	-	745	338
0.85	1.25	130106	14700	BG100G50-../DPE09XA4	2154	20233	90000	-	-	745	338
0.7	1.0	160198	18100	BG100G50-../DPE09XA4	2656	20233	90000	-	-	745	338

3 HP (2.2 kW)

6

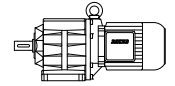
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
700	1.85	266	30	BG10-../DPE09XB4C	2.52	128	570	178	790	745	338
700	2.8	266	30	BG20-../DPE09XB4C	2.52	371	1650	-	-	1157	525
530	2.3	350	39.5	BG20-../DPE09XB4C	3.33	411	1830	-	-	1157	525
520	1.55	354	40	BG10-../DPE09XB4C	3.42	142	630	198	880	745	338
405	1.35	451	51	BG10-../DPE09XB4C	4.36	146	650	205	910	745	338
405	2.0	451	51	BG20-../DPE09XB4C	4.38	447	1990	-	-	1157	525
330	1.2	558	63	BG10-../DPE09XB4C	5.34	139	620	205	910	745	338
325	1.8	566	64	BG20-../DPE09XB4C	5.49	472	2100	-	-	1157	525
325	3.1	566	64	BG30-../DPE09XB4C	5.44	375	1670	-	-	77	35
295	1.75	628	71	BG20-../DPE09XB4C	6.06	506	2250	-	-	1157	525
275	1.6	673	76	BG20-../DPE09XB4C	6.48	506	2250	-	-	1157	525
265	1.65	699	79	BG20-../DPE09XB4C	6.73	528	2350	472	2100	77	35
265	2.9	699	79	BG30-../DPE09XB4C	6.76	573	2550	-	-	86	39
260	1.1	708	80	BG10-../DPE09XB4C	6.89	191	850	270	1200	745	338
235	1.0	788	89	BG10-../DPE09XB4C	7.63	202	900	281	1250	1157	525
235	2.6	788	89	BG30-../DPE09XB4C	7.50	618	2750	-	-	86	39
235	3.3	788	89	BG40-../DPE09XB4C	7.62	596	2650	-	-	86	39
225	2.3	823	93	BG30-../DPE09XB4C	7.91	396	1760	-	-	86	39
220	0.93	841	95	BG10-../DPE09XB4C	8.07	148	660	207	920	1157	525
220	1.45	841	95	BG20-../DPE09XB4C	8.02	562	2500	-	-	77	35
215	1.25	859	97	BG20-../DPE09XB4C	8.29	506	2250	-	-	77	35
205	2.4	903	102	BG30-../DPE09XB4C	8.60	629	2800	-	-	86	39
198	1.35	938	106	BG20-../DPE09XB4C	8.91	585	2600	-	-	77	35
196	2.8	947	107	BG40-../DPE09XB4C	9.00	596	2650	-	-	86	39
191	3.2	974	110	BG40-../DPE09XB4C	9.23	978	4350	-	-	86	39
189	0.87	982	111	BG10-../DPE09XB4C	9.33	214	950	299	1330	1157	525
185	2.2	1000	113	BG30-../DPE09XB4C	9.55	674	3000	-	-	86	39
183	1.05	1009	114	BG20-../DPE09XB4C	9.65	506	2250	-	-	77	35
171	0.81	1080	122	BG10-../DPE09XB4C	10.34	225	1000	315	1400	1157	525
171	3.1	1080	122	BG40-../DPE09XB4C	10.35	978	4350	-	-	86	39
167	1.25	1106	125	BG20-../DPE09XB4C	10.54	607	2700	-	-	77	35
166	2.1	1115	126	BG30-../DPE09XB4C	10.65	663	2950	-	-	86	39
154	2.9	1204	136	BG40-../DPE09XB4C	11.49	1034	4600	-	-	86	39
151	1.15	1230	139	BG20-../DPE09XB4C	11.71	629	2800	-	-	77	35
149	1.95	1248	141	BG30-../DPE09XB4C	11.82	719	3200	-	-	86	39
137	2.7	1354	153	BG40-../DPE09XB4C	12.86	1012	4500	-	-	86	39
134	1.05	1381	156	BG20-../DPE09XB4C	13.21	652	2900	-	-	77	35
128	1.8	1452	164	BG30-../DPE09XB4C	13.77	708	3150	-	-	86	39
124	2.5	1496	169	BG40-../DPE09XB4C	14.28	1102	4900	-	-	86	39
120	0.98	1549	175	BG20-../DPE09XB4C	14.67	686	3050	-	-	77	35
116	1.65	1602	181	BG30-../DPE09XB4C	15.27	776	3450	-	-	86	39

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

BG-series helical-geared motors

Selection helical-geared motors

3 HP (2.2 kW)



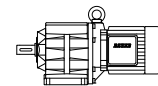
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
113	0.96	1637	185	BG20-../DPE09XB4C	15.58	697	3100	-	-	77	35
108	2.2	1717	194	BG40-../DPE09XB4C	16.39	1191	5300	-	-	86	39
107	3.2	1735	196	BG50-../DPE09XB4C	16.53	1461	6500	-	-	119	54
104	1.5	1770	200	BG30-../DPE09XB4C	17.06	832	3700	-	-	86	39
102	0.89	1814	205	BG20-../DPE09XB4C	17.31	719	3200	-	-	77	35
97	2.0	1903	215	BG40-../DPE09XB4C	18.19	1259	5600	-	-	86	39
97	2.9	1903	215	BG50-../DPE09XB4C	18.33	1619	7200	-	-	119	54
93	1.35	1991	225	BG30-../DPE09XB4C	18.93	922	4100	-	-	86	39
89	0.83	2080	235	BG20-../DPE09XB4C	19.95	753	3350	-	-	77	35
89	1.3	2080	235	BG30-../DPE09XB4C	19.99	944	4200	-	-	86	39
89	1.8	2080	235	BG40-../DPE09XB4C	19.84	1304	5800	-	-	119	54
81	2.5	2257	255	BG50-../DPE09XB4C	21.96	1798	8000	-	-	119	54
80	1.15	2301	260	BG30-../DPE09XB4C	22.18	1034	4600	-	-	86	39
80	1.65	2301	260	BG40-../DPE09XB4C	22.02	1349	6000	-	-	119	54
76	1.55	2434	275	BG40-../DPE09XB4C	23.43	1394	6200	-	-	119	54
73	2.2	2522	285	BG50-../DPE09XB4C	24.34	1956	8700	-	-	119	54
70	1.0	2655	300	BG30-../DPE09XB4C	25.45	1090	4850	-	-	86	39
68	1.4	2699	305	BG40-../DPE09XB4C	26.01	1461	6500	-	-	119	54
63	0.91	2921	330	BG30-../DPE09XB4C	28.24	1147	5100	-	-	86	39
60	0.86	3098	350	BG30-../DPE09XB4C	29.83	1169	5200	-	-	86	39
60	1.2	3098	350	BG40-../DPE09XB4C	29.34	1529	6800	-	-	119	54
60	1.8	3098	350	BG50-../DPE09XB4C	29.62	1798	8000	-	-	119	54
55	1.1	3363	380	BG40-../DPE09XB4C	32.57	1574	7000	-	-	119	54
55	3.2	3363	380	BG60-../DPE09XB4C	32.48	3462	15400	-	-	137	62
54	1.65	3408	385	BG50-../DPE09XB4C	32.84	1956	8700	-	-	137	62
52	1.05	3540	400	BG40-../DPE09XB4C	34.20	1574	7000	-	-	119	54
46.5	0.94	3983	450	BG40-../DPE09XB4C	37.96	1574	7000	-	-	119	54
46.5	1.4	3983	450	BG50-../DPE09XB4C	37.89	2248	10000	-	-	137	62
45.5	2.6	4071	460	BG60-../DPE09XB4C	38.85	3597	16000	-	-	137	62
44	0.89	4204	475	BG40-../DPE09XB4C	40.19	1574	7000	-	-	119	54
42	1.25	4425	500	BG50-../DPE09XB4C	42.00	2248	10000	-	-	137	62
41	2.4	4514	510	BG60-../DPE09XB4C	43.05	3597	16000	-	-	137	62
39.5	0.8	4691	530	BG40-../DPE09XB4C	44.62	1574	7000	-	-	119	54
37.5	1.15	4956	560	BG50-../DPE09XB4C	47.02	2248	10000	-	-	137	62
35	2.0	5310	600	BG60-../DPE09XB4C	50.31	3597	16000	-	-	137	62
34	1.05	5399	610	BG50-../DPE09XB4C	52.12	2248	10000	-	-	137	62
32	1.85	5753	650	BG60-../DPE09XB4C	55.76	3597	16000	-	-	137	62
30	0.9	6196	700	BG50-../DPE09XB4C	59.42	2248	10000	-	-	137	62
29.5	3.2	6284	710	BG70-../DPE09XB4C	59.82	4496	20000	-	-	203	92
29	1.65	6373	720	BG60-../DPE09XB4C	60.90	3597	16000	-	-	137	62
27.5	3.0	6727	760	BG70Z-../DPE09XB4C	64.85	4496	20000	-	-	203	92
27	0.82	6815	770	BG50-../DPE09XB4C	65.86	2248	10000	-	-	137	62
26.5	1.5	6992	790	BG60-../DPE09XB4C	67.49	3597	16000	-	-	137	62
26	1.5	7081	800	BG60Z-../DPE09XB4C	68.32	3597	16000	-	-	137	62
24	2.6	7700	870	BG70Z-../DPE09XB4C	73.82	4496	20000	-	-	203	92
23.5	1.35	7877	890	BG60Z-../DPE09XB4C	75.71	3597	16000	-	-	203	92
20.5	2.3	9028	1020	BG70Z-../DPE09XB4C	87.61	4496	20000	-	-	203	92
19.5	1.1	9470	1070	BG60Z-../DPE09XB4C	91.09	3597	16000	-	-	203	92
18.5	2.0	10001	1130	BG70Z-../DPE09XB4C	95.74	4496	20000	-	-	203	92
17.5	1.0	10621	1200	BG60Z-../DPE09XB4C	101.0	3597	16000	-	-	203	92
16	3.2	11594	1310	BG80Z-../DPE09XB4C	112.4	5845	26000	-	-	333	151
15.5	1.7	11949	1350	BG70Z-../DPE09XB4C	113.6	4496	20000	-	-	203	92
15	0.86	12391	1400	BG60Z-../DPE09XB4C	119.2	3597	16000	-	-	203	92
14.5	1.6	12745	1440	BG70Z-../DPE09XB4C	124.0	4496	20000	-	-	203	92
14.5	2.9	12745	1440	BG80Z-../DPE09XB4C	124.8	5845	26000	-	-	333	151
12.5	2.5	14869	1680	BG80Z-../DPE09XB4C	145.4	5845	26000	-	-	333	151
12	1.3	15489	1750	BG70Z-../DPE09XB4C	147.2	4496	20000	-	-	203	92
11	1.2	16905	1910	BG70Z-../DPE09XB4C	163.8	4496	20000	-	-	203	92
11	2.2	16905	1910	BG80Z-../DPE09XB4C	161.5	5845	26000	-	-	333	151
9.5	1.9	19472	2200	BG80Z-../DPE09XB4C	186.8	5845	26000	-	-	483	219
9.1	1.0	20357	2300	BG70Z-../DPE09XB4C	194.4	4496	20000	-	-	333	151
8.5	1.7	21684	2450	BG80Z-../DPE09XB4C	207.4	5845	26000	-	-	483	219

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

BG-series helical-geared motors

Selection helical-geared motors

3 HP (2.2 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
8.4	0.92	22127	2500	BG70Z-../DPE09XB4C	210.5	4496	20000	-	-	333	151
7.8	1.9	21242	2400	BG80G40-../DPE09XB4C	227.2	5845	26000	-	-	483	219
7.8	3.2	23454	2650	BG90Z-../DPE09XB4C	228.1	14613	65000	-	-	509	231
7.0	1.75	23454	2650	BG80G40-../DPE09XB4C	252.3	5845	26000	-	-	483	219
6.9	0.86	25667	2900	BG70G20-../DPE09XB4C	255.5	4496	20000	-	-	333	151
6.3	1.55	26552	3000	BG80G40-../DPE09XB4C	282.8	5845	26000	-	-	509	231
5.9	2.8	28765	3250	BG90G50-../DPE09XB4C	298.8	14613	65000	-	-	509	231
5.7	1.4	29207	3300	BG80G40-../DPE09XB4C	314.0	5845	26000	-	-	509	231
4.9	1.15	34960	3950	BG80G40-../DPE09XB4C	360.0	5845	26000	-	-	509	231
4.9	2.4	33633	3800	BG90G50-../DPE09XB4C	360.3	14613	65000	-	-	509	231
4.5	1.1	37616	4250	BG80G40-../DPE09XB4C	399.8	5845	26000	-	-	509	231
4.1	0.97	42041	4750	BG80G40-../DPE09XB4C	436.2	5845	26000	-	-	509	231
4.1	1.95	41599	4700	BG90G50-../DPE09XB4C	435.8	14613	65000	-	-	509	231
3.7	0.87	46909	5300	BG80G40-../DPE09XB4C	484.3	5845	26000	-	-	509	231
3.5	1.65	48679	5500	BG90G50-../DPE09XB4C	504.7	14613	65000	-	-	509	231
3.5	3.1	53104	6000	BG100Z-../DPE09XB4C	508.5	20233	90000	-	-	1164	528
3.0	1.45	56645	6400	BG90G50-../DPE09XB4C	588.8	14613	65000	-	-	509	231
3.0	2.6	61955	7000	BG100Z-../DPE09XB4C	591.1	20233	90000	-	-	1164	528
2.8	1.35	60185	6800	BG90G50-../DPE09XB4C	644.7	14613	65000	-	-	750	340
2.7	2.4	68151	7700	BG100Z-../DPE09XB4C	658.1	20233	90000	-	-	1164	528
2.5	1.2	68151	7700	BG90G50-../DPE09XB4C	714.2	14613	65000	-	-	750	340
2.4	2.1	77001	8700	BG100Z-../DPE09XB4C	759.0	20233	90000	-	-	1164	528
2.1	1.85	88507	10000	BG100Z-../DPE09XB4C	845.1	20233	90000	-	-	1164	528
2.0	0.94	86737	9800	BG90G50-../DPE09XB4C	883.7	14613	65000	-	-	750	340
1.9	1.95	83197	9400	BG100G50-../DPE09XB4C	976.1	20233	90000	-	-	1164	528
1.7	1.7	96473	10900	BG100G50-../DPE09XB4C	1043	20233	90000	-	-	1164	528
1.5	1.5	108864	12300	BG100G50-../DPE09XB4C	1204	20233	90000	-	-	1164	528
1.3	1.25	130106	14700	BG100G50-../DPE09XB4C	1444	20233	90000	-	-	1164	528
1.1	1.05	154003	17400	BG100G50-../DPE09XB4C	1678	20233	90000	-	-	1162	527

6

4 HP (3 kW)

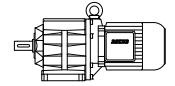
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
660	3.0	381	43	BG30-../DPE11LA4	2.67	326	1450	-	-	1162	527
520	2.5	487	55	BG30-../DPE11LA4	3.40	355	1580	-	-	0	
420	2.5	602	68	BG30-../DPE11LA4	4.21	366	1630	-	-	0	
325	2.3	779	88	BG30-../DPE11LA4	5.44	375	1670	-	-	0	
275	3.0	920	104	BG40-../DPE11LA4	6.40	843	3750	-	-	128	58
265	2.1	956	108	BG30-../DPE11LA4	6.76	573	2550	-	-	0	
250	2.9	1009	114	BG40-../DPE11LA4	7.11	888	3950	-	-	128	58
235	1.9	1071	121	BG30-../DPE11LA4	7.50	618	2750	-	-	0	
235	2.4	1071	121	BG40-../DPE11LA4	7.62	596	2650	-	-	128	58
225	1.7	1124	127	BG30-../DPE11LA4	7.91	396	1760	-	-	0	
215	2.6	1177	133	BG40-../DPE11LA4	8.31	922	4100	-	-	128	58
205	1.75	1230	139	BG30-../DPE11LA4	8.60	629	2800	-	-	0	
196	2.0	1292	146	BG40-../DPE11LA4	9.00	596	2650	-	-	128	58
191	2.4	1328	150	BG40-../DPE11LA4	9.23	978	4350	-	-	170	77
185	1.65	1363	154	BG30-../DPE11LA4	9.55	674	3000	-	-	0	
171	2.3	1478	167	BG40-../DPE11LA4	10.35	978	4350	-	-	170	77
166	1.55	1522	172	BG30-../DPE11LA4	10.65	663	2950	-	-	128	58
154	2.1	1646	186	BG40-../DPE11LA4	11.49	1034	4600	-	-	170	77
149	1.45	1699	192	BG30-../DPE11LA4	11.82	719	3200	-	-	128	58
146	2.9	1735	196	BG50-../DPE11LA4	12.06	1281	5700	-	-	190	86
137	2.0	1814	205	BG40-../DPE11LA4	12.86	1012	4500	-	-	170	77
132	2.8	1903	215	BG50-../DPE11LA4	13.36	1371	6100	-	-	190	86
128	1.35	1947	220	BG30-../DPE11LA4	13.77	708	3150	-	-	128	58
124	1.85	2036	230	BG40-../DPE11LA4	14.28	1102	4900	-	-	170	77

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

BG-series helical-geared motors

Selection helical-geared motors

4 HP (3 kW)



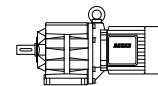
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
116	1.2	2168	245	BG30-../DPE11LA4	15.27	776	3450	-	-	128	58
108	1.6	2345	265	BG40-../DPE11LA4	16.39	1191	5300	-	-	170	77
107	2.4	2345	265	BG50-../DPE11LA4	16.53	1461	6500	-	-	190	86
104	1.1	2434	275	BG30-../DPE11LA4	17.06	832	3700	-	-	128	58
97	1.45	2611	295	BG40-../DPE11LA4	18.19	1259	5600	-	-	170	77
97	2.1	2611	295	BG50-../DPE11LA4	18.33	1619	7200	-	-	190	86
93	0.98	2699	305	BG30-../DPE11LA4	18.93	922	4100	-	-	128	58
89	0.94	2832	320	BG30-../DPE11LA4	19.99	944	4200	-	-	128	58
89	1.35	2832	320	BG40-../DPE11LA4	19.84	1304	5800	-	-	170	77
81	1.8	3098	350	BG50-../DPE11LA4	21.96	1798	8000	-	-	190	86
80	0.85	3142	355	BG30-../DPE11LA4	22.18	1034	4600	-	-	128	58
80	1.2	3142	355	BG40-../DPE11LA4	22.02	1349	6000	-	-	170	77
79	3.3	3186	360	BG60-../DPE11LA4	22.40	2990	13300	-	-	262	119
76	1.15	3319	375	BG40-../DPE11LA4	23.43	1394	6200	-	-	170	77
73	1.6	3452	390	BG50-../DPE11LA4	24.34	1956	8700	-	-	190	86
71	3.0	3540	400	BG60-../DPE11LA4	24.82	3102	13800	-	-	262	119
68	1.0	3717	420	BG40-../DPE11LA4	26.01	1461	6500	-	-	170	77
61	2.6	4116	465	BG60-../DPE11LA4	29.31	3327	14800	-	-	262	119
60	1.35	4204	475	BG50-../DPE11LA4	29.62	1798	8000	-	-	190	86
55	2.3	4602	520	BG60-../DPE11LA4	32.48	3462	15400	-	-	262	119
54	1.2	4691	530	BG50-../DPE11LA4	32.84	1956	8700	-	-	190	86
46.5	1.05	5399	610	BG50-../DPE11LA4	37.89	2248	10000	-	-	190	86
45.5	1.95	5487	620	BG60-../DPE11LA4	38.85	3597	16000	-	-	262	119
42	0.93	6019	680	BG50-../DPE11LA4	42.00	2248	10000	-	-	190	86
41	1.75	6107	690	BG60-../DPE11LA4	43.05	3597	16000	-	-	262	119
38	3.1	6638	750	BG70-../DPE11LA4	46.54	4496	20000	-	-	328	149
37.5	0.83	6727	760	BG50-../DPE11LA4	47.02	2248	10000	-	-	190	86
35	1.5	7169	810	BG60-../DPE11LA4	50.31	3597	16000	-	-	262	119
35	2.8	7169	810	BG70-../DPE11LA4	50.40	4496	20000	-	-	328	149
32	1.35	7877	890	BG60-../DPE11LA4	55.76	3597	16000	-	-	262	119
29.5	2.4	8585	970	BG70-../DPE11LA4	59.82	4496	20000	-	-	328	149
29	1.2	8674	980	BG60-../DPE11LA4	60.90	3597	16000	-	-	262	119
27.5	2.2	9205	1040	BG70Z-../DPE11LA4	64.85	4496	20000	-	-	328	149
26.5	1.1	9559	1080	BG60-../DPE11LA4	67.49	3597	16000	-	-	262	119
26	1.1	9736	1100	BG60Z-../DPE11LA4	68.32	3597	16000	-	-	262	119
24	1.95	10532	1190	BG70Z-../DPE11LA4	73.82	4496	20000	-	-	328	149
23.5	0.99	10709	1210	BG60Z-../DPE11LA4	75.71	3597	16000	-	-	262	119
21	3.1	12037	1360	BG80Z-../DPE11LA4	84.55	5845	26000	-	-	388	176
20.5	1.65	12303	1390	BG70Z-../DPE11LA4	87.61	4496	20000	-	-	328	149
19.5	0.82	12922	1460	BG60Z-../DPE11LA4	91.09	3597	16000	-	-	298	135
19	2.8	13276	1500	BG80Z-../DPE11LA4	93.89	5845	26000	-	-	388	176
18.5	1.5	13630	1540	BG70Z-../DPE11LA4	95.74	4496	20000	-	-	328	149
16	2.3	15843	1790	BG80Z-../DPE11LA4	112.4	5845	26000	-	-	388	176
15.5	1.25	16285	1840	BG70Z-../DPE11LA4	113.6	4496	20000	-	-	328	149
14.5	1.15	17436	1970	BG70Z-../DPE11LA4	124.0	4496	20000	-	-	388	176
14.5	2.1	17436	1970	BG80Z-../DPE11LA4	124.8	5845	26000	-	-	388	176
12.5	1.85	19914	2250	BG80Z-../DPE11LA4	145.4	5845	26000	-	-	388	176
12	0.98	20799	2350	BG70Z-../DPE11LA4	147.2	4496	20000	-	-	388	176
11	0.88	23012	2600	BG70Z-../DPE11LA4	163.8	4496	20000	-	-	388	176
11	1.6	23012	2600	BG80Z-../DPE11LA4	161.5	5845	26000	-	-	388	176
11	3.2	23012	2600	BG90Z-../DPE11LA4	163.0	14613	65000	-	-	560	254
9.9	2.9	25225	2850	BG90Z-../DPE11LA4	178.5	14613	65000	-	-	560	254
9.5	1.4	26552	3000	BG80Z-../DPE11LA4	186.8	5845	26000	-	-	388	176
8.5	1.25	29650	3350	BG80Z-../DPE11LA4	207.4	5845	26000	-	-	388	176
8.5	2.5	29650	3350	BG90Z-../DPE11LA4	208.3	14613	65000	-	-	560	254
7.8	1.35	29650	3350	BG80G40-../DPE11LA4	227.2	5845	26000	-	-	388	176
7.8	2.3	32305	3650	BG90Z-../DPE11LA4	228.1	14613	65000	-	-	560	254
7.0	1.25	33190	3750	BG80G40-../DPE11LA4	252.3	5845	26000	-	-	388	176
6.8	2.5	33190	3750	BG90G50-../DPE11LA4	262.5	14613	65000	-	-	560	254
6.3	1.1	37173	4200	BG80G40-../DPE11LA4	282.8	5845	26000	-	-	560	254
5.9	2.0	40271	4550	BG90G50-../DPE11LA4	298.8	14613	65000	-	-	560	254
5.7	0.99	41156	4650	BG80G40-../DPE11LA4	314.0	5845	26000	-	-	560	254

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

BG-series helical-geared motors

Selection helical-geared motors

4 HP (3 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
4.9	0.84	48679	5500	BG80G40-../DPE11LA4	360.0	5845	26000	-	-	560	254
4.9	1.75	46909	5300	BG90G50-../DPE11LA4	360.3	14613	65000	-	-	560	254
4.7	3.1	53104	6000	BG100Z-../DPE11LA4	382.6	20233	90000	-	-	805	365
4.1	1.4	58415	6600	BG90G50-../DPE11LA4	435.8	14613	65000	-	-	560	254
3.9	2.5	64610	7300	BG100Z-../DPE11LA4	456.7	20233	90000	-	-	805	365
3.5	1.2	68151	7700	BG90G50-../DPE11LA4	504.7	14613	65000	-	-	805	365
3.5	2.3	71691	8100	BG100Z-../DPE11LA4	508.5	20233	90000	-	-	805	365
3.0	1.05	78772	8900	BG90G50-../DPE11LA4	588.8	14613	65000	-	-	805	365
3.0	1.95	84082	9500	BG100Z-../DPE11LA4	591.1	20233	90000	-	-	805	365
2.8	0.96	84967	9600	BG90G50-../DPE11LA4	644.7	14613	65000	-	-	805	365
2.7	1.75	93818	10600	BG100Z-../DPE11LA4	658.1	20233	90000	-	-	805	365
2.5	0.85	95588	10800	BG90G50-../DPE11LA4	714.2	14613	65000	-	-	805	365
2.4	1.55	105324	11900	BG100Z-../DPE11LA4	759.0	20233	90000	-	-	805	365
2.1	1.35	120370	13600	BG100Z-../DPE11LA4	845.1	20233	90000	-	-	805	365
1.9	1.4	118600	13400	BG100G50-../DPE11LA4	976.1	20233	90000	-	-	1217	552
1.7	1.2	136301	15400	BG100G50-../DPE11LA4	1043	20233	90000	-	-	1217	552
1.5	1.05	154003	17400	BG100G50-../DPE11LA4	1204	20233	90000	-	-	1217	552
1.3	0.9	182325	20600	BG100G50-../DPE11LA4	1444	20233	90000	-	-	1217	552

6

5 HP (3.7 kW)

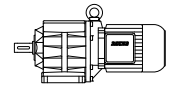
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
660	2.4	469	53	BG30-../DPE11LA4	2.67	326	1450	-	-	1217	552
520	2.1	593	67	BG30-../DPE11LA4	3.40	355	1580	-	-	1217	552
445	3.1	699	79	BG40-../DPE11LA4	3.97	540	2400	-	-	128	58
420	2.0	743	84	BG30-../DPE11LA4	4.21	366	1630	-	-	1217	552
360	2.7	867	98	BG40-../DPE11LA4	4.94	551	2450	-	-	170	77
325	1.85	956	108	BG30-../DPE11LA4	5.44	375	1670	-	-	128	58
275	2.4	1133	128	BG40-../DPE11LA4	6.40	843	3750	-	-	170	77
265	1.7	1177	133	BG30-../DPE11LA4	6.76	573	2550	-	-	128	58
250	2.3	1248	141	BG40-../DPE11LA4	7.11	888	3950	-	-	170	77
235	1.55	1328	150	BG30-../DPE11LA4	7.50	618	2750	-	-	128	58
235	1.95	1328	150	BG40-../DPE11LA4	7.62	596	2650	-	-	170	77
225	1.4	1390	157	BG30-../DPE11LA4	7.91	396	1760	-	-	128	58
215	2.1	1452	164	BG40-../DPE11LA4	8.31	922	4100	-	-	170	77
205	1.45	1522	172	BG30-../DPE11LA4	8.60	629	2800	-	-	128	58
205	3.0	1522	172	BG50-../DPE11LA4	8.70	1191	5300	-	-	170	77
196	1.65	1593	180	BG40-../DPE11LA4	9.00	596	2650	-	-	170	77
191	1.95	1637	185	BG40-../DPE11LA4	9.23	978	4350	-	-	170	77
185	1.35	1690	191	BG30-../DPE11LA4	9.55	674	3000	-	-	128	58
183	2.7	1708	193	BG50-../DPE11LA4	9.65	1259	5600	-	-	170	77
171	1.85	1814	205	BG40-../DPE11LA4	10.35	978	4350	-	-	170	77
166	1.25	1859	210	BG30-../DPE11LA4	10.65	663	2950	-	-	128	58
154	1.75	1991	225	BG40-../DPE11LA4	11.49	1034	4600	-	-	170	77
149	1.15	2080	235	BG30-../DPE11LA4	11.82	719	3200	-	-	128	58
146	2.4	2124	240	BG50-../DPE11LA4	12.06	1281	5700	-	-	170	77
137	1.6	2257	255	BG40-../DPE11LA4	12.86	1012	4500	-	-	170	77
132	2.2	2345	265	BG50-../DPE11LA4	13.36	1371	6100	-	-	170	77
128	1.05	2434	275	BG30-../DPE11LA4	13.77	708	3150	-	-	128	58
124	1.5	2478	280	BG40-../DPE11LA4	14.28	1102	4900	-	-	170	77
116	1.0	2655	300	BG30-../DPE11LA4	15.27	776	3450	-	-	128	58
108	1.3	2876	325	BG40-../DPE11LA4	16.39	1191	5300	-	-	170	77
107	1.9	2921	330	BG50-../DPE11LA4	16.53	1461	6500	-	-	170	77
105	3.3	2965	335	BG60-../DPE11LA4	16.80	2698	12000	-	-	190	86
104	0.9	2965	335	BG30-../DPE11LA4	17.06	832	3700	-	-	128	58
97	1.2	3186	360	BG40-../DPE11LA4	18.19	1259	5600	-	-	170	77
97	1.75	3186	360	BG50-../DPE11LA4	18.33	1619	7200	-	-	170	77

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

BG-series helical-geared motors

Selection helical-geared motors

5 HP (3.7 kW)



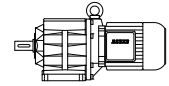
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
95	3.1	3275	370	BG60-../DPE11LA4	18.62	2788	12400	-	-	190	86
93	0.8	3319	375	BG30-../DPE11LA4	18.93	922	4100	-	-	128	58
89	1.1	3496	395	BG40-../DPE11LA4	19.84	1304	5800	-	-	170	77
81	1.45	3850	435	BG50-../DPE11LA4	21.96	1798	8000	-	-	190	86
80	0.97	3894	440	BG40-../DPE11LA4	22.02	1349	6000	-	-	170	77
79	2.7	3939	445	BG60-../DPE11LA4	22.40	2990	13300	-	-	190	86
76	0.92	4071	460	BG40-../DPE11LA4	23.43	1394	6200	-	-	170	77
73	1.3	4248	480	BG50-../DPE11LA4	24.34	1956	8700	-	-	190	86
71	2.4	4381	495	BG60-../DPE11LA4	24.82	3102	13800	-	-	190	86
68	0.83	4514	510	BG40-../DPE11LA4	26.01	1461	6500	-	-	170	77
61	2.1	5045	570	BG60-../DPE11LA4	29.31	3327	14800	-	-	190	86
60	1.1	5133	580	BG50-../DPE11LA4	29.62	1798	8000	-	-	190	86
55	1.9	5664	640	BG60-../DPE11LA4	32.48	3462	15400	-	-	190	86
54	0.97	5753	650	BG50-../DPE11LA4	32.84	1956	8700	-	-	190	86
50	3.3	6196	700	BG70-../DPE11LA4	35.24	4114	18300	-	-	262	119
46.5	0.84	6638	750	BG50-../DPE11LA4	37.89	2248	10000	-	-	190	86
45.5	1.55	6815	770	BG60-../DPE11LA4	38.85	3597	16000	-	-	262	119
45	2.9	6904	780	BG70-../DPE11LA4	39.22	4294	19100	-	-	328	149
41	1.4	7612	860	BG60-../DPE11LA4	43.05	3597	16000	-	-	262	119
38	2.5	8143	920	BG70-../DPE11LA4	46.54	4496	20000	-	-	328	149
35	1.2	8851	1000	BG60-../DPE11LA4	50.31	3597	16000	-	-	262	119
35	2.3	8851	1000	BG70-../DPE11LA4	50.40	4496	20000	-	-	328	149
32	1.1	9736	1100	BG60-../DPE11LA4	55.76	3597	16000	-	-	262	119
29.5	1.95	10532	1190	BG70-../DPE11LA4	59.82	4496	20000	-	-	328	149
29	0.99	10709	1210	BG60-../DPE11LA4	60.90	3597	16000	-	-	262	119
28	3.3	11152	1260	BG80-../DPE11LA4	63.56	5845	26000	-	-	388	176
27.5	1.8	11329	1280	BG70Z-../DPE11LA4	64.85	4496	20000	-	-	388	176
27	3.2	11506	1300	BG80Z-../DPE11LA4	66.40	5845	26000	-	-	388	176
26.5	0.9	11771	1330	BG60-../DPE11LA4	67.49	3597	16000	-	-	262	119
26	0.89	11949	1350	BG60Z-../DPE11LA4	68.32	3597	16000	-	-	262	119
24	1.55	13011	1470	BG70Z-../DPE11LA4	73.82	4496	20000	-	-	388	176
24	2.9	13011	1470	BG80Z-../DPE11LA4	73.73	5845	26000	-	-	388	176
23.5	0.8	13276	1500	BG60Z-../DPE11LA4	75.71	3597	16000	-	-	262	119
21	2.5	14869	1680	BG80Z-../DPE11LA4	84.55	5845	26000	-	-	388	176
20.5	1.35	15223	1720	BG70Z-../DPE11LA4	87.61	4496	20000	-	-	388	176
19	2.3	16374	1850	BG80Z-../DPE11LA4	93.89	5845	26000	-	-	388	176
18.5	1.2	16905	1910	BG70Z-../DPE11LA4	95.74	4496	20000	-	-	388	176
16	1.9	19472	2200	BG80Z-../DPE11LA4	112.4	5845	26000	-	-	542	246
15.5	1.0	19914	2250	BG70Z-../DPE11LA4	113.6	4496	20000	-	-	388	176
14.5	0.96	21242	2400	BG70Z-../DPE11LA4	124.0	4496	20000	-	-	388	176
14.5	1.75	21242	2400	BG80Z-../DPE11LA4	124.8	5845	26000	-	-	542	246
13	3.1	23897	2700	BG90Z-../DPE11LA4	139.2	14613	65000	-	-	542	246
12.5	1.5	24782	2800	BG80Z-../DPE11LA4	145.4	5845	26000	-	-	542	246
11	1.3	28322	3200	BG80Z-../DPE11LA4	161.5	5845	26000	-	-	542	246
11	2.6	28322	3200	BG90Z-../DPE11LA4	163.0	14613	65000	-	-	542	246
9.9	2.4	31420	3550	BG90Z-../DPE11LA4	178.5	14613	65000	-	-	542	246
9.5	1.15	32748	3700	BG80Z-../DPE11LA4	186.8	5845	26000	-	-	542	246
8.5	1.0	36731	4150	BG80Z-../DPE11LA4	207.4	5845	26000	-	-	542	246
8.5	2.0	36731	4150	BG90Z-../DPE11LA4	208.3	14613	65000	-	-	542	246
7.8	1.1	37616	4250	BG80G40-../DPE11LA4	227.2	5845	26000	-	-	542	246
7.8	1.85	39828	4500	BG90Z-../DPE11LA4	228.1	14613	65000	-	-	767	348
7.0	0.98	41599	4700	BG80G40-../DPE11LA4	252.3	5845	26000	-	-	542	246
6.8	1.95	42041	4750	BG90G50-../DPE11LA4	262.5	14613	65000	-	-	767	348
6.8	3.3	45139	5100	BG100-../DPE11LA4	259.0	20233	90000	-	-	767	348
6.3	0.87	46909	5300	BG80G40-../DPE11LA4	282.8	5845	26000	-	-	542	246
5.9	1.6	50449	5700	BG90G50-../DPE11LA4	298.8	14613	65000	-	-	767	348
5.9	3.1	52219	5900	BG100Z-../DPE11LA4	300.4	20233	90000	-	-	767	348
5.2	2.8	59300	6700	BG100Z-../DPE11LA4	343.6	20233	90000	-	-	767	348
4.9	1.35	59300	6700	BG90G50-../DPE11LA4	360.3	14613	65000	-	-	767	348
4.7	2.5	66381	7500	BG100Z-../DPE11LA4	382.6	20233	90000	-	-	767	348
4.1	1.1	72576	8200	BG90G50-../DPE11LA4	435.8	14613	65000	-	-	767	348
3.9	2.1	79657	9000	BG100Z-../DPE11LA4	456.7	20233	90000	-	-	767	348

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

BG-series helical-geared motors

Selection helical-geared motors

5 HP (3.7 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
3.5	0.96	84967	9600	BG90G50-../DPE11LA4	504.7	14613	65000	-	-	767	348
3.5	1.85	88507	10000	BG100Z-../DPE11LA4	508.5	20233	90000	-	-	1224	555
3.0	0.82	99128	11200	BG90G50-../DPE11LA4	588.8	14613	65000	-	-	767	348
3.0	1.6	103554	11700	BG100Z-../DPE11LA4	591.1	20233	90000	-	-	1224	555
2.7	1.4	115060	13000	BG100Z-../DPE11LA4	658.1	20233	90000	-	-	1224	555
2.4	1.25	130106	14700	BG100Z-../DPE11LA4	759.0	20233	90000	-	-	1224	555
2.1	1.1	148693	16800	BG100Z-../DPE11LA4	845.1	20233	90000	-	-	1224	555
1.9	1.1	150463	17000	BG100G50-../DPE11LA4	976.1	20233	90000	-	-	1224	555
1.7	0.96	170819	19300	BG100G50-../DPE11LA4	1043	20233	90000	-	-	1224	555
1.5	0.84	193831	21900	BG100G50-../DPE11LA4	1204	20233	90000	-	-	1224	555

6 HP (4.5 kW)



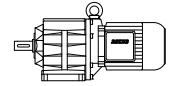
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
660	1.95	575	65	BG30-../DPE11LB4	2.67	326	1450	-	-	1232	559
560	2.9	673	76	BG40-../DPE11LB4	3.19	528	2350	-	-	128	58
520	1.7	726	82	BG30-../DPE11LB4	3.40	355	1580	-	-	1232	559
445	2.5	850	96	BG40-../DPE11LB4	3.97	540	2400	-	-	128	58
420	1.7	903	102	BG30-../DPE11LB4	4.21	366	1630	-	-	1232	559
360	2.3	1053	119	BG40-../DPE11LB4	4.94	551	2450	-	-	170	77
360	3.3	1053	119	BG50-../DPE11LB4	4.91	787	3500	-	-	190	86
325	1.5	1168	132	BG30-../DPE11LB4	5.44	375	1670	-	-	1232	559
290	3.0	1310	148	BG50-../DPE11LB4	6.07	1057	4700	-	-	190	86
275	2.0	1381	156	BG40-../DPE11LB4	6.40	843	3750	-	-	170	77
265	1.4	1434	162	BG30-../DPE11LB4	6.76	573	2550	-	-	128	58
265	2.8	1434	162	BG50-../DPE11LB4	6.74	843	3750	-	-	190	86
250	1.9	1513	171	BG40-../DPE11LB4	7.11	888	3950	-	-	170	77
235	1.25	1611	182	BG30-../DPE11LB4	7.50	618	2750	-	-	128	58
235	1.6	1611	182	BG40-../DPE11LB4	7.62	596	2650	-	-	170	77
225	1.15	1690	191	BG30-../DPE11LB4	7.91	396	1760	-	-	128	58
215	1.75	1761	199	BG40-../DPE11LB4	8.31	922	4100	-	-	170	77
205	1.2	1814	205	BG30-../DPE11LB4	8.60	629	2800	-	-	128	58
205	2.5	1814	205	BG50-../DPE11LB4	8.70	1191	5300	-	-	190	86
196	1.35	1903	215	BG40-../DPE11LB4	9.00	596	2650	-	-	170	77
191	1.6	1991	225	BG40-../DPE11LB4	9.23	978	4350	-	-	170	77
185	1.1	2036	230	BG30-../DPE11LB4	9.55	674	3000	-	-	128	58
183	2.3	2036	230	BG50-../DPE11LB4	9.65	1259	5600	-	-	190	86
171	1.5	2213	250	BG40-../DPE11LB4	10.35	978	4350	-	-	170	77
166	1.05	2257	255	BG30-../DPE11LB4	10.65	663	2950	-	-	128	58
154	1.4	2434	275	BG40-../DPE11LB4	11.49	1034	4600	-	-	170	77
149	0.96	2522	285	BG30-../DPE11LB4	11.82	719	3200	-	-	128	58
146	2.0	2567	290	BG50-../DPE11LB4	12.06	1281	5700	-	-	190	86
137	1.35	2744	310	BG40-../DPE11LB4	12.86	1012	4500	-	-	170	77
132	1.85	2876	325	BG50-../DPE11LB4	13.36	1371	6100	-	-	190	86
131	3.1	2876	325	BG60-../DPE11LB4	13.47	2518	11200	-	-	262	119
128	0.88	2965	335	BG30-../DPE11LB4	13.77	708	3150	-	-	128	58
124	1.2	3054	345	BG40-../DPE11LB4	14.28	1102	4900	-	-	170	77
116	0.81	3275	370	BG30-../DPE11LB4	15.27	776	3450	-	-	128	58
108	1.1	3496	395	BG40-../DPE11LB4	16.39	1191	5300	-	-	170	77
107	1.6	3540	400	BG50-../DPE11LB4	16.53	1461	6500	-	-	190	86
105	2.7	3585	405	BG60-../DPE11LB4	16.80	2698	12000	-	-	262	119
97	0.97	3894	440	BG40-../DPE11LB4	18.19	1259	5600	-	-	170	77
97	1.45	3894	440	BG50-../DPE11LB4	18.33	1619	7200	-	-	190	86
95	2.5	3983	450	BG60-../DPE11LB4	18.62	2788	12400	-	-	262	119
89	0.89	4248	480	BG40-../DPE11LB4	19.84	1304	5800	-	-	170	77
81	1.2	4691	530	BG50-../DPE11LB4	21.96	1798	8000	-	-	190	86
80	0.8	4691	530	BG40-../DPE11LB4	22.02	1349	6000	-	-	170	77

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

BG-series helical-geared motors

Selection helical-geared motors

6 HP (4.5 kW)



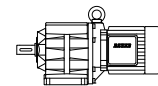
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
79	2.2	4779	540	BG60-../DPE11LB4	22.40	2990	13300	-	-	262	119
73	1.1	5133	580	BG50-../DPE11LB4	24.34	1956	8700	-	-	190	86
71	2.0	5310	600	BG60-../DPE11LB4	24.82	3102	13800	-	-	262	119
61	1.7	6196	700	BG60-../DPE11LB4	29.31	3327	14800	-	-	262	119
60	0.89	6284	710	BG50-../DPE11LB4	29.62	1798	8000	-	-	190	86
60	3.2	6284	710	BG70-../DPE11LB4	29.69	3799	16900	-	-	328	149
55	1.55	6904	780	BG60-../DPE11LB4	32.48	3462	15400	-	-	262	119
54	0.8	6992	790	BG50-../DPE11LB4	32.84	1956	8700	-	-	190	86
50	2.7	7523	850	BG70-../DPE11LB4	35.24	4114	18300	-	-	328	149
45.5	1.3	8320	940	BG60-../DPE11LB4	38.85	3597	16000	-	-	262	119
45	2.4	8408	950	BG70-../DPE11LB4	39.22	4294	19100	-	-	328	149
41	1.15	9205	1040	BG60-../DPE11LB4	43.05	3597	16000	-	-	262	119
38	2.0	10001	1130	BG70-../DPE11LB4	46.54	4496	20000	-	-	328	149
35	0.98	10798	1220	BG60-../DPE11LB4	50.31	3597	16000	-	-	262	119
35	1.9	10798	1220	BG70-../DPE11LB4	50.40	4496	20000	-	-	328	149
32	0.9	11860	1340	BG60-../DPE11LB4	55.76	3597	16000	-	-	262	119
31	3.0	12214	1380	BG80-../DPE11LB4	57.24	5710	25400	-	-	450	204
29.5	1.6	12834	1450	BG70-../DPE11LB4	59.82	4496	20000	-	-	328	149
29	0.81	13099	1480	BG60-../DPE11LB4	60.90	3597	16000	-	-	262	119
28	2.7	13542	1530	BG80-../DPE11LB4	63.56	5845	26000	-	-	450	204
27.5	1.45	13807	1560	BG70Z-../DPE11LB4	64.85	4496	20000	-	-	388	176
27	2.6	14073	1590	BG80Z-../DPE11LB4	66.40	5845	26000	-	-	542	246
24	1.3	15843	1790	BG70Z-../DPE11LB4	73.82	4496	20000	-	-	388	176
24	2.3	15843	1790	BG80Z-../DPE11LB4	73.73	5845	26000	-	-	542	246
21	2.1	17701	2000	BG80Z-../DPE11LB4	84.55	5845	26000	-	-	542	246
20.5	1.1	18144	2050	BG70Z-../DPE11LB4	87.61	4496	20000	-	-	388	176
19	1.85	19914	2250	BG80Z-../DPE11LB4	93.89	5845	26000	-	-	542	246
18.5	1.0	20357	2300	BG70Z-../DPE11LB4	95.74	4496	20000	-	-	388	176
16	1.6	23454	2650	BG80Z-../DPE11LB4	112.4	5845	26000	-	-	542	246
15.5	0.84	24340	2750	BG70Z-../DPE11LB4	113.6	4496	20000	-	-	388	176
14.5	1.4	26110	2950	BG80Z-../DPE11LB4	124.8	5845	26000	-	-	542	246
14	2.8	26995	3050	BG90Z-../DPE11LB4	127.1	14613	65000	-	-	767	348
13	2.5	29207	3300	BG90Z-../DPE11LB4	139.2	14613	65000	-	-	767	348
12.5	1.25	30093	3400	BG80Z-../DPE11LB4	145.4	5845	26000	-	-	542	246
11	1.1	34518	3900	BG80Z-../DPE11LB4	161.5	5845	26000	-	-	542	246
11	2.2	34518	3900	BG90Z-../DPE11LB4	163.0	14613	65000	-	-	767	348
9.9	1.95	38058	4300	BG90Z-../DPE11LB4	178.5	14613	65000	-	-	767	348
9.5	0.93	39828	4500	BG80Z-../DPE11LB4	186.8	5845	26000	-	-	542	246
8.5	0.84	44254	5000	BG80Z-../DPE11LB4	207.4	5845	26000	-	-	542	246
8.5	1.7	44254	5000	BG90Z-../DPE11LB4	208.3	14613	65000	-	-	767	348
7.8	0.88	46024	5200	BG80G40-../DPE11LB4	227.2	5845	26000	-	-	560	254
7.8	1.55	48679	5500	BG90Z-../DPE11LB4	228.1	14613	65000	-	-	767	348
7.6	3.0	49564	5600	BG100-../DPE11LB4	232.6	20233	90000	-	-	1025	465
6.8	1.6	51334	5800	BG90G50-../DPE11LB4	262.5	14613	65000	-	-	805	365
6.8	2.7	55760	6300	BG100-../DPE11LB4	259.0	20233	90000	-	-	1025	465
6.6	2.8	57530	6500	BG100Z-../DPE11LB4	269.8	20233	90000	-	-	1224	555
5.9	1.35	61070	6900	BG90G50-../DPE11LB4	298.8	14613	65000	-	-	805	365
5.9	2.6	63725	7200	BG100Z-../DPE11LB4	300.4	20233	90000	-	-	1224	555
5.2	2.3	72576	8200	BG100Z-../DPE11LB4	343.6	20233	90000	-	-	1224	555
4.9	1.1	72576	8200	BG90G50-../DPE11LB4	360.3	14613	65000	-	-	805	365
4.7	2.0	80542	9100	BG100Z-../DPE11LB4	382.6	20233	90000	-	-	1224	555
4.1	0.92	88507	10000	BG90G50-../DPE11LB4	435.8	14613	65000	-	-	805	365
3.9	1.7	97358	11000	BG100Z-../DPE11LB4	456.7	20233	90000	-	-	1224	555
3.5	1.5	107979	12200	BG100Z-../DPE11LB4	508.5	20233	90000	-	-	1224	555
3.0	1.3	126566	14300	BG100Z-../DPE11LB4	591.1	20233	90000	-	-	1224	555
2.7	1.15	140727	15900	BG100Z-../DPE11LB4	658.1	20233	90000	-	-	1224	555
2.4	1.05	158428	17900	BG100Z-../DPE11LB4	759.0	20233	90000	-	-	1224	555
2.1	0.91	180555	20400	BG100Z-../DPE11LB4	845.1	20233	90000	-	-	1224	555
1.9	0.88	185866	21000	BG100G50-../DPE11LB4	976.1	20233	90000	-	-	1217	552

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

BG-series helical-geared motors

Selection helical-geared motors

7.5 HP (5.5 kW)



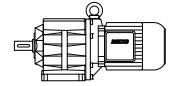
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
720	2.8	637	72	BG40-../DPE11LB4C	2.46	483	2150	-	-	179	81
660	1.6	699	79	BG30-../DPE11LB4C	2.67	326	1450	-	-	137	62
560	2.4	823	93	BG40-../DPE11LB4C	3.19	528	2350	-	-	179	81
520	1.4	894	101	BG30-../DPE11LB4C	3.40	355	1580	-	-	137	62
500	3.3	929	105	BG50-../DPE11LB4C	3.55	742	3300	-	-	198	90
445	2.1	1044	118	BG40-../DPE11LB4C	3.97	540	2400	-	-	179	81
420	1.35	1106	125	BG30-../DPE11LB4C	4.21	366	1630	-	-	137	62
360	1.85	1283	145	BG40-../DPE11LB4C	4.94	551	2450	-	-	179	81
360	2.7	1283	145	BG50-../DPE11LB4C	4.91	787	3500	-	-	198	90
325	1.25	1425	161	BG30-../DPE11LB4C	5.44	375	1670	-	-	137	62
290	2.4	1602	181	BG50-../DPE11LB4C	6.07	1057	4700	-	-	198	90
275	1.65	1690	191	BG40-../DPE11LB4C	6.40	843	3750	-	-	179	81
265	1.15	1752	198	BG30-../DPE11LB4C	6.76	573	2550	-	-	137	62
265	2.3	1752	198	BG50-../DPE11LB4C	6.74	843	3750	-	-	198	90
250	1.55	1859	210	BG40-../DPE11LB4C	7.11	888	3950	-	-	179	81
235	1.05	1947	220	BG30-../DPE11LB4C	7.50	618	2750	-	-	137	62
235	1.35	1947	220	BG40-../DPE11LB4C	7.62	596	2650	-	-	179	81
225	0.94	2036	230	BG30-../DPE11LB4C	7.91	396	1760	-	-	137	62
215	1.45	2124	240	BG40-../DPE11LB4C	8.31	922	4100	-	-	179	81
205	0.96	2257	255	BG30-../DPE11LB4C	8.60	629	2800	-	-	137	62
205	2.0	2257	255	BG50-../DPE11LB4C	8.70	1191	5300	-	-	198	90
196	1.1	2345	265	BG40-../DPE11LB4C	9.00	596	2650	-	-	179	81
193	3.3	2390	270	BG60-../DPE11LB4C	9.13	2203	9800	-	-	271	123
191	1.3	2434	275	BG40-../DPE11LB4C	9.23	978	4350	-	-	179	81
185	0.91	2478	280	BG30-../DPE11LB4C	9.55	674	3000	-	-	137	62
183	1.85	2522	285	BG50-../DPE11LB4C	9.65	1259	5600	-	-	198	90
174	3.0	2655	300	BG60-../DPE11LB4C	10.12	2293	10200	-	-	271	123
171	1.25	2699	305	BG40-../DPE11LB4C	10.35	978	4350	-	-	179	81
166	0.84	2788	315	BG30-../DPE11LB4C	10.65	663	2950	-	-	137	62
154	1.15	3009	340	BG40-../DPE11LB4C	11.49	1034	4600	-	-	179	81
146	1.6	3142	355	BG50-../DPE11LB4C	12.06	1281	5700	-	-	198	90
145	2.7	3186	360	BG60-../DPE11LB4C	12.16	2428	10800	-	-	271	123
137	1.1	3363	380	BG40-../DPE11LB4C	12.86	1012	4500	-	-	179	81
132	1.5	3496	395	BG50-../DPE11LB4C	13.36	1371	6100	-	-	198	90
131	2.6	3540	400	BG60-../DPE11LB4C	13.47	2518	11200	-	-	271	123
124	1.0	3717	420	BG40-../DPE11LB4C	14.28	1102	4900	-	-	179	81
108	0.88	4293	485	BG40-../DPE11LB4C	16.39	1191	5300	-	-	179	81
107	1.3	4337	490	BG50-../DPE11LB4C	16.53	1461	6500	-	-	198	90
105	2.2	4425	500	BG60-../DPE11LB4C	16.80	2698	12000	-	-	271	123
97	1.15	4779	540	BG50-../DPE11LB4C	18.33	1619	7200	-	-	198	90
95	2.1	4868	550	BG60-../DPE11LB4C	18.62	2788	12400	-	-	271	123
81	0.98	5664	640	BG50-../DPE11LB4C	21.96	1798	8000	-	-	198	90
79	1.8	5841	660	BG60-../DPE11LB4C	22.40	2990	13300	-	-	271	123
73	0.89	6284	710	BG50-../DPE11LB4C	24.34	1956	8700	-	-	198	90
71	1.65	6461	730	BG60-../DPE11LB4C	24.82	3102	13800	-	-	271	123
65	2.9	7081	800	BG70-../DPE11LB4C	27.21	3687	16400	-	-	337	153
61	1.4	7612	860	BG60-../DPE11LB4C	29.31	3327	14800	-	-	271	123
60	2.6	7700	870	BG70-../DPE11LB4C	29.69	3799	16900	-	-	337	153
55	1.25	8408	950	BG60-../DPE11LB4C	32.48	3462	15400	-	-	271	123
50	2.2	9293	1050	BG70-../DPE11LB4C	35.24	4114	18300	-	-	337	153
45.5	1.05	10178	1150	BG60-../DPE11LB4C	38.85	3597	16000	-	-	271	123
45	2.0	10267	1160	BG70-../DPE11LB4C	39.22	4294	19100	-	-	337	153
41	0.94	11329	1280	BG60-../DPE11LB4C	43.05	3597	16000	-	-	271	123
40.5	3.3	11417	1290	BG80-../DPE11LB4C	43.94	5081	22600	-	-	459	208
38	1.65	12214	1380	BG70-../DPE11LB4C	46.54	4496	20000	-	-	337	153
36.5	2.9	12657	1430	BG80-../DPE11LB4C	48.80	5350	23800	-	-	459	208
35	0.8	13276	1500	BG60-../DPE11LB4C	50.31	3597	16000	-	-	271	123
35	1.55	13276	1500	BG70-../DPE11LB4C	50.40	4496	20000	-	-	337	153
31	2.5	14958	1690	BG80-../DPE11LB4C	57.24	5710	25400	-	-	459	208
29.5	1.3	15754	1780	BG70-../DPE11LB4C	59.82	4496	20000	-	-	337	153
28	2.2	16551	1870	BG80-../DPE11LB4C	63.56	5845	26000	-	-	459	208
27.5	1.2	16905	1910	BG70Z-../DPE11LB4C	64.85	4496	20000	-	-	397	180

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

BG-series helical-geared motors

Selection helical-geared motors

7.5 HP (5.5 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
27	2.2	17170	1940	BG80Z-../DPE11LB4C	66.40	5845	26000	-	-	551	250
24	1.05	19029	2150	BG70Z-../DPE11LB4C	73.82	4496	20000	-	-	397	180
24	1.95	19029	2150	BG80Z-../DPE11LB4C	73.73	5845	26000	-	-	551	250
21	1.7	22127	2500	BG80Z-../DPE11LB4C	84.55	5845	26000	-	-	551	250
20.5	0.9	22569	2550	BG70Z-../DPE11LB4C	87.61	4496	20000	-	-	397	180
19	1.55	24340	2750	BG80Z-../DPE11LB4C	93.89	5845	26000	-	-	551	250
18.5	0.82	24782	2800	BG70Z-../DPE11LB4C	95.74	4496	20000	-	-	397	180
18.5	3.0	24782	2800	BG90Z-../DPE11LB4C	96.53	14613	65000	-	-	776	352
17	2.8	26995	3050	BG90Z-../DPE11LB4C	105.7	14613	65000	-	-	776	352
16	1.3	28765	3250	BG80Z-../DPE11LB4C	112.4	5845	26000	-	-	551	250
14.5	1.15	31863	3600	BG80Z-../DPE11LB4C	124.8	5845	26000	-	-	551	250
14	2.2	33190	3750	BG90Z-../DPE11LB4C	127.1	14613	65000	-	-	776	352
13	2.1	35403	4000	BG90Z-../DPE11LB4C	139.2	14613	65000	-	-	776	352
12.5	1.0	37173	4200	BG80Z-../DPE11LB4C	145.4	5845	26000	-	-	551	250
11	0.88	42041	4750	BG80Z-../DPE11LB4C	161.5	5845	26000	-	-	551	250
11	1.75	42041	4750	BG90Z-../DPE11LB4C	163.0	14613	65000	-	-	776	352
9.9	1.6	46909	5300	BG90Z-../DPE11LB4C	178.5	14613	65000	-	-	776	352
9.9	3.2	46909	5300	BG100-../DPE11LB4C	178.6	20233	90000	-	-	1034	469
8.9	2.8	52219	5900	BG100-../DPE11LB4C	198.8	20233	90000	-	-	1034	469
8.5	1.4	53990	6100	BG90Z-../DPE11LB4C	208.3	14613	65000	-	-	776	352
7.8	1.25	59300	6700	BG90Z-../DPE11LB4C	228.1	14613	65000	-	-	776	352
7.6	2.4	61070	6900	BG100-../DPE11LB4C	232.6	20233	90000	-	-	1034	469
6.8	1.3	63725	7200	BG90G50-../DPE11LB4C	262.5	14613	65000	-	-	814	369
6.8	2.2	68151	7700	BG100-../DPE11LB4C	259.0	20233	90000	-	-	1034	469
6.6	2.3	69921	7900	BG100Z-../DPE11LB4C	269.8	20233	90000	-	-	1232	559
5.9	1.05	76116	8600	BG90G50-../DPE11LB4C	298.8	14613	65000	-	-	814	369
5.9	2.1	78772	8900	BG100Z-../DPE11LB4C	300.4	20233	90000	-	-	1232	559
5.2	1.85	89393	10100	BG100Z-../DPE11LB4C	343.6	20233	90000	-	-	1232	559
4.9	0.9	90278	10200	BG90G50-../DPE11LB4C	360.3	14613	65000	-	-	814	369
4.7	1.65	98243	11100	BG100Z-../DPE11LB4C	382.6	20233	90000	-	-	1232	559
3.9	1.4	118600	13400	BG100Z-../DPE11LB4C	456.7	20233	90000	-	-	1232	559
3.5	1.25	132761	15000	BG100Z-../DPE11LB4C	508.5	20233	90000	-	-	1232	559
3.0	1.05	154888	17500	BG100Z-../DPE11LB4C	591.1	20233	90000	-	-	1232	559
2.7	0.95	171704	19400	BG100Z-../DPE11LB4C	658.1	20233	90000	-	-	1232	559
2.4	0.85	192946	21800	BG100Z-../DPE11LB4C	759.0	20233	90000	-	-	1232	559

10 HP (7.5 kW)

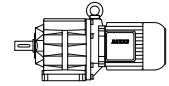
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
720	3.1	876	99	BG50-../DPE13XA4	2.47	652	2900	-	-	225	102
500	2.4	1266	143	BG50-../DPE13XA4	3.55	742	3300	-	-	225	102
360	2.0	1752	198	BG50-../DPE13XA4	4.91	787	3500	-	-	225	102
290	1.8	2168	245	BG50-../DPE13XA4	6.07	1057	4700	-	-	225	102
290	3.2	2168	245	BG60-../DPE13XA4	6.16	1911	8500	-	-	300	136
265	1.65	2390	270	BG50-../DPE13XA4	6.74	843	3750	-	-	225	102
260	2.8	2434	275	BG60-../DPE13XA4	6.88	1933	8600	-	-	300	136
205	1.45	3054	345	BG50-../DPE13XA4	8.70	1191	5300	-	-	225	102
193	2.4	3275	370	BG60-../DPE13XA4	9.13	2203	9800	-	-	300	136
183	1.35	3452	390	BG50-../DPE13XA4	9.65	1259	5600	-	-	225	102
174	2.2	3629	410	BG60-../DPE13XA4	10.12	2293	10200	-	-	300	136
146	1.2	4337	490	BG50-../DPE13XA4	12.06	1281	5700	-	-	225	102
145	2.0	4337	490	BG60-../DPE13XA4	12.16	2428	10800	-	-	300	136
132	1.1	4779	540	BG50-../DPE13XA4	13.36	1371	6100	-	-	225	102
131	1.9	4779	540	BG60-../DPE13XA4	13.47	2518	11200	-	-	300	136
107	0.95	5841	660	BG50-../DPE13XA4	16.53	1461	6500	-	-	225	102
105	1.65	6019	680	BG60-../DPE13XA4	16.80	2698	12000	-	-	300	136
100	3.2	6284	710	BG70-../DPE13XA4	17.68	3012	13400	-	-	366	166

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

BG-series helical-geared motors

Selection helical-geared motors

10 HP (7.5 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
97	0.86	6461	730	BG50-../DPE13XA4	18.33	1619	7200	-	-	225	102
95	1.55	6638	750	BG60-../DPE13XA4	18.62	2788	12400	-	-	300	136
84	2.7	7523	850	BG70-../DPE13XA4	20.98	3282	14600	-	-	366	166
79	1.35	7966	900	BG60-../DPE13XA4	22.40	2990	13300	-	-	300	136
77	2.5	8231	930	BG70-../DPE13XA4	22.92	3395	15100	-	-	366	166
71	1.2	8851	1000	BG60-../DPE13XA4	24.82	3102	13800	-	-	300	136
65	2.1	9736	1100	BG70-../DPE13XA4	27.21	3687	16400	-	-	366	166
61	1.05	10355	1170	BG60-../DPE13XA4	29.31	3327	14800	-	-	300	136
60	1.95	10532	1190	BG70-../DPE13XA4	29.69	3799	16900	-	-	366	166
55	0.92	11506	1300	BG60-../DPE13XA4	32.48	3462	15400	-	-	300	136
52	3.1	12126	1370	BG80-../DPE13XA4	34.22	4541	20200	-	-	485	220
50	1.6	12657	1430	BG70-../DPE13XA4	35.24	4114	18300	-	-	366	166
46.5	2.7	13630	1540	BG80-../DPE13XA4	38.00	4788	21300	-	-	485	220
45	1.45	14073	1590	BG70-../DPE13XA4	39.22	4294	19100	-	-	366	166
40.5	2.4	15577	1760	BG80-../DPE13XA4	43.94	5081	22600	-	-	485	220
38	1.2	16639	1880	BG70-../DPE13XA4	46.54	4496	20000	-	-	366	166
36.5	2.1	17347	1960	BG80-../DPE13XA4	48.80	5350	23800	-	-	485	220
35	1.15	17701	2000	BG70-../DPE13XA4	50.40	4496	20000	-	-	366	166
31	1.85	20357	2300	BG80-../DPE13XA4	57.24	5710	25400	-	-	485	220
31	3.0	20357	2300	BG90Z-../DPE13XA4	57.04	14613	65000	-	-	805	365
29.5	0.96	21242	2400	BG70-../DPE13XA4	59.82	4496	20000	-	-	366	166
28.5	3.0	22127	2500	BG90Z-../DPE13XA4	62.47	14613	65000	-	-	805	365
28	1.65	22569	2550	BG80-../DPE13XA4	63.56	5845	26000	-	-	485	220
27.5	0.88	23012	2600	BG70Z-../DPE13XA4	64.85	4496	20000	-	-	423	192
27	1.6	23454	2650	BG80Z-../DPE13XA4	66.40	5845	26000	-	-	580	263
24	1.4	26110	2950	BG80Z-../DPE13XA4	73.73	5845	26000	-	-	580	263
23	2.7	27437	3100	BG90Z-../DPE13XA4	76.61	14613	65000	-	-	805	365
21	1.25	30093	3400	BG80Z-../DPE13XA4	84.55	5845	26000	-	-	580	263
21	2.5	30093	3400	BG90Z-../DPE13XA4	83.91	14613	65000	-	-	805	365
19	1.1	33190	3750	BG80Z-../DPE13XA4	93.89	5845	26000	-	-	580	263
18.5	2.2	34075	3850	BG90Z-../DPE13XA4	96.53	14613	65000	-	-	805	365
17	2.0	37173	4200	BG90Z-../DPE13XA4	105.7	14613	65000	-	-	805	365
16	0.94	39386	4450	BG80Z-../DPE13XA4	112.4	5845	26000	-	-	580	263
14.5	0.86	43369	4900	BG80Z-../DPE13XA4	124.8	5845	26000	-	-	580	263
14	1.65	45139	5100	BG90Z-../DPE13XA4	127.1	14613	65000	-	-	805	365
13	1.55	48679	5500	BG90Z-../DPE13XA4	139.2	14613	65000	-	-	805	365
13	3.1	48679	5500	BG100-../DPE13XA4	139.1	20233	90000	-	-	1060	481
11.5	2.7	54875	6200	BG100-../DPE13XA4	154.8	20233	90000	-	-	1060	481
11	1.3	57530	6500	BG90Z-../DPE13XA4	163.0	14613	65000	-	-	805	365
9.9	1.15	63725	7200	BG90Z-../DPE13XA4	178.5	14613	65000	-	-	805	365
9.9	2.3	63725	7200	BG100-../DPE13XA4	178.6	20233	90000	-	-	1060	481
8.9	2.1	70806	8000	BG100-../DPE13XA4	198.8	20233	90000	-	-	1060	481
8.5	1.0	74346	8400	BG90Z-../DPE13XA4	208.3	14613	65000	-	-	805	365
7.8	0.92	80542	9100	BG90Z-../DPE13XA4	228.1	14613	65000	-	-	805	365
7.6	1.8	83197	9400	BG100-../DPE13XA4	232.6	20233	90000	-	-	1060	481
6.8	0.91	89393	10100	BG90G50-../DPE13XA4	262.5	14613	65000	-	-	840	381
6.8	1.6	92933	10500	BG100-../DPE13XA4	259.0	20233	90000	-	-	1060	481
6.6	1.7	95588	10800	BG100Z-../DPE13XA4	269.8	20233	90000	-	-	1261	572
5.9	1.55	107094	12100	BG100Z-../DPE13XA4	300.4	20233	90000	-	-	1261	572
5.2	1.35	121255	13700	BG100Z-../DPE13XA4	343.6	20233	90000	-	-	1261	572
4.7	1.2	134531	15200	BG100Z-../DPE13XA4	382.6	20233	90000	-	-	1261	572
3.9	1.0	161969	18300	BG100Z-../DPE13XA4	456.7	20233	90000	-	-	1261	572
3.5	0.91	180555	20400	BG100Z-../DPE13XA4	508.5	20233	90000	-	-	1261	572

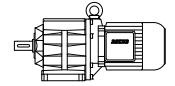
The torques marked (*) are maximum permissible torques for service factor $f_B=1.0$.



BG-series helical-geared motors

Selection helical-geared motors

12.75 HP (9.5 kW)

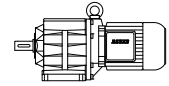


RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
720	2.4	1115	126	BG50-../DPE16LB4	2.47	652	2900	-	-	304	138
500	1.9	1602	181	BG50-../DPE16LB4	3.55	742	3300	-	-	304	138
475	3.2	1690	191	BG60-../DPE16LB4	3.74	1596	7100	-	-	379	172
365	1.6	2168	245	BG50-../DPE16LB4	4.91	787	3500	-	-	304	138
360	2.8	2213	250	BG60-../DPE16LB4	4.98	1754	7800	-	-	379	172
295	1.45	2699	305	BG50-../DPE16LB4	6.07	1057	4700	-	-	304	138
290	2.5	2744	310	BG60-../DPE16LB4	6.16	1911	8500	-	-	379	172
265	1.3	3009	340	BG50-../DPE16LB4	6.74	843	3750	-	-	304	138
260	2.3	3054	345	BG60-../DPE16LB4	6.88	1933	8600	-	-	379	172
205	1.15	3894	440	BG50-../DPE16LB4	8.70	1191	5300	-	-	304	138
194	1.9	4116	465	BG60-../DPE16LB4	9.13	2203	9800	-	-	379	172
184	1.05	4337	490	BG50-../DPE16LB4	9.65	1259	5600	-	-	304	138
175	1.8	4514	510	BG60-../DPE16LB4	10.12	2293	10200	-	-	379	172
147	0.94	5399	610	BG50-../DPE16LB4	12.06	1281	5700	-	-	304	138
146	1.6	5487	620	BG60-../DPE16LB4	12.16	2428	10800	-	-	379	172
133	0.87	6019	680	BG50-../DPE16LB4	13.36	1371	6100	-	-	304	138
132	1.5	6019	680	BG60-../DPE16LB4	13.47	2518	11200	-	-	379	172
114	2.9	6992	790	BG70-../DPE16LB4	15.53	2855	12700	-	-	454	206
106	1.3	7523	850	BG60-../DPE16LB4	16.80	2698	12000	-	-	379	172
101	2.6	7877	890	BG70-../DPE16LB4	17.68	3012	13400	-	-	454	206
96	1.2	8320	940	BG60-../DPE16LB4	18.62	2788	12400	-	-	379	172
85	2.2	9382	1060	BG70-../DPE16LB4	20.98	3282	14600	-	-	454	206
80	1.05	10001	1130	BG60-../DPE16LB4	22.40	2990	13300	-	-	379	172
78	2.0	10267	1160	BG70-../DPE16LB4	22.92	3395	15100	-	-	454	206
72	0.95	11152	1260	BG60-../DPE16LB4	24.82	3102	13800	-	-	379	172
67	3.1	11949	1350	BG80-../DPE16LB4	26.44	4024	17900	-	-	564	256
66	1.7	12126	1370	BG70-../DPE16LB4	27.21	3687	16400	-	-	454	206
61	0.81	13099	1480	BG60-../DPE16LB4	29.31	3327	14800	-	-	379	172
61	2.8	13099	1480	BG80-../DPE16LB4	29.36	4249	18900	-	-	564	256
60	1.5	13365	1510	BG70-../DPE16LB4	29.69	3799	16900	-	-	454	206
52	2.4	15400	1740	BG80-../DPE16LB4	34.22	4541	20200	-	-	564	256
51	1.3	15666	1770	BG70-../DPE16LB4	35.24	4114	18300	-	-	454	206
47	2.2	17082	1930	BG80-../DPE16LB4	38.00	4788	21300	-	-	564	256
45.5	1.15	17613	1990	BG70-../DPE16LB4	39.22	4294	19100	-	-	454	206
40.5	1.9	19472	2200	BG80-../DPE16LB4	43.94	5081	22600	-	-	564	256
38.5	0.98	20799	2350	BG70-../DPE16LB4	46.54	4496	20000	-	-	454	206
36.5	1.7	21684	2450	BG80-../DPE16LB4	48.80	5350	23800	-	-	564	256
35.5	0.9	22569	2550	BG70-../DPE16LB4	50.40	4496	20000	-	-	454	206
33.5	3.1	23897	2700	BG90-../DPE16LB4	53.46	14613	65000	-	-	763	346
31.5	2.4	25225	2850	BG90Z-../DPE16LB4	57.04	14613	65000	-	-	893	405
31	1.45	25667	2900	BG80-../DPE16LB4	57.24	5710	25400	-	-	564	256
28.5	2.4	27880	3150	BG90Z-../DPE16LB4	62.47	14613	65000	-	-	893	405
28	1.3	28322	3200	BG80Z-../DPE16LB4	63.56	5845	26000	-	-	564	256
27	1.25	29650	3350	BG80Z-../DPE16LB4	66.40	5845	26000	-	-	659	299
24.5	1.15	32748	3700	BG80Z-../DPE16LB4	73.73	5845	26000	-	-	659	299
23.5	2.2	34075	3850	BG90Z-../DPE16LB4	76.61	14613	65000	-	-	893	405
21.5	2.0	37173	4200	BG90Z-../DPE16LB4	83.91	14613	65000	-	-	893	405
21	0.98	38058	4300	BG80Z-../DPE16LB4	84.55	5845	26000	-	-	659	299
19	0.88	42041	4750	BG80Z-../DPE16LB4	93.89	5845	26000	-	-	659	299
18.5	1.7	43369	4900	BG90Z-../DPE16LB4	96.53	14613	65000	-	-	893	405
17	1.6	46909	5300	BG90Z-../DPE16LB4	105.7	14613	65000	-	-	893	405
16.5	3.1	47794	5400	BG100-../DPE16LB4	107.5	20233	90000	-	-	1138	516
15	2.8	53104	6000	BG100-../DPE16LB4	119.7	20233	90000	-	-	1138	516
14	1.3	56645	6400	BG90Z-../DPE16LB4	127.1	14613	65000	-	-	893	405
13	1.2	61070	6900	BG90Z-../DPE16LB4	139.2	14613	65000	-	-	893	405
13	2.4	61070	6900	BG100-../DPE16LB4	139.1	20233	90000	-	-	1138	516
11.5	2.2	69036	7800	BG100-../DPE16LB4	154.8	20233	90000	-	-	1138	516
11	1.0	72576	8200	BG90Z-../DPE16LB4	163.0	14613	65000	-	-	893	405
10	0.93	79657	9000	BG90Z-../DPE16LB4	178.5	14613	65000	-	-	893	405
10	1.85	79657	9000	BG100-../DPE16LB4	178.6	20233	90000	-	-	1138	516
9.0	1.7	88507	10000	BG100-../DPE16LB4	198.8	20233	90000	-	-	1138	516
8.1	0.84	96473	10900	BG90G50-../DPE16LB4	219.9	14613	65000	-	-	919	417

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

BG-series helical-geared motors

Selection helical-geared motors



12.75 HP (9.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
7.7	1.45	103554	11700	BG100-../DPE16LB4	232.6	20233	90000	-	-	1138	516
6.9	1.3	115945	13100	BG100-../DPE16LB4	259.0	20233	90000	-	-	1138	516
6.6	1.35	121255	13700	BG100Z-../DPE16LB4	269.8	20233	90000	-	-	1340	608
5.9	1.2	135416	15300	BG100Z-../DPE16LB4	300.4	20233	90000	-	-	1340	608
5.2	1.05	154003	17400	BG100Z-../DPE16LB4	343.6	20233	90000	-	-	1340	608
4.7	0.96	170819	19300	BG100Z-../DPE16LB4	382.6	20233	90000	-	-	1340	608
3.9	0.8	205337	23200	BG100Z-../DPE16LB4	456.7	20233	90000	-	-	1340	608

15 HP (11 kW)

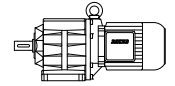
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
720	2.1	1283	145	BG50-../DPE16LB4	2.47	652	2900	-	-	304	138
500	1.65	1859	210	BG50-../DPE16LB4	3.55	742	3300	-	-	304	138
475	2.8	1947	220	BG60-../DPE16LB4	3.74	1596	7100	-	-	379	172
365	1.4	2522	285	BG50-../DPE16LB4	4.91	787	3500	-	-	304	138
360	2.4	2567	290	BG60-../DPE16LB4	4.98	1754	7800	-	-	379	172
295	1.25	3142	355	BG50-../DPE16LB4	6.07	1057	4700	-	-	304	138
290	2.1	3186	360	BG60-../DPE16LB4	6.16	1911	8500	-	-	379	172
265	1.15	3496	395	BG50-../DPE16LB4	6.74	843	3750	-	-	304	138
260	1.95	3540	400	BG60-../DPE16LB4	6.88	1933	8600	-	-	379	172
205	1.0	4514	510	BG50-../DPE16LB4	8.70	1191	5300	-	-	304	138
194	1.65	4779	540	BG60-../DPE16LB4	9.13	2203	9800	-	-	379	172
184	0.92	5045	570	BG50-../DPE16LB4	9.65	1259	5600	-	-	304	138
175	1.5	5310	600	BG60-../DPE16LB4	10.12	2293	10200	-	-	379	172
148	3.3	6196	700	BG70-../DPE16LB4	11.97	2518	11200	-	-	454	206
147	0.81	6284	710	BG50-../DPE16LB4	12.06	1281	5700	-	-	304	138
146	1.4	6284	710	BG60-../DPE16LB4	12.16	2428	10800	-	-	379	172
136	3.0	6815	770	BG70-../DPE16LB4	13.08	2608	11600	-	-	454	206
132	1.3	6992	790	BG60-../DPE16LB4	13.47	2518	11200	-	-	379	172
114	2.5	8143	920	BG70-../DPE16LB4	15.53	2855	12700	-	-	454	206
106	1.1	8762	990	BG60-../DPE16LB4	16.80	2698	12000	-	-	379	172
101	2.2	9205	1040	BG70-../DPE16LB4	17.68	3012	13400	-	-	454	206
96	1.05	9647	1090	BG60-../DPE16LB4	18.62	2788	12400	-	-	379	172
85	1.85	10886	1230	BG70-../DPE16LB4	20.98	3282	14600	-	-	454	206
81	3.3	11417	1290	BG80-../DPE16LB4	22.09	3709	16500	-	-	564	256
80	0.92	11594	1310	BG60-../DPE16LB4	22.40	2990	13300	-	-	379	172
78	1.7	11860	1340	BG70-../DPE16LB4	22.92	3395	15100	-	-	454	206
72	0.83	12834	1450	BG60-../DPE16LB4	24.82	3102	13800	-	-	379	172
67	2.7	13807	1560	BG80-../DPE16LB4	26.44	4024	17900	-	-	564	256
66	1.45	14073	1590	BG70-../DPE16LB4	27.21	3687	16400	-	-	454	206
61	2.4	15223	1720	BG80-../DPE16LB4	29.36	4249	18900	-	-	564	256
60	1.3	15489	1750	BG70-../DPE16LB4	29.69	3799	16900	-	-	454	206
52	2.1	17701	2000	BG80-../DPE16LB4	34.22	4541	20200	-	-	564	256
51	1.1	18144	2050	BG70-../DPE16LB4	35.24	4114	18300	-	-	454	206
47	1.9	19472	2200	BG80-../DPE16LB4	38.00	4788	21300	-	-	564	256
45.5	1.0	20357	2300	BG70-../DPE16LB4	39.22	4294	19100	-	-	454	206
40.5	1.65	22569	2550	BG80-../DPE16LB4	43.94	5081	22600	-	-	564	256
38.5	0.85	23897	2700	BG70-../DPE16LB4	46.54	4496	20000	-	-	454	206
36.5	1.45	25225	2850	BG80-../DPE16LB4	48.80	5350	23800	-	-	564	256
36.5	2.9	25225	2850	BG90-../DPE16LB4	48.82	14613	65000	-	-	763	346
33.5	2.7	27437	3100	BG90-../DPE16LB4	53.46	14613	65000	-	-	763	346
31.5	2.1	29207	3300	BG90Z-../DPE16LB4	57.04	14613	65000	-	-	893	405
31	1.25	29650	3350	BG80-../DPE16LB4	57.24	5710	25400	-	-	564	256
28.5	2.1	32305	3650	BG90Z-../DPE16LB4	62.47	14613	65000	-	-	893	405
28	1.1	33190	3750	BG80-../DPE16LB4	63.56	5845	26000	-	-	564	256
27	1.1	34075	3850	BG80Z-../DPE16LB4	66.40	5845	26000	-	-	659	299
24.5	0.99	37616	4250	BG80Z-../DPE16LB4	73.73	5845	26000	-	-	659	299

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

BG-series helical-geared motors

Selection helical-geared motors

15 HP (11 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
23.5	1.9	39386	4450	BG90Z-../DPE16LB4	76.61	14613	65000	-	-	893	405
21.5	1.75	42926	4850	BG90Z-../DPE16LB4	83.91	14613	65000	-	-	893	405
21	0.84	44254	5000	BG80Z-../DPE16LB4	84.55	5845	26000	-	-	659	299
20	3.2	46024	5200	BG100-../DPE16LB4	90.02	20233	90000	-	-	1138	516
18.5	1.5	49564	5600	BG90Z-../DPE16LB4	96.53	14613	65000	-	-	893	405
17	1.4	53990	6100	BG90Z-../DPE16LB4	105.7	14613	65000	-	-	893	405
16.5	2.7	55760	6300	BG100-../DPE16LB4	107.5	20233	90000	-	-	1138	516
15	2.4	61955	7000	BG100-../DPE16LB4	119.7	20233	90000	-	-	1138	516
14	1.1	66381	7500	BG90Z-../DPE16LB4	127.1	14613	65000	-	-	893	405
13	1.05	70806	8000	BG90Z-../DPE16LB4	139.2	14613	65000	-	-	893	405
13	2.1	70806	8000	BG100-../DPE16LB4	139.1	20233	90000	-	-	1138	516
11.5	1.85	80542	9100	BG100-../DPE16LB4	154.8	20233	90000	-	-	1138	516
11	0.88	84082	9500	BG90Z-../DPE16LB4	163.0	14613	65000	-	-	893	405
10	0.8	92933	10500	BG90Z-../DPE16LB4	178.5	14613	65000	-	-	893	405
10	1.6	92933	10500	BG100-../DPE16LB4	178.6	20233	90000	-	-	1138	516
9.0	1.45	102669	11600	BG100-../DPE16LB4	198.8	20233	90000	-	-	1138	516
7.7	1.25	120370	13600	BG100-../DPE16LB4	232.6	20233	90000	-	-	1138	516
6.9	1.1	134531	15200	BG100-../DPE16LB4	259.0	20233	90000	-	-	1138	516
6.6	1.15	140727	15900	BG100Z-../DPE16LB4	269.8	20233	90000	-	-	1340	608
5.9	1.05	157543	17800	BG100Z-../DPE16LB4	300.4	20233	90000	-	-	1340	608
5.2	0.92	178785	20200	BG100Z-../DPE16LB4	343.6	20233	90000	-	-	1340	608
4.7	0.83	197372	22300	BG100Z-../DPE16LB4	382.6	20233	90000	-	-	1340	608

20 HP (15 kW)

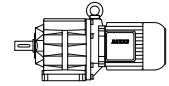
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
720	1.55	1752	198	BG50-../DPE16XB4	2.47	652	2900	-	-	326	148
710	2.7	1770	200	BG60-../DPE16XB4	2.52	1394	6200	-	-	401	182
500	1.2	2522	285	BG50-../DPE16XB4	3.55	742	3300	-	-	326	148
475	2.0	2655	300	BG60-../DPE16XB4	3.74	1596	7100	-	-	401	182
365	1.0	3452	390	BG50-../DPE16XB4	4.91	787	3500	-	-	326	148
360	1.75	3496	395	BG60-../DPE16XB4	4.98	1754	7800	-	-	401	182
295	0.91	4293	485	BG50-../DPE16XB4	6.07	1057	4700	-	-	326	148
290	1.6	4337	490	BG60-../DPE16XB4	6.16	1911	8500	-	-	401	182
265	0.83	4779	540	BG50-../DPE16XB4	6.74	843	3750	-	-	326	148
260	1.4	4868	550	BG60-../DPE16XB4	6.88	1933	8600	-	-	401	182
194	1.2	6461	730	BG60-../DPE16XB4	9.13	2203	9800	-	-	401	182
176	2.8	7169	810	BG70-../DPE16XB4	10.09	2293	10200	-	-	476	216
175	1.15	7169	810	BG60-../DPE16XB4	10.12	2293	10200	-	-	401	182
148	2.4	8497	960	BG70-../DPE16XB4	11.97	2518	11200	-	-	476	216
146	1.0	8674	980	BG60-../DPE16XB4	12.16	2428	10800	-	-	401	182
136	2.2	9293	1050	BG70-../DPE16XB4	13.08	2608	11600	-	-	476	216
132	0.94	9559	1080	BG60-../DPE16XB4	13.47	2518	11200	-	-	401	182
114	1.85	11063	1250	BG70-../DPE16XB4	15.53	2855	12700	-	-	476	216
106	0.82	11949	1350	BG60-../DPE16XB4	16.80	2698	12000	-	-	401	182
103	3.0	12303	1390	BG80-../DPE16XB4	17.35	3282	14600	-	-	586	266
101	1.65	12480	1410	BG70-../DPE16XB4	17.68	3012	13400	-	-	476	216
89	2.6	14161	1600	BG80-../DPE16XB4	19.89	3485	15500	-	-	586	266
85	1.35	14869	1680	BG70-../DPE16XB4	20.98	3282	14600	-	-	476	216
81	2.4	15577	1760	BG80-../DPE16XB4	22.09	3709	16500	-	-	586	266
78	1.25	16197	1830	BG70-../DPE16XB4	22.92	3395	15100	-	-	476	216
67	2.0	18587	2100	BG80-../DPE16XB4	26.44	4024	17900	-	-	586	266
66	1.05	19029	2150	BG70-../DPE16XB4	27.21	3687	16400	-	-	476	216
61	1.85	20357	2300	BG80-../DPE16XB4	29.36	4249	18900	-	-	586	266
60	0.98	20799	2350	BG70-../DPE16XB4	29.69	3799	16900	-	-	476	216
55	3.2	23012	2600	BG90-../DPE16XB4	32.62	14613	65000	-	-	785	356
52	1.55	24340	2750	BG80-../DPE16XB4	34.22	4541	20200	-	-	586	266

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

BG-series helical-geared motors

Selection helical-geared motors

20 HP (15 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
51	0.82	24782	2800	BG70-../DPE16XB4	35.24	4114	18300	-	-	476	216
47	1.4	26552	3000	BG80-../DPE16XB4	38.00	4788	21300	-	-	586	266
46.5	2.8	26995	3050	BG90-../DPE16XB4	38.21	14613	65000	-	-	785	356
42.5	2.5	29650	3350	BG90-../DPE16XB4	41.85	14613	65000	-	-	785	356
40.5	1.2	30978	3500	BG80-../DPE16XB4	43.94	5081	22600	-	-	586	266
36.5	1.1	34518	3900	BG80-../DPE16XB4	48.80	5350	23800	-	-	586	266
36.5	2.2	34518	3900	BG90-../DPE16XB4	48.82	14613	65000	-	-	785	356
33.5	2.0	37616	4250	BG90-../DPE16XB4	53.46	14613	65000	-	-	785	356
31.5	1.5	39828	4500	BG90Z-../DPE16XB4	57.04	14613	65000	-	-	915	415
31	0.91	40713	4600	BG80-../DPE16XB4	57.24	5710	25400	-	-	586	266
28.5	1.5	44254	5000	BG90Z-../DPE16XB4	62.47	14613	65000	-	-	915	415
28	0.82	45139	5100	BG80-../DPE16XB4	63.56	5845	26000	-	-	586	266
28	3.0	45139	5100	BG100-../DPE16XB4	63.49	20233	90000	-	-	1160	526
25.5	2.8	49564	5600	BG100-../DPE16XB4	70.69	20233	90000	-	-	1160	526
23.5	1.4	53104	6000	BG90Z-../DPE16XB4	76.61	14613	65000	-	-	915	415
22	2.5	57530	6500	BG100-../DPE16XB4	80.85	20233	90000	-	-	1160	526
21.5	1.25	58415	6600	BG90Z-../DPE16XB4	83.91	14613	65000	-	-	915	415
20	2.4	62840	7100	BG100-../DPE16XB4	90.02	20233	90000	-	-	1160	526
18.5	1.1	68151	7700	BG90Z-../DPE16XB4	96.53	14613	65000	-	-	915	415
17	1.0	74346	8400	BG90Z-../DPE16XB4	105.7	14613	65000	-	-	915	415
16.5	1.95	76116	8600	BG100-../DPE16XB4	107.5	20233	90000	-	-	1160	526
15	1.75	84082	9500	BG100-../DPE16XB4	119.7	20233	90000	-	-	1160	526
14	0.82	90278	10200	BG90Z-../DPE16XB4	127.1	14613	65000	-	-	915	415
13	1.55	97358	11000	BG100-../DPE16XB4	139.1	20233	90000	-	-	1160	526
11.5	1.35	109749	12400	BG100-../DPE16XB4	154.8	20233	90000	-	-	1160	526
10	1.15	126566	14300	BG100-../DPE16XB4	178.6	20233	90000	-	-	1160	526
9.0	1.05	140727	15900	BG100-../DPE16XB4	198.8	20233	90000	-	-	1160	526
7.7	0.9	164624	18600	BG100-../DPE16XB4	232.6	20233	90000	-	-	1160	526
6.9	0.81	183210	20700	BG100-../DPE16XB4	259.0	20233	90000	-	-	1160	526
6.6	0.85	192061	21700	BG100Z-../DPE16XB4	269.8	20233	90000	-	-	1362	618

6

25 HP (18.5 kW)

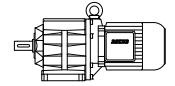
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
720	1.25	2168	245	BG50-../DPE18LB4	2.47	652	2900	-	-	441	200
710	2.2	2168	245	BG60-../DPE18LB4	2.52	1394	6200	-	-	505	229
500	0.99	3098	350	BG50-../DPE18LB4	3.55	742	3300	-	-	441	200
475	1.65	3275	370	BG60-../DPE18LB4	3.74	1596	7100	-	-	505	229
365	0.83	4248	480	BG50-../DPE18LB4	4.91	787	3500	-	-	441	200
360	1.4	4337	490	BG60-../DPE18LB4	4.98	1754	7800	-	-	505	229
360	3.1	4337	490	BG70-../DPE18LB4	4.95	1551	6900	-	-	567	257
305	3.1	5045	570	BG70-../DPE18LB4	5.87	1843	8200	-	-	567	257
260	1.15	5930	670	BG60-../DPE18LB4	6.88	1933	8600	-	-	505	229
250	3.1	6196	700	BG70-../DPE18LB4	7.14	1978	8800	-	-	567	257
210	2.7	7435	840	BG70-../DPE18LB4	8.48	2136	9500	-	-	567	257
194	0.98	8054	910	BG60-../DPE18LB4	9.13	2203	9800	-	-	505	229
176	2.3	8851	1000	BG70-../DPE18LB4	10.09	2293	10200	-	-	567	257
175	0.91	8851	1000	BG60-../DPE18LB4	10.12	2293	10200	-	-	505	229
148	1.95	10532	1190	BG70-../DPE18LB4	11.97	2518	11200	-	-	567	257
146	0.82	10709	1210	BG60-../DPE18LB4	12.16	2428	10800	-	-	505	229
140	3.3	11152	1260	BG80-../DPE18LB4	12.69	2788	12400	-	-	686	311
136	1.8	11417	1290	BG70-../DPE18LB4	13.08	2608	11600	-	-	567	257
114	1.5	13630	1540	BG70-../DPE18LB4	15.53	2855	12700	-	-	567	257
114	2.7	13630	1540	BG80-../DPE18LB4	15.62	3080	13700	-	-	686	311
103	2.5	15135	1710	BG80-../DPE18LB4	17.35	3282	14600	-	-	686	311
101	1.3	15400	1740	BG70-../DPE18LB4	17.68	3012	13400	-	-	567	257
89	2.1	17524	1980	BG80-../DPE18LB4	19.89	3485	15500	-	-	686	311

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

BG-series helical-geared motors

Selection helical-geared motors

25 HP (18.5 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
85	1.1	18144	2050	BG70-../DPE18LB4	20.98	3282	14600	-	-	567	257
81	1.95	19029	2150	BG80-../DPE18LB4	22.09	3709	16500	-	-	686	311
78	1.0	19914	2250	BG70-../DPE18LB4	22.92	3395	15100	-	-	567	257
67	1.6	23012	2600	BG80-../DPE18LB4	26.44	4024	17900	-	-	686	311
66	0.87	23454	2650	BG70-../DPE18LB4	27.21	3687	16400	-	-	567	257
61	1.45	25225	2850	BG80-../DPE18LB4	29.36	4249	18900	-	-	686	311
60	2.9	25667	2900	BG90-../DPE18LB4	29.78	14613	65000	-	-	886	402
55	2.6	28322	3200	BG90-../DPE18LB4	32.62	14613	65000	-	-	886	402
52	1.25	29650	3350	BG80-../DPE18LB4	34.22	4541	20200	-	-	686	311
47	1.1	33190	3750	BG80-../DPE18LB4	38.00	4788	21300	-	-	686	311
46.5	2.2	33190	3750	BG90-../DPE18LB4	38.21	14613	65000	-	-	886	402
42.5	2.0	36731	4150	BG90-../DPE18LB4	41.85	14613	65000	-	-	886	402
40.5	0.97	38501	4350	BG80-../DPE18LB4	43.94	5081	22600	-	-	686	311
38.5	3.1	40271	4550	BG100-../DPE18LB4	46.43	20233	90000	-	-	1261	572
36.5	0.88	42484	4800	BG80-../DPE18LB4	48.80	5350	23800	-	-	686	311
36.5	1.75	42484	4800	BG90-../DPE18LB4	48.82	14613	65000	-	-	886	402
34.5	2.8	45139	5100	BG100-../DPE18LB4	51.70	20233	90000	-	-	1261	572
33.5	1.6	46024	5200	BG90-../DPE18LB4	53.46	14613	65000	-	-	886	402
31.5	1.2	49564	5600	BG90Z-../DPE18LB4	57.04	14613	65000	-	-	1005	456
28.5	1.25	53990	6100	BG90Z-../DPE18LB4	62.47	14613	65000	-	-	1005	456
28	2.4	55760	6300	BG100-../DPE18LB4	63.49	20233	90000	-	-	1261	572
25.5	2.3	61070	6900	BG100-../DPE18LB4	70.69	20233	90000	-	-	1261	572
23.5	1.1	66381	7500	BG90Z-../DPE18LB4	76.61	14613	65000	-	-	1005	456
22	2.1	70806	8000	BG100-../DPE18LB4	80.85	20233	90000	-	-	1261	572
21.5	1.0	72576	8200	BG90Z-../DPE18LB4	83.91	14613	65000	-	-	1005	456
20	1.9	77887	8800	BG100-../DPE18LB4	90.02	20233	90000	-	-	1261	572
18.5	0.88	84082	9500	BG90Z-../DPE18LB4	96.53	14613	65000	-	-	1005	456
17	0.82	91163	10300	BG90Z-../DPE18LB4	105.7	14613	65000	-	-	1005	456
16.5	1.55	94703	10700	BG100-../DPE18LB4	107.5	20233	90000	-	-	1261	572
15	1.45	103554	11700	BG100-../DPE18LB4	119.7	20233	90000	-	-	1261	572
13	1.25	119485	13500	BG100-../DPE18LB4	139.1	20233	90000	-	-	1261	572
11.5	1.1	135416	15300	BG100-../DPE18LB4	154.8	20233	90000	-	-	1261	572
10	0.95	155773	17600	BG100-../DPE18LB4	178.6	20233	90000	-	-	1261	572
9.0	0.86	173475	19600	BG100-../DPE18LB4	198.8	20233	90000	-	-	1261	572

30 HP (22 kW)

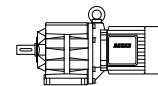
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
360	2.6	5133	580	BG70-../DPE18XB4	4.95	1551	6900	-	-	606	275
305	2.6	6019	680	BG70-../DPE18XB4	5.87	1843	8200	-	-	606	275
250	2.6	7435	840	BG70-../DPE18XB4	7.14	1978	8800	-	-	606	275
210	2.3	8851	1000	BG70-../DPE18XB4	8.48	2136	9500	-	-	606	275
176	1.95	10532	1190	BG70-../DPE18XB4	10.09	2293	10200	-	-	606	275
155	3.1	11949	1350	BG80-../DPE18XB4	11.43	2608	11600	-	-	725	329
148	1.65	12480	1410	BG70-../DPE18XB4	11.97	2518	11200	-	-	606	275
140	2.8	13276	1500	BG80-../DPE18XB4	12.69	2788	12400	-	-	725	329
136	1.5	13630	1540	BG70-../DPE18XB4	13.08	2608	11600	-	-	606	275
114	1.25	16285	1840	BG70-../DPE18XB4	15.53	2855	12700	-	-	606	275
114	2.3	16285	1840	BG80-../DPE18XB4	15.62	3080	13700	-	-	725	329
103	2.1	17701	2000	BG80-../DPE18XB4	17.35	3282	14600	-	-	725	329
101	1.1	18144	2050	BG70-../DPE18XB4	17.68	3012	13400	-	-	606	275
89	1.8	20799	2350	BG80-../DPE18XB4	19.89	3485	15500	-	-	725	329
85	0.94	21684	2450	BG70-../DPE18XB4	20.98	3282	14600	-	-	606	275
81	1.65	22569	2550	BG80-../DPE18XB4	22.09	3709	16500	-	-	725	329
79	3.2	23454	2650	BG90-../DPE18XB4	22.62	14613	65000	-	-	926	420
78	0.87	23454	2650	BG70-../DPE18XB4	22.92	3395	15100	-	-	606	275
72	2.9	25667	2900	BG90-../DPE18XB4	24.78	14613	65000	-	-	926	420

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

BG-series helical-geared motors

Selection helical-geared motors

30 HP (22 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
67	1.35	27437	3100	BG80-../DPE18XB4	26.44	4024	17900	-	-	725	329
61	1.25	30093	3400	BG80-../DPE18XB4	29.36	4249	18900	-	-	725	329
60	2.4	30978	3500	BG90-../DPE18XB4	29.78	14613	65000	-	-	926	420
55	2.2	33633	3800	BG90-../DPE18XB4	32.62	14613	65000	-	-	926	420
53	3.3	34960	3950	BG100-../DPE18XB4	33.71	19896	88500	-	-	1301	590
52	1.05	35403	4000	BG80-../DPE18XB4	34.22	4541	20200	-	-	725	329
47.5	3.0	38943	4400	BG100-../DPE18XB4	37.54	20233	90000	-	-	1301	590
47	0.94	39386	4450	BG80-../DPE18XB4	38.00	4788	21300	-	-	725	329
46.5	1.85	39828	4500	BG90-../DPE18XB4	38.21	14613	65000	-	-	926	420
42.5	1.7	43369	4900	BG90-../DPE18XB4	41.85	14613	65000	-	-	926	420
40.5	0.82	45139	5100	BG80-../DPE18XB4	43.94	5081	22600	-	-	725	329
38.5	2.6	47794	5400	BG100-../DPE18XB4	46.43	20233	90000	-	-	1301	590
36.5	1.45	50449	5700	BG90-../DPE18XB4	48.82	14613	65000	-	-	926	420
34.5	2.4	53104	6000	BG100-../DPE18XB4	51.70	20233	90000	-	-	1301	590
33.5	1.35	54875	6200	BG90-../DPE18XB4	53.46	14613	65000	-	-	926	420
31.5	1.05	58415	6600	BG90Z-../DPE18XB4	57.04	14613	65000	-	-	1045	474
28.5	1.05	64610	7300	BG90Z-../DPE18XB4	62.47	14613	65000	-	-	1045	474
28	2.1	66381	7500	BG100-../DPE18XB4	63.49	20233	90000	-	-	1301	590
25.5	1.95	72576	8200	BG100-../DPE18XB4	70.69	20233	90000	-	-	1301	590
23.5	0.94	78772	8900	BG90Z-../DPE18XB4	76.61	14613	65000	-	-	1045	474
22	1.75	84082	9500	BG100-../DPE18XB4	80.85	20233	90000	-	-	1301	590
21.5	0.87	85852	9700	BG90Z-../DPE18XB4	83.91	14613	65000	-	-	1045	474
20	1.6	92933	10500	BG100-../DPE18XB4	90.02	20233	90000	-	-	1301	590
16.5	1.3	112404	12700	BG100-../DPE18XB4	107.5	20233	90000	-	-	1301	590
15	1.2	123910	14000	BG100-../DPE18XB4	119.7	20233	90000	-	-	1301	590
13	1.05	142497	16100	BG100-../DPE18XB4	139.1	20233	90000	-	-	1301	590
11.5	0.92	161084	18200	BG100-../DPE18XB4	154.8	20233	90000	-	-	1301	590
10	0.8	185866	21000	BG100-../DPE18XB4	178.6	20233	90000	-	-	1301	590

6

40 HP (30 kW)

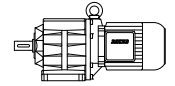
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
360	1.9	6992	790	BG70-../DPE20LA4	4.95	1551	6900	-	-	948	430
305	1.9	8231	930	BG70-../DPE20LA4	5.87	1843	8200	-	-	1246	565
300	2.8	8408	950	BG80-../DPE20LA4	5.94	1866	8300	-	-	1371	622
270	2.8	9382	1060	BG80-../DPE20LA4	6.60	2046	9100	-	-	1371	622
250	1.9	10090	1140	BG70-../DPE20LA4	7.14	1978	8800	-	-	948	430
215	2.8	11771	1330	BG80-../DPE20LA4	8.30	2338	10400	-	-	1371	622
210	1.7	12037	1360	BG70-../DPE20LA4	8.48	2136	9500	-	-	1246	565
194	2.7	13011	1470	BG80-../DPE20LA4	9.21	2428	10800	-	-	1371	622
177	1.45	14250	1610	BG70-../DPE20LA4	10.09	2293	10200	-	-	948	430
156	2.3	16197	1830	BG80-../DPE20LA4	11.43	2608	11600	-	-	1063	482
149	1.2	16993	1920	BG70-../DPE20LA4	11.97	2518	11200	-	-	948	430
141	2.1	17701	2000	BG80-../DPE20LA4	12.69	2788	12400	-	-	1371	622
137	1.1	18144	2050	BG70-../DPE20LA4	13.08	2608	11600	-	-	948	430
115	0.94	21684	2450	BG70-../DPE20LA4	15.53	2855	12700	-	-	948	430
114	1.7	22127	2500	BG80-../DPE20LA4	15.62	3080	13700	-	-	1063	482
103	1.55	24340	2750	BG80-../DPE20LA4	17.35	3282	14600	-	-	1063	482
101	0.82	24782	2800	BG70-../DPE20LA4	17.68	3012	13400	-	-	1246	565
100	2.9	25225	2850	BG90-../DPE20LA4	17.96	13444	59800	-	-	1265	574
91	2.7	27437	3100	BG90-../DPE20LA4	19.67	14028	62400	-	-	1570	712
90	1.35	27880	3150	BG80-../DPE20LA4	19.89	3485	15500	-	-	1063	482
81	1.2	30978	3500	BG80-../DPE20LA4	22.09	3709	16500	-	-	1063	482
79	2.3	31863	3600	BG90-../DPE20LA4	22.62	14613	65000	-	-	1265	574
75	3.0	33633	3800	BG100-../DPE20LA4	23.95	19761	87900	-	-	1638	743
72	2.1	34960	3950	BG90-../DPE20LA4	24.78	14613	65000	-	-	1265	574
68	1.0	37173	4200	BG80-../DPE20LA4	26.44	4024	17900	-	-	1063	482

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

BG-series helical-geared motors

Selection helical-geared motors

40 HP (30 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
61	0.9	41156	4650	BG80-../DPE20LA4	29.36	4249	18900	-	-	1371	622
60	1.75	42041	4750	BG90-../DPE20LA4	29.78	14613	65000	-	-	1570	712
55	1.6	46024	5200	BG90-../DPE20LA4	32.62	14613	65000	-	-	1265	574
53	2.4	47794	5400	BG100-../DPE20LA4	33.71	19896	88500	-	-	1638	743
47.5	2.2	53104	6000	BG100-../DPE20LA4	37.54	20233	90000	-	-	1638	743
47	1.4	53104	6000	BG90-../DPE20LA4	38.21	14613	65000	-	-	1265	574
43	1.25	58415	6600	BG90-../DPE20LA4	41.85	14613	65000	-	-	1265	574
38.5	1.9	65496	7400	BG100-../DPE20LA4	46.43	20233	90000	-	-	1947	883
36.5	1.1	69036	7800	BG90-../DPE20LA4	48.82	14613	65000	-	-	1265	574
34.5	1.75	73461	8300	BG100-../DPE20LA4	51.70	20233	90000	-	-	1947	883
33.5	0.99	75231	8500	BG90-../DPE20LA4	53.46	14613	65000	-	-	1265	574
28.5	1.55	88507	10000	BG100-../DPE20LA4	63.49	20233	90000	-	-	1638	743
25.5	1.4	99128	11200	BG100-../DPE20LA4	70.69	20233	90000	-	-	1638	743
22.5	1.3	112404	12700	BG100-../DPE20LA4	80.85	20233	90000	-	-	1638	743
20	1.15	126566	14300	BG100-../DPE20LA4	90.02	20233	90000	-	-	1947	883
17	1.0	148693	16800	BG100-../DPE20LA4	107.5	20233	90000	-	-	1638	743
15	0.88	169049	19100	BG100-../DPE20LA4	119.7	20233	90000	-	-	1947	883

50 HP (37 kW)

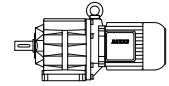
RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
360	1.55	8674	980	BG70-../DPE22SA4	4.95	1551	6900	-	-	946	429
305	1.55	10178	1150	BG70-../DPE22SA4	5.87	1843	8200	-	-	1299	589
300	2.3	10355	1170	BG80-../DPE22SA4	5.94	1866	8300	-	-	1429	648
270	2.3	11506	1300	BG80-../DPE22SA4	6.60	2046	9100	-	-	1429	648
250	1.55	12480	1410	BG70-../DPE22SA4	7.14	1978	8800	-	-	946	429
215	2.3	14515	1640	BG80-../DPE22SA4	8.30	2338	10400	-	-	1429	648
210	1.35	14869	1680	BG70-../DPE22SA4	8.48	2136	9500	-	-	1299	589
194	2.2	16108	1820	BG80-../DPE22SA4	9.21	2428	10800	-	-	1429	648
177	1.15	17613	1990	BG70-../DPE22SA4	10.09	2293	10200	-	-	946	429
164	3.3	19029	2150	BG90-../DPE22SA4	10.90	11758	52300	-	-	1629	739
156	1.85	19914	2250	BG80-../DPE22SA4	11.43	2608	11600	-	-	1060	481
143	3.0	21684	2450	BG100-../DPE22SA4	12.45	16209	72100	-	-	2006	910
141	1.7	22127	2500	BG80-../DPE22SA4	12.69	2788	12400	-	-	1429	648
134	2.9	23012	2600	BG90-../DPE22SA4	13.37	12364	55000	-	-	1263	573
122	2.7	25225	2850	BG90-../DPE22SA4	14.64	12814	57000	-	-	1629	739
114	1.4	26995	3050	BG80-../DPE22SA4	15.62	3080	13700	-	-	1060	481
103	1.25	30093	3400	BG80-../DPE22SA4	17.35	3282	14600	-	-	1060	481
103	3.0	30093	3400	BG100-../DPE22SA4	17.39	18524	82400	-	-	1636	742
100	2.4	30978	3500	BG90-../DPE22SA4	17.96	13444	59800	-	-	1629	739
91	2.2	34075	3850	BG90-../DPE22SA4	19.67	14028	62400	-	-	1263	573
90	1.1	34518	3900	BG80-../DPE22SA4	19.89	3485	15500	-	-	1060	481
79	1.9	39386	4450	BG90-../DPE22SA4	22.62	14613	65000	-	-	1629	739
75	2.4	41599	4700	BG100-../DPE22SA4	23.95	19761	87900	-	-	2006	910
72	1.7	43369	4900	BG90-../DPE22SA4	24.78	14613	65000	-	-	1629	739
60	1.45	51334	5800	BG90-../DPE22SA4	29.78	14613	65000	-	-	1263	573
55	1.3	56645	6400	BG90-../DPE22SA4	32.62	14613	65000	-	-	1629	739
53	1.95	58415	6600	BG100-../DPE22SA4	33.71	19896	88500	-	-	2006	910
47.5	1.8	65496	7400	BG100-../DPE22SA4	37.54	20233	90000	-	-	2006	910
47	1.1	66381	7500	BG90-../DPE22SA4	38.21	14613	65000	-	-	1629	739
43	1.0	72576	8200	BG90-../DPE22SA4	41.85	14613	65000	-	-	1629	739
38.5	1.55	80542	9100	BG100-../DPE22SA4	46.43	20233	90000	-	-	1636	742
34.5	1.4	90278	10200	BG100-../DPE22SA4	51.70	20233	90000	-	-	1636	742
28.5	1.25	108864	12300	BG100-../DPE22SA4	63.49	20233	90000	-	-	2006	910
25.5	1.15	122140	13800	BG100-../DPE22SA4	70.69	20233	90000	-	-	2006	910
22.5	1.05	138957	15700	BG100-../DPE22SA4	80.85	20233	90000	-	-	2006	910

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

BG-series helical-geared motors

Selection helical-geared motors

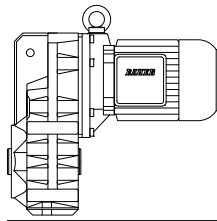
60 HP (45 kW)



RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
360	1.28	10269	1160	BG70-../DPE22MA4	4.95	1551	6900	-	-	1071	486
305	1.28	12081	1365	BG70-../DPE22MA4	5.87	1843	8200	-	-	1424	646
300	1.9	12341	1394	BG80-../DPE22MA4	5.94	1866	8300	-	-	1556	706
270	1.9	13721	1550	BG80-../DPE22MA4	6.60	2046	9100	-	-	1556	706
250	1.28	14757	1667	BG70-../DPE22MA4	7.14	1978	8800	-	-	1071	486
225	3.38	16482	1862	BG90-../DPE22MA4	7.97	10768	47900	-	-	1755	796
215	1.95	17173	1940	BG80-../DPE22MA4	8.30	2338	10400	-	-	1556	706
210	1.18	17258	1950	BG70-../DPE22MA4	8.48	2136	9500	-	-	1424	646
194	1.85	18985	2145	BG80-../DPE22MA4	9.21	2428	10800	-	-	1556	706
179	2.87	20711	2340	BG90-../DPE22MA4	9.95	11353	50500	-	-	1755	796
164	2.77	22437	2535	BG90-../DPE22MA4	10.90	11758	52300	-	-	1755	796
156	1.59	23732	2681	BG80-../DPE22MA4	11.43	2608	11600	-	-	1186	538
143	2.46	25888	2925	BG100-../DPE22MA4	12.45	16209	72100	-	-	2130	966
141	1.44	25888	2925	BG80-../DPE22MA4	12.69	2788	12400	-	-	1556	706
134	2.36	27614	3120	BG90-../DPE22MA4	13.37	12364	55000	-	-	1389	630
122	2.26	30204	3413	BG90-../DPE22MA4	14.64	12814	57000	-	-	1755	796
114	1.13	32360	3656	BG80-../DPE22MA4	15.62	3080	13700	-	-	1186	538
103	1.03	35813	4046	BG80-../DPE22MA4	17.35	3282	14600	-	-	1186	538
103	2.46	35813	4046	BG100-../DPE22MA4	17.39	18524	82400	-	-	1761	799
100	2.0	36676	4144	BG90-../DPE22MA4	17.96	13444	59800	-	-	1755	796
91	1.85	40559	4583	BG90-../DPE22MA4	19.67	14028	62400	-	-	1389	630
79	1.59	46599	5265	BG90-../DPE22MA4	22.62	14613	65000	-	-	1755	796
75	2.0	49188	5558	BG100-../DPE22MA4	23.95	19761	87900	-	-	2130	966
72	1.44	50914	5753	BG90-../DPE22MA4	24.78	14613	65000	-	-	1755	796
60	1.23	61269	6923	BG90-../DPE22MA4	29.78	14613	65000	-	-	1389	630
55	1.13	67310	7605	BG90-../DPE22MA4	32.62	14613	65000	-	-	1755	796
53	1.64	69899	7898	BG100-../DPE22MA4	33.71	19896	88500	-	-	2130	966
47.5	1.49	77666	8775	BG100-../DPE22MA4	37.54	20233	90000	-	-	2130	966
38.5	1.28	95787	10823	BG100-../DPE22MA4	46.43	20233	90000	-	-	1761	799
34.5	1.18	107005	12090	BG100-../DPE22MA4	51.70	20233	90000	-	-	1761	799
28.5	1.08	129442	14625	BG100-../DPE22MA4	63.49	20233	90000	-	-	2130	966

6

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



BF-series shaft-mounted-gear motors
Selection

125-166

Description of shaft-mounted-gear units

- Sizes
- Bauer service factors (f_b) for shaft-mounted-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, shaft-mounted-gear 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_v/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 $f_B = f_2 = 1.5$

BF-series shaft-mounted geared motors

Description of shaft-mounted gear 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)

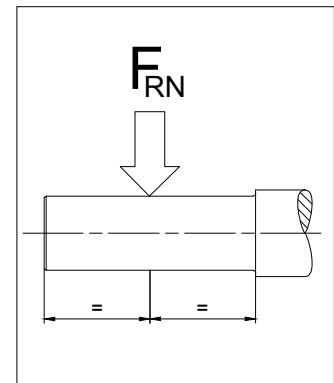
Key to abbreviations

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“).

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

Motor power overload protection

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors

0.075 HP (0.055 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
11	5.1	420	47.5	BF10Z-../D04LA4	151.2	1439	6400	-	-	46	21
9.8	4.5	469	53	BF10Z-../D04LA4	166.2	1439	6400	-	-	46	21
9.0	4.1	513	58	BF10Z-../D04LA4	180.1	1439	6400	-	-	46	21
8.2	3.8	566	64	BF10Z-../D04LA4	198.0	1439	6400	-	-	46	21
7.6	3.5	611	69	BF10Z-../D04LA4	214.5	1439	6400	-	-	46	21
6.9	3.2	673	76	BF10Z-../D04LA4	235.8	1439	6400	-	-	46	21
6.3	2.9	735	83	BF10Z-../D04LA4	257.4	1439	6400	-	-	46	21
5.8	2.7	797	90	BF10Z-../D04LA4	283.1	1439	6400	-	-	46	21
5.0	2.3	929	105	BF10Z-../D04LA4	324.3	1439	6400	-	-	46	21
4.6	2.1	1009	114	BF10Z-../D04LA4	356.6	1439	6400	-	-	46	21
4.3	1.95	1080	122	BF10Z-../D04LA4	380.2	1439	6400	-	-	46	21
3.9	1.8	1186	134	BF10Z-../D04LA4	418.0	1439	6400	-	-	46	21
3.9	3.1	1186	134	BF20Z-../D04LA4	418.1	1776	7900	-	-	62	28
3.6	2.9	1283	145	BF20Z-../D04LA4	460.0	1776	7900	-	-	62	28
3.5	1.6	1328	150	BF10Z-../D04LA4	469.5	1439	6400	-	-	46	21
3.1	1.4	1496	169	BF10Z-../D04LA4	539.1	1439	6400	-	-	46	21
2.8	1.3	1655	187	BF10Z-../D04LA4	592.8	1439	6400	-	-	46	21
2.6	1.85	1230	139	BF10G06-../D04LA4	643.8	1439	6400	-	-	55	25
2.3	2.7	1496	169	BF20G06-../D04LA4	736.1	1776	7900	-	-	68	31
2.2	1.5	1558	176	BF10G06-../D04LA4	768.2	1439	6400	-	-	55	25
2.0	1.35	1717	194	BF10G06-../D04LA4	845.1	1439	6400	-	-	55	25
2.0	2.3	1744	197	BF20G06-../D04LA4	810.0	1776	7900	-	-	68	31
2.0	3.2	1735	196	BF30G06-../D04LA4	817.1	1664	7400	-	-	90	41
1.8	2.1	1947	220	BF20G06-../D04LA4	952.7	1776	7900	-	-	68	31
1.7	1.1	2080	235	BF10G06-../D04LA4	994.0	1439	6400	-	-	55	25
1.7	2.7	2080	235	BF30G06-../D04LA4	961.1	1664	7400	-	-	90	41
1.5	1.7	2390	270	BF20G06-../D04LA4	1140	1776	7900	-	-	68	31
1.5	2.3	2390	270	BF30G06-../D04LA4	1150	1664	7400	-	-	90	41
1.4	0.88	2611	295	BF10G06-../D04LA4	1190	1439	6400	-	-	55	25
1.3	1.95	2832	320	BF30G06-../D04LA4	1286	1664	7400	-	-	90	41
1.2	1.0	2301*	260*	BF10G06-../D04LA4	1452	1439	6400	-	-	55	25
1.2	1.3	3098	350	BF20G06-../D04LA4	1392	1776	7900	-	-	68	31
1.2	1.8	3098	350	BF30G06-../D04LA4	1404	1664	7400	-	-	90	41
1.1	1.2	3452	390	BF20G06-../D04LA4	1533	1776	7900	-	-	68	31
1.0	1.45	3806	430	BF30G06-../D04LA4	1686	1664	7400	-	-	90	41
0.95	1.0	2301*	260*	BF10G06-../D04LA4	1744	1439	6400	-	-	55	25
0.95	1.0	4071*	460*	BF20G06-../D04LA4	1764	1776	7900	-	-	68	31
0.8	1.0	2301*	260*	BF10G06-../D04LA4	2096	1439	6400	-	-	55	25
0.8	1.15	4956	560	BF30G06-../D04LA4	2026	1664	7400	-	-	90	41
0.75	1.0	4071*	460*	BF20G06-../D04LA4	2192	1776	7900	-	-	68	31
0.7	1.0	2301*	260*	BF10G06-../D04LA4	2467	1439	6400	-	-	55	25
0.7	1.0	5576*	630*	BF30G06-../D04LA4	2386	1664	7400	-	-	90	41
0.65	1.0	4071*	460*	BF20G06-../D04LA4	2579	1776	7900	-	-	68	31
0.6	1.0	4071*	460*	BF20G06-../D04LA4	2829	1776	7900	-	-	68	31
0.6	1.0	5576*	630*	BF30G06-../D04LA4	2854	1664	7400	-	-	90	41
0.55	1.0	2301*	260*	BF10G06-../D04LA4	3220	1439	6400	-	-	55	25
0.55	1.0	4071*	460*	BF20G06-../D04LA4	3086	1776	7900	-	-	68	31
0.47	1.0	5576*	630*	BF30G06-../D04LA4	3493	1664	7400	-	-	90	41
0.43	1.0	4071*	460*	BF20G06-../D04LA4	3778	1776	7900	-	-	68	31
0.43	1.0	5576*	630*	BF30G06-../D04LA4	3811	1664	7400	-	-	90	41
0.42	1.0	2301*	260*	BF10G06-../D04LA4	3942	1439	6400	-	-	55	25
0.37	1.0	4071*	460*	BF20G06-../D04LA4	4379	1776	7900	-	-	68	31
0.37	1.0	5576*	630*	BF30G06-../D04LA4	4417	1664	7400	-	-	90	41
0.36	1.0	2301*	260*	BF10G06-../D04LA4	4569	1439	6400	-	-	55	25
0.33	1.0	5576*	630*	BF30G06-../D04LA4	5060	1664	7400	-	-	90	41
0.3	1.0	4071*	460*	BF20G06-../D04LA4	5471	1776	7900	-	-	68	31
0.29	1.0	2301*	260*	BF10G06-../D04LA4	5709	1439	6400	-	-	55	25
0.26	1.0	5576*	630*	BF30G06-../D04LA4	6333	1664	7400	-	-	90	41
0.25	1.0	2301*	260*	BF10G06-../D04LA4	6550	1439	6400	-	-	55	25
0.24	1.0	4071*	460*	BF20G06-../D04LA4	6847	1776	7900	-	-	68	31
0.23	1.0	2301*	260*	BF10G06-../D04LA4	7144	1439	6400	-	-	55	25
0.23	1.0	5576*	630*	BF30G06-../D04LA4	7206	1664	7400	-	-	90	41

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

0.075 HP (0.055 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
0.21	1.0	5576*	630*	BF30G06-../D04LA4	7861	1664	7400	-	-	90	41
0.2	1.0	4071*	460*	BF20G06-../D04LA4	8320	1776	7900	-	-	68	31
0.19	1.0	2301*	260*	BF10G06-../D04LA4	8681	1439	6400	-	-	55	25
0.18	1.0	2301*	260*	BF10G06-../D04LA4	9471	1439	6400	-	-	55	25
0.18	1.0	4071*	460*	BF20G06-../D04LA4	9077	1776	7900	-	-	68	31
0.18	1.0	5576*	630*	BF30G06-../D04LA4	9157	1664	7400	-	-	90	41

0.1 HP (0.075 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
29	9.8	217	24.5	BF10-../D06LA4	56.39	1023	4550	-	-	51	23
26.5	8.9	239	27	BF10-../D06LA4	61.55	1057	4700	-	-	51	23
24	8.1	261	29.5	BF10-../D06LA4	67.69	1102	4900	-	-	51	23
21	7.1	301	34	BF10-../D06LA4	77.55	1147	5100	-	-	51	23
19	6.4	332	37.5	BF10-../D06LA4	85.27	1191	5300	-	-	51	23
18	6.1	350	39.5	BF10-../D06LA4	90.91	1214	5400	-	-	51	23
16.5	5.6	381	43	BF10-../D06LA4	99.97	1259	5600	-	-	51	23
14.5	4.9	434	49	BF10-../D06LA4	112.3	1326	5900	-	-	51	23
13	4.4	487	55	BF10-../D06LA4	128.9	1394	6200	-	-	51	23
11.5	3.9	549	62	BF10-../D06LA4	141.8	1439	6400	-	-	51	23
9.8	3.3	646	73	BF10Z-../D06LA4	166.2	1439	6400	-	-	53	24
9.0	3.0	699	79	BF10Z-../D06LA4	180.1	1439	6400	-	-	53	24
8.2	2.8	770	87	BF10Z-../D06LA4	198.0	1439	6400	-	-	53	24
7.6	2.6	832	94	BF10Z-../D06LA4	214.5	1439	6400	-	-	53	24
6.9	2.3	912	103	BF10Z-../D06LA4	235.8	1439	6400	-	-	53	24
6.3	2.1	1000	113	BF10Z-../D06LA4	257.4	1439	6400	-	-	53	24
5.8	1.95	1089	123	BF10Z-../D06LA4	283.1	1439	6400	-	-	53	24
5.5	3.2	1151	130	BF20Z-../D06LA4	295.5	1776	7900	-	-	68	31
5.0	1.7	1266	143	BF10Z-../D06LA4	324.3	1439	6400	-	-	53	24
5.0	2.9	1266	143	BF20Z-../D06LA4	325.2	1776	7900	-	-	68	31
4.8	2.8	1319	149	BF20Z-../D06LA4	339.1	1776	7900	-	-	68	31
4.6	1.55	1372	155	BF10Z-../D06LA4	356.6	1439	6400	-	-	53	24
4.4	2.6	1434	162	BF20Z-../D06LA4	373.1	1776	7900	-	-	68	31
4.3	1.45	1469	166	BF10Z-../D06LA4	380.2	1439	6400	-	-	53	24
4.0	3.2	1584	179	BF30Z-../D06LA4	412.6	1664	7400	-	-	93	42
3.9	1.3	1620	183	BF10Z-../D06LA4	418.0	1439	6400	-	-	53	24
3.9	2.3	1620	183	BF20Z-../D06LA4	418.1	1776	7900	-	-	68	31
3.6	2.1	1752	198	BF20Z-../D06LA4	460.0	1776	7900	-	-	68	31
3.5	1.2	1770	200	BF10Z-../D06LA4	469.5	1439	6400	-	-	53	24
3.5	2.9	1770	200	BF30Z-../D06LA4	463.3	1664	7400	-	-	93	42
3.2	2.7	1496	169	BF20G06-../D06LA4	513.7	1776	7900	-	-	75	34
3.1	1.05	2036	230	BF10Z-../D06LA4	539.1	1439	6400	-	-	53	24
3.1	2.5	2036	230	BF30Z-../D06LA4	537.0	1664	7400	-	-	93	42
2.8	0.94	2257	255	BF10Z-../D06LA4	592.8	1439	6400	-	-	53	24
2.8	2.3	2257	255	BF30Z-../D06LA4	590.7	1664	7400	-	-	93	42
2.7	2.2	1814	205	BF20G06-../D06LA4	617.0	1776	7900	-	-	75	34
2.7	3.2	1770	200	BF30G06-../D06LA4	622.4	1664	7400	-	-	99	45
2.6	1.25	1859	210	BF10G06-../D06LA4	643.8	1439	6400	-	-	62	28
2.3	1.85	2213	250	BF20G06-../D06LA4	736.1	1776	7900	-	-	75	34
2.3	2.5	2213	250	BF30G06-../D06LA4	705.1	1664	7400	-	-	99	45
2.2	1.0	2301	260	BF10G06-../D06LA4	768.2	1439	6400	-	-	62	28
2.0	0.9	2567	290	BF10G06-../D06LA4	845.1	1439	6400	-	-	62	28
2.0	1.6	2567	290	BF20G06-../D06LA4	810.0	1776	7900	-	-	75	34
2.0	2.2	2567	290	BF30G06-../D06LA4	817.1	1664	7400	-	-	99	45
1.8	1.4	2876	325	BF20G06-../D06LA4	952.7	1776	7900	-	-	75	34
1.7	1.8	3098	350	BF30G06-../D06LA4	961.1	1664	7400	-	-	99	45
1.5	1.15	3540	400	BF20G06-../D06LA4	1140	1776	7900	-	-	75	34

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

0.1 HP (0.075 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
1.5	1.6	3540	400	BF30G06-../D06LA4	1150	1664	7400	-	-	99	45
1.3	1.35	4116	465	BF30G06-../D06LA4	1286	1664	7400	-	-	99	45
1.3	3.2	2788	315	BF40G10-../D06LA4	1324	2383	10600	-	-	128	58
1.2	0.9	4514	510	BF20G06-../D06LA4	1392	1776	7900	-	-	75	34
1.2	1.25	4514	510	BF30G06-../D06LA4	1404	1664	7400	-	-	99	45
1.1	0.82	4956	560	BF20G06-../D06LA4	1533	1776	7900	-	-	75	34
1.1	2.6	3408	385	BF40G10-../D06LA4	1484	2383	10600	-	-	128	58
1.0	1.0	5487	620	BF30G06-../D06LA4	1686	1664	7400	-	-	99	45
1.0	3.2	3850	435	BF50G10-../D06LA4	1684	3057	13600	-	-	190	86
0.9	2.0	4337	490	BF40G10-../D06LA4	1810	2383	10600	-	-	128	58
0.85	1.9	4691	530	BF40G10-../D06LA4	1997	2383	10600	-	-	128	58
0.8	2.4	5222	590	BF50G10-../D06LA4	2059	3057	13600	-	-	190	86
0.7	1.95	6284	710	BF50G10-../D06LA4	2360	3057	13600	-	-	190	86
0.65	1.3	6815	770	BF40G10-../D06LA4	2536	2383	10600	-	-	128	58
0.6	1.15	7612	860	BF40G10-../D06LA4	2810	2383	10600	-	-	128	58
0.6	1.6	7789	880	BF50G10-../D06LA4	2810	3057	13600	-	-	190	86
0.55	3.1	7081	800	BF60G20-../D06LA4	3237	3440	15300	9734	43300	295	134
0.49	1.2	10178	1150	BF50G10-../D06LA4	3348	3057	13600	-	-	190	86
0.42	2.1	10621	1200	BF60G20-../D06LA4	3883	3440	15300	9734	43300	295	134
0.35	1.6	13630	1540	BF60G20-../D06LA4	4646	3440	15300	9734	43300	295	134
0.32	3.3	15400	1740	BF70G20-../D06LA4	5124	3619	16100	10723	47700	467	212
0.31	1.4	15931	1800	BF60G20-../D06LA4	5241	3440	15300	9734	43300	295	134
0.29	2.9	17436	1970	BF70G20-../D06LA4	5691	3619	16100	10723	47700	467	212
0.27	1.15	19029	2150	BF60G20-../D06LA4	6014	3440	15300	9734	43300	295	134
0.25	1.05	20799	2350	BF60G20-../D06LA4	6679	3440	15300	9734	43300	295	134
0.25	2.4	20799	2350	BF70G20-../D06LA4	6530	3619	16100	10723	47700	467	212
0.23	2.2	23012	2600	BF70G20-../D06LA4	7248	3619	16100	10723	47700	467	212
0.21	1.95	25667	2900	BF70G20-../D06LA4	8052	3619	16100	10723	47700	467	212

0.12 HP (0.09 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
34.5	9.8	217	24.5	BF10-../D06LA4	47.35	955	4250	-	-	51	23
32	9.1	235	26.5	BF10-../D06LA4	51.28	989	4400	-	-	51	23
29	8.1	261	29.5	BF10-../D06LA4	56.39	1023	4550	-	-	51	23
26.5	7.5	283	32	BF10-../D06LA4	61.55	1057	4700	-	-	51	23
24	6.8	314	35.5	BF10-../D06LA4	67.69	1102	4900	-	-	51	23
21	5.9	358	40.5	BF10-../D06LA4	77.55	1147	5100	-	-	51	23
19	5.3	398	45	BF10-../D06LA4	85.27	1191	5300	-	-	51	23
18	5.1	420	47.5	BF10-../D06LA4	90.91	1214	5400	-	-	51	23
16.5	4.6	460	52	BF10-../D06LA4	99.97	1259	5600	-	-	51	23
14.5	4.1	522	59	BF10-../D06LA4	112.3	1326	5900	-	-	51	23
13	3.6	584	66	BF10-../D06LA4	128.9	1394	6200	-	-	51	23
11.5	3.2	655	74	BF10-../D06LA4	141.8	1439	6400	-	-	51	23
11	3.1	690	78	BF10Z-../D06LA4	151.2	1439	6400	-	-	53	24
9.8	2.8	770	87	BF10Z-../D06LA4	166.2	1439	6400	-	-	53	24
9.0	2.5	841	95	BF10Z-../D06LA4	180.1	1439	6400	-	-	53	24
8.2	2.3	920	104	BF10Z-../D06LA4	198.0	1439	6400	-	-	53	24
7.6	2.1	1000	113	BF10Z-../D06LA4	214.5	1439	6400	-	-	53	24
6.9	1.95	1097	124	BF10Z-../D06LA4	235.8	1439	6400	-	-	53	24
6.3	1.75	1204	136	BF10Z-../D06LA4	257.4	1439	6400	-	-	53	24
6.3	3.1	1204	136	BF20Z-../D06LA4	259.6	1776	7900	-	-	68	31
5.8	1.6	1310	148	BF10Z-../D06LA4	283.1	1439	6400	-	-	53	24
5.5	2.7	1381	156	BF20Z-../D06LA4	295.5	1776	7900	-	-	68	31
5.0	1.4	1513	171	BF10Z-../D06LA4	324.3	1439	6400	-	-	53	24
5.0	2.5	1513	171	BF20Z-../D06LA4	325.2	1776	7900	-	-	68	31
4.8	2.3	1584	179	BF20Z-../D06LA4	339.1	1776	7900	-	-	68	31

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

0.12 HP (0.09 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
4.8	3.2	1584	179	BF30Z-../D06LA4	341.8	1664	7400	-	-	93	42
4.6	1.3	1646	186	BF10Z-../D06LA4	356.6	1439	6400	-	-	53	24
4.4	2.2	1726	195	BF20Z-../D06LA4	373.1	1776	7900	-	-	68	31
4.4	2.9	1726	195	BF30Z-../D06LA4	375.1	1664	7400	-	-	93	42
4.3	1.2	1761	199	BF10Z-../D06LA4	380.2	1439	6400	-	-	53	24
4.0	2.7	1859	210	BF30Z-../D06LA4	412.6	1664	7400	-	-	93	42
3.9	1.1	1947	220	BF10Z-../D06LA4	418.0	1439	6400	-	-	53	24
3.9	1.9	1947	220	BF20Z-../D06LA4	418.1	1776	7900	-	-	68	31
3.6	1.8	2080	235	BF20Z-../D06LA4	460.0	1776	7900	-	-	68	31
3.5	0.98	2168	245	BF10Z-../D06LA4	469.5	1439	6400	-	-	53	24
3.5	2.3	2168	245	BF30Z-../D06LA4	463.3	1664	7400	-	-	93	42
3.2	2.2	1859	210	BF20G06-../D06LA4	513.7	1776	7900	-	-	75	34
3.1	0.87	2434	275	BF10Z-../D06LA4	539.1	1439	6400	-	-	53	24
3.1	2.1	2434	275	BF30Z-../D06LA4	537.0	1664	7400	-	-	93	42
2.9	3.1	2611	295	BF40Z-../D06LA4	566.1	2383	10600	-	-	117	53
2.8	1.9	2699	305	BF30Z-../D06LA4	590.7	1664	7400	-	-	93	42
2.7	1.8	2257	255	BF20G06-../D06LA4	617.0	1776	7900	-	-	75	34
2.7	2.5	2257	255	BF30G06-../D06LA4	622.4	1664	7400	-	-	99	45
2.6	0.98	2345	265	BF10G06-../D06LA4	643.8	1439	6400	-	-	62	28
2.3	1.5	2744	310	BF20G06-../D06LA4	736.1	1776	7900	-	-	75	34
2.3	2.0	2788	315	BF30G06-../D06LA4	705.1	1664	7400	-	-	99	45
2.2	0.8	2876	325	BF10G06-../D06LA4	768.2	1439	6400	-	-	62	28
2.0	1.3	3186	360	BF20G06-../D06LA4	810.0	1776	7900	-	-	75	34
2.0	1.75	3186	360	BF30G06-../D06LA4	817.1	1664	7400	-	-	99	45
1.8	1.15	3585	405	BF20G06-../D06LA4	952.7	1776	7900	-	-	75	34
1.7	1.45	3806	430	BF30G06-../D06LA4	961.1	1664	7400	-	-	99	45
1.5	0.93	4381	495	BF20G06-../D06LA4	1140	1776	7900	-	-	75	34
1.5	1.25	4381	495	BF30G06-../D06LA4	1150	1664	7400	-	-	99	45
1.5	3.0	2921	330	BF40G10-../D06LA4	1106	2383	10600	-	-	128	58
1.3	1.1	5045	570	BF30G06-../D06LA4	1286	1664	7400	-	-	99	45
1.3	2.4	3762	425	BF40G10-../D06LA4	1324	2383	10600	-	-	128	58
1.2	1.0	5576	630	BF30G06-../D06LA4	1404	1664	7400	-	-	99	45
1.2	2.9	4204	475	BF50G10-../D06LA4	1359	3057	13600	-	-	190	86
1.1	1.95	4514	510	BF40G10-../D06LA4	1484	2383	10600	-	-	128	58
1.1	2.7	4514	510	BF50G10-../D06LA4	1520	3057	13600	-	-	190	86
1.0	0.83	6727	760	BF30G06-../D06LA4	1686	1664	7400	-	-	99	45
1.0	2.5	5045	570	BF50G10-../D06LA4	1684	3057	13600	-	-	190	86
0.9	1.55	5753	650	BF40G10-../D06LA4	1810	2383	10600	-	-	128	58
0.85	1.45	6107	690	BF40G10-../D06LA4	1997	2383	10600	-	-	128	58
0.8	1.8	6815	770	BF50G10-../D06LA4	2059	3057	13600	-	-	190	86
0.7	1.5	8143	920	BF50G10-../D06LA4	2360	3057	13600	-	-	190	86
0.65	1.0	8762	990	BF40G10-../D06LA4	2536	2383	10600	-	-	128	58
0.6	1.25	9913	1120	BF50G10-../D06LA4	2810	3057	13600	-	-	190	86
0.6	2.7	8231	930	BF60G20-../D06LA4	2781	3440	15300	9734	43300	295	134
0.55	2.4	9382	1060	BF60G20-../D06LA4	3237	3440	15300	9734	43300	295	134
0.42	1.6	13630	1540	BF60G20-../D06LA4	3883	3440	15300	9734	43300	295	134
0.36	3.0	16728	1890	BF70G20-../D06LA4	4542	3619	16100	10723	47700	467	212
0.35	1.3	17259	1950	BF60G20-../D06LA4	4646	3440	15300	9734	43300	295	134
0.32	2.7	19029	2150	BF70G20-../D06LA4	5124	3619	16100	10723	47700	467	212
0.31	1.1	19914	2250	BF60G20-../D06LA4	5241	3440	15300	9734	43300	295	134
0.29	2.3	21684	2450	BF70G20-../D06LA4	5691	3619	16100	10723	47700	467	212
0.25	1.95	25667	2900	BF70G20-../D06LA4	6530	3619	16100	10723	47700	467	212
0.23	1.8	28322	3200	BF70G20-../D06LA4	7248	3619	16100	10723	47700	467	212
0.21	1.6	31863	3600	BF70G20-../D06LA4	8052	3619	16100	10723	47700	467	212

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

0.15 HP (0.11 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
45	10	204	23	BF10-../D06LA4	36.15	854	3800	-	-	51	23
41	9.4	226	25.5	BF10-../D06LA4	39.75	888	3950	-	-	51	23
38	8.7	243	27.5	BF10-../D06LA4	43.06	922	4100	-	-	51	23
34.5	8.0	266	30	BF10-../D06LA4	47.35	955	4250	-	-	51	23
32	7.4	288	32.5	BF10-../D06LA4	51.28	989	4400	-	-	51	23
29	6.7	319	36	BF10-../D06LA4	56.39	1023	4550	-	-	51	23
26.5	6.1	350	39.5	BF10-../D06LA4	61.55	1057	4700	-	-	51	23
24	5.5	385	43.5	BF10-../D06LA4	67.69	1102	4900	-	-	51	23
21	4.8	443	50	BF10-../D06LA4	77.55	1147	5100	-	-	51	23
19	4.4	487	55	BF10-../D06LA4	85.27	1191	5300	-	-	51	23
18	4.1	513	58	BF10-../D06LA4	90.91	1214	5400	-	-	51	23
16.5	3.8	558	63	BF10-../D06LA4	99.97	1259	5600	-	-	51	23
14.5	3.3	637	72	BF10-../D06LA4	112.3	1326	5900	-	-	51	23
13	3.0	708	80	BF10-../D06LA4	128.9	1394	6200	-	-	51	23
11.5	2.6	805	91	BF10-../D06LA4	141.8	1439	6400	-	-	51	23
11	2.5	841	95	BF10Z-../D06LA4	151.2	1439	6400	-	-	53	24
9.8	2.2	947	107	BF10Z-../D06LA4	166.2	1439	6400	-	-	53	24
9.0	2.1	1027	116	BF10Z-../D06LA4	180.1	1439	6400	-	-	53	24
8.3	3.3	1115	126	BF20Z-../D06LA4	197.1	1776	7900	-	-	68	31
8.2	1.9	1133	128	BF10Z-../D06LA4	198.0	1439	6400	-	-	53	24
7.6	1.75	1221	138	BF10Z-../D06LA4	214.5	1439	6400	-	-	53	24
7.5	3.0	1239	140	BF20Z-../D06LA4	216.9	1776	7900	-	-	68	31
6.9	1.6	1345	152	BF10Z-../D06LA4	235.8	1439	6400	-	-	53	24
6.9	2.8	1345	152	BF20Z-../D06LA4	235.9	1776	7900	-	-	68	31
6.3	1.45	1469	166	BF10Z-../D06LA4	257.4	1439	6400	-	-	53	24
6.3	2.5	1469	166	BF20Z-../D06LA4	259.6	1776	7900	-	-	68	31
5.8	1.35	1602	181	BF10Z-../D06LA4	283.1	1439	6400	-	-	53	24
5.6	3.1	1655	187	BF30Z-../D06LA4	289.8	1664	7400	-	-	93	42
5.5	2.2	1690	191	BF20Z-../D06LA4	295.5	1776	7900	-	-	68	31
5.3	2.9	1752	198	BF30Z-../D06LA4	310.7	1664	7400	-	-	93	42
5.0	1.15	1859	210	BF10Z-../D06LA4	324.3	1439	6400	-	-	53	24
5.0	2.0	1859	210	BF20Z-../D06LA4	325.2	1776	7900	-	-	68	31
4.8	1.95	1903	215	BF20Z-../D06LA4	339.1	1776	7900	-	-	68	31
4.8	2.7	1903	215	BF30Z-../D06LA4	341.8	1664	7400	-	-	93	42
4.6	1.05	1991	225	BF10Z-../D06LA4	356.6	1439	6400	-	-	53	24
4.4	1.8	2080	235	BF20Z-../D06LA4	373.1	1776	7900	-	-	68	31
4.4	2.4	2080	235	BF30Z-../D06LA4	375.1	1664	7400	-	-	93	42
4.3	1.0	2124	240	BF10Z-../D06LA4	380.2	1439	6400	-	-	53	24
4.0	2.2	2301	260	BF30Z-../D06LA4	412.6	1664	7400	-	-	93	42
3.9	0.91	2345	265	BF10Z-../D06LA4	418.0	1439	6400	-	-	53	24
3.9	1.6	2345	265	BF20Z-../D06LA4	418.1	1776	7900	-	-	68	31
3.6	1.45	2567	290	BF20Z-../D06LA4	460.0	1776	7900	-	-	68	31
3.6	3.1	2567	290	BF40Z-../D06LA4	459.1	2383	10600	-	-	117	53
3.5	0.8	2655	300	BF10Z-../D06LA4	469.5	1439	6400	-	-	53	24
3.5	1.9	2655	300	BF30Z-../D06LA4	463.3	1664	7400	-	-	93	42
3.2	1.7	2390	270	BF20G06-../D06LA4	513.7	1776	7900	-	-	75	34
3.2	2.8	2876	325	BF40Z-../D06LA4	514.6	2383	10600	-	-	117	53
3.1	0.93	2478	280	BF10G06-../D06LA4	536.0	1439	6400	-	-	62	28
3.1	1.7	2965	335	BF30Z-../D06LA4	537.0	1664	7400	-	-	93	42
2.9	2.5	3186	360	BF40Z-../D06LA4	566.1	2383	10600	-	-	117	53
2.8	1.55	3319	375	BF30Z-../D06LA4	590.7	1664	7400	-	-	93	42
2.7	1.4	2876	325	BF20G06-../D06LA4	617.0	1776	7900	-	-	75	34
2.7	1.95	2876	325	BF30G06-../D06LA4	622.4	1664	7400	-	-	99	45
2.3	1.15	3496	395	BF20G06-../D06LA4	736.1	1776	7900	-	-	75	34
2.3	1.6	3496	395	BF30G06-../D06LA4	705.1	1664	7400	-	-	99	45
2.0	1.0	4071	460	BF20G06-../D06LA4	810.0	1776	7900	-	-	75	34
2.0	1.4	4027	455	BF30G06-../D06LA4	817.1	1664	7400	-	-	99	45
1.8	0.9	4514	510	BF20G06-../D06LA4	952.7	1776	7900	-	-	75	34
1.8	2.8	3186	360	BF40G10-../D06LA4	928.9	2383	10600	-	-	128	58
1.7	1.15	4779	540	BF30G06-../D06LA4	961.1	1664	7400	-	-	99	45
1.6	3.3	3806	430	BF50G10-../D06LA4	1029	3057	13600	-	-	190	86
1.5	1.0	5487	620	BF30G06-../D06LA4	1150	1664	7400	-	-	99	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

0.15 HP (0.11 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·in	Nm			lb·f	N	lb·f	N	lb	kg
1.5	2.2	4027	455	BF40G10-../D06LA4	1106	2383	10600	-	-	128	58
1.4	2.6	4691	530	BF50G10-../D06LA4	1203	3057	13600	-	-	190	86
1.3	0.88	6373	720	BF30G06-../D06LA4	1286	1664	7400	-	-	99	45
1.3	1.75	5045	570	BF40G10-../D06LA4	1324	2383	10600	-	-	128	58
1.2	0.8	6992	790	BF30G06-../D06LA4	1404	1664	7400	-	-	99	45
1.2	2.2	5576	630	BF50G10-../D06LA4	1359	3057	13600	-	-	190	86
1.1	1.45	6107	690	BF40G10-../D06LA4	1484	2383	10600	-	-	128	58
1.1	2.1	6019	680	BF50G10-../D06LA4	1520	3057	13600	-	-	190	86
1.0	1.8	6815	770	BF50G10-../D06LA4	1684	3057	13600	-	-	190	86
0.9	1.15	7612	860	BF40G10-../D06LA4	1810	2383	10600	-	-	128	58
0.85	1.1	8143	920	BF40G10-../D06LA4	1997	2383	10600	-	-	128	58
0.85	3.2	6992	790	BF60G20-../D06LA4	1955	3440	15300	9734	43300	295	134
0.8	1.4	8939	1010	BF50G10-../D06LA4	2059	3057	13600	-	-	190	86
0.75	2.7	8320	940	BF60G20-../D06LA4	2172	3440	15300	9734	43300	295	134
0.7	1.2	10532	1190	BF50G10-../D06LA4	2360	3057	13600	-	-	190	86
0.6	2.0	10975	1240	BF60G20-../D06LA4	2781	3440	15300	9734	43300	295	134
0.55	1.8	12391	1400	BF60G20-../D06LA4	3237	3440	15300	9734	43300	295	134
0.42	1.25	17613	1990	BF60G20-../D06LA4	3883	3440	15300	9734	43300	295	134
0.4	2.7	18587	2100	BF70G20-../D06LA4	4090	3619	16100	10723	47700	467	212
0.36	2.4	21242	2400	BF70G20-../D06LA4	4542	3619	16100	10723	47700	467	212
0.35	1.0	21684	2450	BF60G20-../D06LA4	4646	3440	15300	9734	43300	295	134
0.32	2.1	24340	2750	BF70G20-../D06LA4	5124	3619	16100	10723	47700	467	212
0.29	1.85	27437	3100	BF70G20-../D06LA4	5691	3619	16100	10723	47700	467	212
0.25	1.55	32748	3700	BF70G20-../D06LA4	6530	3619	16100	10723	47700	467	212
0.23	1.4	35846	4050	BF70G20-../D06LA4	7248	3619	16100	10723	47700	467	212
0.21	1.25	39828	4500	BF70G20-../D06LA4	8052	3619	16100	10723	47700	467	212



0.25 HP (0.18 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·in	Nm			lb·f	N	lb·f	N	lb	kg
215	8.6	70	7.9	BF06-../D05LA4	7.66	405	1800	-	-	22	10
176	7.2	86	9.7	BF06-../D05LA4	9.21	427	1900	-	-	22	10
135	5.9	112	12.7	BF06-../D05LA4	12.07	450	2000	-	-	22	10
115	5.7	132	14.9	BF06-../D05LA4	14.21	472	2100	-	-	22	10
96	5.3	158	17.9	BF06-../D05LA4	16.99	562	2500	-	-	22	10
80	4.5	186	21	BF06-../D05LA4	20.42	607	2700	-	-	22	10
61	3.4	248	28	BF06-../D05LA4	26.76	674	3000	-	-	22	10
52	2.9	292	33	BF06-../D05LA4	31.50	719	3200	-	-	22	10
43	2.4	350	39.5	BF06-../D05LA4	37.69	787	3500	-	-	22	10
35.5	2.0	425	48	BF06-../D05LA4	46.14	854	3800	-	-	22	10
28	1.55	540	61	BF06-../D05LA4	58.33	899	4000	-	-	22	10
24.5	1.35	620	70	BF06-../D05LA4	66.82	899	4000	-	-	22	10
21	3.0	717	81	BF10-../D06LA4	77.55	1147	5100	-	-	51	23
19.5	1.1	779	88	BF06-../D05LA4	83.61	899	4000	-	-	22	10
19	2.7	797	90	BF10-../D06LA4	85.27	1191	5300	-	-	51	23
18	2.5	841	95	BF10-../D06LA4	90.91	1214	5400	-	-	51	23
17.5	0.97	867	98	BF06-../D05LA4	95.16	899	4000	-	-	22	10
16.5	2.3	920	104	BF10-../D06LA4	99.97	1259	5600	-	-	51	23
14.5	2.0	1044	118	BF10-../D06LA4	112.3	1326	5900	-	-	51	23
13.5	3.3	1124	127	BF20-../D06LA4	123.5	1709	7600	-	-	66	30
13	1.8	1168	132	BF10-../D06LA4	128.9	1394	6200	-	-	51	23
12	2.9	1266	143	BF20-../D06LA4	135.9	1776	7900	-	-	66	30
11.5	1.6	1319	149	BF10-../D06LA4	141.8	1439	6400	-	-	51	23
11.5	2.8	1319	149	BF20Z-../D06LA4	141.2	1776	7900	-	-	68	31
11	1.55	1381	156	BF10Z-../D06LA4	151.2	1439	6400	-	-	53	24
10.5	2.6	1443	163	BF20Z-../D06LA4	155.4	1776	7900	-	-	68	31
9.9	2.4	1531	173	BF20Z-../D06LA4	164.3	1776	7900	-	-	68	31

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

0.25 HP (0.18 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
9.8	1.35	1549	175	BF10Z-../D06LA4	166.2	1439	6400	-	-	53	24
9.8	3.3	1549	175	BF30Z-../D06LA4	165.8	1664	7400	-	-	93	42
9.2	3.1	1646	186	BF30Z-../D06LA4	176.6	1664	7400	-	-	93	42
9.0	1.25	1690	191	BF10Z-../D06LA4	180.1	1439	6400	-	-	53	24
9.0	2.2	1690	191	BF20Z-../D06LA4	180.8	1776	7900	-	-	68	31
8.4	2.9	1770	200	BF30Z-../D06LA4	194.3	1664	7400	-	-	93	42
8.3	2.0	1814	205	BF20Z-../D06LA4	197.1	1776	7900	-	-	68	31
8.2	1.15	1814	205	BF10Z-../D06LA4	198.0	1439	6400	-	-	53	24
7.6	1.05	1991	225	BF10Z-../D06LA4	214.5	1439	6400	-	-	53	24
7.5	1.85	1991	225	BF20Z-../D06LA4	216.9	1776	7900	-	-	68	31
7.3	2.4	2080	235	BF30Z-../D06LA4	224.8	1664	7400	-	-	93	42
6.9	0.98	2168	245	BF10Z-../D06LA4	235.8	1439	6400	-	-	53	24
6.9	1.7	2168	245	BF20Z-../D06LA4	235.9	1776	7900	-	-	68	31
6.6	2.2	2301	260	BF30Z-../D06LA4	247.3	1664	7400	-	-	93	42
6.3	0.89	2390	270	BF10Z-../D06LA4	257.4	1439	6400	-	-	53	24
6.3	1.55	2390	270	BF20Z-../D06LA4	259.6	1776	7900	-	-	68	31
6.2	2.1	2434	275	BF30Z-../D06LA4	263.5	1664	7400	-	-	93	42
5.9	3.1	2567	290	BF40Z-../D06LA4	278.5	2383	10600	-	-	117	53
5.8	0.81	2611	295	BF10Z-../D06LA4	283.1	1439	6400	-	-	53	24
5.6	1.9	2699	305	BF30Z-../D06LA4	289.8	1664	7400	-	-	93	42
5.5	1.35	2744	310	BF20Z-../D06LA4	295.5	1776	7900	-	-	68	31
5.5	2.9	2744	310	BF40Z-../D06LA4	295.1	2383	10600	-	-	117	53
5.3	1.8	2832	320	BF30Z-../D06LA4	310.7	1664	7400	-	-	93	42
5.1	0.87	2655	300	BF10G06-../D06LA4	322.3	1439	6400	-	-	62	28
5.0	1.25	3009	340	BF20Z-../D06LA4	325.2	1776	7900	-	-	68	31
5.0	2.6	3009	340	BF40Z-../D06LA4	324.7	2383	10600	-	-	117	53
4.8	1.2	3142	355	BF20Z-../D06LA4	339.1	1776	7900	-	-	68	31
4.8	1.6	3142	355	BF30Z-../D06LA4	341.8	1664	7400	-	-	93	42
4.7	2.5	3231	365	BF40Z-../D06LA4	346.8	2383	10600	-	-	117	53
4.4	1.1	3452	390	BF20Z-../D06LA4	373.1	1776	7900	-	-	68	31
4.4	1.45	3452	390	BF30Z-../D06LA4	375.1	1664	7400	-	-	93	42
4.3	2.3	3496	395	BF40Z-../D06LA4	381.5	2383	10600	-	-	117	53
4.2	3.2	3585	405	BF50Z-../D06LA4	392.8	3057	13600	-	-	181	82
4.0	1.35	3762	425	BF30Z-../D06LA4	412.6	1664	7400	-	-	93	42
3.9	0.95	3894	440	BF20Z-../D06LA4	418.1	1776	7900	-	-	68	31
3.9	2.0	3894	440	BF40Z-../D06LA4	417.3	2383	10600	-	-	117	53
3.7	2.8	4071	460	BF50Z-../D06LA4	439.3	3057	13600	-	-	181	82
3.6	0.88	4204	475	BF20Z-../D06LA4	460.0	1776	7900	-	-	68	31
3.6	1.9	4204	475	BF40Z-../D06LA4	459.1	2383	10600	-	-	117	53
3.5	1.15	4337	490	BF30Z-../D06LA4	463.3	1664	7400	-	-	93	42
3.3	2.5	4602	520	BF50Z-../D06LA4	496.4	3057	13600	-	-	181	82
3.2	0.96	4248	480	BF20G06-../D06LA4	513.7	1776	7900	-	-	75	34
3.2	1.7	4691	530	BF40Z-../D06LA4	514.6	2383	10600	-	-	117	53
3.1	1.05	4868	550	BF30Z-../D06LA4	537.0	1664	7400	-	-	93	42
3.0	2.3	5045	570	BF50Z-../D06LA4	555.2	3057	13600	-	-	181	82
2.9	1.55	5222	590	BF40Z-../D06LA4	566.1	2383	10600	-	-	117	53
2.8	0.94	5399	610	BF30Z-../D06LA4	590.7	1664	7400	-	-	93	42
2.8	2.4	3762	425	BF40G10-../D06LA4	597.3	2383	10600	-	-	128	58
2.7	0.81	5045	570	BF20G06-../D06LA4	617.0	1776	7900	-	-	75	34
2.7	1.1	5045	570	BF30G06-../D06LA4	622.4	1664	7400	-	-	99	45
2.4	2.7	4602	520	BF50G10-../D06LA4	680.9	3057	13600	-	-	190	86
2.3	0.91	6107	690	BF30G06-../D06LA4	705.1	1664	7400	-	-	99	45
2.3	1.85	4779	540	BF40G10-../D06LA4	731.6	2383	10600	-	-	128	58
2.0	0.8	6992	790	BF30G06-../D06LA4	817.1	1664	7400	-	-	99	45
1.9	2.0	6107	690	BF50G10-../D06LA4	864.5	3057	13600	-	-	190	86
1.8	1.35	6461	730	BF40G10-../D06LA4	928.9	2383	10600	-	-	128	58
1.6	1.65	7435	840	BF50G10-../D06LA4	1029	3057	13600	-	-	190	86
1.5	1.1	7966	900	BF40G10-../D06LA4	1106	2383	10600	-	-	128	58
1.4	1.4	8939	1010	BF50G10-../D06LA4	1203	3057	13600	-	-	190	86
1.4	2.7	8143	920	BF60G20-../D06LA4	1211	3440	15300	9734	43300	295	134
1.3	0.93	9559	1080	BF40G10-../D06LA4	1324	2383	10600	-	-	128	58
1.2	1.2	10532	1190	BF50G10-../D06LA4	1359	3057	13600	-	-	190	86

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

0.25 HP (0.18 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
1.1	1.1	11417	1290	BF50G10-../D06LA4	1520	3057	13600	-	-	190	86
1.1	2.1	10444	1180	BF60G20-../D06LA4	1494	3440	15300	9734	43300	295	134
1.0	0.98	12657	1430	BF50G10-../D06LA4	1684	3057	13600	-	-	190	86
1.0	1.95	11417	1290	BF60G20-../D06LA4	1658	3440	15300	9734	43300	295	134
0.85	1.6	13896	1570	BF60G20-../D06LA4	1955	3440	15300	9734	43300	295	134
0.75	1.35	16197	1830	BF60G20-../D06LA4	2172	3440	15300	9734	43300	295	134
0.7	2.9	17436	1970	BF70G20-../D06LA4	2448	3619	16100	10723	47700	467	212
0.6	1.05	20799	2350	BF60G20-../D06LA4	2781	3440	15300	9734	43300	295	134
0.6	2.4	20799	2350	BF70G20-../D06LA4	2849	3619	16100	10723	47700	467	212
0.48	1.85	26995	3050	BF70G20-../D06LA4	3417	3619	16100	10723	47700	467	212
0.4	1.5	33633	3800	BF70G20-../D06LA4	4090	3619	16100	10723	47700	467	212
0.36	1.35	37616	4250	BF70G20-../D06LA4	4542	3619	16100	10723	47700	467	212
0.32	1.2	42926	4850	BF70G20-../D06LA4	5124	3619	16100	10723	47700	467	212
0.29	1.05	47794	5400	BF70G20-../D06LA4	5691	3619	16100	10723	47700	467	212

0.33 HP (0.25 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
215	6.1	98	11.1	BF06-../D05LA4	7.66	405	1800	-	-	22	10
176	5.2	119	13.5	BF06-../D05LA4	9.21	427	1900	-	-	22	10
135	4.3	156	17.6	BF06-../D05LA4	12.07	450	2000	-	-	22	10
115	4.1	181	20.5	BF06-../D05LA4	14.21	472	2100	-	-	22	10
96	3.9	217	24.5	BF06-../D05LA4	16.99	562	2500	-	-	22	10
80	3.2	261	29.5	BF06-../D05LA4	20.42	607	2700	-	-	22	10
61	2.4	345	39	BF06-../D05LA4	26.76	674	3000	-	-	22	10
52	2.1	403	45.5	BF06-../D05LA4	31.50	719	3200	-	-	22	10
43	1.75	487	55	BF06-../D05LA4	37.69	787	3500	-	-	22	10
35.5	1.4	593	67	BF06-../D05LA4	46.14	854	3800	-	-	22	10
32	3.2	655	74	BF10-../D06LA4	51.28	989	4400	-	-	51	23
29	2.9	726	82	BF10-../D06LA4	56.39	1023	4550	-	-	51	23
28	1.1	752	85	BF06-../D05LA4	58.33	899	4000	-	-	22	10
26.5	2.7	797	90	BF10-../D06LA4	61.55	1057	4700	-	-	51	23
24.5	0.98	859	97	BF06-../D05LA4	66.82	899	4000	-	-	22	10
24	2.4	876	99	BF10-../D06LA4	67.69	1102	4900	-	-	51	23
21	2.1	1000	113	BF10-../D06LA4	77.55	1147	5100	-	-	51	23
19	1.9	1106	125	BF10-../D06LA4	85.27	1191	5300	-	-	51	23
18	1.8	1168	132	BF10-../D06LA4	90.91	1214	5400	-	-	51	23
17	3.0	1239	140	BF20-../D06LA4	96.08	1551	6900	-	-	66	30
16.5	1.65	1275	144	BF10-../D06LA4	99.97	1259	5600	-	-	51	23
16.5	2.9	1275	144	BF20-../D06LA4	100.2	1574	7000	-	-	66	30
15	2.6	1407	159	BF20-../D06LA4	110.2	1641	7300	-	-	66	30
14.5	1.45	1452	164	BF10-../D06LA4	112.3	1326	5900	-	-	51	23
13.5	2.4	1558	176	BF20-../D06LA4	123.5	1709	7600	-	-	66	30
13	1.3	1620	183	BF10-../D06LA4	128.9	1394	6200	-	-	51	23
13	3.1	1620	183	BF30-../D06LA4	124.7	1596	7100	-	-	88	40
12	2.1	1752	198	BF20-../D06LA4	135.9	1776	7900	-	-	66	30
12	2.9	1752	198	BF30-../D06LA4	137.1	1664	7400	-	-	88	40
11.5	1.15	1814	205	BF10-../D06LA4	141.8	1439	6400	-	-	51	23
11.5	2.0	1814	205	BF20Z-../D06LA4	141.2	1776	7900	-	-	68	31
11	1.1	1903	215	BF10Z-../D06LA4	151.2	1439	6400	-	-	53	24
11	2.7	1903	215	BF30Z-../D06LA4	150.7	1664	7400	-	-	93	42
10.5	1.85	1991	225	BF20Z-../D06LA4	155.4	1776	7900	-	-	68	31
9.9	1.75	2124	240	BF20Z-../D06LA4	164.3	1776	7900	-	-	68	31
9.8	1.0	2124	240	BF10Z-../D06LA4	166.2	1439	6400	-	-	53	24
9.8	2.4	2124	240	BF30Z-../D06LA4	165.8	1664	7400	-	-	93	42
9.2	2.3	2257	255	BF30Z-../D06LA4	176.6	1664	7400	-	-	93	42
9.0	0.91	2345	265	BF10Z-../D06LA4	180.1	1439	6400	-	-	53	24

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

0.33 HP (0.25 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
9.0	1.6	2345	265	BF20Z-../D06LA4	180.8	1776	7900	-	-	68	31
8.7	3.3	2390	270	BF40Z-../D06LA4	188.3	2383	10600	-	-	117	53
8.4	2.1	2478	280	BF30Z-../D06LA4	194.3	1664	7400	-	-	93	42
8.3	1.45	2522	285	BF20Z-../D06LA4	197.1	1776	7900	-	-	68	31
8.2	0.83	2567	290	BF10Z-../D06LA4	198.0	1439	6400	-	-	53	24
8.1	3.1	2567	290	BF40Z-../D06LA4	202.2	2383	10600	-	-	117	53
7.5	1.35	2788	315	BF20Z-../D06LA4	216.9	1776	7900	-	-	68	31
7.3	1.75	2876	325	BF30Z-../D06LA4	224.8	1664	7400	-	-	93	42
7.3	2.8	2876	325	BF40Z-../D06LA4	222.4	2383	10600	-	-	117	53
6.9	1.2	3054	345	BF20Z-../D06LA4	235.9	1776	7900	-	-	68	31
6.6	1.6	3186	360	BF30Z-../D06LA4	247.3	1664	7400	-	-	93	42
6.4	2.4	3275	370	BF40Z-../D06LA4	253.2	2383	10600	-	-	117	53
6.3	1.1	3319	375	BF20Z-../D06LA4	259.6	1776	7900	-	-	68	31
6.2	1.5	3408	385	BF30Z-../D06LA4	263.5	1664	7400	-	-	93	42
5.9	2.3	3540	400	BF40Z-../D06LA4	278.5	2383	10600	-	-	117	53
5.9	3.3	3540	400	BF50Z-../D06LA4	276.8	3057	13600	-	-	181	82
5.6	1.35	3762	425	BF30Z-../D06LA4	289.8	1664	7400	-	-	93	42
5.5	0.98	3806	430	BF20Z-../D06LA4	295.5	1776	7900	-	-	68	31
5.5	2.1	3806	430	BF40Z-../D06LA4	295.1	2383	10600	-	-	117	53
5.3	1.3	3983	450	BF30Z-../D06LA4	310.7	1664	7400	-	-	93	42
5.2	2.9	4027	455	BF50Z-../D06LA4	316.6	3057	13600	-	-	181	82
5.0	0.88	4204	475	BF20Z-../D06LA4	325.2	1776	7900	-	-	68	31
5.0	1.9	4204	475	BF40Z-../D06LA4	324.7	2383	10600	-	-	117	53
4.8	0.85	4381	495	BF20Z-../D06LA4	339.1	1776	7900	-	-	68	31
4.8	1.15	4381	495	BF30Z-../D06LA4	341.8	1664	7400	-	-	93	42
4.7	1.8	4425	500	BF40Z-../D06LA4	346.8	2383	10600	-	-	117	53
4.6	2.5	4514	510	BF50Z-../D06LA4	354.0	3057	13600	-	-	181	82
4.4	1.05	4779	540	BF30Z-../D06LA4	375.1	1664	7400	-	-	93	42
4.3	1.65	4868	550	BF40Z-../D06LA4	381.5	2383	10600	-	-	117	53
4.2	2.3	4956	560	BF50Z-../D06LA4	392.8	3057	13600	-	-	181	82
4.0	0.97	5222	590	BF30Z-../D06LA4	412.6	1664	7400	-	-	93	42
3.9	1.5	5399	610	BF40Z-../D06LA4	417.3	2383	10600	-	-	117	53
3.7	2.0	5664	640	BF50Z-../D06LA4	439.3	3057	13600	-	-	181	82
3.6	1.35	5841	660	BF40Z-../D06LA4	459.1	2383	10600	-	-	117	53
3.5	0.85	6019	680	BF30Z-../D06LA4	463.3	1664	7400	-	-	93	42
3.3	1.8	6373	720	BF50Z-../D06LA4	496.4	3057	13600	-	-	181	82
3.2	1.2	6550	740	BF40Z-../D06LA4	514.6	2383	10600	-	-	117	53
3.0	1.65	6992	790	BF50Z-../D06LA4	555.2	3057	13600	-	-	181	82
2.9	1.1	7258	820	BF40Z-../D06LA4	566.1	2383	10600	-	-	117	53
2.8	1.5	5841	660	BF40G10-../D06LA4	597.3	2383	10600	-	-	128	58
2.4	1.75	7081	800	BF50G10-../D06LA4	680.9	3057	13600	-	-	190	86
2.3	1.2	7346	830	BF40G10-../D06LA4	731.6	2383	10600	-	-	128	58
2.0	2.8	7789	880	BF60G20-../D06LA4	813.2	3440	15300	9734	43300	295	134
1.9	1.35	9293	1050	BF50G10-../D06LA4	864.5	3057	13600	-	-	190	86
1.8	0.91	9736	1100	BF40G10-../D06LA4	928.9	2383	10600	-	-	128	58
1.8	2.4	9293	1050	BF60G20-../D06LA4	937.6	3440	15300	9734	43300	295	134
1.6	1.1	11152	1260	BF50G10-../D06LA4	1029	3057	13600	-	-	190	86
1.4	0.94	13188	1490	BF50G10-../D06LA4	1203	3057	13600	-	-	190	86
1.4	1.8	12303	1390	BF60G20-../D06LA4	1211	3440	15300	9734	43300	295	134
1.2	0.8	15489	1750	BF50G10-../D06LA4	1359	3057	13600	-	-	190	86
1.1	1.4	15843	1790	BF60G20-../D06LA4	1494	3440	15300	9734	43300	295	134
1.0	1.3	17347	1960	BF60G20-../D06LA4	1658	3440	15300	9734	43300	295	134
1.0	2.9	17436	1970	BF70G20-../D06LA4	1621	3619	16100	10723	47700	467	212
0.85	1.05	20799	2350	BF60G20-../D06LA4	1955	3440	15300	9734	43300	295	134
0.85	2.4	20799	2350	BF70G20-../D06LA4	1912	3619	16100	10723	47700	467	212
0.7	1.95	25667	2900	BF70G20-../D06LA4	2448	3619	16100	10723	47700	467	212
0.6	1.65	30535	3450	BF70G20-../D06LA4	2849	3619	16100	10723	47700	467	212
0.48	1.3	39386	4450	BF70G20-../D06LA4	3417	3619	16100	10723	47700	467	212
0.4	1.05	47794	5400	BF70G20-../D06LA4	4090	3619	16100	10723	47700	467	212

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

0.4 HP (0.3 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
215	5.1	118	13.3	BF06-../D05LA4	7.66	405	1800	-	-	22	10
176	4.3	143	16.2	BF06-../D05LA4	9.21	427	1900	-	-	22	10
135	3.6	186	21	BF06-../D05LA4	12.07	450	2000	-	-	22	10
115	3.5	217	24.5	BF06-../D05LA4	14.21	472	2100	-	-	22	10
96	3.2	261	29.5	BF06-../D05LA4	16.99	562	2500	-	-	22	10
80	2.7	314	35.5	BF06-../D05LA4	20.42	607	2700	-	-	22	10
61	2.0	412	46.5	BF06-../D05LA4	26.76	674	3000	-	-	22	10
52	1.75	487	55	BF06-../D05LA4	31.50	719	3200	-	-	22	10
43	1.45	584	66	BF06-../D05LA4	37.69	787	3500	-	-	22	10
38	3.2	664	75	BF10-../D06LA4	43.06	922	4100	-	-	51	23
35.5	1.2	708	80	BF06-../D05LA4	46.14	854	3800	-	-	22	10
34.5	2.9	735	83	BF10-../D06LA4	47.35	955	4250	-	-	51	23
32	2.7	788	89	BF10-../D06LA4	51.28	989	4400	-	-	51	23
29	2.4	867	98	BF10-../D06LA4	56.39	1023	4550	-	-	51	23
28	0.93	903	102	BF06-../D05LA4	58.33	899	4000	-	-	22	10
26.5	2.2	956	108	BF10-../D06LA4	61.55	1057	4700	-	-	51	23
24.5	0.82	1027	116	BF06-../D05LA4	66.82	899	4000	-	-	22	10
24	2.0	1053	119	BF10-../D06LA4	67.69	1102	4900	-	-	51	23
21.5	3.2	1177	133	BF20-../D06LA4	76.69	1416	6300	-	-	66	30
21	1.75	1204	136	BF10-../D06LA4	77.55	1147	5100	-	-	51	23
19	1.6	1328	150	BF10-../D06LA4	85.27	1191	5300	-	-	51	23
19	2.8	1328	150	BF20-../D06LA4	87.31	1484	6600	-	-	66	30
18	1.5	1407	159	BF10-../D06LA4	90.91	1214	5400	-	-	51	23
17	2.5	1487	168	BF20-../D06LA4	96.08	1551	6900	-	-	66	30
16.5	1.4	1531	173	BF10-../D06LA4	99.97	1259	5600	-	-	51	23
16.5	2.4	1531	173	BF20-../D06LA4	100.2	1574	7000	-	-	66	30
15.5	3.1	1629	184	BF30-../D06LA4	107.6	1506	6700	-	-	88	40
15	2.2	1690	191	BF20-../D06LA4	110.2	1641	7300	-	-	66	30
14.5	1.2	1744	197	BF10-../D06LA4	112.3	1326	5900	-	-	51	23
14	2.9	1770	200	BF30-../D06LA4	118.3	1574	7000	-	-	88	40
13.5	2.0	1859	210	BF20-../D06LA4	123.5	1709	7600	-	-	66	30
13	1.1	1947	220	BF10-../D06LA4	128.9	1394	6200	-	-	51	23
13	2.6	1947	220	BF30-../D06LA4	124.7	1596	7100	-	-	88	40
12	1.8	2080	235	BF20-../D06LA4	135.9	1776	7900	-	-	66	30
12	2.4	2080	235	BF30-../D06LA4	137.1	1664	7400	-	-	88	40
11.5	0.98	2168	245	BF10-../D06LA4	141.8	1439	6400	-	-	51	23
11.5	1.7	2168	245	BF20Z-../D06LA4	141.2	1776	7900	-	-	68	31
11	0.92	2301	260	BF10Z-../D06LA4	151.2	1439	6400	-	-	53	24
11	2.2	2301	260	BF30Z-../D06LA4	150.7	1664	7400	-	-	93	42
10.5	1.55	2390	270	BF20Z-../D06LA4	155.4	1776	7900	-	-	68	31
10.5	3.3	2390	270	BF40Z-../D06LA4	155.6	2383	10600	-	-	117	53
9.9	1.45	2522	285	BF20Z-../D06LA4	164.3	1776	7900	-	-	68	31
9.8	0.83	2567	290	BF10Z-../D06LA4	166.2	1439	6400	-	-	53	24
9.8	2.0	2567	290	BF30Z-../D06LA4	165.8	1664	7400	-	-	93	42
9.5	3.0	2655	300	BF40Z-../D06LA4	171.2	2383	10600	-	-	117	53
9.2	1.85	2744	310	BF30Z-../D06LA4	176.6	1664	7400	-	-	93	42
9.0	1.35	2788	315	BF20Z-../D06LA4	180.8	1776	7900	-	-	68	31
8.7	2.8	2876	325	BF40Z-../D06LA4	188.3	2383	10600	-	-	117	53
8.4	1.7	3009	340	BF30Z-../D06LA4	194.3	1664	7400	-	-	93	42
8.3	1.2	3054	345	BF20Z-../D06LA4	197.1	1776	7900	-	-	68	31
8.1	2.6	3098	350	BF40Z-../D06LA4	202.2	2383	10600	-	-	117	53
7.5	1.1	3363	380	BF20Z-../D06LA4	216.9	1776	7900	-	-	68	31
7.3	1.45	3452	390	BF30Z-../D06LA4	224.8	1664	7400	-	-	93	42
7.3	2.3	3452	390	BF40Z-../D06LA4	222.4	2383	10600	-	-	117	53
6.9	1.0	3673	415	BF20Z-../D06LA4	235.9	1776	7900	-	-	68	31
6.6	1.35	3806	430	BF30Z-../D06LA4	247.3	1664	7400	-	-	93	42
6.6	3.0	3806	430	BF50Z-../D06LA4	247.5	3057	13600	-	-	181	82
6.4	2.0	3939	445	BF40Z-../D06LA4	253.2	2383	10600	-	-	117	53
6.3	0.93	3983	450	BF20Z-../D06LA4	259.6	1776	7900	-	-	68	31
6.2	1.25	4071	460	BF30Z-../D06LA4	263.5	1664	7400	-	-	93	42
5.9	1.85	4293	485	BF40Z-../D06LA4	278.5	2383	10600	-	-	117	53
5.9	2.7	4293	485	BF50Z-../D06LA4	276.8	3057	13600	-	-	181	82

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

0.4 HP (0.3 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
5.6	1.15	4514	510	BF30Z-../D06LA4	289.8	1664	7400	-	-	93	42
5.5	0.81	4602	520	BF20Z-../D06LA4	295.5	1776	7900	-	-	68	31
5.5	1.75	4602	520	BF40Z-../D06LA4	295.1	2383	10600	-	-	117	53
5.3	1.05	4779	540	BF30Z-../D06LA4	310.7	1664	7400	-	-	93	42
5.2	2.4	4868	550	BF50Z-../D06LA4	316.6	3057	13600	-	-	181	82
5.0	1.6	5045	570	BF40Z-../D06LA4	324.7	2383	10600	-	-	117	53
4.8	0.97	5222	590	BF30Z-../D06LA4	341.8	1664	7400	-	-	93	42
4.7	1.5	5310	600	BF40Z-../D06LA4	346.8	2383	10600	-	-	117	53
4.6	2.1	5487	620	BF50Z-../D06LA4	354.0	3057	13600	-	-	181	82
4.4	0.88	5753	650	BF30Z-../D06LA4	375.1	1664	7400	-	-	93	42
4.3	1.35	5841	660	BF40Z-../D06LA4	381.5	2383	10600	-	-	117	53
4.2	1.9	6019	680	BF50Z-../D06LA4	392.8	3057	13600	-	-	181	82
4.0	0.81	6284	710	BF30Z-../D06LA4	412.6	1664	7400	-	-	93	42
3.9	1.25	6461	730	BF40Z-../D06LA4	417.3	2383	10600	-	-	117	53
3.7	1.7	6815	770	BF50Z-../D06LA4	439.3	3057	13600	-	-	181	82
3.6	1.15	6992	790	BF40Z-../D06LA4	459.1	2383	10600	-	-	117	53
3.3	1.5	7612	860	BF50Z-../D06LA4	496.4	3057	13600	-	-	181	82
3.2	1.0	7877	890	BF40Z-../D06LA4	514.6	2383	10600	-	-	117	53
3.0	1.35	8408	950	BF50Z-../D06LA4	555.2	3057	13600	-	-	181	82
2.9	0.92	8674	980	BF40Z-../D06LA4	566.1	2383	10600	-	-	117	53
2.8	1.2	7346	830	BF40G10-../D06LA4	597.3	2383	10600	-	-	128	58
2.4	1.4	8851	1000	BF50G10-../D06LA4	680.9	3057	13600	-	-	190	86
2.4	2.8	7966	900	BF60G20-../D06LA4	689.0	3440	15300	9734	43300	295	134
2.3	0.96	9205	1040	BF40G10-../D06LA4	731.6	2383	10600	-	-	128	58
2.0	2.2	9913	1120	BF60G20-../D06LA4	813.2	3440	15300	9734	43300	295	134
1.9	1.1	11506	1300	BF50G10-../D06LA4	864.5	3057	13600	-	-	190	86
1.8	1.9	11594	1310	BF60G20-../D06LA4	937.6	3440	15300	9734	43300	295	134
1.6	0.9	13807	1560	BF50G10-../D06LA4	1029	3057	13600	-	-	190	86
1.4	1.45	15400	1740	BF60G20-../D06LA4	1211	3440	15300	9734	43300	295	134
1.2	2.9	17701	2000	BF70G20-../D06LA4	1390	3619	16100	10723	47700	467	212
1.1	1.15	19472	2200	BF60G20-../D06LA4	1494	3440	15300	9734	43300	295	134
1.0	1.05	21242	2400	BF60G20-../D06LA4	1658	3440	15300	9734	43300	295	134
1.0	2.3	21684	2450	BF70G20-../D06LA4	1621	3619	16100	10723	47700	467	212
0.85	1.95	25667	2900	BF70G20-../D06LA4	1912	3619	16100	10723	47700	467	212
0.7	1.6	31863	3600	BF70G20-../D06LA4	2448	3619	16100	10723	47700	467	212
0.6	1.35	37616	4250	BF70G20-../D06LA4	2849	3619	16100	10723	47700	467	212
0.48	1.05	47794	5400	BF70G20-../D06LA4	3417	3619	16100	10723	47700	467	212

0.5 HP (0.37 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
215	4.1	145	16.4	BF06-../D07LA4	7.66	405	1800	-	-	31	14
176	3.5	177	20	BF06-../D07LA4	9.21	427	1900	-	-	31	14
135	2.9	230	26	BF06-../D07LA4	12.07	450	2000	-	-	31	14
115	2.8	270	30.5	BF06-../D07LA4	14.21	472	2100	-	-	31	14
96	2.6	323	36.5	BF06-../D07LA4	16.99	562	2500	-	-	31	14
80	2.2	389	44	BF06-../D07LA4	20.42	607	2700	-	-	31	14
61	1.65	504	57	BF06-../D07LA4	26.76	674	3000	-	-	31	14
52	1.4	593	67	BF06-../D07LA4	31.50	719	3200	-	-	31	14
45	3.1	690	78	BF10-../D07LA4	36.15	854	3800	-	-	57	26
43	1.15	726	82	BF06-../D07LA4	37.69	787	3500	-	-	31	14
41	2.8	761	86	BF10-../D07LA4	39.75	888	3950	-	-	57	26
38	2.6	814	92	BF10-../D07LA4	43.06	922	4100	-	-	57	26
35.5	0.96	876	99	BF06-../D07LA4	46.14	854	3800	-	-	31	14
34.5	2.4	903	102	BF10-../D07LA4	47.35	955	4250	-	-	57	26
32	2.2	974	110	BF10-../D07LA4	51.28	989	4400	-	-	57	26
29	2.0	1071	121	BF10-../D07LA4	56.39	1023	4550	-	-	57	26

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

0.5 HP (0.37 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
28	3.3	1115	126	BF20-../D07LA4	58.24	1259	5600	-	-	71	32
26.5	1.8	1177	133	BF10-../D07LA4	61.55	1057	4700	-	-	57	26
25.5	3.0	1221	138	BF20-../D07LA4	64.08	1326	5900	-	-	71	32
24	1.65	1301	147	BF10-../D07LA4	67.69	1102	4900	-	-	57	26
23.5	2.8	1328	150	BF20-../D07LA4	69.70	1371	6100	-	-	71	32
21.5	2.6	1452	164	BF20-../D07LA4	76.69	1416	6300	-	-	71	32
21	1.45	1487	168	BF10-../D07LA4	77.55	1147	5100	-	-	57	26
20.5	3.3	1522	172	BF30-../D07LA4	79.34	1326	5900	-	-	93	42
19	1.3	1637	185	BF10-../D07LA4	85.27	1191	5300	-	-	57	26
19	2.3	1637	185	BF20-../D07LA4	87.31	1484	6600	-	-	71	32
19	3.1	1637	185	BF30-../D07LA4	87.08	1394	6200	-	-	93	42
18	1.2	1735	196	BF10-../D07LA4	90.91	1214	5400	-	-	57	26
17	2.0	1814	205	BF20-../D07LA4	96.08	1551	6900	-	-	71	32
17	2.8	1814	205	BF30-../D07LA4	95.79	1439	6400	-	-	93	42
16.5	1.15	1859	210	BF10-../D07LA4	99.97	1259	5600	-	-	57	26
16.5	2.0	1859	210	BF20-../D07LA4	100.2	1574	7000	-	-	71	32
15.5	2.6	1991	225	BF30-../D07LA4	107.6	1506	6700	-	-	93	42
15	1.8	2080	235	BF20-../D07LA4	110.2	1641	7300	-	-	71	32
14.5	1.0	2124	240	BF10-../D07LA4	112.3	1326	5900	-	-	57	26
14	2.3	2213	250	BF30-../D07LA4	118.3	1574	7000	-	-	93	42
13.5	1.6	2301	260	BF20-../D07LA4	123.5	1709	7600	-	-	71	32
13	0.89	2390	270	BF10-../D07LA4	128.9	1394	6200	-	-	57	26
13	2.1	2390	270	BF30-../D07LA4	124.7	1596	7100	-	-	93	42
12	1.45	2567	290	BF20-../D07LA4	135.9	1776	7900	-	-	71	32
12	2.0	2567	290	BF30-../D07LA4	137.1	1664	7400	-	-	93	42
11.5	1.4	2699	305	BF20Z-../D07LA4	141.2	1776	7900	-	-	75	34
11.5	3.0	2699	305	BF40Z-../D07LA4	141.4	2383	10600	-	-	121	55
11	1.8	2832	320	BF30Z-../D07LA4	150.7	1664	7400	-	-	99	45
10.5	1.25	2965	335	BF20Z-../D07LA4	155.4	1776	7900	-	-	75	34
10.5	2.7	2965	335	BF40Z-../D07LA4	155.6	2383	10600	-	-	121	55
9.9	1.2	3142	355	BF20Z-../D07LA4	164.3	1776	7900	-	-	75	34
9.8	1.6	3186	360	BF30Z-../D07LA4	165.8	1664	7400	-	-	99	45
9.5	2.4	3275	370	BF40Z-../D07LA4	171.2	2383	10600	-	-	121	55
9.2	1.5	3363	380	BF30Z-../D07LA4	176.6	1664	7400	-	-	99	45
9.0	1.1	3452	390	BF20Z-../D07LA4	180.8	1776	7900	-	-	75	34
8.9	3.3	3496	395	BF50Z-../D07LA4	183.5	3057	13600	-	-	187	85
8.7	2.2	3585	405	BF40Z-../D07LA4	188.3	2383	10600	-	-	121	55
8.4	1.35	3717	420	BF30Z-../D07LA4	194.3	1664	7400	-	-	99	45
8.3	0.99	3762	425	BF20Z-../D07LA4	197.1	1776	7900	-	-	75	34
8.1	2.1	3850	435	BF40Z-../D07LA4	202.2	2383	10600	-	-	121	55
7.9	2.9	3939	445	BF50Z-../D07LA4	205.2	3057	13600	-	-	187	85
7.5	0.89	4160	470	BF20Z-../D07LA4	216.9	1776	7900	-	-	75	34
7.3	1.2	4248	480	BF30Z-../D07LA4	224.8	1664	7400	-	-	99	45
7.3	1.9	4248	480	BF40Z-../D07LA4	222.4	2383	10600	-	-	121	55
6.9	0.82	4514	510	BF20Z-../D07LA4	235.9	1776	7900	-	-	75	34
6.6	1.1	4691	530	BF30Z-../D07LA4	247.3	1664	7400	-	-	99	45
6.6	2.5	4691	530	BF50Z-../D07LA4	247.5	3057	13600	-	-	187	85
6.4	1.65	4868	550	BF40Z-../D07LA4	253.2	2383	10600	-	-	121	55
6.2	1.05	4956	560	BF30Z-../D07LA4	263.5	1664	7400	-	-	99	45
5.9	1.55	5222	590	BF40Z-../D07LA4	278.5	2383	10600	-	-	121	55
5.9	2.2	5222	590	BF50Z-../D07LA4	276.8	3057	13600	-	-	187	85
5.6	0.91	5576	630	BF30Z-../D07LA4	289.8	1664	7400	-	-	99	45
5.5	1.4	5664	640	BF40Z-../D07LA4	295.1	2383	10600	-	-	121	55
5.3	0.87	5841	660	BF30Z-../D07LA4	310.7	1664	7400	-	-	99	45
5.2	1.95	5930	670	BF50Z-../D07LA4	316.6	3057	13600	-	-	187	85
5.0	1.3	6196	700	BF40Z-../D07LA4	324.7	2383	10600	-	-	121	55
4.7	1.2	6638	750	BF40Z-../D07LA4	346.8	2383	10600	-	-	121	55
4.6	1.7	6727	760	BF50Z-../D07LA4	354.0	3057	13600	-	-	187	85
4.3	1.1	7258	820	BF40Z-../D07LA4	381.5	2383	10600	-	-	121	55
4.2	1.55	7435	840	BF50Z-../D07LA4	392.8	3057	13600	-	-	187	85
3.9	1.0	7966	900	BF40Z-../D07LA4	417.3	2383	10600	-	-	121	55
3.7	1.35	8408	950	BF50Z-../D07LA4	439.3	3057	13600	-	-	187	85

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

0.5 HP (0.37 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
3.6	0.92	8674	980	BF40Z-../D07LA4	459.1	2383	10600	-	-	121	55
3.3	1.2	9470	1070	BF50Z-../D07LA4	496.4	3057	13600	-	-	187	85
3.2	0.82	9736	1100	BF40Z-../D07LA4	514.6	2383	10600	-	-	121	55
3.0	1.1	10355	1170	BF50Z-../D07LA4	555.2	3057	13600	-	-	187	85
2.9	2.6	8585	970	BF60G20-../D07LA4	569.3	3440	15300	9734	43300	300	136
2.8	0.93	9470	1070	BF40G10-../D07LA4	597.3	2383	10600	-	-	134	61
2.4	1.1	11329	1280	BF50G10-../D07LA4	680.9	3057	13600	-	-	196	89
2.4	2.1	10444	1180	BF60G20-../D07LA4	689.0	3440	15300	9734	43300	300	136
2.0	1.7	12922	1460	BF60G20-../D07LA4	813.2	3440	15300	9734	43300	300	136
1.9	0.85	14604	1650	BF50G10-../D07LA4	864.5	3057	13600	-	-	196	89
1.8	1.5	14869	1680	BF60G20-../D07LA4	937.6	3440	15300	9734	43300	300	136
1.6	3.0	16816	1900	BF70G20-../D07LA4	1017	3619	16100	10723	47700	474	215
1.4	1.15	19472	2200	BF60G20-../D07LA4	1211	3440	15300	9734	43300	300	136
1.2	2.2	22569	2550	BF70G20-../D07LA4	1390	3619	16100	10723	47700	474	215
1.1	0.89	24782	2800	BF60G20-../D07LA4	1494	3440	15300	9734	43300	300	136
1.0	0.81	27437	3100	BF60G20-../D07LA4	1658	3440	15300	9734	43300	300	136
1.0	1.85	27437	3100	BF70G20-../D07LA4	1621	3619	16100	10723	47700	474	215
0.85	1.55	32748	3700	BF70G20-../D07LA4	1912	3619	16100	10723	47700	474	215
0.7	1.25	40271	4550	BF70G20-../D07LA4	2448	3619	16100	10723	47700	474	215
0.6	1.1	46909	5300	BF70G20-../D07LA4	2849	3619	16100	10723	47700	474	215

0.75 HP (0.55 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
295	3.5	158	17.8	BF06-../D08MA4	5.72	366	1630	-	-	35	16
220	2.9	208	23.5	BF06-../D08MA4	7.66	405	1800	-	-	35	16
183	2.5	252	28.5	BF06-../D08MA4	9.21	427	1900	-	-	35	16
140	2.0	332	37.5	BF06-../D08MA4	12.07	450	2000	-	-	35	16
119	1.95	389	44	BF06-../D08MA4	14.21	472	2100	-	-	35	16
99	1.8	469	53	BF06-../D08MA4	16.99	562	2500	-	-	35	16
83	1.5	558	63	BF06-../D08MA4	20.42	607	2700	-	-	35	16
66	3.0	699	79	BF10-../D08MA4	25.60	753	3350	-	-	60	27
63	1.15	735	83	BF06-../D08MA4	26.76	674	3000	-	-	35	16
60	2.8	770	87	BF10-../D08MA4	28.47	776	3450	-	-	60	27
54	0.98	859	97	BF06-../D08MA4	31.50	719	3200	-	-	35	16
54	2.5	859	97	BF10-../D08MA4	31.31	809	3600	-	-	60	27
46.5	2.1	991	112	BF10-../D08MA4	36.15	854	3800	-	-	60	27
45	0.82	1027	116	BF06-../D08MA4	37.69	787	3500	-	-	35	16
42.5	1.95	1089	123	BF10-../D08MA4	39.75	888	3950	-	-	60	27
40.5	3.3	1142	129	BF20-../D08MA4	41.72	1113	4950	-	-	73	33
39.5	1.8	1168	132	BF10-../D08MA4	43.06	922	4100	-	-	60	27
37	3.0	1248	141	BF20-../D08MA4	45.90	1147	5100	-	-	73	33
35.5	1.65	1301	147	BF10-../D08MA4	47.35	955	4250	-	-	60	27
35	2.8	1328	150	BF20-../D08MA4	48.56	1169	5200	-	-	73	33
33	1.5	1407	159	BF10-../D08MA4	51.28	989	4400	-	-	60	27
31.5	2.5	1469	166	BF20-../D08MA4	53.43	1236	5500	-	-	73	33
30	1.35	1549	175	BF10-../D08MA4	56.39	1023	4550	-	-	60	27
29.5	3.2	1575	178	BF30-../D08MA4	57.41	1169	5200	-	-	95	43
29	2.3	1602	181	BF20-../D08MA4	58.24	1259	5600	-	-	73	33
27.5	1.25	1690	191	BF10-../D08MA4	61.55	1057	4700	-	-	60	27
27.5	3.0	1690	191	BF30-../D08MA4	61.17	1191	5300	-	-	95	43
26.5	2.1	1752	198	BF20-../D08MA4	64.08	1326	5900	-	-	73	33
25	1.15	1859	210	BF10-../D08MA4	67.69	1102	4900	-	-	60	27
25	2.7	1859	210	BF30-../D08MA4	67.28	1236	5500	-	-	95	43
24.5	2.0	1859	210	BF20-../D08MA4	69.70	1371	6100	-	-	73	33
23.5	2.6	1947	220	BF30-../D08MA4	72.13	1281	5700	-	-	95	43
22	1.0	2080	235	BF10-../D08MA4	77.55	1147	5100	-	-	60	27

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

0.75 HP (0.55 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
22	1.8	2080	235	BF20-../D08MA4	76.69	1416	6300	-	-	73	33
21.5	2.4	2124	240	BF30-../D08MA4	79.34	1326	5900	-	-	95	43
20	0.92	2301	260	BF10-../D08MA4	85.27	1191	5300	-	-	60	27
19.5	1.6	2345	265	BF20-../D08MA4	87.31	1484	6600	-	-	73	33
19.5	2.2	2345	265	BF30-../D08MA4	87.08	1394	6200	-	-	95	43
18.5	0.86	2478	280	BF10-../D08MA4	90.91	1214	5400	-	-	60	27
18.5	3.2	2478	280	BF40-../D08MA4	92.31	2046	9100	-	-	117	53
18	2.0	2567	290	BF30-../D08MA4	95.79	1439	6400	-	-	95	43
17	1.4	2699	305	BF20-../D08MA4	100.2	1574	7000	-	-	73	33
17	3.0	2699	305	BF40-../D08MA4	101.0	2113	9400	-	-	117	53
16	1.75	2876	325	BF30-../D08MA4	107.6	1506	6700	-	-	95	43
15.5	1.25	2965	335	BF20-../D08MA4	110.2	1641	7300	-	-	73	33
15.5	2.7	2965	335	BF40-../D08MA4	111.1	2203	9800	-	-	117	53
14.5	1.6	3186	360	BF30-../D08MA4	118.3	1574	7000	-	-	95	43
14	1.1	3319	375	BF20-../D08MA4	123.5	1709	7600	-	-	73	33
13.5	1.5	3408	385	BF30-../D08MA4	124.7	1596	7100	-	-	95	43
13.5	2.3	3408	385	BF40-../D08MA4	124.5	2293	10200	-	-	117	53
12.5	1.0	3717	420	BF20-../D08MA4	135.9	1776	7900	-	-	73	33
12.5	1.35	3717	420	BF30-../D08MA4	137.1	1664	7400	-	-	95	43
12.5	2.1	3717	420	BF40-../D08MA4	137.0	2383	10600	-	-	117	53
12.5	3.1	3717	420	BF50Z-../D08MA4	138.1	3057	13600	-	-	190	86
12	0.97	3850	435	BF20Z-../D08MA4	141.2	1776	7900	-	-	77	35
12	2.1	3850	435	BF40Z-../D08MA4	141.4	2383	10600	-	-	123	56
11.5	1.25	4027	455	BF30Z-../D08MA4	150.7	1664	7400	-	-	101	46
11	0.88	4204	475	BF20Z-../D08MA4	155.4	1776	7900	-	-	77	35
11	1.9	4204	475	BF40Z-../D08MA4	155.6	2383	10600	-	-	123	56
11	2.7	4204	475	BF50Z-../D08MA4	154.5	3057	13600	-	-	190	86
10.5	0.84	4425	500	BF20Z-../D08MA4	164.3	1776	7900	-	-	77	35
10.5	1.15	4425	500	BF30Z-../D08MA4	165.8	1664	7400	-	-	101	46
9.9	1.7	4691	530	BF40Z-../D08MA4	171.2	2383	10600	-	-	123	56
9.6	1.05	4779	540	BF30Z-../D08MA4	176.6	1664	7400	-	-	101	46
9.2	2.3	5045	570	BF50Z-../D08MA4	183.5	3057	13600	-	-	190	86
9.0	1.55	5133	580	BF40Z-../D08MA4	188.3	2383	10600	-	-	123	56
8.7	0.96	5310	600	BF30Z-../D08MA4	194.3	1664	7400	-	-	101	46
8.4	1.45	5487	620	BF40Z-../D08MA4	202.2	2383	10600	-	-	123	56
8.2	2.0	5664	640	BF50Z-../D08MA4	205.2	3057	13600	-	-	190	86
7.6	1.3	6107	690	BF40Z-../D08MA4	222.4	2383	10600	-	-	123	56
7.6	3.3	6107	690	BF60Z-../D08MA4	221.4	3440	15300	9734	43300	287	130
7.5	0.82	6196	700	BF30Z-../D08MA4	224.8	1664	7400	-	-	101	46
6.9	3.0	6727	760	BF60Z-../D08MA4	245.6	3440	15300	9734	43300	287	130
6.8	1.7	6815	770	BF50Z-../D08MA4	247.5	3057	13600	-	-	190	86
6.7	1.15	6904	780	BF40Z-../D08MA4	253.2	2383	10600	-	-	123	56
6.1	1.05	7612	860	BF40Z-../D08MA4	278.5	2383	10600	-	-	123	56
6.1	1.5	7612	860	BF50Z-../D08MA4	276.8	3057	13600	-	-	190	86
5.8	2.6	7966	900	BF60Z-../D08MA4	293.4	3440	15300	9734	43300	287	130
5.7	0.98	8143	920	BF40Z-../D08MA4	295.1	2383	10600	-	-	123	56
5.4	1.35	8585	970	BF50Z-../D08MA4	316.6	3057	13600	-	-	190	86
5.2	0.89	8939	1010	BF40Z-../D08MA4	324.7	2383	10600	-	-	123	56
5.2	2.3	8939	1010	BF60Z-../D08MA4	325.6	3440	15300	9734	43300	287	130
4.9	0.84	9470	1070	BF40Z-../D08MA4	346.8	2383	10600	-	-	123	56
4.8	1.2	9647	1090	BF50Z-../D08MA4	354.0	3057	13600	-	-	190	86
4.5	2.0	10267	1160	BF60Z-../D08MA4	380.0	3440	15300	9734	43300	287	130
4.3	1.05	10798	1220	BF50Z-../D08MA4	392.8	3057	13600	-	-	190	86
4.0	1.75	11594	1310	BF60Z-../D08MA4	421.6	3440	15300	9734	43300	287	130
3.9	0.97	11860	1340	BF50Z-../D08MA4	439.3	3057	13600	-	-	190	86
3.7	1.65	12480	1410	BF60Z-../D08MA4	459.9	3440	15300	9734	43300	287	130
3.4	0.84	13630	1540	BF50Z-../D08MA4	496.4	3057	13600	-	-	190	86
3.3	1.45	14073	1590	BF60Z-../D08MA4	510.3	3440	15300	9734	43300	287	130
3.3	3.3	14073	1590	BF70Z-../D08MA4	512.4	3619	16100	10723	47700	481	218
3.1	0.92	13453	1520	BF50G10-../D08MA4	555.9	3057	13600	-	-	198	90
3.0	1.65	13365	1510	BF60G20-../D08MA4	569.3	3440	15300	9734	43300	302	137
2.5	1.4	16020	1810	BF60G20-../D08MA4	689.0	3440	15300	9734	43300	302	137

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

0.75 HP (0.55 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lbf	N	lbf	N	lb	kg
2.5	3.1	16020	1810	BF70G20-../D08MA4	673.6	3619	16100	10723	47700	476	216
2.1	1.15	19029	2150	BF60G20-../D08MA4	813.2	3440	15300	9734	43300	302	137
2.0	2.4	20799	2350	BF70G20-../D08MA4	872.1	3619	16100	10723	47700	476	216
1.8	0.96	23012	2600	BF60G20-../D08MA4	937.6	3440	15300	9734	43300	302	137
1.7	2.1	24340	2750	BF70G20-../D08MA4	1017	3619	16100	10723	47700	476	216
1.5	3.0	30978	3500	BF80Z-../D08MA4	1124	8902	39600	16861	75000	736	334
1.3	1.55	32305	3650	BF70G20-../D08MA4	1390	3619	16100	10723	47700	476	216
1.1	1.3	38501	4350	BF70G20-../D08MA4	1621	3619	16100	10723	47700	476	216
1.0	2.9	32305	3650	BF80G40-../D08MA4	1693	8902	39600	16861	75000	750	340
0.9	1.05	47794	5400	BF70G20-../D08MA4	1912	3619	16100	10723	47700	476	216
0.85	2.3	40271	4550	BF80G40-../D08MA4	2051	8902	39600	16861	75000	750	340
0.7	1.8	52219	5900	BF80G40-../D08MA4	2422	8902	39600	16861	75000	750	340
0.65	1.75	53104	6000	BF80G40-../D08MA4	2785	8902	39600	16861	75000	750	340
0.65	3.2	50449	5700	BF90G50-../D08MA4	2656	9622	42800	26977	120000	1345	610
0.6	2.8	57530	6500	BF90G50-../D08MA4	2952	9622	42800	26977	120000	1345	610
0.55	1.4	65496	7400	BF80G40-../D08MA4	3092	8902	39600	16861	75000	750	340
0.55	2.6	61955	7000	BF90G50-../D08MA4	3286	9622	42800	26977	120000	1345	610
0.49	1.25	75231	8500	BF80G40-../D08MA4	3461	8902	39600	16861	75000	750	340
0.47	2.2	76116	8600	BF90G50-../D08MA4	3644	9622	42800	26977	120000	1345	610
0.44	1.1	84967	9600	BF80G40-../D08MA4	3843	8902	39600	16861	75000	750	340
0.39	1.7	96473	10900	BF90G50-../D08MA4	4366	9622	42800	26977	120000	1345	610
0.35	1.5	110634	12500	BF90G50-../D08MA4	4839	9622	42800	26977	120000	1345	610
0.29	1.2	138072	15600	BF90G50-../D08MA4	5888	9622	42800	26977	120000	1345	610
0.26	1.05	155773	17600	BF90G50-../D08MA4	6529	9622	42800	26977	120000	1345	610

1 HP (0.75 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lbf	N	lbf	N	lb	kg
305	2.7	204	23	BF06-../DPE08XB4	5.72	360	1600	-	-	40	18
230	2.2	274	31	BF06-../DPE08XB4	7.66	405	1800	-	-	40	18
189	1.85	332	37.5	BF06-../DPE08XB4	9.21	427	1900	-	-	40	18
145	1.55	434	49	BF06-../DPE08XB4	12.07	450	2000	-	-	40	18
123	1.45	513	58	BF06-../DPE08XB4	14.21	472	2100	-	-	40	18
116	3.0	540	61	BF10-../DPE08XB4	15.04	629	2800	-	-	66	30
103	1.4	611	69	BF06-../DPE08XB4	16.99	562	2500	-	-	40	18
96	3.2	655	74	BF10-../DPE08XB4	18.23	652	2900	-	-	66	30
87	2.9	726	82	BF10-../DPE08XB4	20.05	674	3000	-	-	66	30
86	1.15	735	83	BF06-../DPE08XB4	20.42	607	2700	-	-	40	18
75	2.5	841	95	BF10-../DPE08XB4	23.28	719	3200	-	-	66	30
68	2.3	929	105	BF10-../DPE08XB4	25.60	753	3350	-	-	66	30
66	0.88	956	108	BF06-../DPE08XB4	26.76	674	3000	-	-	40	18
62	2.1	1018	115	BF10-../DPE08XB4	28.47	776	3450	-	-	66	30
56	1.9	1124	127	BF10-../DPE08XB4	31.31	809	3600	-	-	66	30
54	3.2	1168	132	BF20-../DPE08XB4	32.58	1000	4450	-	-	79	36
49	2.9	1292	146	BF20-../DPE08XB4	35.85	1045	4650	-	-	79	36
48.5	1.65	1301	147	BF10-../DPE08XB4	36.15	854	3800	-	-	66	30
44	1.5	1434	162	BF10-../DPE08XB4	39.75	888	3950	-	-	66	30
42	2.5	1505	170	BF20-../DPE08XB4	41.72	1113	4950	-	-	79	36
40.5	1.35	1558	176	BF10-../DPE08XB4	43.06	922	4100	-	-	66	30
39	3.1	1620	183	BF30-../DPE08XB4	45.10	1057	4700	-	-	101	46
38	2.2	1664	188	BF20-../DPE08XB4	45.90	1147	5100	-	-	79	36
37	1.25	1708	193	BF10-../DPE08XB4	47.35	955	4250	-	-	66	30
36	2.1	1752	198	BF20-../DPE08XB4	48.56	1169	5200	-	-	79	36
34	1.15	1859	210	BF10-../DPE08XB4	51.28	989	4400	-	-	66	30
33.5	2.7	1859	210	BF30-../DPE08XB4	52.20	1124	5000	-	-	101	46
33	1.95	1903	215	BF20-../DPE08XB4	53.43	1236	5500	-	-	79	36
31	1.05	2036	230	BF10-../DPE08XB4	56.39	1023	4550	-	-	66	30

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

1 HP (0.75 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
30.5	2.5	2036	230	BF30-../DPE08XB4	57.41	1169	5200	-	-	101	46
30	1.8	2080	235	BF20-../DPE08XB4	58.24	1259	5600	-	-	79	36
28.5	0.96	2213	250	BF10-../DPE08XB4	61.55	1057	4700	-	-	66	30
28.5	2.3	2213	250	BF30-../DPE08XB4	61.17	1191	5300	-	-	101	46
27.5	1.6	2301	260	BF20-../DPE08XB4	64.08	1326	5900	-	-	79	36
26	0.87	2434	275	BF10-../DPE08XB4	67.69	1102	4900	-	-	66	30
26	2.1	2434	275	BF30-../DPE08XB4	67.28	1236	5500	-	-	101	46
26	3.3	2434	275	BF40-../DPE08XB4	67.38	1798	8000	-	-	123	56
25	1.45	2522	285	BF20-../DPE08XB4	69.70	1371	6100	-	-	79	36
24.5	2.0	2567	290	BF30-../DPE08XB4	72.13	1281	5700	-	-	101	46
24.5	3.1	2567	290	BF40-../DPE08XB4	71.40	1821	8100	-	-	123	56
23	1.35	2744	310	BF20-../DPE08XB4	76.69	1416	6300	-	-	79	36
22.5	2.9	2788	315	BF40-../DPE08XB4	78.55	1911	8500	-	-	123	56
22	1.75	2876	325	BF30-../DPE08XB4	79.34	1326	5900	-	-	101	46
21	2.6	3009	340	BF40-../DPE08XB4	83.91	1956	8700	-	-	123	56
20	1.2	3142	355	BF20-../DPE08XB4	87.31	1484	6600	-	-	79	36
20	1.6	3142	355	BF30-../DPE08XB4	87.08	1394	6200	-	-	101	46
19	2.4	3319	375	BF40-../DPE08XB4	92.31	2046	9100	-	-	123	56
18.5	1.1	3408	385	BF20-../DPE08XB4	96.08	1551	6900	-	-	79	36
18.5	1.5	3408	385	BF30-../DPE08XB4	95.79	1439	6400	-	-	101	46
17.5	1.05	3585	405	BF20-../DPE08XB4	100.2	1574	7000	-	-	79	36
17.5	2.2	3585	405	BF40-../DPE08XB4	101.0	2113	9400	-	-	123	56
17.5	3.2	3585	405	BF50-../DPE08XB4	100.9	2765	12300	-	-	185	84
16.5	1.35	3806	430	BF30-../DPE08XB4	107.6	1506	6700	-	-	101	46
16	0.94	3939	445	BF20-../DPE08XB4	110.2	1641	7300	-	-	79	36
16	2.0	3939	445	BF40-../DPE08XB4	111.1	2203	9800	-	-	123	56
15.5	2.8	4071	460	BF50-../DPE08XB4	114.0	2900	12900	-	-	185	84
15	1.2	4204	475	BF30-../DPE08XB4	118.3	1574	7000	-	-	101	46
14.5	0.86	4337	490	BF20-../DPE08XB4	123.5	1709	7600	-	-	79	36
14	1.15	4514	510	BF30-../DPE08XB4	124.7	1596	7100	-	-	101	46
14	1.75	4514	510	BF40-../DPE08XB4	124.5	2293	10200	-	-	123	56
14	2.5	4514	510	BF50-../DPE08XB4	127.5	3057	13600	-	-	185	84
13	1.05	4868	550	BF30-../DPE08XB4	137.1	1664	7400	-	-	101	46
13	1.65	4868	550	BF40-../DPE08XB4	137.0	2383	10600	-	-	123	56
13	2.4	4868	550	BF50Z-../DPE08XB4	138.1	3057	13600	-	-	196	89
12.5	1.6	5045	570	BF40Z-../DPE08XB4	141.4	2383	10600	-	-	130	59
12	0.97	5222	590	BF30Z-../DPE08XB4	150.7	1664	7400	-	-	108	49
11.5	1.45	5487	620	BF40Z-../DPE08XB4	155.6	2383	10600	-	-	130	59
11.5	2.1	5487	620	BF50Z-../DPE08XB4	154.5	3057	13600	-	-	196	89
10.5	0.85	6019	680	BF30Z-../DPE08XB4	165.8	1664	7400	-	-	108	49
10.5	1.3	6019	680	BF40Z-../DPE08XB4	171.2	2383	10600	-	-	130	59
9.9	0.8	6373	720	BF30Z-../DPE08XB4	176.6	1664	7400	-	-	108	49
9.5	1.75	6638	750	BF50Z-../DPE08XB4	183.5	3057	13600	-	-	196	89
9.3	1.15	6815	770	BF40Z-../DPE08XB4	188.3	2383	10600	-	-	130	59
9.3	3.0	6815	770	BF60Z-../DPE08XB4	187.7	3440	15300	9734	43300	293	133
8.7	1.1	7258	820	BF40Z-../DPE08XB4	202.2	2383	10600	-	-	130	59
8.5	1.55	7435	840	BF50Z-../DPE08XB4	205.2	3057	13600	-	-	196	89
7.9	1.0	7966	900	BF40Z-../DPE08XB4	222.4	2383	10600	-	-	130	59
7.9	2.6	7966	900	BF60Z-../DPE08XB4	221.4	3440	15300	9734	43300	293	133
7.1	1.3	8851	1000	BF50Z-../DPE08XB4	247.5	3057	13600	-	-	196	89
7.1	2.3	8851	1000	BF60Z-../DPE08XB4	245.6	3440	15300	9734	43300	293	133
6.9	0.87	9116	1030	BF40Z-../DPE08XB4	253.2	2383	10600	-	-	130	59
6.3	0.8	10001	1130	BF40Z-../DPE08XB4	278.5	2383	10600	-	-	130	59
6.3	1.15	10001	1130	BF50Z-../DPE08XB4	276.8	3057	13600	-	-	196	89
6.0	1.95	10532	1190	BF60Z-../DPE08XB4	293.4	3440	15300	9734	43300	293	133
5.5	1.0	11506	1300	BF50Z-../DPE08XB4	316.6	3057	13600	-	-	196	89
5.4	1.0	2301*	260*	BF10G06-../DPE08XB4	322.3	1439	6400	-	-	84	38
5.4	1.75	11683	1320	BF60Z-../DPE08XB4	325.6	3440	15300	9734	43300	293	133
5.0	0.91	12657	1430	BF50Z-../DPE08XB4	354.0	3057	13600	-	-	196	89
4.7	1.0	2301*	260*	BF10G06-../DPE08XB4	377.9	1439	6400	-	-	84	38
4.6	1.5	13719	1550	BF60Z-../DPE08XB4	380.0	3440	15300	9734	43300	293	133
4.5	0.82	14073	1590	BF50Z-../DPE08XB4	392.8	3057	13600	-	-	196	89

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

1 HP (0.75 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
4.4	3.2	14338	1620	BF70Z-../DPE08XB4	398.7	3619	16100	10723	47700	487	221
4.2	1.35	15046	1700	BF60Z-../DPE08XB4	421.6	3440	15300	9734	43300	293	133
4.1	1.0	2301*	260*	BF10G06-../DPE08XB4	424.5	1439	6400	-	-	84	38
4.0	2.9	15843	1790	BF70Z-../DPE08XB4	439.2	3619	16100	10723	47700	487	221
3.8	1.2	16639	1880	BF60Z-../DPE08XB4	459.9	3440	15300	9734	43300	293	133
3.5	1.15	17701	2000	BF60Z-../DPE08XB4	510.3	3440	15300	9734	43300	293	133
3.4	1.0	4071*	460*	BF20G06-../DPE08XB4	513.7	1776	7900	-	-	97	44
3.4	2.5	18587	2100	BF70Z-../DPE08XB4	512.4	3619	16100	10723	47700	487	221
3.3	1.0	2301*	260*	BF10G06-../DPE08XB4	536.0	1439	6400	-	-	84	38
3.2	1.0	12391*	1400*	BF50G10-../DPE08XB4	555.9	3057	13600	-	-	205	93
3.1	1.2	18144	2050	BF60G20-../DPE08XB4	569.3	3440	15300	9734	43300	309	140
3.1	2.8	18144	2050	BF70G20-../DPE08XB4	577.5	3619	16100	10723	47700	483	219
3.0	1.0	8851*	1000*	BF40G10-../DPE08XB4	597.3	2383	10600	-	-	143	65
2.9	1.0	4071*	460*	BF20G06-../DPE08XB4	617.0	1776	7900	-	-	97	44
2.8	1.0	2301*	260*	BF10G06-../DPE08XB4	643.8	1439	6400	-	-	84	38
2.8	1.0	5576*	630*	BF30G06-../DPE08XB4	622.4	1664	7400	-	-	119	54
2.6	1.0	12391*	1400*	BF50G10-../DPE08XB4	680.9	3057	13600	-	-	205	93
2.6	1.0	21684	2450	BF60G20-../DPE08XB4	689.0	3440	15300	9734	43300	309	140
2.6	2.3	21684	2450	BF70G20-../DPE08XB4	673.6	3619	16100	10723	47700	483	219
2.5	1.0	5576*	630*	BF30G06-../DPE08XB4	705.1	1664	7400	-	-	119	54
2.4	1.0	4071*	460*	BF20G06-../DPE08XB4	736.1	1776	7900	-	-	97	44
2.4	1.0	8851*	1000*	BF40G10-../DPE08XB4	731.6	2383	10600	-	-	143	65
2.3	1.0	2301*	260*	BF10G06-../DPE08XB4	768.2	1439	6400	-	-	84	38
2.2	1.0	4071*	460*	BF20G06-../DPE08XB4	810.0	1776	7900	-	-	97	44
2.2	1.0	5576*	630*	BF30G06-../DPE08XB4	817.1	1664	7400	-	-	119	54
2.2	0.86	25667	2900	BF60G20-../DPE08XB4	813.2	3440	15300	9734	43300	309	140
2.1	1.0	2301*	260*	BF10G06-../DPE08XB4	845.1	1439	6400	-	-	84	38
2.1	1.0	12391*	1400*	BF50G10-../DPE08XB4	864.5	3057	13600	-	-	205	93
2.0	1.75	29207	3300	BF70G20-../DPE08XB4	872.1	3619	16100	10723	47700	483	219
2.0	3.0	31420	3550	BF80Z-../DPE08XB4	874.6	8902	39600	16861	75000	745	338
1.9	1.0	4071*	460*	BF20G06-../DPE08XB4	952.7	1776	7900	-	-	97	44
1.9	1.0	5576*	630*	BF30G06-../DPE08XB4	961.1	1664	7400	-	-	119	54
1.9	1.0	8851*	1000*	BF40G10-../DPE08XB4	928.9	2383	10600	-	-	143	65
1.9	1.0	22127*	2500*	BF60G20-../DPE08XB4	937.6	3440	15300	9734	43300	309	140
1.8	1.0	2301*	260*	BF10G06-../DPE08XB4	994.0	1439	6400	-	-	84	38
1.8	1.55	32305	3650	BF70G20-../DPE08XB4	1017	3619	16100	10723	47700	483	219
1.8	2.7	34960	3950	BF80Z-../DPE08XB4	990.4	8902	39600	16861	75000	745	338
1.7	1.0	12391*	1400*	BF50G10-../DPE08XB4	1029	3057	13600	-	-	205	93
1.6	1.0	4071*	460*	BF20G06-../DPE08XB4	1140	1776	7900	-	-	97	44
1.6	1.0	5576*	630*	BF30G06-../DPE08XB4	1150	1664	7400	-	-	119	54
1.6	1.0	8851*	1000*	BF40G10-../DPE08XB4	1106	2383	10600	-	-	143	65
1.6	2.4	39386	4450	BF80Z-../DPE08XB4	1124	8902	39600	16861	75000	745	338
1.5	1.0	2301*	260*	BF10G06-../DPE08XB4	1190	1439	6400	-	-	84	38
1.5	1.0	12391*	1400*	BF50G10-../DPE08XB4	1203	3057	13600	-	-	205	93
1.5	1.0	22127*	2500*	BF60G20-../DPE08XB4	1211	3440	15300	9734	43300	309	140
1.4	1.0	5576*	630*	BF30G06-../DPE08XB4	1286	1664	7400	-	-	119	54
1.4	1.0	8851*	1000*	BF40G10-../DPE08XB4	1324	2383	10600	-	-	143	65
1.4	2.9	32305	3650	BF80G40-../DPE08XB4	1329	8902	39600	16861	75000	756	343
1.3	1.0	4071*	460*	BF20G06-../DPE08XB4	1392	1776	7900	-	-	97	44
1.3	1.0	5576*	630*	BF30G06-../DPE08XB4	1404	1664	7400	-	-	119	54
1.3	1.0	12391*	1400*	BF50G10-../DPE08XB4	1359	3057	13600	-	-	205	93
1.3	1.1	45139	5100	BF70G20-../DPE08XB4	1390	3619	16100	10723	47700	483	219
1.2	1.0	2301*	260*	BF10G06-../DPE08XB4	1452	1439	6400	-	-	84	38
1.2	1.0	4071*	460*	BF20G06-../DPE08XB4	1533	1776	7900	-	-	97	44
1.2	1.0	8851*	1000*	BF40G10-../DPE08XB4	1484	2383	10600	-	-	143	65
1.2	1.0	12391*	1400*	BF50G10-../DPE08XB4	1520	3057	13600	-	-	205	93
1.2	1.0	22127*	2500*	BF60G20-../DPE08XB4	1494	3440	15300	9734	43300	309	140
1.2	2.3	40271	4550	BF80G40-../DPE08XB4	1491	8902	39600	16861	75000	756	343
1.1	1.0	5576*	630*	BF30G06-../DPE08XB4	1686	1664	7400	-	-	119	54
1.1	1.0	12391*	1400*	BF50G10-../DPE08XB4	1684	3057	13600	-	-	205	93
1.1	1.0	22127*	2500*	BF60G20-../DPE08XB4	1658	3440	15300	9734	43300	309	140
1.1	0.93	53990	6100	BF70G20-../DPE08XB4	1621	3619	16100	10723	47700	483	219

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

1 HP (0.75 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
1.1	2.1	43369	4900	BF80G40-../DPE08XB4	1693	8902	39600	16861	75000	756	343
1.0	1.0	2301*	260*	BF10G06-../DPE08XB4	1744	1439	6400	-	-	84	38
1.0	1.0	4071*	460*	BF20G06-../DPE08XB4	1764	1776	7900	-	-	97	44
1.0	1.0	8851*	1000*	BF40G10-../DPE08XB4	1810	2383	10600	-	-	143	65
0.95	1.0	50449*	5700*	BF70G20-../DPE08XB4	1912	3619	16100	10723	47700	483	219
0.95	3.2	50449	5700	BF90G50-../DPE08XB4	1867	9622	42800	26977	120000	1354	614
0.9	1.0	5576*	630*	BF30G06-../DPE08XB4	2026	1664	7400	-	-	119	54
0.9	1.0	8851*	1000*	BF40G10-../DPE08XB4	1997	2383	10600	-	-	143	65
0.9	1.0	22127*	2500*	BF60G20-../DPE08XB4	1955	3440	15300	9734	43300	309	140
0.85	1.0	2301*	260*	BF10G06-../DPE08XB4	2096	1439	6400	-	-	84	38
0.85	1.0	12391*	1400*	BF50G10-../DPE08XB4	2059	3057	13600	-	-	205	93
0.85	1.0	22127*	2500*	BF60G20-../DPE08XB4	2172	3440	15300	9734	43300	309	140
0.85	1.55	60185	6800	BF80G40-../DPE08XB4	2051	8902	39600	16861	75000	756	343
0.85	2.9	55760	6300	BF90G50-../DPE08XB4	2154	9622	42800	26977	120000	1354	614
0.8	1.0	4071*	460*	BF20G06-../DPE08XB4	2192	1776	7900	-	-	97	44
0.75	1.0	2301*	260*	BF10G06-../DPE08XB4	2467	1439	6400	-	-	84	38
0.75	1.0	5576*	630*	BF30G06-../DPE08XB4	2386	1664	7400	-	-	119	54
0.75	1.0	12391*	1400*	BF50G10-../DPE08XB4	2360	3057	13600	-	-	205	93
0.75	1.0	50449*	5700*	BF70G20-../DPE08XB4	2448	3619	16100	10723	47700	483	219
0.75	1.35	69921	7900	BF80G40-../DPE08XB4	2422	8902	39600	16861	75000	756	343
0.7	1.0	4071*	460*	BF20G06-../DPE08XB4	2579	1776	7900	-	-	97	44
0.7	1.0	8851*	1000*	BF40G10-../DPE08XB4	2536	2383	10600	-	-	143	65
0.7	2.4	69036	7800	BF90G50-../DPE08XB4	2656	9622	42800	26977	120000	1354	614
0.65	1.0	4071*	460*	BF20G06-../DPE08XB4	2829	1776	7900	-	-	97	44
0.65	1.0	5576*	630*	BF30G06-../DPE08XB4	2854	1664	7400	-	-	119	54
0.65	1.0	8851*	1000*	BF40G10-../DPE08XB4	2810	2383	10600	-	-	143	65
0.65	1.0	12391*	1400*	BF50G10-../DPE08XB4	2810	3057	13600	-	-	205	93
0.65	1.0	22127*	2500*	BF60G20-../DPE08XB4	2781	3440	15300	9734	43300	309	140
0.65	1.0	50449*	5700*	BF70G20-../DPE08XB4	2849	3619	16100	10723	47700	483	219
0.65	1.2	78772	8900	BF80G40-../DPE08XB4	2785	8902	39600	16861	75000	756	343
0.6	1.0	2301*	260*	BF10G06-../DPE08XB4	2952	1439	6400	-	-	84	38
0.6	1.0	4071*	460*	BF20G06-../DPE08XB4	3086	1776	7900	-	-	97	44
0.6	1.05	86737	9800	BF80G40-../DPE08XB4	3092	8902	39600	16861	75000	756	343
0.6	1.95	84967	9600	BF90G50-../DPE08XB4	2952	9622	42800	26977	120000	1354	614
0.55	1.0	2301*	260*	BF10G06-../DPE08XB4	3220	1439	6400	-	-	84	38
0.55	1.0	8851*	1000*	BF40G10-../DPE08XB4	3346	2383	10600	-	-	143	65
0.55	1.0	12391*	1400*	BF50G10-../DPE08XB4	3348	3057	13600	-	-	205	93
0.55	1.0	22127*	2500*	BF60G20-../DPE08XB4	3237	3440	15300	9734	43300	309	140
0.55	1.0	50449*	5700*	BF70G20-../DPE08XB4	3417	3619	16100	10723	47700	483	219
0.55	1.0	92933*	10500*	BF80G40-../DPE08XB4	3461	8902	39600	16861	75000	756	343
0.55	1.75	92933	10500	BF90G50-../DPE08XB4	3286	9622	42800	26977	120000	1354	614
0.5	1.0	5576*	630*	BF30G06-../DPE08XB4	3493	1664	7400	-	-	119	54
0.48	1.5	109749	12400	BF90G50-../DPE08XB4	3644	9622	42800	26977	120000	1354	614
0.47	1.0	4071*	460*	BF20G06-../DPE08XB4	3778	1776	7900	-	-	97	44
0.46	1.0	5576*	630*	BF30G06-../DPE08XB4	3811	1664	7400	-	-	119	54
0.46	1.0	92933*	10500*	BF80G40-../DPE08XB4	3843	8902	39600	16861	75000	756	343
0.45	1.0	2301*	260*	BF10G06-../DPE08XB4	3942	1439	6400	-	-	84	38
0.45	1.0	22127*	2500*	BF60G20-../DPE08XB4	3883	3440	15300	9734	43300	309	140
0.44	1.0	8851*	1000*	BF40G10-../DPE08XB4	3985	2383	10600	-	-	143	65
0.44	1.0	12391*	1400*	BF50G10-../DPE08XB4	4019	3057	13600	-	-	205	93
0.43	1.0	50449*	5700*	BF70G20-../DPE08XB4	4090	3619	16100	10723	47700	483	219
0.4	1.0	4071*	460*	BF20G06-../DPE08XB4	4379	1776	7900	-	-	97	44
0.4	1.0	5576*	630*	BF30G06-../DPE08XB4	4417	1664	7400	-	-	119	54
0.4	1.0	92933*	10500*	BF80G40-../DPE08XB4	4411	8902	39600	16861	75000	756	343
0.4	1.2	136301	15400	BF90G50-../DPE08XB4	4366	9622	42800	26977	120000	1354	614
0.39	1.0	2301*	260*	BF10G06-../DPE08XB4	4569	1439	6400	-	-	84	38
0.39	1.0	50449*	5700*	BF70G20-../DPE08XB4	4542	3619	16100	10723	47700	483	219
0.38	1.0	22127*	2500*	BF60G20-../DPE08XB4	4646	3440	15300	9734	43300	309	140
0.37	1.0	8851*	1000*	BF40G10-../DPE08XB4	4784	2383	10600	-	-	143	65
0.36	1.0	92933*	10500*	BF80G40-../DPE08XB4	4895	8902	39600	16861	75000	756	343
0.36	1.05	153118	17300	BF90G50-../DPE08XB4	4839	9622	42800	26977	120000	1354	614
0.35	1.0	5576*	630*	BF30G06-../DPE08XB4	5060	1664	7400	-	-	119	54

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

1 HP (0.75 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
0.35	1.0	12391*	1400*	BF50G10-.../DPE08XB4	5062	3057	13600	-	-	205	93
0.34	1.0	22127*	2500*	BF60G20-.../DPE08XB4	5241	3440	15300	9734	43300	309	140
0.34	1.0	50449*	5700*	BF70G20-.../DPE08XB4	5124	3619	16100	10723	47700	483	219
0.32	1.0	4071*	460*	BF20G06-.../DPE08XB4	5471	1776	7900	-	-	97	44
0.32	1.0	8851*	1000*	BF40G10-.../DPE08XB4	5439	2383	10600	-	-	143	65
0.31	1.0	2301*	260*	BF10G06-.../DPE08XB4	5709	1439	6400	-	-	84	38
0.31	1.0	50449*	5700*	BF70G20-.../DPE08XB4	5691	3619	16100	10723	47700	483	219
0.3	1.0	12391*	1400*	BF50G10-.../DPE08XB4	5935	3057	13600	-	-	205	93
0.3	1.0	92933*	10500*	BF80G40-.../DPE08XB4	5926	8902	39600	16861	75000	756	343
0.3	1.0	163739*	18500*	BF90G50-.../DPE08XB4	5888	9622	42800	26977	120000	1354	614
0.29	1.0	22127*	2500*	BF60G20-.../DPE08XB4	6014	3440	15300	9734	43300	309	140
0.28	1.0	5576*	630*	BF30G06-.../DPE08XB4	6333	1664	7400	-	-	119	54
0.28	1.0	8851*	1000*	BF40G10-.../DPE08XB4	6377	2383	10600	-	-	143	65
0.27	1.0	2301*	260*	BF10G06-.../DPE08XB4	6550	1439	6400	-	-	84	38
0.27	1.0	22127*	2500*	BF60G20-.../DPE08XB4	6679	3440	15300	9734	43300	309	140
0.27	1.0	50449*	5700*	BF70G20-.../DPE08XB4	6530	3619	16100	10723	47700	483	219
0.27	1.0	163739*	18500*	BF90G50-.../DPE08XB4	6529	9622	42800	26977	120000	1354	614
0.26	1.0	4071*	460*	BF20G06-.../DPE08XB4	6847	1776	7900	-	-	97	44
0.25	1.0	2301*	260*	BF10G06-.../DPE08XB4	7144	1439	6400	-	-	84	38
0.25	1.0	50449*	5700*	BF70G20-.../DPE08XB4	7248	3619	16100	10723	47700	483	219
0.25	1.0	92933*	10500*	BF80G40-.../DPE08XB4	6999	8902	39600	16861	75000	756	343
0.24	1.0	12391*	1400*	BF50G10-.../DPE08XB4	7329	3057	13600	-	-	205	93
0.24	1.0	163739*	18500*	BF90G50-.../DPE08XB4	7533	9622	42800	26977	120000	1354	614
0.23	1.0	8851*	1000*	BF40G10-.../DPE08XB4	7875	2383	10600	-	-	143	65
0.23	1.0	92933*	10500*	BF80G40-.../DPE08XB4	7895	8902	39600	16861	75000	756	343
0.22	1.0	12391*	1400*	BF50G10-.../DPE08XB4	8120	3057	13600	-	-	205	93
0.22	1.0	22127*	2500*	BF60G20-.../DPE08XB4	8235	3440	15300	9734	43300	309	140
0.22	1.0	50449*	5700*	BF70G20-.../DPE08XB4	8052	3619	16100	10723	47700	483	219
0.21	1.0	163739*	18500*	BF90G50-.../DPE08XB4	8350	9622	42800	26977	120000	1354	614
0.2	1.0	92933*	10500*	BF80G40-.../DPE08XB4	8765	8902	39600	16861	75000	756	343
0.19	1.0	163739*	18500*	BF90G50-.../DPE08XB4	9348	9622	42800	26977	120000	1354	614
0.18	1.0	92933*	10500*	BF80G40-.../DPE08XB4	10215	8902	39600	16861	75000	756	343
0.15	1.0	92933*	10500*	BF80G40-.../DPE08XB4	12007	8902	39600	16861	75000	756	343
0.15	1.0	163739*	18500*	BF90G50-.../DPE08XB4	11813	9622	42800	26977	120000	1354	614

1.5 HP (1.1 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
315	4.2	292	33	BF10-.../DPE09XA4	5.60	438	1950	-	-	88	40
235	3.4	394	44.5	BF10-.../DPE09XA4	7.58	495	2200	-	-	88	40
181	3.1	513	58	BF10-.../DPE09XA4	9.69	528	2350	-	-	88	40
148	2.6	620	70	BF10-.../DPE09XA4	11.84	562	2500	-	-	88	40
117	2.1	788	89	BF10-.../DPE09XA4	15.04	629	2800	-	-	88	40
113	3.3	814	92	BF20-.../DPE09XA4	15.54	776	3450	-	-	101	46
96	2.2	965	109	BF10-.../DPE09XA4	18.23	652	2900	-	-	88	40
88	2.0	1053	119	BF10-.../DPE09XA4	20.05	674	3000	-	-	88	40
80	3.0	1159	131	BF20-.../DPE09XA4	22.04	854	3800	-	-	101	46
76	1.75	1221	138	BF10-.../DPE09XA4	23.28	719	3200	-	-	88	40
73	2.8	1266	143	BF20-.../DPE09XA4	24.25	888	3950	-	-	101	46
69	1.6	1345	152	BF10-.../DPE09XA4	25.60	753	3350	-	-	88	40
64	2.6	1452	164	BF20-.../DPE09XA4	27.62	933	4150	-	-	101	46
62	1.4	1496	169	BF10-.../DPE09XA4	28.47	776	3450	-	-	88	40
58	2.3	1602	181	BF20-.../DPE09XA4	30.40	989	4400	-	-	101	46
57	3.1	1629	184	BF30-.../DPE09XA4	31.05	899	4000	-	-	126	57
56	1.3	1655	187	BF10-.../DPE09XA4	31.31	809	3600	-	-	88	40
54	2.2	1717	194	BF20-.../DPE09XA4	32.58	1000	4450	-	-	101	46
50	2.7	1859	210	BF30-.../DPE09XA4	35.00	944	4200	-	-	126	57

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

1.5 HP (1.1 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
49	2.0	1859	210	BF20-../DPE09XA4	35.85	1045	4650	-	-	101	46
48.5	1.1	1903	215	BF10-../DPE09XA4	36.15	854	3800	-	-	88	40
45.5	2.5	2036	230	BF30-../DPE09XA4	38.49	989	4400	-	-	126	57
44.5	1.0	2080	235	BF10-../DPE09XA4	39.75	888	3950	-	-	88	40
43	2.4	2124	240	BF30-../DPE09XA4	41.01	1012	4500	-	-	126	57
42	1.7	2213	250	BF20-../DPE09XA4	41.72	1113	4950	-	-	101	46
41	0.94	2257	255	BF10-../DPE09XA4	43.06	922	4100	-	-	88	40
39	2.2	2345	265	BF30-../DPE09XA4	45.10	1057	4700	-	-	126	57
38.5	1.55	2390	270	BF20-../DPE09XA4	45.90	1147	5100	-	-	101	46
38.5	3.3	2390	270	BF40-../DPE09XA4	45.56	1529	6800	-	-	146	66
37	0.86	2478	280	BF10-../DPE09XA4	47.35	955	4250	-	-	88	40
36.5	1.45	2522	285	BF20-../DPE09XA4	48.56	1169	5200	-	-	101	46
36	3.1	2567	290	BF40-../DPE09XA4	48.92	1574	7000	-	-	146	66
34.5	0.8	2655	300	BF10-../DPE09XA4	51.28	989	4400	-	-	88	40
34	1.9	2699	305	BF30-../DPE09XA4	52.20	1124	5000	-	-	126	57
33	1.35	2788	315	BF20-../DPE09XA4	53.43	1236	5500	-	-	101	46
33	2.9	2788	315	BF40-../DPE09XA4	53.82	1619	7200	-	-	146	66
30.5	1.25	3009	340	BF20-../DPE09XA4	58.24	1259	5600	-	-	101	46
30.5	1.7	3009	340	BF30-../DPE09XA4	57.41	1169	5200	-	-	126	57
29	1.6	3186	360	BF30-../DPE09XA4	61.17	1191	5300	-	-	126	57
29	2.5	3186	360	BF40-../DPE09XA4	61.25	1709	7600	-	-	146	66
27.5	1.1	3363	380	BF20-../DPE09XA4	64.08	1326	5900	-	-	101	46
26.5	1.45	3496	395	BF30-../DPE09XA4	67.28	1236	5500	-	-	126	57
26	2.3	3540	400	BF40-../DPE09XA4	67.38	1798	8000	-	-	146	66
25.5	1.0	3629	410	BF20-../DPE09XA4	69.70	1371	6100	-	-	101	46
25	2.1	3717	420	BF40-../DPE09XA4	71.40	1821	8100	-	-	146	66
24.5	1.35	3762	425	BF30-../DPE09XA4	72.13	1281	5700	-	-	126	57
24.5	3.1	3762	425	BF50-../DPE09XA4	72.72	2405	10700	-	-	207	94
23	0.92	4027	455	BF20-../DPE09XA4	76.69	1416	6300	-	-	101	46
22.5	1.25	4116	465	BF30-../DPE09XA4	79.34	1326	5900	-	-	126	57
22.5	1.95	4116	465	BF40-../DPE09XA4	78.55	1911	8500	-	-	146	66
22	2.7	4204	475	BF50-../DPE09XA4	81.33	2540	11300	-	-	207	94
21	1.8	4425	500	BF40-../DPE09XA4	83.91	1956	8700	-	-	146	66
20.5	0.82	4514	510	BF20-../DPE09XA4	87.31	1484	6600	-	-	101	46
20.5	1.15	4514	510	BF30-../DPE09XA4	87.08	1394	6200	-	-	126	57
19.5	2.5	4691	530	BF50-../DPE09XA4	90.24	2653	11800	-	-	207	94
19	1.65	4868	550	BF40-../DPE09XA4	92.31	2046	9100	-	-	146	66
18.5	1.05	4956	560	BF30-../DPE09XA4	95.79	1439	6400	-	-	126	57
17.5	1.5	5310	600	BF40-../DPE09XA4	101.0	2113	9400	-	-	146	66
17.5	2.2	5310	600	BF50-../DPE09XA4	100.9	2765	12300	-	-	207	94
16.5	0.91	5576	630	BF30-../DPE09XA4	107.6	1506	6700	-	-	126	57
16	1.4	5753	650	BF40-../DPE09XA4	111.1	2203	9800	-	-	146	66
15.5	1.95	5930	670	BF50-../DPE09XA4	114.0	2900	12900	-	-	207	94
14.5	0.8	6373	720	BF30-../DPE09XA4	124.7	1596	7100	-	-	126	57
14.5	1.25	6373	720	BF40-../DPE09XA4	124.5	2293	10200	-	-	146	66
14	1.75	6638	750	BF50-../DPE09XA4	127.5	3057	13600	-	-	207	94
14	3.1	6638	750	BF60-../DPE09XA4	125.5	3440	15300	9734	43300	273	124
13	1.15	7081	800	BF40-../DPE09XA4	137.0	2383	10600	-	-	146	66
13	1.65	7081	800	BF50Z-../DPE09XA4	138.1	3057	13600	-	-	218	99
12.5	1.05	7435	840	BF40Z-../DPE09XA4	141.4	2383	10600	-	-	154	70
12.5	2.7	7435	840	BF60Z-../DPE09XA4	140.8	3440	15300	9734	43300	315	143
11.5	0.99	8054	910	BF40Z-../DPE09XA4	155.6	2383	10600	-	-	154	70
11.5	1.45	8054	910	BF50Z-../DPE09XA4	154.5	3057	13600	-	-	218	99
10.5	0.9	8851	1000	BF40Z-../DPE09XA4	171.2	2383	10600	-	-	154	70
10.5	2.3	8851	1000	BF60Z-../DPE09XA4	169.2	3440	15300	9734	43300	315	143
9.6	1.2	9647	1090	BF50Z-../DPE09XA4	183.5	3057	13600	-	-	218	99
9.4	2.1	9824	1110	BF60Z-../DPE09XA4	187.7	3440	15300	9734	43300	315	143
9.3	0.8	9913	1120	BF40Z-../DPE09XA4	188.3	2383	10600	-	-	154	70
8.6	1.05	10798	1220	BF50Z-../DPE09XA4	205.2	3057	13600	-	-	218	99
8.0	1.75	11594	1310	BF60Z-../DPE09XA4	221.4	3440	15300	9734	43300	315	143
7.2	1.6	12834	1450	BF60Z-../DPE09XA4	245.6	3440	15300	9734	43300	315	143
7.1	0.88	13011	1470	BF50Z-../DPE09XA4	247.5	3057	13600	-	-	218	99

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

1.5 HP (1.1 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
6.0	1.3	15489	1750	BF60Z-../DPE09XA4	293.4	3440	15300	9734	43300	315	143
5.8	2.9	16020	1810	BF70Z-../DPE09XA4	301.8	3619	16100	10723	47700	509	231
5.4	1.2	17170	1940	BF60Z-../DPE09XA4	325.6	3440	15300	9734	43300	315	143
5.2	2.6	17701	2000	BF70Z-../DPE09XA4	341.7	3619	16100	10723	47700	509	231
4.7	1.05	19472	2200	BF60Z-../DPE09XA4	380.0	3440	15300	9734	43300	315	143
4.4	2.2	20799	2350	BF70Z-../DPE09XA4	398.7	3619	16100	10723	47700	509	231
4.2	0.92	22127	2500	BF60Z-../DPE09XA4	421.6	3440	15300	9734	43300	315	143
4.0	2.0	23012	2600	BF70Z-../DPE09XA4	439.2	3619	16100	10723	47700	509	231
3.9	0.87	23454	2650	BF60Z-../DPE09XA4	459.9	3440	15300	9734	43300	315	143
3.5	1.75	26552	3000	BF70Z-../DPE09XA4	512.4	3619	16100	10723	47700	509	231
3.4	2.0	25225	2850	BF70G20-../DPE09XA4	524.1	3619	16100	10723	47700	505	229
3.1	1.85	27437	3100	BF70G20-../DPE09XA4	577.5	3619	16100	10723	47700	505	229
3.0	3.0	30978	3500	BF80Z-../DPE09XA4	583.4	8902	39600	16861	75000	767	348
2.7	2.7	34075	3850	BF80Z-../DPE09XA4	662.1	8902	39600	16861	75000	767	348
2.6	1.5	33190	3750	BF70G20-../DPE09XA4	673.6	3619	16100	10723	47700	505	229
2.3	2.3	40271	4550	BF80Z-../DPE09XA4	770.6	8902	39600	16861	75000	767	348
2.1	1.2	41599	4700	BF70G20-../DPE09XA4	872.1	3619	16100	10723	47700	505	229
2.1	2.1	44254	5000	BF80Z-../DPE09XA4	874.6	8902	39600	16861	75000	767	348
1.8	1.05	48679	5500	BF70G20-../DPE09XA4	1017	3619	16100	10723	47700	505	229
1.8	1.8	51334	5800	BF80Z-../DPE09XA4	990.4	8902	39600	16861	75000	767	348
1.6	1.6	57530	6500	BF80Z-../DPE09XA4	1124	8902	39600	16861	75000	767	348
1.4	1.75	53104	6000	BF80G40-../DPE09XA4	1329	8902	39600	16861	75000	778	353
1.3	2.8	59300	6700	BF90G50-../DPE09XA4	1444	9622	42800	26977	120000	1376	624
1.2	1.45	64610	7300	BF80G40-../DPE09XA4	1491	8902	39600	16861	75000	778	353
1.1	1.35	69921	7900	BF80G40-../DPE09XA4	1693	8902	39600	16861	75000	778	353
1.1	2.3	69921	7900	BF90G50-../DPE09XA4	1678	9622	42800	26977	120000	1376	624
0.95	2.0	81427	9200	BF90G50-../DPE09XA4	1867	9622	42800	26977	120000	1376	624
0.9	1.05	88507	10000	BF80G40-../DPE09XA4	2051	8902	39600	16861	75000	778	353
0.85	1.8	91163	10300	BF90G50-../DPE09XA4	2154	9622	42800	26977	120000	1376	624
0.7	1.45	111519	12600	BF90G50-../DPE09XA4	2656	9622	42800	26977	120000	1376	624
0.6	1.2	134531	15200	BF90G50-../DPE09XA4	2952	9622	42800	26977	120000	1376	624
0.55	1.1	146037	16500	BF90G50-../DPE09XA4	3286	9622	42800	26977	120000	1376	624

2 HP (1.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
315	3.1	398	45	BF10-../DPE09XA4	5.60	438	1950	-	-	88	40
230	2.5	549	62	BF10-../DPE09XA4	7.58	495	2200	-	-	88	40
180	2.2	699	79	BF10-../DPE09XA4	9.69	528	2350	-	-	88	40
166	3.0	761	86	BF20-../DPE09XA4	10.51	697	3100	-	-	101	46
147	1.9	859	97	BF10-../DPE09XA4	11.84	562	2500	-	-	88	40
133	2.7	947	107	BF20-../DPE09XA4	13.18	742	3300	-	-	101	46
116	1.5	1089	123	BF10-../DPE09XA4	15.04	629	2800	-	-	88	40
112	2.4	1124	127	BF20-../DPE09XA4	15.54	776	3450	-	-	101	46
109	3.1	1159	131	BF30-../DPE09XA4	16.00	731	3250	-	-	126	57
104	2.6	1213	137	BF20-../DPE09XA4	16.77	787	3500	-	-	101	46
99	3.3	1275	144	BF30-../DPE09XA4	17.65	742	3300	-	-	126	57
96	1.6	1319	149	BF10-../DPE09XA4	18.23	652	2900	-	-	88	40
95	2.5	1328	150	BF20-../DPE09XA4	18.45	809	3600	-	-	101	46
90	3.2	1407	159	BF30-../DPE09XA4	19.41	764	3400	-	-	126	57
87	1.45	1452	164	BF10-../DPE09XA4	20.05	674	3000	-	-	88	40
80	3.0	1584	179	BF30-../DPE09XA4	21.85	787	3500	-	-	126	57
79	2.2	1602	181	BF20-../DPE09XA4	22.04	854	3800	-	-	101	46
75	1.25	1690	191	BF10-../DPE09XA4	23.28	719	3200	-	-	88	40
73	2.8	1735	196	BF30-../DPE09XA4	24.03	809	3600	-	-	126	57
72	2.0	1752	198	BF20-../DPE09XA4	24.25	888	3950	-	-	101	46
68	1.15	1859	210	BF10-../DPE09XA4	25.60	753	3350	-	-	88	40

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

2 HP (1.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
63	1.85	1991	225	BF20-../DPE09XA4	27.62	933	4150	-	-	101	46
62	1.05	2036	230	BF10-../DPE09XA4	28.47	776	3450	-	-	88	40
62	2.5	2036	230	BF30-../DPE09XA4	28.23	854	3800	-	-	126	57
58	1.7	2168	245	BF20-../DPE09XA4	30.40	989	4400	-	-	101	46
57	2.3	2213	250	BF30-../DPE09XA4	31.05	899	4000	-	-	126	57
56	0.94	2257	255	BF10-../DPE09XA4	31.31	809	3600	-	-	88	40
54	1.6	2345	265	BF20-../DPE09XA4	32.58	1000	4450	-	-	101	46
51	3.1	2478	280	BF40-../DPE09XA4	34.21	1349	6000	-	-	146	66
50	2.0	2522	285	BF30-../DPE09XA4	35.00	944	4200	-	-	126	57
49	1.45	2567	290	BF20-../DPE09XA4	35.85	1045	4650	-	-	101	46
48.5	0.81	2611	295	BF10-../DPE09XA4	36.15	854	3800	-	-	88	40
46.5	2.9	2699	305	BF40-../DPE09XA4	37.64	1394	6200	-	-	146	66
45.5	1.85	2744	310	BF30-../DPE09XA4	38.49	989	4400	-	-	126	57
42.5	1.7	2965	335	BF30-../DPE09XA4	41.01	1012	4500	-	-	126	57
42.5	2.7	2965	335	BF40-../DPE09XA4	41.42	1461	6500	-	-	146	66
42	1.25	3009	340	BF20-../DPE09XA4	41.72	1113	4950	-	-	101	46
39	1.6	3231	365	BF30-../DPE09XA4	45.10	1057	4700	-	-	126	57
38.5	2.4	3275	370	BF40-../DPE09XA4	45.56	1529	6800	-	-	146	66
38	1.1	3319	375	BF20-../DPE09XA4	45.90	1147	5100	-	-	101	46
36	1.05	3496	395	BF20-../DPE09XA4	48.56	1169	5200	-	-	101	46
36	2.3	3496	395	BF40-../DPE09XA4	48.92	1574	7000	-	-	146	66
33.5	1.35	3762	425	BF30-../DPE09XA4	52.20	1124	5000	-	-	126	57
33	0.98	3806	430	BF20-../DPE09XA4	53.43	1236	5500	-	-	101	46
32.5	2.0	3894	440	BF40-../DPE09XA4	53.82	1619	7200	-	-	146	66
31	2.8	4071	460	BF50-../DPE09XA4	56.86	2091	9300	-	-	207	94
30.5	1.25	4116	465	BF30-../DPE09XA4	57.41	1169	5200	-	-	126	57
30	0.88	4204	475	BF20-../DPE09XA4	58.24	1259	5600	-	-	101	46
28.5	1.15	4425	500	BF30-../DPE09XA4	61.17	1191	5300	-	-	126	57
28.5	1.8	4425	500	BF40-../DPE09XA4	61.25	1709	7600	-	-	146	66
27.5	0.81	4602	520	BF20-../DPE09XA4	64.08	1326	5900	-	-	101	46
27.5	2.5	4602	520	BF50-../DPE09XA4	63.59	2203	9800	-	-	207	94
26	1.05	4868	550	BF30-../DPE09XA4	67.28	1236	5500	-	-	126	57
26	1.65	4868	550	BF40-../DPE09XA4	67.38	1798	8000	-	-	146	66
24.5	0.99	5133	580	BF30-../DPE09XA4	72.13	1281	5700	-	-	126	57
24.5	1.55	5133	580	BF40-../DPE09XA4	71.40	1821	8100	-	-	146	66
24	2.2	5222	590	BF50-../DPE09XA4	72.72	2405	10700	-	-	207	94
22.5	1.45	5576	630	BF40-../DPE09XA4	78.55	1911	8500	-	-	146	66
22	0.88	5753	650	BF30-../DPE09XA4	79.34	1326	5900	-	-	126	57
21.5	1.95	5841	660	BF50-../DPE09XA4	81.33	2540	11300	-	-	207	94
21	1.3	6019	680	BF40-../DPE09XA4	83.91	1956	8700	-	-	146	66
20	0.81	6284	710	BF30-../DPE09XA4	87.08	1394	6200	-	-	126	57
19.5	1.8	6461	730	BF50-../DPE09XA4	90.24	2653	11800	-	-	207	94
19	1.2	6638	750	BF40-../DPE09XA4	92.31	2046	9100	-	-	146	66
19	3.1	6638	750	BF60-../DPE09XA4	93.44	3035	13500	8588	38200	273	124
17.5	1.1	7169	810	BF40-../DPE09XA4	101.0	2113	9400	-	-	146	66
17.5	1.6	7169	810	BF50-../DPE09XA4	100.9	2765	12300	-	-	207	94
17	2.7	7435	840	BF60-../DPE09XA4	103.7	3170	14100	8970	39900	273	124
16	1.0	7877	890	BF40-../DPE09XA4	111.1	2203	9800	-	-	146	66
15.5	1.4	8143	920	BF50-../DPE09XA4	114.0	2900	12900	-	-	207	94
15.5	2.5	8143	920	BF60-../DPE09XA4	113.1	3282	14600	9285	41300	273	124
14	0.88	9028	1020	BF40-../DPE09XA4	124.5	2293	10200	-	-	146	66
14	1.25	9028	1020	BF50-../DPE09XA4	127.5	3057	13600	-	-	207	94
14	2.3	9028	1020	BF60-../DPE09XA4	125.5	3440	15300	9734	43300	273	124
13	0.82	9736	1100	BF40-../DPE09XA4	137.0	2383	10600	-	-	146	66
13	1.2	9736	1100	BF50Z-../DPE09XA4	138.1	3057	13600	-	-	218	99
12.5	2.0	10090	1140	BF60Z-../DPE09XA4	140.8	3440	15300	9734	43300	315	143
11.5	1.05	10975	1240	BF50Z-../DPE09XA4	154.5	3057	13600	-	-	218	99
10.5	1.7	12037	1360	BF60Z-../DPE09XA4	169.2	3440	15300	9734	43300	315	143
9.5	0.87	13276	1500	BF50Z-../DPE09XA4	183.5	3057	13600	-	-	218	99
9.3	1.5	13630	1540	BF60Z-../DPE09XA4	187.7	3440	15300	9734	43300	315	143
8.8	3.2	14338	1620	BF70Z-../DPE09XA4	199.7	3619	16100	10723	47700	509	231
7.9	1.25	16020	1810	BF60Z-../DPE09XA4	221.4	3440	15300	9734	43300	315	143

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

2 HP (1.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
7.5	2.7	16905	1910	BF70Z-../DPE09XA4	233.0	3619	16100	10723	47700	509	231
7.1	1.15	17701	2000	BF60Z-../DPE09XA4	245.6	3440	15300	9734	43300	315	143
6.8	2.5	18587	2100	BF70Z-../DPE09XA4	258.7	3619	16100	10723	47700	509	231
6.0	0.98	20799	2350	BF60Z-../DPE09XA4	293.4	3440	15300	9734	43300	315	143
5.8	2.1	21684	2450	BF70Z-../DPE09XA4	301.8	3619	16100	10723	47700	509	231
5.4	0.87	23454	2650	BF60Z-../DPE09XA4	325.6	3440	15300	9734	43300	315	143
5.1	1.85	24782	2800	BF70Z-../DPE09XA4	341.7	3619	16100	10723	47700	509	231
4.5	3.3	27880	3150	BF80Z-../DPE09XA4	394.2	8902	39600	16861	75000	767	348
4.4	1.6	28765	3250	BF70Z-../DPE09XA4	398.7	3619	16100	10723	47700	509	231
4.0	1.45	31420	3550	BF70Z-../DPE09XA4	439.2	3619	16100	10723	47700	509	231
3.9	2.9	32305	3650	BF80Z-../DPE09XA4	450.4	8902	39600	16861	75000	767	348
3.5	2.6	35846	4050	BF80Z-../DPE09XA4	511.2	8902	39600	16861	75000	767	348
3.4	1.25	37173	4200	BF70Z-../DPE09XA4	512.4	3619	16100	10723	47700	509	231
3.1	1.3	38501	4350	BF70G20-../DPE09XA4	577.5	3619	16100	10723	47700	505	229
3.0	2.2	42041	4750	BF80Z-../DPE09XA4	583.4	8902	39600	16861	75000	767	348
2.7	2.0	46909	5300	BF80Z-../DPE09XA4	662.1	8902	39600	16861	75000	767	348
2.6	1.1	46024	5200	BF70G20-../DPE09XA4	673.6	3619	16100	10723	47700	505	229
2.3	1.7	54875	6200	BF80Z-../DPE09XA4	770.6	8902	39600	16861	75000	767	348
2.3	3.0	54875	6200	BF90Z-../DPE09XA4	759.0	9622	42800	26977	120000	1349	612
2.1	2.7	60185	6800	BF90Z-../DPE09XA4	845.1	9622	42800	26977	120000	1349	612
2.0	0.83	61070	6900	BF70G20-../DPE09XA4	872.1	3619	16100	10723	47700	505	229
2.0	1.5	62840	7100	BF80Z-../DPE09XA4	874.6	8902	39600	16861	75000	767	348
1.8	1.35	69921	7900	BF80Z-../DPE09XA4	990.4	8902	39600	16861	75000	767	348
1.8	2.9	55760	6300	BF90G50-../DPE09XA4	976.1	9622	42800	26977	120000	1376	624
1.7	2.6	61955	7000	BF90G50-../DPE09XA4	1043	9622	42800	26977	120000	1376	624
1.6	1.2	78772	8900	BF80Z-../DPE09XA4	1124	8902	39600	16861	75000	767	348
1.5	2.3	69921	7900	BF90G50-../DPE09XA4	1204	9622	42800	26977	120000	1376	624
1.4	1.2	77001	8700	BF80G40-../DPE09XA4	1329	8902	39600	16861	75000	778	353
1.3	1.95	84967	9600	BF90G50-../DPE09XA4	1444	9622	42800	26977	120000	1376	624
1.2	1.0	92933	10500	BF80G40-../DPE09XA4	1491	8902	39600	16861	75000	778	353
1.1	0.92	100899	11400	BF80G40-../DPE09XA4	1693	8902	39600	16861	75000	778	353
1.1	1.6	100899	11400	BF90G50-../DPE09XA4	1678	9622	42800	26977	120000	1376	624
0.95	1.4	116830	13200	BF90G50-../DPE09XA4	1867	9622	42800	26977	120000	1376	624
0.85	1.25	130106	14700	BF90G50-../DPE09XA4	2154	9622	42800	26977	120000	1376	624
0.7	1.0	160198	18100	BF90G50-../DPE09XA4	2656	9622	42800	26977	120000	1376	624

3 HP (2.2 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
315	2.1	584	66	BF10-../DPE09XB4C	5.60	438	1950	-	-	95	43
295	2.8	628	71	BF20-../DPE09XB4C	6.04	573	2550	-	-	108	49
235	1.7	788	89	BF10-../DPE09XB4C	7.58	495	2200	-	-	95	43
220	2.3	841	95	BF20-../DPE09XB4C	8.00	641	2850	-	-	108	49
220	3.0	841	95	BF30-../DPE09XB4C	8.07	596	2650	-	-	130	59
182	1.55	1018	115	BF10-../DPE09XB4C	9.69	528	2350	-	-	95	43
177	2.7	1044	118	BF30-../DPE09XB4C	9.99	641	2850	-	-	130	59
168	2.0	1106	125	BF20-../DPE09XB4C	10.51	697	3100	-	-	108	49
150	3.3	1239	140	BF40-../DPE09XB4C	11.79	1000	4450	-	-	152	69
149	1.3	1248	141	BF10-../DPE09XB4C	11.84	562	2500	-	-	95	43
137	2.4	1354	153	BF30-../DPE09XB4C	12.91	686	3050	-	-	130	59
134	1.85	1381	156	BF20-../DPE09XB4C	13.18	742	3300	-	-	108	49
118	1.05	1575	178	BF10-../DPE09XB4C	15.04	629	2800	-	-	95	43
118	2.9	1575	178	BF40-../DPE09XB4C	15.02	1079	4800	-	-	152	69
114	1.65	1629	184	BF20-../DPE09XB4C	15.54	776	3450	-	-	108	49
110	2.1	1690	191	BF30-../DPE09XB4C	16.00	731	3250	-	-	130	59
105	1.8	1770	200	BF20-../DPE09XB4C	16.77	787	3500	-	-	108	49
102	3.1	1814	205	BF40-../DPE09XB4C	17.35	1113	4950	-	-	152	69

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

3 HP (2.2 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
100	2.3	1859	210	BF30-../DPE09XB4C	17.65	742	3300	-	-	130	59
97	1.1	1903	215	BF10-../DPE09XB4C	18.23	652	2900	-	-	95	43
96	1.7	1903	215	BF20-../DPE09XB4C	18.45	809	3600	-	-	108	49
93	3.0	1991	225	BF40-../DPE09XB4C	19.09	1147	5100	-	-	152	69
91	2.2	2036	230	BF30-../DPE09XB4C	19.41	764	3400	-	-	130	59
88	1.0	2080	235	BF10-../DPE09XB4C	20.05	674	3000	-	-	95	43
82	2.8	2257	255	BF40-../DPE09XB4C	21.60	1169	5200	-	-	152	69
81	2.1	2257	255	BF30-../DPE09XB4C	21.85	787	3500	-	-	130	59
80	1.55	2301	260	BF20-../DPE09XB4C	22.04	854	3800	-	-	108	49
76	0.87	2434	275	BF10-../DPE09XB4C	23.28	719	3200	-	-	95	43
75	2.6	2478	280	BF40-../DPE09XB4C	23.77	1214	5400	-	-	152	69
74	2.0	2478	280	BF30-../DPE09XB4C	24.03	809	3600	-	-	130	59
73	1.4	2522	285	BF20-../DPE09XB4C	24.25	888	3950	-	-	108	49
69	0.8	2655	300	BF10-../DPE09XB4C	25.60	753	3350	-	-	95	43
66	2.5	2788	315	BF40-../DPE09XB4C	26.86	1259	5600	-	-	152	69
64	1.3	2876	325	BF20-../DPE09XB4C	27.62	933	4150	-	-	108	49
63	1.75	2921	330	BF30-../DPE09XB4C	28.23	854	3800	-	-	130	59
60	2.3	3098	350	BF40-../DPE09XB4C	29.55	1304	5800	-	-	152	69
58	1.15	3186	360	BF20-../DPE09XB4C	30.40	989	4400	-	-	108	49
57	1.6	3231	365	BF30-../DPE09XB4C	31.05	899	4000	-	-	130	59
55	1.1	3363	380	BF20-../DPE09XB4C	32.58	1000	4450	-	-	108	49
52	2.1	3540	400	BF40-../DPE09XB4C	34.21	1349	6000	-	-	152	69
51	1.4	3629	410	BF30-../DPE09XB4C	35.00	944	4200	-	-	130	59
50	3.1	3717	420	BF50-../DPE09XB4C	35.49	1754	7800	-	-	214	97
49.5	1.0	3717	420	BF20-../DPE09XB4C	35.85	1045	4650	-	-	108	49
47	2.0	3939	445	BF40-../DPE09XB4C	37.64	1394	6200	-	-	152	69
46	1.25	4027	455	BF30-../DPE09XB4C	38.49	989	4400	-	-	130	59
43	1.2	4293	485	BF30-../DPE09XB4C	41.01	1012	4500	-	-	130	59
42.5	0.86	4337	490	BF20-../DPE09XB4C	41.72	1113	4950	-	-	108	49
42.5	1.85	4337	490	BF40-../DPE09XB4C	41.42	1461	6500	-	-	152	69
42	2.6	4425	500	BF50-../DPE09XB4C	42.15	1911	8500	-	-	214	97
39.5	1.1	4691	530	BF30-../DPE09XB4C	45.10	1057	4700	-	-	130	59
39	1.7	4691	530	BF40-../DPE09XB4C	45.56	1529	6800	-	-	152	69
37.5	2.3	4956	560	BF50-../DPE09XB4C	47.14	2001	8900	-	-	214	97
36	1.55	5133	580	BF40-../DPE09XB4C	48.92	1574	7000	-	-	152	69
34	0.94	5399	610	BF30-../DPE09XB4C	52.20	1124	5000	-	-	130	59
33	1.45	5576	630	BF40-../DPE09XB4C	53.82	1619	7200	-	-	152	69
31	0.86	5930	670	BF30-../DPE09XB4C	57.41	1169	5200	-	-	130	59
31	1.95	5930	670	BF50-../DPE09XB4C	56.86	2091	9300	-	-	214	97
29.5	3.2	6284	710	BF60-../DPE09XB4C	60.40	2495	11100	7059	31400	278	126
29	0.8	6373	720	BF30-../DPE09XB4C	61.17	1191	5300	-	-	130	59
29	1.25	6373	720	BF40-../DPE09XB4C	61.25	1709	7600	-	-	152	69
28	1.75	6638	750	BF50-../DPE09XB4C	63.59	2203	9800	-	-	214	97
26.5	1.15	6992	790	BF40-../DPE09XB4C	67.38	1798	8000	-	-	152	69
25	1.05	7435	840	BF40-../DPE09XB4C	71.40	1821	8100	-	-	152	69
24.5	1.55	7523	850	BF50-../DPE09XB4C	72.72	2405	10700	-	-	214	97
24.5	2.7	7523	850	BF60-../DPE09XB4C	72.15	2698	12000	7644	34000	278	126
22.5	0.97	8231	930	BF40-../DPE09XB4C	78.55	1911	8500	-	-	152	69
22	1.35	8408	950	BF50-../DPE09XB4C	81.33	2540	11300	-	-	214	97
22	2.4	8408	950	BF60-../DPE09XB4C	80.05	2833	12600	8003	35600	278	126
21	0.9	8851	1000	BF40-../DPE09XB4C	83.91	1956	8700	-	-	152	69
20	1.25	9293	1050	BF50-../DPE09XB4C	90.24	2653	11800	-	-	214	97
19.5	0.84	9470	1070	BF40-../DPE09XB4C	92.31	2046	9100	-	-	152	69
19	2.1	9736	1100	BF60-../DPE09XB4C	93.44	3035	13500	8588	38200	278	126
17.5	1.1	10621	1200	BF50-../DPE09XB4C	100.9	2765	12300	-	-	214	97
17	1.85	10886	1230	BF60-../DPE09XB4C	103.7	3170	14100	8970	39900	278	126
16	1.75	11594	1310	BF60-../DPE09XB4C	113.1	3282	14600	9285	41300	278	126
15.5	0.96	11949	1350	BF50-../DPE09XB4C	114.0	2900	12900	-	-	214	97
14.5	1.6	12745	1440	BF60-../DPE09XB4C	125.5	3440	15300	9734	43300	278	126
14	0.87	13276	1500	BF50-../DPE09XB4C	127.5	3057	13600	-	-	214	97
13	0.81	14250	1610	BF50Z-../DPE09XB4C	138.1	3057	13600	-	-	225	102
12.5	1.35	14869	1680	BF60Z-../DPE09XB4C	140.8	3440	15300	9734	43300	322	146

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

3 HP (2.2 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
11.5	2.9	16108	1820	BF70Z-../DPE09XB4C	154.0	3619	16100	10723	47700	516	234
10.5	1.15	17701	2000	BF60Z-../DPE09XB4C	169.2	3440	15300	9734	43300	322	146
9.8	2.5	18587	2100	BF70Z-../DPE09XB4C	179.7	3619	16100	10723	47700	516	234
9.4	1.05	19472	2200	BF60Z-../DPE09XB4C	187.7	3440	15300	9734	43300	322	146
8.9	2.2	20799	2350	BF70Z-../DPE09XB4C	199.7	3619	16100	10723	47700	516	234
8.0	0.88	23012	2600	BF60Z-../DPE09XB4C	221.4	3440	15300	9734	43300	322	146
7.6	1.9	24340	2750	BF70Z-../DPE09XB4C	233.0	3619	16100	10723	47700	516	234
6.9	1.75	26552	3000	BF70Z-../DPE09XB4C	258.7	3619	16100	10723	47700	516	234
6.6	3.0	27880	3150	BF80-../DPE09XB4C	269.1	8902	39600	16861	75000	681	309
6.1	3.1	30093	3400	BF80Z-../DPE09XB4C	291.7	8902	39600	16861	75000	772	350
5.9	1.45	31420	3550	BF70Z-../DPE09XB4C	301.8	3619	16100	10723	47700	516	234
5.2	1.3	35403	4000	BF70Z-../DPE09XB4C	341.7	3619	16100	10723	47700	516	234
5.1	2.6	36288	4100	BF80Z-../DPE09XB4C	347.3	8902	39600	16861	75000	772	350
4.5	1.1	41156	4650	BF70Z-../DPE09XB4C	398.7	3619	16100	10723	47700	516	234
4.5	2.3	41156	4650	BF80Z-../DPE09XB4C	394.2	8902	39600	16861	75000	772	350
4.1	1.0	45139	5100	BF70Z-../DPE09XB4C	439.2	3619	16100	10723	47700	516	234
4.0	2.0	46024	5200	BF80Z-../DPE09XB4C	450.4	8902	39600	16861	75000	772	350
3.5	0.87	53104	6000	BF70Z-../DPE09XB4C	512.4	3619	16100	10723	47700	516	234
3.5	1.75	53104	6000	BF80Z-../DPE09XB4C	511.2	8902	39600	16861	75000	772	350
3.5	3.1	53104	6000	BF90Z-../DPE09XB4C	508.5	9622	42800	26977	120000	1354	614
3.4	0.97	52219	5900	BF70G20-../DPE09XB4C	524.1	3619	16100	10723	47700	511	232
3.1	0.88	57530	6500	BF70G20-../DPE09XB4C	577.5	3619	16100	10723	47700	511	232
3.1	1.55	59300	6700	BF80Z-../DPE09XB4C	583.4	8902	39600	16861	75000	772	350
3.0	2.6	61955	7000	BF90Z-../DPE09XB4C	591.1	9622	42800	26977	120000	1354	614
2.7	1.35	68151	7700	BF80Z-../DPE09XB4C	662.1	8902	39600	16861	75000	772	350
2.7	2.4	68151	7700	BF90Z-../DPE09XB4C	658.1	9622	42800	26977	120000	1354	614
2.4	2.1	77001	8700	BF90Z-../DPE09XB4C	759.0	9622	42800	26977	120000	1354	614
2.3	1.15	80542	9100	BF80Z-../DPE09XB4C	770.6	8902	39600	16861	75000	772	350
2.1	1.05	88507	10000	BF80Z-../DPE09XB4C	874.6	8902	39600	16861	75000	772	350
2.1	1.85	88507	10000	BF90Z-../DPE09XB4C	845.1	9622	42800	26977	120000	1354	614
1.9	1.95	83197	9400	BF90G50-../DPE09XB4C	976.1	9622	42800	26977	120000	1380	626
1.8	0.91	102669	11600	BF80Z-../DPE09XB4C	990.4	8902	39600	16861	75000	772	350
1.7	1.7	96473	10900	BF90G50-../DPE09XB4C	1043	9622	42800	26977	120000	1380	626
1.6	0.8	115945	13100	BF80Z-../DPE09XB4C	1124	8902	39600	16861	75000	772	350
1.5	1.5	108864	12300	BF90G50-../DPE09XB4C	1204	9622	42800	26977	120000	1380	626
1.3	1.25	130106	14700	BF90G50-../DPE09XB4C	1444	9622	42800	26977	120000	1380	626
1.1	1.05	154003	17400	BF90G50-../DPE09XB4C	1678	9622	42800	26977	120000	1380	626

4 HP (3 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
280	2.6	903	102	BF30-../DPE11LA4	6.34	540	2400	-	-	172	78
235	3.0	1071	121	BF40-../DPE11LA4	7.62	877	3900	-	-	203	92
220	2.2	1151	130	BF30-../DPE11LA4	8.07	596	2650	-	-	172	78
186	2.7	1363	154	BF40-../DPE11LA4	9.48	933	4150	-	-	203	92
177	2.0	1425	161	BF30-../DPE11LA4	9.99	641	2850	-	-	172	78
150	2.4	1690	191	BF40-../DPE11LA4	11.79	1000	4450	-	-	203	92
137	1.8	1814	205	BF30-../DPE11LA4	12.91	686	3050	-	-	172	78
118	2.2	2124	240	BF40-../DPE11LA4	15.02	1079	4800	-	-	203	92
110	1.55	2301	260	BF30-../DPE11LA4	16.00	731	3250	-	-	172	78
102	2.3	2478	280	BF40-../DPE11LA4	17.35	1113	4950	-	-	203	92
100	1.7	2522	285	BF30-../DPE11LA4	17.65	742	3300	-	-	172	78
95	3.3	2655	300	BF50-../DPE11LA4	18.68	1439	6400	-	-	269	122
93	2.2	2699	305	BF40-../DPE11LA4	19.09	1147	5100	-	-	203	92
91	1.6	2744	310	BF30-../DPE11LA4	19.41	764	3400	-	-	172	78
82	2.0	3054	345	BF40-../DPE11LA4	21.60	1169	5200	-	-	203	92
81	1.5	3098	350	BF30-../DPE11LA4	21.85	787	3500	-	-	172	78

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

4 HP (3 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
77	3.0	3275	370	BF50-../DPE11LA4	23.14	1529	6800	-	-	269	122
75	1.95	3363	380	BF40-../DPE11LA4	23.77	1214	5400	-	-	203	92
74	1.45	3408	385	BF30-../DPE11LA4	24.03	809	3600	-	-	172	78
69	2.8	3673	415	BF50-../DPE11LA4	25.88	1596	7100	-	-	269	122
66	1.8	3806	430	BF40-../DPE11LA4	26.86	1259	5600	-	-	203	92
63	1.3	3983	450	BF30-../DPE11LA4	28.23	854	3800	-	-	172	78
60	1.7	4204	475	BF40-../DPE11LA4	29.55	1304	5800	-	-	203	92
57	1.15	4425	500	BF30-../DPE11LA4	31.05	899	4000	-	-	172	78
56	2.5	4514	510	BF50-../DPE11LA4	31.73	1686	7500	-	-	269	122
52	1.55	4868	550	BF40-../DPE11LA4	34.21	1349	6000	-	-	203	92
51	1.05	4956	560	BF30-../DPE11LA4	35.00	944	4200	-	-	172	78
50	2.3	5045	570	BF50-../DPE11LA4	35.49	1754	7800	-	-	269	122
47	1.5	5310	600	BF40-../DPE11LA4	37.64	1394	6200	-	-	203	92
46	0.93	5487	620	BF30-../DPE11LA4	38.49	989	4400	-	-	172	78
43	0.87	5841	660	BF30-../DPE11LA4	41.01	1012	4500	-	-	172	78
42.5	1.35	5930	670	BF40-../DPE11LA4	41.42	1461	6500	-	-	203	92
42.5	3.2	5930	670	BF60-../DPE11LA4	41.60	2158	9600	6092	27100	337	153
42	1.9	6019	680	BF50-../DPE11LA4	42.15	1911	8500	-	-	269	122
39.5	0.8	6373	720	BF30-../DPE11LA4	45.10	1057	4700	-	-	172	78
39	1.25	6461	730	BF40-../DPE11LA4	45.56	1529	6800	-	-	203	92
38.5	3.0	6550	740	BF60-../DPE11LA4	46.16	2226	9900	6295	28000	337	153
37.5	1.7	6727	760	BF50-../DPE11LA4	47.14	2001	8900	-	-	269	122
36	1.15	6992	790	BF40-../DPE11LA4	48.92	1574	7000	-	-	203	92
33	1.05	7612	860	BF40-../DPE11LA4	53.82	1619	7200	-	-	203	92
32.5	2.6	7789	880	BF60-../DPE11LA4	54.44	2360	10500	6677	29700	337	153
31	1.4	8143	920	BF50-../DPE11LA4	56.86	2091	9300	-	-	269	122
29.5	2.4	8585	970	BF60-../DPE11LA4	60.40	2495	11100	7059	31400	337	153
28	1.25	9028	1020	BF50-../DPE11LA4	63.59	2203	9800	-	-	269	122
24.5	1.1	10267	1160	BF50-../DPE11LA4	72.72	2405	10700	-	-	269	122
24.5	2.0	10267	1160	BF60-../DPE11LA4	72.15	2698	12000	7644	34000	337	153
22	1.0	11506	1300	BF50-../DPE11LA4	81.33	2540	11300	-	-	269	122
22	1.75	11506	1300	BF60-../DPE11LA4	80.05	2833	12600	8003	35600	337	153
20	0.91	12657	1430	BF50-../DPE11LA4	90.24	2653	11800	-	-	269	122
19	1.55	13276	1500	BF60-../DPE11LA4	93.44	3035	13500	8588	38200	337	153
17.5	0.8	14427	1630	BF50-../DPE11LA4	100.9	2765	12300	-	-	269	122
17	1.35	14869	1680	BF60-../DPE11LA4	103.7	3170	14100	8970	39900	337	153
17	3.1	14869	1680	BF70-../DPE11LA4	105.2	3305	14700	10139	45100	511	232
16	1.3	15843	1790	BF60-../DPE11LA4	113.1	3282	14600	9285	41300	337	153
14.5	1.15	17436	1970	BF60-../DPE11LA4	125.5	3440	15300	9734	43300	337	153
14.5	2.6	17436	1970	BF70-../DPE11LA4	122.7	3619	16100	10723	47700	511	232
13.5	2.5	18587	2100	BF70Z-../DPE11LA4	133.0	3619	16100	10723	47700	569	258
12.5	1.0	19914	2250	BF60Z-../DPE11LA4	140.8	3440	15300	9734	43300	373	169
11.5	2.1	21684	2450	BF70Z-../DPE11LA4	154.0	3619	16100	10723	47700	569	258
10.5	0.85	23897	2700	BF60Z-../DPE11LA4	169.2	3440	15300	9734	43300	373	169
9.8	1.8	25667	2900	BF70Z-../DPE11LA4	179.7	3619	16100	10723	47700	569	258
9.6	3.2	26110	2950	BF80-../DPE11LA4	184.5	7149	31800	16861	75000	723	328
8.9	1.65	28322	3200	BF70Z-../DPE11LA4	199.7	3619	16100	10723	47700	569	258
8.5	2.8	29650	3350	BF80-../DPE11LA4	209.4	7711	34300	16861	75000	723	328
7.6	1.4	33190	3750	BF70Z-../DPE11LA4	233.0	3619	16100	10723	47700	569	258
7.5	2.5	33633	3800	BF80-../DPE11LA4	237.1	8295	36900	16861	75000	723	328
6.9	1.25	36731	4150	BF70Z-../DPE11LA4	258.7	3619	16100	10723	47700	569	258
6.6	2.2	38058	4300	BF80-../DPE11LA4	269.1	8902	39600	16861	75000	723	328
6.1	2.3	41156	4650	BF80Z-../DPE11LA4	291.7	8902	39600	16861	75000	827	375
5.9	1.05	42926	4850	BF70Z-../DPE11LA4	301.8	3619	16100	10723	47700	569	258
5.2	0.95	48679	5500	BF70Z-../DPE11LA4	341.7	3619	16100	10723	47700	569	258
5.1	1.9	49564	5600	BF80Z-../DPE11LA4	347.3	8902	39600	16861	75000	827	375
4.7	3.1	53104	6000	BF90Z-../DPE11LA4	382.6	9622	42800	26977	120000	1413	641
4.5	0.83	55760	6300	BF70Z-../DPE11LA4	398.7	3619	16100	10723	47700	569	258
4.5	1.65	55760	6300	BF80Z-../DPE11LA4	394.2	8902	39600	16861	75000	827	375
4.0	1.5	62840	7100	BF80Z-../DPE11LA4	450.4	8902	39600	16861	75000	827	375
3.9	2.5	64610	7300	BF90Z-../DPE11LA4	456.7	9622	42800	26977	120000	1413	641
3.5	1.3	71691	8100	BF80Z-../DPE11LA4	511.2	8902	39600	16861	75000	827	375

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

4 HP (3 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
3.5	2.3	71691	8100	BF90Z-../DPE11LA4	508.5	9622	42800	26977	120000	1413	641
3.1	1.15	81427	9200	BF80Z-../DPE11LA4	583.4	8902	39600	16861	75000	827	375
3.0	1.95	84082	9500	BF90Z-../DPE11LA4	591.1	9622	42800	26977	120000	1413	641
2.7	0.99	93818	10600	BF80Z-../DPE11LA4	662.1	8902	39600	16861	75000	827	375
2.7	1.75	93818	10600	BF90Z-../DPE11LA4	658.1	9622	42800	26977	120000	1413	641
2.4	1.55	105324	11900	BF90Z-../DPE11LA4	759.0	9622	42800	26977	120000	1413	641
2.3	0.85	109749	12400	BF80Z-../DPE11LA4	770.6	8902	39600	16861	75000	827	375
2.1	1.35	120370	13600	BF90Z-../DPE11LA4	845.1	9622	42800	26977	120000	1413	641
1.9	1.4	118600	13400	BF90G50-../DPE11LA4	976.1	9622	42800	26977	120000	1435	651
1.7	1.2	136301	15400	BF90G50-../DPE11LA4	1043	9622	42800	26977	120000	1435	651
1.5	1.05	154003	17400	BF90G50-../DPE11LA4	1204	9622	42800	26977	120000	1435	651
1.3	0.9	182325	20600	BF90G50-../DPE11LA4	1444	9622	42800	26977	120000	1435	651

5 HP (3.7 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
300	2.9	1036	117	BF40-../DPE11LA4	5.87	798	3550	-	-	203	92
280	2.1	1115	126	BF30-../DPE11LA4	6.34	540	2400	-	-	172	78
235	2.5	1328	150	BF40-../DPE11LA4	7.62	877	3900	-	-	203	92
220	1.8	1416	160	BF30-../DPE11LA4	8.07	596	2650	-	-	172	78
186	2.2	1673	189	BF40-../DPE11LA4	9.48	933	4150	-	-	203	92
177	1.6	1761	199	BF30-../DPE11LA4	9.99	641	2850	-	-	172	78
165	3.2	1859	210	BF50-../DPE11LA4	10.68	1259	5600	-	-	269	122
150	2.0	2080	235	BF40-../DPE11LA4	11.79	1000	4450	-	-	203	92
137	1.45	2257	255	BF30-../DPE11LA4	12.91	686	3050	-	-	172	78
121	2.7	2567	290	BF50-../DPE11LA4	14.65	1371	6100	-	-	269	122
118	1.75	2611	295	BF40-../DPE11LA4	15.02	1079	4800	-	-	203	92
110	1.3	2832	320	BF30-../DPE11LA4	16.00	731	3250	-	-	172	78
106	2.9	2921	330	BF50-../DPE11LA4	16.70	1394	6200	-	-	269	122
102	1.85	3054	345	BF40-../DPE11LA4	17.35	1113	4950	-	-	203	92
100	1.35	3098	350	BF30-../DPE11LA4	17.65	742	3300	-	-	172	78
95	2.7	3275	370	BF50-../DPE11LA4	18.68	1439	6400	-	-	269	122
93	1.75	3319	375	BF40-../DPE11LA4	19.09	1147	5100	-	-	203	92
91	1.3	3408	385	BF30-../DPE11LA4	19.41	764	3400	-	-	172	78
82	1.65	3806	430	BF40-../DPE11LA4	21.60	1169	5200	-	-	203	92
81	1.2	3850	435	BF30-../DPE11LA4	21.85	787	3500	-	-	172	78
77	2.4	4027	455	BF50-../DPE11LA4	23.14	1529	6800	-	-	269	122
75	1.55	4160	470	BF40-../DPE11LA4	23.77	1214	5400	-	-	203	92
74	1.15	4204	475	BF30-../DPE11LA4	24.03	809	3600	-	-	172	78
69	2.3	4514	510	BF50-../DPE11LA4	25.88	1596	7100	-	-	269	122
66	1.45	4691	530	BF40-../DPE11LA4	26.86	1259	5600	-	-	203	92
63	1.05	4956	560	BF30-../DPE11LA4	28.23	854	3800	-	-	172	78
60	1.4	5133	580	BF40-../DPE11LA4	29.55	1304	5800	-	-	203	92
57	0.94	5399	610	BF30-../DPE11LA4	31.05	899	4000	-	-	172	78
57	3.1	5399	610	BF60-../DPE11LA4	31.20	1978	8800	5598	24900	337	153
56	2.0	5576	630	BF50-../DPE11LA4	31.73	1686	7500	-	-	269	122
52	1.3	5930	670	BF40-../DPE11LA4	34.21	1349	6000	-	-	203	92
51	0.83	6107	690	BF30-../DPE11LA4	35.00	944	4200	-	-	172	78
51	2.9	6107	690	BF60-../DPE11LA4	34.62	2046	9100	5778	25700	337	153
50	1.85	6196	700	BF50-../DPE11LA4	35.49	1754	7800	-	-	269	122
47	1.2	6638	750	BF40-../DPE11LA4	37.64	1394	6200	-	-	203	92
42.5	1.1	7346	830	BF40-../DPE11LA4	41.42	1461	6500	-	-	203	92
42.5	2.6	7346	830	BF60-../DPE11LA4	41.60	2158	9600	6092	27100	337	153
42	1.55	7435	840	BF50-../DPE11LA4	42.15	1911	8500	-	-	269	122
39	1.0	7966	900	BF40-../DPE11LA4	45.56	1529	6800	-	-	203	92
38.5	2.4	8054	910	BF60-../DPE11LA4	46.16	2226	9900	6295	28000	337	153
37.5	1.4	8320	940	BF50-../DPE11LA4	47.14	2001	8900	-	-	269	122

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

5 HP (3.7 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
36	0.92	8674	980	BF40-../DPE11LA4	48.92	1574	7000	-	-	203	92
33	0.84	9470	1070	BF40-../DPE11LA4	53.82	1619	7200	-	-	203	92
32.5	2.1	9559	1080	BF60-../DPE11LA4	54.44	2360	10500	6677	29700	337	153
31	1.15	10001	1130	BF50-../DPE11LA4	56.86	2091	9300	-	-	269	122
29.5	1.95	10532	1190	BF60-../DPE11LA4	60.40	2495	11100	7059	31400	337	153
28	1.05	11152	1260	BF50-../DPE11LA4	63.59	2203	9800	-	-	269	122
24.5	0.9	12745	1440	BF50-../DPE11LA4	72.72	2405	10700	-	-	269	122
24.5	1.6	12745	1440	BF60-../DPE11LA4	72.15	2698	12000	7644	34000	337	153
22	0.81	14161	1600	BF50-../DPE11LA4	81.33	2540	11300	-	-	269	122
22	1.45	14161	1600	BF60-../DPE11LA4	80.05	2833	12600	8003	35600	337	153
22	3.3	14161	1600	BF70-../DPE11LA4	81.82	2878	12800	9285	41300	511	232
19	1.25	16374	1850	BF60-../DPE11LA4	93.44	3035	13500	8588	38200	337	153
18.5	2.7	16905	1910	BF70-../DPE11LA4	95.46	3147	14000	9824	43700	511	232
17	1.1	18144	2050	BF60-../DPE11LA4	103.7	3170	14100	8970	39900	337	153
17	2.5	18144	2050	BF70-../DPE11LA4	105.2	3305	14700	10139	45100	511	232
16	1.05	19472	2200	BF60-../DPE11LA4	113.1	3282	14600	9285	41300	337	153
14.5	0.96	21242	2400	BF60-../DPE11LA4	125.5	3440	15300	9734	43300	337	153
14.5	2.2	21242	2400	BF70-../DPE11LA4	122.7	3619	16100	10723	47700	511	232
13.5	2.0	23012	2600	BF70Z-../DPE11LA4	133.0	3619	16100	10723	47700	569	258
12.5	0.82	24782	2800	BF60Z-../DPE11LA4	140.8	3440	15300	9734	43300	373	169
11.5	1.7	26995	3050	BF70Z-../DPE11LA4	154.0	3619	16100	10723	47700	569	258
11.5	3.1	26995	3050	BF80-../DPE11LA4	158.5	6519	29000	16861	75000	723	328
9.8	1.45	31863	3600	BF70Z-../DPE11LA4	179.7	3619	16100	10723	47700	569	258
9.6	2.6	32305	3650	BF80-../DPE11LA4	184.5	7149	31800	16861	75000	723	328
8.9	1.3	34960	3950	BF70Z-../DPE11LA4	199.7	3619	16100	10723	47700	569	258
8.5	2.3	36731	4150	BF80-../DPE11LA4	209.4	7711	34300	16861	75000	723	328
7.6	1.15	40713	4600	BF70Z-../DPE11LA4	233.0	3619	16100	10723	47700	569	258
7.5	2.0	41599	4700	BF80-../DPE11LA4	237.1	8295	36900	16861	75000	723	328
6.9	1.0	45139	5100	BF70Z-../DPE11LA4	258.7	3619	16100	10723	47700	569	258
6.8	3.3	45139	5100	BF90-../DPE11LA4	259.0	9622	42800	26977	120000	1281	581
6.6	1.8	46909	5300	BF80-../DPE11LA4	269.1	8902	39600	16861	75000	723	328
6.1	1.85	50449	5700	BF80Z-../DPE11LA4	291.7	8902	39600	16861	75000	827	375
5.9	0.88	52219	5900	BF70Z-../DPE11LA4	301.8	3619	16100	10723	47700	569	258
5.9	3.1	52219	5900	BF90Z-../DPE11LA4	300.4	9622	42800	26977	120000	1413	641
5.2	2.8	59300	6700	BF90Z-../DPE11LA4	343.6	9622	42800	26977	120000	1413	641
5.1	1.5	61070	6900	BF80Z-../DPE11LA4	347.3	8902	39600	16861	75000	827	375
4.7	2.5	66381	7500	BF90Z-../DPE11LA4	382.6	9622	42800	26977	120000	1413	641
4.5	1.35	69036	7800	BF80Z-../DPE11LA4	394.2	8902	39600	16861	75000	827	375
4.0	1.2	77887	8800	BF80Z-../DPE11LA4	450.4	8902	39600	16861	75000	827	375
3.9	2.1	79657	9000	BF90Z-../DPE11LA4	456.7	9622	42800	26977	120000	1413	641
3.5	1.05	88507	10000	BF80Z-../DPE11LA4	511.2	8902	39600	16861	75000	827	375
3.5	1.85	88507	10000	BF90Z-../DPE11LA4	508.5	9622	42800	26977	120000	1413	641
3.1	0.93	100013	11300	BF80Z-../DPE11LA4	583.4	8902	39600	16861	75000	827	375
3.0	1.6	103554	11700	BF90Z-../DPE11LA4	591.1	9622	42800	26977	120000	1413	641
2.7	0.81	115060	13000	BF80Z-../DPE11LA4	662.1	8902	39600	16861	75000	827	375
2.7	1.4	115060	13000	BF90Z-../DPE11LA4	658.1	9622	42800	26977	120000	1413	641
2.4	1.25	130106	14700	BF90Z-../DPE11LA4	759.0	9622	42800	26977	120000	1413	641
2.1	1.1	148693	16800	BF90Z-../DPE11LA4	845.1	9622	42800	26977	120000	1413	641
1.9	1.1	150463	17000	BF90G50-../DPE11LA4	976.1	9622	42800	26977	120000	1435	651
1.7	0.96	170819	19300	BF90G50-../DPE11LA4	1043	9622	42800	26977	120000	1435	651
1.5	0.84	193831	21900	BF90G50-../DPE11LA4	1204	9622	42800	26977	120000	1435	651

6 HP (4.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
300	2.3	1266	143	BF40-../DPE11LB4	5.87	798	3550	-	-	203	92
280	1.7	1354	153	BF30-../DPE11LB4	6.34	540	2400	-	-	172	78

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

6 HP (4.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
235	2.0	1611	182	BF40-../DPE11LB4	7.62	877	3900	-	-	203	92
230	3.0	1646	186	BF50-../DPE11LB4	7.71	1147	5100	-	-	269	122
220	1.45	1726	195	BF30-../DPE11LB4	8.07	596	2650	-	-	172	78
186	1.8	2036	230	BF40-../DPE11LB4	9.48	933	4150	-	-	203	92
177	1.35	2124	240	BF30-../DPE11LB4	9.99	641	2850	-	-	172	78
165	2.6	2301	260	BF50-../DPE11LB4	10.68	1259	5600	-	-	269	122
150	1.65	2522	285	BF40-../DPE11LB4	11.79	1000	4450	-	-	203	92
137	1.2	2744	310	BF30-../DPE11LB4	12.91	686	3050	-	-	172	78
121	2.2	3142	355	BF50-../DPE11LB4	14.65	1371	6100	-	-	269	122
118	1.45	3186	360	BF40-../DPE11LB4	15.02	1079	4800	-	-	203	92
110	1.05	3452	390	BF30-../DPE11LB4	16.00	731	3250	-	-	172	78
106	2.3	3585	405	BF50-../DPE11LB4	16.70	1394	6200	-	-	269	122
102	1.5	3717	420	BF40-../DPE11LB4	17.35	1113	4950	-	-	203	92
100	1.15	3762	425	BF30-../DPE11LB4	17.65	742	3300	-	-	172	78
95	2.2	3983	450	BF50-../DPE11LB4	18.68	1439	6400	-	-	269	122
94	3.3	4027	455	BF60-../DPE11LB4	18.81	1709	7600	4833	21500	337	153
93	1.45	4071	460	BF40-../DPE11LB4	19.09	1147	5100	-	-	203	92
91	1.05	4160	470	BF30-../DPE11LB4	19.41	764	3400	-	-	172	78
82	1.35	4602	520	BF40-../DPE11LB4	21.60	1169	5200	-	-	203	92
81	1.0	4691	530	BF30-../DPE11LB4	21.85	787	3500	-	-	172	78
78	3.0	4868	550	BF60-../DPE11LB4	22.58	1798	8000	5081	22600	337	153
77	2.0	4868	550	BF50-../DPE11LB4	23.14	1529	6800	-	-	269	122
75	1.3	5045	570	BF40-../DPE11LB4	23.77	1214	5400	-	-	203	92
74	0.95	5133	580	BF30-../DPE11LB4	24.03	809	3600	-	-	172	78
71	2.9	5310	600	BF60-../DPE11LB4	25.05	1843	8200	5216	23200	337	153
69	1.9	5487	620	BF50-../DPE11LB4	25.88	1596	7100	-	-	269	122
66	1.2	5753	650	BF40-../DPE11LB4	26.86	1259	5600	-	-	203	92
63	0.85	6019	680	BF30-../DPE11LB4	28.23	854	3800	-	-	172	78
60	1.15	6284	710	BF40-../DPE11LB4	29.55	1304	5800	-	-	203	92
57	2.5	6638	750	BF60-../DPE11LB4	31.20	1978	8800	5598	24900	337	153
56	1.65	6727	760	BF50-../DPE11LB4	31.73	1686	7500	-	-	269	122
52	1.05	7258	820	BF40-../DPE11LB4	34.21	1349	6000	-	-	203	92
51	2.4	7435	840	BF60-../DPE11LB4	34.62	2046	9100	5778	25700	337	153
50	1.55	7523	850	BF50-../DPE11LB4	35.49	1754	7800	-	-	269	122
47	0.98	8054	910	BF40-../DPE11LB4	37.64	1394	6200	-	-	203	92
42.5	0.89	8939	1010	BF40-../DPE11LB4	41.42	1461	6500	-	-	203	92
42.5	2.1	8939	1010	BF60-../DPE11LB4	41.60	2158	9600	6092	27100	337	153
42	1.25	9028	1020	BF50-../DPE11LB4	42.15	1911	8500	-	-	269	122
39	0.82	9736	1100	BF40-../DPE11LB4	45.56	1529	6800	-	-	203	92
38.5	2.0	9824	1110	BF60-../DPE11LB4	46.16	2226	9900	6295	28000	337	153
37.5	1.15	10090	1140	BF50-../DPE11LB4	47.14	2001	8900	-	-	269	122
32.5	1.75	11683	1320	BF60-../DPE11LB4	54.44	2360	10500	6677	29700	337	153
31	0.94	12214	1380	BF50-../DPE11LB4	56.86	2091	9300	-	-	269	122
29.5	1.6	12834	1450	BF60-../DPE11LB4	60.40	2495	11100	7059	31400	337	153
28	0.85	13542	1530	BF50-../DPE11LB4	63.59	2203	9800	-	-	269	122
24.5	1.3	15489	1750	BF60-../DPE11LB4	72.15	2698	12000	7644	34000	337	153
24.5	3.0	15489	1750	BF70-../DPE11LB4	72.26	2698	12000	8902	39600	511	232
22	1.2	17259	1950	BF60-../DPE11LB4	80.05	2833	12600	8003	35600	337	153
22	2.7	17259	1950	BF70-../DPE11LB4	81.82	2878	12800	9285	41300	511	232
19	1.0	19914	2250	BF60-../DPE11LB4	93.44	3035	13500	8588	38200	337	153
18.5	2.3	20357	2300	BF70-../DPE11LB4	95.46	3147	14000	9824	43700	511	232
17	0.92	22127	2500	BF60-../DPE11LB4	103.7	3170	14100	8970	39900	337	153
17	2.1	22127	2500	BF70-../DPE11LB4	105.2	3305	14700	10139	45100	511	232
16	0.87	23454	2650	BF60-../DPE11LB4	113.1	3282	14600	9285	41300	337	153
14.5	1.75	26110	2950	BF70-../DPE11LB4	122.7	3619	16100	10723	47700	511	232
14.5	3.2	26110	2950	BF80-../DPE11LB4	122.4	5508	24500	16861	75000	723	328
13.5	1.65	27880	3150	BF70Z-../DPE11LB4	133.0	3619	16100	10723	47700	569	258
13	2.9	29207	3300	BF80-../DPE11LB4	139.7	6002	26700	16861	75000	723	328
11.5	1.4	32748	3700	BF70Z-../DPE11LB4	154.0	3619	16100	10723	47700	569	258
11.5	2.6	32748	3700	BF80-../DPE11LB4	158.5	6519	29000	16861	75000	723	328
9.8	1.2	38501	4350	BF70Z-../DPE11LB4	179.7	3619	16100	10723	47700	569	258
9.6	2.1	39386	4450	BF80-../DPE11LB4	184.5	7149	31800	16861	75000	723	328

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

6 HP (4.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·ft	N			lb·ft	N	lb	kg		
8.9	1.1	42484	4800	BF70Z-../DPE11LB4	199.7	3619	16100	10723	47700	569	258
8.5	1.9	44254	5000	BF80-../DPE11LB4	209.4	7711	34300	16861	75000	723	328
7.6	0.93	49564	5600	BF70Z-../DPE11LB4	233.0	3619	16100	10723	47700	569	258
7.6	3.0	49564	5600	BF90-../DPE11LB4	232.6	8970	39900	26595	118300	1281	581
7.5	1.65	50449	5700	BF80-../DPE11LB4	237.1	8295	36900	16861	75000	723	328
6.9	0.84	54875	6200	BF70Z-../DPE11LB4	258.7	3619	16100	10723	47700	569	258
6.8	2.7	55760	6300	BF90-../DPE11LB4	259.0	9622	42800	26977	120000	1281	581
6.6	1.45	57530	6500	BF80-../DPE11LB4	269.1	8902	39600	16861	75000	723	328
6.6	2.8	57530	6500	BF90Z-../DPE11LB4	269.8	9622	42800	26977	120000	1413	641
6.1	1.5	61955	7000	BF80Z-../DPE11LB4	291.7	8902	39600	16861	75000	827	375
5.9	2.6	63725	7200	BF90Z-../DPE11LB4	300.4	9622	42800	26977	120000	1413	641
5.2	2.3	72576	8200	BF90Z-../DPE11LB4	343.6	9622	42800	26977	120000	1413	641
5.1	1.25	74346	8400	BF80Z-../DPE11LB4	347.3	8902	39600	16861	75000	827	375
4.7	2.0	80542	9100	BF90Z-../DPE11LB4	382.6	9622	42800	26977	120000	1413	641
4.5	1.1	84082	9500	BF80Z-../DPE11LB4	394.2	8902	39600	16861	75000	827	375
4.0	0.98	94703	10700	BF80Z-../DPE11LB4	450.4	8902	39600	16861	75000	827	375
3.9	1.7	97358	11000	BF90Z-../DPE11LB4	456.7	9622	42800	26977	120000	1413	641
3.5	0.86	107979	12200	BF80Z-../DPE11LB4	511.2	8902	39600	16861	75000	827	375
3.5	1.5	107979	12200	BF90Z-../DPE11LB4	508.5	9622	42800	26977	120000	1413	641
3.0	1.3	126566	14300	BF90Z-../DPE11LB4	591.1	9622	42800	26977	120000	1413	641
2.7	1.15	140727	15900	BF90Z-../DPE11LB4	658.1	9622	42800	26977	120000	1413	641
2.4	1.05	158428	17900	BF90Z-../DPE11LB4	759.0	9622	42800	26977	120000	1413	641
2.1	0.91	180555	20400	BF90Z-../DPE11LB4	845.1	9622	42800	26977	120000	1413	641
1.9	0.88	185866	21000	BF90G50-../DPE11LB4	976.1	9622	42800	26977	120000	1435	651



7.5 HP (5.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·ft	N			lb·ft	N	lb	kg		
330	3.1	1407	159	BF50-../DPE11LB4C	5.38	1012	4500	-	-	278	126
300	1.9	1549	175	BF40-../DPE11LB4C	5.87	798	3550	-	-	212	96
280	1.4	1655	187	BF30-../DPE11LB4C	6.34	540	2400	-	-	181	82
235	1.65	1947	220	BF40-../DPE11LB4C	7.62	877	3900	-	-	212	96
230	2.5	1991	225	BF50-../DPE11LB4C	7.71	1147	5100	-	-	278	126
220	1.2	2080	235	BF30-../DPE11LB4C	8.07	596	2650	-	-	181	82
186	1.5	2478	280	BF40-../DPE11LB4C	9.48	933	4150	-	-	212	96
177	1.1	2611	295	BF30-../DPE11LB4C	9.99	641	2850	-	-	181	82
171	3.3	2699	305	BF60-../DPE11LB4C	10.31	1461	6500	4136	18400	346	157
165	2.1	2788	315	BF50-../DPE11LB4C	10.68	1259	5600	-	-	278	126
150	1.35	3098	350	BF40-../DPE11LB4C	11.79	1000	4450	-	-	212	96
137	0.96	3363	380	BF30-../DPE11LB4C	12.91	686	3050	-	-	181	82
124	2.8	3717	420	BF60-../DPE11LB4C	14.24	1596	7100	4496	20000	346	157
121	1.85	3806	430	BF50-../DPE11LB4C	14.65	1371	6100	-	-	278	126
118	1.15	3939	445	BF40-../DPE11LB4C	15.02	1079	4800	-	-	212	96
110	0.86	4204	475	BF30-../DPE11LB4C	16.00	731	3250	-	-	181	82
106	1.9	4381	495	BF50-../DPE11LB4C	16.70	1394	6200	-	-	278	126
104	2.9	4425	500	BF60-../DPE11LB4C	16.96	1641	7300	4631	20600	346	157
102	1.25	4514	510	BF40-../DPE11LB4C	17.35	1113	4950	-	-	212	96
100	0.92	4602	520	BF30-../DPE11LB4C	17.65	742	3300	-	-	181	82
95	1.8	4868	550	BF50-../DPE11LB4C	18.68	1439	6400	-	-	278	126
94	2.8	4868	550	BF60-../DPE11LB4C	18.81	1709	7600	4833	21500	346	157
93	1.2	4956	560	BF40-../DPE11LB4C	19.09	1147	5100	-	-	212	96
91	0.88	5045	570	BF30-../DPE11LB4C	19.41	764	3400	-	-	181	82
82	1.1	5664	640	BF40-../DPE11LB4C	21.60	1169	5200	-	-	212	96
81	0.83	5664	640	BF30-../DPE11LB4C	21.85	787	3500	-	-	181	82
78	2.5	5930	670	BF60-../DPE11LB4C	22.58	1798	8000	5081	22600	346	157
77	1.65	6019	680	BF50-../DPE11LB4C	23.14	1529	6800	-	-	278	126
75	1.05	6196	700	BF40-../DPE11LB4C	23.77	1214	5400	-	-	212	96

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

7.5 HP (5.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
71	2.4	6461	730	BF60-../DPE11LB4C	25.05	1843	8200	5216	23200	346	157
69	1.55	6727	760	BF50-../DPE11LB4C	25.88	1596	7100	-	-	278	126
66	0.98	6992	790	BF40-../DPE11LB4C	26.86	1259	5600	-	-	212	96
60	0.93	7700	870	BF40-../DPE11LB4C	29.55	1304	5800	-	-	212	96
57	2.1	8143	920	BF60-../DPE11LB4C	31.20	1978	8800	5598	24900	346	157
56	1.35	8231	930	BF50-../DPE11LB4C	31.73	1686	7500	-	-	278	126
52	0.85	8939	1010	BF40-../DPE11LB4C	34.21	1349	6000	-	-	212	96
51	1.95	9028	1020	BF60-../DPE11LB4C	34.62	2046	9100	5778	25700	346	157
50	1.25	9293	1050	BF50-../DPE11LB4C	35.49	1754	7800	-	-	278	126
47	0.8	9824	1110	BF40-../DPE11LB4C	37.64	1394	6200	-	-	212	96
42.5	1.75	10886	1230	BF60-../DPE11LB4C	41.60	2158	9600	6092	27100	346	157
42	1.05	11063	1250	BF50-../DPE11LB4C	42.15	1911	8500	-	-	278	126
38.5	1.65	12037	1360	BF60-../DPE11LB4C	46.16	2226	9900	6295	28000	346	157
37.5	0.93	12391	1400	BF50-../DPE11LB4C	47.14	2001	8900	-	-	278	126
32.5	1.45	14250	1610	BF60-../DPE11LB4C	54.44	2360	10500	6677	29700	346	157
32	3.2	14515	1640	BF70-../DPE11LB4C	55.79	2293	10200	8093	36000	520	236
29.5	1.3	15754	1780	BF60-../DPE11LB4C	60.40	2495	11100	7059	31400	346	157
28.5	2.8	16285	1840	BF70-../DPE11LB4C	61.94	2428	10800	8408	37400	520	236
24.5	1.1	18587	2100	BF60-../DPE11LB4C	72.15	2698	12000	7644	34000	346	157
24.5	2.5	18587	2100	BF70-../DPE11LB4C	72.26	2698	12000	8902	39600	520	236
22	0.98	20799	2350	BF60-../DPE11LB4C	80.05	2833	12600	8003	35600	346	157
22	2.2	20799	2350	BF70-../DPE11LB4C	81.82	2878	12800	9285	41300	520	236
19	0.84	24340	2750	BF60-../DPE11LB4C	93.44	3035	13500	8588	38200	346	157
18.5	1.85	24782	2800	BF70-../DPE11LB4C	95.46	3147	14000	9824	43700	520	236
17	1.7	26995	3050	BF70-../DPE11LB4C	105.2	3305	14700	10139	45100	520	236
16.5	3.0	27880	3150	BF80-../DPE11LB4C	107.9	5036	22400	16254	72300	732	332
14.5	1.45	31863	3600	BF70-../DPE11LB4C	122.7	3619	16100	10723	47700	520	236
14.5	2.6	31863	3600	BF80-../DPE11LB4C	122.4	5508	24500	16861	75000	732	332
13.5	1.35	34075	3850	BF70Z-../DPE11LB4C	133.0	3619	16100	10723	47700	578	262
13	2.4	35403	4000	BF80-../DPE11LB4C	139.7	6002	26700	16861	75000	732	332
11.5	1.15	40271	4550	BF70Z-../DPE11LB4C	154.0	3619	16100	10723	47700	578	262
11.5	2.1	40271	4550	BF80-../DPE11LB4C	158.5	6519	29000	16861	75000	732	332
9.9	3.2	46909	5300	BF90-../DPE11LB4C	178.6	7509	33400	23987	106700	1290	585
9.8	0.98	46909	5300	BF70Z-../DPE11LB4C	179.7	3619	16100	10723	47700	578	262
9.6	1.75	47794	5400	BF80-../DPE11LB4C	184.5	7149	31800	16861	75000	732	332
8.9	0.88	52219	5900	BF70Z-../DPE11LB4C	199.7	3619	16100	10723	47700	578	262
8.9	2.8	52219	5900	BF90-../DPE11LB4C	198.8	8093	36000	25021	111300	1290	585
8.5	1.55	53990	6100	BF80-../DPE11LB4C	209.4	7711	34300	16861	75000	732	332
7.6	2.4	61070	6900	BF90-../DPE11LB4C	232.6	8970	39900	26595	118300	1290	585
7.5	1.35	61955	7000	BF80-../DPE11LB4C	237.1	8295	36900	16861	75000	732	332
6.8	2.2	68151	7700	BF90-../DPE11LB4C	259.0	9622	42800	26977	120000	1290	585
6.6	1.2	69921	7900	BF80-../DPE11LB4C	269.1	8902	39600	16861	75000	732	332
6.6	2.3	69921	7900	BF90Z-../DPE11LB4C	269.8	9622	42800	26977	120000	1422	645
6.1	1.2	76116	8600	BF80Z-../DPE11LB4C	291.7	8902	39600	16861	75000	836	379
5.9	2.1	78772	8900	BF90Z-../DPE11LB4C	300.4	9622	42800	26977	120000	1422	645
5.2	1.85	89393	10100	BF90Z-../DPE11LB4C	343.6	9622	42800	26977	120000	1422	645
5.1	1.05	90278	10200	BF80Z-../DPE11LB4C	347.3	8902	39600	16861	75000	836	379
4.7	1.65	98243	11100	BF90Z-../DPE11LB4C	382.6	9622	42800	26977	120000	1422	645
4.5	0.91	102669	11600	BF80Z-../DPE11LB4C	394.2	8902	39600	16861	75000	836	379
4.0	0.8	115945	13100	BF80Z-../DPE11LB4C	450.4	8902	39600	16861	75000	836	379
3.9	1.4	118600	13400	BF90Z-../DPE11LB4C	456.7	9622	42800	26977	120000	1422	645
3.5	1.25	132761	15000	BF90Z-../DPE11LB4C	508.5	9622	42800	26977	120000	1422	645
3.0	1.05	154888	17500	BF90Z-../DPE11LB4C	591.1	9622	42800	26977	120000	1422	645
2.7	0.95	171704	19400	BF90Z-../DPE11LB4C	658.1	9622	42800	26977	120000	1422	645
2.4	0.85	192946	21800	BF90Z-../DPE11LB4C	759.0	9622	42800	26977	120000	1422	645

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

10 HP (7.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
330	2.3	1903	215	BF50-../DPE13XA4	5.38	1012	4500	-	-	302	137
230	1.8	2744	310	BF50-../DPE13XA4	7.71	1147	5100	-	-	302	137
230	2.8	2744	310	BF60-../DPE13XA4	7.74	1349	6000	3799	16900	375	170
171	2.4	3673	415	BF60-../DPE13XA4	10.31	1461	6500	4136	18400	375	170
165	1.55	3806	430	BF50-../DPE13XA4	10.68	1259	5600	-	-	302	137
124	2.1	5045	570	BF60-../DPE13XA4	14.24	1596	7100	4496	20000	375	170
121	1.35	5222	590	BF50-../DPE13XA4	14.65	1371	6100	-	-	302	137
106	1.4	5930	670	BF50-../DPE13XA4	16.70	1394	6200	-	-	302	137
104	2.1	6019	680	BF60-../DPE13XA4	16.96	1641	7300	4631	20600	375	170
95	1.35	6638	750	BF50-../DPE13XA4	18.68	1439	6400	-	-	302	137
94	2.0	6727	760	BF60-../DPE13XA4	18.81	1709	7600	4833	21500	375	170
78	1.8	8054	910	BF60-../DPE13XA4	22.58	1798	8000	5081	22600	375	170
77	1.2	8231	930	BF50-../DPE13XA4	23.14	1529	6800	-	-	302	137
71	1.75	8851	1000	BF60-../DPE13XA4	25.05	1843	8200	5216	23200	375	170
69	1.15	9116	1030	BF50-../DPE13XA4	25.88	1596	7100	-	-	302	137
57	1.5	11063	1250	BF60-../DPE13XA4	31.20	1978	8800	5598	24900	375	170
56	1.0	11240	1270	BF50-../DPE13XA4	31.73	1686	7500	-	-	302	137
51	1.4	12391	1400	BF60-../DPE13XA4	34.62	2046	9100	5778	25700	375	170
50	0.91	12657	1430	BF50-../DPE13XA4	35.49	1754	7800	-	-	302	137
42.5	1.25	14869	1680	BF60-../DPE13XA4	41.60	2158	9600	6092	27100	375	170
41	3.0	15400	1740	BF70-../DPE13XA4	43.02	1956	8700	7374	32800	549	249
38.5	1.2	16462	1860	BF60-../DPE13XA4	46.16	2226	9900	6295	28000	375	170
37	2.7	17082	1930	BF70-../DPE13XA4	47.82	2046	9100	7644	34000	549	249
32.5	1.05	19472	2200	BF60-../DPE13XA4	54.44	2360	10500	6677	29700	375	170
32	2.4	19472	2200	BF70-../DPE13XA4	55.79	2293	10200	8093	36000	549	249
29.5	0.96	21242	2400	BF60-../DPE13XA4	60.40	2495	11100	7059	31400	375	170
28.5	2.1	22127	2500	BF70-../DPE13XA4	61.94	2428	10800	8408	37400	549	249
24.5	1.8	25667	2900	BF70-../DPE13XA4	72.26	2698	12000	8902	39600	549	249
22	1.6	28765	3250	BF70-../DPE13XA4	81.82	2878	12800	9285	41300	549	249
21.5	2.9	29207	3300	BF80-../DPE13XA4	83.16	4136	18400	14635	65100	761	345
19	2.5	33190	3750	BF80-../DPE13XA4	94.38	4564	20300	15399	68500	761	345
18.5	1.35	34075	3850	BF70-../DPE13XA4	95.46	3147	14000	9824	43700	549	249
17	1.25	37173	4200	BF70-../DPE13XA4	105.2	3305	14700	10139	45100	549	249
16.5	2.2	38058	4300	BF80-../DPE13XA4	107.9	5036	22400	16254	72300	761	345
14.5	1.05	43369	4900	BF70-../DPE13XA4	122.7	3619	16100	10723	47700	549	249
14.5	1.95	43369	4900	BF80-../DPE13XA4	122.4	5508	24500	16861	75000	761	345
13.5	0.98	46909	5300	BF70Z-../DPE13XA4	133.0	3619	16100	10723	47700	604	274
13	1.75	48679	5500	BF80-../DPE13XA4	139.7	6002	26700	16861	75000	761	345
13	3.1	48679	5500	BF90-../DPE13XA4	139.1	6227	27700	21649	96300	1316	597
11.5	0.84	54875	6200	BF70Z-../DPE13XA4	154.0	3619	16100	10723	47700	604	274
11.5	1.55	54875	6200	BF80-../DPE13XA4	158.5	6519	29000	16861	75000	761	345
11.5	2.7	54875	6200	BF90-../DPE13XA4	154.8	6767	30100	22661	100800	1316	597
9.9	2.3	63725	7200	BF90-../DPE13XA4	178.6	7509	33400	23987	106700	1316	597
9.6	1.3	65496	7400	BF80-../DPE13XA4	184.5	7149	31800	16861	75000	761	345
8.9	2.1	70806	8000	BF90-../DPE13XA4	198.8	8093	36000	25021	111300	1316	597
8.5	1.15	74346	8400	BF80-../DPE13XA4	209.4	7711	34300	16861	75000	761	345
7.6	1.8	83197	9400	BF90-../DPE13XA4	232.6	8970	39900	26595	118300	1316	597
7.5	1.0	84082	9500	BF80-../DPE13XA4	237.1	8295	36900	16861	75000	761	345
6.8	1.6	92933	10500	BF90-../DPE13XA4	259.0	9622	42800	26977	120000	1316	597
6.6	0.88	95588	10800	BF80-../DPE13XA4	269.1	8902	39600	16861	75000	761	345
6.6	1.7	95588	10800	BF90Z-../DPE13XA4	269.8	9622	42800	26977	120000	1451	658
6.1	0.9	103554	11700	BF80Z-../DPE13XA4	291.7	8902	39600	16861	75000	862	391
5.9	1.55	107094	12100	BF90Z-../DPE13XA4	300.4	9622	42800	26977	120000	1451	658
5.2	1.35	121255	13700	BF90Z-../DPE13XA4	343.6	9622	42800	26977	120000	1451	658
4.7	1.2	134531	15200	BF90Z-../DPE13XA4	382.6	9622	42800	26977	120000	1451	658
3.9	1.0	161969	18300	BF90Z-../DPE13XA4	456.7	9622	42800	26977	120000	1451	658
3.5	0.91	180555	20400	BF90Z-../DPE13XA4	508.5	9622	42800	26977	120000	1451	658

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

12.75 HP (9.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
340	2.8	2345	265	BF60-../DPE16LB4	5.22	1169	5200	3327	14800	454	206
330	1.85	2390	270	BF50-../DPE16LB4	5.38	1012	4500	-	-	381	173
230	1.45	3452	390	BF50-../DPE16LB4	7.71	1147	5100	-	-	381	173
230	2.2	3452	390	BF60-../DPE16LB4	7.74	1349	6000	3799	16900	454	206
172	1.95	4602	520	BF60-../DPE16LB4	10.31	1461	6500	4136	18400	454	206
166	1.25	4779	540	BF50-../DPE16LB4	10.68	1259	5600	-	-	381	173
125	1.65	6373	720	BF60-../DPE16LB4	14.24	1596	7100	4496	20000	454	206
121	1.05	6550	740	BF50-../DPE16LB4	14.65	1371	6100	-	-	381	173
106	1.1	7523	850	BF50-../DPE16LB4	16.70	1394	6200	-	-	381	173
105	1.7	7612	860	BF60-../DPE16LB4	16.96	1641	7300	4631	20600	454	206
95	1.05	8408	950	BF50-../DPE16LB4	18.68	1439	6400	-	-	381	173
95	1.6	8408	950	BF60-../DPE16LB4	18.81	1709	7600	4833	21500	454	206
79	1.45	10090	1140	BF60-../DPE16LB4	22.58	1798	8000	5081	22600	454	206
77	0.95	10355	1170	BF50-../DPE16LB4	23.14	1529	6800	-	-	381	173
71	1.35	11240	1270	BF60-../DPE16LB4	25.05	1843	8200	5216	23200	454	206
69	0.89	11594	1310	BF50-../DPE16LB4	25.88	1596	7100	-	-	381	173
57	1.2	14073	1590	BF60-../DPE16LB4	31.20	1978	8800	5598	24900	454	206
56	3.2	14338	1620	BF70-../DPE16LB4	31.84	1731	7700	6744	30000	637	289
52	1.15	15400	1740	BF60-../DPE16LB4	34.62	2046	9100	5778	25700	454	206
48	2.8	16728	1890	BF70-../DPE16LB4	36.88	1776	7900	6992	31100	637	289
43	1.0	18587	2100	BF60-../DPE16LB4	41.60	2158	9600	6092	27100	454	206
41.5	2.4	19029	2150	BF70-../DPE16LB4	43.02	1956	8700	7374	32800	637	289
38.5	0.95	20799	2350	BF60-../DPE16LB4	46.16	2226	9900	6295	28000	454	206
37.5	2.2	21242	2400	BF70-../DPE16LB4	47.82	2046	9100	7644	34000	637	289
33	0.85	23897	2700	BF60-../DPE16LB4	54.44	2360	10500	6677	29700	454	206
33	3.3	23897	2700	BF80-../DPE16LB4	53.86	3147	14000	12544	55800	849	385
32	1.85	24782	2800	BF70-../DPE16LB4	55.79	2293	10200	8093	36000	637	289
29	1.7	27437	3100	BF70-../DPE16LB4	61.94	2428	10800	8408	37400	637	289
29	3.0	27437	3100	BF80-../DPE16LB4	61.55	3327	14800	13061	58100	849	385
25.5	2.7	31420	3550	BF80-../DPE16LB4	69.86	3574	15900	13623	60600	849	385
24.5	1.4	32748	3700	BF70-../DPE16LB4	72.26	2698	12000	8902	39600	637	289
22	1.25	36288	4100	BF70-../DPE16LB4	81.82	2878	12800	9285	41300	637	289
21.5	2.3	37173	4200	BF80-../DPE16LB4	83.16	4136	18400	14635	65100	849	385
19	1.1	42041	4750	BF70-../DPE16LB4	95.46	3147	14000	9824	43700	637	289
19	2.0	42041	4750	BF80-../DPE16LB4	94.38	4564	20300	15399	68500	849	385
17	0.98	46909	5300	BF70-../DPE16LB4	105.2	3305	14700	10139	45100	637	289
16.5	1.75	47794	5400	BF80-../DPE16LB4	107.9	5036	22400	16254	72300	849	385
16.5	3.1	47794	5400	BF90-../DPE16LB4	107.5	5013	22300	19536	86900	1393	632
15	2.8	53104	6000	BF90-../DPE16LB4	119.7	5508	24500	20413	90800	1393	632
14.5	0.84	54875	6200	BF70-../DPE16LB4	122.7	3619	16100	10723	47700	637	289
14.5	1.55	54875	6200	BF80-../DPE16LB4	122.4	5508	24500	16861	75000	849	385
13	1.4	61070	6900	BF80-../DPE16LB4	139.7	6002	26700	16861	75000	849	385
13	2.4	61070	6900	BF90-../DPE16LB4	139.1	6227	27700	21649	96300	1393	632
11.5	1.2	69036	7800	BF80-../DPE16LB4	158.5	6519	29000	16861	75000	849	385
11.5	2.2	69036	7800	BF90-../DPE16LB4	154.8	6767	30100	22661	100800	1393	632
10	1.85	79657	9000	BF90-../DPE16LB4	178.6	7509	33400	23987	106700	1393	632
9.6	1.0	83197	9400	BF80-../DPE16LB4	184.5	7149	31800	16861	75000	849	385
9.0	1.7	88507	10000	BF90-../DPE16LB4	198.8	8093	36000	25021	111300	1393	632
8.5	0.9	93818	10600	BF80-../DPE16LB4	209.4	7711	34300	16861	75000	849	385
7.7	1.45	103554	11700	BF90-../DPE16LB4	232.6	8970	39900	26595	118300	1393	632
6.9	1.3	115945	13100	BF90-../DPE16LB4	259.0	9622	42800	26977	120000	1393	632
6.6	1.35	121255	13700	BF90Z-../DPE16LB4	269.8	9622	42800	26977	120000	1530	694
5.9	1.2	135416	15300	BF90Z-../DPE16LB4	300.4	9622	42800	26977	120000	1530	694
5.2	1.05	154003	17400	BF90Z-../DPE16LB4	343.6	9622	42800	26977	120000	1530	694
4.7	0.96	170819	19300	BF90Z-../DPE16LB4	382.6	9622	42800	26977	120000	1530	694
3.9	0.8	205337	23200	BF90Z-../DPE16LB4	456.7	9622	42800	26977	120000	1530	694

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

15 HP (11 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
340	2.5	2699	305	BF60-../DPE16LB4	5.22	1169	5200	3327	14800	454	206
330	1.6	2788	315	BF50-../DPE16LB4	5.38	1012	4500	-	-	381	173
230	1.25	4027	455	BF50-../DPE16LB4	7.71	1147	5100	-	-	381	173
230	1.9	4027	455	BF60-../DPE16LB4	7.74	1349	6000	3799	16900	454	206
172	1.65	5399	610	BF60-../DPE16LB4	10.31	1461	6500	4136	18400	454	206
166	1.05	5576	630	BF50-../DPE16LB4	10.68	1259	5600	-	-	381	173
125	1.4	7435	840	BF60-../DPE16LB4	14.24	1596	7100	4496	20000	454	206
121	0.92	7612	860	BF50-../DPE16LB4	14.65	1371	6100	-	-	381	173
106	0.96	8762	990	BF50-../DPE16LB4	16.70	1394	6200	-	-	381	173
105	1.45	8851	1000	BF60-../DPE16LB4	16.96	1641	7300	4631	20600	454	206
95	0.91	9736	1100	BF50-../DPE16LB4	18.68	1439	6400	-	-	381	173
95	1.4	9736	1100	BF60-../DPE16LB4	18.81	1709	7600	4833	21500	454	206
79	1.25	11683	1320	BF60-../DPE16LB4	22.58	1798	8000	5081	22600	454	206
77	0.81	12037	1360	BF50-../DPE16LB4	23.14	1529	6800	-	-	381	173
71	1.2	13011	1470	BF60-../DPE16LB4	25.05	1843	8200	5216	23200	454	206
65	3.2	14250	1610	BF70-../DPE16LB4	27.29	1574	7000	6385	28400	637	289
57	1.05	16285	1840	BF60-../DPE16LB4	31.20	1978	8800	5598	24900	454	206
56	2.8	16551	1870	BF70-../DPE16LB4	31.84	1731	7700	6744	30000	637	289
52	0.99	17701	2000	BF60-../DPE16LB4	34.62	2046	9100	5778	25700	454	206
48	2.4	19029	2150	BF70-../DPE16LB4	36.88	1776	7900	6992	31100	637	289
43	0.89	21242	2400	BF60-../DPE16LB4	41.60	2158	9600	6092	27100	454	206
41.5	2.1	22127	2500	BF70-../DPE16LB4	43.02	1956	8700	7374	32800	637	289
38.5	0.83	23897	2700	BF60-../DPE16LB4	46.16	2226	9900	6295	28000	454	206
37.5	1.85	24782	2800	BF70-../DPE16LB4	47.82	2046	9100	7644	34000	637	289
37.5	3.1	24782	2800	BF80-../DPE16LB4	47.46	3012	13400	12072	53700	849	385
33	2.8	27880	3150	BF80-../DPE16LB4	53.86	3147	14000	12544	55800	849	385
32	1.6	28765	3250	BF70-../DPE16LB4	55.79	2293	10200	8093	36000	637	289
29	1.45	31863	3600	BF70-../DPE16LB4	61.94	2428	10800	8408	37400	637	289
29	2.6	31863	3600	BF80-../DPE16LB4	61.55	3327	14800	13061	58100	849	385
25.5	2.3	36288	4100	BF80-../DPE16LB4	69.86	3574	15900	13623	60600	849	385
24.5	1.2	37616	4250	BF70-../DPE16LB4	72.26	2698	12000	8902	39600	637	289
22	1.1	42041	4750	BF70-../DPE16LB4	81.82	2878	12800	9285	41300	637	289
21.5	1.95	42926	4850	BF80-../DPE16LB4	83.16	4136	18400	14635	65100	849	385
20	3.2	46024	5200	BF90-../DPE16LB4	90.02	4249	18900	18120	80600	1393	632
19	0.95	48679	5500	BF70-../DPE16LB4	95.46	3147	14000	9824	43700	637	289
19	1.75	48679	5500	BF80-../DPE16LB4	94.38	4564	20300	15399	68500	849	385
17	0.85	53990	6100	BF70-../DPE16LB4	105.2	3305	14700	10139	45100	637	289
16.5	1.5	55760	6300	BF80-../DPE16LB4	107.9	5036	22400	16254	72300	849	385
16.5	2.7	55760	6300	BF90-../DPE16LB4	107.5	5013	22300	19536	86900	1393	632
15	2.4	61955	7000	BF90-../DPE16LB4	119.7	5508	24500	20413	90800	1393	632
14.5	1.3	63725	7200	BF80-../DPE16LB4	122.4	5508	24500	16861	75000	849	385
13	1.2	70806	8000	BF80-../DPE16LB4	139.7	6002	26700	16861	75000	849	385
13	2.1	70806	8000	BF90-../DPE16LB4	139.1	6227	27700	21649	96300	1393	632
11.5	1.05	80542	9100	BF80-../DPE16LB4	158.5	6519	29000	16861	75000	849	385
11.5	1.85	80542	9100	BF90-../DPE16LB4	154.8	6767	30100	22661	100800	1393	632
10	1.6	92933	10500	BF90-../DPE16LB4	178.6	7509	33400	23987	106700	1393	632
9.6	0.87	96473	10900	BF80-../DPE16LB4	184.5	7149	31800	16861	75000	849	385
9.0	1.45	102669	11600	BF90-../DPE16LB4	198.8	8093	36000	25021	111300	1393	632
7.7	1.25	120370	13600	BF90-../DPE16LB4	232.6	8970	39900	26595	118300	1393	632
6.9	1.1	134531	15200	BF90-../DPE16LB4	259.0	9622	42800	26977	120000	1393	632
6.6	1.15	140727	15900	BF90Z-../DPE16LB4	269.8	9622	42800	26977	120000	1530	694
5.9	1.05	157543	17800	BF90Z-../DPE16LB4	300.4	9622	42800	26977	120000	1530	694
5.2	0.92	178785	20200	BF90Z-../DPE16LB4	343.6	9622	42800	26977	120000	1530	694
4.7	0.83	197372	22300	BF90Z-../DPE16LB4	382.6	9622	42800	26977	120000	1530	694

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

20 HP (15 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
340	1.8	3717	420	BF60-../DPE16XB4	5.22	1169	5200	3327	14800	476	216
330	1.15	3806	430	BF50-../DPE16XB4	5.38	1012	4500	-	-	403	183
230	0.91	5487	620	BF50-../DPE16XB4	7.71	1147	5100	-	-	403	183
230	1.4	5487	620	BF60-../DPE16XB4	7.74	1349	6000	3799	16900	476	216
172	1.2	7346	830	BF60-../DPE16XB4	10.31	1461	6500	4136	18400	476	216
125	1.05	10090	1140	BF60-../DPE16XB4	14.24	1596	7100	4496	20000	476	216
119	3.0	10621	1200	BF70-../DPE16XB4	14.90	1326	5900	5395	24000	659	299
105	1.05	12037	1360	BF60-../DPE16XB4	16.96	1641	7300	4631	20600	476	216
102	3.0	12391	1400	BF70-../DPE16XB4	17.39	1394	6200	5620	25000	659	299
95	1.0	13276	1500	BF60-../DPE16XB4	18.81	1709	7600	4833	21500	476	216
85	2.7	14869	1680	BF70-../DPE16XB4	21.04	1439	6400	5912	26300	659	299
79	0.91	16020	1810	BF60-../DPE16XB4	22.58	1798	8000	5081	22600	476	216
73	2.6	17347	1960	BF70-../DPE16XB4	24.55	1574	7000	6227	27700	659	299
71	0.87	17701	2000	BF60-../DPE16XB4	25.05	1843	8200	5216	23200	476	216
65	2.4	19472	2200	BF70-../DPE16XB4	27.29	1574	7000	6385	28400	659	299
59	3.0	21242	2400	BF80-../DPE16XB4	30.21	2765	12300	10768	47900	871	395
56	2.0	22569	2550	BF70-../DPE16XB4	31.84	1731	7700	6744	30000	659	299
53	2.9	23897	2700	BF80-../DPE16XB4	33.61	2630	11700	10881	48400	871	395
48	1.75	26110	2950	BF70-../DPE16XB4	36.88	1776	7900	6992	31100	659	299
46.5	2.6	26995	3050	BF80-../DPE16XB4	38.14	2743	12200	11308	50300	871	395
41.5	1.5	30535	3450	BF70-../DPE16XB4	43.02	1956	8700	7374	32800	659	299
37.5	1.35	33633	3800	BF70-../DPE16XB4	47.82	2046	9100	7644	34000	659	299
37.5	2.3	33633	3800	BF80-../DPE16XB4	47.46	3012	13400	12072	53700	871	395
33	2.1	38058	4300	BF80-../DPE16XB4	53.86	3147	14000	12544	55800	871	395
32	1.15	39386	4450	BF70-../DPE16XB4	55.79	2293	10200	8093	36000	659	299
29	1.05	43369	4900	BF70-../DPE16XB4	61.94	2428	10800	8408	37400	659	299
29	1.9	43369	4900	BF80-../DPE16XB4	61.55	3327	14800	13061	58100	871	395
28	3.0	45139	5100	BF90-../DPE16XB4	63.49	3552	15800	16186	72000	1415	642
25.5	1.7	49564	5600	BF80-../DPE16XB4	69.86	3574	15900	13623	60600	871	395
25.5	2.8	49564	5600	BF90-../DPE16XB4	70.69	3777	16800	16793	74700	1415	642
24.5	0.9	51334	5800	BF70-../DPE16XB4	72.26	2698	12000	8902	39600	659	299
22	0.8	57530	6500	BF70-../DPE16XB4	81.82	2878	12800	9285	41300	659	299
22	2.5	57530	6500	BF90-../DPE16XB4	80.85	3934	17500	17423	77500	1415	642
21.5	1.45	58415	6600	BF80-../DPE16XB4	83.16	4136	18400	14635	65100	871	395
20	2.4	62840	7100	BF90-../DPE16XB4	90.02	4249	18900	18120	80600	1415	642
19	1.25	66381	7500	BF80-../DPE16XB4	94.38	4564	20300	15399	68500	871	395
16.5	1.1	76116	8600	BF80-../DPE16XB4	107.9	5036	22400	16254	72300	871	395
16.5	1.95	76116	8600	BF90-../DPE16XB4	107.5	5013	22300	19536	86900	1415	642
15	1.75	84082	9500	BF90-../DPE16XB4	119.7	5508	24500	20413	90800	1415	642
14.5	0.97	86737	9800	BF80-../DPE16XB4	122.4	5508	24500	16861	75000	871	395
13	0.86	97358	11000	BF80-../DPE16XB4	139.7	6002	26700	16861	75000	871	395
13	1.55	97358	11000	BF90-../DPE16XB4	139.1	6227	27700	21649	96300	1415	642
11.5	1.35	109749	12400	BF90-../DPE16XB4	154.8	6767	30100	22661	100800	1415	642
10	1.15	126566	14300	BF90-../DPE16XB4	178.6	7509	33400	23987	106700	1415	642
9.0	1.05	140727	15900	BF90-../DPE16XB4	198.8	8093	36000	25021	111300	1415	642
7.7	0.9	164624	18600	BF90-../DPE16XB4	232.6	8970	39900	26595	118300	1415	642
6.9	0.81	183210	20700	BF90-../DPE16XB4	259.0	9622	42800	26977	120000	1415	642
6.6	0.85	192061	21700	BF90Z-../DPE16XB4	269.8	9622	42800	26977	120000	1552	704

25 HP (18.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
340	1.5	4514	510	BF60-../DPE18LB4	5.22	1169	5200	3327	14800	580	263
230	1.15	6727	760	BF60-../DPE18LB4	7.74	1349	6000	3799	16900	580	263
172	0.99	9028	1020	BF60-../DPE18LB4	10.31	1461	6500	4136	18400	580	263
172	2.5	9028	1020	BF70-../DPE18LB4	10.32	1034	4600	4204	18700	750	340
155	3.2	10001	1130	BF80-../DPE18LB4	11.42	2001	8900	7239	32200	961	436

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

25 HP (18.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
148	2.5	10532	1190	BF70-../DPE18LB4	12.04	1102	4900	4429	19700	750	340
125	0.84	12480	1410	BF60-../DPE18LB4	14.24	1596	7100	4496	20000	580	263
119	2.5	13099	1480	BF70-../DPE18LB4	14.90	1326	5900	5395	24000	750	340
108	3.3	14427	1630	BF80-../DPE18LB4	16.49	2563	11400	9307	41400	961	436
105	0.86	14869	1680	BF60-../DPE18LB4	16.96	1641	7300	4631	20600	580	263
102	2.5	15312	1730	BF70-../DPE18LB4	17.39	1394	6200	5620	25000	750	340
95	0.82	16374	1850	BF60-../DPE18LB4	18.81	1709	7600	4833	21500	580	263
85	2.2	18144	2050	BF70-../DPE18LB4	21.04	1439	6400	5912	26300	750	340
76	2.7	20357	2300	BF80-../DPE18LB4	23.29	2653	11800	10094	44900	961	436
73	2.1	21242	2400	BF70-../DPE18LB4	24.55	1574	7000	6227	27700	750	340
65	1.95	23897	2700	BF70-../DPE18LB4	27.29	1574	7000	6385	28400	750	340
59	2.4	26110	2950	BF80-../DPE18LB4	30.21	2765	12300	10768	47900	961	436
56	1.65	27880	3150	BF70-../DPE18LB4	31.84	1731	7700	6744	30000	750	340
53	2.4	29207	3300	BF80-../DPE18LB4	33.61	2630	11700	10881	48400	961	436
48	1.4	32305	3650	BF70-../DPE18LB4	36.88	1776	7900	6992	31100	750	340
46.5	2.2	33190	3750	BF80-../DPE18LB4	38.14	2743	12200	11308	50300	961	436
41.5	1.2	37616	4250	BF70-../DPE18LB4	43.02	1956	8700	7374	32800	750	340
38.5	3.1	40271	4550	BF90-../DPE18LB4	46.43	3102	13800	14725	65500	1517	688
37.5	1.1	41599	4700	BF70-../DPE18LB4	47.82	2046	9100	7644	34000	750	340
37.5	1.85	41599	4700	BF80-../DPE18LB4	47.46	3012	13400	12072	53700	961	436
34.5	2.8	45139	5100	BF90-../DPE18LB4	51.70	3282	14600	15242	67800	1517	688
33	1.7	46909	5300	BF80-../DPE18LB4	53.86	3147	14000	12544	55800	961	436
32	0.95	48679	5500	BF70-../DPE18LB4	55.79	2293	10200	8093	36000	750	340
29	0.87	53104	6000	BF70-../DPE18LB4	61.94	2428	10800	8408	37400	750	340
29	1.55	53104	6000	BF80-../DPE18LB4	61.55	3327	14800	13061	58100	961	436
28	2.4	55760	6300	BF90-../DPE18LB4	63.49	3552	15800	16186	72000	1517	688
25.5	1.4	61070	6900	BF80-../DPE18LB4	69.86	3574	15900	13623	60600	961	436
25.5	2.3	61070	6900	BF90-../DPE18LB4	70.69	3777	16800	16793	74700	1517	688
22	2.1	70806	8000	BF90-../DPE18LB4	80.85	3934	17500	17423	77500	1517	688
21.5	1.15	72576	8200	BF80-../DPE18LB4	83.16	4136	18400	14635	65100	961	436
20	1.9	77887	8800	BF90-../DPE18LB4	90.02	4249	18900	18120	80600	1517	688
19	1.05	81427	9200	BF80-../DPE18LB4	94.38	4564	20300	15399	68500	961	436
16.5	0.89	94703	10700	BF80-../DPE18LB4	107.9	5036	22400	16254	72300	961	436
16.5	1.55	94703	10700	BF90-../DPE18LB4	107.5	5013	22300	19536	86900	1517	688
15	1.45	103554	11700	BF90-../DPE18LB4	119.7	5508	24500	20413	90800	1517	688
13	1.25	119485	13500	BF90-../DPE18LB4	139.1	6227	27700	21649	96300	1517	688
11.5	1.1	135416	15300	BF90-../DPE18LB4	154.8	6767	30100	22661	100800	1517	688
10	0.95	155773	17600	BF90-../DPE18LB4	178.6	7509	33400	23987	106700	1517	688
9.0	0.86	173475	19600	BF90-../DPE18LB4	198.8	8093	36000	25021	111300	1517	688

30 HP (22 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
172	2.1	10798	1220	BF70-../DPE18XB4	10.32	1034	4600	4204	18700	789	358
155	2.7	11949	1350	BF80-../DPE18XB4	11.42	2001	8900	7239	32200	1001	454
148	2.1	12480	1410	BF70-../DPE18XB4	12.04	1102	4900	4429	19700	789	358
119	2.1	15577	1760	BF70-../DPE18XB4	14.90	1326	5900	5395	24000	789	358
108	2.7	17170	1940	BF80-../DPE18XB4	16.49	2563	11400	9307	41400	1001	454
102	2.1	18144	2050	BF70-../DPE18XB4	17.39	1394	6200	5620	25000	789	358
85	1.9	21684	2450	BF70-../DPE18XB4	21.04	1439	6400	5912	26300	789	358
76	2.3	24340	2750	BF80-../DPE18XB4	23.29	2653	11800	10094	44900	1001	454
73	1.75	25225	2850	BF70-../DPE18XB4	24.55	1574	7000	6227	27700	789	358
65	1.65	28322	3200	BF70-../DPE18XB4	27.29	1574	7000	6385	28400	789	358
59	2.0	31420	3550	BF80-../DPE18XB4	30.21	2765	12300	10768	47900	1001	454
56	1.4	33190	3750	BF70-../DPE18XB4	31.84	1731	7700	6744	30000	789	358
53	1.95	34960	3950	BF80-../DPE18XB4	33.61	2630	11700	10881	48400	1001	454
53	3.3	34960	3950	BF90-../DPE18XB4	33.71	2675	11900	13331	59300	1556	706

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

30 HP (22 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
48	1.2	38501	4350	BF70-../DPE18XB4	36.88	1776	7900	6992	31100	789	358
47.5	3.0	38943	4400	BF90-../DPE18XB4	37.54	2855	12700	13826	61500	1556	706
46.5	1.8	39828	4500	BF80-../DPE18XB4	38.14	2743	12200	11308	50300	1001	454
41.5	1.05	44254	5000	BF70-../DPE18XB4	43.02	1956	8700	7374	32800	789	358
38.5	2.6	47794	5400	BF90-../DPE18XB4	46.43	3102	13800	14725	65500	1556	706
37.5	0.93	49564	5600	BF70-../DPE18XB4	47.82	2046	9100	7644	34000	789	358
37.5	1.55	49564	5600	BF80-../DPE18XB4	47.46	3012	13400	12072	53700	1001	454
34.5	2.4	53104	6000	BF90-../DPE18XB4	51.70	3282	14600	15242	67800	1556	706
33	1.4	55760	6300	BF80-../DPE18XB4	53.86	3147	14000	12544	55800	1001	454
32	0.8	57530	6500	BF70-../DPE18XB4	55.79	2293	10200	8093	36000	789	358
29	1.3	63725	7200	BF80-../DPE18XB4	61.55	3327	14800	13061	58100	1001	454
28	2.1	66381	7500	BF90-../DPE18XB4	63.49	3552	15800	16186	72000	1556	706
25.5	1.15	72576	8200	BF80-../DPE18XB4	69.86	3574	15900	13623	60600	1001	454
25.5	1.95	72576	8200	BF90-../DPE18XB4	70.69	3777	16800	16793	74700	1556	706
22	1.75	84082	9500	BF90-../DPE18XB4	80.85	3934	17500	17423	77500	1556	706
21.5	0.98	85852	9700	BF80-../DPE18XB4	83.16	4136	18400	14635	65100	1001	454
20	1.6	92933	10500	BF90-../DPE18XB4	90.02	4249	18900	18120	80600	1556	706
19	0.86	97358	11000	BF80-../DPE18XB4	94.38	4564	20300	15399	68500	1001	454
16.5	1.3	112404	12700	BF90-../DPE18XB4	107.5	5013	22300	19536	86900	1556	706
15	1.2	123910	14000	BF90-../DPE18XB4	119.7	5508	24500	20413	90800	1556	706
13	1.05	142497	16100	BF90-../DPE18XB4	139.1	6227	27700	21649	96300	1556	706
11.5	0.92	161084	18200	BF90-../DPE18XB4	154.8	6767	30100	22661	100800	1556	706
10	0.8	185866	21000	BF90-../DPE18XB4	178.6	7509	33400	23987	106700	1556	706

40 HP (30 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
173	1.5	14604	1650	BF70-../DPE20LA4	10.32	1034	4600	4204	18700	1429	648
156	2.0	16197	1830	BF80-../DPE20LA4	11.42	2001	8900	7239	32200	1343	609
148	1.5	17082	1930	BF70-../DPE20LA4	12.04	1102	4900	4429	19700	1131	513
120	1.55	20799	2350	BF70-../DPE20LA4	14.90	1326	5900	5395	24000	1131	513
108	2.0	23454	2650	BF80-../DPE20LA4	16.49	2563	11400	9307	41400	1640	744
103	1.55	24340	2750	BF70-../DPE20LA4	17.39	1394	6200	5620	25000	1131	513
85	1.35	29650	3350	BF70-../DPE20LA4	21.04	1439	6400	5912	26300	1429	648
77	1.7	32748	3700	BF80-../DPE20LA4	23.29	2653	11800	10094	44900	1343	609
75	3.0	33633	3800	BF90-../DPE20LA4	23.95	2495	11100	12207	54300	2202	999
73	1.3	34518	3900	BF70-../DPE20LA4	24.55	1574	7000	6227	27700	1429	648
66	1.2	38058	4300	BF70-../DPE20LA4	27.29	1574	7000	6385	28400	1131	513
59	1.45	42926	4850	BF80-../DPE20LA4	30.21	2765	12300	10768	47900	1343	609
56	1.0	45139	5100	BF70-../DPE20LA4	31.84	1731	7700	6744	30000	1429	648
53	1.45	47794	5400	BF80-../DPE20LA4	33.61	2630	11700	10881	48400	1343	609
53	2.4	47794	5400	BF90-../DPE20LA4	33.71	2675	11900	13331	59300	1894	859
48.5	0.88	52219	5900	BF70-../DPE20LA4	36.88	1776	7900	6992	31100	1429	648
47.5	2.2	53104	6000	BF90-../DPE20LA4	37.54	2855	12700	13826	61500	1894	859
47	1.35	53104	6000	BF80-../DPE20LA4	38.14	2743	12200	11308	50300	1343	609
38.5	1.9	65496	7400	BF90-../DPE20LA4	46.43	3102	13800	14725	65500	2202	999
38	1.15	66381	7500	BF80-../DPE20LA4	47.46	3012	13400	12072	53700	1343	609
34.5	1.75	73461	8300	BF90-../DPE20LA4	51.70	3282	14600	15242	67800	1894	859
33.5	1.05	75231	8500	BF80-../DPE20LA4	53.86	3147	14000	12544	55800	1343	609
29	0.95	86737	9800	BF80-../DPE20LA4	61.55	3327	14800	13061	58100	1343	609
28.5	1.55	88507	10000	BF90-../DPE20LA4	63.49	3552	15800	16186	72000	2202	999
25.5	0.85	99128	11200	BF80-../DPE20LA4	69.86	3574	15900	13623	60600	1343	609
25.5	1.4	99128	11200	BF90-../DPE20LA4	70.69	3777	16800	16793	74700	2202	999
22.5	1.3	112404	12700	BF90-../DPE20LA4	80.85	3934	17500	17423	77500	2202	999
20	1.15	126566	14300	BF90-../DPE20LA4	90.02	4249	18900	18120	80600	1894	859
17	1.0	148693	16800	BF90-../DPE20LA4	107.5	5013	22300	19536	86900	1894	859
15	0.88	169049	19100	BF90-../DPE20LA4	119.7	5508	24500	20413	90800	1894	859

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

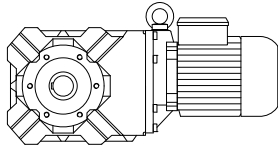
50 HP (37 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·in	Nm			lb·f	N	lb·f	N	lb	kg
173	1.25	17701	2000	BF70-../DPE22SA4	10.32	1034	4600	4204	18700	1129	512
156	1.65	19914	2250	BF80-../DPE22SA4	11.42	2001	8900	7239	32200	1340	608
148	1.25	20799	2350	BF70-../DPE22SA4	12.04	1102	4900	4429	19700	1482	672
143	2.9	21684	2450	BF90-../DPE22SA4	12.45	1798	8000	8925	39700	2262	1026
120	1.25	25667	2900	BF70-../DPE22SA4	14.90	1326	5900	5395	24000	1482	672
108	1.65	28765	3250	BF80-../DPE22SA4	16.49	2563	11400	9307	41400	1693	768
103	1.25	30093	3400	BF70-../DPE22SA4	17.39	1394	6200	5620	25000	1482	672
103	3.0	30093	3400	BF90-../DPE22SA4	17.39	2248	10000	11128	49500	1892	858
85	1.1	36731	4150	BF70-../DPE22SA4	21.04	1439	6400	5912	26300	1129	512
77	1.4	40271	4550	BF80-../DPE22SA4	23.29	2653	11800	10094	44900	1340	608
75	2.4	41599	4700	BF90-../DPE22SA4	23.95	2495	11100	12207	54300	2262	1026
73	1.05	42484	4800	BF70-../DPE22SA4	24.55	1574	7000	6227	27700	1129	512
59	1.2	52219	5900	BF80-../DPE22SA4	30.21	2765	12300	10768	47900	1340	608
53	1.2	58415	6600	BF80-../DPE22SA4	33.61	2630	11700	10881	48400	1340	608
53	1.95	58415	6600	BF90-../DPE22SA4	33.71	2675	11900	13331	59300	1892	858
47.5	1.8	65496	7400	BF90-../DPE22SA4	37.54	2855	12700	13826	61500	1892	858
47	1.1	66381	7500	BF80-../DPE22SA4	38.14	2743	12200	11308	50300	1340	608
38.5	1.55	80542	9100	BF90-../DPE22SA4	46.43	3102	13800	14725	65500	2262	1026
34.5	1.4	90278	10200	BF90-../DPE22SA4	51.70	3282	14600	15242	67800	1892	858
28.5	1.25	108864	12300	BF90-../DPE22SA4	63.49	3552	15800	16186	72000	2262	1026
25.5	1.15	122140	13800	BF90-../DPE22SA4	70.69	3777	16800	16793	74700	2262	1026
22.5	1.05	138957	15700	BF90-../DPE22SA4	80.85	3934	17500	17423	77500	2262	1026

60 HP (45 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·in	Nm			lb·f	N	lb·f	N	lb	kg
173	1.08	21142	2389	BF70-../DPE22MA4	10.32	1034	4600	4204	18700	1254	569
156	1.38	23732	2681	BF80-../DPE22MA4	11.42	2001	8900	7239	32200	1466	665
148	1.03	25025	2828	BF70-../DPE22MA4	12.04	1102	4900	4429	19700	1607	729
143	2.46	25888	2925	BF90-../DPE22MA4	12.45	1798	8000	8925	39700	2385	1082
120	1.08	30635	3461	BF70-../DPE22MA4	14.90	1326	5900	5395	24000	1607	729
108	1.38	34086	3851	BF80-../DPE22MA4	16.49	2563	11400	9307	41400	1819	825
103	1.08	35813	4046	BF70-../DPE22MA4	17.39	1394	6200	5620	25000	1607	729
103	2.46	35813	4046	BF90-../DPE22MA4	17.39	2248	10000	11128	49500	2017	915
77	1.18	47462	5363	BF80-../DPE22MA4	23.29	2653	11800	10094	44900	1466	665
75	2.0	49188	5558	BF90-../DPE22MA4	23.95	2495	11100	12207	54300	2385	1082
53	1.64	69899	7898	BF90-../DPE22MA4	33.71	2675	11900	13331	59300	2017	915
47.5	1.49	77666	8775	BF90-../DPE22MA4	37.54	2855	12700	13826	61500	2017	915
38.5	1.28	95787	10823	BF90-../DPE22MA4	46.43	3102	13800	14725	65500	2385	1082
34.5	1.18	107005	12090	BF90-../DPE22MA4	51.70	3282	14600	15242	67800	2017	915
28.5	1.08	129442	14625	BF90-../DPE22MA4	63.49	3552	15800	16186	72000	2385	1082

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



BK-series bevel-gear motors
Selection

167-202

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
-

BK-series bevel-gear motors

Description of bevel-gear units

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_s/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:

- $FI \leq 1,3$
- $M_x/M_N \leq 1,0$
- 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)

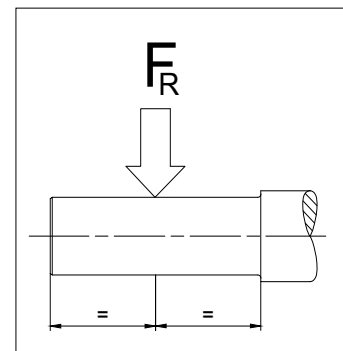
Key to abbreviations

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

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").

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

Motor power overload protection

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

BK-series bevel geared motors

Selection - bevel geared motors

0.075 HP (0.055 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
49	8.3	85	9.6	BK06-../D04LA4	33.33	297	1320	-	-	17	7.6
42.5	7.2	98	11.1	BK06-../D04LA4	38.18	310	1380	-	-	17	7.6
34	5.8	121	13.7	BK06-../D04LA4	47.78	337	1500	-	-	17	7.6
30	4.4	137	15.5	BK06-../D04LA4	54.38	360	1600	-	-	17	7.6
26	3.5	158	17.9	BK06-../D04LA4	63.33	382	1700	-	-	17	7.6
6.3	2.9	602	68	BK10Z-../D04LA4	257.9	1574	7000	-	-	46	21
5.4	2.4	690	78	BK10Z-../D04LA4	302.4	1574	7000	-	-	46	21
4.5	3.1	823	93	BK20Z-../D04LA4	367.7	1956	8700	2023	9000	68	31
4.4	1.7	850	96	BK10Z-../D04LA4	373.4	1574	7000	-	-	46	21
3.8	1.35	974	110	BK10Z-../D04LA4	428.8	1574	7000	-	-	46	21
3.6	2.3	832	94	BK10G06-../D04LA4	459.2	1574	7000	-	-	55	25
3.3	2.1	912	103	BK10G06-../D04LA4	501.4	1574	7000	-	-	55	25
3.1	3.3	974	110	BK20G06-../D04LA4	524.5	1956	8700	2023	9000	75	34
3.0	1.9	1018	115	BK10G06-../D04LA4	552.3	1574	7000	-	-	55	25
2.6	1.65	1186	134	BK10G06-../D04LA4	635.5	1574	7000	-	-	55	25
2.6	2.7	1177	133	BK20G06-../D04LA4	630.0	1956	8700	2023	9000	75	34
2.2	2.2	1425	161	BK20G06-../D04LA4	757.0	1956	8700	2023	9000	75	34
2.2	3.0	1425	161	BK30G06-../D04LA4	743.0	2518	11200	2698	12000	88	40
2.1	1.3	1505	170	BK10G06-../D04LA4	789.7	1574	7000	-	-	55	25
2.0	2.8	1575	178	BK30G06-../D04LA4	810.9	2518	11200	2698	12000	88	40
1.9	1.95	1646	186	BK20G06-../D04LA4	891.2	1956	8700	2023	9000	75	34
1.8	1.1	1744	197	BK10G06-../D04LA4	929.3	1574	7000	-	-	55	25
1.7	2.4	1814	205	BK30G06-../D04LA4	954.1	2518	11200	2698	12000	88	40
1.6	1.65	1947	220	BK20G06-../D04LA4	1066	1956	8700	2023	9000	75	34
1.5	0.94	2080	235	BK10G06-../D04LA4	1112	1574	7000	-	-	55	25
1.5	2.1	2080	235	BK30G06-../D04LA4	1142	2518	11200	2698	12000	88	40
1.3	1.3	2434	275	BK20G06-../D04LA4	1305	1956	8700	2023	9000	75	34
1.3	1.8	2434	275	BK30G06-../D04LA4	1281	2518	11200	2698	12000	88	40
1.2	1.0	1947*	220*	BK10G06-../D04LA4	1361	1574	7000	-	-	55	25
1.2	1.2	2655	300	BK20G06-../D04LA4	1424	1956	8700	2023	9000	75	34
1.1	1.0	1947*	220*	BK10G06-../D04LA4	1577	1574	7000	-	-	55	25
1.0	1.0	3186	360	BK20G06-../D04LA4	1650	1956	8700	2023	9000	75	34
1.0	1.35	3186	360	BK30G06-../D04LA4	1620	2518	11200	2698	12000	88	40
0.95	1.25	3408	385	BK30G06-../D04LA4	1767	2518	11200	2698	12000	88	40
0.85	1.0	1947*	220*	BK10G06-../D04LA4	1971	1574	7000	-	-	55	25
0.85	1.15	3806	430	BK30G06-../D04LA4	2024	2518	11200	2698	12000	88	40
0.8	1.0	3186*	360*	BK20G06-../D04LA4	2062	1956	8700	2023	9000	75	34
0.75	1.0	1947*	220*	BK10G06-../D04LA4	2261	1574	7000	-	-	55	25
0.7	1.0	1947*	220*	BK10G06-../D04LA4	2467	1574	7000	-	-	55	25
0.7	1.0	3186*	360*	BK20G06-../D04LA4	2366	1956	8700	2023	9000	75	34
0.65	1.0	3186*	360*	BK20G06-../D04LA4	2580	1956	8700	2023	9000	75	34
0.65	1.0	4337*	490*	BK30G06-../D04LA4	2533	2518	11200	2698	12000	88	40
0.6	1.0	1947*	220*	BK10G06-../D04LA4	2849	1574	7000	-	-	55	25
0.6	1.0	3186*	360*	BK20G06-../D04LA4	2831	1956	8700	2023	9000	75	34
0.6	1.0	4337*	490*	BK30G06-../D04LA4	2738	2518	11200	2698	12000	88	40
0.55	1.0	1947*	220*	BK10G06-../D04LA4	3107	1574	7000	-	-	55	25
0.55	1.0	3186*	360*	BK20G06-../D04LA4	3088	1956	8700	2023	9000	75	34
0.55	1.0	4337*	490*	BK30G06-../D04LA4	2986	2518	11200	2698	12000	88	40
0.48	1.0	4337*	490*	BK30G06-../D04LA4	3399	2518	11200	2698	12000	88	40
0.47	1.0	3186*	360*	BK20G06-../D04LA4	3515	1956	8700	2023	9000	75	34
0.46	1.0	1947*	220*	BK10G06-../D04LA4	3537	1574	7000	-	-	55	25
0.41	1.0	4337*	490*	BK30G06-../D04LA4	3959	2518	11200	2698	12000	88	40
0.4	1.0	1947*	220*	BK10G06-../D04LA4	4120	1574	7000	-	-	55	25
0.4	1.0	3186*	360*	BK20G06-../D04LA4	4094	1956	8700	2023	9000	75	34

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

BK-series bevel geared motors

Selection - bevel geared motors

0.1 HP (0.075 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
76	9.5	74	8.4	BK06-../D04LA4	21.54	259	1150	-	-	17	7.6
62	7.8	91	10.3	BK06-../D04LA4	26.36	277	1230	-	-	17	7.6
49	6.1	116	13.1	BK06-../D04LA4	33.33	297	1320	-	-	17	7.6
42.5	5.3	134	15.1	BK06-../D04LA4	38.18	310	1380	-	-	17	7.6
34	4.3	166	18.7	BK06-../D04LA4	47.78	337	1500	-	-	17	7.6
30	3.2	186	21	BK06-../D04LA4	54.38	360	1600	-	-	17	7.6
26	2.6	217	24.5	BK06-../D04LA4	63.33	382	1700	-	-	17	7.6
13.5	3.0	398	45	BK10Z-../D06LA4	120.3	1574	7000	-	-	53	24
11.5	3.1	460	52	BK10Z-../D06LA4	143.2	1574	7000	-	-	53	24
9.5	3.2	549	62	BK10Z-../D06LA4	170.6	1574	7000	-	-	53	24
8.0	2.7	646	73	BK10Z-../D06LA4	204.7	1574	7000	-	-	53	24
6.3	2.2	823	93	BK10Z-../D06LA4	257.9	1574	7000	-	-	53	24
5.5	3.0	929	105	BK20Z-../D06LA4	298.2	1956	8700	2023	9000	75	34
5.4	1.7	947	107	BK10Z-../D06LA4	302.4	1574	7000	-	-	53	24
4.5	2.3	1124	127	BK20Z-../D06LA4	367.7	1956	8700	2023	9000	75	34
4.4	1.25	1159	131	BK10Z-../D06LA4	373.4	1574	7000	-	-	53	24
4.3	3.0	1186	134	BK30Z-../D06LA4	380.7	2518	11200	2698	12000	90	41
3.8	0.99	1328	150	BK10Z-../D06LA4	428.8	1574	7000	-	-	53	24
3.8	2.8	1133	128	BK20G06-../D06LA4	429.7	1956	8700	2023	9000	84	38
3.7	2.5	1363	154	BK30Z-../D06LA4	441.3	2518	11200	2698	12000	90	41
3.6	1.6	1204	136	BK10G06-../D06LA4	459.2	1574	7000	-	-	62	28
3.4	2.5	1275	144	BK20G06-../D06LA4	480.4	1956	8700	2023	9000	84	38
3.3	1.5	1319	149	BK10G06-../D06LA4	501.4	1574	7000	-	-	62	28
3.1	2.3	1407	159	BK20G06-../D06LA4	524.5	1956	8700	2023	9000	84	38
3.0	1.35	1460	165	BK10G06-../D06LA4	552.3	1574	7000	-	-	62	28
2.9	2.9	1513	171	BK30G06-../D06LA4	567.0	2518	11200	2698	12000	97	44
2.6	1.15	1708	193	BK10G06-../D06LA4	635.5	1574	7000	-	-	62	28
2.6	1.9	1690	191	BK20G06-../D06LA4	630.0	1956	8700	2023	9000	84	38
2.5	2.5	1770	200	BK30G06-../D06LA4	652.5	2518	11200	2698	12000	97	44
2.2	1.6	1991	225	BK20G06-../D06LA4	757.0	1956	8700	2023	9000	84	38
2.2	2.2	1991	225	BK30G06-../D06LA4	743.0	2518	11200	2698	12000	97	44
2.1	0.92	2124	240	BK10G06-../D06LA4	789.7	1574	7000	-	-	62	28
2.0	1.95	2213	250	BK30G06-../D06LA4	810.9	2518	11200	2698	12000	97	44
1.9	1.35	2345	265	BK20G06-../D06LA4	891.2	1956	8700	2023	9000	84	38
1.7	1.65	2611	295	BK30G06-../D06LA4	954.1	2518	11200	2698	12000	97	44
1.6	1.15	2788	315	BK20G06-../D06LA4	1066	1956	8700	2023	9000	84	38
1.5	1.45	2965	335	BK30G06-../D06LA4	1142	2518	11200	2698	12000	97	44
1.4	2.7	2832	320	BK40G10-../D06LA4	1189	2630	11700	3822	17000	150	68
1.3	0.94	3408	385	BK20G06-../D06LA4	1305	1956	8700	2023	9000	84	38
1.3	1.25	3408	385	BK30G06-../D06LA4	1281	2518	11200	2698	12000	97	44
1.2	0.86	3717	420	BK20G06-../D06LA4	1424	1956	8700	2023	9000	84	38
1.2	2.2	3408	385	BK40G10-../D06LA4	1428	2630	11700	3822	17000	150	68
1.2	2.9	3452	390	BK50G10-../D06LA4	1398	3170	14100	5845	26000	212	96
1.1	2.6	3850	435	BK50G10-../D06LA4	1549	3170	14100	5845	26000	212	96
1.0	0.96	4514	510	BK30G06-../D06LA4	1620	2518	11200	2698	12000	97	44
0.95	1.7	4425	500	BK40G10-../D06LA4	1798	2630	11700	3822	17000	150	68
0.9	2.2	4691	530	BK50G10-../D06LA4	1816	3170	14100	5845	26000	212	96
0.85	2.0	5045	570	BK50G10-../D06LA4	2024	3170	14100	5845	26000	212	96
0.8	1.4	5310	600	BK40G10-../D06LA4	2108	2630	11700	3822	17000	150	68
0.7	1.25	6107	690	BK40G10-../D06LA4	2350	2630	11700	3822	17000	150	68
0.7	1.7	6019	680	BK50G10-../D06LA4	2450	3170	14100	5845	26000	212	96
0.65	1.15	6638	750	BK40G10-../D06LA4	2604	2630	11700	3822	17000	150	68
0.6	1.45	7081	800	BK50G10-../D06LA4	2730	3170	14100	5845	26000	212	96
0.55	1.3	7789	880	BK50G10-../D06LA4	3025	3170	14100	5845	26000	212	96
0.55	3.3	6638	750	BK60G20-../D06LA4	3036	3732	16600	7644	34000	271	123
0.47	1.15	8939	1010	BK50G10-../D06LA4	3492	3170	14100	5845	26000	212	96
0.46	2.5	8851	1000	BK60G20-../D06LA4	3533	3732	16600	7644	34000	271	123
0.42	1.0	10090	1140	BK50G10-../D06LA4	3870	3170	14100	5845	26000	212	96
0.39	1.95	11329	1280	BK60G20-../D06LA4	4239	3732	16600	7644	34000	271	123
0.32	1.5	14958	1690	BK60G20-../D06LA4	5072	3732	16600	7644	34000	271	123
0.29	1.3	16993	1920	BK60G20-../D06LA4	5721	3732	16600	7644	34000	271	123
0.25	1.1	20357	2300	BK60G20-../D06LA4	6565	3732	16600	7644	34000	271	123

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



BK-series bevel geared motors

Selection - bevel geared motors

0.1 HP (0.075 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
0.25	2.7	19029	2150	BK70G20-../D06LA4	6504	5418	24100	11240	50000	443	201
0.2	2.0	25225	2850	BK70G20-../D06LA4	8149	5418	24100	11240	50000	443	201
0.18	1.75	28765	3250	BK70G20-../D06LA4	9351	5418	24100	11240	50000	443	201
0.15	1.4	35846	4050	BK70G20-../D06LA4	11529	5418	24100	11240	50000	443	201

0.12 HP (0.09 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
90	9.4	75	8.5	BK06-../D04LA4	18.00	243	1080	-	-	17	7.6
76	7.9	89	10.1	BK06-../D04LA4	21.54	259	1150	-	-	17	7.6
62	6.5	110	12.4	BK06-../D04LA4	26.36	277	1230	-	-	17	7.6
49	5.1	139	15.7	BK06-../D04LA4	33.33	297	1320	-	-	17	7.6
42.5	4.4	161	18.2	BK06-../D04LA4	38.18	310	1380	-	-	17	7.6
34	3.6	195	22	BK06-../D04LA4	47.78	337	1500	-	-	17	7.6
30	2.7	221	25	BK06-../D04LA4	54.38	360	1600	-	-	17	7.6
26	2.2	257	29	BK06-../D04LA4	63.33	382	1700	-	-	17	7.6
13.5	2.5	478	54	BK10Z-../D06LA4	120.3	1574	7000	-	-	53	24
11.5	2.6	549	62	BK10Z-../D06LA4	143.2	1574	7000	-	-	53	24
9.5	2.7	664	75	BK10Z-../D06LA4	170.6	1574	7000	-	-	53	24
8.0	2.3	779	88	BK10Z-../D06LA4	204.7	1574	7000	-	-	53	24
6.3	1.8	982	111	BK10Z-../D06LA4	257.9	1574	7000	-	-	53	24
6.3	3.0	982	111	BK20Z-../D06LA4	259.9	1956	8700	2023	9000	75	34
5.5	2.5	1115	126	BK20Z-../D06LA4	298.2	1956	8700	2023	9000	75	34
5.4	1.45	1133	128	BK10Z-../D06LA4	302.4	1574	7000	-	-	53	24
5.3	2.9	1168	132	BK30Z-../D06LA4	308.3	2518	11200	2698	12000	90	41
4.5	1.9	1345	152	BK20Z-../D06LA4	367.7	1956	8700	2023	9000	75	34
4.4	1.05	1398	158	BK10Z-../D06LA4	373.4	1574	7000	-	-	53	24
4.3	2.5	1425	161	BK30Z-../D06LA4	380.7	2518	11200	2698	12000	90	41
3.8	0.82	1593	180	BK10Z-../D06LA4	428.8	1574	7000	-	-	53	24
3.8	2.3	1407	159	BK20G06-../D06LA4	429.7	1956	8700	2023	9000	84	38
3.8	3.2	1593	180	BK40Z-../D06LA4	430.0	2630	11700	3822	17000	141	64
3.7	2.1	1637	185	BK30Z-../D06LA4	441.3	2518	11200	2698	12000	90	41
3.6	1.3	1487	168	BK10G06-../D06LA4	459.2	1574	7000	-	-	62	28
3.5	2.8	1531	173	BK30G06-../D06LA4	471.5	2518	11200	2698	12000	97	44
3.4	2.0	1575	178	BK20G06-../D06LA4	480.4	1956	8700	2023	9000	84	38
3.3	1.2	1629	184	BK10G06-../D06LA4	501.4	1574	7000	-	-	62	28
3.1	1.85	1735	196	BK20G06-../D06LA4	524.5	1956	8700	2023	9000	84	38
3.0	1.1	1770	200	BK10G06-../D06LA4	552.3	1574	7000	-	-	62	28
2.9	2.3	1859	210	BK30G06-../D06LA4	567.0	2518	11200	2698	12000	97	44
2.6	0.94	2080	235	BK10G06-../D06LA4	635.5	1574	7000	-	-	62	28
2.6	1.55	2080	235	BK20G06-../D06LA4	630.0	1956	8700	2023	9000	84	38
2.5	2.0	2168	245	BK30G06-../D06LA4	652.5	2518	11200	2698	12000	97	44
2.2	1.3	2478	280	BK20G06-../D06LA4	757.0	1956	8700	2023	9000	84	38
2.2	1.75	2478	280	BK30G06-../D06LA4	743.0	2518	11200	2698	12000	97	44
2.0	1.6	2699	305	BK30G06-../D06LA4	810.9	2518	11200	2698	12000	97	44
2.0	3.3	2301	260	BK40G10-../D06LA4	838.4	2630	11700	3822	17000	150	68
1.9	1.15	2832	320	BK20G06-../D06LA4	891.2	1956	8700	2023	9000	84	38
1.7	1.35	3186	360	BK30G06-../D06LA4	954.1	2518	11200	2698	12000	97	44
1.7	2.7	2832	320	BK40G10-../D06LA4	998.3	2630	11700	3822	17000	150	68
1.6	0.94	3408	385	BK20G06-../D06LA4	1066	1956	8700	2023	9000	84	38
1.6	3.3	3098	350	BK50G10-../D06LA4	1024	3170	14100	5845	26000	212	96
1.5	1.2	3629	410	BK30G06-../D06LA4	1142	2518	11200	2698	12000	97	44
1.4	2.2	3496	395	BK40G10-../D06LA4	1189	2630	11700	3822	17000	150	68
1.4	2.8	3629	410	BK50G10-../D06LA4	1230	3170	14100	5845	26000	212	96
1.3	1.05	4160	470	BK30G06-../D06LA4	1281	2518	11200	2698	12000	97	44
1.2	1.8	4204	475	BK40G10-../D06LA4	1428	2630	11700	3822	17000	150	68
1.2	2.4	4293	485	BK50G10-../D06LA4	1398	3170	14100	5845	26000	212	96

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

BK-series bevel geared motors

Selection - bevel geared motors

0.12 HP (0.09 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
1.1	2.2	4691	530	BK50G10-../D06LA4	1549	3170	14100	5845	26000	212	96
1.0	0.8	5399	610	BK30G06-../D06LA4	1620	2518	11200	2698	12000	97	44
0.95	1.4	5399	610	BK40G10-../D06LA4	1798	2630	11700	3822	17000	150	68
0.9	1.75	5753	650	BK50G10-../D06LA4	1816	3170	14100	5845	26000	212	96
0.85	1.65	6196	700	BK50G10-../D06LA4	2024	3170	14100	5845	26000	212	96
0.8	1.15	6461	730	BK40G10-../D06LA4	2108	2630	11700	3822	17000	150	68
0.7	1.0	7435	840	BK40G10-../D06LA4	2350	2630	11700	3822	17000	150	68
0.7	1.4	7346	830	BK50G10-../D06LA4	2450	3170	14100	5845	26000	212	96
0.6	1.15	8674	980	BK50G10-../D06LA4	2730	3170	14100	5845	26000	212	96
0.6	2.8	7877	890	BK60G20-../D06LA4	2733	3732	16600	7644	34000	271	123
0.55	1.05	9470	1070	BK50G10-../D06LA4	3025	3170	14100	5845	26000	212	96
0.55	2.5	8939	1010	BK60G20-../D06LA4	3036	3732	16600	7644	34000	271	123
0.46	1.9	11683	1320	BK60G20-../D06LA4	3533	3732	16600	7644	34000	271	123
0.39	1.5	14604	1650	BK60G20-../D06LA4	4239	3732	16600	7644	34000	271	123
0.32	1.2	18587	2100	BK60G20-../D06LA4	5072	3732	16600	7644	34000	271	123
0.3	2.7	19029	2150	BK70G20-../D06LA4	5436	5418	24100	11240	50000	443	201
0.29	1.05	21242	2400	BK60G20-../D06LA4	5721	3732	16600	7644	34000	271	123
0.25	2.1	23897	2700	BK70G20-../D06LA4	6504	5418	24100	11240	50000	443	201
0.2	1.6	31420	3550	BK70G20-../D06LA4	8149	5418	24100	11240	50000	443	201
0.18	1.4	35846	4050	BK70G20-../D06LA4	9351	5418	24100	11240	50000	443	201
0.15	1.15	44254	5000	BK70G20-../D06LA4	11529	5418	24100	11240	50000	443	201

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0.15 HP (0.11 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
106	8.9	80	9.0	BK06-../D04LA4	15.29	229	1020	-	-	17	7.6
90	7.6	93	10.5	BK06-../D04LA4	18.00	243	1080	-	-	17	7.6
76	6.5	110	12.4	BK06-../D04LA4	21.54	259	1150	-	-	17	7.6
62	5.3	135	15.2	BK06-../D04LA4	26.36	277	1230	-	-	17	7.6
49	4.2	170	19.2	BK06-../D04LA4	33.33	297	1320	-	-	17	7.6
42.5	3.6	195	22	BK06-../D04LA4	38.18	310	1380	-	-	17	7.6
34	3.0	239	27	BK06-../D04LA4	47.78	337	1500	-	-	17	7.6
30	2.2	274	31	BK06-../D04LA4	54.38	360	1600	-	-	17	7.6
26	1.8	314	35.5	BK06-../D04LA4	63.33	382	1700	-	-	17	7.6
16	2.9	487	55	BK10-../D06LA4	102.5	1574	7000	-	-	51	23
13.5	2.1	584	66	BK10Z-../D06LA4	120.3	1574	7000	-	-	53	24
11.5	2.1	673	76	BK10Z-../D06LA4	143.2	1574	7000	-	-	53	24
9.5	2.2	805	91	BK10Z-../D06LA4	170.6	1574	7000	-	-	53	24
8.0	1.85	947	107	BK10Z-../D06LA4	204.7	1574	7000	-	-	53	24
7.9	3.0	965	109	BK20Z-../D06LA4	207.5	1956	8700	2023	9000	75	34
6.3	1.45	1204	136	BK10Z-../D06LA4	257.9	1574	7000	-	-	53	24
6.3	2.4	1204	136	BK20Z-../D06LA4	259.9	1956	8700	2023	9000	75	34
5.5	2.0	1363	154	BK20Z-../D06LA4	298.2	1956	8700	2023	9000	75	34
5.4	1.15	1390	157	BK10Z-../D06LA4	302.4	1574	7000	-	-	53	24
5.3	2.4	1434	162	BK30Z-../D06LA4	308.3	2518	11200	2698	12000	90	41
4.7	3.2	1602	181	BK40Z-../D06LA4	348.7	2630	11700	3822	17000	141	64
4.5	1.55	1646	186	BK20Z-../D06LA4	367.7	1956	8700	2023	9000	75	34
4.4	0.85	1708	193	BK10Z-../D06LA4	373.4	1574	7000	-	-	53	24
4.3	2.0	1744	197	BK30Z-../D06LA4	380.7	2518	11200	2698	12000	90	41
4.0	1.15	1682	190	BK10G06-../D06LA4	410.8	1574	7000	-	-	62	28
3.8	1.8	1761	199	BK20G06-../D06LA4	429.7	1956	8700	2023	9000	84	38
3.8	2.6	1947	220	BK40Z-../D06LA4	430.0	2630	11700	3822	17000	141	64
3.7	1.7	1991	225	BK30Z-../D06LA4	441.3	2518	11200	2698	12000	90	41
3.6	1.05	1859	210	BK10G06-../D06LA4	459.2	1574	7000	-	-	62	28
3.5	2.3	1903	215	BK30G06-../D06LA4	471.5	2518	11200	2698	12000	97	44
3.4	1.65	1947	220	BK20G06-../D06LA4	480.4	1956	8700	2023	9000	84	38
3.3	0.96	2036	230	BK10G06-../D06LA4	501.4	1574	7000	-	-	62	28

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

BK-series bevel geared motors

Selection - bevel geared motors

0.15 HP (0.11 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lbf	N	lbf	N	lb	kg
3.1	1.45	2168	245	BK20G06-../D06LA4	524.5	1956	8700	2023	9000	84	38
3.0	0.88	2213	250	BK10G06-../D06LA4	552.3	1574	7000	-	-	62	28
2.9	1.9	2301	260	BK30G06-../D06LA4	567.0	2518	11200	2698	12000	97	44
2.6	1.25	2567	290	BK20G06-../D06LA4	630.0	1956	8700	2023	9000	84	38
2.5	1.6	2699	305	BK30G06-../D06LA4	652.5	2518	11200	2698	12000	97	44
2.5	3.3	2257	255	BK40G10-../D06LA4	660.2	2630	11700	3822	17000	150	68
2.2	1.05	3054	345	BK20G06-../D06LA4	757.0	1956	8700	2023	9000	84	38
2.2	1.4	3054	345	BK30G06-../D06LA4	743.0	2518	11200	2698	12000	97	44
2.2	2.8	2655	300	BK40G10-../D06LA4	756.7	2630	11700	3822	17000	150	68
2.0	1.3	3363	380	BK30G06-../D06LA4	810.9	2518	11200	2698	12000	97	44
2.0	2.5	2965	335	BK40G10-../D06LA4	838.4	2630	11700	3822	17000	150	68
1.9	0.9	3540	400	BK20G06-../D06LA4	891.2	1956	8700	2023	9000	84	38
1.9	3.2	3231	365	BK50G10-../D06LA4	859.8	3170	14100	5845	26000	212	96
1.7	1.1	3939	445	BK30G06-../D06LA4	954.1	2518	11200	2698	12000	97	44
1.7	2.1	3585	405	BK40G10-../D06LA4	998.3	2630	11700	3822	17000	150	68
1.6	2.6	3894	440	BK50G10-../D06LA4	1024	3170	14100	5845	26000	212	96
1.5	0.96	4514	510	BK30G06-../D06LA4	1142	2518	11200	2698	12000	97	44
1.4	1.7	4425	500	BK40G10-../D06LA4	1189	2630	11700	3822	17000	150	68
1.4	2.3	4514	510	BK50G10-../D06LA4	1230	3170	14100	5845	26000	212	96
1.3	0.84	5133	580	BK30G06-../D06LA4	1281	2518	11200	2698	12000	97	44
1.2	1.45	5222	590	BK40G10-../D06LA4	1428	2630	11700	3822	17000	150	68
1.2	1.9	5310	600	BK50G10-../D06LA4	1398	3170	14100	5845	26000	212	96
1.1	1.75	5841	660	BK50G10-../D06LA4	1549	3170	14100	5845	26000	212	96
0.95	1.1	6727	760	BK40G10-../D06LA4	1798	2630	11700	3822	17000	150	68
0.9	1.4	7169	810	BK50G10-../D06LA4	1816	3170	14100	5845	26000	212	96
0.85	1.3	7700	870	BK50G10-../D06LA4	2024	3170	14100	5845	26000	212	96
0.85	3.3	6727	760	BK60G20-../D06LA4	2010	3732	16600	7644	34000	271	123
0.7	1.1	9205	1040	BK50G10-../D06LA4	2450	3170	14100	5845	26000	212	96
0.7	2.5	8762	990	BK60G20-../D06LA4	2371	3732	16600	7644	34000	271	123
0.6	2.1	10709	1210	BK60G20-../D06LA4	2733	3732	16600	7644	34000	271	123
0.55	1.85	12037	1360	BK60G20-../D06LA4	3036	3732	16600	7644	34000	271	123
0.46	1.45	15312	1730	BK60G20-../D06LA4	3533	3732	16600	7644	34000	271	123
0.42	3.2	15843	1790	BK70G20-../D06LA4	3894	5418	24100	11240	50000	443	201
0.39	1.2	18587	2100	BK60G20-../D06LA4	4239	3732	16600	7644	34000	271	123
0.36	2.6	19472	2200	BK70G20-../D06LA4	4531	5418	24100	11240	50000	443	201
0.3	2.1	24340	2750	BK70G20-../D06LA4	5436	5418	24100	11240	50000	443	201
0.25	1.65	30535	3450	BK70G20-../D06LA4	6504	5418	24100	11240	50000	443	201
0.2	1.25	39828	4500	BK70G20-../D06LA4	8149	5418	24100	11240	50000	443	201
0.18	1.1	45139	5100	BK70G20-../D06LA4	9351	5418	24100	11240	50000	443	201

0.25 HP (0.18 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lbf	N	lbf	N	lb	kg
167	8.5	83	9.4	BK06-../D05LA4	9.71	198	880	-	-	21	9.5
139	7.1	100	11.3	BK06-../D05LA4	11.67	209	930	-	-	21	9.5
106	5.4	130	14.7	BK06-../D05LA4	15.29	229	1020	-	-	21	9.5
90	4.7	151	17.1	BK06-../D05LA4	18.00	243	1080	-	-	21	9.5
76	4.0	177	20	BK06-../D05LA4	21.54	259	1150	-	-	21	9.5
62	3.3	217	24.5	BK06-../D05LA4	26.36	277	1230	-	-	21	9.5
49	2.5	279	31.5	BK06-../D05LA4	33.33	297	1320	-	-	21	9.5
42.5	2.2	319	36	BK06-../D05LA4	38.18	310	1380	-	-	21	9.5
34	1.8	394	44.5	BK06-../D05LA4	47.78	337	1500	-	-	21	9.5
30	1.35	443	50	BK06-../D05LA4	54.38	360	1600	-	-	21	9.5
26	1.1	513	58	BK06-../D05LA4	63.33	382	1700	-	-	21	9.5
22.5	3.0	593	67	BK10-../D06LA4	72.31	1574	7000	-	-	51	23
18.5	2.2	708	80	BK10-../D06LA4	89.30	1574	7000	-	-	51	23
16	1.75	805	91	BK10-../D06LA4	102.5	1574	7000	-	-	51	23

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

BK-series bevel geared motors

Selection - bevel geared motors

0.25 HP (0.18 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
15	3.2	867	98	BK20-../D06LA4	108.6	1956	8700	2023	9000	73	33
13.5	1.25	956	108	BK10Z-../D06LA4	120.3	1574	7000	-	-	53	24
13.5	3.1	956	108	BK20Z-../D06LA4	124.2	1956	8700	2023	9000	75	34
11.5	1.3	1106	125	BK10Z-../D06LA4	143.2	1574	7000	-	-	53	24
11.5	2.6	1106	125	BK20Z-../D06LA4	144.5	1956	8700	2023	9000	75	34
9.5	1.35	1328	150	BK10Z-../D06LA4	170.6	1574	7000	-	-	53	24
9.4	2.2	1336	151	BK20Z-../D06LA4	173.4	1956	8700	2023	9000	75	34
8.8	2.8	1434	162	BK30Z-../D06LA4	184.8	2518	11200	2698	12000	90	41
8.0	1.15	1558	176	BK10Z-../D06LA4	204.7	1574	7000	-	-	53	24
7.9	1.85	1575	178	BK20Z-../D06LA4	207.5	1956	8700	2023	9000	75	34
7.5	2.4	1655	187	BK30Z-../D06LA4	216.5	2518	11200	2698	12000	90	41
6.4	2.0	1947	220	BK30Z-../D06LA4	255.3	2518	11200	2698	12000	90	41
6.3	0.91	1947	220	BK10Z-../D06LA4	257.9	1574	7000	-	-	53	24
6.3	1.5	1947	220	BK20Z-../D06LA4	259.9	1956	8700	2023	9000	75	34
5.6	2.8	2168	245	BK40Z-../D06LA4	289.8	2630	11700	3822	17000	141	64
5.5	1.25	2213	250	BK20Z-../D06LA4	298.2	1956	8700	2023	9000	75	34
5.3	1.45	2345	265	BK30Z-../D06LA4	308.3	2518	11200	2698	12000	90	41
4.8	0.81	2390	270	BK10G06-../D06LA4	343.2	1574	7000	-	-	62	28
4.7	1.95	2611	295	BK40Z-../D06LA4	348.7	2630	11700	3822	17000	141	64
4.5	0.96	2699	305	BK20Z-../D06LA4	367.7	1956	8700	2023	9000	75	34
4.3	1.25	2832	320	BK30Z-../D06LA4	380.7	2518	11200	2698	12000	90	41
4.0	2.5	3009	340	BK50Z-../D06LA4	414.8	3170	14100	5845	26000	203	92
3.8	1.05	3009	340	BK20G06-../D06LA4	429.7	1956	8700	2023	9000	84	38
3.8	1.6	3186	360	BK40Z-../D06LA4	430.0	2630	11700	3822	17000	141	64
3.7	1.05	3275	370	BK30Z-../D06LA4	441.3	2518	11200	2698	12000	90	41
3.5	1.3	3275	370	BK30G06-../D06LA4	471.5	2518	11200	2698	12000	97	44
3.4	0.95	3363	380	BK20G06-../D06LA4	480.4	1956	8700	2023	9000	84	38
3.4	2.5	2965	335	BK40G10-../D06LA4	487.3	2630	11700	3822	17000	150	68
3.2	3.2	3231	365	BK50G10-../D06LA4	513.4	3170	14100	5845	26000	212	96
3.1	0.87	3673	415	BK20G06-../D06LA4	524.5	1956	8700	2023	9000	84	38
3.0	2.2	3408	385	BK40G10-../D06LA4	540.0	2630	11700	3822	17000	150	68
2.9	1.1	3939	445	BK30G06-../D06LA4	567.0	2518	11200	2698	12000	97	44
2.9	2.8	3585	405	BK50G10-../D06LA4	568.6	3170	14100	5845	26000	212	96
2.5	0.96	4514	510	BK30G06-../D06LA4	652.5	2518	11200	2698	12000	97	44
2.5	1.85	4116	465	BK40G10-../D06LA4	660.2	2630	11700	3822	17000	150	68
2.5	2.4	4204	475	BK50G10-../D06LA4	651.7	3170	14100	5845	26000	212	96
2.3	2.2	4602	520	BK50G10-../D06LA4	722.2	3170	14100	5845	26000	212	96
2.2	0.84	5133	580	BK30G06-../D06LA4	743.0	2518	11200	2698	12000	97	44
2.2	1.6	4691	530	BK40G10-../D06LA4	756.7	2630	11700	3822	17000	150	68
2.0	1.45	5222	590	BK40G10-../D06LA4	838.4	2630	11700	3822	17000	150	68
1.9	1.8	5664	640	BK50G10-../D06LA4	859.8	3170	14100	5845	26000	212	96
1.7	1.2	6284	710	BK40G10-../D06LA4	998.3	2630	11700	3822	17000	150	68
1.6	1.5	6727	760	BK50G10-../D06LA4	1024	3170	14100	5845	26000	212	96
1.6	3.2	6815	770	BK60G20-../D06LA4	1016	3732	16600	7644	34000	271	123
1.4	0.98	7700	870	BK40G10-../D06LA4	1189	2630	11700	3822	17000	150	68
1.4	1.3	7789	880	BK50G10-../D06LA4	1230	3170	14100	5845	26000	212	96
1.3	2.6	8674	980	BK60G20-../D06LA4	1322	3732	16600	7644	34000	271	123
1.2	0.83	9028	1020	BK40G10-../D06LA4	1428	2630	11700	3822	17000	150	68
1.2	1.1	9116	1030	BK50G10-../D06LA4	1398	3170	14100	5845	26000	212	96
1.1	1.0	10001	1130	BK50G10-../D06LA4	1549	3170	14100	5845	26000	212	96
1.1	2.2	10178	1150	BK60G20-../D06LA4	1618	3732	16600	7644	34000	271	123
0.9	1.7	12834	1450	BK60G20-../D06LA4	1810	3732	16600	7644	34000	271	123
0.85	1.6	13719	1550	BK60G20-../D06LA4	2010	3732	16600	7644	34000	271	123
0.7	1.3	17259	1950	BK60G20-../D06LA4	2371	3732	16600	7644	34000	271	123
0.65	2.9	17701	2000	BK70G20-../D06LA4	2578	5418	24100	11240	50000	443	201
0.6	1.1	20357	2300	BK60G20-../D06LA4	2733	3732	16600	7644	34000	271	123
0.55	2.3	21684	2450	BK70G20-../D06LA4	3041	5418	24100	11240	50000	443	201
0.47	1.95	26110	2950	BK70G20-../D06LA4	3505	5418	24100	11240	50000	443	201
0.42	1.7	29650	3350	BK70G20-../D06LA4	3894	5418	24100	11240	50000	443	201
0.36	1.4	35846	4050	BK70G20-../D06LA4	4531	5418	24100	11240	50000	443	201
0.3	1.15	44254	5000	BK70G20-../D06LA4	5436	5418	24100	11240	50000	443	201

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



BK-series bevel geared motors

Selection - bevel geared motors

0.33 HP (0.25 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
167	6.1	116	13.1	BK06-../D05LA4	9.71	198	880	-	-	21	9.5
139	5.1	140	15.8	BK06-../D05LA4	11.67	209	930	-	-	21	9.5
106	4.0	177	20	BK06-../D05LA4	15.29	229	1020	-	-	21	9.5
90	3.4	208	23.5	BK06-../D05LA4	18.00	243	1080	-	-	21	9.5
76	2.9	248	28	BK06-../D05LA4	21.54	259	1150	-	-	21	9.5
62	2.3	305	34.5	BK06-../D05LA4	26.36	277	1230	-	-	21	9.5
49	1.85	385	43.5	BK06-../D05LA4	33.33	297	1320	-	-	21	9.5
42.5	1.6	443	50	BK06-../D05LA4	38.18	310	1380	-	-	21	9.5
34	1.3	549	62	BK06-../D05LA4	47.78	337	1500	-	-	21	9.5
33.5	3.2	558	63	BK10-../D06LA4	48.96	1439	6400	-	-	51	23
30	0.97	620	70	BK06-../D05LA4	54.38	360	1600	-	-	21	9.5
26.5	2.5	708	80	BK10-../D06LA4	61.68	1574	7000	-	-	51	23
22.5	2.2	823	93	BK10-../D06LA4	72.31	1574	7000	-	-	51	23
18.5	1.6	991	112	BK10-../D06LA4	89.30	1574	7000	-	-	51	23
18.5	2.9	991	112	BK20-../D06LA4	88.12	1798	8000	2023	9000	73	33
16	1.25	1115	126	BK10-../D06LA4	102.5	1574	7000	-	-	51	23
15	2.3	1204	136	BK20-../D06LA4	108.6	1956	8700	2023	9000	73	33
13.5	0.91	1328	150	BK10Z-../D06LA4	120.3	1574	7000	-	-	53	24
13.5	2.2	1328	150	BK20Z-../D06LA4	124.2	1956	8700	2023	9000	75	34
13.5	3.0	1328	150	BK30Z-../D06LA4	123.9	2518	11200	2698	12000	90	41
11.5	0.94	1540	174	BK10Z-../D06LA4	143.2	1574	7000	-	-	53	24
11.5	1.9	1540	174	BK20Z-../D06LA4	144.5	1956	8700	2023	9000	75	34
11.5	2.6	1540	174	BK30Z-../D06LA4	145.1	2518	11200	2698	12000	90	41
9.5	0.98	1814	205	BK10Z-../D06LA4	170.6	1574	7000	-	-	53	24
9.4	1.55	1859	210	BK20Z-../D06LA4	173.4	1956	8700	2023	9000	75	34
8.8	2.0	1991	225	BK30Z-../D06LA4	184.8	2518	11200	2698	12000	90	41
8.0	0.83	2124	240	BK10Z-../D06LA4	204.7	1574	7000	-	-	53	24
7.9	1.35	2168	245	BK20Z-../D06LA4	207.5	1956	8700	2023	9000	75	34
7.7	3.1	2213	250	BK40Z-../D06LA4	211.5	2630	11700	3822	17000	141	64
7.5	1.75	2301	260	BK30Z-../D06LA4	216.5	2518	11200	2698	12000	90	41
6.6	2.7	2567	290	BK40Z-../D06LA4	246.6	2630	11700	3822	17000	141	64
6.4	1.5	2699	305	BK30Z-../D06LA4	255.3	2518	11200	2698	12000	90	41
6.3	1.05	2744	310	BK20Z-../D06LA4	259.9	1956	8700	2023	9000	75	34
5.6	2.0	3054	345	BK40Z-../D06LA4	289.8	2630	11700	3822	17000	141	64
5.5	0.89	3098	350	BK20Z-../D06LA4	298.2	1956	8700	2023	9000	75	34
5.3	1.05	3231	365	BK30Z-../D06LA4	308.3	2518	11200	2698	12000	90	41
5.0	2.6	3408	385	BK50Z-../D06LA4	328.2	3170	14100	5845	26000	203	92
4.7	1.4	3629	410	BK40Z-../D06LA4	348.7	2630	11700	3822	17000	141	64
4.6	0.9	3540	400	BK20G06-../D06LA4	359.1	1956	8700	2023	9000	84	38
4.3	0.91	3939	445	BK30Z-../D06LA4	380.7	2518	11200	2698	12000	90	41
4.0	1.8	4204	475	BK50Z-../D06LA4	414.8	3170	14100	5845	26000	203	92
3.8	1.15	4425	500	BK40Z-../D06LA4	430.0	2630	11700	3822	17000	141	64
3.5	0.94	4602	520	BK30G06-../D06LA4	471.5	2518	11200	2698	12000	97	44
3.5	2.4	4293	485	BK50G10-../D06LA4	465.1	3170	14100	5845	26000	212	96
3.4	1.7	4381	495	BK40G10-../D06LA4	487.3	2630	11700	3822	17000	150	68
3.2	2.2	4691	530	BK50G10-../D06LA4	513.4	3170	14100	5845	26000	212	96
3.0	1.5	4956	560	BK40G10-../D06LA4	540.0	2630	11700	3822	17000	150	68
2.9	1.95	5222	590	BK50G10-../D06LA4	568.6	3170	14100	5845	26000	212	96
2.5	1.25	6019	680	BK40G10-../D06LA4	660.2	2630	11700	3822	17000	150	68
2.5	1.7	6019	680	BK50G10-../D06LA4	651.7	3170	14100	5845	26000	212	96
2.3	1.55	6638	750	BK50G10-../D06LA4	722.2	3170	14100	5845	26000	212	96
2.2	1.1	6815	770	BK40G10-../D06LA4	756.7	2630	11700	3822	17000	150	68
2.2	3.2	6815	770	BK60G20-../D06LA4	752.1	3732	16600	7644	34000	271	123
2.0	0.99	7612	860	BK40G10-../D06LA4	838.4	2630	11700	3822	17000	150	68
1.9	1.25	8054	910	BK50G10-../D06LA4	859.8	3170	14100	5845	26000	212	96
1.9	2.7	8143	920	BK60G20-../D06LA4	887.8	3732	16600	7644	34000	271	123
1.7	0.84	8939	1010	BK40G10-../D06LA4	998.3	2630	11700	3822	17000	150	68
1.6	1.05	9647	1090	BK50G10-../D06LA4	1024	3170	14100	5845	26000	212	96
1.6	2.1	10532	1190	BK60G20-../D06LA4	1016	3732	16600	7644	34000	271	123
1.4	0.92	11063	1250	BK50G10-../D06LA4	1230	3170	14100	5845	26000	212	96
1.3	1.65	13276	1500	BK60G20-../D06LA4	1322	3732	16600	7644	34000	271	123
1.1	1.4	15577	1760	BK60G20-../D06LA4	1618	3732	16600	7644	34000	271	123

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

BK-series bevel geared motors

Selection - bevel geared motors

0.33 HP (0.25 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
1.0	2.9	17259	1950	BK70G20-../D06LA4	1696	5418	24100	11240	50000	443	201
0.9	1.15	19029	2150	BK60G20-../D06LA4	1810	3732	16600	7644	34000	271	123
0.85	1.1	20357	2300	BK60G20-../D06LA4	2010	3732	16600	7644	34000	271	123
0.8	2.3	21684	2450	BK70G20-../D06LA4	2040	5418	24100	11240	50000	443	201
0.65	1.85	26995	3050	BK70G20-../D06LA4	2578	5418	24100	11240	50000	443	201
0.55	1.55	32305	3650	BK70G20-../D06LA4	3041	5418	24100	11240	50000	443	201
0.47	1.3	38501	4350	BK70G20-../D06LA4	3505	5418	24100	11240	50000	443	201
0.42	1.15	43811	4950	BK70G20-../D06LA4	3894	5418	24100	11240	50000	443	201

0.4 HP (0.3 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
167	5.1	139	15.7	BK06-../D05LA4	9.71	198	880	-	-	21	9.5
139	4.2	167	18.9	BK06-../D05LA4	11.67	209	930	-	-	21	9.5
106	3.3	217	24.5	BK06-../D05LA4	15.29	229	1020	-	-	21	9.5
90	2.8	252	28.5	BK06-../D05LA4	18.00	243	1080	-	-	21	9.5
76	2.4	296	33.5	BK06-../D05LA4	21.54	259	1150	-	-	21	9.5
62	1.95	367	41.5	BK06-../D05LA4	26.36	277	1230	-	-	21	9.5
49	1.55	460	52	BK06-../D05LA4	33.33	297	1320	-	-	21	9.5
42.5	1.35	531	60	BK06-../D05LA4	38.18	310	1380	-	-	21	9.5
40	3.1	566	64	BK10-../D06LA4	40.79	1349	6000	-	-	51	23
34	1.1	655	74	BK06-../D05LA4	47.78	337	1500	-	-	21	9.5
33.5	2.6	673	76	BK10-../D06LA4	48.96	1439	6400	-	-	51	23
30	0.81	743	84	BK06-../D05LA4	54.38	360	1600	-	-	21	9.5
26.5	2.1	850	96	BK10-../D06LA4	61.68	1574	7000	-	-	51	23
22.5	1.8	991	112	BK10-../D06LA4	72.31	1574	7000	-	-	51	23
21.5	2.8	1036	117	BK20-../D06LA4	76.79	1686	7500	2023	9000	73	33
18.5	1.35	1186	134	BK10-../D06LA4	89.30	1574	7000	-	-	51	23
18.5	2.5	1186	134	BK20-../D06LA4	88.12	1798	8000	2023	9000	73	33
16	1.05	1345	152	BK10-../D06LA4	102.5	1574	7000	-	-	51	23
16	3.0	1345	152	BK30-../D06LA4	102.4	2518	11200	2698	12000	86	39
15	1.9	1452	164	BK20-../D06LA4	108.6	1956	8700	2023	9000	73	33
13.5	1.85	1593	180	BK20Z-../D06LA4	124.2	1956	8700	2023	9000	75	34
13.5	2.5	1593	180	BK30Z-../D06LA4	123.9	2518	11200	2698	12000	90	41
11.5	0.8	1814	205	BK10Z-../D06LA4	143.2	1574	7000	-	-	53	24
11.5	1.6	1814	205	BK20Z-../D06LA4	144.5	1956	8700	2023	9000	75	34
11.5	2.2	1814	205	BK30Z-../D06LA4	145.1	2518	11200	2698	12000	90	41
9.6	3.2	2168	245	BK40Z-../D06LA4	169.0	2630	11700	3822	17000	141	64
9.5	0.8	2213	250	BK10Z-../D06LA4	170.6	1574	7000	-	-	53	24
9.4	1.3	2213	250	BK20Z-../D06LA4	173.4	1956	8700	2023	9000	75	34
8.8	1.65	2390	270	BK30Z-../D06LA4	184.8	2518	11200	2698	12000	90	41
7.9	1.1	2611	295	BK20Z-../D06LA4	207.5	1956	8700	2023	9000	75	34
7.7	2.6	2699	305	BK40Z-../D06LA4	211.5	2630	11700	3822	17000	141	64
7.5	1.45	2744	310	BK30Z-../D06LA4	216.5	2518	11200	2698	12000	90	41
6.6	2.2	3098	350	BK40Z-../D06LA4	246.6	2630	11700	3822	17000	141	64
6.4	1.25	3231	365	BK30Z-../D06LA4	255.3	2518	11200	2698	12000	90	41
6.3	0.89	3275	370	BK20Z-../D06LA4	259.9	1956	8700	2023	9000	75	34
6.2	2.8	3275	370	BK50Z-../D06LA4	264.5	3170	14100	5845	26000	203	92
5.6	1.65	3629	410	BK40Z-../D06LA4	289.8	2630	11700	3822	17000	141	64
5.3	0.88	3894	440	BK30Z-../D06LA4	308.3	2518	11200	2698	12000	90	41
5.0	2.2	4071	460	BK50Z-../D06LA4	328.2	3170	14100	5845	26000	203	92
4.7	1.2	4337	490	BK40Z-../D06LA4	348.7	2630	11700	3822	17000	141	64
4.0	1.5	5045	570	BK50Z-../D06LA4	414.8	3170	14100	5845	26000	203	92
3.8	0.96	5310	600	BK40Z-../D06LA4	430.0	2630	11700	3822	17000	141	64
3.5	1.95	5222	590	BK50G10-../D06LA4	465.1	3170	14100	5845	26000	212	96
3.4	1.4	5310	600	BK40G10-../D06LA4	487.3	2630	11700	3822	17000	150	68
3.2	1.75	5753	650	BK50G10-../D06LA4	513.4	3170	14100	5845	26000	212	96

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



BK-series bevel geared motors

Selection - bevel geared motors

0.4 HP (0.3 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
3.0	1.25	6019	680	BK40G10-../D06LA4	540.0	2630	11700	3822	17000	150	68
2.9	1.6	6373	720	BK50G10-../D06LA4	568.6	3170	14100	5845	26000	212	96
2.7	3.1	7081	800	BK60G20-../D06LA4	621.5	3732	16600	7644	34000	271	123
2.5	1.0	7346	830	BK40G10-../D06LA4	660.2	2630	11700	3822	17000	150	68
2.5	1.4	7346	830	BK50G10-../D06LA4	651.7	3170	14100	5845	26000	212	96
2.3	1.25	8054	910	BK50G10-../D06LA4	722.2	3170	14100	5845	26000	212	96
2.2	0.9	8320	940	BK40G10-../D06LA4	756.7	2630	11700	3822	17000	150	68
2.2	2.6	8674	980	BK60G20-../D06LA4	752.1	3732	16600	7644	34000	271	123
2.0	0.82	9205	1040	BK40G10-../D06LA4	838.4	2630	11700	3822	17000	150	68
1.9	1.05	9824	1110	BK50G10-../D06LA4	859.8	3170	14100	5845	26000	212	96
1.9	2.1	10355	1170	BK60G20-../D06LA4	887.8	3732	16600	7644	34000	271	123
1.6	0.87	11683	1320	BK50G10-../D06LA4	1024	3170	14100	5845	26000	212	96
1.6	1.7	13188	1490	BK60G20-../D06LA4	1016	3732	16600	7644	34000	271	123
1.3	1.35	16462	1860	BK60G20-../D06LA4	1322	3732	16600	7644	34000	271	123
1.3	3.1	16108	1820	BK70G20-../D06LA4	1280	5418	24100	11240	50000	443	201
1.2	2.9	17259	1950	BK70G20-../D06LA4	1457	5418	24100	11240	50000	443	201
1.1	1.15	19029	2150	BK60G20-../D06LA4	1618	3732	16600	7644	34000	271	123
1.0	2.4	21242	2400	BK70G20-../D06LA4	1696	5418	24100	11240	50000	443	201
0.8	1.85	26995	3050	BK70G20-../D06LA4	2040	5418	24100	11240	50000	443	201
0.65	1.5	33633	3800	BK70G20-../D06LA4	2578	5418	24100	11240	50000	443	201
0.55	1.25	40271	4550	BK70G20-../D06LA4	3041	5418	24100	11240	50000	443	201
0.47	1.05	47794	5400	BK70G20-../D06LA4	3505	5418	24100	11240	50000	443	201

8

0.5 HP (0.37 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
167	4.1	172	19.4	BK06-../D07LA4	9.71	198	880	-	-	31	14
139	3.5	204	23	BK06-../D07LA4	11.67	209	930	-	-	31	14
106	2.7	266	30	BK06-../D07LA4	15.29	229	1020	-	-	31	14
90	2.3	310	35	BK06-../D07LA4	18.00	243	1080	-	-	31	14
76	1.95	367	41.5	BK06-../D07LA4	21.54	259	1150	-	-	31	14
62	1.55	451	51	BK06-../D07LA4	26.36	277	1230	-	-	31	14
49	1.25	566	64	BK06-../D07LA4	33.33	297	1320	-	-	31	14
47.5	3.0	584	66	BK10-../D07LA4	34.25	1259	5600	-	-	57	26
42.5	1.1	655	74	BK06-../D07LA4	38.18	310	1380	-	-	31	14
40	2.5	699	79	BK10-../D07LA4	40.79	1349	6000	-	-	57	26
34	0.87	814	92	BK06-../D07LA4	47.78	337	1500	-	-	31	14
33.5	2.2	823	93	BK10-../D07LA4	48.96	1439	6400	-	-	57	26
26.5	1.7	1044	118	BK10-../D07LA4	61.68	1574	7000	-	-	57	26
26.5	2.8	1044	118	BK20-../D07LA4	61.30	1461	6500	2023	9000	77	35
22.5	1.45	1221	138	BK10-../D07LA4	72.31	1574	7000	-	-	57	26
21.5	2.3	1275	144	BK20-../D07LA4	76.79	1686	7500	2023	9000	77	35
18.5	1.05	1469	166	BK10-../D07LA4	89.30	1574	7000	-	-	57	26
18.5	2.0	1469	166	BK20-../D07LA4	88.12	1798	8000	2023	9000	77	35
18.5	2.7	1452	164	BK30-../D07LA4	88.38	2383	10600	2698	12000	90	41
16	0.84	1655	187	BK10-../D07LA4	102.5	1574	7000	-	-	57	26
16	2.4	1655	187	BK30-../D07LA4	102.4	2518	11200	2698	12000	90	41
15	1.6	1770	200	BK20-../D07LA4	108.6	1956	8700	2023	9000	77	35
13.5	1.5	1947	220	BK20Z-../D07LA4	124.2	1956	8700	2023	9000	82	37
13.5	2.0	1947	220	BK30Z-../D07LA4	123.9	2518	11200	2698	12000	97	44
11.5	1.3	2257	255	BK20Z-../D07LA4	144.5	1956	8700	2023	9000	82	37
11.5	1.75	2257	255	BK30Z-../D07LA4	145.1	2518	11200	2698	12000	97	44
11.5	3.1	2257	255	BK40Z-../D07LA4	143.0	2630	11700	3822	17000	146	66
9.6	2.6	2699	305	BK40Z-../D07LA4	169.0	2630	11700	3822	17000	146	66
9.4	1.05	2744	310	BK20Z-../D07LA4	173.4	1956	8700	2023	9000	82	37
8.8	1.35	2921	330	BK30Z-../D07LA4	184.8	2518	11200	2698	12000	97	44
7.9	0.9	3231	365	BK20Z-../D07LA4	207.5	1956	8700	2023	9000	82	37

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

BK-series bevel geared motors

Selection - bevel geared motors

0.5 HP (0.37 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
7.9	2.9	3231	365	BK50Z-../D07LA4	206.8	3170	14100	5845	26000	209	95
7.7	2.1	3319	375	BK40Z-../D07LA4	211.5	2630	11700	3822	17000	146	66
7.5	1.15	3408	385	BK30Z-../D07LA4	216.5	2518	11200	2698	12000	97	44
6.6	1.8	3806	430	BK40Z-../D07LA4	246.6	2630	11700	3822	17000	146	66
6.4	1.0	3983	450	BK30Z-../D07LA4	255.3	2518	11200	2698	12000	97	44
6.2	2.3	4071	460	BK50Z-../D07LA4	264.5	3170	14100	5845	26000	209	95
5.6	1.35	4514	510	BK40Z-../D07LA4	289.8	2630	11700	3822	17000	146	66
5.0	1.75	5045	570	BK50Z-../D07LA4	328.2	3170	14100	5845	26000	209	95
4.7	0.97	5310	600	BK40Z-../D07LA4	348.7	2630	11700	3822	17000	146	66
4.0	1.2	6196	700	BK50Z-../D07LA4	414.8	3170	14100	5845	26000	209	95
3.5	1.55	6550	740	BK50G10-../D07LA4	465.1	3170	14100	5845	26000	218	99
3.4	1.1	6727	760	BK40G10-../D07LA4	487.3	2630	11700	3822	17000	157	71
3.2	1.4	7169	810	BK50G10-../D07LA4	513.4	3170	14100	5845	26000	218	99
3.0	0.99	7612	860	BK40G10-../D07LA4	540.0	2630	11700	3822	17000	157	71
2.9	1.3	7966	900	BK50G10-../D07LA4	568.6	3170	14100	5845	26000	218	99
2.7	2.4	9205	1040	BK60G20-../D07LA4	621.5	3732	16600	7644	34000	276	125
2.5	0.82	9205	1040	BK40G10-../D07LA4	660.2	2630	11700	3822	17000	157	71
2.5	1.1	9293	1050	BK50G10-../D07LA4	651.7	3170	14100	5845	26000	218	99
2.3	1.0	10090	1140	BK50G10-../D07LA4	722.2	3170	14100	5845	26000	218	99
2.2	1.95	11417	1290	BK60G20-../D07LA4	752.1	3732	16600	7644	34000	276	125
1.9	0.83	12214	1380	BK50G10-../D07LA4	859.8	3170	14100	5845	26000	218	99
1.9	1.65	13453	1520	BK60G20-../D07LA4	887.8	3732	16600	7644	34000	276	125
1.6	1.3	16816	1900	BK60G20-../D07LA4	1016	3732	16600	7644	34000	276	125
1.5	3.0	16993	1920	BK70G20-../D07LA4	1139	5418	24100	11240	50000	450	204
1.3	1.05	20799	2350	BK60G20-../D07LA4	1322	3732	16600	7644	34000	276	125
1.3	2.5	20357	2300	BK70G20-../D07LA4	1280	5418	24100	11240	50000	450	204
1.2	2.3	22127	2500	BK70G20-../D07LA4	1457	5418	24100	11240	50000	450	204
1.1	0.89	24782	2800	BK60G20-../D07LA4	1618	3732	16600	7644	34000	276	125
1.0	1.85	27437	3100	BK70G20-../D07LA4	1696	5418	24100	11240	50000	450	204
0.8	1.45	34518	3900	BK70G20-../D07LA4	2040	5418	24100	11240	50000	450	204
0.65	1.2	42484	4800	BK70G20-../D07LA4	2578	5418	24100	11240	50000	450	204

8

0.75 HP (0.55 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
235	3.6	181	20.5	BK06-../D08MA4	7.25	178	790	-	-	33	15
174	2.9	243	27.5	BK06-../D08MA4	9.71	198	880	-	-	33	15
144	2.4	296	33.5	BK06-../D08MA4	11.67	209	930	-	-	33	15
110	1.85	381	43	BK06-../D08MA4	15.29	229	1020	-	-	33	15
100	2.9	416	47	BK10-../D08MA4	16.92	832	3700	-	-	60	27
94	1.6	443	50	BK06-../D08MA4	18.00	243	1080	-	-	33	15
78	1.35	531	60	BK06-../D08MA4	21.54	259	1150	-	-	33	15
75	3.2	558	63	BK10-../D08MA4	22.65	1045	4650	-	-	60	27
64	1.1	646	73	BK06-../D08MA4	26.36	277	1230	-	-	33	15
59	2.5	708	80	BK10-../D08MA4	28.76	1169	5200	-	-	60	27
51	0.87	814	92	BK06-../D08MA4	33.33	297	1320	-	-	33	15
49.5	2.1	841	95	BK10-../D08MA4	34.25	1259	5600	-	-	60	27
46	3.2	903	102	BK20-../D08MA4	36.69	1214	5400	2023	9000	79	36
41.5	1.75	1000	113	BK10-../D08MA4	40.79	1349	6000	-	-	60	27
39.5	2.8	1053	119	BK20-../D08MA4	42.70	1304	5800	2023	9000	79	36
34.5	1.5	1195	135	BK10-../D08MA4	48.96	1439	6400	-	-	60	27
33.5	3.3	1213	137	BK30-../D08MA4	50.27	1866	8300	2698	12000	93	42
33	2.3	1248	141	BK20-../D08MA4	51.22	1416	6300	2023	9000	79	36
28.5	2.8	1434	162	BK30-../D08MA4	59.27	2001	8900	2698	12000	93	42
27.5	1.2	1496	169	BK10-../D08MA4	61.68	1574	7000	-	-	60	27
27.5	1.95	1496	169	BK20-../D08MA4	61.30	1461	6500	2023	9000	79	36
23.5	1.0	1735	196	BK10-../D08MA4	72.31	1574	7000	-	-	60	27

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

BK-series bevel geared motors

Selection - bevel geared motors

0.75 HP (0.55 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
23.5	2.3	1717	194	BK30-../D08MA4	71.56	2181	9700	2698	12000	93	42
22	1.55	1859	210	BK20-../D08MA4	76.79	1686	7500	2023	9000	79	36
19.5	1.45	2036	230	BK20-../D08MA4	88.12	1798	8000	2023	9000	79	36
19.5	1.95	2036	230	BK30-../D08MA4	88.38	2383	10600	2698	12000	93	42
16.5	1.65	2390	270	BK30-../D08MA4	102.4	2518	11200	2698	12000	93	42
16.5	2.9	2390	270	BK40-../D08MA4	104.0	2630	11700	3822	17000	139	63
15.5	1.1	2567	290	BK20-../D08MA4	108.6	1956	8700	2023	9000	79	36
14.5	2.6	2699	305	BK40Z-../D08MA4	118.2	2630	11700	3822	17000	148	67
14	1.05	2788	315	BK20Z-../D08MA4	124.2	1956	8700	2023	9000	84	38
14	1.45	2788	315	BK30Z-../D08MA4	123.9	2518	11200	2698	12000	99	45
12	0.9	3231	365	BK20Z-../D08MA4	144.5	1956	8700	2023	9000	84	38
12	1.25	3231	365	BK30Z-../D08MA4	145.1	2518	11200	2698	12000	99	45
12	2.1	3231	365	BK40Z-../D08MA4	143.0	2630	11700	3822	17000	148	67
11	2.7	3496	395	BK50Z-../D08MA4	153.3	3170	14100	5845	26000	212	96
10	1.8	3850	435	BK40Z-../D08MA4	169.0	2630	11700	3822	17000	148	67
9.1	0.95	4204	475	BK30Z-../D08MA4	184.8	2518	11200	2698	12000	99	45
8.2	2.0	4602	520	BK50Z-../D08MA4	206.8	3170	14100	5845	26000	212	96
8.0	1.45	4691	530	BK40Z-../D08MA4	211.5	2630	11700	3822	17000	148	67
7.8	0.82	4868	550	BK30Z-../D08MA4	216.5	2518	11200	2698	12000	99	45
7.1	3.2	6461	730	BK60Z-../D08MA4	239.7	3732	16600	7644	34000	262	119
6.9	1.3	5399	610	BK40Z-../D08MA4	246.6	2630	11700	3822	17000	148	67
6.4	1.6	5841	660	BK50Z-../D08MA4	264.5	3170	14100	5845	26000	212	96
6.3	2.8	7346	830	BK60Z-../D08MA4	268.2	3732	16600	7644	34000	262	119
5.8	0.94	6461	730	BK40Z-../D08MA4	289.8	2630	11700	3822	17000	148	67
5.3	2.3	8762	990	BK60Z-../D08MA4	317.7	3732	16600	7644	34000	262	119
5.2	1.25	7169	810	BK50Z-../D08MA4	328.2	3170	14100	5845	26000	212	96
4.8	2.1	9647	1090	BK60Z-../D08MA4	355.5	3732	16600	7644	34000	262	119
4.1	0.83	9028	1020	BK50Z-../D08MA4	414.8	3170	14100	5845	26000	212	96
4.1	1.8	11329	1280	BK60Z-../D08MA4	411.5	3732	16600	7644	34000	262	119
3.7	1.05	9559	1080	BK50G10-../D08MA4	465.1	3170	14100	5845	26000	220	100
3.7	1.65	12480	1410	BK60Z-../D08MA4	460.4	3732	16600	7644	34000	262	119
3.4	1.5	13630	1540	BK60Z-../D08MA4	498.0	3732	16600	7644	34000	262	119
3.3	0.95	10709	1210	BK50G10-../D08MA4	513.4	3170	14100	5845	26000	220	100
3.1	1.35	14958	1690	BK60Z-../D08MA4	557.2	3732	16600	7644	34000	262	119
3.0	0.86	11771	1330	BK50G10-../D08MA4	568.6	3170	14100	5845	26000	220	100
3.0	3.0	15489	1750	BK70Z-../D08MA4	570.8	5418	24100	11240	50000	456	207
2.8	1.55	14250	1610	BK60G20-../D08MA4	621.5	3732	16600	7644	34000	278	126
2.7	2.7	17170	1940	BK70Z-../D08MA4	644.9	5418	24100	11240	50000	456	207
2.3	1.3	17347	1960	BK60G20-../D08MA4	752.1	3732	16600	7644	34000	278	126
2.3	2.3	19914	2250	BK70Z-../D08MA4	733.6	5418	24100	11240	50000	456	207
2.0	2.5	19914	2250	BK70G20-../D08MA4	847.7	5418	24100	11240	50000	452	205
1.9	1.05	21242	2400	BK60G20-../D08MA4	887.8	3732	16600	7644	34000	278	126
1.8	2.3	22127	2500	BK70G20-../D08MA4	964.6	5418	24100	11240	50000	452	205
1.7	0.91	24340	2750	BK60G20-../D08MA4	1016	3732	16600	7644	34000	278	126
1.5	1.85	26995	3050	BK70G20-../D08MA4	1139	5418	24100	11240	50000	452	205
1.4	1.7	29650	3350	BK70G20-../D08MA4	1280	5418	24100	11240	50000	452	205
1.2	1.45	34518	3900	BK70G20-../D08MA4	1457	5418	24100	11240	50000	452	205
1.1	3.2	31420	3550	BK80G40-../D08MA4	1583	6744	30000	16861	75000	765	347
1.0	1.2	42484	4800	BK70G20-../D08MA4	1696	5418	24100	11240	50000	452	205
0.95	2.7	37173	4200	BK80G40-../D08MA4	1775	6744	30000	16861	75000	765	347
0.85	1.0	49564	5600	BK70G20-../D08MA4	2040	5418	24100	11240	50000	452	205
0.8	2.3	45139	5100	BK80G40-../D08MA4	2205	6744	30000	16861	75000	765	347
0.7	1.9	53104	6000	BK80G40-../D08MA4	2449	6744	30000	16861	75000	765	347
0.65	3.1	52219	5900	BK90G50-../D08MA4	2764	11106	49400	26977	120000	1367	620
0.6	1.6	63725	7200	BK80G40-../D08MA4	2811	6744	30000	16861	75000	765	347
0.55	1.45	70806	8000	BK80G40-../D08MA4	3120	6744	30000	16861	75000	765	347
0.55	2.5	65496	7400	BK90G50-../D08MA4	3065	11106	49400	26977	120000	1367	620
0.46	2.0	82312	9300	BK90G50-../D08MA4	3672	11106	49400	26977	120000	1367	620
0.45	1.15	90278	10200	BK80G40-../D08MA4	3776	6744	30000	16861	75000	765	347
0.42	1.8	91163	10300	BK90G50-../D08MA4	4070	11106	49400	26977	120000	1367	620
0.34	1.4	117715	13300	BK90G50-../D08MA4	4952	11106	49400	26977	120000	1367	620
0.31	1.25	130991	14800	BK90G50-../D08MA4	5491	11106	49400	26977	120000	1367	620

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

BK-series bevel geared motors

Selection - bevel geared motors

0.75 HP (0.55 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
0.27	1.05	153118	17300	BK90G50-.../D08MA4	6335	11106	49400	26977	120000	1367	620

1 HP (0.75 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
240	2.7	239	27	BK06-.../DPE08XB4	7.25	180	800	-	-	40	18
186	3.3	310	35	BK10-.../DPE08XB4	9.40	607	2700	-	-	66	30
180	2.2	323	36.5	BK06-.../DPE08XB4	9.71	198	880	-	-	40	18
150	1.85	385	43.5	BK06-.../DPE08XB4	11.67	209	930	-	-	40	18
146	2.6	398	45	BK10-.../DPE08XB4	11.93	697	3100	-	-	66	30
114	1.4	504	57	BK06-.../DPE08XB4	15.29	229	1020	-	-	40	18
103	2.2	549	62	BK10-.../DPE08XB4	16.92	832	3700	-	-	66	30
97	1.2	584	66	BK06-.../DPE08XB4	18.00	243	1080	-	-	40	18
94	2.9	602	68	BK10-.../DPE08XB4	18.52	967	4300	-	-	66	30
81	1.0	699	79	BK06-.../DPE08XB4	21.54	259	1150	-	-	40	18
77	2.4	735	83	BK10-.../DPE08XB4	22.65	1045	4650	-	-	66	30
67	0.83	850	96	BK06-.../DPE08XB4	26.36	277	1230	-	-	40	18
61	1.9	929	105	BK10-.../DPE08XB4	28.76	1169	5200	-	-	66	30
61	3.1	929	105	BK20-.../DPE08XB4	28.66	1090	4850	2023	9000	86	39
51	1.6	1115	126	BK10-.../DPE08XB4	34.25	1259	5600	-	-	66	30
47.5	2.4	1195	135	BK20-.../DPE08XB4	36.69	1214	5400	2023	9000	86	39
43	1.35	1319	149	BK10-.../DPE08XB4	40.79	1349	6000	-	-	66	30
41	2.1	1390	157	BK20-.../DPE08XB4	42.70	1304	5800	2023	9000	86	39
41	2.9	1372	155	BK30-.../DPE08XB4	42.89	1754	7800	2698	12000	99	45
36	1.15	1567	177	BK10-.../DPE08XB4	48.96	1439	6400	-	-	66	30
35	2.5	1593	180	BK30-.../DPE08XB4	50.27	1866	8300	2698	12000	99	45
34	1.75	1655	187	BK20-.../DPE08XB4	51.22	1416	6300	2023	9000	86	39
29.5	2.1	1859	210	BK30-.../DPE08XB4	59.27	2001	8900	2698	12000	99	45
28.5	0.91	1947	220	BK10-.../DPE08XB4	61.68	1574	7000	-	-	66	30
28.5	1.5	1947	220	BK20-.../DPE08XB4	61.30	1461	6500	2023	9000	86	39
25	3.2	2168	245	BK40-.../DPE08XB4	70.11	2203	9800	3822	17000	146	66
24.5	1.8	2213	250	BK30-.../DPE08XB4	71.56	2181	9700	2698	12000	99	45
23	1.2	2390	270	BK20-.../DPE08XB4	76.79	1686	7500	2023	9000	86	39
21	2.6	2611	295	BK40-.../DPE08XB4	84.36	2405	10700	3822	17000	146	66
20	1.05	2744	310	BK20-.../DPE08XB4	88.12	1798	8000	2023	9000	86	39
20	1.5	2699	305	BK30-.../DPE08XB4	88.38	2383	10600	2698	12000	99	45
18.5	3.2	2921	330	BK50-.../DPE08XB4	95.29	3170	14100	5845	26000	207	94
17	1.25	3142	355	BK30-.../DPE08XB4	102.4	2518	11200	2698	12000	99	45
17	2.2	3142	355	BK40-.../DPE08XB4	104.0	2630	11700	3822	17000	146	66
16.5	0.85	3275	370	BK20-.../DPE08XB4	108.6	1956	8700	2023	9000	86	39
15.5	2.7	3452	390	BK50Z-.../DPE08XB4	115.4	3170	14100	5845	26000	218	99
15	1.95	3585	405	BK40Z-.../DPE08XB4	118.2	2630	11700	3822	17000	154	70
14.5	0.8	3673	415	BK20Z-.../DPE08XB4	124.2	1956	8700	2023	9000	90	41
14.5	1.1	3673	415	BK30Z-.../DPE08XB4	123.9	2518	11200	2698	12000	106	48
12.5	1.65	4248	480	BK40Z-.../DPE08XB4	143.0	2630	11700	3822	17000	154	70
12	0.9	4425	500	BK30Z-.../DPE08XB4	145.1	2518	11200	2698	12000	106	48
11.5	2.1	4514	510	BK50Z-.../DPE08XB4	153.3	3170	14100	5845	26000	218	99
10.5	1.4	4956	560	BK40Z-.../DPE08XB4	169.0	2630	11700	3822	17000	154	70
9.5	3.1	6638	750	BK60Z-.../DPE08XB4	183.2	3732	16600	7644	34000	269	122
8.5	1.5	6107	690	BK50Z-.../DPE08XB4	206.8	3170	14100	5845	26000	218	99
8.5	2.7	7435	840	BK60Z-.../DPE08XB4	205.0	3732	16600	7644	34000	269	122
8.3	1.1	6196	700	BK40Z-.../DPE08XB4	211.5	2630	11700	3822	17000	154	70
7.3	2.3	8674	980	BK60Z-.../DPE08XB4	239.7	3732	16600	7644	34000	269	122
7.1	0.96	7169	810	BK40Z-.../DPE08XB4	246.6	2630	11700	3822	17000	154	70
6.6	1.2	7700	870	BK50Z-.../DPE08XB4	264.5	3170	14100	5845	26000	218	99
6.5	2.1	9736	1100	BK60Z-.../DPE08XB4	268.2	3732	16600	7644	34000	269	122
5.5	1.75	11506	1300	BK60Z-.../DPE08XB4	317.7	3732	16600	7644	34000	269	122

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



BK-series bevel geared motors

Selection - bevel geared motors

1 HP (0.75 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
5.4	0.94	9470	1070	BK50Z-../DPE08XB4	328.2	3170	14100	5845	26000	218	99
5.1	1.0	1947*	220*	BK10G06-../DPE08XB4	343.2	1574	7000	-	-	84	38
4.9	1.0	3186*	360*	BK20G06-../DPE08XB4	359.1	1956	8700	2023	9000	104	47
4.9	1.6	12922	1460	BK60Z-../DPE08XB4	355.5	3732	16600	7644	34000	269	122
4.3	1.0	1947*	220*	BK10G06-../DPE08XB4	410.8	1574	7000	-	-	84	38
4.3	1.4	14692	1660	BK60Z-../DPE08XB4	411.5	3732	16600	7644	34000	269	122
4.1	1.0	3186*	360*	BK20G06-../DPE08XB4	429.7	1956	8700	2023	9000	104	47
4.1	3.0	15400	1740	BK70Z-../DPE08XB4	432.1	5418	24100	11240	50000	463	210
3.8	1.0	1947*	220*	BK10G06-../DPE08XB4	459.2	1574	7000	-	-	84	38
3.8	1.0	10178*	1150*	BK50G10-../DPE08XB4	465.1	3170	14100	24954	111000	227	103
3.8	1.2	16639	1880	BK60Z-../DPE08XB4	460.4	3732	16600	7644	34000	269	122
3.7	1.0	3186*	360*	BK20G06-../DPE08XB4	480.4	1956	8700	2023	9000	104	47
3.7	1.0	4337*	490*	BK30G06-../DPE08XB4	471.5	2518	11200	2698	12000	119	54
3.6	1.0	7523*	850*	BK40G10-../DPE08XB4	487.3	2630	11700	3822	17000	165	75
3.5	1.0	1947*	220*	BK10G06-../DPE08XB4	501.4	1574	7000	-	-	84	38
3.5	1.15	17701	2000	BK60Z-../DPE08XB4	498.0	3732	16600	7644	34000	269	122
3.5	2.6	17701	2000	BK70Z-../DPE08XB4	501.8	5418	24100	11240	50000	463	210
3.4	1.0	3186*	360*	BK20G06-../DPE08XB4	524.5	1956	8700	2023	9000	104	47
3.4	1.0	10178*	1150*	BK50G10-../DPE08XB4	513.4	3170	14100	24954	111000	227	103
3.3	1.0	7523*	850*	BK40G10-../DPE08XB4	540.0	2630	11700	3822	17000	165	75
3.2	1.0	1947*	220*	BK10G06-../DPE08XB4	552.3	1574	7000	-	-	84	38
3.2	1.05	19472	2200	BK60Z-../DPE08XB4	557.2	3732	16600	7644	34000	269	122
3.1	1.0	4337*	490*	BK30G06-../DPE08XB4	567.0	2518	11200	2698	12000	119	54
3.1	1.0	10178*	1150*	BK50G10-../DPE08XB4	568.6	3170	14100	24954	111000	227	103
3.1	2.3	20357	2300	BK70Z-../DPE08XB4	570.8	5418	24100	11240	50000	463	210
2.8	1.0	1947*	220*	BK10G06-../DPE08XB4	635.5	1574	7000	-	-	84	38
2.8	1.0	3186*	360*	BK20G06-../DPE08XB4	630.0	1956	8700	2023	9000	104	47
2.8	1.1	19914	2250	BK60G20-../DPE08XB4	621.5	3732	16600	7644	34000	284	129
2.7	1.0	4337*	490*	BK30G06-../DPE08XB4	652.5	2518	11200	2698	12000	119	54
2.7	1.0	7523*	850*	BK40G10-../DPE08XB4	660.2	2630	11700	3822	17000	165	75
2.7	1.0	10178*	1150*	BK50G10-../DPE08XB4	651.7	3170	14100	24954	111000	227	103
2.7	1.95	23454	2650	BK70Z-../DPE08XB4	644.9	5418	24100	11240	50000	463	210
2.5	1.0	10178*	1150*	BK50G10-../DPE08XB4	722.2	3170	14100	24954	111000	227	103
2.4	1.0	4337*	490*	BK30G06-../DPE08XB4	743.0	2518	11200	2698	12000	119	54
2.4	0.94	23454	2650	BK60G20-../DPE08XB4	752.1	3732	16600	7644	34000	284	129
2.4	1.75	26110	2950	BK70Z-../DPE08XB4	733.6	5418	24100	11240	50000	463	210
2.3	1.0	1947*	220*	BK10G06-../DPE08XB4	789.7	1574	7000	-	-	84	38
2.3	1.0	3186*	360*	BK20G06-../DPE08XB4	757.0	1956	8700	2023	9000	104	47
2.3	1.0	7523*	850*	BK40G10-../DPE08XB4	756.7	2630	11700	3822	17000	165	75
2.2	1.0	4337*	490*	BK30G06-../DPE08XB4	810.9	2518	11200	2698	12000	119	54
2.1	1.0	7523*	850*	BK40G10-../DPE08XB4	838.4	2630	11700	3822	17000	165	75
2.1	1.0	10178*	1150*	BK50G10-../DPE08XB4	859.8	3170	14100	24954	111000	227	103
2.1	1.85	26995	3050	BK70G20-../DPE08XB4	847.7	5418	24100	11240	50000	459	208
2.0	1.0	3186*	360*	BK20G06-../DPE08XB4	891.2	1956	8700	2023	9000	104	47
2.0	1.0	22127*	2500*	BK60G20-../DPE08XB4	887.8	3732	16600	7644	34000	284	129
1.9	1.0	1947*	220*	BK10G06-../DPE08XB4	929.3	1574	7000	-	-	84	38
1.9	1.0	4337*	490*	BK30G06-../DPE08XB4	954.1	2518	11200	2698	12000	119	54
1.9	1.7	29650	3350	BK70G20-../DPE08XB4	964.6	5418	24100	11240	50000	459	208
1.8	1.0	7523*	850*	BK40G10-../DPE08XB4	998.3	2630	11700	3822	17000	165	75
1.8	1.0	22127*	2500*	BK60G20-../DPE08XB4	1016	3732	16600	7644	34000	284	129
1.7	1.0	3186*	360*	BK20G06-../DPE08XB4	1066	1956	8700	2023	9000	104	47
1.7	1.0	10178*	1150*	BK50G10-../DPE08XB4	1024	3170	14100	24954	111000	227	103
1.6	1.0	1947*	220*	BK10G06-../DPE08XB4	1112	1574	7000	-	-	84	38
1.6	1.0	4337*	490*	BK30G06-../DPE08XB4	1142	2518	11200	2698	12000	119	54
1.6	1.45	35403	4000	BK70G20-../DPE08XB4	1139	5418	24100	11240	50000	459	208
1.5	1.0	7523*	850*	BK40G10-../DPE08XB4	1189	2630	11700	3822	17000	165	75
1.5	1.0	10178*	1150*	BK50G10-../DPE08XB4	1230	3170	14100	24954	111000	227	103
1.4	1.0	3186*	360*	BK20G06-../DPE08XB4	1305	1956	8700	2023	9000	104	47
1.4	1.0	4337*	490*	BK30G06-../DPE08XB4	1281	2518	11200	2698	12000	119	54
1.4	1.0	22127*	2500*	BK60G20-../DPE08XB4	1322	3732	16600	7644	34000	284	129
1.4	1.2	41599	4700	BK70G20-../DPE08XB4	1280	5418	24100	11240	50000	459	208
1.4	2.8	36288	4100	BK80G40-../DPE08XB4	1307	6744	30000	16861	75000	772	350

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

BK-series bevel geared motors

Selection - bevel geared motors

1 HP (0.75 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
1.3	1.0	1947*	220*	BK10G06-../DPE08XB4	1361	1574	7000	-	-	84	38
1.3	1.0	3186*	360*	BK20G06-../DPE08XB4	1424	1956	8700	2023	9000	104	47
1.3	1.0	7523*	850*	BK40G10-../DPE08XB4	1428	2630	11700	3822	17000	165	75
1.3	1.0	10178*	1150*	BK50G10-../DPE08XB4	1398	3170	14100	24954	111000	227	103
1.3	2.7	38058	4300	BK80G40-../DPE08XB4	1425	6744	30000	16861	75000	772	350
1.2	1.0	1947*	220*	BK10G06-../DPE08XB4	1577	1574	7000	-	-	84	38
1.2	1.0	10178*	1150*	BK50G10-../DPE08XB4	1549	3170	14100	24954	111000	227	103
1.2	1.05	48679	5500	BK70G20-../DPE08XB4	1457	5418	24100	11240	50000	459	208
1.1	1.0	3186*	360*	BK20G06-../DPE08XB4	1650	1956	8700	2023	9000	104	47
1.1	1.0	4337*	490*	BK30G06-../DPE08XB4	1620	2518	11200	2698	12000	119	54
1.1	1.0	22127*	2500*	BK60G20-../DPE08XB4	1618	3732	16600	7644	34000	284	129
1.1	0.95	53104	6000	BK70G20-../DPE08XB4	1696	5418	24100	11240	50000	459	208
1.1	2.2	46024	5200	BK80G40-../DPE08XB4	1583	6744	30000	16861	75000	772	350
1.0	1.0	4337*	490*	BK30G06-../DPE08XB4	1767	2518	11200	2698	12000	119	54
1.0	1.0	7523*	850*	BK40G10-../DPE08XB4	1798	2630	11700	3822	17000	165	75
1.0	1.0	10178*	1150*	BK50G10-../DPE08XB4	1816	3170	14100	24954	111000	227	103
1.0	1.0	22127*	2500*	BK60G20-../DPE08XB4	1810	3732	16600	7644	34000	284	129
1.0	2.0	51334	5800	BK80G40-../DPE08XB4	1775	6744	30000	16861	75000	772	350
0.9	1.0	1947*	220*	BK10G06-../DPE08XB4	1971	1574	7000	-	-	84	38
0.9	1.0	4337*	490*	BK30G06-../DPE08XB4	2024	2518	11200	2698	12000	119	54
0.9	1.0	10178*	1150*	BK50G10-../DPE08XB4	2024	3170	14100	24954	111000	227	103
0.9	1.0	22127*	2500*	BK60G20-../DPE08XB4	2010	3732	16600	7644	34000	284	129
0.9	1.0	50449*	5700*	BK70G20-../DPE08XB4	2040	5418	24100	11240	50000	459	208
0.9	3.1	53104	6000	BK90G50-../DPE08XB4	2016	11106	49400	26977	120000	1371	622
0.85	1.0	3186*	360*	BK20G06-../DPE08XB4	2062	1956	8700	2023	9000	104	47
0.85	1.0	7523*	850*	BK40G10-../DPE08XB4	2108	2630	11700	3822	17000	165	75
0.8	1.0	1947*	220*	BK10G06-../DPE08XB4	2261	1574	7000	-	-	84	38
0.8	1.55	66381	7500	BK80G40-../DPE08XB4	2205	6744	30000	16861	75000	772	350
0.75	1.0	1947*	220*	BK10G06-../DPE08XB4	2467	1574	7000	-	-	84	38
0.75	1.0	3186*	360*	BK20G06-../DPE08XB4	2366	1956	8700	2023	9000	104	47
0.75	1.0	7523*	850*	BK40G10-../DPE08XB4	2350	2630	11700	3822	17000	165	75
0.75	1.0	10178*	1150*	BK50G10-../DPE08XB4	2450	3170	14100	24954	111000	227	103
0.75	1.0	22127*	2500*	BK60G20-../DPE08XB4	2371	3732	16600	7644	34000	284	129
0.75	1.4	71691	8100	BK80G40-../DPE08XB4	2449	6744	30000	16861	75000	772	350
0.7	1.0	3186*	360*	BK20G06-../DPE08XB4	2580	1956	8700	2023	9000	104	47
0.7	1.0	4337*	490*	BK30G06-../DPE08XB4	2533	2518	11200	2698	12000	119	54
0.7	1.0	7523*	850*	BK40G10-../DPE08XB4	2604	2630	11700	3822	17000	165	75
0.7	1.0	50449*	5700*	BK70G20-../DPE08XB4	2578	5418	24100	11240	50000	459	208
0.65	1.0	1947*	220*	BK10G06-../DPE08XB4	2849	1574	7000	-	-	84	38
0.65	1.0	3186*	360*	BK20G06-../DPE08XB4	2831	1956	8700	2023	9000	104	47
0.65	1.0	4337*	490*	BK30G06-../DPE08XB4	2738	2518	11200	2698	12000	119	54
0.65	1.0	10178*	1150*	BK50G10-../DPE08XB4	2730	3170	14100	24954	111000	227	103
0.65	1.0	22127*	2500*	BK60G20-../DPE08XB4	2733	3732	16600	7644	34000	284	129
0.65	1.2	84082	9500	BK80G40-../DPE08XB4	2811	6744	30000	16861	75000	772	350
0.65	2.1	78772	8900	BK90G50-../DPE08XB4	2764	11106	49400	26977	120000	1371	622
0.6	1.0	1947*	220*	BK10G06-../DPE08XB4	3107	1574	7000	-	-	84	38
0.6	1.0	3186*	360*	BK20G06-../DPE08XB4	3088	1956	8700	2023	9000	104	47
0.6	1.0	4337*	490*	BK30G06-../DPE08XB4	2986	2518	11200	2698	12000	119	54
0.6	1.0	7523*	850*	BK40G10-../DPE08XB4	3077	2630	11700	3822	17000	165	75
0.6	1.0	10178*	1150*	BK50G10-../DPE08XB4	3025	3170	14100	24954	111000	227	103
0.6	1.0	22127*	2500*	BK60G20-../DPE08XB4	3036	3732	16600	7644	34000	284	129
0.6	1.0	50449*	5700*	BK70G20-../DPE08XB4	3041	5418	24100	11240	50000	459	208
0.6	1.1	92048	10400	BK80G40-../DPE08XB4	3120	6744	30000	16861	75000	772	350
0.6	1.9	86737	9800	BK90G50-../DPE08XB4	3065	11106	49400	26977	120000	1371	622
0.55	1.0	7523*	850*	BK40G10-../DPE08XB4	3429	2630	11700	3822	17000	165	75
0.5	1.0	10178*	1150*	BK50G10-../DPE08XB4	3492	3170	14100	24954	111000	227	103
0.5	1.0	22127*	2500*	BK60G20-../DPE08XB4	3533	3732	16600	7644	34000	284	129
0.5	1.0	50449*	5700*	BK70G20-../DPE08XB4	3505	5418	24100	11240	50000	459	208
0.48	1.45	113290	12800	BK90G50-../DPE08XB4	3672	11106	49400	26977	120000	1371	622
0.47	1.0	101784*	11500*	BK80G40-../DPE08XB4	3776	6744	30000	16861	75000	772	350
0.46	1.0	7523*	850*	BK40G10-../DPE08XB4	3800	2630	11700	3822	17000	165	75
0.45	1.0	10178*	1150*	BK50G10-../DPE08XB4	3870	3170	14100	24954	111000	227	103

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



BK-series bevel geared motors

Selection - bevel geared motors

1 HP (0.75 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
0.45	1.0	50449*	5700*	BK70G20-../DPE08XB4	3894	5418	24100	11240	50000	459	208
0.43	1.3	128336	14500	BK90G50-../DPE08XB4	4070	11106	49400	26977	120000	1371	622
0.42	1.0	22127*	2500*	BK60G20-../DPE08XB4	4239	3732	16600	7644	34000	284	129
0.4	1.0	101784*	11500*	BK80G40-../DPE08XB4	4461	6744	30000	16861	75000	772	350
0.39	1.0	50449*	5700*	BK70G20-../DPE08XB4	4531	5418	24100	11240	50000	459	208
0.36	1.05	156658	17700	BK90G50-../DPE08XB4	4952	11106	49400	26977	120000	1371	622
0.35	1.0	22127*	2500*	BK60G20-../DPE08XB4	5072	3732	16600	7644	34000	284	129
0.35	1.0	101784*	11500*	BK80G40-../DPE08XB4	5032	6744	30000	16861	75000	772	350
0.33	1.0	50449*	5700*	BK70G20-../DPE08XB4	5436	5418	24100	11240	50000	459	208
0.32	1.0	163739*	18500*	BK90G50-../DPE08XB4	5491	11106	49400	26977	120000	1371	622
0.31	1.0	22127*	2500*	BK60G20-../DPE08XB4	5721	3732	16600	7644	34000	284	129
0.3	1.0	101784*	11500*	BK80G40-../DPE08XB4	5865	6744	30000	16861	75000	772	350
0.28	1.0	163739*	18500*	BK90G50-../DPE08XB4	6335	11106	49400	26977	120000	1371	622
0.27	1.0	22127*	2500*	BK60G20-../DPE08XB4	6565	3732	16600	7644	34000	284	129
0.27	1.0	50449*	5700*	BK70G20-../DPE08XB4	6504	5418	24100	11240	50000	459	208
0.26	1.0	101784*	11500*	BK80G40-../DPE08XB4	6893	6744	30000	16861	75000	772	350
0.25	1.0	163739*	18500*	BK90G50-../DPE08XB4	7022	11106	49400	26977	120000	1371	622
0.24	1.0	22127*	2500*	BK60G20-../DPE08XB4	7291	3732	16600	7644	34000	284	129
0.23	1.0	101784*	11500*	BK80G40-../DPE08XB4	7652	6744	30000	16861	75000	772	350
0.23	1.0	163739*	18500*	BK90G50-../DPE08XB4	7862	11106	49400	26977	120000	1371	622
0.22	1.0	22127*	2500*	BK60G20-../DPE08XB4	8093	3732	16600	7644	34000	284	129
0.22	1.0	50449*	5700*	BK70G20-../DPE08XB4	8149	5418	24100	11240	50000	459	208
0.21	1.0	101784*	11500*	BK80G40-../DPE08XB4	8294	6744	30000	16861	75000	772	350
0.2	1.0	22127*	2500*	BK60G20-../DPE08XB4	8990	3732	16600	7644	34000	284	129
0.19	1.0	50449*	5700*	BK70G20-../DPE08XB4	9351	5418	24100	11240	50000	459	208
0.18	1.0	101784*	11500*	BK80G40-../DPE08XB4	10228	6744	30000	16861	75000	772	350
0.18	1.0	163739*	18500*	BK90G50-../DPE08XB4	9935	11106	49400	26977	120000	1371	622
0.16	1.0	50449*	5700*	BK70G20-../DPE08XB4	11529	5418	24100	11240	50000	459	208
0.16	1.0	101784*	11500*	BK80G40-../DPE08XB4	11353	6744	30000	16861	75000	772	350
0.16	1.0	163739*	18500*	BK90G50-../DPE08XB4	11012	11106	49400	26977	120000	1371	622

1.5 HP (1.1 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
395	4.0	212	24	BK10-../DPE09XA4	4.44	427	1900	-	-	88	40
295	3.2	288	32.5	BK10-../DPE09XA4	6.02	472	2100	-	-	88	40
230	2.7	372	42	BK10-../DPE09XA4	7.68	540	2400	-	-	88	40
187	2.3	451	51	BK10-../DPE09XA4	9.40	607	2700	-	-	88	40
164	3.2	504	57	BK10-../DPE09XA4	10.70	787	3500	-	-	88	40
147	1.75	575	65	BK10-../DPE09XA4	11.93	697	3100	-	-	88	40
121	2.6	690	78	BK10-../DPE09XA4	14.50	877	3900	-	-	88	40
104	1.5	797	90	BK10-../DPE09XA4	16.92	832	3700	-	-	88	40
101	2.5	832	94	BK20-../DPE09XA4	17.42	731	3250	2023	9000	110	50
95	2.0	876	99	BK10-../DPE09XA4	18.52	967	4300	-	-	88	40
91	3.2	912	103	BK20-../DPE09XA4	19.39	910	4050	2023	9000	110	50
84	2.8	1000	113	BK30-../DPE09XA4	20.85	1124	5000	2698	12000	123	56
78	1.65	1071	121	BK10-../DPE09XA4	22.65	1045	4650	-	-	88	40
73	2.6	1142	129	BK20-../DPE09XA4	24.29	1012	4500	2023	9000	110	50
62	2.2	1345	152	BK20-../DPE09XA4	28.66	1090	4850	2023	9000	110	50
61	1.3	1363	154	BK10-../DPE09XA4	28.76	1169	5200	-	-	88	40
61	2.9	1363	154	BK30-../DPE09XA4	28.76	1461	6500	2698	12000	123	56
52	1.1	1602	181	BK10-../DPE09XA4	34.25	1259	5600	-	-	88	40
52	2.5	1602	181	BK30-../DPE09XA4	33.70	1574	7000	2698	12000	123	56
48	1.7	1735	196	BK20-../DPE09XA4	36.69	1214	5400	2023	9000	110	50
43	0.93	1903	215	BK10-../DPE09XA4	40.79	1349	6000	-	-	88	40
41	1.45	2036	230	BK20-../DPE09XA4	42.70	1304	5800	2023	9000	110	50
41	2.0	1991	225	BK30-../DPE09XA4	42.89	1754	7800	2698	12000	123	56

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

BK-series bevel geared motors

Selection - bevel geared motors

1.5 HP (1.1 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
35	1.75	2301	260	BK30-../DPE09XA4	50.27	1866	8300	2698	12000	123	56
34.5	1.2	2390	270	BK20-../DPE09XA4	51.22	1416	6300	2023	9000	110	50
34.5	2.9	2345	265	BK40-../DPE09XA4	51.18	1888	8400	3822	17000	168	76
30	1.5	2699	305	BK30-../DPE09XA4	59.27	2001	8900	2698	12000	123	56
29.5	2.5	2744	310	BK40-../DPE09XA4	59.66	2046	9100	3822	17000	168	76
29	1.05	2832	320	BK20-../DPE09XA4	61.30	1461	6500	2023	9000	110	50
29	3.3	2788	315	BK50-../DPE09XA4	60.76	2563	11400	5845	26000	229	104
25	2.1	3231	365	BK40-../DPE09XA4	70.11	2203	9800	3822	17000	168	76
24.5	1.2	3275	370	BK30-../DPE09XA4	71.56	2181	9700	2698	12000	123	56
23.5	2.7	3408	385	BK50-../DPE09XA4	75.40	2833	12600	5845	26000	229	104
23	0.83	3540	400	BK20-../DPE09XA4	76.79	1686	7500	2023	9000	110	50
21	1.8	3850	435	BK40-../DPE09XA4	84.36	2405	10700	3822	17000	168	76
20	1.0	3983	450	BK30-../DPE09XA4	88.38	2383	10600	2698	12000	123	56
18.5	2.2	4293	485	BK50-../DPE09XA4	95.29	3170	14100	5845	26000	229	104
17.5	0.88	4514	510	BK30-../DPE09XA4	102.4	2518	11200	2698	12000	123	56
17	1.5	4602	520	BK40-../DPE09XA4	104.0	2630	11700	3822	17000	168	76
15.5	1.85	5045	570	BK50Z-../DPE09XA4	115.4	3170	14100	5845	26000	240	109
15	1.3	5222	590	BK40Z-../DPE09XA4	118.2	2630	11700	3822	17000	176	80
14.5	3.2	6373	720	BK60-../DPE09XA4	122.5	3485	15500	7644	34000	249	113
13	2.9	7081	800	BK60-../DPE09XA4	137.0	3732	16600	7644	34000	249	113
12.5	1.1	6196	700	BK40Z-../DPE09XA4	143.0	2630	11700	3822	17000	176	80
11.5	1.4	6638	750	BK50Z-../DPE09XA4	153.3	3170	14100	5845	26000	240	109
11.5	2.5	8054	910	BK60Z-../DPE09XA4	153.7	3732	16600	7644	34000	291	132
10.5	0.94	7346	830	BK40Z-../DPE09XA4	169.0	2630	11700	3822	17000	176	80
9.6	2.1	9647	1090	BK60Z-../DPE09XA4	183.2	3732	16600	7644	34000	291	132
8.6	1.9	10798	1220	BK60Z-../DPE09XA4	205.0	3732	16600	7644	34000	291	132
8.5	1.05	8939	1010	BK50Z-../DPE09XA4	206.8	3170	14100	5845	26000	240	109
7.4	1.65	12480	1410	BK60Z-../DPE09XA4	239.7	3732	16600	7644	34000	291	132
6.7	0.83	11240	1270	BK50Z-../DPE09XA4	264.5	3170	14100	5845	26000	240	109
6.6	1.45	14073	1590	BK60Z-../DPE09XA4	268.2	3732	16600	7644	34000	291	132
6.0	3.0	15489	1750	BK70Z-../DPE09XA4	293.3	5418	24100	11240	50000	485	220
5.6	1.25	16551	1870	BK60Z-../DPE09XA4	317.7	3732	16600	7644	34000	291	132
5.3	2.6	17524	1980	BK70Z-../DPE09XA4	333.6	5418	24100	11240	50000	485	220
5.0	1.1	18587	2100	BK60Z-../DPE09XA4	355.5	3732	16600	7644	34000	291	132
4.7	2.4	19472	2200	BK70Z-../DPE09XA4	379.9	5418	24100	11240	50000	485	220
4.3	0.96	21242	2400	BK60Z-../DPE09XA4	411.5	3732	16600	7644	34000	291	132
4.1	2.0	22569	2550	BK70Z-../DPE09XA4	432.1	5418	24100	11240	50000	485	220
3.9	0.87	23454	2650	BK60Z-../DPE09XA4	460.4	3732	16600	7644	34000	291	132
3.5	1.75	26552	3000	BK70Z-../DPE09XA4	501.8	5418	24100	11240	50000	485	220
3.1	1.55	29650	3350	BK70Z-../DPE09XA4	570.8	5418	24100	11240	50000	485	220
2.8	1.4	33190	3750	BK70Z-../DPE09XA4	644.9	5418	24100	11240	50000	485	220
2.4	1.2	38501	4350	BK70Z-../DPE09XA4	733.6	5418	24100	11240	50000	485	220
2.4	3.2	31420	3550	BK80G40-../DPE09XA4	756.3	6744	30000	16861	75000	794	360
2.1	1.25	40713	4600	BK70G20-../DPE09XA4	847.7	5418	24100	11240	50000	481	218
2.1	2.8	35846	4050	BK80G40-../DPE09XA4	847.2	6744	30000	16861	75000	794	360
1.9	1.1	45139	5100	BK70G20-../DPE09XA4	964.6	5418	24100	11240	50000	481	218
1.9	2.5	40713	4600	BK80G40-../DPE09XA4	963.0	6744	30000	16861	75000	794	360
1.7	2.3	45139	5100	BK80G40-../DPE09XA4	1079	6744	30000	16861	75000	794	360
1.6	0.93	53990	6100	BK70G20-../DPE09XA4	1139	5418	24100	11240	50000	481	218
1.4	0.8	62840	7100	BK70G20-../DPE09XA4	1280	5418	24100	11240	50000	481	218
1.4	1.8	56645	6400	BK80G40-../DPE09XA4	1307	6744	30000	16861	75000	794	360
1.3	1.65	61070	6900	BK80G40-../DPE09XA4	1425	6744	30000	16861	75000	794	360
1.3	2.7	60185	6800	BK90G50-../DPE09XA4	1363	11106	49400	26977	120000	1396	633
1.2	1.55	66381	7500	BK80G40-../DPE09XA4	1583	6744	30000	16861	75000	794	360
1.2	2.6	63725	7200	BK90G50-../DPE09XA4	1579	11106	49400	26977	120000	1396	633
1.0	1.25	81427	9200	BK80G40-../DPE09XA4	1775	6744	30000	16861	75000	794	360
1.0	2.1	77001	8700	BK90G50-../DPE09XA4	1803	11106	49400	26977	120000	1396	633
0.9	1.9	85852	9700	BK90G50-../DPE09XA4	2016	11106	49400	26977	120000	1396	633
0.65	1.3	123910	14000	BK90G50-../DPE09XA4	2764	11106	49400	26977	120000	1396	633
0.6	1.2	136301	15400	BK90G50-../DPE09XA4	3065	11106	49400	26977	120000	1396	633

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

BK-series bevel geared motors

Selection - bevel geared motors

2 HP (1.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
395	2.9	292	33	BK10-../DPE09XA4	4.44	427	1900	-	-	88	40
290	2.3	398	45	BK10-../DPE09XA4	6.02	472	2100	-	-	88	40
230	2.0	504	57	BK10-../DPE09XA4	7.68	540	2400	-	-	88	40
186	1.65	620	70	BK10-../DPE09XA4	9.40	607	2700	-	-	88	40
176	3.1	655	74	BK20-../DPE09XA4	9.91	429	1910	1866	8300	110	50
163	2.3	699	79	BK10-../DPE09XA4	10.70	787	3500	-	-	88	40
149	2.6	779	88	BK20-../DPE09XA4	11.69	540	2400	1978	8800	110	50
146	1.3	797	90	BK10-../DPE09XA4	11.93	697	3100	-	-	88	40
125	3.1	920	104	BK30-../DPE09XA4	13.98	910	4050	2698	12000	123	56
120	1.85	947	107	BK10-../DPE09XA4	14.50	877	3900	-	-	88	40
118	3.0	965	109	BK20-../DPE09XA4	14.75	821	3650	2023	9000	110	50
103	1.1	1106	125	BK10-../DPE09XA4	16.92	832	3700	-	-	88	40
100	1.8	1151	130	BK20-../DPE09XA4	17.42	731	3250	2023	9000	110	50
94	1.45	1213	137	BK10-../DPE09XA4	18.52	967	4300	-	-	88	40
90	2.3	1266	143	BK20-../DPE09XA4	19.39	910	4050	2023	9000	110	50
84	2.1	1372	155	BK30-../DPE09XA4	20.85	1124	5000	2698	12000	123	56
77	1.2	1478	167	BK10-../DPE09XA4	22.65	1045	4650	-	-	88	40
75	2.6	1513	171	BK30-../DPE09XA4	23.20	1326	5900	2698	12000	123	56
72	1.85	1584	179	BK20-../DPE09XA4	24.29	1012	4500	2023	9000	110	50
61	0.95	1859	210	BK10-../DPE09XA4	28.76	1169	5200	-	-	88	40
61	1.55	1859	210	BK20-../DPE09XA4	28.66	1090	4850	2023	9000	110	50
61	2.1	1859	210	BK30-../DPE09XA4	28.76	1461	6500	2698	12000	123	56
52	1.85	2168	245	BK30-../DPE09XA4	33.70	1574	7000	2698	12000	123	56
51	0.8	2213	250	BK10-../DPE09XA4	34.25	1259	5600	-	-	88	40
51	3.1	2213	250	BK40-../DPE09XA4	34.61	1551	6900	3822	17000	168	76
47.5	1.2	2390	270	BK20-../DPE09XA4	36.69	1214	5400	2023	9000	110	50
43	2.6	2611	295	BK40-../DPE09XA4	40.88	1709	7600	3822	17000	168	76
41	1.05	2744	310	BK20-../DPE09XA4	42.70	1304	5800	2023	9000	110	50
41	1.45	2744	310	BK30-../DPE09XA4	42.89	1754	7800	2698	12000	123	56
37	3.1	3009	340	BK50-../DPE09XA4	47.50	2271	10100	5778	25700	229	104
35	1.25	3186	360	BK30-../DPE09XA4	50.27	1866	8300	2698	12000	123	56
34	0.89	3275	370	BK20-../DPE09XA4	51.22	1416	6300	2023	9000	110	50
34	2.1	3275	370	BK40-../DPE09XA4	51.18	1888	8400	3822	17000	168	76
29.5	1.05	3762	425	BK30-../DPE09XA4	59.27	2001	8900	2698	12000	123	56
29.5	1.85	3762	425	BK40-../DPE09XA4	59.66	2046	9100	3822	17000	168	76
29	2.4	3806	430	BK50-../DPE09XA4	60.76	2563	11400	5845	26000	229	104
25	1.6	4381	495	BK40-../DPE09XA4	70.11	2203	9800	3822	17000	168	76
24.5	0.9	4425	500	BK30-../DPE09XA4	71.56	2181	9700	2698	12000	123	56
23.5	2.0	4691	530	BK50-../DPE09XA4	75.40	2833	12600	5845	26000	229	104
21	1.3	5222	590	BK40-../DPE09XA4	84.36	2405	10700	3822	17000	168	76
20	3.2	6284	710	BK60-../DPE09XA4	87.41	2900	12900	7644	34000	249	113
18.5	1.6	5841	660	BK50-../DPE09XA4	95.29	3170	14100	5845	26000	229	104
17.5	2.8	7169	810	BK60-../DPE09XA4	101.2	3125	13900	7644	34000	249	113
17	1.1	6284	710	BK40-../DPE09XA4	104.0	2630	11700	3822	17000	168	76
15.5	1.35	6904	780	BK50Z-../DPE09XA4	115.4	3170	14100	5845	26000	240	109
15.5	2.5	8143	920	BK60-../DPE09XA4	113.2	3372	15000	7644	34000	249	113
15	0.96	7169	810	BK40Z-../DPE09XA4	118.2	2630	11700	3822	17000	176	80
14.5	2.3	8674	980	BK60-../DPE09XA4	122.5	3485	15500	7644	34000	249	113
13	2.1	9736	1100	BK60-../DPE09XA4	137.0	3732	16600	7644	34000	249	113
12.5	0.81	8497	960	BK40Z-../DPE09XA4	143.0	2630	11700	3822	17000	176	80
11.5	1.0	9116	1030	BK50Z-../DPE09XA4	153.3	3170	14100	5845	26000	240	109
11.5	1.85	10975	1240	BK60Z-../DPE09XA4	153.7	3732	16600	7644	34000	291	132
9.5	1.55	13276	1500	BK60Z-../DPE09XA4	183.2	3732	16600	7644	34000	291	132
8.5	1.35	14869	1680	BK60Z-../DPE09XA4	205.0	3732	16600	7644	34000	291	132
7.7	2.8	16462	1860	BK70Z-../DPE09XA4	226.2	5418	24100	11240	50000	485	220
7.3	1.15	17347	1960	BK60Z-../DPE09XA4	239.7	3732	16600	7644	34000	291	132
6.8	2.5	18587	2100	BK70Z-../DPE09XA4	257.3	5418	24100	11240	50000	485	220
6.5	1.05	19472	2200	BK60Z-../DPE09XA4	268.2	3732	16600	7644	34000	291	132
6.0	2.2	20799	2350	BK70Z-../DPE09XA4	293.3	5418	24100	11240	50000	485	220
5.5	0.88	23012	2600	BK60Z-../DPE09XA4	317.7	3732	16600	7644	34000	291	132
5.3	1.95	23897	2700	BK70Z-../DPE09XA4	333.6	5418	24100	11240	50000	485	220
4.6	1.7	27437	3100	BK70Z-../DPE09XA4	379.9	5418	24100	11240	50000	485	220

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

BK-series bevel geared motors

Selection - bevel geared motors

2 HP (1.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
4.1	1.5	30535	3450	BK70Z-../DPE09XA4	432.1	5418	24100	11240	50000	485	220
4.0	3.2	31420	3550	BK80Z-../DPE09XA4	435.7	6744	30000	16861	75000	769	349
3.5	1.3	35846	4050	BK70Z-../DPE09XA4	501.8	5418	24100	11240	50000	485	220
3.5	2.8	35846	4050	BK80Z-../DPE09XA4	499.5	6744	30000	16861	75000	769	349
3.2	2.6	39386	4450	BK80Z-../DPE09XA4	559.5	6744	30000	16861	75000	769	349
3.1	1.15	40713	4600	BK70Z-../DPE09XA4	570.8	5418	24100	11240	50000	485	220
2.9	2.8	36731	4150	BK80G40-../DPE09XA4	607.8	6744	30000	16861	75000	794	360
2.7	0.98	46909	5300	BK70Z-../DPE09XA4	644.9	5418	24100	11240	50000	485	220
2.6	2.5	41156	4650	BK80G40-../DPE09XA4	680.9	6744	30000	16861	75000	794	360
2.5	3.2	50449	5700	BK90Z-../DPE09XA4	713.5	11106	49400	26977	120000	1371	622
2.4	0.88	52219	5900	BK70Z-../DPE09XA4	733.6	5418	24100	11240	50000	485	220
2.4	2.3	45139	5100	BK80G40-../DPE09XA4	756.3	6744	30000	16861	75000	794	360
2.1	0.89	56645	6400	BK70G20-../DPE09XA4	847.7	5418	24100	11240	50000	481	218
2.1	1.95	52219	5900	BK80G40-../DPE09XA4	847.2	6744	30000	16861	75000	794	360
2.0	3.1	52219	5900	BK90G50-../DPE09XA4	882.3	11106	49400	26977	120000	1396	633
1.9	0.8	62840	7100	BK70G20-../DPE09XA4	964.6	5418	24100	11240	50000	481	218
1.9	1.75	58415	6600	BK80G40-../DPE09XA4	963.0	6744	30000	16861	75000	794	360
1.8	2.8	58415	6600	BK90G50-../DPE09XA4	1008	11106	49400	26977	120000	1396	633
1.7	1.55	65496	7400	BK80G40-../DPE09XA4	1079	6744	30000	16861	75000	794	360
1.6	2.5	65496	7400	BK90G50-../DPE09XA4	1127	11106	49400	26977	120000	1396	633
1.4	1.25	81427	9200	BK80G40-../DPE09XA4	1307	6744	30000	16861	75000	794	360
1.3	1.15	86737	9800	BK80G40-../DPE09XA4	1425	6744	30000	16861	75000	794	360
1.3	1.9	86737	9800	BK90G50-../DPE09XA4	1363	11106	49400	26977	120000	1396	633
1.2	1.8	92048	10400	BK90G50-../DPE09XA4	1579	11106	49400	26977	120000	1396	633
1.1	0.98	103554	11700	BK80G40-../DPE09XA4	1583	6744	30000	16861	75000	794	360
1.0	0.88	115060	13000	BK80G40-../DPE09XA4	1775	6744	30000	16861	75000	794	360
1.0	1.45	111519	12600	BK90G50-../DPE09XA4	1803	11106	49400	26977	120000	1396	633
0.9	1.35	123025	13900	BK90G50-../DPE09XA4	2016	11106	49400	26977	120000	1396	633

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3 HP (2.2 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
400	2.0	425	48	BK10-../DPE09XB4C	4.44	427	1900	-	-	95	43
295	1.6	575	65	BK10-../DPE09XB4C	6.02	472	2100	-	-	95	43
295	3.3	575	65	BK30-../DPE09XB4C	6.02	380	1690	2158	9600	128	58
230	1.35	743	84	BK10-../DPE09XB4C	7.68	540	2400	-	-	95	43
225	2.7	752	85	BK20-../DPE09XB4C	7.91	299	1330	1709	7600	115	52
188	1.15	903	102	BK10-../DPE09XB4C	9.40	607	2700	-	-	95	43
183	3.0	929	105	BK30-../DPE09XB4C	9.63	708	3150	2585	11500	128	58
178	2.1	956	108	BK20-../DPE09XB4C	9.91	429	1910	1866	8300	115	52
165	1.6	1009	114	BK10-../DPE09XB4C	10.70	787	3500	-	-	95	43
158	2.5	1053	119	BK20-../DPE09XB4C	11.14	742	3300	1821	8100	115	52
151	1.8	1133	128	BK20-../DPE09XB4C	11.69	540	2400	1978	8800	115	52
148	0.88	1151	130	BK10-../DPE09XB4C	11.93	697	3100	-	-	95	43
148	2.5	1151	130	BK30-../DPE09XB4C	11.93	821	3650	2698	12000	128	58
126	2.1	1336	151	BK30-../DPE09XB4C	13.98	910	4050	2698	12000	128	58
122	1.3	1363	154	BK10-../DPE09XB4C	14.50	877	3900	-	-	95	43
122	2.9	1363	154	BK30-../DPE09XB4C	14.50	1102	4900	2698	12000	128	58
120	2.1	1390	157	BK20-../DPE09XB4C	14.75	821	3650	2023	9000	115	52
102	1.25	1655	187	BK20-../DPE09XB4C	17.42	731	3250	2023	9000	115	52
99	2.4	1690	191	BK30-../DPE09XB4C	17.95	1191	5300	2698	12000	128	58
96	1.0	1735	196	BK10-../DPE09XB4C	18.52	967	4300	-	-	95	43
91	1.6	1814	205	BK20-../DPE09XB4C	19.39	910	4050	2023	9000	115	52
85	1.45	1947	220	BK30-../DPE09XB4C	20.85	1124	5000	2698	12000	128	58
79	3.3	2080	235	BK40-../DPE09XB4C	22.44	1236	5500	3709	16500	174	79
78	0.83	2124	240	BK10-../DPE09XB4C	22.65	1045	4650	-	-	95	43
76	1.85	2168	245	BK30-../DPE09XB4C	23.20	1326	5900	2698	12000	128	58

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

BK-series bevel geared motors

Selection - bevel geared motors

3 HP (2.2 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lbf	N	lbf	N		
73	1.3	2257	255	BK20-../DPE09XB4C	24.29	1012	4500	2023	9000	115	52
62	1.1	2655	300	BK20-../DPE09XB4C	28.66	1090	4850	2023	9000	115	52
62	1.5	2655	300	BK30-../DPE09XB4C	28.76	1461	6500	2698	12000	128	58
62	2.6	2655	300	BK40-../DPE09XB4C	28.59	1416	6300	3822	17000	174	79
53	1.25	3142	355	BK30-../DPE09XB4C	33.70	1574	7000	2698	12000	128	58
51	2.1	3275	370	BK40-../DPE09XB4C	34.61	1551	6900	3822	17000	174	79
50	2.8	3319	375	BK50-../DPE09XB4C	35.21	1956	8700	5193	23100	236	107
48	0.85	3452	390	BK20-../DPE09XB4C	36.69	1214	5400	2023	9000	115	52
43.5	1.8	3806	430	BK40-../DPE09XB4C	40.88	1709	7600	3822	17000	174	79
41.5	1.0	3983	450	BK30-../DPE09XB4C	42.89	1754	7800	2698	12000	128	58
37.5	2.1	4381	495	BK50-../DPE09XB4C	47.50	2271	10100	5778	25700	236	107
35.5	0.87	4602	520	BK30-../DPE09XB4C	50.27	1866	8300	2698	12000	128	58
34.5	1.45	4691	530	BK40-../DPE09XB4C	51.18	1888	8400	3822	17000	174	79
30	1.3	5399	610	BK40-../DPE09XB4C	59.66	2046	9100	3822	17000	174	79
30	3.3	6196	700	BK60-../DPE09XB4C	58.95	2226	9900	7081	31500	254	115
29	1.65	5576	630	BK50-../DPE09XB4C	60.76	2563	11400	5845	26000	236	107
27	3.0	6815	770	BK60-../DPE09XB4C	65.95	2450	10900	7419	33000	254	115
25.5	1.1	6284	710	BK40-../DPE09XB4C	70.11	2203	9800	3822	17000	174	79
23.5	1.35	6815	770	BK50-../DPE09XB4C	75.40	2833	12600	5845	26000	236	107
23	2.5	8054	910	BK60-../DPE09XB4C	78.13	2675	11900	7644	34000	254	115
21	0.9	7700	870	BK40-../DPE09XB4C	84.36	2405	10700	3822	17000	174	79
20.5	2.3	9028	1020	BK60-../DPE09XB4C	87.41	2900	12900	7644	34000	254	115
18.5	1.1	8585	970	BK50-../DPE09XB4C	95.29	3170	14100	5845	26000	236	107
17.5	1.9	10621	1200	BK60-../DPE09XB4C	101.2	3125	13900	7644	34000	254	115
16	1.75	11594	1310	BK60-../DPE09XB4C	113.2	3372	15000	7644	34000	254	115
15.5	0.91	10178	1150	BK50Z-../DPE09XB4C	115.4	3170	14100	5845	26000	247	112
14.5	1.6	12745	1440	BK60-../DPE09XB4C	122.5	3485	15500	7644	34000	254	115
13	1.45	14250	1610	BK60-../DPE09XB4C	137.0	3732	16600	7644	34000	254	115
13	3.2	14250	1610	BK70-../DPE09XB4C	136.7	4654	20700	11240	50000	445	202
11.5	1.25	16108	1820	BK60Z-../DPE09XB4C	153.7	3732	16600	7644	34000	298	135
11.5	2.9	16108	1820	BK70-../DPE09XB4C	154.4	4923	21900	11240	50000	445	202
10.5	2.6	17701	2000	BK70-../DPE09XB4C	175.7	5418	24100	11240	50000	445	202
9.7	1.05	19029	2150	BK60Z-../DPE09XB4C	183.2	3732	16600	7644	34000	298	135
9.3	2.3	19914	2250	BK70Z-../DPE09XB4C	190.4	5418	24100	11240	50000	492	223
8.6	0.96	21242	2400	BK60Z-../DPE09XB4C	205.0	3732	16600	7644	34000	298	135
7.8	1.95	23454	2650	BK70Z-../DPE09XB4C	226.2	5418	24100	11240	50000	492	223
7.4	0.82	24782	2800	BK60Z-../DPE09XB4C	239.7	3732	16600	7644	34000	298	135
6.9	1.75	26552	3000	BK70Z-../DPE09XB4C	257.3	5418	24100	11240	50000	492	223
6.1	1.55	30093	3400	BK70Z-../DPE09XB4C	293.3	5418	24100	11240	50000	492	223
5.9	3.2	31420	3550	BK80Z-../DPE09XB4C	300.6	6744	30000	16861	75000	774	351
5.3	1.3	34960	3950	BK70Z-../DPE09XB4C	333.6	5418	24100	11240	50000	492	223
5.3	2.9	34960	3950	BK80Z-../DPE09XB4C	336.7	6744	30000	16861	75000	774	351
4.7	1.15	39386	4450	BK70Z-../DPE09XB4C	379.9	5418	24100	11240	50000	492	223
4.6	2.5	40271	4550	BK80Z-../DPE09XB4C	389.0	6744	30000	16861	75000	774	351
4.1	1.0	45139	5100	BK70Z-../DPE09XB4C	432.1	5418	24100	11240	50000	492	223
4.1	2.3	45139	5100	BK80Z-../DPE09XB4C	435.7	6744	30000	16861	75000	774	351
3.6	0.9	51334	5800	BK70Z-../DPE09XB4C	501.8	5418	24100	11240	50000	492	223
3.6	2.0	51334	5800	BK80Z-../DPE09XB4C	499.5	6744	30000	16861	75000	774	351
3.6	3.2	51334	5800	BK90Z-../DPE09XB4C	499.2	11106	49400	26977	120000	1376	624
3.2	1.75	57530	6500	BK80Z-../DPE09XB4C	559.5	6744	30000	16861	75000	774	351
3.2	2.8	57530	6500	BK90Z-../DPE09XB4C	558.5	11106	49400	26977	120000	1376	624
2.9	1.8	56645	6400	BK80G40-../DPE09XB4C	607.8	6744	30000	16861	75000	800	363
2.8	2.5	66381	7500	BK90Z-../DPE09XB4C	637.7	11106	49400	26977	120000	1376	624
2.6	1.6	63725	7200	BK80G40-../DPE09XB4C	680.9	6744	30000	16861	75000	800	363
2.5	2.2	74346	8400	BK90Z-../DPE09XB4C	713.5	11106	49400	26977	120000	1376	624
2.4	1.45	69921	7900	BK80G40-../DPE09XB4C	756.3	6744	30000	16861	75000	800	363
2.2	2.3	72576	8200	BK90G50-../DPE09XB4C	821.0	11106	49400	26977	120000	1400	635
2.1	1.3	79657	9000	BK80G40-../DPE09XB4C	847.2	6744	30000	16861	75000	800	363
2.0	2.0	82312	9300	BK90G50-../DPE09XB4C	882.3	11106	49400	26977	120000	1400	635
1.9	1.15	89393	10100	BK80G40-../DPE09XB4C	963.0	6744	30000	16861	75000	800	363
1.8	1.8	91163	10300	BK90G50-../DPE09XB4C	1008	11106	49400	26977	120000	1400	635
1.7	1.0	100013	11300	BK80G40-../DPE09XB4C	1079	6744	30000	16861	75000	800	363

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

BK-series bevel geared motors

Selection - bevel geared motors

3 HP (2.2 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
1.6	1.6	102669	11600	BK90G50-.../DPE09XB4C	1127	11106	49400	26977	120000	1400	635
1.4	0.83	123025	13900	BK80G40-.../DPE09XB4C	1307	6744	30000	16861	75000	800	363
1.3	1.25	131876	14900	BK90G50-.../DPE09XB4C	1363	11106	49400	26977	120000	1400	635
1.2	1.15	141612	16000	BK90G50-.../DPE09XB4C	1579	11106	49400	26977	120000	1400	635
1.0	0.96	169934	19200	BK90G50-.../DPE09XB4C	1803	11106	49400	26977	120000	1400	635

4 HP (3 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
375	2.8	620	70	BK30-.../DPE11LA4	4.73	348	1550	1978	8800	168	76
295	2.4	788	89	BK30-.../DPE11LA4	6.02	380	1690	2158	9600	168	76
240	2.5	965	109	BK30-.../DPE11LA4	7.45	495	2200	2338	10400	168	76
183	2.2	1275	144	BK30-.../DPE11LA4	9.63	708	3150	2585	11500	168	76
155	2.5	1469	166	BK30-.../DPE11LA4	11.39	933	4150	2473	11000	168	76
149	2.8	1558	176	BK40-.../DPE11LA4	11.86	398	1770	2743	12200	225	102
148	1.8	1575	178	BK30-.../DPE11LA4	11.93	821	3650	2698	12000	168	76
126	1.55	1814	205	BK30-.../DPE11LA4	13.98	910	4050	2698	12000	168	76
122	2.1	1859	210	BK30-.../DPE11LA4	14.50	1102	4900	2698	12000	168	76
99	1.75	2301	260	BK30-.../DPE11LA4	17.95	1191	5300	2698	12000	168	76
99	2.8	2301	260	BK50-.../DPE11LA4	17.92	1034	4600	3777	16800	291	132
98	3.0	2301	260	BK40-.../DPE11LA4	18.05	1102	4900	3440	15300	225	102
79	2.4	2876	325	BK40-.../DPE11LA4	22.44	1236	5500	3709	16500	225	102
76	1.35	2965	335	BK30-.../DPE11LA4	23.20	1326	5900	2698	12000	168	76
67	2.8	3363	380	BK50-.../DPE11LA4	26.51	1754	7800	4766	21200	291	132
62	1.1	3673	415	BK30-.../DPE11LA4	28.76	1461	6500	2698	12000	168	76
62	1.9	3673	415	BK40-.../DPE11LA4	28.59	1416	6300	3822	17000	225	102
53	0.93	4293	485	BK30-.../DPE11LA4	33.70	1574	7000	2698	12000	168	76
51	1.55	4425	500	BK40-.../DPE11LA4	34.61	1551	6900	3822	17000	225	102
50	2.1	4514	510	BK50-.../DPE11LA4	35.21	1956	8700	5193	23100	291	132
43.5	1.3	5222	590	BK40-.../DPE11LA4	40.88	1709	7600	3822	17000	225	102
39.5	3.2	6373	720	BK60-.../DPE11LA4	45.05	1843	8200	6362	28300	313	142
37.5	1.55	5930	670	BK50-.../DPE11LA4	47.50	2271	10100	5778	25700	291	132
35	2.8	7169	810	BK60-.../DPE11LA4	50.40	2046	9100	6699	29800	313	142
30	2.4	8408	950	BK60-.../DPE11LA4	58.95	2226	9900	7081	31500	313	142
29	1.2	7612	860	BK50-.../DPE11LA4	60.76	2563	11400	5845	26000	291	132
27	2.2	9382	1060	BK60-.../DPE11LA4	65.95	2450	10900	7419	33000	313	142
23.5	0.99	9382	1060	BK50-.../DPE11LA4	75.40	2833	12600	5845	26000	291	132
23	1.85	10975	1240	BK60-.../DPE11LA4	78.13	2675	11900	7644	34000	313	142
20.5	1.65	12303	1390	BK60-.../DPE11LA4	87.41	2900	12900	7644	34000	313	142
17.5	1.4	14427	1630	BK60-.../DPE11LA4	101.2	3125	13900	7644	34000	313	142
17.5	3.2	14427	1630	BK70-.../DPE11LA4	103.5	3867	17200	11240	50000	487	221
16	1.3	15843	1790	BK60-.../DPE11LA4	113.2	3372	15000	7644	34000	313	142
15	2.7	16905	1910	BK70-.../DPE11LA4	120.2	4181	18600	11240	50000	487	221
14.5	1.15	17436	1970	BK60-.../DPE11LA4	122.5	3485	15500	7644	34000	313	142
13	1.05	19472	2200	BK60-.../DPE11LA4	137.0	3732	16600	7644	34000	313	142
13	2.4	19472	2200	BK70-.../DPE11LA4	136.7	4654	20700	11240	50000	487	221
11.5	0.94	21684	2450	BK60Z-.../DPE11LA4	153.7	3732	16600	7644	34000	348	158
11.5	2.1	21684	2450	BK70-.../DPE11LA4	154.4	4923	21900	11240	50000	487	221
10.5	1.95	23897	2700	BK70-.../DPE11LA4	175.7	5418	24100	11240	50000	487	221
9.3	1.7	26995	3050	BK70Z-.../DPE11LA4	190.4	5418	24100	11240	50000	545	247
7.8	1.4	32305	3650	BK70Z-.../DPE11LA4	226.2	5418	24100	11240	50000	545	247
7.8	3.2	32305	3650	BK80Z-.../DPE11LA4	226.1	6744	30000	16861	75000	833	378
7.0	2.8	35846	4050	BK80Z-.../DPE11LA4	253.3	6744	30000	16861	75000	833	378
6.9	1.25	36731	4150	BK70Z-.../DPE11LA4	257.3	5418	24100	11240	50000	545	247
6.1	1.1	41156	4650	BK70Z-.../DPE11LA4	293.3	5418	24100	11240	50000	545	247
5.9	2.4	42926	4850	BK80Z-.../DPE11LA4	300.6	6744	30000	16861	75000	833	378
5.3	0.96	47794	5400	BK70Z-.../DPE11LA4	333.6	5418	24100	11240	50000	545	247

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



BK-series bevel geared motors

Selection - bevel geared motors

4 HP (3 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
5.3	2.1	47794	5400	BK80Z-../DPE11LA4	336.7	6744	30000	16861	75000	833	378
4.7	0.87	53104	6000	BK70Z-../DPE11LA4	379.9	5418	24100	11240	50000	545	247
4.6	1.85	54875	6200	BK80Z-../DPE11LA4	389.0	6744	30000	16861	75000	833	378
4.6	3.0	54875	6200	BK90Z-../DPE11LA4	389.1	11106	49400	26977	120000	1418	643
4.1	1.65	61070	6900	BK80Z-../DPE11LA4	435.7	6744	30000	16861	75000	833	378
4.1	2.7	61070	6900	BK90Z-../DPE11LA4	435.3	11106	49400	26977	120000	1418	643
3.6	1.45	69921	7900	BK80Z-../DPE11LA4	499.5	6744	30000	16861	75000	833	378
3.6	2.3	69921	7900	BK90Z-../DPE11LA4	499.2	11106	49400	26977	120000	1418	643
3.2	1.3	78772	8900	BK80Z-../DPE11LA4	559.5	6744	30000	16861	75000	833	378
3.2	2.1	78772	8900	BK90Z-../DPE11LA4	558.5	11106	49400	26977	120000	1418	643
2.9	1.25	80542	9100	BK80G40-../DPE11LA4	607.8	6744	30000	16861	75000	851	386
2.8	1.8	90278	10200	BK90Z-../DPE11LA4	637.7	11106	49400	26977	120000	1418	643
2.6	1.15	89393	10100	BK80G40-../DPE11LA4	680.9	6744	30000	16861	75000	851	386
2.5	1.6	100899	11400	BK90Z-../DPE11LA4	713.5	11106	49400	26977	120000	1418	643
2.4	1.05	98243	11100	BK80G40-../DPE11LA4	756.3	6744	30000	16861	75000	851	386
2.2	1.6	102669	11600	BK90G50-../DPE11LA4	821.0	11106	49400	26977	120000	1455	660
2.1	0.91	112404	12700	BK80G40-../DPE11LA4	847.2	6744	30000	16861	75000	851	386
2.0	1.4	115945	13100	BK90G50-../DPE11LA4	882.3	11106	49400	26977	120000	1455	660
1.9	0.82	124796	14100	BK80G40-../DPE11LA4	963.0	6744	30000	16861	75000	851	386
1.8	1.3	128336	14500	BK90G50-../DPE11LA4	1008	11106	49400	26977	120000	1455	660
1.6	1.15	145152	16400	BK90G50-../DPE11LA4	1127	11106	49400	26977	120000	1455	660
1.3	0.89	184096	20800	BK90G50-../DPE11LA4	1363	11106	49400	26977	120000	1455	660
1.2	0.83	197372	22300	BK90G50-../DPE11LA4	1579	11106	49400	26977	120000	1455	660

5 HP (3.7 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
375	2.3	761	86	BK30-../DPE11LA4	4.73	348	1550	1978	8800	168	76
295	1.95	974	110	BK30-../DPE11LA4	6.02	380	1690	2158	9600	168	76
240	2.0	1195	135	BK30-../DPE11LA4	7.45	495	2200	2338	10400	168	76
190	2.9	1513	171	BK40-../DPE11LA4	9.31	234	1040	2518	11200	225	102
183	1.8	1567	177	BK30-../DPE11LA4	9.63	708	3150	2585	11500	168	76
155	2.0	1814	205	BK30-../DPE11LA4	11.39	933	4150	2473	11000	168	76
149	2.3	1903	215	BK40-../DPE11LA4	11.86	398	1770	2743	12200	225	102
148	1.5	1903	215	BK30-../DPE11LA4	11.93	821	3650	2698	12000	168	76
126	1.25	2257	255	BK30-../DPE11LA4	13.98	910	4050	2698	12000	168	76
122	1.75	2301	260	BK30-../DPE11LA4	14.50	1102	4900	2698	12000	168	76
122	3.0	2301	260	BK40-../DPE11LA4	14.50	1012	4500	3215	14300	225	102
99	1.4	2832	320	BK30-../DPE11LA4	17.95	1191	5300	2698	12000	168	76
99	2.3	2832	320	BK50-../DPE11LA4	17.92	1034	4600	3777	16800	291	132
98	2.4	2832	320	BK40-../DPE11LA4	18.05	1102	4900	3440	15300	225	102
92	3.0	3054	345	BK50-../DPE11LA4	19.33	1551	6900	4316	19200	291	132
79	1.95	3540	400	BK40-../DPE11LA4	22.44	1236	5500	3709	16500	225	102
76	1.1	3673	415	BK30-../DPE11LA4	23.20	1326	5900	2698	12000	168	76
67	2.2	4160	470	BK50-../DPE11LA4	26.51	1754	7800	4766	21200	291	132
62	0.88	4514	510	BK30-../DPE11LA4	28.76	1461	6500	2698	12000	168	76
62	1.55	4514	510	BK40-../DPE11LA4	28.59	1416	6300	3822	17000	225	102
51	1.25	5487	620	BK40-../DPE11LA4	34.61	1551	6900	3822	17000	225	102
50	1.65	5576	630	BK50-../DPE11LA4	35.21	1956	8700	5193	23100	291	132
47	3.1	6638	750	BK60-../DPE11LA4	37.80	1641	7300	5957	26500	313	142
43.5	1.05	6461	730	BK40-../DPE11LA4	40.88	1709	7600	3822	17000	225	102
39.5	2.6	7877	890	BK60-../DPE11LA4	45.05	1843	8200	6362	28300	313	142
37.5	1.25	7346	830	BK50-../DPE11LA4	47.50	2271	10100	5778	25700	291	132
35	2.3	8851	1000	BK60-../DPE11LA4	50.40	2046	9100	6699	29800	313	142
30	1.95	10355	1170	BK60-../DPE11LA4	58.95	2226	9900	7081	31500	313	142
29	0.98	9470	1070	BK50-../DPE11LA4	60.76	2563	11400	5845	26000	291	132
27	1.75	11506	1300	BK60-../DPE11LA4	65.95	2450	10900	7419	33000	313	142

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

BK-series bevel geared motors

Selection - bevel geared motors

5 HP (3.7 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
23.5	0.81	11506	1300	BK50-../DPE11LA4	75.40	2833	12600	5845	26000	291	132
23	1.5	13542	1530	BK60-../DPE11LA4	78.13	2675	11900	7644	34000	313	142
22.5	3.3	13896	1570	BK70-../DPE11LA4	79.89	3215	14300	10701	47600	487	221
20.5	1.35	15223	1720	BK60-../DPE11LA4	87.41	2900	12900	7644	34000	313	142
19.5	2.9	16020	1810	BK70-../DPE11LA4	90.96	3440	15300	11218	49900	487	221
17.5	1.15	17701	2000	BK60-../DPE11LA4	101.2	3125	13900	7644	34000	313	142
17.5	2.6	17701	2000	BK70-../DPE11LA4	103.5	3867	17200	11240	50000	487	221
16	1.05	19472	2200	BK60-../DPE11LA4	113.2	3372	15000	7644	34000	313	142
15	2.2	20799	2350	BK70-../DPE11LA4	120.2	4181	18600	11240	50000	487	221
14.5	0.96	21242	2400	BK60-../DPE11LA4	122.5	3485	15500	7644	34000	313	142
13	0.85	23897	2700	BK60-../DPE11LA4	137.0	3732	16600	7644	34000	313	142
13	1.95	23897	2700	BK70-../DPE11LA4	136.7	4654	20700	11240	50000	487	221
11.5	1.7	26995	3050	BK70-../DPE11LA4	154.4	4923	21900	11240	50000	487	221
10.5	1.55	29650	3350	BK70-../DPE11LA4	175.7	5418	24100	11240	50000	487	221
10.5	3.1	29650	3350	BK80-../DPE11LA4	171.5	6744	30000	16861	75000	741	336
10	3.3	30978	3500	BK80Z-../DPE11LA4	177.6	6744	30000	16861	75000	833	378
9.3	1.4	33190	3750	BK70Z-../DPE11LA4	190.4	5418	24100	11240	50000	545	247
8.9	2.9	34960	3950	BK80Z-../DPE11LA4	198.9	6744	30000	16861	75000	833	378
7.8	1.15	39828	4500	BK70Z-../DPE11LA4	226.2	5418	24100	11240	50000	545	247
7.8	2.6	39828	4500	BK80Z-../DPE11LA4	226.1	6744	30000	16861	75000	833	378
7.0	2.3	44254	5000	BK80Z-../DPE11LA4	253.3	6744	30000	16861	75000	833	378
6.9	1.0	45139	5100	BK70Z-../DPE11LA4	257.3	5418	24100	11240	50000	545	247
6.1	0.91	50449	5700	BK70Z-../DPE11LA4	293.3	5418	24100	11240	50000	545	247
6.0	3.2	51334	5800	BK90Z-../DPE11LA4	295.6	11106	49400	26977	120000	1418	643
5.9	1.95	52219	5900	BK80Z-../DPE11LA4	300.6	6744	30000	16861	75000	833	378
5.4	2.8	57530	6500	BK90Z-../DPE11LA4	330.7	11106	49400	26977	120000	1418	643
5.3	1.75	58415	6600	BK80Z-../DPE11LA4	336.7	6744	30000	16861	75000	833	378
4.6	1.5	67266	7600	BK80Z-../DPE11LA4	389.0	6744	30000	16861	75000	833	378
4.6	2.4	67266	7600	BK90Z-../DPE11LA4	389.1	11106	49400	26977	120000	1418	643
4.1	1.35	76116	8600	BK80Z-../DPE11LA4	435.7	6744	30000	16861	75000	833	378
4.1	2.2	76116	8600	BK90Z-../DPE11LA4	435.3	11106	49400	26977	120000	1418	643
3.6	1.15	86737	9800	BK80Z-../DPE11LA4	499.5	6744	30000	16861	75000	833	378
3.6	1.9	86737	9800	BK90Z-../DPE11LA4	499.2	11106	49400	26977	120000	1418	643
3.2	1.05	97358	11000	BK80Z-../DPE11LA4	559.5	6744	30000	16861	75000	833	378
3.2	1.7	97358	11000	BK90Z-../DPE11LA4	558.5	11106	49400	26977	120000	1418	643
2.9	1.0	100899	11400	BK80G40-../DPE11LA4	607.8	6744	30000	16861	75000	851	386
2.8	1.45	111519	12600	BK90Z-../DPE11LA4	637.7	11106	49400	26977	120000	1418	643
2.6	0.91	112404	12700	BK80G40-../DPE11LA4	680.9	6744	30000	16861	75000	851	386
2.5	1.3	124796	14100	BK90Z-../DPE11LA4	713.5	11106	49400	26977	120000	1418	643
2.4	0.83	123025	13900	BK80G40-../DPE11LA4	756.3	6744	30000	16861	75000	851	386
2.2	1.25	130106	14700	BK90G50-../DPE11LA4	821.0	11106	49400	26977	120000	1455	660
2.0	1.15	145152	16400	BK90G50-../DPE11LA4	882.3	11106	49400	26977	120000	1455	660
1.8	1.0	161084	18200	BK90G50-../DPE11LA4	1008	11106	49400	26977	120000	1455	660
1.6	0.9	181440	20500	BK90G50-../DPE11LA4	1127	11106	49400	26977	120000	1455	660

6 HP (4.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
375	1.85	929	105	BK30-../DPE11LB4	4.73	348	1550	1978	8800	168	76
295	1.6	1186	134	BK30-../DPE11LB4	6.02	380	1690	2158	9600	168	76
240	1.65	1452	164	BK30-../DPE11LB4	7.45	495	2200	2338	10400	168	76
235	2.9	1487	168	BK40-../DPE11LB4	7.49	169	750	2360	10500	225	102
190	2.4	1814	205	BK40-../DPE11LB4	9.31	234	1040	2518	11200	225	102
183	1.5	1903	215	BK30-../DPE11LB4	9.63	708	3150	2585	11500	168	76
158	3.0	2124	240	BK40-../DPE11LB4	11.17	922	4100	2945	13100	225	102
155	1.7	2168	245	BK30-../DPE11LB4	11.39	933	4150	2473	11000	168	76
149	1.85	2345	265	BK40-../DPE11LB4	11.86	398	1770	2743	12200	225	102

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

BK-series bevel geared motors

Selection - bevel geared motors

6 HP (4.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
148	1.2	2345	265	BK30-../DPE11LB4	11.93	821	3650	2698	12000	168	76
126	1.05	2744	310	BK30-../DPE11LB4	13.98	910	4050	2698	12000	168	76
122	1.45	2788	315	BK30-../DPE11LB4	14.50	1102	4900	2698	12000	168	76
122	2.5	2788	315	BK40-../DPE11LB4	14.50	1012	4500	3215	14300	225	102
116	3.2	2921	330	BK50-../DPE11LB4	15.19	1416	6300	4047	18000	291	132
99	1.15	3452	390	BK30-../DPE11LB4	17.95	1191	5300	2698	12000	168	76
99	1.85	3496	395	BK50-../DPE11LB4	17.92	1034	4600	3777	16800	291	132
98	2.0	3452	390	BK40-../DPE11LB4	18.05	1102	4900	3440	15300	225	102
92	2.5	3717	420	BK50-../DPE11LB4	19.33	1551	6900	4316	19200	291	132
79	1.6	4293	485	BK40-../DPE11LB4	22.44	1236	5500	3709	16500	225	102
76	0.9	4425	500	BK30-../DPE11LB4	23.20	1326	5900	2698	12000	168	76
67	1.85	5045	570	BK50-../DPE11LB4	26.51	1754	7800	4766	21200	291	132
62	1.25	5487	620	BK40-../DPE11LB4	28.59	1416	6300	3822	17000	225	102
53	2.8	7169	810	BK60-../DPE11LB4	33.78	1461	6500	5665	25200	313	142
51	1.05	6638	750	BK40-../DPE11LB4	34.61	1551	6900	3822	17000	225	102
50	1.35	6815	770	BK50-../DPE11LB4	35.21	1956	8700	5193	23100	291	132
47	2.5	8054	910	BK60-../DPE11LB4	37.80	1641	7300	5957	26500	313	142
43.5	0.89	7789	880	BK40-../DPE11LB4	40.88	1709	7600	3822	17000	225	102
39.5	2.1	9559	1080	BK60-../DPE11LB4	45.05	1843	8200	6362	28300	313	142
37.5	1.05	8939	1010	BK50-../DPE11LB4	47.50	2271	10100	5778	25700	291	132
35	1.9	10798	1220	BK60-../DPE11LB4	50.40	2046	9100	6699	29800	313	142
30	1.6	12657	1430	BK60-../DPE11LB4	58.95	2226	9900	7081	31500	313	142
29	0.81	11506	1300	BK50-../DPE11LB4	60.76	2563	11400	5845	26000	291	132
27	1.45	14073	1590	BK60-../DPE11LB4	65.95	2450	10900	7419	33000	313	142
25.5	3.1	14869	1680	BK70-../DPE11LB4	70.23	2810	12500	10071	44800	487	221
23	1.25	16462	1860	BK60-../DPE11LB4	78.13	2675	11900	7644	34000	313	142
22.5	2.7	16905	1910	BK70-../DPE11LB4	79.89	3215	14300	10701	47600	487	221
20.5	1.1	18144	2050	BK60-../DPE11LB4	87.41	2900	12900	7644	34000	313	142
19.5	2.4	19472	2200	BK70-../DPE11LB4	90.96	3440	15300	11218	49900	487	221
17.5	0.94	21684	2450	BK60-../DPE11LB4	101.2	3125	13900	7644	34000	313	142
17.5	2.1	21684	2450	BK70-../DPE11LB4	103.5	3867	17200	11240	50000	487	221
16	0.87	23454	2650	BK60-../DPE11LB4	113.2	3372	15000	7644	34000	313	142
15	1.8	25225	2850	BK70-../DPE11LB4	120.2	4181	18600	11240	50000	487	221
13.5	3.3	27880	3150	BK80-../DPE11LB4	131.6	5598	24900	16861	75000	741	336
13	1.6	29207	3300	BK70-../DPE11LB4	136.7	4654	20700	11240	50000	487	221
11.5	1.4	32748	3700	BK70-../DPE11LB4	154.4	4923	21900	11240	50000	487	221
11.5	2.8	32748	3700	BK80-../DPE11LB4	153.1	6115	27200	16861	75000	741	336
10.5	1.3	35846	4050	BK70-../DPE11LB4	175.7	5418	24100	11240	50000	487	221
10.5	2.6	35846	4050	BK80-../DPE11LB4	171.5	6744	30000	16861	75000	741	336
10	2.7	37616	4250	BK80Z-../DPE11LB4	177.6	6744	30000	16861	75000	833	378
9.3	1.15	40713	4600	BK70Z-../DPE11LB4	190.4	5418	24100	11240	50000	545	247
8.9	2.4	42484	4800	BK80Z-../DPE11LB4	198.9	6744	30000	16861	75000	833	378
7.8	0.95	48679	5500	BK70Z-../DPE11LB4	226.2	5418	24100	11240	50000	545	247
7.8	2.1	48679	5500	BK80Z-../DPE11LB4	226.1	6744	30000	16861	75000	833	378
7.6	3.3	49564	5600	BK90Z-../DPE11LB4	234.6	11106	49400	26977	120000	1418	643
7.0	1.9	53990	6100	BK80Z-../DPE11LB4	253.3	6744	30000	16861	75000	833	378
6.9	0.84	54875	6200	BK70Z-../DPE11LB4	257.3	5418	24100	11240	50000	545	247
6.8	2.9	55760	6300	BK90Z-../DPE11LB4	262.5	11106	49400	26977	120000	1418	643
6.0	2.6	62840	7100	BK90Z-../DPE11LB4	295.6	11106	49400	26977	120000	1418	643
5.9	1.6	63725	7200	BK80Z-../DPE11LB4	300.6	6744	30000	16861	75000	833	378
5.4	2.3	69921	7900	BK90Z-../DPE11LB4	330.7	11106	49400	26977	120000	1418	643
5.3	1.4	71691	8100	BK80Z-../DPE11LB4	336.7	6744	30000	16861	75000	833	378
4.6	1.25	82312	9300	BK80Z-../DPE11LB4	389.0	6744	30000	16861	75000	833	378
4.6	2.0	82312	9300	BK90Z-../DPE11LB4	389.1	11106	49400	26977	120000	1418	643
4.1	1.1	92048	10400	BK80Z-../DPE11LB4	435.7	6744	30000	16861	75000	833	378
4.1	1.8	92048	10400	BK90Z-../DPE11LB4	435.3	11106	49400	26977	120000	1418	643
3.6	0.97	105324	11900	BK80Z-../DPE11LB4	499.5	6744	30000	16861	75000	833	378
3.6	1.55	105324	11900	BK90Z-../DPE11LB4	499.2	11106	49400	26977	120000	1418	643
3.2	0.86	118600	13400	BK80Z-../DPE11LB4	559.5	6744	30000	16861	75000	833	378
3.2	1.4	118600	13400	BK90Z-../DPE11LB4	558.5	11106	49400	26977	120000	1418	643
2.9	0.82	123910	14000	BK80G40-../DPE11LB4	607.8	6744	30000	16861	75000	851	386
2.8	1.2	135416	15300	BK90Z-../DPE11LB4	637.7	11106	49400	26977	120000	1418	643

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

BK-series bevel geared motors

Selection - bevel geared motors

6 HP (4.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
2.5	1.1	151348	17100	BK90Z-../DPE11LB4	713.5	11106	49400	26977	120000	1418	643
2.2	1.0	161084	18200	BK90G50-../DPE11LB4	821.0	11106	49400	26977	120000	1455	660
2.0	0.91	179670	20300	BK90G50-../DPE11LB4	882.3	11106	49400	26977	120000	1455	660
1.8	0.82	199142	22500	BK90G50-../DPE11LB4	1008	11106	49400	26977	120000	1455	660

7.5 HP (5.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
375	1.5	1133	128	BK30-../DPE11LB4C	4.73	348	1550	1978	8800	176	80
295	1.3	1443	163	BK30-../DPE11LB4C	6.02	380	1690	2158	9600	176	80
295	2.9	1443	163	BK40-../DPE11LB4C	6.02	106	470	2203	9800	234	106
240	1.35	1770	200	BK30-../DPE11LB4C	7.45	495	2200	2338	10400	176	80
235	2.4	1814	205	BK40-../DPE11LB4C	7.49	169	750	2360	10500	234	106
190	1.95	2213	250	BK40-../DPE11LB4C	9.31	234	1040	2518	11200	234	106
183	1.25	2301	260	BK30-../DPE11LB4C	9.63	708	3150	2585	11500	176	80
176	3.0	2390	270	BK50-../DPE11LB4C	10.00	274	1220	2967	13200	300	136
158	2.4	2611	295	BK40-../DPE11LB4C	11.17	922	4100	2945	13100	234	106
155	1.4	2655	300	BK30-../DPE11LB4C	11.39	933	4150	2473	11000	176	80
149	1.55	2832	320	BK40-../DPE11LB4C	11.86	398	1770	2743	12200	234	106
148	0.98	2876	325	BK30-../DPE11LB4C	11.93	821	3650	2698	12000	176	80
127	2.8	3275	370	BK50-../DPE11LB4C	13.95	1371	6100	3912	17400	300	136
126	0.85	3319	375	BK30-../DPE11LB4C	13.98	910	4050	2698	12000	176	80
122	1.15	3408	385	BK30-../DPE11LB4C	14.50	1102	4900	2698	12000	176	80
122	2.0	3408	385	BK40-../DPE11LB4C	14.50	1012	4500	3215	14300	234	106
116	2.6	3585	405	BK50-../DPE11LB4C	15.19	1416	6300	4047	18000	300	136
99	0.95	4204	475	BK30-../DPE11LB4C	17.95	1191	5300	2698	12000	176	80
99	1.5	4248	480	BK50-../DPE11LB4C	17.92	1034	4600	3777	16800	300	136
98	1.65	4248	480	BK40-../DPE11LB4C	18.05	1102	4900	3440	15300	234	106
92	2.1	4514	510	BK50-../DPE11LB4C	19.33	1551	6900	4316	19200	300	136
79	1.3	5222	590	BK40-../DPE11LB4C	22.44	1236	5500	3709	16500	234	106
72	3.2	6373	720	BK60-../DPE11LB4C	24.45	1090	4850	4946	22000	322	146
67	1.5	6196	700	BK50-../DPE11LB4C	26.51	1754	7800	4766	21200	300	136
65	2.9	7081	800	BK60-../DPE11LB4C	27.36	1259	5600	5216	23200	322	146
62	1.05	6727	760	BK40-../DPE11LB4C	28.59	1416	6300	3822	17000	234	106
53	2.3	8762	990	BK60-../DPE11LB4C	33.78	1461	6500	5665	25200	322	146
51	0.85	8143	920	BK40-../DPE11LB4C	34.61	1551	6900	3822	17000	234	106
50	1.1	8320	940	BK50-../DPE11LB4C	35.21	1956	8700	5193	23100	300	136
47	2.1	9824	1110	BK60-../DPE11LB4C	37.80	1641	7300	5957	26500	322	146
39.5	1.75	11683	1320	BK60-../DPE11LB4C	45.05	1843	8200	6362	28300	322	146
37.5	0.85	10975	1240	BK50-../DPE11LB4C	47.50	2271	10100	5778	25700	300	136
35	1.55	13276	1500	BK60-../DPE11LB4C	50.40	2046	9100	6699	29800	322	146
33	3.3	14073	1590	BK70-../DPE11LB4C	54.15	2226	9900	9037	40200	496	225
30	1.3	15489	1750	BK60-../DPE11LB4C	58.95	2226	9900	7081	31500	322	146
29	2.9	16020	1810	BK70-../DPE11LB4C	61.60	2585	11500	9622	42800	496	225
27	1.2	17170	1940	BK60-../DPE11LB4C	65.95	2450	10900	7419	33000	322	146
25.5	2.5	18144	2050	BK70-../DPE11LB4C	70.23	2810	12500	10071	44800	496	225
23	1.0	19914	2250	BK60-../DPE11LB4C	78.13	2675	11900	7644	34000	322	146
22.5	2.3	20357	2300	BK70-../DPE11LB4C	79.89	3215	14300	10701	47600	496	225
20.5	0.9	22569	2550	BK60-../DPE11LB4C	87.41	2900	12900	7644	34000	322	146
19.5	1.95	23454	2650	BK70-../DPE11LB4C	90.96	3440	15300	11218	49900	496	225
17.5	1.75	26552	3000	BK70-../DPE11LB4C	103.5	3867	17200	11240	50000	496	225
15	1.5	30978	3500	BK70-../DPE11LB4C	120.2	4181	18600	11240	50000	496	225
15	3.0	30978	3500	BK80-../DPE11LB4C	117.5	5013	22300	16861	75000	750	340
13.5	2.7	34075	3850	BK80-../DPE11LB4C	131.6	5598	24900	16861	75000	750	340
13	1.3	35403	4000	BK70-../DPE11LB4C	136.7	4654	20700	11240	50000	496	225
11.5	1.15	40271	4550	BK70-../DPE11LB4C	154.4	4923	21900	11240	50000	496	225
11.5	2.3	40271	4550	BK80-../DPE11LB4C	153.1	6115	27200	16861	75000	750	340

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

BK-series bevel geared motors

Selection - bevel geared motors

7.5 HP (5.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
10.5	1.05	44254	5000	BK70-../DPE11LB4C	175.7	5418	24100	11240	50000	496	225
10.5	2.1	44254	5000	BK80-../DPE11LB4C	171.5	6744	30000	16861	75000	750	340
10	2.2	46024	5200	BK80Z-../DPE11LB4C	177.6	6744	30000	16861	75000	842	382
9.3	0.93	49564	5600	BK70Z-../DPE11LB4C	190.4	5418	24100	11240	50000	553	251
9.1	3.2	50449	5700	BK90Z-../DPE11LB4C	195.4	11106	49400	26977	120000	1426	647
8.9	1.95	52219	5900	BK80Z-../DPE11LB4C	198.9	6744	30000	16861	75000	842	382
7.8	1.7	59300	6700	BK80Z-../DPE11LB4C	226.1	6744	30000	16861	75000	842	382
7.6	2.7	61070	6900	BK90Z-../DPE11LB4C	234.6	11106	49400	26977	120000	1426	647
7.0	1.55	66381	7500	BK80Z-../DPE11LB4C	253.3	6744	30000	16861	75000	842	382
6.8	2.4	68151	7700	BK90Z-../DPE11LB4C	262.5	11106	49400	26977	120000	1426	647
6.0	2.1	77001	8700	BK90Z-../DPE11LB4C	295.6	11106	49400	26977	120000	1426	647
5.9	1.3	78772	8900	BK80Z-../DPE11LB4C	300.6	6744	30000	16861	75000	842	382
5.4	1.9	85852	9700	BK90Z-../DPE11LB4C	330.7	11106	49400	26977	120000	1426	647
5.3	1.15	87622	9900	BK80Z-../DPE11LB4C	336.7	6744	30000	16861	75000	842	382
4.6	1.0	100899	11400	BK80Z-../DPE11LB4C	389.0	6744	30000	16861	75000	842	382
4.6	1.6	100899	11400	BK90Z-../DPE11LB4C	389.1	11106	49400	26977	120000	1426	647
4.1	0.9	113290	12800	BK80Z-../DPE11LB4C	435.7	6744	30000	16861	75000	842	382
4.1	1.45	113290	12800	BK90Z-../DPE11LB4C	435.3	11106	49400	26977	120000	1426	647
3.6	1.3	128336	14500	BK90Z-../DPE11LB4C	499.2	11106	49400	26977	120000	1426	647
3.2	1.15	145152	16400	BK90Z-../DPE11LB4C	558.5	11106	49400	26977	120000	1426	647
2.8	0.99	165509	18700	BK90Z-../DPE11LB4C	637.7	11106	49400	26977	120000	1426	647
2.5	0.88	185866	21000	BK90Z-../DPE11LB4C	713.5	11106	49400	26977	120000	1426	647
2.2	0.82	199142	22500	BK90G50-../DPE11LB4C	821.0	11106	49400	26977	120000	1464	664

10 HP (7.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
480	5.2	1213	137	BK50-../DPE13XA4	3.67	26	115	2113	9400	324	147
335	4.1	1735	196	BK50-../DPE13XA4	5.26	29	130	2405	10700	324	147
245	3.1	2345	265	BK50-../DPE13XA4	7.29	139	620	24954	111000	324	147
181	2.6	3142	355	BK50-../DPE13XA4	9.73	1214	5400	3462	15400	324	147
176	2.2	3275	370	BK50-../DPE13XA4	10.00	274	1220	2967	13200	324	147
127	2.1	4425	500	BK50-../DPE13XA4	13.95	1371	6100	3912	17400	324	147
123	3.3	5133	580	BK60-../DPE13XA4	14.41	821	3650	4181	18600	351	159
116	1.9	4868	550	BK50-../DPE13XA4	15.19	1416	6300	4047	18000	324	147
110	3.0	5753	650	BK60-../DPE13XA4	16.05	910	4050	4226	18800	351	159
99	1.1	5753	650	BK50-../DPE13XA4	17.92	1034	4600	3777	16800	324	147
96	3.0	6550	740	BK60-../DPE13XA4	18.36	899	4000	4474	19900	351	159
92	1.5	6196	700	BK50-../DPE13XA4	19.33	1551	6900	4316	19200	324	147
86	2.7	7346	830	BK60-../DPE13XA4	20.54	989	4400	4631	20600	351	159
72	2.3	8762	990	BK60-../DPE13XA4	24.45	1090	4850	4946	22000	351	159
67	1.1	8497	960	BK50-../DPE13XA4	26.51	1754	7800	4766	21200	324	147
65	2.1	9736	1100	BK60-../DPE13XA4	27.36	1259	5600	5216	23200	351	159
53	1.7	11949	1350	BK60-../DPE13XA4	33.78	1461	6500	5665	25200	351	159
50	0.82	11329	1280	BK50-../DPE13XA4	35.21	1956	8700	5193	23100	324	147
47	1.5	13453	1520	BK60-../DPE13XA4	37.80	1641	7300	5957	26500	351	159
44	3.0	14338	1620	BK70-../DPE13XA4	40.08	1866	8300	8161	36300	525	238
39.5	1.25	16020	1810	BK60-../DPE13XA4	45.05	1843	8200	6362	28300	351	159
39	2.8	16197	1830	BK70-../DPE13XA4	45.59	2023	9000	8520	37900	525	238
35	1.15	17701	2000	BK60-../DPE13XA4	50.40	2046	9100	6699	29800	351	159
33	2.4	19029	2150	BK70-../DPE13XA4	54.15	2226	9900	9037	40200	525	238
30	0.98	20799	2350	BK60-../DPE13XA4	58.95	2226	9900	7081	31500	351	159
29	2.1	21684	2450	BK70-../DPE13XA4	61.60	2585	11500	9622	42800	525	238
27	0.87	23454	2650	BK60-../DPE13XA4	65.95	2450	10900	7419	33000	351	159
25.5	1.85	24782	2800	BK70-../DPE13XA4	70.23	2810	12500	10071	44800	525	238
22.5	1.65	27880	3150	BK70-../DPE13XA4	79.89	3215	14300	10701	47600	525	238
22.5	3.2	27880	3150	BK80-../DPE13XA4	79.22	3957	17600	16029	71300	776	352

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

BK-series bevel geared motors

Selection - bevel geared motors

10 HP (7.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
19.5	1.4	32305	3650	BK70-../DPE13XA4	90.96	3440	15300	11218	49900	525	238
19.5	2.8	32305	3650	BK80-../DPE13XA4	91.53	4114	18300	16681	74200	776	352
17.5	1.3	35846	4050	BK70-../DPE13XA4	103.5	3867	17200	11240	50000	525	238
17.5	2.6	35846	4050	BK80-../DPE13XA4	102.5	4609	20500	16861	75000	776	352
15	1.1	42041	4750	BK70-../DPE13XA4	120.2	4181	18600	11240	50000	525	238
15	2.2	42041	4750	BK80-../DPE13XA4	117.5	5013	22300	16861	75000	776	352
13.5	2.0	46909	5300	BK80-../DPE13XA4	131.6	5598	24900	16861	75000	776	352
13.5	3.2	46909	5300	BK90-../DPE13XA4	130.9	9599	42700	26842	119400	1332	604
13	0.95	48679	5500	BK70-../DPE13XA4	136.7	4654	20700	11240	50000	525	238
12	2.8	52219	5900	BK90-../DPE13XA4	149.5	10251	45600	26977	120000	1332	604
11.5	0.84	54875	6200	BK70-../DPE13XA4	154.4	4923	21900	11240	50000	525	238
11.5	1.7	54875	6200	BK80-../DPE13XA4	153.1	6115	27200	16861	75000	776	352
11	2.6	57530	6500	BK90-../DPE13XA4	167.2	11106	49400	26977	120000	1332	604
10.5	1.55	60185	6800	BK80-../DPE13XA4	171.5	6744	30000	16861	75000	776	352
10.5	2.7	60185	6800	BK90Z-../DPE13XA4	174.7	11106	49400	26977	120000	1455	660
10	1.6	62840	7100	BK80Z-../DPE13XA4	177.6	6744	30000	16861	75000	871	395
9.1	2.4	69036	7800	BK90Z-../DPE13XA4	195.4	11106	49400	26977	120000	1455	660
8.9	1.45	70806	8000	BK80Z-../DPE13XA4	198.9	6744	30000	16861	75000	871	395
7.8	1.25	80542	9100	BK80Z-../DPE13XA4	226.1	6744	30000	16861	75000	871	395
7.6	1.95	83197	9400	BK90Z-../DPE13XA4	234.6	11106	49400	26977	120000	1455	660
7.0	1.15	90278	10200	BK80Z-../DPE13XA4	253.3	6744	30000	16861	75000	871	395
6.8	1.75	92933	10500	BK90Z-../DPE13XA4	262.5	11106	49400	26977	120000	1455	660
6.0	1.55	105324	11900	BK90Z-../DPE13XA4	295.6	11106	49400	26977	120000	1455	660
5.9	0.95	107094	12100	BK80Z-../DPE13XA4	300.6	6744	30000	16861	75000	871	395
5.4	1.4	116830	13200	BK90Z-../DPE13XA4	330.7	11106	49400	26977	120000	1455	660
5.3	0.85	119485	13500	BK80Z-../DPE13XA4	336.7	6744	30000	16861	75000	871	395
4.6	1.2	137187	15500	BK90Z-../DPE13XA4	389.1	11106	49400	26977	120000	1455	660
4.1	1.05	154003	17400	BK90Z-../DPE13XA4	435.3	11106	49400	26977	120000	1455	660
3.6	0.93	175245	19800	BK90Z-../DPE13XA4	499.2	11106	49400	26977	120000	1455	660
3.2	0.83	197372	22300	BK90Z-../DPE13XA4	558.5	11106	49400	26977	120000	1455	660

8

12.75 HP (9.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
485	4.2	1522	172	BK50-../DPE16LB4	3.67	26	115	2113	9400	403	183
340	3.3	2168	245	BK50-../DPE16LB4	5.26	29	130	2405	10700	403	183
245	2.4	3009	340	BK50-../DPE16LB4	7.29	139	620	24954	111000	403	183
182	2.1	3939	445	BK50-../DPE16LB4	9.73	1214	5400	3462	15400	403	183
177	1.75	4160	470	BK50-../DPE16LB4	10.00	274	1220	2967	13200	403	183
164	3.0	4868	550	BK60-../DPE16LB4	10.82	719	3200	3822	17000	430	195
143	3.0	5576	630	BK60-../DPE16LB4	12.38	787	3500	3912	17400	430	195
128	2.8	6196	700	BK60-../DPE16LB4	13.85	866	3850	4047	18000	430	195
127	1.65	5664	640	BK50-../DPE16LB4	13.95	1371	6100	3912	17400	403	183
123	2.6	6461	730	BK60-../DPE16LB4	14.41	821	3650	4181	18600	430	195
117	1.5	6107	690	BK50-../DPE16LB4	15.19	1416	6300	4047	18000	403	183
111	2.4	7169	810	BK60-../DPE16LB4	16.05	910	4050	4226	18800	430	195
99	0.87	7346	830	BK50-../DPE16LB4	17.92	1034	4600	3777	16800	403	183
97	2.3	8231	930	BK60-../DPE16LB4	18.36	899	4000	4474	19900	430	195
92	1.2	7789	880	BK50-../DPE16LB4	19.33	1551	6900	4316	19200	403	183
87	2.2	9205	1040	BK60-../DPE16LB4	20.54	989	4400	4631	20600	430	195
73	1.85	10975	1240	BK60-../DPE16LB4	24.45	1090	4850	4946	22000	430	195
67	0.87	10709	1210	BK50-../DPE16LB4	26.51	1754	7800	4766	21200	403	183
65	1.65	12303	1390	BK60-../DPE16LB4	27.36	1259	5600	5216	23200	430	195
58	2.9	13807	1560	BK70-../DPE16LB4	30.90	1686	7500	7554	33600	613	278
53	1.35	15135	1710	BK60-../DPE16LB4	33.78	1461	6500	5665	25200	430	195
51	2.7	15666	1770	BK70-../DPE16LB4	35.15	1798	8000	7868	35000	613	278
47	1.2	17082	1930	BK60-../DPE16LB4	37.80	1641	7300	5957	26500	430	195

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

BK-series bevel geared motors

Selection - bevel geared motors

12.75 HP (9.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·in	Nm			lb·f	N	lb·f	N	lb	kg
44.5	2.4	17701	2000	BK70-../DPE16LB4	40.08	1866	8300	8161	36300	613	278
39.5	1.0	19914	2250	BK60-../DPE16LB4	45.05	1843	8200	6362	28300	430	195
39	2.2	20357	2300	BK70-../DPE16LB4	45.59	2023	9000	8520	37900	613	278
35.5	0.9	22569	2550	BK60-../DPE16LB4	50.40	2046	9100	6699	29800	430	195
33.5	3.3	23897	2700	BK80-../DPE16LB4	53.21	3327	14800	14185	63100	855	388
33	1.95	23897	2700	BK70-../DPE16LB4	54.15	2226	9900	9037	40200	613	278
30	3.1	26552	3000	BK80-../DPE16LB4	59.60	3530	15700	14725	65500	855	388
29	1.7	27437	3100	BK70-../DPE16LB4	61.60	2585	11500	9622	42800	613	278
25.5	1.45	31420	3550	BK70-../DPE16LB4	70.23	2810	12500	10071	44800	613	278
25.5	2.7	31420	3550	BK80-../DPE16LB4	70.72	3732	16600	15444	68700	855	388
22.5	1.3	35403	4000	BK70-../DPE16LB4	79.89	3215	14300	10701	47600	613	278
22.5	2.5	35403	4000	BK80-../DPE16LB4	79.22	3957	17600	16029	71300	855	388
19.5	1.1	41156	4650	BK70-../DPE16LB4	90.96	3440	15300	11218	49900	613	278
19.5	2.2	41156	4650	BK80-../DPE16LB4	91.53	4114	18300	16681	74200	855	388
17.5	1.0	45139	5100	BK70-../DPE16LB4	103.5	3867	17200	11240	50000	613	278
17.5	2.1	45139	5100	BK80-../DPE16LB4	102.5	4609	20500	16861	75000	855	388
17.5	3.3	45139	5100	BK90-../DPE16LB4	102.0	8228	36600	24055	107000	1413	641
15.5	1.8	51334	5800	BK80-../DPE16LB4	117.5	5013	22300	16861	75000	855	388
15.5	2.9	51334	5800	BK90-../DPE16LB4	117.0	8813	39200	25403	113000	1413	641
15	0.87	53104	6000	BK70-../DPE16LB4	120.2	4181	18600	11240	50000	613	278
14	2.6	56645	6400	BK90-../DPE16LB4	130.9	9599	42700	26842	119400	1413	641
13.5	1.55	59300	6700	BK80-../DPE16LB4	131.6	5598	24900	16861	75000	855	388
12	1.4	66381	7500	BK80-../DPE16LB4	153.1	6115	27200	16861	75000	855	388
12	2.2	66381	7500	BK90-../DPE16LB4	149.5	10251	45600	26977	120000	1413	641
11	2.0	72576	8200	BK90-../DPE16LB4	167.2	11106	49400	26977	120000	1413	641
10.5	1.2	76116	8600	BK80-../DPE16LB4	171.5	6744	30000	16861	75000	855	388
10.5	2.2	76116	8600	BK90Z-../DPE16LB4	174.7	11106	49400	26977	120000	1543	700
10	1.3	79657	9000	BK80Z-../DPE16LB4	177.6	6744	30000	16861	75000	950	431
9.1	1.85	87622	9900	BK90Z-../DPE16LB4	195.4	11106	49400	26977	120000	1543	700
8.9	1.15	89393	10100	BK80Z-../DPE16LB4	198.9	6744	30000	16861	75000	950	431
7.9	1.0	100899	11400	BK80Z-../DPE16LB4	226.1	6744	30000	16861	75000	950	431
7.6	1.55	105324	11900	BK90Z-../DPE16LB4	234.6	11106	49400	26977	120000	1543	700
7.0	0.89	114175	12900	BK80Z-../DPE16LB4	253.3	6744	30000	16861	75000	950	431
6.8	1.4	117715	13300	BK90Z-../DPE16LB4	262.5	11106	49400	26977	120000	1543	700
6.0	1.25	133646	15100	BK90Z-../DPE16LB4	295.6	11106	49400	26977	120000	1543	700
5.4	1.1	148693	16800	BK90Z-../DPE16LB4	330.7	11106	49400	26977	120000	1543	700
4.6	0.94	174360	19700	BK90Z-../DPE16LB4	389.1	11106	49400	26977	120000	1543	700
4.1	0.84	195601	22100	BK90Z-../DPE16LB4	435.3	11106	49400	26977	120000	1543	700

15 HP (11 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·in	Nm			lb·f	N	lb·f	N	lb	kg
485	3.6	1761	199	BK50-../DPE16LB4	3.67	26	115	2113	9400	403	183
340	2.9	2478	280	BK50-../DPE16LB4	5.26	29	130	2405	10700	403	183
245	2.1	3452	390	BK50-../DPE16LB4	7.29	139	620	24954	111000	403	183
182	1.85	4514	510	BK50-../DPE16LB4	9.73	1214	5400	3462	15400	403	183
177	1.5	4779	540	BK50-../DPE16LB4	10.00	274	1220	2967	13200	403	183
164	2.6	5664	640	BK60-../DPE16LB4	10.82	719	3200	3822	17000	430	195
143	2.6	6461	730	BK60-../DPE16LB4	12.38	787	3500	3912	17400	430	195
128	2.4	7258	820	BK60-../DPE16LB4	13.85	866	3850	4047	18000	430	195
127	1.4	6550	740	BK50-../DPE16LB4	13.95	1371	6100	3912	17400	403	183
123	2.3	7523	850	BK60-../DPE16LB4	14.41	821	3650	4181	18600	430	195
117	1.3	7081	800	BK50-../DPE16LB4	15.19	1416	6300	4047	18000	403	183
111	2.1	8320	940	BK60-../DPE16LB4	16.05	910	4050	4226	18800	430	195
97	2.0	9559	1080	BK60-../DPE16LB4	18.36	899	4000	4474	19900	430	195
92	1.05	9028	1020	BK50-../DPE16LB4	19.33	1551	6900	4316	19200	403	183
87	1.9	10621	1200	BK60-../DPE16LB4	20.54	989	4400	4631	20600	430	195

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

BK-series bevel geared motors

Selection - bevel geared motors

15 HP (11 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
81	3.2	11417	1290	BK70-../DPE16LB4	21.88	1461	6500	6789	30200	613	278
73	1.6	12657	1430	BK60-../DPE16LB4	24.45	1090	4850	4946	22000	430	195
72	2.9	12834	1450	BK70-../DPE16LB4	24.89	1574	7000	7081	31500	613	278
65	1.45	14250	1610	BK60-../DPE16LB4	27.36	1259	5600	5216	23200	430	195
58	2.5	16020	1810	BK70-../DPE16LB4	30.90	1686	7500	7554	33600	613	278
53	1.15	17524	1980	BK60-../DPE16LB4	33.78	1461	6500	5665	25200	430	195
51	2.3	18144	2050	BK70-../DPE16LB4	35.15	1798	8000	7868	35000	613	278
47	1.05	19472	2200	BK60-../DPE16LB4	37.80	1641	7300	5957	26500	430	195
44.5	2.1	20799	2350	BK70-../DPE16LB4	40.08	1866	8300	8161	36300	613	278
39.5	0.87	23454	2650	BK60-../DPE16LB4	45.05	1843	8200	6362	28300	430	195
39	1.95	23454	2650	BK70-../DPE16LB4	45.59	2023	9000	8520	37900	613	278
38	3.1	24340	2750	BK80-../DPE16LB4	46.80	3215	14300	13691	60900	855	388
33.5	2.9	27437	3100	BK80-../DPE16LB4	53.21	3327	14800	14185	63100	855	388
33	1.65	27880	3150	BK70-../DPE16LB4	54.15	2226	9900	9037	40200	613	278
30	2.6	30978	3500	BK80-../DPE16LB4	59.60	3530	15700	14725	65500	855	388
29	1.45	31863	3600	BK70-../DPE16LB4	61.60	2585	11500	9622	42800	613	278
25.5	1.25	36288	4100	BK70-../DPE16LB4	70.23	2810	12500	10071	44800	613	278
25.5	2.3	36288	4100	BK80-../DPE16LB4	70.72	3732	16600	15444	68700	855	388
22.5	1.1	41156	4650	BK70-../DPE16LB4	79.89	3215	14300	10701	47600	613	278
22.5	2.2	41156	4650	BK80-../DPE16LB4	79.22	3957	17600	16029	71300	855	388
19.5	0.98	46909	5300	BK70-../DPE16LB4	90.96	3440	15300	11218	49900	613	278
19.5	1.95	46909	5300	BK80-../DPE16LB4	91.53	4114	18300	16681	74200	855	388
19.5	3.2	46909	5300	BK90-../DPE16LB4	91.19	7486	33300	22706	101000	1413	641
17.5	0.87	53104	6000	BK70-../DPE16LB4	103.5	3867	17200	11240	50000	613	278
17.5	1.75	53104	6000	BK80-../DPE16LB4	102.5	4609	20500	16861	75000	855	388
17.5	2.8	53104	6000	BK90-../DPE16LB4	102.0	8228	36600	24055	107000	1413	641
15.5	1.55	59300	6700	BK80-../DPE16LB4	117.5	5013	22300	16861	75000	855	388
15.5	2.5	59300	6700	BK90-../DPE16LB4	117.0	8813	39200	25403	113000	1413	641
14	2.2	66381	7500	BK90-../DPE16LB4	130.9	9599	42700	26842	119400	1413	641
13.5	1.35	68151	7700	BK80-../DPE16LB4	131.6	5598	24900	16861	75000	855	388
12	1.2	77001	8700	BK80-../DPE16LB4	153.1	6115	27200	16861	75000	855	388
12	1.95	77001	8700	BK90-../DPE16LB4	149.5	10251	45600	26977	120000	1413	641
11	1.75	84082	9500	BK90-../DPE16LB4	167.2	11106	49400	26977	120000	1413	641
10.5	1.05	88507	10000	BK80-../DPE16LB4	171.5	6744	30000	16861	75000	855	388
10.5	1.85	88507	10000	BK90Z-../DPE16LB4	174.7	11106	49400	26977	120000	1543	700
10	1.1	92933	10500	BK80Z-../DPE16LB4	177.6	6744	30000	16861	75000	950	431
9.1	1.6	101784	11500	BK90Z-../DPE16LB4	195.4	11106	49400	26977	120000	1543	700
8.9	0.97	104439	11800	BK80Z-../DPE16LB4	198.9	6744	30000	16861	75000	950	431
7.9	0.87	116830	13200	BK80Z-../DPE16LB4	226.1	6744	30000	16861	75000	950	431
7.6	1.35	122140	13800	BK90Z-../DPE16LB4	234.6	11106	49400	26977	120000	1543	700
6.8	1.2	136301	15400	BK90Z-../DPE16LB4	262.5	11106	49400	26977	120000	1543	700
6.0	1.05	154888	17500	BK90Z-../DPE16LB4	295.6	11106	49400	26977	120000	1543	700
5.4	0.95	171704	19400	BK90Z-../DPE16LB4	330.7	11106	49400	26977	120000	1543	700
4.6	0.81	201797	22800	BK90Z-../DPE16LB4	389.1	11106	49400	26977	120000	1543	700

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20 HP (15 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
485	2.7	2390	270	BK50-../DPE16XB4	3.67	26	115	2113	9400	425	193
340	2.1	3408	385	BK50-../DPE16XB4	5.26	29	130	2405	10700	425	193
245	1.55	4691	530	BK50-../DPE16XB4	7.29	139	620	24954	111000	425	193
245	2.5	5133	580	BK60-../DPE16XB4	7.29	629	2800	3350	14900	452	205
182	1.35	6196	700	BK50-../DPE16XB4	9.73	1214	5400	3462	15400	425	193
177	1.1	6550	740	BK50-../DPE16XB4	10.00	274	1220	2967	13200	425	193
164	1.95	7700	870	BK60-../DPE16XB4	10.82	719	3200	3822	17000	452	205
143	1.9	8851	1000	BK60-../DPE16XB4	12.38	787	3500	3912	17400	452	205
130	2.8	9736	1100	BK70-../DPE16XB4	13.70	1214	5400	5575	24800	635	288

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

BK-series bevel geared motors

Selection - bevel geared motors

20 HP (15 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
128	1.8	9824	1110	BK60-../DPE16XB4	13.85	866	3850	4047	18000	452	205
127	1.05	8939	1010	BK50-../DPE16XB4	13.95	1371	6100	3912	17400	425	193
123	1.65	10267	1160	BK60-../DPE16XB4	14.41	821	3650	4181	18600	452	205
117	0.95	9736	1100	BK50-../DPE16XB4	15.19	1416	6300	4047	18000	425	193
117	2.5	10798	1220	BK70-../DPE16XB4	15.16	1259	5600	5800	25800	635	288
111	1.55	11417	1290	BK60-../DPE16XB4	16.05	910	4050	4226	18800	452	205
103	2.5	12303	1390	BK70-../DPE16XB4	17.24	1461	6500	6564	29200	635	288
97	1.5	13011	1470	BK60-../DPE16XB4	18.36	899	4000	4474	19900	452	205
87	1.35	14515	1640	BK60-../DPE16XB4	20.54	989	4400	4631	20600	452	205
81	2.3	15577	1760	BK70-../DPE16XB4	21.88	1461	6500	6789	30200	635	288
73	1.15	17347	1960	BK60-../DPE16XB4	24.45	1090	4850	4946	22000	452	205
72	2.2	17524	1980	BK70-../DPE16XB4	24.89	1574	7000	7081	31500	635	288
65	1.05	19472	2200	BK60-../DPE16XB4	27.36	1259	5600	5216	23200	452	205
58	1.85	21684	2450	BK70-../DPE16XB4	30.90	1686	7500	7554	33600	635	288
58	3.1	21684	2450	BK80-../DPE16XB4	30.56	2675	11900	12005	53400	877	398
53	0.85	23897	2700	BK60-../DPE16XB4	33.78	1461	6500	5665	25200	452	205
52	2.8	24340	2750	BK80-../DPE16XB4	34.22	2833	12600	12454	55400	877	398
51	1.7	24782	2800	BK70-../DPE16XB4	35.15	1798	8000	7868	35000	635	288
44.5	1.5	28322	3200	BK70-../DPE16XB4	40.08	1866	8300	8161	36300	635	288
42.5	2.5	29650	3350	BK80-../DPE16XB4	41.78	3035	13500	13196	58700	877	398
39	1.4	32305	3650	BK70-../DPE16XB4	45.59	2023	9000	8520	37900	635	288
38	2.3	33190	3750	BK80-../DPE16XB4	46.80	3215	14300	13691	60900	877	398
33.5	2.1	37616	4250	BK80-../DPE16XB4	53.21	3327	14800	14185	63100	877	398
33	1.2	38058	4300	BK70-../DPE16XB4	54.15	2226	9900	9037	40200	635	288
30	1.95	42041	4750	BK80-../DPE16XB4	59.60	3530	15700	14725	65500	877	398
29	1.05	43369	4900	BK70-../DPE16XB4	61.60	2585	11500	9622	42800	635	288
26	3.1	48679	5500	BK90-../DPE16XB4	69.27	6115	27200	19986	88900	1435	651
25.5	0.93	49564	5600	BK70-../DPE16XB4	70.23	2810	12500	10071	44800	635	288
25.5	1.7	49564	5600	BK80-../DPE16XB4	70.72	3732	16600	15444	68700	877	398
23	2.7	54875	6200	BK90-../DPE16XB4	77.51	6812	30300	21222	94400	1435	651
22.5	0.83	55760	6300	BK70-../DPE16XB4	79.89	3215	14300	10701	47600	635	288
22.5	1.6	55760	6300	BK80-../DPE16XB4	79.22	3957	17600	16029	71300	877	398
19.5	1.4	64610	7300	BK80-../DPE16XB4	91.53	4114	18300	16681	74200	877	398
19.5	2.3	64610	7300	BK90-../DPE16XB4	91.19	7486	33300	22706	101000	1435	651
17.5	1.3	71691	8100	BK80-../DPE16XB4	102.5	4609	20500	16861	75000	877	398
17.5	2.1	71691	8100	BK90-../DPE16XB4	102.0	8228	36600	24055	107000	1435	651
15.5	1.15	81427	9200	BK80-../DPE16XB4	117.5	5013	22300	16861	75000	877	398
15.5	1.85	81427	9200	BK90-../DPE16XB4	117.0	8813	39200	25403	113000	1435	651
14	1.65	90278	10200	BK90-../DPE16XB4	130.9	9599	42700	26842	119400	1435	651
13.5	0.99	93818	10600	BK80-../DPE16XB4	131.6	5598	24900	16861	75000	877	398
12	0.88	105324	11900	BK80-../DPE16XB4	153.1	6115	27200	16861	75000	877	398
12	1.4	105324	11900	BK90-../DPE16XB4	149.5	10251	45600	26977	120000	1435	651
11	1.3	115060	13000	BK90-../DPE16XB4	167.2	11106	49400	26977	120000	1435	651
10.5	1.35	120370	13600	BK90Z-../DPE16XB4	174.7	11106	49400	26977	120000	1565	710
10	0.8	126566	14300	BK80Z-../DPE16XB4	177.6	6744	30000	16861	75000	972	441
9.1	1.2	138957	15700	BK90Z-../DPE16XB4	195.4	11106	49400	26977	120000	1565	710
7.6	0.98	166394	18800	BK90Z-../DPE16XB4	234.6	11106	49400	26977	120000	1565	710
6.8	0.88	185866	21000	BK90Z-../DPE16XB4	262.5	11106	49400	26977	120000	1565	710

25 HP (18.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
485	2.1	2965	335	BK50-../DPE18LB4	3.67	26	115	2113	9400	540	245
340	1.7	4204	475	BK50-../DPE18LB4	5.26	29	130	2405	10700	540	245
245	1.25	5841	660	BK50-../DPE18LB4	7.29	139	620	24954	111000	540	245
245	2.0	6373	720	BK60-../DPE18LB4	7.29	629	2800	3350	14900	556	252
177	0.89	8054	910	BK50-../DPE18LB4	10.00	274	1220	2967	13200	540	245

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

BK-series bevel geared motors

Selection - bevel geared motors

25 HP (18.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
164	1.55	9470	1070	BK60-../DPE18LB4	10.82	719	3200	3822	17000	556	252
127	0.84	11063	1250	BK50-../DPE18LB4	13.95	1371	6100	3912	17400	540	245
124	3.0	12568	1420	BK80-../DPE18LB4	14.34	1776	7900	8138	36200	977	443
123	1.35	12657	1430	BK60-../DPE18LB4	14.41	821	3650	4181	18600	556	252
117	2.0	13365	1510	BK70-../DPE18LB4	15.16	1259	5600	5800	25800	725	329
112	3.0	13896	1570	BK80-../DPE18LB4	15.88	1888	8400	8678	38600	977	443
103	2.0	15135	1710	BK70-../DPE18LB4	17.24	1461	6500	6564	29200	725	329
100	3.0	15577	1760	BK80-../DPE18LB4	17.79	2113	9400	9464	42100	977	443
97	1.2	16108	1820	BK60-../DPE18LB4	18.36	899	4000	4474	19900	556	252
92	3.0	16993	1920	BK80-../DPE18LB4	19.35	2136	9500	9892	44000	977	443
87	1.15	17701	2000	BK60-../DPE18LB4	20.54	989	4400	4631	20600	556	252
81	1.9	19029	2150	BK70-../DPE18LB4	21.88	1461	6500	6789	30200	725	329
80	3.1	19472	2200	BK80-../DPE18LB4	22.19	2360	10500	10903	48500	977	443
73	0.96	21242	2400	BK60-../DPE18LB4	24.45	1090	4850	4946	22000	556	252
72	1.75	21684	2450	BK70-../DPE18LB4	24.89	1574	7000	7081	31500	725	329
72	2.9	21684	2450	BK80-../DPE18LB4	24.85	2518	11200	11330	50400	977	443
65	0.85	23897	2700	BK60-../DPE18LB4	27.36	1259	5600	5216	23200	556	252
58	1.5	26552	3000	BK70-../DPE18LB4	30.90	1686	7500	7554	33600	725	329
58	2.5	26552	3000	BK80-../DPE18LB4	30.56	2675	11900	12005	53400	977	443
52	2.3	29650	3350	BK80-../DPE18LB4	34.22	2833	12600	12454	55400	977	443
51	1.35	30535	3450	BK70-../DPE18LB4	35.15	1798	8000	7868	35000	725	329
44.5	1.25	34960	3950	BK70-../DPE18LB4	40.08	1866	8300	8161	36300	725	329
42.5	2.0	36731	4150	BK80-../DPE18LB4	41.78	3035	13500	13196	58700	977	443
39	1.15	39828	4500	BK70-../DPE18LB4	45.59	2023	9000	8520	37900	725	329
38	1.85	40713	4600	BK80-../DPE18LB4	46.80	3215	14300	13691	60900	977	443
33.5	1.7	46024	5200	BK80-../DPE18LB4	53.21	3327	14800	14185	63100	977	443
33	0.98	46909	5300	BK70-../DPE18LB4	54.15	2226	9900	9037	40200	725	329
32.5	3.0	47794	5400	BK90-../DPE18LB4	54.98	5395	24000	18210	81000	1539	698
30	1.6	51334	5800	BK80-../DPE18LB4	59.60	3530	15700	14725	65500	977	443
29	0.87	53104	6000	BK70-../DPE18LB4	61.60	2585	11500	9622	42800	725	329
29	2.8	53104	6000	BK90-../DPE18LB4	61.52	5733	25500	19019	84600	1539	698
26	2.5	59300	6700	BK90-../DPE18LB4	69.27	6115	27200	19986	88900	1539	698
25.5	1.4	61070	6900	BK80-../DPE18LB4	70.72	3732	16600	15444	68700	977	443
23	2.2	67266	7600	BK90-../DPE18LB4	77.51	6812	30300	21222	94400	1539	698
22.5	1.3	69036	7800	BK80-../DPE18LB4	79.22	3957	17600	16029	71300	977	443
19.5	1.15	79657	9000	BK80-../DPE18LB4	91.53	4114	18300	16681	74200	977	443
19.5	1.85	79657	9000	BK90-../DPE18LB4	91.19	7486	33300	22706	101000	1539	698
17.5	1.05	88507	10000	BK80-../DPE18LB4	102.5	4609	20500	16861	75000	977	443
17.5	1.7	88507	10000	BK90-../DPE18LB4	102.0	8228	36600	24055	107000	1539	698
15.5	0.93	100013	11300	BK80-../DPE18LB4	117.5	5013	22300	16861	75000	977	443
15.5	1.5	100013	11300	BK90-../DPE18LB4	117.0	8813	39200	25403	113000	1539	698
14	1.35	111519	12600	BK90-../DPE18LB4	130.9	9599	42700	26842	119400	1539	698
13.5	0.81	115060	13000	BK80-../DPE18LB4	131.6	5598	24900	16861	75000	977	443
12	1.15	130106	14700	BK90-../DPE18LB4	149.5	10251	45600	26977	120000	1539	698
11	1.05	141612	16000	BK90-../DPE18LB4	167.2	11106	49400	26977	120000	1539	698
10.5	1.1	148693	16800	BK90Z-../DPE18LB4	174.7	11106	49400	26977	120000	1656	751
9.1	0.95	171704	19400	BK90Z-../DPE18LB4	195.4	11106	49400	26977	120000	1656	751
7.6	0.8	205337	23200	BK90Z-../DPE18LB4	234.6	11106	49400	26977	120000	1656	751

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30 HP (22 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
124	2.5	14958	1690	BK80-../DPE18XB4	14.34	1776	7900	8138	36200	1016	461
117	1.7	15843	1790	BK70-../DPE18XB4	15.16	1259	5600	5800	25800	765	347
112	2.6	16551	1870	BK80-../DPE18XB4	15.88	1888	8400	8678	38600	1016	461
103	1.75	17701	2000	BK70-../DPE18XB4	17.24	1461	6500	6564	29200	765	347
100	2.5	18587	2100	BK80-../DPE18XB4	17.79	2113	9400	9464	42100	1016	461

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

BK-series bevel geared motors

Selection - bevel geared motors

30 HP (22 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
92	2.6	19914	2250	BK80-../DPE18XB4	19.35	2136	9500	9892	44000	1016	461
81	1.6	22569	2550	BK70-../DPE18XB4	21.88	1461	6500	6789	30200	765	347
80	2.6	23012	2600	BK80-../DPE18XB4	22.19	2360	10500	10903	48500	1016	461
72	1.45	25667	2900	BK70-../DPE18XB4	24.89	1574	7000	7081	31500	765	347
72	2.4	25667	2900	BK80-../DPE18XB4	24.85	2518	11200	11330	50400	1016	461
58	1.25	31863	3600	BK70-../DPE18XB4	30.90	1686	7500	7554	33600	765	347
58	2.1	31863	3600	BK80-../DPE18XB4	30.56	2675	11900	12005	53400	1016	461
52	1.95	35403	4000	BK80-../DPE18XB4	34.22	2833	12600	12454	55400	1016	461
51	1.15	36288	4100	BK70-../DPE18XB4	35.15	1798	8000	7868	35000	765	347
44.5	1.05	41599	4700	BK70-../DPE18XB4	40.08	1866	8300	8161	36300	765	347
43.5	3.1	42484	4800	BK90-../DPE18XB4	40.94	4811	21400	16434	73100	1579	716
42.5	1.7	43369	4900	BK80-../DPE18XB4	41.78	3035	13500	13196	58700	1016	461
39	0.97	46909	5300	BK70-../DPE18XB4	45.59	2023	9000	8520	37900	765	347
39	2.9	46909	5300	BK90-../DPE18XB4	45.80	5103	22700	17153	76300	1579	716
38	1.55	48679	5500	BK80-../DPE18XB4	46.80	3215	14300	13691	60900	1016	461
33.5	1.45	54875	6200	BK80-../DPE18XB4	53.21	3327	14800	14185	63100	1016	461
33	0.83	55760	6300	BK70-../DPE18XB4	54.15	2226	9900	9037	40200	765	347
32.5	2.5	56645	6400	BK90-../DPE18XB4	54.98	5395	24000	18210	81000	1579	716
30	1.3	61955	7000	BK80-../DPE18XB4	59.60	3530	15700	14725	65500	1016	461
29	2.3	63725	7200	BK90-../DPE18XB4	61.52	5733	25500	19019	84600	1579	716
26	2.1	70806	8000	BK90-../DPE18XB4	69.27	6115	27200	19986	88900	1579	716
25.5	1.15	72576	8200	BK80-../DPE18XB4	70.72	3732	16600	15444	68700	1016	461
23	1.85	80542	9100	BK90-../DPE18XB4	77.51	6812	30300	21222	94400	1579	716
22.5	1.1	82312	9300	BK80-../DPE18XB4	79.22	3957	17600	16029	71300	1016	461
19.5	0.97	94703	10700	BK80-../DPE18XB4	91.53	4114	18300	16681	74200	1016	461
19.5	1.55	94703	10700	BK90-../DPE18XB4	91.19	7486	33300	22706	101000	1579	716
17.5	0.88	106209	12000	BK80-../DPE18XB4	102.5	4609	20500	16861	75000	1016	461
17.5	1.4	106209	12000	BK90-../DPE18XB4	102.0	8228	36600	24055	107000	1579	716
15.5	1.25	119485	13500	BK90-../DPE18XB4	117.0	8813	39200	25403	113000	1579	716
14	1.1	132761	15000	BK90-../DPE18XB4	130.9	9599	42700	26842	119400	1579	716
12	0.96	154888	17500	BK90-../DPE18XB4	149.5	10251	45600	26977	120000	1579	716
11	0.88	169049	19100	BK90-../DPE18XB4	167.2	11106	49400	26977	120000	1579	716
10.5	0.93	177015	20000	BK90Z-../DPE18XB4	174.7	11106	49400	26977	120000	1695	769
9.1	0.8	203567	23000	BK90Z-../DPE18XB4	195.4	11106	49400	26977	120000	1695	769

40 HP (30 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
125	1.9	19914	2250	BK80-../DPE20LA4	14.34	1776	7900	8138	36200	1354	614
118	1.25	21242	2400	BK70-../DPE20LA4	15.16	1259	5600	5800	25800	1404	637
113	1.9	22127	2500	BK80-../DPE20LA4	15.88	1888	8400	8678	38600	1662	754
104	1.25	24340	2750	BK70-../DPE20LA4	17.24	1461	6500	6564	29200	1404	637
101	1.9	24782	2800	BK80-../DPE20LA4	17.79	2113	9400	9464	42100	1662	754
92	1.85	27437	3100	BK80-../DPE20LA4	19.35	2136	9500	9892	44000	1662	754
82	1.2	30535	3450	BK70-../DPE20LA4	21.88	1461	6500	6789	30200	1107	502
81	1.95	30978	3500	BK80-../DPE20LA4	22.19	2360	10500	10903	48500	1354	614
72	1.1	34960	3950	BK70-../DPE20LA4	24.89	1574	7000	7081	31500	1404	637
72	1.8	34960	3950	BK80-../DPE20LA4	24.85	2518	11200	11330	50400	1354	614
72	3.3	34960	3950	BK90-../DPE20LA4	24.94	4047	18000	13871	61700	1916	869
59	1.55	42926	4850	BK80-../DPE20LA4	30.56	2675	11900	12005	53400	1354	614
59	2.8	42926	4850	BK90-../DPE20LA4	30.47	4294	19100	14815	65900	1916	869
58	0.92	43369	4900	BK70-../DPE20LA4	30.90	1686	7500	7554	33600	1404	637
53	1.45	47794	5400	BK80-../DPE20LA4	34.22	2833	12600	12454	55400	1354	614
53	2.6	47794	5400	BK90-../DPE20LA4	34.09	4564	20300	15467	68800	2220	1007
51	0.85	49564	5600	BK70-../DPE20LA4	35.15	1798	8000	7868	35000	1404	637
43.5	2.3	57530	6500	BK90-../DPE20LA4	40.94	4811	21400	16434	73100	1916	869
43	1.25	58415	6600	BK80-../DPE20LA4	41.78	3035	13500	13196	58700	1354	614

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

BK-series bevel geared motors

Selection - bevel geared motors

40 HP (30 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·ft	Nm			lb·ft	N	lb·ft	N	lb	kg
39	2.1	64610	7300	BK90-../DPE20LA4	45.80	5103	22700	17153	76300	1916	869
38.5	1.15	65496	7400	BK80-../DPE20LA4	46.80	3215	14300	13691	60900	1662	754
33.5	1.05	75231	8500	BK80-../DPE20LA4	53.21	3327	14800	14185	63100	1354	614
32.5	1.85	77887	8800	BK90-../DPE20LA4	54.98	5395	24000	18210	81000	2220	1007
30	0.97	84082	9500	BK80-../DPE20LA4	59.60	3530	15700	14725	65500	1662	754
29	1.7	86737	9800	BK90-../DPE20LA4	61.52	5733	25500	19019	84600	2220	1007
26	1.55	97358	11000	BK90-../DPE20LA4	69.27	6115	27200	19986	88900	1916	869
25.5	0.86	99128	11200	BK80-../DPE20LA4	70.72	3732	16600	15444	68700	1354	614
23	1.35	109749	12400	BK90-../DPE20LA4	77.51	6812	30300	21222	94400	1916	869
20	1.15	126566	14300	BK90-../DPE20LA4	91.19	7486	33300	22706	101000	2220	1007
17.5	1.05	144267	16300	BK90-../DPE20LA4	102.0	8228	36600	24055	107000	2220	1007
15.5	0.91	162854	18400	BK90-../DPE20LA4	117.0	8813	39200	25403	113000	1916	869
14	0.82	180555	20400	BK90-../DPE20LA4	130.9	9599	42700	26842	119400	1916	869

50 HP (37 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·ft	Nm			lb·ft	N	lb·ft	N	lb	kg
125	1.55	24782	2800	BK80-../DPE22SA4	14.34	1776	7900	8138	36200	1351	613
123	3.2	25225	2850	BK90-../DPE22SA4	14.49	3260	14500	11330	50400	2280	1034
118	1.05	26110	2950	BK70-../DPE22SA4	15.16	1259	5600	5800	25800	1457	661
113	1.55	27437	3100	BK80-../DPE22SA4	15.88	1888	8400	8678	38600	1720	780
110	3.2	28322	3200	BK90-../DPE22SA4	16.21	3462	15400	11780	52400	1914	868
104	1.05	29650	3350	BK70-../DPE22SA4	17.24	1461	6500	6564	29200	1457	661
101	1.5	30535	3450	BK80-../DPE22SA4	17.79	2113	9400	9464	42100	1720	780
99	3.2	31420	3550	BK90-../DPE22SA4	18.07	3507	15600	12230	54400	1914	868
92	1.5	33633	3800	BK80-../DPE22SA4	19.35	2136	9500	9892	44000	1720	780
89	3.0	34960	3950	BK90-../DPE22SA4	20.21	3732	16600	12747	56700	1914	868
81	1.55	38501	4350	BK80-../DPE22SA4	22.19	2360	10500	10903	48500	1351	613
80	2.8	38943	4400	BK90-../DPE22SA4	22.29	3799	16900	13286	59100	1914	868
72	1.45	43369	4900	BK80-../DPE22SA4	24.85	2518	11200	11330	50400	1351	613
72	2.6	43369	4900	BK90-../DPE22SA4	24.94	4047	18000	13871	61700	1914	868
59	1.25	52219	5900	BK80-../DPE22SA4	30.56	2675	11900	12005	53400	1351	613
59	2.3	52219	5900	BK90-../DPE22SA4	30.47	4294	19100	14815	65900	1914	868
53	1.2	58415	6600	BK80-../DPE22SA4	34.22	2833	12600	12454	55400	1351	613
53	2.1	58415	6600	BK90-../DPE22SA4	34.09	4564	20300	15467	68800	2280	1034
43.5	1.85	71691	8100	BK90-../DPE22SA4	40.94	4811	21400	16434	73100	1914	868
43	1.0	72576	8200	BK80-../DPE22SA4	41.78	3035	13500	13196	58700	1351	613
39	1.7	79657	9000	BK90-../DPE22SA4	45.80	5103	22700	17153	76300	1914	868
32.5	1.5	95588	10800	BK90-../DPE22SA4	54.98	5395	24000	18210	81000	2280	1034
29	1.4	107094	12100	BK90-../DPE22SA4	61.52	5733	25500	19019	84600	2280	1034
26	1.25	119485	13500	BK90-../DPE22SA4	69.27	6115	27200	19986	88900	1914	868
23	1.1	135416	15300	BK90-../DPE22SA4	77.51	6812	30300	21222	94400	1914	868

60 HP (45 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·ft	Nm			lb·ft	N	lb·ft	N	lb	kg
125	1.28	29341	3315	BK80-../DPE22MA4	14.34	1776	7900	8138	36200	1477	670
123	2.77	29772	3364	BK90-../DPE22MA4	14.49	3260	14500	11330	50400	2405	1091
113	1.28	32792	3705	BK80-../DPE22MA4	15.88	1888	8400	8678	38600	1847	838
110	2.67	33655	3803	BK90-../DPE22MA4	16.21	3462	15400	11780	52400	2039	925
101	1.28	36676	4144	BK80-../DPE22MA4	17.79	2113	9400	9464	42100	1847	838
99	2.77	37107	4193	BK90-../DPE22MA4	18.07	3507	15600	12230	54400	2039	925

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



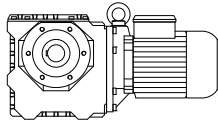
BK-series bevel geared motors

Selection - bevel geared motors

60 HP (45 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
92	1.28	40127	4534	BK80-../DPE22MA4	19.35	2136	9500	9892	44000	1847	838
89	2.56	41422	4680	BK90-../DPE22MA4	20.21	3732	16600	12747	56700	2039	925
81	1.33	45736	5168	BK80-../DPE22MA4	22.19	2360	10500	10903	48500	1477	670
80	2.36	45736	5168	BK90-../DPE22MA4	22.29	3799	16900	13286	59100	2039	925
72	1.23	50914	5753	BK80-../DPE22MA4	24.85	2518	11200	11330	50400	1477	670
72	2.26	50914	5753	BK90-../DPE22MA4	24.94	4047	18000	13871	61700	2039	925
59	1.08	62132	7020	BK80-../DPE22MA4	30.56	2675	11900	12005	53400	1477	670
59	1.95	62132	7020	BK90-../DPE22MA4	30.47	4294	19100	14815	65900	2039	925
53	1.79	69899	7898	BK90-../DPE22MA4	34.09	4564	20300	15467	68800	2405	1091
43.5	1.54	84569	9555	BK90-../DPE22MA4	40.94	4811	21400	16434	73100	2039	925
39	1.44	94924	10725	BK90-../DPE22MA4	45.80	5103	22700	17153	76300	2039	925
32.5	1.23	113909	12870	BK90-../DPE22MA4	54.98	5395	24000	18210	81000	2405	1091
29	1.18	127716	14430	BK90-../DPE22MA4	61.52	5733	25500	19019	84600	2405	1091
26	1.03	142386	16088	BK90-../DPE22MA4	69.27	6115	27200	19986	88900	2039	925

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



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BS-series worm-gear motors
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BS-series worm-geared motors

Description of worm-gear units

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

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

Bauer service factors (f_b) for worm-geared motors Worm gears transmit torque by sliding friction only, which means that losses and temperature are inevitably higher than with helical-gear arrangements.

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

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

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

See Bauer special imprint SD32 for more information.

Factor f_1 for shock classification and operating time

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

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

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, $\phi N \geq 5^\circ$)

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-playrigid coupling or resilient coupling with $\phi N < 5^\circ$)

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)

BS-series worm-geared motors

Description of worm-gear units

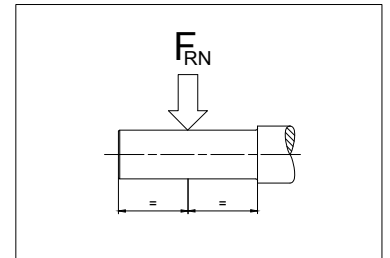
Key to abbreviations

Z	Switching duty number of switching operations per hour
t_d	Daily operating time in hours (h/d)
FI	Factor of inertia $FI = (J_{ext} + J_{rot})/J_{rot}$
J_{ext}	Mass moment of inertia of the machine to be driven, in relation to the motor's rotor shaft (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 (°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").

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

Motor power overload protection

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

BS-series worm-gear motors

Selection - worm-gear motors

0.075 HP (0.055 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
152	8.9	25	2.8	BS02-../D04LA4	10.67	281	1250	-	-	8	3.5
120	7.4	30	3.4	BS02-../D04LA4	13.50	281	1250	-	-	8	3.5
90	5.8	38	4.3	BS02-../D04LA4	18.00	281	1250	-	-	8	3.5
74	5.1	44	4.95	BS02-../D04LA4	22.00	281	1250	-	-	8	3.5
60	4.5	49	5.5	BS02-../D04LA4	27.00	281	1250	-	-	8	3.5
49.5	4.0	56	6.3	BS02-../D04LA4	33.00	281	1250	-	-	8	3.5
38	2.8	75	8.5	BS02-../D04LA4	43.00	281	1250	-	-	8	3.5
30	2.2	88	9.9	BS02-../D04LA4	54.00	281	1250	-	-	8	3.5
26.5	2.9	117	13.2	BS04-../D04LA4	61.50	506	2250	-	-	9	3.9
25.5	2.8	114	12.9	BS04-../D04LA4	64.06	506	2250	-	-	9	3.9
23.5	1.75	100	11.3	BS02-../D04LA4	70.00	281	1250	-	-	8	3.5
23	2.5	133	15	BS04-../D04LA4	71.18	506	2250	-	-	9	3.9
21.5	2.6	132	14.9	BS04-../D04LA4	77.00	506	2250	-	-	9	3.9
17.5	2.1	157	17.7	BS04-../D04LA4	93.92	506	2250	-	-	9	3.9
16	1.8	186	21	BS04-../D04LA4	102.9	506	2250	-	-	9	3.9
13.5	1.65	217	24.5	BS04-../D04LA4	123.0	506	2250	-	-	9	3.9
12	1.55	239	27	BS04-../D04LA4	138.4	506	2250	-	-	9	3.9
11	1.5	230	26	BS04-../D04LA4	150.3	506	2250	-	-	9	3.9
10.5	1.2	270	30.5	BS04-../D04LA4	160.1	506	2250	-	-	9	3.9
9.4	1.35	266	30	BS04-../D04LA4	174.0	506	2250	-	-	9	3.9
9.4	2.9	296	33.5	BS06-../D04LA4	174.0	787	3500	-	-	19	8.4
7.4	1.05	332	37.5	BS04-../D04LA4	220.0	506	2250	-	-	9	3.9
7.4	2.4	367	41.5	BS06-../D04LA4	220.0	787	3500	-	-	19	8.4
6.5	0.98	372	42	BS04-../D04LA4	251.6	506	2250	-	-	9	3.9
6.5	2.1	412	46.5	BS06-../D04LA4	252.0	787	3500	-	-	19	8.4
5.4	0.87	438	49.5	BS04-../D04LA4	300.7	506	2250	-	-	9	3.9
5.4	3.2	531	60	BS10Z-../D04LA4	302.5	1349	6000	-	-	46	21
5.2	1.85	504	57	BS06-../D04LA4	315.3	787	3500	-	-	19	8.4
4.8	0.81	478	54	BS04-../D04LA4	338.3	506	2250	-	-	9	3.9
4.6	1.75	558	63	BS06-../D04LA4	358.9	787	3500	-	-	19	8.4
4.5	2.6	637	72	BS10Z-../D04LA4	360.3	1349	6000	-	-	46	21
3.9	1.5	655	74	BS06-../D04LA4	418.0	787	3500	-	-	19	8.4
3.8	2.3	743	84	BS10Z-../D04LA4	432.4	1349	6000	-	-	46	21
3.5	0.89	938	106	BS06G04-../D04LA4	474.8	787	3500	-	-	24	11
3.0	0.83	1062	120	BS06G04-../D04LA4	552.6	787	3500	-	-	24	11
3.0	1.85	912	103	BS10Z-../D04LA4	544.8	1349	6000	-	-	46	21
2.7	1.0	832*	94*	BS06G04-../D04LA4	610.7	787	3500	-	-	24	11
2.7	3.1	929	105	BS20Z-../D04LA4	619.2	1798	8000	-	-	71	32
2.6	1.7	1000	113	BS10Z-../D04LA4	638.7	1349	6000	-	-	46	21
2.3	1.0	832*	94*	BS06G04-../D04LA4	704.7	787	3500	-	-	24	11
2.2	2.4	1133	128	BS20Z-../D04LA4	763.4	1798	8000	-	-	71	32
2.1	1.35	1195	135	BS10Z-../D04LA4	788.7	1349	6000	-	-	46	21
2.0	1.0	832*	94*	BS06G04-../D04LA4	847.0	787	3500	-	-	24	11
2.0	1.55	1531	173	BS20G06-../D04LA4	831.7	1798	8000	-	-	77	35
1.8	1.0	832*	94*	BS06G04-../D04LA4	939.6	787	3500	-	-	24	11
1.8	1.05	1363	154	BS10Z-../D04LA4	905.6	1349	6000	-	-	46	21
1.7	0.81	1744	197	BS10G06-../D04LA4	969.9	1349	6000	-	-	55	25
1.7	1.35	1770	200	BS20G06-../D04LA4	1000	1798	8000	-	-	77	35
1.6	2.2	1991	225	BS30G06-../D04LA4	1022	2248	10000	-	-	117	53
1.4	1.0	832*	94*	BS06G04-../D04LA4	1170	787	3500	-	-	24	11
1.4	1.0	1416*	160*	BS10G06-../D04LA4	1166	1349	6000	-	-	55	25
1.4	1.9	2257	255	BS30G06-../D04LA4	1176	2248	10000	-	-	117	53
1.3	1.0	1416*	160*	BS10G06-../D04LA4	1342	1349	6000	-	-	55	25
1.3	1.0	2345	265	BS20G06-../D04LA4	1311	1798	8000	-	-	77	35
1.2	1.65	2655	300	BS30G06-../D04LA4	1461	2248	10000	-	-	117	53
1.1	1.0	832*	94*	BS06G04-../D04LA4	1503	787	3500	-	-	24	11
1.1	1.0	1416*	160*	BS10G06-../D04LA4	1528	1349	6000	-	-	55	25
1.1	0.86	2788	315	BS20G06-../D04LA4	1543	1798	8000	-	-	77	35
1.1	1.5	2876	325	BS30G06-../D04LA4	1576	2248	10000	-	-	117	53
1.0	1.0	832*	94*	BS06G04-../D04LA4	1654	787	3500	-	-	24	11
1.0	1.0	1416*	160*	BS10G06-../D04LA4	1668	1349	6000	-	-	55	25
1.0	1.0	2390*	270*	BS20G06-../D04LA4	1683	1798	8000	-	-	77	35

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

BS-series worm-gear motors

Selection - worm-gear motors

0.075 HP (0.055 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lbf	N	lbf	N	lb	kg
0.9	1.25	3540	400	BS30G06-../D04LA4	1886	2248	10000	-	-	117	53
0.85	1.0	832*	94*	BS06G04-../D04LA4	1914	787	3500	-	-	24	11
0.85	1.0	1416*	160*	BS10G06-../D04LA4	1963	1349	6000	-	-	55	25
0.85	1.0	2390*	270*	BS20G06-../D04LA4	2014	1798	8000	-	-	77	35
0.75	1.0	832*	94*	BS06G04-../D04LA4	2200	787	3500	-	-	24	11
0.75	1.0	4248	480	BS30G06-../D04LA4	2308	2248	10000	-	-	117	53
0.7	1.0	1416*	160*	BS10G06-../D04LA4	2348	1349	6000	-	-	55	25
0.7	1.0	2390*	270*	BS20G06-../D04LA4	2465	1798	8000	-	-	77	35
0.65	1.0	1416*	160*	BS10G06-../D04LA4	2635	1349	6000	-	-	55	25
0.65	1.0	4337*	490*	BS30G06-../D04LA4	2518	2248	10000	-	-	117	53
0.6	1.0	832*	94*	BS06G04-../D04LA4	2768	787	3500	-	-	24	11
0.6	1.0	1416*	160*	BS10G06-../D04LA4	2875	1349	6000	-	-	55	25
0.6	1.0	2390*	270*	BS20G06-../D04LA4	2857	1798	8000	-	-	77	35
0.6	1.0	4337*	490*	BS30G06-../D04LA4	2919	2248	10000	-	-	117	53
0.55	1.0	832*	94*	BS06G04-../D04LA4	3007	787	3500	-	-	24	11
0.55	1.0	2390*	270*	BS20G06-../D04LA4	3117	1798	8000	-	-	77	35
0.49	1.0	832*	94*	BS06G04-../D04LA4	3308	787	3500	-	-	24	11
0.49	1.0	1416*	160*	BS10G06-../D04LA4	3332	1349	6000	-	-	55	25
0.49	1.0	4337*	490*	BS30G06-../D04LA4	3344	2248	10000	-	-	117	53
0.46	1.0	2390*	270*	BS20G06-../D04LA4	3570	1798	8000	-	-	77	35
0.45	1.0	1416*	160*	BS10G06-../D04LA4	3635	1349	6000	-	-	55	25
0.45	1.0	4337*	490*	BS30G06-../D04LA4	3647	2248	10000	-	-	117	53
0.44	1.0	832*	94*	BS06G04-../D04LA4	3721	787	3500	-	-	24	11
0.4	1.0	2390*	270*	BS20G06-../D04LA4	4096	1798	8000	-	-	77	35
0.39	1.0	1416*	160*	BS10G06-../D04LA4	4163	1349	6000	-	-	55	25
0.39	1.0	4337*	490*	BS30G06-../D04LA4	4184	2248	10000	-	-	117	53
0.38	1.0	832*	94*	BS06G04-../D04LA4	4304	787	3500	-	-	24	11
0.34	1.0	1416*	160*	BS10G06-../D04LA4	4776	1349	6000	-	-	55	25
0.34	1.0	4514*	510*	BS30G06-../D04LA4	4905	2248	10000	-	-	117	53
0.33	1.0	867*	98*	BS06G04-../D04LA4	4947	787	3500	-	-	24	11
0.33	1.0	2390*	270*	BS20G06-../D04LA4	4910	1798	8000	-	-	77	35
0.32	1.0	1416*	160*	BS10G06-../D04LA4	5209	1349	6000	-	-	55	25
0.3	1.0	867*	98*	BS06G04-../D04LA4	5442	787	3500	-	-	24	11
0.29	1.0	4602*	520*	BS30G06-../D04LA4	5783	2248	10000	-	-	117	53
0.28	1.0	2390*	270*	BS20G06-../D04LA4	5880	1798	8000	-	-	77	35
0.27	1.0	1452*	164*	BS10G06-../D04LA4	6019	1349	6000	-	-	55	25
0.26	1.0	885*	100*	BS06G04-../D04LA4	6234	787	3500	-	-	24	11
0.26	1.0	4602*	520*	BS30G06-../D04LA4	6308	2248	10000	-	-	117	53
0.25	1.0	1452*	164*	BS10G06-../D04LA4	6565	1349	6000	-	-	55	25
0.23	1.0	2434*	275*	BS20G06-../D04LA4	7363	1798	8000	-	-	77	35
0.23	1.0	4602*	520*	BS30G06-../D04LA4	7179	2248	10000	-	-	117	53
0.22	1.0	1452*	164*	BS10G06-../D04LA4	7471	1349	6000	-	-	55	25
0.21	1.0	2434*	275*	BS20G06-../D04LA4	8031	1798	8000	-	-	77	35
0.2	1.0	4602*	520*	BS30G06-../D04LA4	8362	2248	10000	-	-	117	53
0.19	1.0	1452*	164*	BS10G06-../D04LA4	8703	1349	6000	-	-	55	25
0.18	1.0	2478*	280*	BS20G06-../D04LA4	9220	1798	8000	-	-	77	35
0.16	1.0	2478*	280*	BS20G06-../D04LA4	10493	1798	8000	-	-	77	35

0.1 HP (0.075 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lbf	N	lbf	N	lb	kg
355	8.5	16	1.77	BS02-../D04LA4	4.60	225	1000	-	-	8	3.5
300	9.5	19	2.1	BS02-../D04LA4	5.40	225	1000	-	-	8	3.5
240	9.8	23	2.55	BS02-../D04LA4	6.75	225	1000	-	-	8	3.5
197	8.2	27	3.05	BS02-../D04LA4	8.25	247	1100	-	-	8	3.5
152	6.5	34	3.85	BS02-../D04LA4	10.67	281	1250	-	-	8	3.5
120	5.4	41	4.65	BS02-../D04LA4	13.50	281	1250	-	-	8	3.5

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

BS-series worm-gear motors

Selection - worm-gear motors

0.1 HP (0.075 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
90	4.3	51	5.8	BS02-../D04LA4	18.00	281	1250	-	-	8	3.5
74	3.7	59	6.7	BS02-../D04LA4	22.00	281	1250	-	-	8	3.5
60	3.3	66	7.5	BS02-../D04LA4	27.00	281	1250	-	-	8	3.5
49.5	2.9	76	8.6	BS02-../D04LA4	33.00	281	1250	-	-	8	3.5
42.5	3.2	103	11.6	BS04-../D04LA4	38.42	506	2250	-	-	9	3.9
38	2.1	103	11.6	BS02-../D04LA4	43.00	281	1250	-	-	8	3.5
34	2.7	127	14.3	BS04-../D04LA4	47.86	506	2250	-	-	9	3.9
30	1.6	120	13.6	BS02-../D04LA4	54.00	281	1250	-	-	8	3.5
26.5	2.1	160	18.1	BS04-../D04LA4	61.50	506	2250	-	-	9	3.9
25.5	2.0	156	17.6	BS04-../D04LA4	64.06	506	2250	-	-	9	3.9
23.5	1.3	137	15.5	BS02-../D04LA4	70.00	281	1250	-	-	8	3.5
23	1.85	181	20.5	BS04-../D04LA4	71.18	506	2250	-	-	9	3.9
22	2.4	147	16.6	BS03-../D05LA4	75.00	438	1950	-	-	12	5.4
21.5	1.9	177	20	BS04-../D04LA4	77.00	506	2250	-	-	9	3.9
17.5	1.6	212	24	BS04-../D04LA4	93.92	506	2250	-	-	9	3.9
16	1.35	252	28.5	BS04-../D04LA4	102.9	506	2250	-	-	9	3.9
16	3.3	270	30.5	BS06-../D04LA4	103.1	787	3500	-	-	19	8.4
14	2.8	292	33	BS06-../D04LA4	118.8	787	3500	-	-	19	8.4
14	3.2	332	37.5	BS10-../D06LA4	119.6	1349	6000	-	-	51	23
13.5	1.25	292	33	BS04-../D04LA4	123.0	506	2250	-	-	9	3.9
13	2.8	323	36.5	BS06-../D04LA4	129.0	787	3500	-	-	19	8.4
12	1.15	327	37	BS04-../D04LA4	138.4	506	2250	-	-	9	3.9
11.5	2.7	354	40	BS06-../D04LA4	146.8	787	3500	-	-	19	8.4
11	1.1	314	35.5	BS04-../D04LA4	150.3	506	2250	-	-	9	3.9
10.5	0.89	367	41.5	BS04-../D04LA4	160.1	506	2250	-	-	9	3.9
9.4	0.98	363	41	BS04-../D04LA4	174.0	506	2250	-	-	9	3.9
9.4	2.2	403	45.5	BS06-../D04LA4	174.0	787	3500	-	-	19	8.4
8.6	3.2	469	53	BS10-../D06LA4	188.6	1349	6000	-	-	51	23
7.5	3.0	540	61	BS10-../D06LA4	216.6	1349	6000	-	-	51	23
7.4	1.7	504	57	BS06-../D04LA4	220.0	787	3500	-	-	19	8.4
6.5	1.55	558	63	BS06-../D04LA4	252.0	787	3500	-	-	19	8.4
6.4	2.5	628	71	BS10Z-../D06LA4	254.0	1349	6000	-	-	53	24
5.4	2.3	726	82	BS10Z-../D06LA4	302.5	1349	6000	-	-	53	24
5.2	1.35	690	78	BS06-../D04LA4	315.3	787	3500	-	-	19	8.4
4.6	1.25	770	87	BS06-../D04LA4	358.9	787	3500	-	-	19	8.4
4.6	3.3	850	96	BS20Z-../D06LA4	359.9	1798	8000	-	-	77	35
4.5	1.95	867	98	BS10Z-../D06LA4	360.3	1349	6000	-	-	53	24
3.9	1.1	894	101	BS06-../D04LA4	418.0	787	3500	-	-	19	8.4
3.8	1.65	1009	114	BS10Z-../D06LA4	432.4	1349	6000	-	-	53	24
3.8	2.9	1009	114	BS20Z-../D06LA4	430.8	1798	8000	-	-	77	35
3.1	2.9	1124	127	BS20Z-../D06LA4	539.7	1798	8000	-	-	77	35
3.0	1.35	1239	140	BS10Z-../D06LA4	544.8	1349	6000	-	-	53	24
2.7	2.3	1266	143	BS20Z-../D06LA4	619.2	1798	8000	-	-	77	35
2.6	1.25	1363	154	BS10Z-../D06LA4	638.7	1349	6000	-	-	53	24
2.2	1.75	1549	175	BS20Z-../D06LA4	763.4	1798	8000	-	-	77	35
2.1	0.98	1629	184	BS10Z-../D06LA4	788.7	1349	6000	-	-	53	24
2.1	2.4	1744	197	BS30Z-../D06LA4	804.1	2248	10000	-	-	119	54
2.0	1.15	2080	235	BS20G06-../D06LA4	831.7	1798	8000	-	-	84	38
1.8	2.0	1991	225	BS30Z-../D06LA4	932.0	2248	10000	-	-	119	54
1.8	3.2	2036	230	BS40Z-../D06LA4	908.2	3372	15000	-	-	150	68
1.7	0.98	2434	275	BS20G06-../D06LA4	1000	1798	8000	-	-	84	38
1.7	3.0	2567	290	BS40G10-../D06LA4	965.5	3372	15000	-	-	161	73
1.6	1.6	2699	305	BS30G06-../D06LA4	1022	2248	10000	-	-	123	56
1.4	1.4	3098	350	BS30G06-../D06LA4	1176	2248	10000	-	-	123	56
1.4	2.5	3142	355	BS40G10-../D06LA4	1180	3372	15000	-	-	161	73
1.2	1.2	3629	410	BS30G06-../D06LA4	1461	2248	10000	-	-	123	56
1.1	1.1	3939	445	BS30G06-../D06LA4	1576	2248	10000	-	-	123	56
1.1	1.95	4027	455	BS40G10-../D06LA4	1499	3372	15000	-	-	161	73
0.95	1.7	4602	520	BS40G10-../D06LA4	1785	3372	15000	-	-	161	73
0.8	1.4	5487	620	BS40G10-../D06LA4	2126	3372	15000	-	-	161	73
0.75	1.35	5841	660	BS40G10-../D06LA4	2304	3372	15000	-	-	161	73
0.65	1.15	6815	770	BS40G10-../D06LA4	2552	3372	15000	-	-	161	73

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

BS-series worm-gear motors

Selection - worm-gear motors

0.1 HP (0.075 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
0.6	1.05	7346	830	BS40G10-../D06LA4	2902	3372	15000	-	-	161	73

0.12 HP (0.09 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
355	7.1	19	2.1	BS02-../D04LA4	4.60	225	1000	-	-	8	3.5
300	8.0	22	2.5	BS02-../D04LA4	5.40	225	1000	-	-	8	3.5
240	8.2	27	3.05	BS02-../D04LA4	6.75	225	1000	-	-	8	3.5
197	6.8	32	3.65	BS02-../D04LA4	8.25	247	1100	-	-	8	3.5
152	5.4	41	4.6	BS02-../D04LA4	10.67	281	1250	-	-	8	3.5
120	4.5	49	5.5	BS02-../D04LA4	13.50	281	1250	-	-	8	3.5
90	3.6	62	7.0	BS02-../D04LA4	18.00	281	1250	-	-	8	3.5
74	3.1	72	8.1	BS02-../D04LA4	22.00	281	1250	-	-	8	3.5
60	2.8	80	9.0	BS02-../D04LA4	27.00	281	1250	-	-	8	3.5
52	3.3	102	11.5	BS04-../D04LA4	31.50	506	2250	-	-	9	3.9
49.5	2.4	92	10.4	BS02-../D04LA4	33.00	281	1250	-	-	8	3.5
42.5	2.7	123	13.9	BS04-../D04LA4	38.42	506	2250	-	-	9	3.9
38	1.7	124	14	BS02-../D04LA4	43.00	281	1250	-	-	8	3.5
34	2.2	151	17.1	BS04-../D04LA4	47.86	506	2250	-	-	9	3.9
30	1.35	144	16.3	BS02-../D04LA4	54.00	281	1250	-	-	8	3.5
26.5	2.8	151	17.1	BS03-../D05LA4	62.00	438	1950	-	-	12	5.4
26.5	1.75	190	21.5	BS04-../D04LA4	61.50	506	2250	-	-	9	3.9
25.5	1.7	186	21	BS04-../D04LA4	64.06	506	2250	-	-	9	3.9
23.5	1.1	165	18.6	BS02-../D04LA4	70.00	281	1250	-	-	8	3.5
23	1.55	217	24.5	BS04-../D04LA4	71.18	506	2250	-	-	9	3.9
22	2.0	176	19.9	BS03-../D05LA4	75.00	438	1950	-	-	12	5.4
21.5	1.6	212	24	BS04-../D04LA4	77.00	506	2250	-	-	9	3.9
21.5	3.2	235	26.5	BS06-../D04LA4	77.00	787	3500	-	-	19	8.4
18	3.0	292	33	BS06-../D04LA4	90.00	787	3500	-	-	19	8.4
17.5	1.35	252	28.5	BS04-../D04LA4	93.92	506	2250	-	-	9	3.9
16	1.1	301	34	BS04-../D04LA4	102.9	506	2250	-	-	9	3.9
16	2.7	327	37	BS06-../D04LA4	103.1	787	3500	-	-	19	8.4
14	2.4	350	39.5	BS06-../D04LA4	118.8	787	3500	-	-	19	8.4
14	2.7	398	45	BS10-../D06LA4	119.6	1349	6000	-	-	51	23
13.5	1.05	354	40	BS04-../D04LA4	123.0	506	2250	-	-	9	3.9
13	2.4	389	44	BS06-../D04LA4	129.0	787	3500	-	-	19	8.4
12	0.95	389	44	BS04-../D04LA4	138.4	506	2250	-	-	9	3.9
11.5	2.2	429	48.5	BS06-../D04LA4	146.8	787	3500	-	-	19	8.4
11	0.92	376	42.5	BS04-../D04LA4	150.3	506	2250	-	-	9	3.9
11	3.3	443	50	BS10-../D06LA4	152.7	1349	6000	-	-	51	23
9.4	0.82	434	49	BS04-../D04LA4	174.0	506	2250	-	-	9	3.9
9.4	1.8	478	54	BS06-../D04LA4	174.0	787	3500	-	-	19	8.4
8.6	2.7	558	63	BS10-../D06LA4	188.6	1349	6000	-	-	51	23
7.5	2.5	646	73	BS10-../D06LA4	216.6	1349	6000	-	-	51	23
7.4	1.45	602	68	BS06-../D04LA4	220.0	787	3500	-	-	19	8.4
6.5	1.3	673	76	BS06-../D04LA4	252.0	787	3500	-	-	19	8.4
6.4	2.1	752	85	BS10Z-../D06LA4	254.0	1349	6000	-	-	53	24
5.4	1.95	867	98	BS10Z-../D06LA4	302.5	1349	6000	-	-	53	24
5.4	3.0	885	100	BS20Z-../D06LA4	300.1	1798	8000	-	-	77	35
5.2	1.15	832	94	BS06-../D04LA4	315.3	787	3500	-	-	19	8.4
4.6	1.05	920	104	BS06-../D04LA4	358.9	787	3500	-	-	19	8.4
4.6	2.8	1018	115	BS20Z-../D06LA4	359.9	1798	8000	-	-	77	35
4.6	2.9	1221	138	BS30Z-../D06LA4	359.6	2248	10000	-	-	119	54
4.5	1.6	1044	118	BS10Z-../D06LA4	360.3	1349	6000	-	-	53	24
3.9	0.91	1071	121	BS06-../D04LA4	418.0	787	3500	-	-	19	8.4
3.8	1.4	1213	137	BS10Z-../D06LA4	432.4	1349	6000	-	-	53	24
3.8	2.4	1213	137	BS20Z-../D06LA4	430.8	1798	8000	-	-	77	35

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

BS-series worm-gear motors

Selection - worm-gear motors

0.12 HP (0.09 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
3.1	2.4	1345	152	BS20Z-../D06LA4	539.7	1798	8000	-	-	77	35
3.0	1.1	1496	169	BS10Z-../D06LA4	544.8	1349	6000	-	-	53	24
2.7	1.95	1513	171	BS20Z-../D06LA4	619.2	1798	8000	-	-	77	35
2.6	1.05	1637	185	BS10Z-../D06LA4	638.7	1349	6000	-	-	53	24
2.5	2.8	1814	205	BS30Z-../D06LA4	651.0	2248	10000	-	-	119	54
2.2	1.5	1859	210	BS20Z-../D06LA4	763.4	1798	8000	-	-	77	35
2.2	3.3	2036	230	BS40Z-../D06LA4	736.5	3372	15000	-	-	150	68
2.1	0.82	1947	220	BS10Z-../D06LA4	788.7	1349	6000	-	-	53	24
2.1	2.0	2080	235	BS30Z-../D06LA4	804.1	2248	10000	-	-	119	54
2.0	0.96	2478	280	BS20G06-../D06LA4	831.7	1798	8000	-	-	84	38
1.8	1.65	2390	270	BS30Z-../D06LA4	932.0	2248	10000	-	-	119	54
1.8	2.7	2478	280	BS40Z-../D06LA4	908.2	3372	15000	-	-	150	68
1.7	0.82	2921	330	BS20G06-../D06LA4	1000	1798	8000	-	-	84	38
1.7	2.5	3098	350	BS40G10-../D06LA4	965.5	3372	15000	-	-	161	73
1.6	1.3	3275	370	BS30G06-../D06LA4	1022	2248	10000	-	-	123	56
1.4	1.15	3717	420	BS30G06-../D06LA4	1176	2248	10000	-	-	123	56
1.4	2.1	3762	425	BS40G10-../D06LA4	1180	3372	15000	-	-	161	73
1.2	1.0	4337	490	BS30G06-../D06LA4	1461	2248	10000	-	-	123	56
1.1	0.92	4691	530	BS30G06-../D06LA4	1576	2248	10000	-	-	123	56
1.1	1.65	4779	540	BS40G10-../D06LA4	1499	3372	15000	-	-	161	73
0.95	1.4	5576	630	BS40G10-../D06LA4	1785	3372	15000	-	-	161	73
0.8	1.15	6638	750	BS40G10-../D06LA4	2126	3372	15000	-	-	161	73
0.75	1.1	7081	800	BS40G10-../D06LA4	2304	3372	15000	-	-	161	73

0.15 HP (0.11 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
355	5.8	23	2.6	BS02-../D04LA4	4.60	225	1000	-	-	8	3.5
300	6.6	27	3.05	BS02-../D04LA4	5.40	225	1000	-	-	8	3.5
240	6.7	33	3.75	BS02-../D04LA4	6.75	225	1000	-	-	8	3.5
197	5.6	39	4.45	BS02-../D04LA4	8.25	247	1100	-	-	8	3.5
152	4.5	50	5.6	BS02-../D04LA4	10.67	281	1250	-	-	8	3.5
120	3.7	60	6.8	BS02-../D04LA4	13.50	281	1250	-	-	8	3.5
90	2.9	76	8.6	BS02-../D04LA4	18.00	281	1250	-	-	8	3.5
74	2.5	88	9.9	BS02-../D04LA4	22.00	281	1250	-	-	8	3.5
67	2.9	105	11.9	BS04-../D04LA4	24.25	506	2250	-	-	9	3.9
62	3.2	106	12	BS04-../D04LA4	26.21	506	2250	-	-	9	3.9
60	2.3	97	11	BS02-../D04LA4	27.00	281	1250	-	-	8	3.5
52	2.7	125	14.1	BS04-../D04LA4	31.50	506	2250	-	-	9	3.9
49.5	1.95	112	12.7	BS02-../D04LA4	33.00	281	1250	-	-	8	3.5
42.5	2.2	150	17	BS04-../D04LA4	38.42	506	2250	-	-	9	3.9
38	1.4	151	17.1	BS02-../D04LA4	43.00	281	1250	-	-	8	3.5
34	1.8	186	21	BS04-../D04LA4	47.86	506	2250	-	-	9	3.9
32.5	2.9	166	18.7	BS03-../D05LA4	50.00	438	1950	-	-	12	5.4
30	1.1	176	19.9	BS02-../D04LA4	54.00	281	1250	-	-	8	3.5
26.5	2.3	186	21	BS03-../D05LA4	62.00	438	1950	-	-	12	5.4
26.5	1.45	235	26.5	BS04-../D04LA4	61.50	506	2250	-	-	9	3.9
25.5	1.4	226	25.5	BS04-../D04LA4	64.06	506	2250	-	-	9	3.9
25.5	2.9	248	28	BS06-../D04LA4	64.06	787	3500	-	-	19	8.4
23.5	0.89	199	22.5	BS02-../D04LA4	70.00	281	1250	-	-	8	3.5
23	1.25	266	30	BS04-../D04LA4	71.18	506	2250	-	-	9	3.9
23	2.9	283	32	BS06-../D04LA4	71.18	787	3500	-	-	19	8.4
22	1.65	212	24	BS03-../D05LA4	75.00	438	1950	-	-	12	5.4
21.5	1.3	261	29.5	BS04-../D04LA4	77.00	506	2250	-	-	9	3.9
21.5	2.6	288	32.5	BS06-../D04LA4	77.00	787	3500	-	-	19	8.4
18	2.4	358	40.5	BS06-../D04LA4	90.00	787	3500	-	-	19	8.4
17.5	1.1	310	35	BS04-../D04LA4	93.92	506	2250	-	-	9	3.9

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

BS-series worm-gear motors

Selection - worm-gear motors

0.15 HP (0.11 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
16	0.9	372	42	BS04-../D04LA4	102.9	506	2250	-	-	9	3.9
16	2.2	398	45	BS06-../D04LA4	103.1	787	3500	-	-	19	8.4
14	1.95	429	48.5	BS06-../D04LA4	118.8	787	3500	-	-	19	8.4
14	2.2	487	55	BS10-../D06LA4	119.6	1349	6000	-	-	51	23
13.5	0.84	434	49	BS04-../D04LA4	123.0	506	2250	-	-	9	3.9
13	1.95	478	54	BS06-../D04LA4	129.0	787	3500	-	-	19	8.4
12.5	3.1	469	53	BS10-../D06LA4	130.3	1349	6000	-	-	51	23
11.5	1.8	522	59	BS06-../D04LA4	146.8	787	3500	-	-	19	8.4
11	2.7	540	61	BS10-../D06LA4	152.7	1349	6000	-	-	51	23
9.4	1.45	593	67	BS06-../D04LA4	174.0	787	3500	-	-	19	8.4
8.6	2.2	690	78	BS10-../D06LA4	188.6	1349	6000	-	-	51	23
7.5	2.0	788	89	BS10-../D06LA4	216.6	1349	6000	-	-	51	23
7.4	1.2	735	83	BS06-../D04LA4	220.0	787	3500	-	-	19	8.4
7.2	3.1	823	93	BS20-../D06LA4	225.6	1798	8000	-	-	75	34
6.5	1.05	823	93	BS06-../D04LA4	252.0	787	3500	-	-	19	8.4
6.4	1.7	929	105	BS10Z-../D06LA4	254.0	1349	6000	-	-	53	24
6.3	2.8	938	106	BS20Z-../D06LA4	257.8	1798	8000	-	-	77	35
5.4	1.6	1062	120	BS10Z-../D06LA4	302.5	1349	6000	-	-	53	24
5.4	2.5	1080	122	BS20Z-../D06LA4	300.1	1798	8000	-	-	77	35
5.2	0.92	1018	115	BS06-../D04LA4	315.3	787	3500	-	-	19	8.4
4.6	0.87	1124	127	BS06-../D04LA4	358.9	787	3500	-	-	19	8.4
4.6	2.3	1248	141	BS20Z-../D06LA4	359.9	1798	8000	-	-	77	35
4.6	2.4	1487	168	BS30Z-../D06LA4	359.6	2248	10000	-	-	119	54
4.5	1.3	1275	144	BS10Z-../D06LA4	360.3	1349	6000	-	-	53	24
3.8	1.15	1487	168	BS10Z-../D06LA4	432.4	1349	6000	-	-	53	24
3.8	1.95	1487	168	BS20Z-../D06LA4	430.8	1798	8000	-	-	77	35
3.6	3.2	1646	186	BS30Z-../D06LA4	457.3	2248	10000	-	-	119	54
3.1	1.95	1646	186	BS20Z-../D06LA4	539.7	1798	8000	-	-	77	35
3.1	2.8	1903	215	BS30Z-../D06LA4	539.3	2248	10000	-	-	119	54
3.0	0.93	1814	205	BS10Z-../D06LA4	544.8	1349	6000	-	-	53	24
2.7	1.55	1859	210	BS20Z-../D06LA4	619.2	1798	8000	-	-	77	35
2.6	0.84	1991	225	BS10Z-../D06LA4	638.7	1349	6000	-	-	53	24
2.5	2.3	2213	250	BS30Z-../D06LA4	651.0	2248	10000	-	-	119	54
2.2	1.2	2257	255	BS20Z-../D06LA4	763.4	1798	8000	-	-	77	35
2.2	2.7	2522	285	BS40Z-../D06LA4	736.5	3372	15000	-	-	150	68
2.1	1.65	2567	290	BS30Z-../D06LA4	804.1	2248	10000	-	-	119	54
1.8	1.35	2921	330	BS30Z-../D06LA4	932.0	2248	10000	-	-	119	54
1.8	2.2	3009	340	BS40Z-../D06LA4	908.2	3372	15000	-	-	150	68
1.7	2.0	3806	430	BS40G10-../D06LA4	965.5	3372	15000	-	-	161	73
1.6	1.1	3983	450	BS30G06-../D06LA4	1022	2248	10000	-	-	123	56
1.4	0.96	4514	510	BS30G06-../D06LA4	1176	2248	10000	-	-	123	56
1.4	1.7	4602	520	BS40G10-../D06LA4	1180	3372	15000	-	-	161	73
1.2	0.82	5310	600	BS30G06-../D06LA4	1461	2248	10000	-	-	123	56
1.1	1.35	5841	660	BS40G10-../D06LA4	1499	3372	15000	-	-	161	73
0.95	1.15	6815	770	BS40G10-../D06LA4	1785	3372	15000	-	-	161	73

0.25 HP (0.18 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
355	3.5	38	4.25	BS02-../D05LA4	4.60	225	1000	-	-	12	5.3
300	4.0	44	5.0	BS02-../D05LA4	5.40	225	1000	-	-	12	5.3
240	4.1	54	6.1	BS02-../D05LA4	6.75	225	1000	-	-	12	5.3
197	3.4	65	7.3	BS02-../D05LA4	8.25	247	1100	-	-	12	5.3
152	2.7	81	9.2	BS02-../D05LA4	10.67	281	1250	-	-	12	5.3
124	3.1	94	10.6	BS04-../D05LA4	13.09	396	1760	-	-	13	5.8
120	2.3	98	11.1	BS02-../D05LA4	13.50	281	1250	-	-	12	5.3
100	2.7	117	13.2	BS04-../D05LA4	16.31	443	1970	-	-	13	5.8

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

BS-series worm-gear motors

Selection - worm-gear motors

0.25 HP (0.18 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
90	1.75	125	14.1	BS02-../D05LA4	18.00	281	1250	-	-	12	5.3
78	2.2	148	16.7	BS04-../D05LA4	20.96	472	2100	-	-	13	5.8
74	1.55	143	16.2	BS02-../D05LA4	22.00	281	1250	-	-	12	5.3
67	1.75	172	19.4	BS04-../D05LA4	24.25	506	2250	-	-	13	5.8
65	3.0	161	18.2	BS03-../D05LA4	25.00	438	1950	-	-	12	5.4
62	1.95	173	19.6	BS04-../D05LA4	26.21	506	2250	-	-	13	5.8
60	1.4	159	18	BS02-../D05LA4	27.00	281	1250	-	-	12	5.3
52	1.65	204	23	BS04-../D05LA4	31.50	506	2250	-	-	13	5.8
52	3.3	212	24	BS06-../D05LA4	31.50	719	3200	-	-	22	10
49.5	1.2	181	20.5	BS02-../D05LA4	33.00	281	1250	-	-	12	5.3
49.5	2.6	186	21	BS03-../D05LA4	33.00	438	1950	-	-	12	5.4
42.5	1.35	243	27.5	BS04-../D05LA4	38.42	506	2250	-	-	13	5.8
42	2.1	230	26	BS03-../D05LA4	39.00	438	1950	-	-	12	5.4
39.5	2.8	274	31	BS06-../D05LA4	41.29	787	3500	-	-	22	10
38	0.86	248	28	BS02-../D05LA4	43.00	281	1250	-	-	12	5.3
34	1.1	301	34	BS04-../D05LA4	47.86	506	2250	-	-	13	5.8
33.5	2.4	323	36.5	BS06-../D05LA4	48.60	787	3500	-	-	22	10
32.5	1.8	270	30.5	BS03-../D05LA4	50.00	438	1950	-	-	12	5.4
28	2.1	385	43.5	BS06-../D05LA4	58.15	787	3500	-	-	22	10
26.5	1.4	301	34	BS03-../D05LA4	62.00	438	1950	-	-	12	5.4
26.5	0.88	381	43	BS04-../D05LA4	61.50	506	2250	-	-	13	5.8
25.5	0.86	372	42	BS04-../D05LA4	64.06	506	2250	-	-	13	5.8
25.5	1.75	403	45.5	BS06-../D05LA4	64.06	787	3500	-	-	22	10
23	1.75	469	53	BS06-../D05LA4	71.18	787	3500	-	-	22	10
23	2.9	487	55	BS10-../D06LA4	71.96	1124	5000	-	-	51	23
22	1.0	350	39.5	BS03-../D05LA4	75.00	438	1950	-	-	12	5.4
21.5	1.6	469	53	BS06-../D05LA4	77.00	787	3500	-	-	22	10
19.5	2.3	575	65	BS10-../D06LA4	84.36	1191	5300	-	-	51	23
18	1.5	584	66	BS06-../D05LA4	90.00	787	3500	-	-	22	10
16.5	3.2	682	77	BS20-../D06LA4	101.1	1596	7100	-	-	75	34
16	1.35	655	74	BS06-../D05LA4	103.1	787	3500	-	-	22	10
16	2.4	602	68	BS10-../D06LA4	103.4	1259	5600	-	-	51	23
14	1.2	699	79	BS06-../D05LA4	118.8	787	3500	-	-	22	10
14	1.35	797	90	BS10-../D06LA4	119.6	1349	6000	-	-	51	23
13	1.2	779	88	BS06-../D05LA4	129.0	787	3500	-	-	22	10
13	3.1	770	87	BS20-../D06LA4	127.3	1798	8000	-	-	75	34
12.5	1.85	779	88	BS10-../D06LA4	130.3	1349	6000	-	-	51	23
11.5	1.1	859	97	BS06-../D05LA4	146.8	787	3500	-	-	22	10
11	1.65	885	100	BS10-../D06LA4	152.7	1349	6000	-	-	51	23
10.5	2.5	956	108	BS20-../D06LA4	159.4	1798	8000	-	-	75	34
9.4	0.9	965	109	BS06-../D05LA4	174.0	787	3500	-	-	22	10
8.9	2.2	1124	127	BS20-../D06LA4	183.0	1798	8000	-	-	75	34
8.6	1.35	1124	127	BS10-../D06LA4	188.6	1349	6000	-	-	51	23
7.7	3.1	1301	147	BS30Z-../D06LA4	211.1	2248	10000	-	-	119	54
7.5	1.25	1292	146	BS10-../D06LA4	216.6	1349	6000	-	-	51	23
7.2	1.9	1345	152	BS20-../D06LA4	225.6	1798	8000	-	-	75	34
6.4	1.05	1513	171	BS10Z-../D06LA4	254.0	1349	6000	-	-	53	24
6.3	1.7	1540	174	BS20Z-../D06LA4	257.8	1798	8000	-	-	77	35
6.2	3.1	1611	182	BS30Z-../D06LA4	261.6	2248	10000	-	-	119	54
5.7	3.3	1947	220	BS40Z-../D06LA4	287.7	3372	15000	-	-	150	68
5.4	0.96	1744	197	BS10Z-../D06LA4	302.5	1349	6000	-	-	53	24
5.4	1.5	1770	200	BS20Z-../D06LA4	300.1	1798	8000	-	-	77	35
5.3	2.8	1859	210	BS30Z-../D06LA4	306.6	2248	10000	-	-	119	54
4.6	1.4	2036	230	BS20Z-../D06LA4	359.9	1798	8000	-	-	77	35
4.6	1.45	2434	275	BS30Z-../D06LA4	359.6	2248	10000	-	-	119	54
4.5	0.81	2080	235	BS10Z-../D06LA4	360.3	1349	6000	-	-	53	24
4.2	2.2	2345	265	BS30Z-../D06LA4	390.2	2248	10000	-	-	119	54
3.8	1.2	2434	275	BS20Z-../D06LA4	430.8	1798	8000	-	-	77	35
3.6	1.95	2699	305	BS30Z-../D06LA4	457.3	2248	10000	-	-	119	54
3.2	3.3	2965	335	BS40Z-../D06LA4	520.8	3372	15000	-	-	150	68
3.1	1.2	2655	300	BS20Z-../D06LA4	539.7	1798	8000	-	-	77	35
3.1	1.7	3098	350	BS30Z-../D06LA4	539.3	2248	10000	-	-	119	54

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

BS-series worm-gear motors

Selection - worm-gear motors

0.25 HP (0.18 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
2.7	0.97	3009	340	BS20Z-../D06LA4	619.2	1798	8000	-	-	77	35
2.7	2.4	3408	385	BS40Z-../D06LA4	612.1	3372	15000	-	-	150	68
2.5	1.4	3629	410	BS30Z-../D06LA4	651.0	2248	10000	-	-	119	54
2.2	1.65	4116	465	BS40Z-../D06LA4	736.5	3372	15000	-	-	150	68
2.1	1.0	4160	470	BS30Z-../D06LA4	804.1	2248	10000	-	-	119	54
1.8	0.83	4779	540	BS30Z-../D06LA4	932.0	2248	10000	-	-	119	54
1.8	1.35	4956	560	BS40Z-../D06LA4	908.2	3372	15000	-	-	150	68
1.7	1.25	6196	700	BS40G10-../D06LA4	965.5	3372	15000	-	-	161	73
1.4	1.05	7523	850	BS40G10-../D06LA4	1180	3372	15000	-	-	161	73
1.1	0.81	9647	1090	BS40G10-../D06LA4	1499	3372	15000	-	-	161	73

0.33 HP (0.25 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
355	2.5	52	5.9	BS02-../D05LA4	4.60	225	1000	-	-	12	5.3
300	2.9	62	7.0	BS02-../D05LA4	5.40	225	1000	-	-	12	5.3
240	2.9	75	8.5	BS02-../D05LA4	6.75	225	1000	-	-	12	5.3
197	2.5	89	10.1	BS02-../D05LA4	8.25	247	1100	-	-	12	5.3
182	2.9	90	10.2	BS04-../D05LA4	8.93	337	1500	-	-	13	5.8
152	1.95	113	12.8	BS02-../D05LA4	10.67	281	1250	-	-	12	5.3
151	2.6	109	12.3	BS04-../D05LA4	10.73	360	1600	-	-	13	5.8
124	2.2	131	14.8	BS04-../D05LA4	13.09	396	1760	-	-	13	5.8
120	1.6	137	15.5	BS02-../D05LA4	13.50	281	1250	-	-	12	5.3
100	1.9	162	18.3	BS04-../D05LA4	16.31	443	1970	-	-	13	5.8
90	1.3	173	19.6	BS02-../D05LA4	18.00	281	1250	-	-	12	5.3
86	2.6	186	21	BS03-../D05LA4	19.00	438	1950	-	-	12	5.4
82	3.3	204	23	BS06-../D05LA4	19.82	562	2500	-	-	22	10
78	1.6	204	23	BS04-../D05LA4	20.96	472	2100	-	-	13	5.8
74	1.1	199	22.5	BS02-../D05LA4	22.00	281	1250	-	-	12	5.3
67	1.25	239	27	BS04-../D05LA4	24.25	506	2250	-	-	13	5.8
67	2.7	252	28.5	BS06-../D05LA4	24.25	585	2600	-	-	22	10
65	2.2	221	25	BS03-../D05LA4	25.00	438	1950	-	-	12	5.4
62	1.4	239	27	BS04-../D05LA4	26.21	506	2250	-	-	13	5.8
62	2.8	248	28	BS06-../D05LA4	26.21	674	3000	-	-	22	10
60	1.0	221	25	BS02-../D05LA4	27.00	281	1250	-	-	12	5.3
52	1.2	283	32	BS04-../D05LA4	31.50	506	2250	-	-	13	5.8
52	2.4	296	33.5	BS06-../D05LA4	31.50	719	3200	-	-	22	10
49.5	0.88	252	28.5	BS02-../D05LA4	33.00	281	1250	-	-	12	5.3
49.5	1.9	257	29	BS03-../D05LA4	33.00	438	1950	-	-	12	5.4
42.5	0.96	341	38.5	BS04-../D05LA4	38.42	506	2250	-	-	13	5.8
42	1.55	319	36	BS03-../D05LA4	39.00	438	1950	-	-	12	5.4
41	3.2	385	43.5	BS10-../D06LA4	39.96	854	3800	-	-	51	23
39.5	2.0	385	43.5	BS06-../D05LA4	41.29	787	3500	-	-	22	10
34.5	2.8	451	51	BS10-../D06LA4	47.59	910	4050	-	-	51	23
34	0.8	420	47.5	BS04-../D05LA4	47.86	506	2250	-	-	13	5.8
33.5	1.75	451	51	BS06-../D05LA4	48.60	787	3500	-	-	22	10
32.5	1.3	376	42.5	BS03-../D05LA4	50.00	438	1950	-	-	12	5.4
28.5	2.5	540	61	BS10-../D06LA4	57.12	978	4350	-	-	51	23
28	1.5	531	60	BS06-../D05LA4	58.15	787	3500	-	-	22	10
27	2.5	522	59	BS10-../D06LA4	60.74	1023	4550	-	-	51	23
26.5	1.0	420	47.5	BS03-../D05LA4	62.00	438	1950	-	-	12	5.4
25.5	1.25	558	63	BS06-../D05LA4	64.06	787	3500	-	-	22	10
23	1.3	646	73	BS06-../D05LA4	71.18	787	3500	-	-	22	10
23	2.1	673	76	BS10-../D06LA4	71.96	1124	5000	-	-	51	23
21.5	1.15	655	74	BS06-../D05LA4	77.00	787	3500	-	-	22	10
19.5	1.65	797	90	BS10-../D06LA4	84.36	1191	5300	-	-	51	23
18.5	3.2	752	85	BS20-../D06LA4	88.67	1574	7000	-	-	75	34

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

BS-series worm-gear motors

Selection - worm-gear motors

0.33 HP (0.25 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
18	1.05	814	92	BS06-../D05LA4	90.00	787	3500	-	-	22	10
16.5	2.3	947	107	BS20-../D06LA4	101.1	1596	7100	-	-	75	34
16	0.98	903	102	BS06-../D05LA4	103.1	787	3500	-	-	22	10
16	1.7	841	95	BS10-../D06LA4	103.4	1259	5600	-	-	51	23
15.5	2.7	894	101	BS20-../D06LA4	106.3	1709	7600	-	-	75	34
14	0.85	974	110	BS06-../D05LA4	118.8	787	3500	-	-	22	10
14	0.96	1115	126	BS10-../D06LA4	119.6	1349	6000	-	-	51	23
13	0.85	1089	123	BS06-../D05LA4	129.0	787	3500	-	-	22	10
13	2.2	1071	121	BS20-../D06LA4	127.3	1798	8000	-	-	75	34
12.5	1.35	1080	122	BS10-../D06LA4	130.3	1349	6000	-	-	51	23
11	1.2	1221	138	BS10-../D06LA4	152.7	1349	6000	-	-	51	23
10.5	1.85	1328	150	BS20-../D06LA4	159.4	1798	8000	-	-	75	34
8.9	1.6	1567	177	BS20-../D06LA4	183.0	1798	8000	-	-	75	34
8.7	3.0	1602	181	BS30-../D06LA4	186.7	2248	10000	-	-	112	51
8.6	0.96	1567	177	BS10-../D06LA4	188.6	1349	6000	-	-	51	23
8.3	3.3	1859	210	BS40Z-../D06LA4	197.1	3372	15000	-	-	150	68
7.5	0.9	1770	200	BS10-../D06LA4	216.6	1349	6000	-	-	51	23
7.5	2.5	1859	210	BS30-../D06LA4	216.4	2248	10000	-	-	112	51
7.2	1.4	1859	210	BS20-../D06LA4	225.6	1798	8000	-	-	75	34
6.3	1.25	2124	240	BS20Z-../D06LA4	257.8	1798	8000	-	-	77	35
6.2	2.2	2213	250	BS30Z-../D06LA4	261.6	2248	10000	-	-	119	54
5.7	2.3	2699	305	BS40Z-../D06LA4	287.7	3372	15000	-	-	150	68
5.4	1.1	2434	275	BS20Z-../D06LA4	300.1	1798	8000	-	-	77	35
5.3	2.0	2567	290	BS30Z-../D06LA4	306.6	2248	10000	-	-	119	54
4.6	1.0	2832	320	BS20Z-../D06LA4	359.9	1798	8000	-	-	77	35
4.6	1.05	3363	380	BS30Z-../D06LA4	359.6	2248	10000	-	-	119	54
4.6	3.3	2876	325	BS40Z-../D06LA4	356.8	3372	15000	-	-	150	68
4.2	1.6	3231	365	BS30Z-../D06LA4	390.2	2248	10000	-	-	119	54
3.8	0.87	3363	380	BS20Z-../D06LA4	430.8	1798	8000	-	-	77	35
3.7	2.4	3585	405	BS40Z-../D06LA4	446.8	3372	15000	-	-	150	68
3.6	1.45	3717	420	BS30Z-../D06LA4	457.3	2248	10000	-	-	119	54
3.2	2.3	4160	470	BS40Z-../D06LA4	520.8	3372	15000	-	-	150	68
3.1	0.87	3717	420	BS20Z-../D06LA4	539.7	1798	8000	-	-	77	35
3.1	1.2	4337	490	BS30Z-../D06LA4	539.3	2248	10000	-	-	119	54
2.7	1.7	4691	530	BS40Z-../D06LA4	612.1	3372	15000	-	-	150	68
2.5	1.0	5045	570	BS30Z-../D06LA4	651.0	2248	10000	-	-	119	54
2.2	1.15	5753	650	BS40Z-../D06LA4	736.5	3372	15000	-	-	150	68
1.8	0.95	6904	780	BS40Z-../D06LA4	908.2	3372	15000	-	-	150	68
1.7	0.9	8674	980	BS40G10-../D06LA4	965.5	3372	15000	-	-	161	73

0.4 HP (0.3 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
355	2.1	63	7.1	BS02-../D05LA4	4.60	225	1000	-	-	12	5.3
300	2.4	74	8.4	BS02-../D05LA4	5.40	225	1000	-	-	12	5.3
265	3.1	74	8.4	BS04-../D05LA4	6.13	297	1320	-	-	13	5.8
240	2.5	90	10.2	BS02-../D05LA4	6.75	225	1000	-	-	12	5.3
197	2.0	108	12.2	BS02-../D05LA4	8.25	247	1100	-	-	12	5.3
182	2.5	108	12.2	BS04-../D05LA4	8.93	337	1500	-	-	13	5.8
152	1.6	136	15.4	BS02-../D05LA4	10.67	281	1250	-	-	12	5.3
151	2.2	130	14.7	BS04-../D05LA4	10.73	360	1600	-	-	13	5.8
124	1.85	157	17.7	BS04-../D05LA4	13.09	396	1760	-	-	13	5.8
120	1.35	165	18.6	BS02-../D05LA4	13.50	281	1250	-	-	12	5.3
120	3.0	165	18.6	BS03-../D05LA4	13.50	360	1600	-	-	12	5.4
100	1.6	195	22	BS04-../D05LA4	16.31	443	1970	-	-	13	5.8
98	3.1	204	23	BS06-../D05LA4	16.56	540	2400	-	-	22	10
90	1.05	208	23.5	BS02-../D05LA4	18.00	281	1250	-	-	12	5.3

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

BS-series worm-gear motors

Selection - worm-gear motors

0.4 HP (0.3 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
86	2.2	221	25	BS03-../D05LA4	19.00	438	1950	-	-	12	5.4
82	2.7	243	27.5	BS06-../D05LA4	19.82	562	2500	-	-	22	10
78	1.35	243	27.5	BS04-../D05LA4	20.96	472	2100	-	-	13	5.8
74	0.93	239	27	BS02-../D05LA4	22.00	281	1250	-	-	12	5.3
67	1.05	283	32	BS04-../D05LA4	24.25	506	2250	-	-	13	5.8
67	2.3	301	34	BS06-../D05LA4	24.25	585	2600	-	-	22	10
65	1.85	266	30	BS03-../D05LA4	25.00	438	1950	-	-	12	5.4
62	1.15	288	32.5	BS04-../D05LA4	26.21	506	2250	-	-	13	5.8
62	2.3	296	33.5	BS06-../D05LA4	26.21	674	3000	-	-	22	10
60	0.83	266	30	BS02-../D05LA4	27.00	281	1250	-	-	12	5.3
52	0.99	341	38.5	BS04-../D05LA4	31.50	506	2250	-	-	13	5.8
52	2.0	354	40	BS06-../D05LA4	31.50	719	3200	-	-	22	10
49.5	1.55	310	35	BS03-../D05LA4	33.00	438	1950	-	-	12	5.4
48.5	3.0	394	44.5	BS10-../D06LA4	33.55	798	3550	-	-	51	23
42.5	0.8	412	46.5	BS04-../D05LA4	38.42	506	2250	-	-	13	5.8
42	1.25	385	43.5	BS03-../D05LA4	39.00	438	1950	-	-	12	5.4
41	2.7	460	52	BS10-../D06LA4	39.96	854	3800	-	-	51	23
39.5	1.65	460	52	BS06-../D05LA4	41.29	787	3500	-	-	22	10
34.5	2.3	549	62	BS10-../D06LA4	47.59	910	4050	-	-	51	23
33.5	1.45	540	61	BS06-../D05LA4	48.60	787	3500	-	-	22	10
32.5	1.1	451	51	BS03-../D05LA4	50.00	438	1950	-	-	12	5.4
28.5	2.0	655	74	BS10-../D06LA4	57.12	978	4350	-	-	51	23
28	1.25	637	72	BS06-../D05LA4	58.15	787	3500	-	-	22	10
27	2.1	628	71	BS10-../D06LA4	60.74	1023	4550	-	-	51	23
26.5	0.84	504	57	BS03-../D05LA4	62.00	438	1950	-	-	12	5.4
25.5	1.05	673	76	BS06-../D05LA4	64.06	787	3500	-	-	22	10
23.5	3.3	805	91	BS20-../D06LA4	70.30	1416	6300	-	-	75	34
23	1.05	779	88	BS06-../D05LA4	71.18	787	3500	-	-	22	10
23	1.75	814	92	BS10-../D06LA4	71.96	1124	5000	-	-	51	23
21.5	0.96	788	89	BS06-../D05LA4	77.00	787	3500	-	-	22	10
21.5	3.1	770	87	BS20-../D06LA4	76.18	1484	6600	-	-	75	34
19.5	1.4	956	108	BS10-../D06LA4	84.36	1191	5300	-	-	51	23
18.5	2.6	903	102	BS20-../D06LA4	88.67	1574	7000	-	-	75	34
18	0.88	982	111	BS06-../D05LA4	90.00	787	3500	-	-	22	10
16.5	1.95	1133	128	BS20-../D06LA4	101.1	1596	7100	-	-	75	34
16	0.81	1089	123	BS06-../D05LA4	103.1	787	3500	-	-	22	10
16	1.4	1009	114	BS10-../D06LA4	103.4	1259	5600	-	-	51	23
15.5	2.2	1071	121	BS20-../D06LA4	106.3	1709	7600	-	-	75	34
14	0.8	1336	151	BS10-../D06LA4	119.6	1349	6000	-	-	51	23
13	1.85	1283	145	BS20-../D06LA4	127.3	1798	8000	-	-	75	34
12.5	1.1	1292	146	BS10-../D06LA4	130.3	1349	6000	-	-	51	23
11	0.99	1469	166	BS10-../D06LA4	152.7	1349	6000	-	-	51	23
11	3.1	1540	174	BS30-../D06LA4	151.1	2136	9500	-	-	112	51
10.5	1.55	1593	180	BS20-../D06LA4	159.4	1798	8000	-	-	75	34
8.9	1.35	1859	210	BS20-../D06LA4	183.0	1798	8000	-	-	75	34
8.7	2.5	1903	215	BS30-../D06LA4	186.7	2248	10000	-	-	112	51
8.6	0.81	1859	210	BS10-../D06LA4	188.6	1349	6000	-	-	51	23
8.3	2.7	2257	255	BS40Z-../D06LA4	197.1	3372	15000	-	-	150	68
7.5	2.1	2213	250	BS30-../D06LA4	216.4	2248	10000	-	-	112	51
7.2	1.15	2213	250	BS20-../D06LA4	225.6	1798	8000	-	-	75	34
6.5	3.3	2434	275	BS40Z-../D06LA4	249.6	3372	15000	-	-	150	68
6.3	1.0	2567	290	BS20Z-../D06LA4	257.8	1798	8000	-	-	77	35
6.2	1.85	2655	300	BS30Z-../D06LA4	261.6	2248	10000	-	-	119	54
5.7	1.95	3275	370	BS40Z-../D06LA4	287.7	3372	15000	-	-	150	68
5.4	0.91	2921	330	BS20Z-../D06LA4	300.1	1798	8000	-	-	77	35
5.4	3.2	2921	330	BS40Z-../D06LA4	302.1	3372	15000	-	-	150	68
5.3	1.65	3098	350	BS30Z-../D06LA4	306.6	2248	10000	-	-	119	54
4.6	0.83	3408	385	BS20Z-../D06LA4	359.9	1798	8000	-	-	77	35
4.6	0.86	4071	460	BS30Z-../D06LA4	359.6	2248	10000	-	-	119	54
4.6	2.8	3452	390	BS40Z-../D06LA4	356.8	3372	15000	-	-	150	68
4.2	1.35	3894	440	BS30Z-../D06LA4	390.2	2248	10000	-	-	119	54
3.7	2.0	4293	485	BS40Z-../D06LA4	446.8	3372	15000	-	-	150	68

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

BS-series worm-gear motors

Selection - worm-gear motors

0.4 HP (0.3 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
3.6	1.2	4425	500	BS30Z-../D06LA4	457.3	2248	10000	-	-	119	54
3.2	1.95	4956	560	BS40Z-../D06LA4	520.8	3372	15000	-	-	150	68
3.1	1.0	5222	590	BS30Z-../D06LA4	539.3	2248	10000	-	-	119	54
2.7	1.4	5664	640	BS40Z-../D06LA4	612.1	3372	15000	-	-	150	68
2.5	0.85	6019	680	BS30Z-../D06LA4	651.0	2248	10000	-	-	119	54
2.2	0.97	6904	780	BS40Z-../D06LA4	736.5	3372	15000	-	-	150	68
1.8	0.8	8231	930	BS40Z-../D06LA4	908.2	3372	15000	-	-	150	68

0.5 HP (0.37 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·f-in	Nm			lb·f	N	lb·f	N	lb	kg
355	1.7	77	8.7	BS02-../D07LA4	4.60	225	1000	-	-	21	9.3
300	1.95	91	10.3	BS02-../D07LA4	5.40	225	1000	-	-	21	9.3
265	2.5	92	10.4	BS04-../D07LA4	6.13	297	1320	-	-	22	9.8
240	2.0	112	12.6	BS02-../D07LA4	6.75	225	1000	-	-	21	9.3
197	1.65	133	15	BS02-../D07LA4	8.25	247	1100	-	-	21	9.3
182	2.0	134	15.1	BS04-../D07LA4	8.93	337	1500	-	-	22	9.8
152	1.3	168	19	BS02-../D07LA4	10.67	281	1250	-	-	21	9.3
151	1.75	161	18.2	BS04-../D07LA4	10.73	360	1600	-	-	22	9.8
124	1.55	190	21.5	BS04-../D07LA4	13.09	396	1760	-	-	22	9.8
120	1.1	199	22.5	BS02-../D07LA4	13.50	281	1250	-	-	21	9.3
120	2.4	199	22.5	BS03-../D07LA4	13.50	360	1600	-	-	21	9.4
116	2.8	217	24.5	BS06-../D07LA4	14.07	495	2200	-	-	31	14
100	1.3	239	27	BS04-../D07LA4	16.31	443	1970	-	-	22	9.8
98	2.5	252	28.5	BS06-../D07LA4	16.56	540	2400	-	-	31	14
90	0.86	257	29	BS02-../D07LA4	18.00	281	1250	-	-	21	9.3
86	1.75	274	31	BS03-../D07LA4	19.00	438	1950	-	-	21	9.4
82	2.2	301	34	BS06-../D07LA4	19.82	562	2500	-	-	31	14
78	1.1	301	34	BS04-../D07LA4	20.96	472	2100	-	-	22	9.8
75	3.3	332	37.5	BS10-../D07LA4	21.61	674	3000	-	-	57	26
67	0.85	354	40	BS04-../D07LA4	24.25	506	2250	-	-	22	9.8
67	1.85	372	42	BS06-../D07LA4	24.25	585	2600	-	-	31	14
65	1.45	332	37.5	BS03-../D07LA4	25.00	438	1950	-	-	21	9.4
62	0.95	354	40	BS04-../D07LA4	26.21	506	2250	-	-	22	9.8
62	1.85	367	41.5	BS06-../D07LA4	26.21	674	3000	-	-	31	14
62	3.0	389	44	BS10-../D07LA4	26.42	731	3250	-	-	57	26
52	0.8	420	47.5	BS04-../D07LA4	31.50	506	2250	-	-	22	9.8
52	1.6	438	49.5	BS06-../D07LA4	31.50	719	3200	-	-	31	14
49.5	1.25	385	43.5	BS03-../D07LA4	33.00	438	1950	-	-	21	9.4
48.5	2.5	487	55	BS10-../D07LA4	33.55	798	3550	-	-	57	26
42	1.05	469	53	BS03-../D07LA4	39.00	438	1950	-	-	21	9.4
41	2.2	566	64	BS10-../D07LA4	39.96	854	3800	-	-	57	26
39.5	1.35	566	64	BS06-../D07LA4	41.29	787	3500	-	-	31	14
34.5	1.9	673	76	BS10-../D07LA4	47.59	910	4050	-	-	57	26
33.5	1.15	664	75	BS06-../D07LA4	48.60	787	3500	-	-	31	14
32.5	0.87	558	63	BS03-../D07LA4	50.00	438	1950	-	-	21	9.4
28.5	1.65	805	91	BS10-../D07LA4	57.12	978	4350	-	-	57	26
28	1.0	788	89	BS06-../D07LA4	58.15	787	3500	-	-	31	14
28	3.0	832	94	BS20-../D07LA4	58.74	1326	5900	-	-	79	36
27	1.7	770	87	BS10-../D07LA4	60.74	1023	4550	-	-	57	26
25.5	0.85	832	94	BS06-../D07LA4	64.06	787	3500	-	-	31	14
23.5	2.7	991	112	BS20-../D07LA4	70.30	1416	6300	-	-	79	36
23	0.86	965	109	BS06-../D07LA4	71.18	787	3500	-	-	31	14
23	1.4	1000	113	BS10-../D07LA4	71.96	1124	5000	-	-	57	26
21.5	2.5	956	108	BS20-../D07LA4	76.18	1484	6600	-	-	79	36
19.5	1.1	1186	134	BS10-../D07LA4	84.36	1191	5300	-	-	57	26
19.5	2.9	1230	139	BS30-../D07LA4	83.48	1529	6800	-	-	119	54

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

BS-series worm-gear motors

Selection - worm-gear motors

0.5 HP (0.37 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
18.5	2.1	1115	126	BS20-../D07LA4	88.67	1574	7000	-	-	79	36
16.5	1.6	1398	158	BS20-../D07LA4	101.1	1596	7100	-	-	79	36
16	1.15	1248	141	BS10-../D07LA4	103.4	1259	5600	-	-	57	26
15.5	1.8	1328	150	BS20-../D07LA4	106.3	1709	7600	-	-	79	36
15.5	3.3	1372	155	BS30-../D07LA4	106.2	1843	8200	-	-	119	54
13	1.5	1584	179	BS20-../D07LA4	127.3	1798	8000	-	-	79	36
13	2.8	1629	184	BS30-../D07LA4	125.2	1956	8700	-	-	119	54
12.5	0.91	1593	180	BS10-../D07LA4	130.3	1349	6000	-	-	57	26
11	0.8	1814	205	BS10-../D07LA4	152.7	1349	6000	-	-	57	26
11	2.5	1903	215	BS30-../D07LA4	151.1	2136	9500	-	-	119	54
10.5	1.25	1947	220	BS20-../D07LA4	159.4	1798	8000	-	-	79	36
8.9	1.1	2301	260	BS20-../D07LA4	183.0	1798	8000	-	-	79	36
8.7	2.0	2345	265	BS30-../D07LA4	186.7	2248	10000	-	-	119	54
8.3	2.2	2788	315	BS40Z-../D07LA4	197.1	3372	15000	-	-	154	70
7.5	1.7	2744	310	BS30-../D07LA4	216.4	2248	10000	-	-	119	54
7.2	0.94	2744	310	BS20-../D07LA4	225.6	1798	8000	-	-	79	36
6.5	2.6	3009	340	BS40Z-../D07LA4	249.6	3372	15000	-	-	154	70
6.3	0.83	3142	355	BS20Z-../D07LA4	257.8	1798	8000	-	-	84	38
6.2	1.5	3319	375	BS30Z-../D07LA4	261.6	2248	10000	-	-	123	56
5.7	1.55	4027	455	BS40Z-../D07LA4	287.7	3372	15000	-	-	154	70
5.4	2.6	3629	410	BS40Z-../D07LA4	302.1	3372	15000	-	-	154	70
5.3	1.35	3806	430	BS30Z-../D07LA4	306.6	2248	10000	-	-	123	56
4.6	2.3	4248	480	BS40Z-../D07LA4	356.8	3372	15000	-	-	154	70
4.2	1.1	4779	540	BS30Z-../D07LA4	390.2	2248	10000	-	-	123	56
3.7	1.65	5310	600	BS40Z-../D07LA4	446.8	3372	15000	-	-	154	70
3.6	0.97	5487	620	BS30Z-../D07LA4	457.3	2248	10000	-	-	123	56
3.2	1.6	6107	690	BS40Z-../D07LA4	520.8	3372	15000	-	-	154	70
3.1	0.83	6373	720	BS30Z-../D07LA4	539.3	2248	10000	-	-	123	56
2.7	1.15	6992	790	BS40Z-../D07LA4	612.1	3372	15000	-	-	154	70

0.75 HP (0.55 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
370	3.2	110	12.4	BS03-../D08MA4	4.60	241	1070	-	-	22	10
280	2.7	146	16.5	BS03-../D08MA4	6.00	263	1170	-	-	22	10
210	2.2	190	21.5	BS03-../D08MA4	8.00	297	1320	-	-	22	10
189	2.8	199	22.5	BS06-../D08MA4	8.93	384	1710	-	-	35	16
168	2.0	230	26	BS03-../D08MA4	10.00	326	1450	-	-	22	10
157	2.4	239	27	BS06-../D08MA4	10.73	416	1850	-	-	35	16
125	1.7	288	32.5	BS03-../D08MA4	13.50	360	1600	-	-	22	10
120	1.95	310	35	BS06-../D08MA4	14.07	495	2200	-	-	35	16
102	1.75	363	41	BS06-../D08MA4	16.56	540	2400	-	-	35	16
100	2.9	372	42	BS10-../D08MA4	16.92	607	2700	-	-	60	27
89	1.25	394	44.5	BS03-../D08MA4	19.00	438	1950	-	-	22	10
85	1.55	434	49	BS06-../D08MA4	19.82	562	2500	-	-	35	16
78	2.4	469	53	BS10-../D08MA4	21.61	674	3000	-	-	60	27
70	1.3	531	60	BS06-../D08MA4	24.25	585	2600	-	-	35	16
68	1.05	469	53	BS03-../D08MA4	25.00	438	1950	-	-	22	10
65	1.35	513	58	BS06-../D08MA4	26.21	674	3000	-	-	35	16
64	2.0	566	64	BS10-../D08MA4	26.42	731	3250	-	-	60	27
55	2.0	575	65	BS10-../D08MA4	30.63	798	3550	-	-	60	27
54	1.15	628	71	BS06-../D08MA4	31.50	719	3200	-	-	35	16
51	0.89	549	62	BS03-../D08MA4	33.00	438	1950	-	-	22	10
51	1.75	690	78	BS10-../D08MA4	33.55	798	3550	-	-	60	27
42.5	1.5	814	92	BS10-../D08MA4	39.96	854	3800	-	-	60	27
42	2.9	797	90	BS20-../D08MA4	40.25	1191	5300	-	-	82	37
41	0.93	814	92	BS06-../D08MA4	41.29	787	3500	-	-	35	16

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

BS-series worm-gear motors

Selection - worm-gear motors

0.75 HP (0.55 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
40	2.7	876	99	BS20-../D08MA4	42.08	1169	5200	-	-	82	37
35.5	1.3	974	110	BS10-../D08MA4	47.59	910	4050	-	-	60	27
35	0.81	956	108	BS06-../D08MA4	48.60	787	3500	-	-	35	16
34.5	2.4	1009	114	BS20-../D08MA4	48.98	1236	5500	-	-	82	37
33.5	2.6	929	105	BS20-../D08MA4	50.44	1281	5700	-	-	82	37
29.5	1.15	1159	131	BS10-../D08MA4	57.12	978	4350	-	-	60	27
29	2.1	1195	135	BS20-../D08MA4	58.74	1326	5900	-	-	82	37
29	3.3	1230	139	BS30-../D08MA4	58.64	1551	6900	-	-	121	55
28	1.2	1106	125	BS10-../D08MA4	60.74	1023	4550	-	-	60	27
24	1.85	1452	164	BS20-../D08MA4	70.30	1416	6300	-	-	82	37
24	3.1	1354	153	BS30-../D08MA4	71.17	1574	7000	-	-	121	55
23.5	0.97	1460	165	BS10-../D08MA4	71.96	1124	5000	-	-	60	27
22.5	1.75	1363	154	BS20-../D08MA4	76.18	1484	6600	-	-	82	37
20.5	2.1	1744	197	BS30-../D08MA4	83.48	1529	6800	-	-	121	55
19	1.5	1611	182	BS20-../D08MA4	88.67	1574	7000	-	-	82	37
19	2.6	1682	190	BS30-../D08MA4	90.59	1731	7700	-	-	121	55
17	1.1	1991	225	BS20-../D08MA4	101.1	1596	7100	-	-	82	37
16.5	0.8	1770	200	BS10-../D08MA4	103.4	1259	5600	-	-	60	27
16	1.25	1903	215	BS20-../D08MA4	106.3	1709	7600	-	-	82	37
16	2.3	1947	220	BS30-../D08MA4	106.2	1843	8200	-	-	121	55
13.5	1.05	2257	255	BS20-../D08MA4	127.3	1798	8000	-	-	82	37
13.5	2.0	2301	260	BS30-../D08MA4	125.2	1956	8700	-	-	121	55
11.5	1.75	2699	305	BS30-../D08MA4	151.1	2136	9500	-	-	121	55
11.5	3.3	2611	295	BS40-../D08MA4	148.1	3372	15000	-	-	150	68
11	0.87	2788	315	BS20-../D08MA4	159.4	1798	8000	-	-	82	37
9.5	2.3	3142	355	BS40-../D08MA4	178.2	3372	15000	-	-	150	68
9.0	1.4	3408	385	BS30-../D08MA4	186.7	2248	10000	-	-	121	55
7.8	1.2	3894	440	BS30-../D08MA4	216.4	2248	10000	-	-	121	55
7.7	1.85	3762	425	BS40-../D08MA4	219.7	3372	15000	-	-	150	68
6.8	1.85	4293	485	BS40Z-../D08MA4	249.6	3372	15000	-	-	157	71
6.5	1.05	4691	530	BS30Z-../D08MA4	261.6	2248	10000	-	-	128	58
5.9	1.1	5753	650	BS40Z-../D08MA4	287.7	3372	15000	-	-	157	71
5.6	1.8	5222	590	BS40Z-../D08MA4	302.1	3372	15000	-	-	157	71
5.5	0.94	5487	620	BS30Z-../D08MA4	306.6	2248	10000	-	-	128	58
4.8	1.6	6019	680	BS40Z-../D08MA4	356.8	3372	15000	-	-	157	71
3.8	1.15	7700	870	BS40Z-../D08MA4	446.8	3372	15000	-	-	157	71
3.3	1.1	8851	1000	BS40Z-../D08MA4	520.8	3372	15000	-	-	157	71
2.8	0.8	10090	1140	BS40Z-../D08MA4	612.1	3372	15000	-	-	157	71



1 HP (0.75 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
380	2.4	146	16.5	BS03-../DPE08XB4	4.60	241	1070	-	-	29	13
290	2.0	190	21.5	BS03-../DPE08XB4	6.00	263	1170	-	-	29	13
265	2.6	190	21.5	BS06-../DPE08XB4	6.67	348	1550	-	-	42	19
220	1.75	243	27.5	BS03-../DPE08XB4	8.00	297	1320	-	-	29	13
195	2.1	261	29.5	BS06-../DPE08XB4	8.93	384	1710	-	-	42	19
174	1.5	305	34.5	BS03-../DPE08XB4	10.00	326	1450	-	-	29	13
163	1.85	314	35.5	BS06-../DPE08XB4	10.73	416	1850	-	-	42	19
140	2.7	358	40.5	BS10-../DPE08XB4	12.49	540	2400	-	-	66	30
129	1.3	381	43	BS03-../DPE08XB4	13.50	360	1600	-	-	29	13
124	1.45	412	46.5	BS06-../DPE08XB4	14.07	495	2200	-	-	42	19
106	1.35	478	54	BS06-../DPE08XB4	16.56	540	2400	-	-	42	19
103	2.2	487	55	BS10-../DPE08XB4	16.92	607	2700	-	-	66	30
92	0.93	522	59	BS03-../DPE08XB4	19.00	438	1950	-	-	29	13
88	1.15	575	65	BS06-../DPE08XB4	19.82	562	2500	-	-	42	19
81	1.8	620	70	BS10-../DPE08XB4	21.61	674	3000	-	-	66	30

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

BS-series worm-gear motors

Selection - worm-gear motors

1 HP (0.75 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
79	3.2	646	73	BS20-../DPE08XB4	22.23	922	4100	-	-	88	40
77	1.85	566	64	BS10-../DPE08XB4	22.60	719	3200	-	-	66	30
72	0.97	699	79	BS06-../DPE08XB4	24.25	585	2600	-	-	42	19
67	0.99	690	78	BS06-../DPE08XB4	26.21	674	3000	-	-	42	19
66	1.55	743	84	BS10-../DPE08XB4	26.42	731	3250	-	-	66	30
63	2.8	779	88	BS20-../DPE08XB4	27.86	1000	4450	-	-	88	40
57	1.5	761	86	BS10-../DPE08XB4	30.63	798	3550	-	-	66	30
57	2.8	797	90	BS20-../DPE08XB4	30.63	1068	4750	-	-	88	40
56	0.86	823	93	BS06-../DPE08XB4	31.50	719	3200	-	-	42	19
53	2.6	920	104	BS20-../DPE08XB4	32.87	1068	4750	-	-	88	40
52	1.3	920	104	BS10-../DPE08XB4	33.55	798	3550	-	-	66	30
44.5	3.3	1151	130	BS30-../DPE08XB4	39.31	1236	5500	-	-	128	58
44	1.15	1080	122	BS10-../DPE08XB4	39.96	854	3800	-	-	66	30
43.5	2.2	1044	118	BS20-../DPE08XB4	40.25	1191	5300	-	-	88	40
41.5	2.1	1159	131	BS20-../DPE08XB4	42.08	1169	5200	-	-	88	40
37	1.0	1283	145	BS10-../DPE08XB4	47.59	910	4050	-	-	66	30
36	1.8	1319	149	BS20-../DPE08XB4	48.98	1236	5500	-	-	88	40
35	2.9	1390	157	BS30-../DPE08XB4	50.04	1326	5900	-	-	128	58
34.5	1.95	1230	139	BS20-../DPE08XB4	50.44	1281	5700	-	-	88	40
30.5	0.87	1531	173	BS10-../DPE08XB4	57.12	978	4350	-	-	66	30
30	1.55	1584	179	BS20-../DPE08XB4	58.74	1326	5900	-	-	88	40
30	2.5	1620	183	BS30-../DPE08XB4	58.64	1551	6900	-	-	128	58
29	0.91	1460	165	BS10-../DPE08XB4	60.74	1023	4550	-	-	66	30
25	1.45	1859	210	BS20-../DPE08XB4	70.30	1416	6300	-	-	88	40
24.5	2.4	1770	200	BS30-../DPE08XB4	71.17	1574	7000	-	-	128	58
23	1.3	1814	205	BS20-../DPE08XB4	76.18	1484	6600	-	-	88	40
21	1.55	2301	260	BS30-../DPE08XB4	83.48	1529	6800	-	-	128	58
20	1.15	2080	235	BS20-../DPE08XB4	88.67	1574	7000	-	-	88	40
19.5	1.95	2213	250	BS30-../DPE08XB4	90.59	1731	7700	-	-	128	58
17.5	0.83	2655	300	BS20-../DPE08XB4	101.1	1596	7100	-	-	88	40
16.5	0.95	2522	285	BS20-../DPE08XB4	106.3	1709	7600	-	-	88	40
16.5	1.75	2611	295	BS30-../DPE08XB4	106.2	1843	8200	-	-	128	58
16.5	3.3	2567	290	BS40-../DPE08XB4	108.1	3147	14000	-	-	157	71
14	0.81	2965	335	BS20-../DPE08XB4	127.3	1798	8000	-	-	88	40
14	1.5	3054	345	BS30-../DPE08XB4	125.2	1956	8700	-	-	128	58
14	2.9	3009	340	BS40-../DPE08XB4	126.0	3350	14900	-	-	157	71
12	1.35	3496	395	BS30-../DPE08XB4	151.1	2136	9500	-	-	128	58
12	2.5	3408	385	BS40-../DPE08XB4	148.1	3372	15000	-	-	157	71
9.8	1.7	4204	475	BS40-../DPE08XB4	178.2	3372	15000	-	-	157	71
9.4	1.1	4425	500	BS30-../DPE08XB4	186.7	2248	10000	-	-	128	58
8.1	0.9	5133	580	BS30-../DPE08XB4	216.4	2248	10000	-	-	128	58
8.0	1.4	4956	560	BS40-../DPE08XB4	219.7	3372	15000	-	-	157	71
7.0	1.4	5664	640	BS40Z-../DPE08XB4	249.6	3372	15000	-	-	163	74
6.7	0.8	6196	700	BS30Z-../DPE08XB4	261.6	2248	10000	-	-	132	60
6.1	0.83	7612	860	BS40Z-../DPE08XB4	287.7	3372	15000	-	-	163	74
5.8	1.4	6815	770	BS40Z-../DPE08XB4	302.1	3372	15000	-	-	163	74
4.9	1.15	8143	920	BS40Z-../DPE08XB4	356.8	3372	15000	-	-	163	74
3.9	0.86	10178	1150	BS40Z-../DPE08XB4	446.8	3372	15000	-	-	163	74
3.4	0.83	11683	1320	BS40Z-../DPE08XB4	520.8	3372	15000	-	-	163	74
2.1	1.0	2390*	270*	BS20G06-../DPE08XB4	831.7	1798	8000	-	-	106	48
1.9	1.0	7789*	880*	BS40G10-../DPE08XB4	965.5	3372	15000	-	-	176	80
1.8	1.0	1416*	160*	BS10G06-../DPE08XB4	969.9	1349	6000	-	-	84	38
1.8	1.0	2390*	270*	BS20G06-../DPE08XB4	1000	1798	8000	-	-	106	48
1.8	1.0	4337*	490*	BS30G06-../DPE08XB4	1022	2248	10000	-	-	146	66
1.5	1.0	1416*	160*	BS10G06-../DPE08XB4	1166	1349	6000	-	-	84	38
1.5	1.0	4337*	490*	BS30G06-../DPE08XB4	1176	2248	10000	-	-	146	66
1.5	1.0	7789*	880*	BS40G10-../DPE08XB4	1180	3372	15000	-	-	176	80
1.4	1.0	2390*	270*	BS20G06-../DPE08XB4	1311	1798	8000	-	-	106	48
1.3	1.0	1416*	160*	BS10G06-../DPE08XB4	1342	1349	6000	-	-	84	38
1.2	1.0	1416*	160*	BS10G06-../DPE08XB4	1528	1349	6000	-	-	84	38
1.2	1.0	2390*	270*	BS20G06-../DPE08XB4	1543	1798	8000	-	-	106	48
1.2	1.0	4337*	490*	BS30G06-../DPE08XB4	1576	2248	10000	-	-	146	66

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

BS-series worm-gear motors

Selection - worm-gear motors

1 HP (0.75 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
1.2	1.0	7789*	880*	BS40G10-../DPE08XB4	1499	3372	15000	-	-	176	80
1.1	1.0	1416*	160*	BS10G06-../DPE08XB4	1668	1349	6000	-	-	84	38
1.1	1.0	2390*	270*	BS20G06-../DPE08XB4	1683	1798	8000	-	-	106	48
1.0	1.0	7789*	880*	BS40G10-../DPE08XB4	1785	3372	15000	-	-	176	80
0.95	1.0	4337*	490*	BS30G06-../DPE08XB4	1886	2248	10000	-	-	146	66
0.9	1.0	1416*	160*	BS10G06-../DPE08XB4	1963	1349	6000	-	-	84	38
0.9	1.0	2390*	270*	BS20G06-../DPE08XB4	2014	1798	8000	-	-	106	48
0.85	1.0	7789*	880*	BS40G10-../DPE08XB4	2126	3372	15000	-	-	176	80
0.8	1.0	4337*	490*	BS30G06-../DPE08XB4	2308	2248	10000	-	-	146	66
0.8	1.0	7789*	880*	BS40G10-../DPE08XB4	2304	3372	15000	-	-	176	80
0.75	1.0	1416*	160*	BS10G06-../DPE08XB4	2348	1349	6000	-	-	84	38
0.75	1.0	2390*	270*	BS20G06-../DPE08XB4	2465	1798	8000	-	-	106	48
0.7	1.0	1416*	160*	BS10G06-../DPE08XB4	2635	1349	6000	-	-	84	38
0.7	1.0	4337*	490*	BS30G06-../DPE08XB4	2518	2248	10000	-	-	146	66
0.7	1.0	7789*	880*	BS40G10-../DPE08XB4	2552	3372	15000	-	-	176	80
0.65	1.0	1416*	160*	BS10G06-../DPE08XB4	2875	1349	6000	-	-	84	38
0.65	1.0	2390*	270*	BS20G06-../DPE08XB4	2857	1798	8000	-	-	106	48
0.6	1.0	2390*	270*	BS20G06-../DPE08XB4	3117	1798	8000	-	-	106	48
0.6	1.0	4337*	490*	BS30G06-../DPE08XB4	2919	2248	10000	-	-	146	66
0.6	1.0	7789*	880*	BS40G10-../DPE08XB4	2902	3372	15000	-	-	176	80
0.55	1.0	1416*	160*	BS10G06-../DPE08XB4	3332	1349	6000	-	-	84	38
0.55	1.0	4337*	490*	BS30G06-../DPE08XB4	3344	2248	10000	-	-	146	66
0.55	1.0	7789*	880*	BS40G10-../DPE08XB4	3215	3372	15000	-	-	176	80
0.49	1.0	2390*	270*	BS20G06-../DPE08XB4	3570	1798	8000	-	-	106	48
0.48	1.0	1416*	160*	BS10G06-../DPE08XB4	3635	1349	6000	-	-	84	38
0.48	1.0	4337*	490*	BS30G06-../DPE08XB4	3647	2248	10000	-	-	146	66
0.47	1.0	7789*	880*	BS40G10-../DPE08XB4	3769	3372	15000	-	-	176	80
0.43	1.0	2390*	270*	BS20G06-../DPE08XB4	4096	1798	8000	-	-	106	48
0.42	1.0	1416*	160*	BS10G06-../DPE08XB4	4163	1349	6000	-	-	84	38
0.42	1.0	4337*	490*	BS30G06-../DPE08XB4	4184	2248	10000	-	-	146	66
0.42	1.0	7789*	880*	BS40G10-../DPE08XB4	4201	3372	15000	-	-	176	80
0.38	1.0	7789*	880*	BS40G10-../DPE08XB4	4655	3372	15000	-	-	176	80
0.37	1.0	1416*	160*	BS10G06-../DPE08XB4	4776	1349	6000	-	-	84	38
0.36	1.0	2390*	270*	BS20G06-../DPE08XB4	4910	1798	8000	-	-	106	48
0.36	1.0	4514*	510*	BS30G06-../DPE08XB4	4905	2248	10000	-	-	146	66
0.34	1.0	1416*	160*	BS10G06-../DPE08XB4	5209	1349	6000	-	-	84	38
0.32	1.0	7966*	900*	BS40G10-../DPE08XB4	5498	3372	15000	-	-	176	80
0.31	1.0	4602*	520*	BS30G06-../DPE08XB4	5783	2248	10000	-	-	146	66
0.3	1.0	2390*	270*	BS20G06-../DPE08XB4	5880	1798	8000	-	-	106	48
0.29	1.0	1452*	164*	BS10G06-../DPE08XB4	6019	1349	6000	-	-	84	38
0.29	1.0	8408*	950*	BS40G10-../DPE08XB4	6214	3372	15000	-	-	176	80
0.28	1.0	4602*	520*	BS30G06-../DPE08XB4	6308	2248	10000	-	-	146	66
0.27	1.0	1452*	164*	BS10G06-../DPE08XB4	6565	1349	6000	-	-	84	38
0.26	1.0	8408*	950*	BS40G10-../DPE08XB4	6885	3372	15000	-	-	176	80
0.24	1.0	2434*	275*	BS20G06-../DPE08XB4	7363	1798	8000	-	-	106	48
0.22	1.0	2434*	275*	BS20G06-../DPE08XB4	8031	1798	8000	-	-	106	48
0.19	1.0	2478*	280*	BS20G06-../DPE08XB4	9220	1798	8000	-	-	106	48

1.5 HP (1.1 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
141	1.85	522	59	BS10-../DPE09XA4	12.49	540	2400	-	-	88	40
138	3.3	540	61	BS20-../DPE09XA4	12.77	753	3350	-	-	110	50
104	1.5	708	80	BS10-../DPE09XA4	16.92	607	2700	-	-	88	40
104	2.7	717	81	BS20-../DPE09XA4	16.92	832	3700	-	-	110	50
81	1.2	912	103	BS10-../DPE09XA4	21.61	674	3000	-	-	88	40
79	2.1	947	107	BS20-../DPE09XA4	22.23	922	4100	-	-	110	50

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

BS-series worm-gear motors

Selection - worm-gear motors

1.5 HP (1.1 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
78	1.25	814	92	BS10-../DPE09XA4	22.60	719	3200	-	-	88	40
76	2.3	876	99	BS20-../DPE09XA4	23.13	967	4300	-	-	110	50
67	1.05	1080	122	BS10-../DPE09XA4	26.42	731	3250	-	-	88	40
65	3.0	1186	134	BS30-../DPE09XA4	27.07	1068	4750	-	-	150	68
63	1.9	1151	130	BS20-../DPE09XA4	27.86	1000	4450	-	-	110	50
58	1.05	1097	124	BS10-../DPE09XA4	30.63	798	3550	-	-	88	40
58	1.9	1151	130	BS20-../DPE09XA4	30.63	1068	4750	-	-	110	50
58	3.0	1195	135	BS30-../DPE09XA4	30.63	1124	5000	-	-	150	68
54	1.8	1319	149	BS20-../DPE09XA4	32.87	1068	4750	-	-	110	50
53	0.9	1328	150	BS10-../DPE09XA4	33.55	798	3550	-	-	88	40
53	2.6	1434	162	BS30-../DPE09XA4	33.55	1169	5200	-	-	150	68
46.5	2.5	1496	169	BS30-../DPE09XA4	37.92	1236	5500	-	-	150	68
45	2.3	1673	189	BS30-../DPE09XA4	39.31	1236	5500	-	-	150	68
43.5	1.5	1531	173	BS20-../DPE09XA4	40.25	1191	5300	-	-	110	50
42	1.4	1682	190	BS20-../DPE09XA4	42.08	1169	5200	-	-	110	50
36	1.25	1903	215	BS20-../DPE09XA4	48.98	1236	5500	-	-	110	50
35	1.35	1770	200	BS20-../DPE09XA4	50.44	1281	5700	-	-	110	50
35	1.95	2036	230	BS30-../DPE09XA4	50.04	1326	5900	-	-	150	68
30	1.1	2301	260	BS20-../DPE09XA4	58.74	1326	5900	-	-	110	50
30	1.75	2345	265	BS30-../DPE09XA4	58.64	1551	6900	-	-	150	68
25.5	2.4	2788	315	BS40-../DPE09XA4	69.60	2653	11800	-	-	179	81
25	0.95	2788	315	BS20-../DPE09XA4	70.30	1416	6300	-	-	110	50
25	1.65	2567	290	BS30-../DPE09XA4	71.17	1574	7000	-	-	150	68
24	2.9	2699	305	BS40-../DPE09XA4	73.09	2720	12100	-	-	179	81
23	0.9	2655	300	BS20-../DPE09XA4	76.18	1484	6600	-	-	110	50
21	1.05	3408	385	BS30-../DPE09XA4	83.48	1529	6800	-	-	150	68
20.5	2.6	3098	350	BS40-../DPE09XA4	86.33	2900	12900	-	-	179	81
19.5	1.3	3275	370	BS30-../DPE09XA4	90.59	1731	7700	-	-	150	68
16.5	1.2	3806	430	BS30-../DPE09XA4	106.2	1843	8200	-	-	150	68
16.5	2.2	3762	425	BS40-../DPE09XA4	108.1	3147	14000	-	-	179	81
14	1.0	4514	510	BS30-../DPE09XA4	125.2	1956	8700	-	-	150	68
14	1.95	4425	500	BS40-../DPE09XA4	126.0	3350	14900	-	-	179	81
12	0.93	5133	580	BS30-../DPE09XA4	151.1	2136	9500	-	-	150	68
12	1.75	4956	560	BS40-../DPE09XA4	148.1	3372	15000	-	-	179	81
9.9	1.2	6019	680	BS40-../DPE09XA4	178.2	3372	15000	-	-	179	81
8.0	0.97	7258	820	BS40-../DPE09XA4	219.7	3372	15000	-	-	179	81
7.1	0.97	8231	930	BS40Z-../DPE09XA4	249.6	3372	15000	-	-	185	84
5.8	0.94	10090	1140	BS40Z-../DPE09XA4	302.1	3372	15000	-	-	185	84
5.0	0.82	11683	1320	BS40Z-../DPE09XA4	356.8	3372	15000	-	-	185	84

2 HP (1.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lbf-in	Nm			lb.f	N	lb.f	N	lb	kg
140	1.35	717	81	BS10-../DPE09XA4	12.49	540	2400	-	-	88	40
137	2.4	743	84	BS20-../DPE09XA4	12.77	753	3350	-	-	110	50
103	1.1	982	111	BS10-../DPE09XA4	16.92	607	2700	-	-	88	40
103	1.95	991	112	BS20-../DPE09XA4	16.92	832	3700	-	-	110	50
103	3.1	1018	115	BS30-../DPE09XA4	16.92	888	3950	-	-	150	68
84	2.7	1248	141	BS30-../DPE09XA4	20.94	967	4300	-	-	150	68
81	0.89	1248	141	BS10-../DPE09XA4	21.61	674	3000	-	-	88	40
79	1.6	1292	146	BS20-../DPE09XA4	22.23	922	4100	-	-	110	50
77	0.91	1133	128	BS10-../DPE09XA4	22.60	719	3200	-	-	88	40
76	1.7	1195	135	BS20-../DPE09XA4	23.13	967	4300	-	-	110	50
73	2.5	1301	147	BS30-../DPE09XA4	24.06	1034	4600	-	-	150	68
65	2.2	1611	182	BS30-../DPE09XA4	27.07	1068	4750	-	-	150	68
63	1.4	1567	177	BS20-../DPE09XA4	27.86	1000	4450	-	-	110	50
57	1.4	1593	180	BS20-../DPE09XA4	30.63	1068	4750	-	-	110	50

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

BS-series worm-gear motors

Selection - worm-gear motors

2 HP (1.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·ft	Nm			lb·f	N	lb·f	N	lb	kg
57	2.1	1664	188	BS30-../DPE09XA4	30.63	1124	5000	-	-	150	68
53	1.3	1814	205	BS20-../DPE09XA4	32.87	1068	4750	-	-	110	50
52	1.85	1991	225	BS30-../DPE09XA4	33.55	1169	5200	-	-	150	68
46	1.85	2036	230	BS30-../DPE09XA4	37.92	1236	5500	-	-	150	68
44.5	1.65	2301	260	BS30-../DPE09XA4	39.31	1236	5500	-	-	150	68
43.5	1.1	2080	235	BS20-../DPE09XA4	40.25	1191	5300	-	-	110	50
43.5	3.1	2301	260	BS40-../DPE09XA4	40.37	2023	9000	-	-	179	81
41.5	1.05	2301	260	BS20-../DPE09XA4	42.08	1169	5200	-	-	110	50
36.5	2.7	2699	305	BS40-../DPE09XA4	47.69	2158	9600	-	-	179	81
36	0.92	2611	295	BS20-../DPE09XA4	48.98	1236	5500	-	-	110	50
35	1.45	2788	315	BS30-../DPE09XA4	50.04	1326	5900	-	-	150	68
34.5	0.98	2434	275	BS20-../DPE09XA4	50.44	1281	5700	-	-	110	50
30	1.25	3231	365	BS30-../DPE09XA4	58.64	1551	6900	-	-	150	68
29	2.5	3098	350	BS40-../DPE09XA4	60.38	2518	11200	-	-	179	81
25	1.7	3894	440	BS40-../DPE09XA4	69.60	2653	11800	-	-	179	81
24.5	1.2	3585	405	BS30-../DPE09XA4	71.17	1574	7000	-	-	150	68
24	2.1	3673	415	BS40-../DPE09XA4	73.09	2720	12100	-	-	179	81
20.5	1.9	4248	480	BS40-../DPE09XA4	86.33	2900	12900	-	-	179	81
19.5	0.98	4425	500	BS30-../DPE09XA4	90.59	1731	7700	-	-	150	68
16.5	0.86	5222	590	BS30-../DPE09XA4	106.2	1843	8200	-	-	150	68
16.5	1.65	5133	580	BS40-../DPE09XA4	108.1	3147	14000	-	-	179	81
14	1.45	6019	680	BS40-../DPE09XA4	126.0	3350	14900	-	-	179	81
12	1.25	6815	770	BS40-../DPE09XA4	148.1	3372	15000	-	-	179	81
9.8	0.86	8408	950	BS40-../DPE09XA4	178.2	3372	15000	-	-	179	81

3 HP (2.2 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·ft	Nm			lb·f	N	lb·f	N	lb	kg
141	0.91	1053	119	BS10-../DPE09XB4C	12.49	540	2400	-	-	95	43
138	1.65	1089	123	BS20-../DPE09XB4C	12.77	753	3350	-	-	117	53
133	2.5	1159	131	BS30-../DPE09XB4C	13.29	809	3600	-	-	157	71
105	1.35	1434	162	BS20-../DPE09XB4C	16.92	832	3700	-	-	117	53
105	2.2	1469	166	BS30-../DPE09XB4C	16.92	888	3950	-	-	157	71
85	1.85	1814	205	BS30-../DPE09XB4C	20.94	967	4300	-	-	157	71
80	1.1	1859	210	BS20-../DPE09XB4C	22.23	922	4100	-	-	117	53
77	1.15	1735	196	BS20-../DPE09XB4C	23.13	967	4300	-	-	117	53
74	1.75	1859	210	BS30-../DPE09XB4C	24.06	1034	4600	-	-	157	71
68	3.0	2213	250	BS40-../DPE09XB4C	26.18	1686	7500	-	-	185	84
66	1.55	2301	260	BS30-../DPE09XB4C	27.07	1068	4750	-	-	157	71
64	0.98	2257	255	BS20-../DPE09XB4C	27.86	1000	4450	-	-	117	53
58	0.96	2301	260	BS20-../DPE09XB4C	30.63	1068	4750	-	-	117	53
58	1.5	2390	270	BS30-../DPE09XB4C	30.63	1124	5000	-	-	157	71
58	2.8	2345	265	BS40-../DPE09XB4C	30.63	1956	8700	-	-	185	84
54	0.92	2611	295	BS20-../DPE09XB4C	32.87	1068	4750	-	-	117	53
53	1.3	2876	325	BS30-../DPE09XB4C	33.55	1169	5200	-	-	157	71
53	2.5	2788	315	BS40-../DPE09XB4C	33.35	1866	8300	-	-	185	84
46.5	1.25	2965	335	BS30-../DPE09XB4C	37.92	1236	5500	-	-	157	71
46.5	2.4	2876	325	BS40-../DPE09XB4C	38.13	2113	9400	-	-	185	84
45	1.15	3319	375	BS30-../DPE09XB4C	39.31	1236	5500	-	-	157	71
44	2.1	3319	375	BS40-../DPE09XB4C	40.37	2023	9000	-	-	185	84
37	1.9	3894	440	BS40-../DPE09XB4C	47.69	2158	9600	-	-	185	84
35.5	0.99	4027	455	BS30-../DPE09XB4C	50.04	1326	5900	-	-	157	71
30.5	0.87	4691	530	BS30-../DPE09XB4C	58.64	1551	6900	-	-	157	71
29.5	1.7	4425	500	BS40-../DPE09XB4C	60.38	2518	11200	-	-	185	84
25.5	1.2	5576	630	BS40-../DPE09XB4C	69.60	2653	11800	-	-	185	84
25	0.83	5133	580	BS30-../DPE09XB4C	71.17	1574	7000	-	-	157	71
24.5	1.45	5310	600	BS40-../DPE09XB4C	73.09	2720	12100	-	-	185	84

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



BS-series worm-gear motors

Selection - worm-gear motors

3 HP (2.2 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
20.5	1.3	6196	700	BS40-../DPE09XB4C	86.33	2900	12900	-	-	185	84
16.5	1.1	7523	850	BS40-../DPE09XB4C	108.1	3147	14000	-	-	185	84
14	0.98	8851	1000	BS40-../DPE09XB4C	126.0	3350	14900	-	-	185	84
12	0.86	10001	1130	BS40-../DPE09XB4C	148.1	3372	15000	-	-	185	84

4 HP (3 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
133	1.85	1575	178	BS30-../DPE11LA4	13.29	809	3600	-	-	196	89
105	1.6	1991	225	BS30-../DPE11LA4	16.92	888	3950	-	-	196	89
105	2.9	2036	230	BS40-../DPE11LA4	16.92	1439	6400	-	-	236	107
85	1.4	2434	275	BS30-../DPE11LA4	20.94	967	4300	-	-	196	89
84	2.6	2434	275	BS40-../DPE11LA4	21.06	1551	6900	-	-	236	107
75	2.5	2478	280	BS40-../DPE11LA4	23.59	1776	7900	-	-	236	107
74	1.25	2567	290	BS30-../DPE11LA4	24.06	1034	4600	-	-	196	89
68	2.1	3054	345	BS40-../DPE11LA4	26.18	1686	7500	-	-	236	107
66	1.1	3186	360	BS30-../DPE11LA4	27.07	1068	4750	-	-	196	89
58	1.1	3275	370	BS30-../DPE11LA4	30.63	1124	5000	-	-	196	89
58	2.1	3231	365	BS40-../DPE11LA4	30.63	1956	8700	-	-	236	107
53	0.95	3894	440	BS30-../DPE11LA4	33.55	1169	5200	-	-	196	89
53	1.8	3806	430	BS40-../DPE11LA4	33.35	1866	8300	-	-	236	107
46.5	0.91	4071	460	BS30-../DPE11LA4	37.92	1236	5500	-	-	196	89
46.5	1.75	3939	445	BS40-../DPE11LA4	38.13	2113	9400	-	-	236	107
45	0.84	4514	510	BS30-../DPE11LA4	39.31	1236	5500	-	-	196	89
44	1.55	4514	510	BS40-../DPE11LA4	40.37	2023	9000	-	-	236	107
37	1.4	5310	600	BS40-../DPE11LA4	47.69	2158	9600	-	-	236	107
29.5	1.25	6019	680	BS40-../DPE11LA4	60.38	2518	11200	-	-	236	107
24.5	1.1	7169	810	BS40-../DPE11LA4	73.09	2720	12100	-	-	236	107
20.5	0.94	8497	960	BS40-../DPE11LA4	86.33	2900	12900	-	-	236	107

5 HP (3.7 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
		lbf-in	Nm			Standard Bearings		Reinforced Bearings		lb	kg
						lb.f	N	lb.f	N		
136	2.8	1947	220	BS40-../DPE11LA4	13.03	1304	5800	-	-	236	107
133	1.5	1947	220	BS30-../DPE11LA4	13.29	809	3600	-	-	196	89
105	1.3	2434	275	BS30-../DPE11LA4	16.92	888	3950	-	-	196	89
105	2.4	2522	285	BS40-../DPE11LA4	16.92	1439	6400	-	-	236	107
85	1.1	3054	345	BS30-../DPE11LA4	20.94	967	4300	-	-	196	89
84	2.1	3009	340	BS40-../DPE11LA4	21.06	1551	6900	-	-	236	107
75	2.0	3054	345	BS40-../DPE11LA4	23.59	1776	7900	-	-	236	107
74	1.05	3142	355	BS30-../DPE11LA4	24.06	1034	4600	-	-	196	89
68	1.75	3762	425	BS40-../DPE11LA4	26.18	1686	7500	-	-	236	107
66	0.91	3894	440	BS30-../DPE11LA4	27.07	1068	4750	-	-	196	89
58	0.88	4027	455	BS30-../DPE11LA4	30.63	1124	5000	-	-	196	89
58	1.65	3983	450	BS40-../DPE11LA4	30.63	1956	8700	-	-	236	107
53	1.45	4691	530	BS40-../DPE11LA4	33.35	1866	8300	-	-	236	107
46.5	1.4	4868	550	BS40-../DPE11LA4	38.13	2113	9400	-	-	236	107
44	1.25	5576	630	BS40-../DPE11LA4	40.37	2023	9000	-	-	236	107
37	1.1	6550	740	BS40-../DPE11LA4	47.69	2158	9600	-	-	236	107
29.5	1.0	7523	850	BS40-../DPE11LA4	60.38	2518	11200	-	-	236	107
24.5	0.88	8851	1000	BS40-../DPE11LA4	73.09	2720	12100	-	-	236	107

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

BS-series worm-gear motors

Selection - worm-gear motors

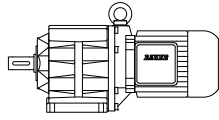
6 HP (4.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·in	Nm			lb·f	N	lb·f	N	lb	kg
136	2.3	2345	265	BS40-../DPE11LB4	13.03	1304	5800	-	-	236	107
133	1.25	2345	265	BS30-../DPE11LB4	13.29	809	3600	-	-	196	89
105	1.05	2965	335	BS30-../DPE11LB4	16.92	888	3950	-	-	196	89
105	1.95	3054	345	BS40-../DPE11LB4	16.92	1439	6400	-	-	236	107
85	0.92	3673	415	BS30-../DPE11LB4	20.94	967	4300	-	-	196	89
84	1.7	3673	415	BS40-../DPE11LB4	21.06	1551	6900	-	-	236	107
75	1.65	3717	420	BS40-../DPE11LB4	23.59	1776	7900	-	-	236	107
74	0.85	3850	435	BS30-../DPE11LB4	24.06	1034	4600	-	-	196	89
68	1.45	4514	510	BS40-../DPE11LB4	26.18	1686	7500	-	-	236	107
58	1.4	4779	540	BS40-../DPE11LB4	30.63	1956	8700	-	-	236	107
53	1.2	5664	640	BS40-../DPE11LB4	33.35	1866	8300	-	-	236	107
46.5	1.15	5930	670	BS40-../DPE11LB4	38.13	2113	9400	-	-	236	107
44	1.05	6815	770	BS40-../DPE11LB4	40.37	2023	9000	-	-	236	107
37	0.92	7966	900	BS40-../DPE11LB4	47.69	2158	9600	-	-	236	107
29.5	0.83	9116	1030	BS40-../DPE11LB4	60.38	2518	11200	-	-	236	107

7.5 HP (5.5 kW)

RPM	SF	Output Torque		Type	i	Permissible Overhung Load				Weight	
						Standard Bearings		Reinforced Bearings			
		lb·in	Nm			lb·f	N	lb·f	N	lb	kg
136	1.9	2876	325	BS40-../DPE11LB4C	13.03	1304	5800	-	-	245	111
133	1.0	2876	325	BS30-../DPE11LB4C	13.29	809	3600	-	-	205	93
105	0.87	3673	415	BS30-../DPE11LB4C	16.92	888	3950	-	-	205	93
105	1.6	3762	425	BS40-../DPE11LB4C	16.92	1439	6400	-	-	245	111
84	1.4	4514	510	BS40-../DPE11LB4C	21.06	1551	6900	-	-	245	111
75	1.35	4514	510	BS40-../DPE11LB4C	23.59	1776	7900	-	-	245	111
68	1.15	5576	630	BS40-../DPE11LB4C	26.18	1686	7500	-	-	245	111
58	1.1	5930	670	BS40-../DPE11LB4C	30.63	1956	8700	-	-	245	111
53	0.99	6992	790	BS40-../DPE11LB4C	33.35	1866	8300	-	-	245	111
46.5	0.95	7258	820	BS40-../DPE11LB4C	38.13	2113	9400	-	-	245	111
44	0.85	8320	940	BS40-../DPE11LB4C	40.37	2023	9000	-	-	245	111

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



Page

Dimensional drawings helical-g geared motors
- **Standard** Imperial/Metric

227-278

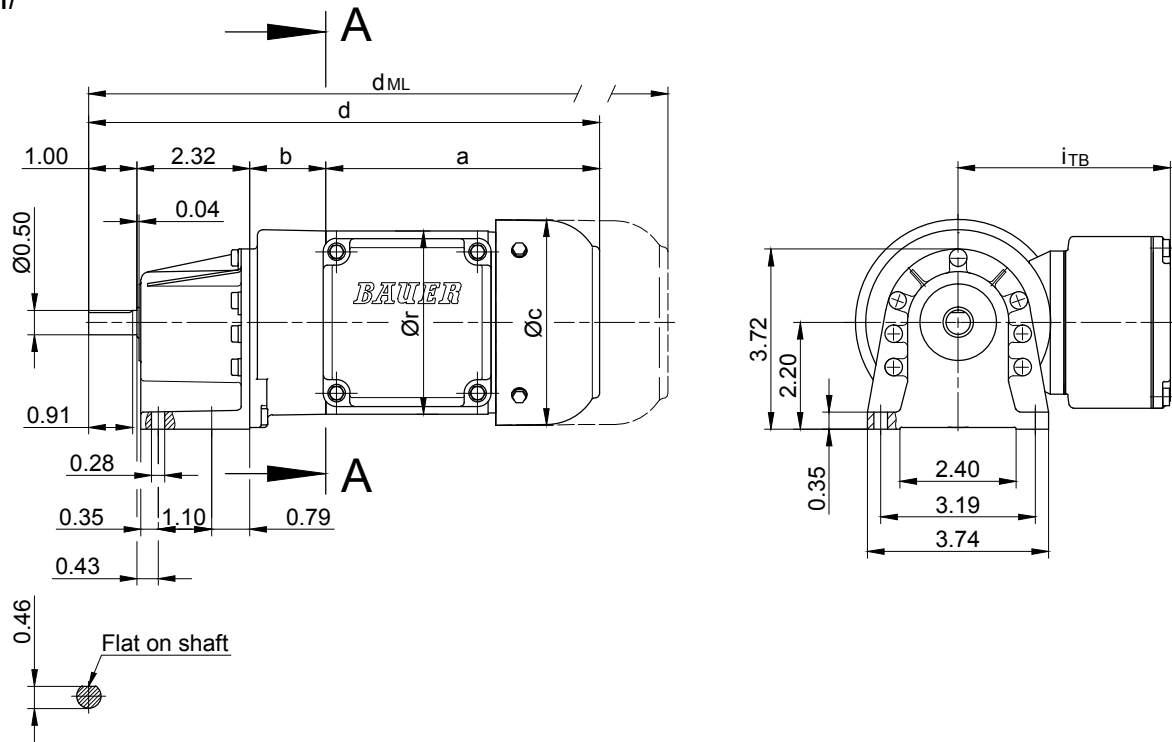
BG-series helical-geared motors

Dimension Imperial

BG04

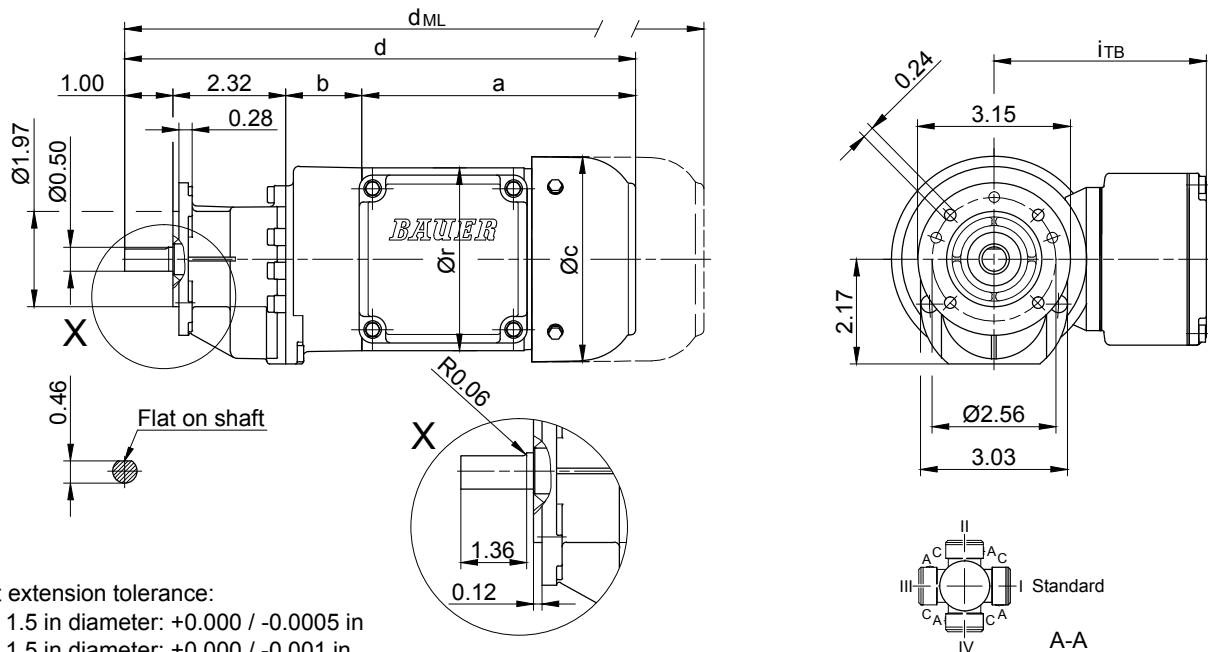
Foot mounting

Code -11/



Flange with clearance holes

Code -31/



Shaft extension tolerance:

up to 1.5 in diameter: +0.000 / -0.0005 in

over 1.5 in diameter: +0.000 / -0.001 in

Flange spigot diameter: +0.0003 / -0.0015 in

Type	a	b	c	d	r	Design with motor extensions				
						i _{TB}	E..	G	E..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG04-../D04..	5.63	1.57	4.37	10.47	3.78	4.41	12.19	12.93	14.63	-

The actual gearbox design can vary from the geometry shown.

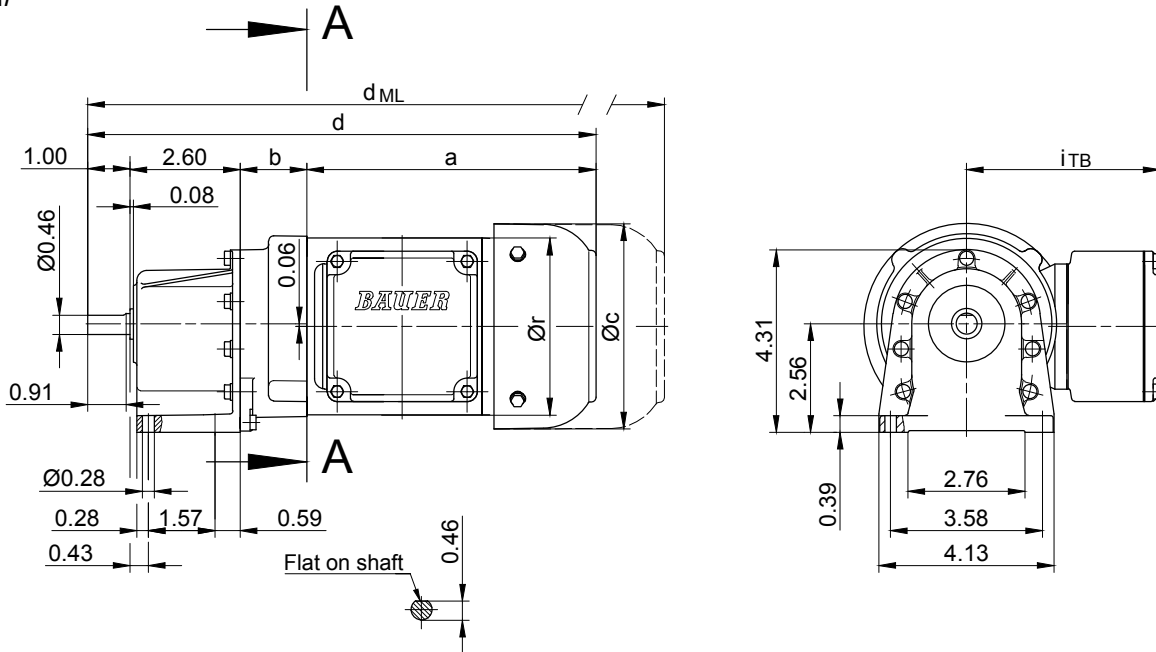
BG-series helical-geared motors

Dimension Imperial

BG05

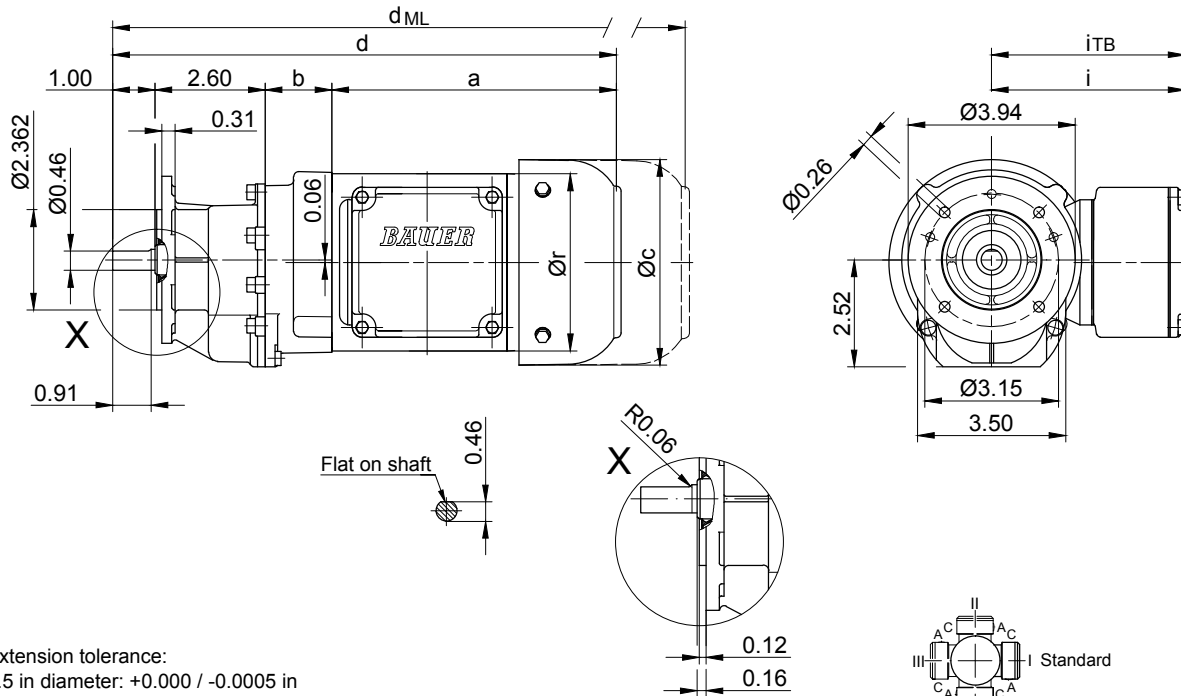
Foot mounting

Code -11/



Flange with clearance holes

Code -31/



Shaft extension tolerance:

up to 1.5 in diameter: +0.000 / -0.0005 in

over 1.5 in diameter: +0.000 / -0.001 in

Flange spigot diameter: +0.0003 / -0.0015 in

Type	a	b	c	d	r	Design with motor extensions				
						i _{TB}	E..	G	E.-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG05-.../D04..	5.63	1.50	4.37	10.83	3.78	4.41	12.54	13.29	14.98	-
BG05-.../D05..	6.69	1.57	4.84	11.97	4.17	4.61	13.62	16.02	17.66	-
BG05-.../D06..	6.69	1.57	4.84	11.97	4.76	4.69	13.62	16.02	17.66	-
BG05-.../D07..	7.48	1.57	4.84	12.76	4.76	4.69	14.41	16.81	18.44	-

The actual gearbox design can vary from the geometry shown.

10

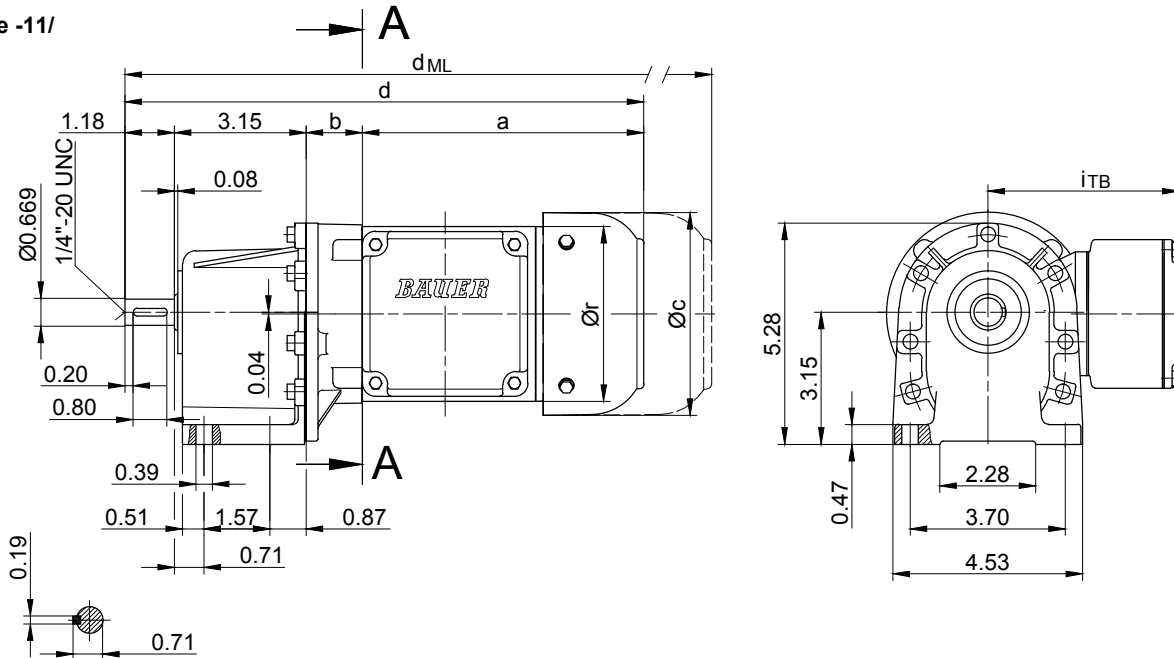
BG-series helical-geared motors

Dimension Imperial

BG06

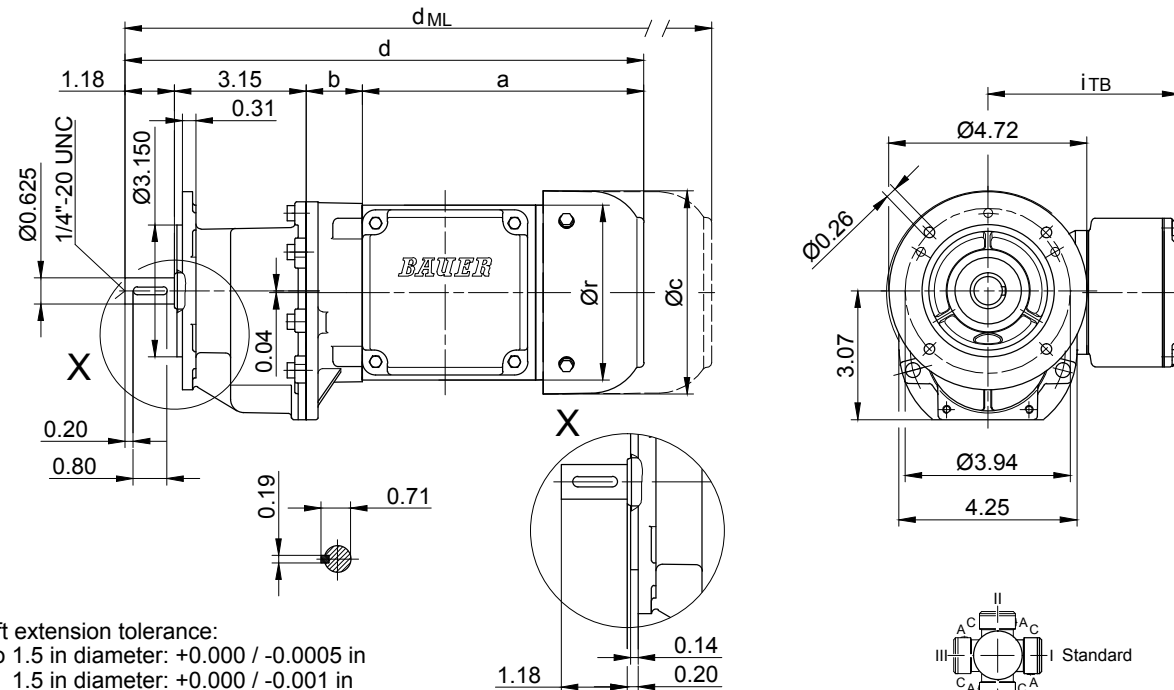
Foot mounting

Code -11/

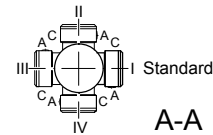


Flange with clearance holes

Code -31/



Shaft extension tolerance:
 up to 1.5 in diameter: +0.000 / -0.0005 in
 over 1.5 in diameter: +0.000 / -0.001 in
 Flange spigot diameter: +0.0003 / -0.0015 in



A-A



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

Type	a*	b	c	d*	r	Design with motor extensions				
						iTB	E./ES..	G	E./ES..-G	RR/RL
							d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BG06-../D04..	5.63	1.26	4.37	11.22	3.78	4.41	12.93	13.68	15.37	-
BG06-../D05..	6.69	1.34	4.84	12.36	4.17	4.61	14.02	16.42	18.05	-
BG06-../D06..	6.69	1.34	4.84	12.36	4.76	4.69	14.02	16.42	18.05	-
BG06-../D07..	7.48	1.34	4.84	13.15	4.76	4.69	14.80	17.20	18.84	-
BG06-../D..08..	7.87	3.07	6.14	15.28	6.14	5.37	17.87	19.49	22.11	17.87

The actual gearbox design can vary from the geometry shown.

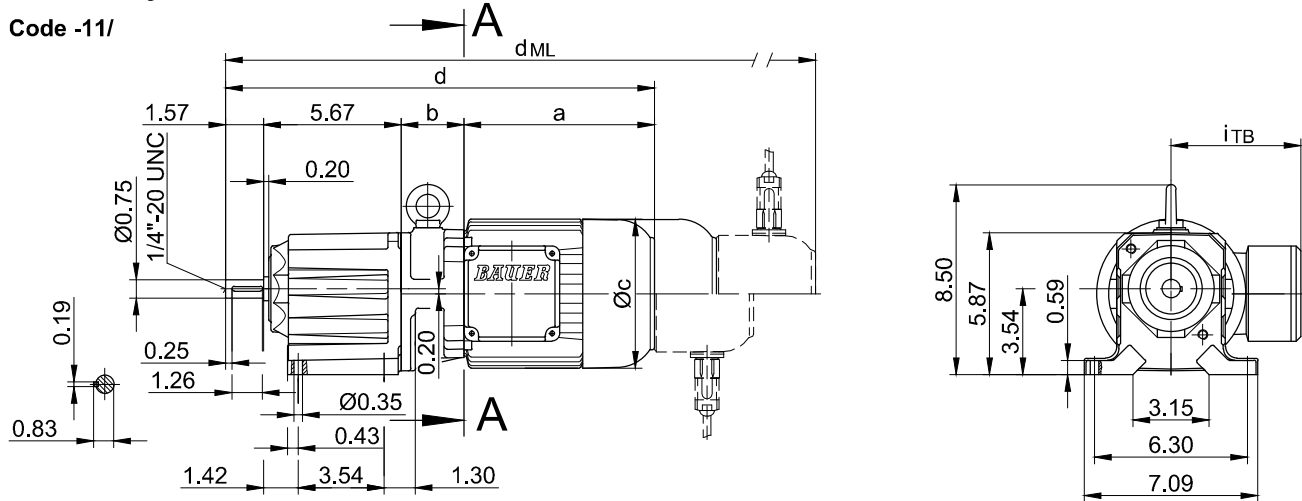
BG-series helical-geared motors

Dimension Imperial

BG10 - BG10Z

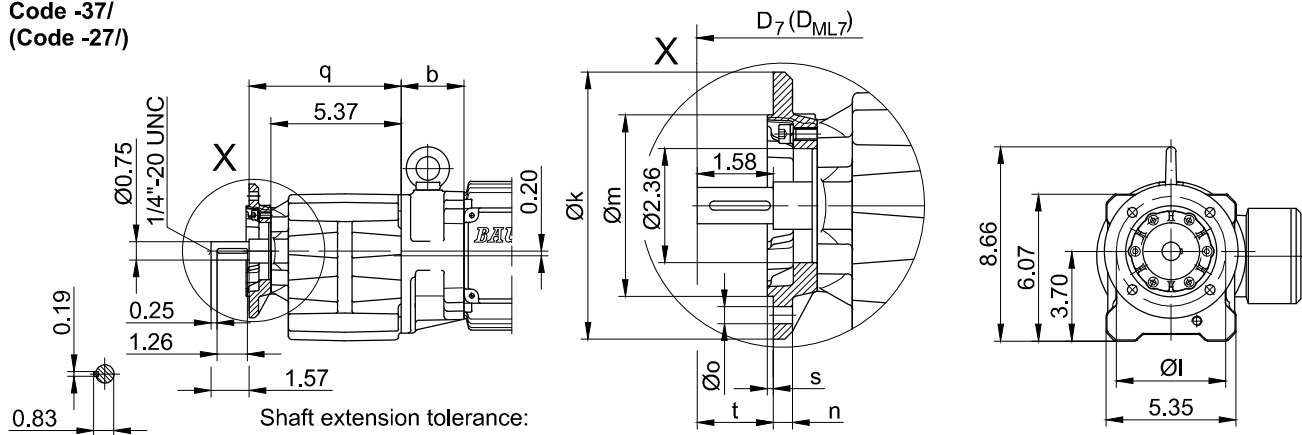
Foot mounting with clearance holes

Code -11/



Flange with clearance holes

Code -37/
(Code -27/)

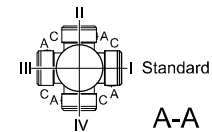


Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in

Flange dimensions

Flange spigot diameter: +0.0003 / -0.0015 in

BG10(Z)	k	l	m	n	o	q	s	t	D ₇	D _{ML7}
Standard -37/	5.512	4.528	3.740	0.394	0.354	6.280	0.118	1.575	d+0.610	d _{ML} +0.610
small -27/	4.724	3.937	3.150	0.315	0.260	6.083	0.118	1.772	d+0.610	d _{ML} +0.610



Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	E./ES..	G	E./ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BG10Z-./D04..	5.63	3.39	4.37	16.26	4.41	17.97	18.72	20.41	-
BG10-./D05..	6.69	2.44	4.84	16.38	4.61	18.03	20.43	22.07	-
BG10Z-./D05..	6.69	3.46	4.84	17.40	4.61	19.06	21.46	23.09	-
BG10-./D06..	6.69	2.44	4.84	16.38	4.69	18.03	20.43	22.07	-
BG10Z-./D06..	6.69	3.46	4.84	17.40	4.69	19.06	21.46	23.09	-
BG10-./D07..	7.48	2.44	4.84	17.17	4.69	18.82	21.22	22.85	-
BG10Z-./D07..	7.48	3.46	4.84	18.19	4.69	19.84	22.24	23.88	-
BG10-./D..08..	7.87	2.60	6.14	17.72	5.37	20.31	21.93	24.55	20.31
BG10Z-./D..08..	7.87	5.20	6.14	20.31	5.37	22.91	24.53	27.15	22.91
BG10-./D..09..	9.88	3.17	7.13	20.30	6.22	23.96	24.51	28.07	23.69



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

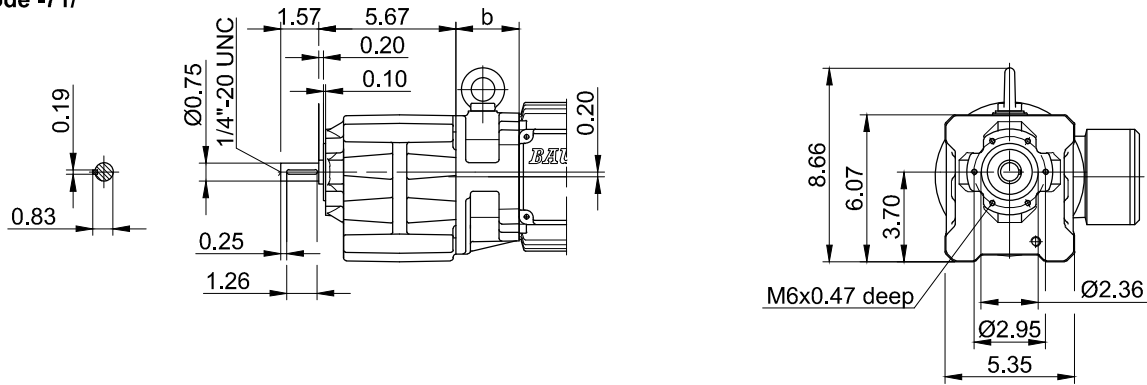
BG-series helical-geared motors

Dimension Imperial

BG10 - BG10Z

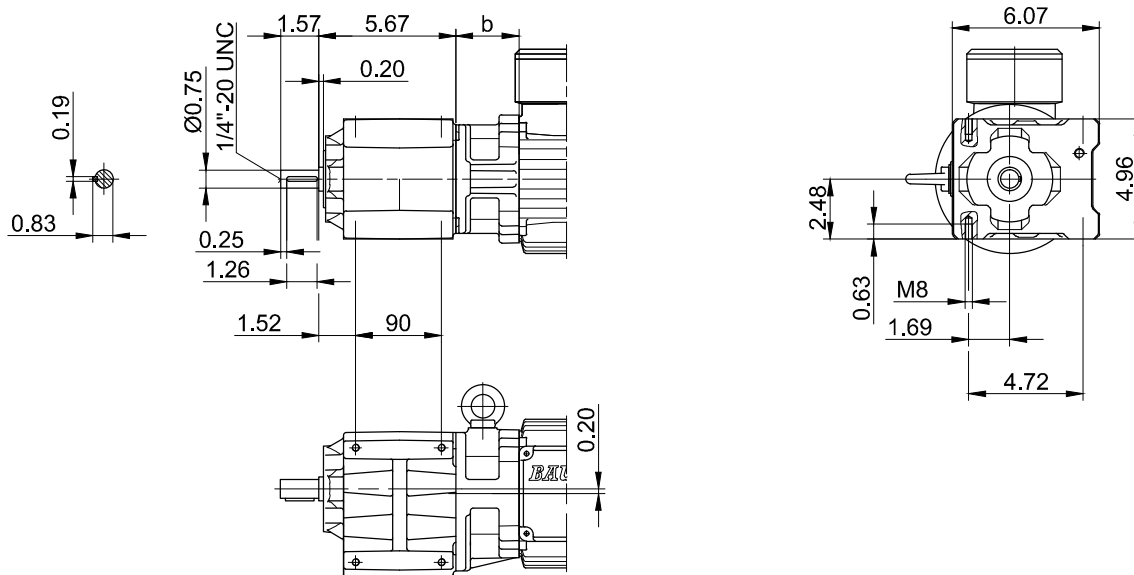
Flange with tapped holes

Code -71/



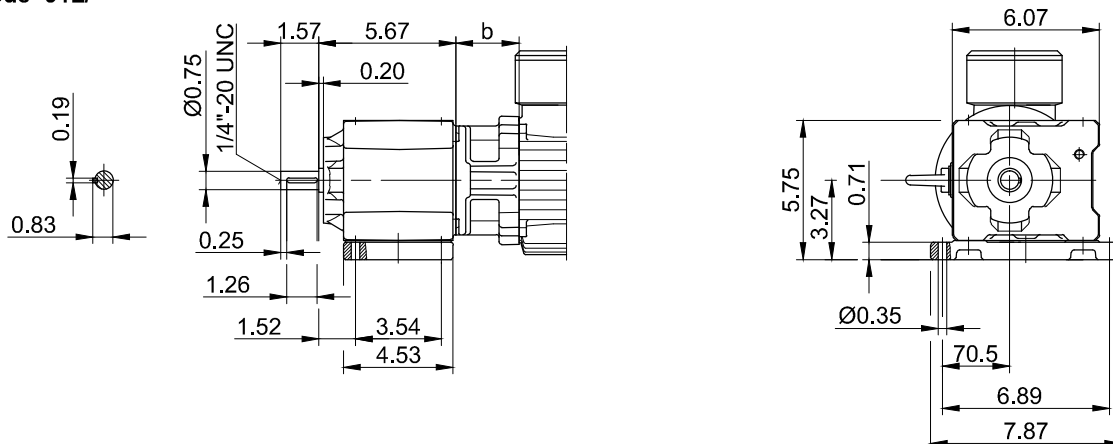
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/



The actual gearbox design can vary from the geometry shown.

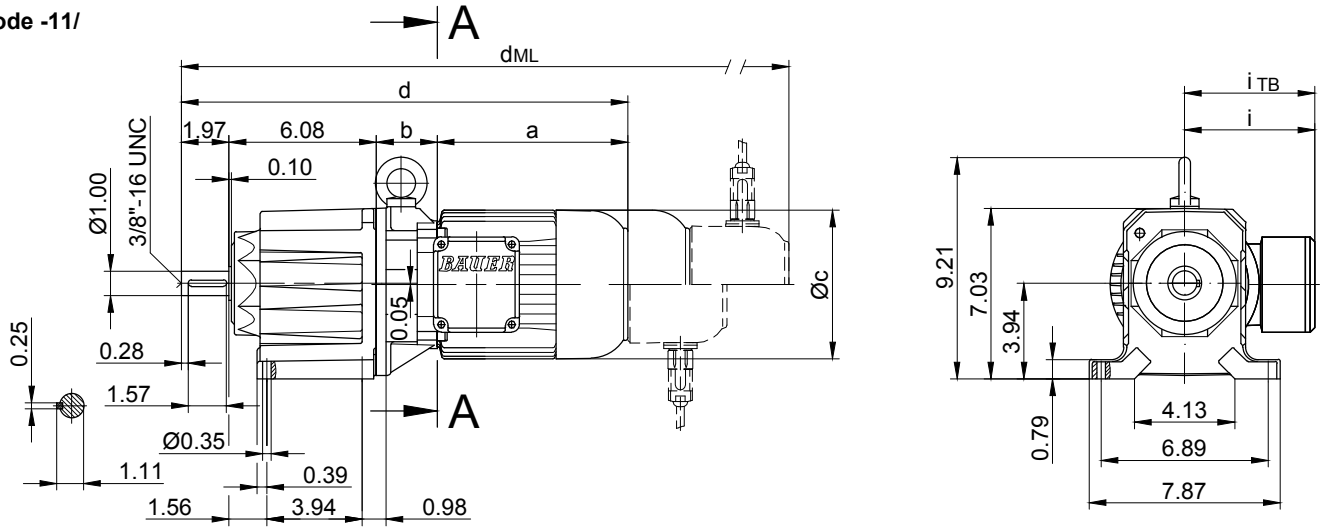
BG-series helical-geared motors

Dimension Imperial

BG20 - BG20Z

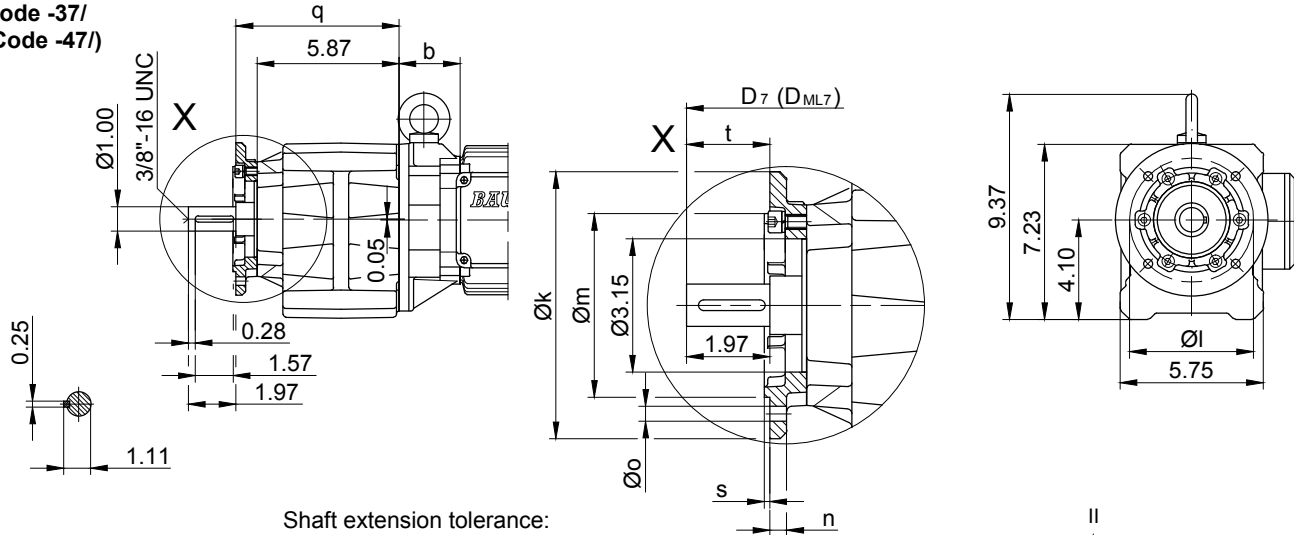
Foot mounting with clearance holes

Code -11/



Flange with clearance holes

Code -37/
(Code -47/)



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BG20(Z)	k	l	m	n	o	q	s	t	D ₇	D _{ML7}
Standard -37/	6.299	5.118	4.331	0.394	0.354	6.732	0.138	1.969	d+0.65	d _{ML} +0.65
big -47/	7.874	6.496	5.118	0.472	0.433	7.008	0.138	1.693	d+0.65	d _{ML} +0.65

Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	E./ES..	G	E./ES.-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BG20Z-../D04..	5.63	3.94	4.37	17.62	4.41	19.33	20.08	21.77	-
BG20-../D05..	6.69	2.36	4.84	17.11	4.61	18.76	21.16	22.80	-
BG20Z-../D05..	6.69	4.02	4.84	18.76	4.61	20.41	22.81	24.45	-
BG20-../D06..	6.69	2.36	4.84	17.11	4.69	18.76	21.16	22.80	-
BG20Z-../D06..	6.69	4.02	4.84	18.76	4.69	20.41	22.81	24.45	-
BG20-../D07..	7.48	2.36	4.84	17.89	4.69	19.55	21.95	23.58	-
BG20Z-../D07..	7.48	4.02	4.84	19.55	4.69	21.20	23.60	25.24	-
BG20-../D..08..	7.87	2.52	6.14	18.44	5.37	21.04	22.66	25.28	21.04
BG20Z-../D..08..	7.87	5.75	6.14	21.67	5.37	24.27	25.89	28.50	24.27
BG20-../D..09..	9.88	3.09	7.13	21.02	6.22	24.69	25.24	28.80	24.69



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

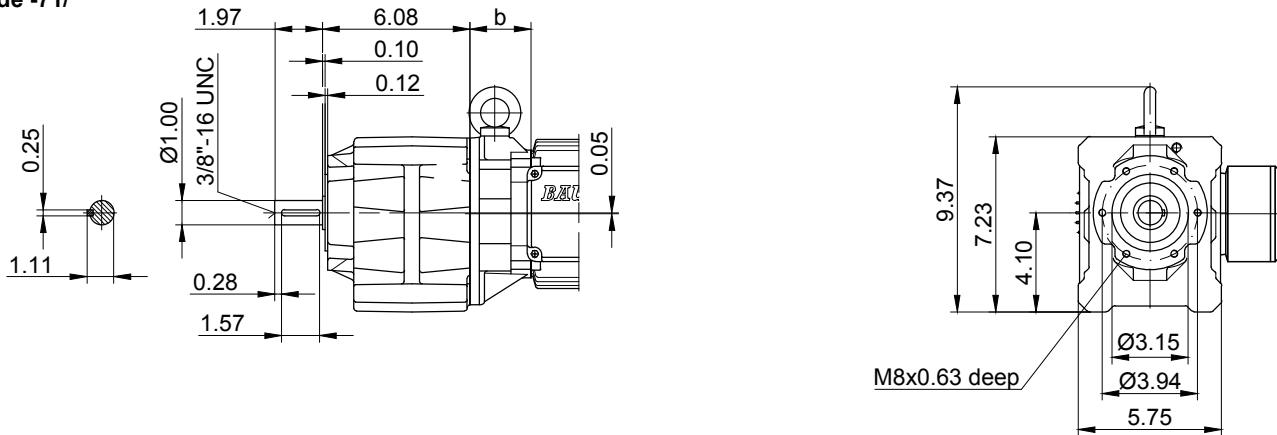
BG-series helical-geared motors

Dimension Imperial

BG20 - BG20Z

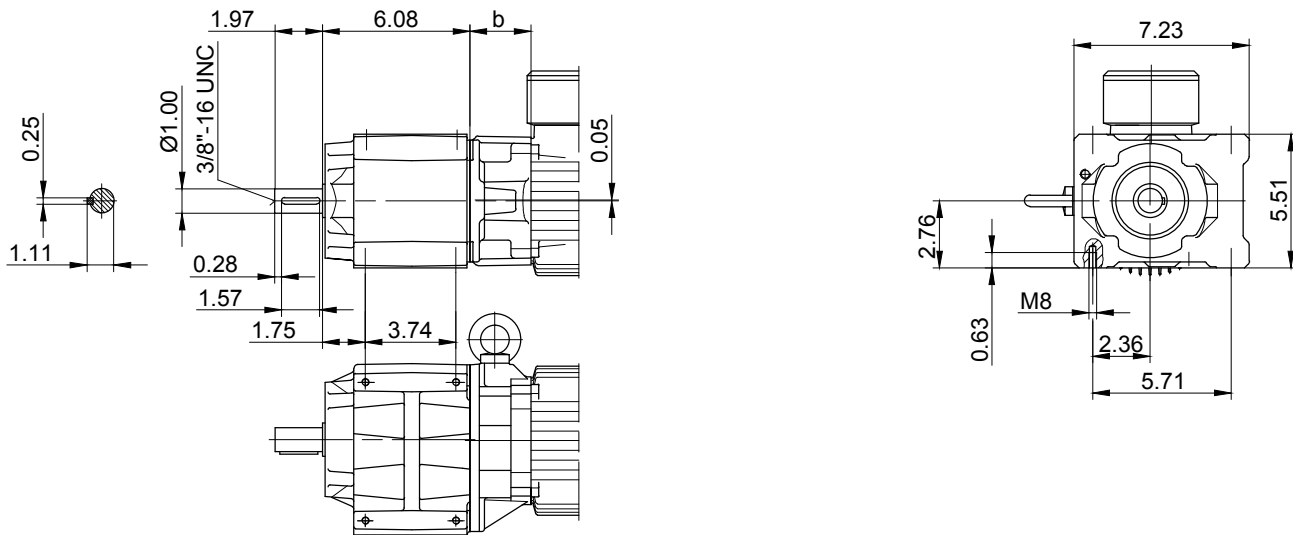
Flange with tapped holes

Code -71/



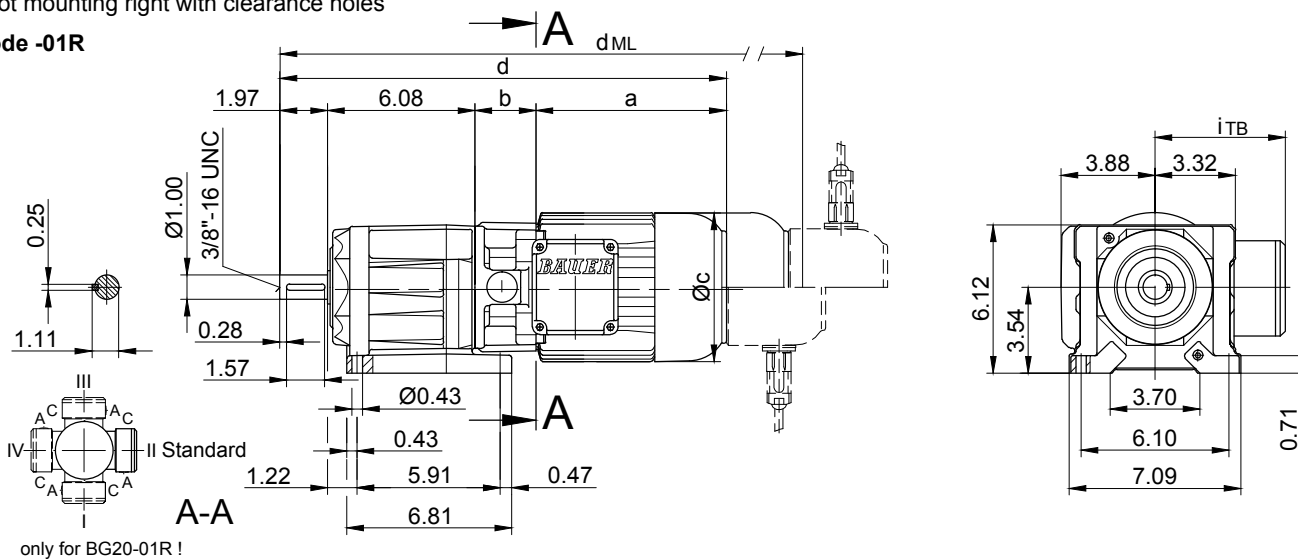
Foot with tapped holes left and right

Code -61LR/



Foot mounting right with clearance holes

Code -01R



The actual gearbox design can vary from the geometry shown.

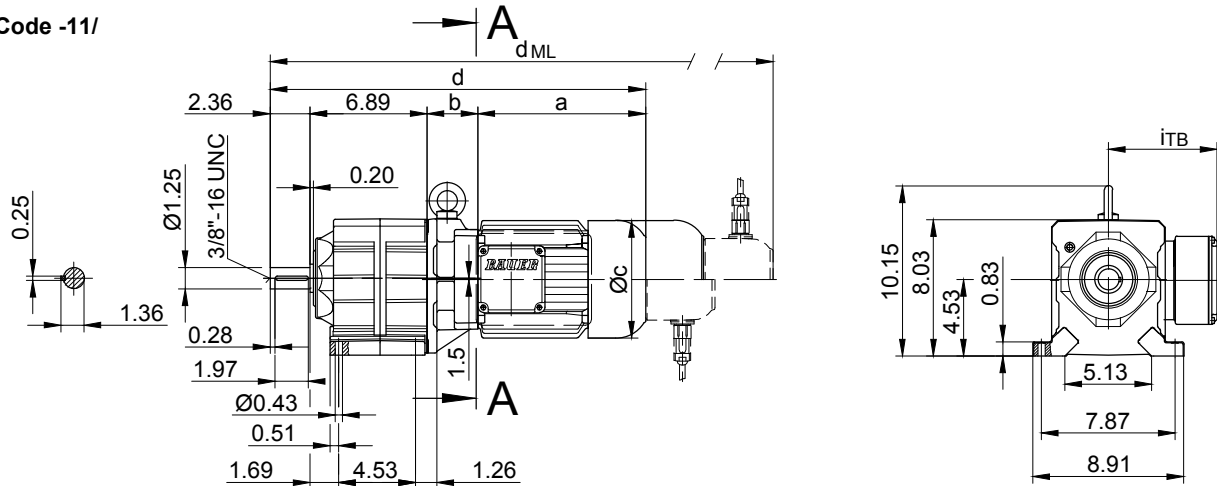
BG-series helical-geared motors

Dimension Imperial

BG30 - BG30Z

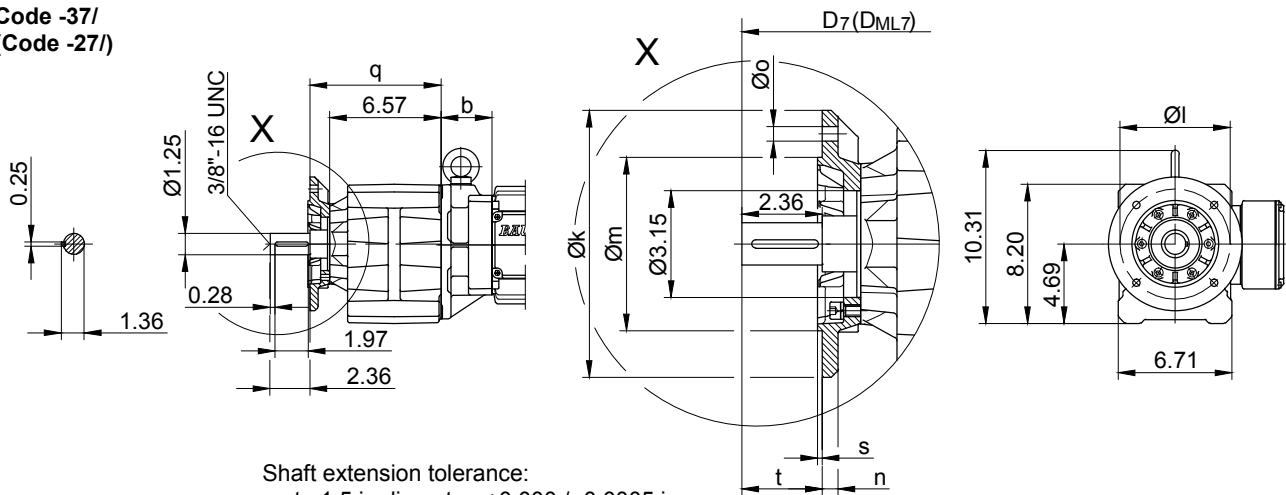
Foot mounting with clearance holes

Code -11/



Flange with clearance holes

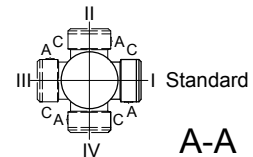
Code -37/
(Code -27/)



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BG30(Z)	k	l	m	n	o	q	s	t	D ₇	D _{ML7}
Standard -37/	7.874	6.496	5.118	0.472	0.433	7.717	0.138	2.362	d+0.827	d _{ML} +0.827
small -27/	6.299	5.118	4.331	0.394	0.354	7.441	0.138	2.638	d+0.827	d _{ML} +0.827



Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	E./ES..	G	E./ES.-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BG30-../D05..	6.69	2.28	4.84	18.23	4.61	19.88	22.28	23.92	-
BG30Z-../D05..	6.69	5.26	4.84	21.20	4.61	22.85	25.26	26.89	-
BG30-../D06..	6.69	2.28	4.84	18.23	4.69	19.88	22.28	23.92	-
BG30Z-../D06..	6.69	5.26	4.84	21.20	4.69	22.85	25.26	26.89	-
BG30-../D07..	7.48	2.28	4.84	19.02	4.69	20.67	23.07	24.70	-
BG30Z-../D07..	7.48	5.26	4.84	22.01	4.69	23.64	26.04	27.68	-
BG30-../D..08..	7.87	2.44	6.14	19.57	5.37	22.17	23.78	26.40	22.17
BG30Z-../D..08..	7.87	5.41	6.14	22.54	5.37	25.14	26.75	29.37	25.14
BG30-../D..09..	9.88	3.01	7.13	22.15	6.22	25.81	26.36	29.92	25.81
BG30Z-../D..09..	9.88	5.98	7.13	25.12	6.22	28.78	29.33	32.89	28.78
BG30-../D..11..	12.56	3.27	8.98	25.08	7.17	28.94	29.29	33.05	28.94



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

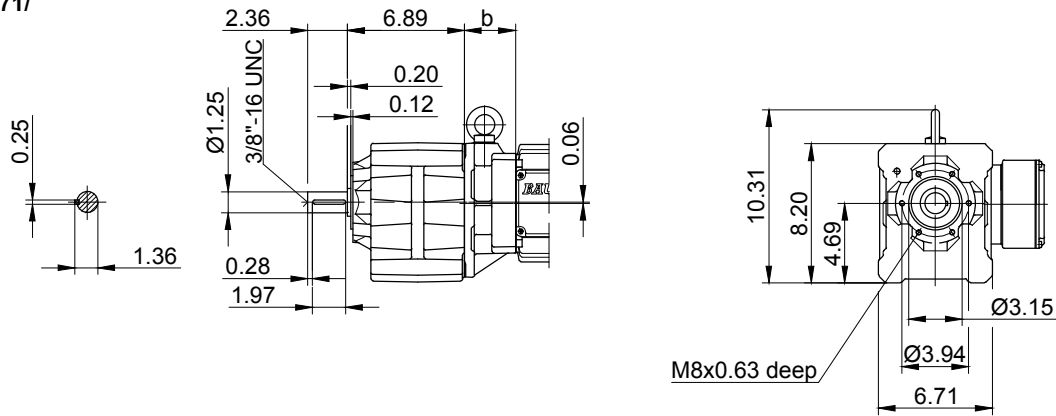
BG-series helical-geared motors

Dimension Imperial

BG30 - BG30Z

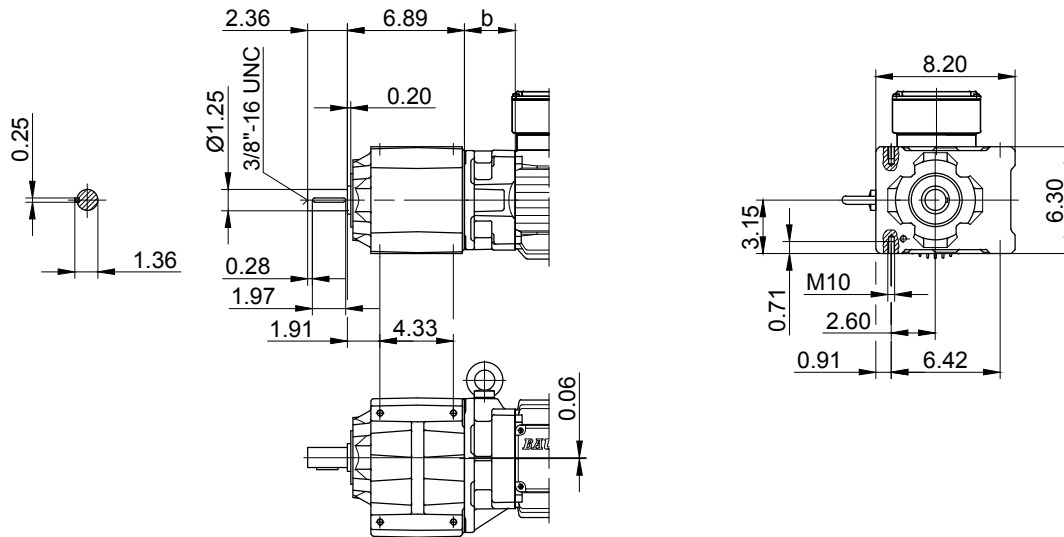
Flange with tapped holes

Code -71/



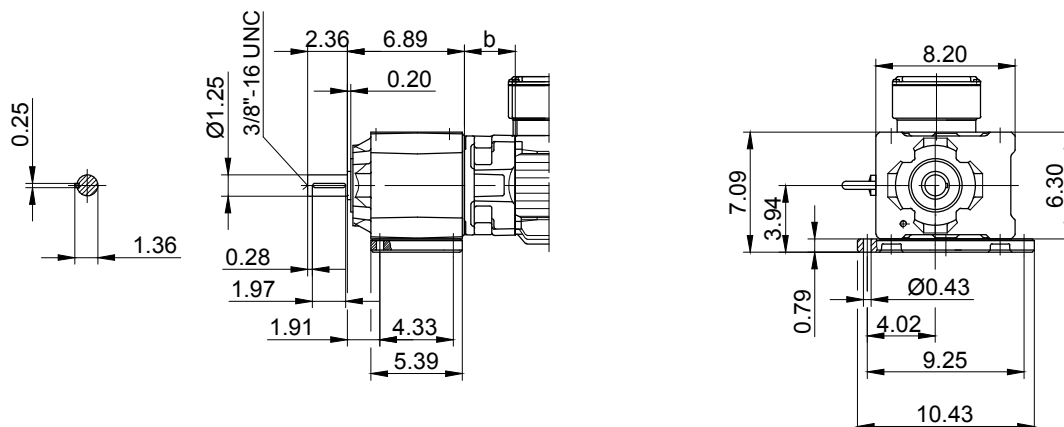
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/



The actual gearbox design can vary from the geometry shown.

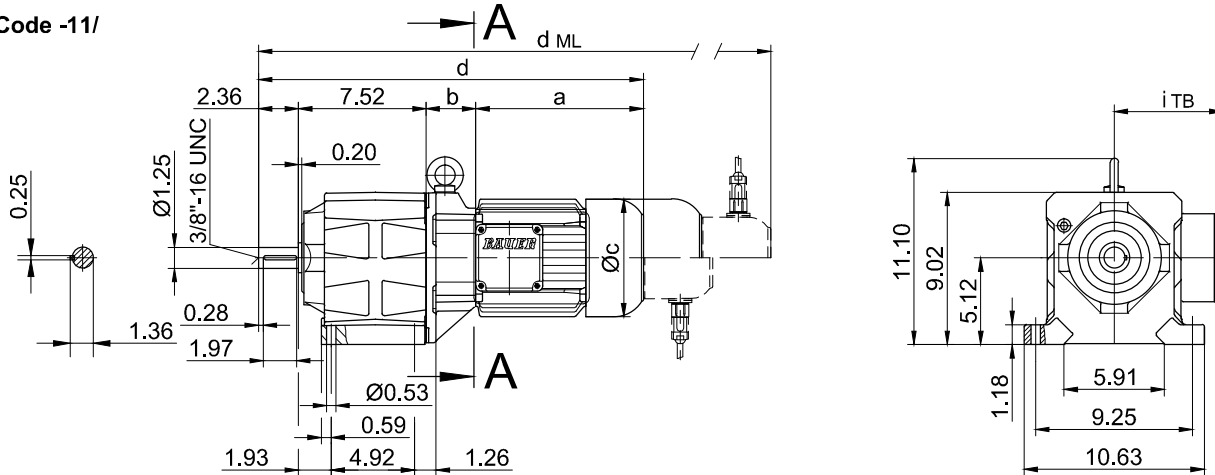
BG-series helical-geared motors

Dimension Imperial

BG40 - BG40Z

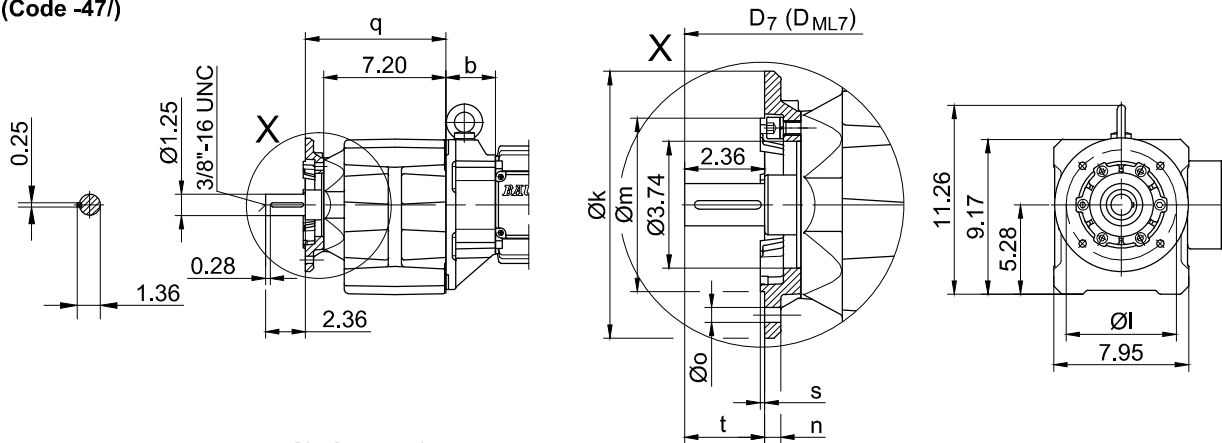
Foot mounting with clearance holes

Code -11/



Flange with clearance holes

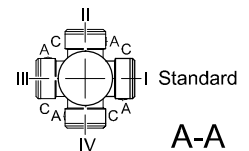
Code -37/
(Code -47/)



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BG40(Z)	k	l	m	n	o	q	s	t	D ₇	D _{ML7}
Standard -37/	7.874	6.496	5.118	0.472	0.433	8.268	0.138	2.362	d+0.748	d _{ML} +0.748
big -47/	9.843	8.465	7.087	0.630	0.532	8.622	0.157	2.008	d+0.748	d _{ML} +0.748



Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	E../ES..	G	E../ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BG40Z-../D05..	6.69	5.45	4.84	22.03	4.61	23.68	26.08	27.72	-
BG40Z-../D06..	6.69	5.45	4.84	22.03	4.69	23.68	26.08	27.72	-
BG40Z-../D07..	7.48	5.45	4.84	22.81	4.69	24.47	26.87	28.50	-
BG40-../D..08..	7.87	2.36	6.14	20.12	5.37	22.72	24.33	26.95	22.72
BG40Z-../D..08..	7.87	5.61	6.14	23.37	5.37	25.96	27.58	30.20	25.96
BG40-../D..09..	9.88	2.93	7.13	22.70	6.22	26.36	26.91	30.47	26.36
BG40Z-../D..09..	9.88	6.18	7.13	25.94	6.22	29.61	30.16	33.72	29.61
BG40-../D..11..	12.56	3.19	8.98	25.63	7.17	29.49	29.84	33.60	29.49

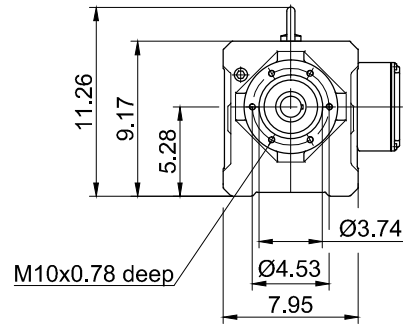
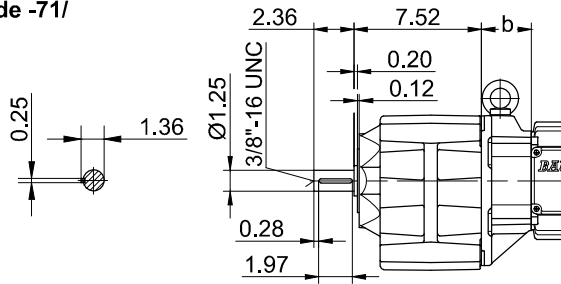


The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
Type Example: BK70-74V/DPE08X**A**4
Comment: No change to the dimensions shown
Design state "B" = Extended Length
Type Example: BK70-74V/DPE08X**B**4
Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

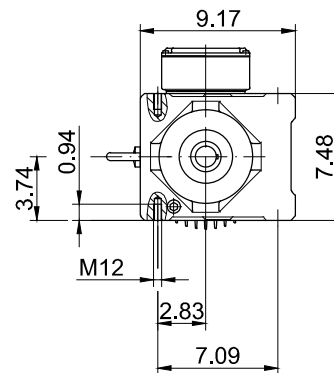
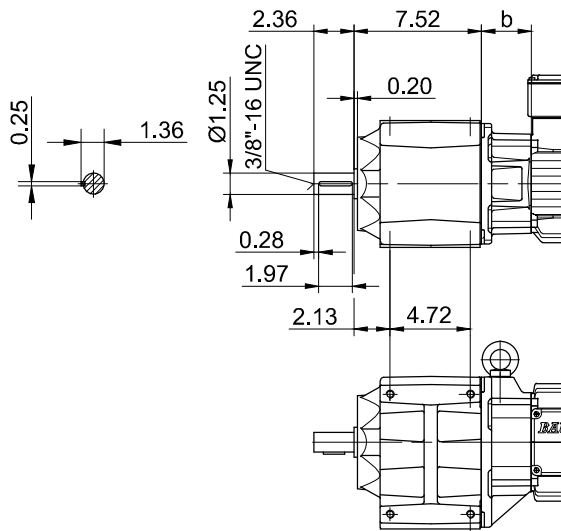
Flange with tapped holes

Code -71/



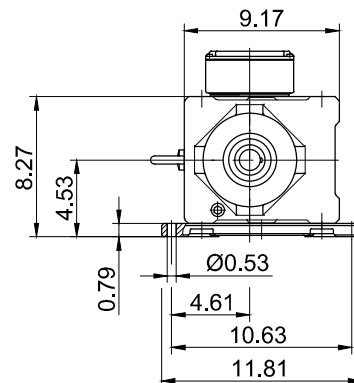
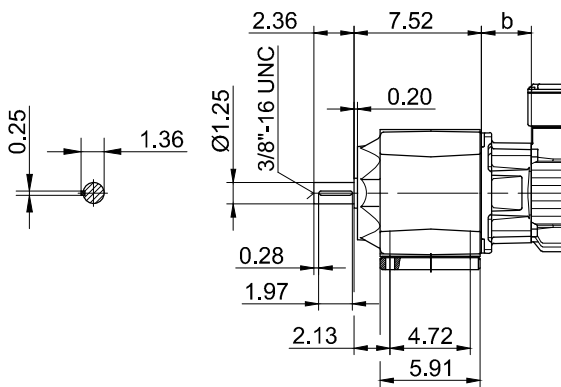
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/



The actual gearbox design can vary from the geometry shown.

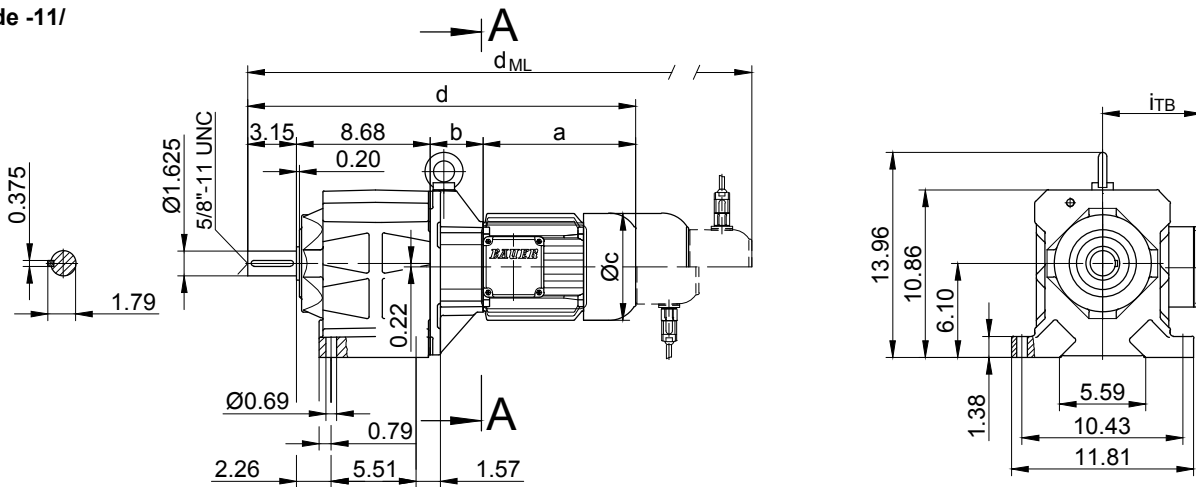
BG-series helical-geared motors

Dimension Imperial

BG50 - BG50Z

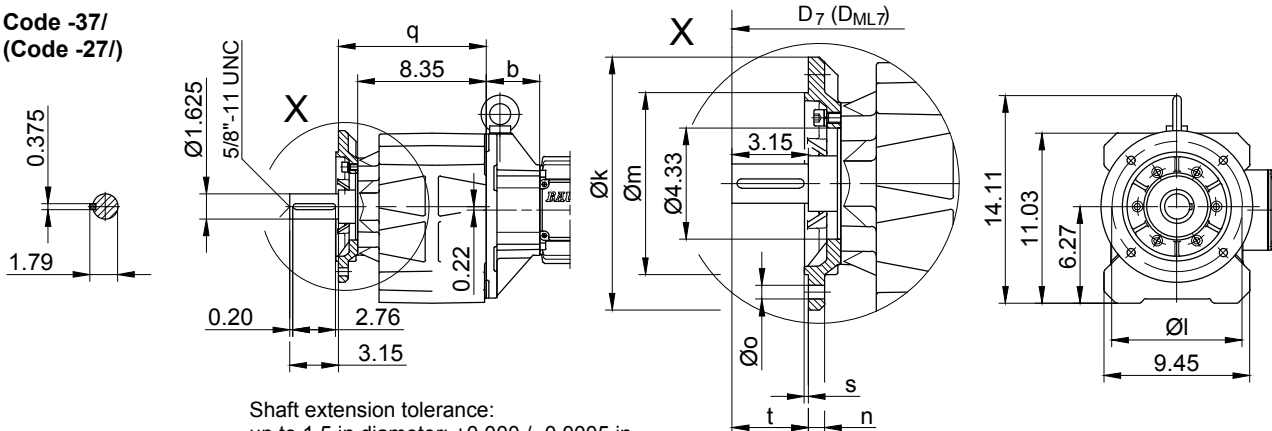
Foot mounting with clearance holes

Code -11/



Flange with clearance holes

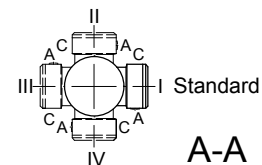
Code -37/
(Code -27/)



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BG50(Z)	k	l	m	n	o	q	s	t	D ₇	D _{ML7}
Standard -37/	9.843	8.465	7.087	0.630	0.532	9.606	0.157	3.150	d+0.925	d _{ML} +0.925
small -27/	7.874	6.496	5.118	0.472	0.433	9.488	0.138	3.268	d+0.925	d _{ML} +0.926



Type	a*	b	c	d*	Design with motor extensions				
					itB	E./ES..	G	E./ES.-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BG50Z-./D05..	6.69	6.10	4.84	24.63	4.61	26.28	28.68	30.31	-
BG50Z-./D06..	6.69	6.10	4.84	24.63	4.69	26.28	28.68	30.31	-
BG50Z-./D07..	7.48	6.10	4.84	25.41	4.69	27.07	29.47	31.10	-
BG50-./D..08..	7.87	2.87	6.14	22.58	5.37	25.18	26.79	29.41	25.18
BG50Z-./D..08..	7.87	6.26	6.14	25.96	5.37	28.56	30.18	32.80	28.56
BG50-./D..09..	9.88	3.44	7.13	25.16	6.22	28.82	29.37	32.93	28.82
BG50Z-./D..09..	9.88	6.83	7.13	28.54	6.22	32.20	32.76	36.32	32.20
BG50-./D..11..	12.56	3.70	8.98	28.09	7.17	31.95	32.30	36.06	31.95
BG50-./D..13..	15.47	4.21	10.16	31.52	8.54	35.89	35.73	40	35.89
BG50-./D..16..	17.89	4.76	12.21	34.49	9.57	40.14	38.70	44.23	40.14
BG50-./D..18..	21.34	5.63	13.70	38.80	11.34	44.69	43.01	48.78	44.69



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

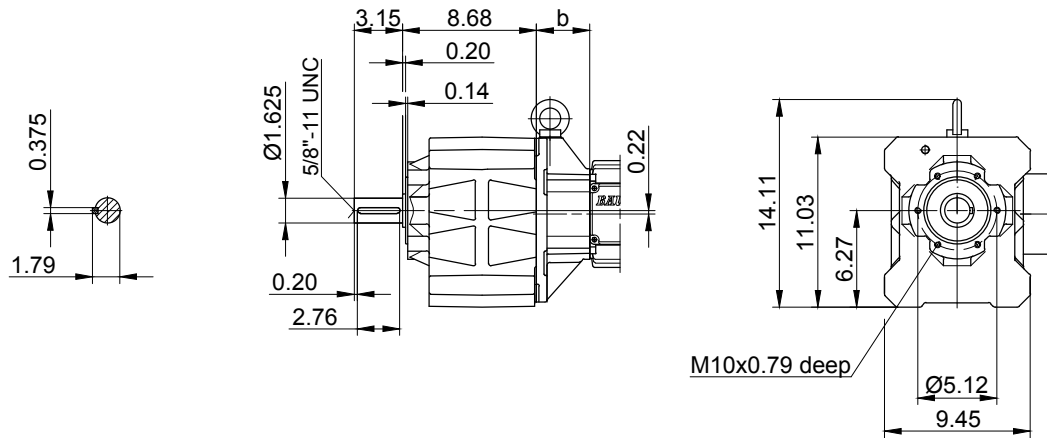
BG-series helical-geared motors

Dimension Imperial

BG50 - BG50Z

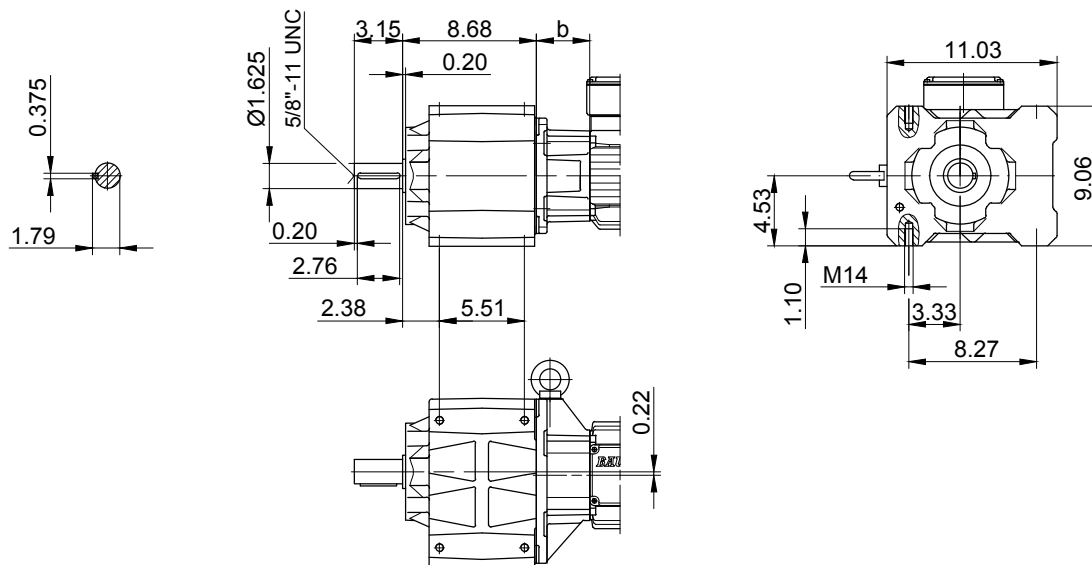
Flange with tapped holes

Code -71/



Foot with tapped holes left and right

Code -61LR/



10

The actual gearbox design can vary from the geometry shown.

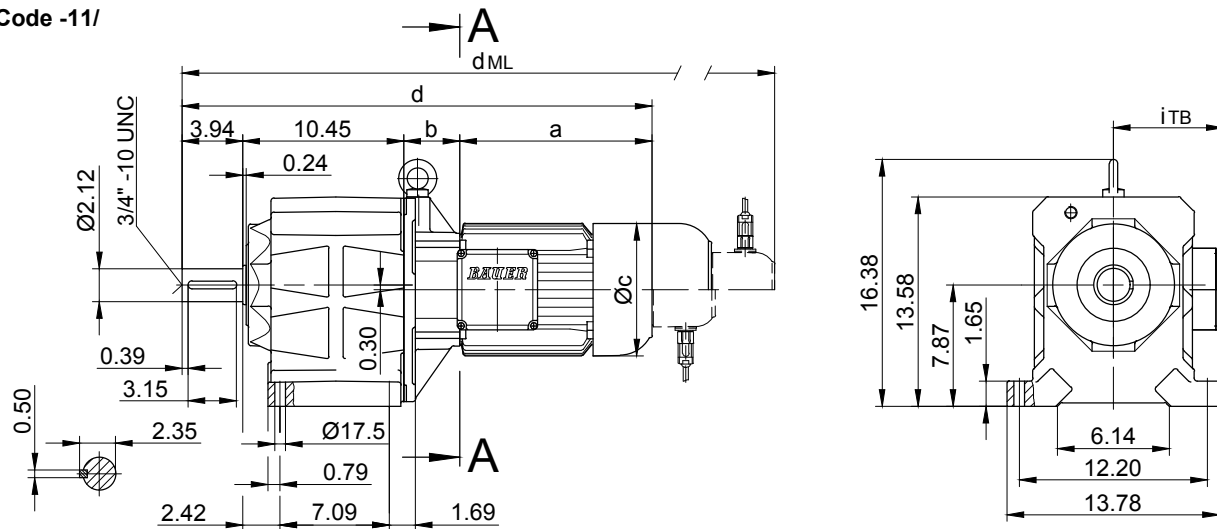
BG-series helical-geared motors

Dimension Imperial

BG60 - BG60Z

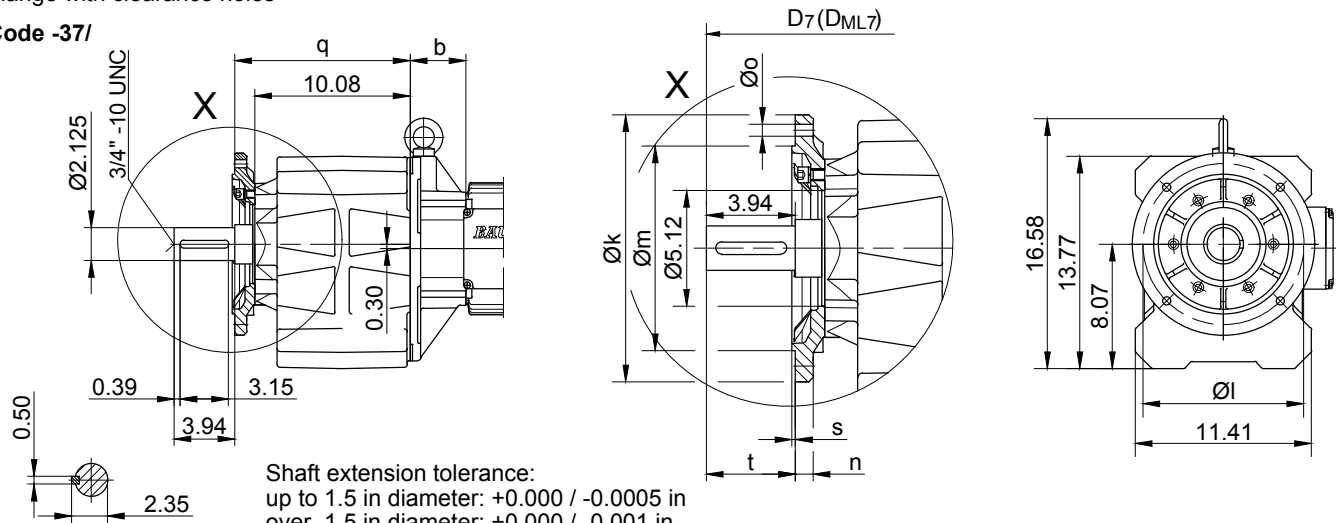
Foot mounting with clearance holes

Code -11/



Flange with clearance holes

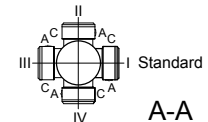
Code -37/



Shaft extension tolerance:
 up to 1.5 in diameter: +0.000 / -0.0005 in
 over 1.5 in diameter: +0.000 / -0.001 in
 Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BG60(Z)	k	l	m	n	o	q	s	t	D ₇	D _{ML7}
Standard -37/	11.811	10.433	9.055	0.787	0.532	11.378	0.157	3.937	d+0.925	d _{ML} +0.925
small -27/	9.843	8.465	7.087	0.630	0.532	11.260	0.157	4.055	d+0.925	d _{ML} +0.925



Type	a*	b	c	d*	i _{TB}	Design with motor extensions			
						ES../ZS..	G	ES../ZS..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BG60Z-./D..08..	7.87	7.13	6.14	29.39	5.37	31.99	33.60	36.22	31.99
BG60-./D..09..	9.88	3.37	7.13	27.64	6.22	31.30	31.85	35.41	31.30
BG60Z-./D..09..	9.88	7.70	7.13	31.97	6.22	35.63	36.18	39.74	35.63
BG60-./D..11..	12.56	3.62	8.98	30.57	7.17	34.43	34.78	38.54	34.43
BG60Z-./D..11..	12.56	7.95	8.98	34.90	7.17	38.76	39.11	42.87	38.76
BG60-./D..13..	15.47	4.13	10.16	34.00	8.54	38.37	38.21	42.48	38.37
BG60-./D..16..	17.89	4.69	12.21	36.97	9.57	46.56	41.18	46.71	46.56
BG60-./D..18..	21.34	10.71	13.70	46.44	11.34	52.32	50.65	56.42	52.32



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

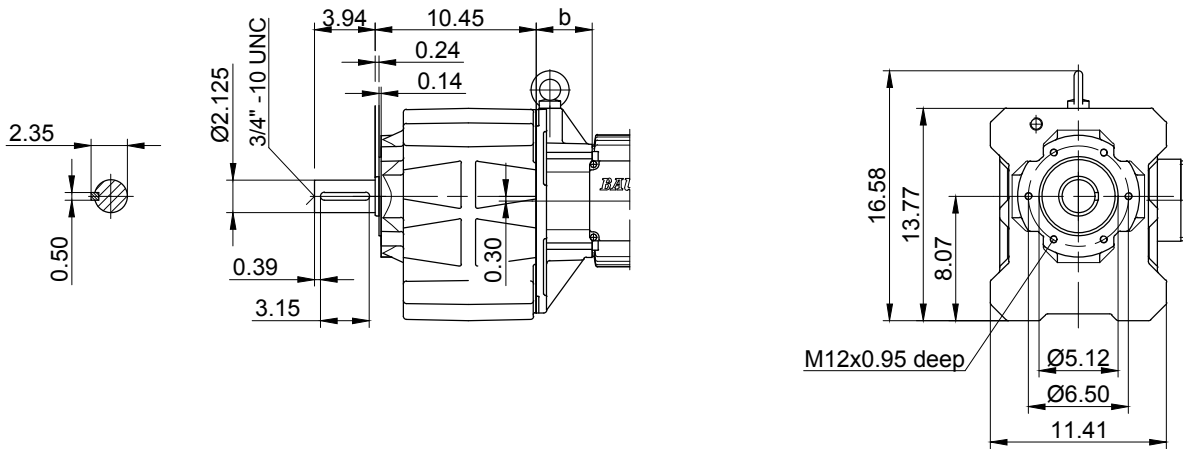
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

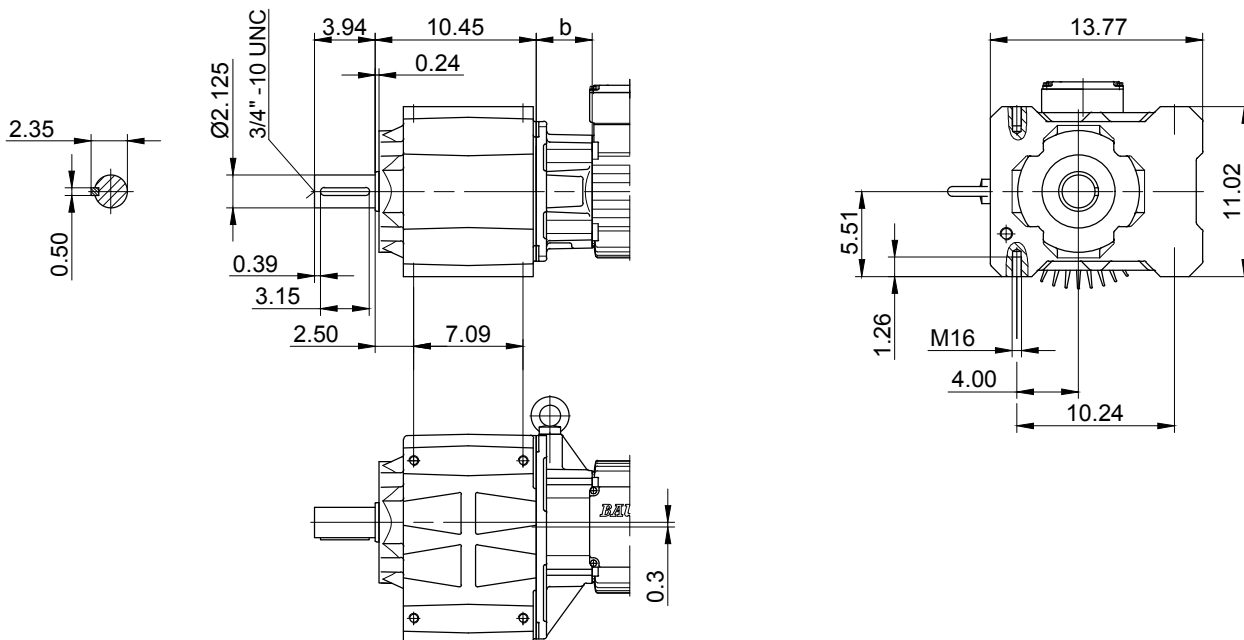
Flange with tapped holes

Code -71/



Foot with tapped holes left and right

Code -61LR/



The actual gearbox design can vary from the geometry shown.

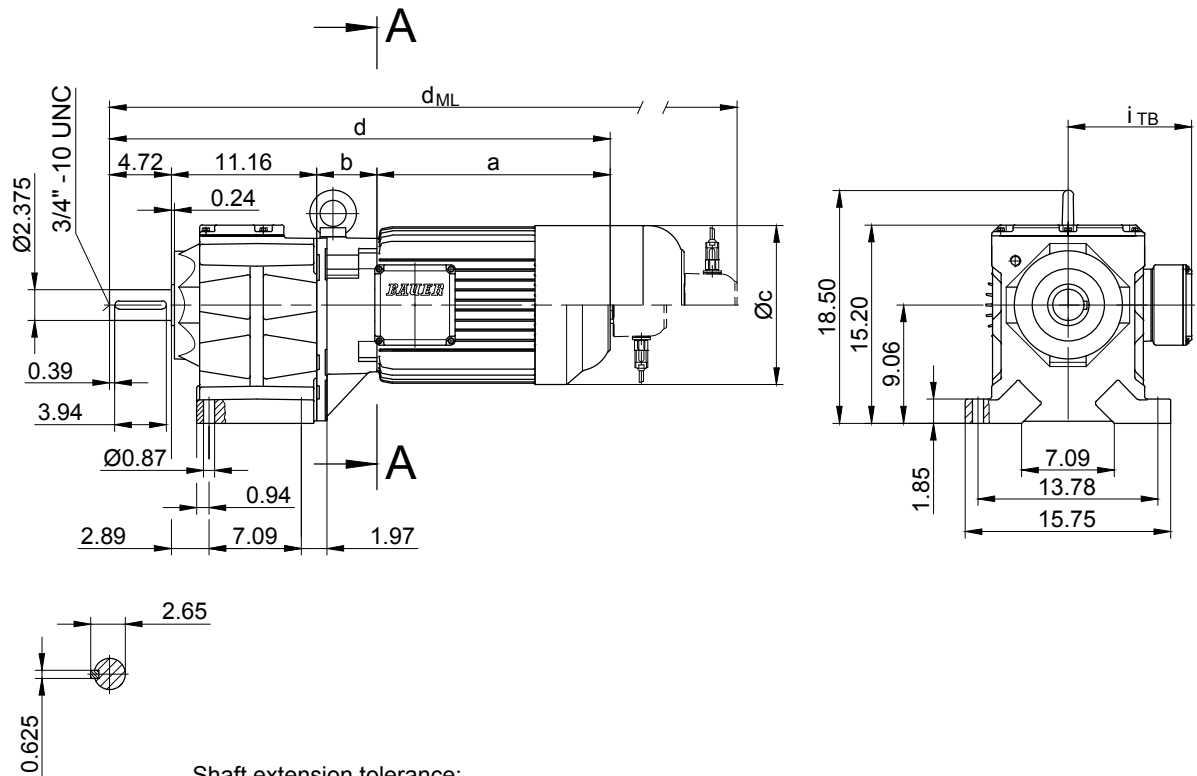
BG-series helical-geared motors

Dimension Imperial

BG70 - BG70Z

Foot mounting with clearance holes

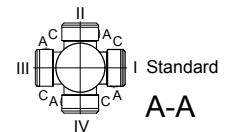
Code -11/



Shaft extension tolerance:
 up to 1.5 in diameter: +0.000 / -0.0005 in
 over 1.5 in diameter: +0.000 / -0.001 in
 Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

Model	k	l	m	n	o	q	s	t	D ₇	D _{ML7}
BG70(Z)										
Standard -37/	13.780	11.811	9.843	0.787	0.689	12.362	0.197	4.724	d+1.181	d _{ML} +1.181
small -27/	11.811	10.433	9.055	0.787	0.532	12.677	0.157	4.409	d+1.181	d _{ML} +1.181



Type	a*	b	c	d*	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..	7.87	7.95	6.14	31.71	5.37	34.31	35.93	38.54	34.31
BG70-../D..09..	9.88	3.29	7.13	29.06	6.22	32.72	33.27	36.83	32.72
BG70Z-../D..09..	9.88	8.52	7.13	34.29	6.22	37.95	38.50	42.07	37.95
BG70-../D..11..	12.56	3.54	8.98	31.99	7.17	35.58	36.20	39.96	35.58
BG70Z-../D..11..	12.56	8.78	8.98	37.22	7.17	41.08	41.44	45.20	41.08
BG70-../D..13..	15.47	4.06	10.16	35.41	8.54	39.78	39.63	43.90	39.78
BG70Z-../D..13..	15.47	9.29	10.16	40.65	8.54	45.02	44.86	49.13	45.02
BG70-../D..16..	17.89	4.61	12.21	38.39	9.57	44.04	42.60	48.13	44.04
BG70Z-../D..16..	17.89	9.84	12.21	43.62	9.57	49.27	47.83	53.37	49.27
BG70-../D..18..	21.34	5.47	13.70	42.70	11.34	48.58	46.91	52.68	48.58
BG70Z-../D..18..	21.34	10.71	13.70	47.93	11.34	53.82	52.15	57.91	53.82
BG70-../D..20L	25.34	6.14	14.29	47.36	11.95	47.36	52.38	56.56	52.38
BG70-../D..22S	27.70	6.14	14.29	49.72	11.95	54.74	53.90	58.92	54.74



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

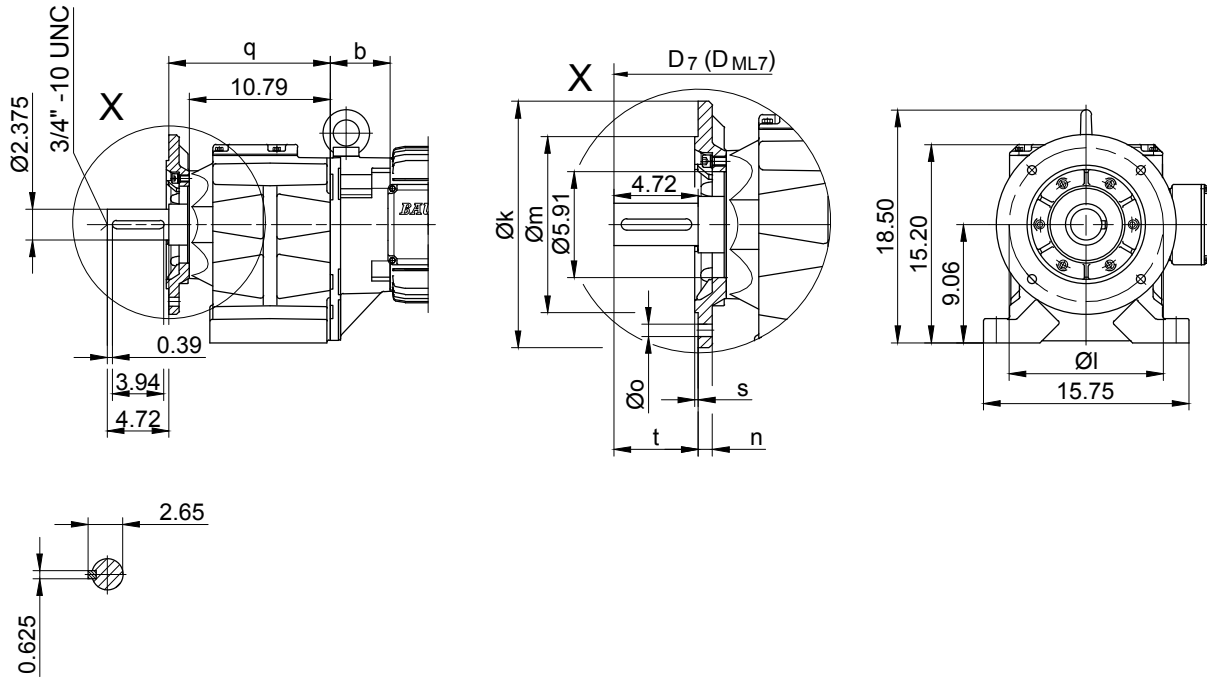
BG-series helical-geared motors

Dimension Imperial

BG70 - BG70Z

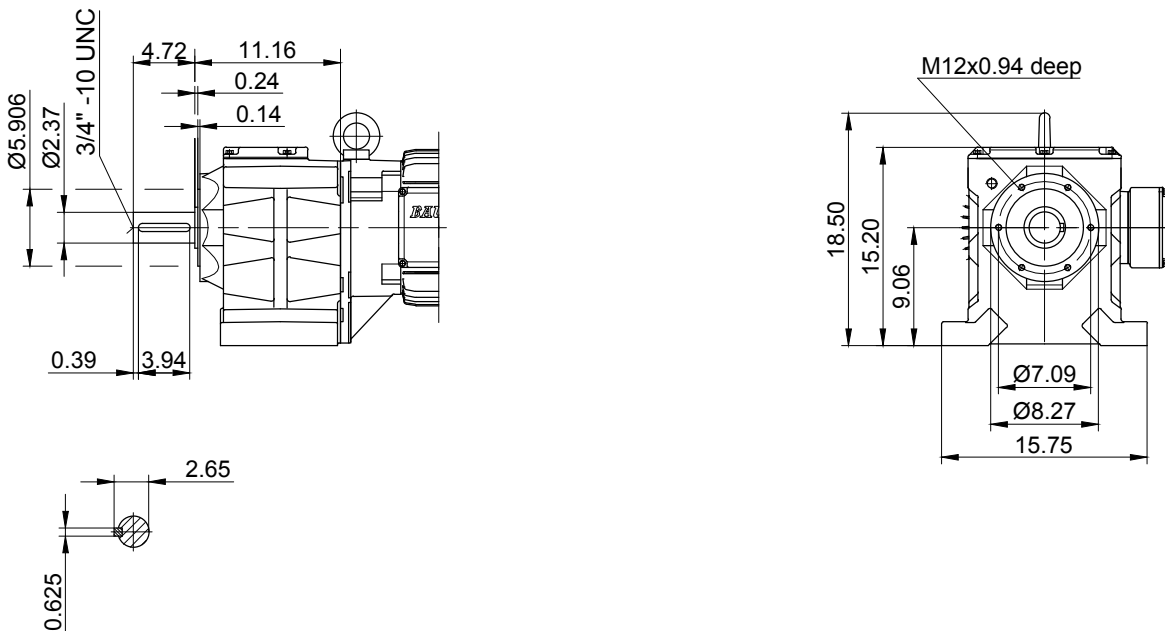
Flange with clearance holes

Code -37/
(Code -27/)



Flange with tapped holes

Code -71/



10

The actual gearbox design can vary from the geometry shown.

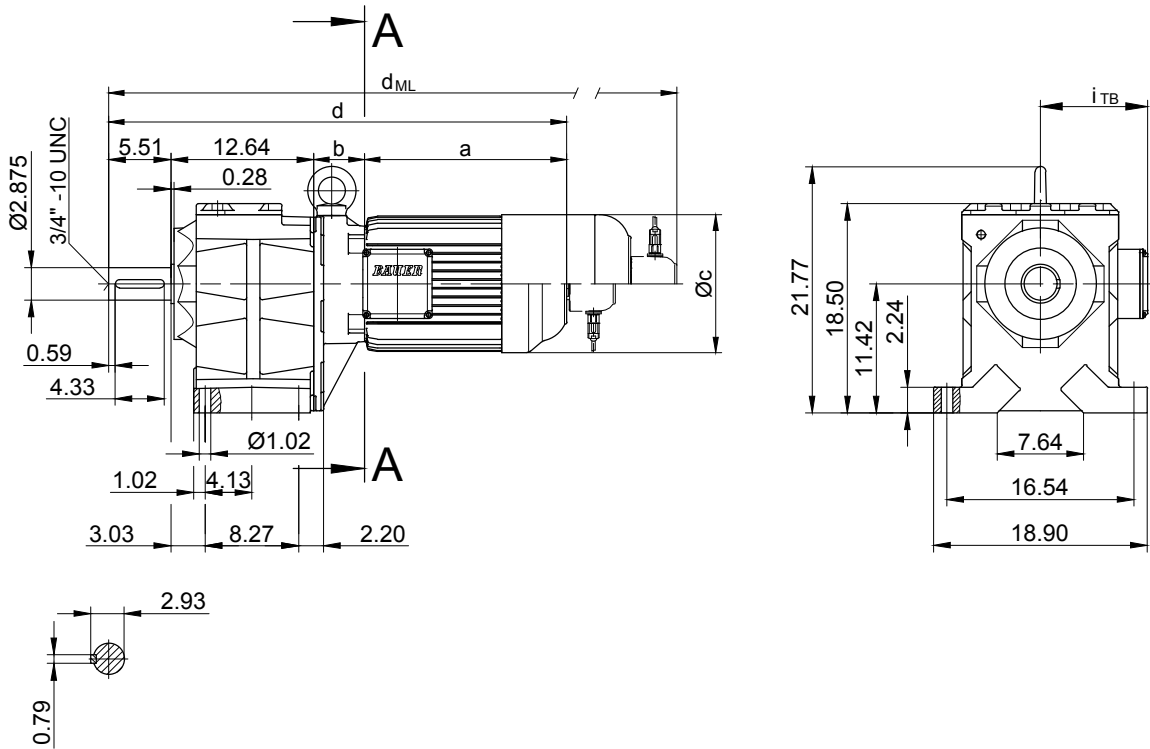
BG-series helical-geared motors

Dimension Imperial

BG80 - BG80Z

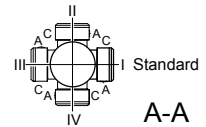
Foot mounting with clearance holes

Code -11/



Shaft extension tolerance:
 up to 1.5 in diameter: +0.000 / -0.0005 in
 over 1.5 in diameter: +0.000 / -0.001 in
 Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions



BG80(Z)	k	l	m	n	o	q	s	t	D ₇	D _{ML7}
Standard -37/	15.748	13.780	11.811	0.787	4 x Ø0.689	13.583	0.197	5.512	d+0.945	d _{ML} +0.945
small -27/	13.780	11.811	9.843	0.787	4 x Ø0.689	13.583	0.197	5.512	d+0.945	d _{ML} +0.945
big -47/	17.717	15.748	13.780	0.866	8 x Ø0.689	13.976	0.197	5.118	d+0.945	d _{ML} +0.945

Type	a*	b	c	d*	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..	9.88	9.94	7.13	37.97	6.22	41.63	42.19	45.75	41.63
BG80-./D..11..	12.56	3.43	8.98	34.14	7.17	37.99	38.35	42.01	37.99
BG80Z-./D..11..	12.56	10.20	8.98	40.91	7.17	44.76	45.12	48.88	44.76
BG80-./D..13..	15.47	3.94	10.16	37.56	8.54	41.93	41.77	46.04	41.93
BG80Z-./D..13..	15.47	10.71	10.16	44.33	8.54	48.70	48.54	52.81	48.70
BG80-./D..16..	17.89	4.49	12.21	40.53	9.57	46.18	44.74	50.28	46.18
BG80Z-./D..16..	17.89	11.26	12.21	47.30	9.57	52.95	51.52	57.05	52.95
BG80-./D..18..	21.34	5.35	13.70	44.84	11.34	50.73	49.06	54.82	50.73
BG80Z-./D..18..	21.34	12.13	13.70	51.61	11.34	57.50	55.83	61.59	57.50
BG80-./D..20L	25.34	6.02	14.29	49.51	11.95	54.53	53.68	58.70	54.53
BG80-./D..22S	27.70	6.02	14.29	51.87	11.95	56.89	56.04	61.06	56.89
BG80-./D..22M	27.70	6.02	14.29	51.87	11.95	56.89	56.04	61.06	56.89



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

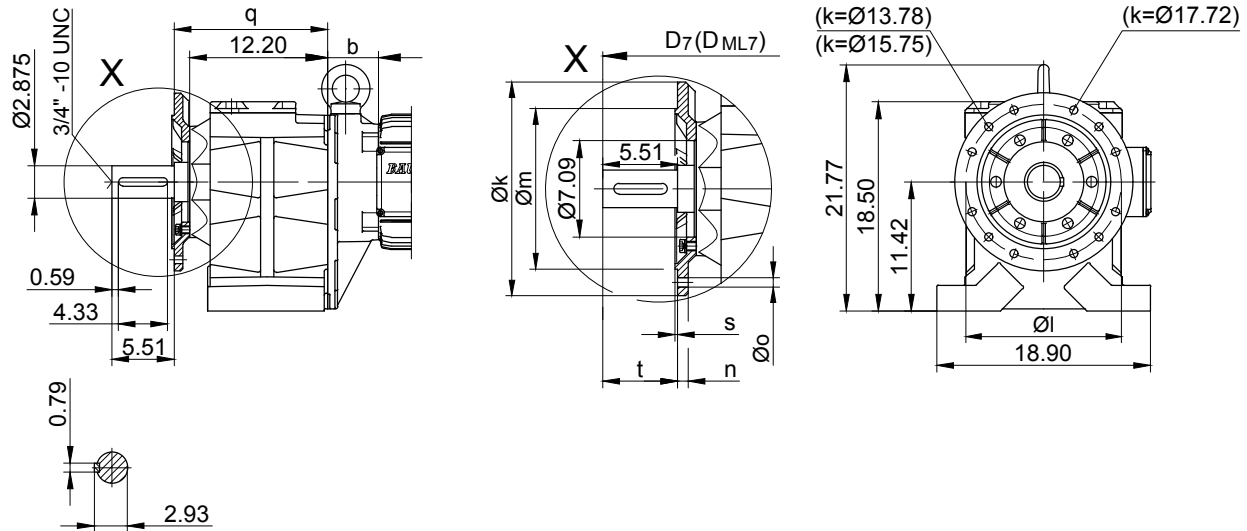
BG-series helical-geared motors

Dimension Imperial

BG80 - BG80Z

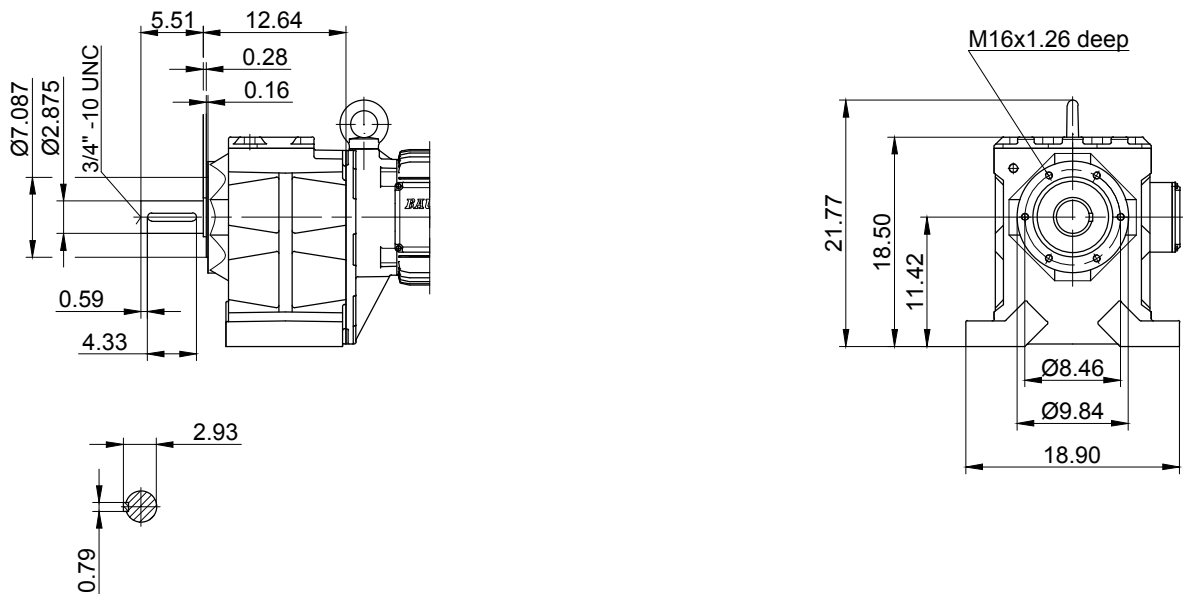
Flange with clearance holes

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



Flange with tapped holes

Code -71/



The actual gearbox design can vary from the geometry shown.

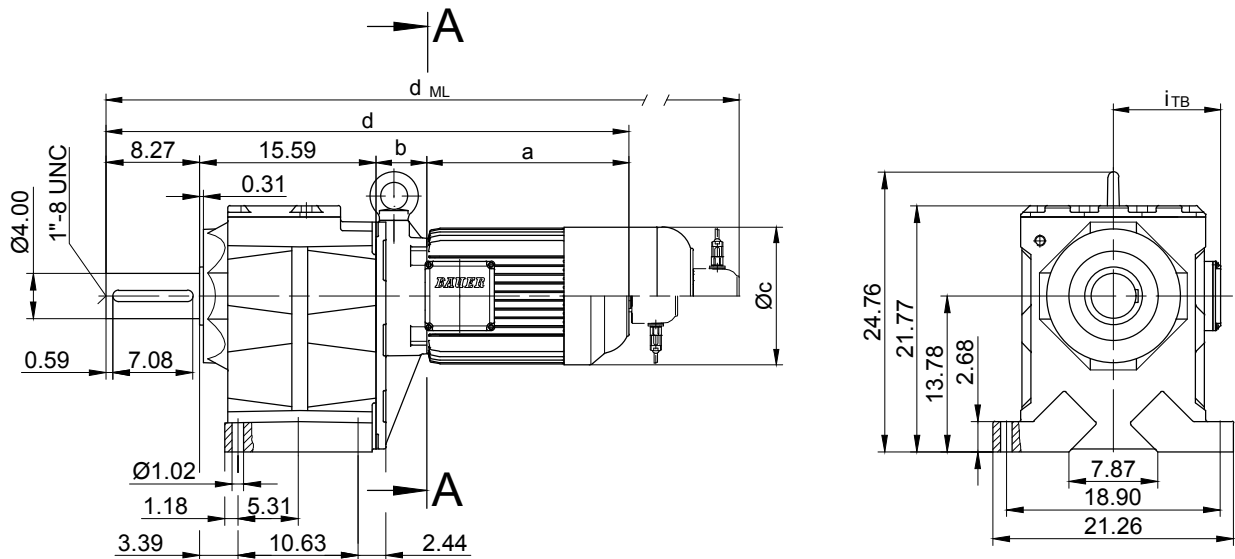
BG-series helical-geared motors

Dimension Imperial

BG90 - BG90Z

Foot mounting with clearance holes

Code -11/



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

Design state "A" = Standard Length

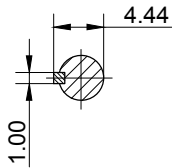
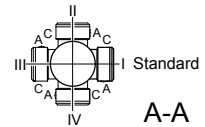
Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BG90(Z)	k	l	m	n	o	q	s	t	D ₇	D _{ML7}
Standard -37/	17.717	15.748	13.780	0.866	0.689	17.283	0.197	7.874	d+1.693	d _{ML} +1.693
big -47/	21.654	19.685	17.717	0.866	0.689	17.480	0.197	7.677	d+1.693	d _{ML} +1.693

Type	a*	b	c	d*	i _{TB}	Design with motor extensions			
						ES../ZS..	G	ES../ZS..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BG90Z-../D..09..	9.88	10.51	7.13	43.86	6.22	47.52	48.07	51.63	47.52
BG90Z-../D..11..	12.56	10.77	8.98	46.79	7.17	50.65	51.00	54.67	50.65
BG90-../D..13..	15.47	3.94	10.16	39.96	8.54	47.24	47.09	51.22	47.24
BG90Z-../D..13..	15.47	11.28	10.16	50.22	8.54	54.59	54.43	58.56	54.59
BG90-../D..16..	17.89	4.49	12.21	45.85	9.57	51.50	50.06	55.59	51.50
BG90Z-../D..16..	17.89	11.83	12.21	53.19	9.57	58.84	57.40	62.93	58.84
BG90-../D..18..	21.34	5.35	13.70	50.16	11.34	56.04	54.37	60.14	56.04
BG90Z-../D..18..	21.34	12.70	13.70	57.50	11.34	63.39	61.71	67.48	63.39
BG90-../D..20L	25.34	6.02	14.29	54.82	11.95	59.84	59.00	64.02	59.84
BG90-../D..22S	27.70	6.02	14.29	57.19	11.95	62.20	61.36	66.38	62.20
BG90-../D..22M	27.70	6.02	14.29	57.19	11.95	62.20	61.36	66.38	62.20

The actual gearbox design can vary from the geometry shown.

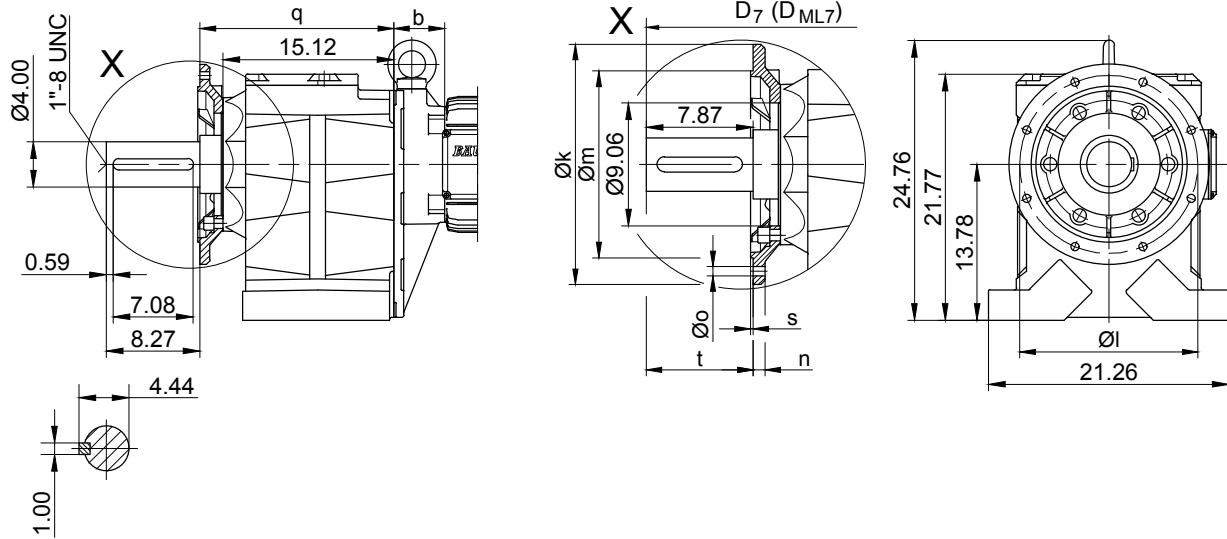
BG-series helical-geared motors

Dimension Imperial

BG90 - BG90Z

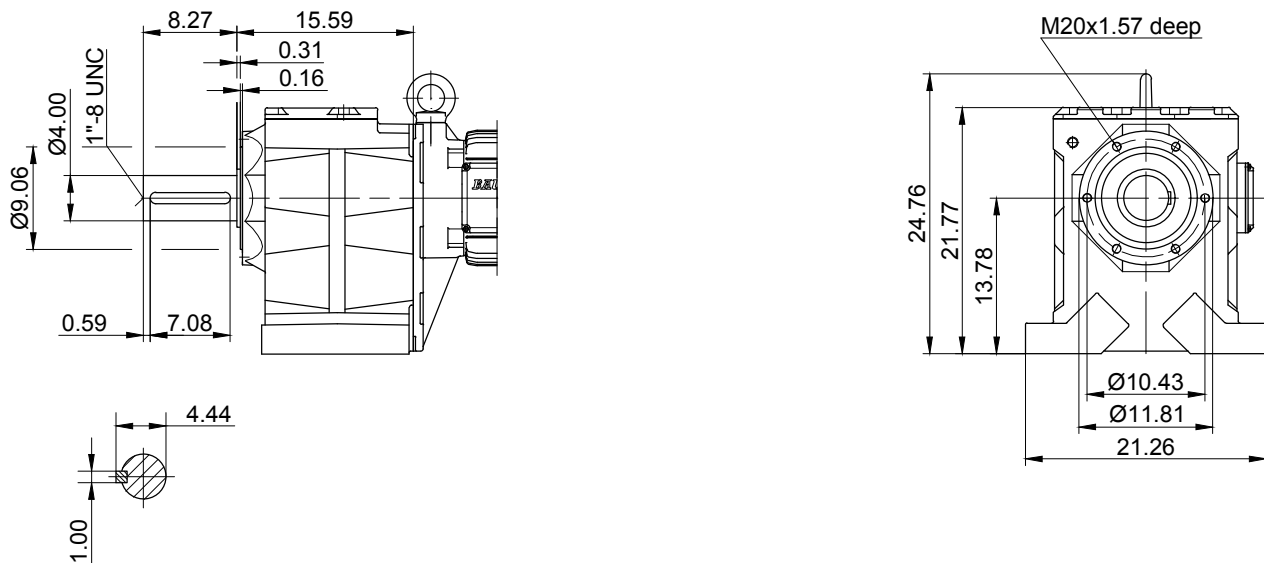
Flange with clearance holes

Code -37/
(Code -47/)



Flange with tapped holes

Code -71/



10

The actual gearbox design can vary from the geometry shown.

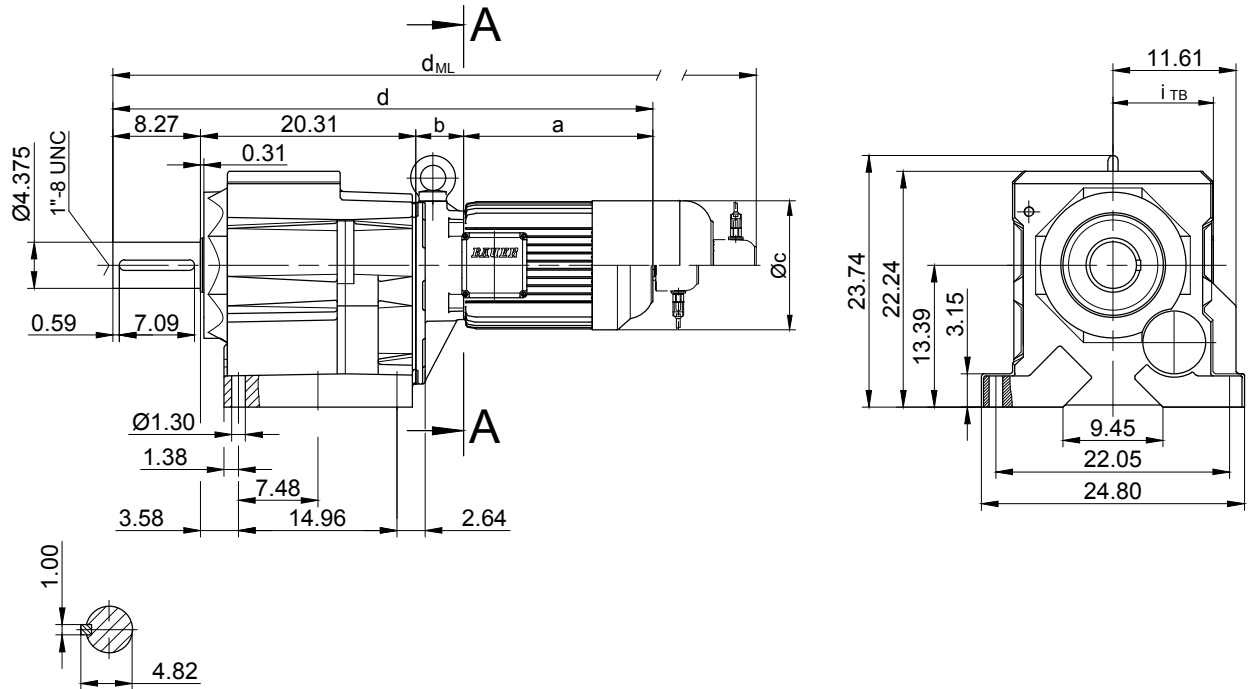
BG-series helical-geared motors

Dimension Imperial

BG100 - BG100Z

Foot mounting with clearance holes

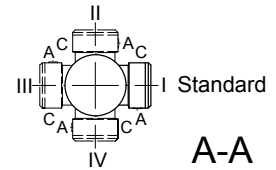
Code -11/



Shaft extension tolerance:
 up to 1.5 in diameter: +0.000 / -0.0005 in
 over 1.5 in diameter: +0.000 / -0.001 in
 Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BG100(Z)	k	l	m	n	o	q	s	t	D ₇	D _{ML7}
Standard -37/	21.654	19.685	17.717	0.866	0.689	21.969	0.197	8.661	d+1.654	d _{ML} +1.654
big -47/	25.984	23.622	21.654	0.984	0.866	21.732	0.236	8.898	d+1.654	d _{ML} +1.654



Type	a*	b	c	d*	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..	9.88	9.94	7.13	48.80	6.22	52.46	53.01	56.57	52.46
BG100-../D..11..	12.56	3.43	8.98	44.96	7.17	48.82	49.17	52.93	48.82
BG100Z-../D..11..	12.56	10.20	8.98	51.73	7.17	55.59	55.94	59.70	55.59
BG100-../D..13..	15.47	3.94	10.16	48.39	8.54	52.76	52.60	56.87	52.76
BG100Z-../D..13..	15.47	10.71	10.16	55.16	8.54	59.53	59.37	63.64	59.53
BG100-../D..16..	17.89	4.49	12.21	51.36	9.57	57.01	55.57	61.10	57.01
BG100Z-../D..16..	17.89	11.26	12.21	58.13	9.57	63.78	62.34	67.87	63.78
BG100-../D..18..	21.34	5.35	13.70	55.67	11.34	61.56	59.88	65.65	61.56
BG100Z-../D..18..	21.34	12.13	13.70	62.44	11.34	68.33	66.65	72.42	68.33
BG100-../D..20L	25.33	6.02	14.29	60.33	11.95	65.35	64.51	69.53	65.35
BG100-../D..22S	27.70	6.02	14.29	62.70	11.95	67.72	66.87	71.89	67.72
BG100-../D..22M	27.70	6.02	14.29	62.70	11.95	67.72	66.87	71.89	67.72



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

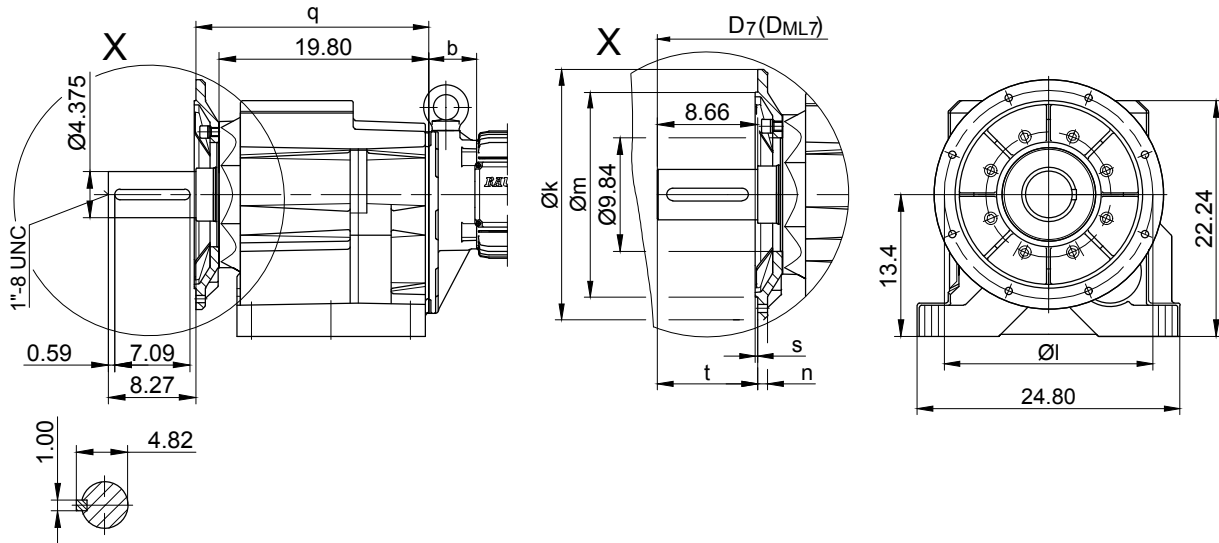
BG-series helical-geared motors

Dimension Imperial

BG100 - BG100Z

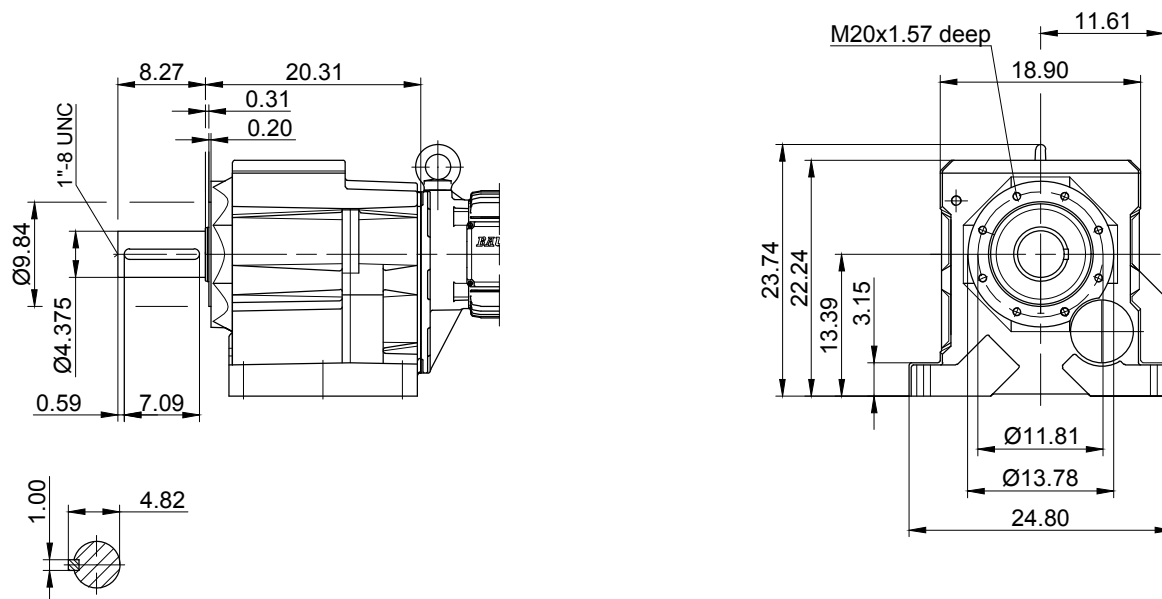
Flange with clearance holes

Code -37/
(Code -47/)



Flange with tapped holes

Code 71/



10

The actual gearbox design can vary from the geometry shown.

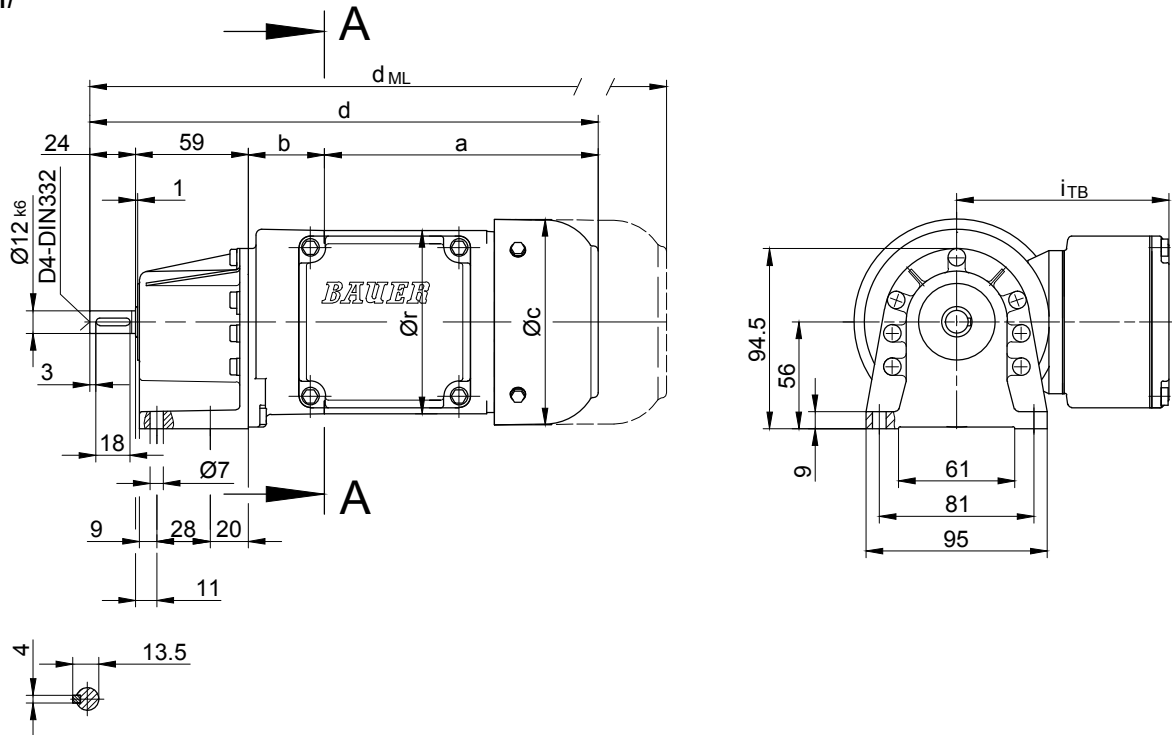
BG-series helical-geared motors

Dimension Metric

BG04

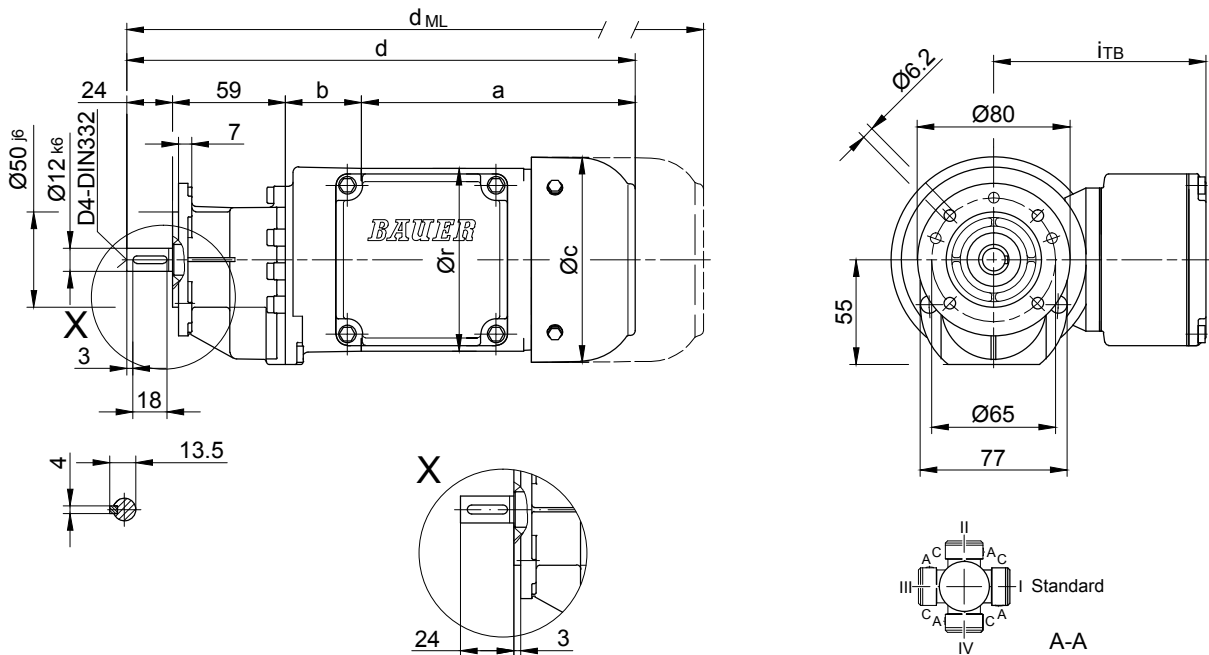
Foot mounting

Code -11/



Flange with clearance holes

Code -31/



Type	a	b	c	d	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	96	112	309.5	328.5	371.5	-

The actual gearbox design can vary from the geometry shown.

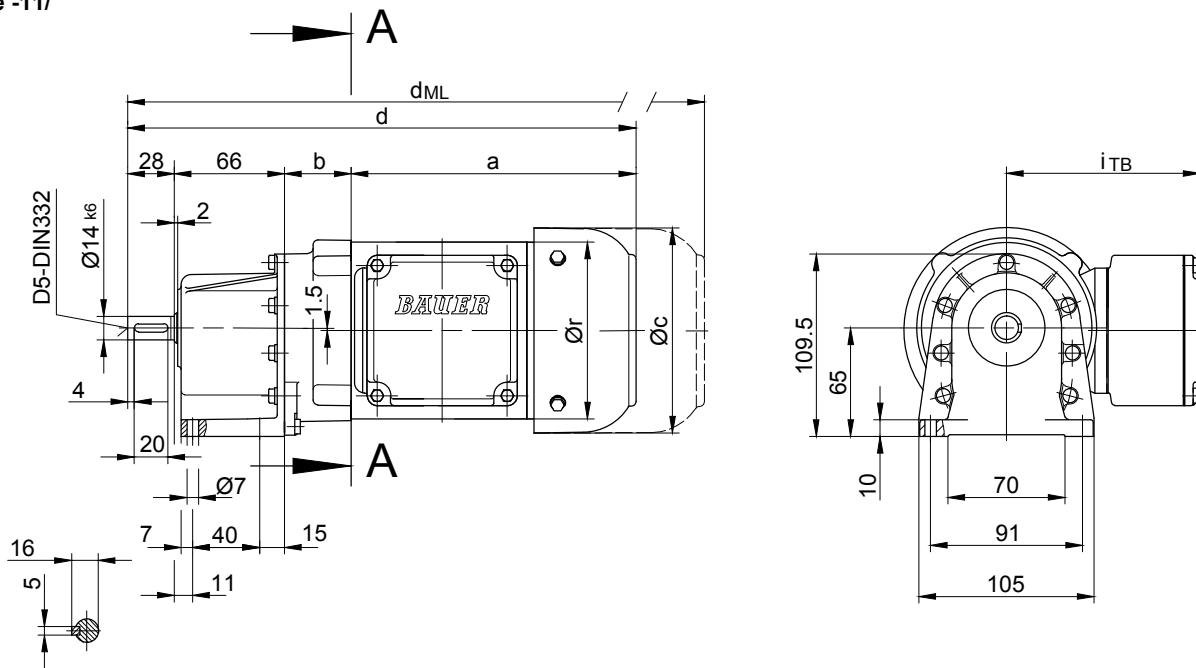
BG-series helical-geared motors

Dimension Metric

BG05

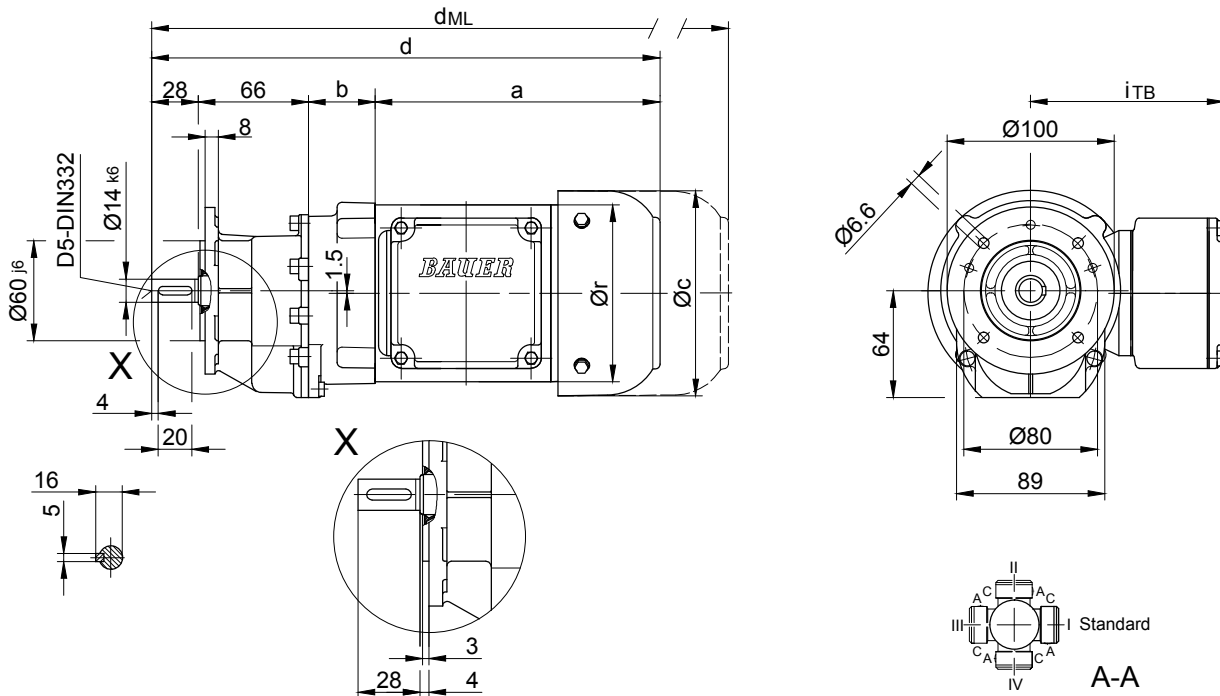
Foot mounting

Code -11/



Flange with clearance holes

Code -31/



10

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

The actual gearbox design can vary from the geometry shown.

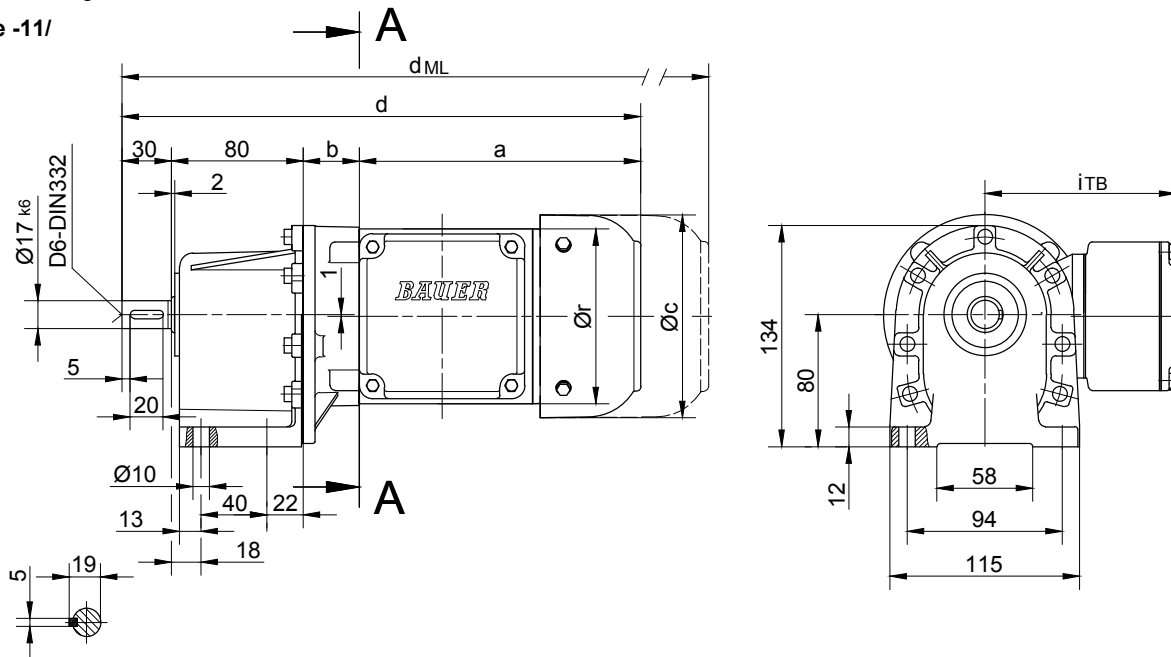
BG-series helical-geared motors

Dimension Metric

BG06

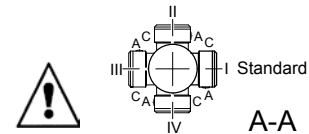
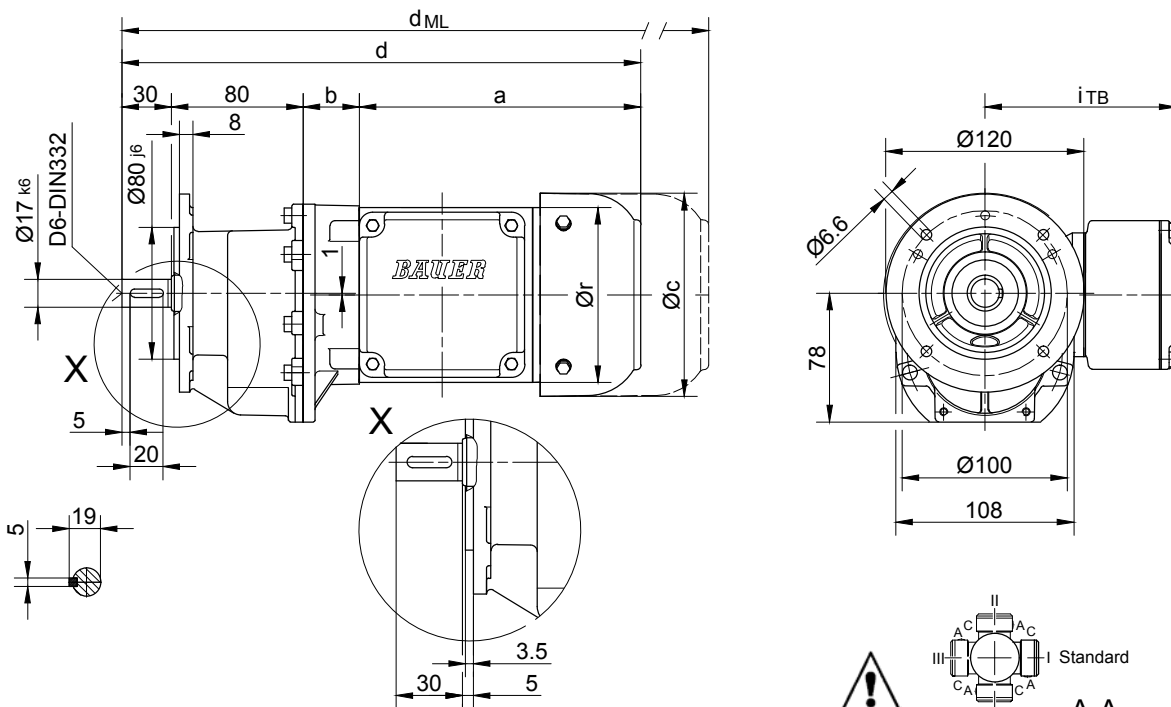
Foot mounting

Code -11/



Flange with clearance holes

Code -31/



Type	a _*	b	c	d _*	r	i _{TB}	Design with motor extensions			
							E./ES.. d _{ML*}	G d _{ML*}	E./ES..-G d _{ML*}	RR/RL d _{ML*}
BG06-../D04..	143	32	111	285	96	112	328.5	347.5	390.5	-
BG06-../D05..	170	34	123	315	106	117	356	417	458.5	-
BG06-../D06..	170	34	123	315	121	119	356	417	458.5	-
BG06-../D07..	190	34	123	335	121	119	376	437	478.5	-
BG06-../D..08..	200	78	156	388	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

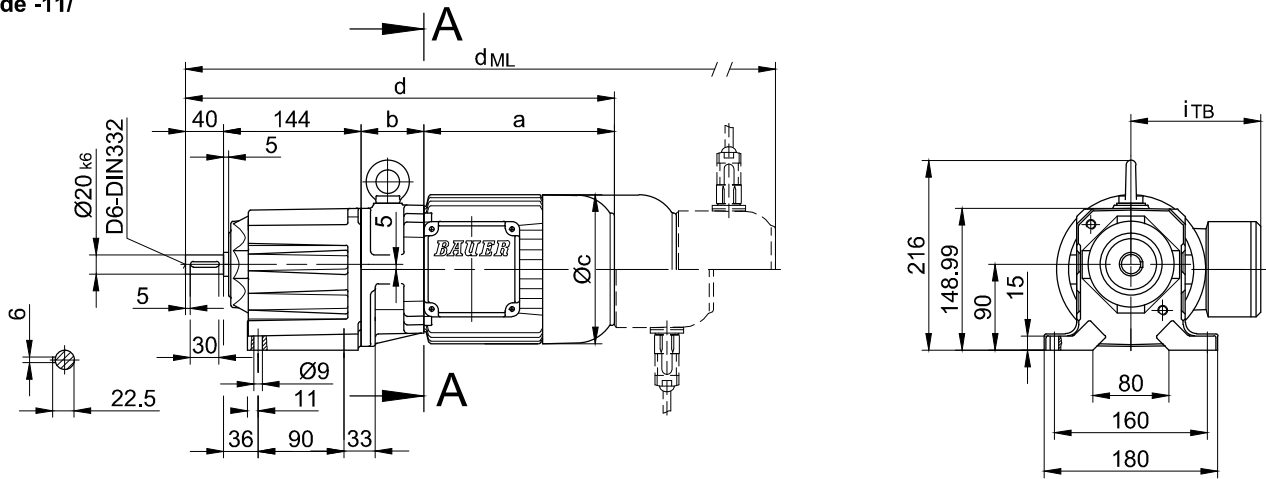
BG-series helical-geared motors

Dimension Metric

BG10-BG10Z

Foot mounting with clearance holes

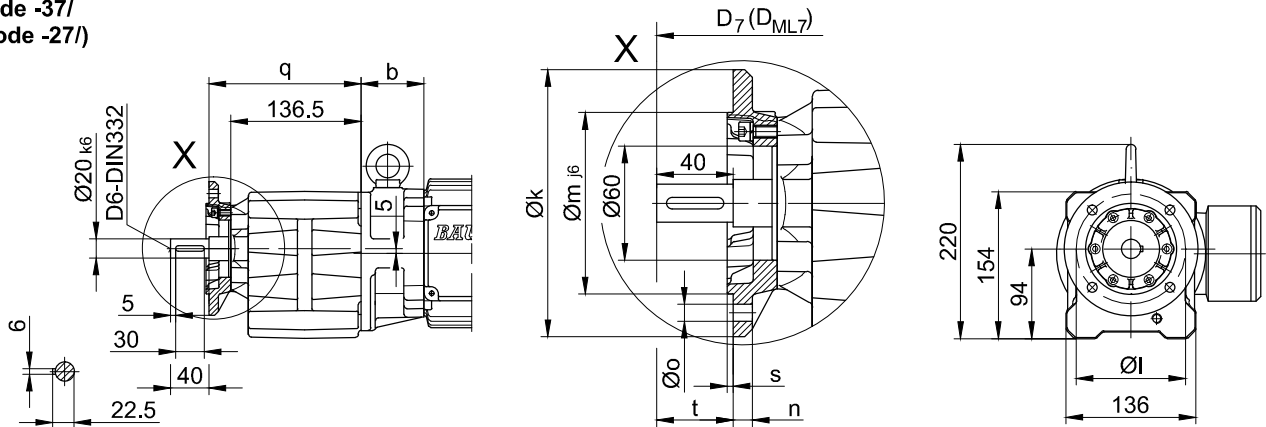
Code -11/



Flange with clearance holes

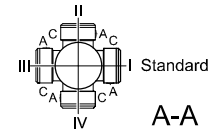
Code -37/

(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^*	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	112	456.5	475.5	518.5	-
BG10-./D05..	170	62	123	416	117	458	519	560.5	-
BG10Z-./D05..	170	88	123	442	117	484	545	586.5	-
BG10-./D06..	170	62	123	416	119	458	519	560.5	-
BG10Z-./D06..	170	88	123	442	119	484	545	586.5	-
BG10-./D07..	190	62	123	436	119	478	539	580.5	-
BG10Z-./D07..	190	88	123	462	119	504	565	606.5	-
BG10-./D..08..	200	66	156	450	136.5	516	557	623.5	516
BG10Z-./D..08..	200	132	156	516	136.5	582	623	689.5	582
BG10-./D..09..	251	80.5	181	515.5	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

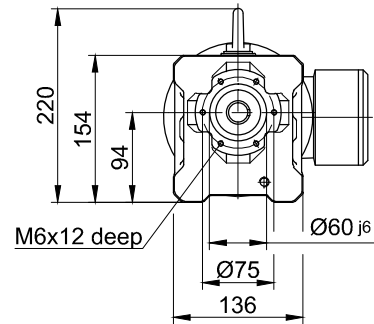
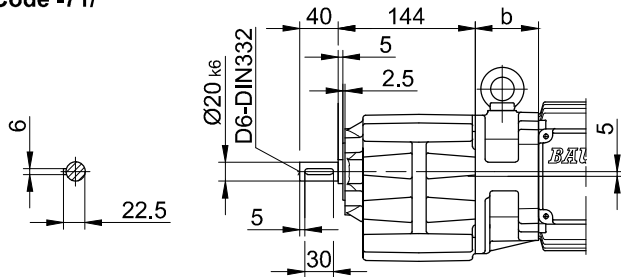
BG-series helical-geared motors

Dimension Metric

BG10-BG10Z

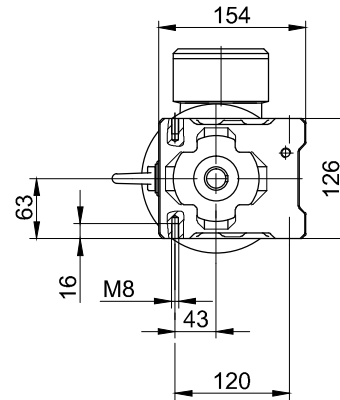
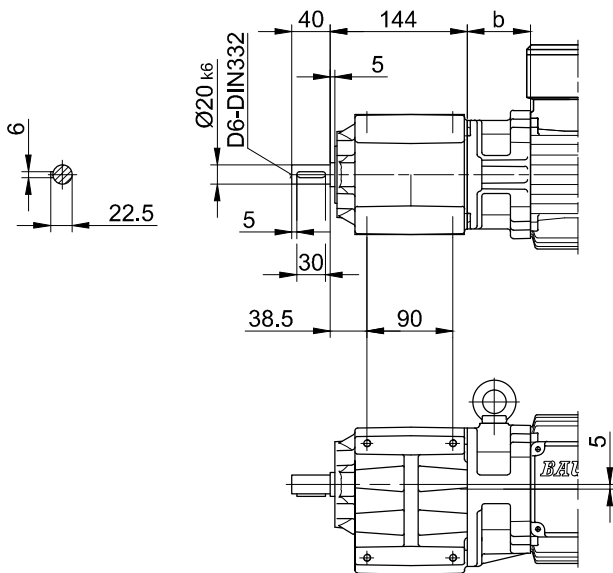
Flange with tapped holes

Code -71/



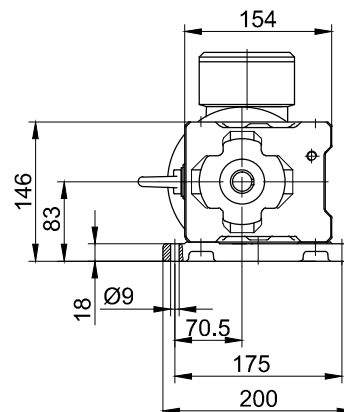
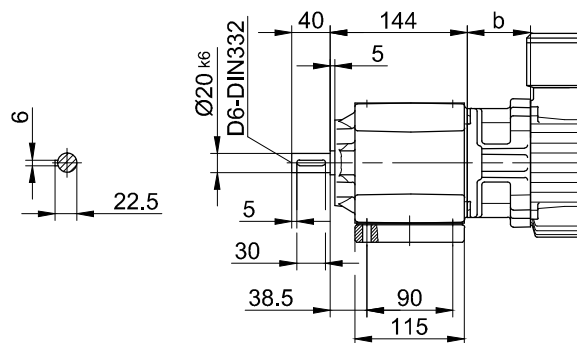
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/



The actual gearbox design can vary from the geometry shown.

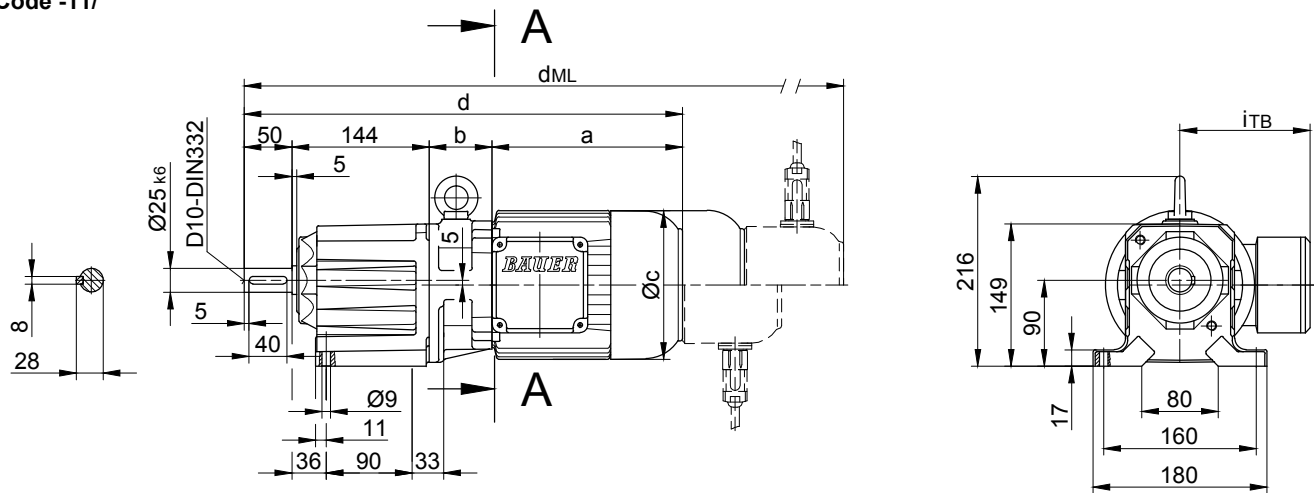
BG-series helical-geared motors

Dimension Metric

BG10X-BG10XZ

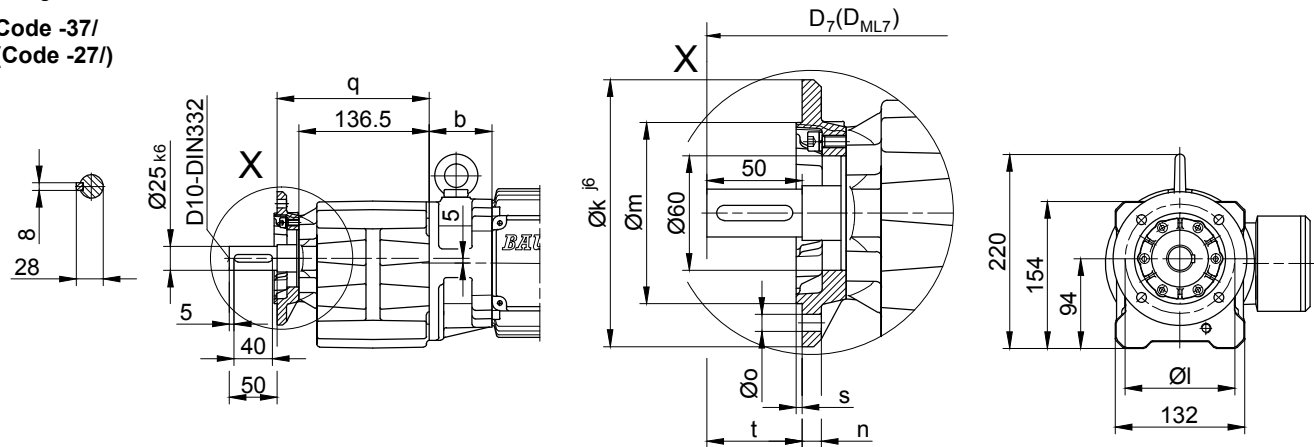
Foot mounting with clearance holes

Code -11/



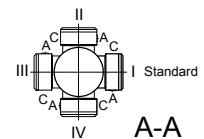
Flange with clearance holes

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*	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	112	466.5	485.5	528.5	-
BG10X-.1/D05..	170	62	123	426	117	468	529	570.5	-
BG10XZ-.1/D05..	170	88	123	452	117	494	555	596.5	-
BG10X-.1/D06..	170	62	123	426	119	468	529	570.5	-
BG10XZ-.1/D06..	170	88	123	452	119	494	555	596.5	-
BG10X-.1/D07..	190	62	123	446	119	488	549	590.5	-
BG10XZ-.1/D07..	190	88	123	472	119	514	575	616.5	-
BG10X-.1/D..08..	200	66	156	460	136.5	526	567	633.5	526
BG10XZ-.1/D..08..	200	132	156	526	136.5	592	633	699.5	592
BG10X-.1/D..09..	251	80.5	176	525.5	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

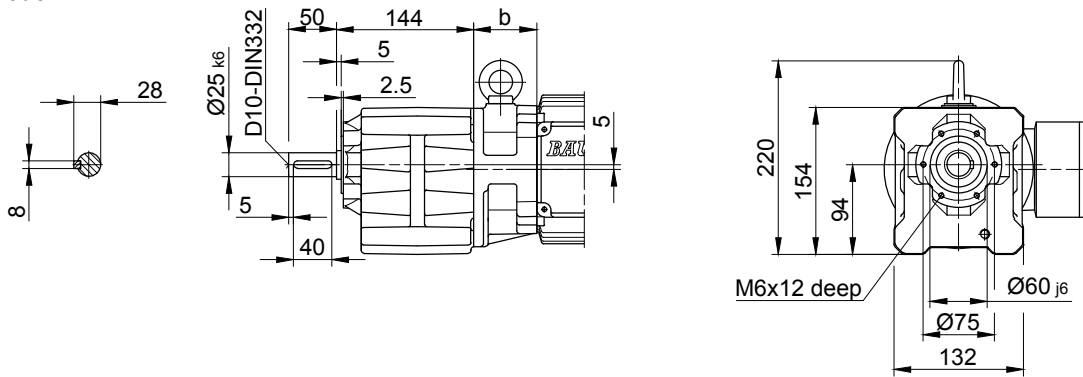
Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BG10X-BG10XZ

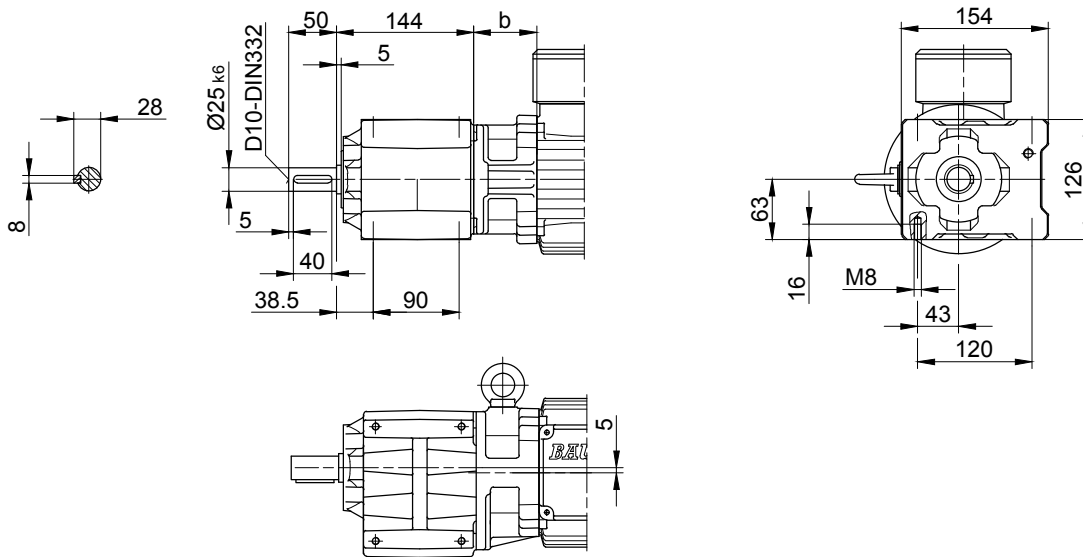
Flange with tapped holes

Code -71/



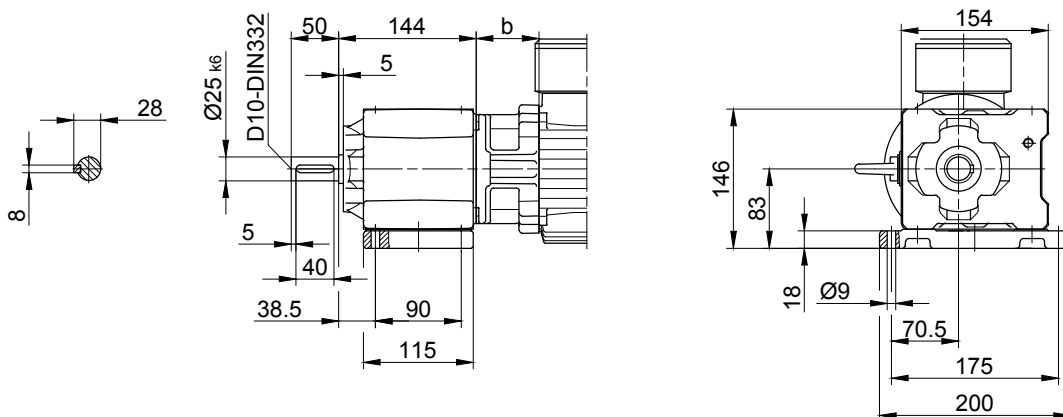
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/



The actual gearbox design can vary from the geometry shown.

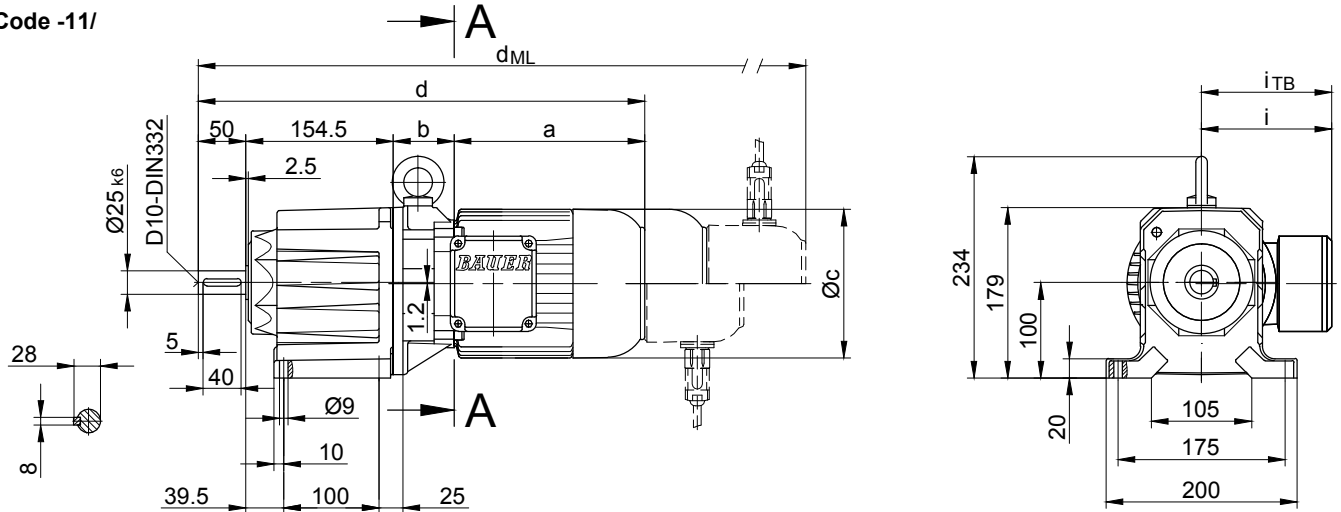
BG-series helical-geared motors

Dimension Metric

BG20-BG20Z

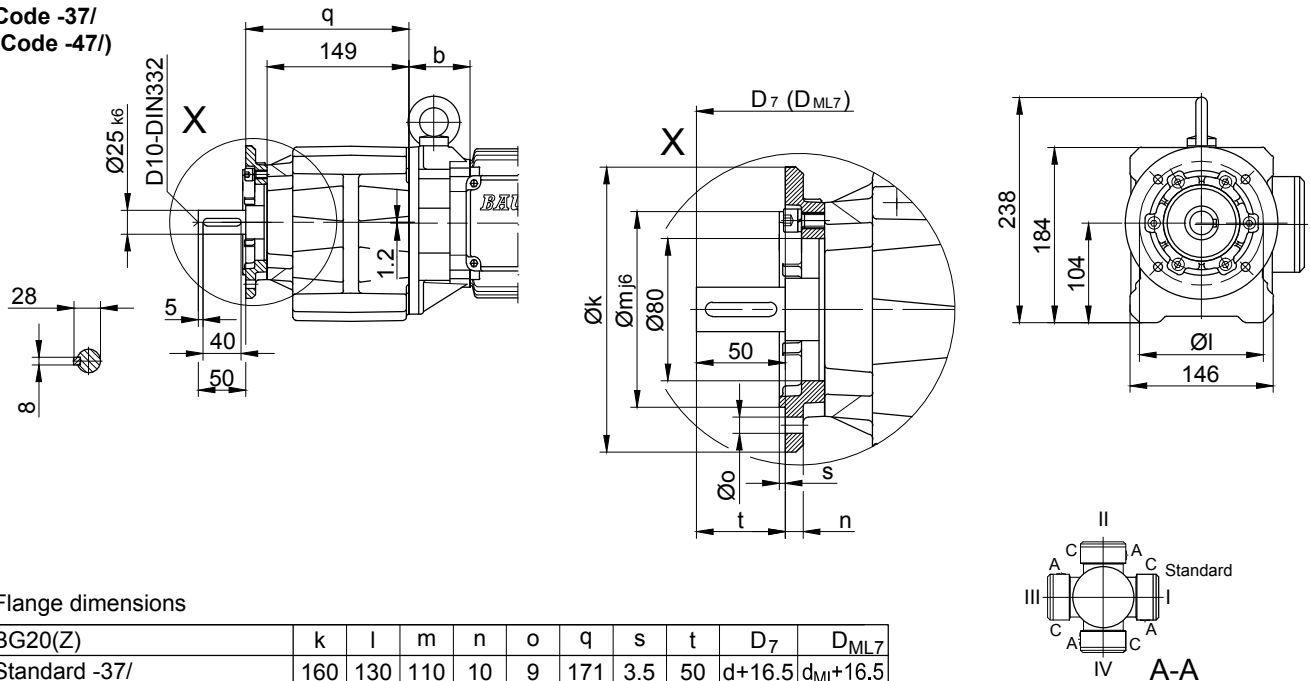
Foot mounting with clearance holes

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*	Design with motor extensions				
					i _{TB}	E../ES..	G	E../ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BG20Z-../D04..	143	100	111	447.5	112	491	510	553	-
BG20-../D05..	170	60	123	434.5	117	476.5	537.5	579	-
BG20Z-../D05..	170	102	123	476.5	117	518.5	579.5	621	-
BG20-../D06..	170	60	123	434.5	119	476.5	537.5	579	-
BG20Z-../D06..	170	102	123	476.5	119	518.5	579.5	621	-
BG20-../D07..	190	60	123	454.5	119	496.5	557.5	599	-
BG20Z-../D07..	190	102	123	496.5	119	538.5	599.5	641	-
BG20-../D..08..	200	64	156	468.5	136.5	534.5	575.5	642	534.5
BG20Z-../D..08..	200	146	156	550.5	136.5	616.5	657.5	724	616.5
BG20-../D..09..	251	78.5	181	534	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

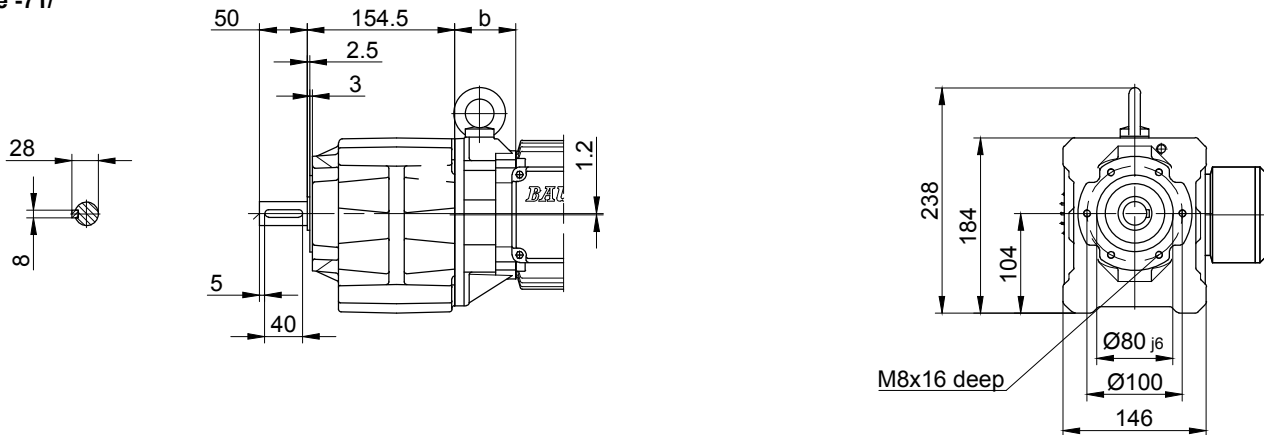
BG-series helical-geared motors

Dimension Metric

BG20-BG20Z

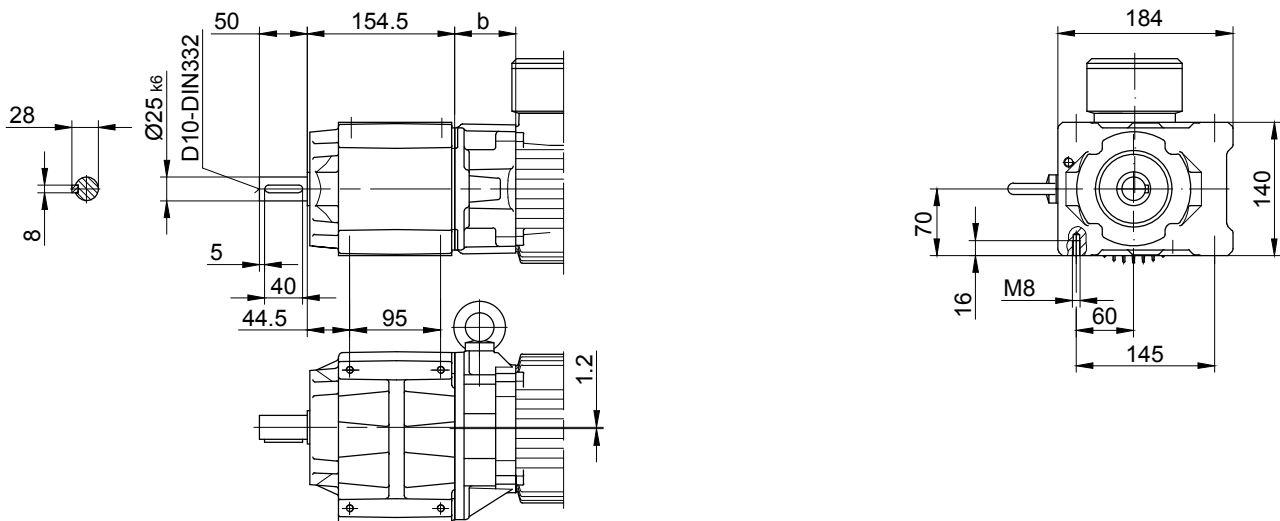
Flange with tapped holes

Code -71/



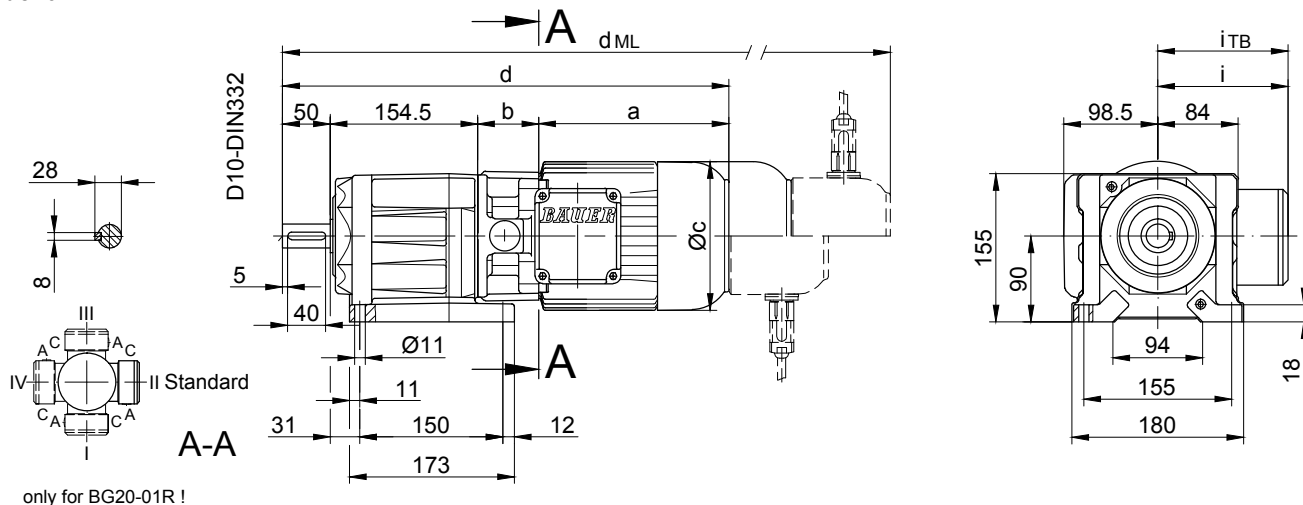
Foot with tapped holes left and right

Code -61LR/



Foot mounting right with clearance holes

Code -01R



The actual gearbox design can vary from the geometry shown.

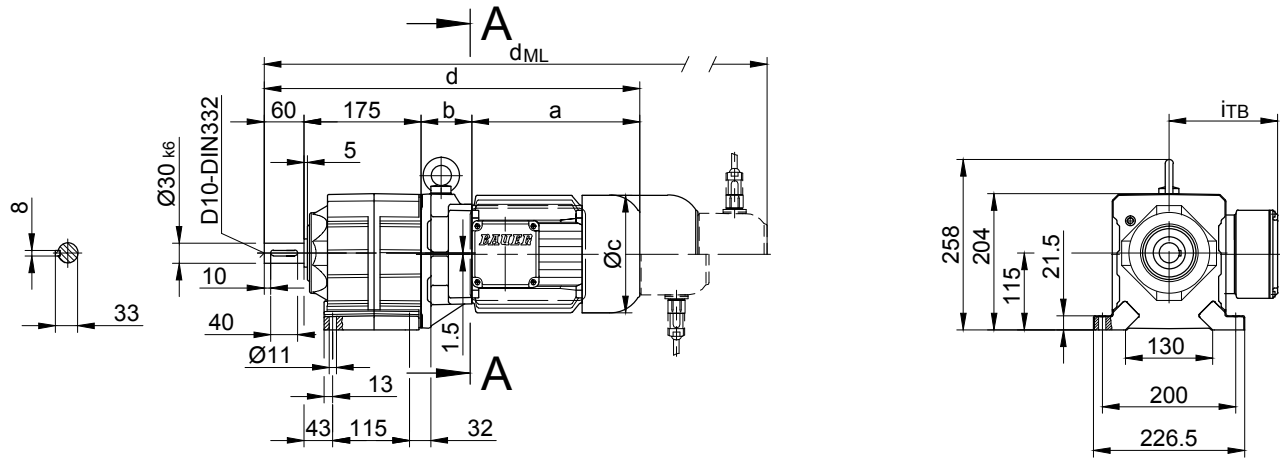
BG-series helical-geared motors

Dimension Metric

BG30-BG30Z

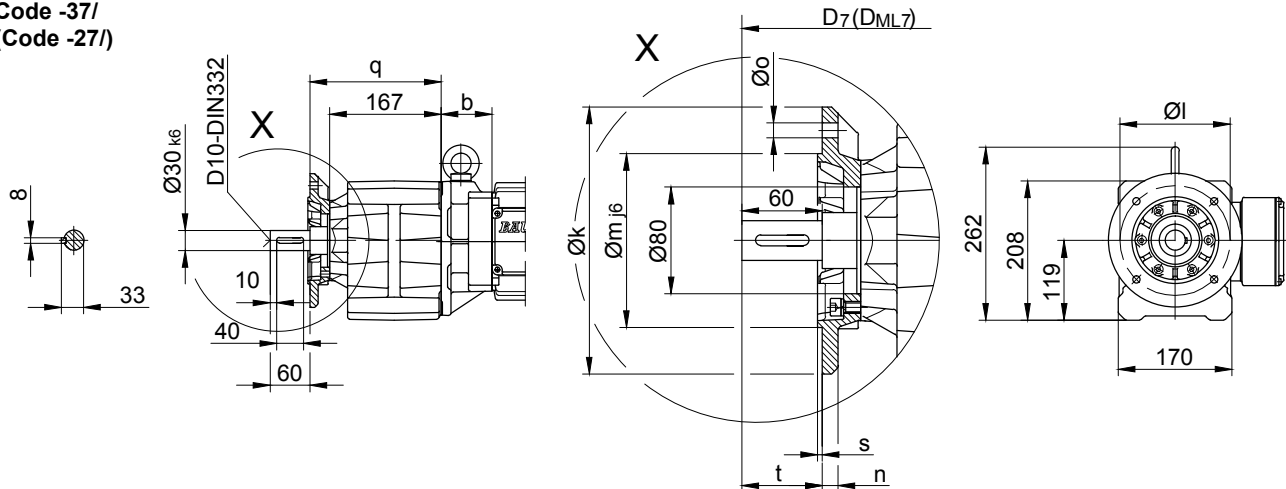
Foot mounting with clearance holes

Code -11/



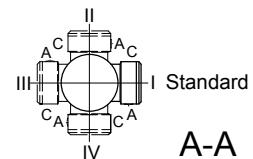
Flange with clearance holes

Code -37/
(Code -27/)



Flange dimensions

BG30(Z)	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*	Design with motor extensions				
					i _{TB}	E./ES..	G	E./ES.-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BG30-../D05..	170	58	123	464	117	505	566	607.5	-
BG30Z-../D05..	170	133.5	123	538.5	117	580.5	641.5	683	-
BG30-../D06..	170	58	123	464	119	505	566	607.5	-
BG30Z-../D06..	170	133.5	123	538.5	119	580.5	641.5	683	-
BG30-../D07..	190	58	123	483	119	525	586	627.5	-
BG30Z-../D07..	190	133.5	123	558.5	119	600.5	661.5	703	-
BG30-../D..08..	200	62	156	497	136.5	563	604	670.5	563
BG30Z-../D..08..	200	137.5	156	572.5	136.5	638.5	679.5	746	638.5
BG30-../D..09..	251	76.5	181	562.5	158	655.5	669.5	760	655.5
BG30Z-../D..09..	251	152	181	638	158	731	745	835.5	731
BG30-../D..11..	319	83	228	637	182	735	744	839.5	735



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

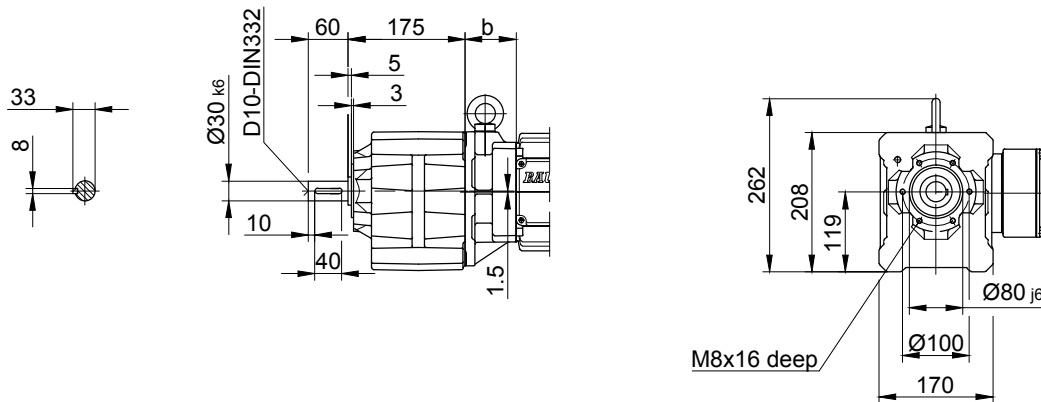
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

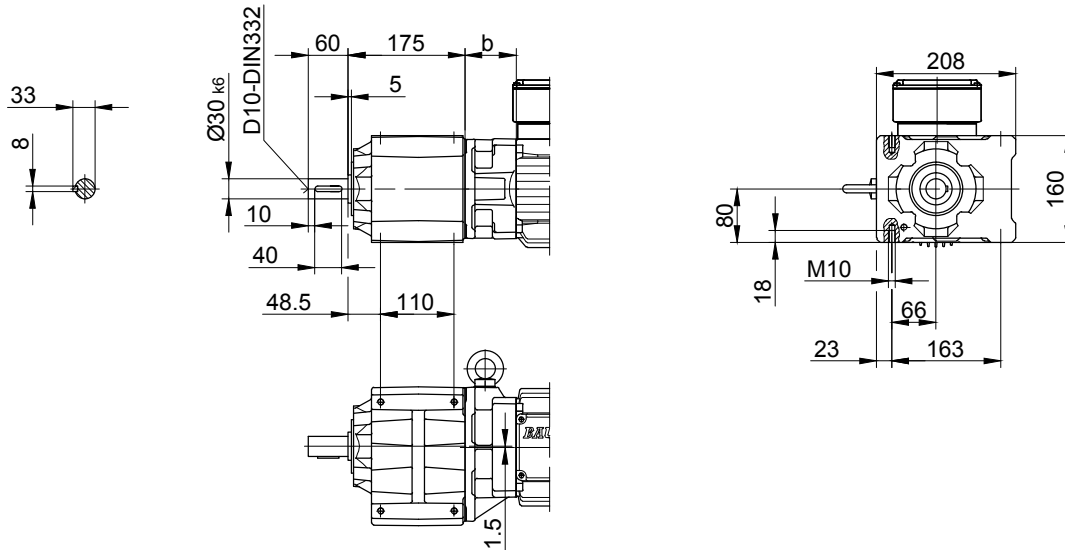
Flange with tapped holes

Code -71/



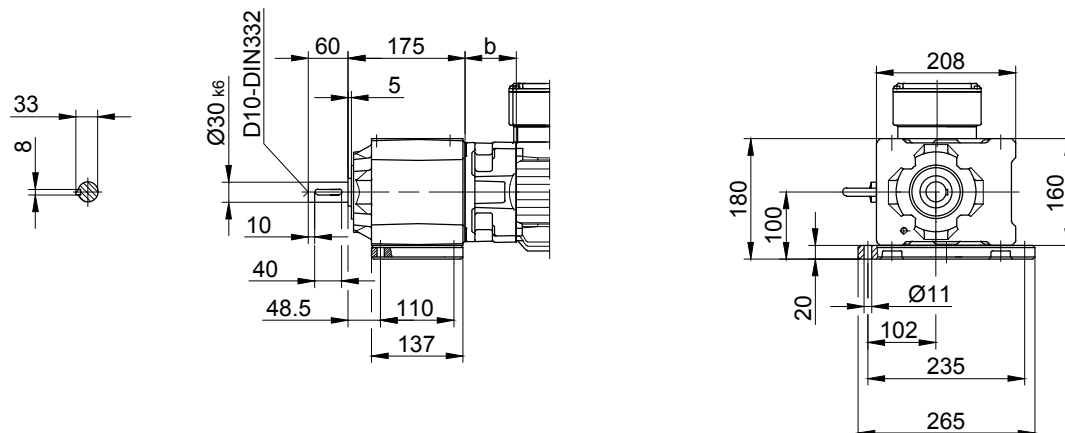
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/



The actual gearbox design can vary from the geometry shown.

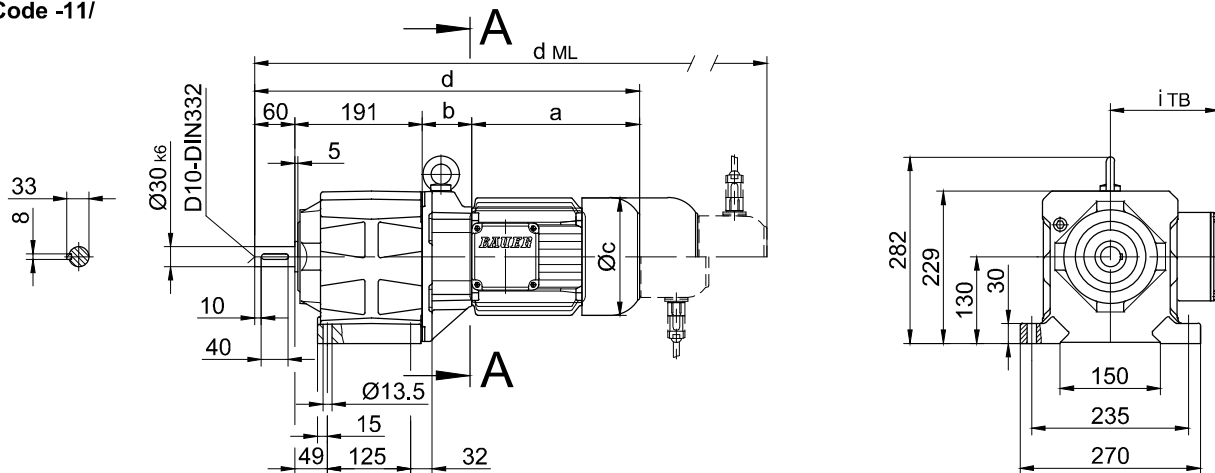
BG-series helical-geared motors

Dimension Metric

BG40-BG40Z

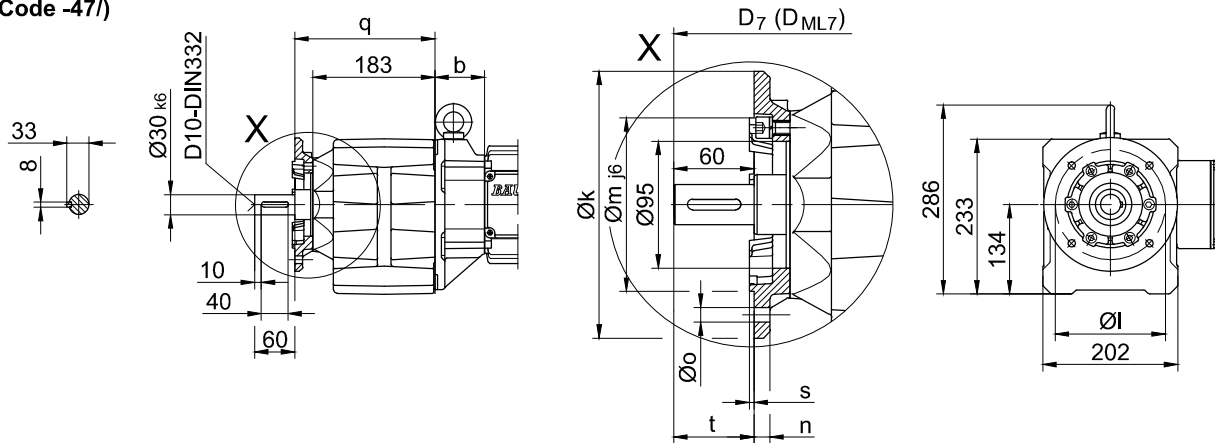
Foot mounting with clearance holes

Code -11/



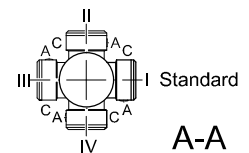
Flange with clearance holes

Code -37/
(Code -47/)



Flange dimensions

BG40(Z)	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*	Design with motor extensions				
					i _{TB}	E../ES..	G	E../ES..-G	RR/RL
					d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *	
BG40Z-../D05..	170	138.5	123	559.5	117	601.5	662.5	704	-
BG40Z-../D06..	170	138.5	123	559.5	119	601.5	662.5	704	-
BG40Z-../D07..	190	138.5	123	579.5	119	621.5	682.5	724	-
BG40-../D..08..	200	60	156	511	136.5	577	618	684.5	577
BG40Z-../D..08..	200	142.5	156	593.5	136.5	659.5	700.5	767	659.5
BG40-../D..09..	251	74.5	181	576.5	158	669.5	683.5	774	669.5
BG40Z-../D..09..	251	157	181	659	158	752	766	856.5	752
BG40-../D..11..	319	81	228	651	181	749	758	853.5	749



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

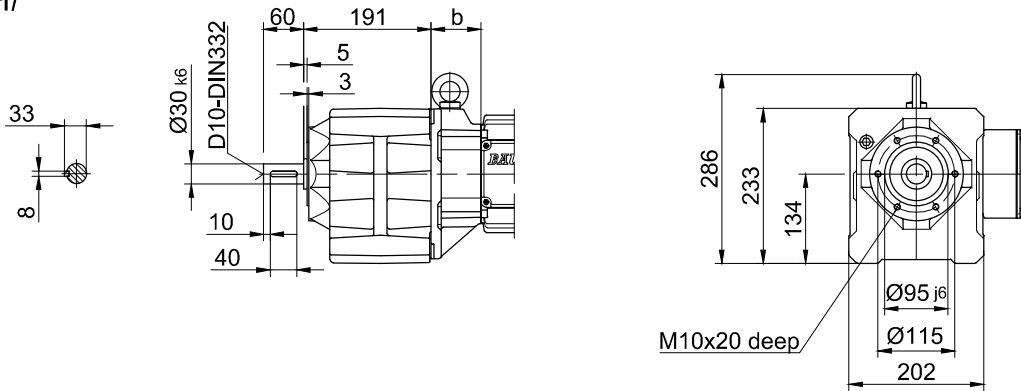
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

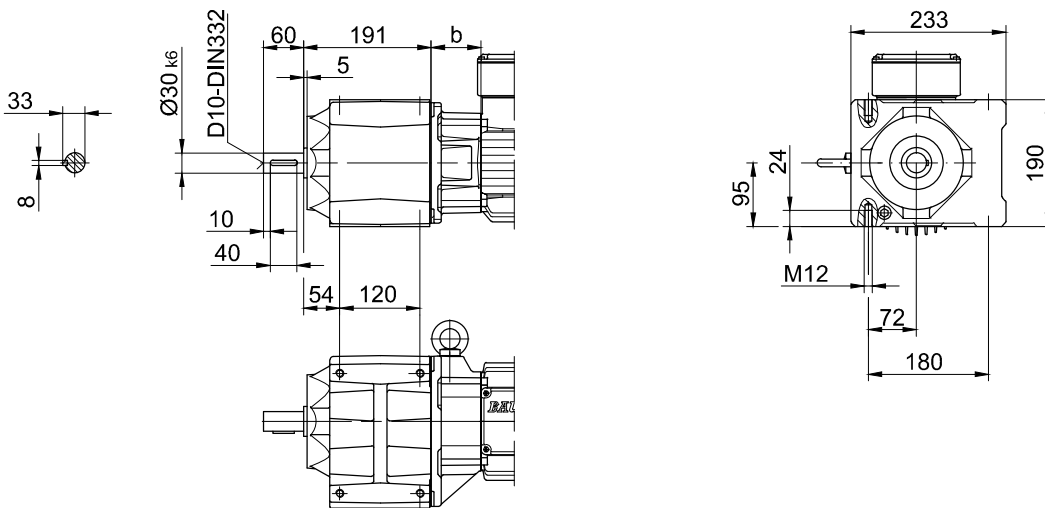
Flange with tapped holes

Code -71/



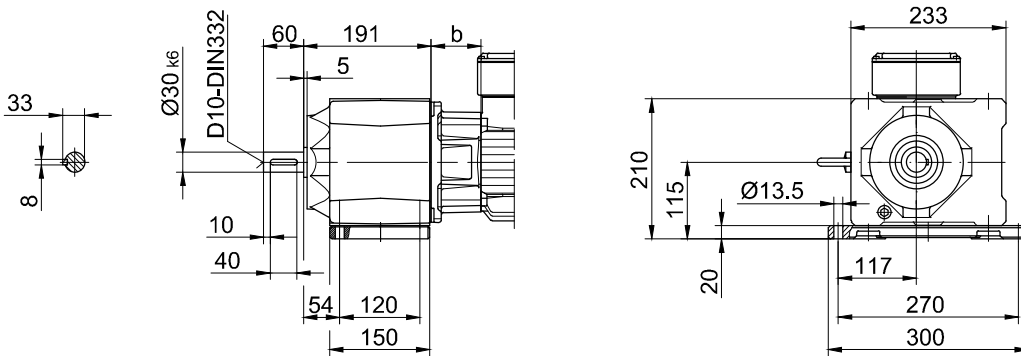
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/



The actual gearbox design can vary from the geometry shown.

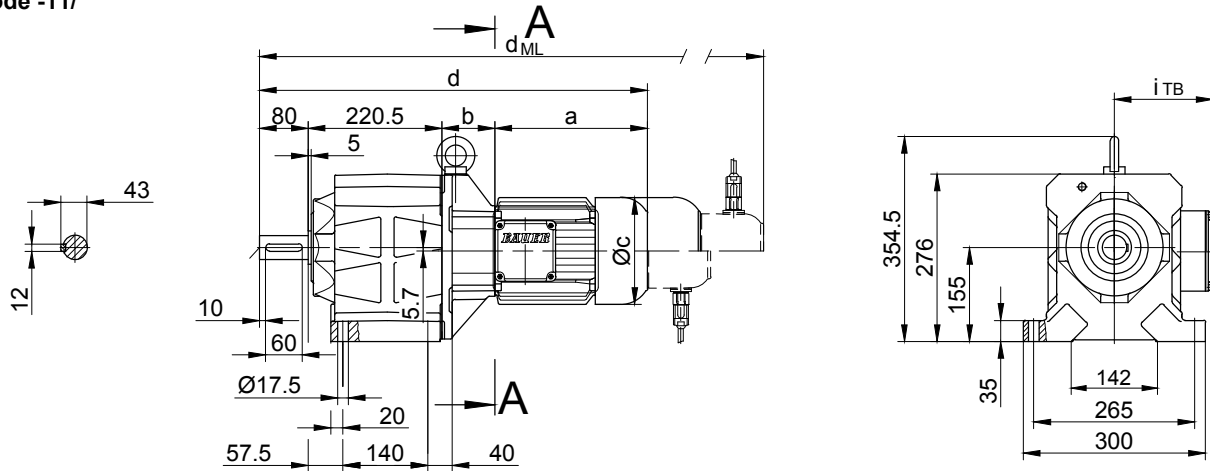
BG-series helical-geared motors

Dimension Metric

BG50-BG50Z

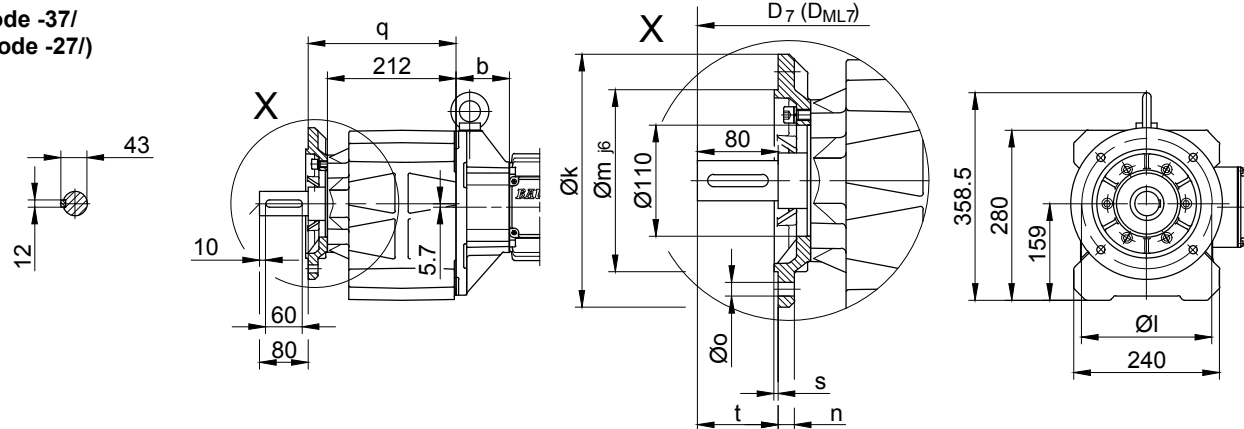
Foot mounting with clearance holes

Code -11/



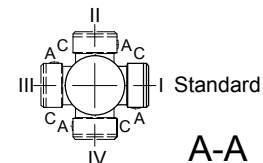
Flange with clearance holes

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*	Design with motor extensions				
					i _{TB}	E../ES..	G	E../ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BG50Z-../D05..	170	155	123	625.5	117	667.5	728.5	771	-
BG50Z-../D06..	170	155	123	625.5	119	667.5	728.5	771	-
BG50Z-../D07..	190	155	123	645.5	119	687.5	748.5	769	-
BG50-../D..08..	200	73	156	573.5	136.5	639.5	680.5	746	639.5
BG50Z-../D..08..	200	159	156	659.5	136.5	725.5	766.5	832	725.5
BG50-../D..09..	251	87.5	181	639	158	732	746	833	732
BG50Z-../D..09..	251	173.5	181	725	158	818	832	919	818
BG50-../D..11..	319	94	228	713.5	181	811.5	820.5	917	811.5
BG50-../D..13..	393	107	258	800.5	218	911.5	907.5	1006	911.5
BG50-../D..16..	454.5	121	310	876	244	1019.5	983	1123.5	1019.5
BG50-../D..18..	542	143	348	985.5	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

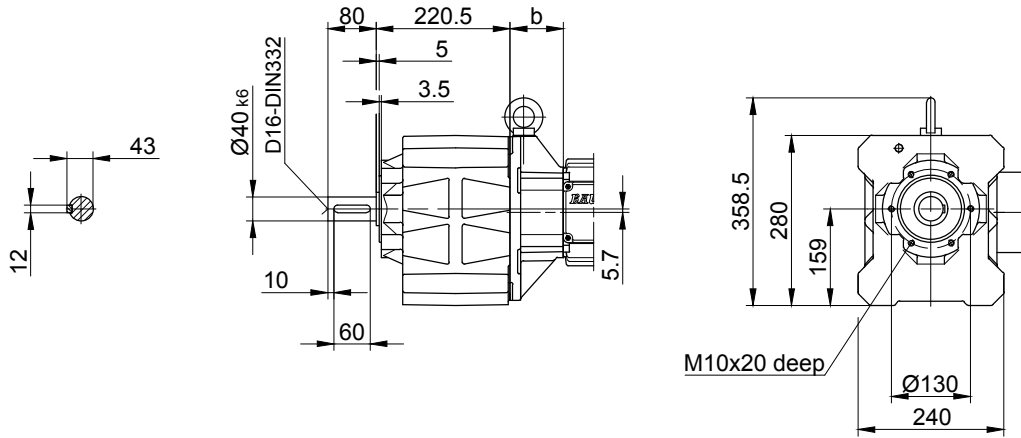
BG-series helical-geared motors

Dimension Metric

BG50-BG50Z

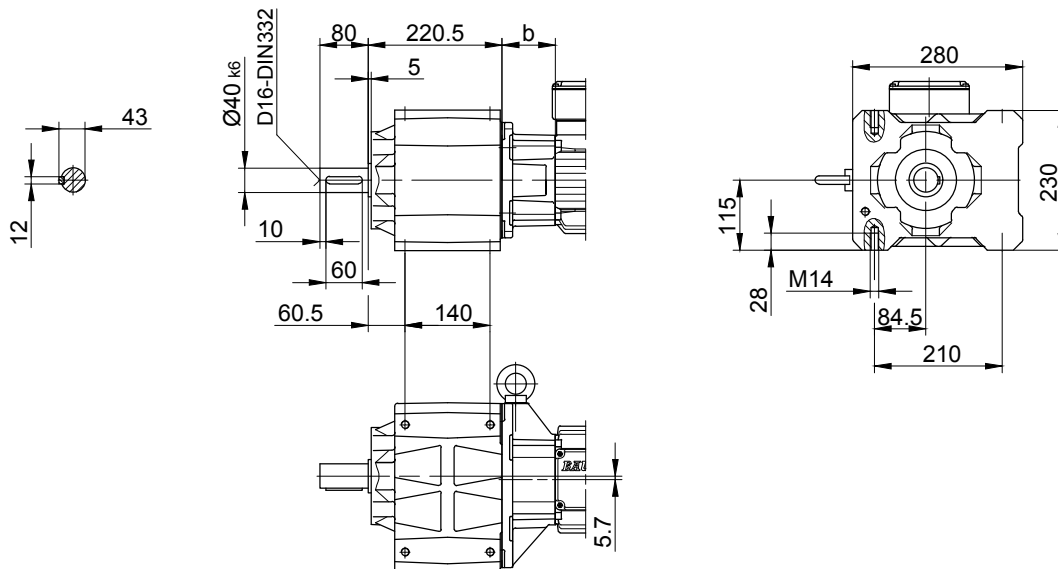
Flange with tapped holes

Code -71/



Foot with tapped holes left and right

Code -61LR/



The actual gearbox design can vary from the geometry shown.

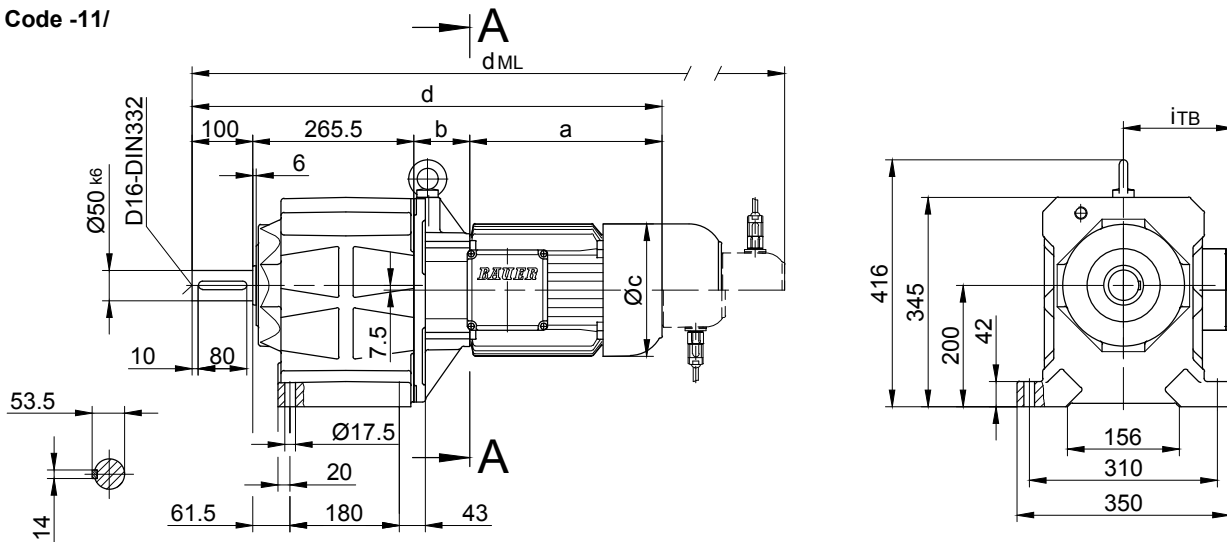
BG-series helical-geared motors

Dimension Metric

BG60-BG60Z

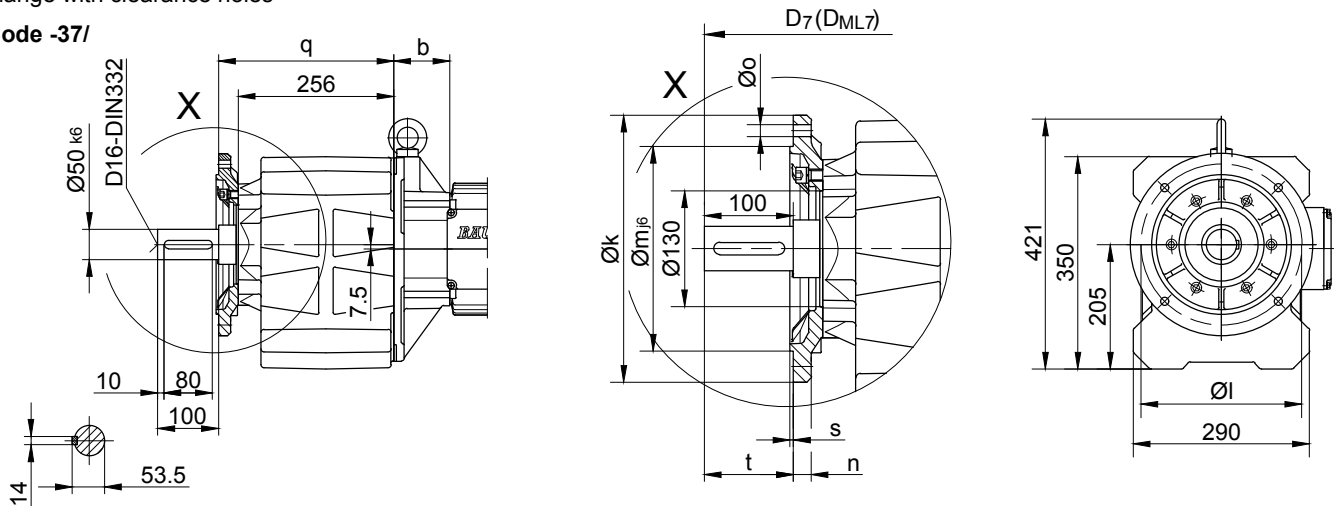
Foot mounting with clearance holes

Code -11/



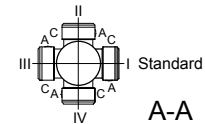
Flange with clearance holes

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*	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	136.5	812.5	853.5	920	812.5
BG60-../D..09..	251	85.5	181	702	158	795	809	899.5	795
BG60Z-../D..09..	251	195.5	181	812	158	905	919	1009.5	905
BG60-../D..11..	319	92	228	776.5	181	874.5	883.5	979	874.5
BG60Z-../D..11..	319	202	228	886.5	181	984.5	993.5	1089	984.5
BG60-../D..13..	393	105	258	863.5	218	974.5	970.5	1079	974.5
BG60-../D..16..	454.5	119	310	939	244	1182.5	1046	1186.5	1182.5
BG60-../D..18..	542	272	348	1179.5	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

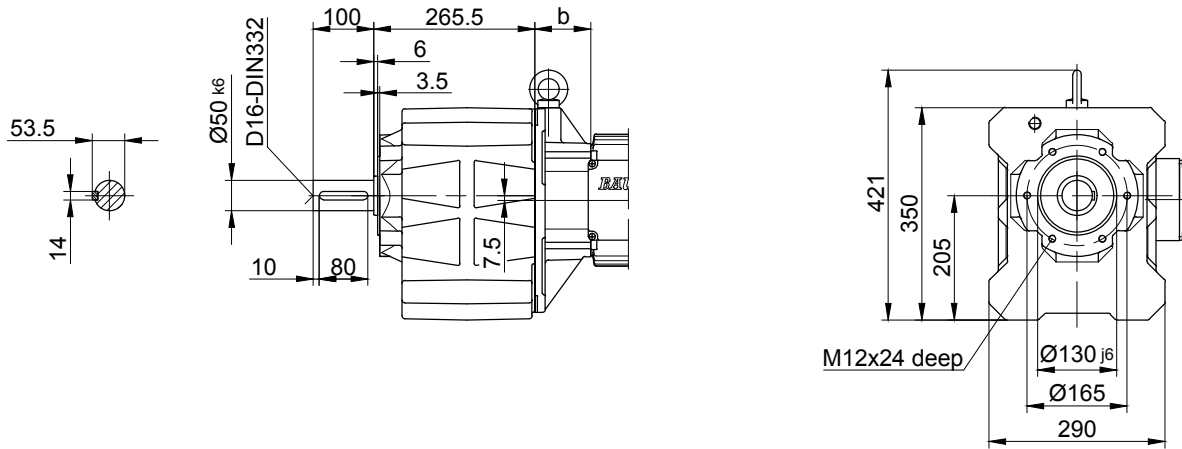
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

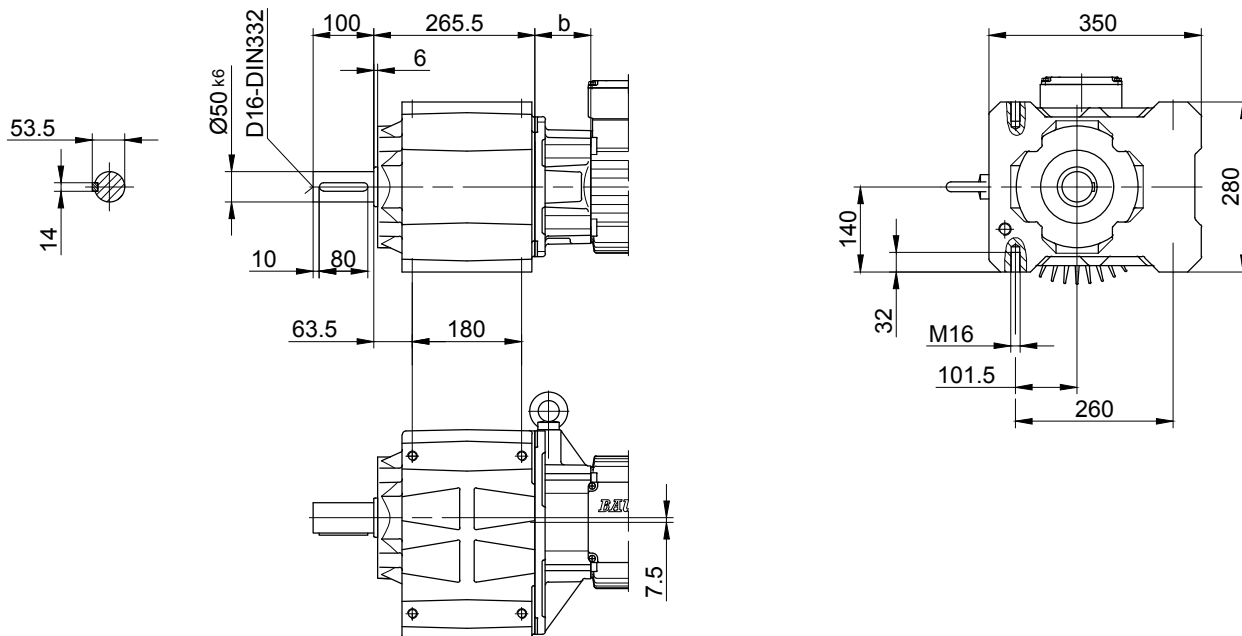
Flange with tapped holes

Code -71/



Foot with tapped holes left and right

Code -61LR/



The actual gearbox design can vary from the geometry shown.

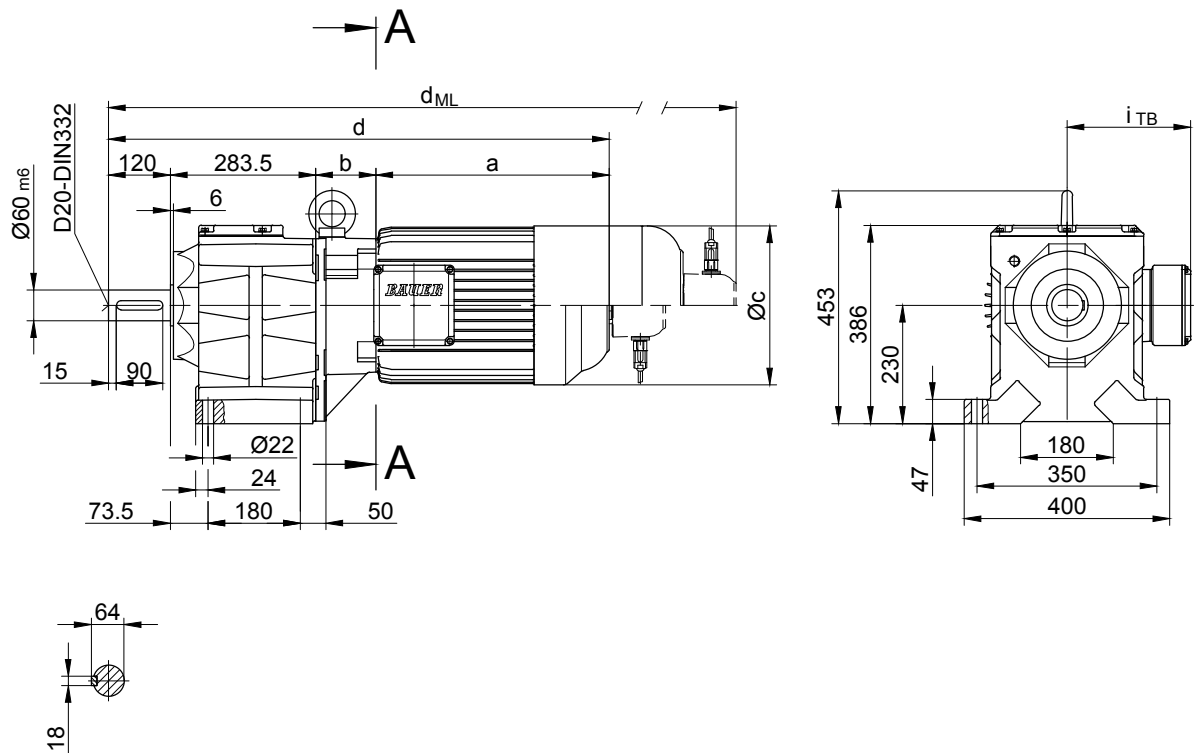
BG-series helical-geared motors

Dimension Metric

BG70-BG70Z

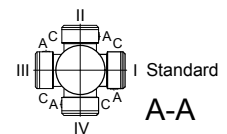
Foot mounting with clearance holes

Code -11/



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*	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	136.5	871.5	912.5	979	871
BG70-../D..09..	251	83.5	181	738	158	831	845	935.5	831
BG70Z-../D..09..	251	216.5	181	871	158	964	978	1068.5	964
BG70-../D..11..	319	90	228	812.5	181	910.5	919.5	1015	910.5
BG70Z-../D..11..	319	223	228	945.5	181	1043.5	1052.5	1148	1043.5
BG70-../D..13..	393	103	258	899.5	218	1010.5	1006.5	1115	1010.5
BG70Z-../D..13..	393	236	258	1032.5	218	1143.5	1139.5	1248	1143.5
BG70-../D..16..	454.5	117	310	975	244	1118.5	1082	1222.5	1118.5
BG70Z-../D..16..	454.5	250	310	1108	244	1251.5	1215	1355.5	1251.5
BG70-../D..18..	542	139	348	1084.5	288	1234	1191.5	1338	1234
BG70Z-../D..18..	542	272	348	1217.5	288	1367	1324.5	1471	1367
BG70-../D..20L	643.5	156	363	1203	303.5	1203	1330.5	1436.5	1330.5
BG70-../D..22S	703.5	156	363	1263	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

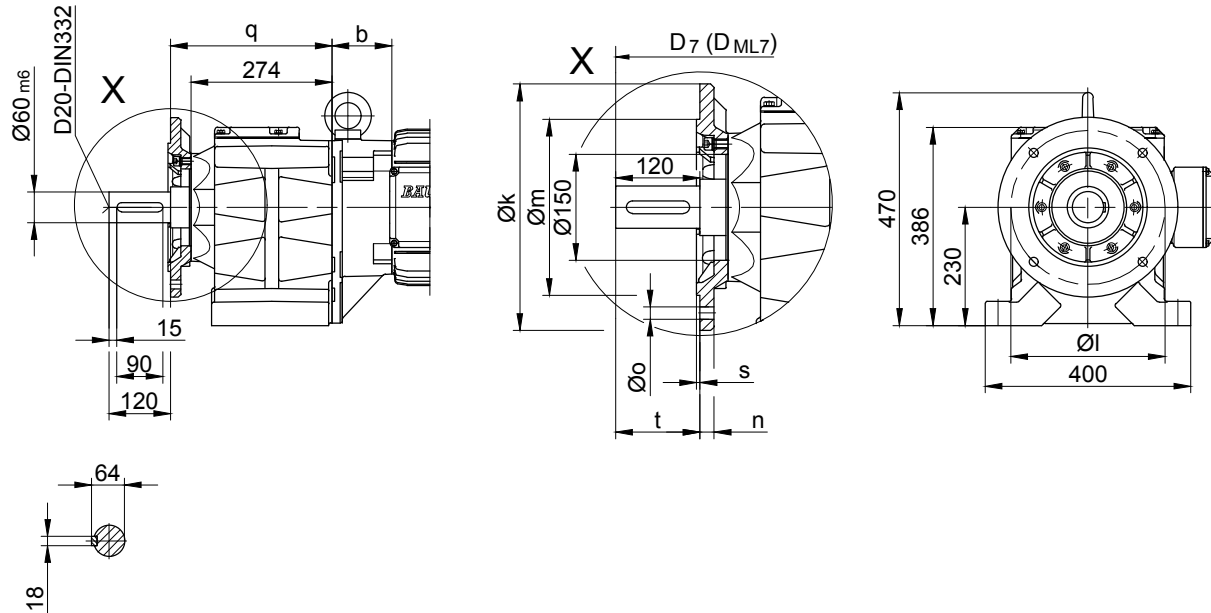
BG-series helical-geared motors

Dimension Metric

BG70-BG70Z

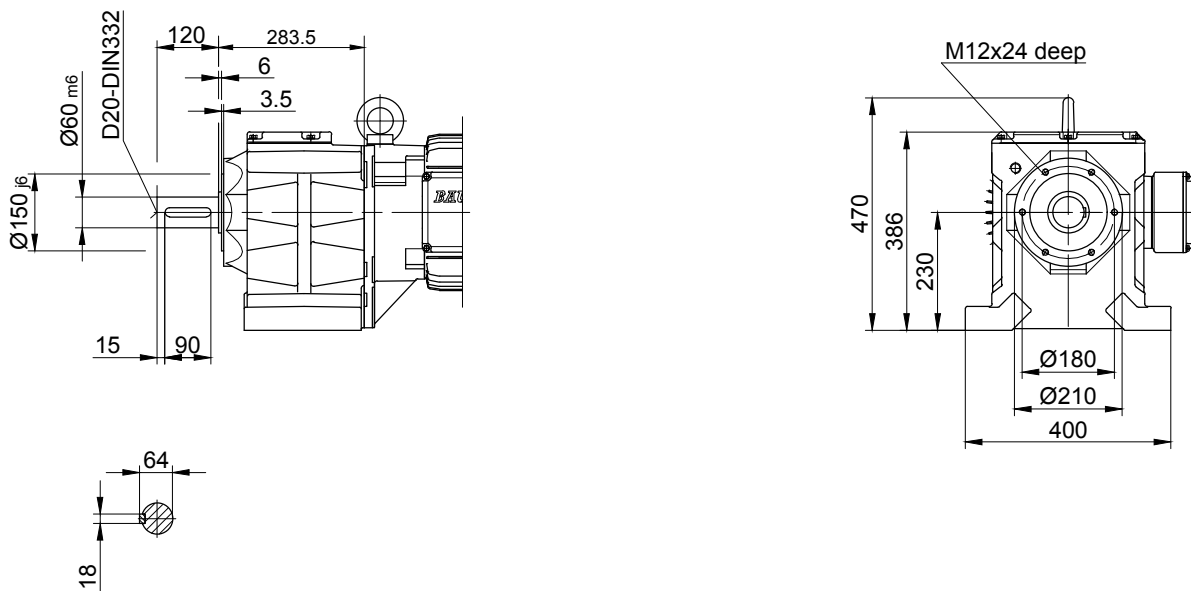
Flange with clearance holes

Code -37/
(Code -27/)



Flange with tapped holes

Code -71/



10

The actual gearbox design can vary from the geometry shown.

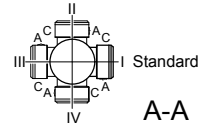
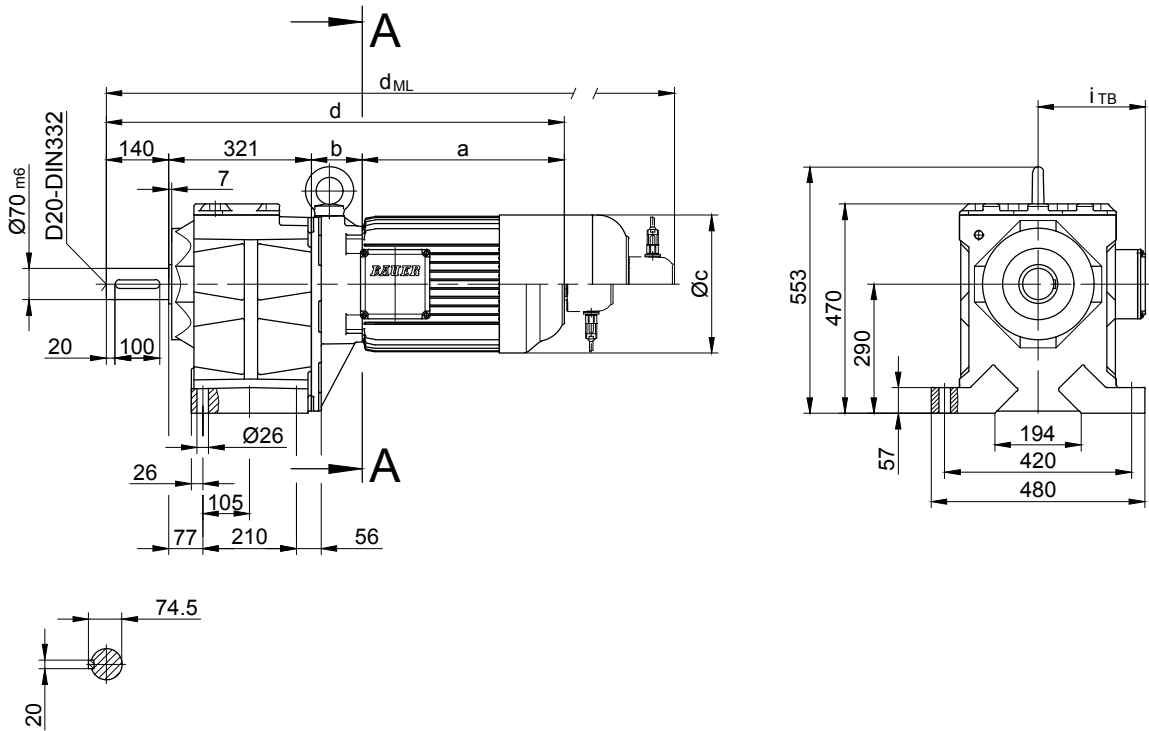
BG-series helical-geared motors

Dimension Metric

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*	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	158	1057.5	1071.5	1162	1057.5
BG80-../D..11..	319	87	228	867	181	965	974	1069.5	965
BG80Z-../D..11..	319	259	228	1039	181	1137	1146	1241.5	1137
BG80-../D..13..	393	100	258	954	218	1065	1061	1169.5	1065
BG80Z-../D..13..	393	272	258	1126	218	1237	1233	1341.5	1237
BG80-../D..16..	454.5	114	310	1029.5	244	1173	1136.5	1277	1173
BG80Z-../D..16..	454.5	286	310	1201.5	244	1345	1308.5	1449	1345
BG80-../D..18..	542	136	348	1139	288	1288.5	1246	1392.5	1288.5
BG80Z-../D..18..	542	308	348	1311	288	1460.5	1418	1564.5	1460.5
BG80-../D..20L	643.5	153	363	1257.5	303.5	1385	1363.5	1491	1385
BG80-../D..22S	703.5	153	363	1317.5	303.5	1445	1423.5	1551	1445
BG80-../D..22M	703.5	153	363	1317.5	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

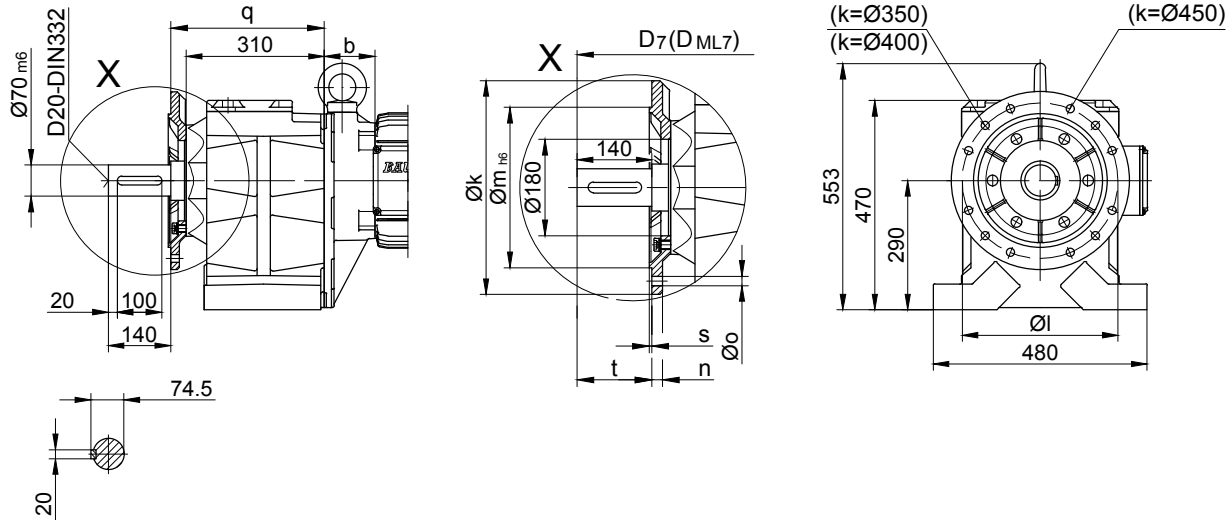
BG-series helical-geared motors

Dimension Metric

BG80-BG80Z

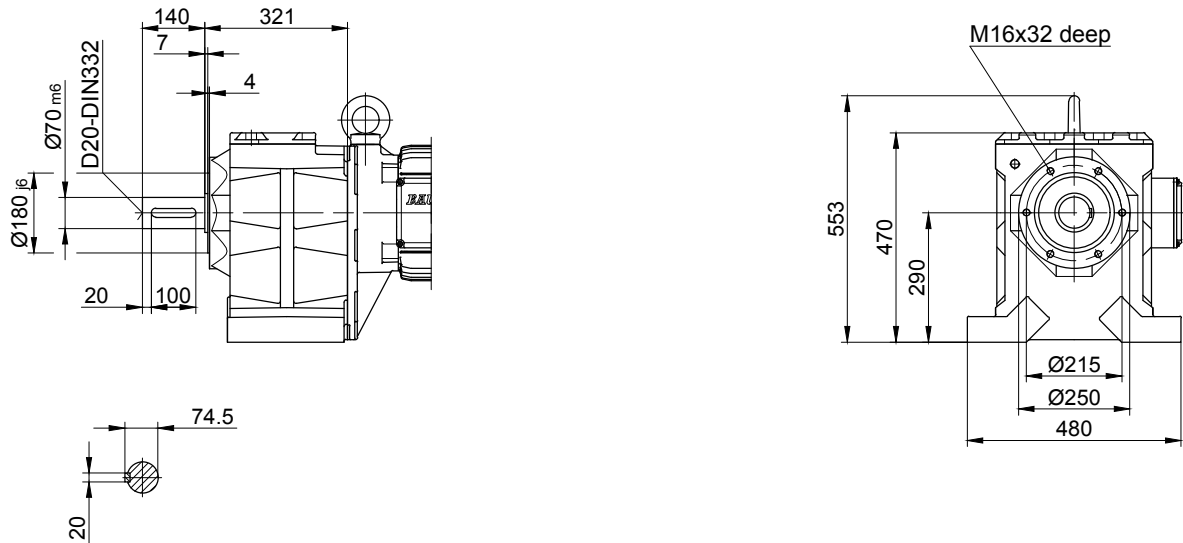
Flange with clearance holes

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



Flange with tapped holes

Code -71/



10

The actual gearbox design can vary from the geometry shown.

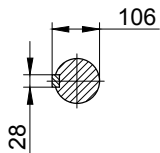
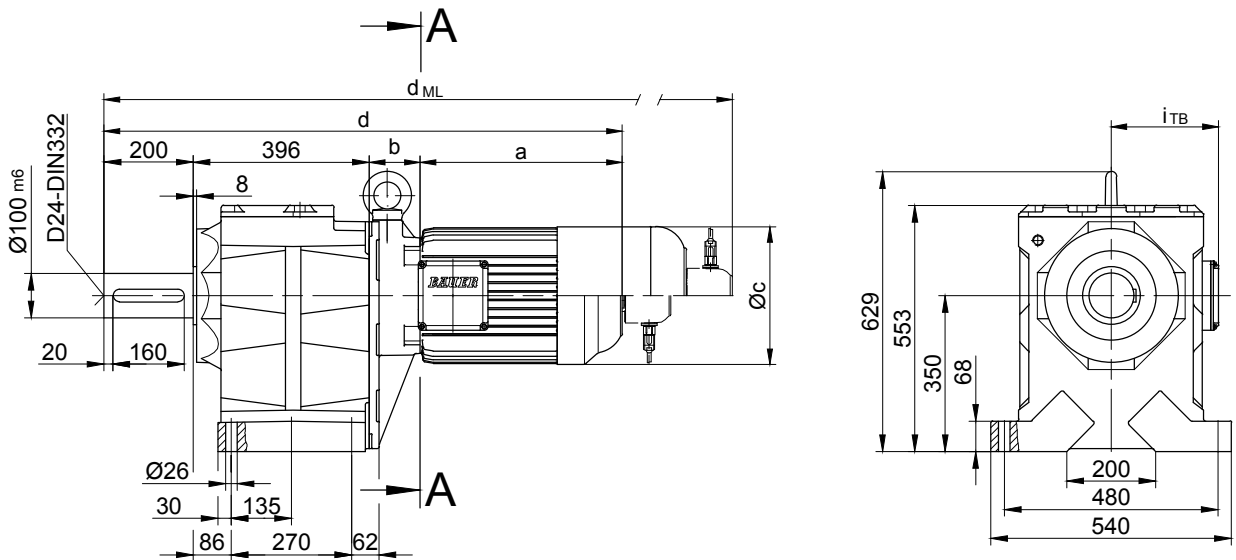
BG-series helical-geared motors

Dimension Metric

BG90-BG90Z

Foot mounting with clearance holes

Code -11/



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

Design state "A" = Standard Length

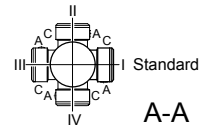
Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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



A-A

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*	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	158	1207	1221	1311	1207
BG90Z-../D..11..	319	273.5	228	1188.5	181	1286.5	1295.5	1388.5	1286.5
BG90-../D..13..	393	100	258	1015	218	1200	1196	1301	1200
BG90Z-../D..13..	393	286.5	258	1275.5	218	1386.5	1382.5	1487.5	1386.5
BG90-../D..16..	454.5	114	310	1164.5	244	1308	1271.5	1412	1308
BG90Z-../D..16..	454.5	300.5	310	1351	244	1494.5	1458	1598.5	1494.5
BG90-../D..18..	542	136	348	1274	288	1423.5	1381	1527.5	1423.5
BG90Z-../D..18..	542	322.5	348	1460.5	288	1610	1567.5	1714	1610
BG90-../D..20L	643.5	153	363	1392.5	303.5	1520	1498.5	1626	1520
BG90-../D..22S	703.5	153	363	1452.5	303.5	1580	1558.5	1686	1580
BG90-../D..22M	703.5	153	363	1452.5	303.5	1580	1558.5	1686	1580

The actual gearbox design can vary from the geometry shown.

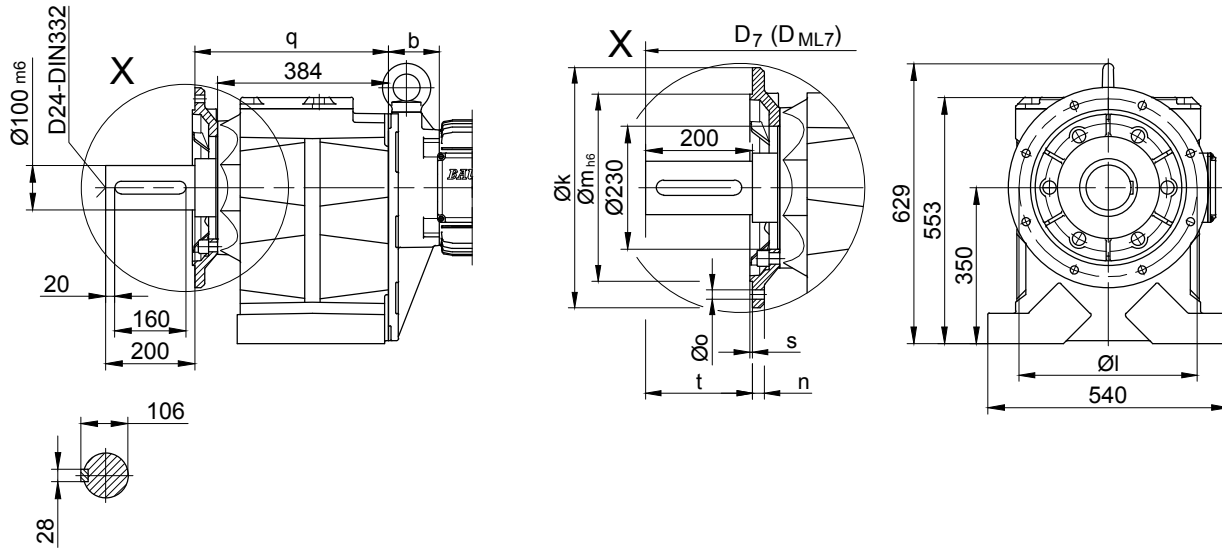
BG-series helical-geared motors

Dimension Metric

BG90-BG90Z

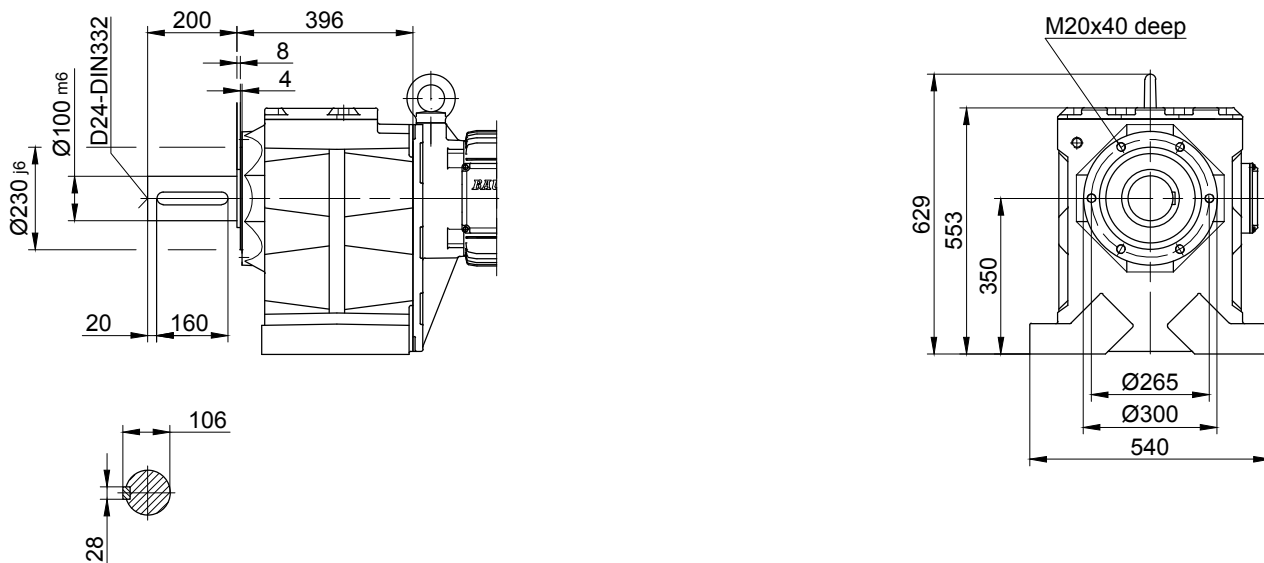
Flange with clearance holes

Code -37/
(Code -47/)



Flange with tapped holes

Code -71/



10

The actual gearbox design can vary from the geometry shown.

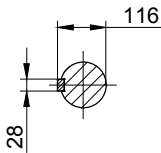
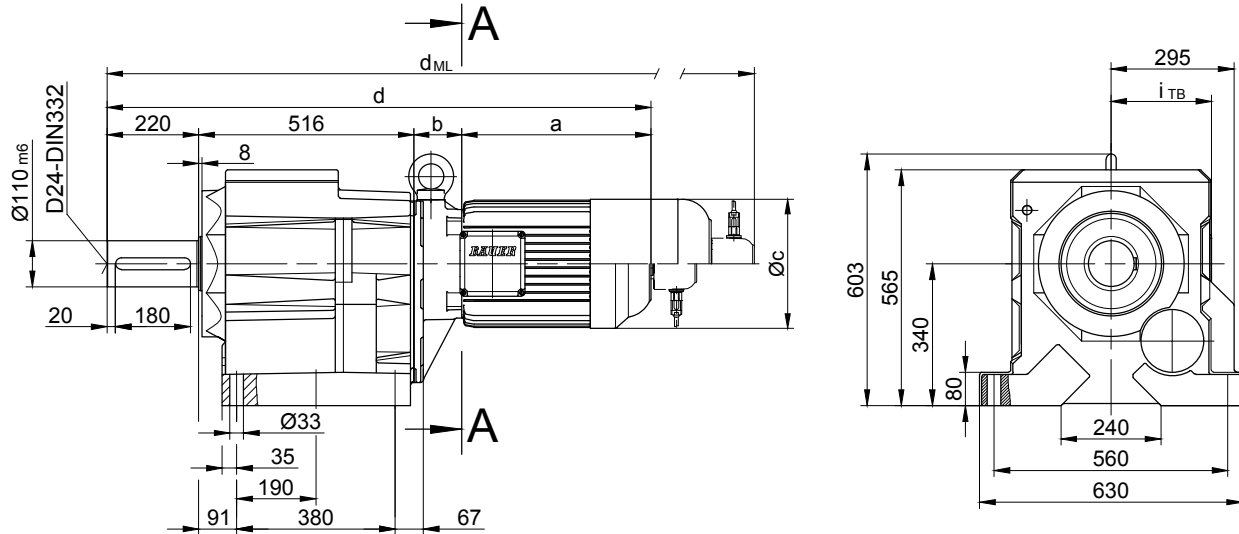
BG-series helical-geared motors

Dimension Metric

BG100-BG100Z

Foot mounting with clearance holes

Code -11/



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

Design state "A" = Standard Length

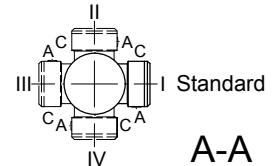
Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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



Standard

A-A

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*	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	158	1332.5	1346.5	1437	1332.5
BG100-../D..11..	319	87	228	1142	182	1240	1249	1344.5	1240
BG100Z-../D..11..	319	259	228	1314	182	1412	1421	1516.5	1412
BG100-../D..13..	393	100	258	1229	218	1340	1336	1444.5	1340
BG100Z-../D..13..	393	272	258	1401	218	1512	1508	1616.5	1512
BG100-../D..16..	454.5	114	310	1304.5	244	1448	1411.5	1552	1448
BG100Z-../D..16..	454.5	286	310	1476.5	244	1620	1583.5	1724	1620
BG100-../D..18..	542	136	348	1414	288	1563.5	1521	1667.5	1563.5
BG100Z-../D..18..	542	308	348	1586	288	1735.5	1693	1839.5	1735.5
BG100-../D..20L	643.5	153	363	1532.5	303.5	1660	1638.5	1766	1660
BG100-../D..22S	703.5	153	363	1592.5	303.5	1720	1698.5	1826	1720
BG100-../D..22M	703.5	153	363	1592.5	303.5	1720	1698.5	1826	1720

The actual gearbox design can vary from the geometry shown.

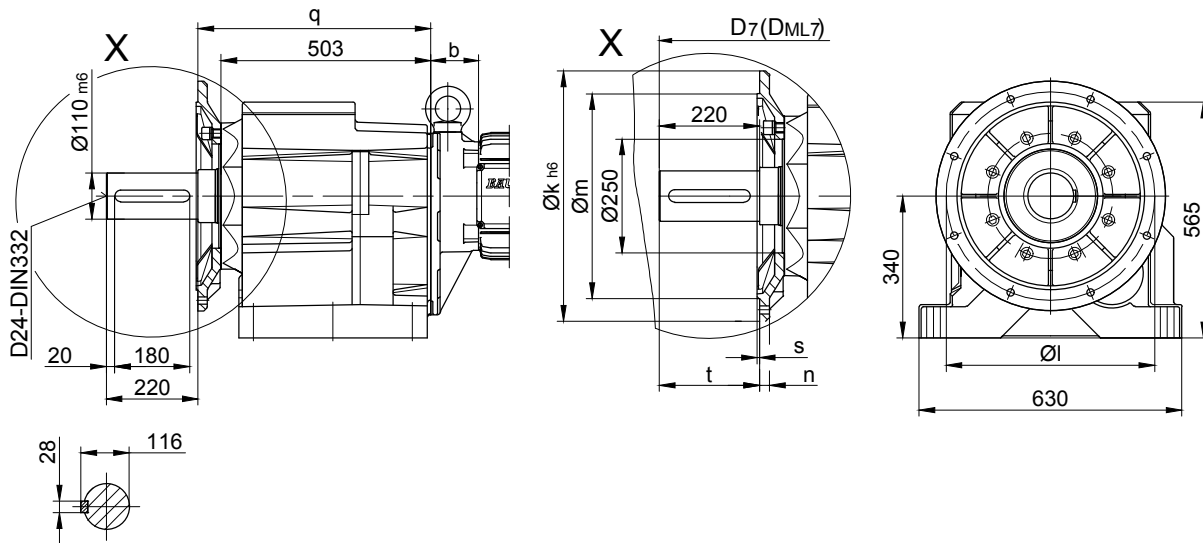
BG-series helical-geared motors

Dimension Metric

BG100-BG100Z

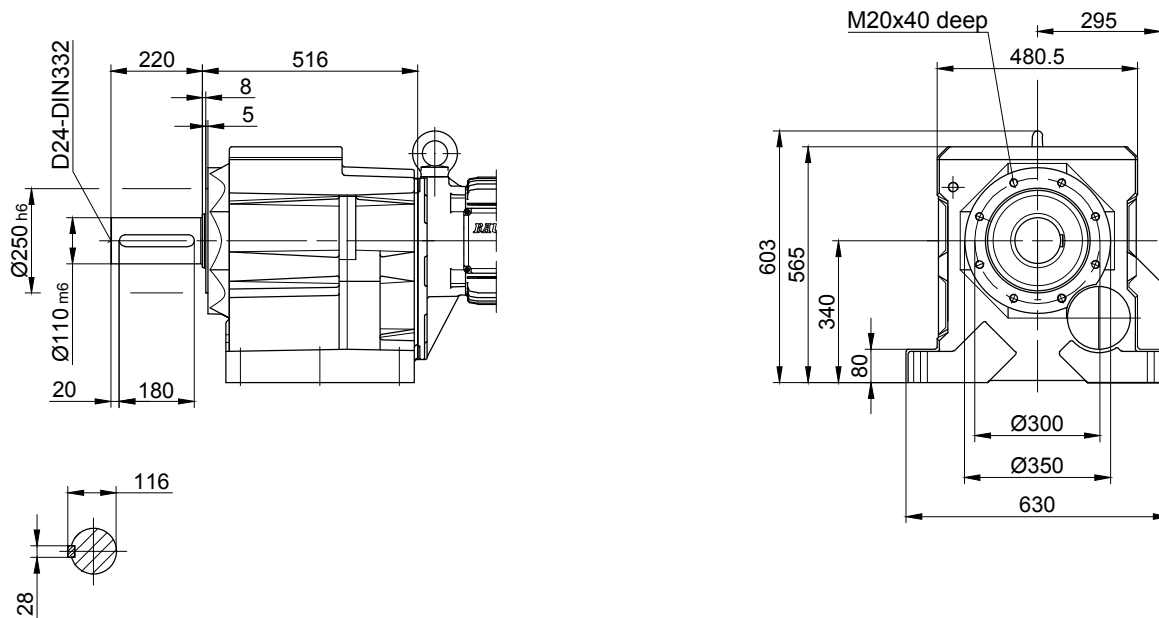
Flange with clearance holes

Code -37/
(Code -47/)



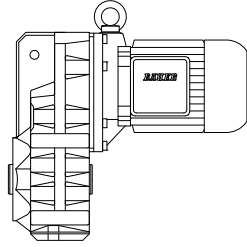
Flange with tapped holes

Code 71/



10

The actual gearbox design can vary from the geometry shown.



1 1

Page

Dimensional drawings shaft-mounted-geared motors

279-336

- **Standard** Imperial/Metric

Additional Dimension Sheet

- Splined shaft acc. DIN 5480
 - Shrink disk (SSV)
 - Shrink disk connection with cover (SSV)
 - Hole pattern side (H)
 - Rubber buffer for torque restraint
 - Assembly tools for hollow shaft
 - Assembly tools for splined shaft
 - Sealing cap (VK)
 - Sealing cover (VD)
-

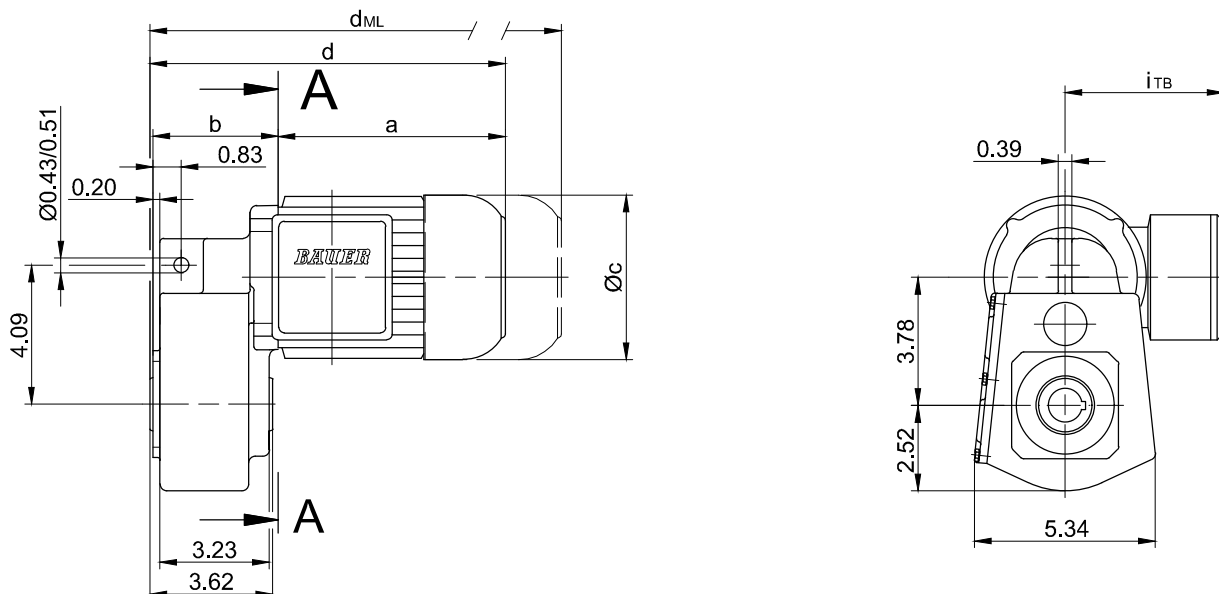
BF-series shaft-mounted geared motors

Dimension Imperial

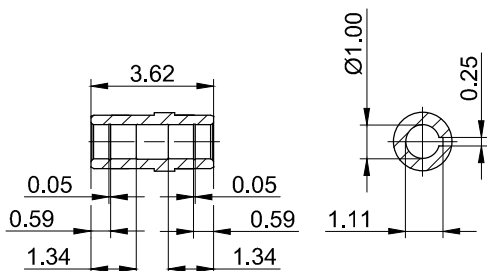
BF06

With torque arm

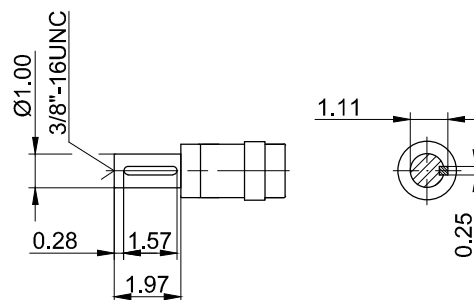
Code -0./



Code -4/



Code -1/

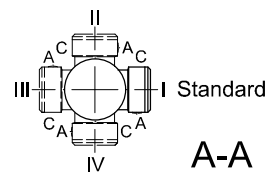


Shaft extension tolerance:

up to 1.5 in diameter: +0.000 / -0.0005 in

over 1.5 in diameter: +0.000 / -0.001 in

Flange spigot diameter: +0.0003 / -0.0015 in



A-A



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	E../ES..	G	E../ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BF06-../D05..	6.69	3.68	4.84	10.47	4.61	12.13	14.53	16.16	-
BF06-../D06..	6.69	3.68	4.84	10.47	4.69	12.13	14.53	16.16	-
BF06-../D07..	7.48	3.72	4.84	11.26	4.69	12.91	15.31	16.85	-
BF06-../D08..	7.87	5.55	6.14	13.52	5.37	16.12	17.74	20.35	16.12

The actual gearbox design can vary from the geometry shown.

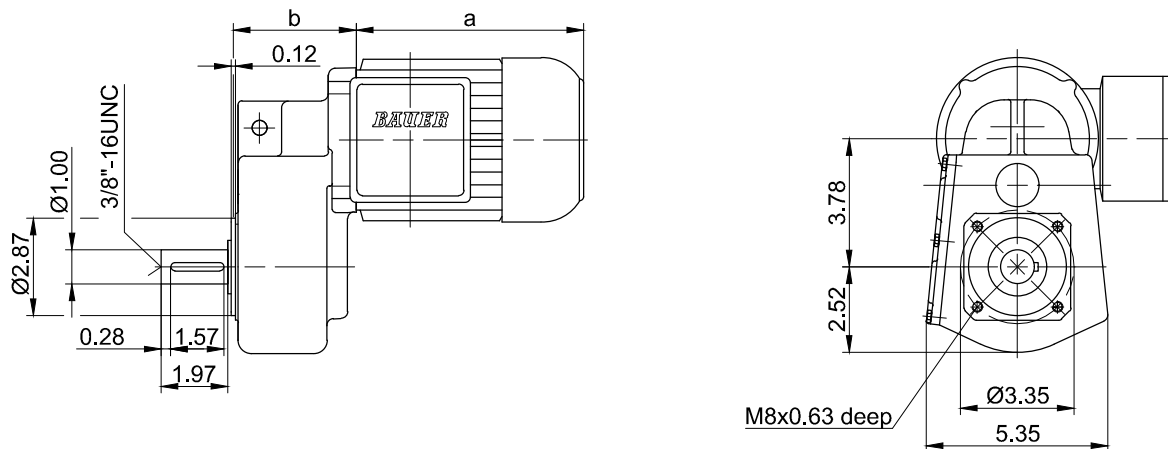
BF-series shaft-mounted geared motors

Dimension Imperial

BF06

Flange with tapped holes

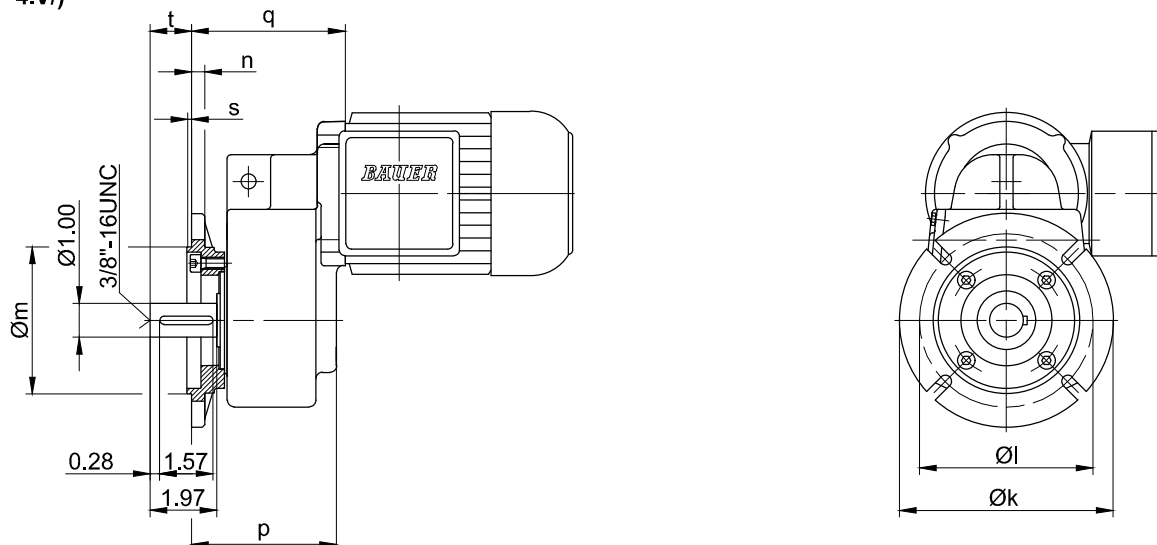
Code -7./



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./	5.512	4.528	3.740	0.394	0.354	4.272	4.528	6.417	0.118	1.240
big -4./	6.299	5.118	4.331	0.394	0.354	4.272	4.528	6.417	0.138	1.240

1) only for motor sizes D05; D06; D07

2) only at motor size D08..

The actual gearbox design can vary from the geometry shown.

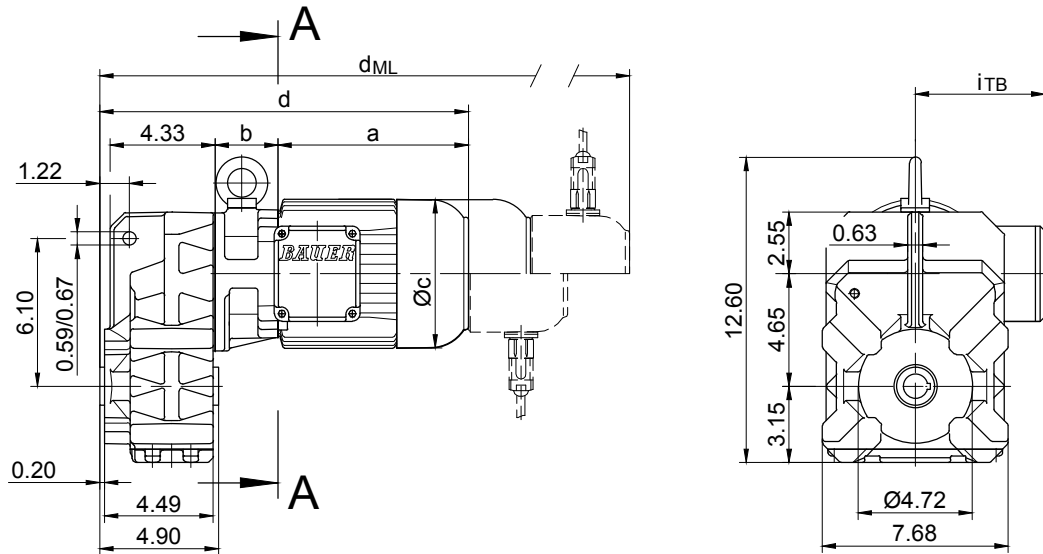
BF-series shaft-mounted geared motors

Dimension Imperial

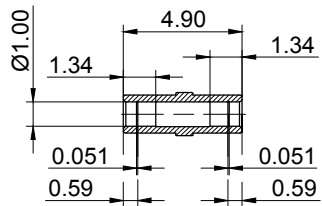
BF10 - BF10Z

With torque arm

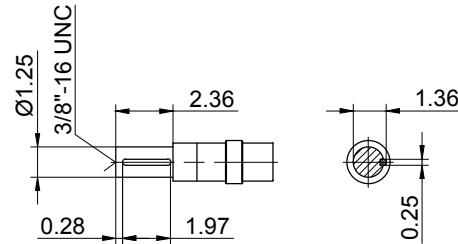
Code -0./



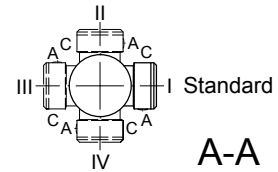
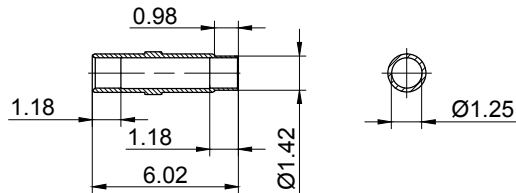
Code -4/



Code -1/



Code -5/



Shaft extension tolerance:
 up to 1.5 in diameter: +0.000 / -0.0005 in
 over 1.5 in diameter: +0.000 / -0.001 in
 Flange spigot diameter: +0.0003 / -0.0015 in

Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	E../ES..	G	E../ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BF10Z-../D04..	5.63	3.39	4.37	13.78	4.41	15.49	16.24	17.93	-
BF10-../D05..	6.69	2.44	4.84	13.90	4.61	15.55	17.95	19.59	-
BF10Z-../D05..	6.69	3.46	4.84	14.92	4.61	16.57	18.98	20.61	-
BF10-../D06..	6.69	2.44	4.84	13.90	4.69	15.59	17.95	19.59	-
BF10Z-../D06..	6.69	3.46	4.84	14.92	4.69	16.57	18.98	20.61	-
BF10-../D07..	7.48	2.44	4.84	14.69	4.69	16.34	18.74	20.37	-
BF10Z-../D07..	7.48	3.46	4.84	15.71	4.69	17.36	19.76	21.40	-
BF10-../D..08..	7.87	2.60	6.14	15.24	5.37	17.83	19.45	22.07	17.83
BF10Z-../D..08..	7.87	5.20	6.14	17.83	5.37	20.43	22.05	24.67	20.43
BF10-../D..09..	9.88	3.17	7.13	17.81	6.22	21.48	22.03	25.59	21.48



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

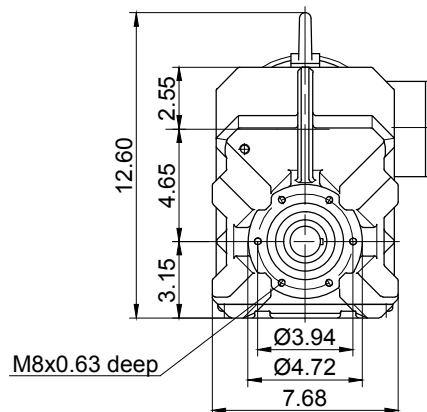
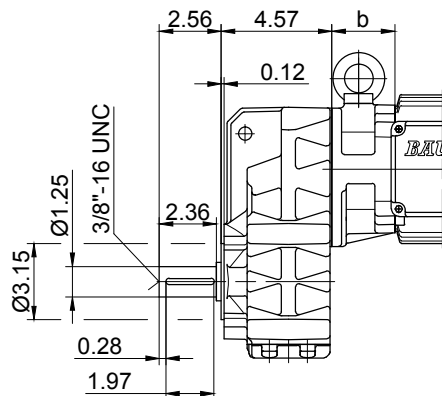
BF-series shaft-mounted geared motors

Dimension Imperial

BF10 - BF10Z

Flange with tapped holes

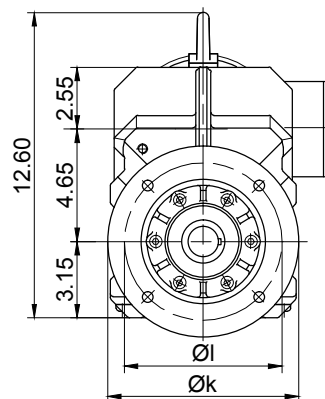
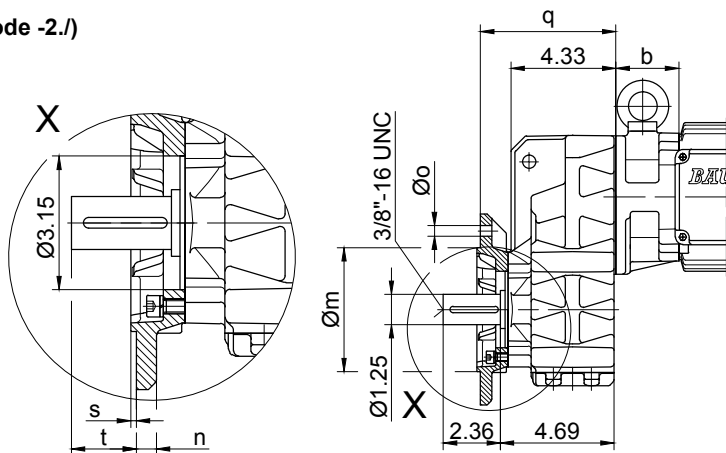
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

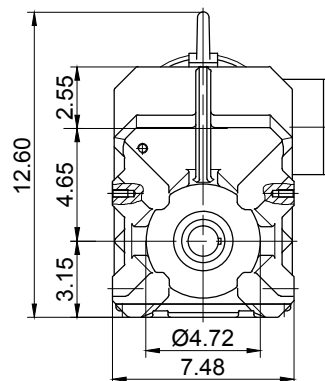
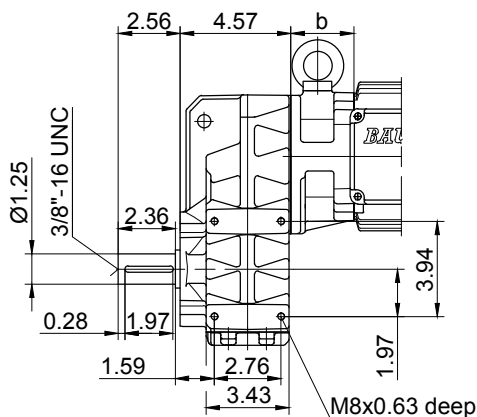


Flange dimensions

BF10(Z)	k	l	m	n	o	q	s	t
Standard -3./	7.874	6.496	5.118	0.472	0.433	5.591	0.138	1.535
small -2./	6.299	5.118	4.331	0.394	0.354	5.315	0.138	1.811

Foot with tapped holes left and right

Code -6.LR/



The actual gearbox design can vary from the geometry shown.

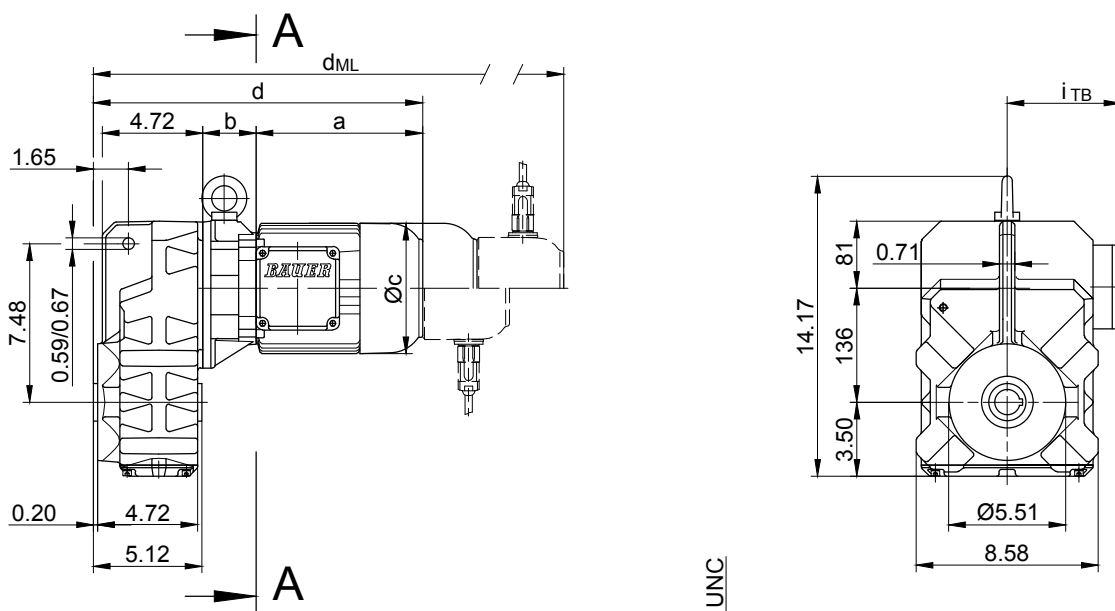
BF-series shaft-mounted geared motors

Dimension Imperial

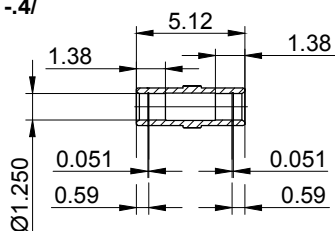
BF20 - BF20Z

With torque arm

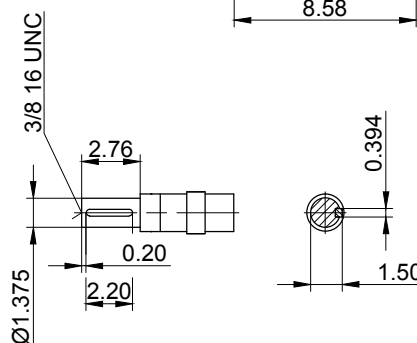
Code -0./



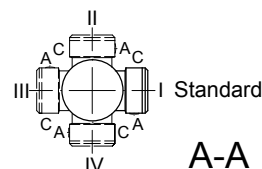
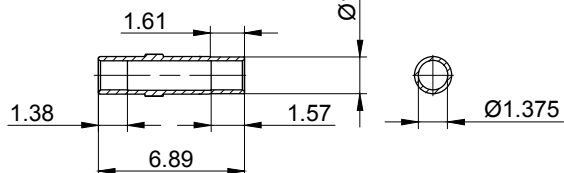
Code -4/



Code -1/



Code -5/



Shaft extension tolerance:

up to 1.5 in diameter: +0.000 / -0.0005 in

over 1.5 in diameter: +0.000 / -0.001 in

Flange spigot diameter: +0.0003 / -0.0015 in

Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	E./ES..	G	E./ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BF20Z-../D04..	5.63	3.94	4.37	14.72	4.41	16.44	17.19	18.88	-
BF20-../D05..	6.69	2.36	4.84	14.21	4.61	15.87	18.37	19.90	-
BF20Z-../D05..	6.69	4.02	4.84	15.87	4.61	17.52	19.92	21.56	-
BF20-../D06..	6.69	2.36	4.84	14.21	4.69	15.87	18.27	19.90	-
BF20Z-../D06..	6.69	4.02	4.84	15.87	4.69	17.52	19.92	21.56	-
BF20-../D07..	7.48	2.36	4.84	15.00	4.69	16.65	19.06	20.69	-
BF20Z-../D07..	7.48	4.02	4.84	16.65	4.69	18.31	20.71	22.34	-
BF20-../D..08..	7.87	2.52	6.14	15.55	5.37	18.15	19.76	22.38	18.15
BF20Z-../D..08..	7.87	5.75	6.14	18.78	5.37	21.38	22.99	25.61	21.38
BF20-../D..09..	9.88	3.09	7.13	18.13	6.22	21.79	22.34	25.91	21.79



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

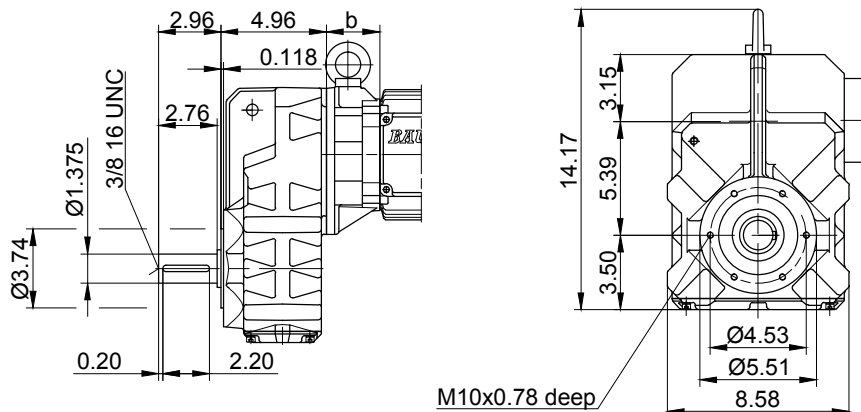
BF-series shaft-mounted geared motors

Dimension Imperial

BF20 - BF20Z

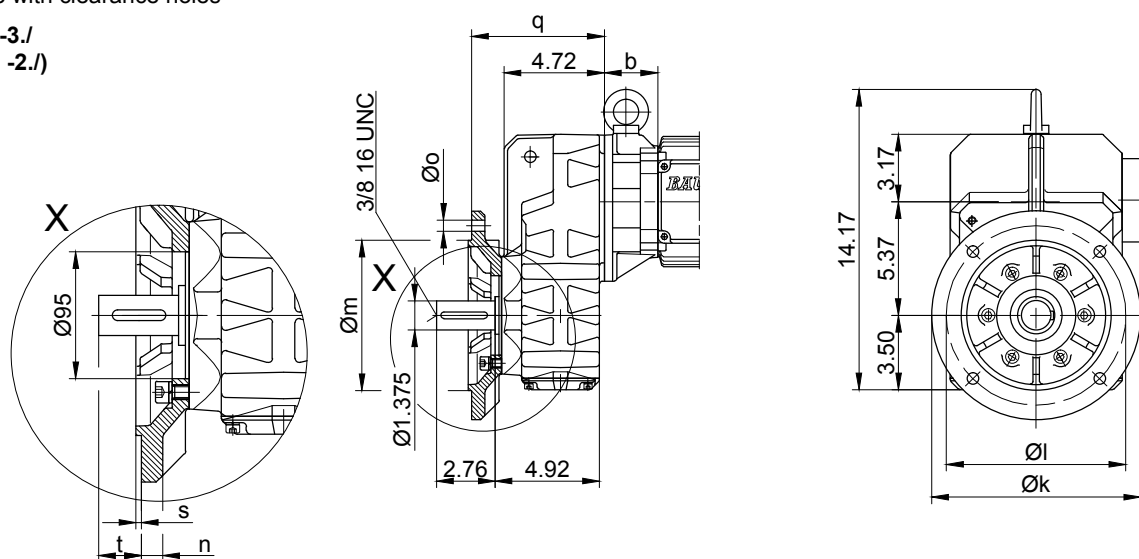
Flange with tapped holes

Code -7./



Flange with clearance holes

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

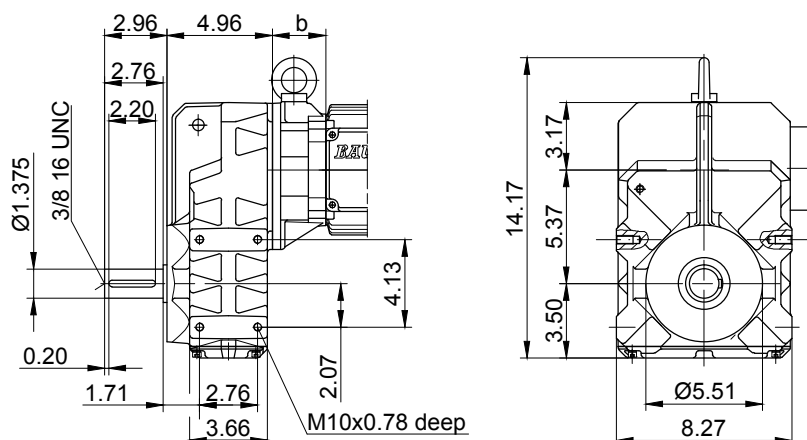


Flange dimensions

BF20(Z)	k	l	m	n	o	q	s	t
Standard -3./	9.843	8.465	7.087	0.630	0.532	6.260	0.157	1.654
small -2./	7.874	6.496	5.118	0.472	0.433	5.906	0.138	2.008

Foot with tapped holes left and right

Code -6.LR/



The actual gearbox design can vary from the geometry shown.

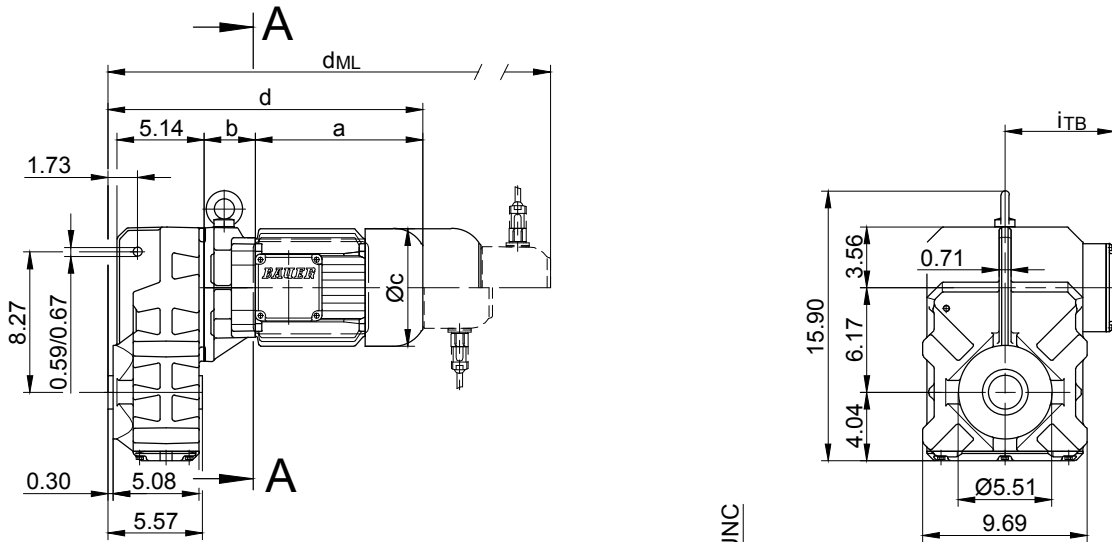
BF-series shaft-mounted geared motors

Dimension Imperial

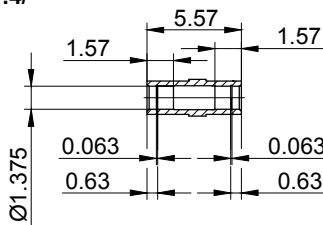
BF30 - BF30Z

With torque arm

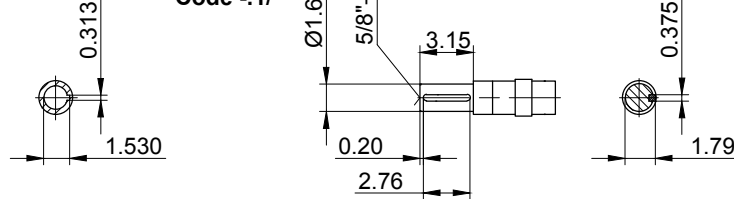
Code -0./



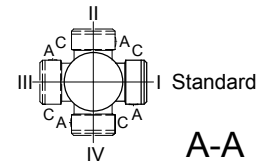
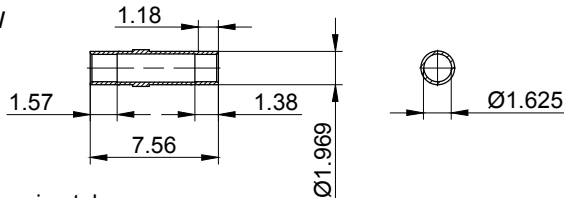
Code -4/



Code -1/



Code -5/



Shaft extension tolerance:

up to 1.5 in diameter: +0.000 / -0.0005 in

over 1.5 in diameter: +0.000 / -0.001 in

Flange spigot diameter: +0.0003 / -0.0015 in

Type	a*	b	c	d*	i _{TB}	Design with motor extensions			
						E./ES..	G	E./ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BF30-../D05..	6.69	2.28	4.84	14.65	4.61	16.30	18.70	20.33	-
BF30Z-../D05..	6.69	5.26	4.84	17.62	4.61	19.27	21.67	23.31	-
BF30-../D06..	6.69	2.28	4.84	14.65	4.69	16.30	18.70	20.33	-
BF30Z-../D06..	6.69	5.26	4.84	17.64	4.69	19.27	21.67	23.31	-
BF30-../D07..	7.48	2.28	4.84	15.43	4.69	17.09	19.49	21.12	-
BF30Z-../D07..	7.48	5.26	4.84	18.41	4.69	20.06	22.46	24.09	-
BF30-../D..08..	7.87	2.44	6.14	15.98	5.37	18.58	20.20	22.81	18.58
BF30Z-../D..08..	7.87	5.41	6.14	18.96	5.37	21.56	23.17	25.77	21.56
BF30-../D..09..	9.88	3.01	7.13	18.56	6.22	22.22	22.78	26.34	22.22
BF30Z-../D..09..	9.88	5.98	7.13	21.54	6.22	25.20	25.75	29.31	25.20
BF30-../D..11..	12.56	3.27	8.98	21.50	7.17	25.35	25.71	29.47	25.35



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

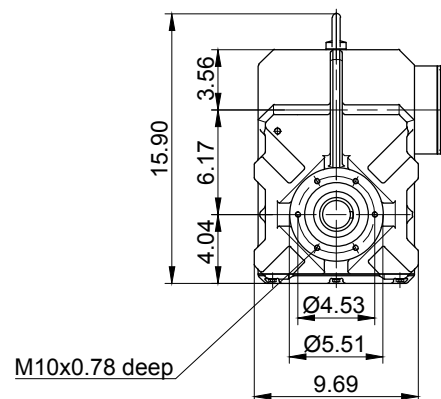
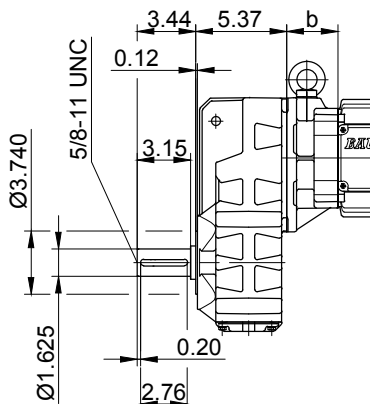
BF-series shaft-mounted geared motors

Dimension Imperial

BF30 - BF30Z

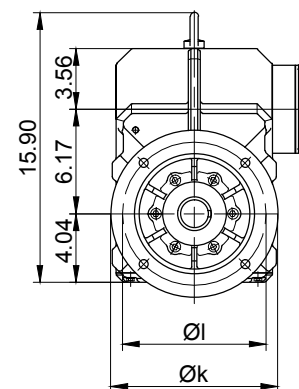
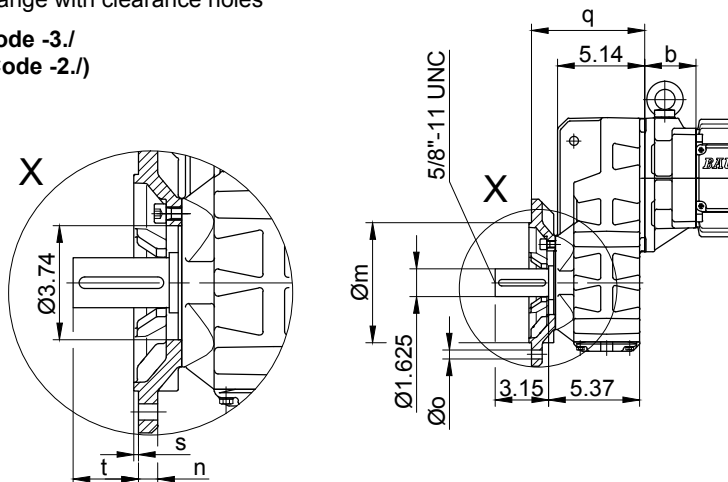
Flange with tapped holes

Code -7./



Flange with clearance holes

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

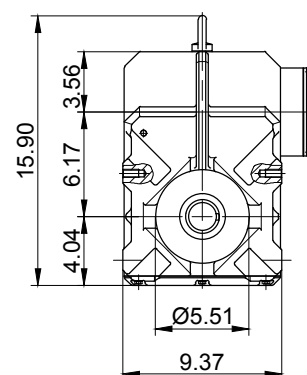
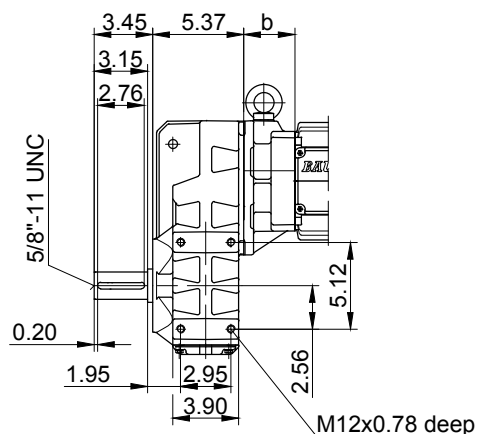


Flange dimensions

BF30(Z)	k	l	m	n	o	q	s	t
Standard -3./	9.843	8.465	7.087	0.630	0.532	6.673	0.157	2.146
small -2./	7.874	6.496	5.118	0.472	0.433	6.319	0.138	2.500

Foot with tapped holes left and right

Code -6.LR/



The actual gearbox design can vary from the geometry shown.

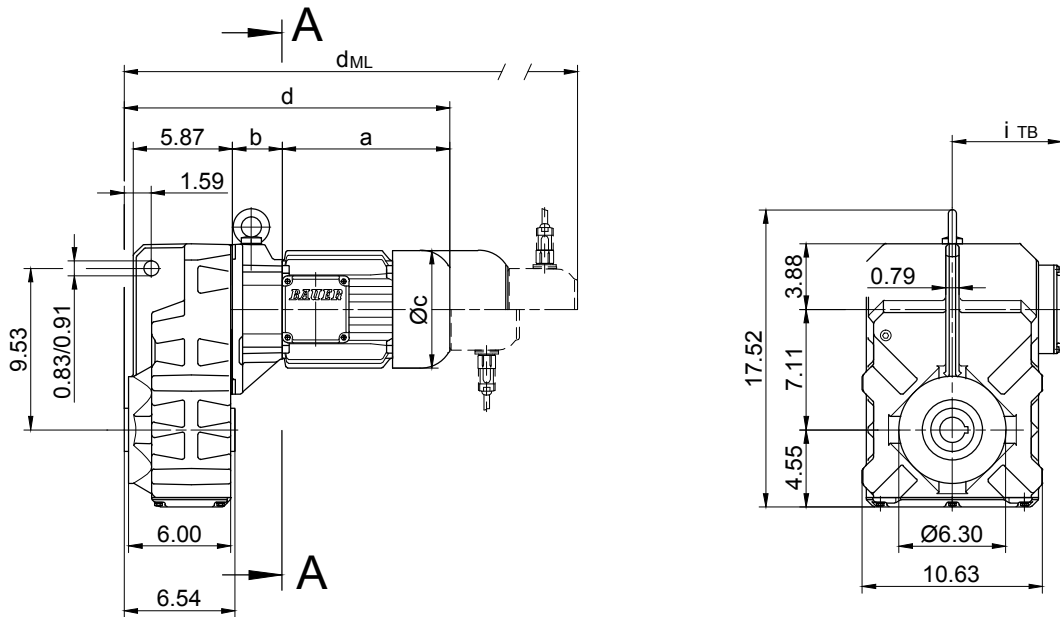
BF-series shaft-mounted geared motors

Dimension Imperial

BF40 - BF40Z

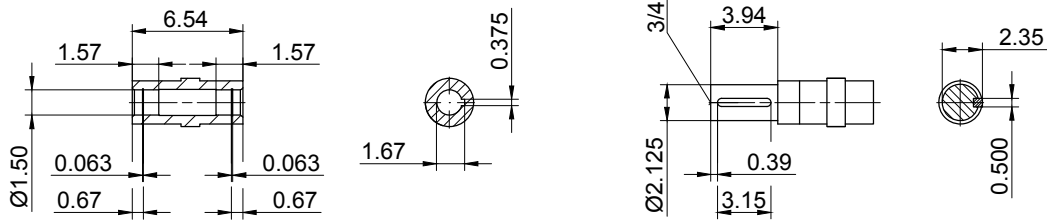
With torque arm

Code -0./

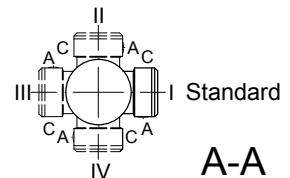
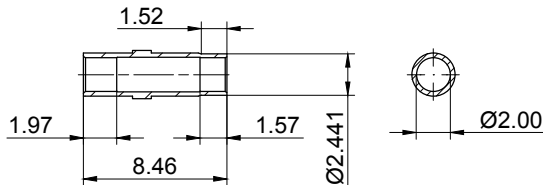


Code -4/

Code -1/



Code -5/



Shaft extension tolerance:

up to 1.5 in diameter: +0.000 / -0.0005 in

over 1.5 in diameter: +0.000 / -0.001 in

Flange spigot diameter: +0.0003 / -0.0015 in

Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	E./ES..	G	E./ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BF40Z-../D05..	6.69	5.45	4.84	18.54	4.61	20.20	22.60	24.23	-
BF40Z-../D06..	6.69	5.45	4.84	18.54	4.69	20.20	22.60	24.23	-
BF40Z-../D07..	7.48	5.45	4.84	19.33	4.69	20.98	23.39	25.02	-
BF40-../D..08..	7.87	2.36	6.14	16.63	5.37	19.23	20.82	23.43	19.23
BF40Z-../D..08..	7.87	5.61	6.14	19.88	5.37	22.48	24.09	26.71	22.48
BF40-../D..09..	9.88	2.93	7.13	19.21	6.22	22.87	23.43	26.99	22.87
BF40Z-../D..09..	9.88	6.18	7.13	22.46	6.22	26.12	26.67	30.24	26.12
BF40-../D..11..	12.56	3.19	8.98	22.15	7.17	26.00	26.36	30.12	26.00



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

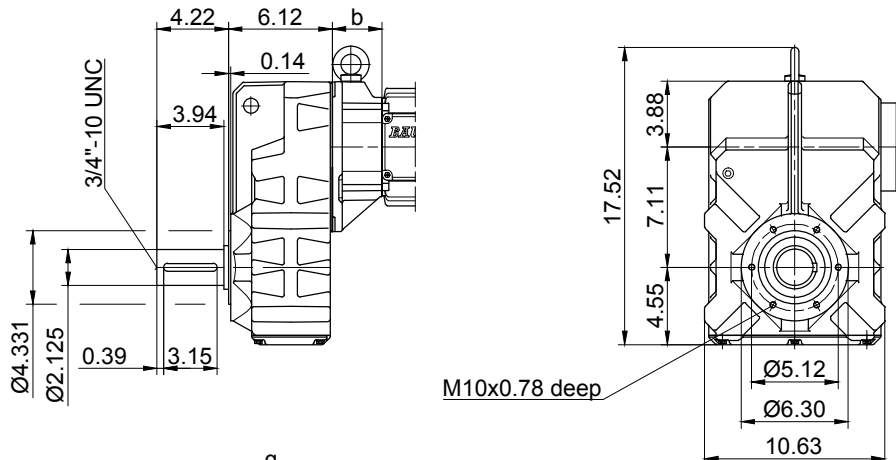
BF-series shaft-mounted geared motors

Dimension Imperial

BF40 - BF40Z

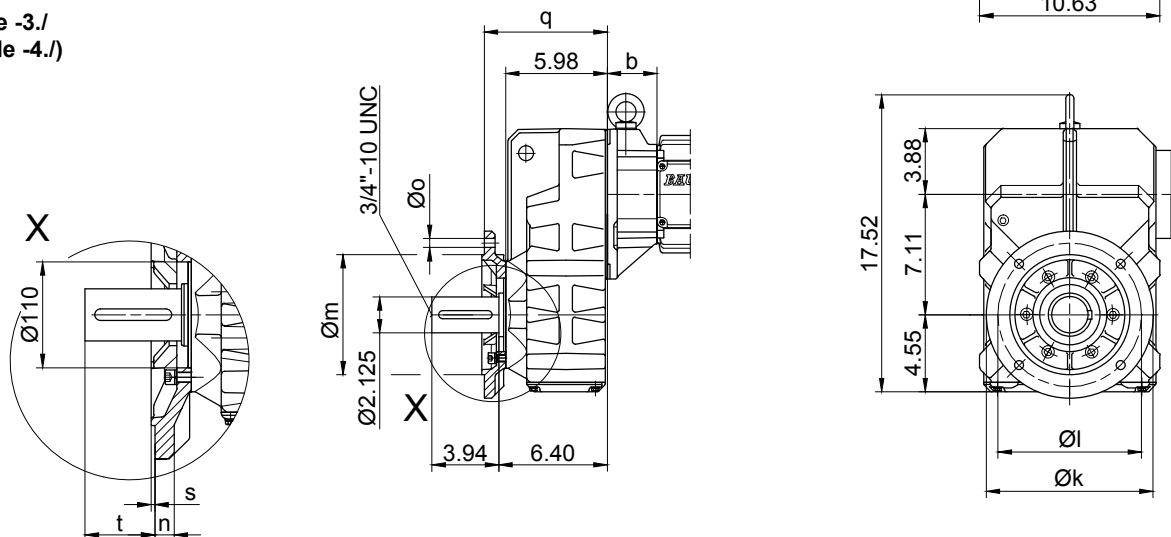
Flange with tapped holes

Code -7./



Flange with clearance holes

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

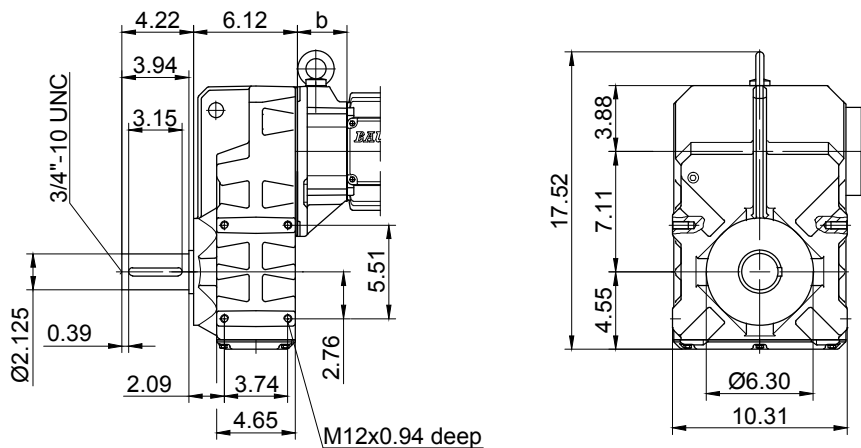


Flange dimensions

BF40(Z)	k	l	m	n	o	q	s	t
Standard -3./	9.843	8.465	7.087	0.630	0.532	7.244	0.157	3.091
big -4./	11.811	10.433	9.055	0.787	0.532	7.480	0.157	2.854

Foot with tapped holes left and right

Code -6.LR/



The actual gearbox design can vary from the geometry shown.

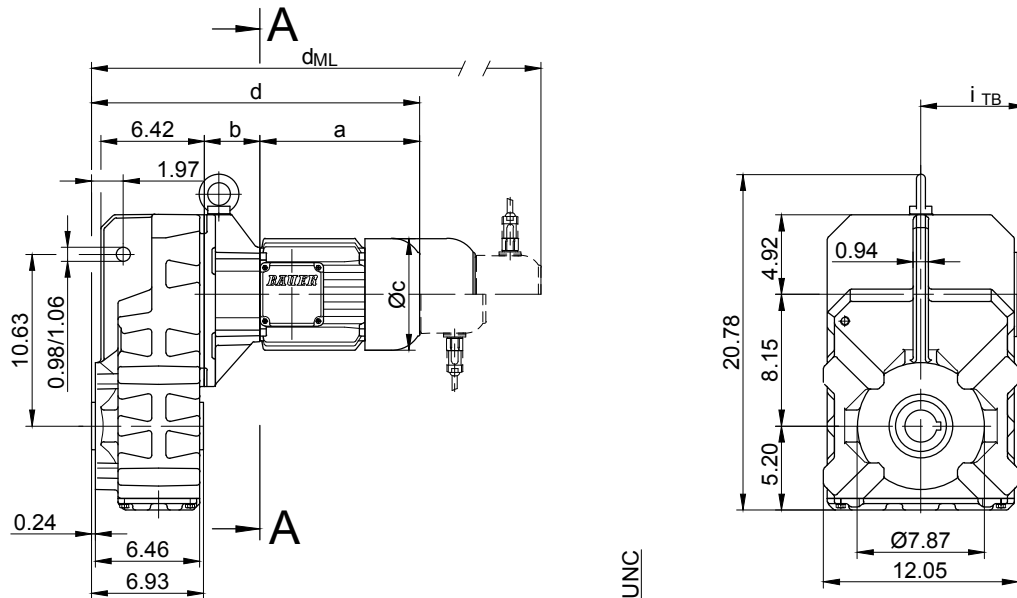
BF-series shaft-mounted geared motors

Dimension Imperial

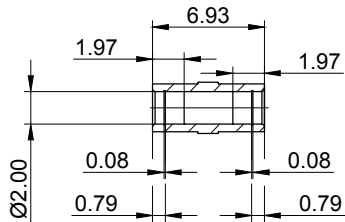
BF50 - BF50Z

With torque arm

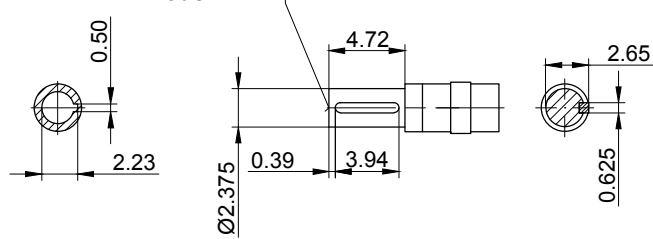
Code -0./



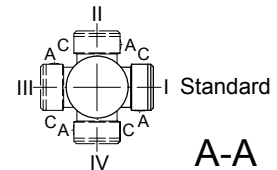
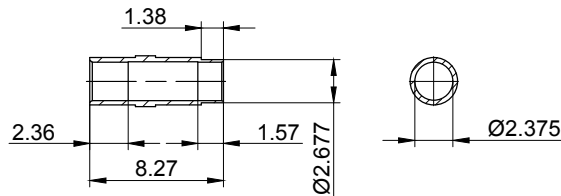
Code -.4/



Code -.1/



Code -.5/



Type	a*	b	c	d*	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..	6.69	6.10	4.84	19.78	4.61	21.44	23.84	25.47	-
BF50Z-../D06..	6.69	6.10	4.84	19.78	4.69	21.44	23.84	25.47	-
BF50Z-../D07..	7.48	6.10	4.84	20.57	4.69	22.22	24.63	26.26	-
BF50-../D..08..	7.87	2.87	6.14	17.74	5.37	20.33	21.95	24.57	20.33
BF50Z-../D..08..	7.87	6.26	6.14	21.12	5.37	23.72	25.33	27.95	23.72
BF50-../D..09..	9.88	3.44	7.13	20.31	6.22	23.98	24.53	28.09	23.98
BF50Z-../D..09..	9.88	6.83	7.13	23.70	6.22	27.36	27.91	31.48	27.36
BF50-../D..11..	12.56	3.70	8.98	23.25	6.97	27.11	27.46	31.22	27.11
BF50-../D..13..	15.47	4.21	10.16	26.67	8.58	31.04	30.89	35.16	31.04
BF50-../D..16..	17.89	4.76	12.21	29.65	9.61	35.30	33.86	39.39	35.30
BF50-../D..18..	21.34	5.63	13.70	33.96	11.34	39.84	38.17	43.92	39.84



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

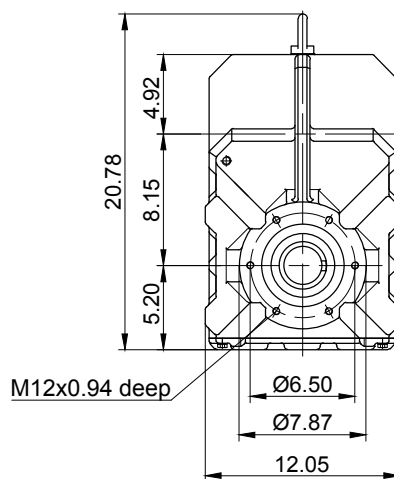
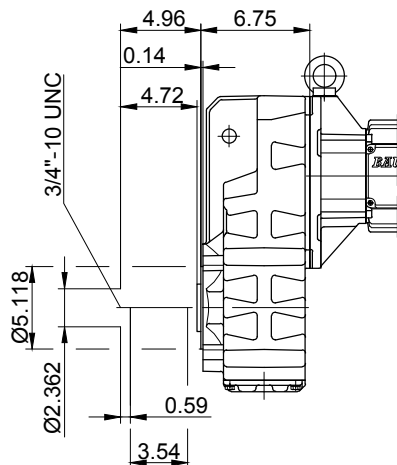
BF-series shaft-mounted geared motors

Dimension Imperial

BF50 - BF50Z

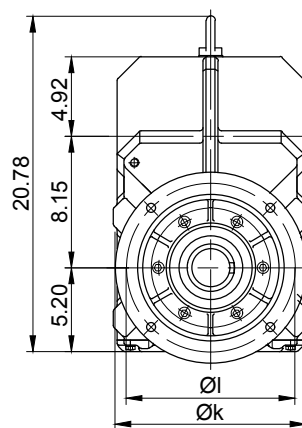
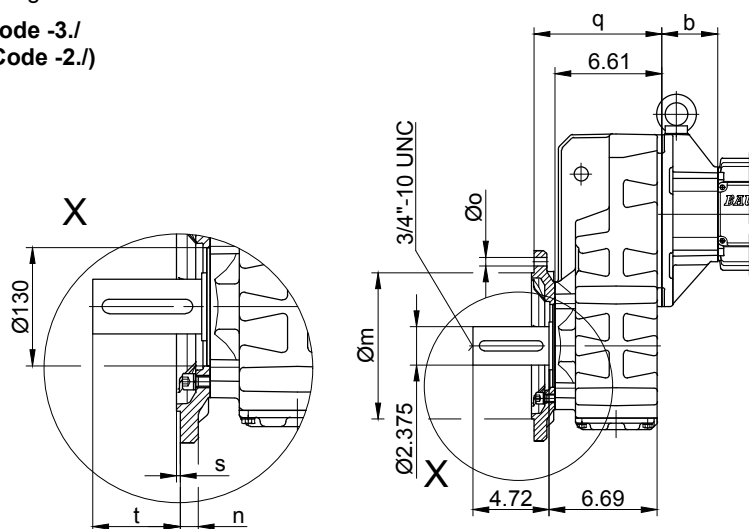
Flange with tapped holes

Code -7./



Flange with clearance holes

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

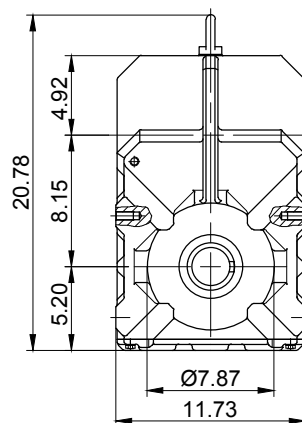
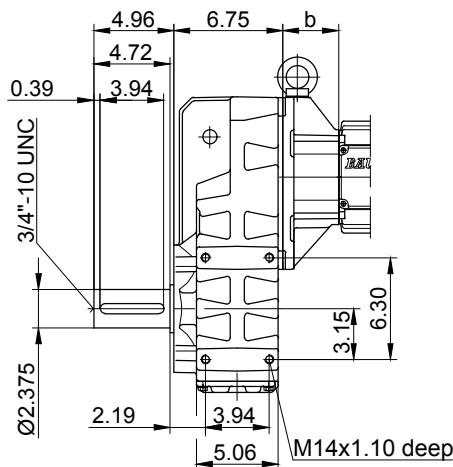


Flange dimensions

BF50(Z)	k	l	m	n	o	q	s	t
Standard -3./	11.811	10.433	9.055	0.787	0.532	7.913	0.157	3.799
small -2./	9.843	8.465	7.087	0.630	0.532	7.795	0.157	3.917

Foot with tapped holes left and right

Code -6.LR/



The actual gearbox design can vary from the geometry shown.

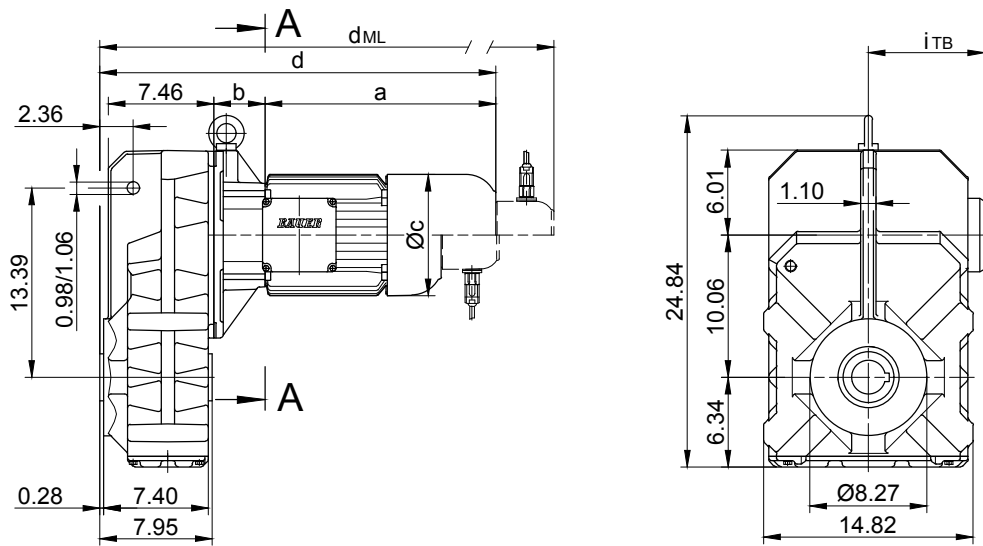
BF-series shaft-mounted geared motors

Dimension Imperial

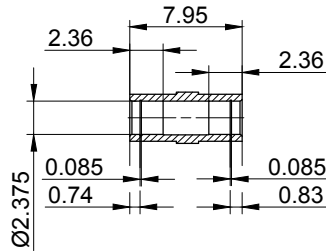
BF60 - BF60Z

With torque arm

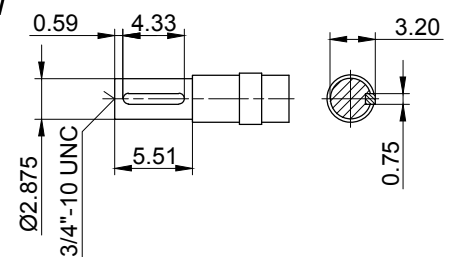
Code -0./



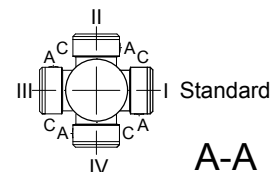
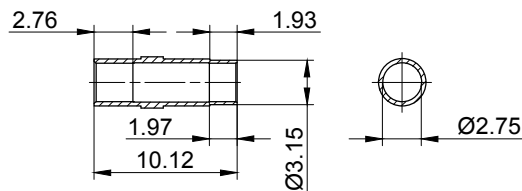
Code -4/



Code -1/



Code -5/



Shaft extension tolerance:
 up to 1.5 in diameter: +0.000 / -0.0005 in
 over 1.5 in diameter: +0.000 / -0.001 in
 Flange spigot diameter: +0.0003 / -0.0015 in

Type	a*	b	c	d*	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..	7.87	7.13	6.14	23.07	5.37	25.67	27.28	29.90	25.67
BF60-../D..09..	9.88	3.37	7.13	21.32	6.22	24.98	25.53	29.09	24.98
BF60Z-../D..09..	9.88	7.70	7.13	25.65	6.22	29.31	29.86	33.43	29.31
BF60-../D..11..	12.56	3.62	8.98	24.25	7.17	28.11	28.46	32.22	28.11
BF60Z-../D..11..	12.56	7.95	8.98	28.58	7.17	32.44	32.80	36.56	32.44
BF60-../D..13..	15.47	4.13	10.16	27.68	8.54	32.05	31.89	36.16	32.05
BF60-../D..16..	17.89	4.69	12.21	30.65	9.57	36.30	34.86	40.39	36.30
BF60-../D..18..	21.34	5.55	13.70	34.96	11.34	40.85	39.17	44.94	40.85



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

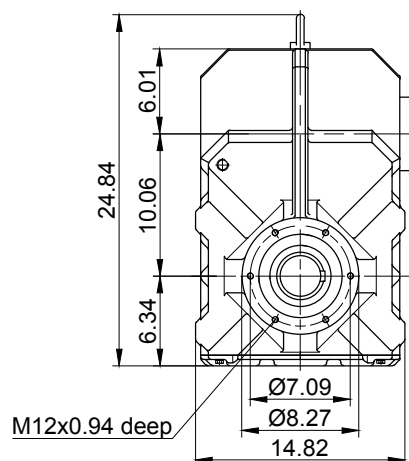
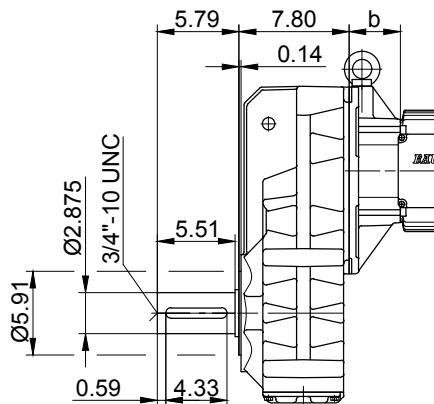
BF-series shaft-mounted geared motors

Dimension Imperial

BF60 - BF60Z

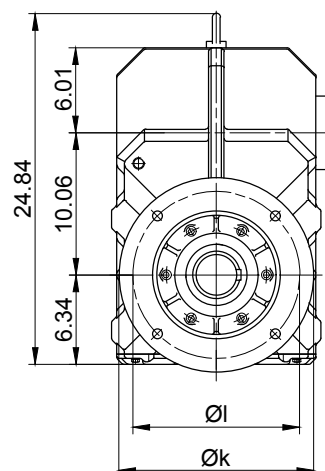
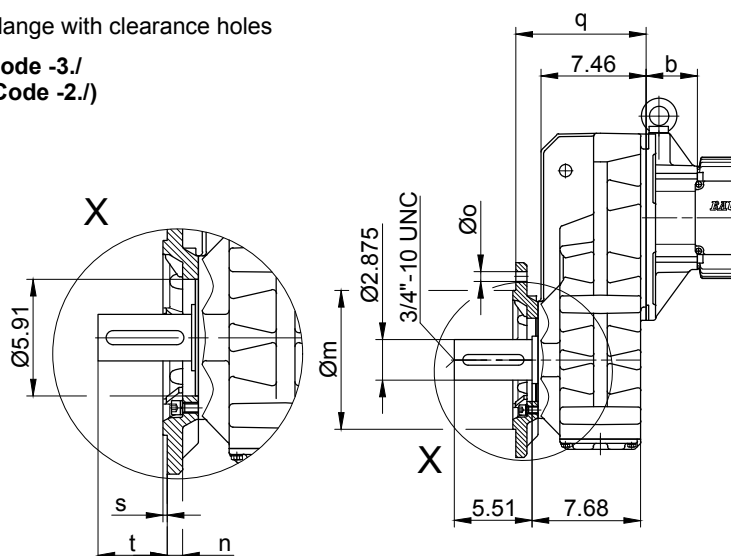
Flange with tapped holes

Code -7./



Flange with clearance holes

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

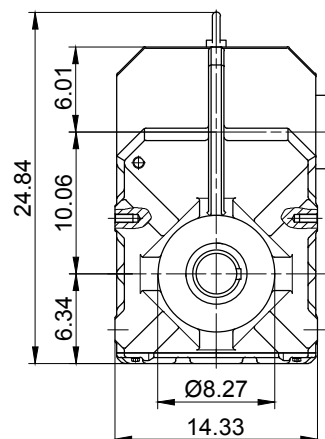
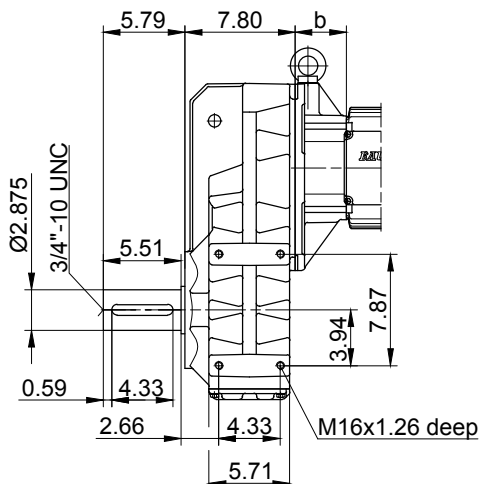


Flange dimensions

BF60(Z)	k	l	m	n	o	q	s	t
Standard -3./	13.780	11.811	9.843	0.787	0.689	9.232	0.197	4.350
small -2./	11.811	10.433	9.055	0.787	0.532	9.547	0.157	4.035

Foot with tapped holes left and right

Code -6.LR/



The actual gearbox design can vary from the geometry shown.

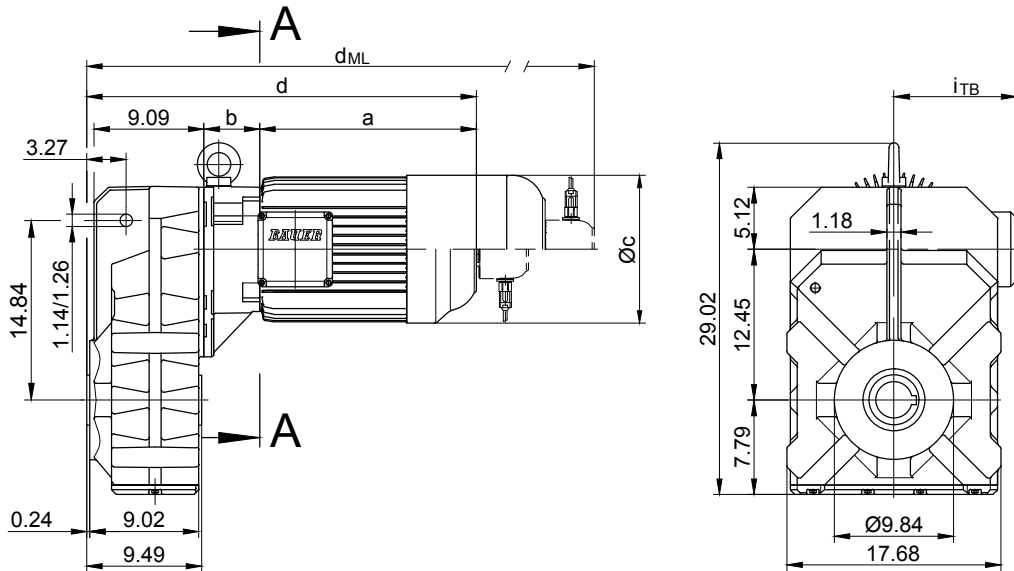
BF-series shaft-mounted geared motors

Dimension Imperial

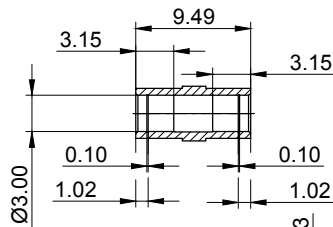
BF70 - BF70Z

With torque arm

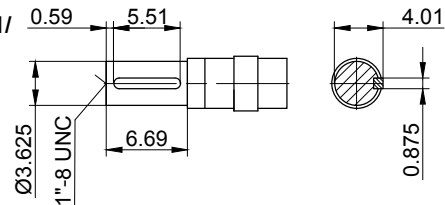
Code -0/



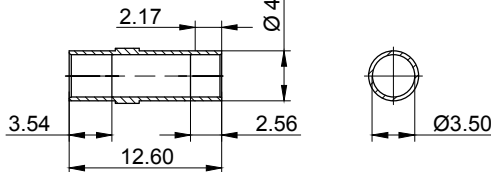
Code -4/



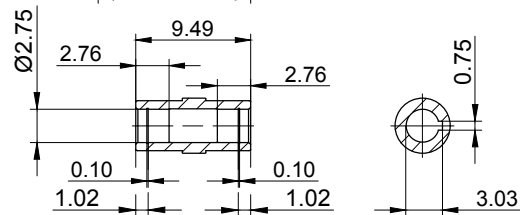
Code -1/



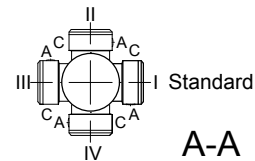
Code -5/



Code -4/K70



Shaft extension tolerance:
 up to 1.5 in diameter: +0.000 / -0.0005 in
 over 1.5 in diameter: +0.000 / -0.001 in
 Flange spigot diameter: +0.0003 / -0.0015 in



Type	a*	b	c	d*	i _{TB}	Design with motor extensions			
						ES../ZS..	G	ES../ZS..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BF70Z-../D..08..	7.87	7.95	6.14	25.51	5.37	28.11	29.72	32.34	28.11
BF70-../D..09..	9.88	3.29	7.13	22.85	6.22	26.52	27.07	30.63	26.52
BF70Z-../D..09..	9.88	8.52	7.13	28.09	6.22	31.75	32.30	35.87	31.75
BF70-../D..11..	12.56	3.54	8.98	25.79	7.17	29.65	30.00	33.76	29.65
BF70Z-../D..11..	12.56	8.78	8.98	31.02	7.17	34.88	35.24	39.00	34.88
BF70-../D..13..	15.47	4.06	10.16	29.21	8.54	33.58	33.43	37.70	33.58
BF70Z-../D..13..	15.47	9.29	10.16	34.45	8.54	38.82	38.66	42.93	38.82
BF70-../D..16..	17.89	4.61	12.21	32.19	9.57	37.83	36.40	41.91	37.83
BF70Z-../D..16..	17.89	9.84	12.21	37.42	9.57	43.07	41.63	47.17	43.07
BF70-../D..18..	21.34	5.47	13.70	36.50	11.34	42.38	40.71	46.48	42.38
BF70Z-../D..18..	21.34	10.71	13.70	41.73	11.34	47.62	45.94	51.71	47.62
BF70-../D..20L	25.33	6.14	14.29	41.16	11.95	46.18	45.33	50.35	46.18
BF70-../D..22S	27.70	6.14	14.29	43.52	11.95	48.54	47.70	52.72	48.54



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

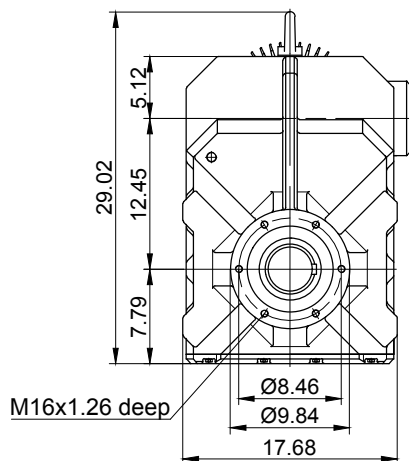
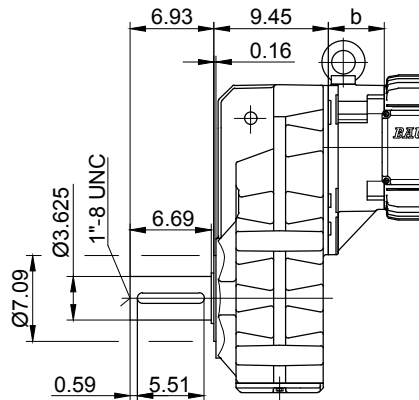
Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

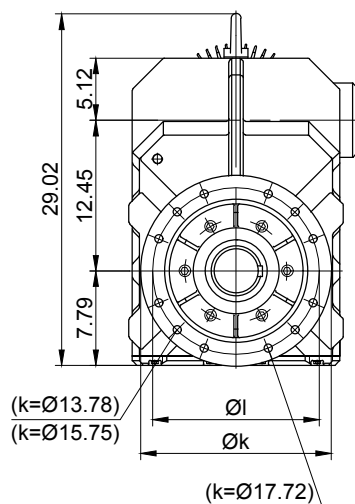
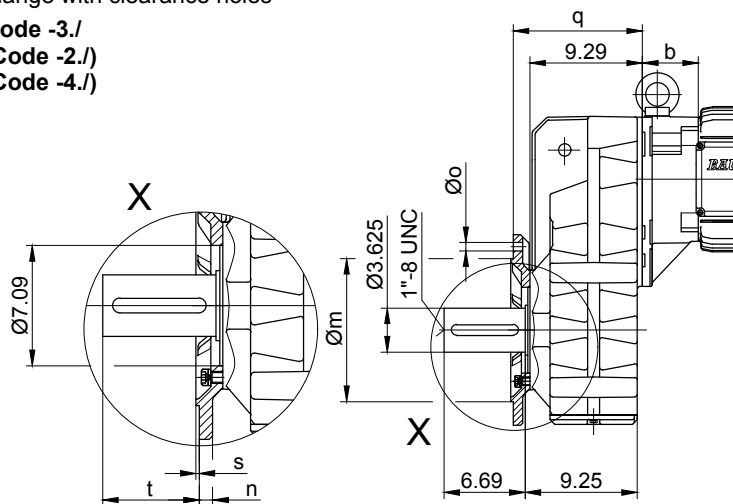
Dimension Imperial

BF70 - BF70Z



Flange with clearance holes

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

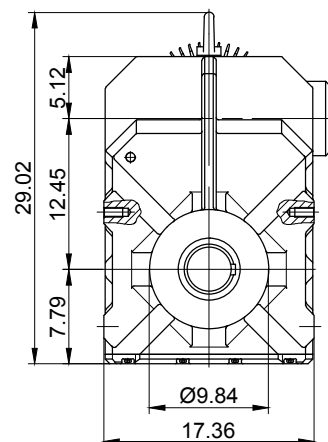
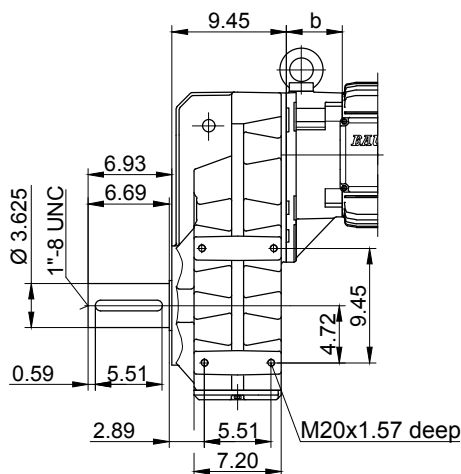


Flange dimensions

BF70(Z)	k	l	m	n	o	q	s	t
Standard -3./	15.748	13.780	11.811	0.787	4xØ0.714	10.669	0.197	6.102
small -2./	13.780	11.811	9.843	0.787	4xØ0.714	10.669	0.197	6.102
big -4./	17.717	15.748	13.780	0.866	8xØ0.714	11.063	0.197	5.709

Foot with tapped holes left and right

Code -6.LR/



The actual gearbox design can vary from the geometry shown.

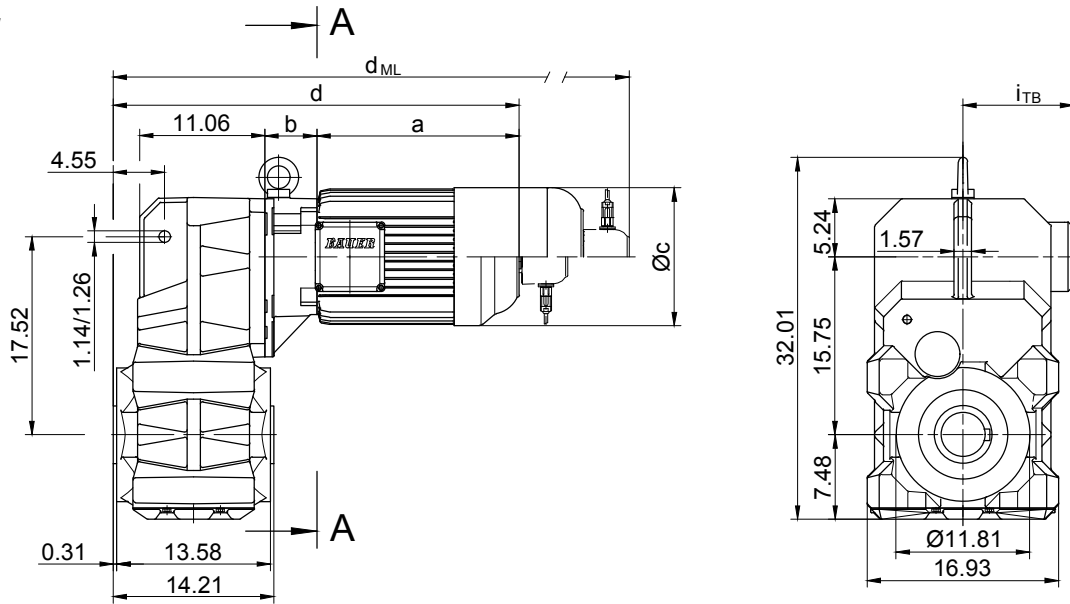
BF-series shaft-mounted geared motors

Dimension Imperial

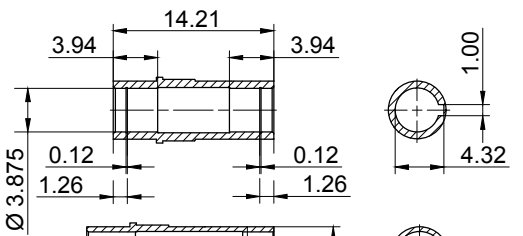
BF80 - BF80Z

With torque arm

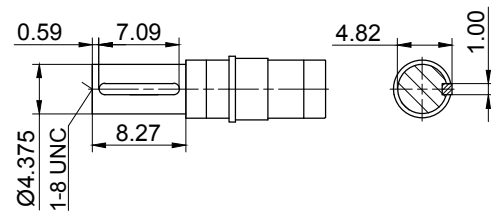
Code -0./



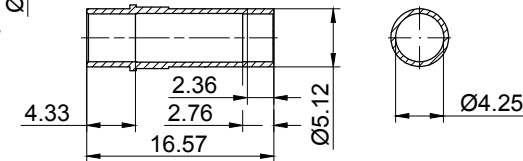
Code -4/



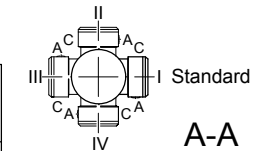
Code -1/



Code -5/



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in



Type	a*	b	c	d*	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..	7.87	7.95	6.14	29.23	5.37	31.83	33.44	36.06	31.83
BF80-../D..09..	9.88	3.29	7.13	26.57	6.22	30.24	30.79	34.35	30.24
BF80Z-../D..09..	9.88	8.52	7.13	31.81	6.22	35.47	36.02	39.59	35.47
BF80-../D..11..	12.56	3.54	8.98	29.51	7.17	33.37	33.72	37.48	33.37
BF80Z-../D..11..	12.56	8.78	8.98	34.74	7.17	38.60	38.96	42.72	38.60
BF80-../D..13..	15.47	4.06	10.16	32.93	8.54	37.30	37.15	41.42	37.30
BF80Z-../D..13..	15.47	9.29	10.16	38.17	8.54	42.54	42.38	46.65	42.54
BF80-../D..16..	17.89	4.61	12.21	35.91	9.57	41.56	40.12	45.65	41.56
BF80Z-../D..16..	17.89	9.84	12.21	41.14	9.57	46.79	45.35	50.89	46.79
BF80-../D..18..	21.34	5.47	13.70	40.22	11.34	46.10	44.43	50.20	46.10
BF80Z-../D..18..	21.34	10.71	13.70	45.45	11.34	51.34	49.67	55.43	51.34
BF80-../D..20L	25.33	6.02	14.29	44.76	11.95	49.76	48.94	53.96	49.76
BF80-../D..22S	27.70	6.02	14.29	47.13	11.95	52.13	51.30	56.32	52.13
BF80-../D..22M	27.70	6.02	14.29	47.13	11.95	52.13	51.30	56.32	52.13



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

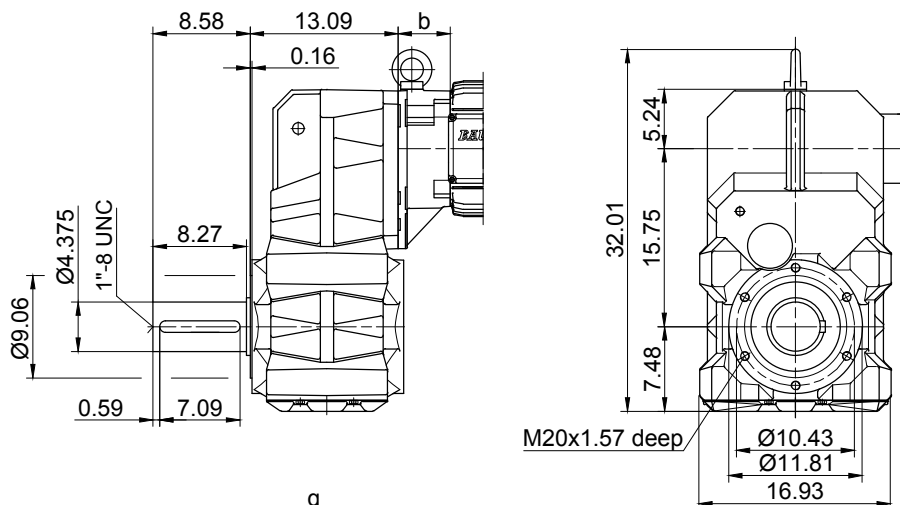
BF-series shaft-mounted geared motors

Dimension Imperial

BF80 - BF80Z

Flange with tapped holes

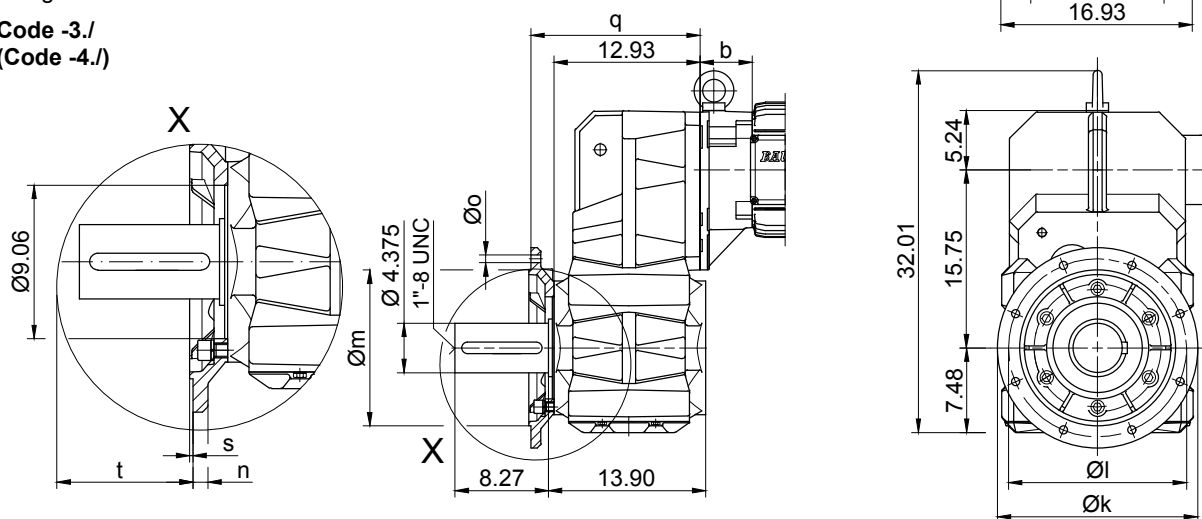
Code -7./



Flange with clearance holes

Code -3./

(Code -4./)

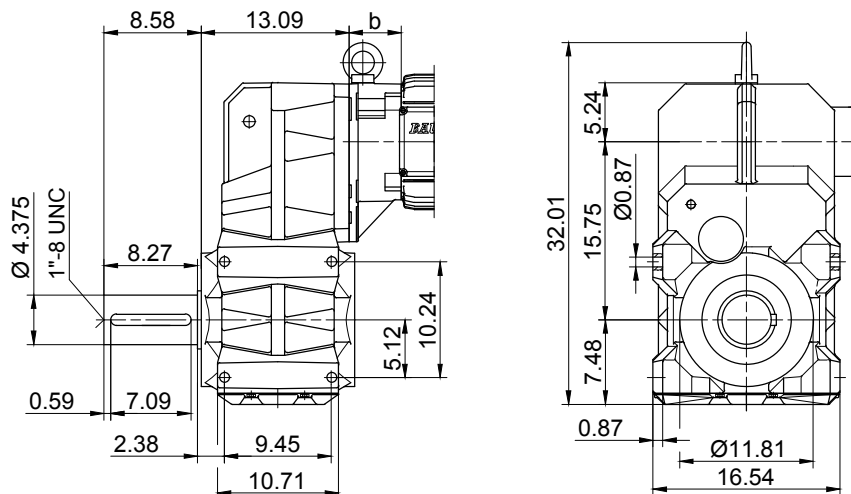


Flange dimensions

BF80(Z)	k	l	m	n	o	q	s	t
Standard -3./	17.717	15.748	13.780	0.866	0.689	15.098	0.197	6.969
big -4./	21.654	19.685	17.717	0.866	0.689	15.295	0.197	6.772

Foot with clearance holes left and right

Code -1.LR/



The actual gearbox design can vary from the geometry shown.

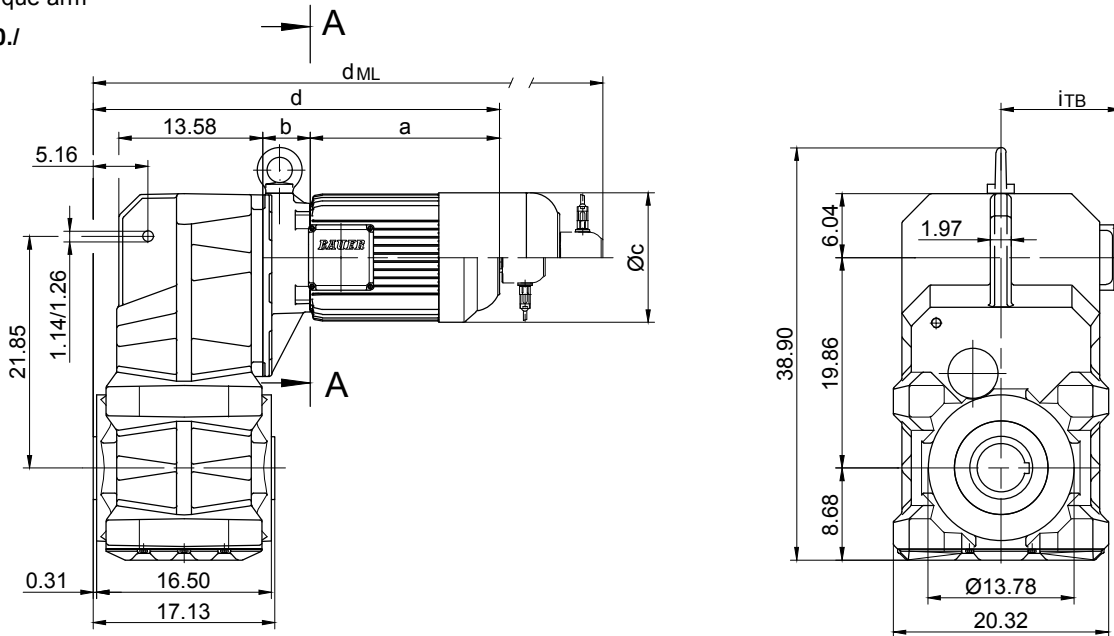
BF-series shaft-mounted geared motors

Dimension Imperial

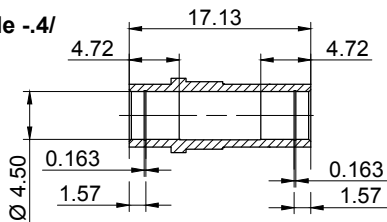
BF90 - BF90Z

With torque arm

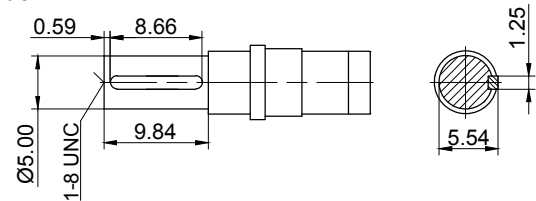
Code -0./



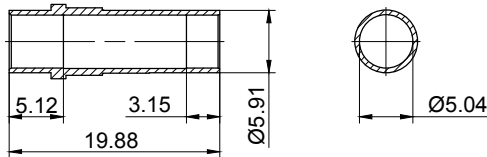
Code -4/



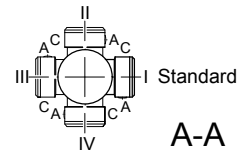
Code -1/



Code -5/



Shaft extension tolerance:
 up to 1.5 in diameter: +0.000 / -0.0005 in
 over 1.5 in diameter: +0.000 / -0.001 in
 Flange spigot diameter: +0.0003 / -0.0015 in



Type	a*	b	c	d*	i _{TB}	Design with motor extensions			
						ES../ZS..	G	ES../ZS..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BF90Z-../D..09..	9.88	9.94	7.13	35.81	6.22	39.47	40.02	43.58	39.47
BF90-../D..11..	12.56	3.43	8.98	31.97	7.17	35.83	36.18	39.94	35.83
BF90Z-../D..11..	12.56	10.20	8.98	38.74	7.17	42.60	42.95	46.71	42.60
BF90-../D..13..	15.47	3.94	10.16	35.39	8.54	39.25	39.61	43.37	39.25
BF90Z-../D..13..	15.47	10.71	10.16	42.17	8.54	46.54	46.38	50.65	46.54
BF90-../D..16..	17.89	4.49	12.21	38.37	9.57	44.02	42.58	48.11	44.02
BF90Z-../D..16..	17.89	11.26	12.21	45.14	9.57	50.79	49.35	54.88	50.79
BF90-../D..18..	21.34	5.35	13.70	42.68	11.34	48.56	46.89	52.66	48.56
BF90Z-../D..18..	21.34	12.13	13.70	49.37	11.34	55.26	53.58	59.35	55.26
BF90-../D..20L	25.33	6.14	14.29	47.46	11.95	52.48	51.63	56.65	52.48
BF90-../D..22S	27.70	6.14	14.29	49.82	11.95	54.84	54.00	59.02	54.84
BF90-../D..22M	27.70	6.14	14.29	49.82	11.95	54.84	54.00	59.02	54.84



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

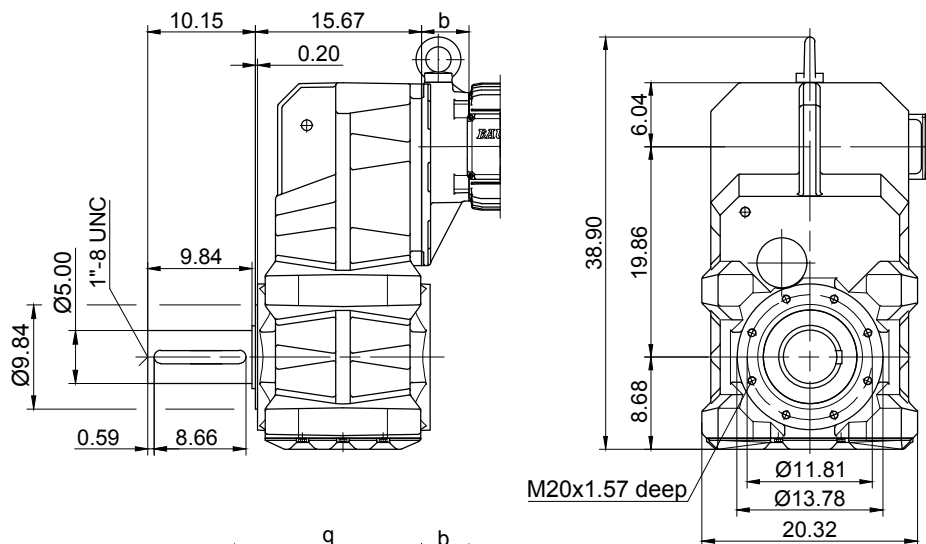
The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

Dimension Imperial

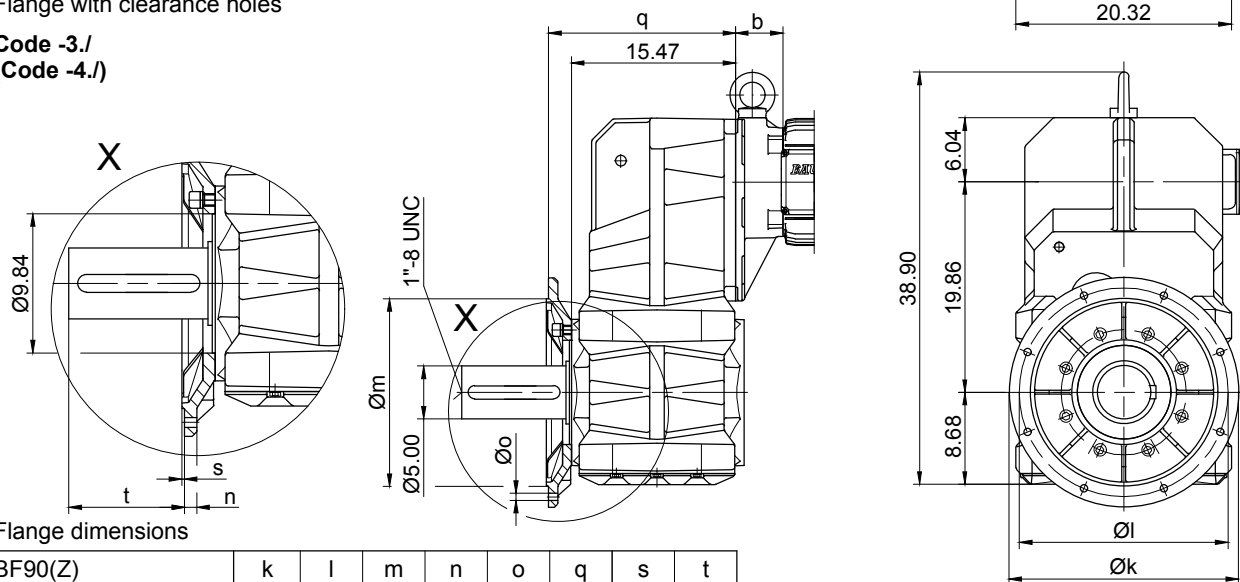
BF90 - BF90Z

Flange with tapped holes



Flange with clearance holes

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

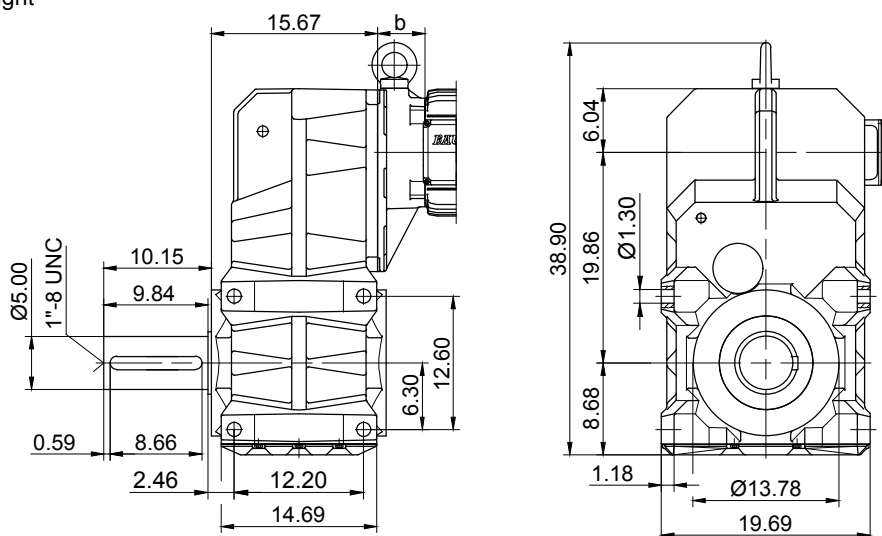


Flange dimensions

BF90(Z)	k	l	m	n	o	q	s	t
Standard -3./	21.654	19.685	17.717	0.866	0.689	17.638	0.197	8.583
big -4./	25.984	23.622	21.654	0.984	0.866	17.402	0.236	8.819

Foot with clearance holes left and right

Code -1.LR/



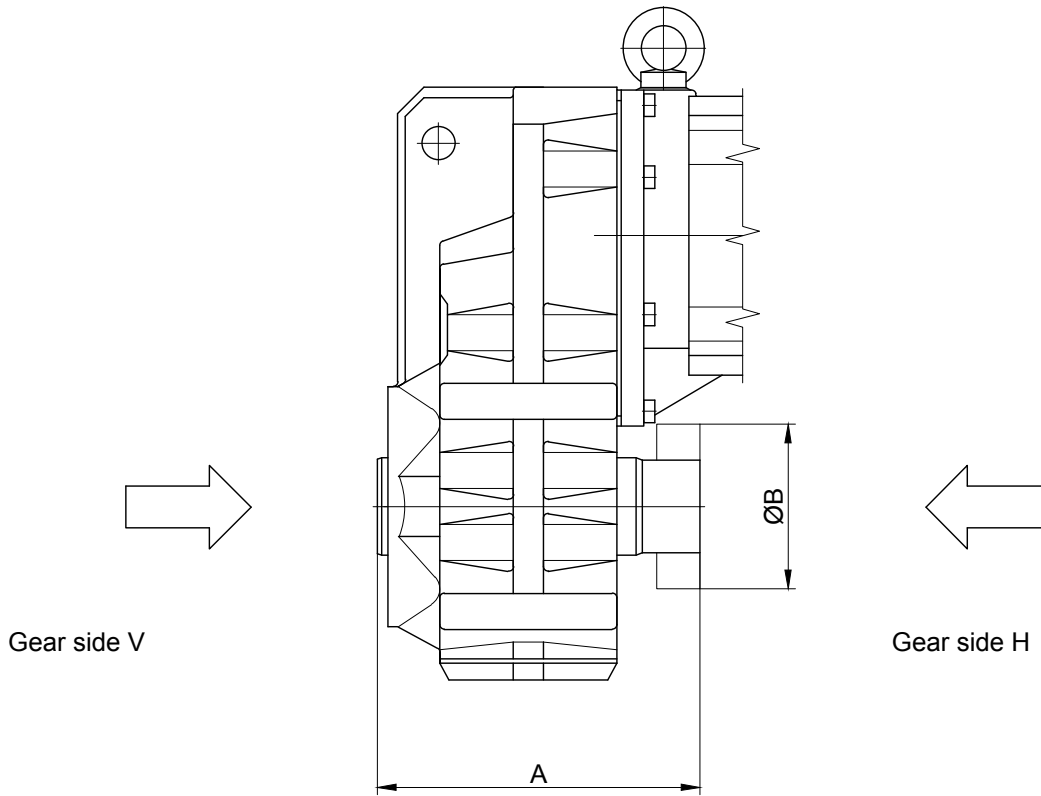
The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

Additional Dimension Sheet Imperial

Shrink disc coupling (SSV)

(Code BF10-.5/...)
(Code BF10Z-.5/...)



11

Type	SSV Ringfeder	SSV STÜWE	A	B
BF10	RfN 4161 036x072	HSD 36-22x36	6.02	2.83
BF20	RfN 4161 044x080	HSD 44-22x44	6.81	3.15
BF30	RfN 4161 050x090	HSD 50-22x50	7.56	3.54
BF40	RfN 4161 062x110	HSD 62-22x62	8.46	4.33
BF50	RfN 4161 068x115	HSD 68-22x68	8.31	4.53
BF60	RfN 4161 080x141	HSD 80-22x80	10.12	5.51
BF70	RfN 4161 105x185	HSD 110-22x105	12.60	7.28
BF80	RfN 4161 130x215	HSD 125-22x130	16.57	8.46
BF90	RfN 4161 150x263	HSD 155-22x150	19.88	10.35

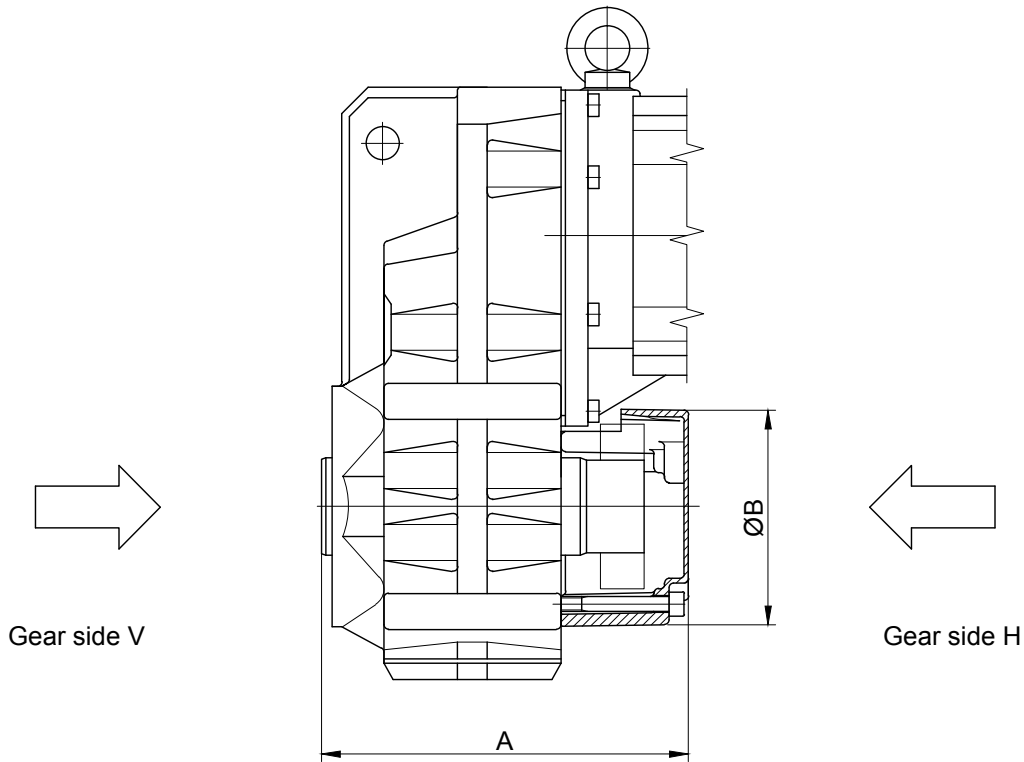
The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

Additional Dimension Sheet Imperial

Shrink disc coupling with (SSV) cover

(Code BF10-.5A/...)
(Code BF10Z-.5A/...)



11

Type	SSV Ringfeder	SSV STÜWE	A	B
BF10	RfN 4161 036x072	HSD 36-22x36	6.85	4.72
BF20	RfN 4161 044x080	HSD 44-22x44	8.31	5.51
BF30	RfN 4161 050x090	HSD 50-22x50	8.78	5.51
BF40	RfN 4161 062x110	HSD 62-22x62	9.65	6.30
BF50	RfN 4161 068x115	HSD 68-22x68	8.94	7.87
BF60	RfN 4161 080x141	HSD 80-22x80	11.42	8.27
BF70	RfN 4161 105x185	HSD 110-22x105	14.13	9.84
BF80	RfN 4161 130x215	HSD 125-22x130	18.23	11.81
BF90	RfN 4161 150x263	HSD 155-22x150	21.93	13.78

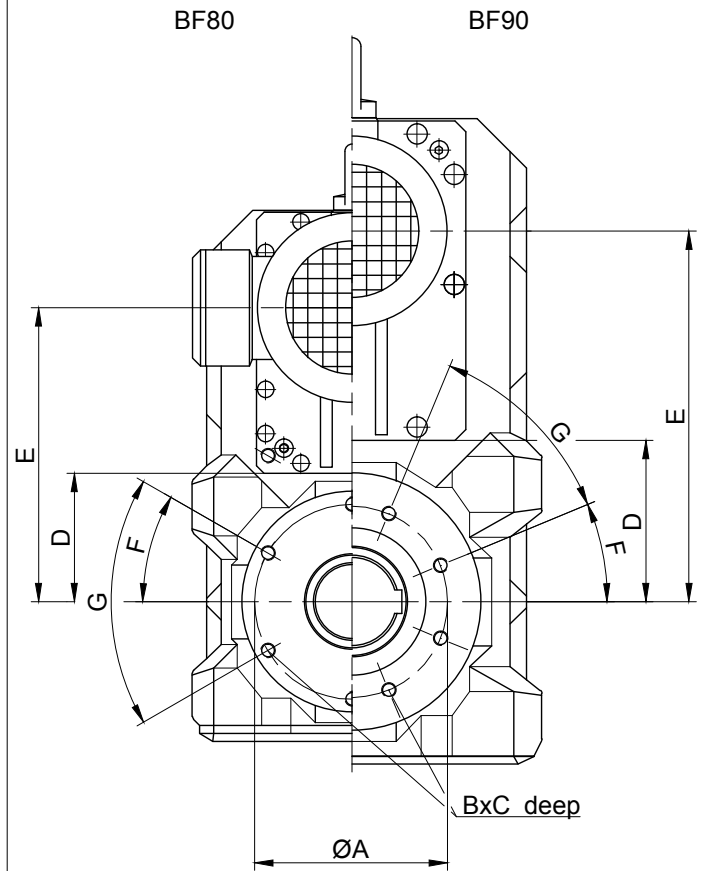
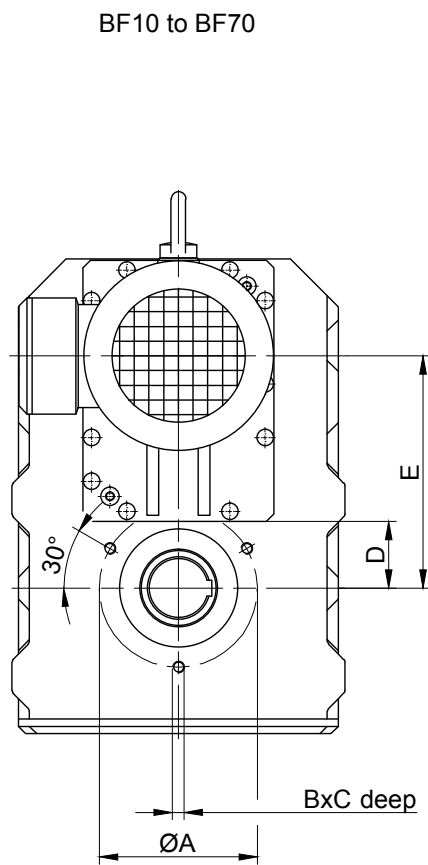
The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

Additional Dimension Sheet Imperial

Screw Holes Side (H)

→ Sealing Cover



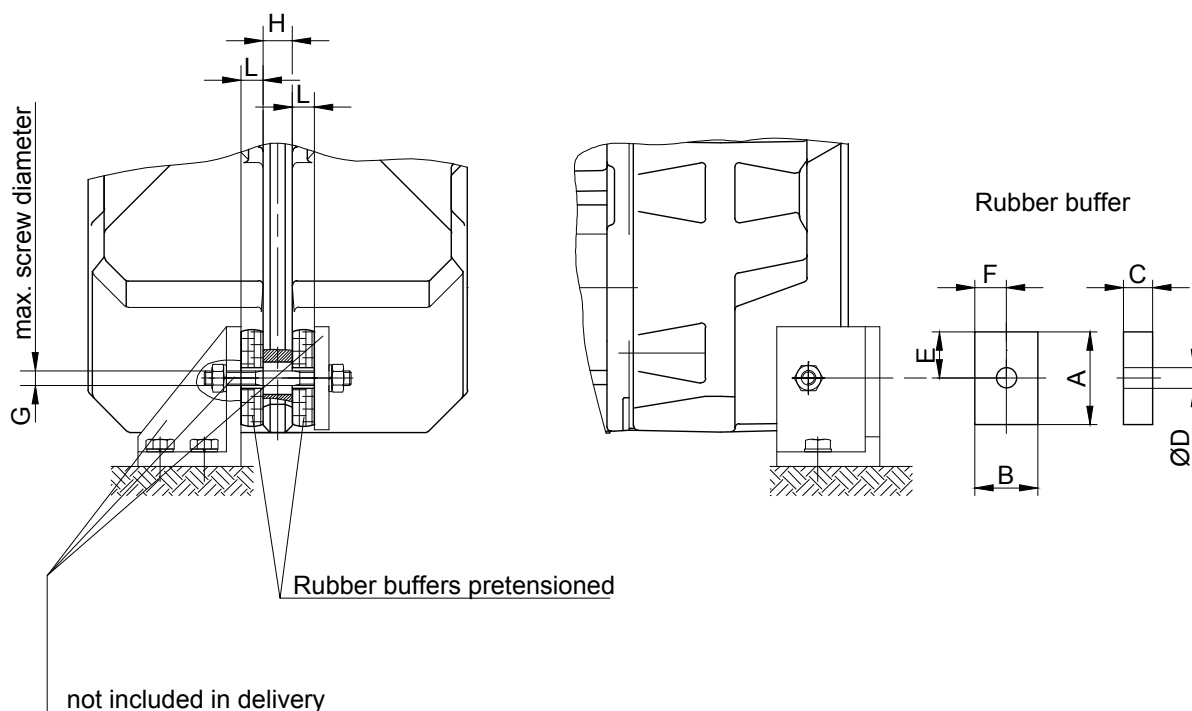
Gear	Dimensions (inch)						
	A	B	C	D	E	F	G
BF10	3.94	M8	0.63	1.38	4.65	-	-
BF20	4.53	M10	0.79	1.54	5.35	-	-
BF30	4.53	M10	0.79	1.73	6.18	-	-
BF40	5.12	M10	0.79	2.05	7.11	-	-
BF50	6.50	M12	0.94	2.36	8.15	-	-
BF60	7.09	M12	0.94	2.72	10.06	-	-
BF70	8.46	M16	1.26	3.50	12.44	-	-
BF80	10.43	M20	1.57	6.81	15.75	30°	6x60°
BF90	11.81	M20	1.57	8.62	19.86	22.5°	8x45°

The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

Additional Dimension Sheet Imperial

Rubber buffer for torque restraint



Material: Natural rubber
Hardness 50 \pm 5 Shore A

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

11

Gear	Pos.	Dimensions (inch)								
		A	B	C	D	E	F	G	H	L
BF06	Pos.0	1.18	1.18	0.47	0.47	0.59	0.59	M10	0.39	0.39
BF10	Pos.1	1.89	1.26	0.59	0.55	0.94	0.63	M10	0.63	0.53
BF20	Pos.1	1.89	1.26	0.59	0.55	0.94	0.63	M10	0.71	0.51
BF30	Pos.2	2.48	1.69	0.79	0.55	1.24	0.85	M10	0.71	0.67
BF40	Pos.2	2.48	1.69	0.79	0.55	1.24	0.85	M10	0.79	0.65
BF50	Pos.3	3.46	2.36	0.98	0.87	1.73	1.18	M18	0.94	0.85
BF60	Pos.3	3.46	2.36	0.98	0.87	1.73	1.18	M18	1.10	0.83
BF70	Pos.4	4.84	3.46	1.18	1.02	2.42	1.73	M20	1.18	1.00
BF80	Pos.5	5.24	4.06	1.38	1.02	2.62	2.03	M20	1.57	1.18
BF90	Pos.5	5.24	4.06	1.38	1.02	2.62	2.03	M20	1.97	1.16

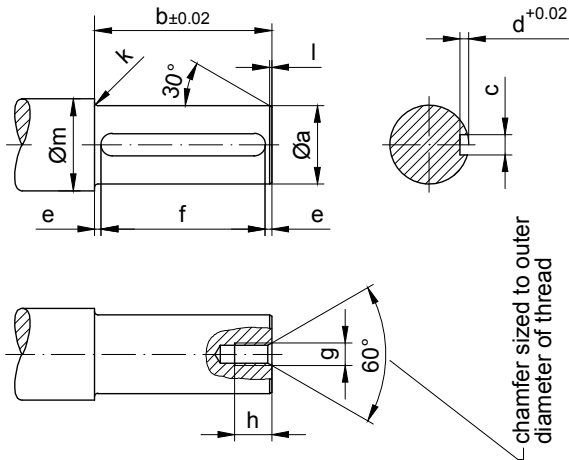
The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

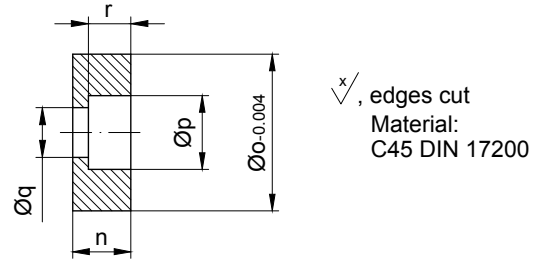
Additional Dimension Sheet Imperial

Assembly tools for hollow shaft and keyway

Pos.1 Shaft

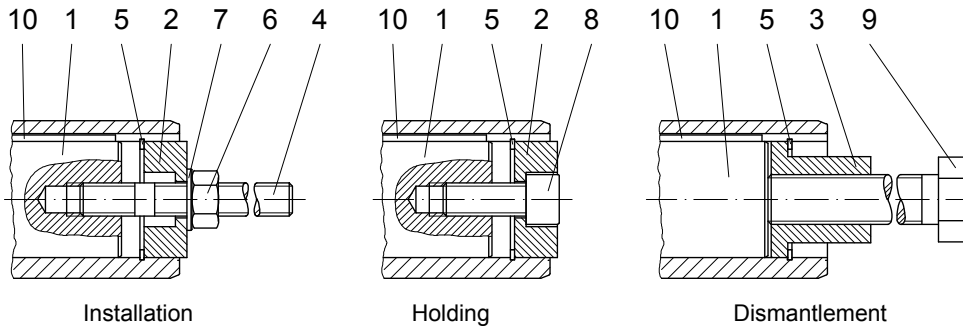


* Pos.2 Disc



Shaft extension tolerance:
 up to 1.5 in diameter: +0.000 / -0.0005 in
 over 1.5 in diameter: +0.000 / -0.001 in
 Flange spigot diameter: +0.0003 / -0.0015 in

Type	Dimensions (inch)															
	Pos.1 Shaft											Pos.2 Disc				
	a	b	c	d	e	f	g	h	k	l	m	n	o	p	q	r
BF06	0.98	2.76	0.32	0.16	0.14	2.48	M8	0.71	0.08	0.06	1.30	0.53	0.98	0.59	0.35	0.33
BF10	0.98	4.02	0.32	0.16	0.24	3.54	M8	0.71	0.10	0.06	1.30	0.53	0.98	0.59	0.35	0.33
BF20	1.18	4.25	0.32	0.16	0.35	3.54	M10	0.79	0.12	0.06	1.50	0.59	1.17	0.71	0.43	0.39
BF30	1.38	4.65	0.39	0.20	0.35	3.94	M10	0.79	0.12	0.06	1.69	0.63	1.37	0.71	0.43	0.39
BF40	1.57	5.55	0.47	0.20	0.32	4.92	M12	0.87	0.12	0.08	1.89	0.71	1.57	0.79	0.53	0.47
BF50	1.97	5.83	0.55	0.22	0.45	4.92	M16	1.18	0.14	0.08	2.28	0.83	1.96	1.02	0.69	0.59
BF60	2.36	6.81	0.71	0.28	0.26	6.30	M20	1.50	0.14	0.08	2.68	0.94	2.35	1.30	0.87	0.71
BF70	3.15	8.07	0.87	0.35	0.49	7.09	M20	1.50	0.16	0.08	3.54	1.06	3.14	1.30	0.87	0.79
BF70-K70	2.76	8.07	0.79	0.30	0.49	7.09	M20	1.50	0.16	0.08	3.54	1.06	2.75	1.30	0.87	0.79
BF80	3.94	12.48	1.10	0.39	0.73	11.02	M24	1.77	0.16	0.12	4.33	1.26	3.93	1.57	1.02	0.98
BF90	4.72	15.08	1.26	0.43	0.45	14.17	M24	1.77	0.18	0.12	5.12	1.38	4.72	1.57	1.02	1.10



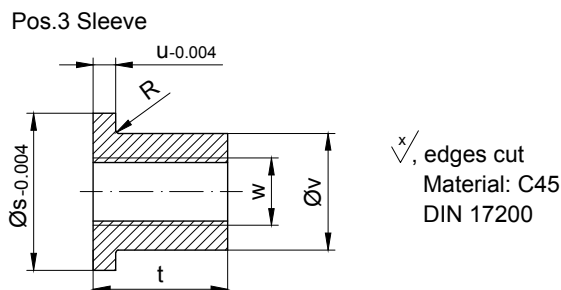
The parts shown are necessary for assembly. ONLY * specified parts are enclosed in the assembly kit. Suitable measures are to be used to secure Bolt Pos.9 against loosening.

The actual gearbox design can vary from the geometry shown.

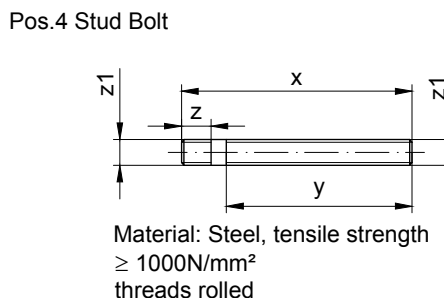
BF-series shaft-mounted geared motors

Additional Dimension Sheet Imperial

Assembly tools for hollow shaft and keyway



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in



Type	Dimensions (inch)										* Retainer ring DIN 472	Hexagon nut DIN 934-8	Disc DIN 125-SI	* Filister head screw DIN 912-8.8	Starting torque (lb.-ft.in)	Hexagon bolt DIN EN 24017-8.8	Key DIN 6885 Width x Height x Length
	Pos.3 Sleeve					Pos.4 Stud Bolt											
	s	t	u	v	w	R	x	y	z	z1							
BF06	0.98	0.94	0.20	0.61	M12	0.03	6.30	5.12	0.79	M8	25x1.2	M8	8.4	M8x30	44.25	M12x110	A 8x7x63
BF10	0.98	0.94	0.20	0.61	M12	0.03	6.30	5.12	0.79	M8	25x1.2	M8	8.4	M8x30		M12x140	A 8x7x90
BF20	1.17	1.10	0.20	0.78	M14	0.03	6.69	5.32	0.91	M10	30x1.2	M10	10.5	M10x30	70.81	M14x150	A 8x7x90
BF30	1.37	1.10	0.20	0.91	M14	-	7.09	5.71	0.91	M10	35x1.5	M10	10.5	M10x35		M14x160	A 10x8x100
BF40	1.57	1.57	0.24	1.09	M20	0.03	8.27	6.69	1.10	M12	40x1.75	M12	13	M12x35	141.61	M20x200	A 12x8x125
BF50	1.96	1.89	0.24	1.42	M24	-	9.06	6.89	1.46	M16	50x2.0	M16	17	M16x40	265.52	M24x210	A 14x9x125
BF60	2.35	2.36	0.24	1.73	M30	-	10.63	8.07	1.77	M20	60x2.0	M20	21	M20x50	371.73	M30x250	A 18x11x160
BF70	3.14	2.36	0.32	2.17	M30	-	12.20	9.45	1.77	M20	80x2.5	M20	21	M20x50		M30x280	A 22x14x180
BF70-K70	2.75	2.36	0.32	2.09	M30	-	12.20	9.45	1.77	M20	70x2.5	M20	21	M20x50		M30x280	A 20x12x180
BF80	3.93	2.83	0.39	2.95	M36	-	17.32	14.17	2.17	M24	100x3.0	M24	25	M24x60	885.07	M36x410	A 28x16x280
BF90	4.72	2.83	0.39	3.15	M36	-	20.08	16.93	2.17	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.

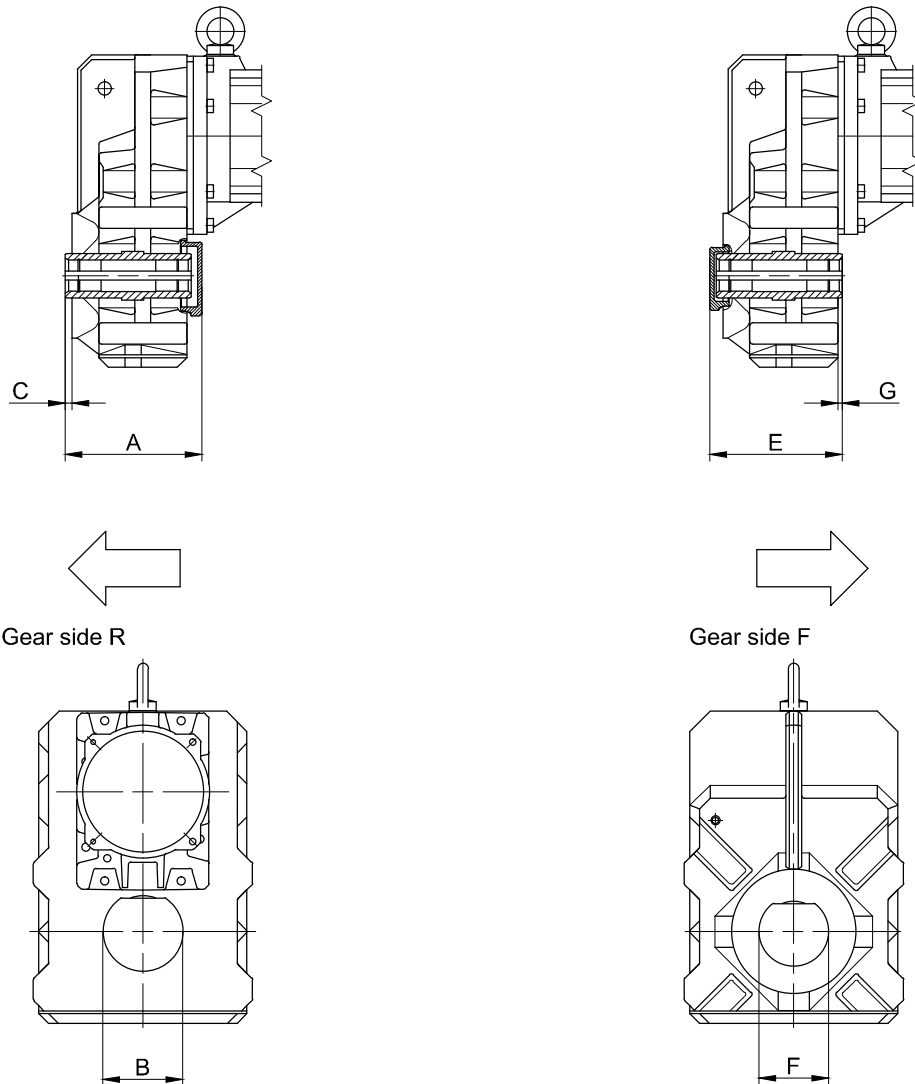
Optional:	Type	Ø s	Order Text
	BF06	25	Id.Nr.4103921 Assembly tool "holding"
	BF10	25	Id.Nr.4103921 Assembly tool "holding"
	BF20	30	Id.Nr.4103939 Assembly tool "holding"
	BF30	35	Id.Nr.4103947 Assembly tool "holding"
	BF40	40	Id.Nr.4103955 Assembly tool "holding"
	BF50	50	Id.Nr.4103963 Assembly tool "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 Imperial

Sealing Cap (VK)



Sealing cap REAR			
Type	A	B	C
BF10	5.28	3.07	0.20
BF20	5.59	3.35	0.20
BF30	6.04	3.54	0.30
BF40	7.07	4.33	0.28
BF50	7.56	4.92	0.24
BF60	8.74	5.51	0.28
BF70	10.16	6.69	0.24

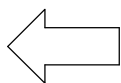
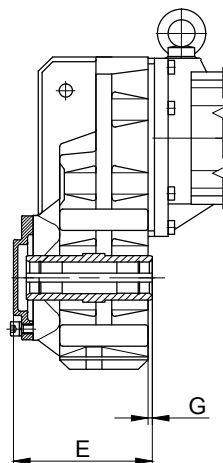
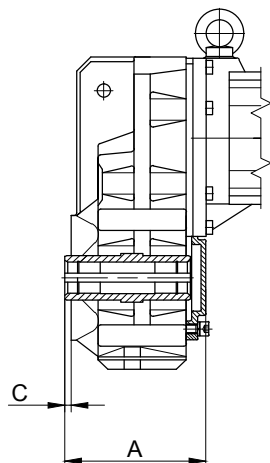
Sealing cap FRONT			
Type	E	F	G
BF30	5.87	3.07	0.30
BF50	7.46	4.33	0.24
BF70	10.32	5.12	0.24

The actual gearbox design can vary from the geometry shown.

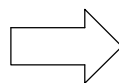
BF-series shaft-mounted geared motors

Additional Dimension Sheet Imperial

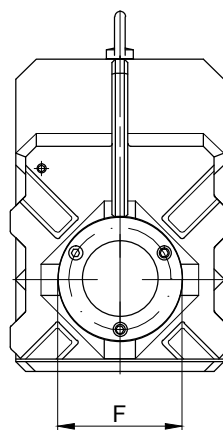
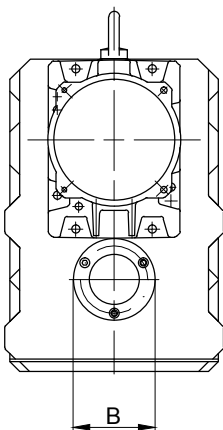
Sealing Cover (VD)



Gear side REAR (H)



Gear side FRONT (V)



Sealing cover REAR			
Type	A	B	C
BF80	14.80	11.81	0.32
BF90	17.40	13.78	0.32

Sealing cover FRONT			
Type	E	F	G
BF10	5.33	4.72	0.20
BF20	5.67	5.49	0.20
BF30	6.02	5.49	0.30
BF40	7.07	6.30	0.28
BF50	7.54	7.83	0.24
BF60	8.72	8.27	0.28
BF70	10.16	9.84	0.24
BF80	14.80	11.81	0.32
BF90	17.40	13.78	0.32

The actual gearbox design can vary from the geometry shown.

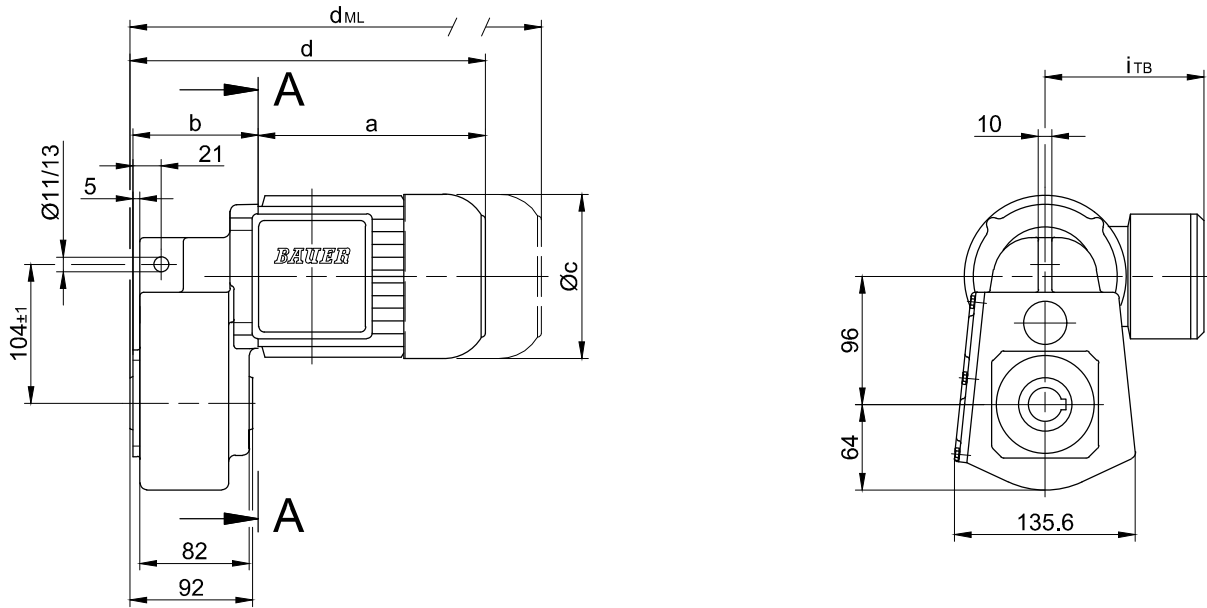
BF-series shaft-mounted geared motors

Dimension Metric

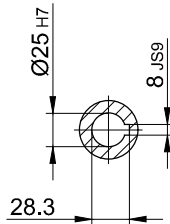
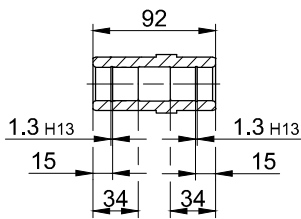
BF06

With torque arm

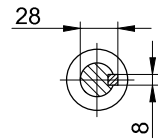
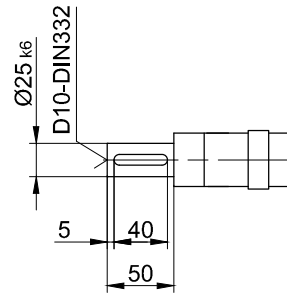
Code -0./



Code -4/



Code -1/



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

Design state "A" = Standard Length

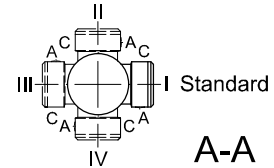
Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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



A-A

Type	a*	b	c	d*	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	117	308	369	410.5	-
BF06-../D06..	170	93.5	123	266	119	308	369	410.5	-
BF06-../D07..	190	94.5	123	286	119	328	389	430.5	-
BF06-../D08..	200	141	156	343.5	136.5	409.5	450.5	517	409.5

The actual gearbox design can vary from the geometry shown.

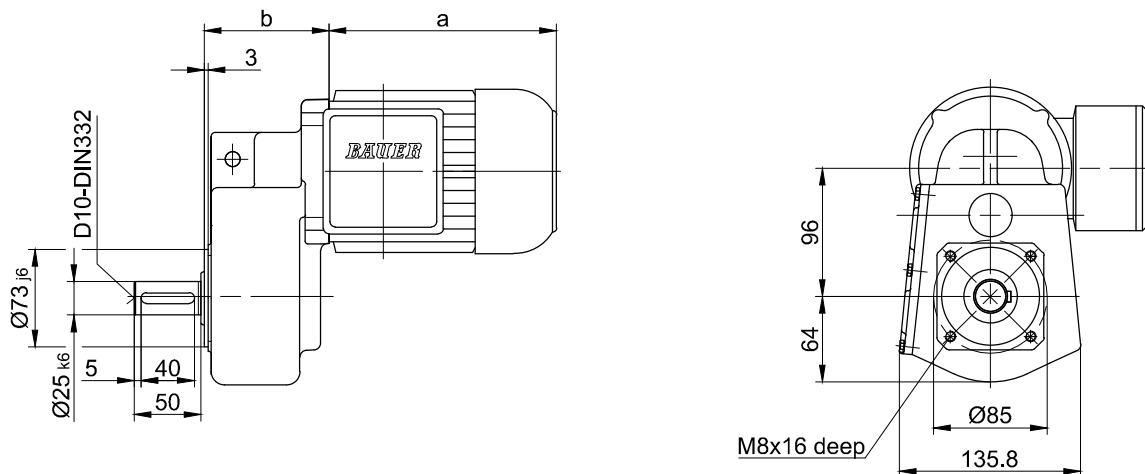
BF-series shaft-mounted geared motors

Dimension Metric

BF06

Flange with tapped holes

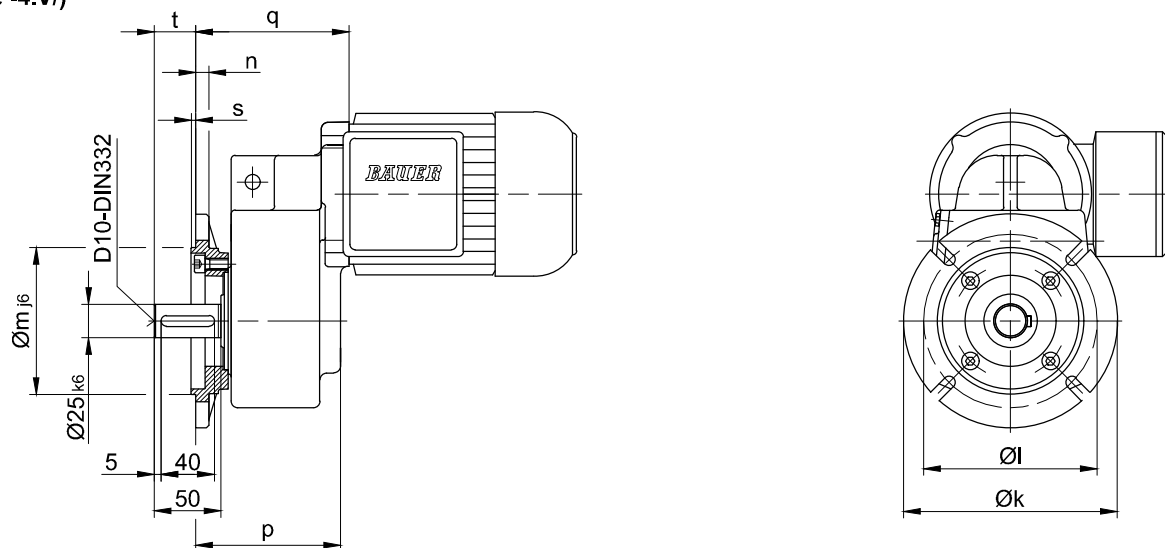
Code -7./



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.

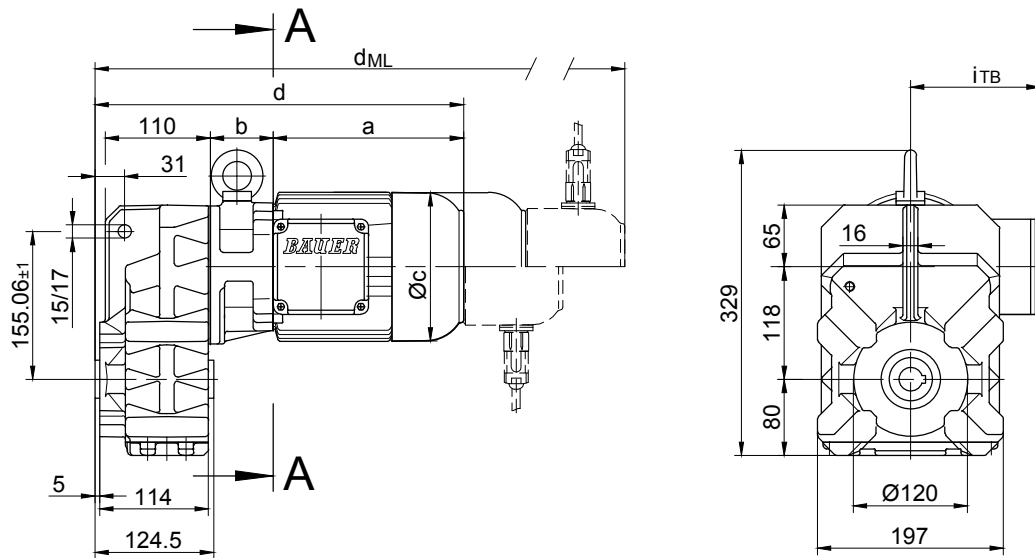
BF-series shaft-mounted geared motors

Dimension Metric

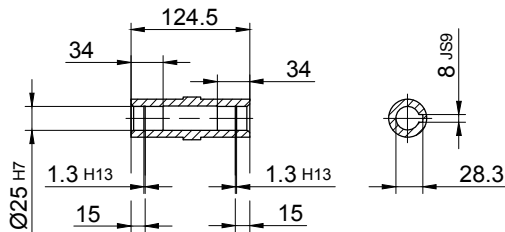
BF10-BF10Z

With torque arm

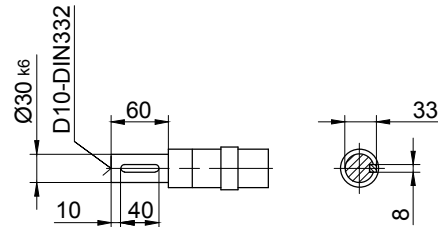
Code -0./



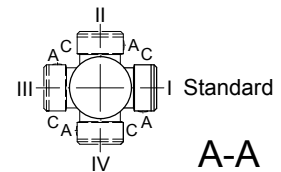
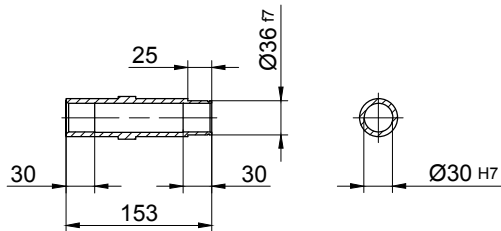
Code -4/



Code -1/



Code -5/



Type	a*	b	c	d*	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	112	393.5	412.5	455.5	-
BF10-../D05..	170	62	123	353	117	395	456	497.5	-
BF10Z-../D05..	170	88	123	379	117	421	482	523.5	-
BF10-../D06..	170	62	123	353	119	395	456	497.5	-
BF10Z-../D06..	170	88	123	379	119	421	482	523.5	-
BF10-../D07..	190	62	123	373	119	415	476	517.5	-
BF10Z-../D07..	190	88	123	399	119	441	502	543.5	-
BF10-../D..08..	200	66	156	387	136.5	453	494	560.5	453
BF10Z-../D..08..	200	132	156	453	136.5	519	560	626.5	519
BF10-../D..09..	251	80.5	181	452.5	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/DPE08X**A**4
 Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

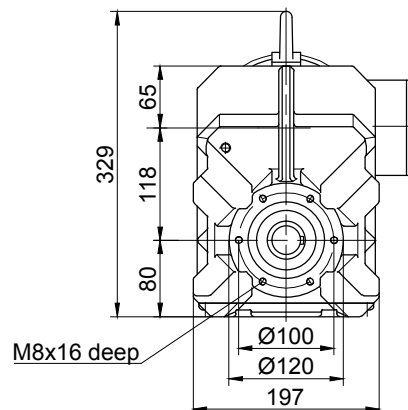
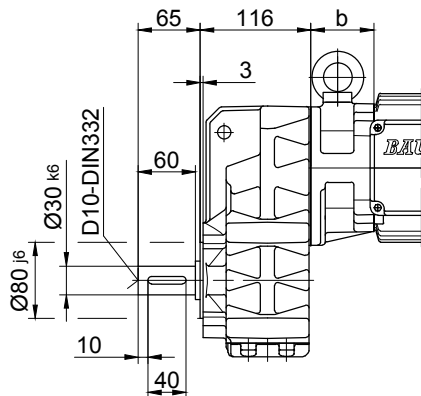
BF-series shaft-mounted geared motors

Dimension Metric

BF10-BF10Z

Flange with tapped holes

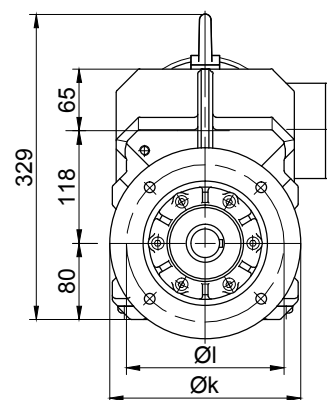
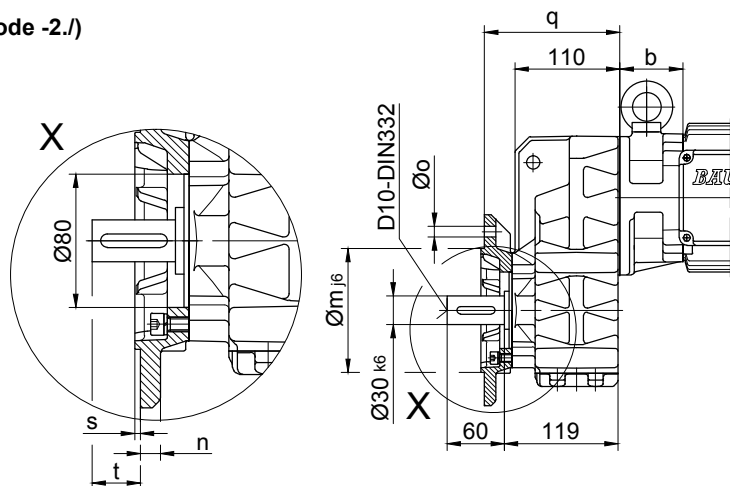
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

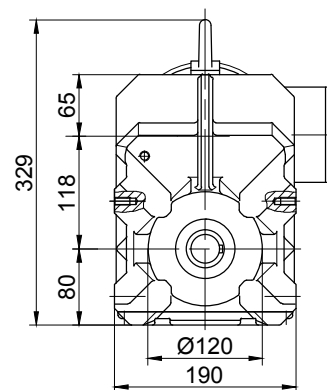
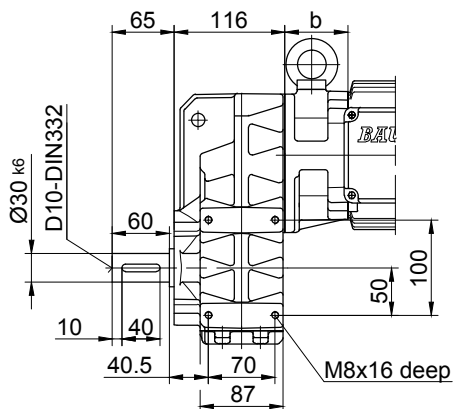


Flange dimensions

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.

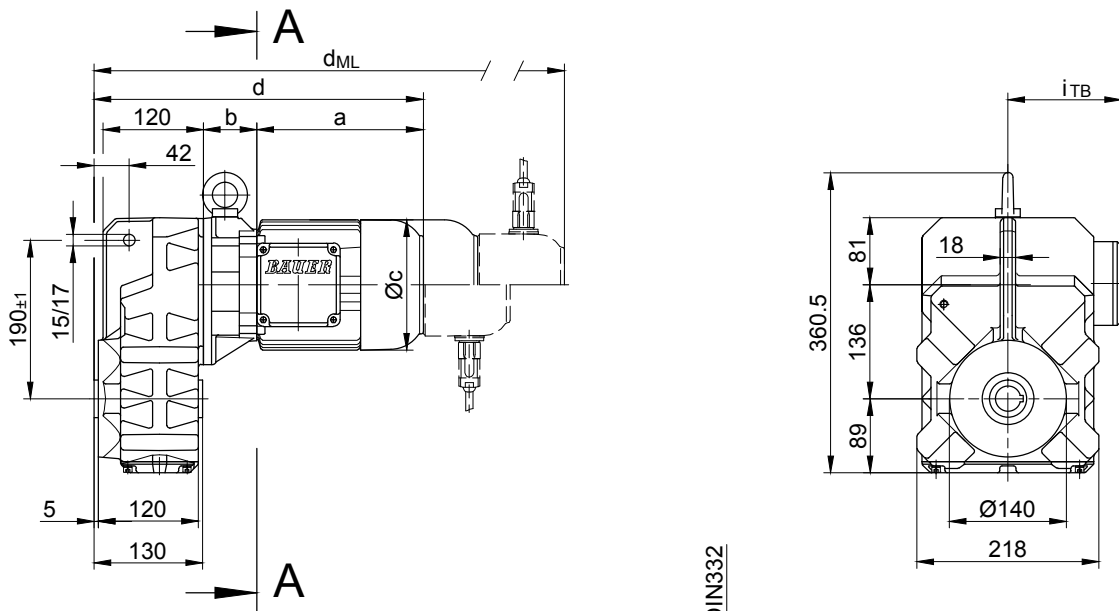
BF-series shaft-mounted geared motors

Dimension Metric

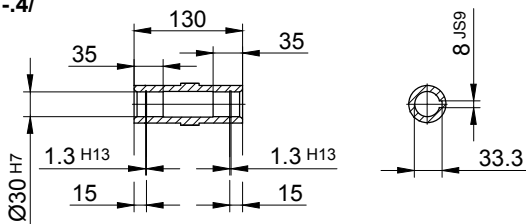
BF20-BF20Z

With torque arm

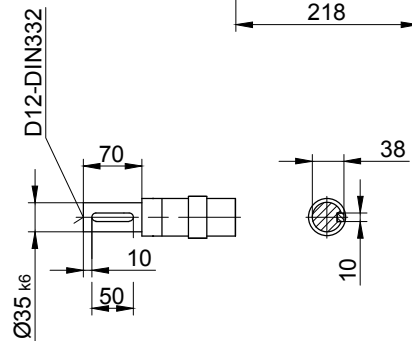
Code -0./



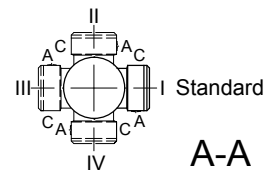
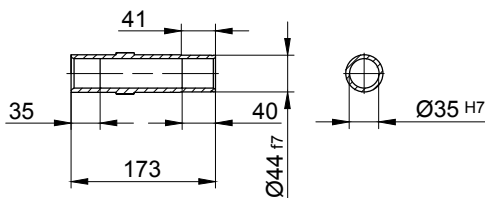
Code -4/



Code -1/



Code -5/



Type	a*	b	c	d*	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	112	417.5	436.5	479.5	-
BF20-../D05..	170	60	123	361	117	403	464	505.5	-
BF20Z-../D05..	170	102	123	403	117	445	506	547.5	-
BF20-../D06..	170	60	123	361	119	403	564	505.5	-
BF20Z-../D06..	170	102	123	403	119	445	506	547.5	-
BF20-../D07..	190	60	123	381	119	423	584	525.5	-
BF20Z-../D07..	190	102	123	423	119	465	526	567.5	-
BF20-../D..08..	200	64	156	395	136.5	461	502	568.5	461
BF20Z-../D..08..	200	146	156	477	136.5	543	584	650.5	543
BF20-../D..09..	251	78.5	181	460.5	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

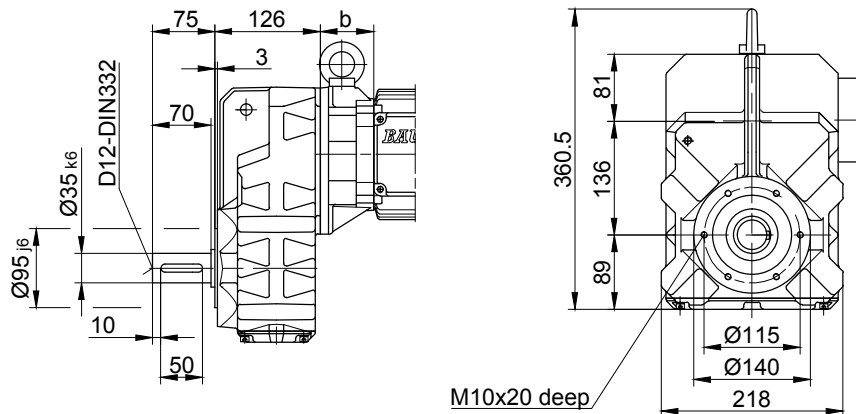
BF-series shaft-mounted geared motors

Dimension Metric

BF20-BF20Z

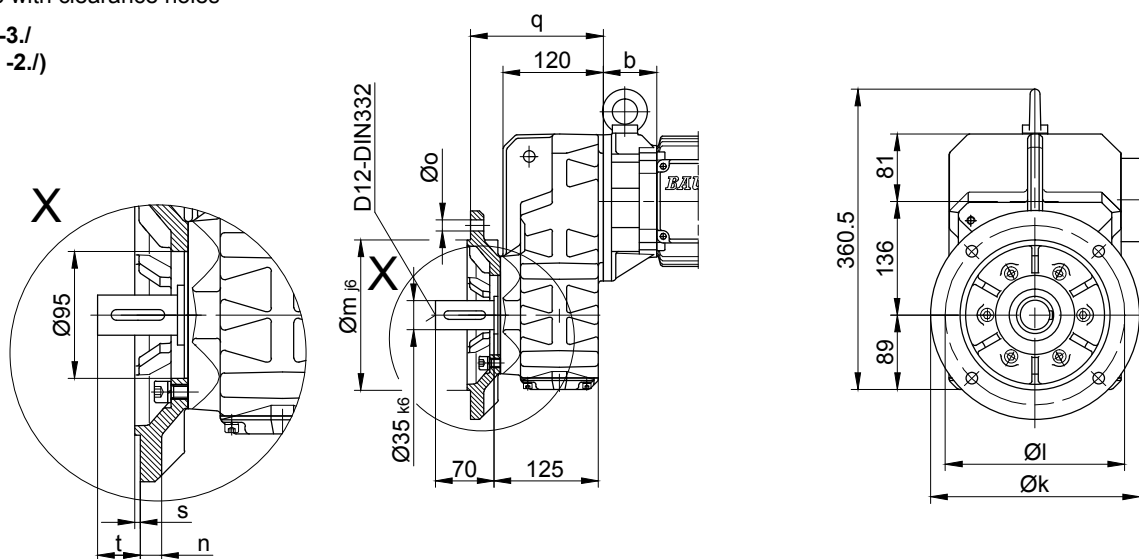
Flange with tapped holes

Code -7./



Flange with clearance holes

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

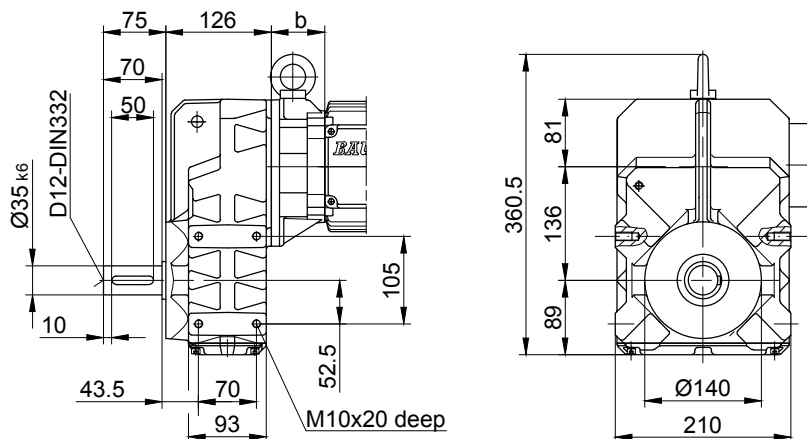


Flange dimensions

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.

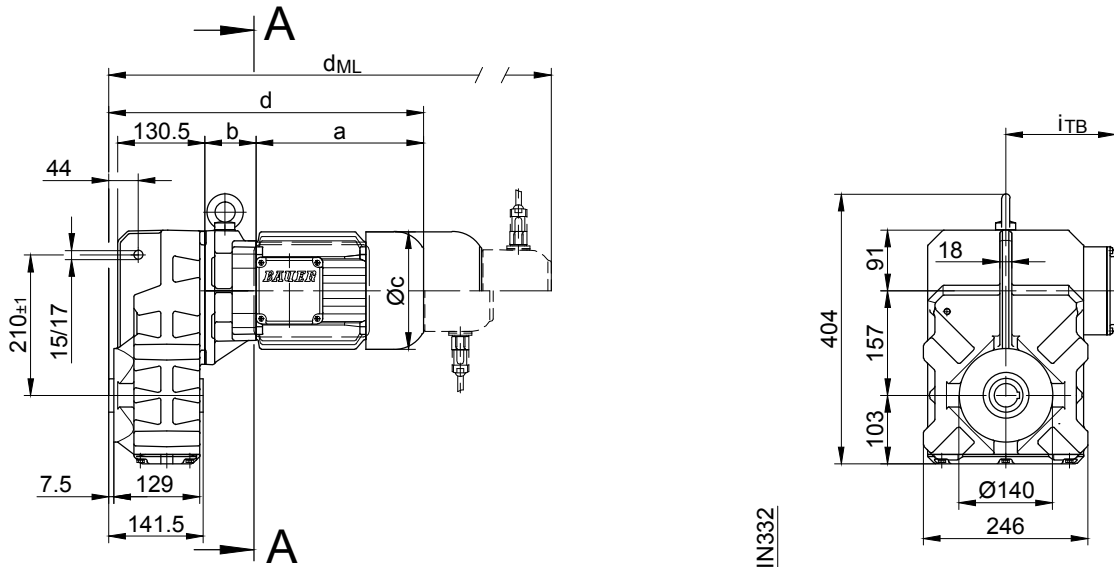
BF-series shaft-mounted geared motors

Dimension Metric

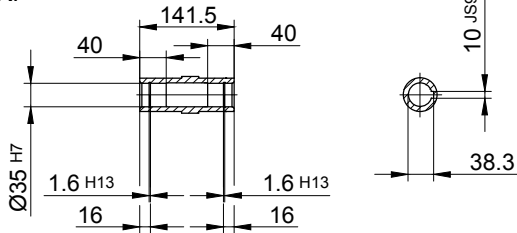
BF30-BF30Z

With torque arm

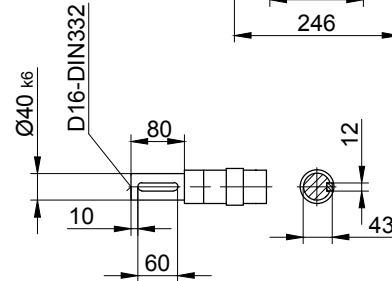
Code -0./



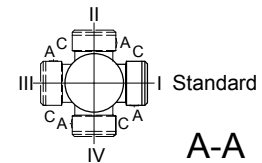
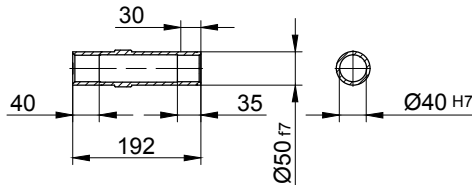
Code -4/



Code -1/



Code -5/



Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	E../ES..	G	E../ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BF30-../D05..	170	58	123	372	117	414	475	516.5	-
BF30Z-../D05..	170	133.5	123	447.5	117	498.5	550.5	592	-
BF30-../D06..	170	58	123	372	119	414	475	516.5	-
BF30Z-../D06..	170	133.5	123	447.5	119	498.5	550.5	592	-
BF30-../D07..	190	58	123	392	119	434	495	536.5	-
BF30Z-../D07..	190	133.5	123	467.5	119	509.5	570.5	612	-
BF30-../D..08..	200	62	156	406	136.5	472	513	579.5	472
BF30Z-../D..08..	200	137.5	156	481.5	136.5	547.5	588.5	655	547.5
BF30-../D..09..	251	76.5	181	471.5	158	564.5	578.5	669	564.5
BF30Z-../D..09..	251	152	181	547	158	640	654	744.5	640
BF30-../D..11..	319	83	228	546	181	644	653	748.5	644



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

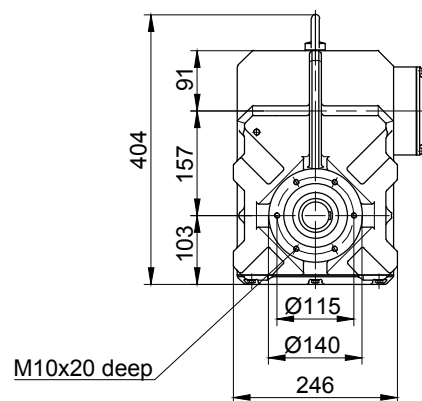
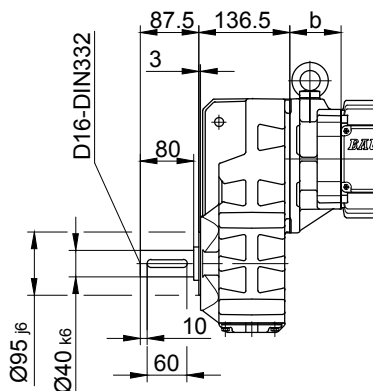
BF-series shaft-mounted geared motors

Dimension Metric

BF30-BF30Z

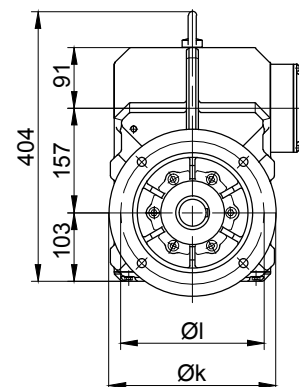
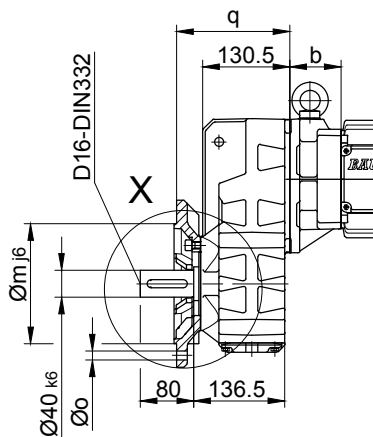
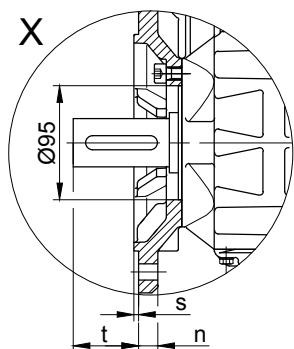
Flange with tapped holes

Code -7./



Flange with clearance holes

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

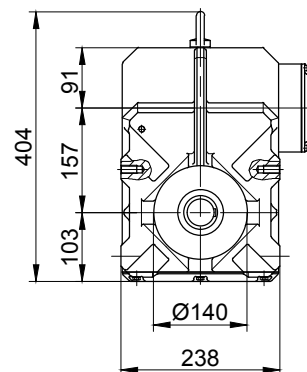
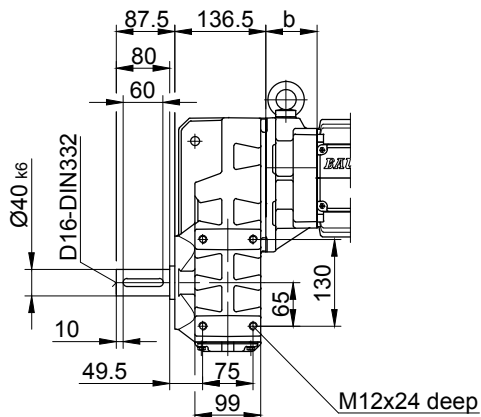


Flange dimensions

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.

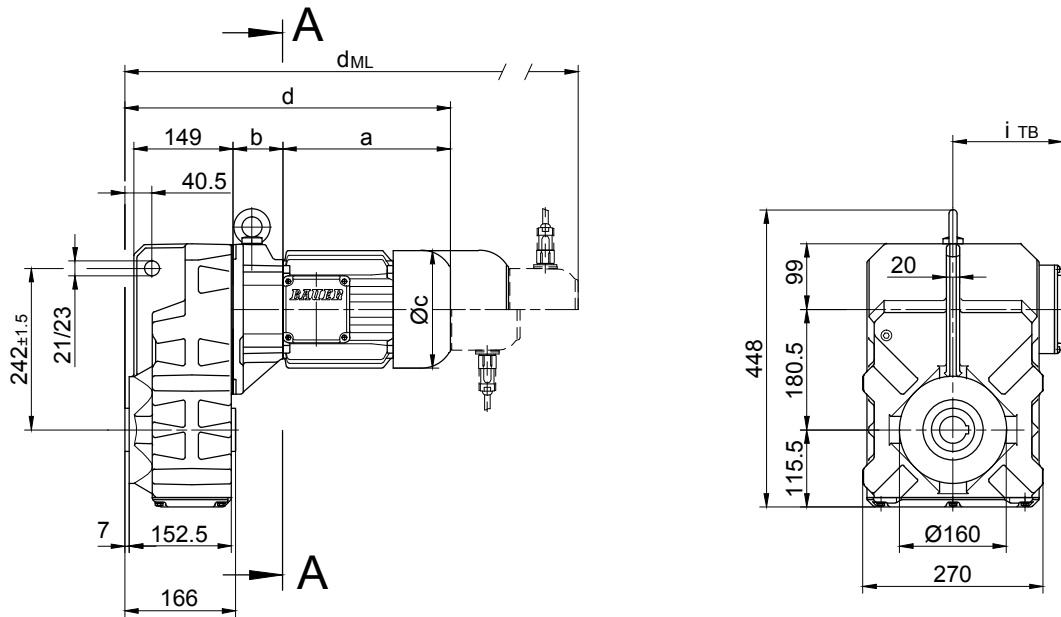
BF-series shaft-mounted geared motors

Dimension Metric

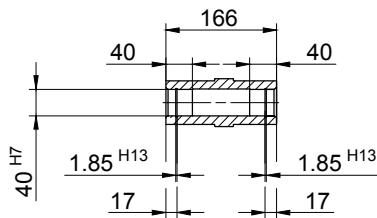
BF40-BF40Z

With torque arm

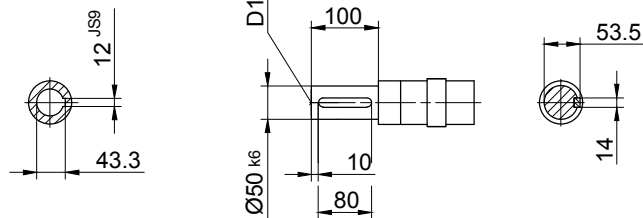
Code -0./



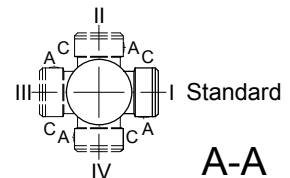
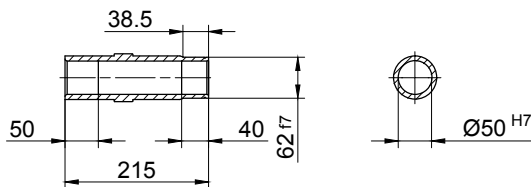
Code -4/



Code -1/



Code -5/



Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	E./ES.. d _{ML} *	G d _{ML} *	E./ES..-G d _{ML} *	RR/RL d _{ML} *
BF40Z-../D05..	170	138.5	123	471	117	513	574	615.5	-
BF40Z-../D06..	170	138.5	123	471	119	513	574	615.5	-
BF40Z-../D07..	190	138.5	123	491	119	533	594	635.5	-
BF40-../D..08..	200	60	156	422.5	136.5	488.5	529.5	596	488.5
BF40Z-../D..08..	200	142.5	156	505	136.5	571	612	678.5	571
BF40-../D..09..	251	74.5	181	488	158	581	595	685.5	581
BF40Z-../D..09..	251	157	181	570.5	158	663.5	677.5	768	663.5
BF40-../D..11..	319	81	228	562.5	182	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

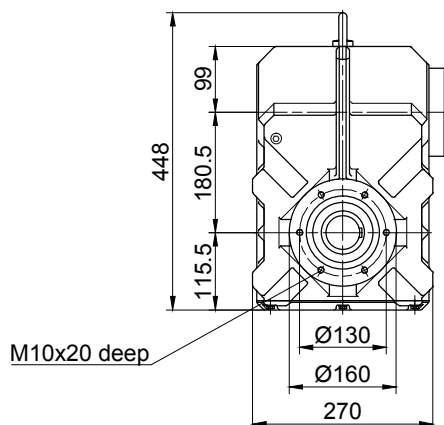
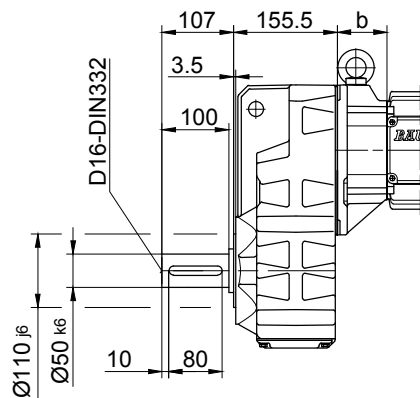
BF-series shaft-mounted geared motors

Dimension Metric

BF40-BF40Z

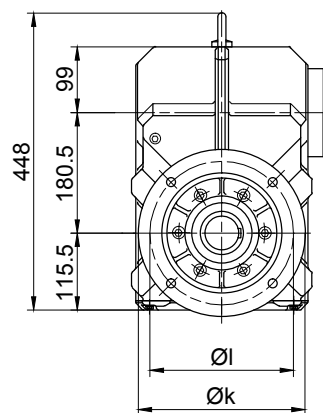
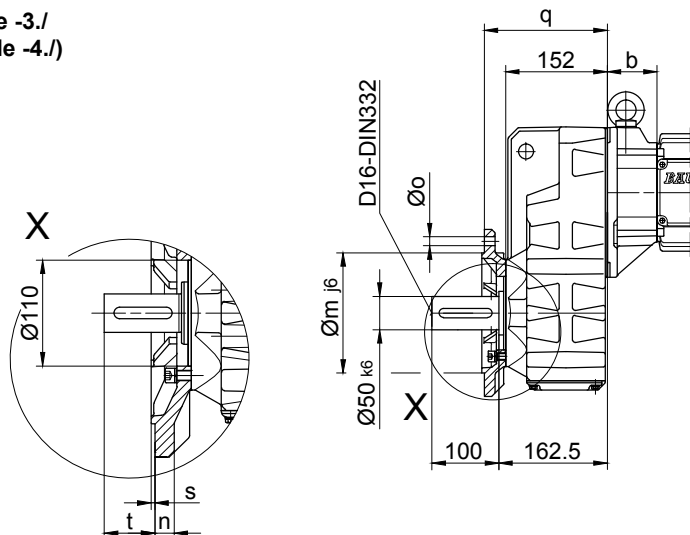
Flange with tapped holes

Code -7./



Flange with clearance holes

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

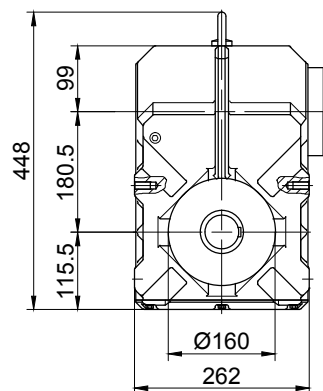
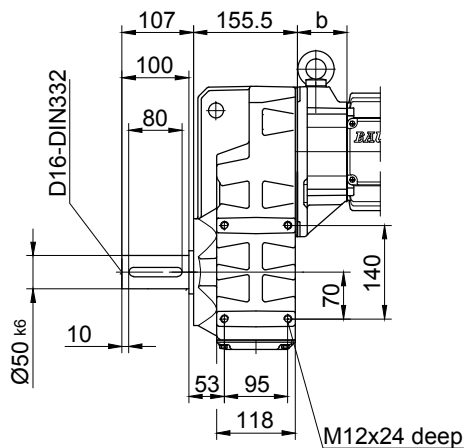


Flange dimensions

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.

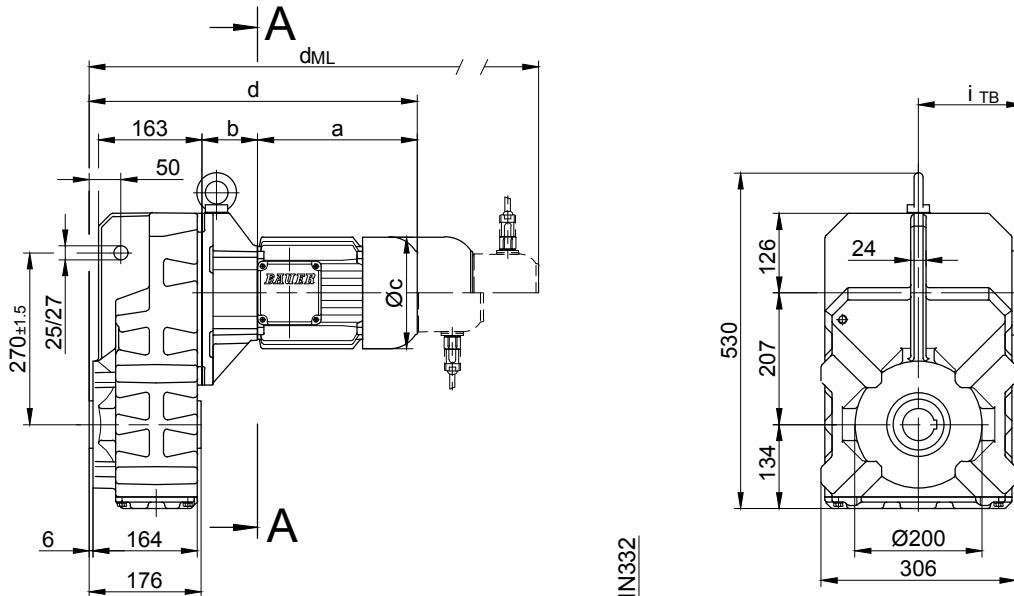
BF-series shaft-mounted geared motors

Dimension Metric

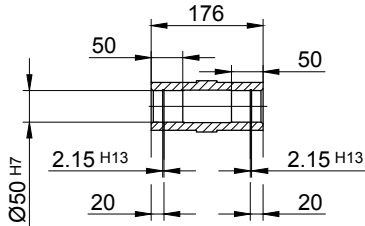
BF50-BF50Z

With torque arm

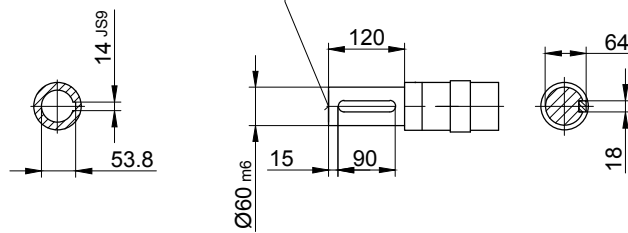
Code -0./



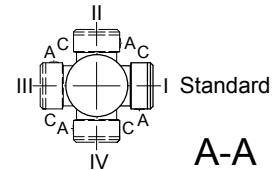
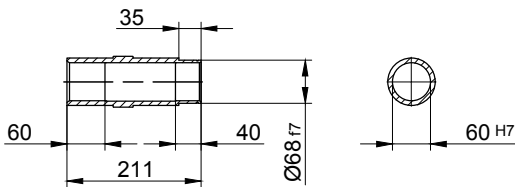
Code -./4/



Code -./1/



Code -./5/



Type	a*	b	c	d*	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	117	544.5	606.5	647	-
BF50Z-../D06..	170	155	123	502.5	119	544.5	606.5	647	-
BF50Z-../D07..	190	155	123	522.5	119	564.5	626.6	667	-
BF50-../D..08..	200	73	156	450.5	136.5	516.5	557.5	624	516.5
BF50Z-../D..08..	200	159	156	536.5	136.5	602.5	643.5	710	602.5
BF50-../D..09..	251	87.5	181	516	158	609	623	713.5	609
BF50Z-../D..09..	251	173.5	181	602	158	695	709	799.5	695
BF50-../D..11..	319	94	228	590.5	177	688.5	697.5	793	688.5
BF50-../D..13..	393	107	258	677.5	218	788.5	784.5	893	788.5
BF50-../D..16..	454.5	121	310	753	244	896.5	860	1000.5	896.5
BF50-../D..18..	542	143	348	862.5	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

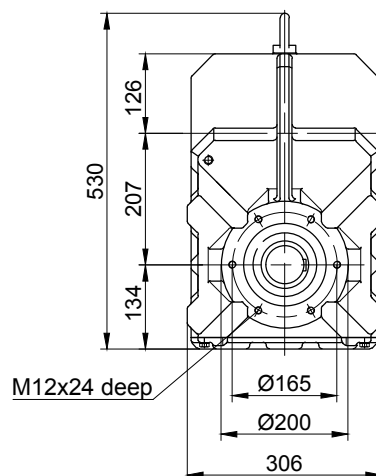
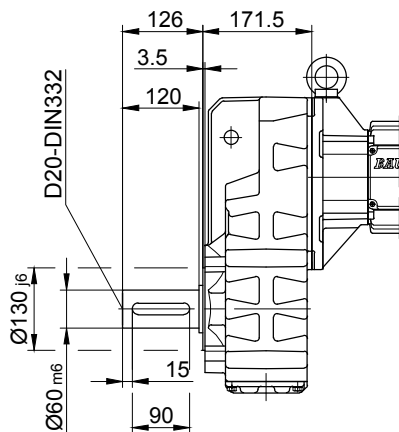
BF-series shaft-mounted geared motors

Dimension Metric

BF50-BF50Z

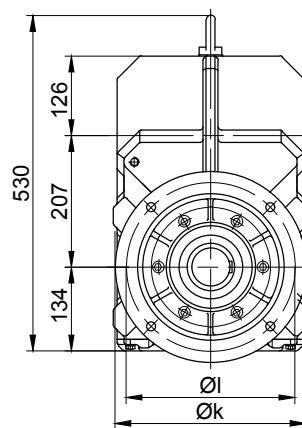
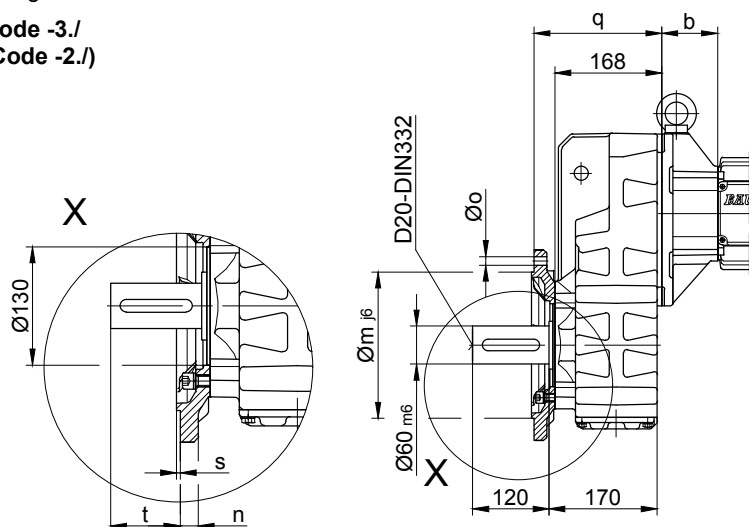
Flange with tapped holes

Code -7./



Flange with clearance holes

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

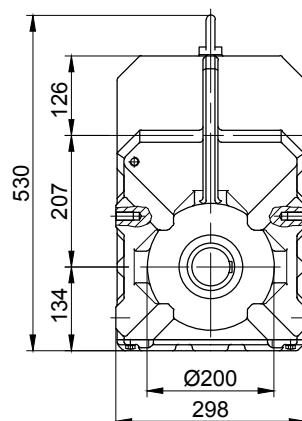
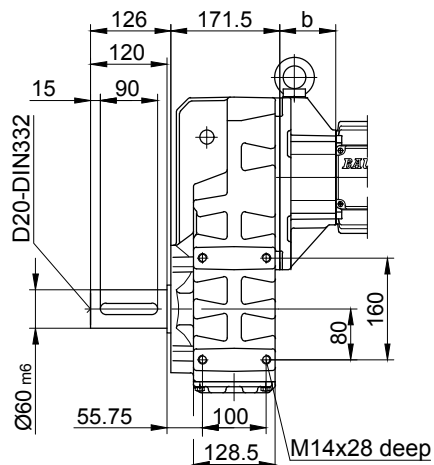


Flange dimensions

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.

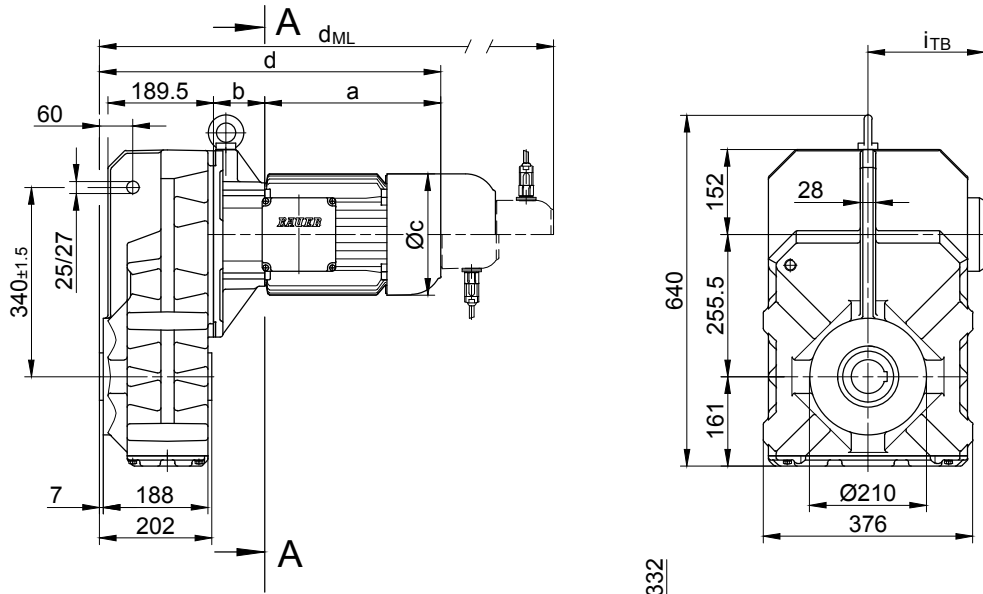
BF-series shaft-mounted geared motors

Dimension Metric

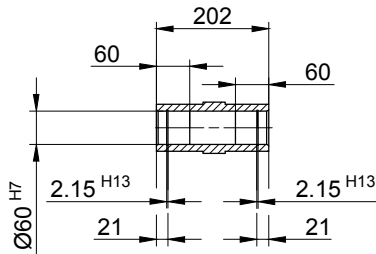
BF60-BF60Z

With torque arm

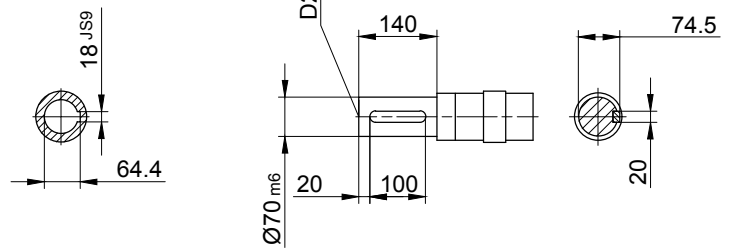
Code -0./



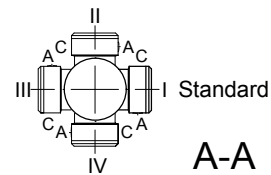
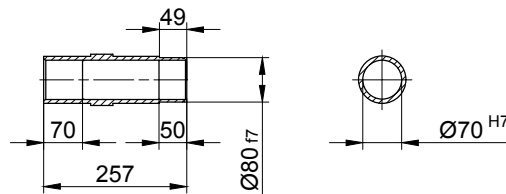
Code -4./



Code -1./



Code -5./



Type	a*	b	c	d*	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	136.5	652	693	759.5	652
BF60-../D..09..	251	85.5	181	541.5	158	634.5	648.5	739	634.5
BF60Z-../D..09..	251	195.5	181	651.5	158	744.5	758.5	849	744.5
BF60-../D..11..	319	92	228	616	181	714	723	818.5	714
BF60Z-../D..11..	319	202	228	726	181	824	833	928.5	824
BF60-../D..13..	393	105	258	703	218	814	810	918.5	811
BF60-../D..16..	454.5	119	310	778.5	244	922	885.5	1026	922
BF60-../D..18..	542	141	348	888	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

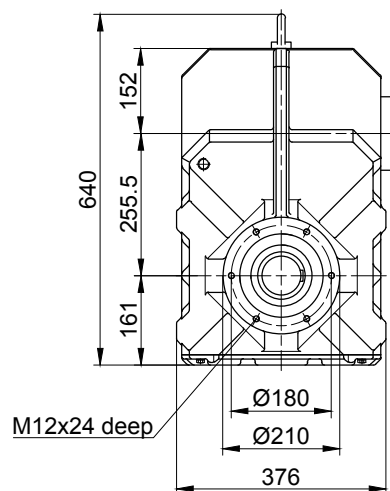
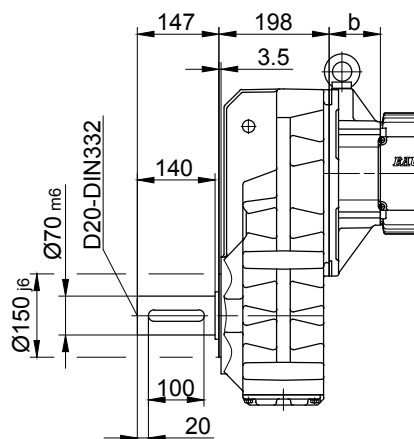
BF-series shaft-mounted geared motors

Dimension Metric

BF60-BF60Z

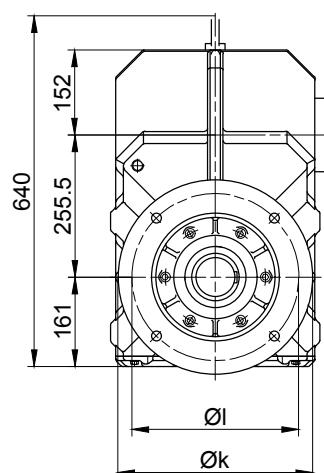
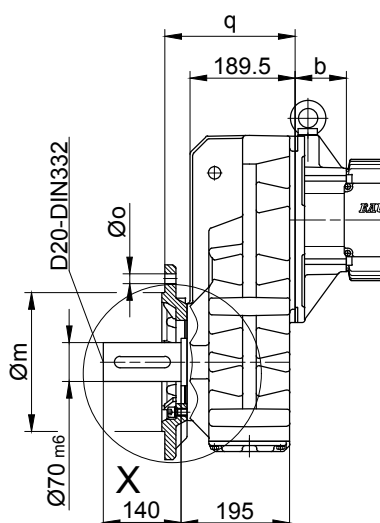
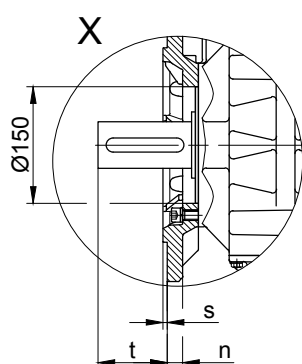
Flange with tapped holes

Code -7./



Flange with clearance holes

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

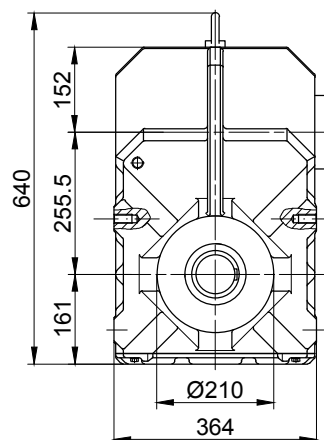
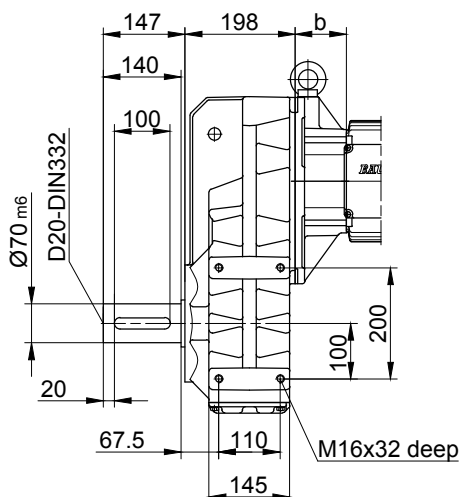


Flange dimensions

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.

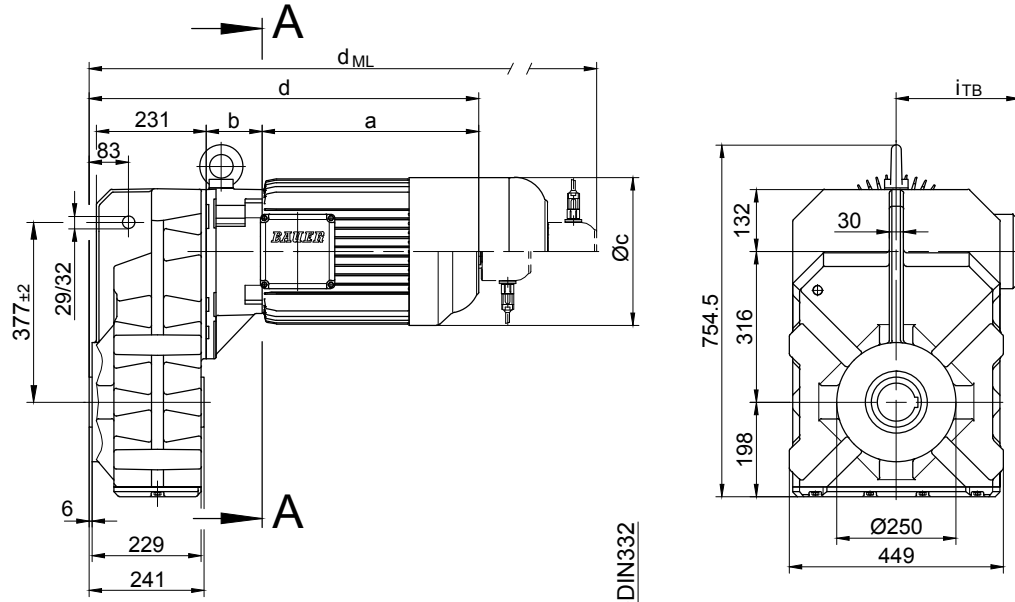
BF-series shaft-mounted geared motors

Dimension Metric

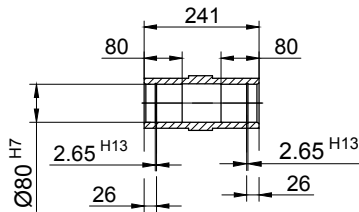
BF70-BF70Z

With torque arm

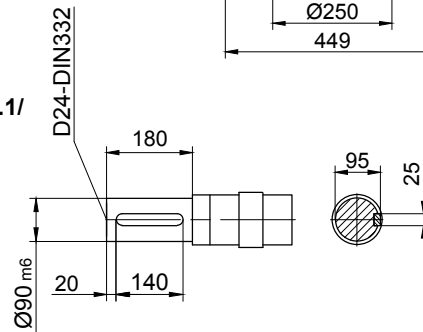
Code -0./



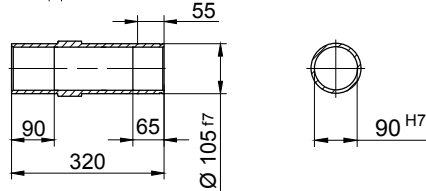
Code -4/



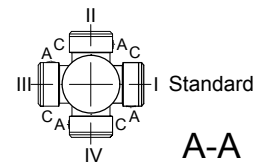
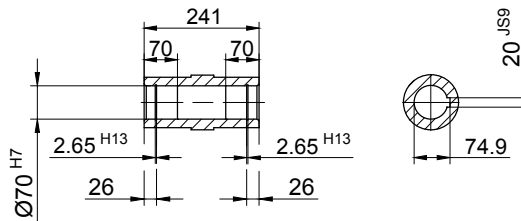
Code -1/



Code -5/



Code -4/K70



Type	a*	b	c	d*	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	136.5	714	755	821.5	714
BF70-../D..09..	251	83.5	181	580.5	158	673.5	687.5	778	673.5
BF70Z-../D..09..	251	216.5	181	713.5	158	806.5	820.5	911	806.5
BF70-../D..11..	319	90	228	655	181	753	762	857.5	753
BF70Z-../D..11..	319	223	228	788	181	886	895	990.5	886
BF70-../D..13..	393	103	258	742	218	853	849	957.5	853
BF70Z-../D..13..	393	236	258	875	218	986	982	1090.5	986
BF70-../D..16..	454.5	117	310	817.5	244	961	924.5	1064.5	961
BF70Z-../D..16..	454.5	250	310	950.5	244	1094	1057.5	1198	1094
BF70-../D..18..	542	139	348	927	288	1076.5	1034	1180.5	1076.5
BF70Z-../D..18..	542	272	348	1060	288	1209.5	1167	1313.5	1209.5
BF70-../D..20L	643.5	156	363	1045.5	303.5	1173	1151.5	1279	1173
BF70-../D..22S	703.5	156	363	1105.5	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

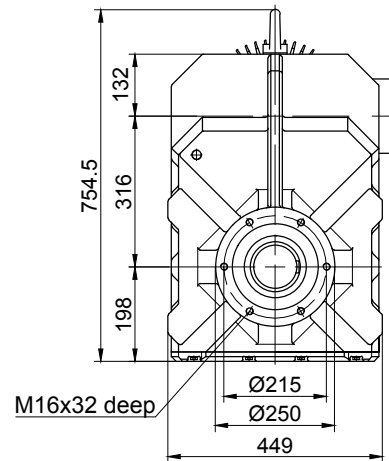
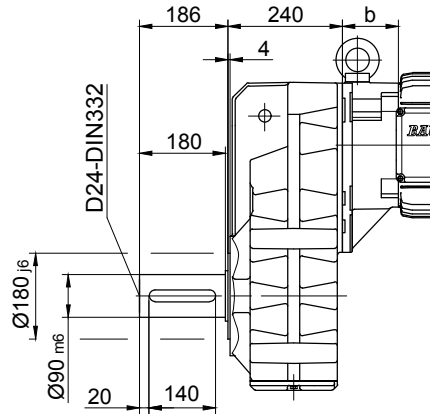
BF-series shaft-mounted geared motors

Dimension Metric

BF70-BF70Z

Flange with tapped holes

Code -7./

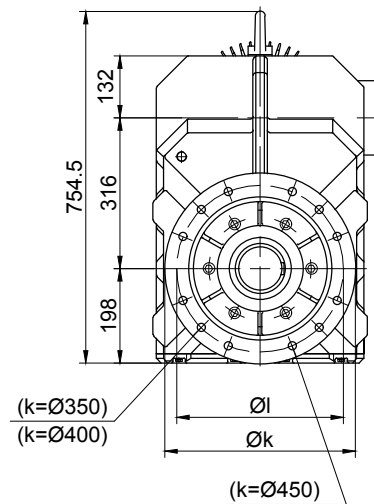
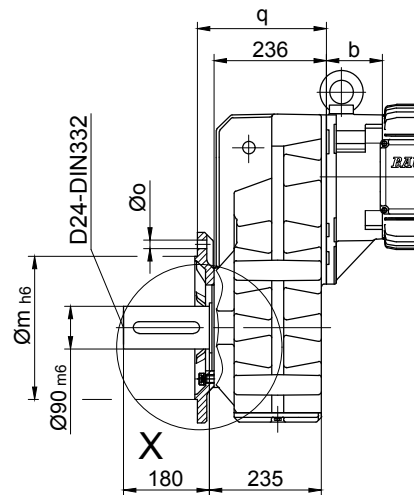
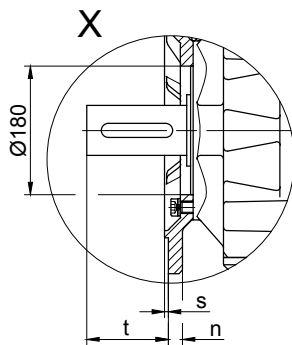


Flange with clearance holes

Code -3./

(Code -2./)

(Code -4./)

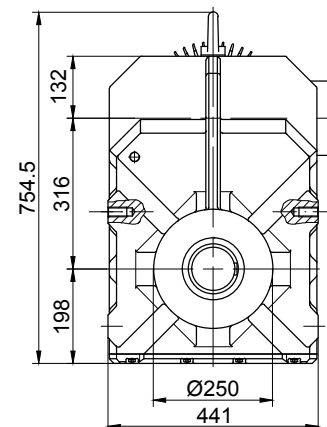
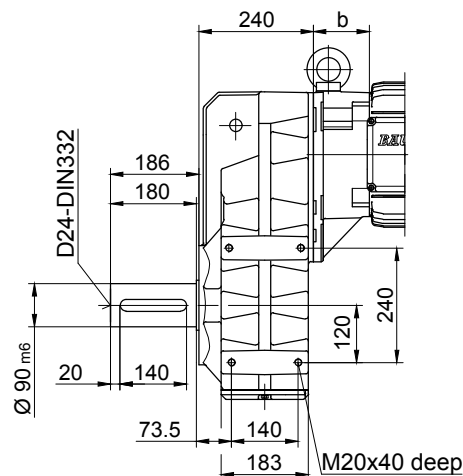


Flange dimensions

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.

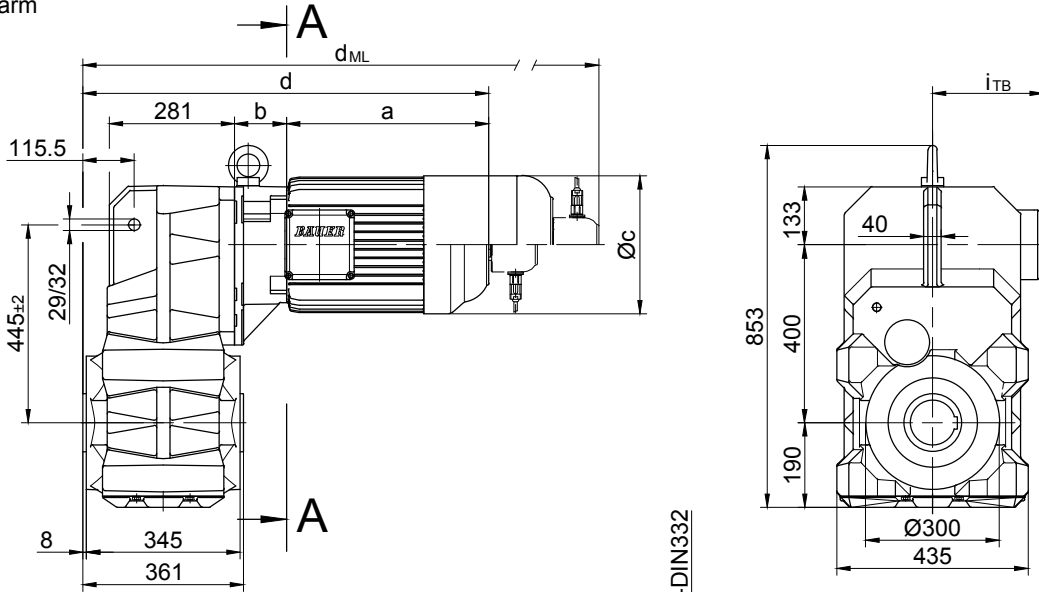
BF-series shaft-mounted geared motors

Dimension Metric

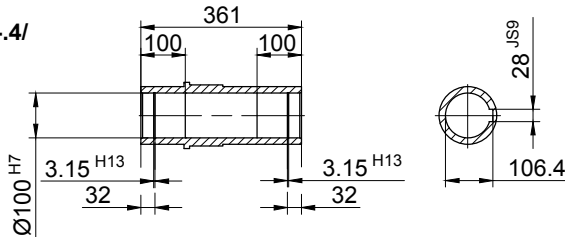
BF80-BF80Z

With torque arm

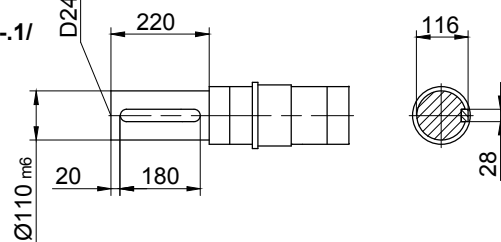
Code -0./



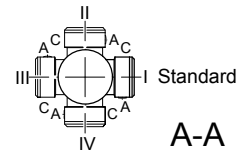
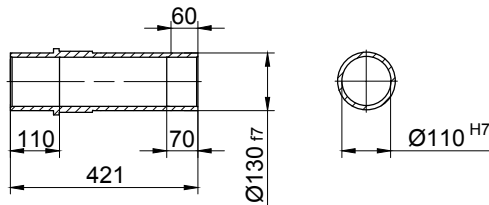
Code -4/



Code -1/



Code -5/



A-A

Type	a*	b	c	d*	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	136.5	808.5	849.5	916	808.5
BF80-../D..09..	251	83.5	181	675	158	768	782	872.5	768
BF80Z-../D..09..	251	216.5	181	808	158	901	915	1005.5	901
BF80-../D..11..	319	90	228	749.5	181	847.5	856.5	952	847.5
BF80Z-../D..11..	319	223	228	882.5	181	980.5	989.5	1085	980.5
BF80-../D..13..	393	103	258	836.5	218	947.5	943.5	1052	947.5
BF80Z-../D..13..	393	236	258	969.5	218	1080.5	1076.5	1185	1080.5
BF80-../D..16..	454.5	117	310	912	244	1055.5	1019	1159.5	1055.5
BF80Z-../D..16..	454.5	250	310	1045	244	1188.5	1152	1292.5	1188.5
BF80-../D..18..	542	139	348	1021.5	288	1171	1128.5	1275	1171
BF80Z-../D..18..	542	272	348	1154.5	288	1304	1261.5	1408	1304
BF80-../D..20L	643.5	153	363	1137	303.5	1264	1243	1370.5	1264
BF80-../D..22S	703.5	153	363	1197	303.5	1324	1303	1430.5	1324
BF80-../D..22M	703.5	153	363	1197	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

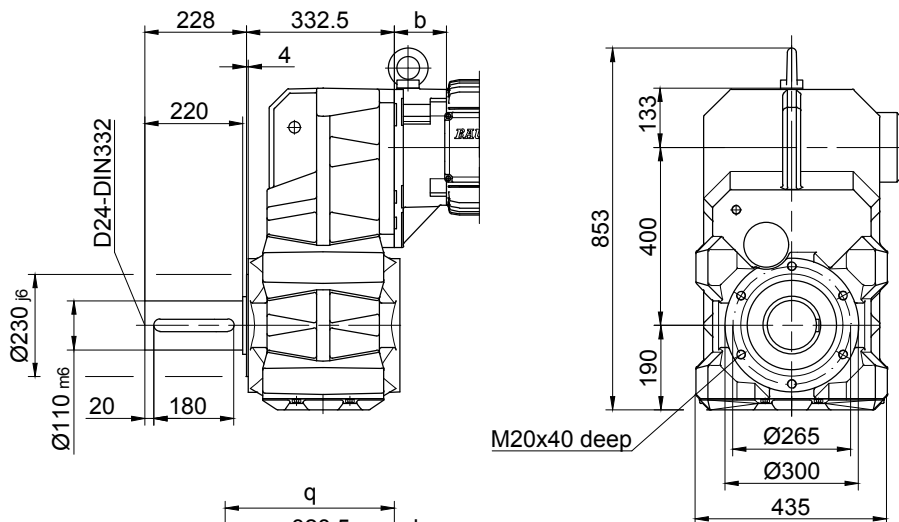
BF-series shaft-mounted geared motors

Dimension Metric

BF80-BF80Z

Flange with tapped holes

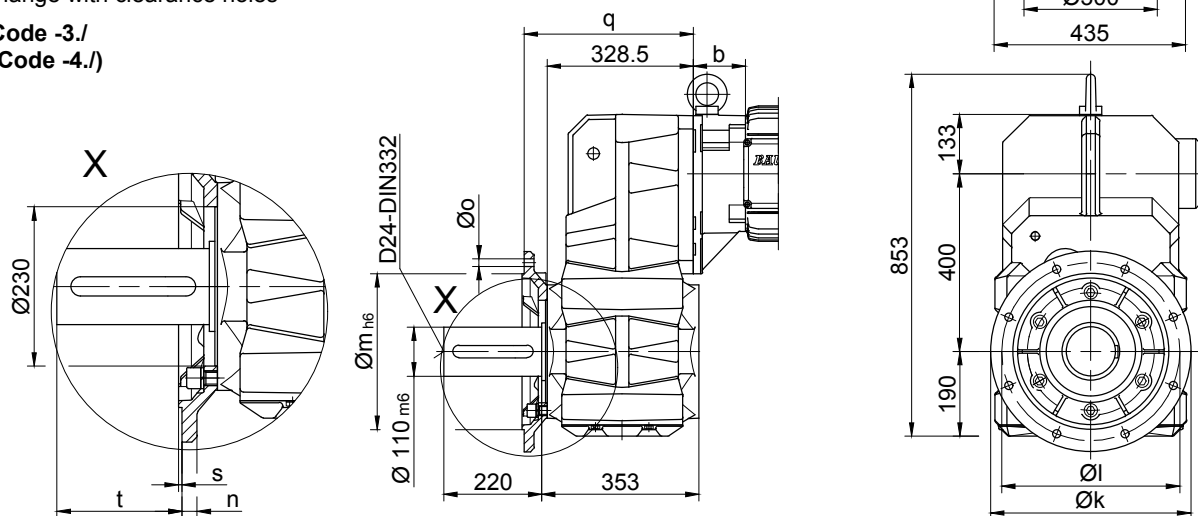
Code -7./



Flange with clearance holes

Code -3./

(Code -4./)

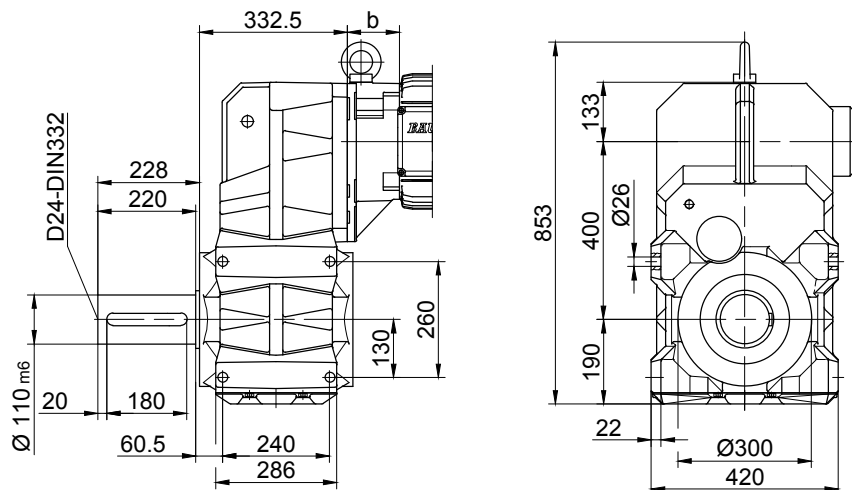


Flange dimensions

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.

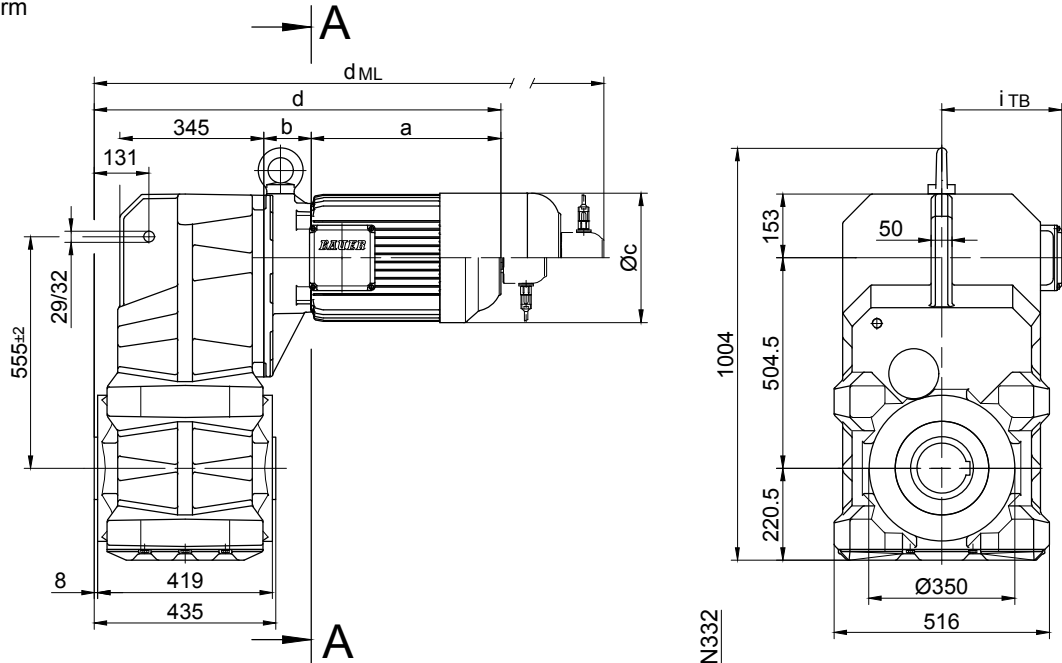
BF-series shaft-mounted geared motors

Dimension Metric

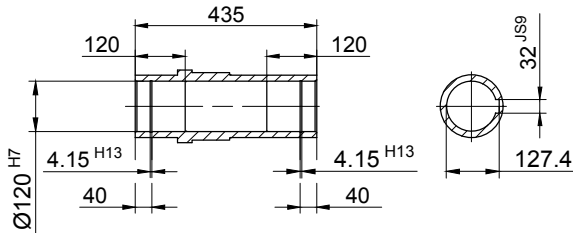
BF90-BF90Z

With torque arm

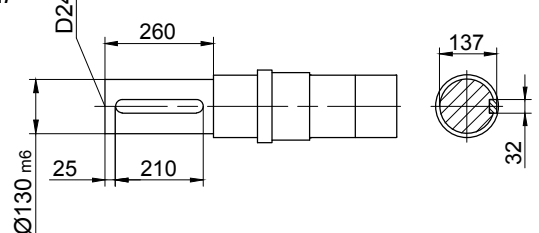
Code -0./



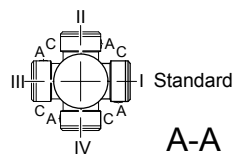
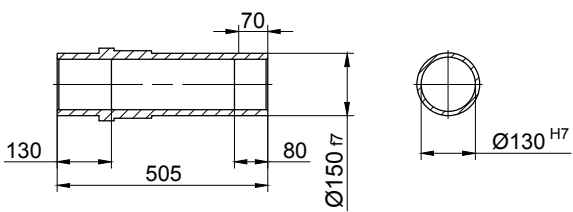
Code -4/



Code -1/



Code -5/



Type	a*	b	c	d*	i _{TB}	Design with motor extensions			
						ES../ZS..	G	ES../ZS..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BF90Z-../D..09..	251	252.5	181	909.5	158	1002.5	1016.5	1107	1002.5
BF90-../D..11..	319	87	228	812	182	910	919	1014.5	910
BF90Z-../D..11..	319	259	228	984	182	1082	1091	1186.5	1082
BF90-../D..13..	393	100	258	899	218	997	1006	1101.5	997
BF90Z-../D..13..	393	272	258	1071	218	1182	1178	1286.5	1182
BF90-../D..16..	454.5	114	310	974.5	244	1118	1081.5	1222	1118
BF90Z-../D..16..	454.5	286	310	1146.5	244	1290	1253.5	1394	1290
BF90-../D..18..	542	136	348	1084	288	1233.5	1191	1337.5	1233.5
BF90Z-../D..18..	542	308	348	1254	288	1403.5	1361	1507.5	1403.5
BF90-../D..20L	643.5	156	363	1205.5	303.5	1333	1311.5	1439	1333
BF90-../D..22S	703.5	156	363	1265.5	303.5	1393	1371.5	1499	1393
BF90-../D..22M	703.5	156	363	1265.5	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/DPE08X**A**4
 Comment: No change to the dimensions shown
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08X**B**4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

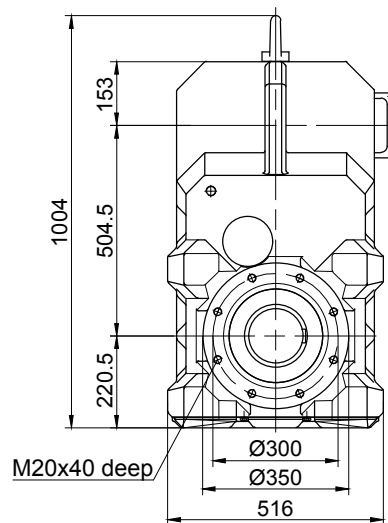
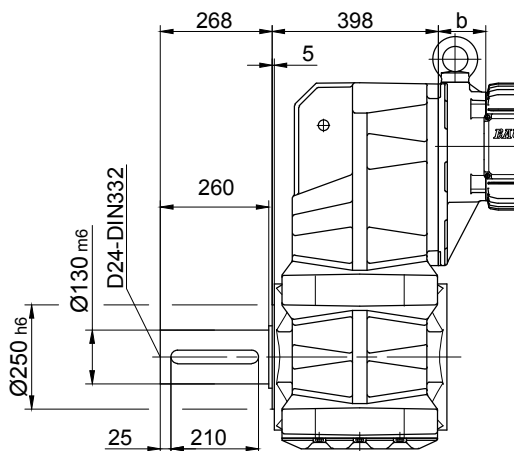
BF-series shaft-mounted geared motors

Dimension Metric

BF90-BF90Z

Flange with tapped holes

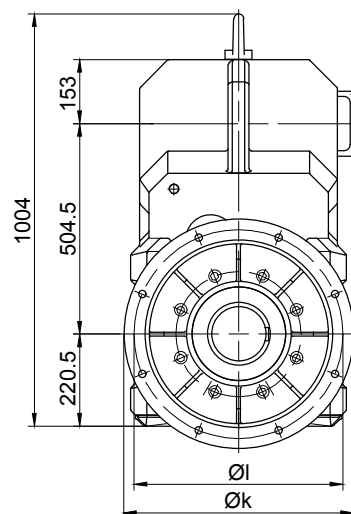
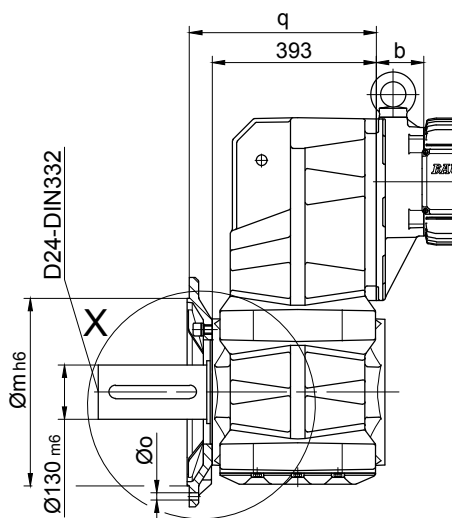
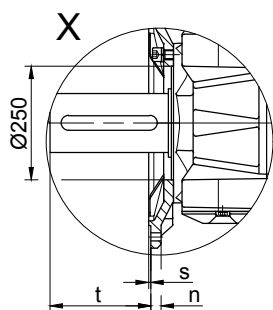
Code -7./



Flange with clearance holes

Code -3./

(Code -4./)

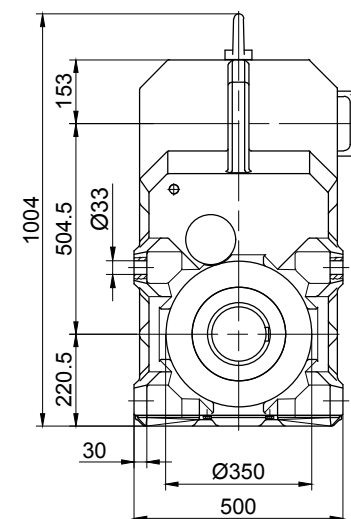
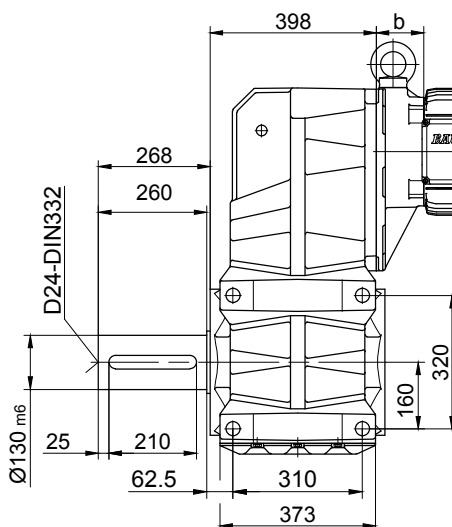


Flange dimensions

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/

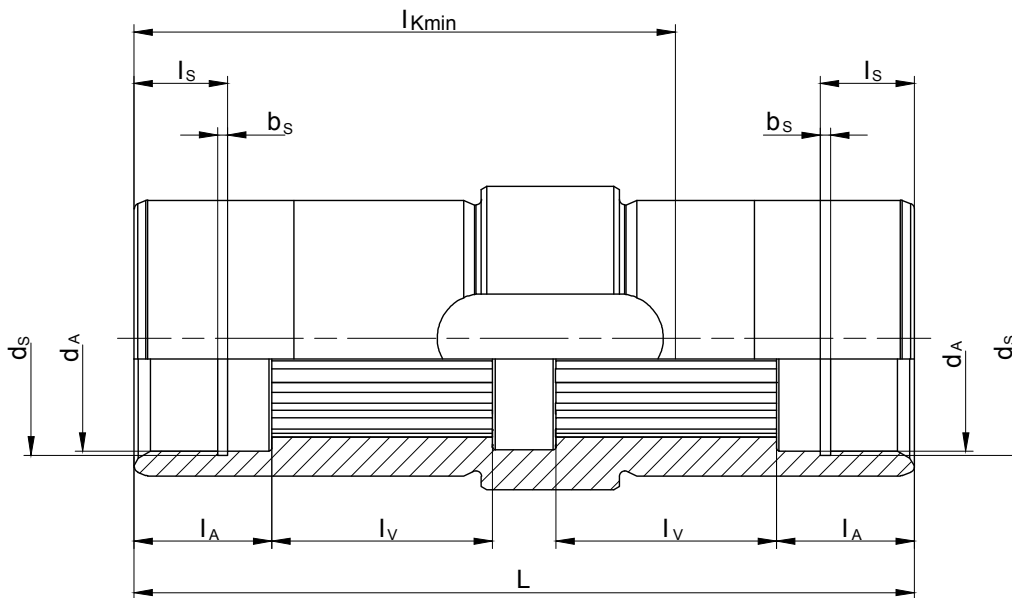


The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

Additional Dimension Sheet Metric

Splined shaft BF



11

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}

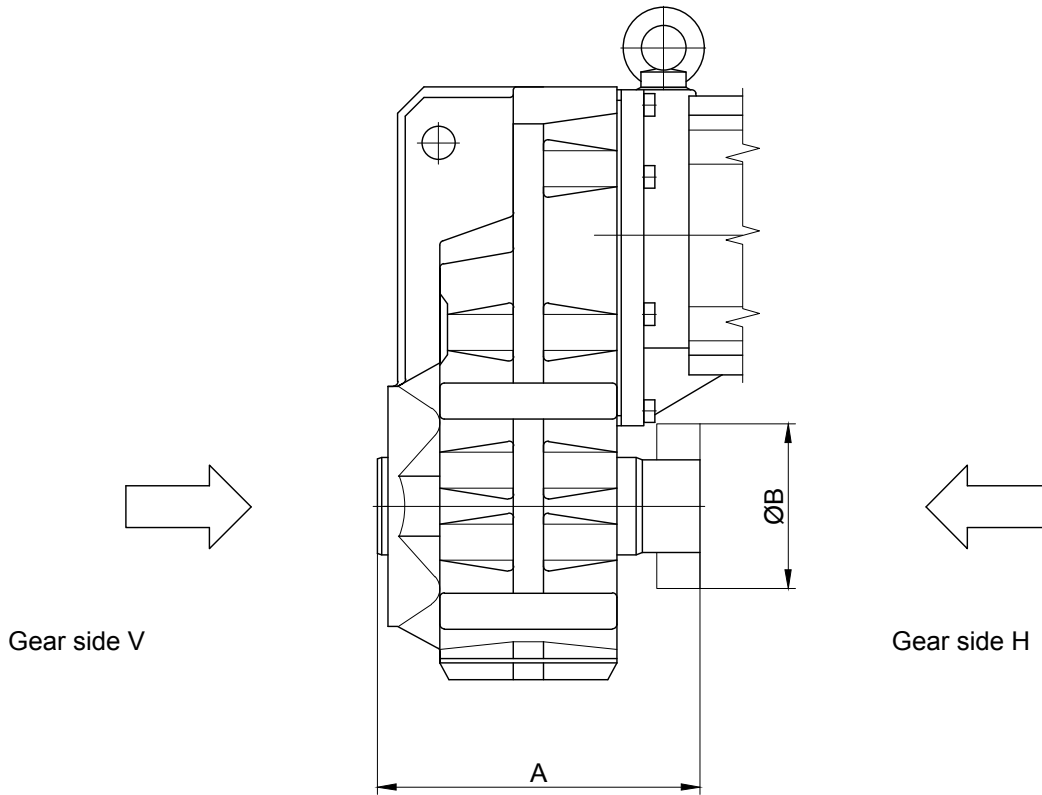
The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

Additional Dimension Sheet Metric

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

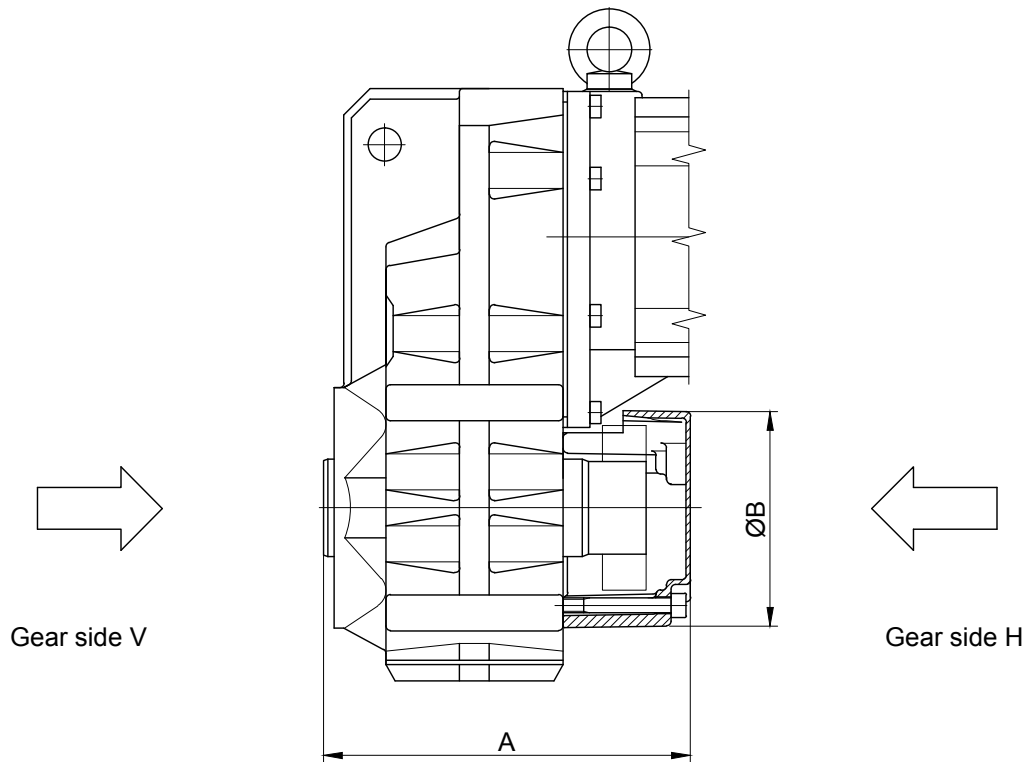
The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

Additional Dimension Sheet Metric

Shrink disc coupling with (SSV) cover

(Code BF10-.5A/...)
(Code BF10Z-.5A/...)



11

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

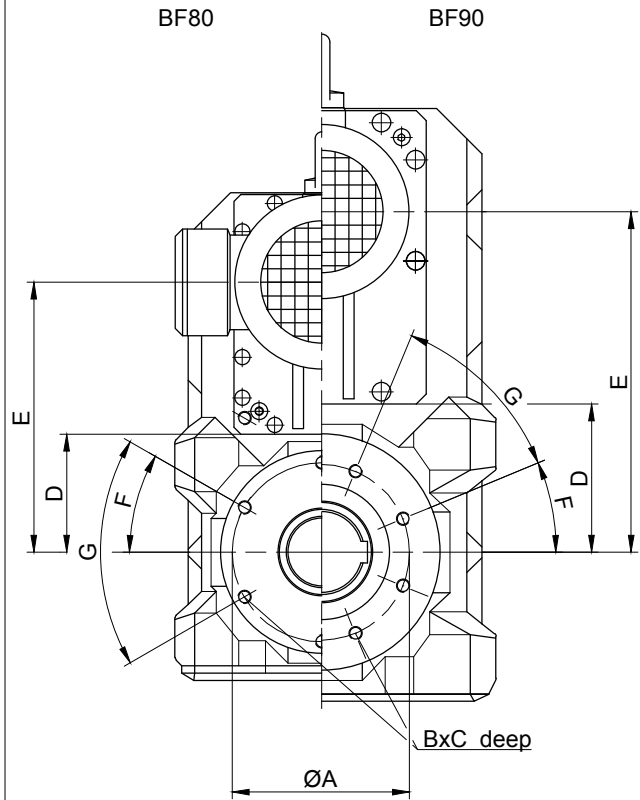
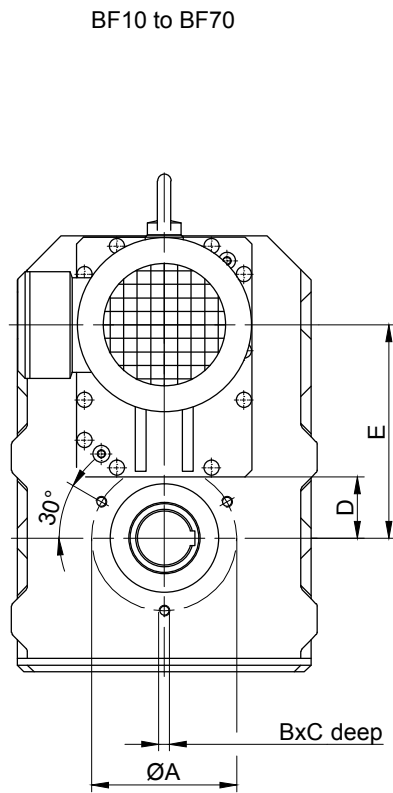
The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

Additional Dimension Sheet Metric

Screw Holes Side (H)

→ Sealing 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°

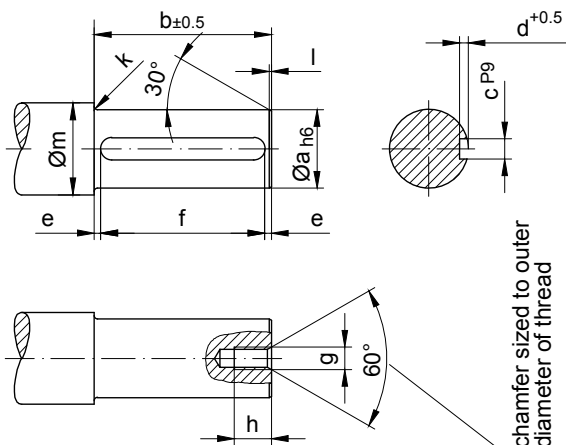
The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

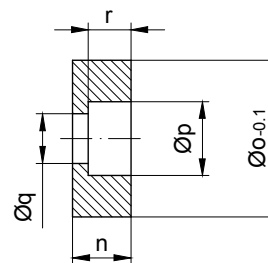
Additional Dimension Sheet Metric

Assembly tools for shaft mounted gears with splined shaft

Pos.1 Shaft

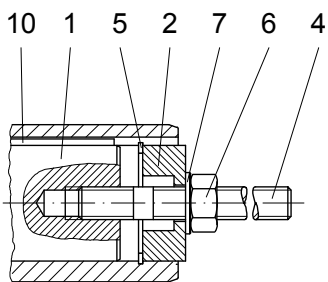


*Pos.2 Disc

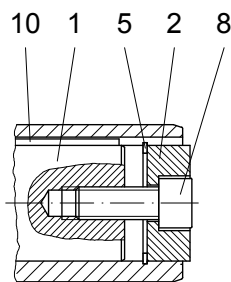


edges cut
Material:
C45 DIN 17200

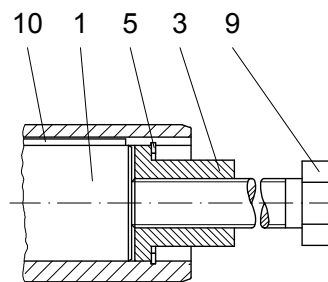
Type	Dimensions (mm)															
	Pos.1 Shaft											Pos.2 Disc				
	a	b	c	d	e	f	g	h	k	l	m	n	o	p	q	r
BF06	25	70	8	4	3.5	63 ^{+0.5}	M8	18	2	1.5	33	13.5	24.8	15	9	8.5
BF10	25	102	8	4	6	90 ^{+0.5}	M8	18	2.5	1.5	33	13.5	24.8	15	9	8.5
BF20	30	108	8	4	9	90 ^{+0.5}	M10	20	3	1.5	38	15	29.8	18	11	10
BF30	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



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.

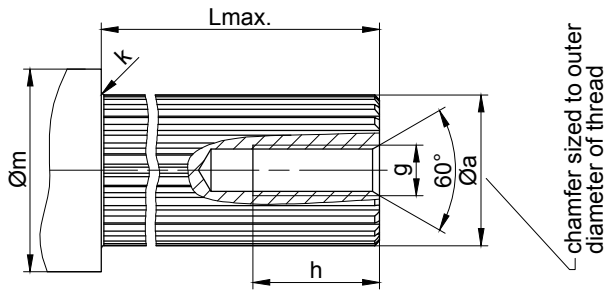
The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

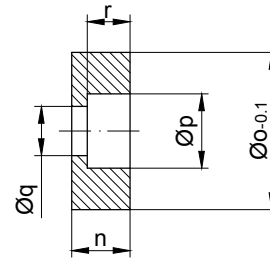
Additional Dimension Sheet Metric

Assembly tools for shaft mounted gears with splined shaft

Pos.1 Shaft

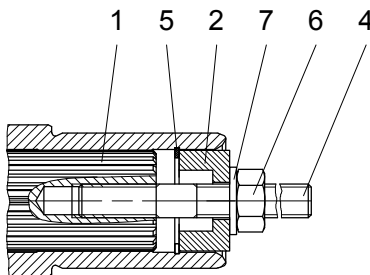


*Pos.2 Disc

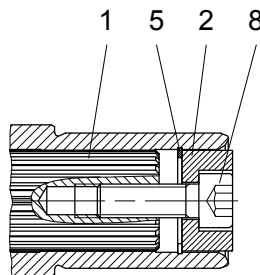


√x, edges cut
Material:
C45 DIN 17200

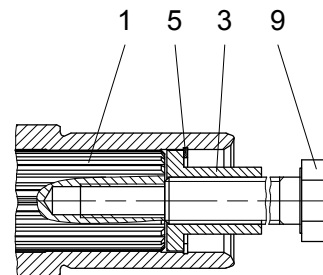
Type	Dimensions (mm)										
	Pos.1 Shaft						Pos.2 Disc				
	a	g	h	k	Lmax.	m	n	o	p	q	r
BF06	DIN 5480-W25x1.25x18x8f	M8	20	2	70	37	13	29.9	15	9	8
BF10	DIN 5480-W30x1.25x22x8f	M10	25	2.5	100	38	15	30.4	18	11	10
BF20	DIN 5480-W35x2x16x8f	M10	25	3	110	43	14	35.9	18	11	10
BF30	DIN 5480-W40x2x18x8f	M12	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



Installation



Holding



Dism

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

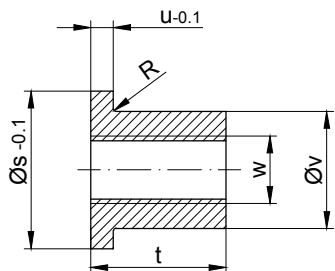
The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

Additional Dimension Sheet Metric

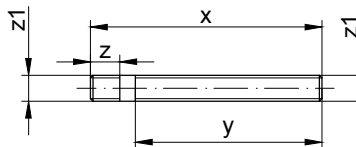
Assembly tools for shaft mounted gears with splined shaft

Pos.3 Sleeve



✓ 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"

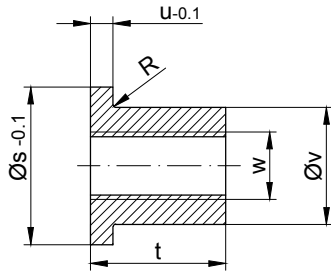
The actual gearbox design can vary from the geometry shown.

BF-series shaft-mounted geared motors

Additional Dimension Sheet Metric

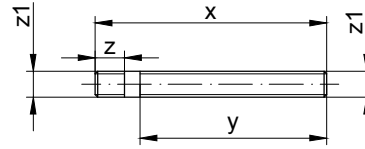
Assembly tools for shaft mounted gears with splined shaft

Pos.3 Sleeve



√^x, edges cut
Material:
C45 DIN 17200

Pos.4 Stud Bolt



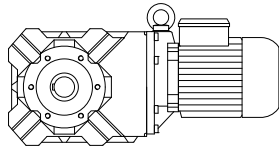
Material: Steel, tensile strength
≥ 1000N/mm²
threads rolled

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											
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.



Dimensional drawings bevel-gear motors

337-396

- **Standard** Imperial/Metric

Additional Dimension Sheet

- Splined shaft acc. DIN 5480
- Additional dimension sheet
- Shrink disk 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 splined shaft
- Multiple splining to DIN 5480
- Sealing cap (VK)
- Sealing cover (VD)

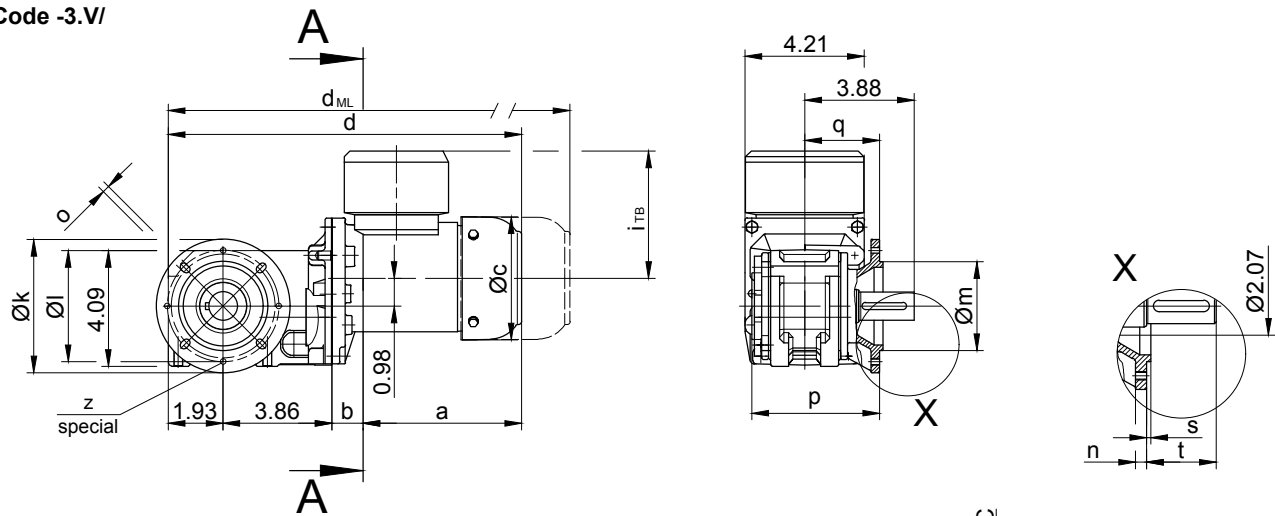
BK-series bevel-geared motors

Dimension Imperial

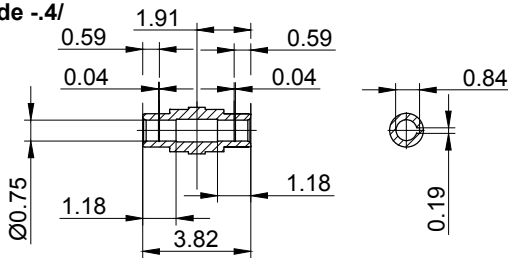
BK06

Flange with clearance holes at front

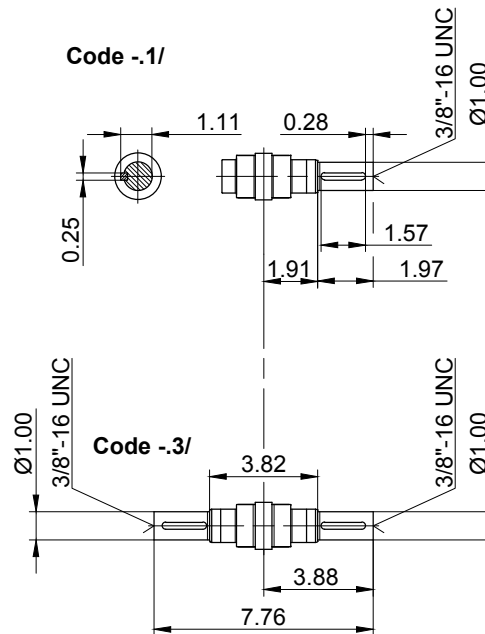
Code -3.V/



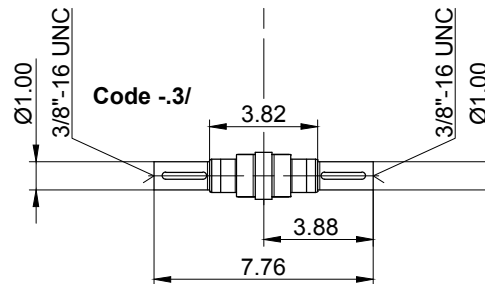
Code -4/



Code -1/



Code -3/



Shaft extension tolerance:

up to 1.5 in diameter: +0.000 / -0.0005 in

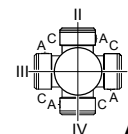
over 1.5 in diameter: +0.000 / -0.001 in

Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BK06	k	l	m	n	o	p	q	s	t	z
standard -37V/	4.724	3.937	3.150	0.315	0.260	4.528	2.657	0.118	1.969	-
special -37V	4.724	3.937	3.150	0.315	0.260	4.528	2.657	0.118	1.969	4xM6

Standard



A-A



Type	a*	b	c	d*	Øv	Design with motor extensions				
						i _{TB}	E./ES..	G	E./ES.-G	RR/RL
							d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BK06-../D04..	5.63	1.10	4.37	12.52	2.76	4.41	14.23	14.98	16.67	-
BK06-../D05..	6.69	1.18	4.84	13.66	2.76	4.61	15.31	17.72	19.35	-
BK06-../D06..	6.69	1.18	4.84	13.66	2.76	4.69	15.31	17.72	19.35	-
BK06-../D07..	7.48	1.18	4.84	14.45	2.76	4.69	16.10	18.50	20.14	-
BK06-../D..08..	7.87	2.91	6.14	16.57	-	5.37	19.17	20.79	23.41	19.17

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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

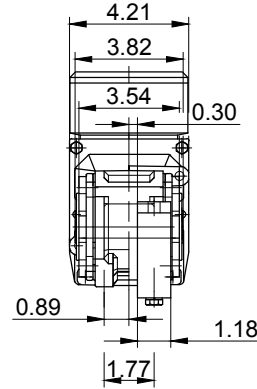
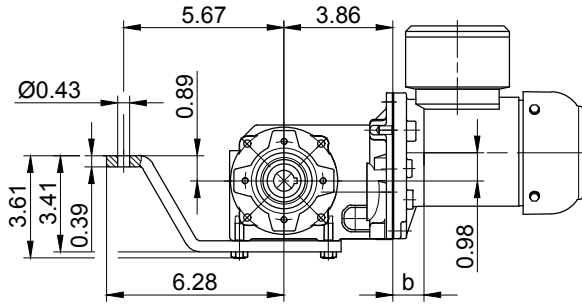
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

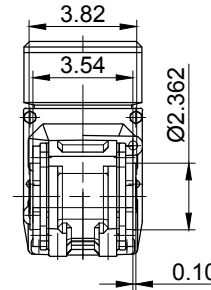
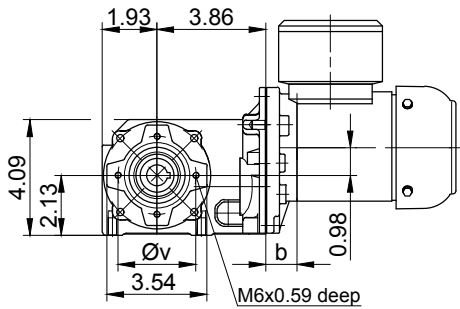
Torque arm at front

Code -5.V/



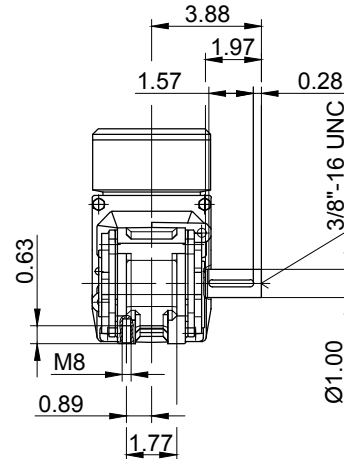
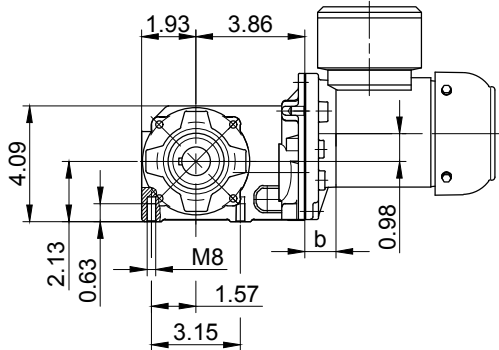
Flange with tapped holes at front

Code -7.V/



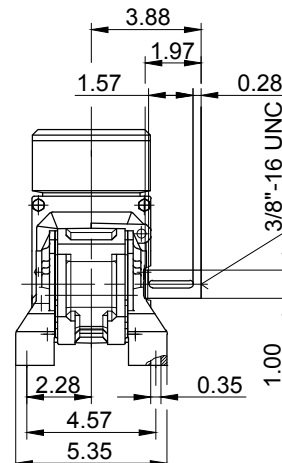
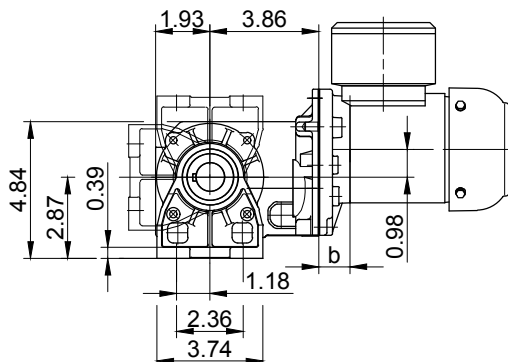
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

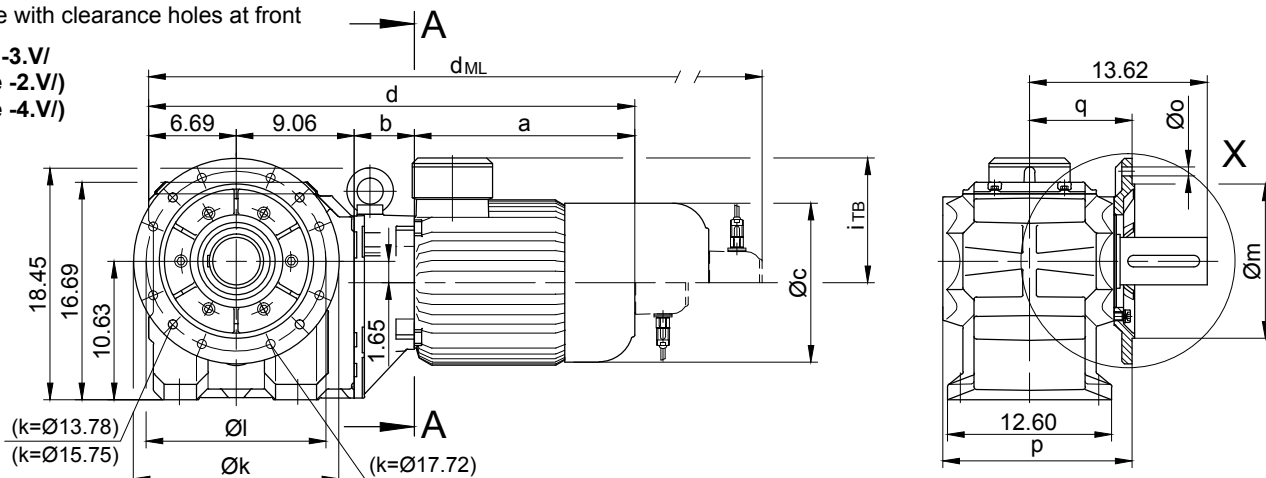
BK-series bevel-geared motors

Dimension Imperial

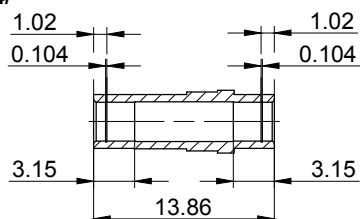
BK10 - BK10Z

Flange with clearance holes at front

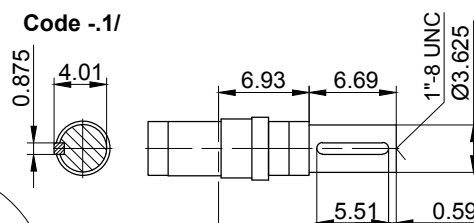
Code -3.V/
(Code -2.V/
(Code -4.V/)



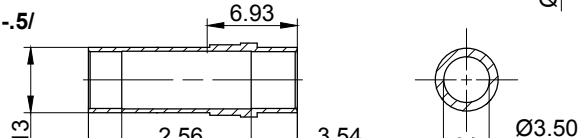
Code -4/



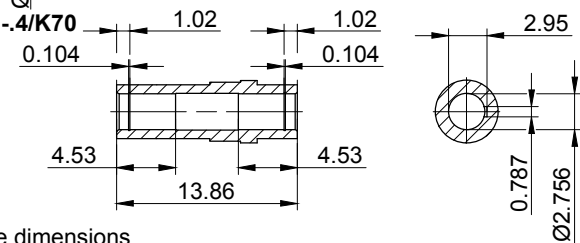
Code -1/



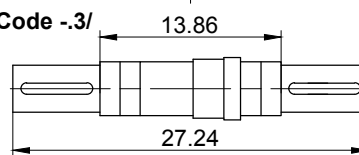
Code -5/



Code -4/K70



Code -3/



Flange dimensions

BK70(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	15.748	13.780	11.811	0.787	4 x $\varnothing 0.689$	14.528	7.874	0.197	6.142
small -2.V/	13.780	11.811	9.843	0.787	4 x $\varnothing 0.689$	14.528	7.874	0.197	6.142
big -4.V/	17.717	15.748	13.780	0.866	8 x $\varnothing 0.689$	14.921	8.268	0.197	5.748

Type	a*	b	c	d*	i _{TB}	Design with motor extensions			
						ES./ZS..	G	ES./ZS.-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BK70Z-./D..08..	7.87	7.95	6.14	31.57	5.37	34.17	35.79	38.41	34.17
BK70-./D..09..	9.88	3.29	7.13	28.92	6.22	32.58	33.13	36.69	32.58
BK70Z-./D..09..	9.88	8.52	7.13	34.15	6.22	37.81	38.37	41.93	37.81
BK70-./D..11..	12.56	3.54	8.98	31.85	7.17	35.71	36.06	39.82	35.71
BK70Z-./D..11..	12.56	8.78	8.98	37.09	7.17	40.94	41.30	45.06	40.94
BK70-./D..13..	15.47	4.06	10.16	35.28	8.54	39.65	39.49	43.76	39.65
BK70Z-./D..13..	15.47	9.29	10.16	40.51	8.54	44.88	44.72	49.00	44.88
BK70-./D..16..	16.89	4.61	12.68	37.24	9.57	42.91	41.50	47.01	42.91
BK70Z-./D..16..	16.89	9.84	12.68	42.48	9.57	48.15	46.73	52.24	48.15
BK70-./D..18..	20.79	5.47	14.49	42.01	11.34	47.87	46.26	51.97	47.87
BK70Z-./D..18..	20.79	10.71	14.49	47.24	11.34	53.11	51.50	57.20	53.11

Shaft extension tolerance:

up to 1.5 in diameter: +0.000 / -0.0005 in

over 1.5 in diameter: +0.000 / -0.001 in

Flange spigot diameter: +0.0003 / -0.0015 in



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

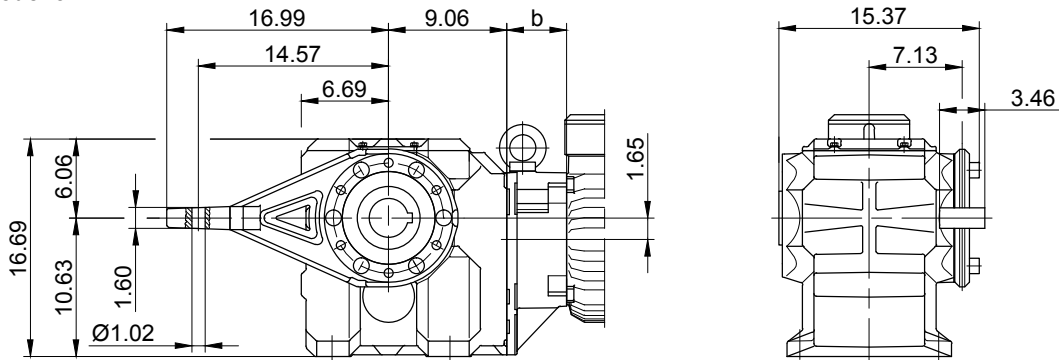
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

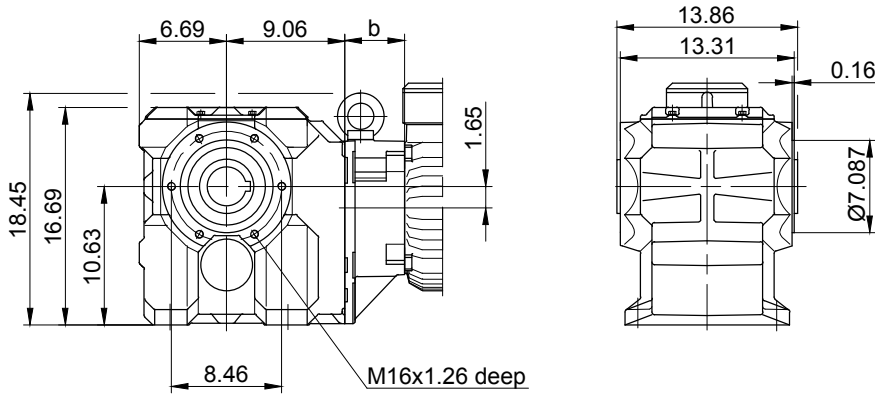
Torque arm at front

Code -5.V/



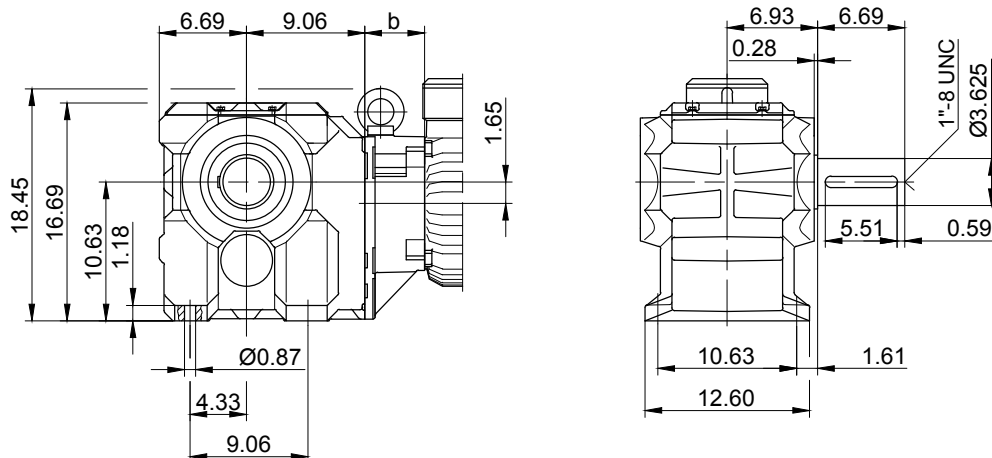
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

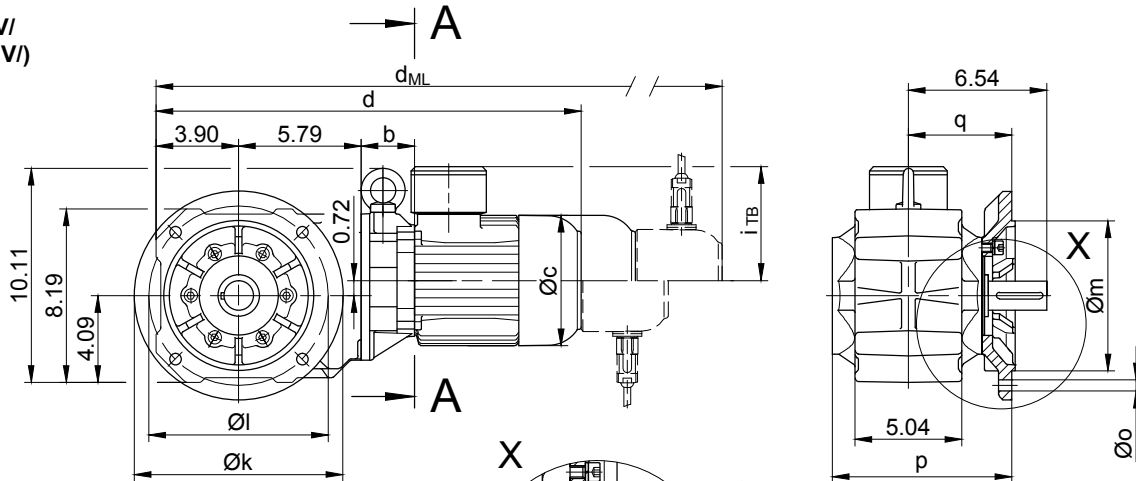
BK-series bevel-geared motors

Dimension Imperial

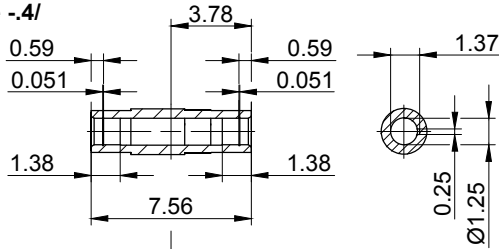
BK20 - BK20Z

Flange with clearance holes at front

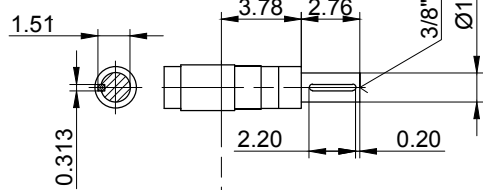
Code -3.V/
(Code -2.V/)



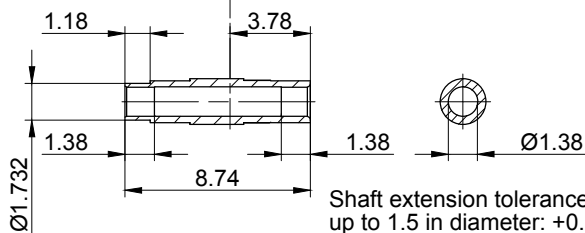
Code -4/



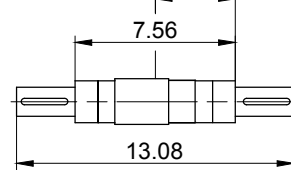
Code -1/



Code -5/



Code -3/

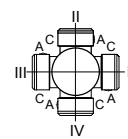


Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BK20(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	9.843	8.465	7.087	0.630	0.532	8.484	4.882	0.157	1.654
small -2.V/	7.874	6.496	5.118	0.472	0.433	8.130	4.528	0.138	2.008

Standard



A-A

Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	ES../ZS..	G	E../ES.-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BK20Z-../D04..	5.63	3.94	4.37	19.25	4.41	20.96	21.71	23.41	-
BK20-../D05..	6.69	2.36	4.84	18.74	4.61	20.39	22.80	24.43	-
BK20Z-../D05..	6.69	4.02	4.84	20.39	4.61	22.05	24.45	26.08	-
BK20-../D06..	6.69	2.36	4.84	18.74	4.69	20.39	22.80	24.43	-
BK20Z-../D06..	6.69	4.02	4.84	20.39	4.69	22.05	24.45	26.08	-
BK20-../D07..	7.48	2.36	4.84	19.53	4.69	21.18	23.58	25.22	-
BK20Z-../D07..	7.48	4.02	4.84	21.18	4.69	22.83	25.24	26.87	-
BK20-../D..08..	7.87	2.52	6.14	20.08	5.37	22.68	24.29	26.91	22.68
BK20Z-../D..08..	7.87	5.75	6.14	23.31	5.37	25.91	27.52	30.14	25.91
BK20-../D..09..	9.88	3.09	7.13	22.66	6.22	26.32	26.87	30.43	26.32



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

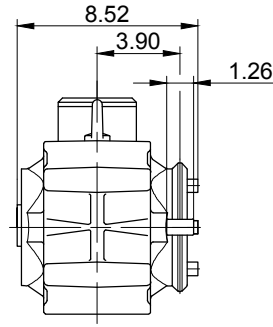
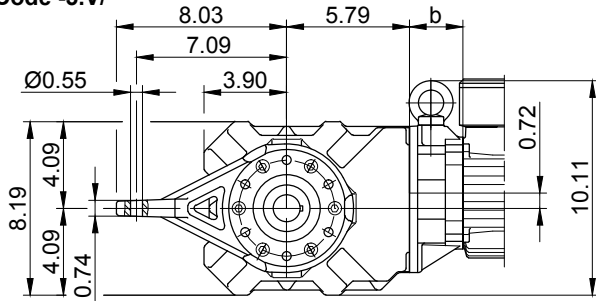
BK-series bevel-gear motors

Dimension Imperial

BK20 - BK20Z

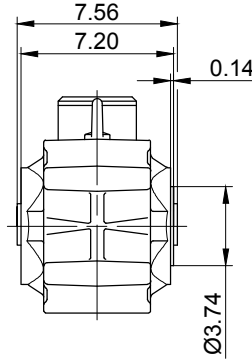
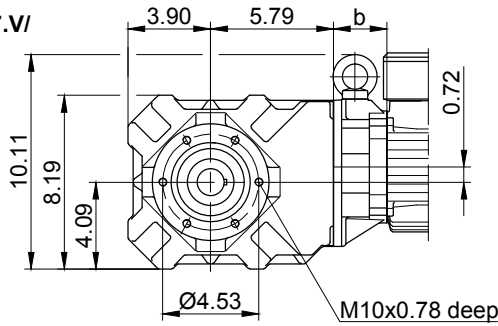
Torque arm at front

Code -5.V/



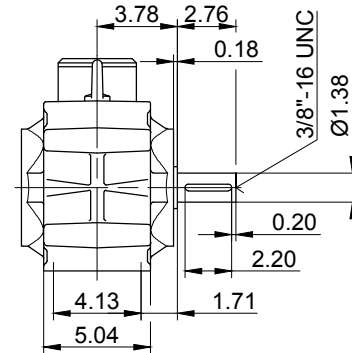
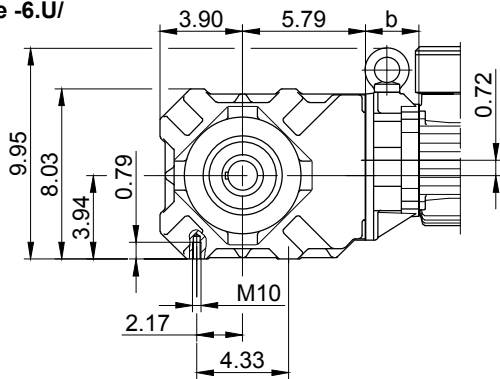
Flange with tapped holes at front

Code -7.V/



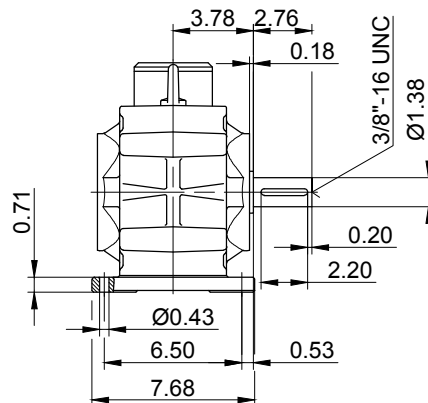
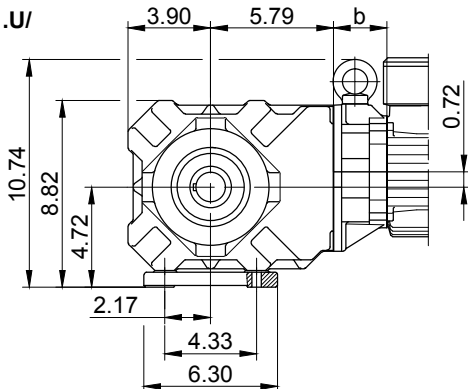
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

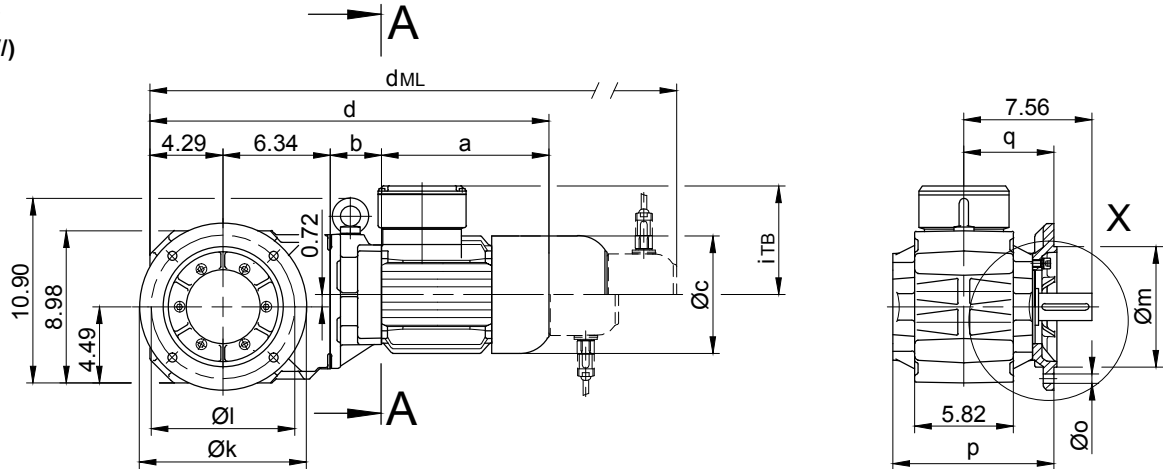
BK-series bevel-geared motors

Dimension Imperial

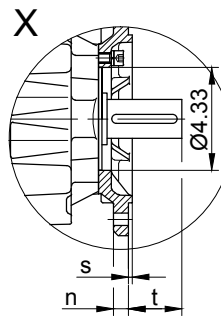
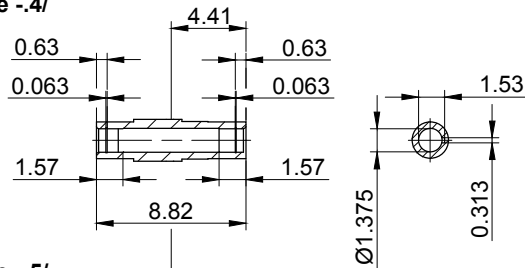
BK30 - BK30Z

Flange with clearance holes at front

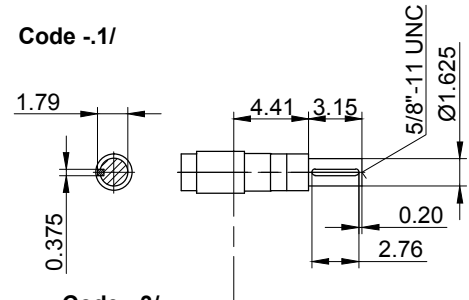
Code -3.V/
(Code -2.V/)



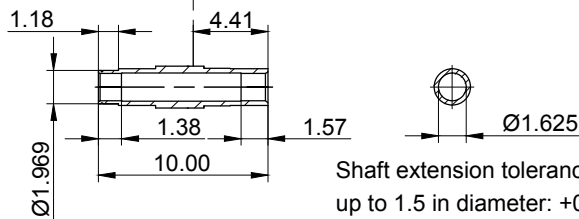
Code -4/



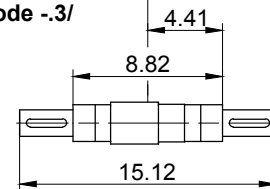
Code -1/



Code -5/



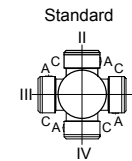
Code -3/



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BK30(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	9.843	8.465	7.087	0.630	0.532	9.528	5.315	0.157	2.244
small-2.V/	7.874	6.496	5.118	0.472	0.433	9.409	5.197	0.138	2.362



A-A

Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	E./ES.. d _{ML} *	G d _{ML} *	E./ES.-G d _{ML} *	RR/RL d _{ML} *
BK30-../D05..	6.69	2.28	4.84	19.61	4.61	21.26	23.66	25.30	-
BK30Z-../D05..	6.69	5.26	4.84	22.58	4.61	24.23	26.63	28.27	-
BK30-../D06..	6.69	2.28	4.84	19.61	4.69	21.26	23.66	25.30	-
BK30Z-../D06..	6.69	5.26	4.84	22.58	4.69	24.23	26.63	28.27	-
BK30-../D07..	7.48	2.28	4.84	20.39	4.69	22.05	24.45	26.08	-
BK30Z-../D07..	7.48	5.26	4.84	23.37	4.69	25.02	27.42	29.06	-
BK30-../D..08..	7.87	2.44	6.14	20.94	5.37	23.54	25.16	27.78	23.54
BK30Z-../D..08..	7.87	5.41	6.14	23.92	5.37	26.52	28.13	30.75	26.52
BK30-../D..09..	9.88	3.01	7.13	23.52	6.22	27.19	27.74	31.30	27.19
BK30Z-../D..09..	9.88	5.98	7.13	26.50	6.22	30.16	30.71	34.27	30.16
BK30-../D..11..	12.56	3.27	8.98	26.46	7.17	30.31	30.67	34.43	30.31



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

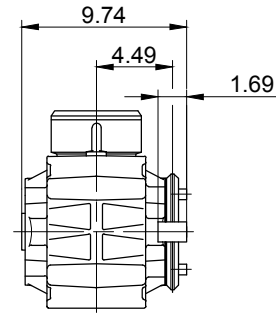
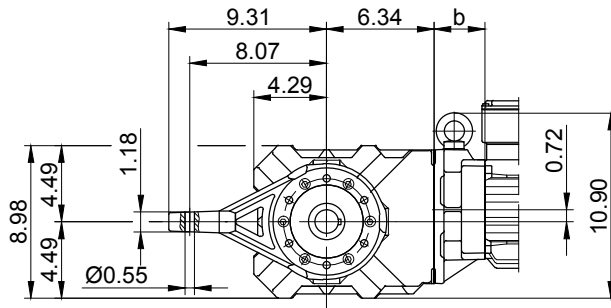
BK-series bevel-gear motors

Dimension Imperial

BK30 - BK30Z

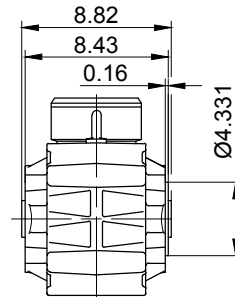
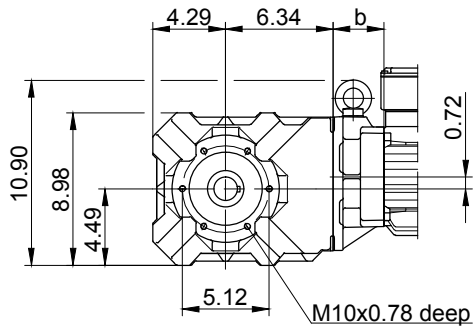
Torque arm at front

Code -5.V/



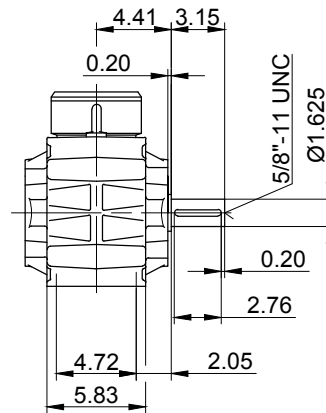
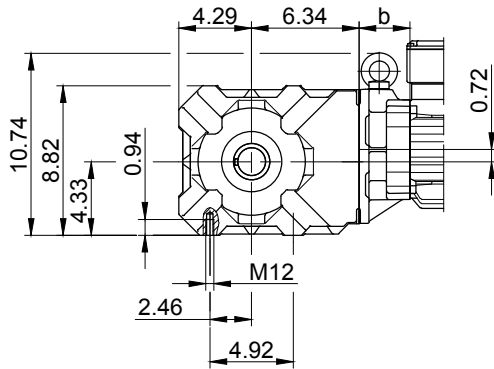
Flange with tapped holes at front

Code -7.V/



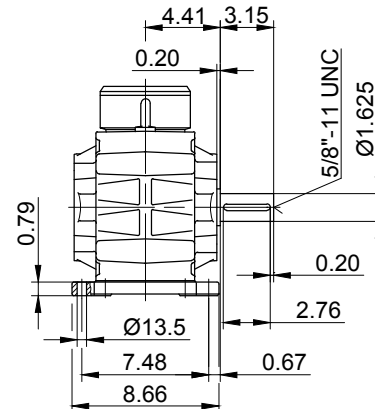
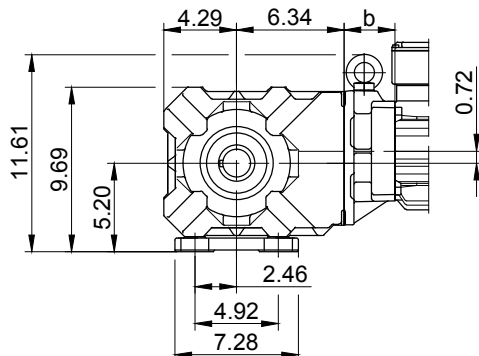
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

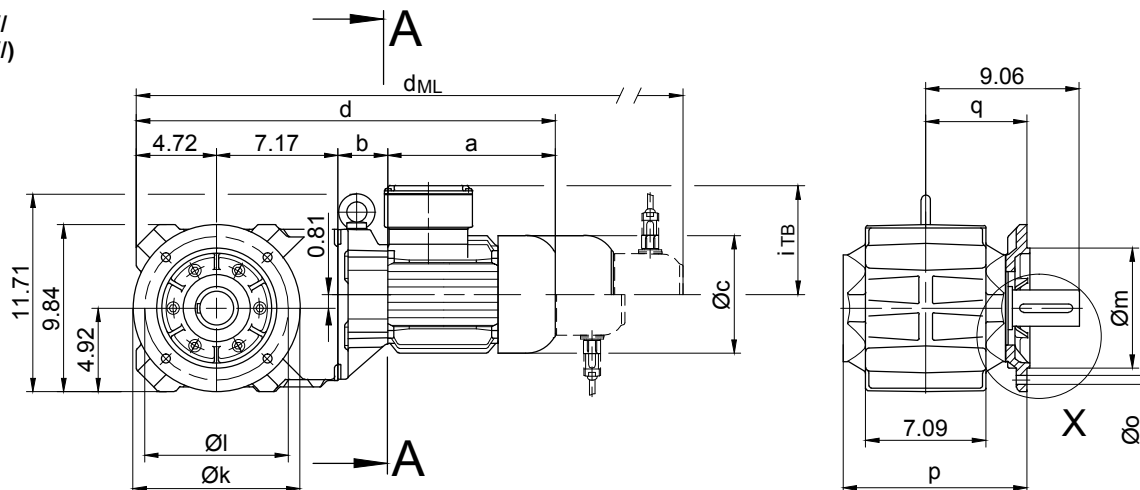
BK-series bevel-geared motors

Dimension Imperial

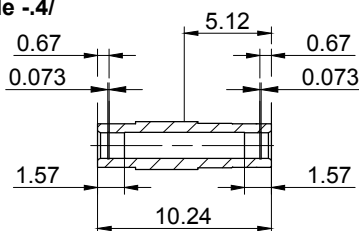
BK40 - BK40Z

Flange with clearance holes at front

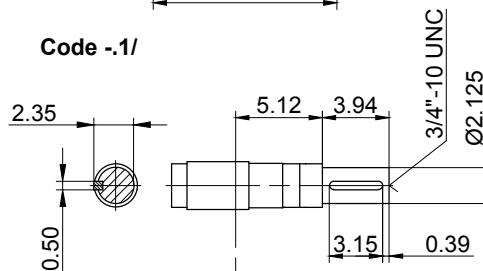
Code -3.V/
(Code 4.V)



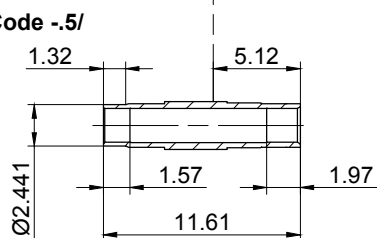
Code -4/



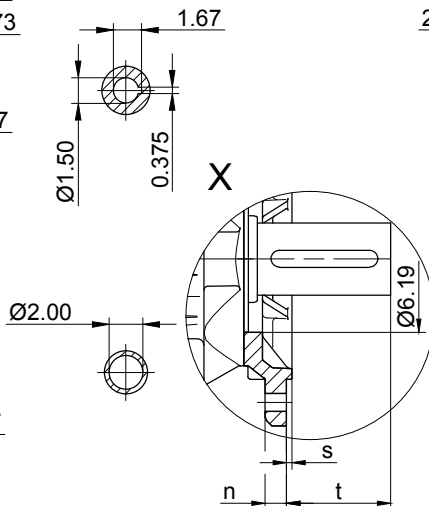
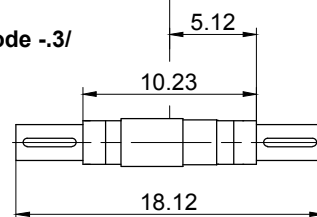
Code -1/



Code -5/



Code -3/

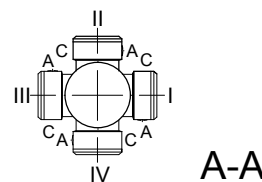


Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in

Flange dimensions Flange spigot diameter: +0.0003 / -0.0015 in

BK40(Z)	k	l	m	n	o	p	q	s	t
Standard -3V/	9.843	8.465	7.087	0.630	0.532	10.866	5.984	0.157	3.071
big -4V/	11.811	10.433	9.055	0.787	0.532	11.102	6.220	0.157	2.835

Standard



Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	E../ES..	G	E../ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BK40Z-../D05..	6.69	5.45	4.84	24.04	4.61	25.69	28.09	29.72	-
BK40Z-../D06..	6.69	5.45	4.84	24.04	4.69	25.69	28.09	29.72	-
BK40Z-../D07..	7.48	5.45	4.84	24.82	4.69	26.48	28.88	30.51	-
BK40-../D..08..	7.87	2.36	6.14	22.13	5.37	24.72	26.34	28.96	24.72
BK40Z-../D..08..	7.87	5.61	6.14	25.37	5.37	27.97	29.59	32.20	27.97
BK40-../D..09..	9.88	2.93	7.13	24.70	6.22	28.37	28.92	32.48	28.37
BK40Z-../D..09..	9.88	6.18	7.13	27.95	6.22	31.61	32.17	35.73	31.61
BK40-../D..11..	12.56	3.19	8.98	27.64	7.17	31.50	31.85	35.61	31.50



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

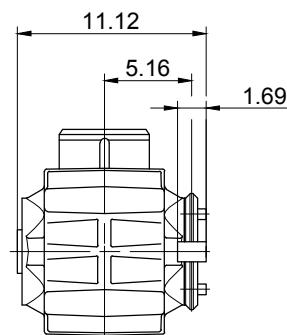
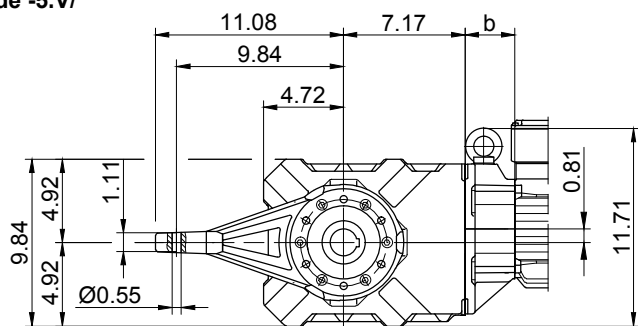
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

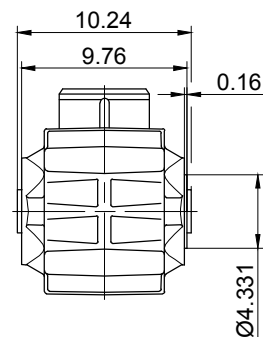
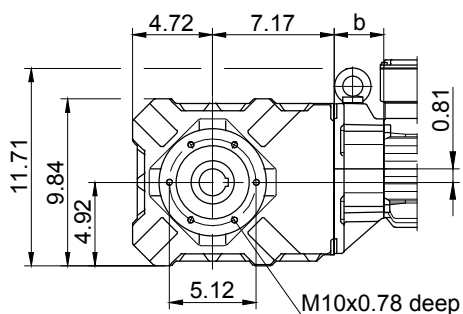
Torque arm at front

Code -5.V/



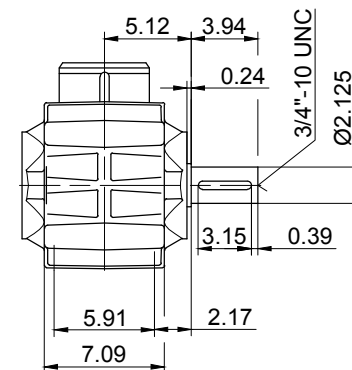
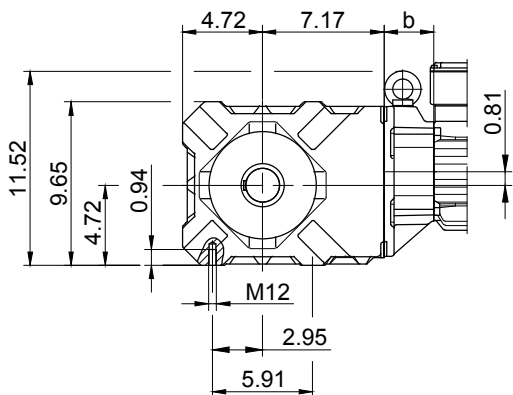
Flange with tapped holes at front

Code -7.V/



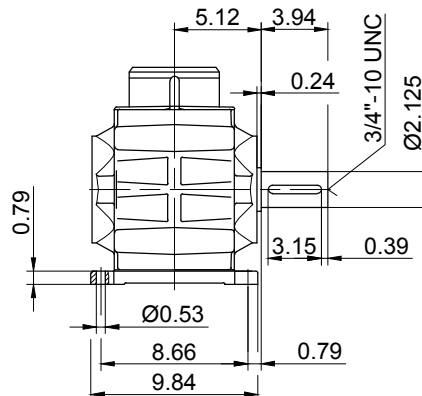
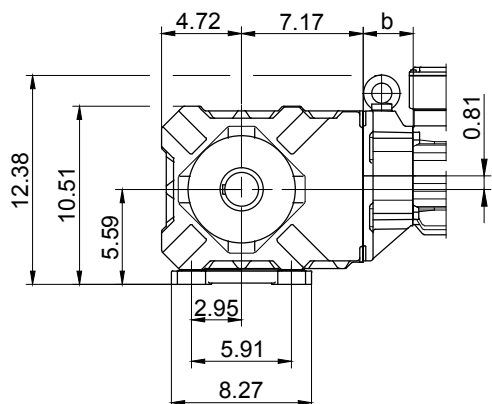
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

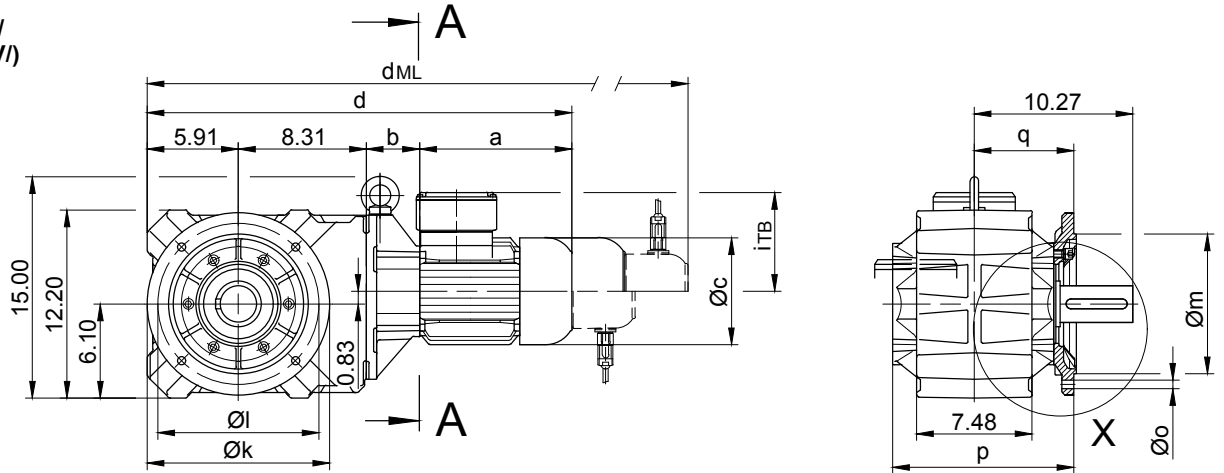
BK-series bevel-geared motors

Dimension Imperial

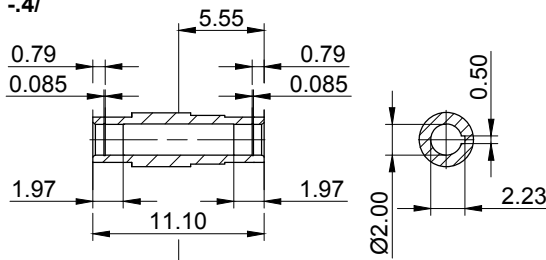
BK50 - BK50Z

Flange with clearance holes at front

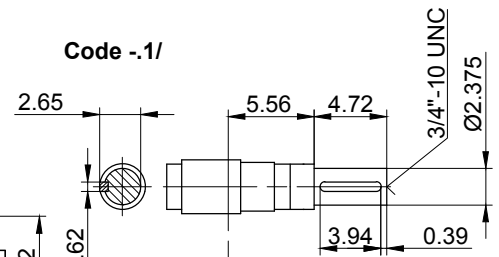
Code -3.V/
(Code -2.V/)



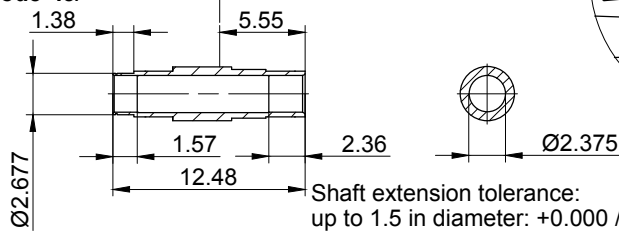
Code -4/



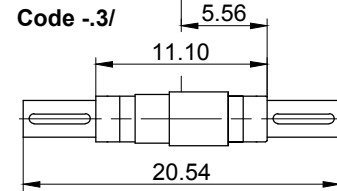
Code -1/



Code -5/



Code -3/

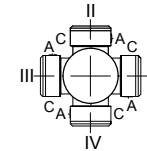


Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BK50(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	11.811	10.433	9.055	0.787	0.532	11.752	6.457	0.157	3.819
small -2.V/	9.843	8.465	7.087	0.630	0.532	11.654	6.339	0.157	3.937

Standard



A-A

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Type	a*	b	c	d*	i _{TB}	Design with motor extensions			
						E..ES../ZS..	G	E..ES../ZS..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BK50Z-../D05..	6.69	6.10	4.84	27.01	4.61	28.66	31.06	32.70	-
BK50Z-../D06..	6.69	6.10	4.84	27.01	4.69	28.66	31.06	32.70	-
BK50Z-../D07..	7.48	6.10	4.84	27.80	4.69	29.45	31.85	33.48	-
BK50-../D..08..	7.87	2.87	6.14	24.96	5.37	27.56	29.17	31.79	27.56
BK50Z-../D..08..	7.87	6.26	6.14	28.35	5.37	30.94	32.56	35.18	30.94
BK50-../D..09..	9.88	3.44	7.13	27.54	6.22	31.20	31.75	35.31	31.20
BK50Z-../D..09..	9.88	6.83	7.13	30.93	6.22	34.59	35.14	38.70	34.59
BK50-../D..11..	12.56	3.70	8.98	30.47	7.17	34.33	34.69	38.44	34.33
BK50-../D..13..	15.47	4.21	10.16	33.90	8.54	38.27	38.11	42.38	38.27
BK50-../D..16..	17.89	4.76	12.21	36.87	9.57	42.52	41.08	46.61	42.52
BK50-../D..18..	21.34	5.63	13.70	41.18	11.34	47.07	45.39	51.16	47.07



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

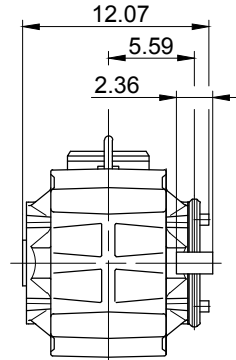
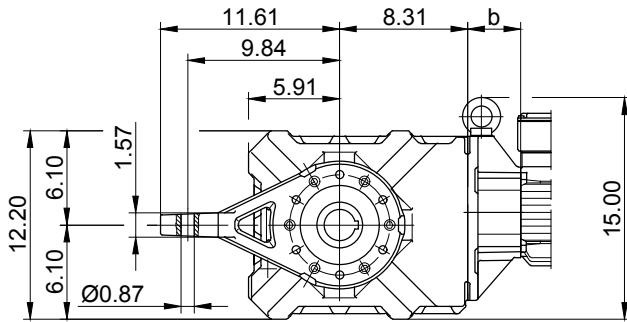
BK-series bevel-gear motors

Dimension Imperial

BK50 - BK50Z

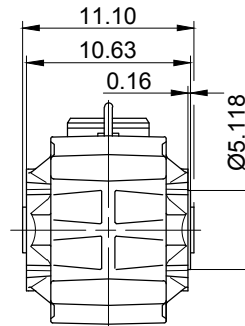
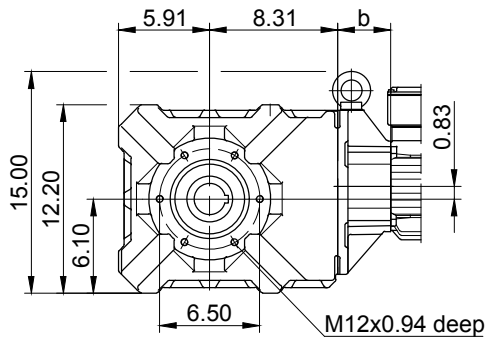
Torque arm at front

Code -5.V/



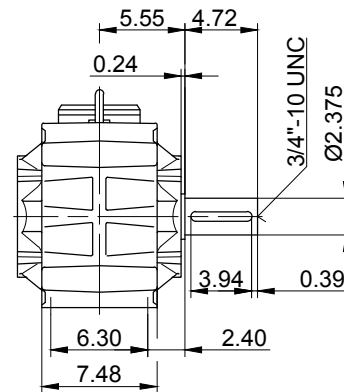
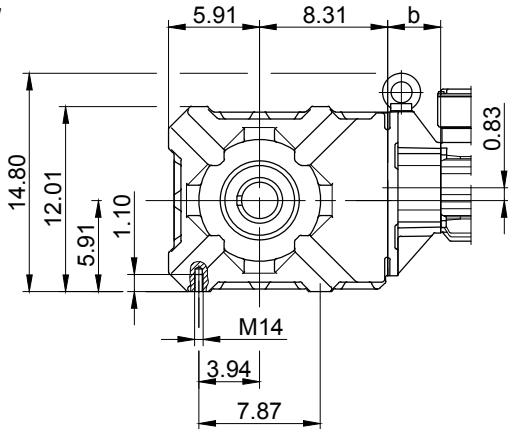
Flange with tapped holes at front

Code -7.V/



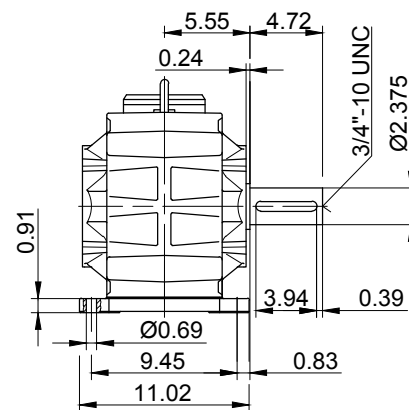
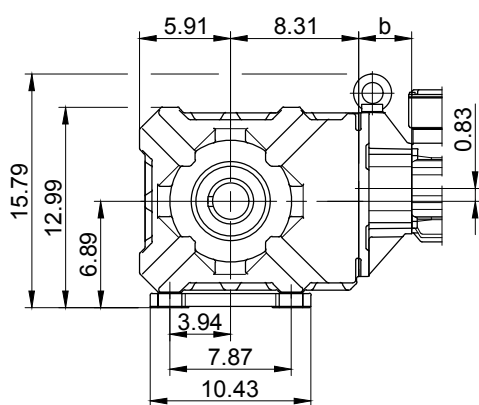
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

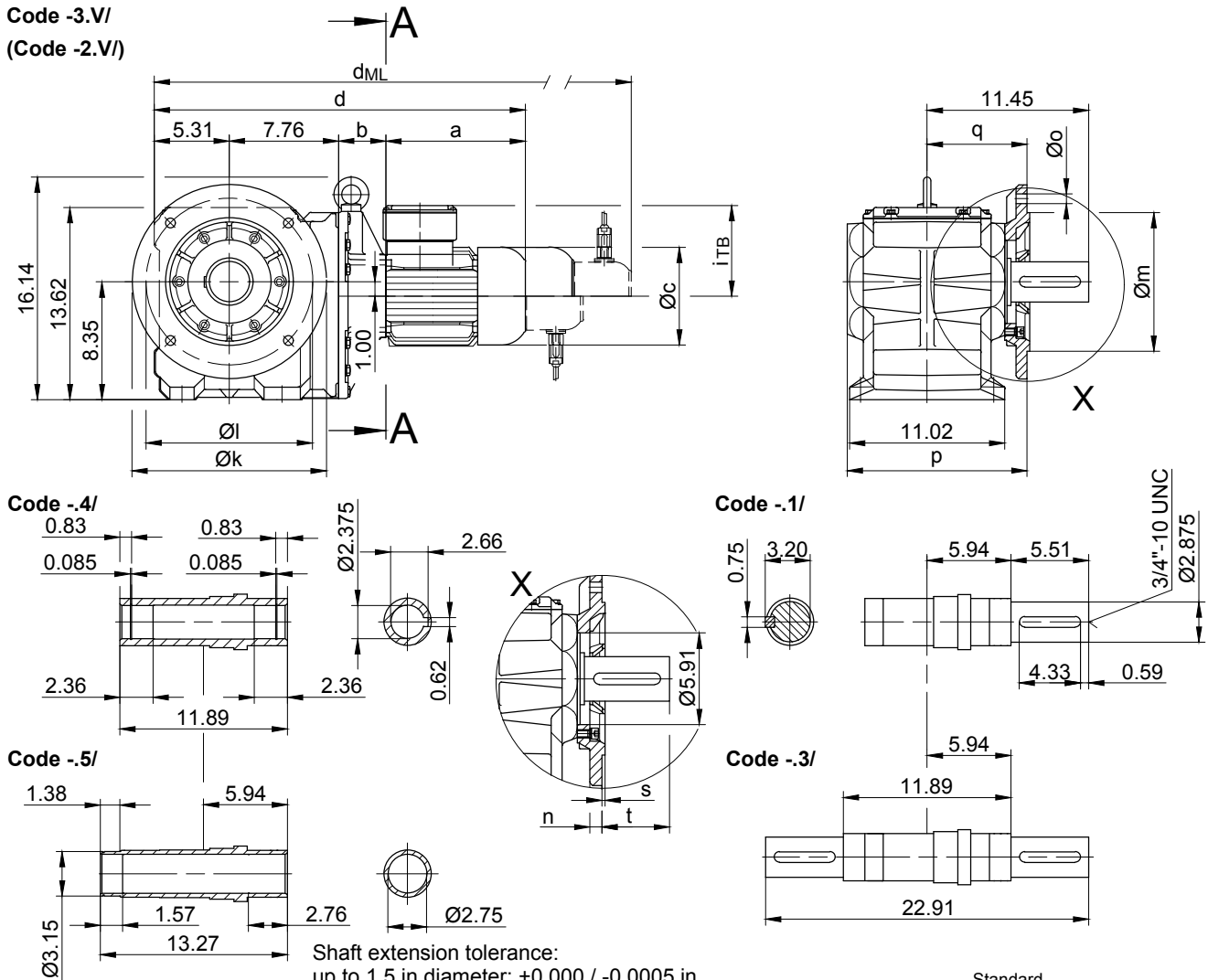
BK-series bevel-geared motors

Dimension Imperial

BK60 - BK60Z

Flange with clearance holes at front

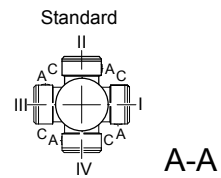
Code -3.V/
(Code -2.V/)



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BK60(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	13.780	11.811	9.843	0.787	0.689	12.756	7.087	0.197	4.370
small -2.V/	11.811	10.433	9.055	0.787	0.532	13.071	7.402	0.157	4.055



Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BK60Z-../D..08..	7.87	7.13	6.14	28.07	5.37	30.67	32.28	34.90	30.67
BK60-../D..09..	9.88	3.37	7.13	26.32	6.22	29.98	30.53	34.09	29.98
BK60Z-../D..09..	9.88	7.70	7.13	30.65	6.22	34.31	34.86	38.43	34.31
BK60-../D..11..	12.56	3.62	8.98	29.25	7.17	33.11	33.46	37.22	33.11
BK60Z-../D..11..	12.56	7.95	8.98	33.58	7.17	37.44	37.80	41.56	37.44
BK60-../D..13..	15.47	4.13	10.16	32.68	8.54	37.05	36.89	41.16	37.05
BK60-../D..16..	17.89	4.69	12.21	35.65	9.57	41.30	39.86	45.39	41.30
BK60-../D..18..	21.34	5.55	13.70	39.96	11.34	45.85	44.17	49.94	45.85



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

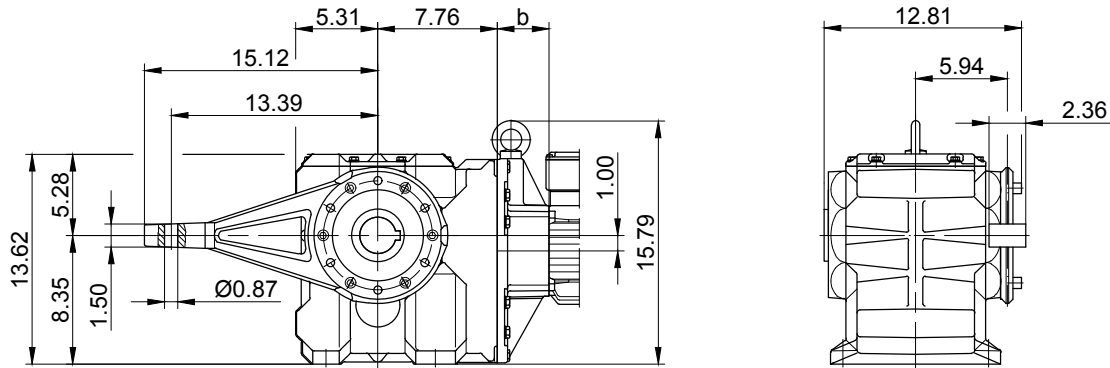
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

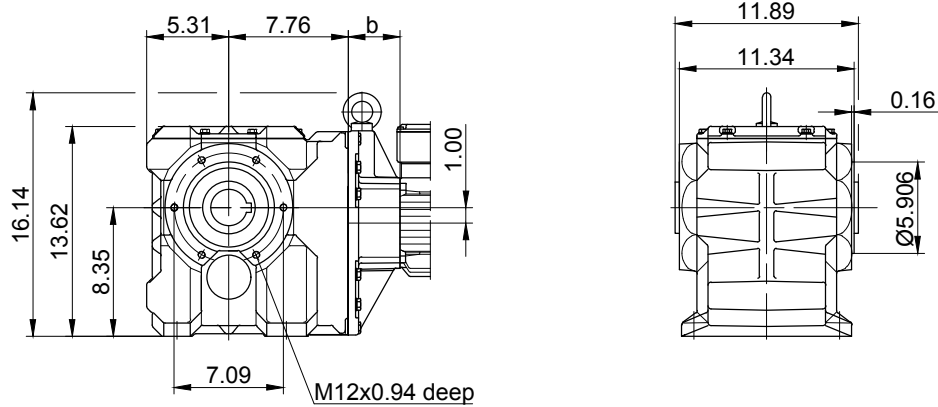
Torque arm at front

Code -5.V/



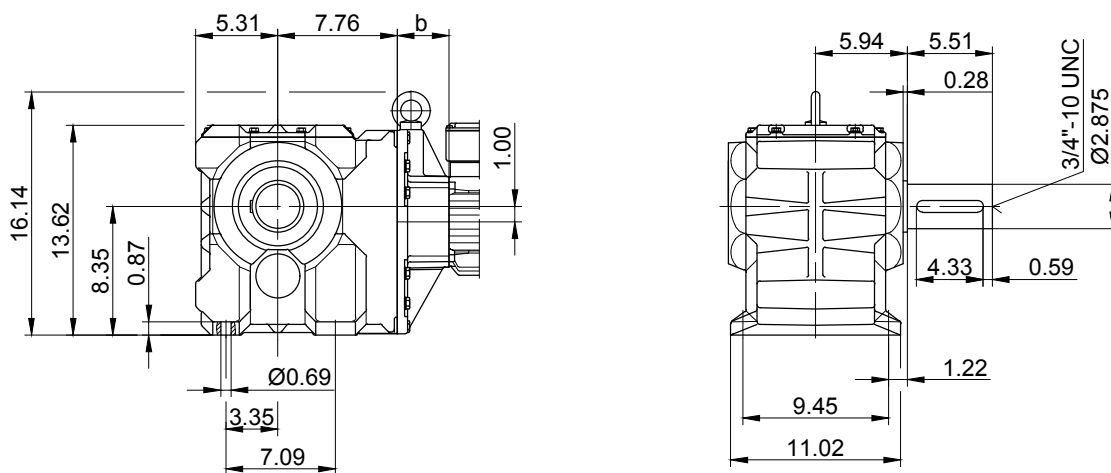
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

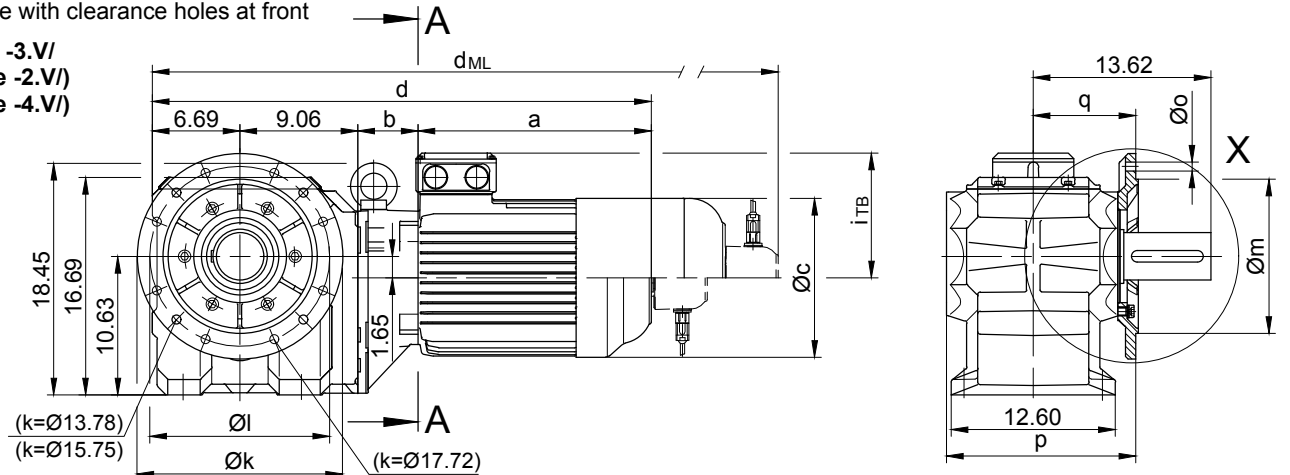
BK-series bevel-geared motors

Dimension Imperial

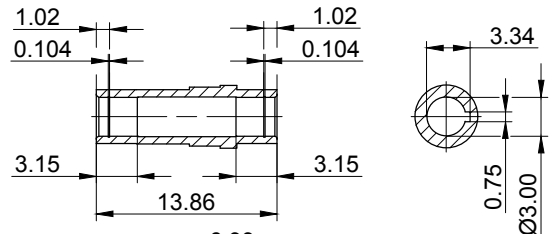
BK70 - BK70Z

Flange with clearance holes at front

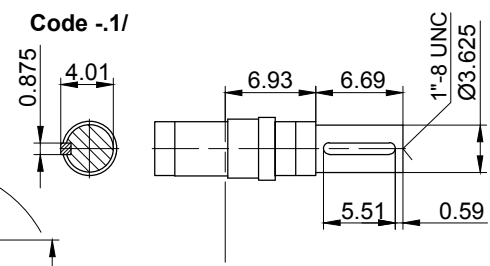
Code -3.V/
(Code -2.V/
(Code -4.V/)



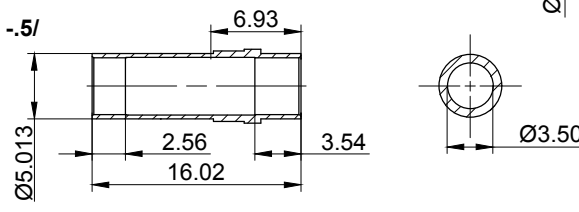
Code -4/



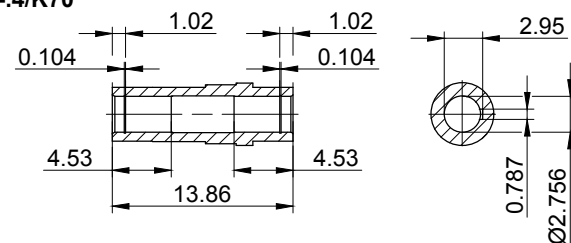
Code -1/



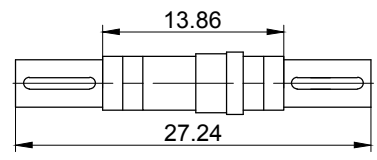
Code -5/



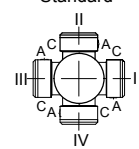
Code -4/K70



Code -3/



Standard



A-A

Shaft extension tolerance:

up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

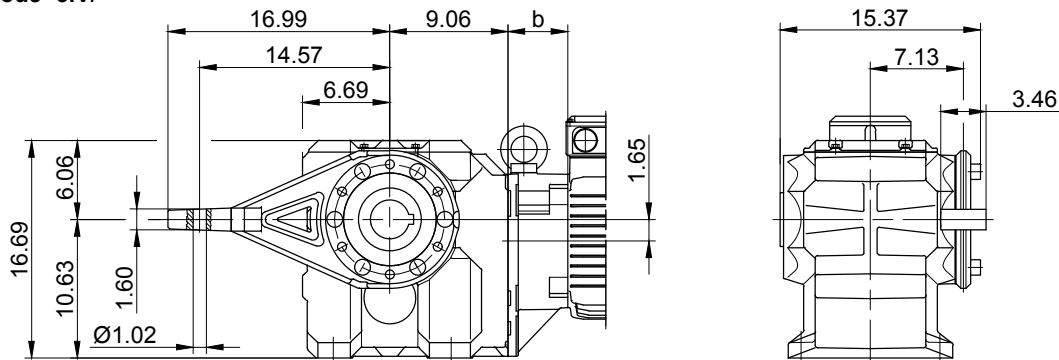
Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

Type	a*	b	c	d*	i _{TB}	Design with motor extensions			
						ES./ZS..	G	ES./ZS..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BK70Z-../D..08..	7.87	7.95	6.14	31.57	5.37	34.17	35.79	38.41	34.17
BK70-../D..09..	9.88	3.29	7.13	28.92	6.22	32.58	33.13	36.69	32.58
BK70Z-../D..09..	9.88	8.52	7.13	34.15	6.22	37.81	38.37	41.93	37.81
BK70-../D..11..	12.56	3.54	8.98	31.85	7.17	35.71	36.06	39.82	35.71
BK70Z-../D..11..	12.56	8.78	8.98	37.09	7.17	40.94	41.30	45.06	40.94
BK70-../D..13..	15.47	4.06	10.16	35.28	8.54	39.65	39.49	43.76	39.65
BK70Z-../D..13..	15.47	9.29	10.16	40.51	8.54	44.88	44.72	49.00	44.88
BK70-../D..16..	17.89	4.61	12.21	38.25	9.57	43.90	42.46	47.99	43.90
BK70Z-../D..16..	17.89	9.84	12.21	43.48	9.57	49.13	47.70	53.23	49.13
BK70-../D..18..	21.34	5.47	13.70	42.56	11.34	48.44	46.77	52.54	48.44
BK70Z-../D..18..	21.34	10.71	13.70	47.80	11.34	53.68	52.01	57.78	53.68
BK70-../D..20L	25.33	6.14	14.29	47.22	11.95	52.24	51.40	56.42	52.24
BK70-../D..22S	27.70	6.14	14.29	49.59	11.95	51.16	53.76	58.78	51.16

The actual gearbox design can vary from the geometry shown.

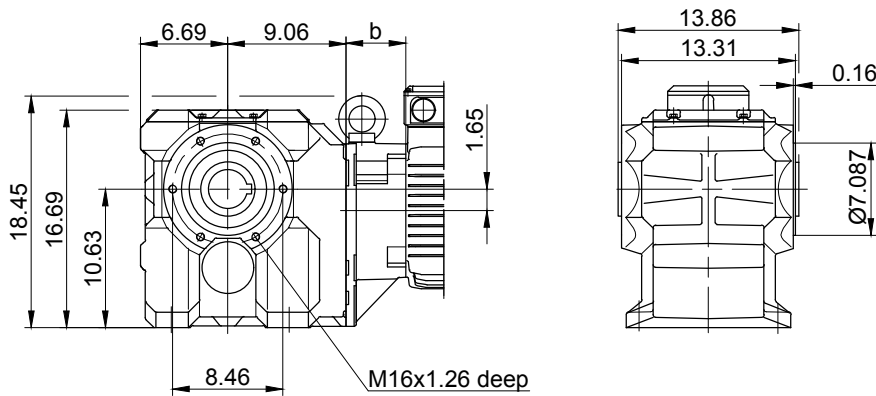
Torque arm at front

Code -5.V/



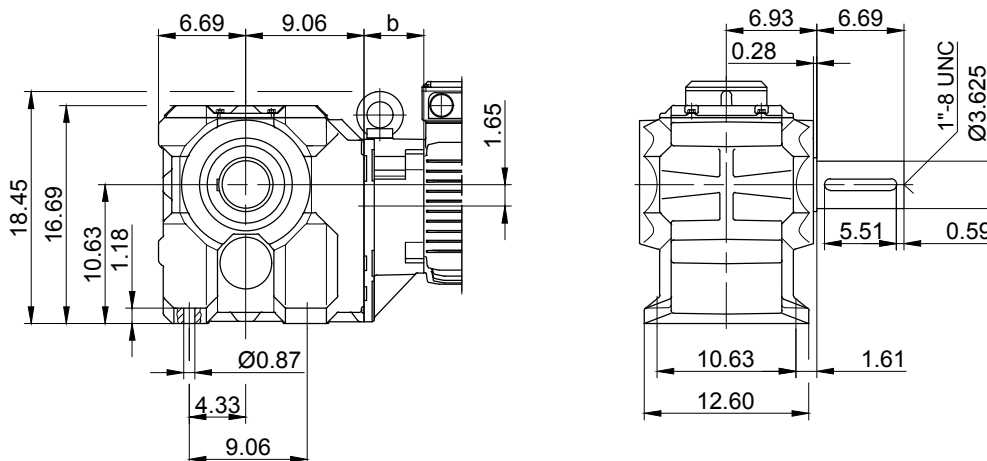
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/



Flange dimensions

BK70(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	15.748	13.780	11.811	0.787	4 x $\text{Ø}0.689$	14.528	7.874	0.197	6.142
small -2.V/	13.780	11.811	9.843	0.787	4 x $\text{Ø}0.689$	14.528	7.874	0.197	6.142
big -4.V/	17.717	15.748	13.780	0.866	8 x $\text{Ø}0.689$	14.921	8.268	0.197	5.748

The actual gearbox design can vary from the geometry shown.

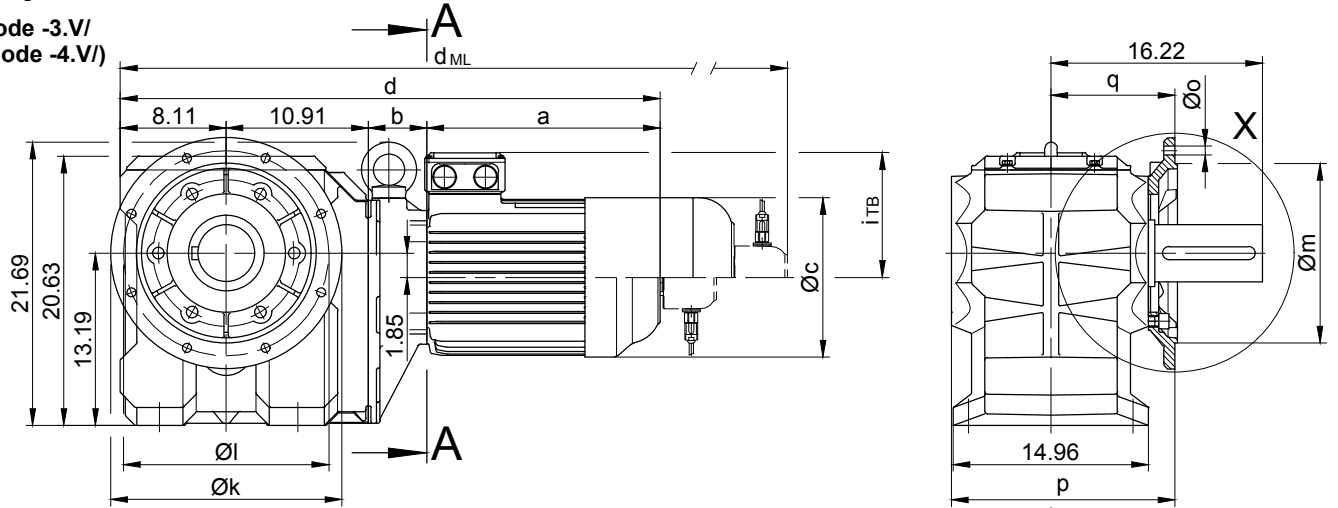
BK-series bevel-geared motors

Dimension Imperial

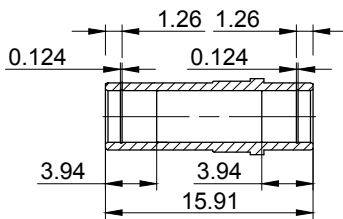
BK80 - BK80Z

Flange with clearance holes at front

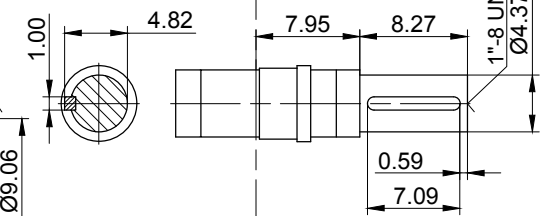
Code -3.V/
(Code -4.V/)



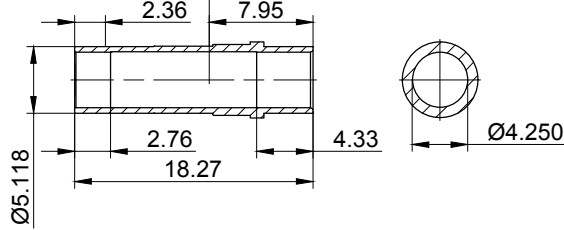
Code -4/



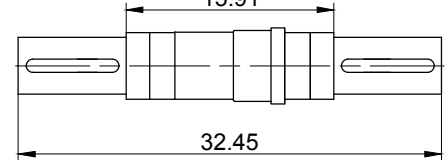
Code -1/



Code -5/



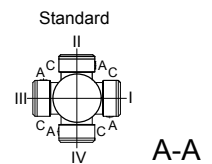
Code -3/



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

12

Type	a*	b	c	d*	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..	9.88	9.94	7.13	38.84	6.22	42.50	43.05	46.61	42.50
BK80-../D..11..	12.56	3.43	8.98	35.00	7.17	38.86	39.21	42.97	38.86
BK80Z-../D..11..	12.56	10.20	8.98	41.77	7.17	45.63	45.98	49.74	45.63
BK80-../D..13..	15.47	3.94	10.16	38.43	8.54	42.80	42.64	46.91	42.80
BK80Z-../D..13..	15.47	10.71	10.16	45.20	8.54	49.57	49.41	53.68	49.57
BK80-../D..16..	17.89	4.49	12.21	41.40	9.57	47.05	45.61	51.02	47.05
BK80Z-../D..16..	17.89	11.26	12.21	48.17	9.57	53.82	52.38	57.91	64.45
BK80-../D..18..	21.34	5.35	13.70	45.71	11.34	51.59	49.92	55.69	51.59
BK80Z-../D..18..	21.34	12.13	13.70	52.48	11.34	58.37	56.69	62.46	58.37
BK80-../D..20L	25.33	6.02	14.29	50.37	11.95	55.39	54.55	59.57	55.39
BK80-../D..22S	27.70	6.02	14.29	52.74	11.95	57.76	56.91	61.93	57.76
BK80-../D..22M	27.70	6.02	14.29	52.74	11.95	57.76	56.91	61.93	57.76



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4
Comment: No change to the dimensions shown

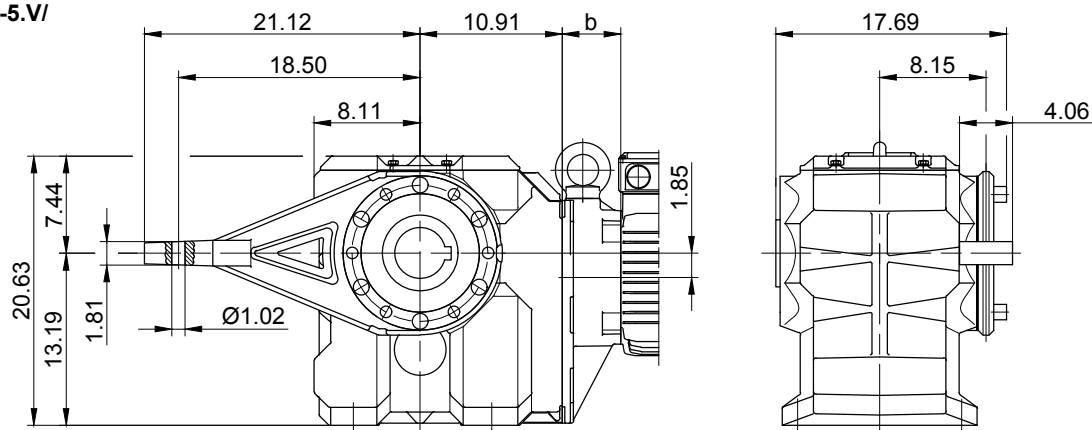
Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4
Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

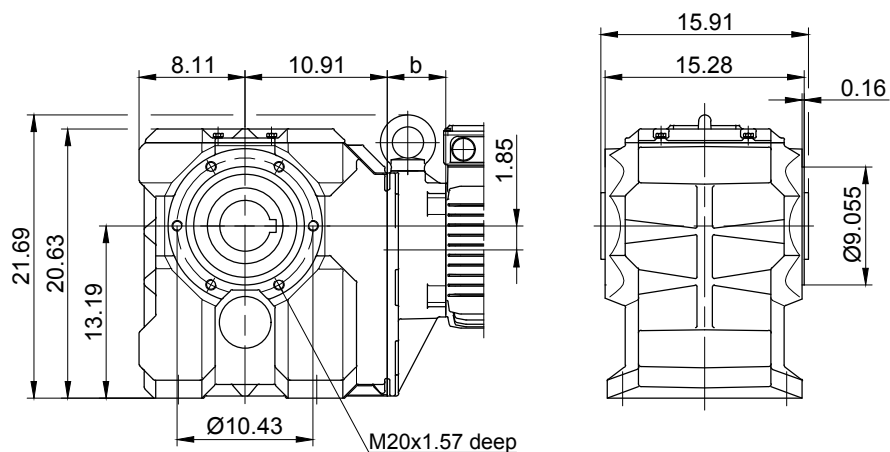
Torque arm at front

Code -5.V/



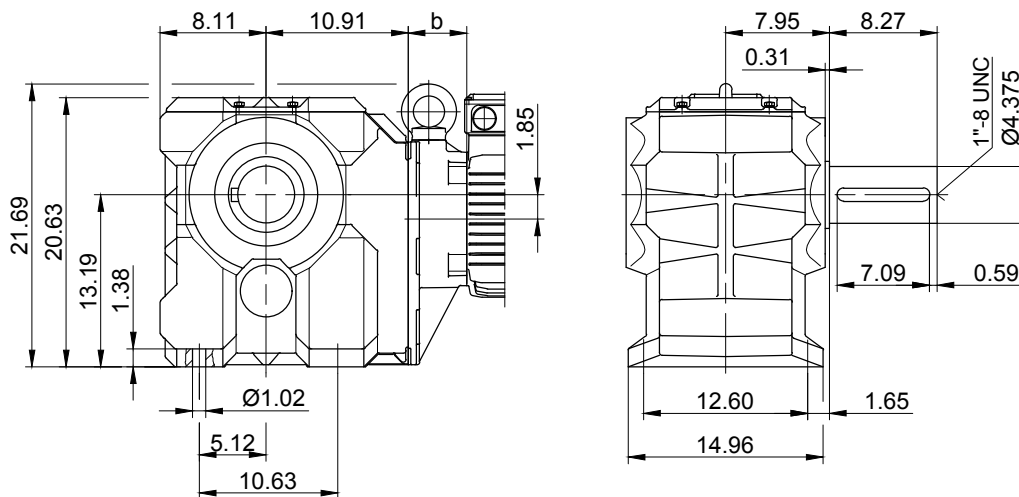
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/



Flange dimensions

BK80(Z)	k	l	m	n	o	p	q	s	t
standard -3.V/	17.717	15.748	13.780	0.866	0.689	17.283	9.646	0.197	6.969
big -4.V/	21.654	19.685	17.717	0.866	0.689	17.480	9.843	0.197	6.772

The actual gearbox design can vary from the geometry shown.

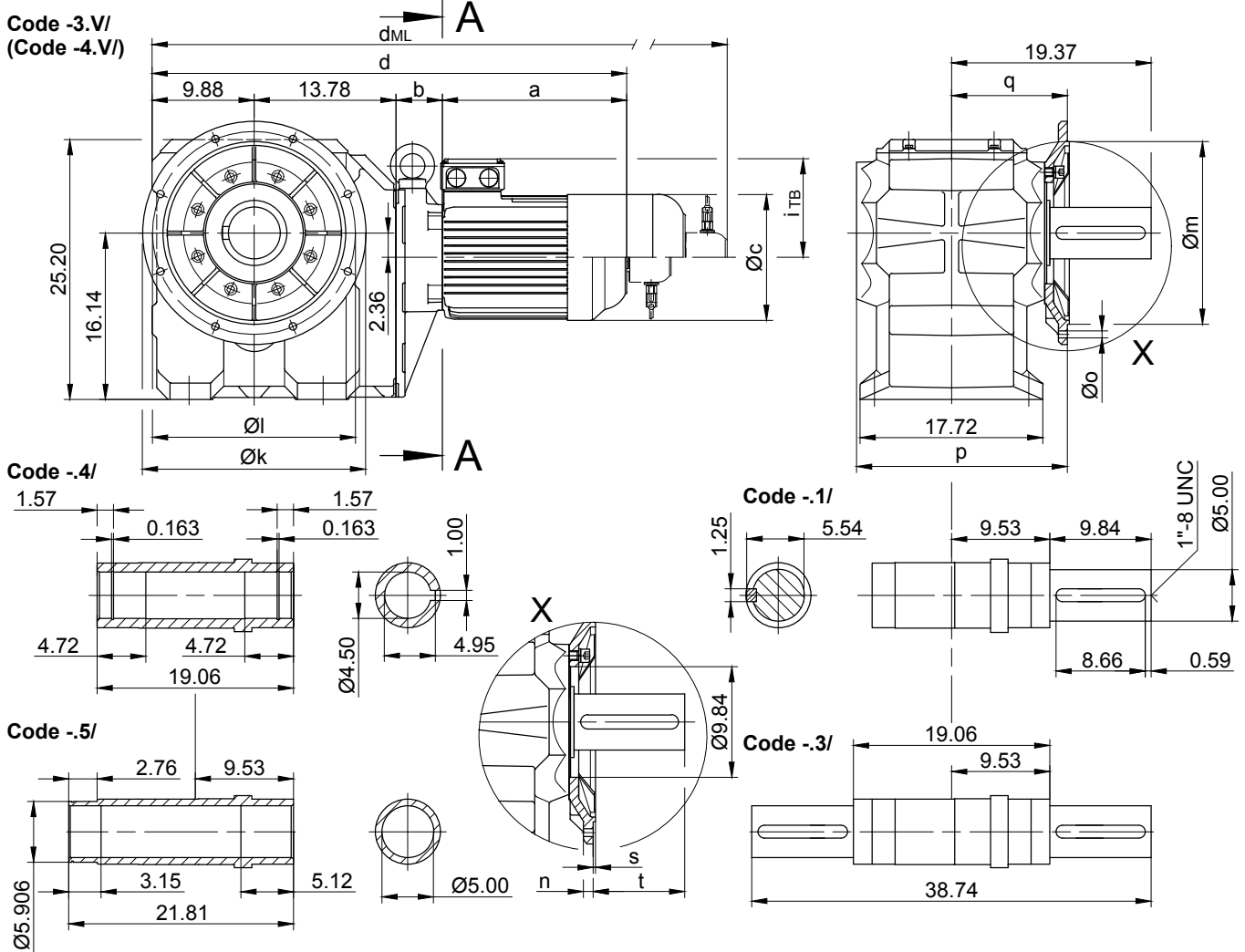
BK-series bevel-geared motors

Dimension Imperial

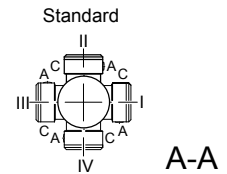
BK90 - BK90Z

Flange with clearance holes at front

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



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in



Type	a*	b	c	d*	i _{TB}	Design with motor extensions			
						ES.../ZS..	G	ES.../ZS..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BK90Z-../D..09..	9.88	10.51	7.13	44.06	6.22	47.72	48.27	51.83	47.72
BK90Z-../D..11..	12.56	10.77	8.98	46.99	7.17	50.85	51.20	54.96	50.85
BK90-../D..13..	15.47	3.94	10.16	40.16	8.54	44.02	44.37	48.13	44.02
BK90Z-../D..13..	15.47	11.28	10.16	50.41	8.54	54.78	54.63	58.90	54.78
BK90-../D..16..	17.89	4.49	12.21	46.04	9.57	51.69	50.26	55.79	51.69
BK90Z-../D..16..	17.89	11.83	12.21	53.39	9.57	59.04	57.60	63.13	59.04
BK90-../D..18..	21.34	5.35	13.70	50.35	11.34	56.24	54.57	60.33	56.24
BK90Z-../D..18..	21.34	12.70	13.70	57.70	11.34	63.58	61.91	67.68	63.58
BK90-../D..20L	25.33	6.02	14.29	55.02	11.95	60.04	59.19	64.21	60.04
BK90-../D..22S	27.70	6.02	14.29	57.38	11.95	57.38	61.56	66.57	62.40
BK90-../D..22M	27.70	6.02	14.29	57.38	11.95	57.38	61.56	66.57	62.40



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

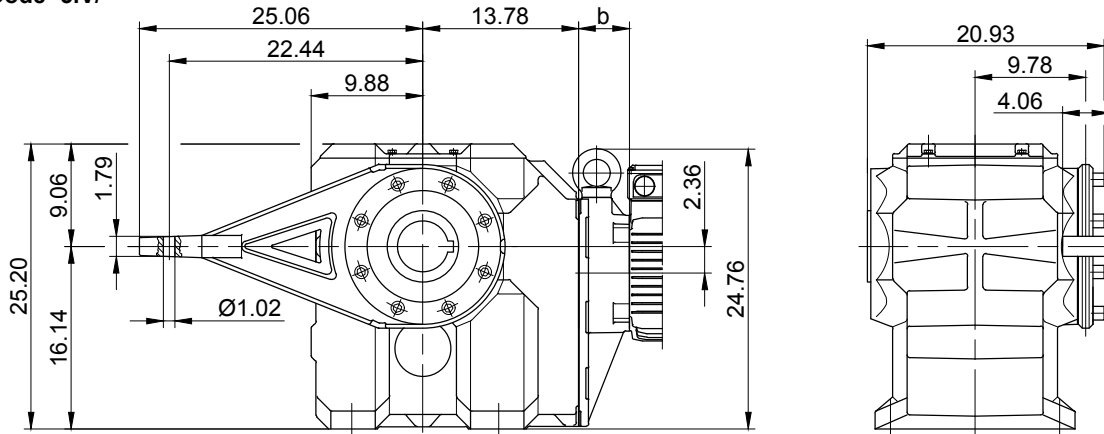
BK-series bevel-gear motors

Dimension Imperial

BK90 - BK90Z

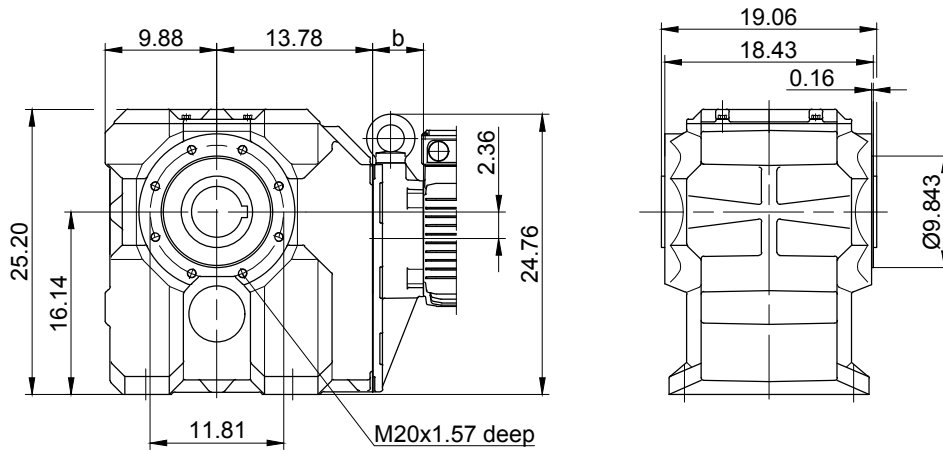
Torque arm at front

Code -5.V/



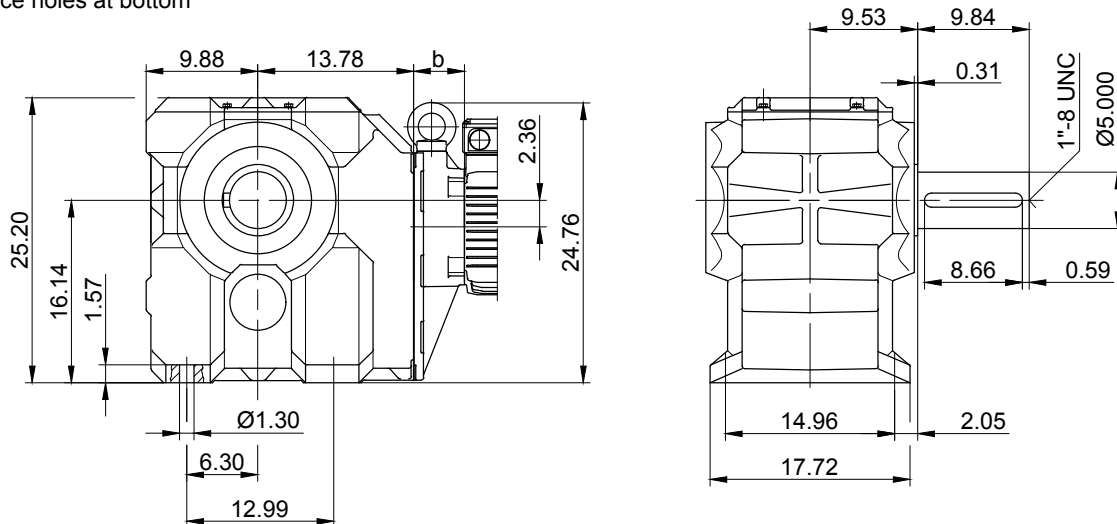
Flange with tapped holes at front

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/	21.654	19.685	17.717	0.866	0.689	20.433	11.220	0.197	8.543
big -4.V/	25.984	23.622	21.654	0.984	0.866	20.197	10.984	0.236	8.780

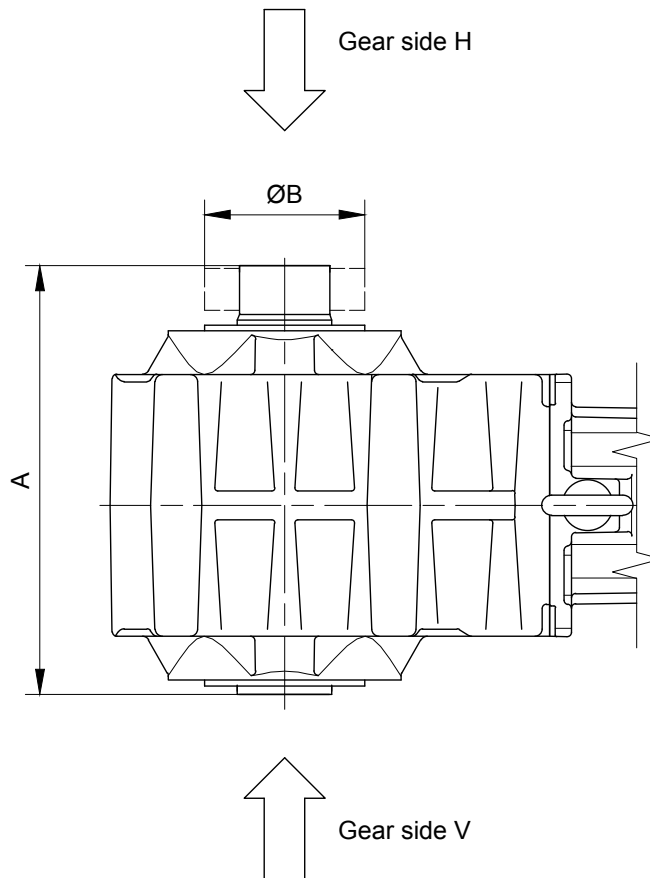
The actual gearbox design can vary from the geometry shown.

BK-series bevel-geared motors

Additional Dimension Sheet Imperial

Shrink disc couplings (SSV)

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



Type	SSV Ringfeder	SSV STÜWE	A	B
BK06	RfN 4161 024x050	HSD 24-22x24	4.65	1.97
BK10	RfN 4161 036x072	HSD 36-22x36	7.68	2.83
BK17	RfN 4161 044x080	HSD 44-22x44	7.65	3.15
BK20	RfN 4161 044x080	HSD 44-22x44	8.74	3.15
BK30	RfN 4161 050x090	HSD 50-22x50	10.00	3.54
BK40	RfN 4161 062x110	HSD 62-22x62	11.61	4.33
BK50	RfN 4161 068x115	HSD 68-22x68	12.48	4.53
BK60	RfN 4161 080x141	HSD 80-22x80	13.27	5.51
BK70	RfN 4161 105x185	HSD 110-22x105	16.02	7.28
BK80	RfN 4161 130x215	HSD 125-22x130	18.27	8.46
BK90	RfN 4161 150x263	HSD 155-22x150	21.81	10.35

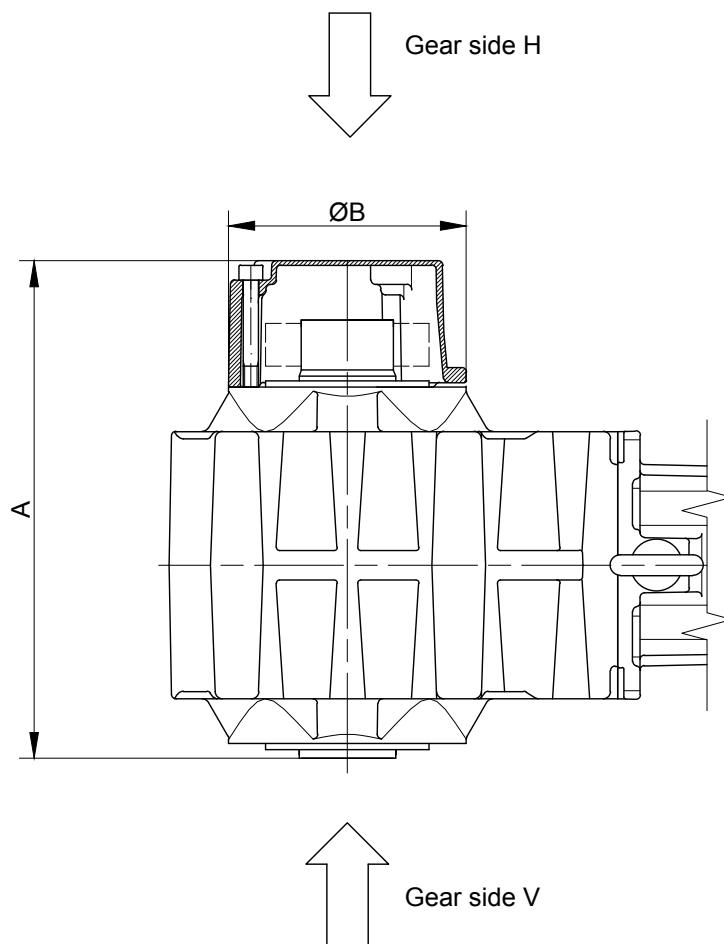
The actual gearbox design can vary from the geometry shown.

BK-series bevel-gear motors

Additional Dimension Sheet Imperial

Shrink disk connection with cover (SSV)

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



12

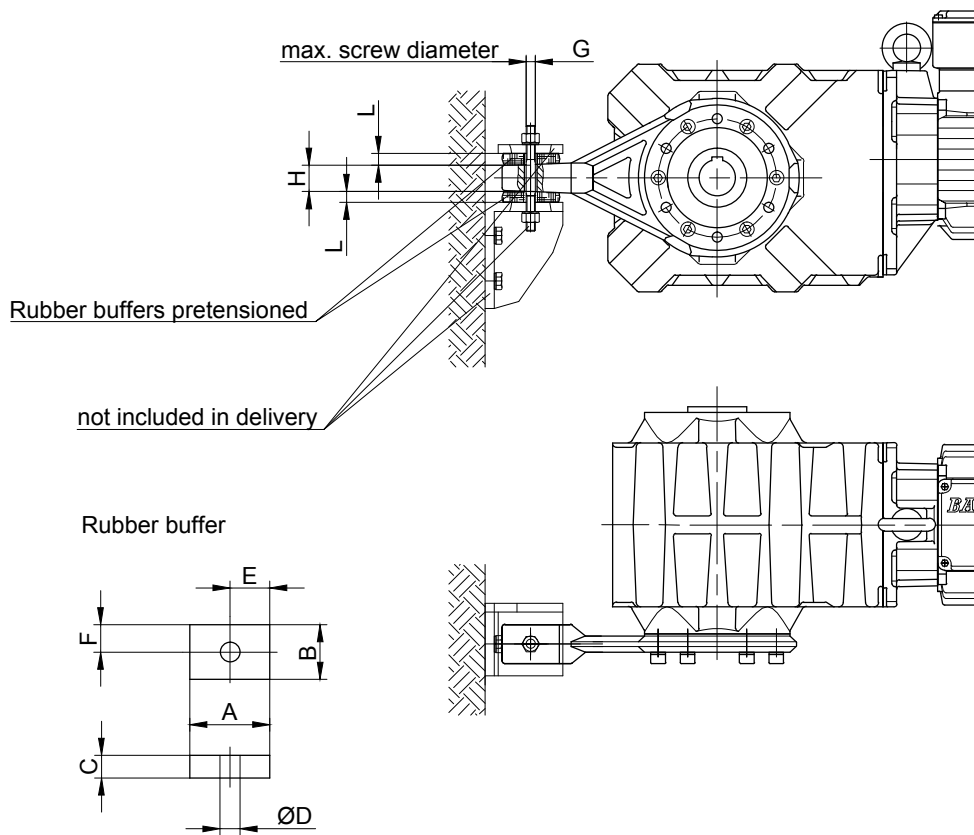
Type	SSV Ringfeder	SSV STÜWE	A	B
BK10	RfN 4161 036x072	HSD 36-22x36	8.54	4.72
BK17	RfN 4161 044x080	HSD 44-22x44	9.53	5.51
BK20	RfN 4161 044x080	HSD 44-22x44	10.63	5.51
BK30	RfN 4161 050x090	HSD 50-22x50	11.81	6.30
BK40	RfN 4161 062x110	HSD 62-22x62	13.19	6.30
BK50	RfN 4161 068x115	HSD 68-22x68	12.95	7.87
BK60	RfN 4161 080x141	HSD 80-22x80	15.20	8.27
BK70	RfN 4161 105x185	HSD 110-22x105	18.31	9.84
BK80	RfN 4161 130x215	HSD 125-22x130	19.76	11.81
BK90	RfN 4161 150x263	HSD 155-22x150	23.70	13.78

The actual gearbox design can vary from the geometry shown.

BK-series bevel-gear motors

Additional Dimension Sheet Imperial

Rubber buffer for torque restraint



Material: Natural rubber
Hardness 50±5 Shore A

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

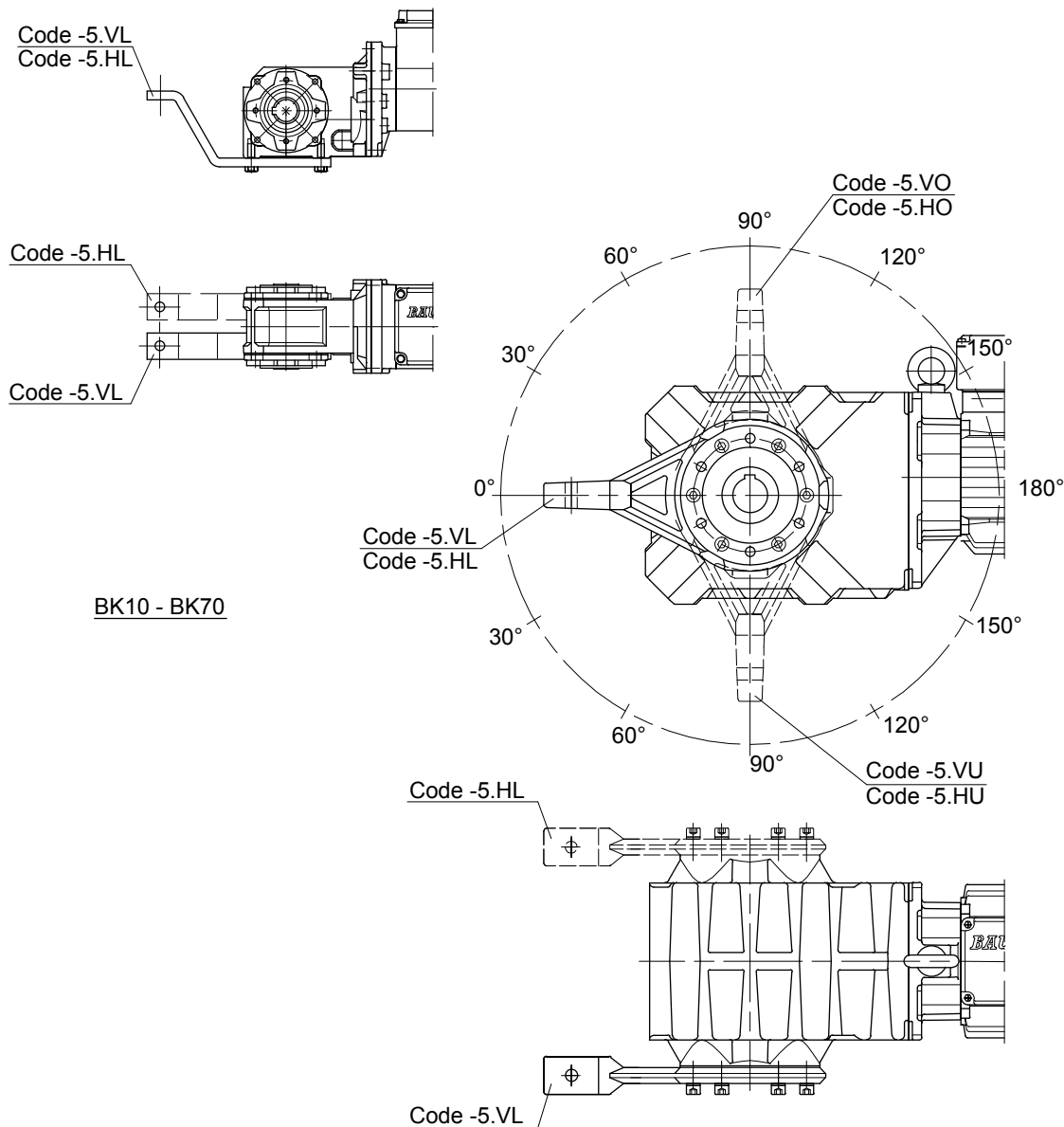
Gear	Pos.	Dimensions (inch)								
		A	B	C	D	E	F	G	H	L
BK06	Pos.0	1.18	1.18	0.47	0.47	0.59	0.59	M10	0.39	0.39
BK10	Pos.1	1.89	1.26	0.59	0.55	0.94	0.63	M10	0.75	0.53
BK17	Pos.1	1.89	1.26	0.59	0.55	0.94	0.63	M10	0.75	0.51
BK20	Pos.1	1.89	1.26	0.59	0.55	0.94	0.63	M10	0.75	0.51
BK30	Pos.2	2.48	1.69	0.79	0.55	1.24	0.85	M10	1.18	0.67
BK40	Pos.2	2.48	1.69	0.79	0.55	1.24	0.85	M10	1.18	0.67
BK50	Pos.3	3.46	2.36	0.98	0.87	1.73	1.18	M18	1.42	0.85
BK60	Pos.3	3.46	2.36	0.98	0.87	1.73	1.18	M18	1.50	0.83
BK70	Pos.4	4.84	3.46	1.18	1.02	2.42	1.73	M20	1.57	1.00
BK80	Pos.5	5.24	4.06	1.38	1.02	2.62	2.03	M20	1.77	1.18
BK90	Pos.5	5.24	4.06	1.38	1.02	2.62	2.03	M20	1.77	1.16

The actual gearbox design can vary from the geometry shown.

BK-series bevel-gear motors

Additional Dimension Sheet Imperial

Position of the torque arm



Possible locations.

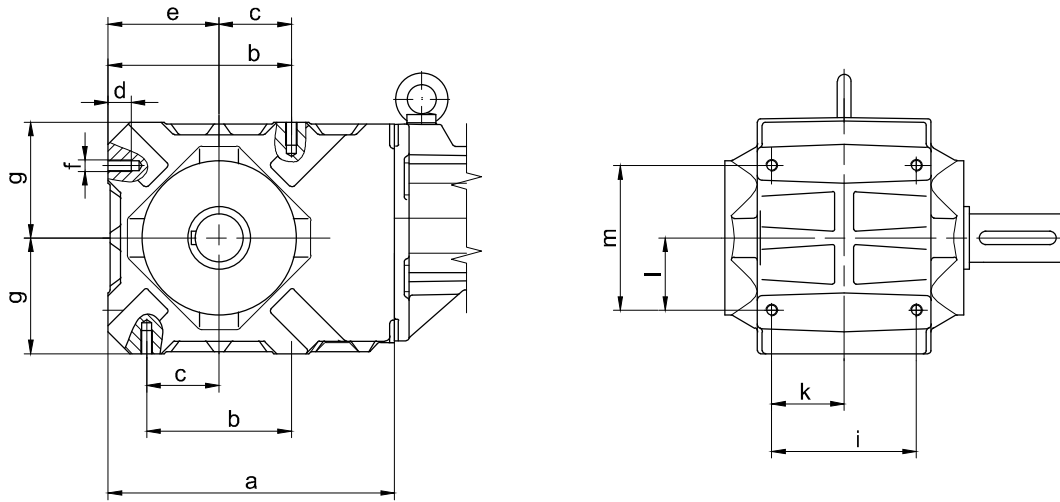
Position	VL / HL	VO / HO VU / HU				VR / HR
BK06	0°	-	-	-	-	-
BK10	0°	30°	60°	90°	120°	150°
BK17	0°	30°	60°	90°	120°	-
BK20	0°	30°	60°	90°	120°	150°
BK30	0°	30°	60°	90°	120°	150°
BK40	0°	30°	60°	90°	120°	150°
BK50	0°	30°	60°	90°	120°	150°
BK60	0°	30°	60°	90°	120°	150°
BK70	0°	30°	60°	90°	120°	150°
BK80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

The actual gearbox design can vary from the geometry shown.

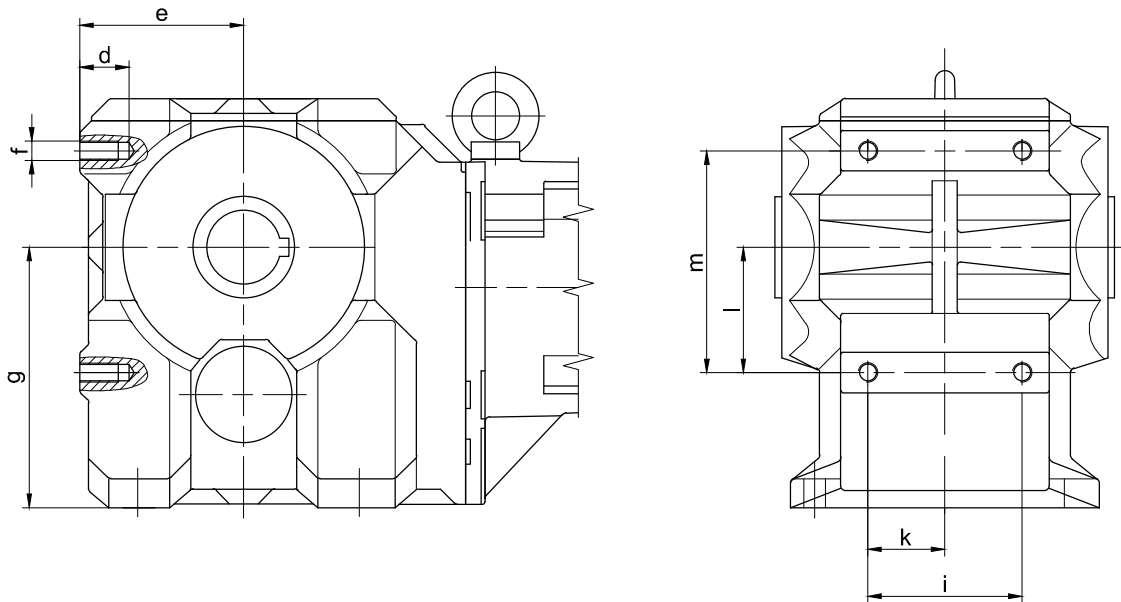
BK-series bevel-gear motors

Additional Dimension Sheet Imperial

Foot with tapped bores



Type	a	b	c	d	e	f	g	i	k	l	m
BK10-BK10Z	7.95	3.54	1.77	0.63	3.07	M8	3.15	3.74	1.87	1.77	3.54
BK20-BK20Z	9.53	4.33	2.17	0.79	3.74	M10	3.94	4.13	2.07	2.17	4.33
BK30-BK30Z	10.47	4.92	2.46	0.94	4.13	M12	4.33	4.72	2.36	2.46	4.92
BK40-BK40Z	11.69	5.91	2.95	0.94	4.53	M12	4.72	5.91	2.95	2.95	5.91
BK50-BK50Z	14.02	7.87	3.94	1.10	5.71	M14	5.91	6.30	3.15	3.94	7.87



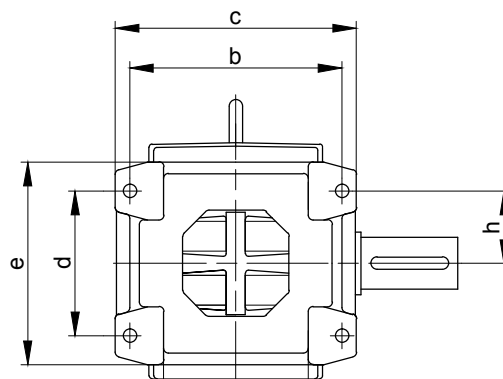
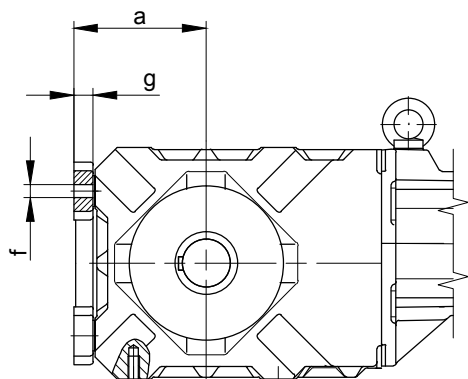
Type	a	b	c	d	e	f	g	i	k	l	m
BK60-BK60Z	-	-	-	1.57	5.12	M20	8.35	6.30	3.15	5.71	9.06
BK70-BK70Z	-	-	-	1.57	6.50	M20	10.63	6.30	3.15	5.12	9.06
BK80-BK80Z	-	-	-	2.36	7.87	M30	13.19	8.27	4.13	9.45	14.17
BK90-BK90Z	-	-	-	2.36	9.65	M30	16.14	8.27	4.13	8.46	14.17

The actual gearbox design can vary from the geometry shown.

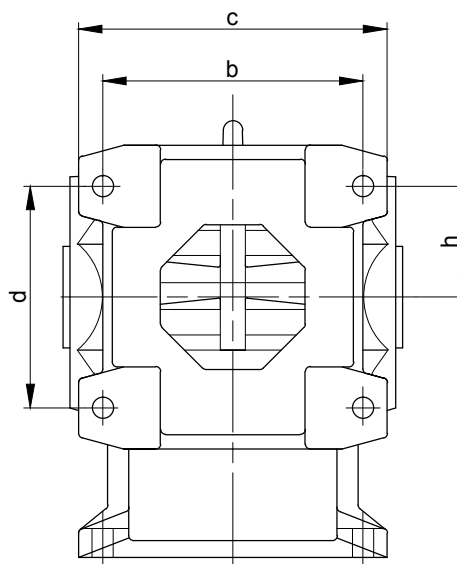
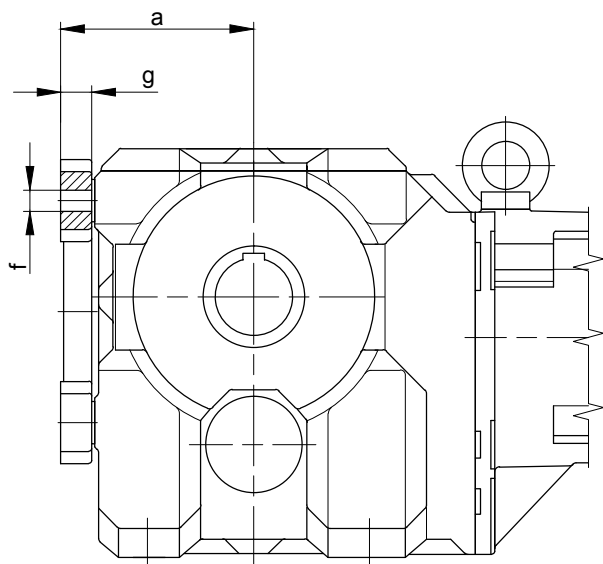
BK-series bevel-gear motors

Additional Dimension Sheet Imperial

Foot plate with through holes



Type	a	b	c	d	e	f	g	h
BK10-BK10Z	3.78	5.71	6.50	3.54	5.12	Ø0.35	0.63	1.77
BK20-BK20Z	4.53	6.50	7.68	4.33	6.30	Ø0.43	0.71	2.17
BK30-BK30Z	5.00	7.48	8.66	4.92	7.28	Ø0.53	0.79	2.46
BK40-BK40Z	5.39	8.66	9.84	5.91	8.27	Ø0.53	0.79	2.95
BK50-BK50Z	6.69	9.45	11.02	7.87	10.43	Ø0.69	0.91	3.94



Type	a	b	c	d	e	f	g	h
BK60-BK60Z	6.50	10.63	12.60	9.06	12.40	Ø0.87	1.26	3.35
BK70-BK70Z	7.87	10.63	12.60	9.06	12.40	Ø0.87	1.26	3.94
BK80-BK80Z	9.84	15.75	18.90	14.17	18.90	Ø1.30	1.85	4.72
BK90-BK90Z	11.61	15.75	18.90	14.17	18.90	Ø1.30	1.85	5.71

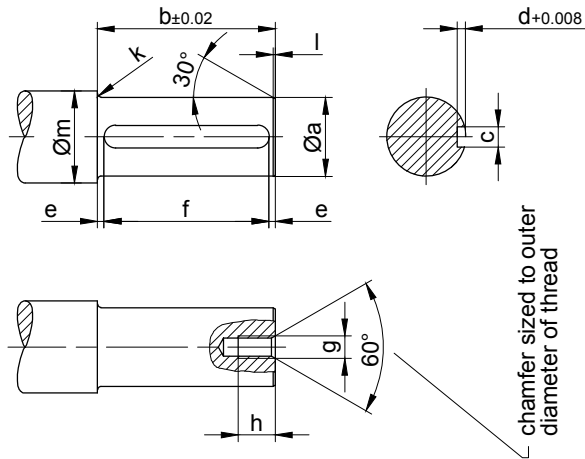
The actual gearbox design can vary from the geometry shown.

BK-series bevel-gear motors

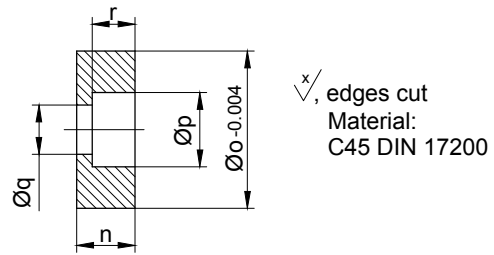
Additional Dimension Sheet Imperial

Tools for hollow shaft and keyway

Pos.1 Shaft

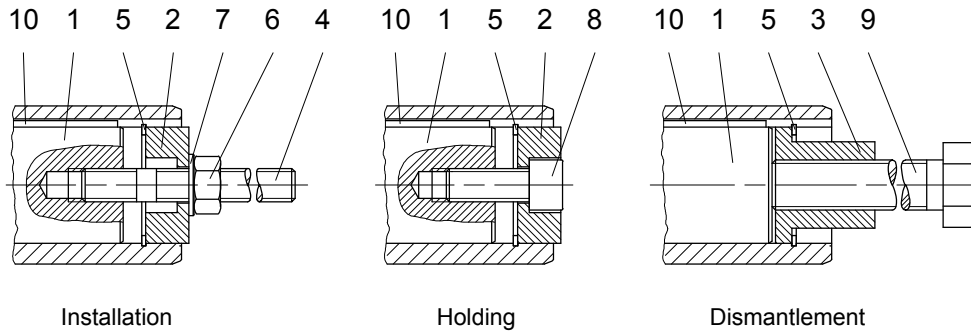


*Pos.2 Disc



Shaft extension tolerance:
 up to 1.5 in diameter: +0.000 / -0.0005 in
 over 1.5 in diameter: +0.000 / -0.001 in
 Flange spigot diameter: +0.0003 / -0.0015 in

Type	Dimensions (inch)															
	Pos.1 Shaft											Pos.2 Disc				
	a	b	c	d	e	f	g	h	k	l	m	n	o	p	q	r
BK06	0.79	2.95	0.24	0.14	0.24	2.48	M6	0.63	0.08	0.04	1.10	0.53	0.78	0.43	0.26	0.26
BK10	0.98	5.83	0.32	0.16	0.45	4.92	M8	0.71	0.10	0.06	1.30	0.53	0.98	0.59	0.35	0.33
BK17	1.18	6.69	0.32	0.16	0.59	5.51	M10	0.79	0.12	0.06	1.50	0.59	1.17	0.71	0.43	0.39
BK20	1.18	6.69	0.32	0.16	0.59	5.51	M10	0.79	0.12	0.06	1.50	0.59	1.17	0.71	0.43	0.39
BK30	1.38	7.91	0.39	0.20	0.41	7.09	M10	0.79	0.12	0.06	1.69	0.63	1.37	0.71	0.43	0.39
BK40	1.57	9.25	0.47	0.20	0.69	7.87	M12	0.87	0.12	0.08	1.89	0.71	1.57	0.79	0.53	0.47
BK50	1.97	10.00	0.55	0.22	0.67	8.66	M16	1.18	0.14	0.08	2.28	0.83	1.96	1.02	0.69	0.59
BK60	2.36	10.75	0.71	0.28	0.45	9.84	M20	1.50	0.14	0.08	2.68	0.94	2.35	1.30	0.87	0.71
BK70	3.15	12.44	0.87	0.35	0.71	11.02	M20	1.50	0.16	0.08	3.54	1.06	3.14	1.30	0.87	0.79
BK70-K70	2.76	12.44	0.79	0.30	0.71	11.02	M20	1.50	0.16	0.08	3.54	1.06	2.75	1.30	0.87	0.79
BK80	3.94	14.17	1.10	0.39	0.79	12.60	M24	1.77	0.16	0.12	4.33	1.26	3.93	1.57	1.02	0.98
BK90	4.72	17.01	1.26	0.43	0.63	15.75	M24	1.77	0.18	0.12	5.12	1.38	4.72	1.57	1.02	1.10



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.

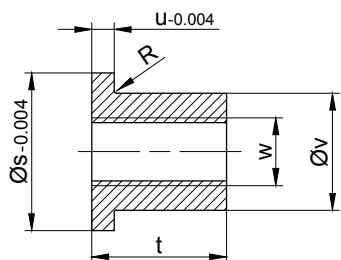
The actual gearbox design can vary from the geometry shown.

BK-series bevel-gear motors

Additional Dimension Sheet Imperial

Tools for hollow shaft and keyway

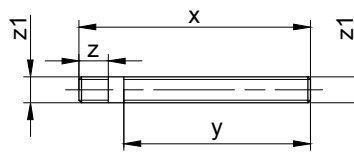
Pos.3 Sleeve



✓, edges cut
Material: C45
DIN 17200

Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Pos.4 Stud Bolt



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

Type	Dimensions (inch)										* Retainer ring DIN 472	Hexagon nut DIN 934-B	Disc DIN 125-St	* Fillet head screw DIN 912-8,8	Starting torque (lb.-ft)	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	0.78	0.79	0.20	0.44	M8	0.03	5.12	3.94	0.79	M6	20x1	M6	6.4	M6x30	44.25	M6x120	A 6x6x63						
BK10	0.98	0.94	0.20	0.61	M12	0.03	7.87	6.69	0.79	M8	25x1.2	M8	8.4	M8x30		M12x190	A 8x7x125						
BK17	1.17	1.10	0.20	0.78	M14	0.03	9.06	7.68	0.91	M10	30x1.2	M10	10.5	M10x30	70.81	M14x210	A 8x7x110						
BK20	1.17	1.10	0.20	0.78	M14	0.03	9.06	7.68	0.91	M10	30x1.2	M10	10.5	M10x30		M14x210	A 8x7x140						
BK30	1.37	1.10	0.20	0.91	M14	-	10.24	8.66	0.91	M10	35x1.5	M10	10.5	M10x35		M14x240	A 10x8x180						
BK40	1.57	1.57	0.24	1.09	M20	0.03	11.81	10.24	1.10	M12	40x1.75	M12	13	M12x35	141.61	M20x290	A 12x8x200						
BK50	1.96	1.89	0.24	1.42	M24	-	13.39	11.42	1.46	M16	50x2.0	M16	17	M16x40	265.52	M24x320	A 14x9x220						
BK60	2.35	2.36	0.24	1.73	M30	-	14.57	12.20	1.77	M20	60x2.0	M20	21	M20x50	371.73	M30x350	A 18x11x250						
BK70	3.14	2.36	0.32	2.17	M30	-	16.54	14.17	1.77	M20	80x2.5	M20	21	M20x50		M30x400	A 22x14x280						
BK70-K70	2.75	2.36	0.32	2.09	M30	-	16.54	14.17	1.77	M20	70x2.5	M20	21	M20x50		M30x400	A 20x12x280						
BK80	3.93	2.83	0.39	2.95	M36	-	18.90	16.14	2.17	M24	100x3.0	M24	25	M24x60	885.07	M36x450	A 28x16x320						
BK90	4.72	2.83	0.39	3.15	M36	-	22.05	18.90	2.17	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.

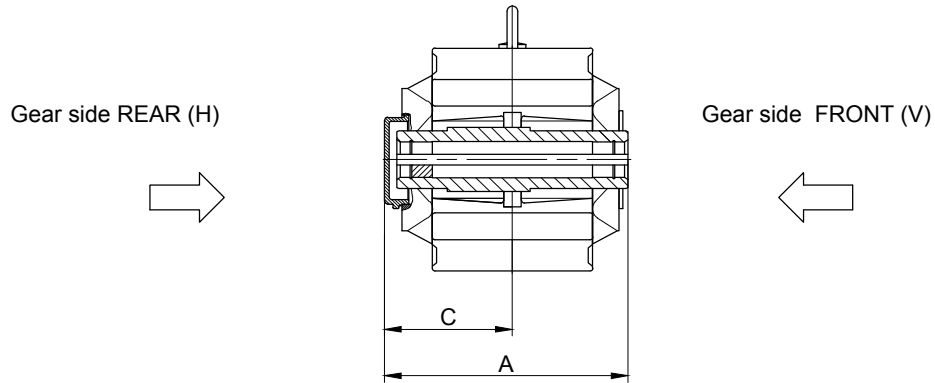
Optional:	Type	Ø s	Order Text
	BK06	20	Id.Nr.4104013 Assembly tool "holding"
	BK10	25	Id.Nr.4103921 Assembly tool "holding"
	BK20	30	Id.Nr.4103939 Assembly tool "holding"
	BK30	35	Id.Nr.4103947 Assembly tool "holding"
	BK40	40	Id.Nr.4103955 Assembly tool "holding"
	BK50	50	Id.Nr.4103963 Assembly tool "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.

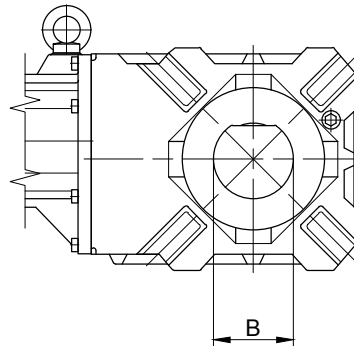
BK-series bevel-gear motors

Additional Dimension Sheet Imperial

Sealing Cap (VK)



Gear side REAR (H)

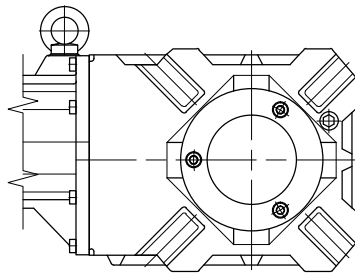


Type	A	B	C
BK10	7.19	3.35	3.84
BK17	-	-	-
BK20	8.05	3.54	4.27
BK40	10.77	3.94	5.65
BK50	11.73	4.53	6.18
BK60	12.68	5.12	6.73
BK70	14.57	6.30	7.64

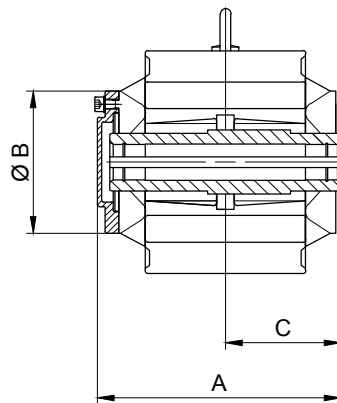
The actual gearbox design can vary from the geometry shown.

Sealing Cover (VD)

Gear side REAR (H)



Gear side REAR (H)



Gear side FRONT (V)



Type	A	B	C
BK10	7.13	4.72	3.35
BK17	7.01	5.49	3.23
BK20	8.11	5.49	3.78
BK30	9.41	6.30	4.41
BK40	10.79	6.30	5.12
BK50	11.69	7.83	5.55
BK60	12.64	8.27	5.94
BK70	14.49	9.84	6.93
BK80	16.50	11.81	7.95
BK90	19.37	13.82	9.53

The actual gearbox design can vary from the geometry shown.

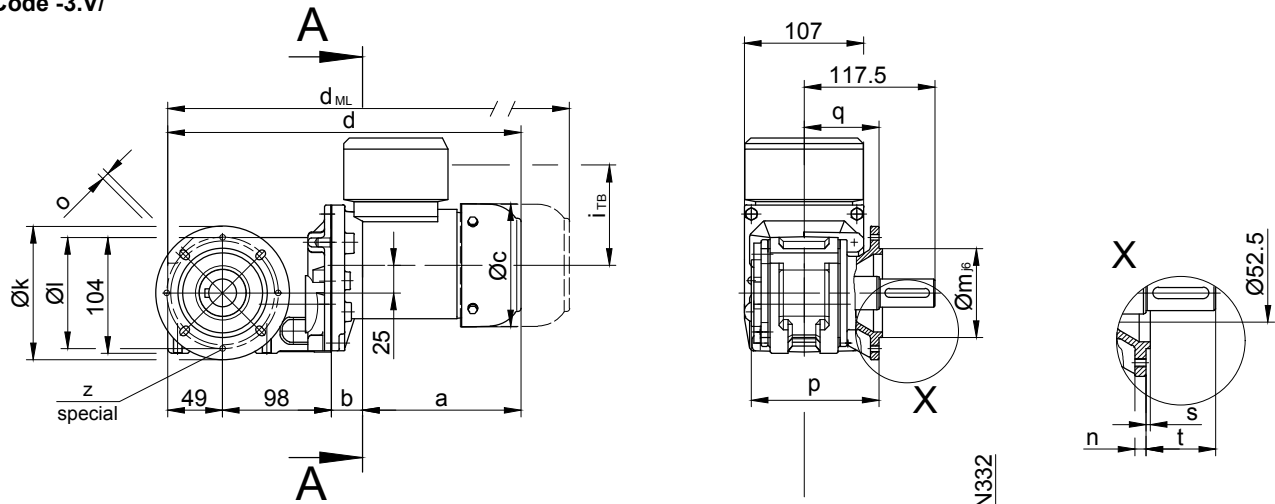
BK-series bevel-geared motors

Dimension Metric

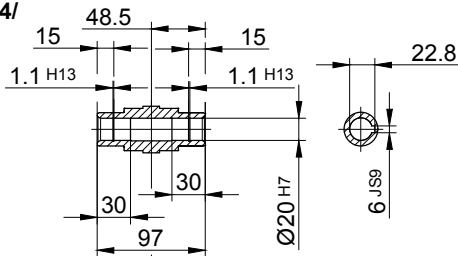
BK06

Flange with clearance holes at front

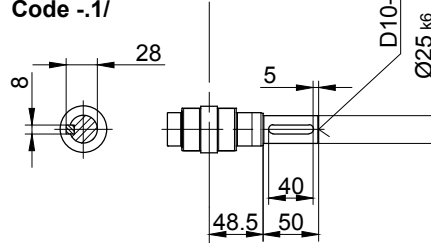
Code -3.V/



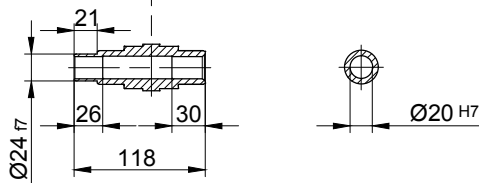
Code -.4/



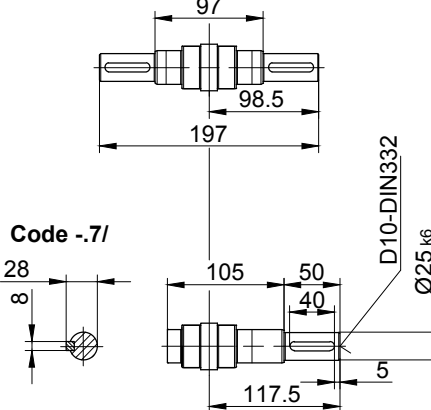
Code -.1/



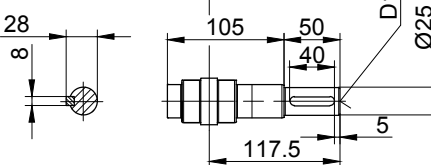
Code -.5/



Code -.3/



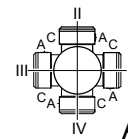
Code -.7/



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

Standard



A-A



Type	a*	b	c	d*	Øv	i _{TB}	Design with motor extensions			
							E./ES.. d _{ML} *	G d _{ML} *	E./ES.-G d _{ML} *	RR/RL d _{ML} *
BK06-../D04..	143	28	111	318	70	112	361.5	380.5	423.5	-
BK06-../D05..	170	30	123	347	70	117	389	450	491.5	-
BK06-../D06..	170	30	123	347	70	119	389	450	491.5	-
BK06-../D07..	190	30	123	367	70	119	409	470	511.5	-
BK06-../D..08..	200	74	156	421	-	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

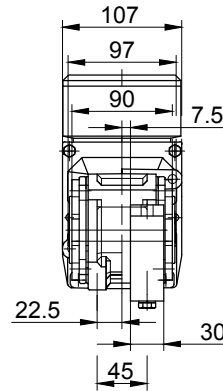
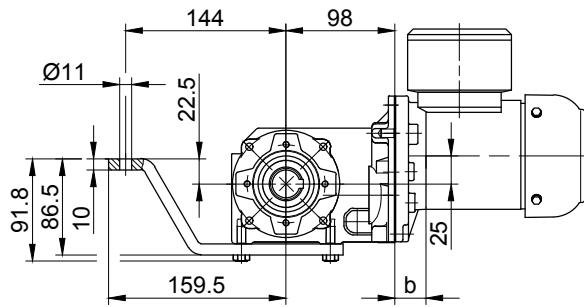
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

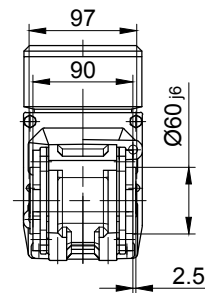
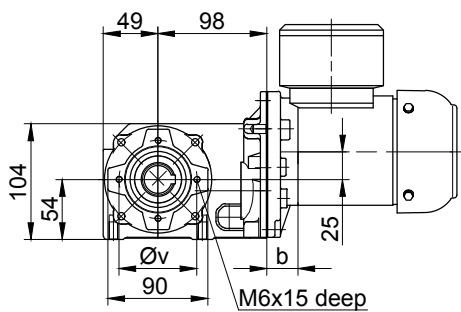
Torque arm at front

Code -5.V/



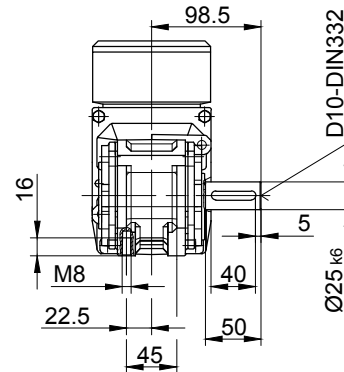
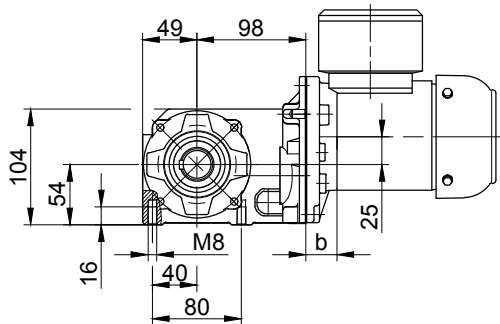
Flange with tapped holes at front

Code -7.V/



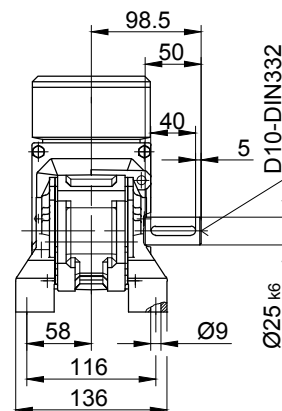
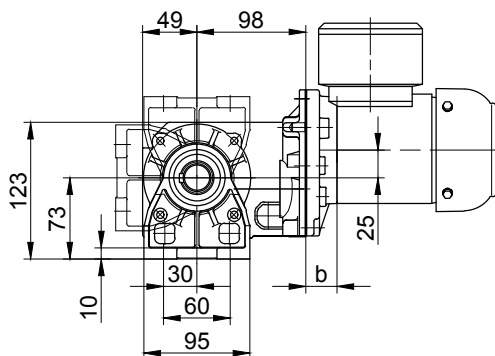
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

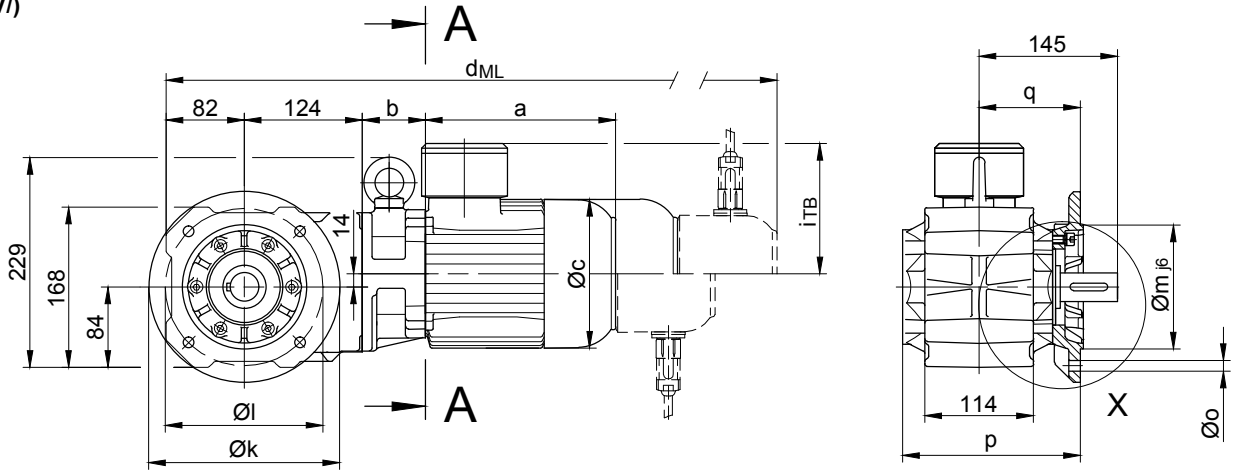
BK-series bevel-geared motors

Dimension Metric

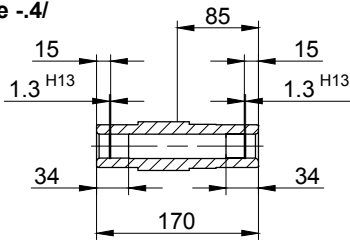
BK10-BK10Z

Flange with clearance holes at front

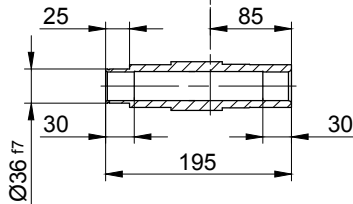
Code -3.V/
(Code -2.V/)



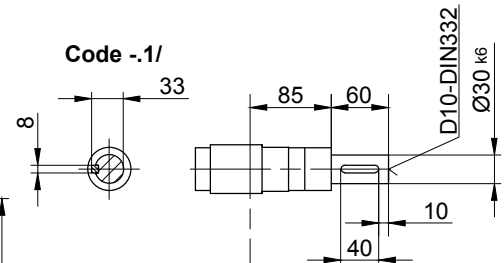
Code -4/



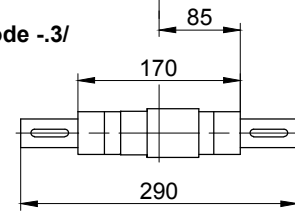
Code -5/



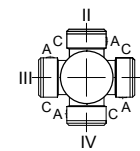
Code -1/



Code -3/



Standard



A-A

Flange dimensions

BK10(Z)	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*	i _{TB}	Design with motor extensions			
						E./ES.. d _{ML} *	G d _{ML} *	E./ES.-G d _{ML} *	RR/RL d _{ML} *
BK10Z-../D04..	143	86	111	435	112	478.5	497.5	540.5	-
BK10-../D05..	170	62	123	438	117	480	541	582.5	-
BK10Z-../D05..	170	88	123	464	117	506	567	608.5	-
BK10-../D06..	170	62	123	438	119	480	541	582.5	-
BK10Z-../D06..	170	88	123	464	119	506	567	608.5	-
BK10-../D07..	190	62	123	458	119	500	561	602.5	-
BK10Z-../D07..	190	88	123	484	119	526	587	628.5	-
BK10-../D..08..	200	66	156	472	136.5	538	579	645.5	538
BK10Z-../D..08..	200	132	156	538	136.5	604	645	711.5	604
BK10-../D..09..	251	80.5	181	537.5	158	630.5	644.5	735	630.5



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

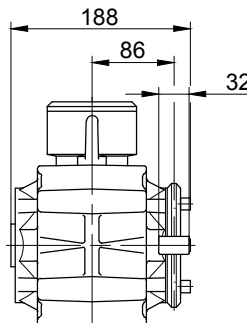
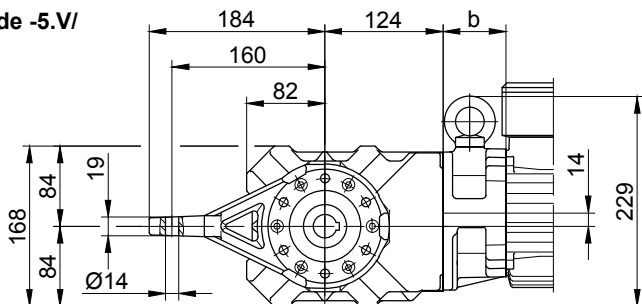
BK-series bevel-gear motors

Dimension Metric

BK10-BK10Z

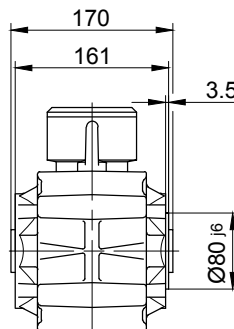
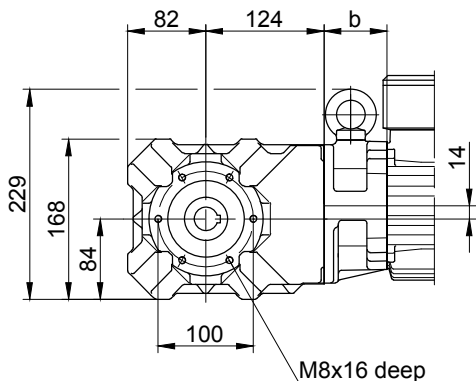
Torque arm at front

Code -5.V/



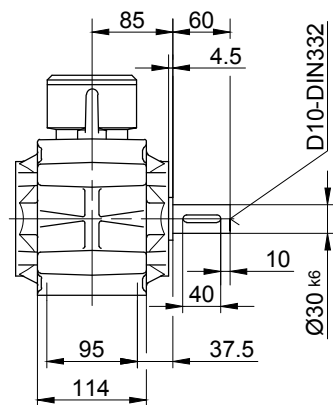
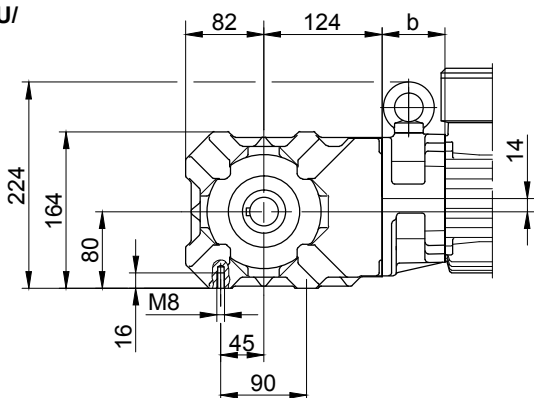
Flange with tapped holes at front

Code -7.V/



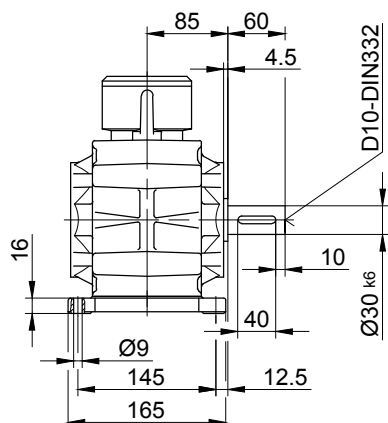
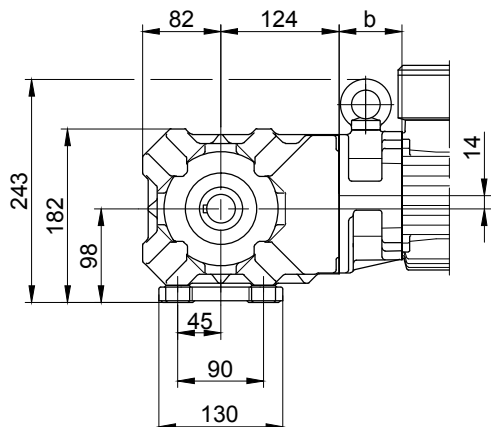
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

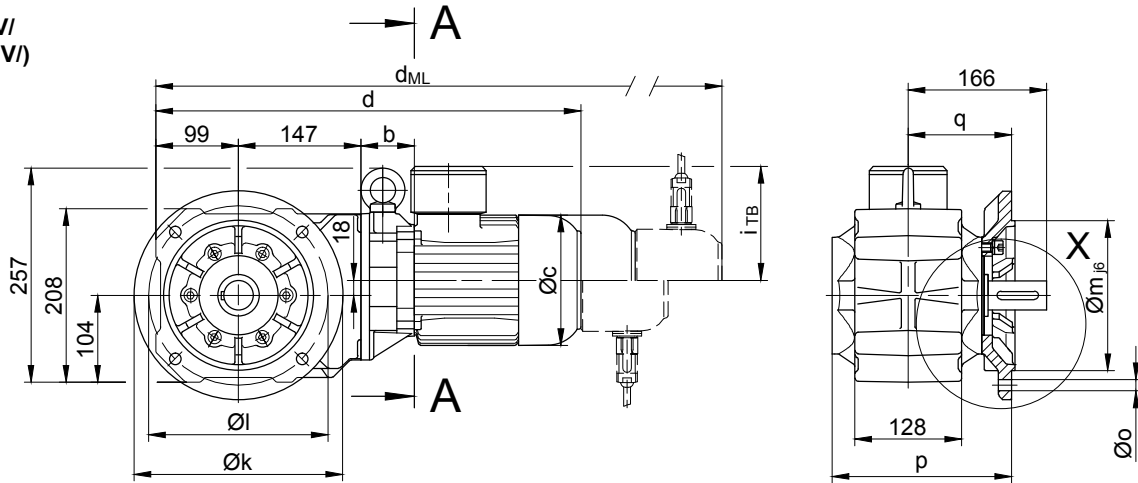
BK-series bevel-geared motors

Dimension Metric

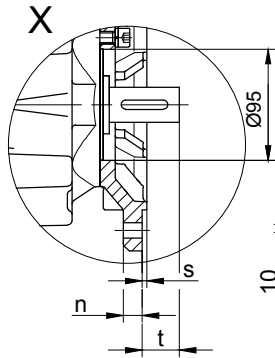
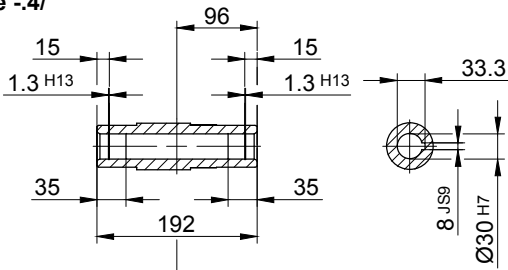
BK20-BK20Z

Flange with clearance holes at front

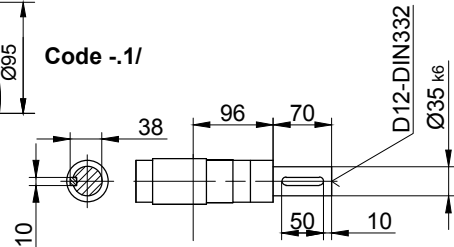
Code -3.V/
(Code -2.V/)



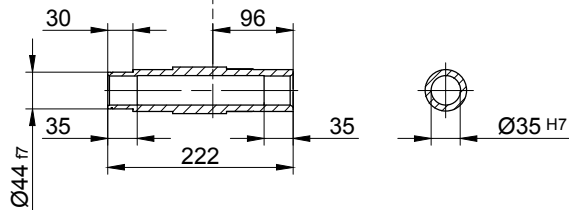
Code -4/



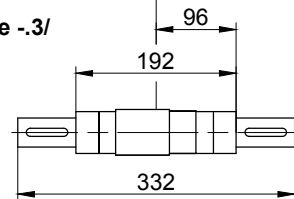
Code -1/



Code -5/



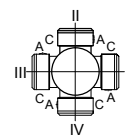
Code -3/



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

Standard



A-A

Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	ES../ZS..	G	E../ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BK20Z-../D04..	143	100	111	489	112	532.5	551.5	594.5	-
BK20-../D05..	170	60	123	476	117	518	579	620.5	-
BK20Z-../D05..	170	102	123	518	117	560	621	662.5	-
BK20-../D06..	170	60	123	476	119	518	579	620.5	-
BK20Z-../D06..	170	102	123	518	119	560	621	662.5	-
BK20-../D07..	190	60	123	496	119	538	599	640.5	-
BK20Z-../D07..	190	102	123	538	119	580	641	682.5	-
BK20-../D..08..	200	64	156	510	136.5	576	617	683.5	576
BK20Z-../D..08..	200	146	156	592	136.5	658	699	765.5	658
BK20-../D..09..	251	78.5	181	575.5	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/DPE08X**A**4

Comment: No change to the dimensions shown

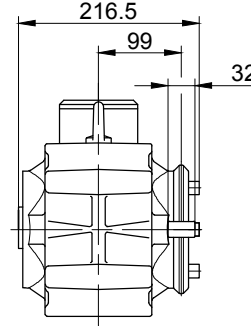
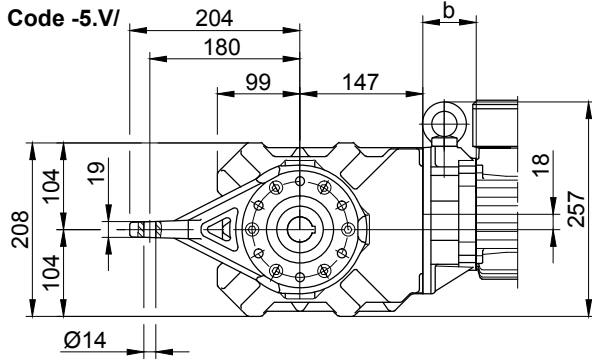
Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

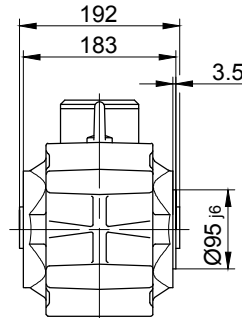
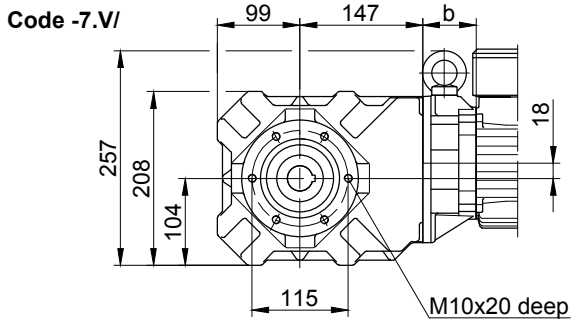
Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

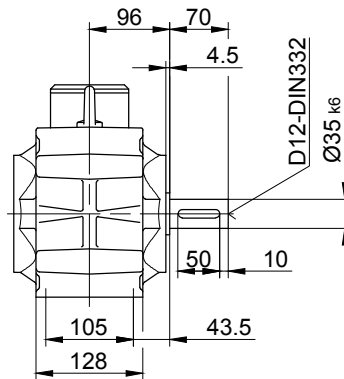
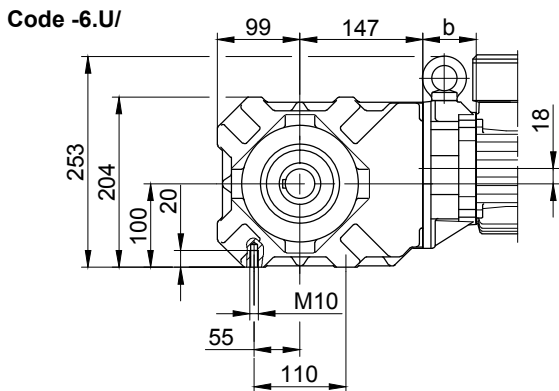
Torque arm at front



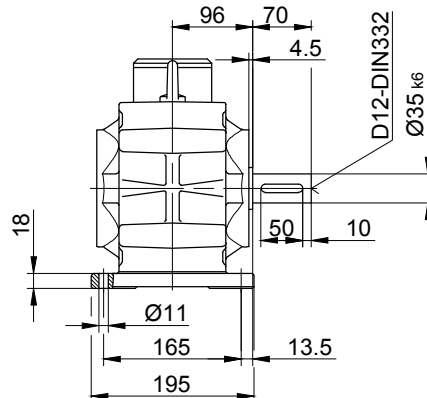
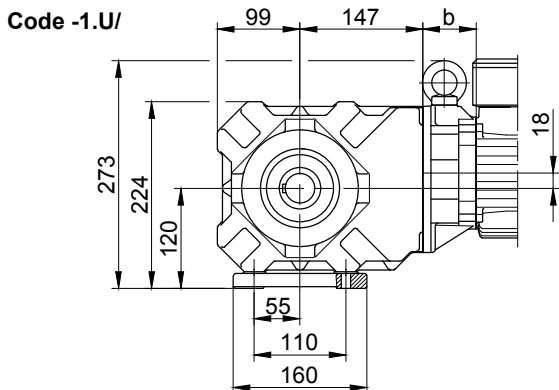
Flange with tapped holes at front



Foot with tapped holes at bottom



Foot with clearance holes at bottom



The actual gearbox design can vary from the geometry shown.

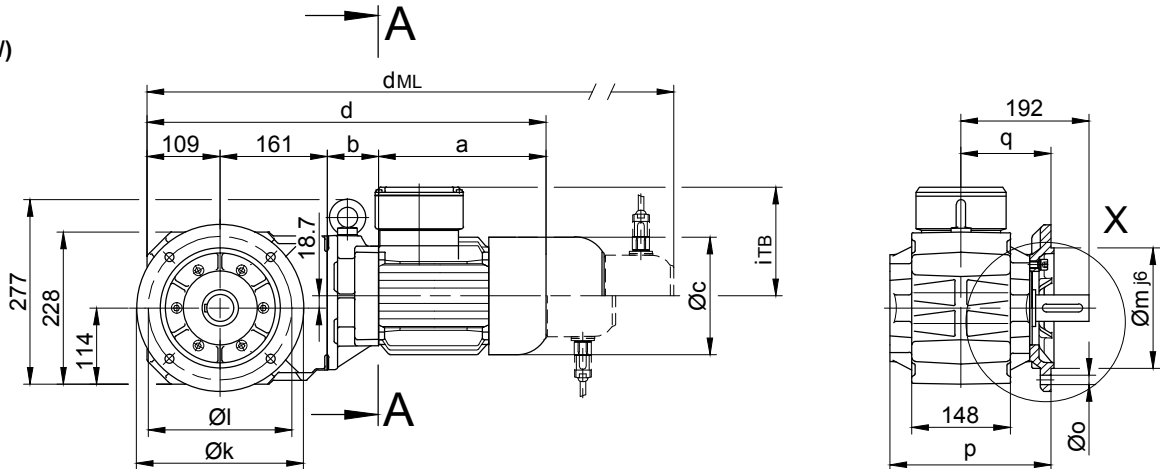
BK-series bevel-geared motors

Dimension Metric

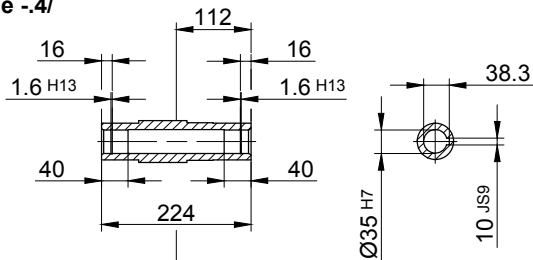
BK30-BK30Z

Flange with clearance holes at front

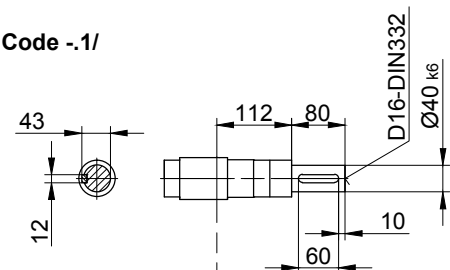
Code -3.V/
(Code -2.V)



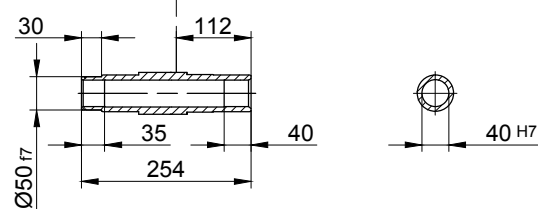
Code -4/



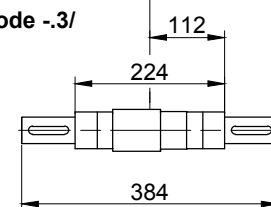
Code -1/



Code -5/

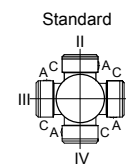


Code -3/



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



A-A

Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	E./ES..	G	E./ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BK30-../D05..	170	58	123	498	117	540	601	642.5	-
BK30Z-../D05..	170	133.5	123	573.5	117	615.5	676.5	718	-
BK30-../D06..	170	58	123	498	119	540	601	642.5	-
BK30Z-../D06..	170	133.5	123	573.5	119	615.5	676.5	718	-
BK30-../D07..	190	58	123	518	119	560	621	662.5	-
BK30Z-../D07..	190	133.5	123	593.5	119	635.5	696.5	738	-
BK30-../D..08..	200	62	156	532	136.5	598	639	705.5	598
BK30Z-../D..08..	200	137.5	156	607.5	136.5	673.5	714.5	781	673.5
BK30-../D..09..	251	76.5	181	597.5	158	690.5	704.5	795	690.5
BK30Z-../D..09..	251	152	181	673	158	766	780	870.5	766
BK30-../D..11..	319	83	228	672	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

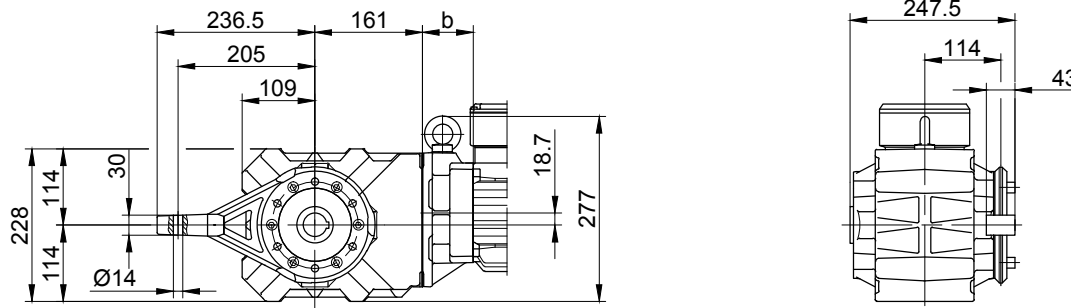
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

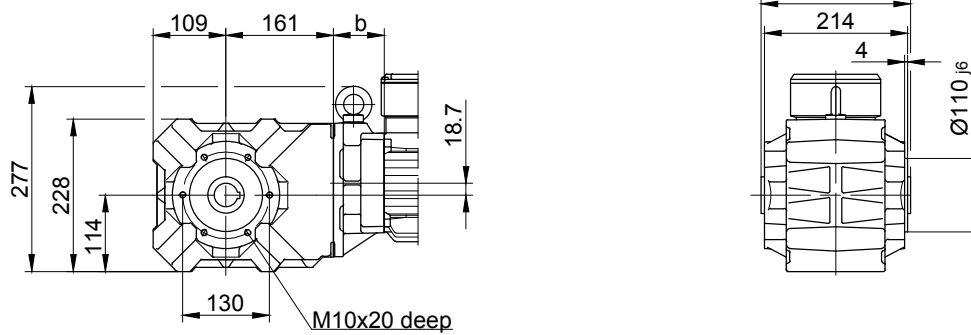
Torque arm at front

Code -5.V/



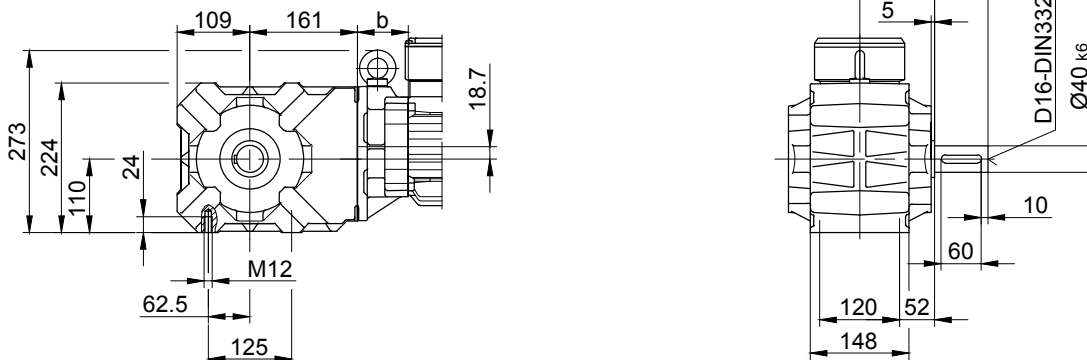
Flange with tapped holes at front

Code -7.V/



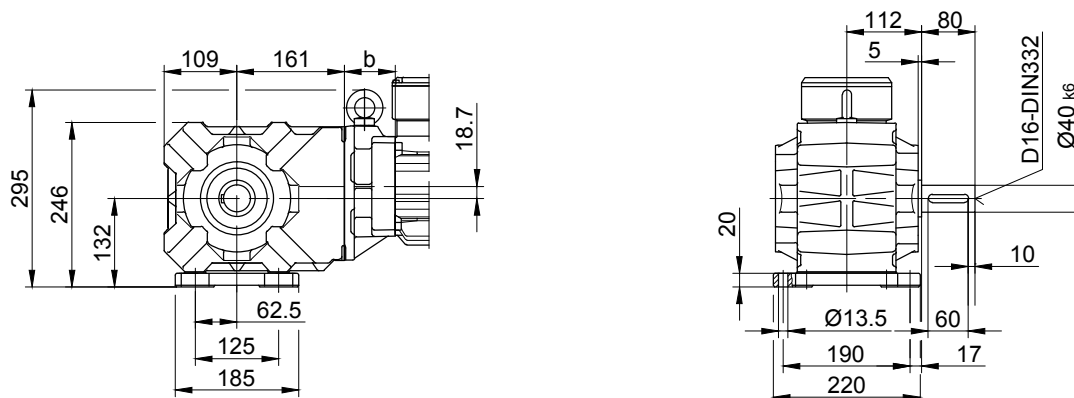
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

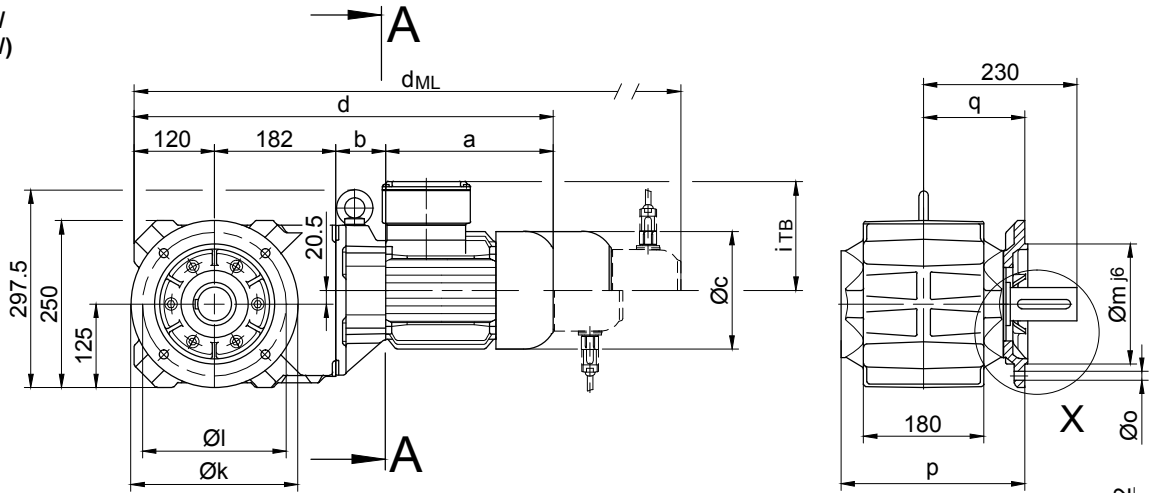
BK-series bevel-gear motors

Dimension Metric

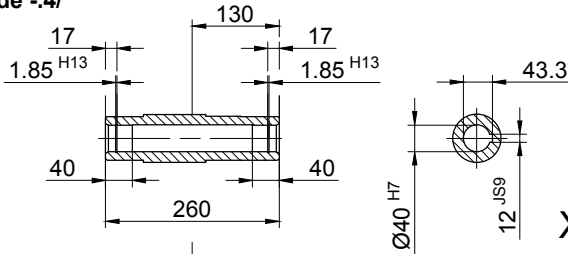
BK40-BK40Z

Flange with clearance holes at front

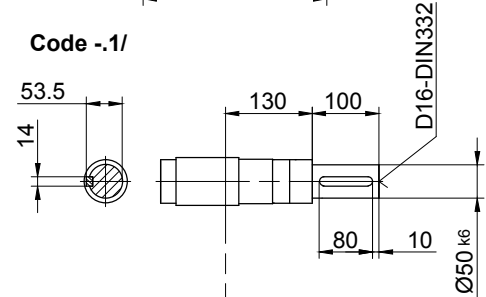
Code -3.V/
(Code 4.V/)



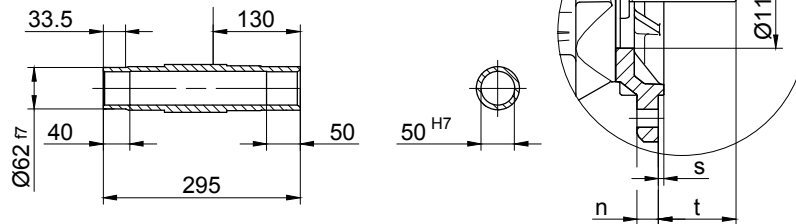
Code -4/



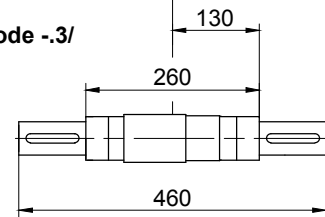
Code -1/



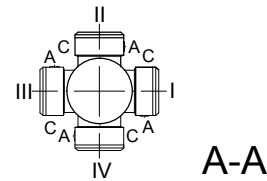
Code -5/



Code -3/



Standard



Flange dimensions

BK40(Z)	k	l	m	n	o	p	q	s	t
Standard -3V/	250	215	180	16	13.5	276	152	4	78
big -4V/	300	265	230	20	13.5	282	158	4	72

Type	a*	b	c	d*	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	117	652.5	713.5	755	-
BK40Z-../D06..	170	138.5	123	610.5	119	652.5	713.5	755	-
BK40Z-../D07..	190	138.5	123	630.5	119	672.5	733.5	775	-
BK40-../D..08..	200	60	156	562	136.5	628	669	735.5	628
BK40Z-../D..08..	200	142.5	156	644.5	136.5	710.5	751.5	818	710.5
BK40-../D..09..	251	74.5	181	627.5	158	720.5	734.5	825	720.5
BK40Z-../D..09..	251	157	181	710	158	803	817	907.5	803
BK40-../D..11..	319	81	228	702	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

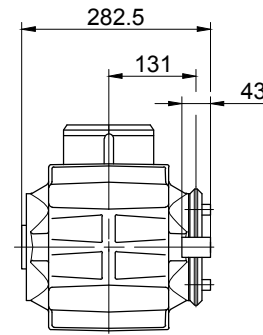
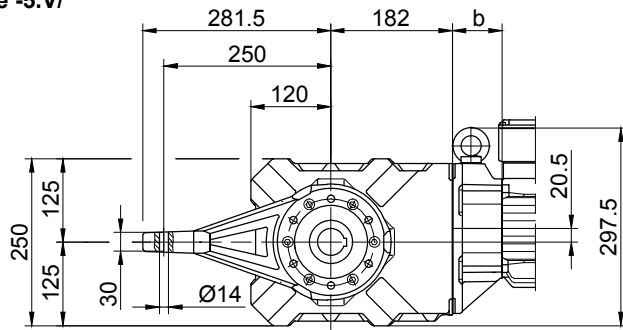
BK-series bevel-gear motors

Dimension Metric

BK40-BK40Z

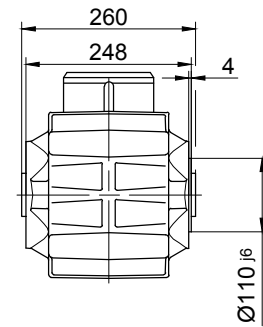
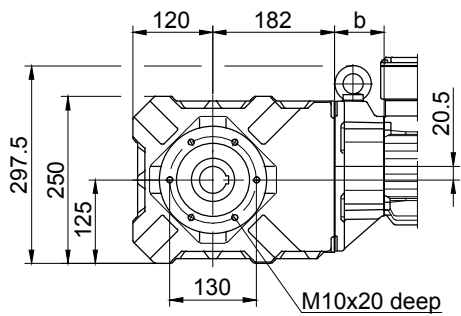
Torque arm at front

Code -5.V/



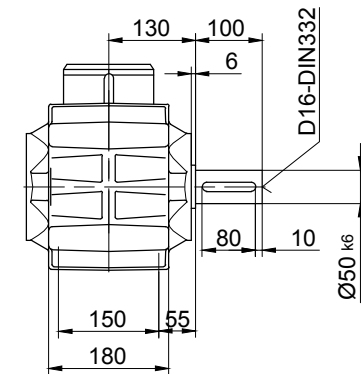
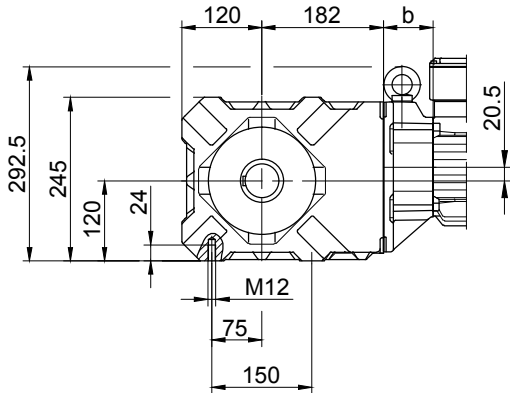
Flange with tapped holes at front

Code -7.V/



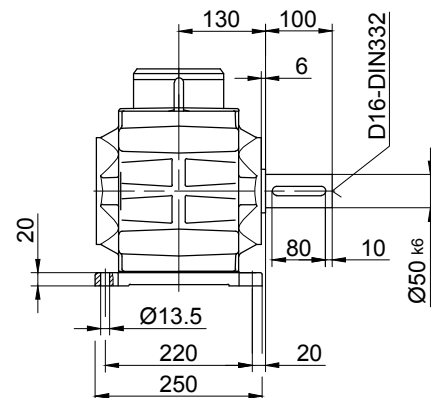
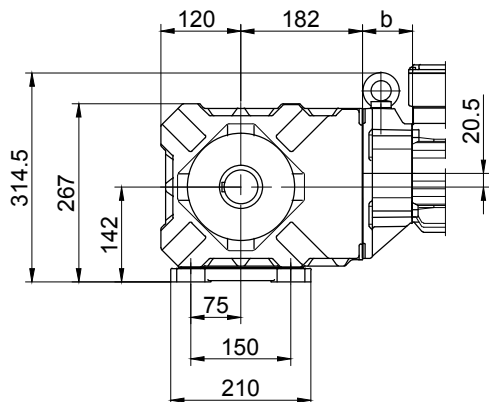
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

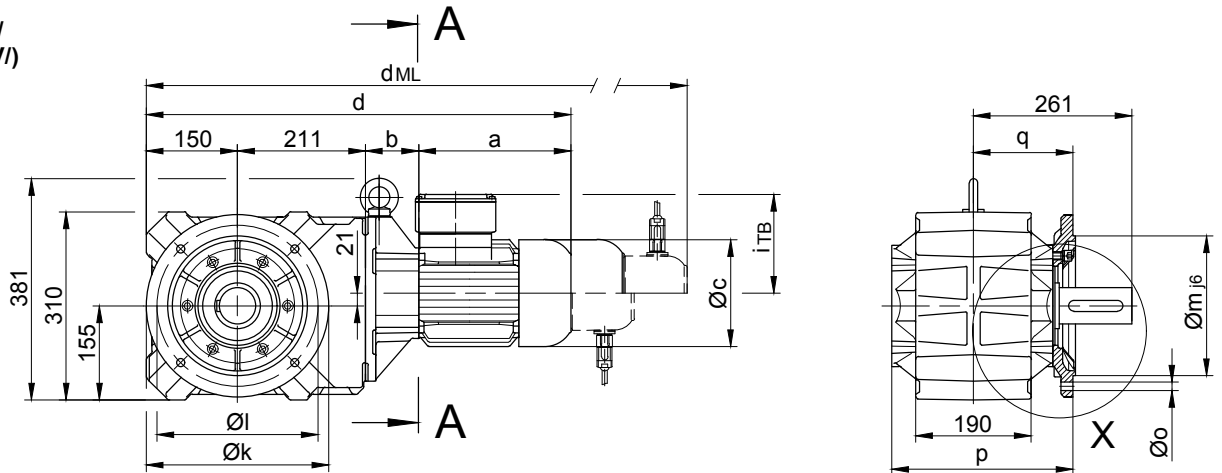
BK-series bevel-geared motors

Dimension Metric

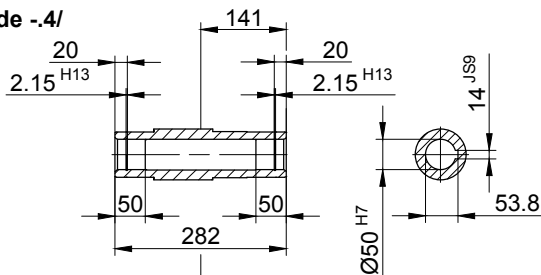
BK50-BK50Z

Flange with clearance holes at front

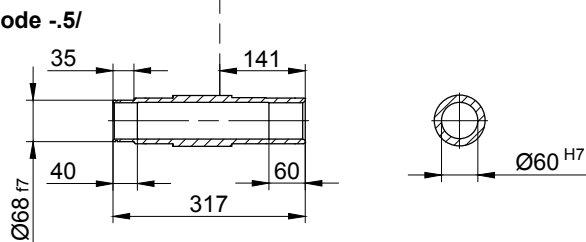
Code -3.V/
(Code -2.V/)



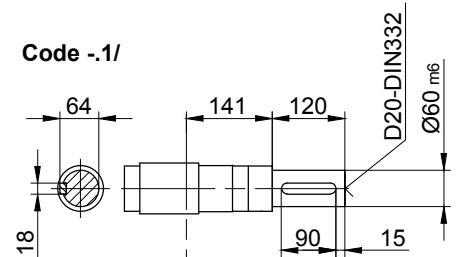
Code -4/



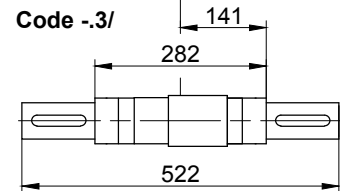
Code -5/



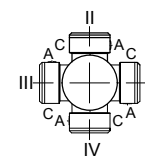
Code -1/



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 _{TB}	Design with motor extensions			
						E..ES../ZS..	G	E..ES../ZS..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BK50Z-../D05..	170	155	123	686	117	728	789	830.5	-
BK50Z-../D06..	170	155	123	686	119	728	789	830.5	-
BK50Z-../D07..	190	155	123	706	119	748	809	850.5	-
BK50-../D..08..	200	73	156	634	136.5	700	741	807.5	700
BK50Z-../D..08..	200	159	156	720	136.5	786	827	893.5	786
BK50-../D..09..	251	87.5	181	699.5	158	792.5	806.5	897	792.5
BK50Z-../D..09..	251	173.5	181	785.5	158	878.5	892.5	983	878.5
BK50-../D..11..	319	94	228	774	181	872	881	976.5	872
BK50-../D..13..	393	107	258	861	218	972	968	1076.5	972
BK50-../D..16..	454.5	121	310	936.5	244	1080	1043.5	1184	1080
BK50-../D..18..	542	143	348	1046	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

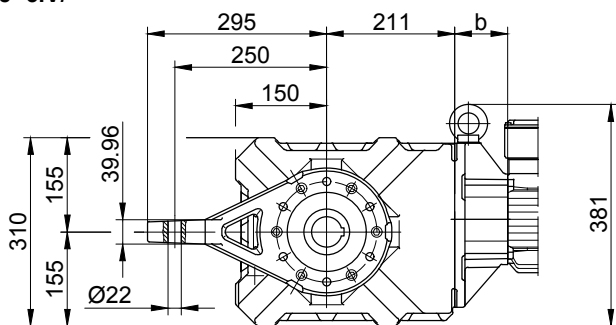
BK-series bevel-gear motors

Dimension Metric

BK50-BK50Z

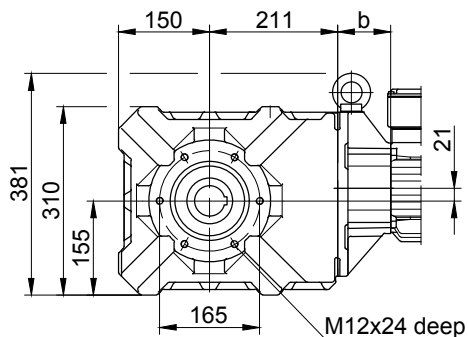
Torque arm at front

Code -5.V/



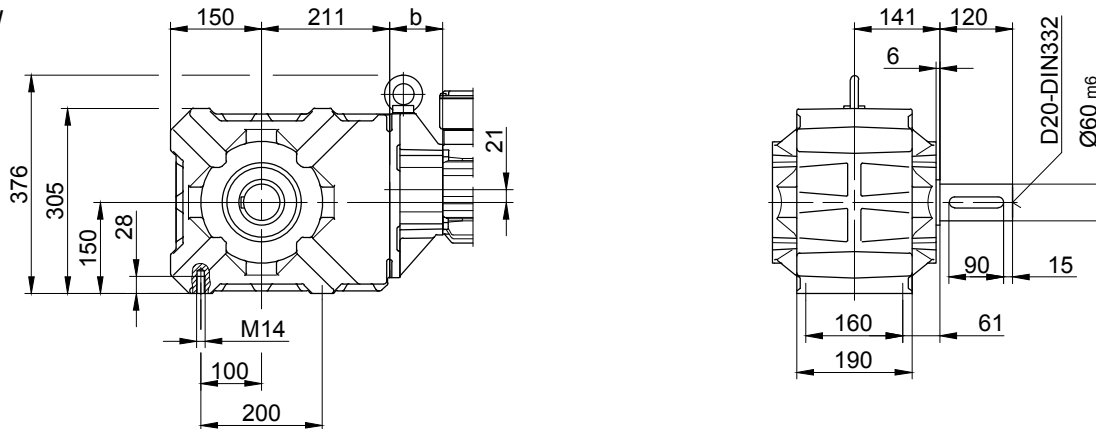
Flange with tapped holes at front

Code -7.V/



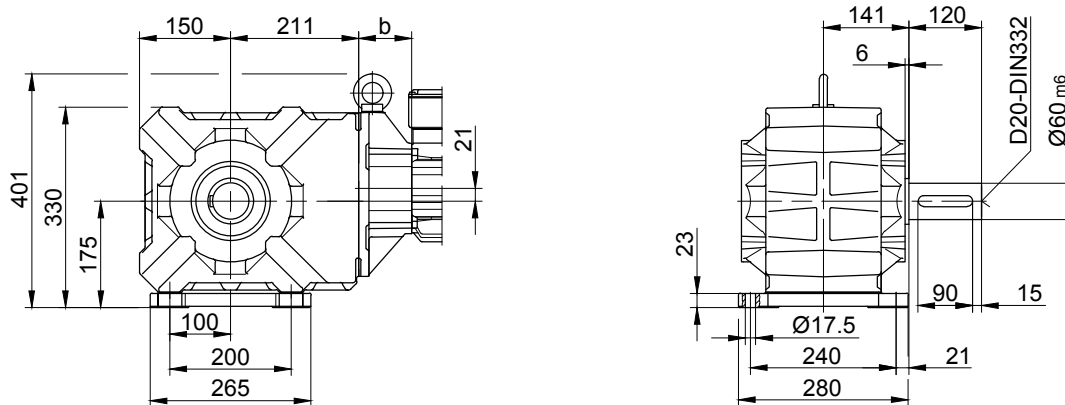
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

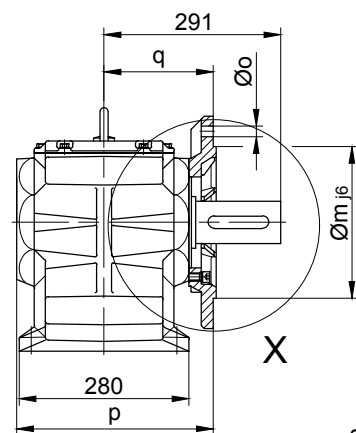
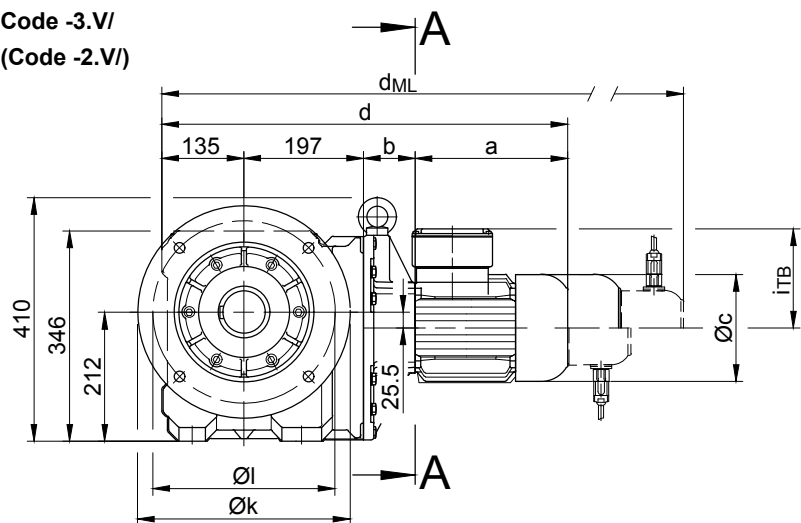
BK-series bevel-geared motors

Dimension Metric

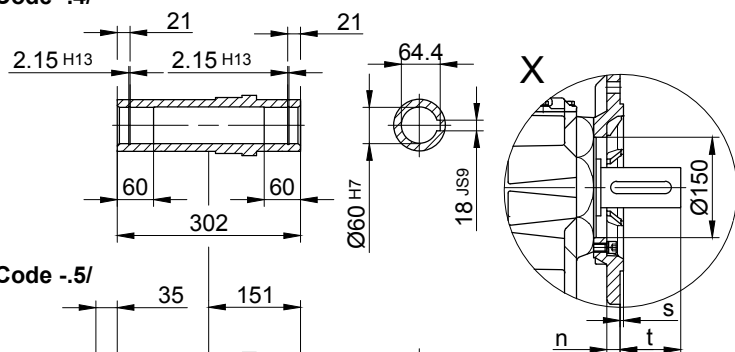
BK60-BK60Z

Flange with clearance holes at front

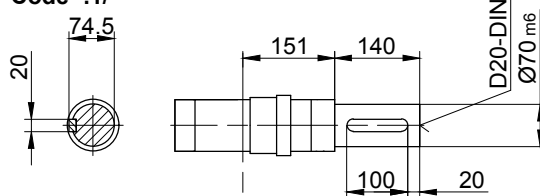
Code -3.V/
(Code -2.V/)



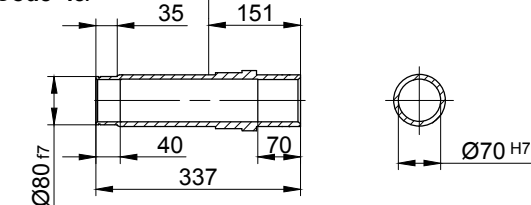
Code -.4/



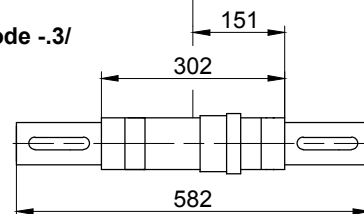
Code -.1/



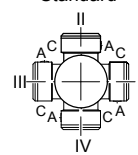
Code -.5/



Code -.3/



Standard



A-A

Flange dimensions

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*	Design with motor extensions				
					i _{TB}	ES../ZS.. d _{ML} *	G d _{ML} *	ES../ZS..-G d _{ML} *	RR/RL d _{ML} *
BK60Z-../D..08..	200	181	156	713	136.5	779	820	886.5	779
BK60-../D..09..	251	85.5	181	668.5	158	761.5	775.5	866	761.5
BK60Z-../D..09..	251	195.5	181	778.5	158	871.5	885.5	976	871.5
BK60-../D..11..	319	92	228	743	181	841	850	945.5	841
BK60Z-../D..11..	319	202	228	853	181	951	960	1055.5	951
BK60-../D..13..	393	105	258	830	218	941	937	1045.5	941
BK60-../D..16..	454.5	119	310	905.5	244	1049	1012.5	1153	1049
BK60-../D..18..	542	141	348	1015	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/DPE08X**A**4
Comment: No change to the dimensions shown

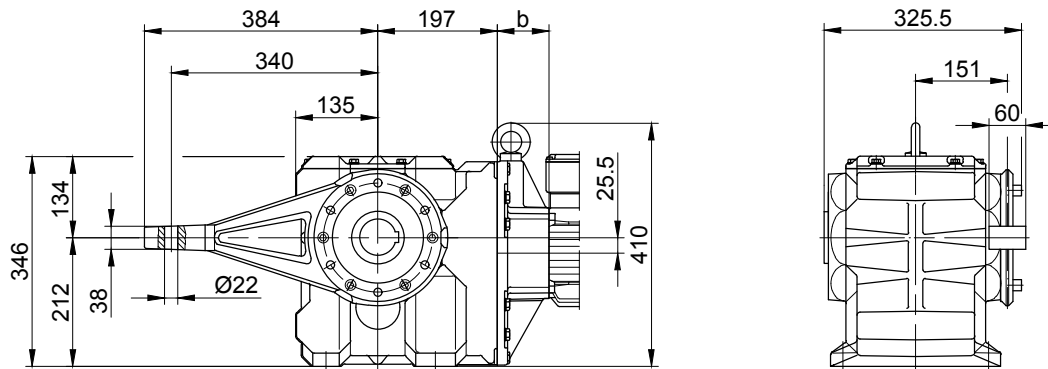
Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4
Comment: Motor length changes - please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

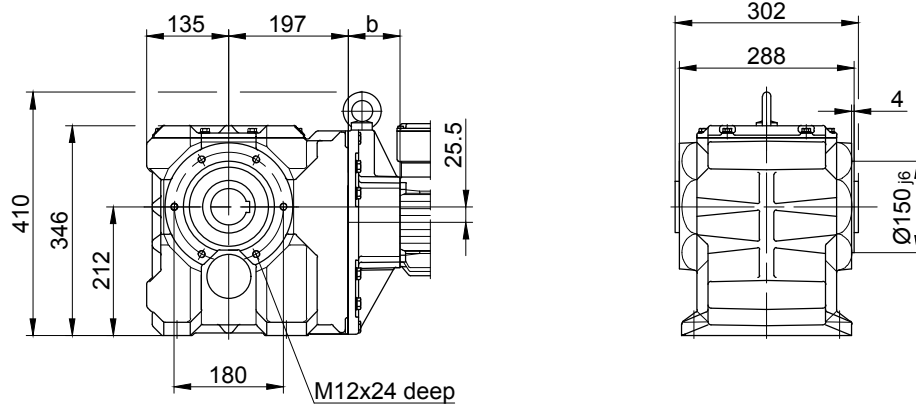
Torque arm at front

Code -5.V/



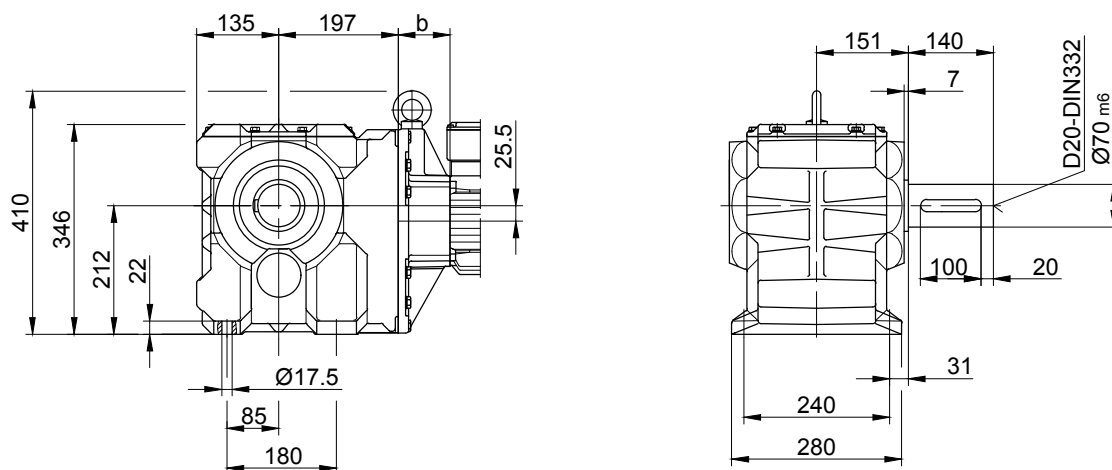
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

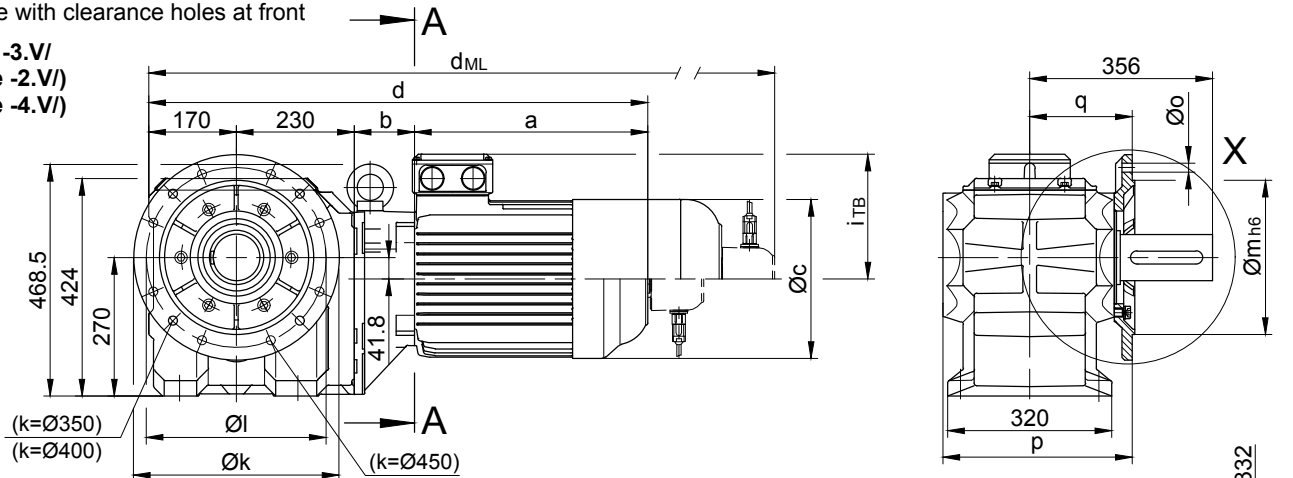
BK-series bevel-geared motors

Dimension Metric

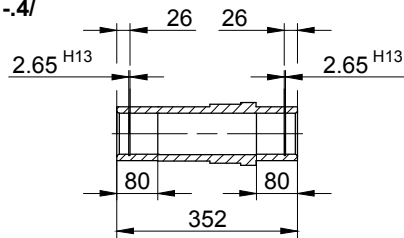
BK70-BK70Z

Flange with clearance holes at front

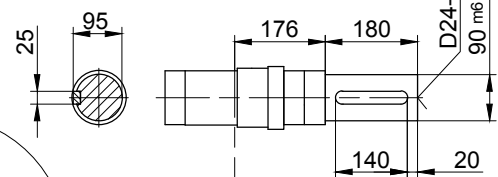
Code -3.V/
(Code -2.V/
(Code -4.V/)



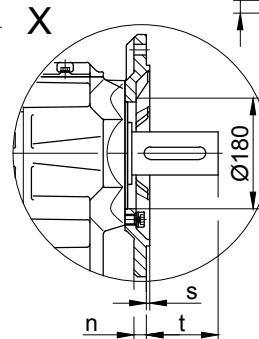
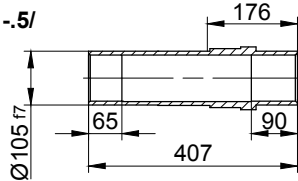
Code -4/



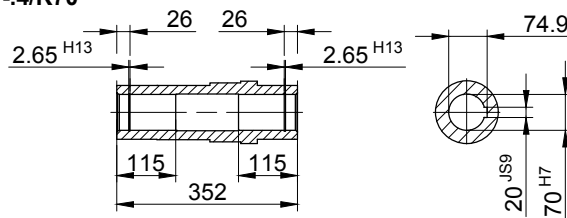
Code -1/



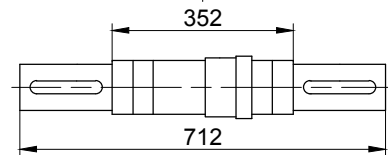
Code -5/



Code -4/K70



Code -3/



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

Standard

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

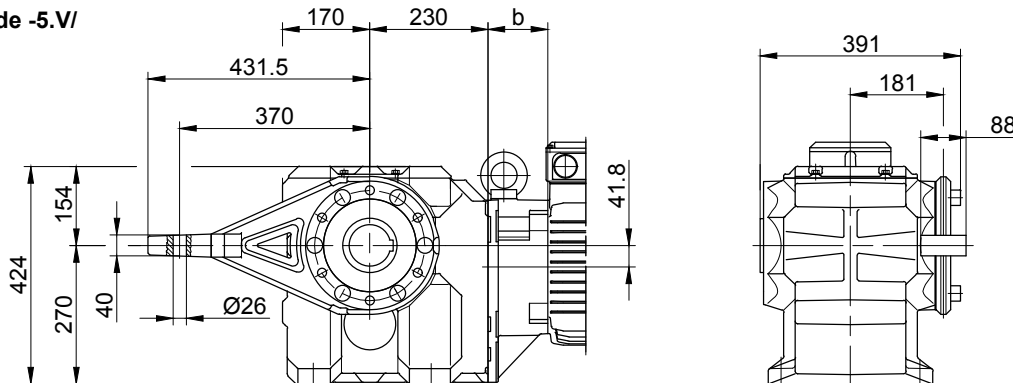
Design state "A" = Standard Length
Type Example: BK70-74V/DPE08X**A**4
Comment: No change to the dimensions shown

Design state "B" = Extended Length
Type Example: BK70-74V/DPE08X**B**4
Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

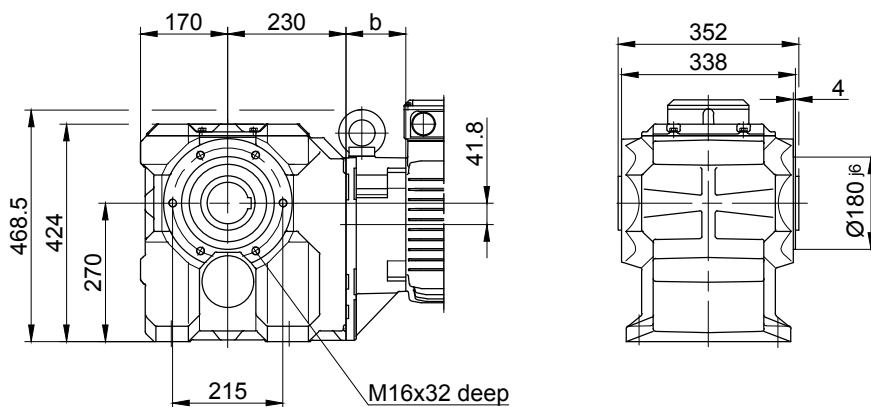
Torque arm at front

Code -5.V/



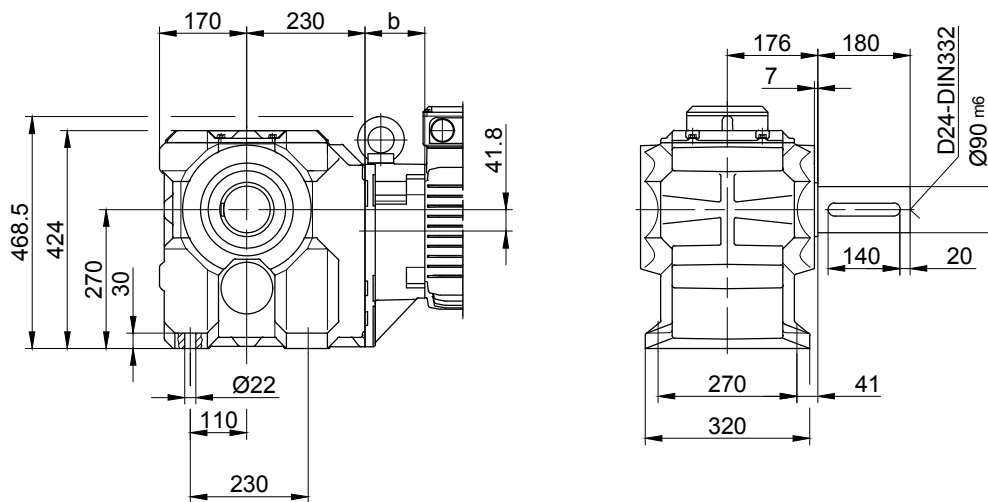
Flange with tapped holes at front

Code -7.V/



Foot with 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.

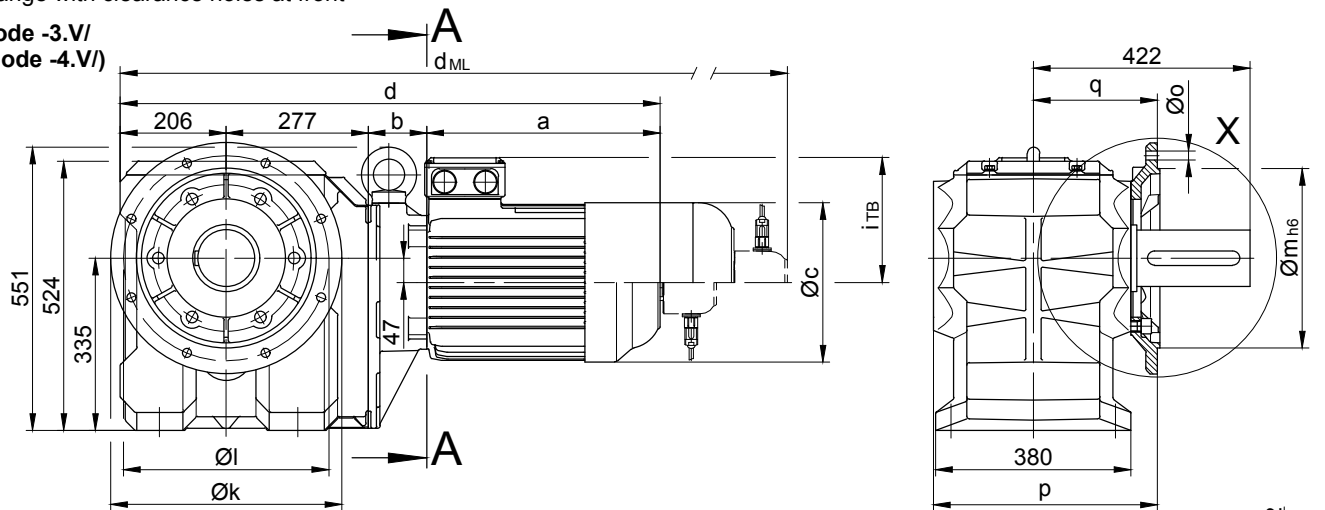
BK-series bevel-geared motors

Dimension Metric

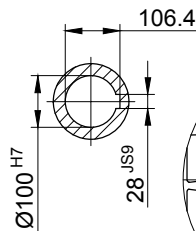
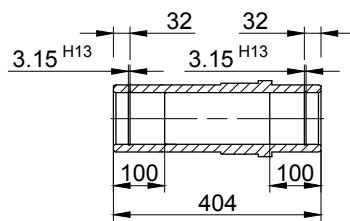
BK80-BK80Z

Flange with clearance holes at front

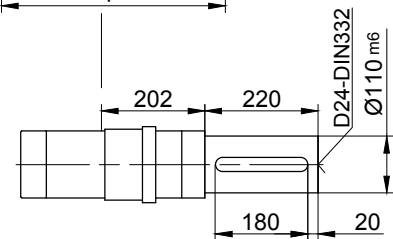
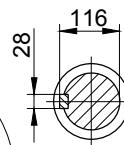
Code -3.V/
(Code -4.V/)



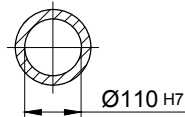
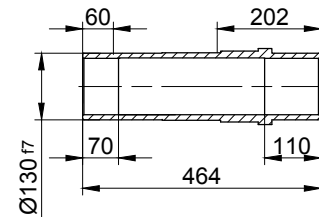
Code -4/



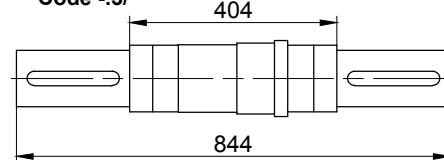
Code -1/



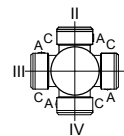
Code -5/



Code -3/



Standard



A-A

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

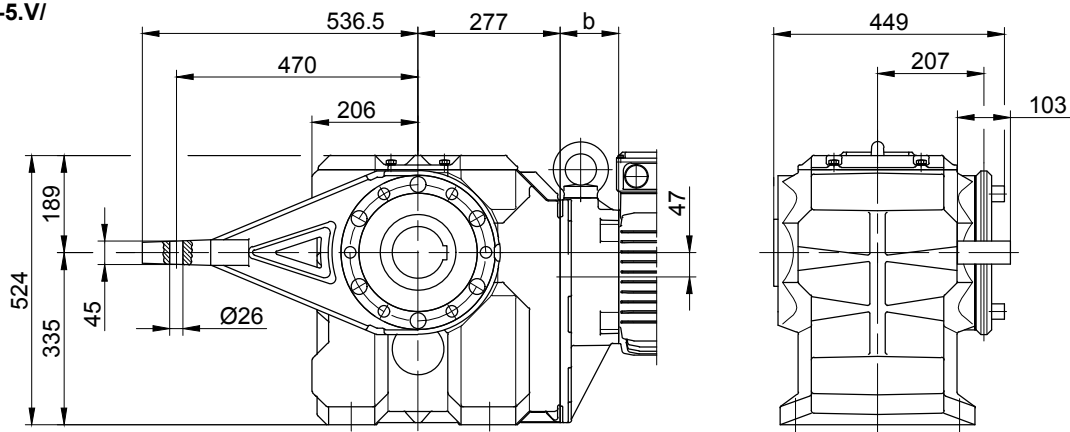
Type Example: BK70-74V/DPE08XB4

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

The actual gearbox design can vary from the geometry shown.

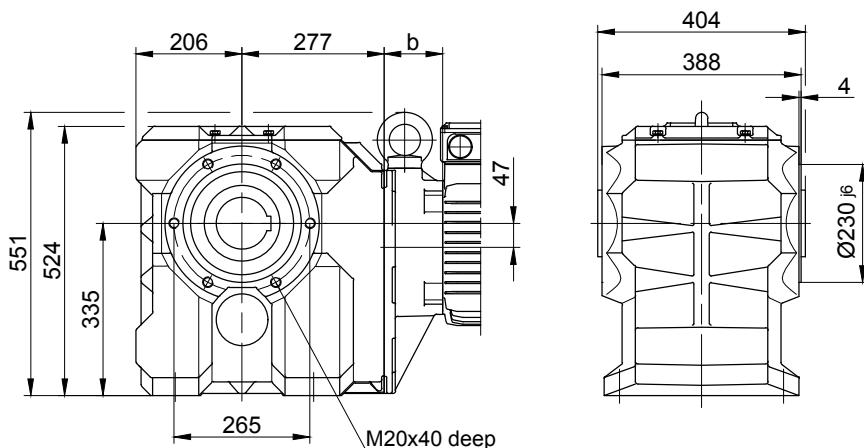
Torque arm at front

Code -5.V/



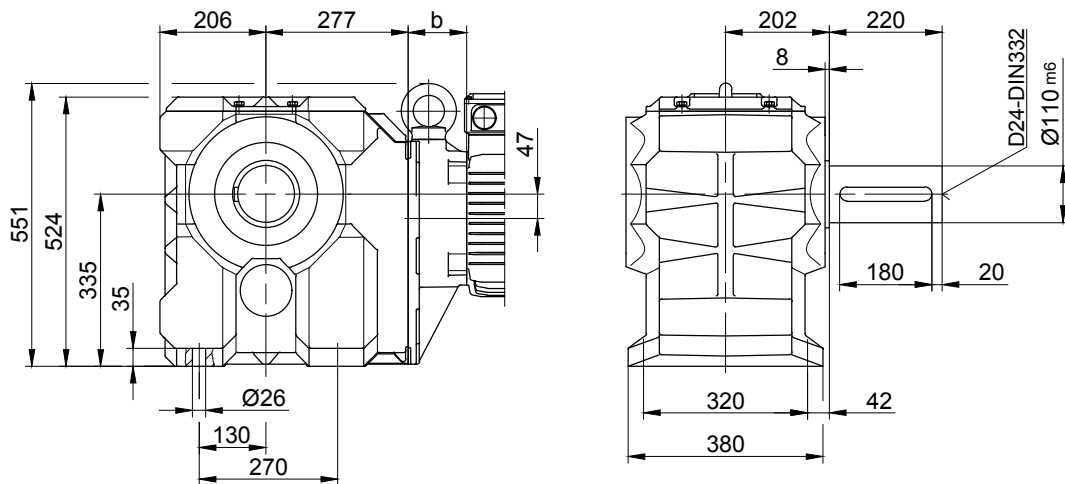
Flange with tapped holes at front

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.

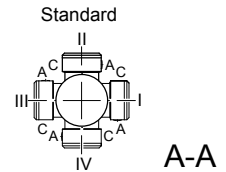
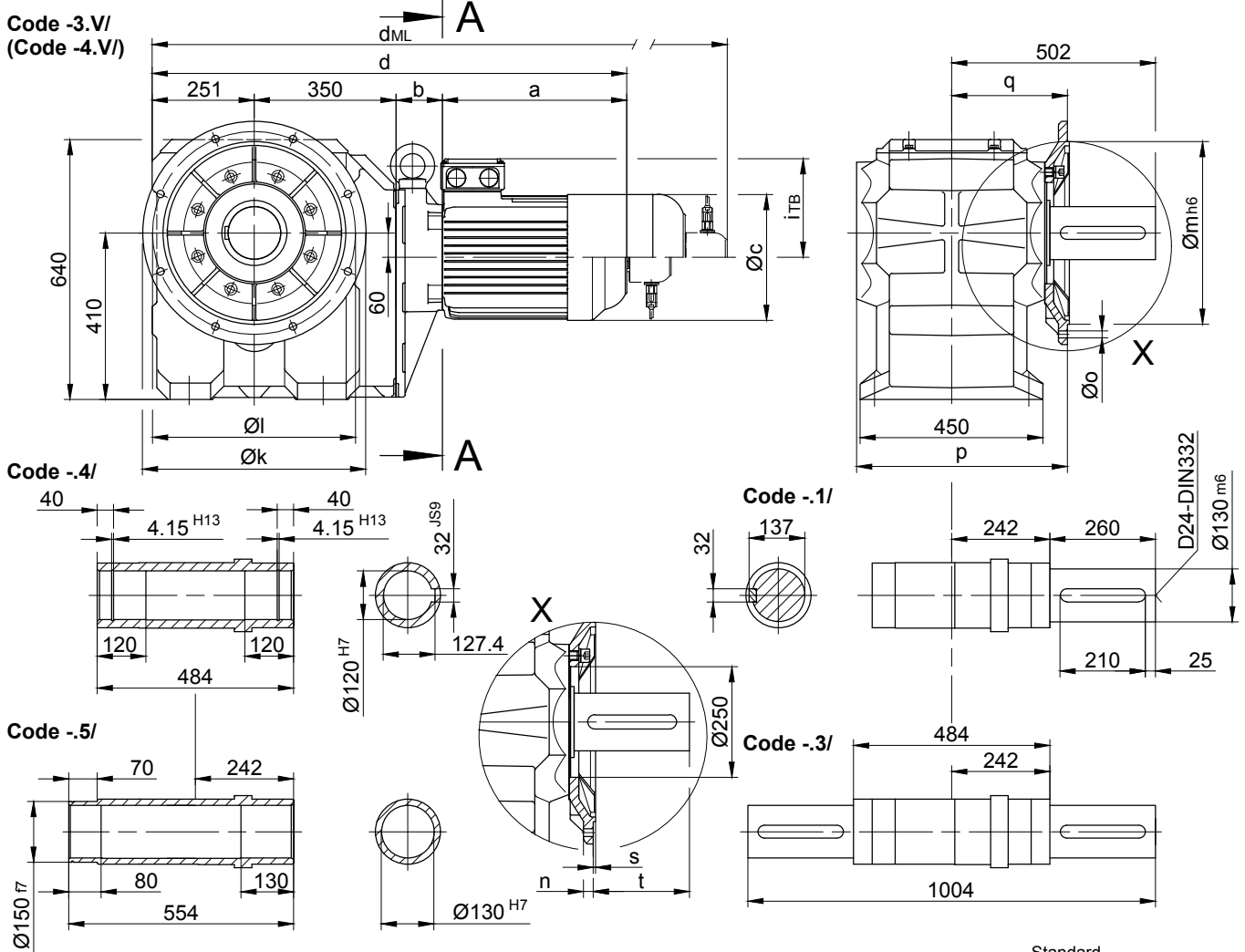
BK-series bevel-geared motors

Dimension Metric

BK90-BK90Z

Flange with clearance holes at front

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



12

Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	ES.../ZS..	G	ES.../ZS..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BK90Z-../D..09..	251	267	181	1119	158	1212	1226	1316.5	1212
BK90Z-../D..11..	319	273.5	228	1193.5	181	1291.5	1300.5	1396	1291.5
BK90-../D..13..	393	100	258	1020	218	1118	1127	1222.5	1118
BK90Z-../D..13..	393	286.5	258	1280.5	218	1391.5	1387.5	1496	1391.5
BK90-../D..16..	454.5	114	310	1169.5	244	1313	1276.5	1417	1313
BK90Z-../D..16..	454.5	300.5	310	1356	244	1499.5	1463	1603.5	1499.5
BK90-../D..18..	542	136	348	1279	288	1428.5	1386	1532.5	1428.5
BK90Z-../D..18..	542	322.5	348	1465.5	288	1615	1572.5	1719	1615
BK90-../D..20L	643.5	153	363	1397.5	303.5	1525	1503.5	1631	1525
BK90-../D..22S	703.5	153	363	1457.5	303.5	1457.5	1563.5	1691	1585
BK90-../D..22M	703.5	153	363	1457.5	303.5	1457.5	1563.5	1691	1585



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

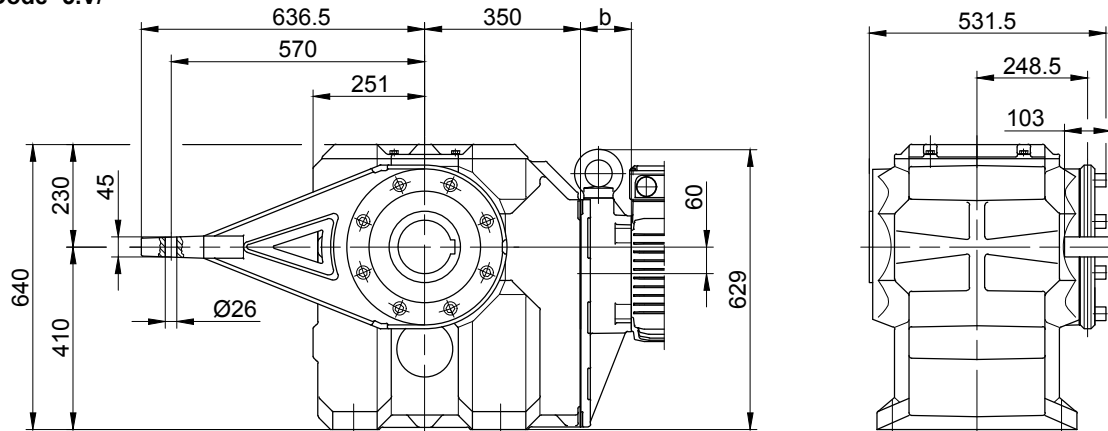
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

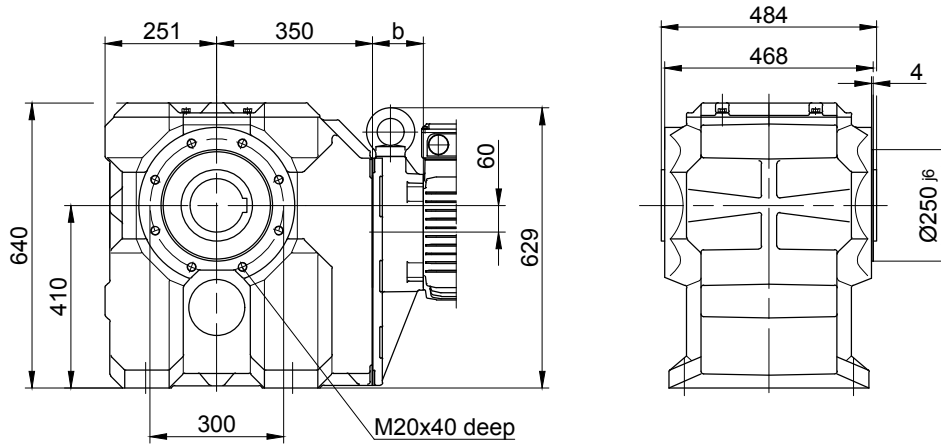
Torque arm at front

Code -5.V/



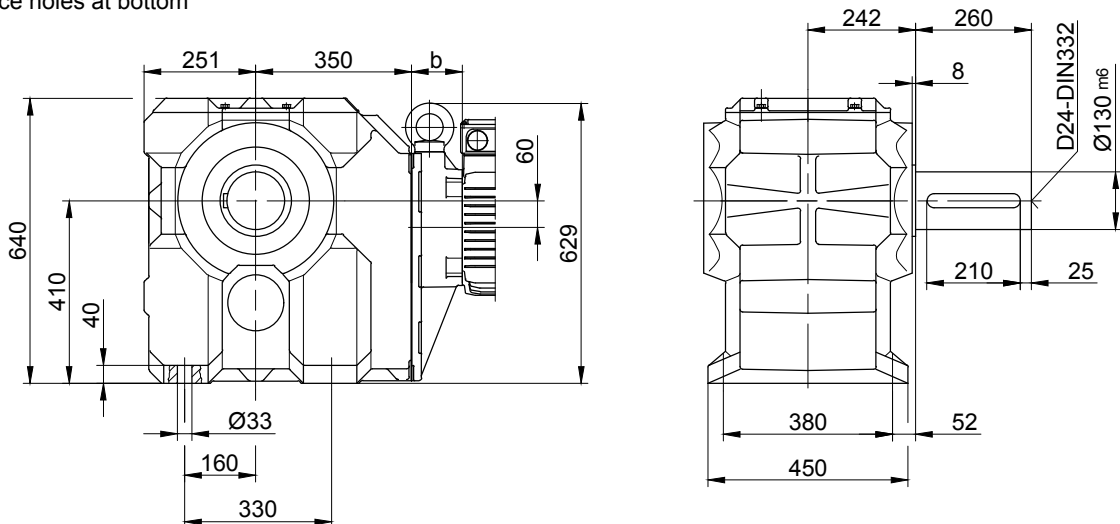
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

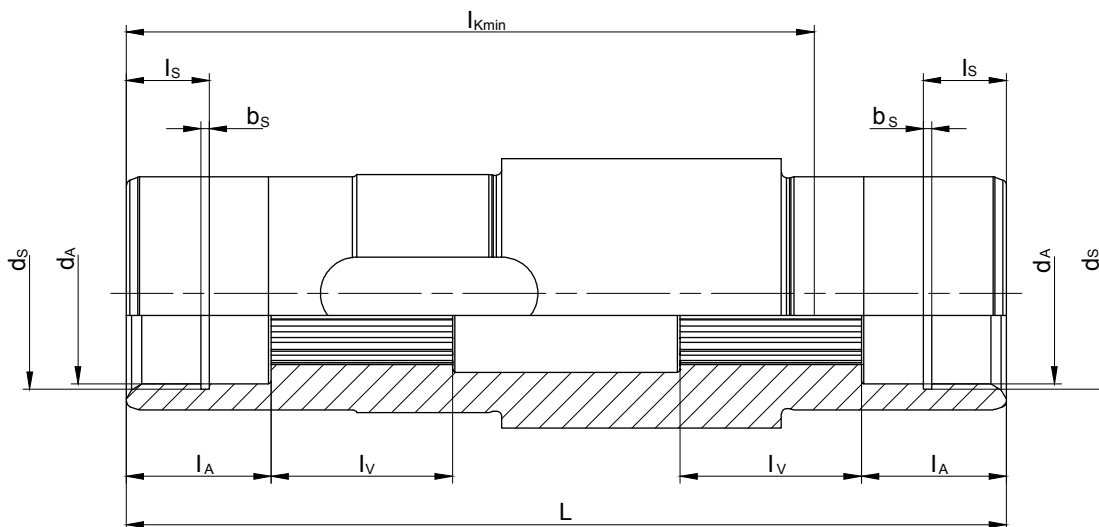
Code -1.U/



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.



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}

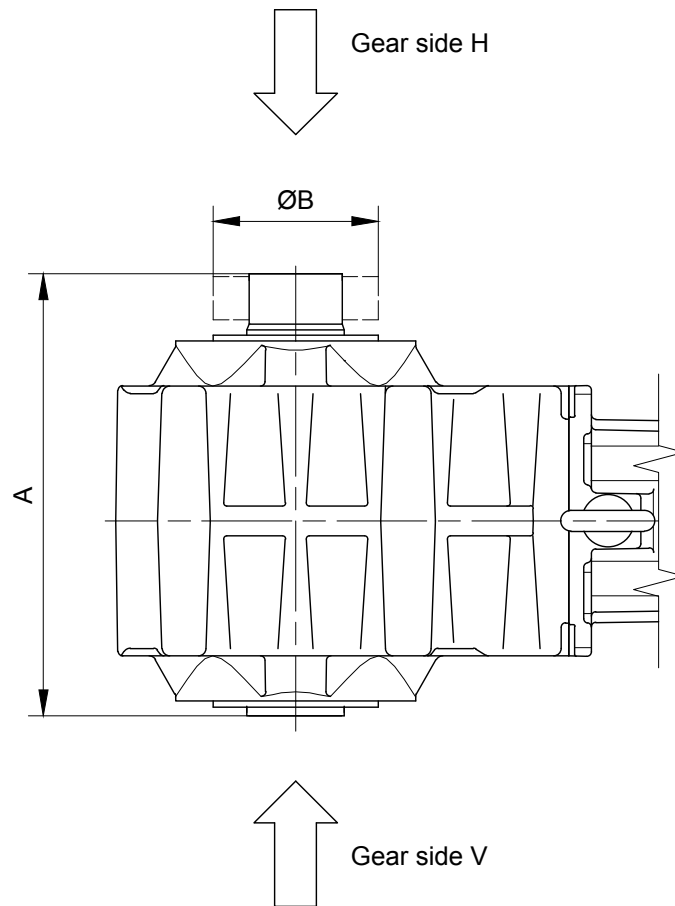
The actual gearbox design can vary from the geometry shown.

BK-series bevel-gear motors

Additional Dimension Sheet Metric

Shrink disc coupling (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

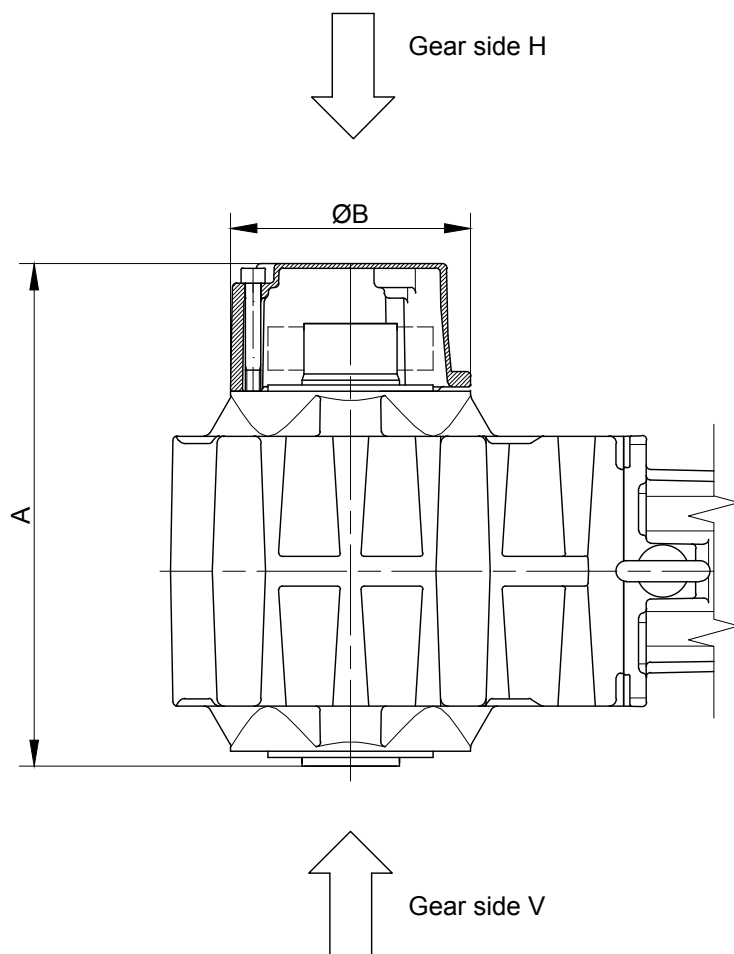
The actual gearbox design can vary from the geometry shown.

BK-series bevel-gear motors

Additional Dimension Sheet Metric

Shrink disc coupling with (SSV) cover

(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

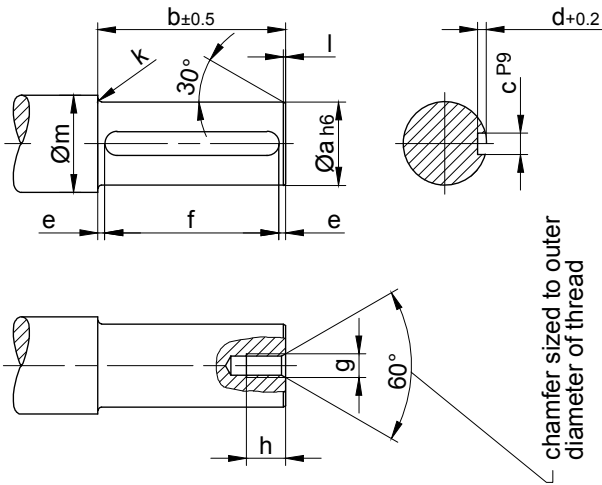
The actual gearbox design can vary from the geometry shown.

BK-series bevel-geared motors

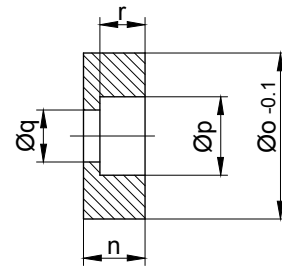
Additional Dimension Sheet Metric

Assembly tool for shaft mounted gears with splined shaft

Pos.1 Shaft

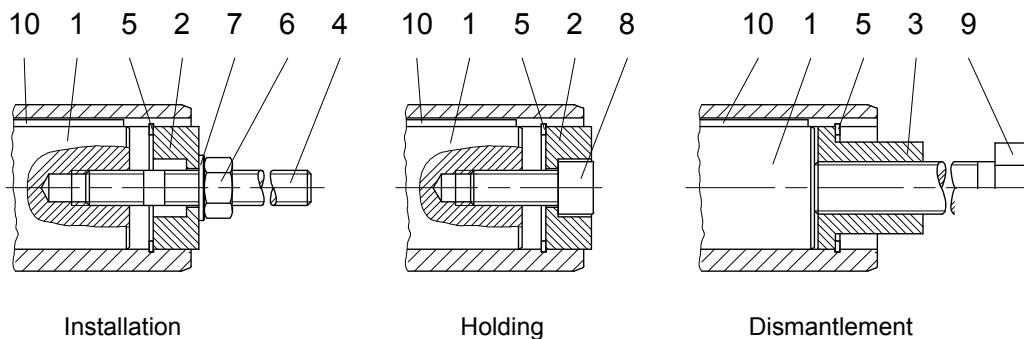


*Pos.2 Disc



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

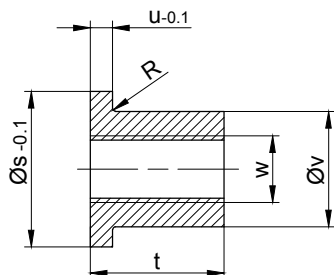
The actual gearbox design can vary from the geometry shown.

BK-series bevel-gear motors

Additional Dimension Sheet Metric

Assembly tool for shaft mounted gears with splined shaft

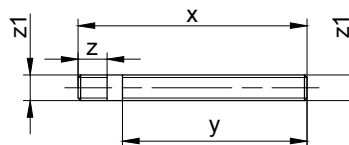
Pos.3 Sleeve



\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"

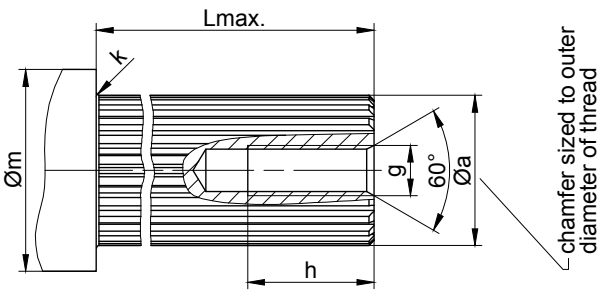
The actual gearbox design can vary from the geometry shown.

BK-series bevel-geared motors

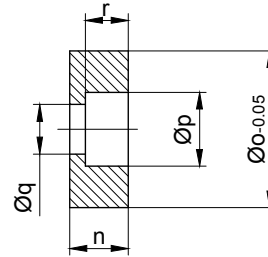
Additional Dimension Sheet Metric

Assembly tool for shaft mounted gears with splined shaft

Pos.1 Shaft

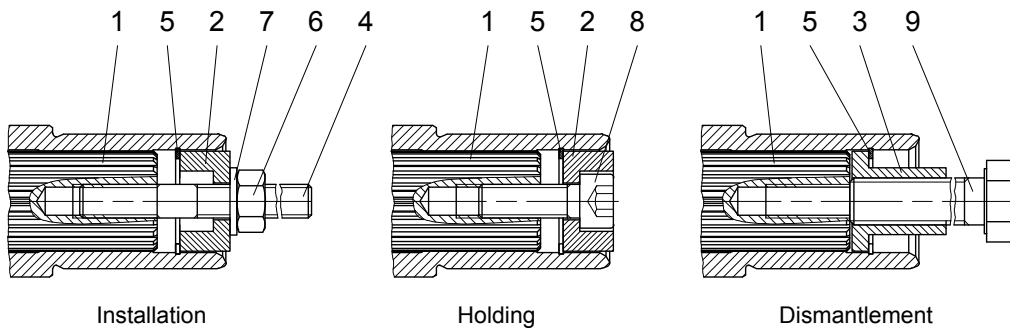


*Pos.2 Disc



√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.

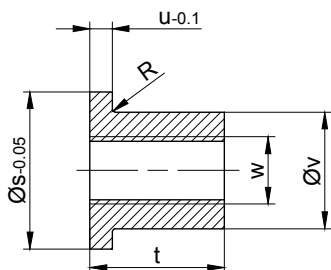
The actual gearbox design can vary from the geometry shown.

BK-series bevel-gear motors

Additional Dimension Sheet Metric

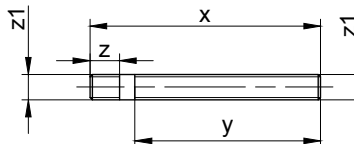
Assembly tool for shaft mounted gears with splined shaft

Pos.3 Sleeve



∠ edges cut
Material:
C45 DIN 17200

Pos.4 Stud Bolt



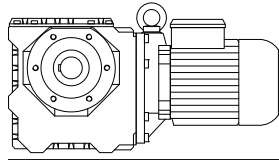
Material: Steel, tensile strength
≥ 1000N/mm²
threads rolled

Type	Dimensions (mm)										*Retainer ring DIN 472	Hexagon nut DIN 934-8	Disc DIN 125-St	*Fillister head screw DIN 7984-8,8	Starting torque (Nm)	Hexagon bolt DIN EN 24017-8,8
	Pos.3 Sleeve						Pos.4 Stud Bolt									
	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.



Dimensional drawings of worm-geared motors

397-444

- **Standard** Imperial/Metric

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
- Sealing cap (VK)
- Sealing cover (VD)

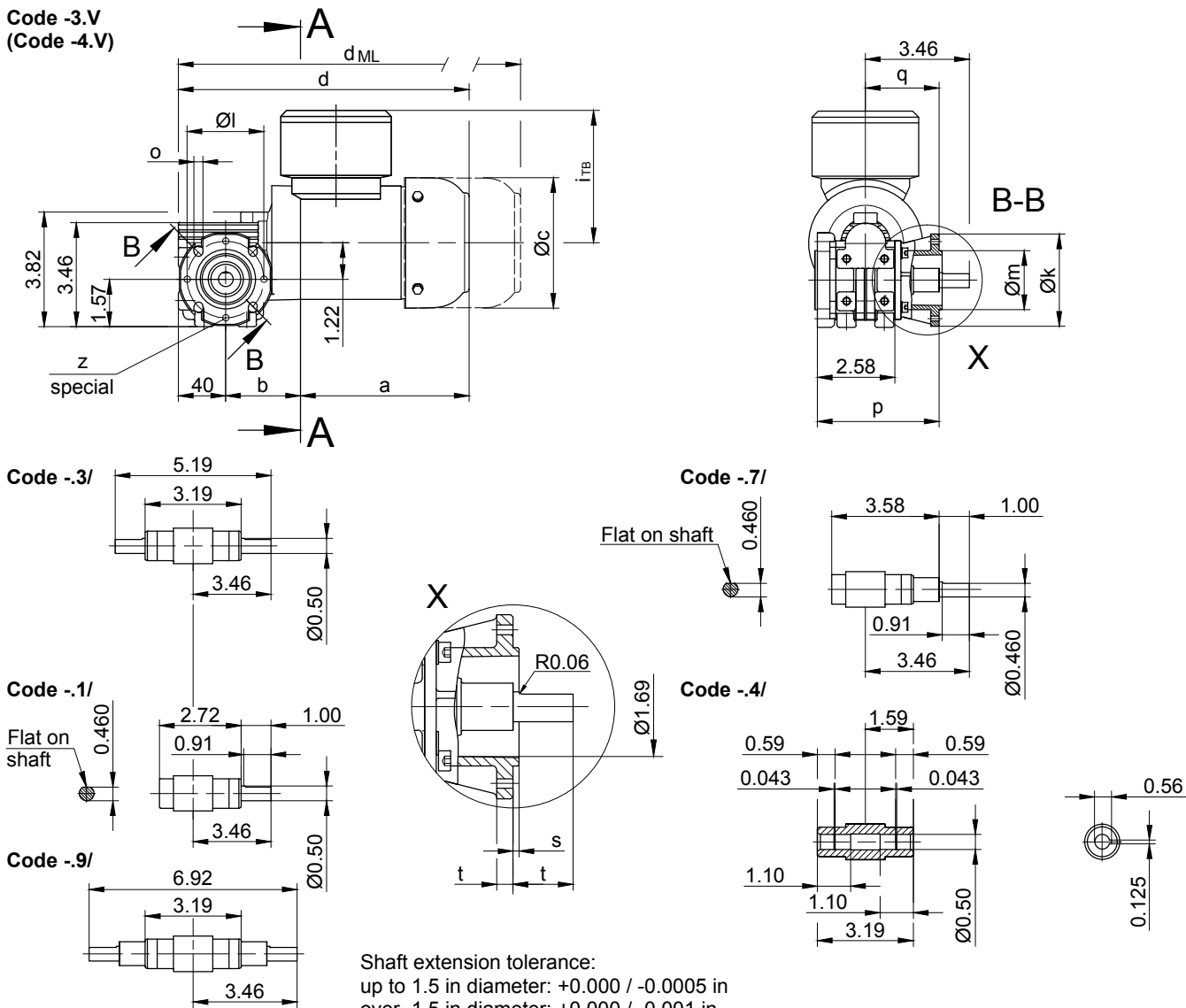
BS-series worm-geared motors

Dimension Imperial

BS02

Flange with clearance holes at front

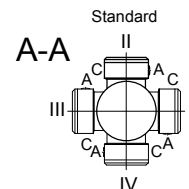
Code -3.V
(Code -4.V)



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

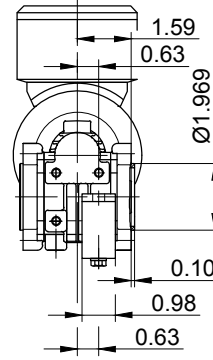
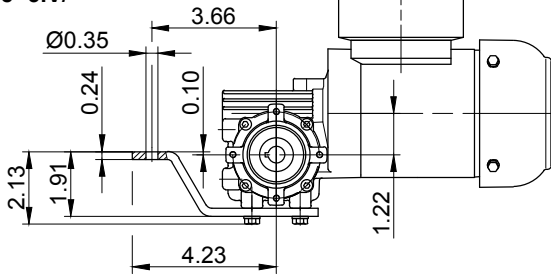
BS02	k	l	m	n	o	p	q	s	t	z
standard -37V/	3.150	2.559	1.969	0.276	0.217	4.055	2.461	0.098	1.102	-
spezial -37V/	3.150	2.559	1.969	0.276	0.217	4.055	2.461	0.098	1.102	4xM5
big -47V/	4.331	3.150	2.362	0.315	0.260	4.055	2.461	0.098	1.102	-
spezial -47V/	4.331	3.150	2.362	0.315	0.260	4.055	2.461	0.098	1.102	4xM6



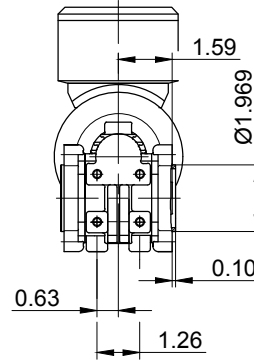
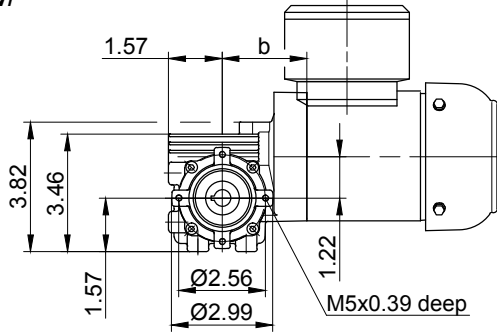
Type	a	b	c	d	u	Design with motor extensions				
						i_{TB}	E..	G	E..-G	RR/RL
							d_{ML}	d_{ML}	d_{ML}	d_{ML}
BS02-../D04..	5.63	2.50	4.37	9.70	7.01	4.41	11.42	12.17	13.86	-
BS02-../D05..	6.69	2.58	4.84	10.85	7.40	4.61	12.50	14.90	16.54	-
BS02-../D06..	6.69	2.58	4.84	10.85	7.40	4.69	12.50	14.90	16.54	-
BS02-../D07..	7.48	2.58	4.84	11.63	7.40	4.69	13.29	15.69	17.32	-

The actual gearbox design can vary from the geometry shown.

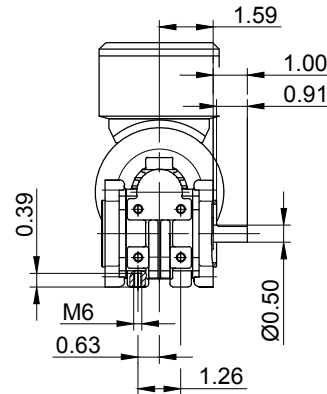
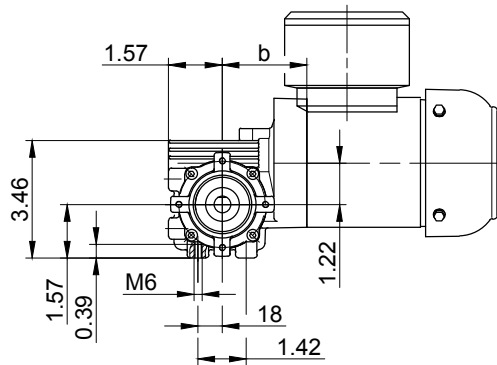
Torque arm at front
Code -5.V/



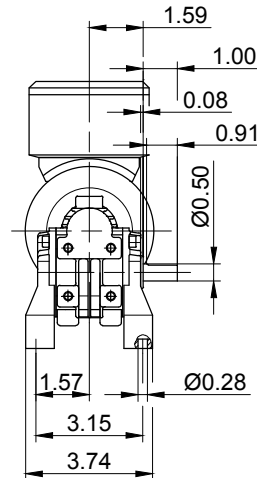
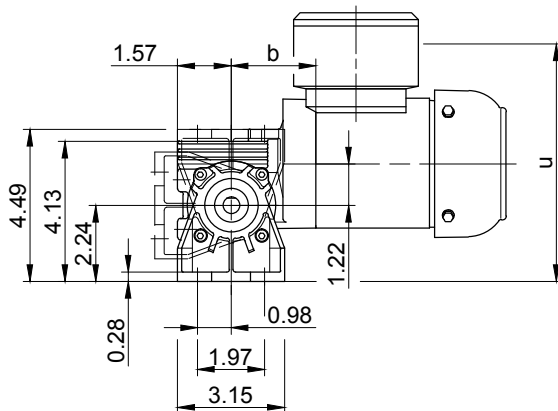
Flange with tapped holes at front
Code -7.V/



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



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



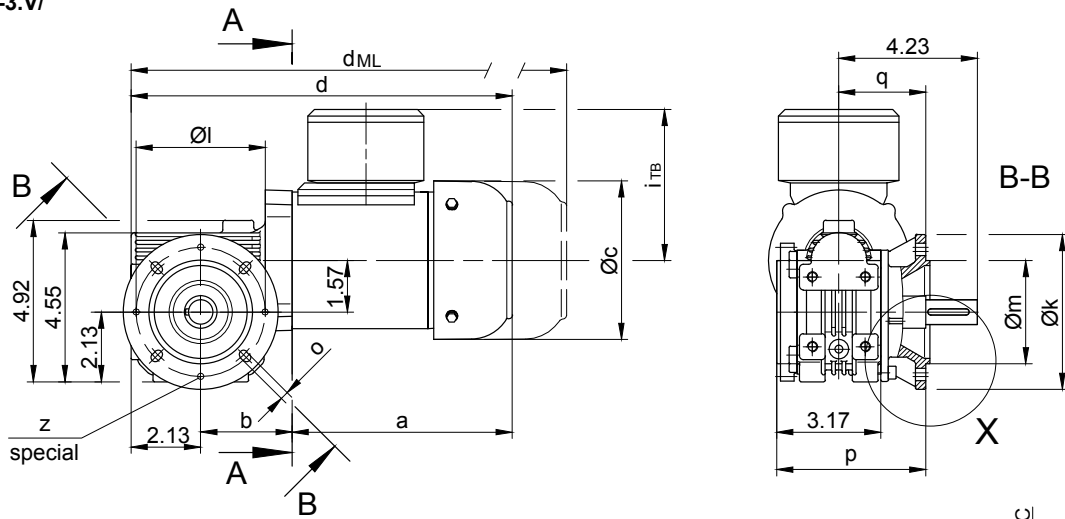
The actual gearbox design can vary from the geometry shown.

BS-series worm-geared motors

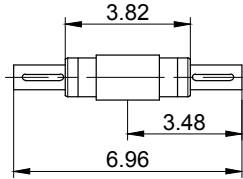
Dimension Imperial

BS03

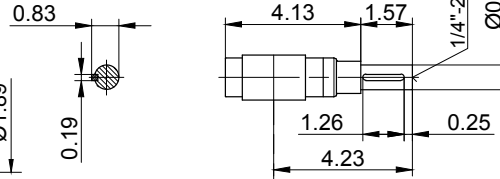
Flange with clearance holes at front
Code -3.V/



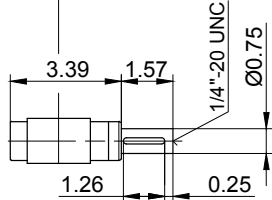
Code -3/



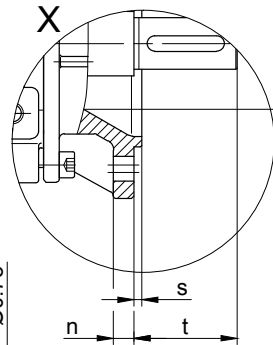
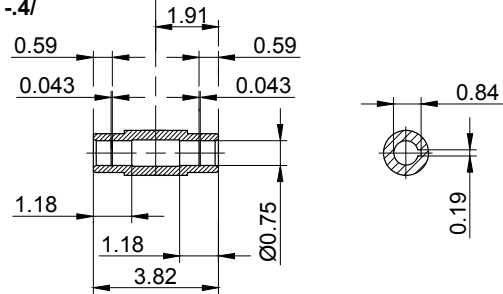
Code -7/



Code -1/



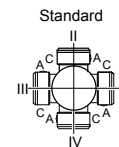
Code -4/



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BS03	k	l	m	n	o	p	q	s	t	z
standard -37V/	4.724	3.937	3.150	0.315	0.260	4.528	2.657	0.118	1.575	-
spezial -37V/	4.724	3.937	3.150	0.315	0.260	4.528	2.657	0.118	1.575	4xM6



A-A

Type	a*	b	c	d*	u	v	i _{TB}	Design with motor extensions			
								E../ES..	G	E../ES..-G	RR/RL
								d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BS03-../D05..	6.69	2.80	4.84	11.61	8.39	2.76	4.61	13.27	15.67	17.30	-
BS03-../D06..	6.69	2.80	4.84	11.61	8.39	2.76	4.69	13.27	15.67	17.30	-
BS03-../D07..	7.48	2.80	4.84	12.40	8.39	2.76	4.69	14.06	16.46	18.09	-
BS03-../D..08..	7.87	4.53	6.14	16.73	8.98	-	5.37	19.33	20.94	23.56	19.33



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

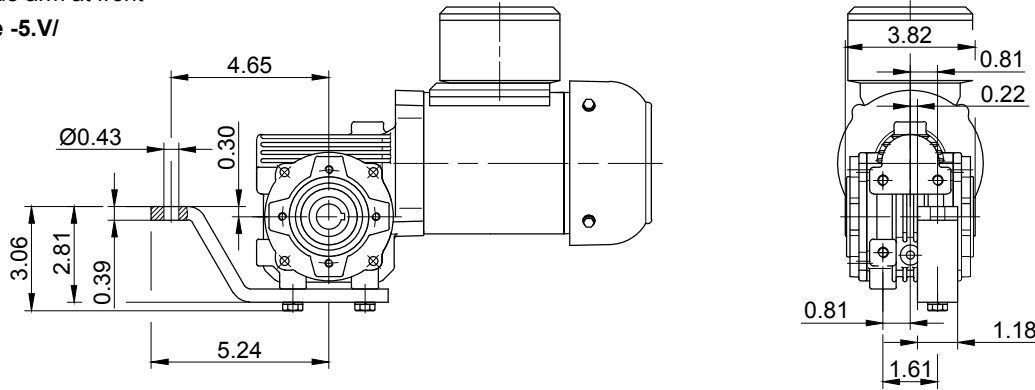
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

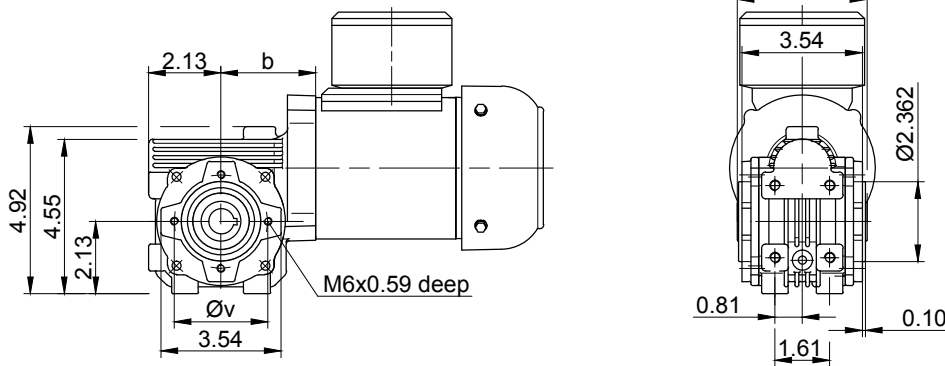
Torque arm at front

Code -5.V/



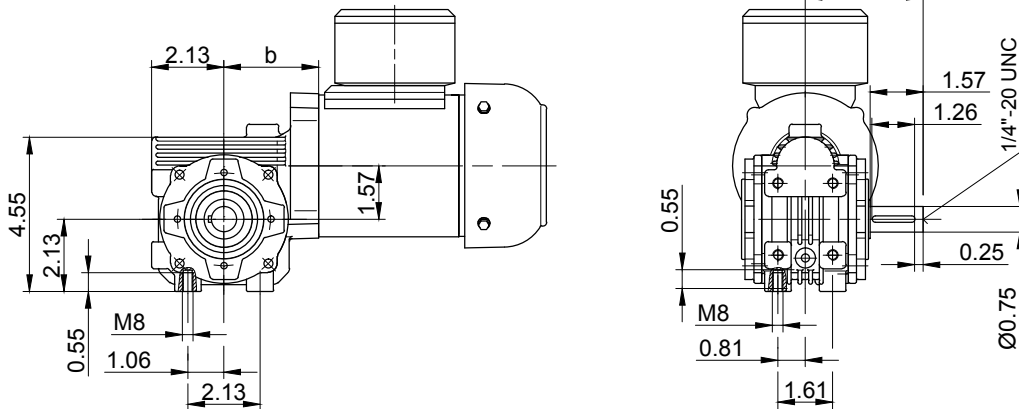
Flange with tapped holes at front

Code -7.V/



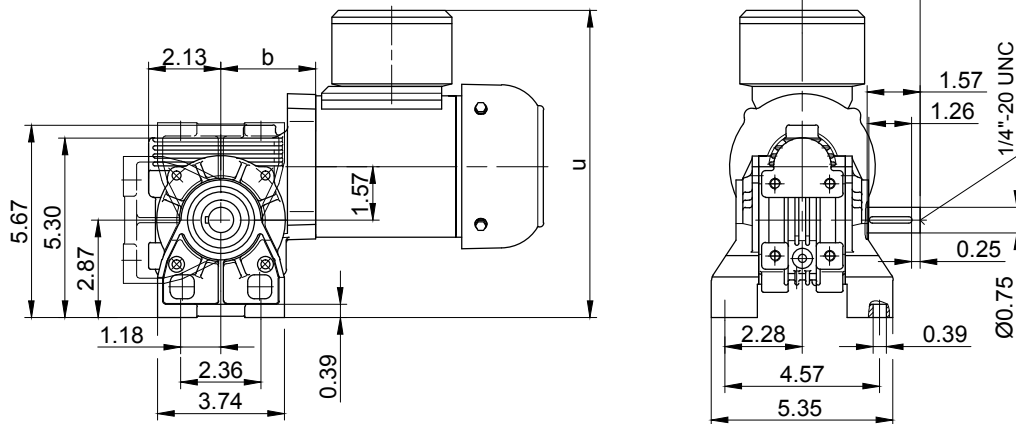
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



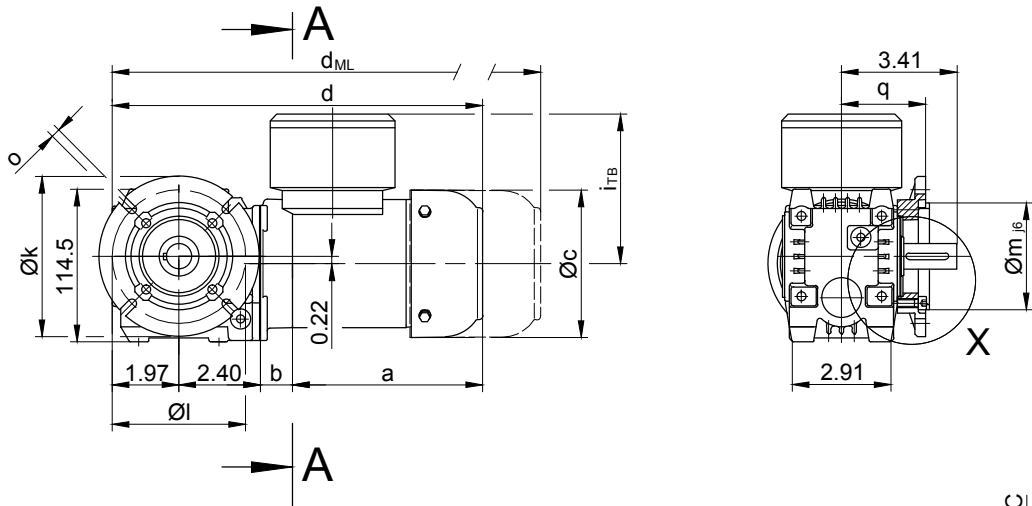
The actual gearbox design can vary from the geometry shown.

BS-series worm-geared motors

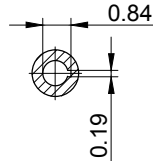
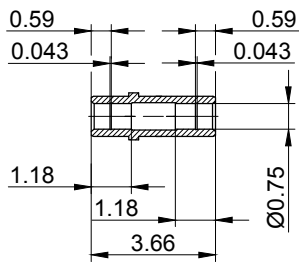
Dimension Imperial

BS04

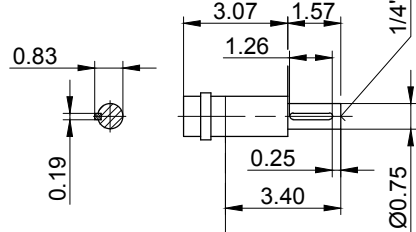
Flange with clearance holes at front
Code -3.V/



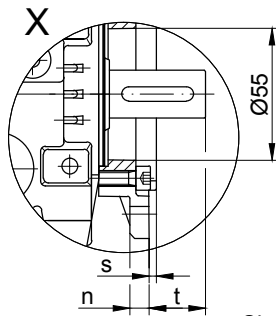
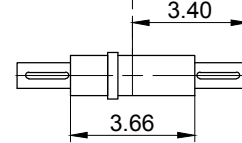
Code -4/



Code -1/



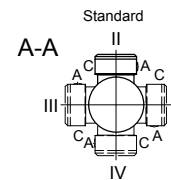
Code -3/



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BS04	k	l	m	n	o	p	q	s	t
Standard -3.V/	4.724	3.937	3.150	0.315	0.260	4.350	2.480	0.118	0.925

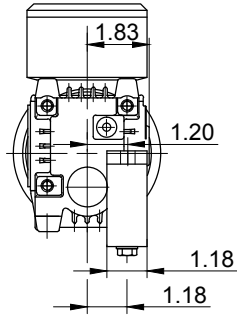
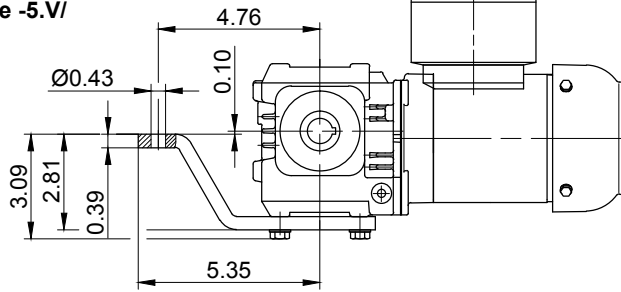


Type	a	b	c	d	Design with motor extensions				
					i _{TB}	E..	G	E..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}
BS04-../D04..	5.63	0.94	4.37	10.94	4.41	12.66	13.41	15.10	-
BS04-../D05..	6.69	1.02	4.84	12.09	4.61	13.74	16.14	17.78	-
BS04-../D06..	6.69	1.02	4.84	12.09	4.69	13.74	16.14	17.78	-
BS04-../D07..	7.48	1.02	4.84	12.87	4.69	14.53	16.93	18.56	-

The actual gearbox design can vary from the geometry shown.

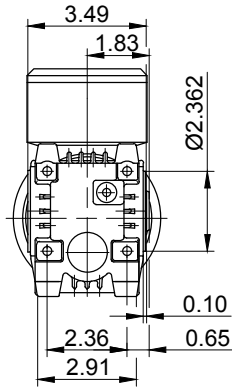
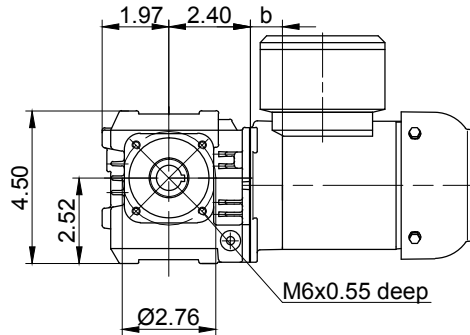
Torque arm at front

Code -5.V/



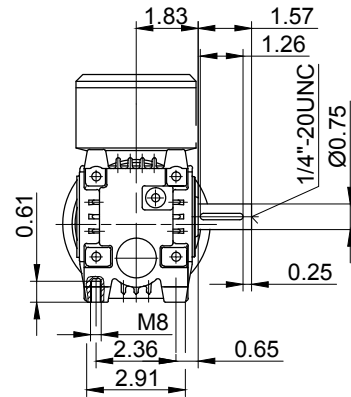
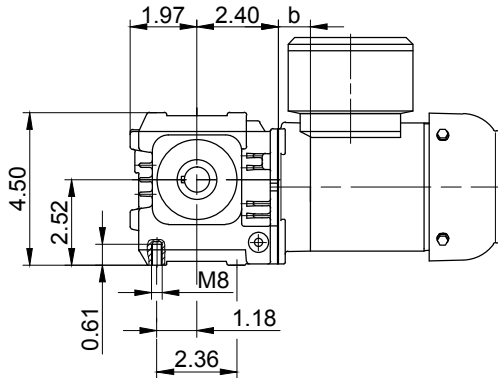
Flange with tapped holes at front

Code -7.V/



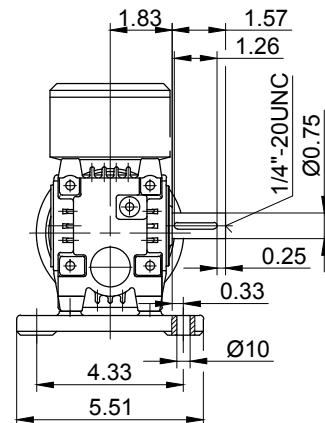
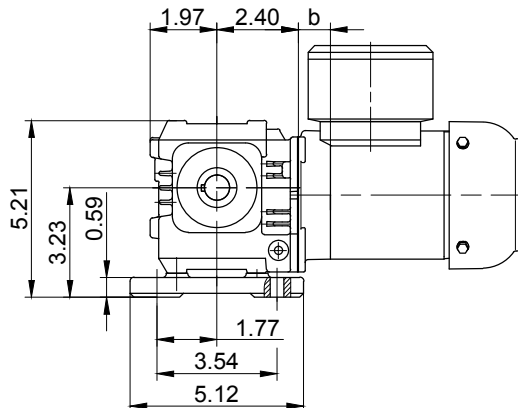
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

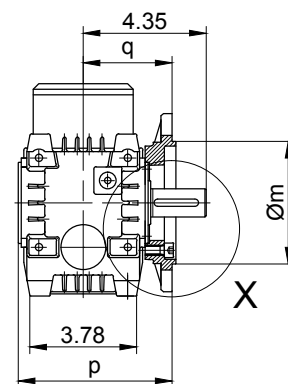
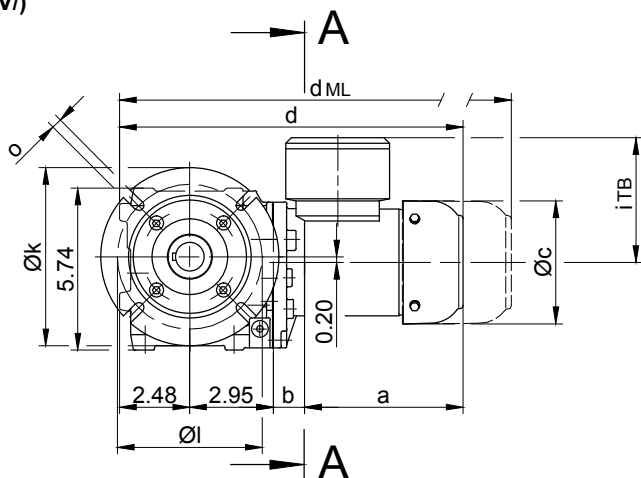
BS-series worm-geared motors

Dimension Imperial

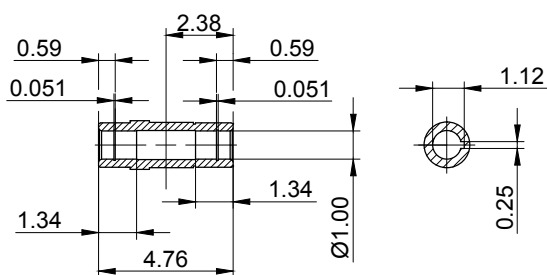
BS06

Flange with clearance holes at front

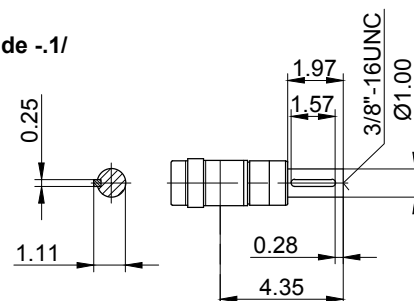
Code -3.V/
(Code -4.V/)



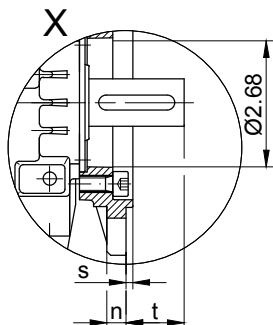
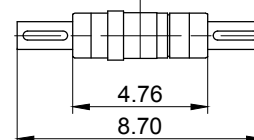
Code -4/
Standard



Code -1/



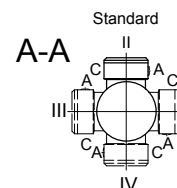
Code -3/



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BS06	k	l	m	n	o	p	q	s	t
Standard -3.V/	5.512	4.528	3.740	0.394	0.354	5.453	3.150	0.118	1.201
big -4.V/	6.299	5.118	4.331	0.394	0.354	5.453	3.150	0.138	1.201



Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	E./ES..	G	E./ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BS06-../D04..	5.63	1.10	4.37	12.17	4.41	13.88	14.63	16.32	-
BS06-../D05..	6.69	1.18	4.84	13.31	4.61	14.96	17.36	19.00	-
BS06-../D06..	6.69	1.18	4.84	13.31	4.69	14.96	17.36	19.00	-
BS06-../D07..	7.48	1.18	4.84	14.09	4.69	15.75	18.15	19.78	-
BS06-../D..08..	7.87	2.91	6.14	16.22	5.37	18.82	20.43	23.05	18.82

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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

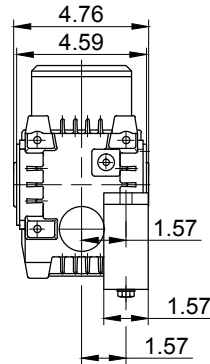
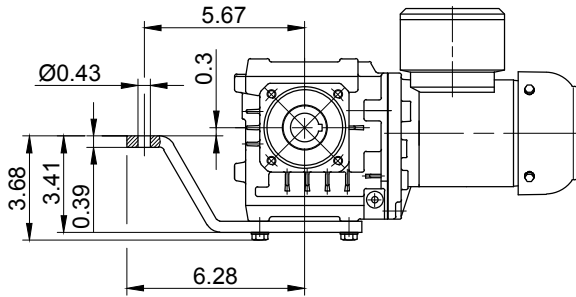
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

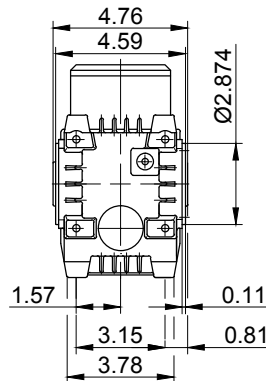
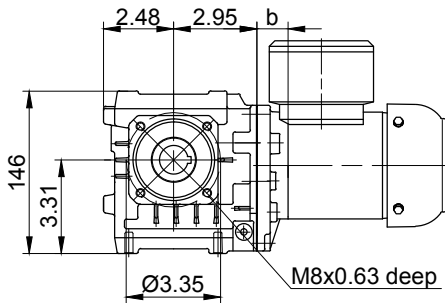
Torque arm at front

Code -5.V/



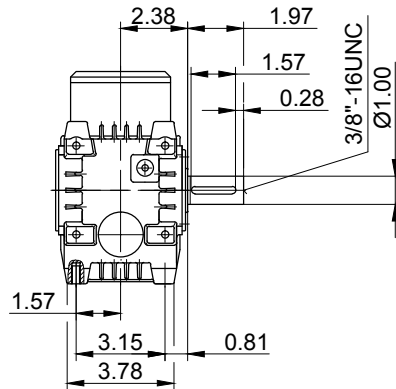
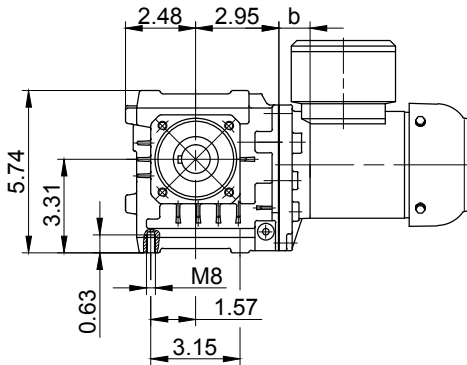
Flange with tapped holes at front

Code -7.V/



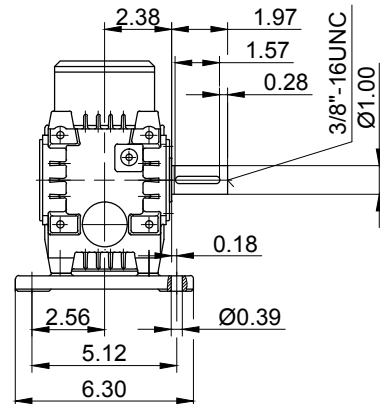
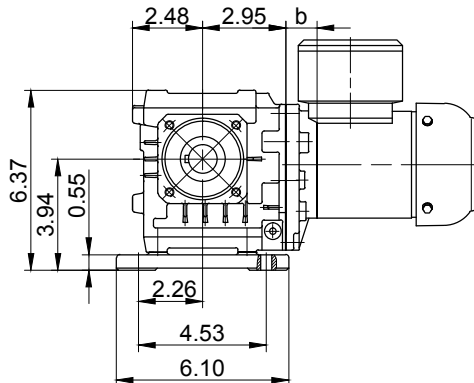
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

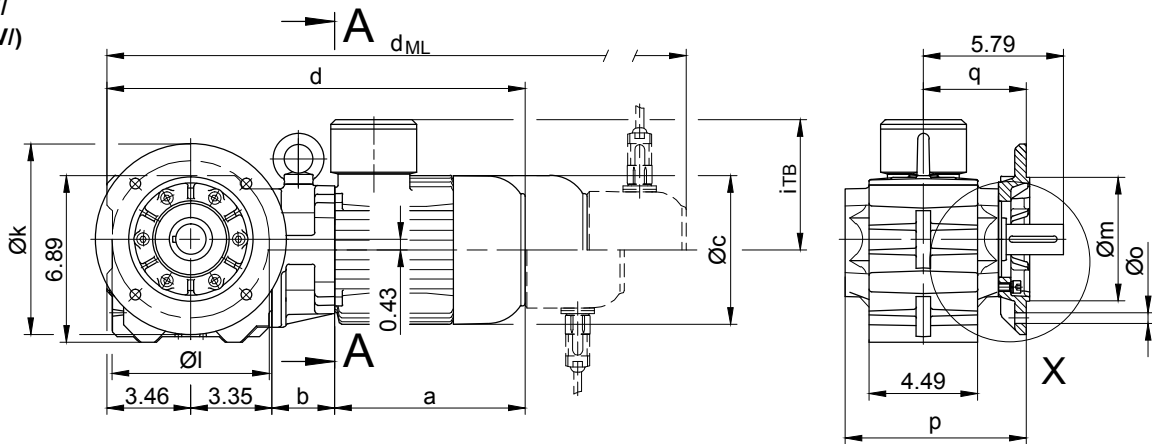
BS-series worm-geared motors

Dimension Imperial

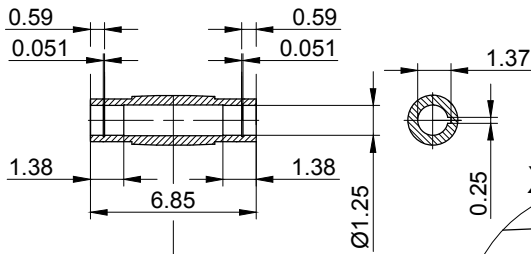
BS10 - BS10Z

Flange with clearance holes at front

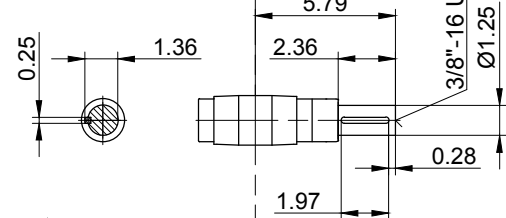
Code **-3.V/**
(Code **-2.V/**)



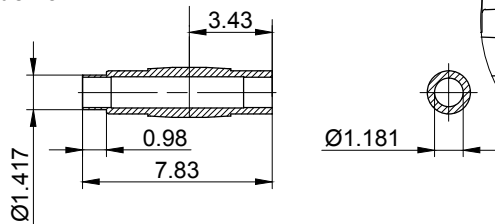
Code **-4/**



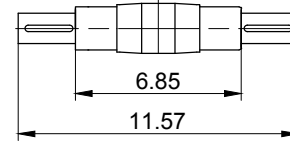
Code **-1/**



Code **-5/**



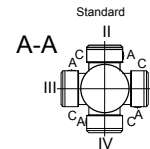
Code **-3/**



Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BS10(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	7.874	6.496	5.118	0.472	0.433	7.480	4.252	0.138	1.535
small -2.V/	6.299	5.118	4.331	0.394	0.354	7.205	3.976	0.138	1.811



Type	a*	b	c	d*	Design with motor extensions				
					iTB	E./ES..	G	E./ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BS10Z-../D04..	5.63	3.39	4.37	15.83	4.41	17.54	18.29	19.98	-
BS10-../D05..	6.69	2.44	4.84	15.94	4.61	17.60	20.00	21.63	-
BS10Z-../D05..	6.69	3.46	4.84	16.97	4.61	18.62	21.02	22.66	-
BS10-../D06..	6.69	2.44	4.84	15.94	4.69	17.60	20.00	21.63	-
BS10Z-../D06..	6.69	3.46	4.84	16.97	4.69	18.62	21.02	22.66	-
BS10-../D07..	7.48	2.44	4.84	16.73	4.69	18.39	20.79	22.42	-
BS10Z-../D07..	7.48	3.46	4.84	17.76	4.69	19.41	21.81	23.44	-
BS10-../D..08..	7.87	2.60	6.14	17.28	5.37	19.88	21.50	24.11	19.88
BS10Z-../D..08..	7.87	5.20	6.14	19.88	5.37	22.48	24.09	26.71	22.48
BS10-../D..09..	9.88	3.17	7.13	19.86	6.22	23.52	24.07	27.64	23.52



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

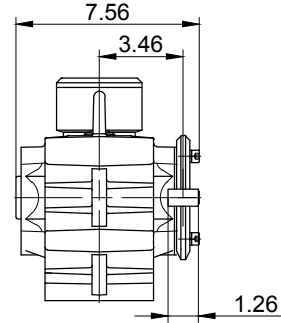
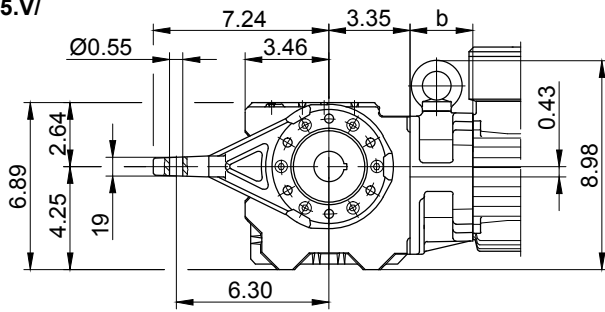
BS-series worm-gear motors

Dimension Imperial

BS10 - BS10Z

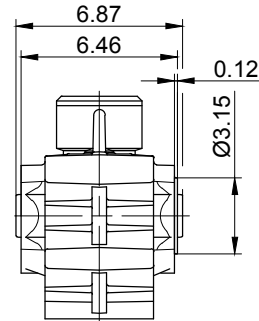
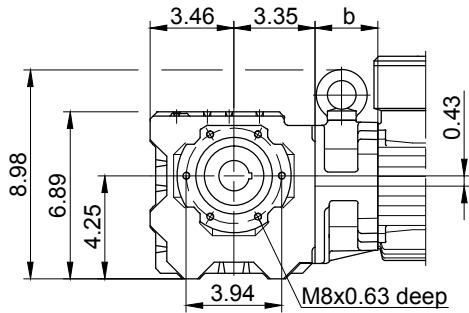
Torque arm at front

Code -5.V/



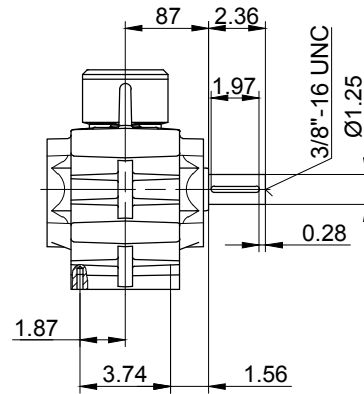
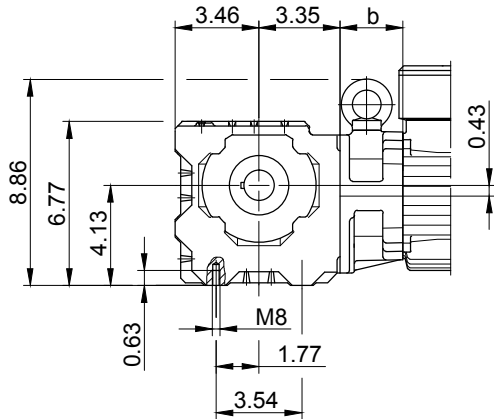
Flange with tapped holes at front

Code -7.V/



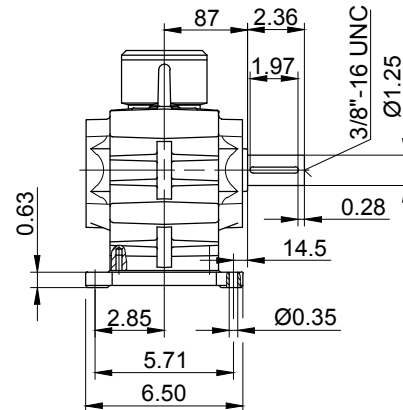
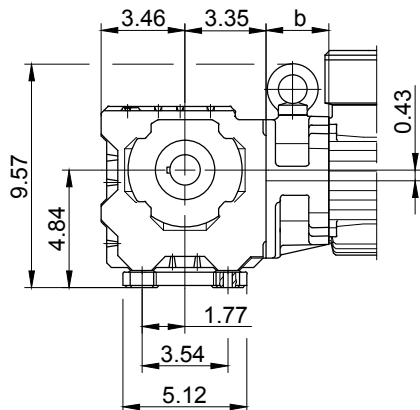
Foot with tapped holes at bottom

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 Imperial

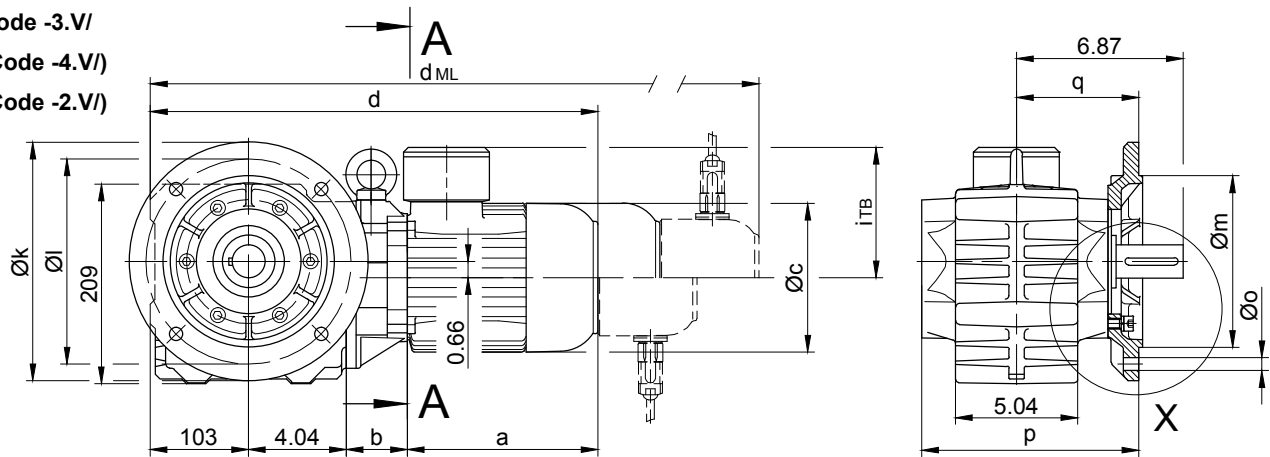
BS20 - BS20Z

Flange with clearance holes at front

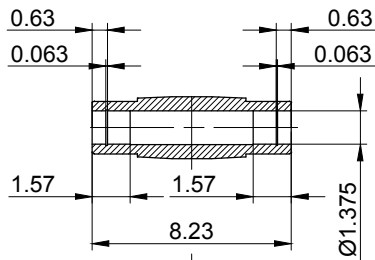
Code -3.V/

(Code -4.V/)

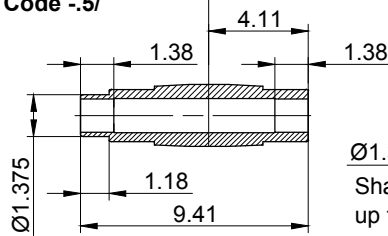
(Code -2.V/)



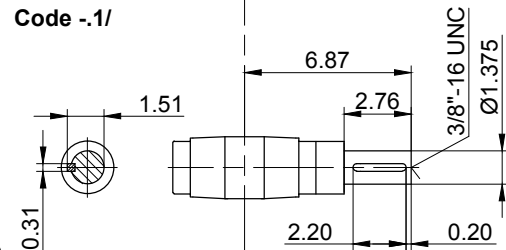
Code -4/



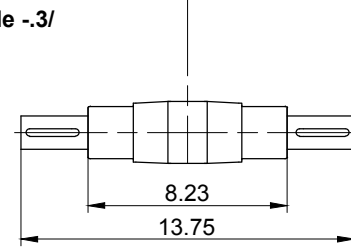
Code -5/



Code -1/



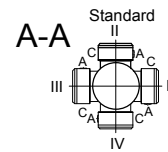
Code -3/



Shaft extension tolerance:
 up to 1.5 in diameter: +0.000 / -0.0005 in
 over 1.5 in diameter: +0.000 / -0.001 in
 Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BS20(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	9.843	8.465	7.087	0.630	0.532	8.957	5.039	0.157	1.831
small -2.V/	7.874	6.496	5.118	0.472	0.433	8.839	4.921	0.138	1.949
big -4.V/	11.811	10.433	9.055	0.787	0.532	9.193	5.276	0.157	1.594



Type	a*	b	c	d*	Design with motor extensions				
					i _{TB}	E../ES..	G	E../ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BS20Z-../D04..	5.63	3.94	4.37	17.66	4.41	19.37	20.12	21.81	-
BS20-../D05..	6.69	2.36	4.84	17.15	4.61	18.80	21.20	22.83	-
BS20Z-../D05..	6.69	4.02	4.84	18.80	4.61	20.45	22.85	24.49	-
BS20-../D06..	6.69	2.36	4.84	17.15	4.69	18.80	21.20	22.83	-
BS20Z-../D06..	6.69	4.02	4.84	18.80	4.69	20.45	22.85	24.49	-
BS20-../D07..	7.48	2.36	4.84	17.93	4.69	19.59	21.99	23.62	-
BS20Z-../D07..	7.48	4.02	4.84	19.59	4.69	21.24	23.64	25.28	-
BS20-../D..08..	7.87	2.52	6.14	18.48	5.37	21.08	22.70	25.31	21.08
BS20Z-../D..08..	7.87	5.75	6.14	21.71	5.37	24.31	25.93	28.54	24.31
BS20-../D..09..	9.88	3.09	7.13	21.06	6.22	24.72	25.28	28.84	24.72



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

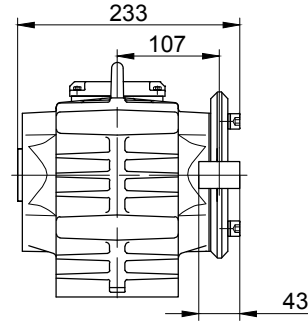
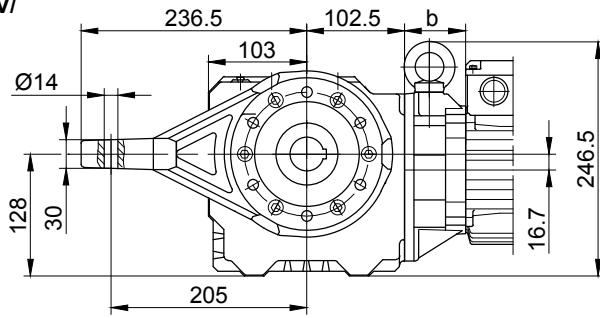
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

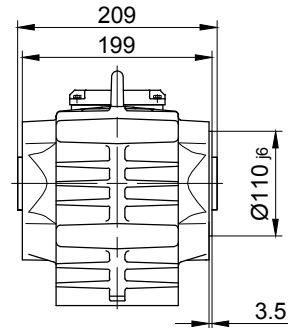
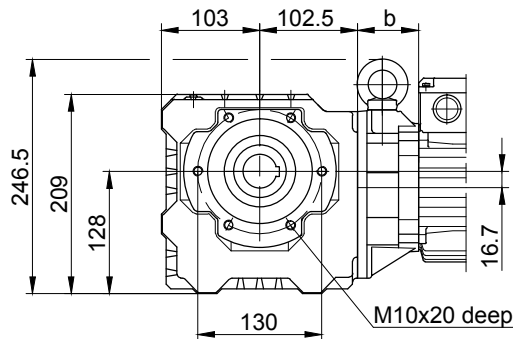
Torque arm at front

Code -5.V/



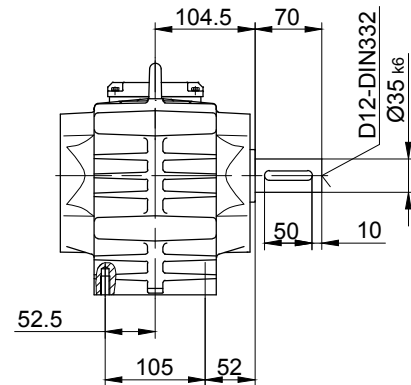
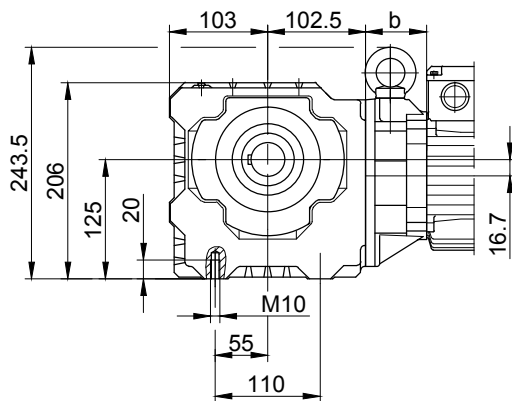
Flange with tapped holes at front

Code -7.V/



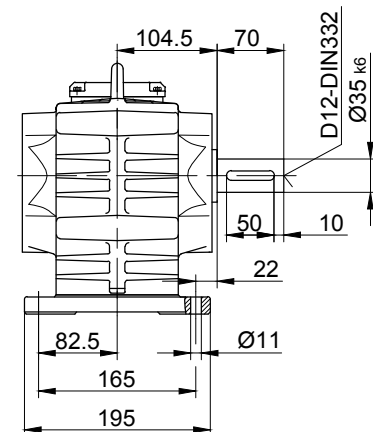
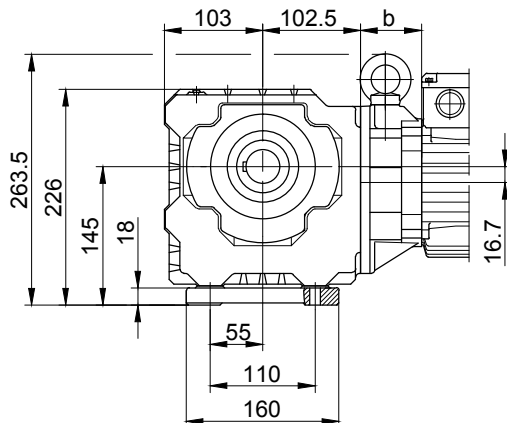
Foot with tapped holes at bottom

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

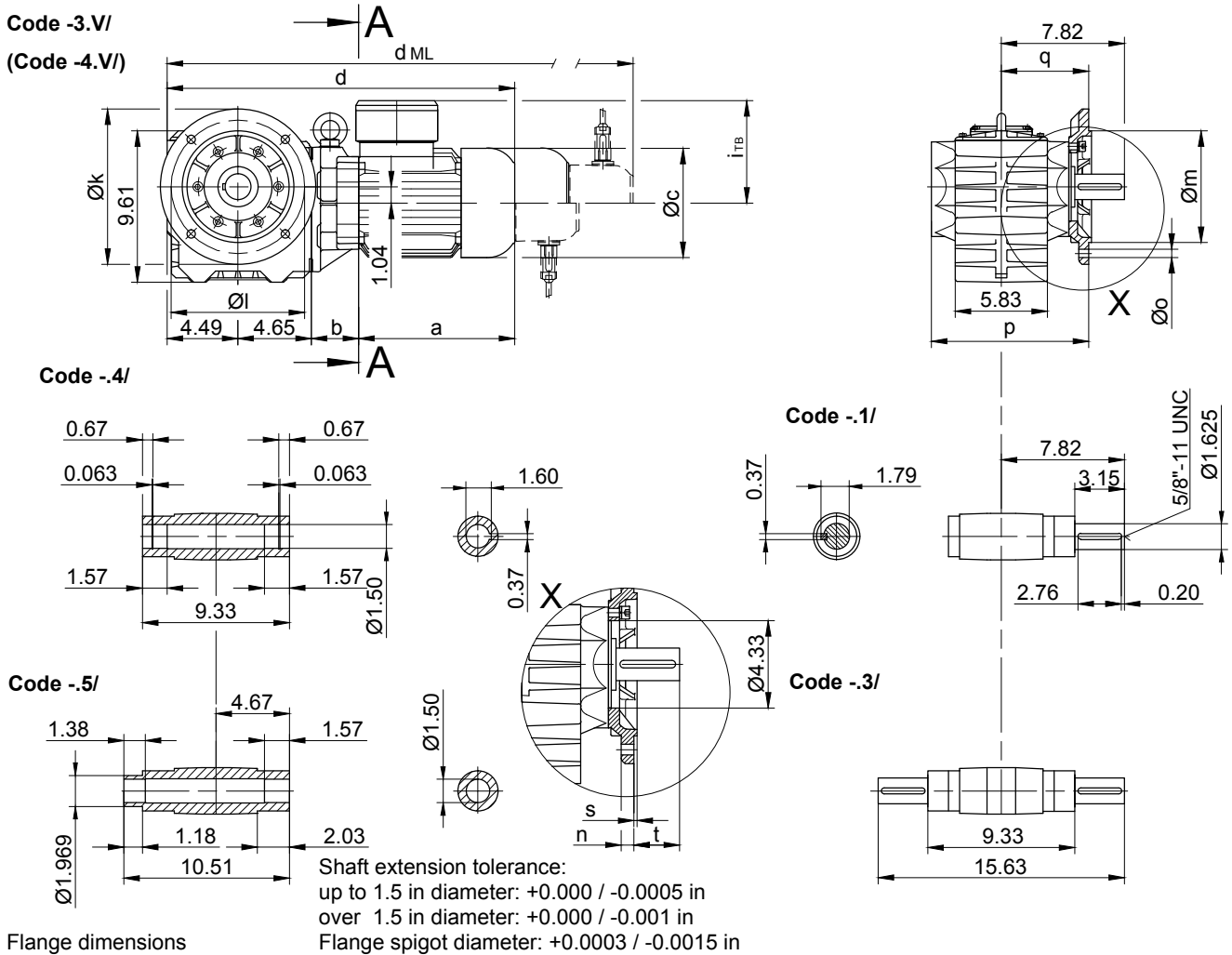
Dimension Imperial

BS30 - BS30Z

Flange with clearance holes at front

Code -3.V/

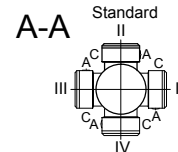
(Code -4.V/)



Flange dimensions

Shaft extension tolerance:
 up to 1.5 in diameter: +0.000 / -0.0005 in
 over 1.5 in diameter: +0.000 / -0.001 in
 Flange spigot diameter: +0.0003 / -0.0015 in

BS30(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	9.843	8.465	7.087	0.630	0.532	9.980	5.551	0.157	2.264
big -4.V/	11.811	10.433	9.055	0.787	0.532	10.217	5.787	0.157	2.028



Type	a*	b	c	d*	i _{TB}	Design with motor extensions			
						E../ES..	G	E../ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BS30-../D05..	6.69	2.28	4.84	18.11	4.61	19.76	22.17	23.80	-
BS30Z-../D05..	6.69	5.26	4.84	21.08	4.61	22.74	25.14	26.77	-
BS30-../D06..	6.69	2.28	4.84	18.11	4.69	19.76	22.17	23.80	-
BS30Z-../D06..	6.69	5.26	4.84	21.08	4.69	22.74	25.14	26.77	-
BS30-../D07..	7.48	2.28	4.84	18.90	4.69	20.55	22.95	24.59	-
BS30Z-../D07..	7.48	5.26	4.84	21.87	4.69	23.52	25.93	27.56	-
BS30-../D..08..	7.87	2.44	6.14	19.45	5.37	22.05	23.66	26.28	22.05
BS30Z-../D..08..	7.87	5.41	6.14	22.42	5.37	25.02	26.63	29.25	25.02
BS30-../D..09..	9.88	3.01	7.13	22.03	6.22	25.69	26.24	29.80	25.69
BS30Z-../D..09..	9.88	5.98	7.13	25.00	6.22	28.66	29.21	32.78	28.66
BS30-../D..11..	12.56	3.27	8.98	24.96	7.17	28.82	29.17	32.93	28.82



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

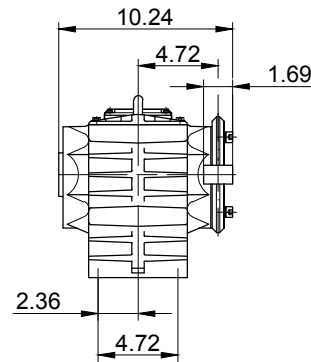
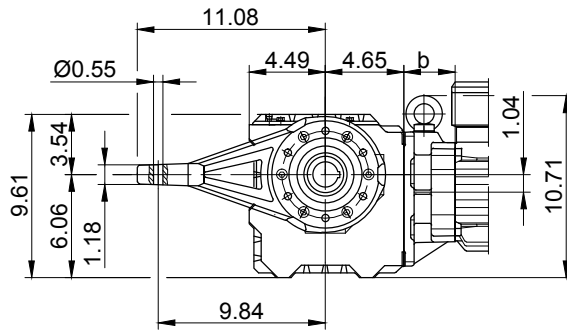
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

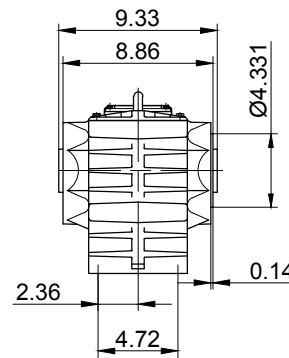
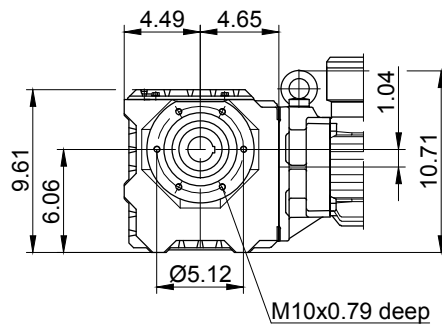
Torque arm at front

Code -5.V/



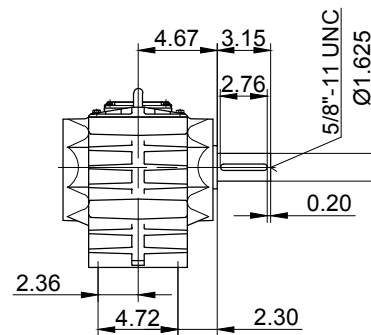
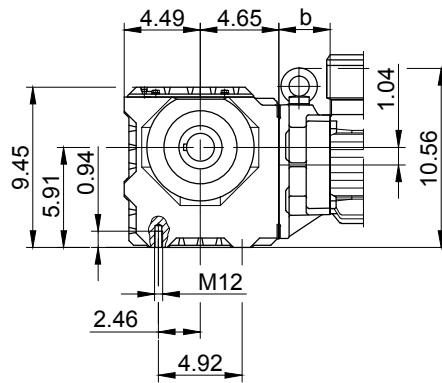
Flange with tapped holes at front

Code -7.V/



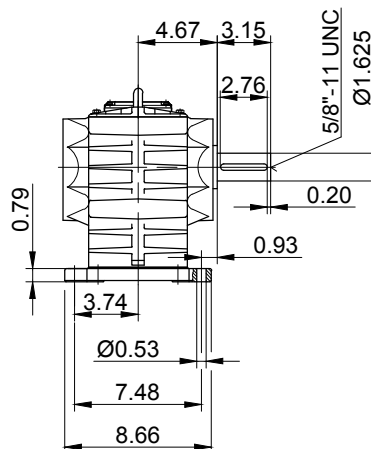
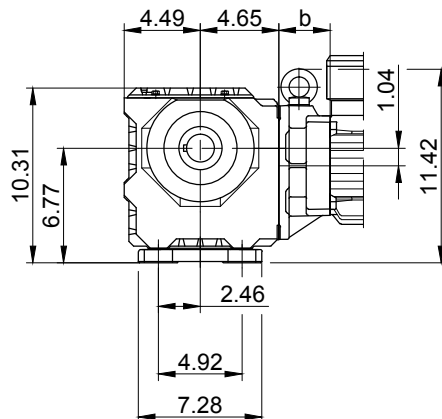
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

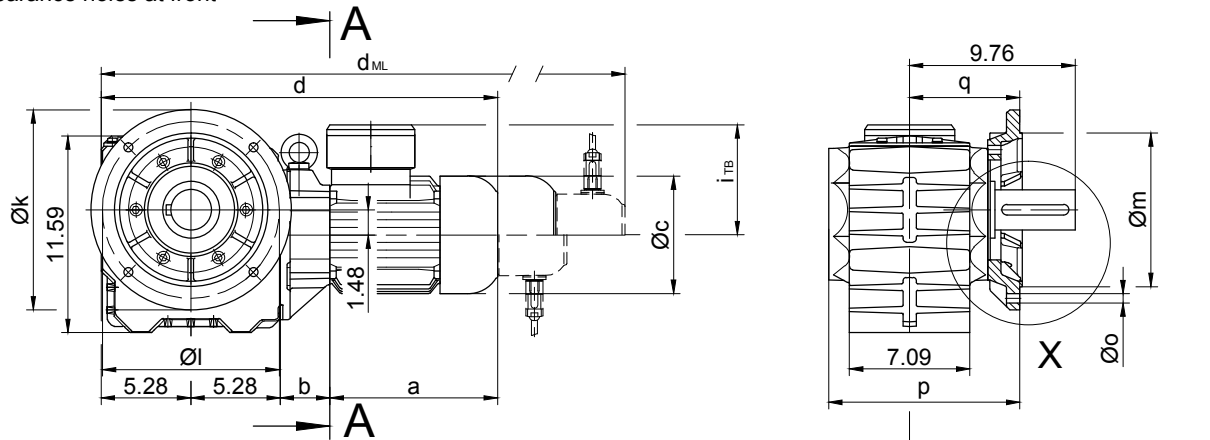
BS-series worm-gear motors

Dimension Imperial

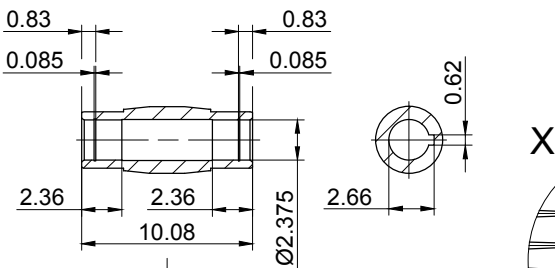
BS40 - BS40Z

Flange with clearance holes at front

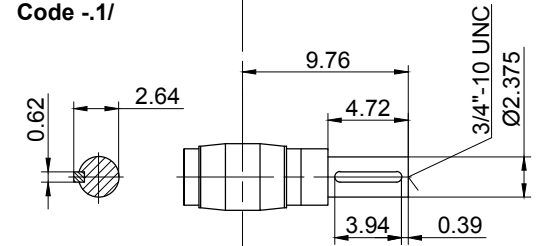
Code -3.V/



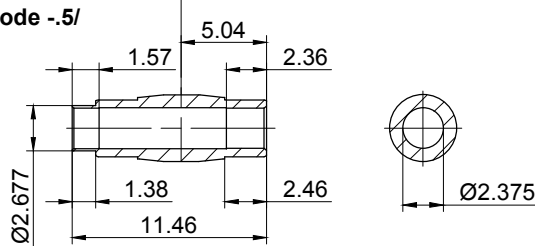
Code -.4/



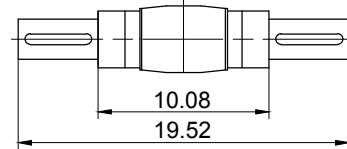
Code -.1/



Code -.5/



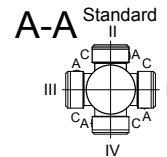
Code -.3/



Shaft extension tolerance:
 up to 1.5 in diameter: +0.000 / -0.0005 in
 over 1.5 in diameter: +0.000 / -0.001 in
 Flange spigot diameter: +0.0003 / -0.0015 in

Flange dimensions

BS40(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	11.811	10.433	9.055	0.787	0.532	11.260	6.496	0.157	3.268



Type	a*	b	c	d*	i _{TB}	Design with motor extensions			
						E../ES..	G	E../ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BS40Z-../D05..	6.69	5.45	4.84	22.70	4.61	24.35	26.75	28.39	-
BS40Z-../D06..	6.69	5.45	4.84	22.70	4.69	24.35	26.75	28.39	-
BS40Z-../D07..	7.48	5.45	4.84	23.48	4.69	25.14	27.54	29.17	-
BS40-../D..08..	7.87	2.36	6.14	20.79	5.37	23.39	25.00	27.62	23.39
BS40Z-../D..08..	7.87	5.61	6.14	24.04	5.37	26.63	28.25	30.87	26.63
BS40-../D..09..	9.88	2.93	7.13	23.37	6.22	27.03	27.58	31.14	27.03
BS40Z-../D..09..	9.88	6.18	7.13	26.61	6.22	30.28	30.83	34.39	30.28
BS40-../D..11..	12.56	3.19	8.98	26.30	7.17	30.16	30.51	34.27	30.16



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

Design state "A" = Standard Length

Type Example: BK70-74V/DPE08X**A**4

Comment: No change to the dimensions shown

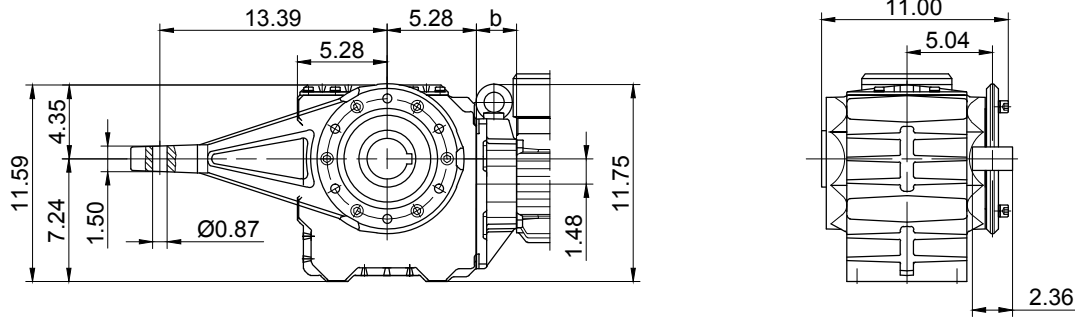
Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

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

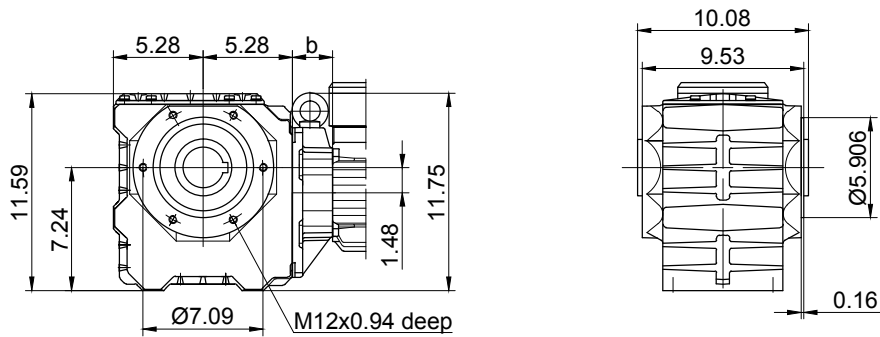
The actual gearbox design can vary from the geometry shown.

Torque arm at front



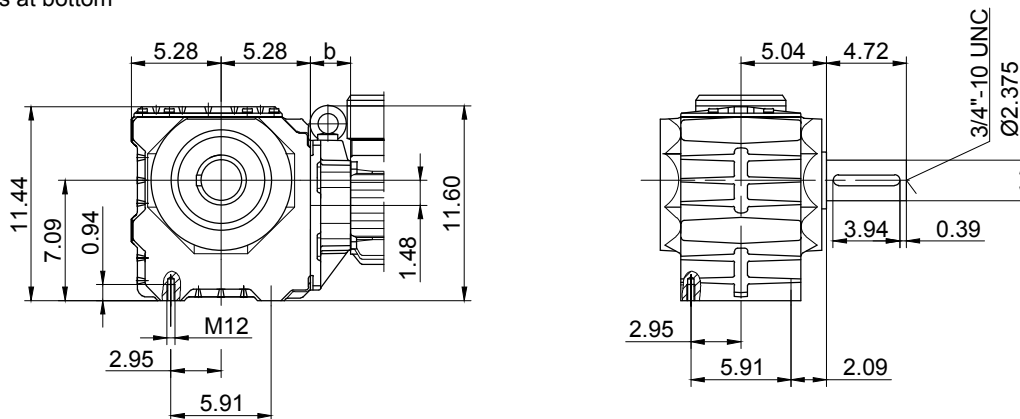
Flange with tapped holes at front

Code -7.V/



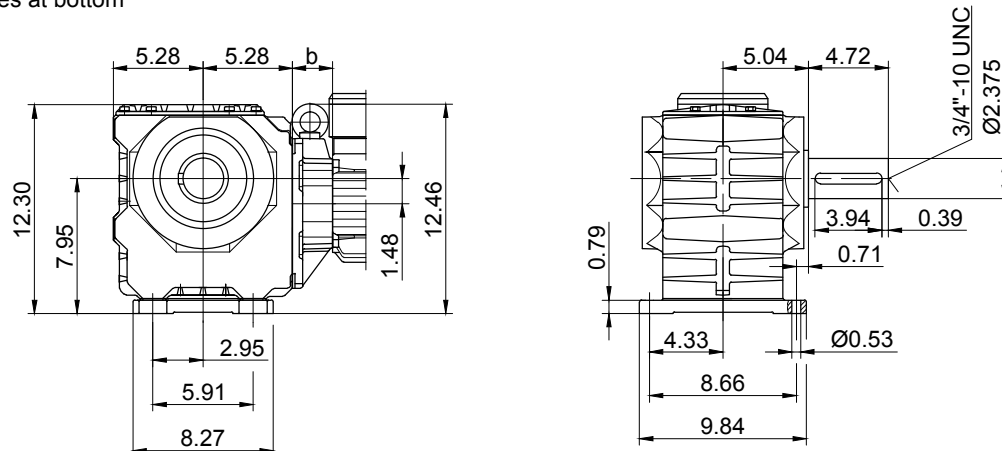
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

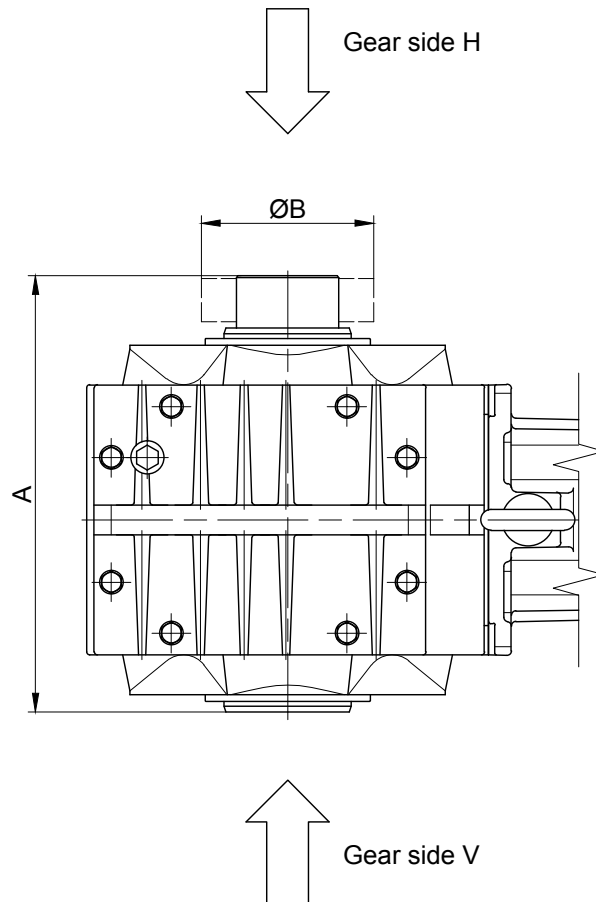
BS-series worm-geared motors

Additional Dimension Sheet Imperial

Shrink disc couplings (SSV)

(Code BS10Z-.5/...)

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



13

Type	SSV Ringfeder	SSV STÜWE	A	B
BS10	RfN 4161 036x072	HSD 36-22x36	7.83	2.83
BS20	RfN 4161 044x080	HSD 44-22x44	9.41	3.15
BS30	RfN 4161 050x090	HSD 50-22x50	10.51	3.54
BS40	RfN 4161 062x110	HSD 68-22x68	11.46	4.53

The actual gearbox design can vary from the geometry shown.

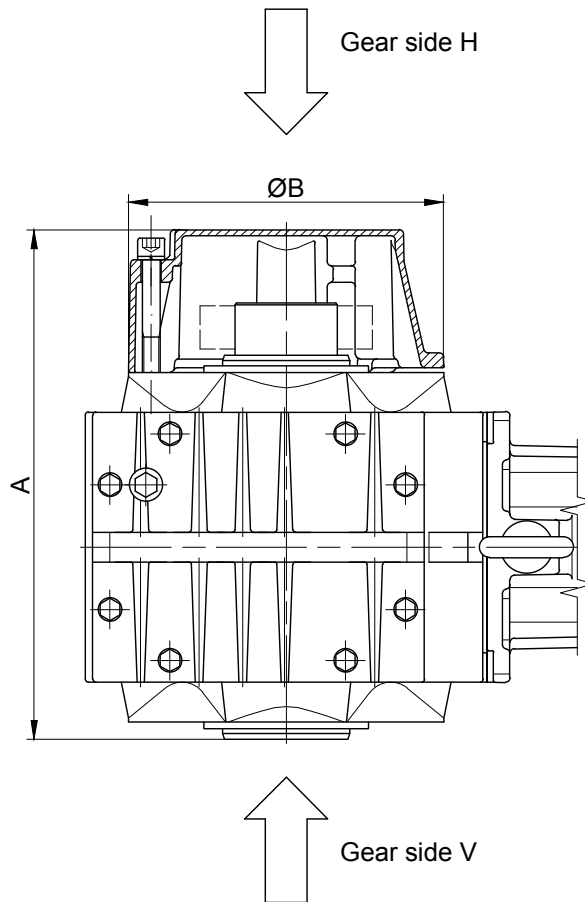
BS-series worm-geared motors

Additional Dimension Sheet Imperial

Shrink disc couplings with (SSV) cover

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

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



13

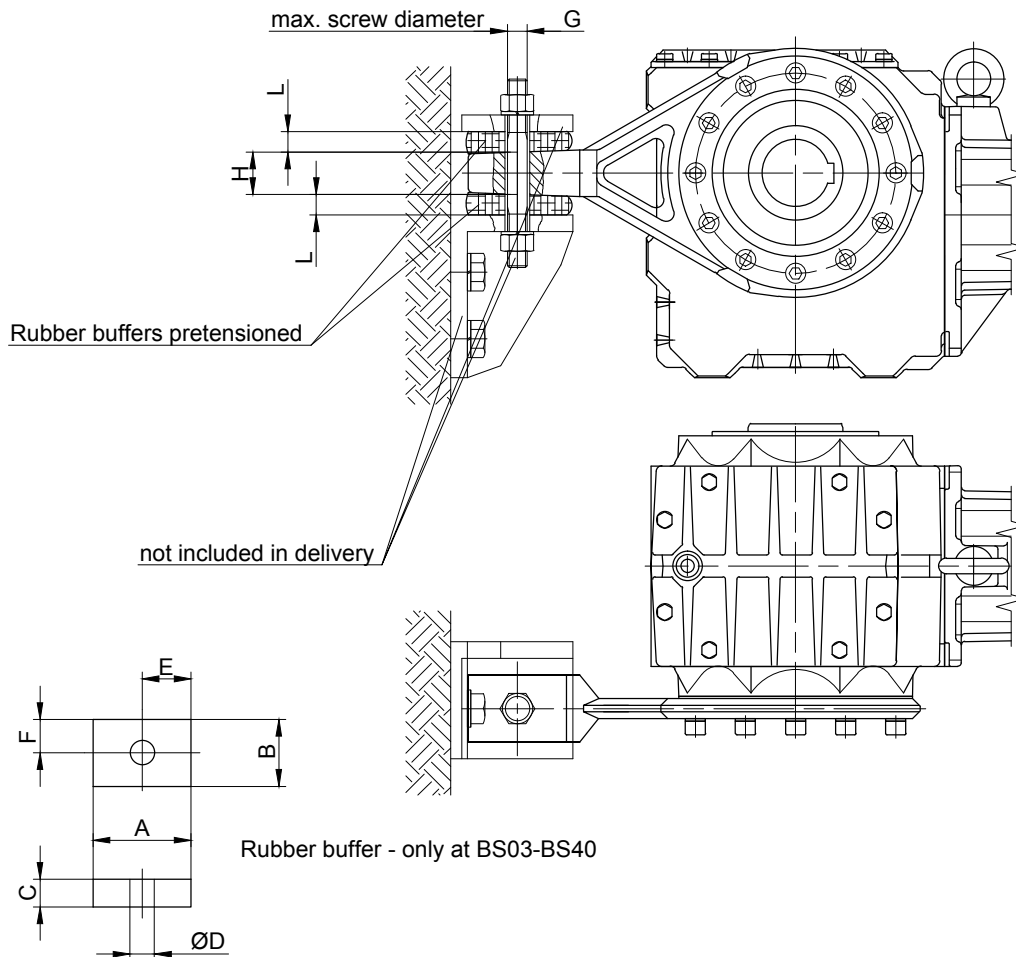
Type	SSV Ringfeder	SSV STÜWE	A	B
BS10	RfN 4161 036x072	HSD 36-22x36	8.70	4.72
BS20	RfN 4161 044x080	HSD 44-22x44	11.26	6.30
BS30	RfN 4161 050x090	HSD 50-22x50	12.32	6.30
BS40	RfN 4161 062x110	HSD 68-22x68	13.39	8.27

The actual gearbox design can vary from the geometry shown.

BS-series worm-gear motors

Additional Dimension Sheet Imperial

Rubber buffer for torque restraint



Material: Natural rubber
Hardness 50±5 Shore A

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

Gear	Pos.	Dimensions (inch)								
		A	B	C	D	E	F	G	H	L
BS02	-	-	-	-	-	-	-	M8	0.24	-
BS03	Pos.0	1.18	1.18	0.47	0.47	0.59	0.59	M8	0.39	0.41
BS04	Pos.0	1.18	1.18	0.47	0.47	0.59	0.59	M8	0.39	0.41
BS06	Pos.0	1.18	1.18	0.47	0.47	0.59	0.59	M10	0.39	0.39
BS10	Pos.1	1.89	1.26	0.59	0.55	0.94	0.63	M10	0.75	0.51
BS20	Pos.2	2.48	1.69	0.79	0.55	1.24	0.85	M10	1.18	0.69
BS30	Pos.2	2.48	1.69	0.79	0.55	1.24	0.85	M10	1.18	0.67
BS40	Pos.3	3.46	2.36	0.98	0.87	1.73	1.18	M18	1.50	0.87

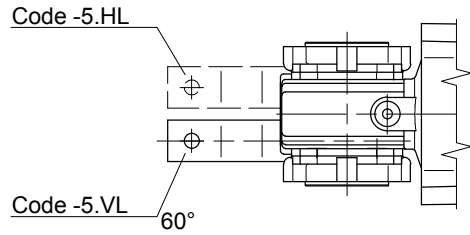
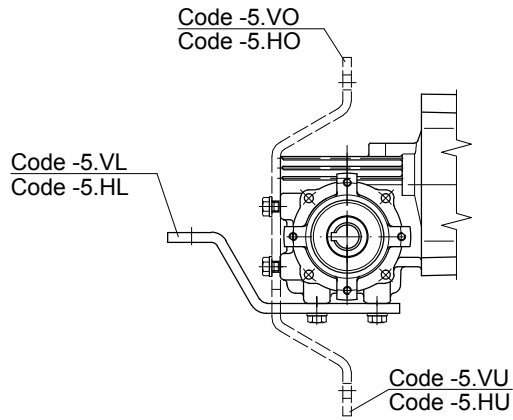
The actual gearbox design can vary from the geometry shown.

BS-series worm-gear motors

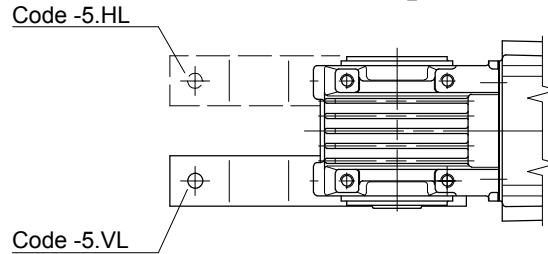
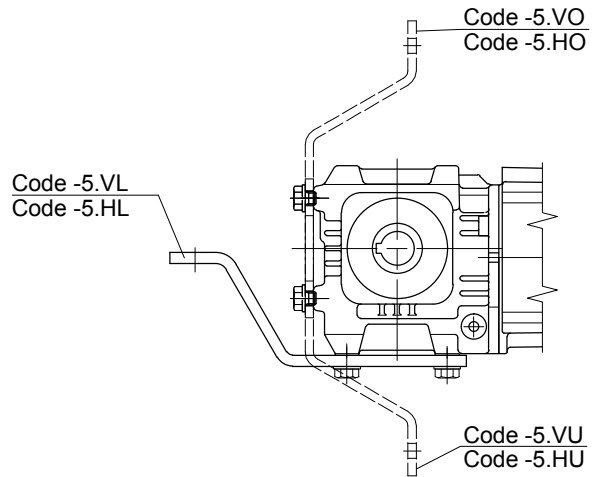
Additional Dimension Sheet Imperial

Position of the torque arm

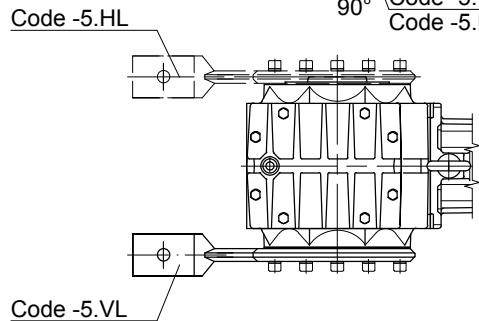
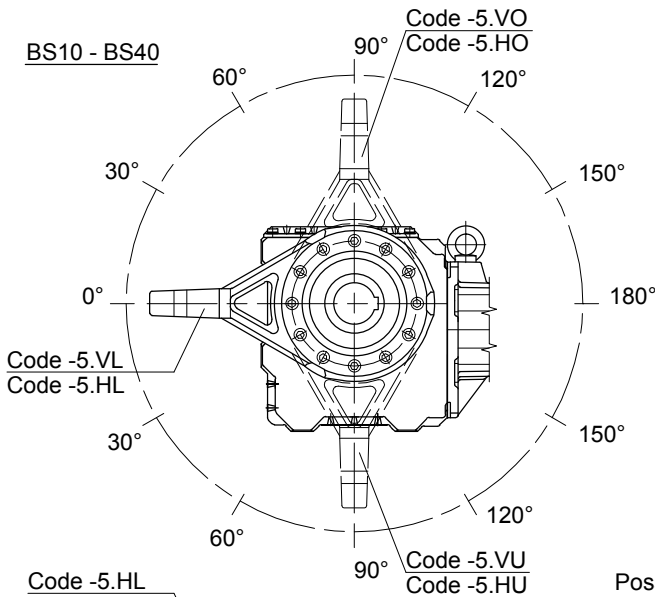
BS02 / BS03



BS04 / BS06



BS10 - BS40



Possible locations.

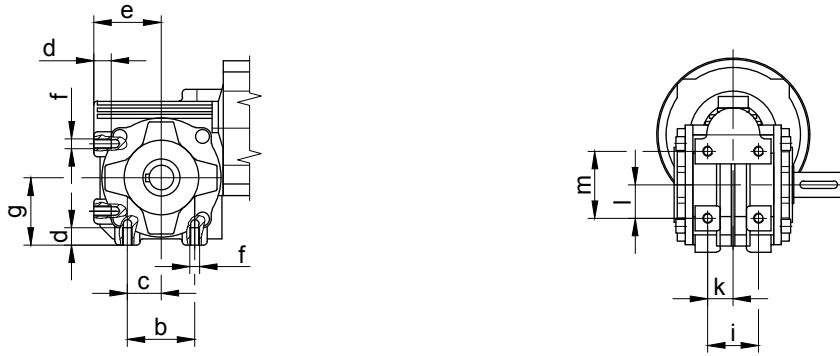
Position	VL/HL	VO / HO VU / HU					VR/HR
		30°	60°	90°	120°	150°	
BS10	0°	30°	60°	90°	120°	150°	-
BS20	0°	30°	60°	90°	120°	150°	-
BS30	0°	30°	60°	90°	120°	150°	-
BS40	0°	30°	60°	90°	120°	150°	-

The actual gearbox design can vary from the geometry shown.

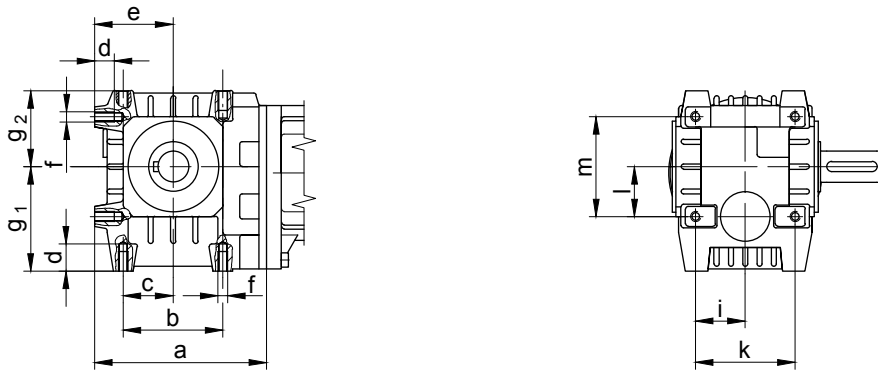
BS-series worm-gear motors

Additional Dimension Sheet Imperial

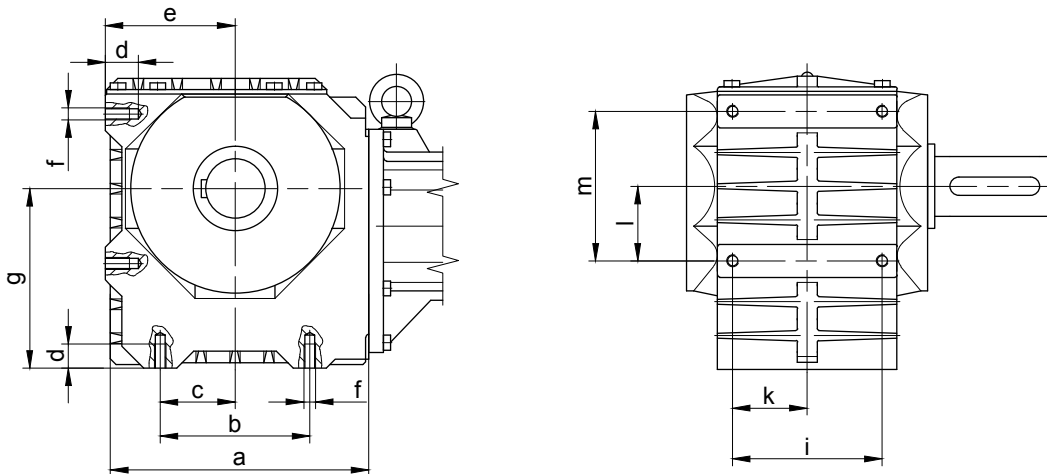
Threaded foot, left



Type	a	b	c	d	e	f	g	-	i	k	l	m
BS02	-	1.42	0.71	0.39	1.57	M6	1.57	-	1.26	0.63	0.71	1.42
BS03	-	2.13	1.06	0.55	2.13	M8	2.13	-	1.61	0.81	1.06	2.13



Type	a	b	c	d	e	f	g ₁	g ₂	i	k	l	m
BS04	4.37	2.36	1.18	0.61	1.97	M8	2.52	1.95	1.18	2.36	1.18	2.36
BS06	5.43	3.15	1.57	0.63	2.48	M8	3.31	2.40	1.57	3.15	1.57	3.15



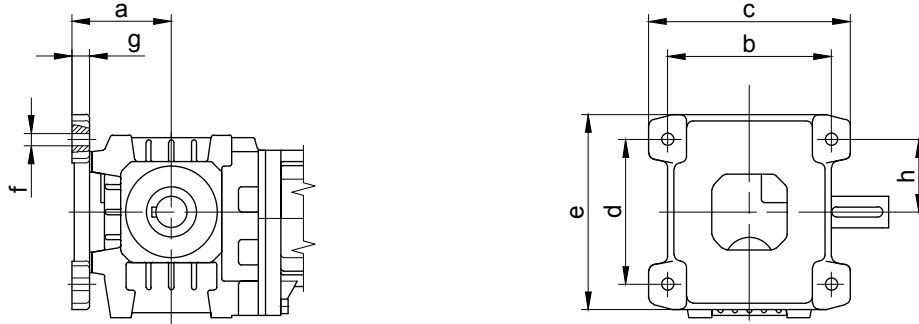
Type	a	b	c	d	e	f	g	-	i	k	l	m
BS10-BS10Z	6.69	3.54	1.77	0.63	3.35	M8	4.13	-	3.74	1.87	1.77	3.54
BS20-BS20Z	7.97	4.33	2.17	0.79	3.94	M10	4.92	-	4.13	2.07	2.17	4.33
BS30-BS30Z	8.98	4.92	2.46	0.94	4.33	M12	5.91	-	4.72	2.36	2.46	4.92
BS40-BS40Z	10.39	5.91	2.95	0.94	5.12	M12	7.09	-	5.91	2.95	2.95	5.91

The actual gearbox design can vary from the geometry shown.

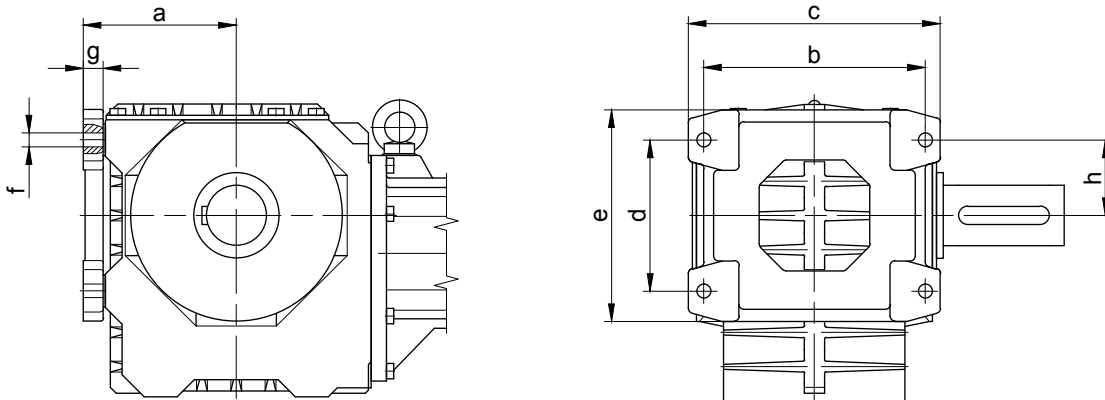
BS-series worm-gear motors

Additional Dimension Sheet Imperial

Foot plate, left



Type	a	b	c	d	e	f	g	h
BS04	2.68	4.33	5.51	3.54	5.12	0.39	0.59	1.77
BS06	3.11	5.12	6.30	4.53	6.10	0.39	0.55	2.26



Type	a	b	c	d	e	f	g	h
BS10-BS10Z	4.06	5.71	6.50	3.54	5.12	Ø0.35	0.63	2.85
BS20-BS20Z	4.72	6.50	7.68	4.33	6.30	Ø0.43	0.71	2.17
BS30-BS30Z	5.20	7.48	8.66	4.92	7.28	Ø0.53	0.79	2.46
BS40-BS40Z	5.98	8.66	9.84	5.91	8.27	Ø0.53	0.79	2.95

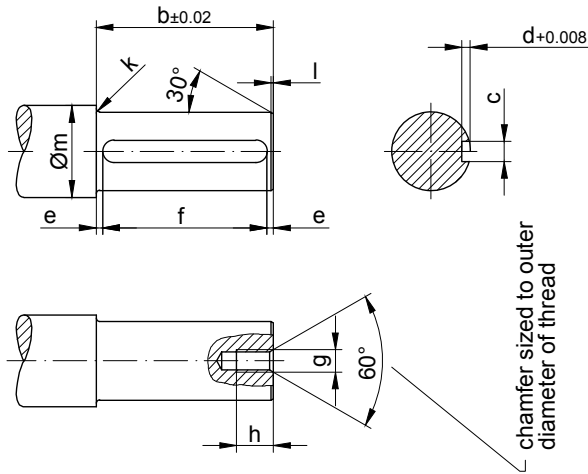
The actual gearbox design can vary from the geometry shown.

BS-series worm-geared motors

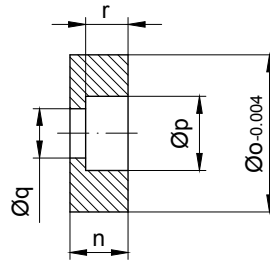
Additional Dimension Sheet Imperial

Tools for hollow shaft and keyway

Pos.1 Shaft



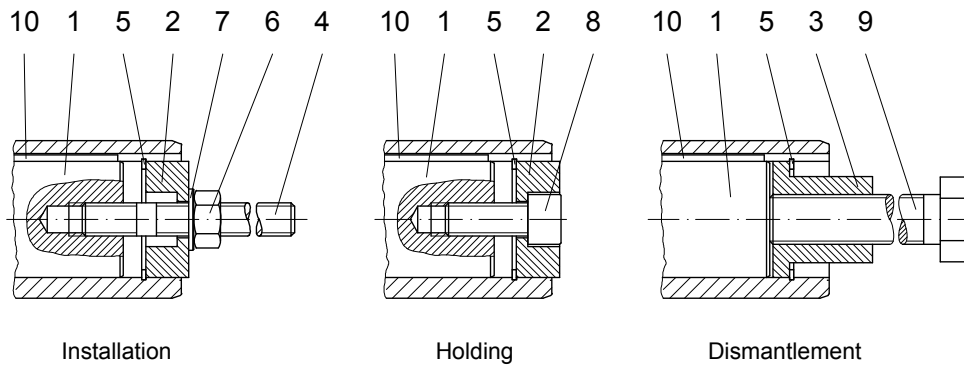
*Pos.2 Disc



✓, edges cut
Material:
C45 DIN 17200

Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Type	Dimensions (inch)															
	Pos.1 Shaft											Pos.2 Disc				
	a	b	c	d	e	f	g	h	k	l	m	n	o	p	q	r
BS03	0.79	2.95	0.24	0.14	0.24	2.48	M6	0.63	0.08	0.06	1.10	0.53	0.78	0.43	0.26	0.26
BS04	0.79	2.80	0.24	0.14	0.30	2.20	M6	0.63	0.08	0.06	1.10	0.53	0.78	0.43	0.26	0.26
BS06	0.98	3.90	0.32	0.16	0.37	3.15	M8	0.71	0.10	0.06	1.30	0.53	0.98	0.59	0.35	0.33
BS10	1.18	5.98	0.32	0.16	0.24	5.51	M10	0.79	0.12	0.06	1.50	0.59	1.17	0.71	0.43	0.39
BS20	1.38	7.32	0.39	0.20	0.51	6.30	M10	0.79	0.12	0.06	1.69	0.63	1.37	0.71	0.43	0.39
BS30	1.57	8.35	0.47	0.20	0.24	7.87	M12	0.87	0.12	0.08	1.89	0.71	1.57	0.79	0.53	0.47
BS40	2.36	8.94	0.71	0.28	0.53	7.87	M20	1.50	0.14	0.08	2.68	0.94	2.35	1.30	0.87	0.71



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.

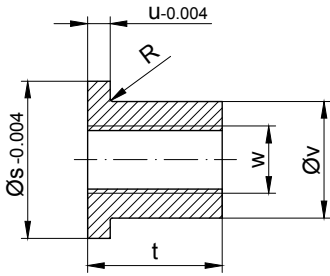
The actual gearbox design can vary from the geometry shown.

BS-series worm-gear motors

Additional Dimension Sheet Imperial

Tools for hollow shaft and keyway

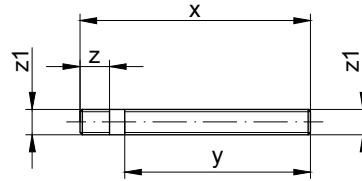
Pos.3 Sleeve



✓^x, edges cut
Material: C45 DIN 17200

Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Pos.4 Stud bolt



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

Type	Dimensions (inch)										* Retainer ring DIN 472	Hexagon nut DIN 934-8	Disc DIN 125-St	* Filister head screw DIN 912-8.8	Starting torque (lb.-ft)	Hexagon bolt DIN EN 24017-8.8	Key DIN 6885 Width x Height x Length
	Pos.3 Sleeve					Pos.4 Stud bolt											
	s	t	u	v	w	R	x	y	z	z1							
BS03	0.78	0.94	0.20	0.43	M8	-	4.72	3.54	0.71	M6	20x1.0	M6	6.4	M6x25	44.25	M8x110	A 8x7x63
BS04	0.78	0.94	0.20	0.43	M8	-	4.72	3.54	0.71	M6	20x1.0	M6	6.4	M6x25		M8x110	A 8x7x56
BS06	0.78	0.94	0.20	0.61	M12	0.03	5.91	4.72	0.79	M8	25x1.2	M8	8.4	M8x30	70.81	M12x140	A 8x7x80
BS10	1.17	1.10	0.20	0.78	M14	0.03	8.27	6.89	0.91	M10	30x1.2	M10	10.5	M10x30		M14x190	A 8x7x140
BS20	1.37	1.10	0.20	0.91	M14	-	9.84	8.46	0.91	M10	35x1.5	M10	10.5	M10x35	141.61	M14x230	A10x8x160
BS30	1.57	1.57	0.24	1.09	M20	0.03	11.02	9.45	1.10	M12	40x1.75	M12	13	M12x35		M20x270	A 12x8x200
BS40	2.35	2.36	0.24	1.73	M30	-	12.60	10.24	1.77	M20	60x2.0	M20	21	M20x50	371.73	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:

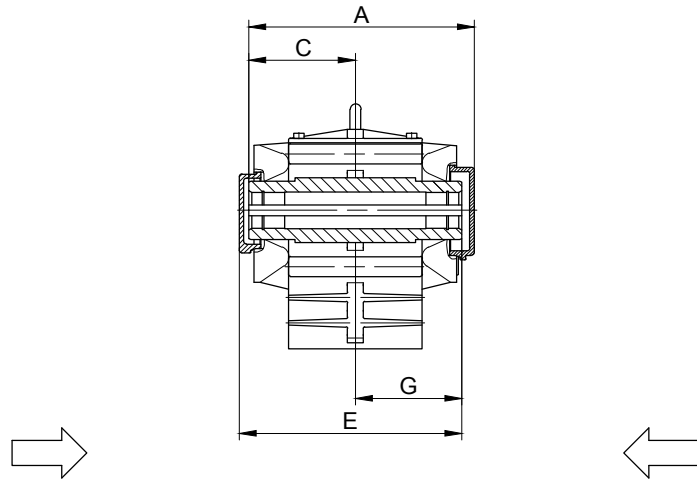
Type	Order Text
BS03	Id.Nr.4104013 Assembly tool "holding"
BS04	Id.Nr.4104013 Assembly tool "holding"
BS06	Id.Nr.4103921 Assembly tool "holding"
BS10	Id.Nr.4103939 Assembly tool "holding"
BS20	Id.Nr.4103947 Assembly tool "holding"
BS30	Id.Nr.4103955 Assembly tool "holding"
BS40	Id.Nr.4103971 Assembly tool "holding"

The actual gearbox design can vary from the geometry shown.

BS-series worm-gear motors

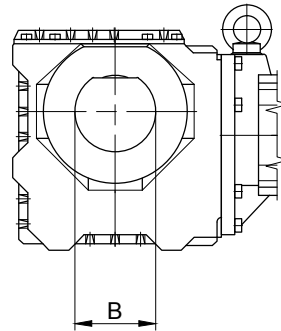
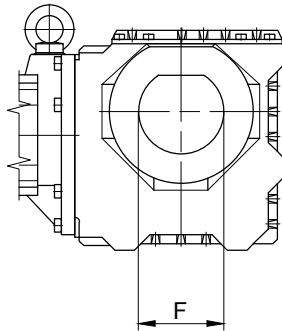
Additional Dimension Sheet Imperial

Sealing Cap (VK)



Gear side REAR (H)

Gear side FRONT (V)



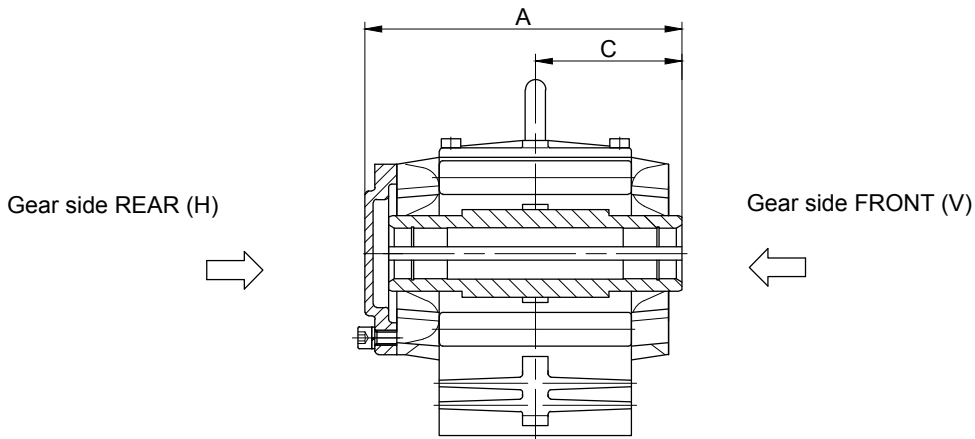
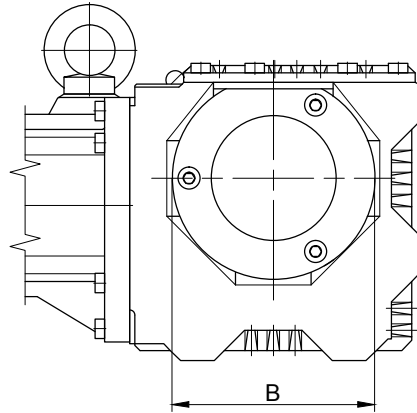
Sealing cap REAR			
Type	E	F	G
BS10	7.32	2.68	3.43
BS30	9.86	3.94	5.20
BS40	10.87	5.12	5.04

Sealing cap FRONT			
Type	A	B	C
BS20	8.70	3.07	4.11

The actual gearbox design can vary from the geometry shown.

Sealing Cover (VD)

Gear side REAR (H)



Type	A	B	C
BS04	3.92	2.68	1.83
BS06	5.06	3.19	2.38
BS10	7.28	Ø4.72	3.43
BS20	8.84	Ø6.30	4.11
BS30	9.90	Ø6.30	4.67
BS40	10.83	Ø8.27	5.04

The actual gearbox design can vary from the geometry shown.

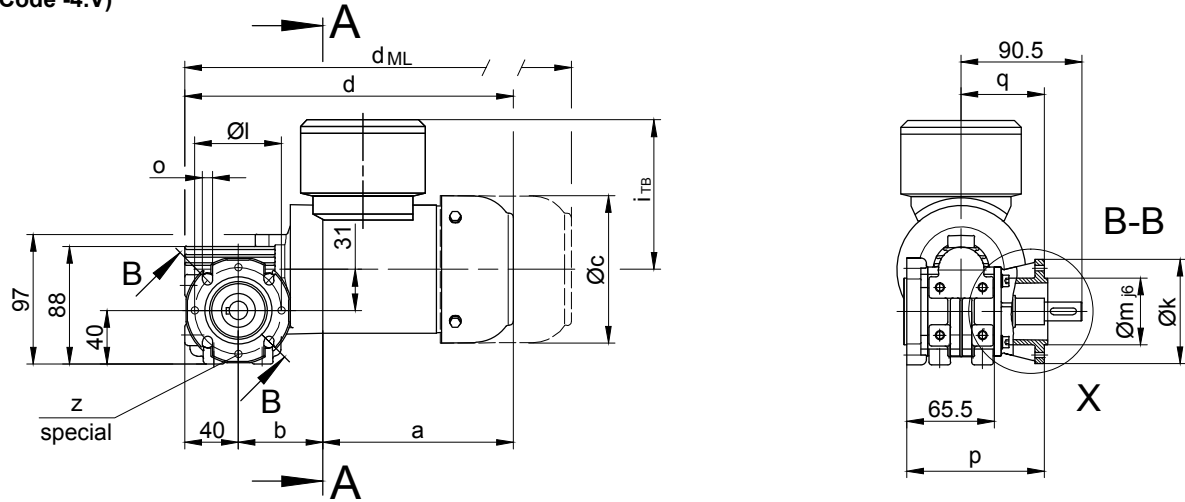
BS-series worm-gear motors

Dimension Metric

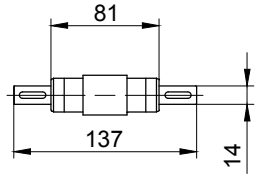
BS02

Flange with clearance holes at front

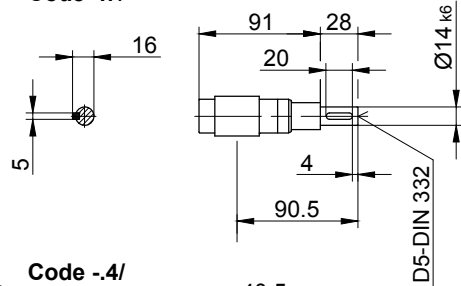
Code -3.V
(Code -4.V)



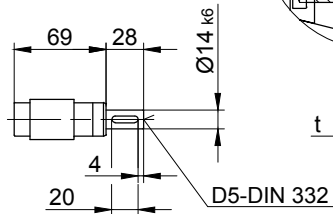
Code -3/



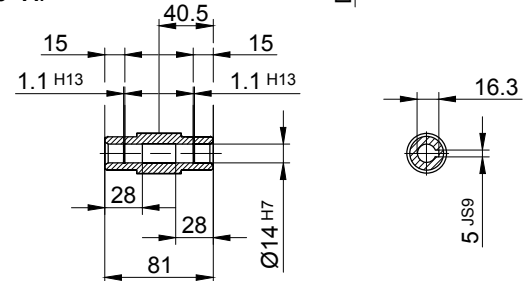
Code -7/



Code -1/

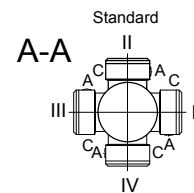


Code -4/



Flange dimensions

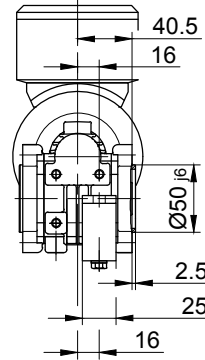
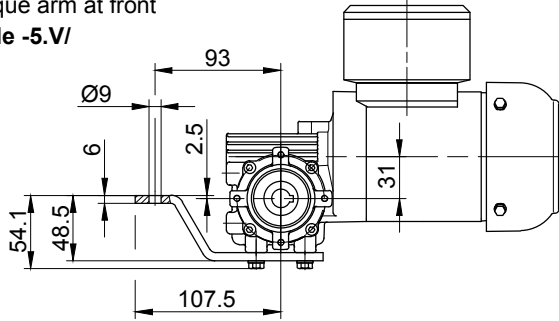
BS02	k	l	m	n	o	p	q	s	t	z
standard -37V/	80	65	50	7	5.5	103	62.5	2.5	28	-
spezial -37V/	80	65	50	7	5.5	103	62.5	2.5	28	4xM5
big -47V/	110	80	60	8	6.6	103	62.5	2.5	28	-
spezial -47V/	110	80	60	8	6.6	103	62.5	2.5	28	4xM6



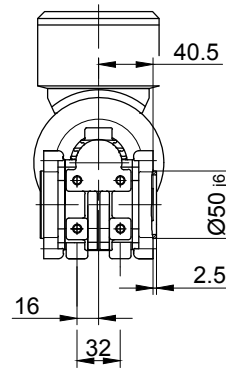
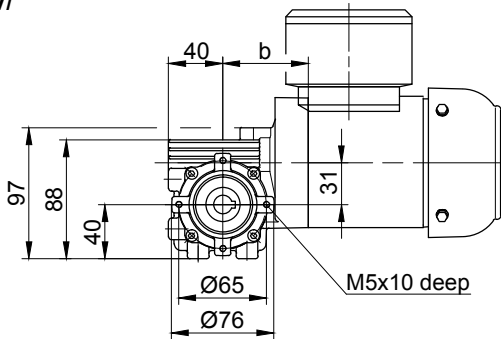
Type	a	b	c	d	u	Design with motor extensions				
						i_{TB}	E..	G	E..-G	RR/RL
						d_{ML}	d_{ML}	d_{ML}	d_{ML}	
BS02-../D04..	143	63.5	111	246.5	178	112	290	309	352	-
BS02-../D05..	170	65.5	123	275.5	188	117	317.5	378.5	420	-
BS02-../D06..	170	65.5	123	275.5	188	119	317.5	378.5	420	-
BS02-../D07..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

The actual gearbox design can vary from the geometry shown.

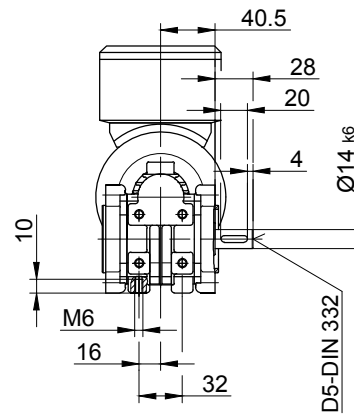
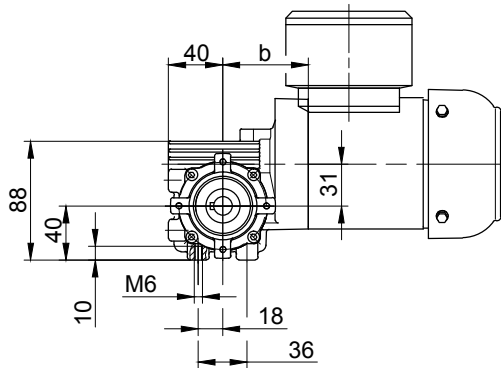
Torque arm at front
Code -5.V/



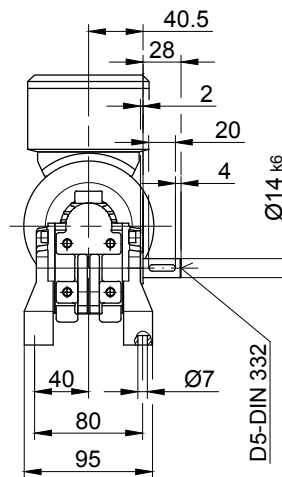
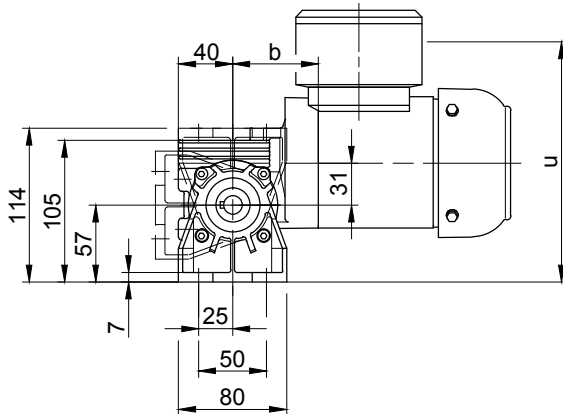
Flange with tapped holes at front
Code -7.V/



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.

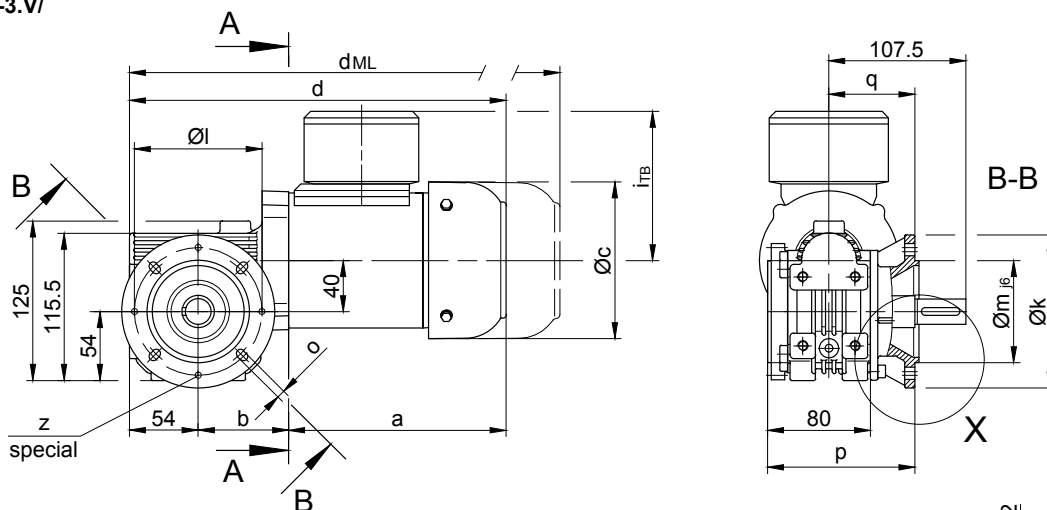
BS-series worm-geared motors

Dimension Metric

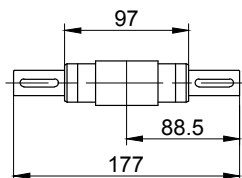
BS03

Flange with clearance holes at front

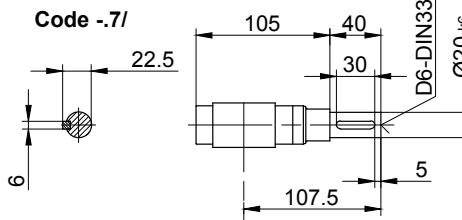
Code -3.V/



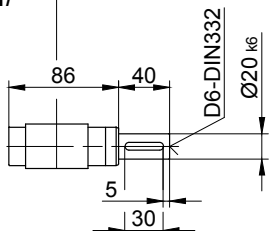
Code -3/



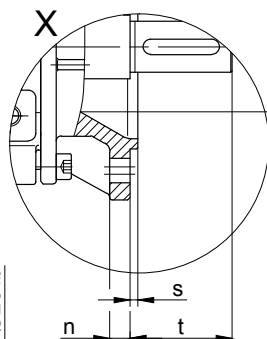
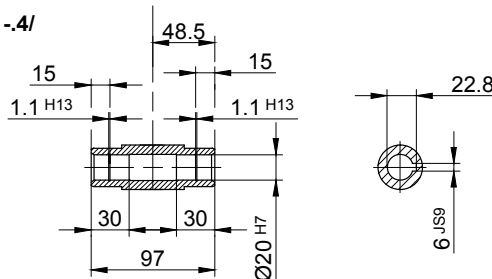
Code -7/



Code -1/

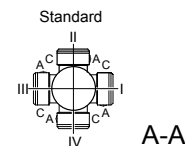


Code -4/



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	-
spezial -37V/	120	100	80	8	6.6	115	67.5	3	40	4xM6



Type	a*	b	c	d*	u	v	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	117	337	398	439.5	-
BS03-../D06..	170	71	123	295	213	70	119	337	398	439.5	-
BS03-../D07..	190	71	123	315	213	70	119	357	418	459.5	-
BS03-../D..08..	200	115	156	425	228	-	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

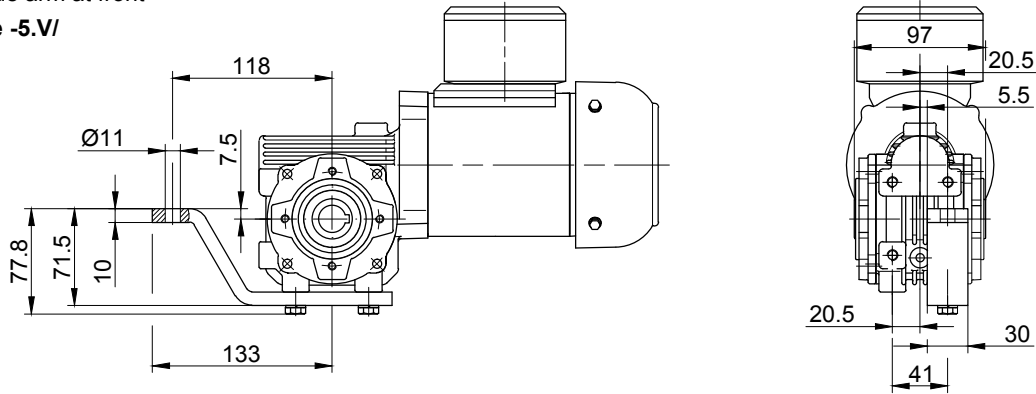
Comment:

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

The actual gearbox design can vary from the geometry shown.

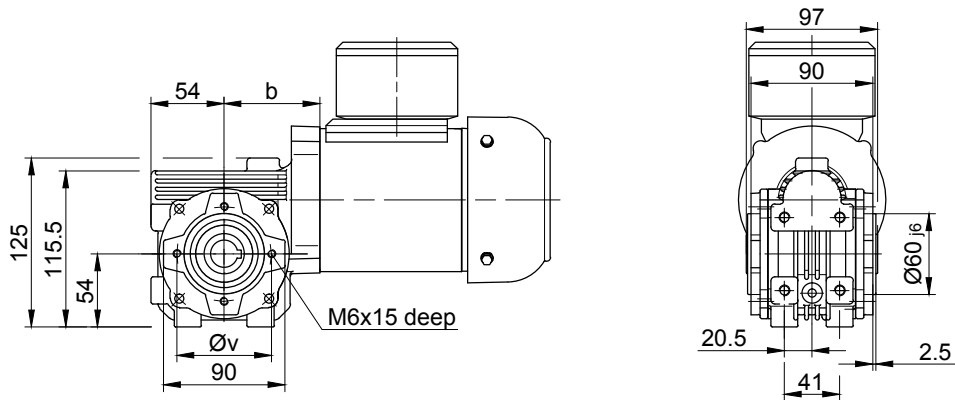
Torque arm at front

Code -5.V/



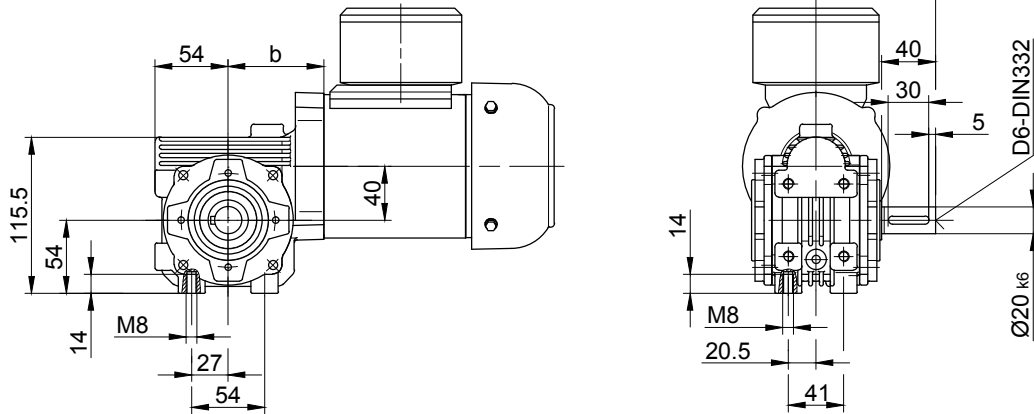
Flange with tapped holes at front

Code -7.V/



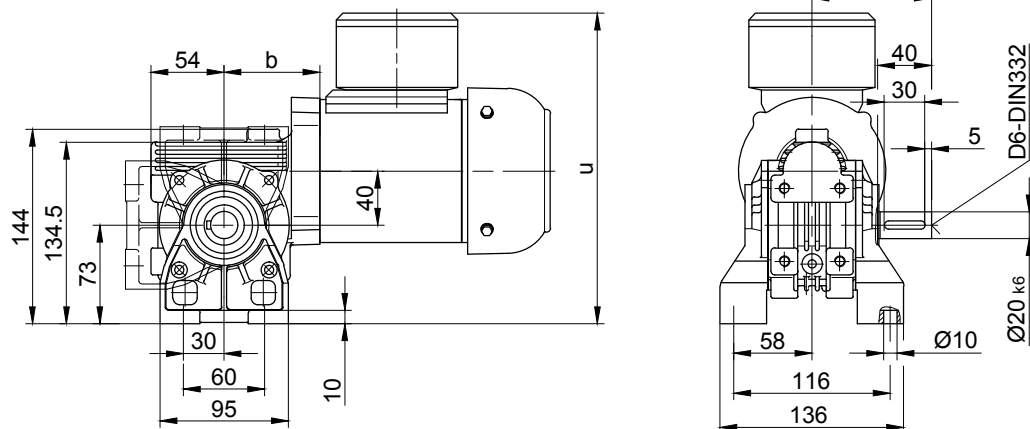
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



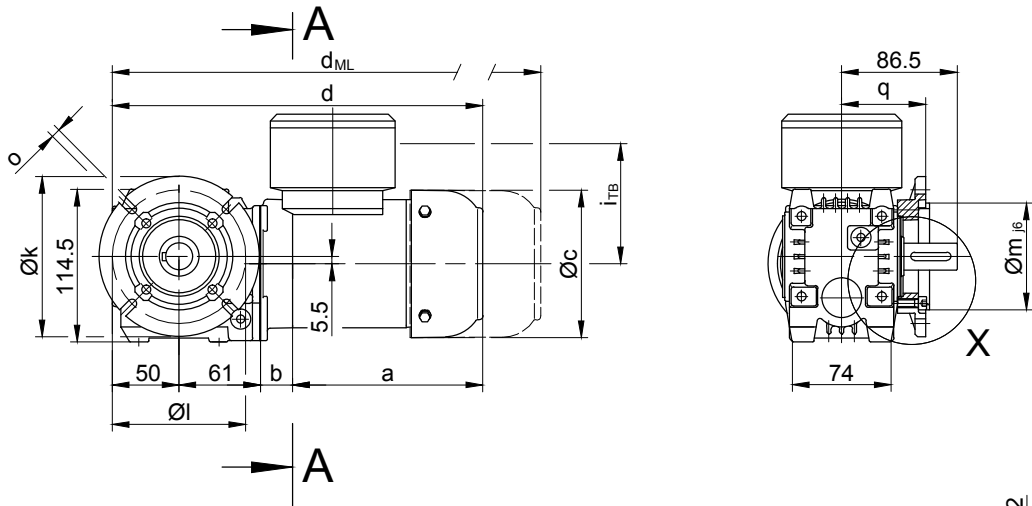
The actual gearbox design can vary from the geometry shown.

BS-series worm-geared motors

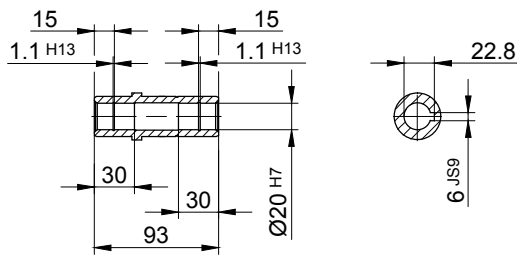
Dimension Metric

BS04

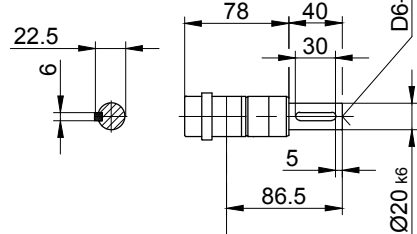
Flange with clearance holes at front
Code -3.V/



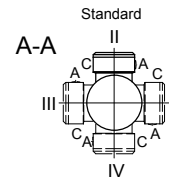
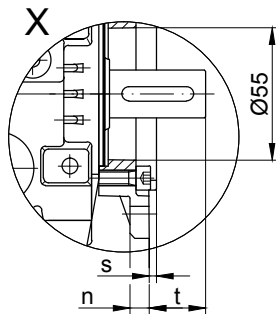
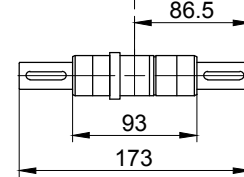
Code -4/



Code -1/



Code -3/



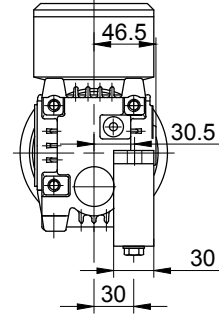
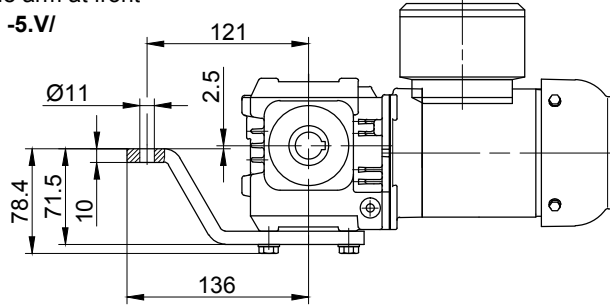
Flange dimensions

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

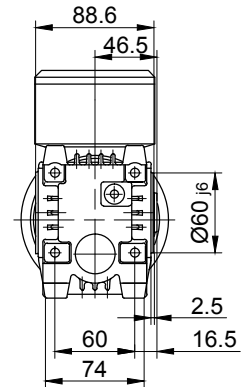
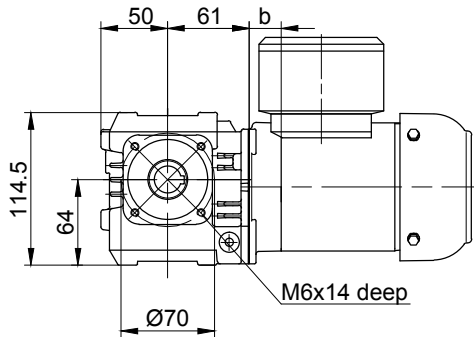
Type	a	b	c	d	Design with motor extensions				
					i _{TB}	E..	G	E..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}
BS04-../D04..	143	24	111	278	112	321.5	340.5	383.5	-
BS04-../D05..	170	26	123	307	117	349	410	451.5	-
BS04-../D06..	170	26	123	307	119	349	410	451.5	-
BS04-../D07..	190	26	123	327	119	369	430	471.5	-

The actual gearbox design can vary from the geometry shown.

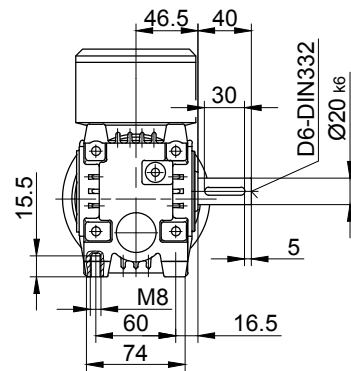
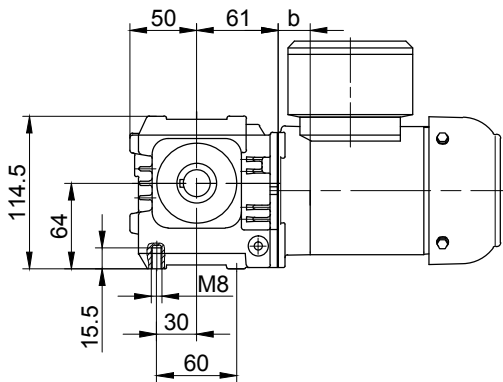
Torque arm at front
Code -5.V/



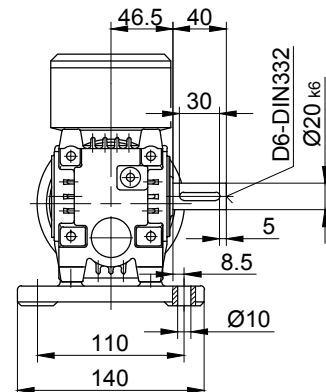
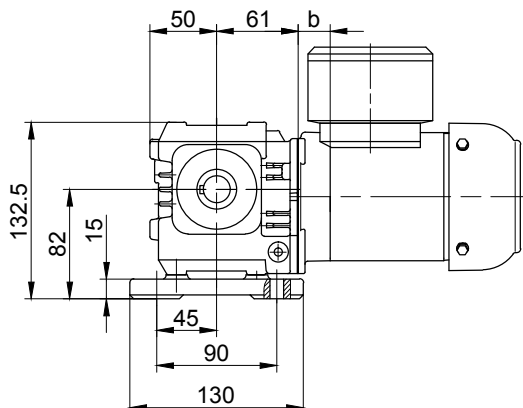
Flange with tapped holes at front
Code -7.V/



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.

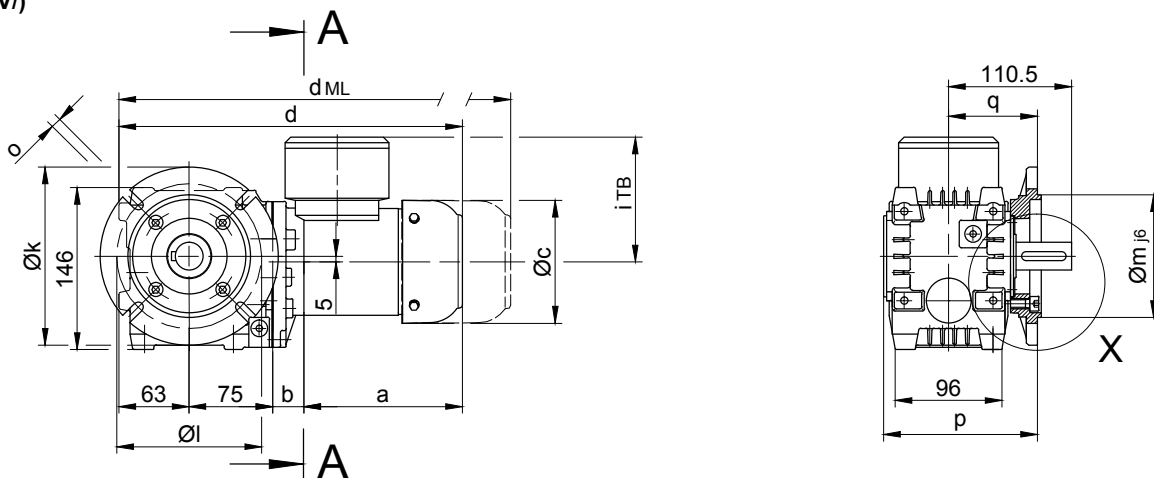
BS-series worm-geared motors

Dimension Metric

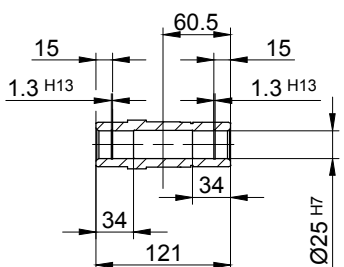
BS06

Flange with clearance holes at front

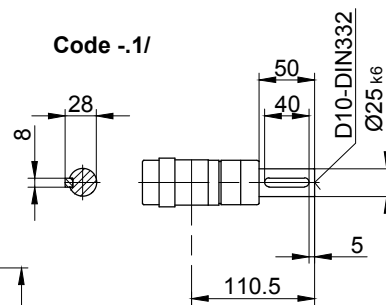
Code -3.V/
(Code -4.V/)



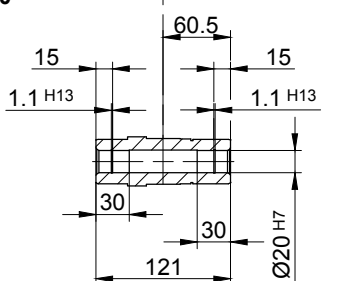
Code -4/
Standard



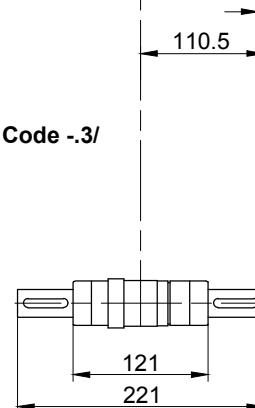
Code -1/



Code -4/K20

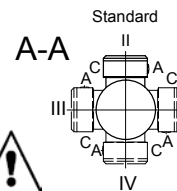


Code -3/



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*	Design with motor extensions				
					i_TB	E../ES..	G	E../ES..-G	RR/RL
						d_ML*	d_ML*	d_ML*	d_ML*
BS06-../D04..	143	28	111	309	112	352.5	371.5	414.5	-
BS06-../D05..	170	30	123	338	117	380	441	482.5	-
BS06-../D06..	170	30	123	338	119	380	441	482.5	-
BS06-../D07..	190	30	123	358	119	400	461	502.5	-
BS06-../D..08..	200	74	156	412	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

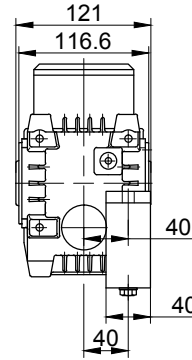
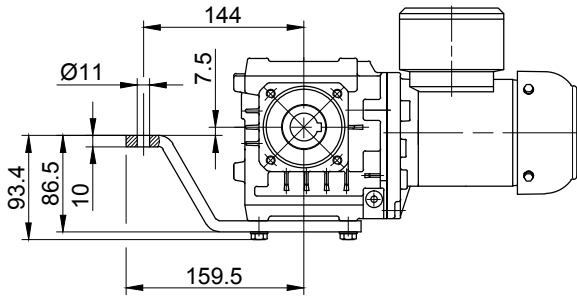
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

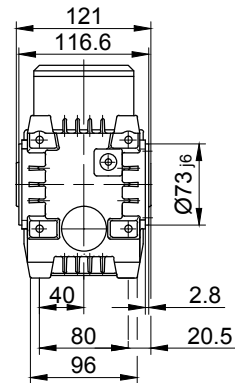
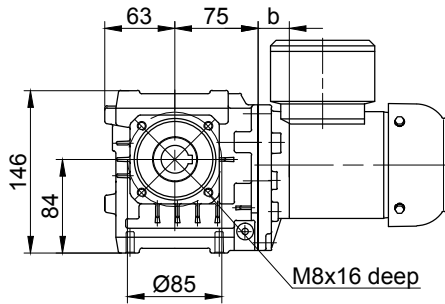
Torque arm at front

Code -5.V/



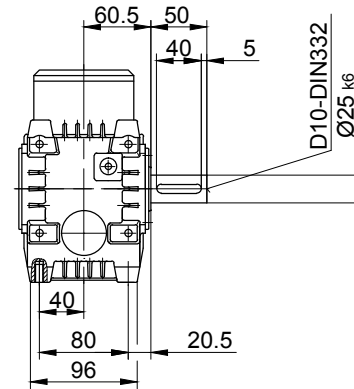
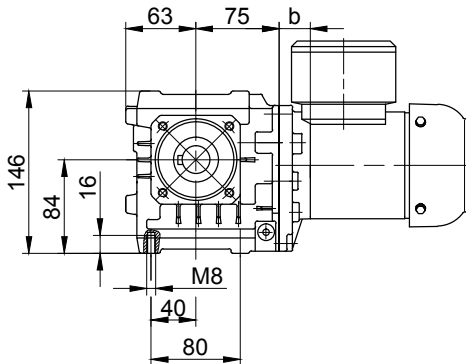
Flange with tapped holes at front

Code -7.V/



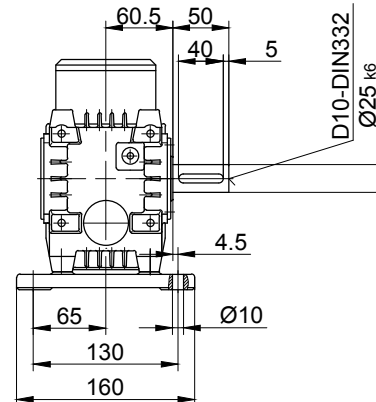
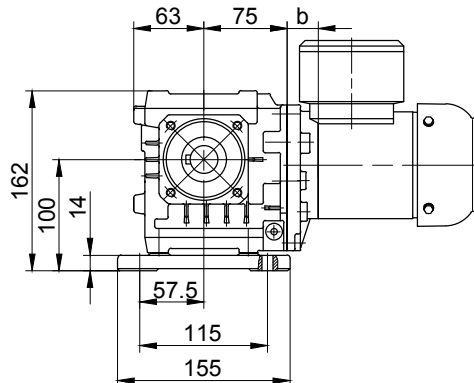
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

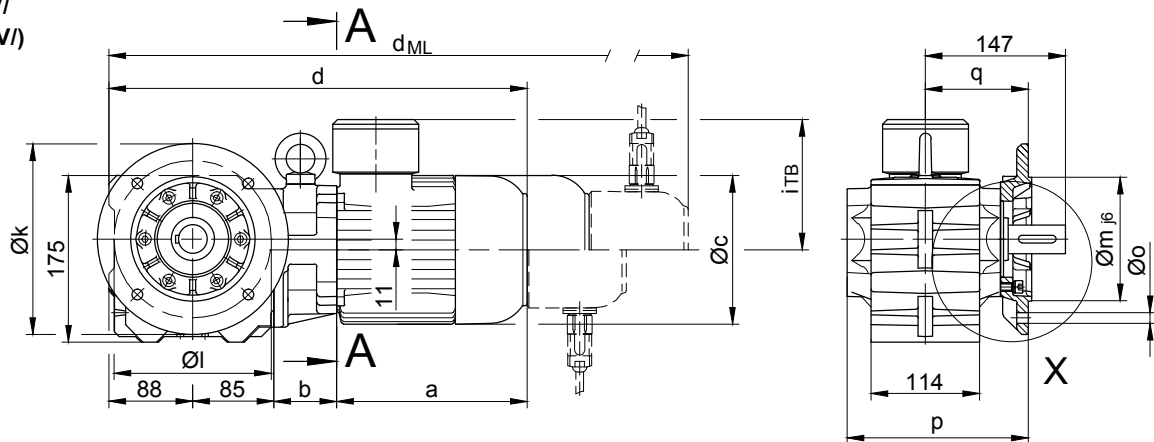
BS-series worm-geared motors

Dimension Metric

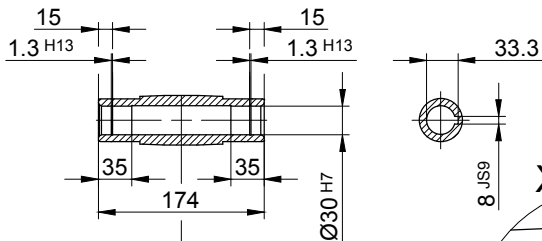
BS10 - BS10Z

Flange with clearance holes at front

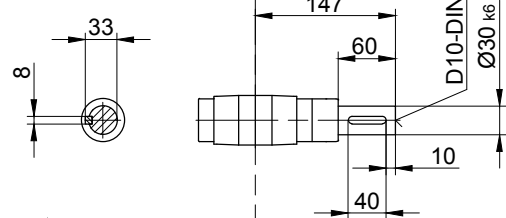
Code -3.V/
(Code -2.V/)



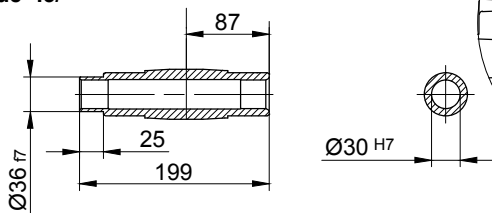
Code -4/



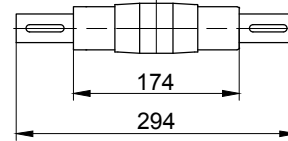
Code -1/



Code -5/

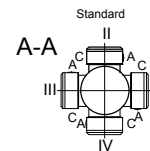


Code -3/



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*	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	112	445.5	464.5	507.5	-
BS10-../D05..	170	62	123	405	117	447	508	549.5	-
BS10Z-../D05..	170	88	123	431	117	473	534	575.5	-
BS10-../D06..	170	62	123	405	119	447	508	549.5	-
BS10Z-../D06..	170	88	123	431	119	473	534	575.5	-
BS10-../D07..	190	62	123	425	119	467	528	569.5	-
BS10Z-../D07..	190	88	123	451	119	493	554	595.5	-
BS10-../D..08..	200	66	156	439	136.5	505	546	612.5	505
BS10Z-../D..08..	200	132	156	505	136.5	571	612	678.5	571
BS10-../D..09..	251	80.5	181	504.5	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

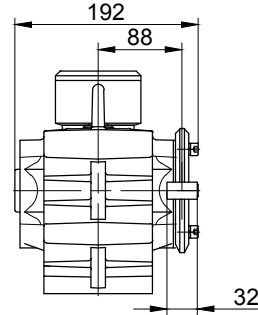
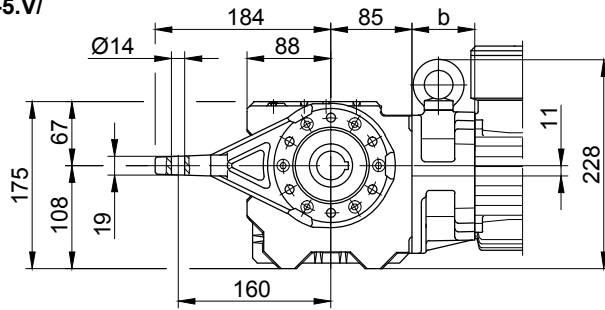
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

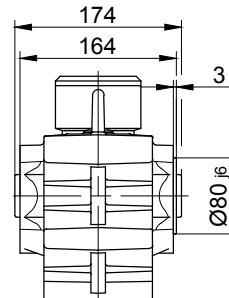
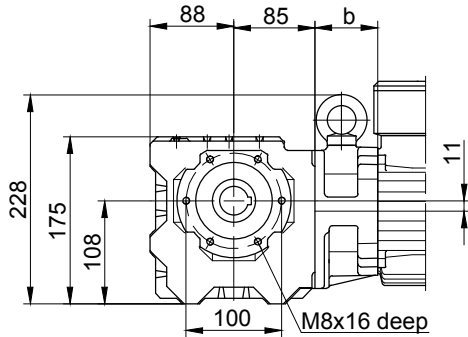
Torque arm at front

Code -5.V/



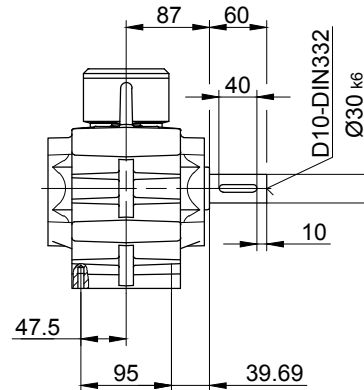
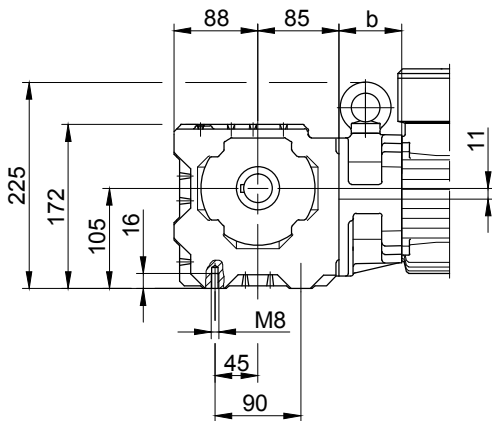
Flange with tapped holes at front

Code -7.V/



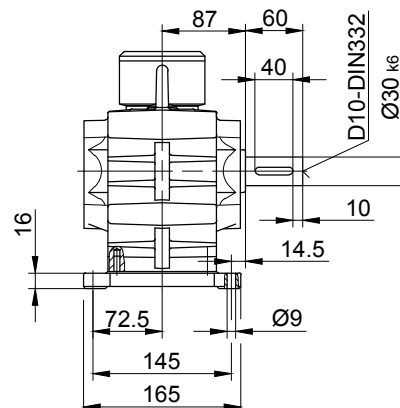
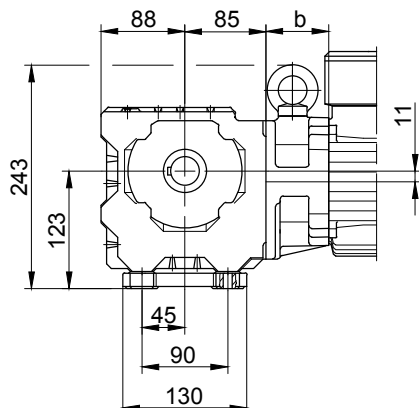
Foot with tapped holes at bottom

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 Metric

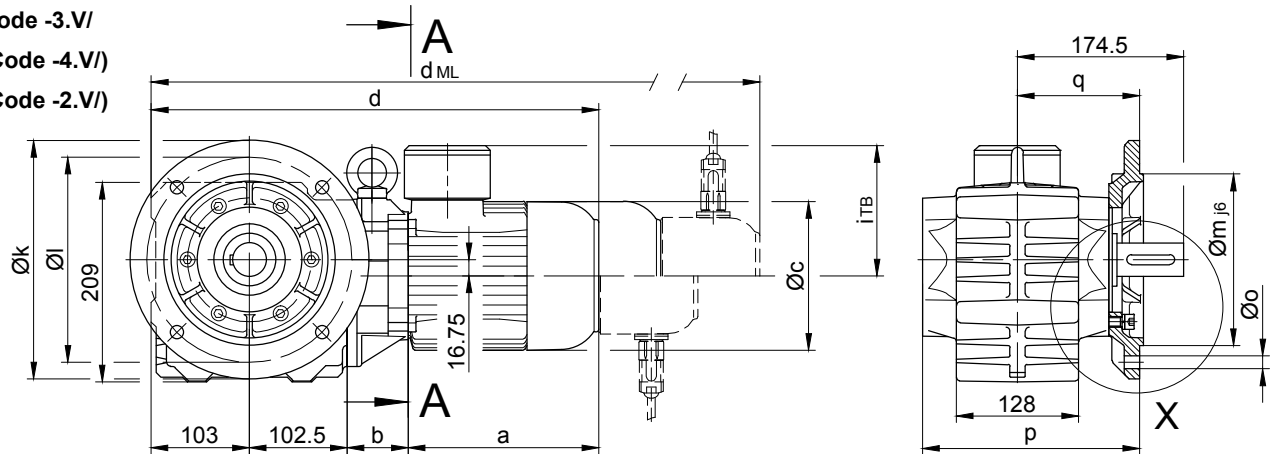
BS20 - BS20Z

Flange with clearance holes at front

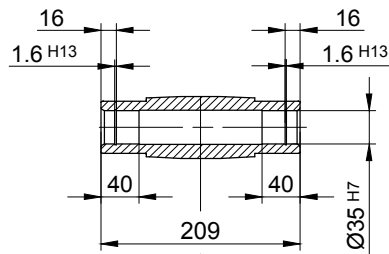
Code -3.V/

(Code -4.V/)

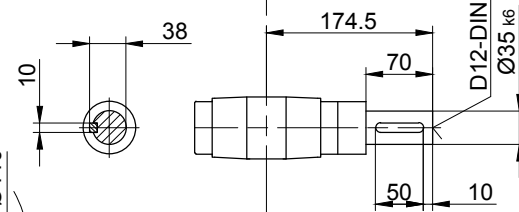
(Code -2.V/)



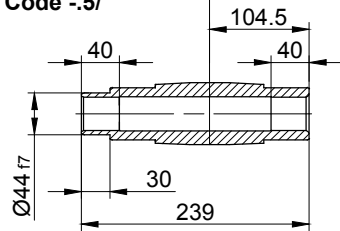
Code -4/



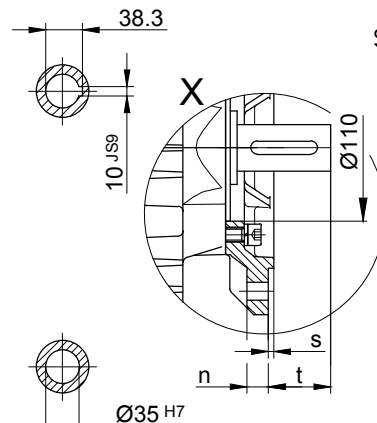
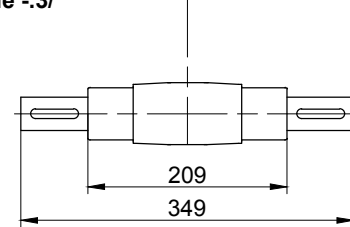
Code -1/



Code -5/

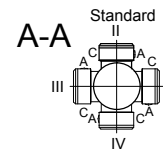


Code -3/



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*	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	112	492	511	554	-
BS20-../D05..	170	60	123	435.5	117	477.5	538.5	580	-
BS20Z-../D05..	170	102	123	477.5	117	519.5	580.5	622	-
BS20-../D06..	170	60	123	435.5	119	477.5	538.5	580	-
BS20Z-../D06..	170	102	123	477.5	119	519.5	580.5	622	-
BS20-../D07..	190	60	123	455.5	119	497.5	558.5	600	-
BS20Z-../D07..	190	102	123	497.5	119	539.5	600.5	642	-
BS20-../D..08..	200	64	156	469.5	136.5	535.5	576.5	643	535.5
BS20Z-../D..08..	200	146	156	551.5	136.5	617.5	658.5	725	617.5
BS20-../D..09..	251	78.5	181	535	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

Type Example: BK70-74V/DPE08X**B**4

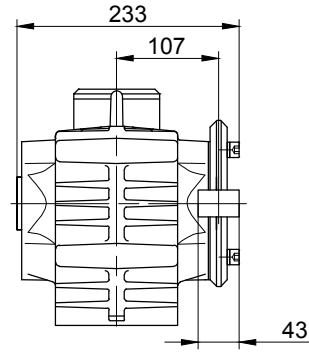
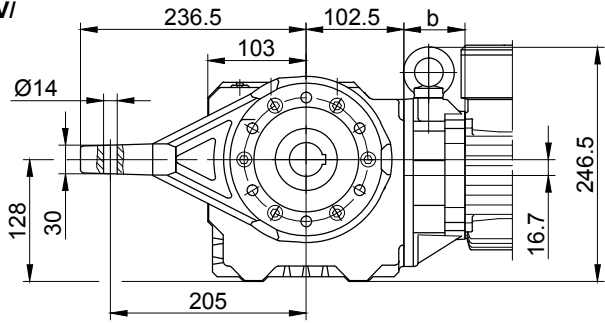
Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

BS20 - BS20Z

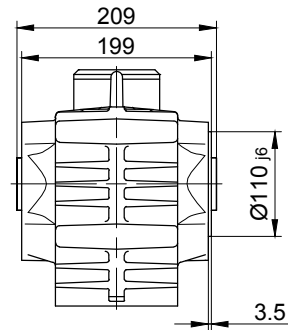
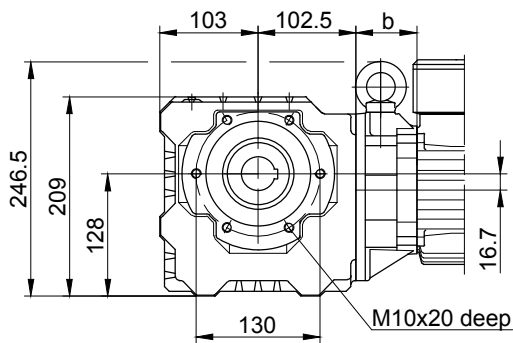
Torque arm at front

Code -5.V/



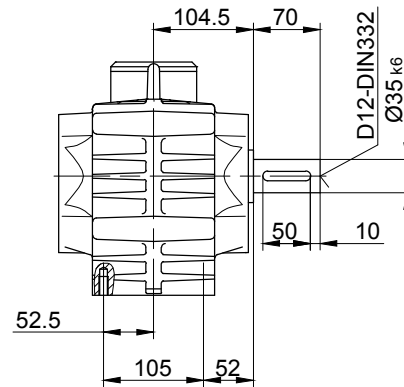
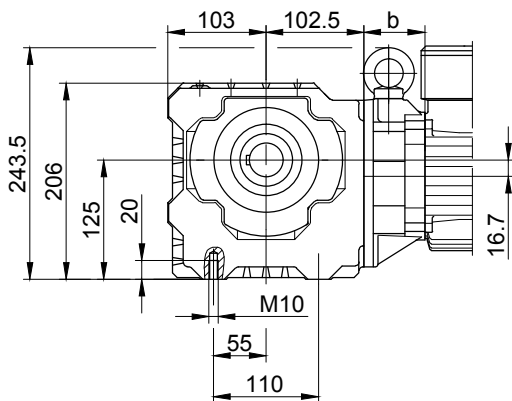
Flange with tapped holes at front

Code -7.V/



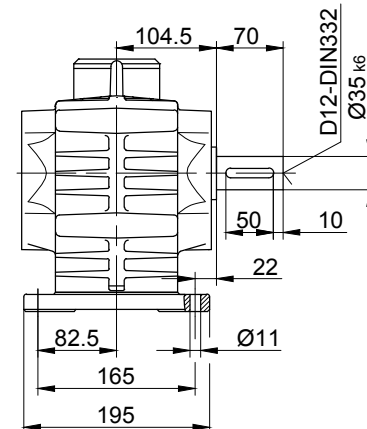
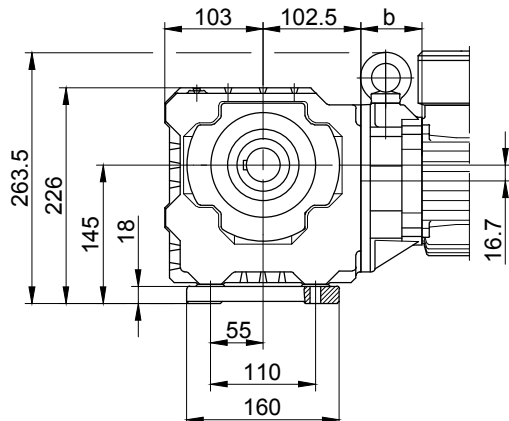
Foot with tapped holes at bottom

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-gear motors

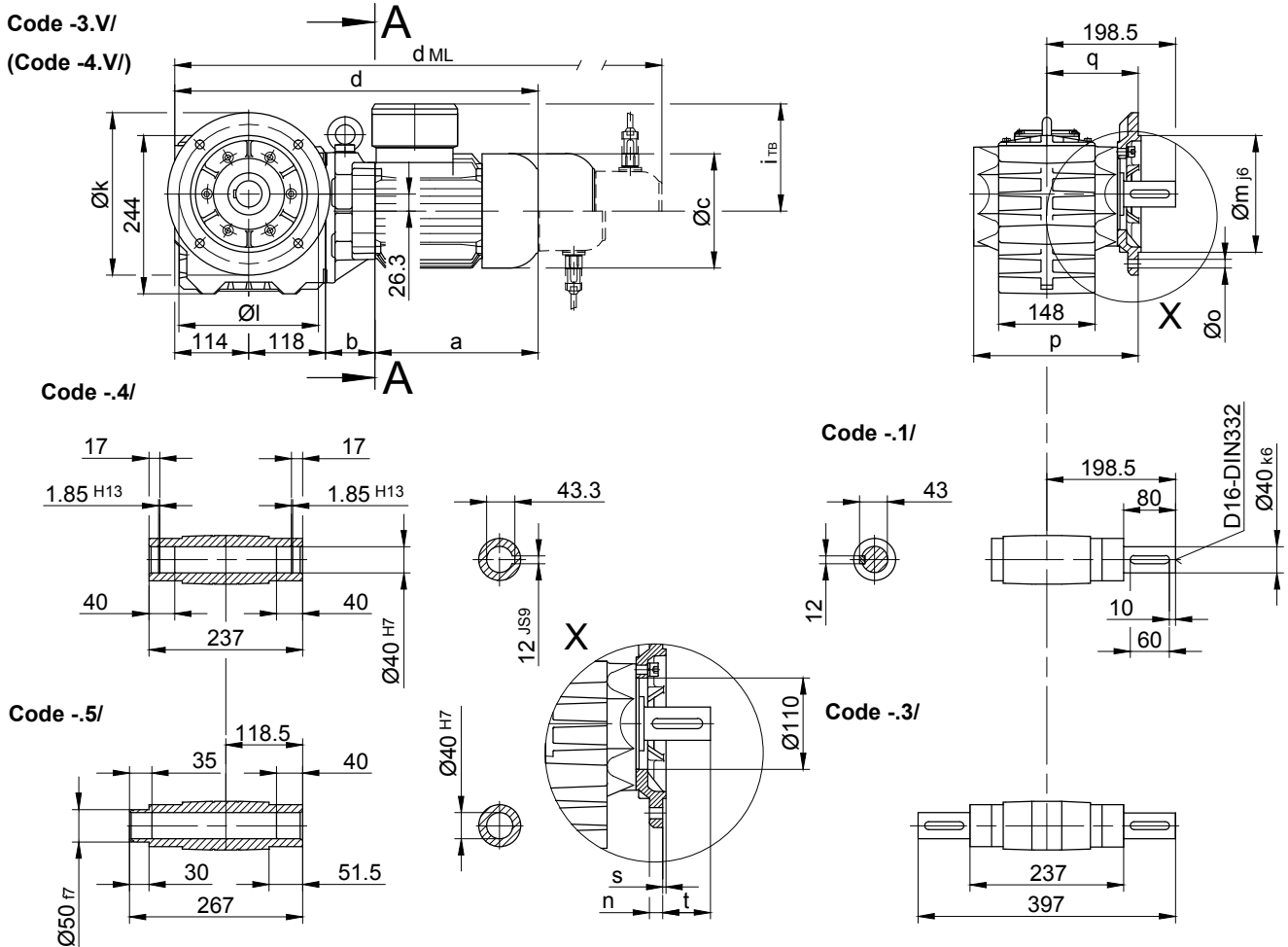
Dimension Metric

BS30 - BS30Z

Flange with clearance holes at front

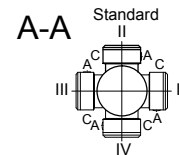
Code -3.V/

(Code -4.V/)



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 _{TB}	Design with motor extensions			
						E./ES..	G	E./ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BS30-../D05..	170	58	123	460	117	502	563	604.5	-
BS30Z-../D05..	170	133.5	123	535.5	117	577.5	638.5	680	-
BS30-../D06..	170	58	123	460	119	502	563	604.5	-
BS30Z-../D06..	170	133.5	123	535.5	119	577.5	638.5	680	-
BS30-../D07..	190	58	123	480	119	522	583	624.5	-
BS30Z-../D07..	190	133.5	123	555.5	119	597.5	658.5	700	-
BS30-../D..08..	200	62	156	494	136.5	560	601	667.5	560
BS30Z-../D..08..	200	137.5	156	569.5	136.5	635.5	676.5	743	635.5
BS30-../D..09..	251	76.5	181	559.5	158	652.5	666.5	757	652.5
BS30Z-../D..09..	251	152	181	635	158	728	742	832.5	728
BS30-../D..11..	319	83	228	634	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/DPE08X**A**4

Comment: No change to the dimensions shown

Design state "B" = Extended Length

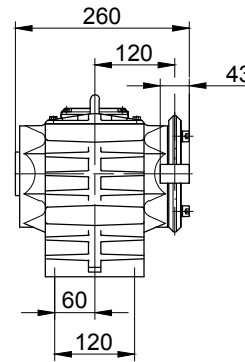
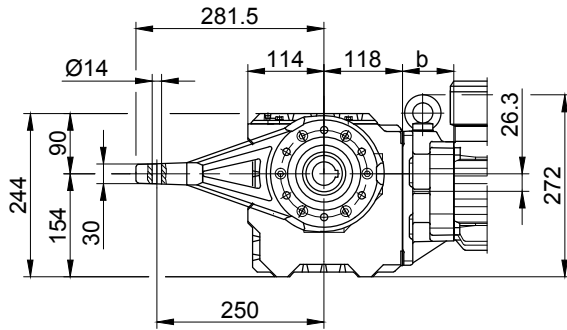
Type Example: BK70-74V/DPE08X**B**4

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

The actual gearbox design can vary from the geometry shown.

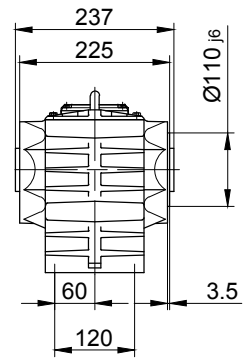
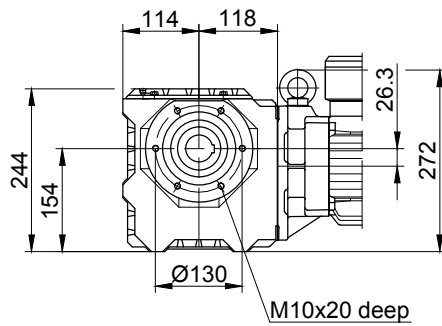
Torque arm at front

Code -5.V/



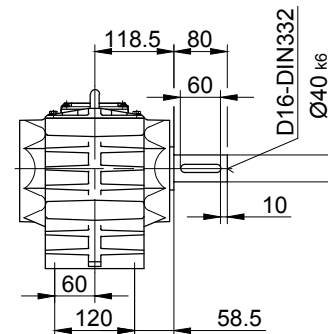
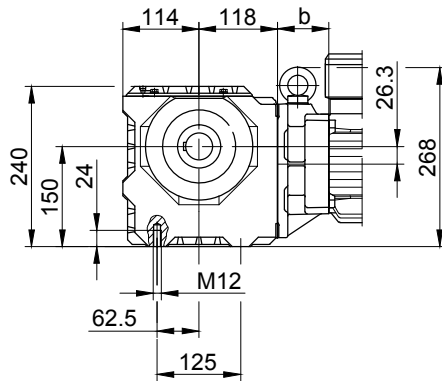
Flange with tapped holes at front

Code -7.V/



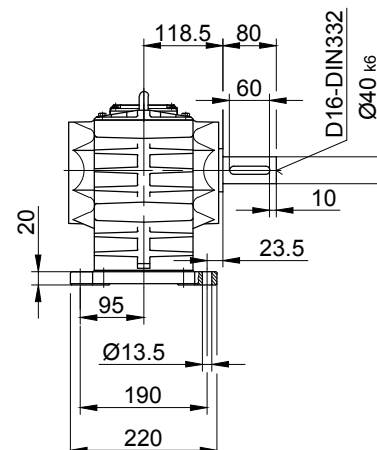
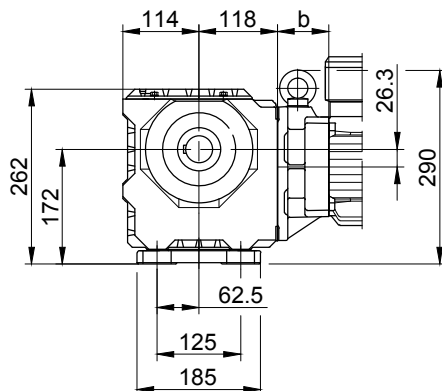
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

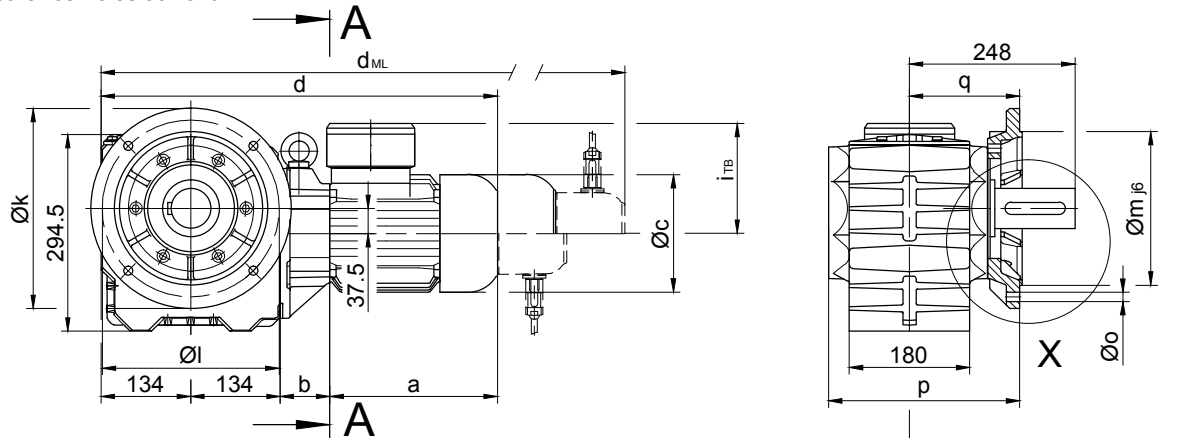
BS-series worm-gear motors

Dimension Metric

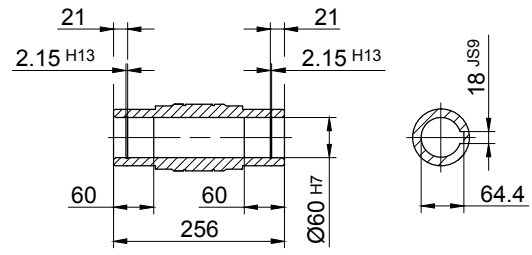
BS40 - BS40Z

Flange with clearance holes at front

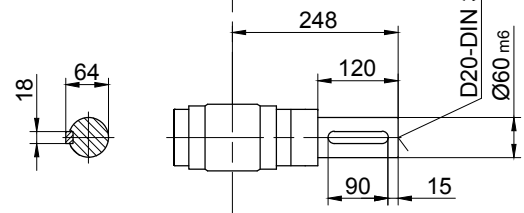
Code -3.V/



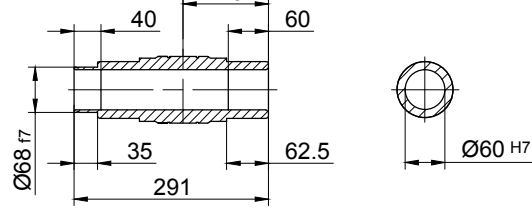
Code -4/



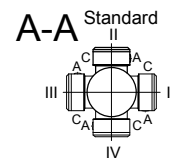
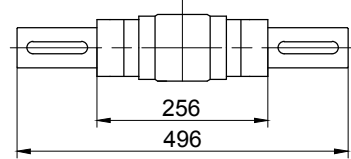
Code -1/



Code -5/



Code -3/



Flange dimensions

BS40(Z)	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*	Design with motor extensions				
					i _{TB}	E./ES..	G	E./ES..-G	RR/RL
						d _{ML} *	d _{ML} *	d _{ML} *	d _{ML} *
BS40Z-../D05..	170	138.5	123	576.5	117	618.5	679.5	721	-
BS40Z-../D06..	170	138.5	123	576.5	119	618.5	679.5	721	-
BS40Z-../D07..	190	138.5	123	596.5	119	638.5	699.5	741	-
BS40-../D..08..	200	60	156	528	136.5	594	635	701.5	594
BS40Z-../D..08..	200	142.5	156	610.5	136.5	676.5	717.5	784	676.5
BS40-../D..09..	251	74.5	181	593.5	158	686.5	700.5	791	686.5
BS40Z-../D..09..	251	157	181	676	158	769	783	873.5	769
BS40-../D..11..	319	81	228	668	181	766	775	870.5	766

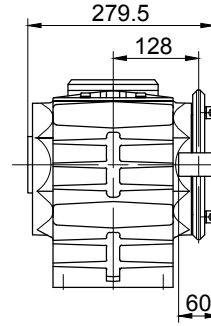
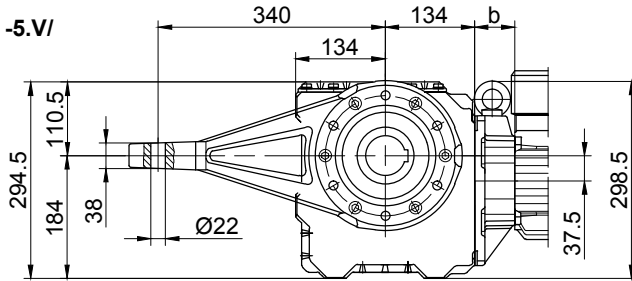


The dimensions "a*", "d*" and "d_{ML}*" change dependent on the motor design.
Design state "A" = Standard Length
 Type Example: BK70-74V/DPE08X**A**4
 Comment: No change to the dimensions shown
Design state "B" = Extended Length
 Type Example: BK70-74V/DPE08X**B**4
 Comment: Motor length changes please see Chapter 16 - Additional dimension sheet - Motor Length Comparison

The actual gearbox design can vary from the geometry shown.

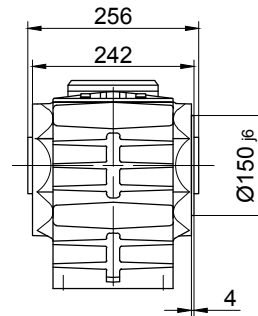
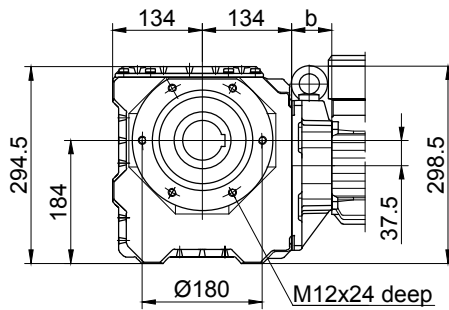
Torque arm at front

Code -5.V/



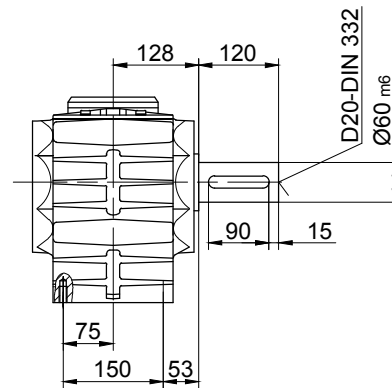
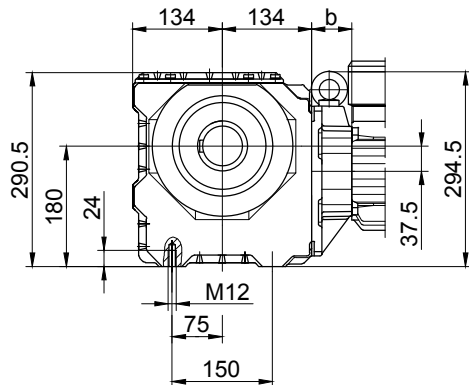
Flange with tapped holes at front

Code -7.V/



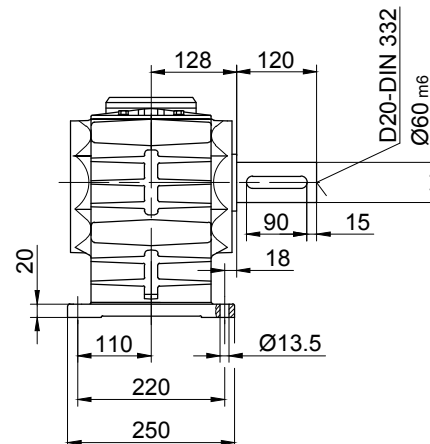
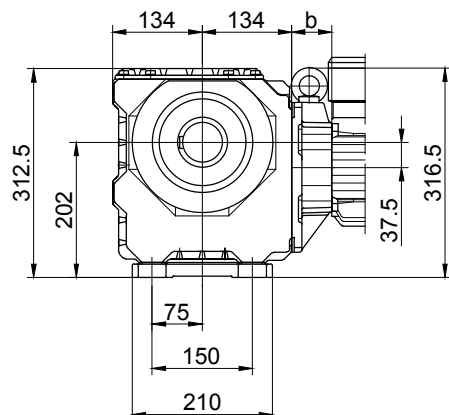
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

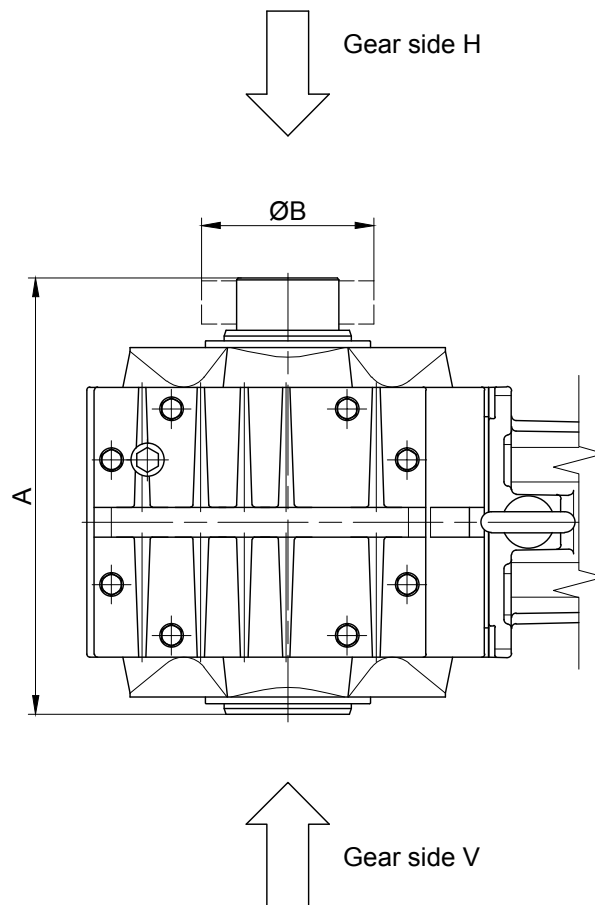
BS-series worm-geared motors

Additional Dimension Sheet Metric

Shrink disc coupling (SSV)

(Code BS10Z-.5/...)

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



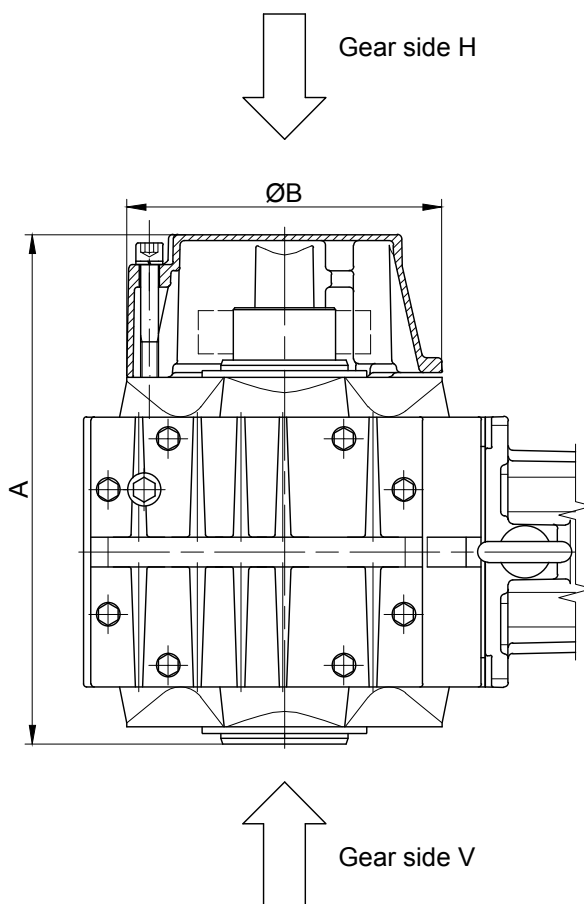
13

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

Shrink disc coupling with (SSV) cover

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

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



13

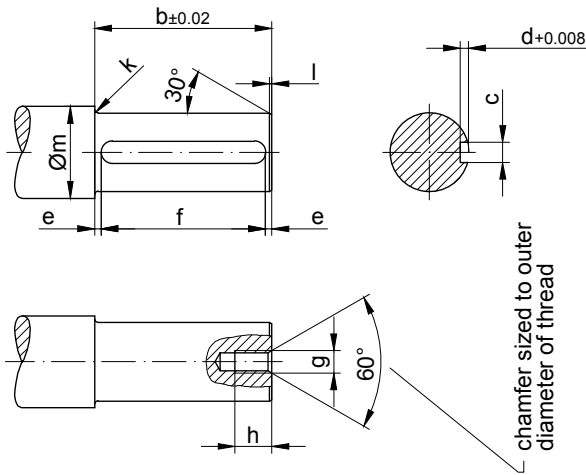
Type	SSV Ringfeder	SSV STÜWE	A	B
BS10	RfN 4161 036x072	HSD 36-22x36	221	120
BS20	RfN 4161 044x080	HSD 44-22x44	286	160
BS30	RfN 4161 050x090	HSD 50-22x50	313	160
BS40	RfN 4161 062x110	HSD 68-22x68	340	210

BS-series worm-geared motors

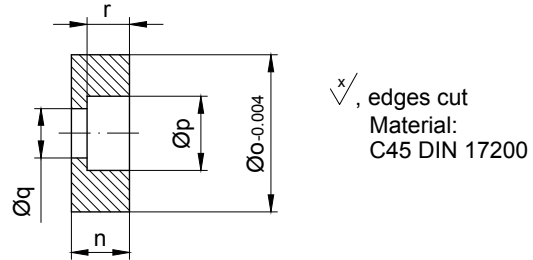
Additional Dimension Sheet Metric

Assembly tools for hollow shaft and keyway

Pos.1 Shaft

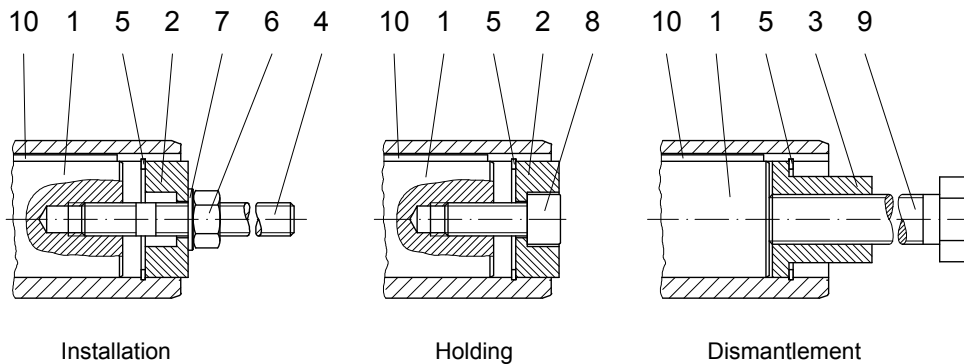


* Pos.2 Disc



Shaft extension tolerance:
 up to 1.5 in diameter: +0.000 / -0.0005 in
 over 1.5 in diameter: +0.000 / -0.001 in
 Flange spigot diameter: +0.0003 / -0.0015 in

Type	Dimensions (inch)															
	Pos.1 Shaft											Pos.2 Disc				
	a	b	c	d	e	f	g	h	k	l	m	n	o	p	q	r
BS03	0.79	2.95	0.24	0.14	0.24	2.48	M6	0.63	0.08	0.06	1.10	0.53	0.78	0.43	0.26	0.26
BS04	0.79	2.80	0.24	0.14	0.30	2.20	M6	0.63	0.08	0.06	1.10	0.53	0.78	0.43	0.26	0.26
BS06	0.98	3.90	0.32	0.16	0.37	3.15	M8	0.71	0.10	0.06	1.30	0.53	0.98	0.59	0.35	0.33
BS10	1.18	5.98	0.32	0.16	0.24	5.51	M10	0.79	0.12	0.06	1.50	0.59	1.17	0.71	0.43	0.39
BS20	1.38	7.32	0.39	0.20	0.51	6.30	M10	0.79	0.12	0.06	1.69	0.63	1.37	0.71	0.43	0.39
BS30	1.57	8.35	0.47	0.20	0.24	7.87	M12	0.87	0.12	0.08	1.89	0.71	1.57	0.79	0.53	0.47
BS40	2.36	8.94	0.71	0.28	0.53	7.87	M20	1.50	0.14	0.08	2.68	0.94	2.35	1.30	0.87	0.71



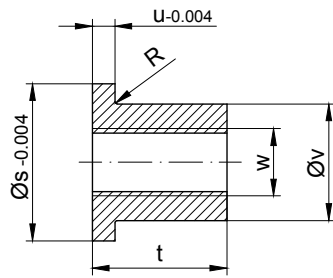
The parts shown are necessary for assembly. ONLY *specified parts are enclosed in the assembly kit. Suitable measures are to be used to secure Bolt Pos.9 against loosening.

BS-series worm-gearred motors

Additional Dimension Sheet Metric

Assembly tools for hollow shaft and keyway

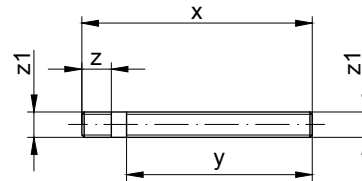
Pos.3 Sleeve



✓, edges cut
Material: C45 DIN 17200

Shaft extension tolerance:
up to 1.5 in diameter: +0.000 / -0.0005 in
over 1.5 in diameter: +0.000 / -0.001 in
Flange spigot diameter: +0.0003 / -0.0015 in

Pos.4 Stud bolt



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

Type	Dimensions (inch)											* Retainer ring DIN 472	Hexagon nut DIN 934-8	Disc DIN 125-SI	* Filister head screw DIN 912-8.8	Starting torque (lb. _f -in)	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	0.78	0.94	0.20	0.43	M8	-	4.72	3.54	0.71	M6	20x1.0	M6	6.4	M6x25	44.25	M8x110	A 8x7x63							
BS04	0.78	0.94	0.20	0.43	M8	-	4.72	3.54	0.71	M6	20x1.0	M6	6.4	M6x25		M8x110	A 8x7x56							
BS06	0.78	0.94	0.20	0.61	M12	0.03	5.91	4.72	0.79	M8	25x1.2	M8	8.4	M8x30		M12x140	A 8x7x80							
BS10	1.17	1.10	0.20	0.78	M14	0.03	8.27	6.89	0.91	M10	30x1.2	M10	10.5	M10x30	70.81	M14x190	A 8x7x140							
BS20	1.37	1.10	0.20	0.91	M14	-	9.84	8.46	0.91	M10	35x1.5	M10	10.5	M10x35		M14x230	A10x8x160							
BS30	1.57	1.57	0.24	1.09	M20	0.03	11.02	9.45	1.10	M12	40x1.75	M12	13	M12x35	141.61	M20x270	A 12x8x200							
BS40	2.35	2.36	0.24	1.73	M30	-	12.60	10.24	1.77	M20	60x2.0	M20	21	M20x50	371.73	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"



Motors

445-472

General
Duty Cycles acc. to DIN EN 60034
Technical data of the 60 Hz motors
Operation with frequency converter

USA – Energy Policy and Conservation Act

Integral Horsepower Rule (IHP rule)

Department of Energy

10 CFR Part 431: Energy conservation Program: Energy Conservation Standards for Commercial and Industrial Electric Motors

Effective date: June 1, 2016

Motors, as shown below, covered under the IHP rule shall have a nominal full-load efficiency not less than Premium efficiency level shown under §431.25 and NEMA MG1, Table 12-12.

From the IHP rule covered Motors:

- Single speed motor
- Contains a squirrel-cage (MG 1) or cage (IEC) rotor
- Operated on polyphase alternating current (AC) 60-hertz sinusoidal line power
- Rated output PN between 1HP and 500 HP
- 2-, 4-, 6-, or 8-pole motors
- Rated voltage of UN up to 600 V
- Rated for continuous duty (MG 1) operation or for duty type S1 (IEC)

From the IHP rule exempt motors :

- Air-over electric motors
- Component sets of an electric motor
- Liquid-cooled electric motors
- Intermittent duty motors (S2-S8)
- Inverter-only electric motors (S9)
- Multi-speed motors (pole change motors)
- Submersible electric motors
- Where ambient temperatures exceed +40°C (NEMA MG1-2009 Part 14.2)
- Where ambient temperatures are less than -15°C (NEMA MG1-2009 Part 14.2)
- At altitudes exceeding 3300 feet (1000 meters) (NEMA MG1-2009 Part 14.2)
- Single phase motors
- Synchronous AC motors
- Permanent magnet rotor AC motors
- Servo motors

European 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	

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

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 optimized 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:

- **230V / 460V 60 HZ (Standard)**
- 230V / 400V 50 Hz*
- 240V / 415V 50 Hz
- 440V / 60 Hz
- 460V / 60 Hz
- 480V / 60 Hz
- 575V / 60 Hz
- 380V / 660V 50 Hz
- 400V / 690V 50 Hz*
- 415V / 50 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).

Line frequencies

All motors are available with the same power ratings for either 50 or 60 Hz . Increased power models are available on request.

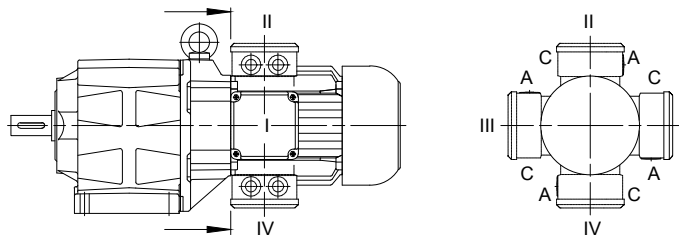
Rating plate

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).

			
Gear Motor		Somerset, NJ 08873	
3~Motor		Year	
Type BS03-34V/D08LA4-TOF/AV			
1.5	HP	1.1	kW
Gear 210		Rpm	230/460 V
Motor 1680		Rpm	60 Hz
COS 0.76		5.0/2.5 A	
 0.4		PINTS	
Insul. Cl. F		IP 65	IM V2/II/A

Terminal box

The cables of motors with and without brakes can be introduced into the motor terminal box from side A, B, C or side D.

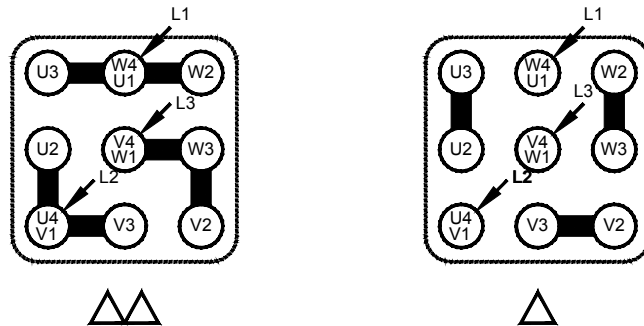


The standard position for the motor terminal box is shown in the dimensional drawings for the geared motors (see chapter 10,11,12 and 13). The terminal box can be installed at any of 3 other positions on request, if on-site space is restricted. The 4 possible positions are 90° offsets around the axis of the motor (dimensional drawing and designation for standard terminal box, see chapter 17 "Dimensional drawing standard terminal box").

Screw- on terminal boxes, see page 486 for inlet screw dimensions.

Please note holes on terminal box sides are for brake installation and are metric.

Motor for dual voltage connection 1 : 2 DD/D



	IEC / EN 60034-8	NEMA MG 1	Colour	
Supply lines	L1 L2 L3	L1 L2 L3		
Motor winding	U1 - U2 U3 - U4 V1 - V2 V3 - V4 W1 - W2 W3 - W4	T1 - T4 T7 - T10 T2 - T5 T8 - T11 T3 - T6 T9 - T12	black- black yellow- yellow blue- blue red- red brown- brown violet- violet	
DD	Connections for the low rated voltage (e.g.: 230 V)			
D	Connections for the high rated voltage (e.g.: 460 V)			

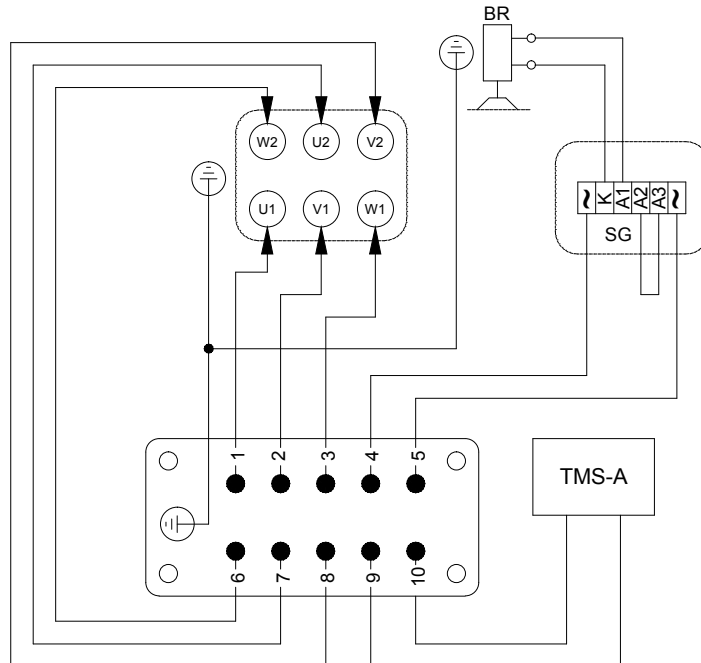
Plug-and-socket connection

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 minimizes 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").



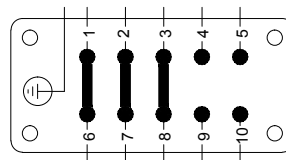
A design with single clamp lever according to the DESINA regulation of the „Verbandes Deutscher Werkzeugmaschinenhersteller“ (VDW) is also available.



△ - or Y-Connection in the plughousing or installation cabinet is performed by the machine manufacturer.



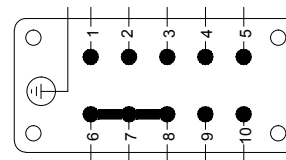
Plug-insert



Han 10ESS



Y Plug-insert



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.

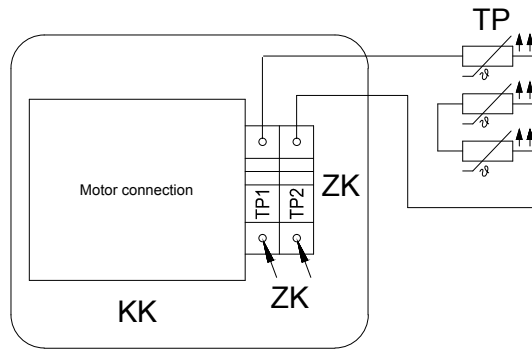
Motor protection



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: 

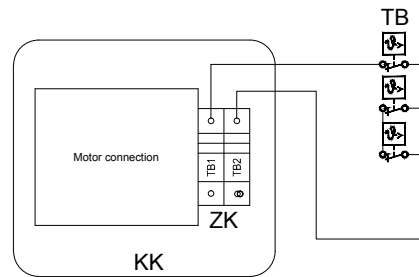
The location of the additional terminals in the drawing is not necessarily identical with the actual arrangement.

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).

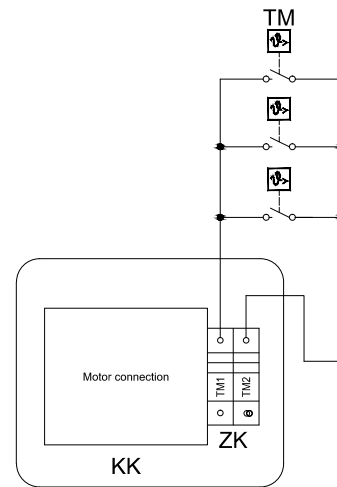
Thermal motor protection with thermostats
(with normally closed contacts)



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
TM	Thermostats with normally opened contacts max. 250VAC 1,6A

The location of the additional terminals in the drawing is not necessarily identical with the actual arrangement.

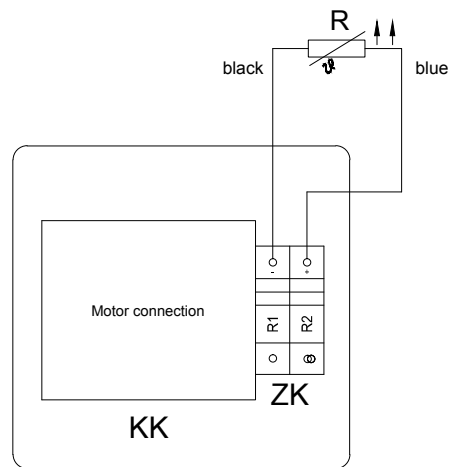
KTY sensors

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.

PT100 sensors

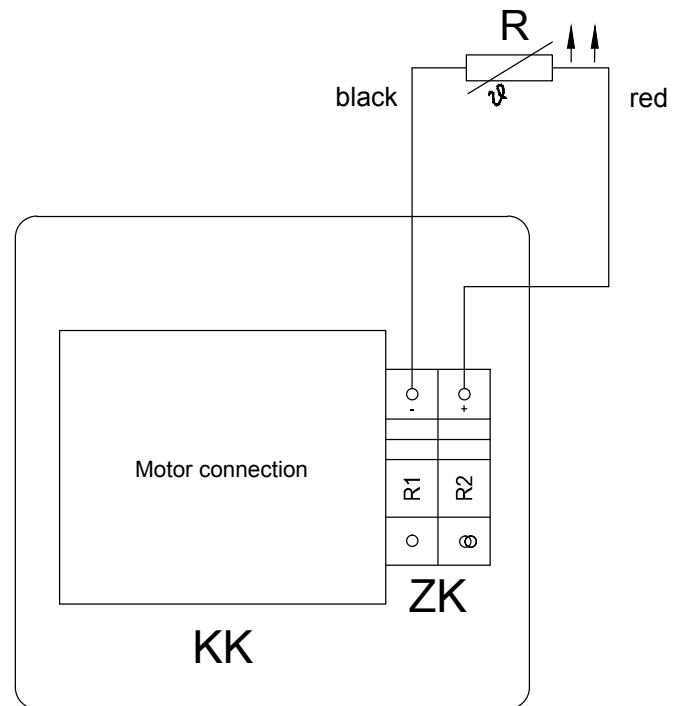
Precise monitoring of motor temperatures is necessary in many fields of industry. Pt100 sensors feature high accuracy, short response time and long-term stability, and they are suitable for use over a wide range of temperatures. Pt100 sensors are available for all motor types at additional cost.

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

Insulation

The gearmotors described in the selection tables of this catalog with the motor sizes D04, D05, D06, D08, D..09S and D..09L are executed in insulation class B. Temperature class F is available on request at extra cost.

4-pole motors D07 and D..09XA4 (2.2 kW) to D..18XA4 (30 kW) and all multi-speed motors are rated in Temperature Class F as standard.

Insulation Class F bestows the winding a multiple protection against high humidity, acidic gases and heavy tropical influences while making the same shock resistant and more resistant to heat. Protection against insects (termites) is guaranteed through the complete enclosure (IP65) as long as the mains cables are encased in metal.

Degree of protection

Bauer motors from motor size D06 are manufactured to IP65 degree of protection as standard. Motor sizes D04 and D05 have smooth housings, degree of protection IP 54, on request in IP65 at extra cost. The motor terminal box is always IP 65.

Special corrosion protection

If high requirements for corrosion resistance are required, the geared motors are available with three levels of enhanced corrosion protection:

CORO1: Finished with two-component paint to protect against chemically aggressive gases and vapours.

CORO2: External paint as CORO1. In addition, sheet steel fan cowl with coating. The screws for the terminal-box cover are non-rusting steel.

CORO3 with IP 66: Available from motor size D06. Corrosion protection as CORO2. All motors manufactured within Temperature Class F. Terminal box compartment separated from motor interior by cast resin. Threaded cable entries and mating faces have special seals. See Bauer special imprint SD1 for more information.

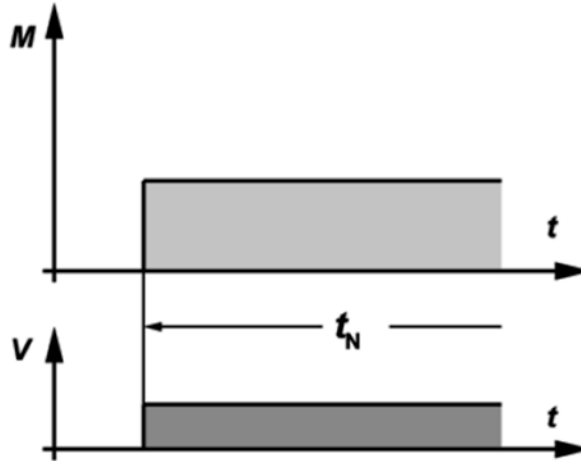
Speed of output shaft

The rated speeds in the selection tables are guidelines for load at rated power. Speed can vary depending on degree of load and temperature (particularly in the case of relatively small motors). Combination gear units for lower speeds are available on request.

General

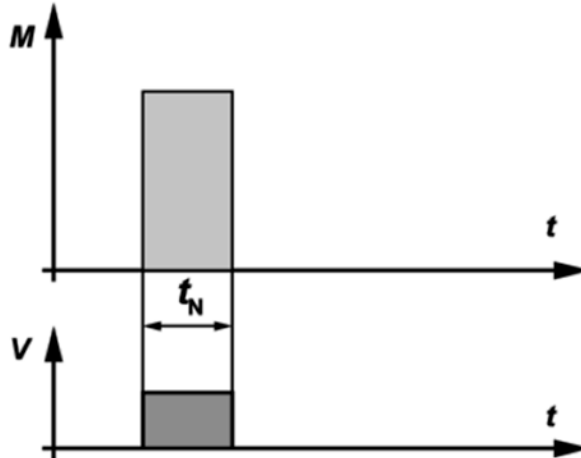
Aside from special drives (such as lifting equipment), standard motors are always designed for continuous running duty. If the drive is operated with frequent on/off cycles, it may be necessary to select a larger motor with a special design. On the other hand, with pronounced short-time duty it is often 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)



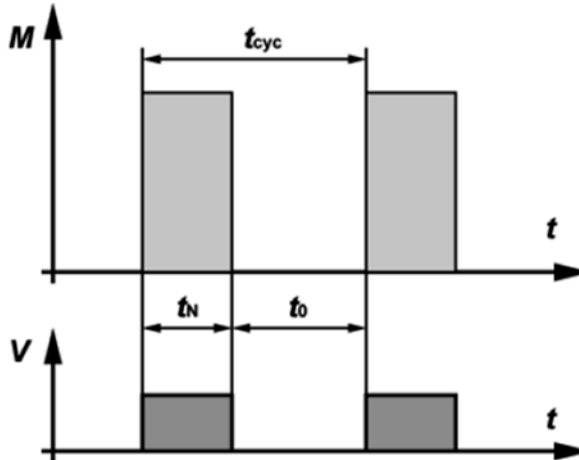
The operating time under rated load is short compared with the subsequent rest period. The standard operating times are 10, 30, 60 and 90 minutes. The equipment can operate for this period under the rated load without exceeding the allowable temperature.

Example: S2 – 60 min

Motors

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-energized. 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 standardized duty cycles are 15, 25, 40 and 60%. The cycle duration is 10 minutes unless otherwise specified.

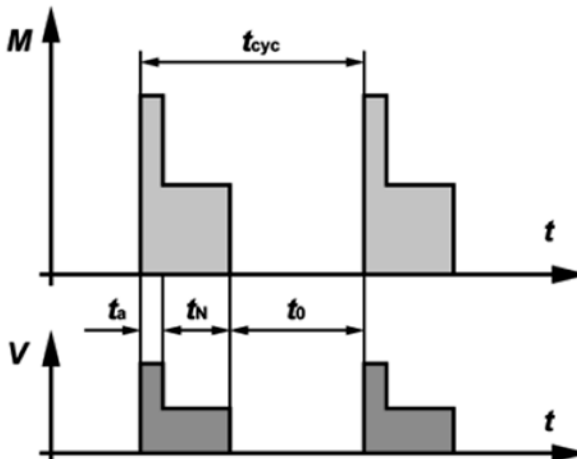
Intermittent periodic duty means that a state of thermal equilibrium is not reached during the load interval.

The duty cycle can be determined as follows:

$$ED = \frac{t_N}{t_{cyc}} \times 100\% = \frac{t_N}{t_N + t_0} \times 100\%$$

Example: S3 – 25%

Intermittent periodic duty with starting (S4)



S4 duty consists of a sequence of identical cycles, each of which is composed of a distinct starting time, a time of operation under constant load, and a rest period with the windings de-energized.

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 standardized duty cycles are 15, 20, 40 and 60 %. The cycle duration is 10 minutes unless otherwise specified.

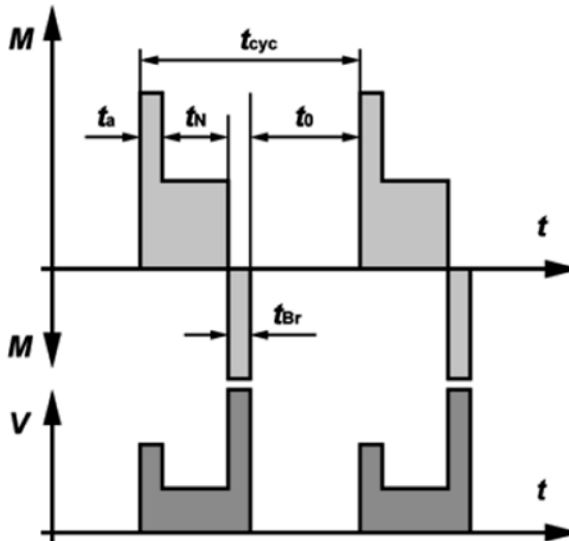
The load cycle corresponds to mode S3, but with additional heating during the starting time that must be taken into account.

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-energized.

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 standardized 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:

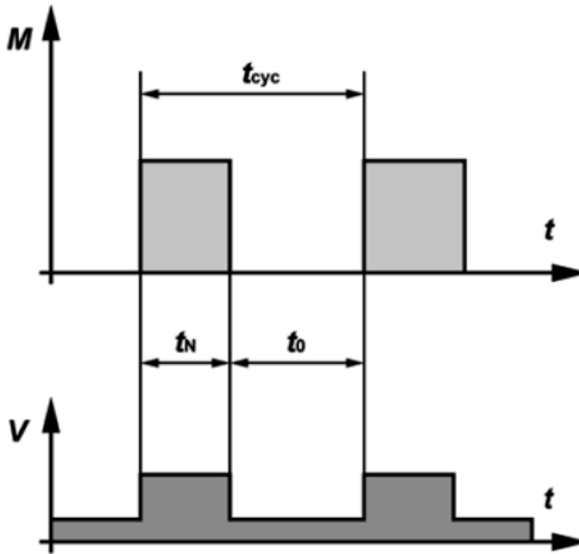
$$ED = \frac{(t_a + t_N + t_{Br})}{t_{cyc}} \times 100\% = \frac{t_a + t_N + t_{Br}}{t_a + t_N + t_{Br} + t_0} \times 100\%$$

Example: S5 – 25%; $J_M = 0.15 \text{ kgm}^2$, $J_{ext} = 0.7 \text{ kgm}^2$

Motors

Duty types as defined by EN 60034

Continuous-operation periodic duty (S6)



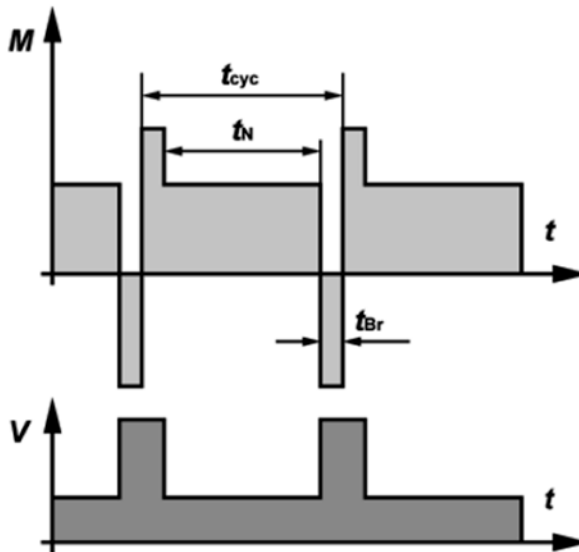
This type of duty corresponds to S3, with the exception that the equipment remains energized during the rest periods. In other words, it operates with no load during these periods. The duty cycle and cycle duration are specified the same way as for S3 duty.

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)

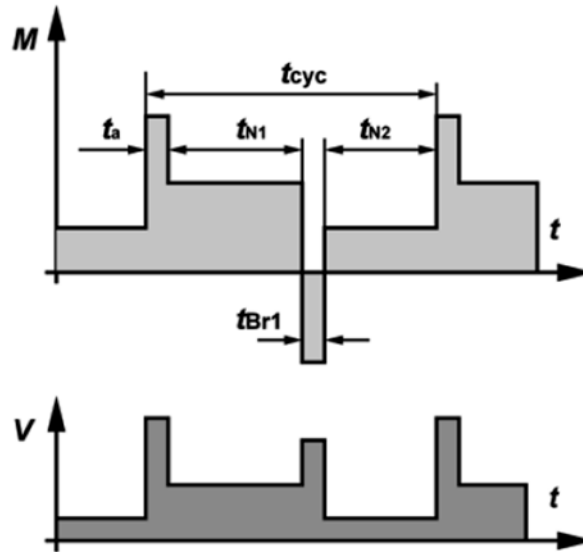


The machine starts up, operates under load, and then is braked electrically, for example by feeding it from a DC power source. Following this, it starts up again immediately. The machine can operate continuously in this manner if the specified moments of inertia of the motor J_M and of the load J_{Ext} 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 – $J_M = 0.4 \text{ kgm}^2$, $J_{ext} = 7.5 \text{ kgm}^2$

Continuous-operation periodic duty with relative load/speed changes (S8)



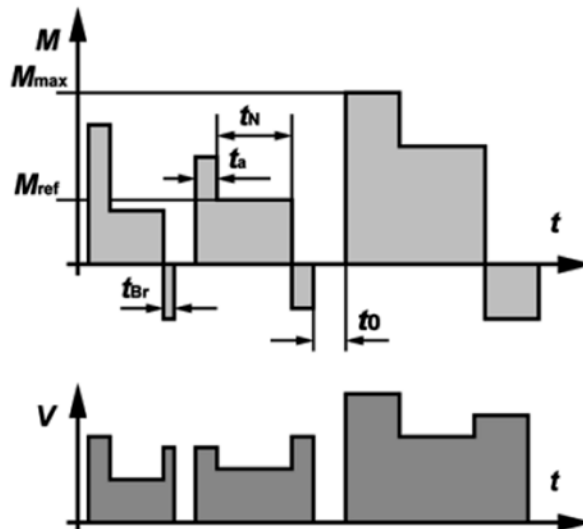
The machine runs continuously under variable load with frequent speed variations. The machine can operate continuously in this manner if at each speed the specified values are not exceeded (moments of inertia J_M and J_{Ext} cycle duration (if other than 10 minutes), rated output and duty cycle. With 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)



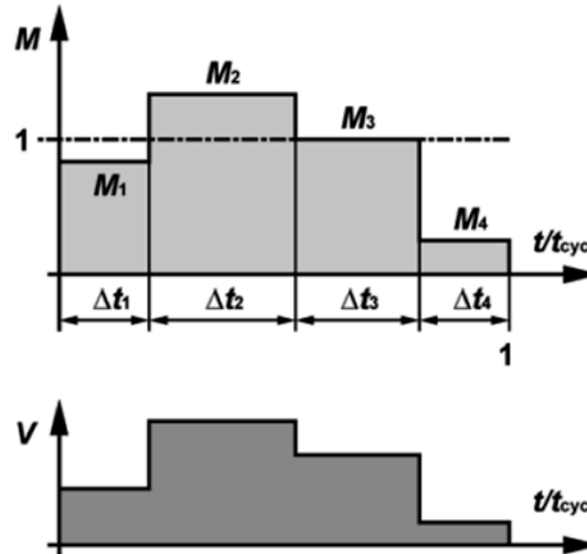
In S9 duty the load and the speed vary non-periodically within the permissible operating range. This includes frequently applied overloads, which must never exceed the reference load.

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.

Motors

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-energized).

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 $p/\Delta t = 1.1/0.4, 1/0.3, 0.9/0.2, r/0.1$; $TL = 0.6$

4-pole motors for continuous running duty S1 and 60 Hz mains frequency

Except for brake motors

P HP	kW	Type	n _N 1/min	M _N lb.f-in	Nm	I _N (460V) A	I _N (575V) A	cosφ	η 100%	η 75%	η 50%	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot}		Brake
																lbf.ft ²	kgm ²	
0.075	0.055	D04LA4	1620	2.8	0.320	0.270	0.22	Y 0.60	-	-	-	2.5	2.5	2.5	3.0	0.00415	0.000175	E003
0.1	0.075	D04LA4	1620	3.8	0.430	0.350	0.28	Y 0.60	-	-	-	2.2	2.1	2.1	2.4	0.00415	0.000175	
0.12	0.09	D04LA4	1620	4.6	0.52	0.380	0.30	Y 0.69	-	-	-	2.7	2.4	2.4	2.9	0.00415	0.000175	
0.15	0.11	D04LA4	1620	5.7	0.64	0.420	0.34	Y 0.73	-	-	-	2.5	2.1	2.1	2.3	0.00415	0.000175	
0.1	0.075	D05LA4	1620	4	0.450	0.320	0.26	Y 0.59	-	-	-	5.5	3.5	3.3	3.5	0.007	0.000295	E003
0.12	0.09	D05LA4	1620	4.7	0.53	0.350	0.28	Y 0.70	-	-	-	3.7	3.3	3.1	3.3	0.007	0.000295	
0.15	0.11	D05LA4	1620	5.8	0.65	0.380	0.30	Y 0.70	-	-	-	3.5	2.7	2.5	2.7	0.007	0.000295	
0.25	0.18	D05LA4	1620	9.4	1.06	0.60	0.48	Y 0.65	-	-	-	3.4	2.8	2.7	2.8	0.007	0.000295	
0.33	0.25	D05LA4	1620	13	1.47	0.80	0.64	Y 0.69	-	-	-	3.2	2.5	2.4	2.5	0.007	0.000295	
0.4	0.30	D05LA4	1620	15.5	1.75	0.93	0.74	Y 0.70	-	-	-	3.1	2.6	2.6	2.7	0.007	0.000295	
0.1	0.075	D06LA4	1620	4	0.450	0.320	0.26	Y 0.59	-	-	-	5.5	3.5	3.3	3.5	0.007	0.000295	E003
0.12	0.09	D06LA4	1620	4.7	0.53	0.350	0.28	Y 0.70	-	-	-	3.7	3.3	3.1	3.3	0.007	0.000295	
0.15	0.11	D06LA4	1620	5.8	0.65	0.380	0.30	Y 0.70	-	-	-	3.5	2.7	2.5	2.7	0.007	0.000295	
0.25	0.18	D06LA4	1620	9.4	1.06	0.60	0.48	Y 0.65	-	-	-	3.4	2.8	2.7	2.8	0.007	0.000295	
0.33	0.25	D06LA4	1620	13	1.47	0.80	0.64	Y 0.69	-	-	-	3.2	2.5	2.4	2.5	0.007	0.000295	
0.4	0.30	D06LA4	1620	15.5	1.75	1.00	0.80	Y 0.70	-	-	-	3.1	2.1	2.0	2.1	0.007	0.000295	
0.5	0.37	D07LA4	1620	18.6	2.1	1.24	0.99	Y 0.66	-	-	-	2.8	2.4	2.4	2.5	0.0091	0.000385	E003, E004
0.75	0.55	D08MA4	1680	27.4	3.1	1.40	1.12	Y 0.75	-	-	-	4.6	2.3	2.1	2.5	0.0273	0.00115	ES(X)010 EH(X)027
0.75	0.55	DPE08XA4	1740	26.7	3.0	1.25	1	Y 0.66	83.3	81.9	77.8	6.1	3.5	3.2	4	0.0403	0.0017	
1	0.75	DPE08XB4	1740	36.4	4.1	1.65	1.32	Y 0.68	84.8	84.5	82	6.4	3.6	3.1	3.8	0.0475	0.002	
1	0.75	DPE09LA4	1750	36.2	4.1	1.5	1.2	Y 0.73	85.8	84.4	81.3	7.2	3.6	3.2	4.2	0.0759	0.0032	ES(X)010/027 EH(X)040
1.5	1.1	DPE09XA4	1750	53.1	6.0	2.1	1.68	Y 0.73	86.7	84.8	81.5	8	4.2	3.7	4.5	0.0902	0.0038	
2	1.5	DPE09XB4	1750	72.4	8.2	2.7	2.16	Y 0.81	86.7	86.4	83.9	7.9	3.4	3	4.2	0.1163	0.0049	
3	2.2	DPE09XB4C	1760	105.7	11.9	4	3.2	Y 0.77	89.5	89.1	86.8	8.2	2.7	2.3	4.1	0.1637	0.0069	
3	2.2	DPE11MA4	1760	105.7	11.9	4	3.2	Y 0.78	89.5	89	86.5	8.5	4.5	3.6	4.9	0.2492	0.0105	ES(X)027/040/070 EH(X)125
4	3	DPE11LA4	1760	144.1	16.3	5.4	4.32	D 0.78	89.5	89.3	87.1	9.9	4.3	3.7	5.2	0.3322	0.014	
5	3.7	DPE11LA4	1760	177.7	20.1	6.7	5.36	D 0.78	89.5	87.5	85.6	9	3.9	3.6	5	0.3322	0.014	
5.5	4	DPE11LB4	1760	192.1	21.7	6.9	5.52	D 0.81	90.7	90.6	89.3	9.4	3.6	3.1	4.6	0.4034	0.017	
6	4.5	DPE11LB4	1760	216.1	24.4	7.6	6.08	D 0.83	90.1	90.6	89.5	8.6	3.2	2.8	4.2	0.4034	0.017	
7.5	5.5	DPE11LB4C	1760	264.1	29.8	9.7	7.76	D 0.78	91.7	91.5	89.9	9	3	2.6	4.8	0.5221	0.022	
10	7.5	DPE13XA4	1760	360.2	40.7	12.9	10.32	D 0.8	91.7	91.7	90.3	9.3	3.9	3.5	4.2	0.9492	0.04	
12.75	9.5	DPE16LB4	1770	453.7	51.3	16.6	13.28	D 0.78	92.4	91.8	90.2	9.1	3.8	3.1	4.1	1.8	0.076	ES(X)125/200
15	11	DPE16LB4	1770	525.3	59.4	19.2	15.36	D 0.78	92.4	92.2	90.6	9	3.6	3	3.8	1.8	0.076	EH(X)400
20	15	DPE16XB4	1770	716.3	80.9	25.1	20.08	D 0.81	93	93	92.6	8.8	3.7	3	3.8	2.3	0.097	ZS(X)300
25	18.5	DPE18LB4	1770	883.4	99.8	31.5	25.2	D 0.79	93.6	93.5	92.1	9.6	4.7	3.8	4.3	4.03	0.17	ES(X)250, EH(X)400
30	22	DPE18XB4	1770	1050.6	118.7	36	28.8	D 0.82	93.6	93.6	92.8	9.7	4.8	3.9	4.4	4.63	0.195	ZS(X)500
40	30	DPE20LA4	1780	1424.6	160.9	47	37.6	D 0.85	94.1	93.7	93.6	9.5	3.5	3.1	4.1	8.35	0.352	ES(X)250 ZS(X)500/800
50	37	DPE22SA4	1780	1757	198.5	56	44.8	D 0.87	94.6	94.7	94.2	9.4	3.5	2.3	4.1	9.23	0.389	ES(X)250
60	45	DPE22MA4	1780	2136.9	241.4	71	56.8	D 0.84	95	95	94.5	9.8	3.5	2.4	4.4	10.25	0.432	ZS(X)500/800

P	Rated torque at 60 Hz mains frequency
n _N	Typical rated rotor shaft speed at 60 Hz Mains frequency
M _N	Rated torque at rotor shaft
I _N	Rated current at 460 V (for other special voltages, multiply by the inverse voltage ratio to convert the current at 460 V to the current at the desired voltage)
cos φ	Power factor
I _A /I _N	Relative starting current
M _A /M _N	Relative starting torque
M _S /M _N	Relative pull-up torque
M _K /M _N	Relative breakdown torque
J _{rot}	Rotor moment of inertia
η	Efficiency with different loads
Brake	Brake configuration (see Section 15)

The standard motor winding configuration is for 460 V / 60 Hz.

All motors designed for thermal class F are suitable for operation over the voltage range 440–480 V or 460 V +/- 10 %.

Note: the current, power factor and torque vary depending on the deviation from 460 V.

See "www.bauergears.com" for more information.

Motors

Technical data of the 60 Hz motors

4-pole motors for continuous running duty S1 and 60 Hz mains frequency

Except for brake motors

P HP	kW	Type	n _N 1/min	M _N lb.f-in	Nm	I _N (230V) A	I _N (460V) A		cosφ	η 100%	η 75%	η 50%	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot}		Brake
																	lbf.ft ²	kgm ²	
0.075	0.055	D04LA4	1620	2.8	0.320	0.54	0.270	DD/D	0.60	-	-	-	2.5	2.5	2.5	3.0	0.00415	0.000175	E003
0.1	0.075	D04LA4	1620	3.8	0.430	0.7	0.350	DD/D	0.60	-	-	-	2.2	2.1	2.1	2.4	0.00415	0.000175	
0.12	0.09	D04LA4	1620	4.6	0.52	0.76	0.380	DD/D	0.69	-	-	-	2.7	2.4	2.4	2.9	0.00415	0.000175	
0.15	0.11	D04LA4	1620	5.7	0.64	0.84	0.420	DD/D	0.73	-	-	-	2.5	2.1	2.1	2.3	0.00415	0.000175	
0.1	0.075	D05LA4	1620	4	0.450	0.64	0.320	DD/D	0.59	-	-	-	5.5	3.5	3.3	3.5	0.007	0.000295	E003
0.12	0.09	D05LA4	1620	4.7	0.53	0.7	0.350	DD/D	0.70	-	-	-	3.7	3.3	3.1	3.3	0.007	0.000295	
0.15	0.11	D05LA4	1620	5.8	0.65	0.76	0.380	DD/D	0.70	-	-	-	3.5	2.7	2.5	2.7	0.007	0.000295	
0.25	0.18	D05LA4	1620	9.4	1.06	1.2	0.60	DD/D	0.65	-	-	-	3.4	2.8	2.7	2.8	0.007	0.000295	
0.33	0.25	D05LA4	1620	13	1.47	1.6	0.80	DD/D	0.69	-	-	-	3.2	2.5	2.4	2.5	0.007	0.000295	
0.4	0.30	D05LA4	1620	15.5	1.75	1.86	0.93	DD/D	0.70	-	-	-	3.1	2.6	2.6	2.7	0.007	0.000295	
0.1	0.075	D06LA4	1620	4	0.450	0.64	0.320	DD/D	0.59	-	-	-	5.5	3.5	3.3	3.5	0.007	0.000295	E003
0.12	0.09	D06LA4	1620	4.7	0.53	0.7	0.350	DD/D	0.70	-	-	-	3.7	3.3	3.1	3.3	0.007	0.000295	
0.15	0.11	D06LA4	1620	5.8	0.65	0.76	0.380	DD/D	0.70	-	-	-	3.5	2.7	2.5	2.7	0.007	0.000295	
0.25	0.18	D06LA4	1620	9.4	1.06	1.2	0.60	DD/D	0.65	-	-	-	3.4	2.8	2.7	2.8	0.007	0.000295	
0.33	0.25	D06LA4	1620	13	1.47	1.6	0.80	DD/D	0.69	-	-	-	3.2	2.5	2.4	2.5	0.007	0.000295	
0.4	0.30	D06LA4	1620	15.5	1.75	1.86	1.00	DD/D	0.70	-	-	-	3.1	2.1	2.0	2.1	0.007	0.000295	
0.5	0.37	D07LA4	1620	18.6	2.1	2.48	1.24	DD/D	0.66	-	-	-	2.8	2.4	2.4	2.5	0.0091	0.000385	E003, E004
0.75	0.55	D08MA4	1680	27.4	3.1	2.8	1.40	DD/D	0.75	-	-	-	4.6	2.3	2.1	2.5	0.0273	0.00115	ES(X)010 EH(X)027
0.75	0.55	DPE08XA4	1740	26.7	3.0	2.5	1.25	DD/D	0.66	83.3	81.9	77.8	6.1	3.5	3.2	4	0.0403	0.0017	
1	0.75	DPE08XB4	1740	36.4	4.1	3.3	1.65	DD/D	0.68	84.8	84.5	82	6.4	3.6	3.1	3.8	0.0475	0.002	
1	0.75	DPE09LA4	1750	36.2	4.1	3	1.5	DD/D	0.73	85.8	84.4	81.3	7.2	3.6	3.2	4.2	0.0759	0.0032	ES(X)010/027 EH(X)040
1.5	1.1	DPE09XA4	1750	53.1	6.0	4.2	2.1	DD/D	0.73	86.7	84.8	81.5	8	4.2	3.7	4.5	0.0902	0.0038	
2	1.5	DPE09XB4	1750	72.4	8.2	5.4	2.7	DD/D	0.81	86.7	86.4	83.9	7.9	3.4	3	4.2	0.1163	0.0049	
3	2.2	DPE09XB4C	1760	105.7	11.9	8	4	DD/D	0.77	89.5	89.1	86.8	8.2	2.7	2.3	4.1	0.1637	0.0069	
3	2.2	DPE11MA4	1760	105.7	11.9	8	4	DD/D	0.78	89.5	89	86.5	8.5	4.5	3.6	4.9	0.2492	0.0105	ES(X)027/040/070 EH(X)125
4	3	DPE11LA4	1760	144.1	16.3	10.8	5.4	DD/D	0.78	89.5	89.3	87.1	9.9	4.3	3.7	5.2	0.3322	0.014	
5	3.7	DPE11LA4	1760	177.7	20.1	13.4	6.7	DD/D	0.78	89.5	87.5	85.6	9	3.9	3.6	5	0.3322	0.014	
5.5	4	DPE11LB4	1760	192.1	21.7	13.8	6.9	DD/D	0.81	90.7	90.6	89.3	9.4	3.6	3.1	4.6	0.4034	0.017	
6	4.5	DPE11LB4	1760	216.1	24.4	15.2	7.6	DD/D	0.83	90.1	90.6	89.5	8.6	3.2	2.8	4.2	0.4034	0.017	
7.5	5.5	DPE11LB4C	1760	264.1	29.8	19.4	9.7	DD/D	0.78	91.7	91.5	89.9	9	3	2.6	4.8	0.5221	0.022	
10	7.5	DPE13XA4	1760	360.2	40.7	25.8	12.9	DD/D	0.8	91.7	91.7	90.3	9.3	3.9	3.5	4.2	0.9492	0.04	
12.75	9.5	DPE16LB4	1770	453.7	51.3	33.2	16.6	DD/D	0.78	92.4	91.8	90.2	9.1	3.8	3.1	4.1	1.8	0.076	ES(X)125/200
15	11	DPE16LB4	1770	525.3	59.4	38.4	19.2	DD/D	0.78	92.4	92.2	90.6	9	3.6	3	3.8	1.8	0.076	EH(X)400
20	15	DPE16XB4	1770	716.3	80.9	50.2	25.1	DD/D	0.81	93	93	92.6	8.8	3.7	3	3.8	2.3	0.097	ZS(X)300
25	18.5	DPE18LB4	1770	883.4	99.8	63	31.5	DD/D	0.79	93.6	93.5	92.1	9.6	4.7	3.8	4.3	4.03	0.17	ES(X)250, EH(X)400
30	22	DPE18XB4	1770	1050.6	118.7	72	36	DD/D	0.82	93.6	93.6	92.8	9.7	4.8	3.9	4.4	4.63	0.195	ZS(X)500
40	30	DPE20LA4	1780	1424.6	160.9	94	47	DD/D	0.85	94.1	93.7	93.6	9.5	3.5	3.1	4.1	8.35	0.352	ES(X)250 ZS(X)500/800
50	37	DPE22SA4	1780	1757	198.5	112	56	DD/D	0.87	94.6	94.7	94.2	9.4	3.5	2.3	4.1	9.23	0.389	ES(X)250
60	45	DPE22MA4	1780	2136.9	241.4	142	71	DD/D	0.84	95	95	94.5	9.8	3.5	2.4	4.4	10.25	0.432	ZS(X)500/800

- P Rated torque at 60 Hz mains frequency
- n_N Typical rated rotor shaft speed at 60 Hz
- Mains frequency
- M_N Rated torque at rotor shaft
- I_N Rated current at 460 V (for other special voltages, multiply by the inverse voltage ratio to convert the current at 460 V to the current at the desired voltage)
- cos φ Power factor
- I_A/I_N Relative starting current
- M_A/M_N Relative starting torque
- M_S/M_N Relative pull-up torque
- M_K/M_N Relative breakdown torque
- J_{rot} Rotor moment of inertia
- η Efficiency with different loads
- Brake Brake configuration (see Section 15)

The standard motor winding configuration is for 460 V / 60 Hz.

All motors designed for thermal class F are suitable for operation over the voltage range 440–480 V or 460 V +/- 10%.

Note: the current, power factor and torque vary depending on the deviation from 460 V.

See "www.bauergears.com" for more information.

Motors

Technical data of the 60 Hz motors

4-pole motors for intermittent periodic duty (S3/S6) and 60 Hz mains frequency

P	DC	Type	n	M _N	I _N (460 V)	Conne- tion	cos φ	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot}
kW			1/min	Nm	A							kgm ²
0.15	15%	D04LA4	1620	0.87	0.56	Y	0.77	2.2	1.8	1.7	1.8	0.000175
0.3	15%	D05LA4	1620	1.75	0.9	Y	0.75	2.8	2.1	2.0	2.1	0.000295
0.3	60%	D06LA4	1620	1.75	0.9	Y	0.75	2.8	2.1	2.0	2.1	0.000295
0.55	60%	D07LA4	1620	3.2	1.78	Y	0.86	3.7	1.8	1.6	1.8	0.000385
0.75	60%	D08MA4	1680	4.2	1.84	Y	0.81	3.7	1.8	1.5	1.9	0.00115
1.1	60%	D08LA4	1680	6.2	2.5	Y	0.82	3.6	1.6	1.5	1.9	0.0015
1.5	60%	D09SA4	1680	8.5	3.3	Y	0.84	4.3	1.9	1.6	2.2	0.00245
2.2	60%	D09LA4	1680	12.5	4.5	Y	0.86	4.3	1.8	1.6	2.1	0.0032
3.0	60%	D09XA4	1680	16.6	6.2	Y	0.86	3.7	1.9	1.8	2.1	0.0038
4.0	60%	D11SA4	1710	22	8.1	D	0.85	4.4	1.8	1.5	2.2	0.0081
5.5	60%	D11MA4	1710	30.5	10.7	D	0.87	4.7	1.6	1.6	2.2	0.0105
7.5	60%	D11LA4	1710	41.5	14.6	D	0.87	5.0	2.0	1.9	2.3	0.014
9.5	60%	D13MA4	1710	53	17.3	D	0.87	5.4	2.1	1.8	2.4	0.029
11	60%	D13LA4	1710	60	20	D	0.84	6.0	2.6	2.3	2.7	0.0335
13.5	60%	D16MA4	1760	73	25.5	D	0.84	6.1	2.3	1.8	2.2	0.057
18.5	60%	D16LA4	1760	100	35	D	0.84	5.6	2.1	1.8	2.3	0.076
22	60%	D16XA4	1760	120	42	D	0.84	5.9	2.3	1.4	2.2	0.087
30	60%	D18LA4	1760	163	53	D	0.89	4.9	2.0	1.6	1.9	0.16
37	60%	D18XA4	1760	200	68	D	0.85	6.0	2.7	2.2	2.5	0.195

P Rated output at 60 Hz mains frequency, S3/S6 duty

DC Permissible duty cycle

n Typical rated rotor shaft speed at 60 Hz
Mains frequency

M_N Rated shaft torque

I_N Rated current at 460 V (for other special voltages, multiply by the inverse voltage ratio to convert the current at 460 V to the current at the desired voltage)

cos φ Power factor

I_A/I_N Relative starting current

M_A/M_N Relative starting torque

M_S/M_N Relative pull-up torque

M_K/M_N Relative breakdown torque

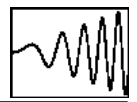
J_{rot} Rotor moment of inertia

The standard motor winding configuration is for 460 V / 60 Hz.

See Bauer Publication SD4xx for additional information.

Motors

Operation with frequency converter / Imperial



The figures given in the table below are for Bauer motors operating in conjunction with the frequency inverter. The torques referred to in tables can be entered for the respective frequencies in continuous operation (S1 = duty factor 100 %).

Motor torques for frequency-converter range 5 Hz - 80 Hz, line frequency 60 Hz

P		Type		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
HP	kW			M	M	M	M	M	M	M	M	I	I	I	I	I	I
				lb.f-in	lb.f-in	lb.f-in	lb.f-in	lb.f-in	lb.f-in	lb.f-in	A	A	A	A	A	A	A
0.075	0.055	D04LA4	Y	1.68	2.12	2.52	2.79	2.83	2.83	2.52	0.265	0.270	0.270	0.270	0.270	0.300	0.310
0.1	0.075	D04LA4	Y	2.26	2.83	3.41	3.72	3.81	3.81	3.19	0.310	0.325	0.340	0.350	0.350	0.390	0.375
0.12	0.09	D04LA4	Y	2.74	3.45	4.12	4.51	4.6	4.6	4.12	0.380	0.380	0.380	0.380	0.380	0.425	0.430
0.15	0.11	D04LA4	Y	3.36	4.25	5.04	5.58	5.66	5.66	4.51	0.405	0.410	0.420	0.420	0.420	0.465	0.430
0.1	0.075	D05LA4	Y	2.39	2.96	3.58	3.89	3.98	3.98	3.58	0.275	0.290	0.310	0.320	0.320	0.355	0.365
0.12	0.09	D05LA4	Y	2.79	3.5	4.2	4.6	4.69	4.69	4.2	0.330	0.340	0.345	0.350	0.350	0.390	0.400
0.15	0.11	D05LA4	Y	3.45	4.29	5.13	5.66	5.75	5.75	5.13	0.340	0.355	0.370	0.380	0.380	0.425	0.430
0.25	0.18	D05LA4	Y	5.58	6.99	8.41	9.2	9.38	9.38	8.41	0.54	0.56	0.59	0.60	0.60	0.67	0.68
0.33	0.25	D05LA4	Y	7.79	9.74	11.68	12.83	13.01	13.01	11.42	0.77	0.78	0.80	0.80	0.80	0.89	0.89
0.4	0.30	D05LA4	Y	9.29	11.59	13.9	15.22	15.49	15.49	13.9	0.89	0.91	0.92	0.93	0.93	1.03	1.06
0.1	0.075	D06LA4	Y	2.39	2.96	3.58	3.89	3.98	3.98	3.58	0.275	0.290	0.310	0.320	0.320	0.355	0.365
0.12	0.09	D06LA4	Y	2.79	3.5	4.2	4.6	4.69	4.69	4.2	0.330	0.340	0.345	0.350	0.350	0.390	0.400
0.15	0.11	D06LA4	Y	3.45	4.29	5.13	5.66	5.75	5.75	5.13	0.340	0.355	0.370	0.380	0.380	0.425	0.430
0.25	0.18	D06LA4	Y	5.58	6.99	8.41	9.2	9.38	9.38	8.41	0.54	0.56	0.59	0.60	0.60	0.67	0.68
0.33	0.25	D06LA4	Y	7.79	9.74	11.68	12.83	13.01	13.01	11.42	0.77	0.78	0.80	0.80	0.80	0.89	0.89
0.4	0.30	D06LA4	Y	9.29	11.59	13.9	15.22	15.49	14.87	11.42	0.84	0.90	0.96	1.00	1.00	1.07	0.97
0.5	0.37	D07LA4	Y	11.42	14.25	17.08	18.59	18.59	18.59	16.64	1.22	1.23	1.24	1.24	1.24	1.38	1.37
0.75	0.55	D08MA4	Y	16.46	20.36	24.78	26.55	27.44	27.44	23.9	1.22	1.28	1.35	1.40	1.40	1.55	1.55
1	0.75	D08MA4	Y	22.13	27.44	33.63	36.29	37.17	37.17	32.75	2.1	2.2	2.2	2.2	2.2	2.5	2.5
0.75	0.55	DPE08XA4	Y	15.93	19.47	23.9	25.67	26.55	26.55	23.9	1.08	1.14	1.21	1.25	1.25	1.39	1.42
1	0.75	DPE08XB4	Y	21.24	27.44	32.75	36.29	36.29	36.29	32.75	1.41	1.5	1.59	1.65	1.65	1.83	1.87
1	0.75	DPE09LA4	Y	21.24	26.55	31.86	35.4	36.29	36.29	31.86	1.24	1.33	1.43	1.5	1.5	1.67	1.7
1.5	1.1	DPE09XA4	Y	31.86	39.83	47.79	52.22	53.1	53.1	47.79	1.81	1.93	2.1	2.2	2.2	2.4	2.5
2	1.5	DPE09XB4	Y	44.25	54.87	65.5	71.69	73.46	73.46	65.5	2.2	2.5	2.7	2.8	2.8	3.1	3.2
3	2.2	DPE09XB4C	Y	63.73	79.66	95.59	104	106	106	95.59	3.2	3.5	3.8	4	4	4.5	4.5
3	2.2	DPE11MA4	Y	63.73	79.66	95.59	104	106	106	95.59	3.4	3.6	3.8	4	4	4.5	4.5
4	3	DPE11LA4	Y	85.85	107	129	142	144	144	129	4.2	4.6	5.1	5.4	5.4	6	6.2
5	3.7	DPE11LA4	Y	106	132	159	174	177	177	159	5.3	5.8	6.4	6.7	6.7	7.5	7.6
5.5	4	DPE11LB4	Y	116	146	175	190	194	194	175	5.1	5.8	6.5	6.9	6.9	7.7	7.8
6	4.5	DPE11LB4	Y	126	158	190	207	207	207	190	5.5	6.2	7.1	7.6	7.6	8.5	8.6
7.5	5.5	DPE11LB4C	Y	159	199	238	261	265	265	238	7.6	8.3	9.2	9.7	9.7	10.8	11
10	7.5	DPE13XA4	Y	212	265	323	354	358	358	323	9.8	10.9	12.1	12.8	12.9	14.3	14.6
12.75	9.5	DPE16LB4	Y	265	331	398	433	442	442	398	12.7	14.1	15.6	16.5	16.6	18.4	18.8
15	11	DPE16LB4	Y	309	389	469	513	522	522	469	14.6	16.2	18	19.1	19.2	21.5	22
20	15	DPE16XB4	Y	429	531	637	708	716	716	637	17.9	20.5	23.5	25	25.5	28	28.5
25	18.5	DPE18LB4	Y	531	663	796	867	885	885	796	23.5	26.5	29.5	31.5	31.5	35	36
30	22	DPE18XB4	Y	619	778	938	1026	1044	1044	938	26.5	30	33.5	36	36	40	41
40	30	DPE20LA4	Y	849	1062	1274	1398	1416	1416	1274	31	36	42	45.5	46	51	52
50	37	DPE22SA4	Y	1062	1327	1593	1743	1770	1770	1593	37	43.5	51	56	56	62	64
60	45	DPE22MA4	Y	1283	1601	1902	2079	2124	2124	1902	48.5	56	65	70	70	78	80

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 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.

Motors

Operation with frequency converter / Metric

Motor torques for frequency-converter range 5 Hz - 80 Hz, line frequency 60 Hz

P		Type		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
HP	kW			M	M	M	M	M	M	M	M	I	I	I	I	I	I
					Nm	Nm	Nm	Nm	Nm	Nm	A	A	A	A	A	A	A
0.075	0.055	D04LA4	Y	0.190	0.240	0.285	0.315	0.320	0.320	0.285	0.265	0.270	0.270	0.270	0.270	0.300	0.310
0.1	0.075	D04LA4	Y	0.255	0.320	0.385	0.420	0.430	0.430	0.360	0.310	0.325	0.340	0.350	0.350	0.390	0.375
0.12	0.09	D04LA4	Y	0.310	0.390	0.465	0.51	0.52	0.52	0.465	0.380	0.380	0.380	0.380	0.380	0.425	0.430
0.15	0.11	D04LA4	Y	0.380	0.480	0.57	0.63	0.64	0.64	0.51	0.405	0.410	0.420	0.420	0.420	0.465	0.430
0.1	0.075	D05LA4	Y	0.270	0.335	0.405	0.440	0.450	0.450	0.405	0.275	0.290	0.310	0.320	0.320	0.355	0.365
0.12	0.09	D05LA4	Y	0.315	0.395	0.475	0.52	0.53	0.53	0.475	0.330	0.340	0.345	0.350	0.350	0.390	0.400
0.15	0.11	D05LA4	Y	0.390	0.485	0.58	0.64	0.65	0.65	0.58	0.340	0.355	0.370	0.380	0.380	0.425	0.430
0.25	0.18	D05LA4	Y	0.63	0.79	0.95	1.04	1.06	1.06	0.95	0.54	0.56	0.59	0.60	0.60	0.67	0.68
0.33	0.25	D05LA4	Y	0.88	1.10	1.32	1.45	1.47	1.47	1.29	0.77	0.78	0.80	0.80	0.80	0.89	0.89
0.4	0.30	D05LA4	Y	1.05	1.31	1.57	1.72	1.75	1.75	1.57	0.89	0.91	0.92	0.93	0.93	1.03	1.06
0.1	0.075	D06LA4	Y	0.270	0.335	0.405	0.440	0.450	0.450	0.405	0.275	0.290	0.310	0.320	0.320	0.355	0.365
0.12	0.09	D06LA4	Y	0.315	0.395	0.475	0.52	0.53	0.53	0.475	0.330	0.340	0.345	0.350	0.350	0.390	0.400
0.15	0.11	D06LA4	Y	0.390	0.485	0.58	0.64	0.65	0.65	0.58	0.340	0.355	0.370	0.380	0.380	0.425	0.430
0.25	0.18	D06LA4	Y	0.63	0.79	0.95	1.04	1.06	1.06	0.95	0.54	0.56	0.59	0.60	0.60	0.67	0.68
0.33	0.25	D06LA4	Y	0.88	1.10	1.32	1.45	1.47	1.47	1.29	0.77	0.78	0.80	0.80	0.80	0.89	0.89
0.4	0.30	D06LA4	Y	1.05	1.31	1.57	1.72	1.75	1.68	1.29	0.84	0.90	0.96	1.00	1.00	1.07	0.97
0.5	0.37	D07LA4	Y	1.29	1.61	1.93	2.1	2.1	2.1	1.88	1.22	1.23	1.24	1.24	1.24	1.38	1.37
0.75	0.55	D08MA4	Y	1.86	2.3	2.8	3.0	3.1	3.1	2.7	1.22	1.28	1.35	1.40	1.40	1.55	1.55
1	0.75	D08MA4	Y	2.5	3.1	3.8	4.1	4.2	4.2	3.7	2.1	2.2	2.2	2.2	2.2	2.5	2.5
0.75	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
1	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
1	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
1.5	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
2	1.5	DPE09XB4	Y	5	6.2	7.4	8.1	8.3	8.3	7.4	2.2	2.5	2.7	2.8	2.8	3.1	3.2
3	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
3	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
4	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
5	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
5.5	4	DPE11LB4	Y	13.2	16.5	19.8	21.5	22	22	19.8	5.1	5.8	6.5	6.9	6.9	7.7	7.8
6	4.5	DPE11LB4	Y	14.3	17.9	21.5	23.5	23.5	23.5	21.5	5.5	6.2	7.1	7.6	7.6	8.5	8.6
7.5	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
10	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
12.75	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
15	11	DPE16LB4	Y	35	44	53	58	59	59	53	14.6	16.2	18	19.1	19.2	21.5	22
20	15	DPE16XB4	Y	48.5	60	72	80	81	81	72	17.9	20.5	23.5	25	25.5	28	28.5
25	18.5	DPE18LB4	Y	60	75	90	98	100	100	90	23.5	26.5	29.5	31.5	31.5	35	36
30	22	DPE18XB4	Y	70	88	106	116	118	118	106	26.5	30	33.5	36	36	40	41
40	30	DPE20LA4	Y	96	120	144	158	160	160	144	31	36	42	45.5	46	51	52
50	37	DPE22SA4	Y	120	150	180	197	200	200	180	37	43.5	51	56	56	62	64
60	45	DPE22MA4	Y	145	181	215	235	240	240	215	48.5	56	65	70	70	78	80

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 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.

Motors

Operation with frequency converter / Imperial

Motor torques for frequency-converter range 5 Hz - 140 Hz, line frequency 60 Hz

P		Type		5 Hz	10 Hz	20 Hz	30 Hz	104 Hz	120 Hz	140 Hz	5 Hz	10 Hz	20 Hz	30 Hz	104 Hz	120 Hz	140 Hz
HP	kW			M	M	M	M	M	M	M	M	I	I	I	I	I	I
				lb.f-in	lb.f-in	lb.f-in	lb.f-in	lb.f-in	lb.f-in	lb.f-in	A	A	A	A	A	A	A
0.075	0.055	D04LA4	D	1.68	2.12	2.52	2.79	2.83	2.83	2.52	0.460	0.465	0.470	0.470	0.470	0.52	0.53
0.1	0.075	D04LA4	D	2.26	2.83	3.41	3.72	3.81	3.81	3.14	0.54	0.56	0.59	0.61	0.61	0.67	0.64
0.12	0.09	D04LA4	D	2.74	3.45	4.12	4.51	4.6	4.6	4.07	0.66	0.66	0.66	0.66	0.66	0.73	0.75
0.15	0.11	D04LA4	D	3.36	4.25	5.04	5.58	5.66	5.66	4.43	0.70	0.71	0.72	0.73	0.73	0.80	0.74
0.1	0.075	D05LA4	D	2.39	2.96	3.58	3.89	3.98	3.98	3.54	0.475	0.50	0.54	0.56	0.56	0.61	0.63
0.12	0.09	D05LA4	D	2.79	3.5	4.2	4.6	4.69	4.69	4.16	0.57	0.59	0.60	0.61	0.61	0.67	0.69
0.15	0.11	D05LA4	D	3.45	4.29	5.13	5.66	5.75	5.75	5.04	0.59	0.61	0.64	0.66	0.66	0.73	0.75
0.25	0.18	D05LA4	D	5.58	6.99	8.41	9.2	9.38	9.38	8.32	0.93	0.97	1.01	1.04	1.04	1.15	1.18
0.33	0.25	D05LA4	D	7.79	9.74	11.68	12.83	13.01	13.01	11.15	1.34	1.35	1.38	1.39	1.39	1.53	1.52
0.4	0.30	D05LA4	D	9.29	11.59	13.9	15.22	15.49	15.49	13.81	1.54	1.57	1.60	1.61	1.62	1.78	1.83
0.1	0.075	D06LA4	D	2.39	2.96	3.58	3.89	3.98	3.98	3.54	0.475	0.50	0.54	0.56	0.56	0.61	0.63
0.12	0.09	D06LA4	D	2.79	3.5	4.2	4.6	4.69	4.69	4.16	0.57	0.59	0.60	0.61	0.61	0.67	0.69
0.15	0.11	D06LA4	D	3.45	4.29	5.13	5.66	5.75	5.75	5.04	0.59	0.61	0.64	0.66	0.66	0.73	0.75
0.25	0.18	D06LA4	D	5.58	6.99	8.41	9.2	9.38	9.38	8.32	0.93	0.97	1.01	1.04	1.04	1.15	1.18
0.33	0.25	D06LA4	D	7.79	9.74	11.68	12.83	13.01	13.01	11.15	1.34	1.35	1.38	1.39	1.39	1.53	1.52
0.4	0.30	D06LA4	D	9.29	11.59	13.9	15.22	15.49	15.22	11.15	1.45	1.55	1.66	1.73	1.74	1.88	1.67
0.5	0.37	D07LA4	D	11.42	14.25	17.08	18.59	18.59	18.59	16.37	2.2	2.2	2.2	2.2	2.2	2.4	2.4
0.75	0.55	D08MA4	D	16.46	20.36	24.78	26.55	27.44	27.44	23.01	2.2	2.2	2.4	2.5	2.5	2.7	2.7
1	0.75	D08MA4	D	22.13	27.44	33.63	36.29	37.17	37.17	31.86	3.6	3.7	3.8	3.8	3.8	4.2	4.2
0.75	0.55	DPE08XA4	D	15.93	19.47	23.9	25.67	26.55	26.55	23.01	1.86	1.97	2.1	2.2	2.2	2.4	2.5
1	0.75	DPE08XB4	D	21.24	27.44	32.75	36.29	36.29	36.29	32.75	2.5	2.6	2.8	2.8	2.9	3.2	3.2
1	0.75	DPE09LA4	D	21.24	26.55	31.86	35.4	36.29	36.29	31.86	2.2	2.3	2.5	2.6	2.6	2.9	3
1.5	1.1	DPE09XA4	D	31.86	39.83	47.79	52.22	53.1	53.1	46.91	3.2	3.4	3.6	3.8	3.8	4.1	4.2
2	1.5	DPE09XB4	D	44.25	54.87	65.5	71.69	73.46	73.46	64.61	3.8	4.2	4.6	4.9	4.9	5.4	5.5
3	2.2	DPE09XB4C	D	63.73	79.66	95.59	104	106	106	93.82	5.6	6.1	6.6	6.9	7	7.7	7.9
3	2.2	DPE11MA4	D	63.73	79.66	95.59	104	106	106	93.82	5.8	6.2	6.6	6.9	7	7.7	7.9
4	3	DPE11LA4	D	85.85	107	129	142	144	144	128.34	7.3	8	8.8	9.3	9.4	10.3	10.6
5	3.7	DPE11LB4	D	117	146	175	190	195	195	173	8.8	9.9	11.1	11.9	12	13.2	13.6
5.5	4	DPE11LA4C	D	114	142	171	186	190	190	169	9.1	10.1	11.1	11.7	11.8	13	13.4
6	4.5	DPE11LB4	D	127	158	190	208	208	208	186	9.4	10.7	12.2	13.1	13.2	14.5	14.9
7.5	5.5	DPE11LB4C	D	159	199	239	261	266	266	235	13.1	14.4	15.8	16.7	16.9	18.5	19
10	7.5	DPE13XA4	D	212	266	323	354	358	358	319	16.9	18.8	21	22.5	22.5	25	25.5
12.75	9.5	DPE16LB4	D	266	332	398	434	443	443	394	22	24.5	27	29	29	32	32.5
15	11	DPE16LB4	D	310	389	469	513	522	522	460	25.5	28	31.5	33	33.5	37	38
20	15	DPE16XB4	D	429	531	637	708	717	717	637	31	35.5	40.5	43.5	43.5	48	49.5
25	18.5	DPE18LB4	D	531	664	797	867	885	885	788	41	45.5	51	55	55	60	62
30	22	DPE18XB4	D	620	779	938	1027	1044	1044	929	45.5	52	58	62	63	69	71
40	30	DPE20LA4	D	850	1062	1275	1398	1416	1416	1257	54	63	73	79	80	88	91
50	37	DPE22SA4	D	1062	1328	1593	1744	1770	1770	1575	64	76	88	96	97	107	110
60	45	DPE22MA4	D	1283	1602	1903	2080	2124	2124	1903	84	97	111	120	122	134	137

Field weakening for frequencies above 104 Hz, winding for **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 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.

Motors

Operation with frequency converter / Metric

Motor torques for frequency-converter range 5 Hz - 140 Hz, line frequency 60 Hz

P		Type	D	5 Hz	10 Hz	20 Hz	30 Hz	104 Hz	120 Hz	140 Hz	5 Hz	10 Hz	20 Hz	30 Hz	104 Hz	120 Hz	140 Hz
HP	kW			M	M	M	M	M	M	M	M	I	I	I	I	I	I
				Nm	Nm	Nm	Nm	Nm	Nm	Nm	A	A	A	A	A	A	A
0.075	0.055	D04LA4	D	0.190	0.240	0.285	0.315	0.320	0.320	0.285	0.460	0.465	0.470	0.470	0.470	0.52	0.53
0.1	0.075	D04LA4	D	0.255	0.320	0.385	0.420	0.430	0.430	0.355	0.54	0.56	0.59	0.61	0.61	0.67	0.64
0.12	0.09	D04LA4	D	0.310	0.390	0.465	0.51	0.52	0.52	0.460	0.66	0.66	0.66	0.66	0.66	0.73	0.75
0.15	0.11	D04LA4	D	0.380	0.480	0.57	0.63	0.64	0.64	0.50	0.70	0.71	0.72	0.73	0.73	0.80	0.74
0.1	0.075	D05LA4	D	0.270	0.335	0.405	0.440	0.450	0.450	0.400	0.475	0.50	0.54	0.56	0.56	0.61	0.63
0.12	0.09	D05LA4	D	0.315	0.395	0.475	0.52	0.53	0.53	0.470	0.57	0.59	0.60	0.61	0.61	0.67	0.69
0.15	0.11	D05LA4	D	0.390	0.485	0.58	0.64	0.65	0.65	0.57	0.59	0.61	0.64	0.66	0.66	0.73	0.75
0.25	0.18	D05LA4	D	0.63	0.79	0.95	1.04	1.06	1.06	0.94	0.93	0.97	1.01	1.04	1.04	1.15	1.18
0.33	0.25	D05LA4	D	0.88	1.10	1.32	1.45	1.47	1.47	1.26	1.34	1.35	1.38	1.39	1.39	1.53	1.52
0.4	0.30	D05LA4	D	1.05	1.31	1.57	1.72	1.75	1.75	1.56	1.54	1.57	1.60	1.61	1.62	1.78	1.83
0.1	0.075	D06LA4	D	0.270	0.335	0.405	0.440	0.450	0.450	0.400	0.475	0.50	0.54	0.56	0.56	0.61	0.63
0.12	0.09	D06LA4	D	0.315	0.395	0.475	0.52	0.53	0.53	0.470	0.57	0.59	0.60	0.61	0.61	0.67	0.69
0.15	0.11	D06LA4	D	0.390	0.485	0.58	0.64	0.65	0.65	0.57	0.59	0.61	0.64	0.66	0.66	0.73	0.75
0.25	0.18	D06LA4	D	0.63	0.79	0.95	1.04	1.06	1.06	0.94	0.93	0.97	1.01	1.04	1.04	1.15	1.18
0.33	0.25	D06LA4	D	0.88	1.10	1.32	1.45	1.47	1.47	1.26	1.34	1.35	1.38	1.39	1.39	1.53	1.52
0.4	0.30	D06LA4	D	1.05	1.31	1.57	1.72	1.75	1.72	1.26	1.45	1.55	1.66	1.73	1.74	1.88	1.67
0.5	0.37	D07LA4	D	1.29	1.61	1.93	2.1	2.1	2.1	1.85	2.2	2.2	2.2	2.2	2.2	2.4	2.4
0.75	0.55	D08MA4	D	1.86	2.3	2.8	3.0	3.1	3.1	2.6	2.2	2.2	2.4	2.5	2.5	2.7	2.7
1	0.75	D08MA4	D	2.5	3.1	3.8	4.1	4.2	4.2	3.6	3.6	3.7	3.8	3.8	3.8	4.2	4.2
0.75	0.55	DPE08XA4	D	1.8	2.2	2.7	2.9	3	3	2.6	1.86	1.97	2.1	2.2	2.2	2.4	2.5
1	0.75	DPE08XB4	D	2.4	3.1	3.7	4.1	4.1	4.1	3.7	2.5	2.6	2.8	2.8	2.9	3.2	3.2
1	0.75	DPE09LA4	D	2.4	3	3.6	4	4.1	4.1	3.6	2.2	2.3	2.5	2.6	2.6	2.9	3
1.5	1.1	DPE09XA4	D	3.6	4.5	5.4	5.9	6	6	5.3	3.2	3.4	3.6	3.8	3.8	4.1	4.2
2	1.5	DPE09XB4	D	5	6.2	7.4	8.1	8.3	8.3	7.3	3.8	4.2	4.6	4.9	4.9	5.4	5.5
3	2.2	DPE09XB4C	D	7.2	9	10.8	11.8	12	12	10.6	5.6	6.1	6.6	6.9	7	7.7	7.9
3	2.2	DPE11MA4	D	7.2	9	10.8	11.8	12	12	10.6	5.8	6.2	6.6	6.9	7	7.7	7.9
4	3	DPE11LA4	D	9.7	12.2	14.6	16.1	16.3	16.3	14.5	7.3	8	8.8	9.3	9.4	10.3	10.6
5	3.7	DPE11LB4	D	13.2	16.5	19.8	21.5	22	22	19.6	8.8	9.9	11.1	11.9	12	13.2	13.6
5.5	4	DPE11LA4C	D	12.9	16.1	19.3	21	21.5	21.5	19.1	9.1	10.1	11.1	11.7	11.8	13	13.4
6	4.5	DPE11LB4	D	14.3	17.9	21.5	23.5	23.5	23.5	21	9.4	10.7	12.2	13.1	13.2	14.5	14.9
7.5	5.5	DPE11LB4C	D	18	22.5	27	29.5	30	30	26.5	13.1	14.4	15.8	16.7	16.9	18.5	19
10	7.5	DPE13XA4	D	24	30	36.5	40	40.5	40.5	36	16.9	18.8	21	22.5	22.5	25	25.5
12.75	9.5	DPE16LB4	D	30	37.5	45	49	50	50	44.5	22	24.5	27	29	29	32	32.5
15	11	DPE16LB4	D	35	44	53	58	59	59	52	25.5	28	31.5	33	33.5	37	38
20	15	DPE16XB4	D	48.5	60	72	80	81	81	72	31	35.5	40.5	43.5	43.5	48	49.5
25	18.5	DPE18LB4	D	60	75	90	98	100	100	89	41	45.5	51	55	55	60	62
30	22	DPE18XB4	D	70	88	106	116	118	118	105	45.5	52	58	62	63	69	71
40	30	DPE20LA4	D	96	120	144	158	160	160	142	54	63	73	79	80	88	91
50	37	DPE22SA4	D	120	150	180	197	200	200	178	64	76	88	96	97	107	110
60	45	DPE22MA4	D	145	181	215	235	240	240	215	84	97	111	120	122	134	137

Field weakening for frequencies above 104 Hz, winding for **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 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.

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

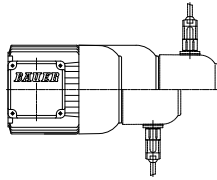
This, in turn, means that short-term overload by a factor of 1.6 is permissible for starting from a low speed, for example. An increase in torque in the field-weakening range due to a reduction in duty factor is possible only under certain conditions; the 1.6x S1 torque generally cannot be achieved

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.



Page

Motor-mounted components

473-498

- 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

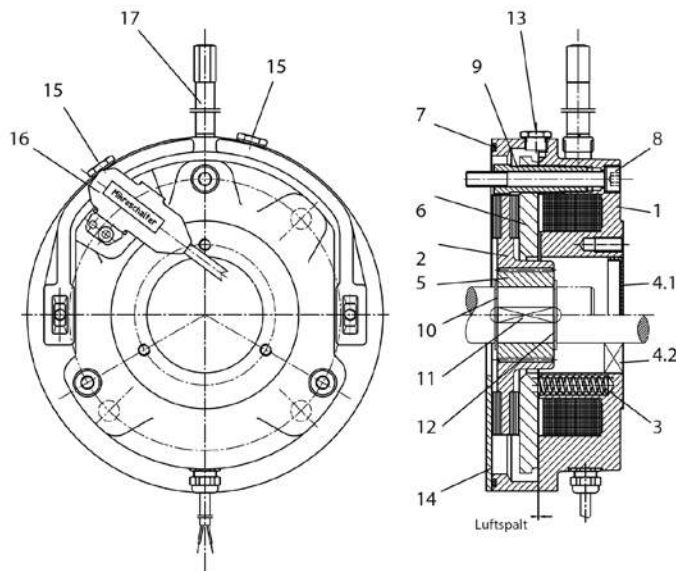


Figure 1: Construction of ES(X) brake

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

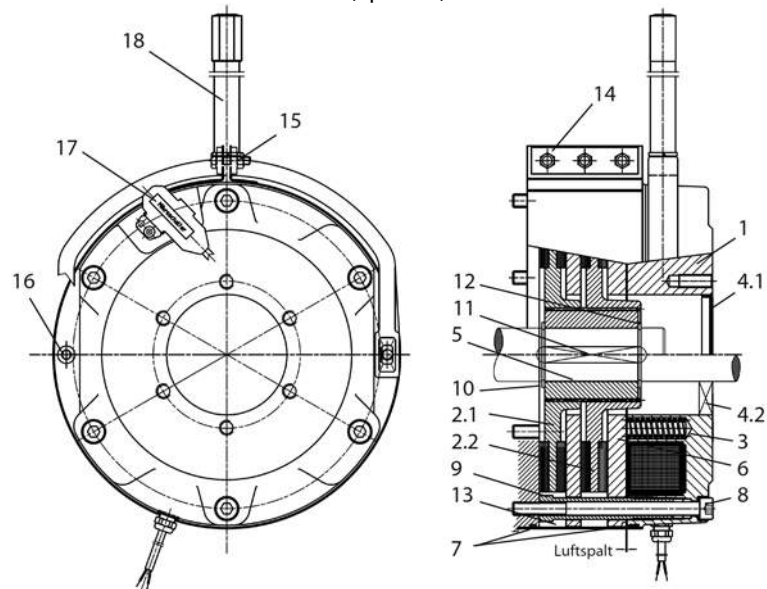


Figure 2: ZS(X) brake construction

Motor Mounted Components

Brake

Options

- Manual release, non-locking or locking
- Microswitch for monitoring operation or wear

Construction

1	Electromagnet housing
2	Brake disc 2.1 and 2.2
3	Compression spring
4.1	Cover plate
4.2	Shaft seal with through shaft
5	Drive 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

$$J_{\text{ext}'} = \frac{J_{\text{ext}}}{i^2}$$

or the external moment of inertia reduced by the gear ratio of the gear unit to the value at the rotor shaft.

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$$J_{\text{ext}'} = \frac{J_{\text{ext}}}{i^2}$$

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 ZX5xx 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.

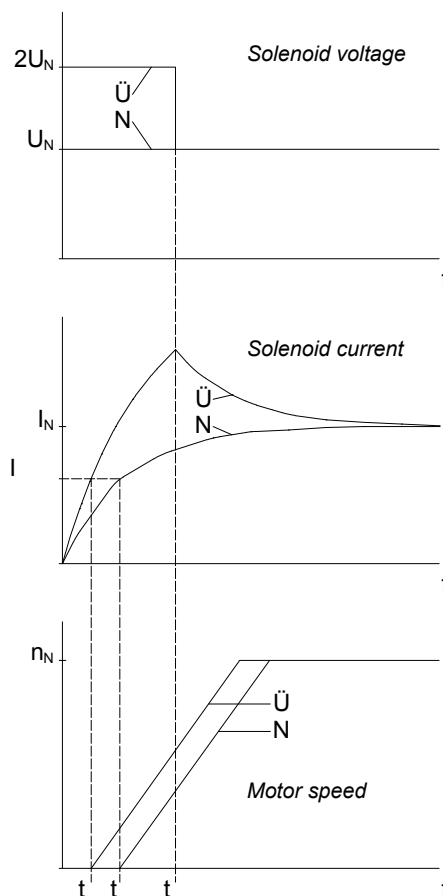


Figure 3: Idealized curves of coil voltage, coil current and motor speed with normal excitation (N) and overexcitation (Ü).
 t_U : overexcitation time; t_{AN} , $t_{AÜ}$: Response time with normal excitation and overexcitation.

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.

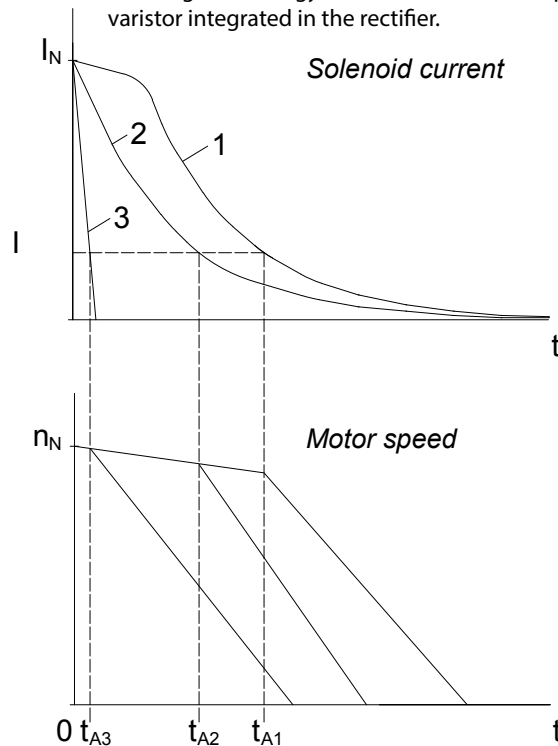


Figure 4: Idealized coil current and motor speed curves after switching off power on the AC side (1 and 2) or DC side (3)

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}	W _{max}	W _{th}	W _L	t _a	t _{AC}	t _{DC}	P _{el}	J
	[Nm]	[10 ³ J]	[10 ³ J]	[10 ⁶ J]	[ms]	[ms]	[ms]	[W]	[10 ⁻³ kgm ²]
E003B9	3	1.5	-	-	35	150	15	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		
ES070A9	70	3.5	-	-	120	150	18	85	0.86
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	105	1.22
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	135	6.65
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	180	19.5
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	140	38.5
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.

Motor Mounted Components

Brake

Specifications of service brakes

The maximum braking energy values stated here do not apply to brake motors for use in areas with potentially explosive atmospheres. Refer to separate data in appropriate documents for explosion-proof drives.

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	35	0.045
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	140	38.5
ZSX800A7	480	120	1150	1550	1550	320	920	80		
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:

380–420 V 50/60 Hz (brake coil voltage 180 V DC)

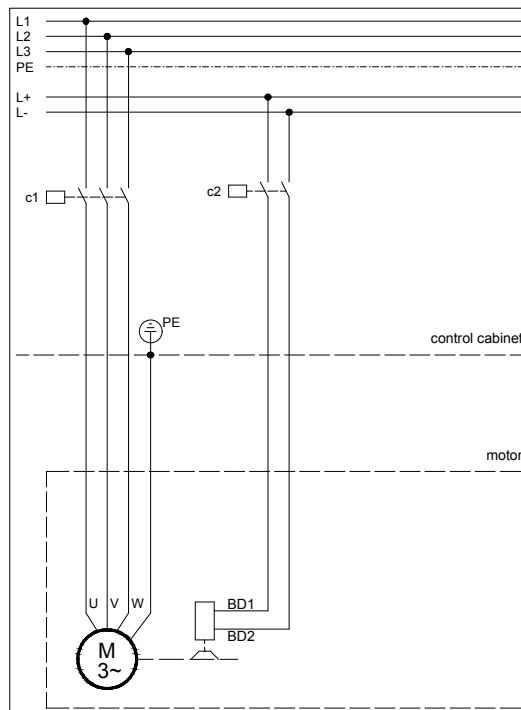
220–230 V 50/60 Hz (brake coil voltage 105 V DC)

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

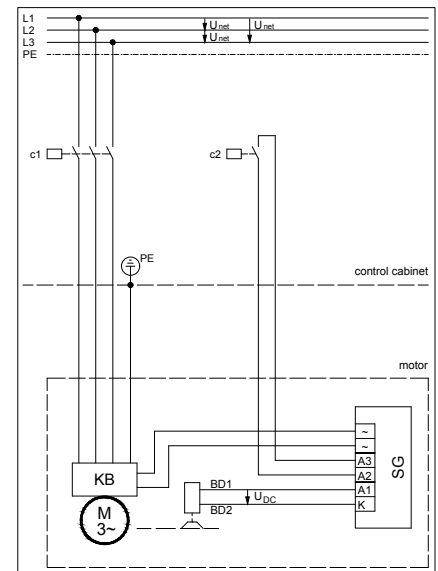
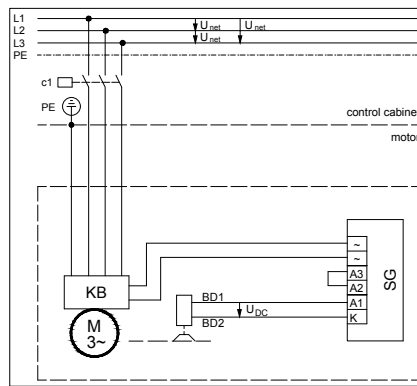
max. 1.5 mm² with wire end sleeve

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.

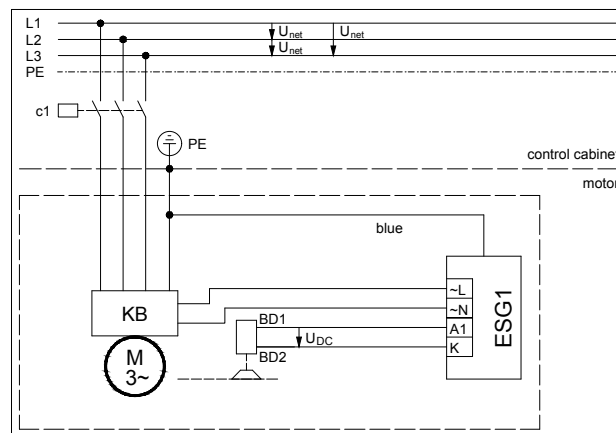


Voltage connection for the rectifier from the motor terminal block or cage clamp (see Rectifier Connection on Motor Terminal Block or Cage Clamp)

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

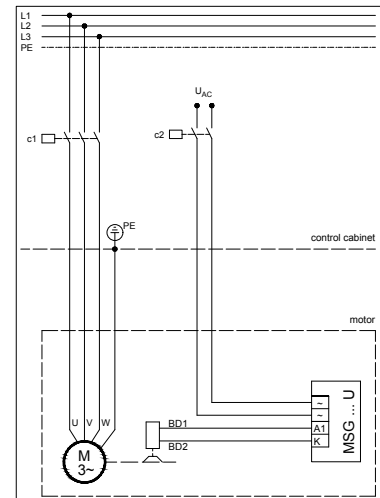
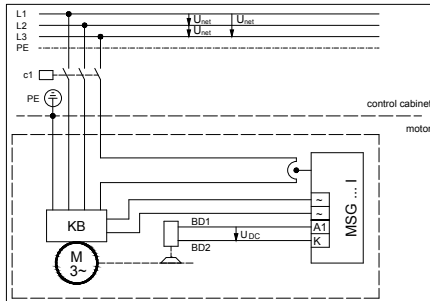
Brake

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

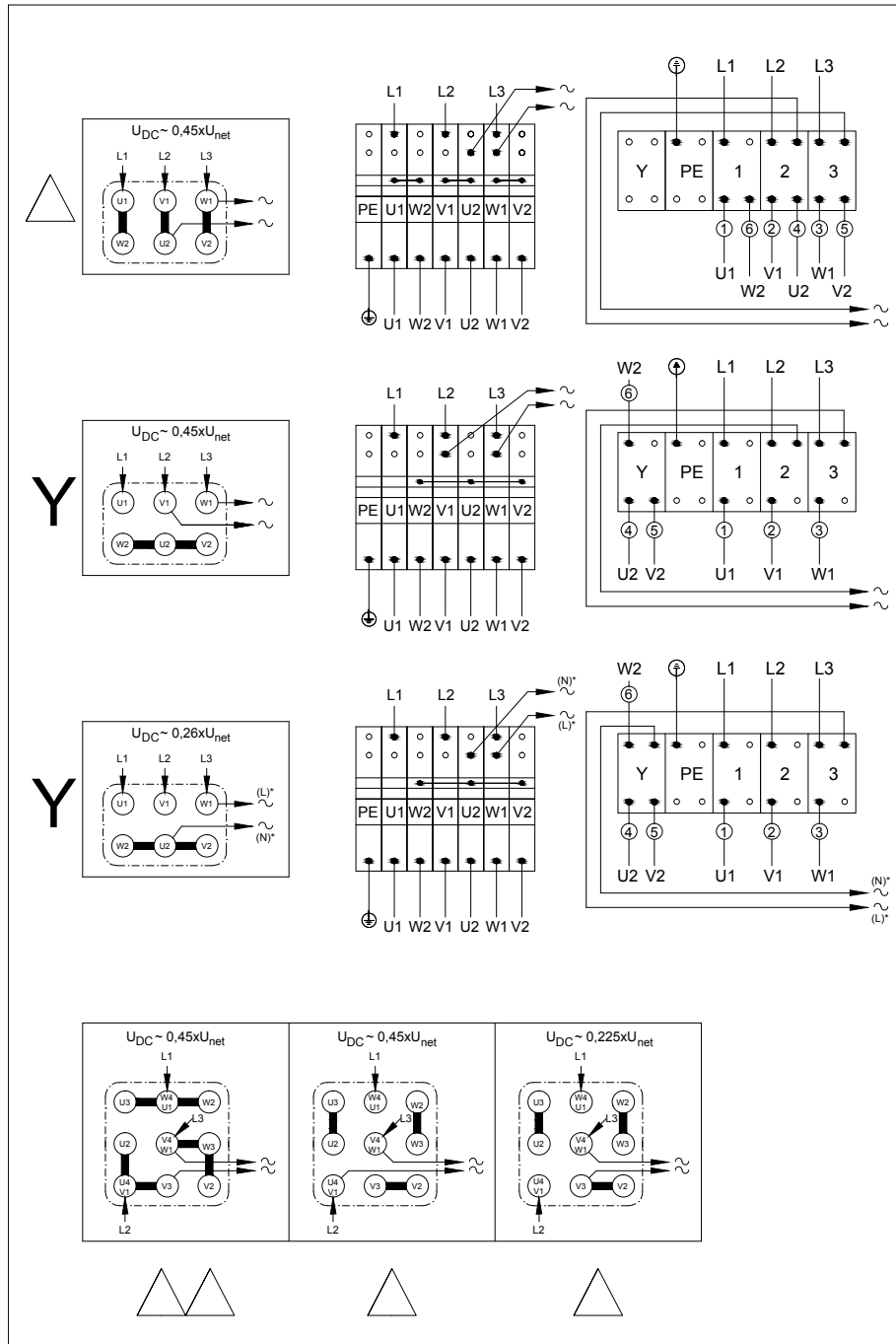
In cases where there are high motor switching frequencies, the brake can be de-energized more rapidly with this rectifier thereby significantly reducing the thermal stress on the motor. In addition, interrupting the brake's DC circuit by electronic means significantly reduces response times. Depending 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.



Motor Mounted Components

Brake

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 IP 65.

Special corrosion protection

If high requirements for corrosion resistance apply, the brakes are available with two levels of enhanced corrosion protection:

- CORO1 (C1):** Finished with two-component paint to protect against chemically aggressive gases and vapors.
- CORO2 (C2):** Same finish as CORO1. The screws for the terminal-box cover are non-rusting steel. The mechanical internals of the brake are made of corrosion-proofed material.

CE mark

BAUER geared motors with externally mounted spring-loaded brakes bear the CE mark.

The brakes comply with:

- the **Machinery Directive (2006/42/EG)**
Manufacturer's declaration available on request
- the **Low-Voltage Directive (2006/95/EG)**
Documented by the CE mark
- the **EMC Directive (2004/108/EG)**
Documented by the CE mark

See BAUER special print SD33.. for more information.

Explosion protection

Brakes for use in hazardous areas are subject to special regulations. Please consult our support specialists in these special cases.

Back stop (RR, RL)

Motors of size D..09 (1,1kW) up to D..18 (30kW) are available with backstop. The locking rotational direction clockwise (RR) or anticlockwise (RL) is to 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 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 fibers 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 motor sizes D..16 and D..18 and brake motor 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		
1 ~ Δ (Δ)		(mm)			(A)	W
	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

Heavy cast fan impeller

A heavy cast fan impeller can be used instead of the standard fan impeller with D05 to D09 motors in applications requiring soft start or a reduction in switching shock when poles are changed. The heavy cast fan impeller reduces the permissible switching frequency of the motor.

Classification, motors and cast-iron fan impeller

Type of motor	J _{sl} (Moment of inertia of the cast-iron fan impeller)
D05/D06	0,0014 kgm ²
D07	0,0014 kgm ²
D08	0,004 kgm ²
D09	0,007 kgm ²

Motor Mounted Components

Encoder System

Shaft encoder (G)

Bauer gear motors can be fitted with either an incremental encoder or an absolute encoder for special applications. Both the standard incremental encoder and the absolute encoder are optimized and suitable for use with all modern inverters.

Bauer standard encoders as from motor frame size D05 (0,18kW) are protected against mechanical damage by means of a protective cover (Additional Dimension Sheet see chapter 17).

Special features: standard incremental encoder:

- Robust mount
- Degree of protection IP66
- EMC-tested
- Protected against polarity reversal
- Supply voltage 8-30 V DC
- A-, B- and N-lines and inverted signals or output signals as preferred
- HTL output circuit (TTL on request)
- 1024 pulses per revolution

Special features: standard absolute encoder

- Enclosure: IP66
- Steps per revolution: 8192 (13 Bit)
- Number of turns: 4096 (12 Bit) shaft turns
- Execution of electronic: SSI (Synchronous-Serial Interface)
- Output code: Gray-Code
- Supply voltage: 11-27 VDC
- Loss efficiency (no load): ≤ 3 Watt
- Output driver: RS-422 (2-wire)

Motor Mounted Components

Incremental rotary encoder

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 optimized solutions to be developed, such as

- speed controllers with a wide adjustment range
- accurate speed control
- constant-speed control
- position control

Supply voltage:	10–30 V DC with HTL 5 V DC with differential TTL
Output signals:	HTL A, B and N tracks; optional TTL
Pulses per revolution:	1024 Optional 512, 2048, ..., 4096, or others on request
Enclosure rating:	IP 65 (optional IP 67)
Temperature range:	-40° C to +85° 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%	10–30 V DC	5–30 V DC
No-load current consumption With inversion:	typ. 40 mA / max. 90 mA	typ. 40 mA max. 90 mA	typ. 50 mA / max. 100 mA	typ. 50 mA max. 100 mA
Allowable load per channel: Pulse rate:	max. ±20 mA max. 300 kHz	max. ±20 mA max. 300 kHz	max. ±20 mA max. 300 kHz	max. ±20 mA max. 300 kHz ³
High signal level:	min. 2.5 V	min. 2.5 V	min. UB – 1 V	min. UB – 2.0 V
Low signal level:	max. 0.5 V	max. 0.5 V	max. 0.5 V	max. 0.5 V
Rise time t _r	max. 200 ns	max. 200 ns	max. 1 µs	max. 1 µs
Fall time t _f	max. 200 ns	max. 200 ns	max. 1 µs	max. 1 µs
Outputs short-circuit proof ¹	Yes ²	Yes ²	Yes	Yes
Supply voltage reverse polarity protection:	Yes	No	Yes	No

CE compliant in accordance with EN 61000-6-2, EN 61000-6-3 and EN 61000-6-4

¹ With applied supply voltage within specified range

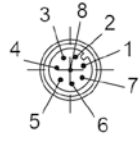
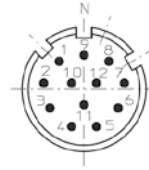
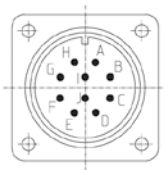
² Only one channel may be shorted at the same time:
(with UB = 5 V, shorting to another channel, 0 V or +UB is allowed)
(with UB = 5–30 V, shorting to another channel or 0 V is allowed)

³ Maximum cable length 30 m

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:	0V GND	+U _B	0V 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')
Cable; lead colour:	WH	BN	GY PK	RD BU	GN	YE	GY	PK	BU	RD	Shield

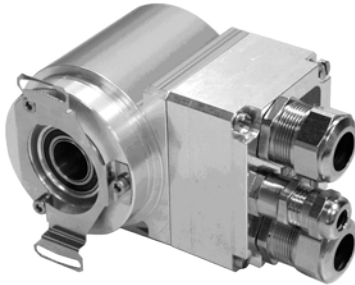
¹ Shield connected to plug housing.

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	IP 65

²With 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 μ s ≤ t_m ≤ 25 μ s (20 μ s 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

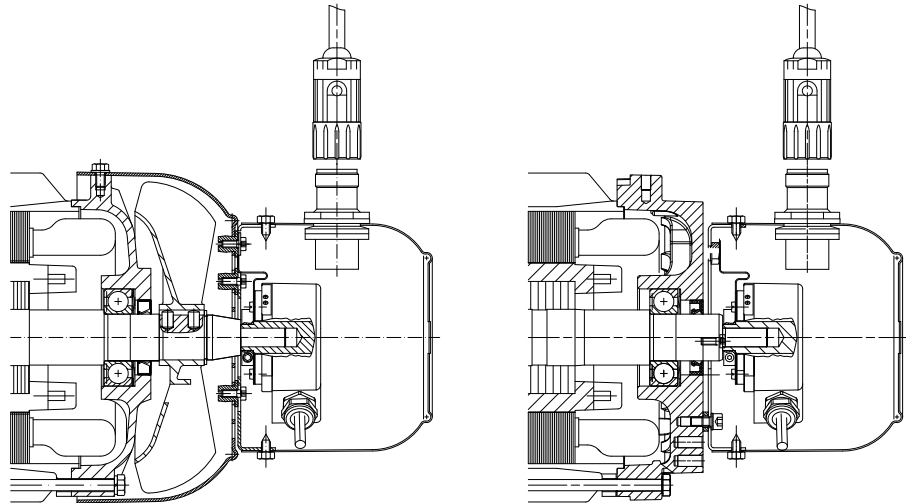
Vibration (EN 60068-2-6:1996)	≤ 100 m/s ² , sinusoidal 50–2,000 Hz
Shock (EN 60068-2-27:1995)	≤ 1000 m/s ² , half-cycle sinusoidal 11 ms
EMC	
- Interference emission compliant with EN 61000-6-3:2007	
- Interference immunity compliant with EN 61000-6-2:2006	
Operating temperature	0° C to +60° C; optionally -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	IP 65

²⁾ With mating connector fitted and/or cable glands fitted and tightened

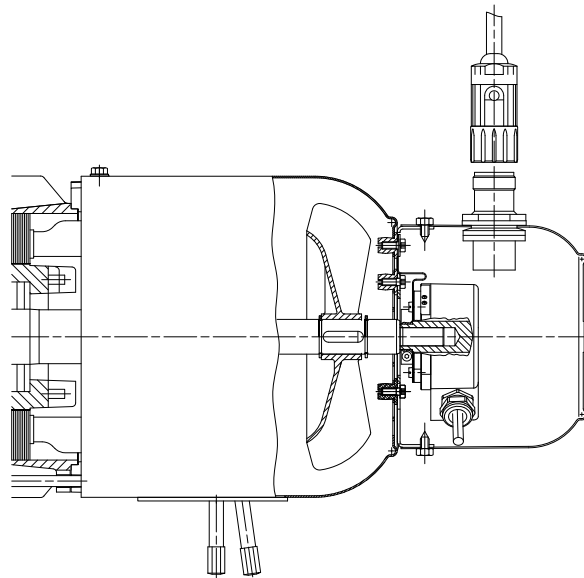
In addition to the angular position within a rotation, multiturn encoders detect multiple rotations. An internal reduction gear mechanism connected to the motor shaft is used to detect the number of turns. Consequently, the value measured by a multiturn encoder consists of the current angular position 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.

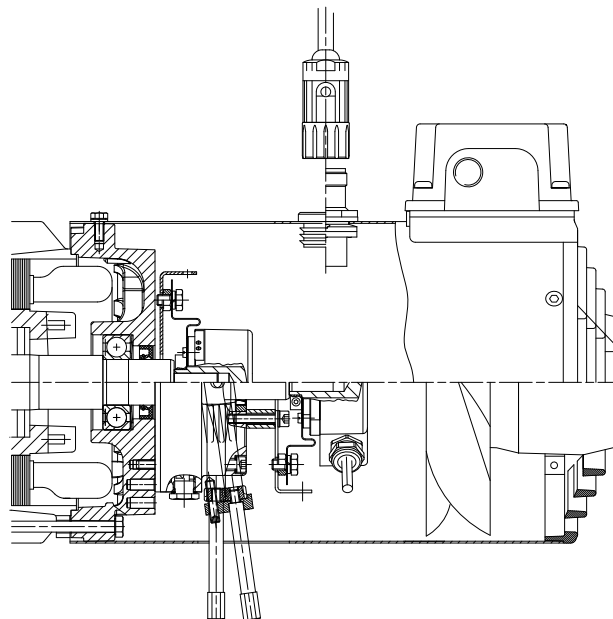
Motor and encoder

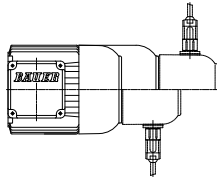


Motor, brake and encoder



Motor and forced ventilation





**Additional dimensional drawings for
motor-mounted components**

499-532

Motor length comparison

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

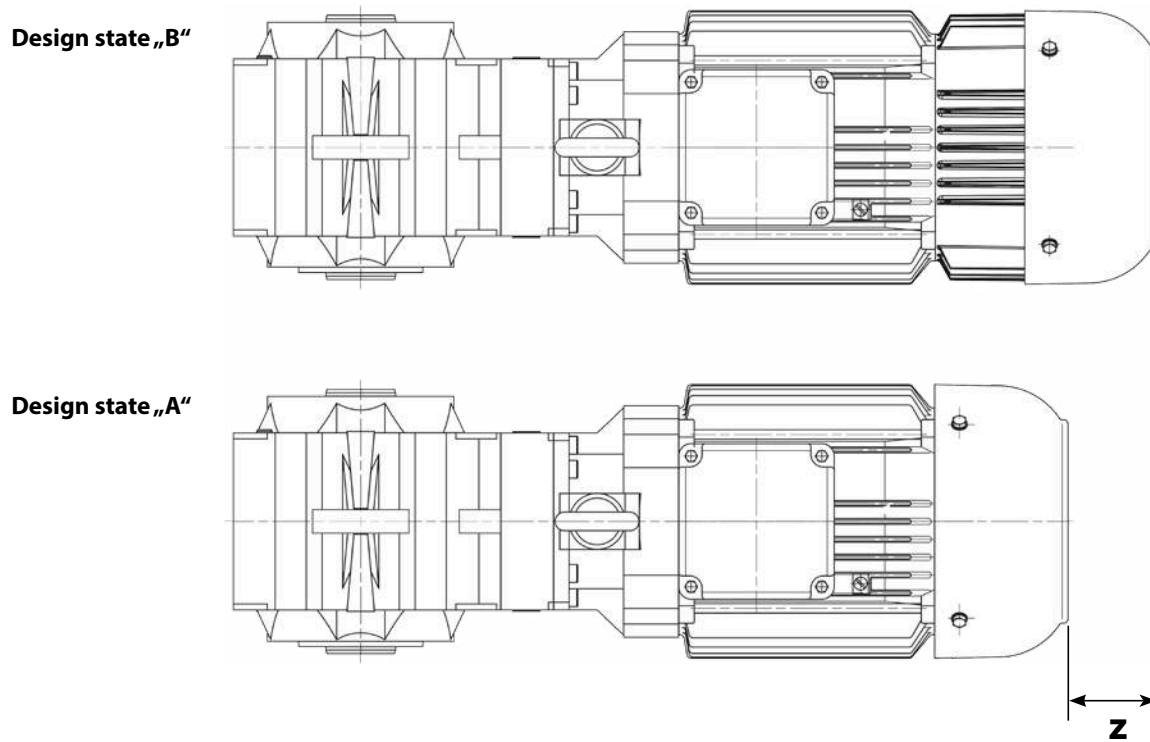
Dimensional drawing, motor with brake and independent fan

Dimensional drawing, motor with encoder

Dimensional drawing, motor with brake and encoder

Dimensional drawing, motor in IEC design

Motor Length Comparison



Motor Frame Size ¹	Additional length Design state „A“ to „B“	
	z [mm]	z [inch]
DPE08.B4	30	1.18
DPE09.B4	58	2.28
DPE11.B4	78	3.07

¹ all motors in design state „A“ remain unchanged



Motors in design state „B“ = Extended Length

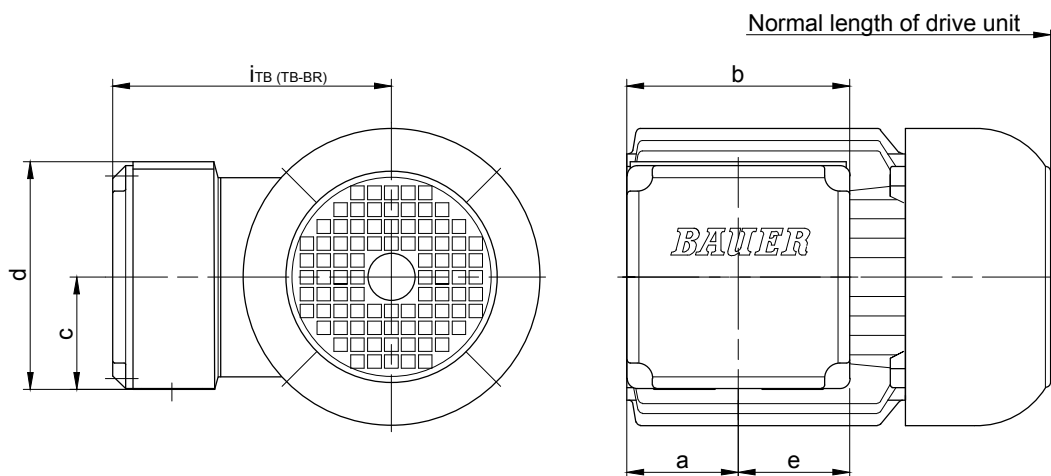
Type Example: BK70-74/DPE08XB4

Comment: Dimension „z“ is to be added to the dimensions „a*“, „d*“ and „d_{ML}*“ taken from the standard dimension sheet.

Motor-mounted components

Dimensional Drawings Imperial

Standard terminal box Imperial



Motor	Dimensions (inch)						Code	Cable entry Major (M) Minor (N)
	a	b	c	d	e	iTB (TB-BR)		
D04..	1.57	3.54	1.87	3.74	1.77	4.41	TB112..	M=NPT=1/2"; N=2xM20x1.5
D05..	2.17	3.54	1.87	3.74	1.77	4.61	TB112..	M=NPT=1/2"; N=2xM20x1.5
D06..	1.77	3.54	1.87	3.74	1.77	4.65	TB112..	M=NPT=1/2"; N=2xM20x1.5
D07..	1.77	3.54	1.87	3.74	1.77	4.65	TB112..	M=NPT=1/2"; N=2xM20x1.5
D..08..	1.61	3.54	1.87	3.74	1.77	5.32	TB112..	M=NPT=1/2"; N=2xM20x1.5
D..09..	2.44	5.20	2.60	5.32	2.82	6.46	TB212..	M=NPT=3/4"; N=2xM25x1.5
D..11..	2.44	5.20	2.60	5.32	2.82	7.13	TB212..	M=NPT=3/4"; N=2xM25x1.5
D..13..	3.07	6.14	3.07	6.22	3.29	8.50	TB312..	M=NPT=1"; N=2xM25x1.5
D..16..	2.91	6.14	3.07	6.22	3.29	9.53	TB312..	M=NPT=1"; N=2xM25x1.5
D..18..	3.70	7.87	3.94	7.91	4.15	11.30	TB412..	M=NPT=1 1/2"; N=2xM25x1.5

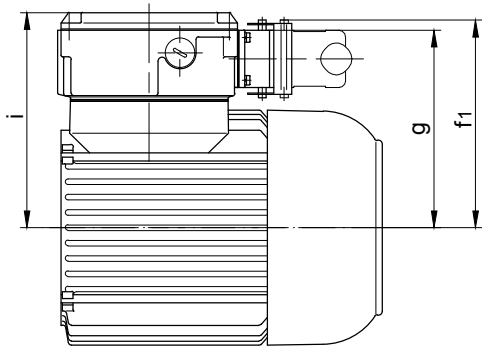
Motor with Brake	Dimensions (inch)						Code	Cable entry Major (M) Minor (N)
	a	b	c	d	e	i		
D04..	1.57	3.54	1.87	3.74	2.68	5.18	TBR112..	M=NPT=1/2"; N=2xM20x1.5
from D05..	see above							

The actual gearbox design can vary from the geometry shown.

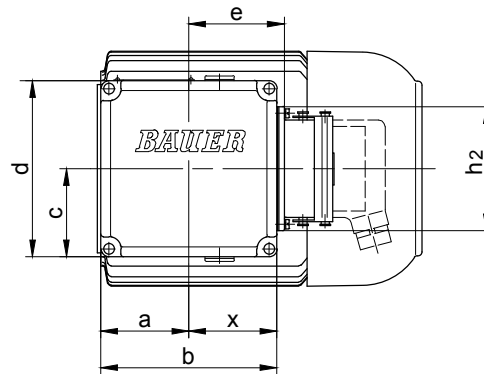
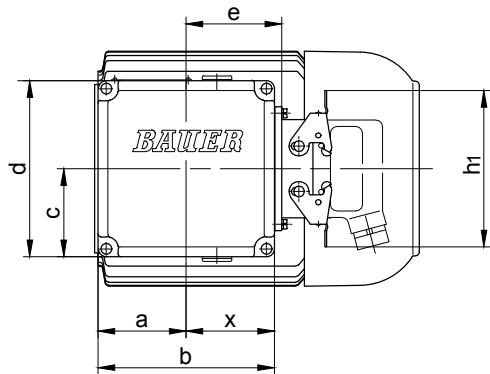
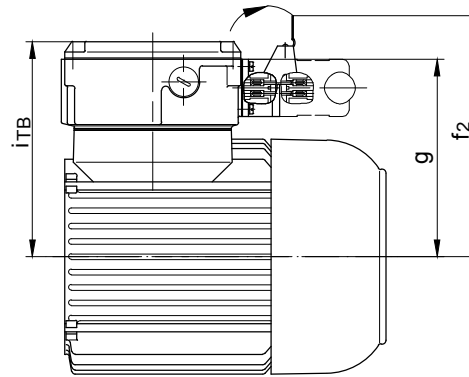
Motor-mounted components Dimensional Drawings Imperial

Plug-connector terminal box Imperial

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

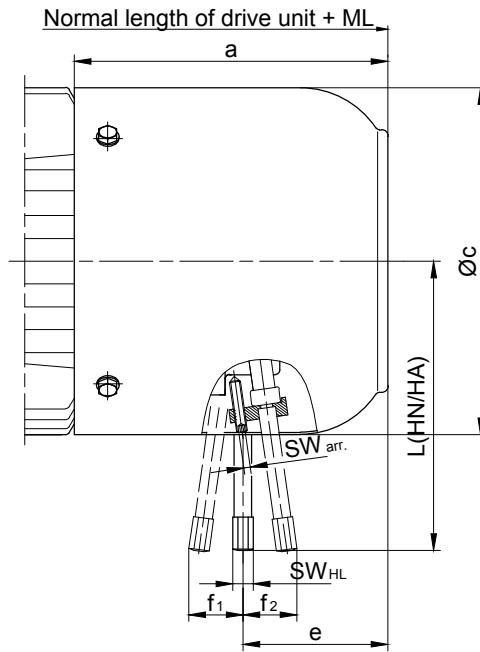
Motor	Size of terminal box	a	b	c	d	e	f ₁	f ₂	g	h ₁	h ₂	iTB	x
D04	TBS1	1.18	3.54	2.07	4.17	1.93	4.67	5.79	4.37	4.61	3.66	4.90	1.81
D05	TBS1	2.24	3.54	2.07	4.17	1.93	4.86	5.98	4.57	4.61	3.66	5.10	1.81
D06	TBS1	1.77	3.54	2.07	4.17	1.93	4.94	6.06	4.65	4.61	3.66	5.18	1.81
D07	TBS1	1.77	3.54	2.07	4.17	1.93	4.94	6.06	4.65	4.61	3.66	5.18	1.81
D..08	TBS1	1.77	3.54	2.07	4.17	1.93	5.65	6.77	5.35	4.61	3.66	5.89	1.81
D..09	TBS2	2.44	5.20	2.60	5.32	2.82	6.24	7.36	6.22	4.61	3.66	6.46	2.70
D..11	TBS2	2.44	5.20	2.60	5.32	2.82	6.91	7.52	6.54	4.61	3.66	7.13	2.70
D..13	TBS3	3.07	6.14	3.07	6.22	3.29	7.83	8.96	7.54	4.61	3.66	8.50	3.13
D..16	TBS3	2.91	6.14	3.07	6.22	3.29	8.86	9.98	8.86	4.61	3.66	9.53	3.13
D..18	TBS4	3.70	7.87	3.94	7.91	4.15	10.12	11.77	10.12	4.61	3.66	11.30	3.96
D..20L	TBS4	3.70	7.87	3.94	7.91	4.15	10.79	11.77	10.49	4.61	3.66	11.95	3.96
D..22S	TBS4	3.70	7.87	3.94	7.91	4.15	10.79	11.77	10.49	4.61	3.66	11.95	3.96
D..22M													

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

Dimensional Drawings Imperial

Standard brake Imperial



Motor Type	Brake Type	ML (inch) Additional length with brake	Dimensions (inch)								Add. weight lbs	
			a	Øc	e	f ₁	f ₂	L(HN/HA)	SW _{HL}	SW _{arr.}		
D04 D05 D06 D07	E003 E003 / E004	1.71 1.65	3.82 4.02	4.35 4.84	2.30 2.36 2.30	0.81	0.94	3.78/4.01	0.43	0.43	2.20	
D..08	ES(X)010	2.60	5.55	6.14	2.68	-	1.14	5.20	0.32	0.10	5.73	
D..09	ES(X)010	3.66	6.81	6.93	3.90	-	1.14	5.20	0.32	0.10	5.95	
	ES(X)027				3.58	-	1.40	6.38			9.26	
D..11	ES(X)027	3.86	7.68	8.58	4.06	-	1.40	6.38	0.32	0.10	9.92	
	ES(X)040				3.94	-	1.46	6.77			13.89	
	ES(X)070				3.78	-	1.36	7.48			0.47	0.16
D..13	ES(X)040	4.37	8.86	10.16	4.92	-	1.61	7.95	0.47	0.16	14.33	
	ES(X)070				4.76	-	1.50	8.86			18.74	
	ES(X)125				4.57	-	1.77	8.78			27.56	
D..16	ES(X)125	5.67	11.42	12.20	5.83	-	1.91	9.61	0.47	0.16	29.76	
	ES(X)200				5.55	-	1.97	10.08			41.89	
	ZS(X)300				4.41	-					48.50	
D..18	ES(X)250	5.91	13.35	13.70	6.02	-	2.30	11.26	0.47	0.16	61.73	
	ZS(X)500				4.84	-			0.75	0.20	66.14	
D..20L	ES(X)250	5.02	15.71	14.29	7.20	1.93	-	11.26	0.75	0.20	60.63	
	ZS(X)500				6.00							12.32
	ZS(X)800				5.87							
D..22S	ES(X)250	5.02	15.71	14.29	7.20	1.93	-	11.26	0.75	0.20	61.07	
	ZS(X)500				6.00							12.32
	ZS(X)800				5.87							
D..22M	ES(X)250	5.02	15.71	14.29	7.20	1.93	-	11.26	0.75	0.20	135.58	
	ZS(X)500				6.00							12.32
	ZS(X)800				5.87							

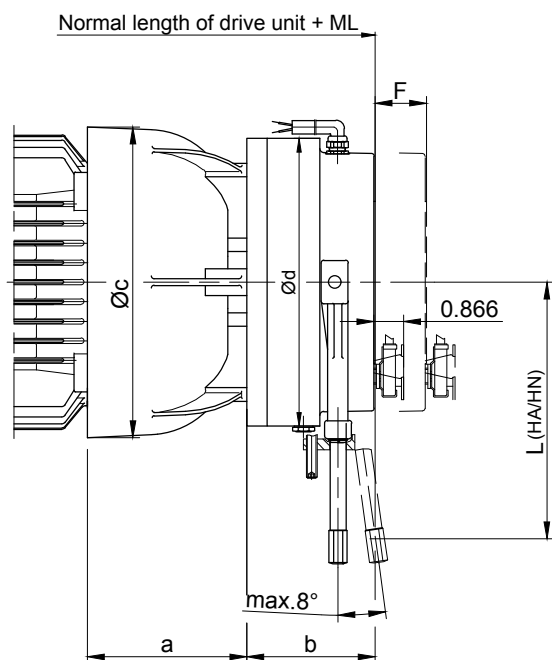
HN = Manual release non-locking

HA = Manual release locking

The actual gearbox design can vary from the geometry shown.

Motor-mounted components Dimensional Drawings Imperial

Heavy Duty Brakes Imperial



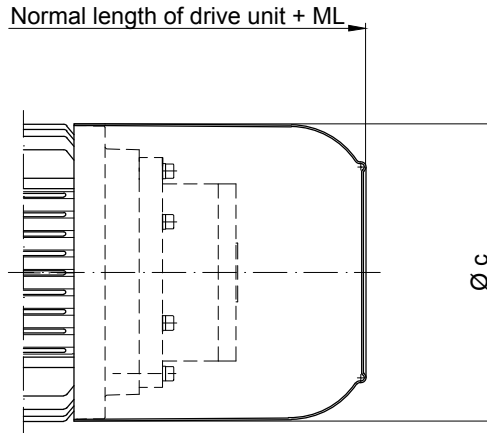
Motor	Brake	ML(mm) Additional length with brake		Dimensions (mm)					Add. weight
		Standard	Micro s.	a	b	c	Ød	L (HA/HN)	lbs
D..08	EH(X)027	3.110	3.976	3.287	2.618	6.535	5.709	6.378	12.13
D..09	EH(X)040	3.543	4.409	4.016	2.874	7.520	6.614	6.772	18.30
D..11	EH(X)125	4.488	5.354	4.724	3.740	9.094	8.386	8.209	42.99
D..13	EH(X)200	5.039	5.906	5.512	4.173	10.807	9.646	8.701	64.59
D..16	EH(X)400	5.551	6.417	6.102	4.882	12.835	12.756	12.323	123.02
D..18		5.984	6.850	7.205		14.409			134.48

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

Dimensional Drawings

Motor with backstop

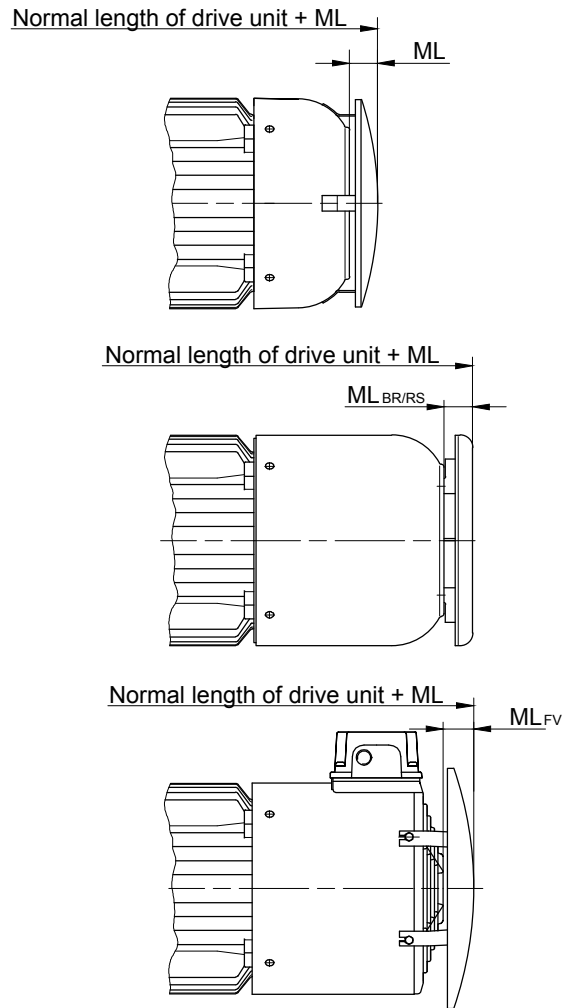


Motor	ML (inch) Add. length with backstop	Dimensions (inch) c	Add. weight lbs
D..08	2.60	6.14	14.33
D..09	3.66	7.13	14.33
D..11	3.86	8.98	17.64
D..13	4.37	10.16	29.76
D..16	5.67	12.21	35.27
D..18	5.91	13.70	37.48
D..20L	-	14.29	20.94
D..22S			
D..22M			

The actual gearbox design can vary from the geometry shown.

Motor-mounted components Dimensional Drawings

Motor with rain cover Imperial



Fan cover geometry for D..16 - D..22,
see dimensional drawing: terminal box as standard version

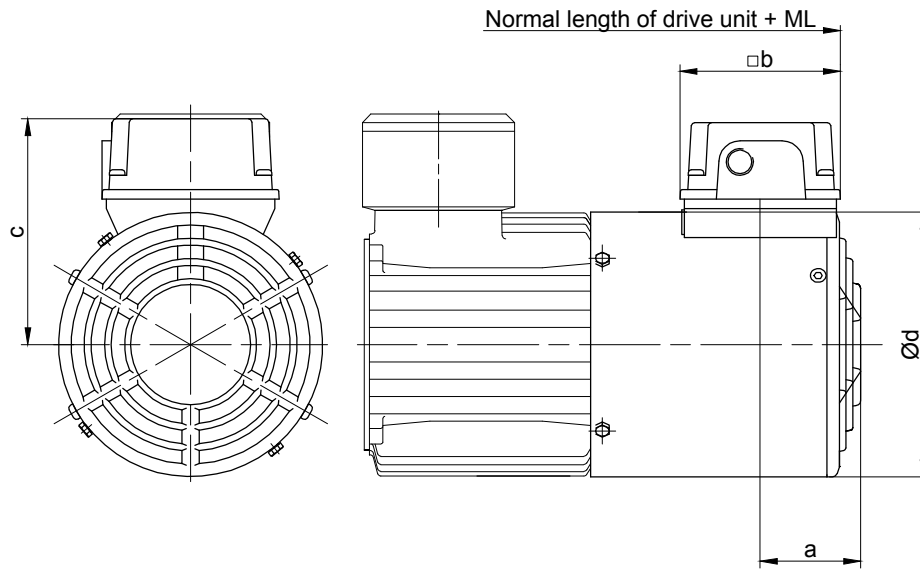
Motor	ML(mm) Add. length with attached protective cover				Add. weight lbs
	ML	ML _{BR}	ML _{RS}	ML _{FV}	
D06	0.71	-	-	-	0.33
D07	0.71	-	-	-	0.33
D..08	0.57	0.96	0.96	1.57	0.44
D..09	0.87	0.96	0.96	1.18	0.66
D..11	1.14	1.16	1.16	1.30	0.88
D..13	1.18	1.16	1.16	0.98	1.32
D..16	1.20	1.36	1.36	1.26	3.97
D..18	1.20	1.36	1.36	1.26	12.13
D..20L	1.22	1.22	1.22	1.22	14.11
D..22S	1.22	1.22	1.22	1.22	14.11
D..22M	1.22	1.22	1.22	1.22	14.11

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

Dimensional Drawings

Motor with independent fan Imperial



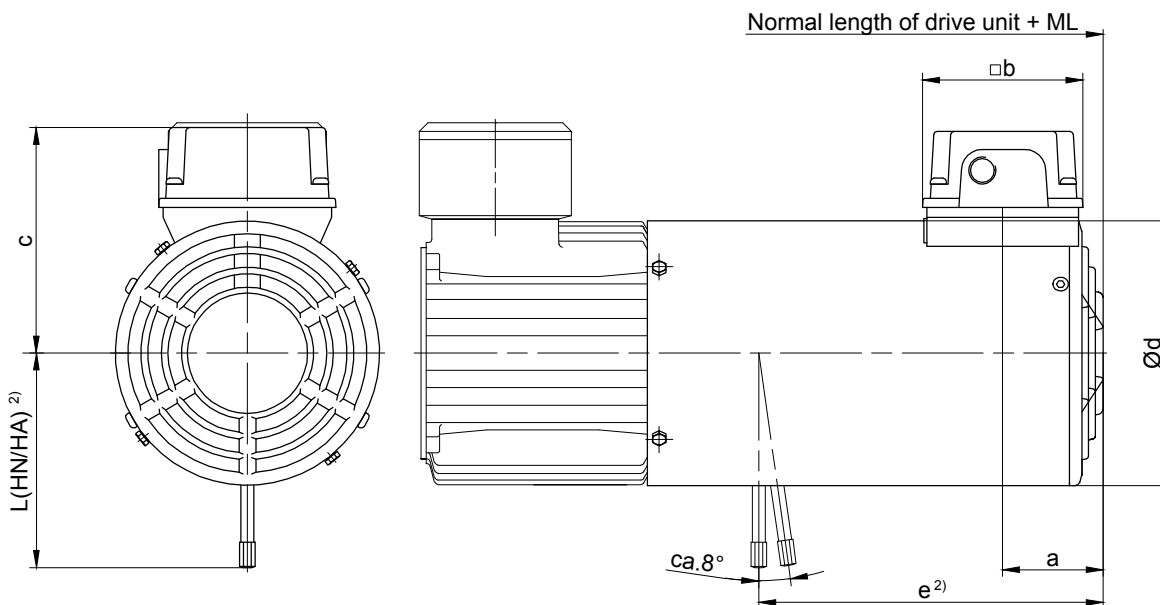
Drive Motor Type	Fan Motor Type	kW	r/min	400 V A	ML (inch) Additional length forced vent.	Dimensions (inch)				Add. weight ~ lbs
						a	b	c	d	
D..08	FV D08	0.019	2670	0.029	3.62	2.74	3.74	5.18	6.18	4.85
D..09	FV D09	0.046	2820	0.106	3.82	2.74	3.74	5.57	6.93	5.95
D..11	FV D11	0.051	2660	0.110	3.82	3.13	3.74	6.40	8.62	7.05
D..13	FV D13	0.073	2820	0.169	4.69	3.10	3.74	7.17	10.16	10.14
D..16*	FV D16	0.154	2760	0.347	5.67	3.10	3.74	8.21	12.24	14.11
D..18*	FV D18	0.154	2760	0.347	11.93	3.10	3.74	8.21	13.70	18.52

* bayonet joint

The actual gearbox design can vary from the geometry shown.

Motor-mounted components Dimensional Drawings

Motor with standard brake and independent fan Imperial



Motor	Brake	ML (inch) ¹⁾ Additional length with attached brake and forced ventilation	Dimensions (inch)						L(HN/HA) ²⁾	Add. weight ~lbs
			a	b	c	Ød	e ²⁾			
D..08	ES(X)010	7.95	2.32	3.74	5.18	6.18	8.03	5.20	11.02	
D..09	ES(X)010	8.43	2.74	3.74	5.57	6.93	8.66	5.20	12.13	
	8.35						6.38	16.53		
D..11*	ES(X)027	8.70	2.74	3.74	6.40	8.62	8.90	6.38	17.64	
	ES(X)040						8.78	6.77	22.05	
	ES(X)070						8.58	7.24	26.46	
D..13*	ES(X)040	9.33	3.13	3.74	7.17	10.16	10.00	7.95	25.35	
	ES(X)070						9.84	8.86	29.76	
	ES(X)125						9.65	8.78	38.58	
D..16*	ES(X)125	11.57	3.10	3.74	8.21	12.24	11.73	9.61	42.99	
	ES(X)200						11.46	10.08	55.11	
	ZS(X)300						10.32		59.52	
D..18*	ES(X)250	11.93	3.10	3.74	8.21	13.70	12.09	11.26	81.57	
	ZS(X)500						10.91		84.88	

* bayonet joint

1) The additional length is for normal motor unit without brake.

Other dimensions see the appropriate normal dimensioned sketch

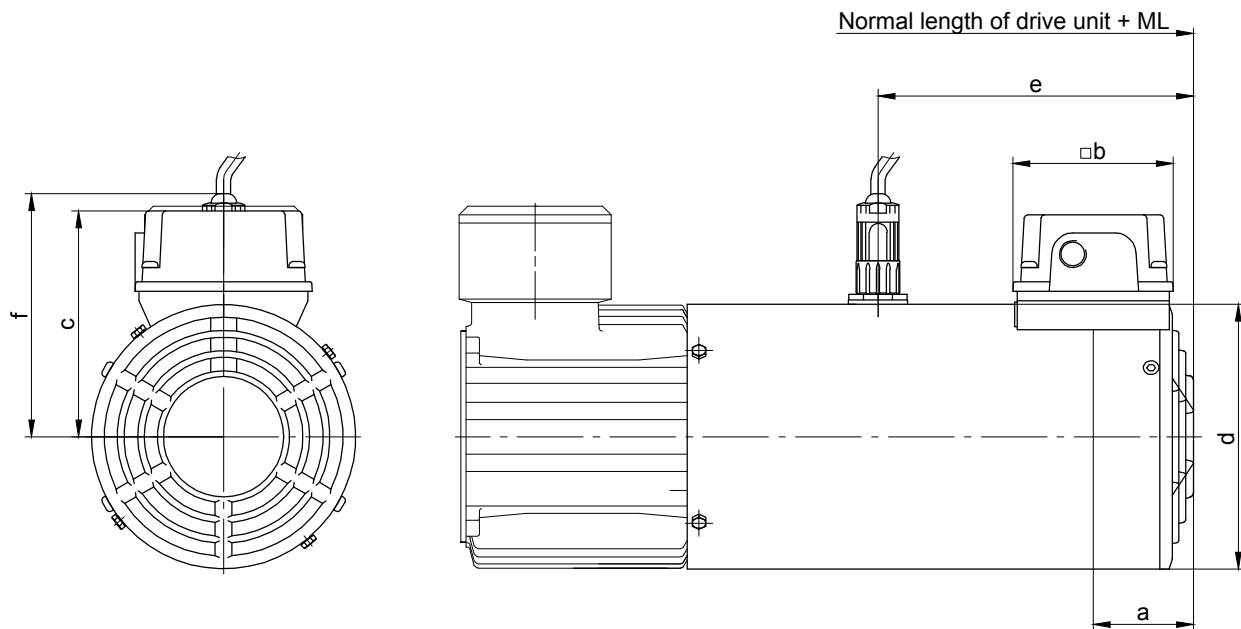
2) Brake release on request

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

Dimensional Drawings

Motor with encoder with built-on independent fan Imperial



Motor	ML(inch) ¹⁾ Additional length with attached encoder and forced ventilation	Dimensions (inch)						Add. weight ~ lbs
		a	b	c	d	e	f	
D..08	7.95	2.32	3.74	5.18	6.18	7.36	5.67	5.73
D..09	8.43	2.74	3.74	5.57	6.93	7.56	6.04	7.28
D..11*	8.70	2.74	3.74	6.40	8.58	7.56	-	8.82
D..13*	9.45	3.13	3.74	7.17	10.16	8.54	-	12.57
D..16*	11.57	3.10	3.74	8.21	12.24	9.92	-	17.42
D..18*	11.93	3.10	3.74	8.21	13.70	10.51	-	24.03

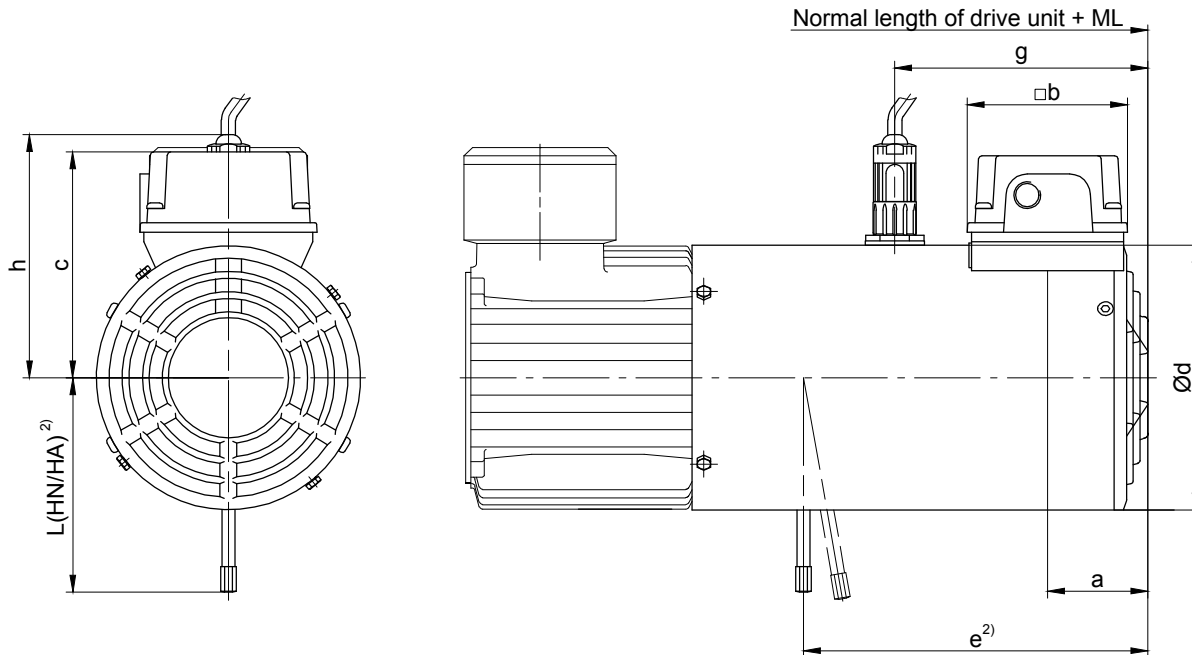
* with bayonet joint

1) The additional length is for normal motor unit without brake.

Other dimensions see the appropriate normal dimensioned sketch

Motor-mounted components Dimensional Drawings

Motor with standard brake and encoder with built-on independent fan Imperial



Motor	Brake	ML (inch) ¹⁾ Additional length with attached brake, encoder and forced ventilation	Dimensions (inch)								Add. weight ~lbs
			a	b	c	Ød	e ²⁾	g	h	L(HN/HA) ²⁾	
D..08	ES(X)010	7.95	2.32	3.74	5.18	6.18	8.03	5.91	5.91	5.20	6.0
D..09	ES(X)010	8.43	2.74	3.74	5.57	6.93	8.66	6.30	6.30	5.20	6.5
	8.35						6.30	6.38		18.74	
D..11*	ES(X)027	8.70	2.74	3.74	6.40	8.62	8.90	6.10	6.10	6.38	19.84
	ES(X)040						8.78	6.10		6.77	25.35
	ES(X)070						8.58	6.10		7.24	29.76
D..13*	ES(X)040	9.45	3.13	3.74	7.17	10.16	10.00	6.89	6.89	7.95	28.66
	ES(X)070						9.84	6.89		8.86	33.07
	ES(X)125						9.65	6.89		8.78	41.89
D..16*	ES(X)125	11.57	3.10	3.74	8.21	12.24	11.73	7.68	7.68	9.61	46.30
	ES(X)200						11.46	7.68		10.08	59.52
	ZS(X)300						10.32	7.68		63.93	
D..18*	ES(X)250	11.93	3.10	3.74	8.21	13.70	8.15	8.35	8.35	11.26	85.98
	ZS(X)500						10.91	8.35			89.29

* bayonet joint

1) The additional length is for normal motor unit without brake.

Other dimensions see the appropriate normal dimensioned sketch

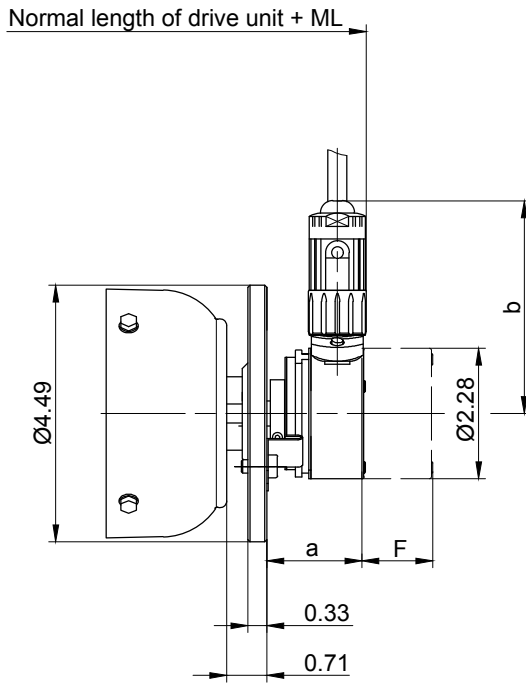
2) Brake release on request

The actual gearbox design can vary from the geometry shown.

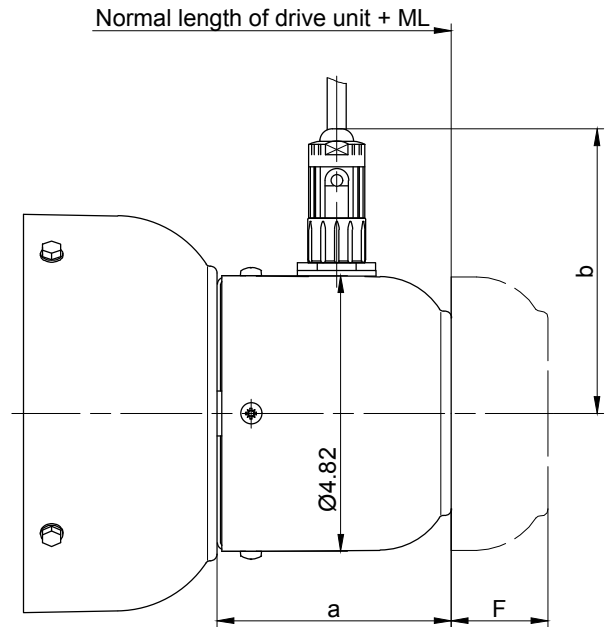
Motor-mounted components

Dimensional Drawings

Motor with encoder Imperial



D04



D05 - D..22

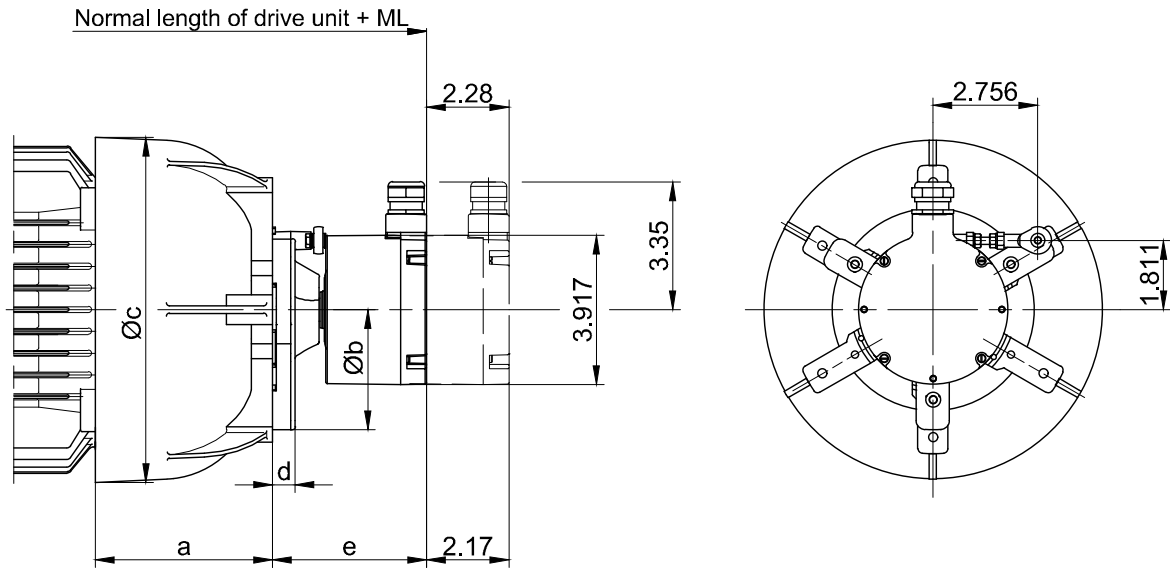
Fan cover geometry for D..16 - D..22, see dimensional drawing: terminal box as standard version

Motor	ML(inch) Additional length with encoder	Dimensions (inch)				Add. weight lbs	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	2.46	1.71	3.74	2.74	4.31	1.54	1.18	2.17
D05	4.06	3.88	5.00	3.88	5.00	1.98	2.48	3.46
D06								
D07								
D..08	4.21	4.23	5.00	4.23	5.00	1.76	1.61	2.60
D..09								
D..11								
D..13								
D..16	4.33	4.09	5.00	4.09	5.00	1.76	1.69	2.68
D..18								
D..20L	4.17	4.17	5.00	4.17	5.00	2.65	1.69	2.68
D..22S								
D..22M								

The actual gearbox design can vary from the geometry shown.

Motor-mounted components Dimensional Drawings

Motor with "heavy duty" encoder Imperial



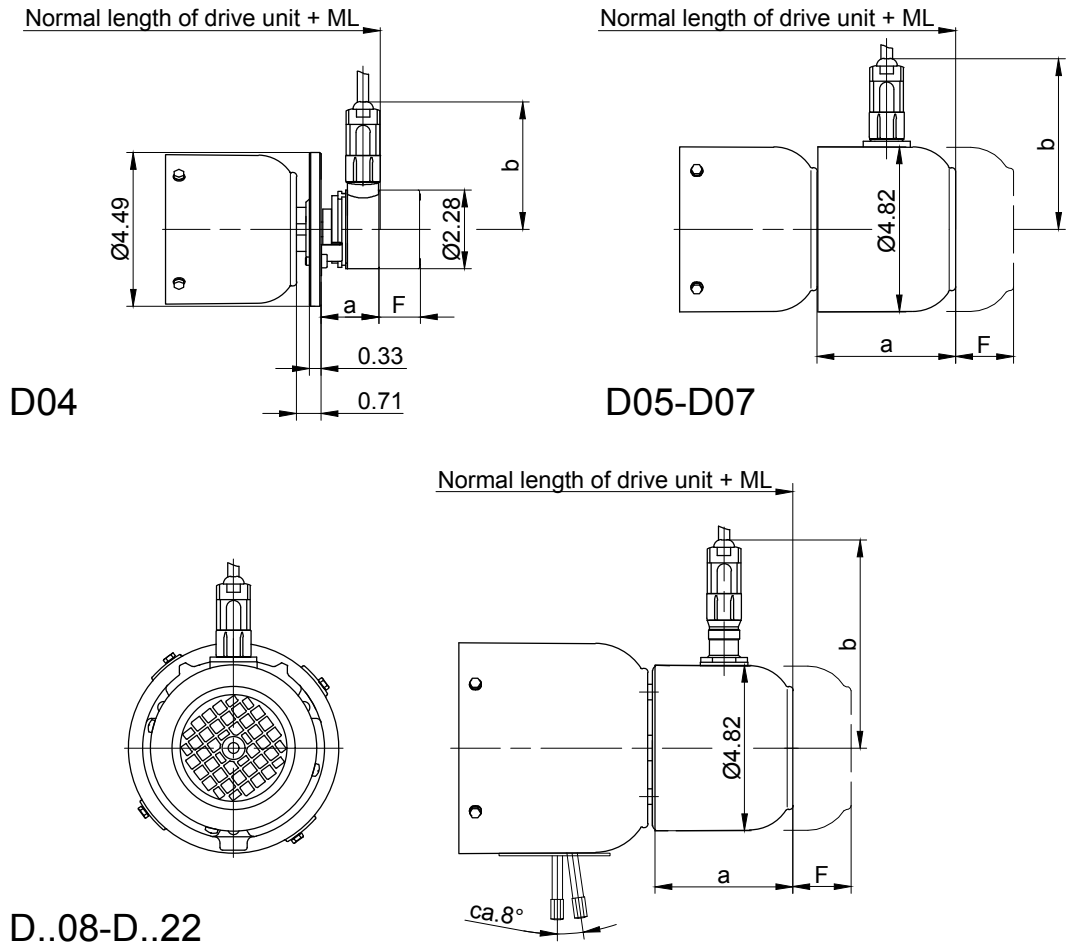
Motor	ML(mm) Additional length with encoder	Dimensions (mm)					Add. weight lbs
		a	b	c	d	e	
D..08	4.488	3.287	6.299	6.535	0.591	4.035	4.41
D..09	4.665	4.016		7.520			
D..11	4.783	4.724		9.094			
D..13	4.547	5.512	7.283	10.807	0.669	3.720	18.96
D..16	4.469	6.102		12.835			
D..18	4.823	7.205		14.409			

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

Dimensional Drawings

Motor with standard brake and encoder Imperial

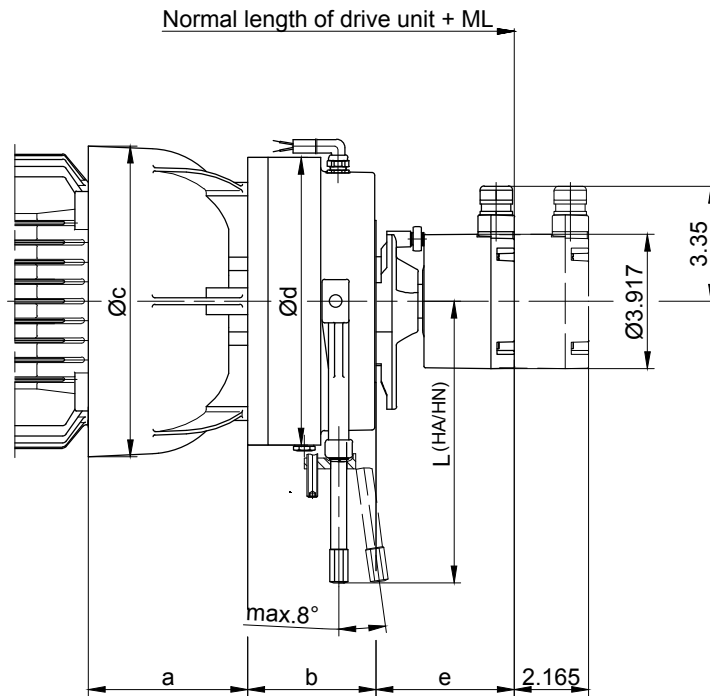


Motor	Brake	ML(inch) Additional length with encoder and brake	Dimensions (inch)				Add. weight lbs	Free space for removing encoder "F"	
			incremental encoder Fa. Kübler Typ 5820		absolute encoder Fa. TR Typ CS58-M			incremental encoder Fa. Baumer EIL580	absolute encoder Fa. TR Typ CS58-M
			a	b	a	b			
D04	E003	4.15	1.71	3.74	2.74	4.31	1.54	1.18	2.17
D05		5.71	4.02	5.00	4.02	5.00	1.98	2.48	3.46
D06							1.76	1.93	2.91
D07		2.65							
D..08	ES(X)..	6.83							
D..09	ES(X)..	7.76							
D..11	ES(X)..	7.87							
D..13	ES(X)..	8.35							
D..16	ES(X).. / ZS(X)..	9.76	4.10						
D..18	ES(X).. / ZS(X)..	9.74							
D..20L	ES(X).. / ZS(X)..	9.76	4.17						
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 Dimensional Drawings

Motor with "heavy duty" brake and encoder Imperial



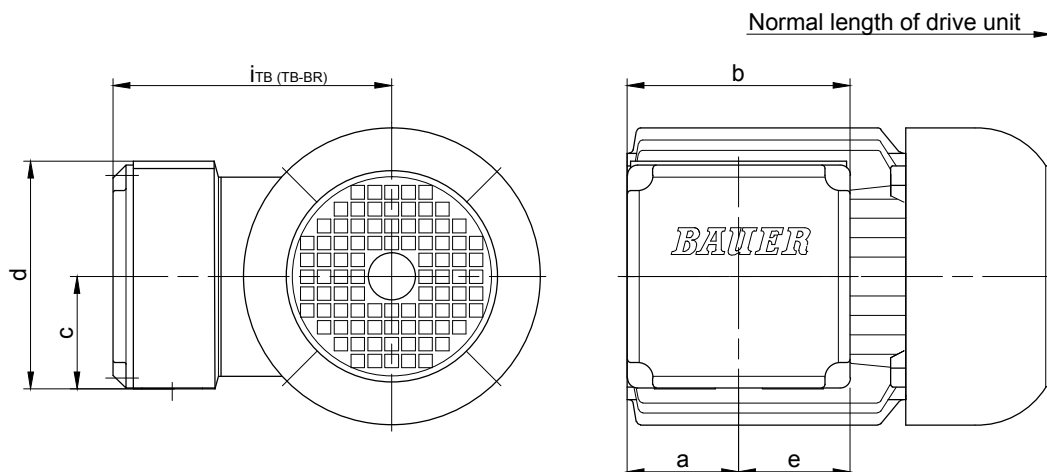
Motor	Brake	ML(mm) Additional length with brake and encoder	Dimensions (mm)						Add. weight lbs
			a	b	c	Ød	e	L (HA/HN)	
D..08	EH(X)027	7.106	3.287	2.618	6.535	5.709	4.035	6.378	15.65
D..09	EH(X)040	7.539	4.016	2.874	7.520	6.614		6.772	22.05
D..11	EH(X)125	8.524	4.724	3.740	9.094	8.386		8.209	47.18
D..13	EH(X)200	10.197	5.512	4.173	10.807	9.646	3.720	8.701	70.55
D..16	EH(X)400	9.567	6.102	4.882	12.835	12.756		12.323	127.87
D..18		10.000	7.205		14.409			134.48	

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

Dimensional Drawings

Standard terminal box Metric



Motor	Dimensions (mm)						Code	Cable entry Major (M) Minor (N)	max. wrench size for cable entry gland
	a	b	c	d	e	i _{TB (TB-BR)}			
D04..	40	90	47.5	95	45	112	TB112..	M=NPT=1/2"; N=2xM20x1.5	24 mm
D05..	55	90	47.5	95	45	117	TB112..	M=NPT=1/2"; N=2xM20x1.5	29 mm
D06..	45	90	47.5	95	45	118	TB112..	M=NPT=1/2"; N=2xM20x1.5	29 mm
D07..	45	90	47.5	95	45	118	TB112..	M=NPT=1/2"; N=2xM20x1.5	29 mm
D..08..	41	90	47.5	95	45	135	TB112..	M=NPT=1/2"; N=2xM20x1.5	29 mm
D..09..	62	132	66	135	71.5	164	TB212..	M=NPT=3/4"; N=2xM25x1.5	-
D..11..	62	132	66	135	71.5	181	TB212..	M=NPT=3/4"; N=2xM25x1.5	-
D..13..	78	156	78	158	83.5	216	TB312..	M=NPT=1"; N=2xM25x1.5	-
D..16..	74	156	78	158	83.5	242	TB312..	M=NPT=1"; N=2xM25x1.5	-
D..18..	94	200	100	201	105.5	287	TB412..	M=NPT=1 1/2", N=2xM25x1.5	-

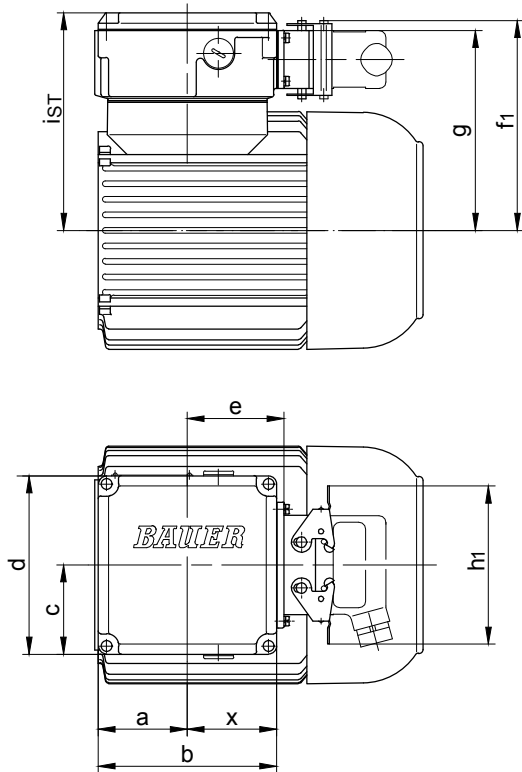
Motor with Brake	Dimensions (mm)						Code	Cable entry Major (M) Minor (N)	max. wrench size for cable entry gland
	a	b	c	d	e	i			
D04..	40	90	47.5	95	68	131.5	TBR122	M=2xM20x1.5	24 mm
from D05..							see above		

The actual gearbox design can vary from the geometry shown.

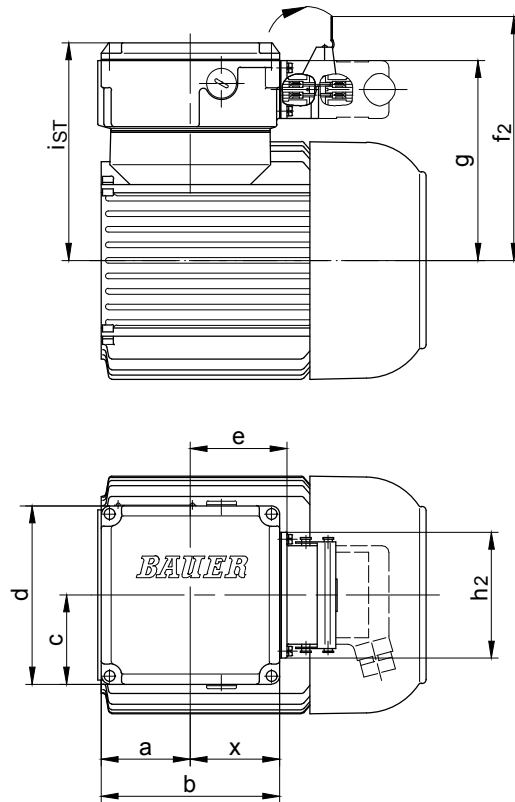
Motor-mounted components Dimensional Drawings

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

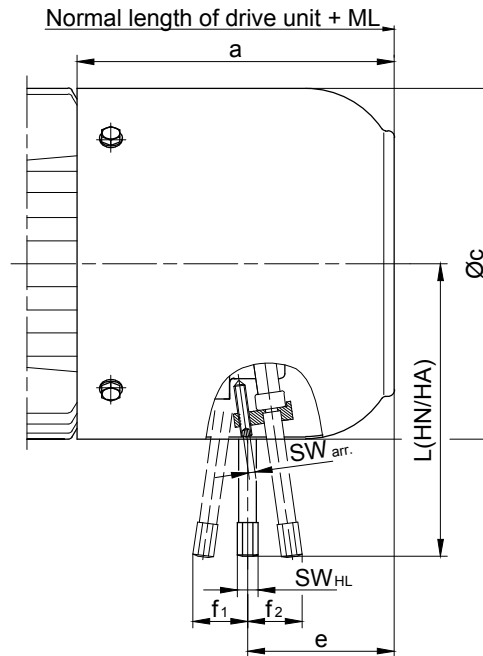
Motor	Size of terminal box	a	b	c	d	e	f ₁	f ₂	g	h ₁	h ₂	ist	x
D04	TBS1	30	90	52.5	106	49	118.5	147	111	117	93	124.5	46
D05	TBS1	57	90	52.5	106	49	123.5	152	116	117	93	129.5	46
D06	TBS1	45	90	52.5	106	49	125.5	154	118	117	93	131.5	46
D07	TBS1	45	90	52.5	106	49	125.5	154	118	117	93	131.5	46
D..08	TBS1	45	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

Dimensional Drawings

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
D..13	ES(X)040	111	225	258	125	-	41	202	12	4	6.5
	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			

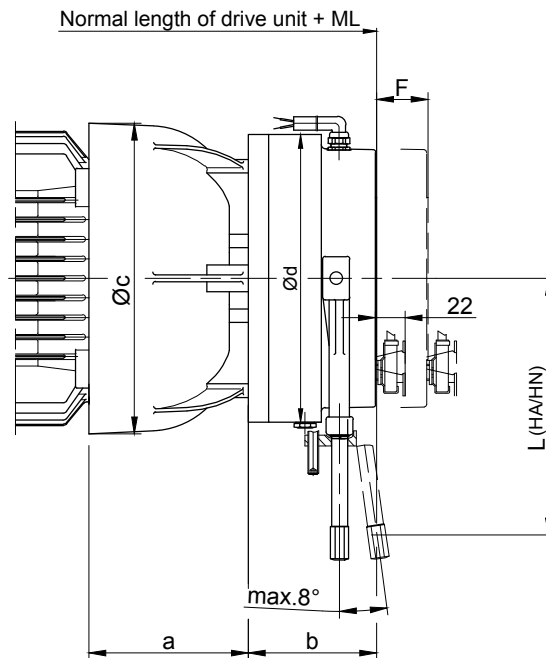
HN = Manual release non-locking

HA = Manual release locking

The actual gearbox design can vary from the geometry shown.

Motor-mounted components Dimensional Drawings

Heavy Duty Brakes

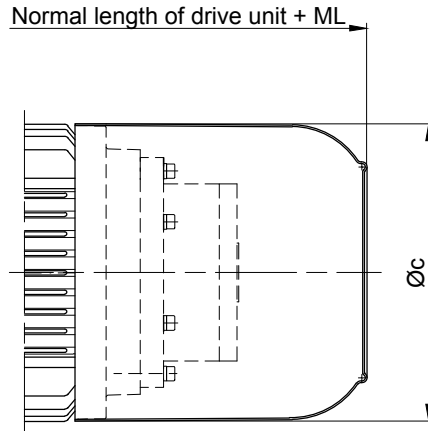


Motor	Brake	ML(mm) Additional length with brake		Dimensions (mm)					Add. weight kg
		Standard	Micro s.	a	b	c	Ød	L (HA/HN)	
D..08	EH(X)027	79	101	83.5	66.5	166	145	162	5.5
D..09	EH(X)040	90	112	102	73	191	168	172	8.3
D..11	EH(X)125	114	136	120	95	231	213	208.5	19.5
D..13	EH(X)200	128	150	140	106	274.5	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

Motor-mounted components

Dimensional Drawings

Motor with Backstop

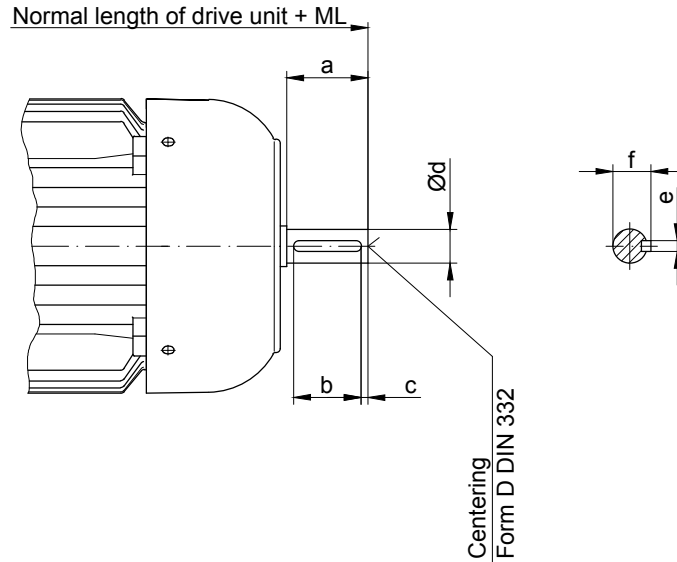


Motor	ML (mm) Add. length with backstop	Dimensions (mm)	Add. weight
		c	kg
D..08	66	156	6.5
D..09	93	181	6.5
D..11	98	228	8
D..13	111	258	13.5
D..16	144	310	16
D..18	150	348	17
D..20L	-	363	9.5
D..22S			
D..22M			

The actual gearbox design can vary from the geometry shown.

Motor-mounted components Dimensional Drawings

Second shaft extension



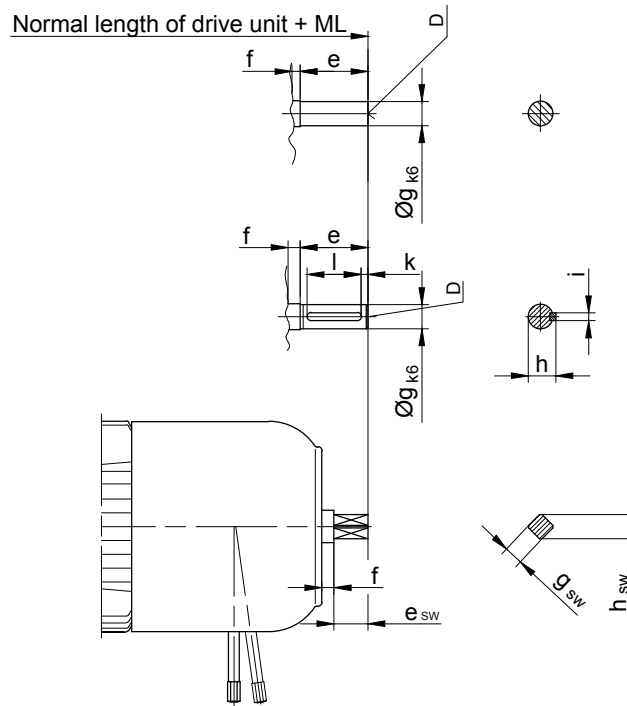
Motor	ML(mm) Add. length with second shaft end	Dimensions (mm)						Centering DIN 332
		a	b	c	d	e	f	
D04	20	15	-	-	8g6	-	-	-
D05	25	20	-	-	10k6	-	-	-
D06	25	20	-	-	10k6	-	-	-
D07	25.5	20	-	-	10k6	-	-	-
D..08	45	40	30	5	16k6	5	18	D 5
D..09	55	50	40	5	20k6	6	22.5	D 5
D..11	65	60	50	5	25k6	8	28	D 8
D..13	85	80	60	10	35k6	10	38	D 12
D..16	115	110	90	10	40k6	12	43	D 16
D..18	115	110	90	10	45k6	14	48.5	D 16
D..20L	115	110	90	10	45k6	14	48.5	D 16
D..22S	115	110	90	10	45k6	14	48.5	D 16
D..22M								

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

Dimensional Drawings

Motor with standard 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*													18	SW14*
D..11		153.5*	128	50*	25		20*	SW14	22.5*	18	6*	40*	D6*	D4			
D..13		176*	156	60*	40		4.5	28*	SW22	31*	28	8*	5*	50*	D10*	D10	
D..16		208.5*	188.5														28*
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																	

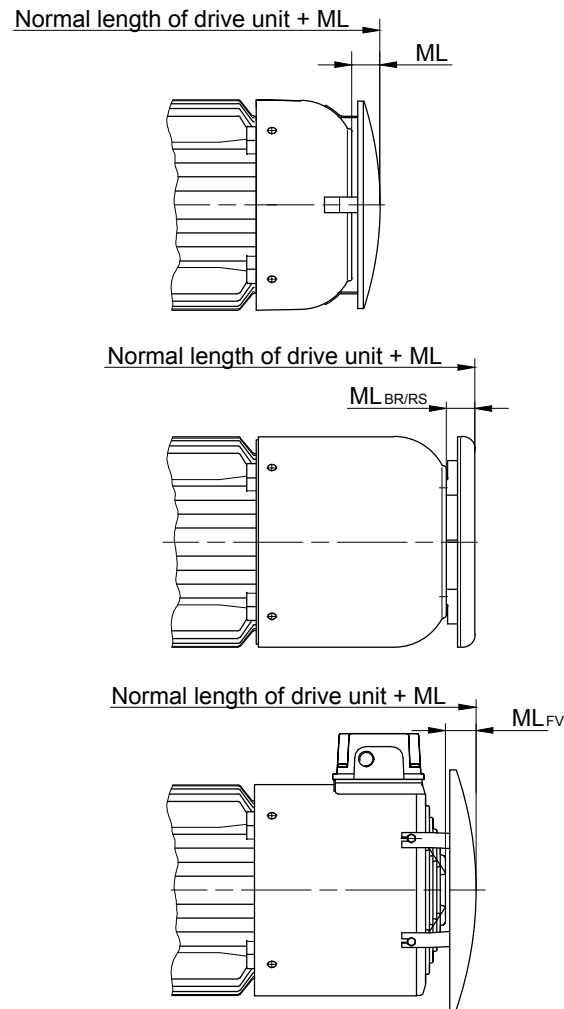
* Special design with manual release

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

Dimensional Drawings

Motor with rain cover



Fan cover geometry for D..16 - D..22,
see dimensional drawing: terminal box as standard version

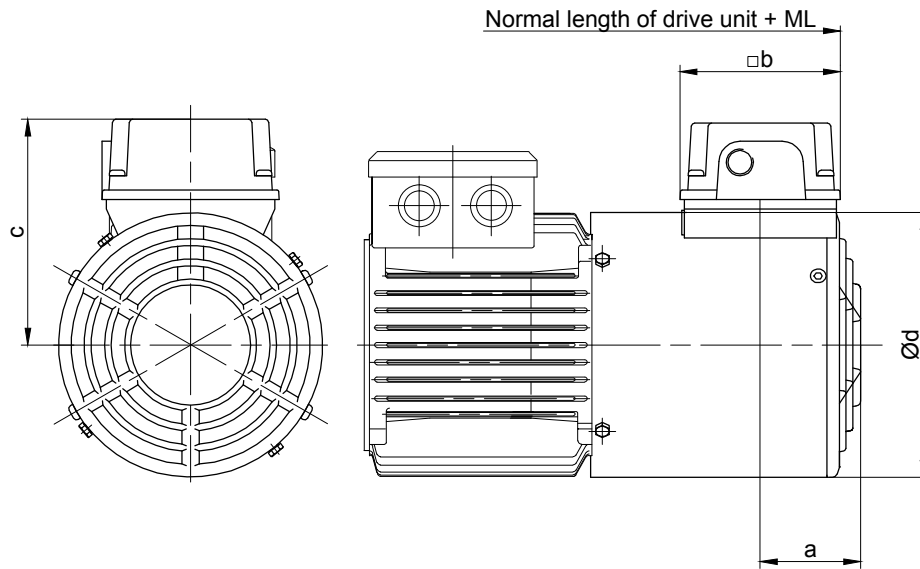
Motor	ML(mm) Add. length with attached protective cover				Add. weight kg
	ML	ML _{BR}	ML _{RS}	ML _{FV}	
D06	18	-	-	-	0.15
D07	18	-	-	-	0.15
D..08	14.5	24.5	24.5	40	0.20
D..09	22	24.5	24.5	30	0.30
D..11	29	29.5	29.5	33	0.40
D..13	30	29.5	29.5	25	0.6
D..16	30.5	34.5	34.5	32	1.8
D..18	30.5	34.5	34.5	32	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.

Motor-mounted components

Dimensional Drawings

Motor with independent fan



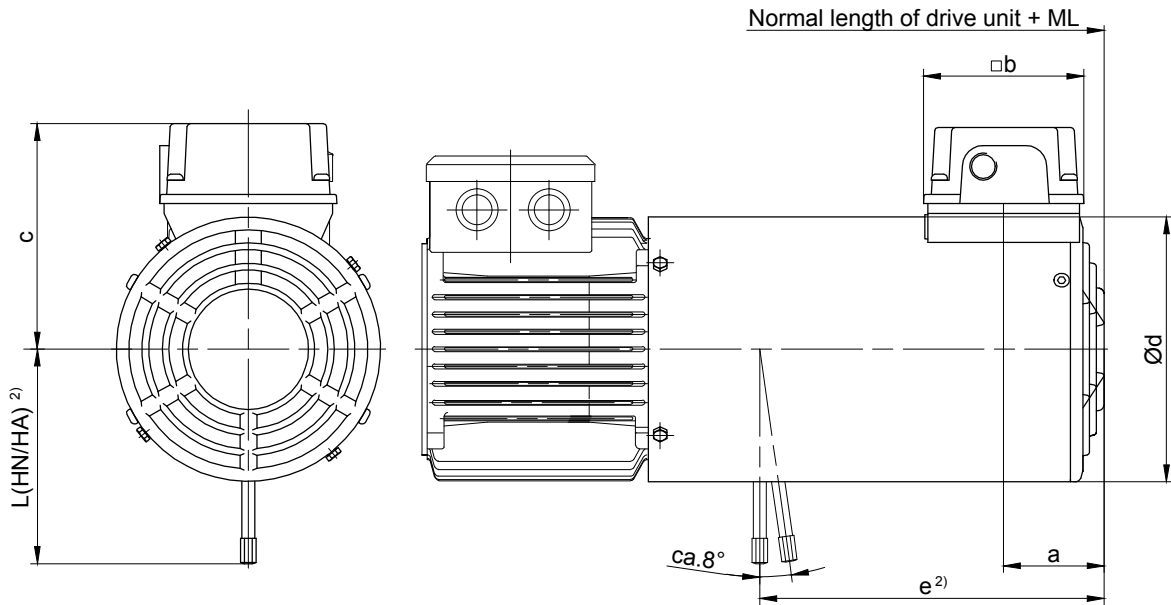
Drive Motor Type	Fan Motor Type	kW	r/min	400 V A	ML (mm) Additional length forced vent.	Dimensions (mm)				Add. weight ~ kg
						a	b	c	d	
D..08	FV D08	0.019	2670	0.029	92	69.5	95	131.5	157	2.2
D..09	FV D09	0.046	2820	0.106	97	69.5	95	141.5	176	2.7
D..11	FV D11	0.051	2660	0.110	97	79.5	95	162.5	219	3.2
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

* bayonet joint

The actual gearbox design can vary from the geometry shown.

Motor-mounted components Dimensional Drawings

Motor with standard 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

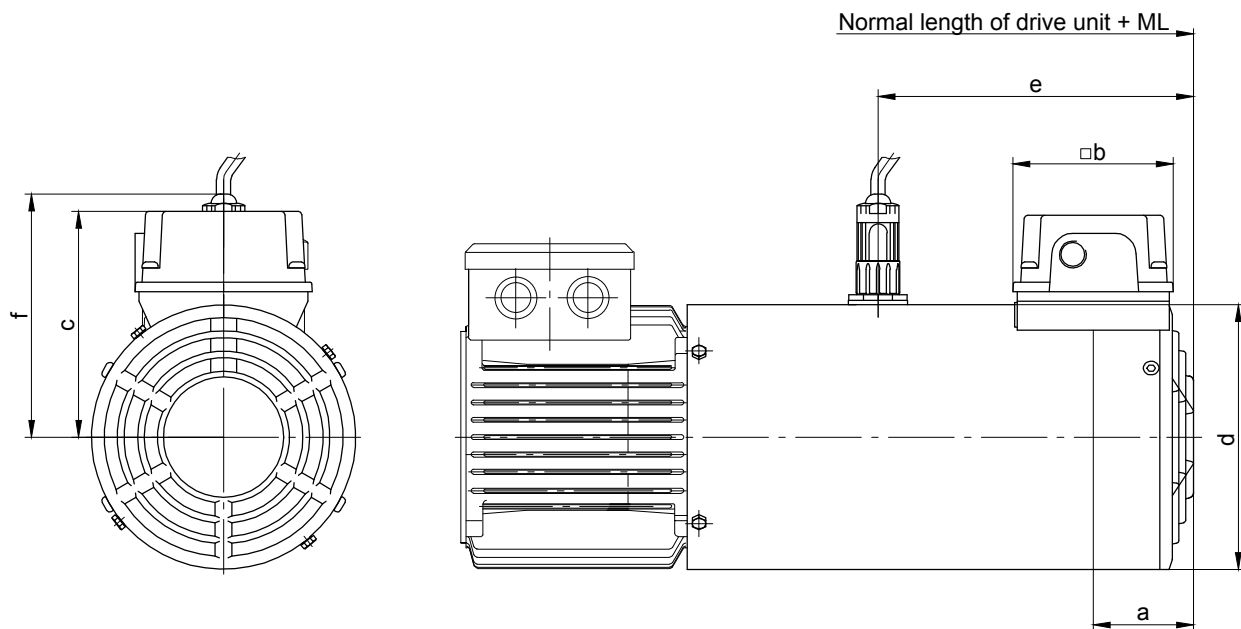
2) Brake release on request

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

Dimensional Drawings

Motor with encoder with built-on independent fan



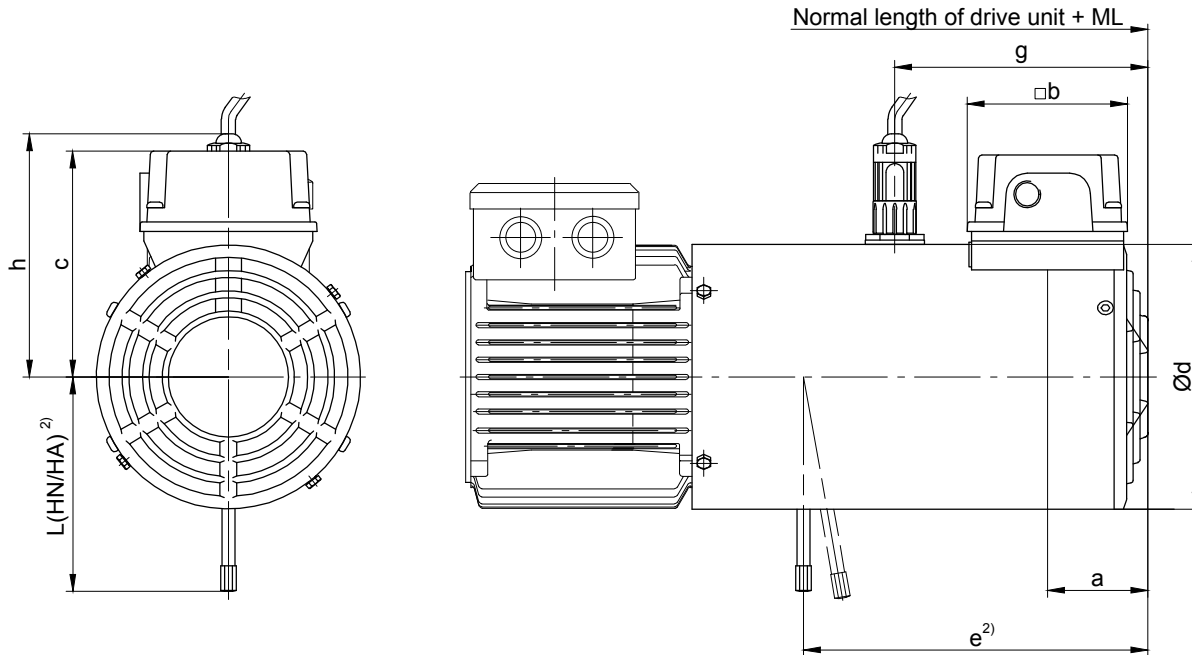
Motor	ML(mm) ¹⁾ Additional length with attached encoder and forced ventilation	Dimensions (mm)						Add. weight ~ kg
		a	b	c	d	e	f	
D..08	202	59	95	131.5	157	187	144	2.6
D..09	214	69.5	95	141.5	176	192	153.5	3.3
D..11*	221	69.5	95	162.5	218	192	-	4.0
D..13*	240	79.5	95	182	258	217	-	5.7
D..16*	294	78.8	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 Dimensional Drawings

Motor with standard 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

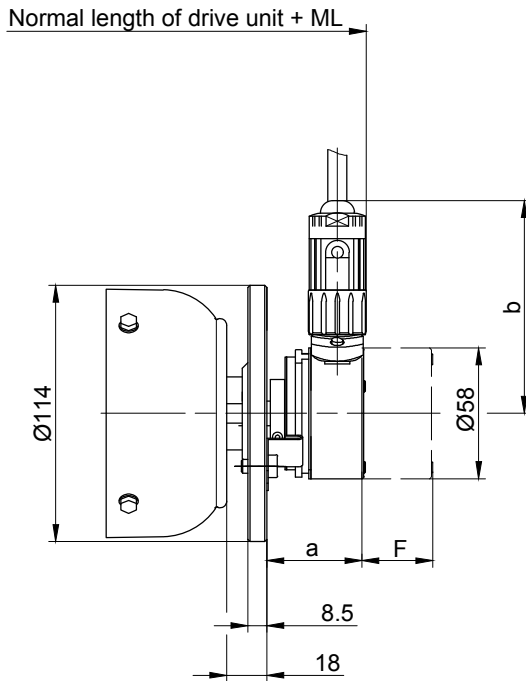
- 1) The additional length is for normal motor unit without brake.
Other dimensions see the appropriate normal dimensioned sketch
- 2) Brake release on request

The actual gearbox design can vary from the geometry shown.

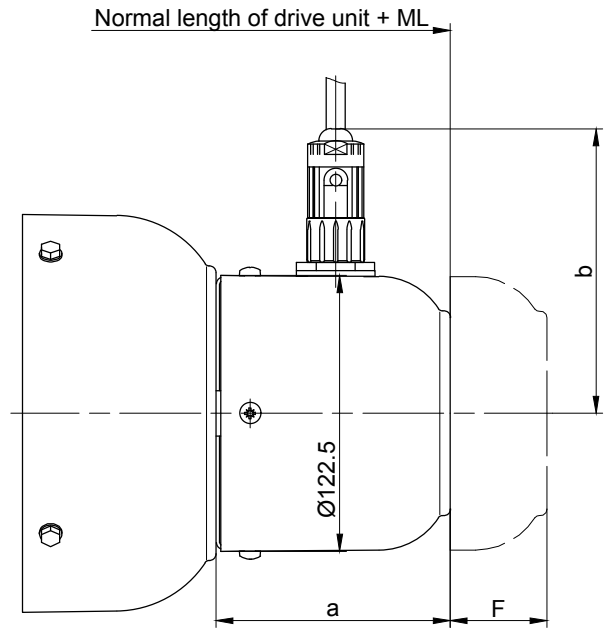
Motor-mounted components

Dimensional Drawings

Motor with encoder



D04



D05 - D..22

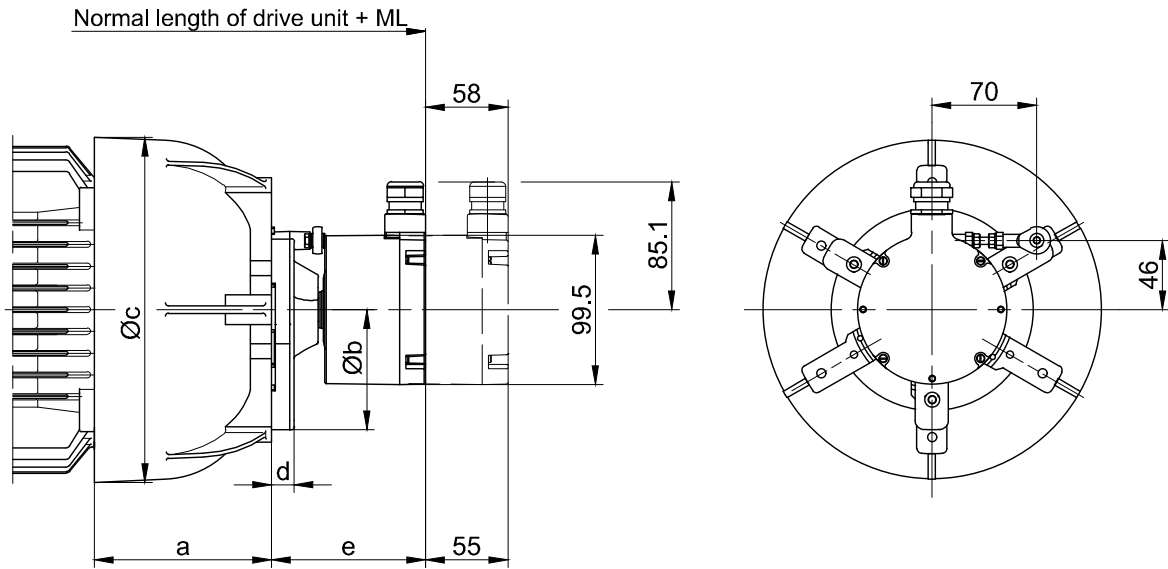
Fan cover geometry for D..16 - D..22, see dimensional drawing: terminal box as standard version

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	107.5	127	107.5	127	0.8	41	66
D..09								
D..11								
D..13	110	104	127	104	127	0.8	43	68
D..16								
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 Dimensional Drawings

Motor with "heavy duty" encoder



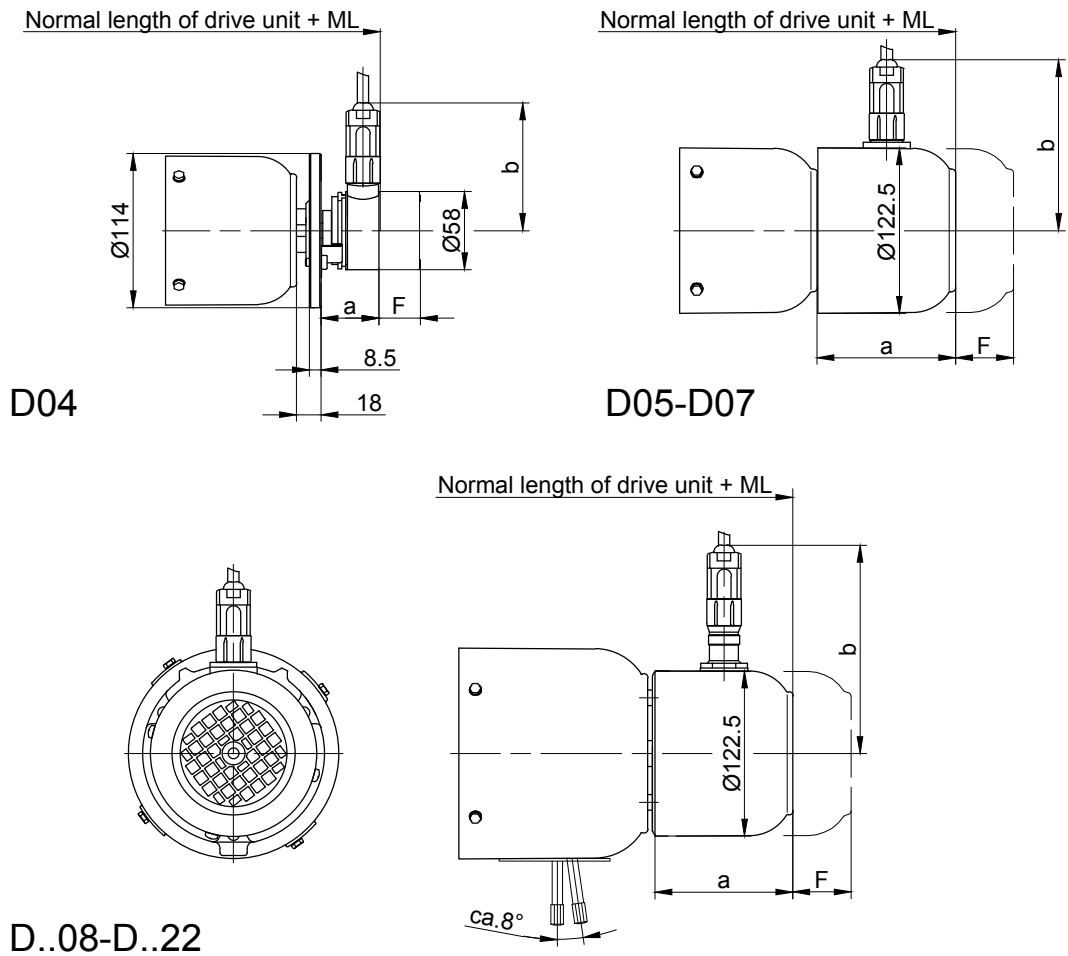
Motor	ML(mm) Additional length with encoder	Dimensions (mm)					Add. weight kg
		a	b	c	d	e	
D..08	114	83.5	160	166	15	102.5	2
D..09	118.5	102		191			
D..11	121.5	120		231			
D..13	115.5	140	185	274.5	17	94.5	8.6
D..16	113.5	155		326			9.6
D..18	122.5	183		366			11.5

The actual gearbox design can vary from the geometry shown.

Motor-mounted components

Dimensional Drawings

Motor with standard brake and encoder



D04

D05-D07

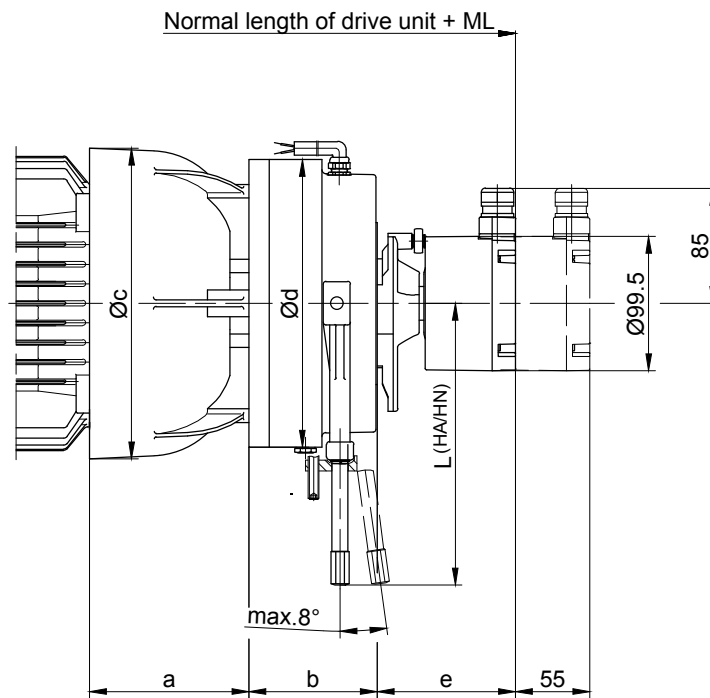
D..08-D..22

Motor	Brake	ML(mm) Additional length with brake and 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	E003	105.5	43.5	95	69.5	109.5	0.7	30	55
D05		145	102	127	102	127	0.8	49	74
D06									
D07		E003 / E004							
D..08	ES(X)..	173.5							
D..09	ES(X)..	197							
D..11	ES(X)..	200							
D..13	ES(X)..	212							
D..16	ES(X).. / ZS(X)..	248	104						
D..18	ES(X).. / ZS(X)..	247.5							
D..20L	ES(X).. / ZS(X)..	233.5	106						
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 Dimensional Drawings

Motor with "heavy duty" brake and encoder

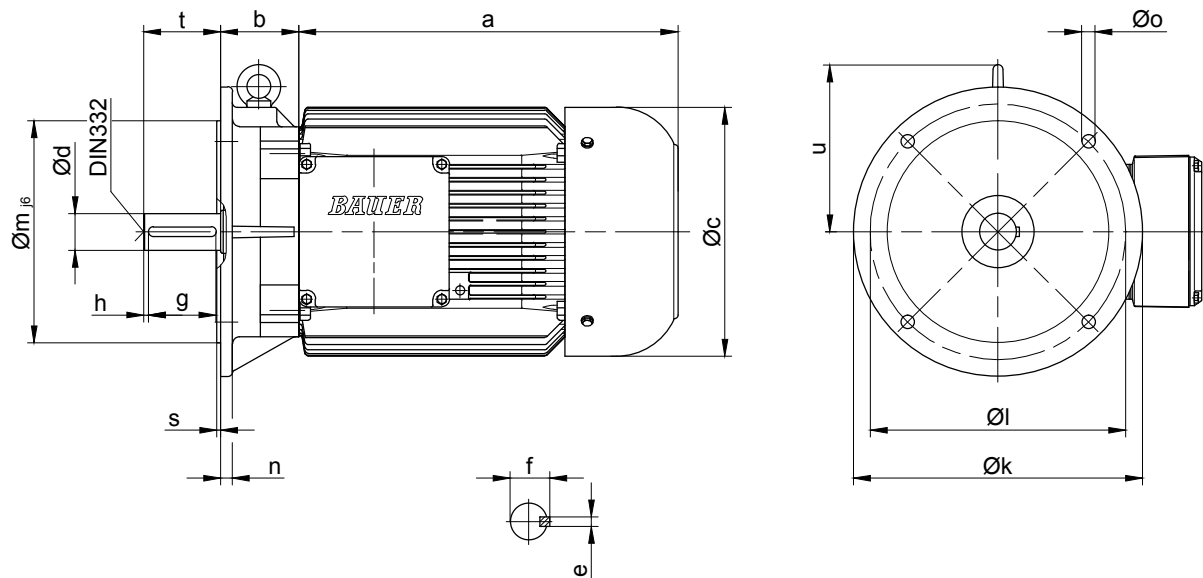


Motor	Brake	ML(mm) Additional length with brake and encoder	Dimensions (mm)						Add. weight kg
			a	b	c	Ød	e	L (HA/HN)	
D..08	EH(X)027	180.5	83.5	66.5	166	145	102.5	162	7.1
D..09	EH(X)040	191.5	102	73	191	168		172	10
D..11	EH(X)125	216.5	120	95	231	213		208.5	21.4
D..13	EH(X)200	259	140	106	274.5	245	94.5	221	32
D..16	EH(X)400	243	155	124	326	324		313	58
D..18		254	183		366			61	

Motor-mounted components

Dimensional Drawings Imperial

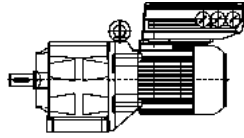
Motor in IEC design



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.



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**Drive solutions for decentral and central Drive
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533-546



FCD 300

All Bauer gear motors from 0.37 to 3.0 kW are available with an externally mounted FCD frequency inverter. The frequency inverters in the range FCD300 are mounted directly to the motor in place of the terminal box. The inverters can alternatively be installed in the vicinity of the motor.



Features of FCD geared motors

Flexible assembly

- The FCD300 can be either mounted on the Bauer gear motor or in the vicinity

Simple cabling

- Through spring connectors and a large installation area in the installation box Cable entries 3 X M25, 2 X M20, 2 X M16
- Maximum cable cross section: Control contacts: 2,5 mm², Power contacts 4 mm², PE: 10 mm²
- The installation box can be used as T-connector for the power and bus system connections
- Plug connections are available on request (e.g. Harting Connector)

Integrated Brake Control

- The gear motor brake is controlled directly from the FCD
- Brakes can be supplied from the FCD

Robust Housing

- Enclosure IP66
- Easy to clean
- Protected against aggressive environments

Advanced Bus Communication

- With Profibus DP (3 or 12 MB), AS(i) or DeviceNet
- The unit can be parameterized parallel to the standard cycle bus communication by means of the 2nd bus connection RS 485

Clearly visible status information by means of LED

- Bus
- Status
- Alarm
- Warning
- On

Integrated mains filter

- The unit contains filters for Class 1A (Industry) and mains return as standard

Technical Data for FCD 300

Power range:

0.37-3 kW (3-phase)

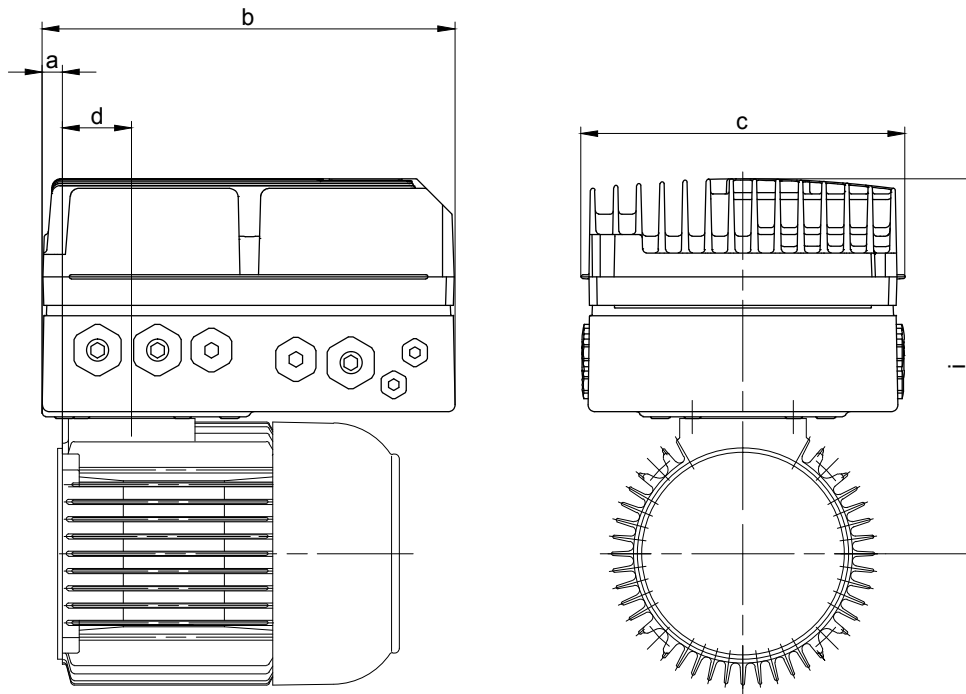
Voltage range:

380-480 V

Advantages

- Adaptation to gear motors, standard motors or assembly in the vicinity of the motor
- Enclosure IP66
- High resistance against aggressive environments
- Profibus option
- integrated EMV filter (EN 55011, 1A)
- Convection cooling, no ventilation needed
- Automatic motor adjustment
- Simple operation through separate clear text display

Allocation of FCD300 to motor



Motor	Type FCD		Dimensions (mm)					Cable entry	
			a	b	c	d	i	right	at both ends
D..08	D303	D305	13	244.5	192	40.5	222	2 x M16x1.5	4 x M16x1.5
	D307	D311						2 x M20x1.5	4 x M20x1.5
	D315	3 x M25x1.5						6 x M25x1.5	
D..09	D303	D305	0	244.5	192	62	240.5	2 x M16x1.5	4 x M16x1.5
	D307	D311						2 x M20x1.5	4 x M20x1.5
	D315	3 x M25x1.5						6 x M25x1.5	
D..11	D322	D330	0.5	302	258	62	266	2 x M16x1.5	4 x M16x1.5
								2 x M20x1.5	5 x M20x1.5
								3 x M25x1.5	6 x M25x1.5

Eta geared motors

All Bauer geared motors from 0.12 to 7.5 kW are available with an externally mounted Eta-K frequency inverter. These are mounted directly onto the motor in place of a terminal box. The installation volume required for the geared motor is not much greater than that required for standard geared motors.



Features of Eta geared motors

The combination of geared motor and converter opens up a whole range of attractive possibilities:

Reduce costs - Save space

- Planning and installation costs are down
- Less space needed for switchgear
- Fewer drive versions, so stock holding is streamlined
- Thermal situation inside the switchgear cabinet is better
- Fewer shielded motor cables

Think system - Avoid interfaces

- Converter and motor are integrated in a single, compact unit
- Converter is optimized ex-works for motor and application
- Retrofits available for existing drive configurations
- Cabling is simplified

Replace standards - Boost functionality

- Substitute the convenience of remote operation for mechanical actuation
- Replacement for pole-changing motors with defined ramp functions

Design features

- Compact, slimline geometry
- Plug-fit to motor
- Maintenance-friendly, accessible and easily replaced
- Complete unit, requires no external control voltage

User benefits

- Preconfigured, plug and play on application-specific basis
- Slip compensation for load-independent constant speed
- PID controller for structuring process control
- Switching frequency adjusts automatically to temperature

Technical Data for Eta-K

- Motor power range 0.12 to 7.5 kW
- Supply voltage 3 x 380 .. 480 V +/- 10%
- Frequency 50/60 Hz
- Speed range 1 : 50
- 160 % of rated motor torque over the entire frequency-converter range
- Flux braking
- Integrated Profibus interface instead of standard controller card available on request
- CE mark
- Compliant with EMC Directive for Industry and Households as per EN 61800-3 (EN 50081, EN 50082)
- Design compliant with UL requirements
- Degree of protection IP 65: motor and converter
- Integrated protection against overload, overcurrent, phase failure, overvoltage and undervoltage
- Drive is thermally monitored

Classification. Eta-K to motor

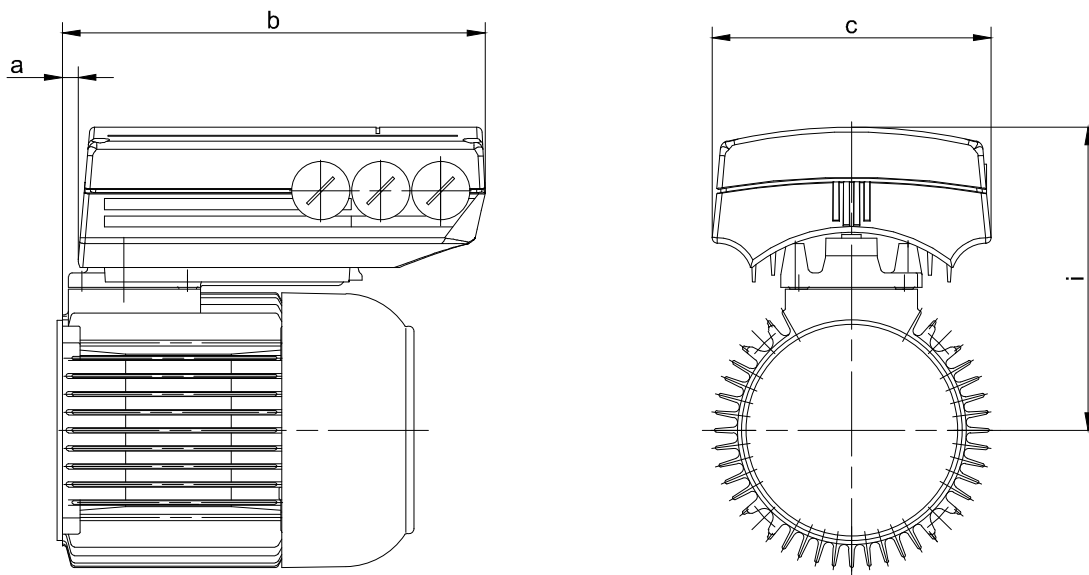
Motor power	Type of motor	Type of inverter 400 V / 50 Hz	Type of inverter 400 V / 87 Hz
0.12	D06LA4	K305	K305
0.18	D06LA4	K305	K305
0.25	D06LA4	K305	K305
0.37	D08MA4	K305	K307
0.55	D08MA4	K305	K311
0.75	D08LA4	K307	K315
1.1	D09SA4	K311	K322
1.5	D09LA4	K315	K330
1.8	D09XA4	K322	K340
2.2 *	D09XA4-FV	K322	K340
2.2	D11SA4	K322	K340
3.0	D11MA4	K330	K355
4.0	D11LA4	K340	K375
5.5	D13LA4	K355	-
7.5	D16MA4	K375	-

* = Motor design only with Forced Cooling (FV) permissible

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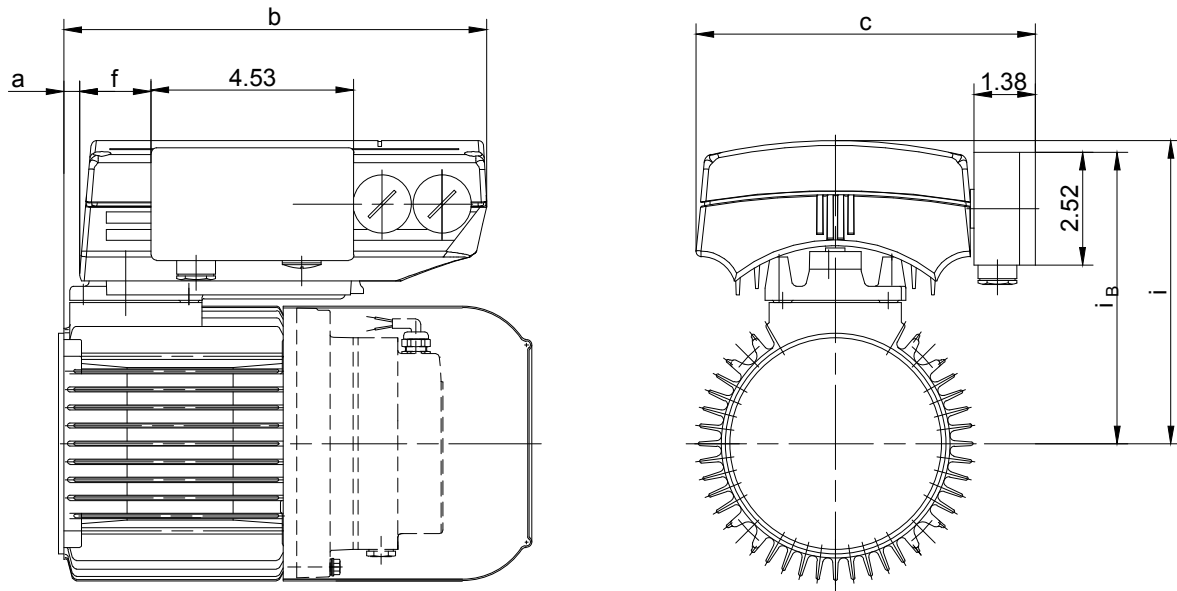
Dimensional drawing, motors with externally mounted Eta-K inverter Imperial



Motor	Type Eta-K...		Dimensions (inch)				Cable entry
			a	b	c	i	
D06	K305		0.47	8.58	5.55	5.83	3xM20x1.5
D..08	K305	K307	0.32	8.43	5.55	6.54	3xM20x1.5
	K311	K315	0.35	9.45	6.22	6.85	3xM20x1.5
D..09	K311	K315	0.20	9.29	6.22	7.95	3xM20x1.5
	K322	K330	0.08	10.20	6.93	8.35	3xM20x1.5
	K340		0.04	11.38	7.76	8.98	2xM20x1.5;1xM25x1.5
D..11	K322	K330	0.12	10.24	6.93	8.78	3xM20x1.5
	K340		0.08	11.42	7.76	9.65	2xM20x1.5;1xM25x1.5
	K355	K375	0.16	14.29	9.65	10.12	2xM20x1.5;1xM25x1.5
D..13	K355		0.28	14.41	9.65	10.94	2xM20x1.5;1xM25x1.5
D..16	K375		0.32	14.45	9.65	11.97	2xM20x1.5;1xM25x1.5

The actual gearbox design can vary from the geometry shown.

Dimensional drawing, Eta-K converter with brake control Imperial



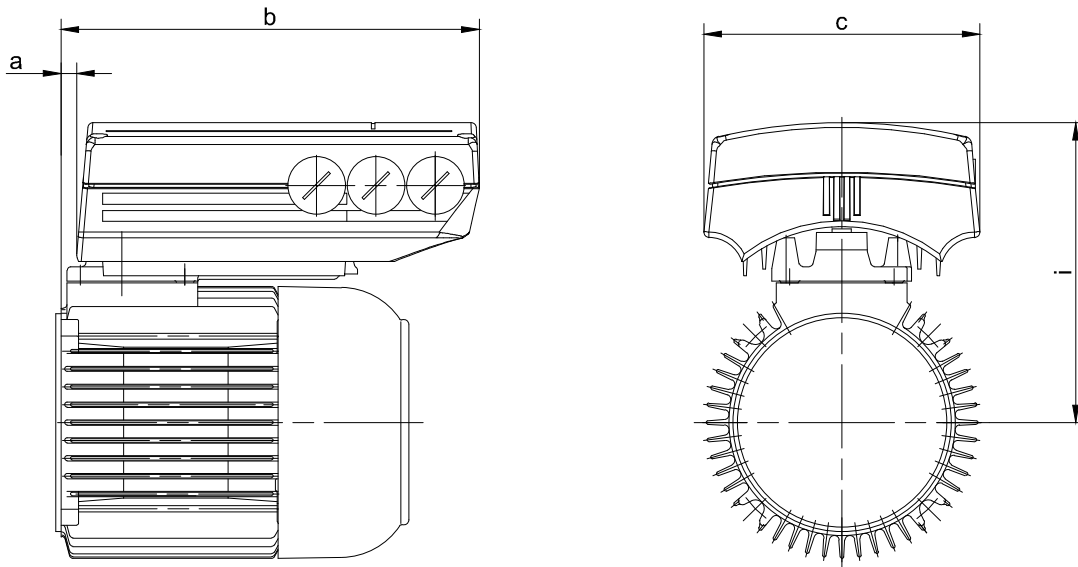
Motor	Type Eta-K...		Dimensions (inch)						Cable entry
			a	b	c	f	i	i _B	
D06	K305		0.47	8.58	7.11	0.67	5.83	6.18	2xM20x1.5
D..08	K305	K307	0.32	8.43	7.11	0.67	6.54	6.77	2xM20x1.5
	K311	K315	0.35	9.45	7.80	1.57	6.89	6.69	2xM20x1.5
D..09	K311	K315	0.20	9.29	7.80	1.57	7.95	7.76	2xM20x1.5
	K322	K330	0.08	10.20	8.46	2.56	8.35	8.27	2xM20x1.5
	K340		0.04	11.38	9.29	3.23	8.98	8.58	1xM20x1.5; 1xM25x1.5
D..11	K322	K330	0.12	10.24	8.46	2.56	8.78	8.78	1xM20x1.5
	K340		0.08	11.42	9.29	3.23	9.65	9.25	1xM20x1.5; 1xM25x1.5

The actual gearbox design can vary from the geometry shown.

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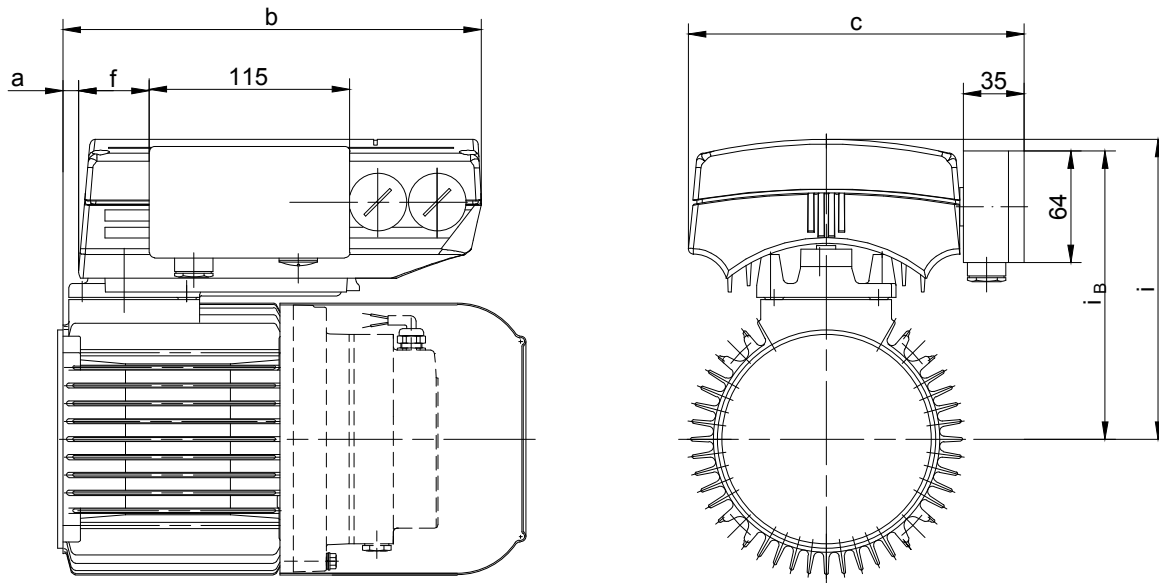
Drive solutions for decentral and central Drive technology

Dimensional drawing, motors with externally mounted Eta-K inverter



Motor	Type Eta-K...		Dimensions (mm)				Cable entry
			a	b	c	i	
D06	K305		12	218	141	148	3xM20x1.5
D..08	K305	K307	8	214	141	166	3xM20x1.5
	K311	K315	9	240	158	174	3xM20x1.5
D..09	K311	K315	5	236	158	202	3xM20x1.5
	K322	K330	2	259	176	212	3xM20x1.5
	K340		1	289	197	228	2xM20x1.5;1xM25x1.5
D..11	K322	K330	3	260	176	223	3xM20x1.5
	K340		2	290	197	245	2xM20x1.5;1xM25x1.5
	K355	K375	4	363	245	257	2xM20x1.5;1xM25x1.5
D..13	K355		7	366	245	278	2xM20x1.5;1xM25x1.5
D..16	K375		8	367	245	304	2xM20x1.5;1xM25x1.5

The actual gearbox design can vary from the geometry shown.



Motor	Type Eta-K...		Dimensions (mm)						Cable entry
			a	b	c	f	i	i _B	
D06	K305		12	218	180.5	17	148	157	2xM20x1.5
D..08	K305	K307	8	214	180.5	17	166	172	2xM20x1.5
	K311	K315	9	240	198	40	175	170	2xM20x1.5
D..09	K311	K315	5	236	198	40	202	197	2xM20x1.5
	K322	K330	2	259	215	65	212	210	2xM20x1.5
	K340		1	289	236	82	228	218	1xM20x1.5; 1xM25x1.5
D..11	K322	K330	3	260	215	65	223	223	1xM20x1.5
	K340		2	290	236	82	245	235	1xM20x1.5; 1xM25x1.5

The actual gearbox design can vary from the geometry shown.

Accessories

Operating panel with keyboard (LCP2) for setting parameters

This IP 65 control panel has a 4-line plain-text display for easy operation and parameterization. All parameters can be stored in the control panel for straightforward transfer to other converters. The control panel connects to the RS 485 serial interface. 2 connecting-cable sets are available:

- Connecting cable from LCP to the terminal strip of the converter
- Connecting cable for LCP with plug connector and adapter to terminal strip with plug socket for installation in PG16 hole. A kit complete with connecting cable for installing the control panel in a master panel is also available.



Local operator panel (LOP)

A LOP with connecting cable can be used for setting speed locally and for starting and stopping the drive. The LOP can be used to control the following functions via the converter's programmable inputs/outputs: Start clockwise, start counter-clockwise, stop, acknowledge, increase speed, decrease speed.

Setpoint potentiometer

A setpoint potentiometer for installation in a cable entry gland of the converter housing is available for adjusting speed directly at the drive. Resistance 1 kohm, angle of rotation 270°, protection IP52. This potentiometer is particularly suitable as an alternative to mechanical actuating drives.



Parameterisation software

Using this software it is possible to set parameters, operate and control all frequency inverters by means of a PC. This contributes significantly to simplifying parameterization, initial operation, diagnosis and documentation of the systems. It is possible to network up to 126 inverters. Downtimes for device replacement are cut dramatically using a configuration of this nature.

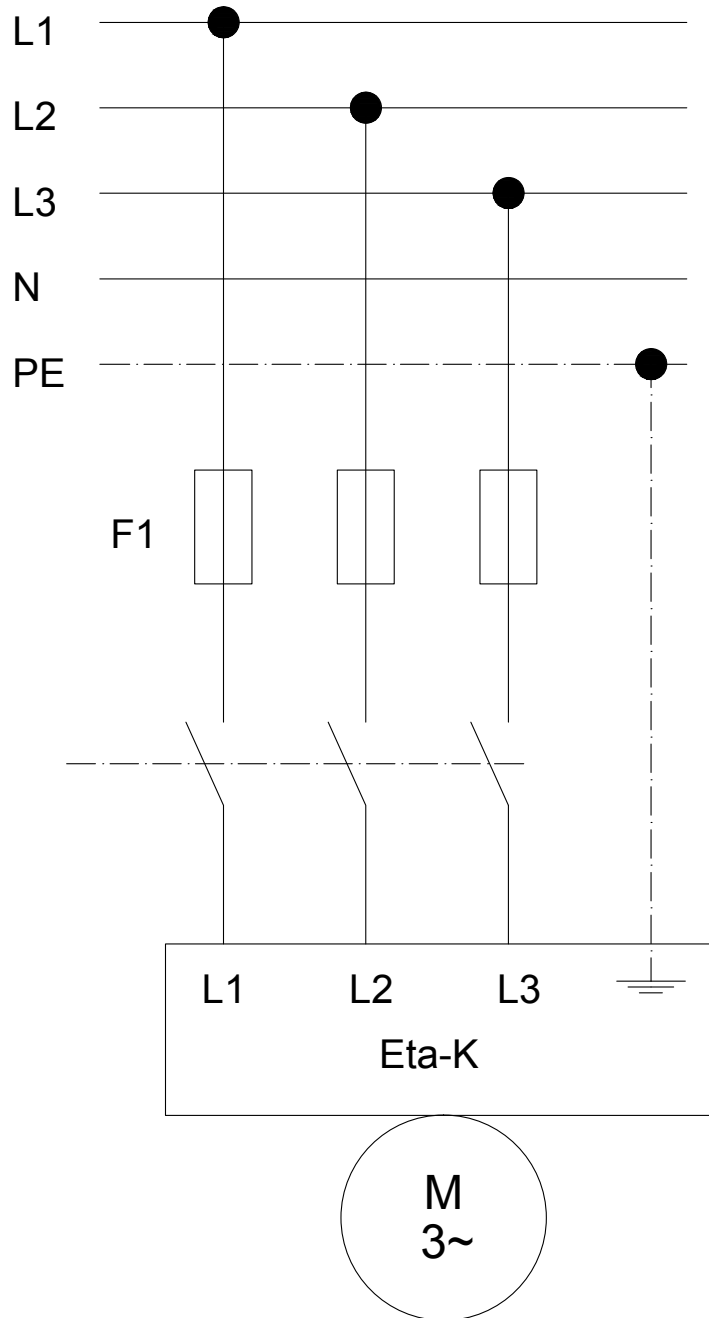
- Basic module for convenient parameterization and testing.
- Log module with monitor functionality for commissioning complex systems; modem-based communication is possible.
- Compilation module for compiling input and output forms with password protection.

Supply for mechanical brake

A mechanical brake for the motor can be actuated directly by the frequency converter. Connection is by means of an additional terminal box on the frequency converter. Two output relays are also available for the signals "Eta-K ready" and "Brake fault".

Connection diagrams

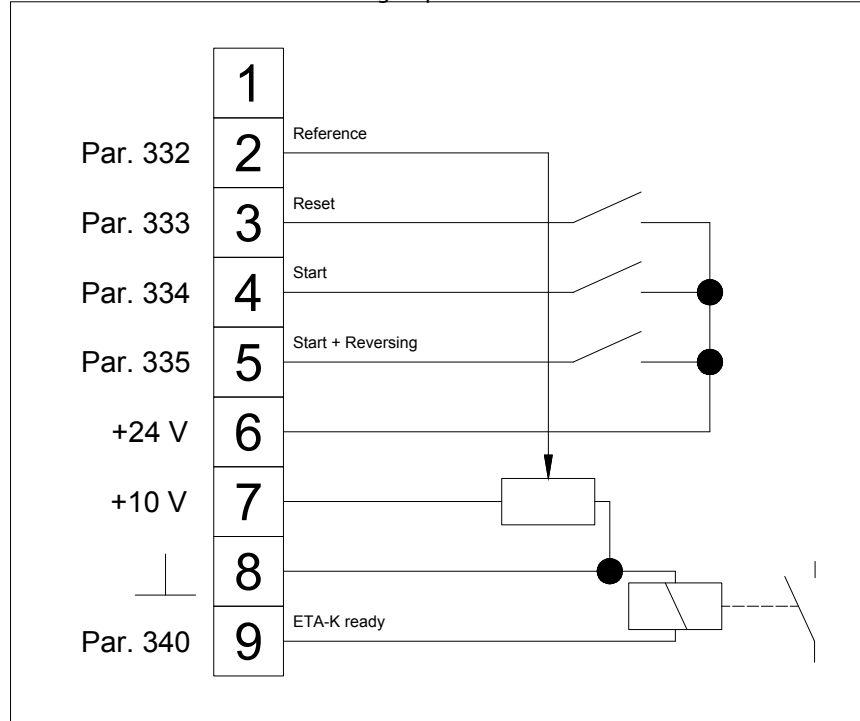
Power section



Control section

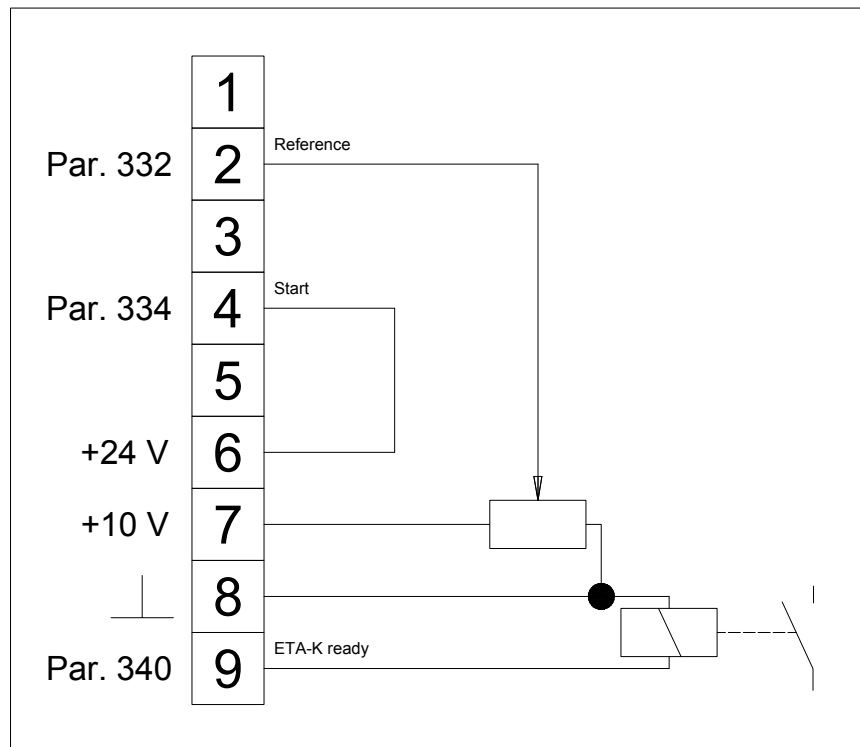
Standard

Two directions of rotation with analog setpoint



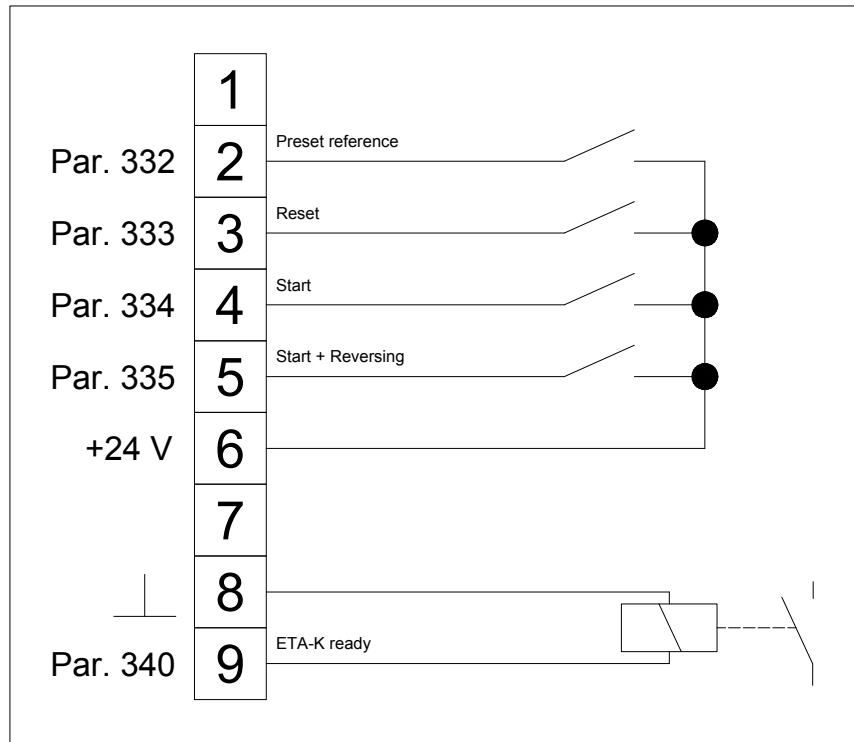
One direction of rotation with analog setpoint

e. g. as a substitute for actuator geared motors.



2 speeds + 2 directions of rotation

e. g. as a substitute for pole-changing drives



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Possible assemblies for FCD and Eta-K

BG-series

Terminal box position	B3 H4	B6 H1	B7 H2	B8 H3	V5 H5	V6 H6	B5	V1	V3
I	+	o	+	+	+	+	+	+	+
II	+	+	+	o	+	+	+	+	+
III	+	+	o	+	+	+	+	+	+
IV	o	+	+	+	+	+	o	+	+

+ possible, o not possible

BF-series

Terminal box position	H1	H2	H3	H4	V1	V2			
I	o	+	+	+	+	+			
II	+	+	o	+	+	+			
III	+	o	+	+	+	+			
IV	+	+	+	o	+	+			

+ possible, o not possible

BK-series

Terminal box position	H1	H2	H3	H4	V1	V2			
I	+	+	+	+	o	+			
II	+	o	+	+	+	+			
III	+	+	+	+	+	o			
IV	o	+	+	+	+	+			

+ possible, o not possible

BS-series

Terminal box position	H1	H2	H3	H4	V1	V2			
I	+	+	+	+	o	+			
II	+	o	+	+	+	+			
III	+	+	+	+	+	o			
IV	o	+	+	+	+	+			

+ possible, o not possible



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Address

547-560

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 - Russia**
 - Middle East & Africa**
 - APAC**
 - China**
-



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Austria	ESKO Elektromaschinenbau GmbH	Ankerweg 8 8753 Fohnsdorf	Phone Fax	+43 (3573) 27570 +43 (3573) 27570-4	office@esko.at http://www.esko.at
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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
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Germany	Bauer Elektromotoren GmbH	Burbacher Straße 216 53129 Bonn	Phone Fax	+49 (228) 917850 +49 (228) 9178516	info@bauerbonn.de http://www.bauerbonn.de



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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	Spredlinger 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
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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
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Switzerland	Meier + Co AG Integrale Antriebstechnik	Oltnerstrasse 92 5013 Niedergösgen	Phone Fax	+41 (62) 8586700 +41 (62) 8586711	info@meico.ch http://www.meico.ch
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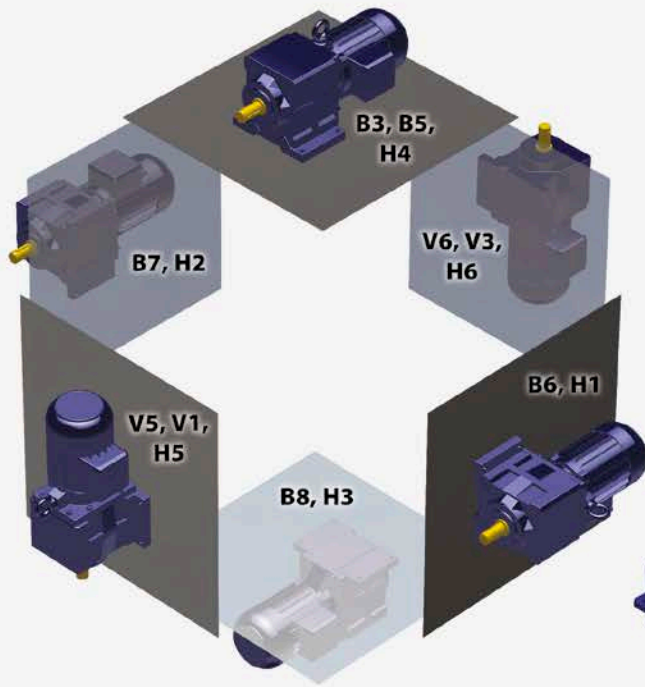


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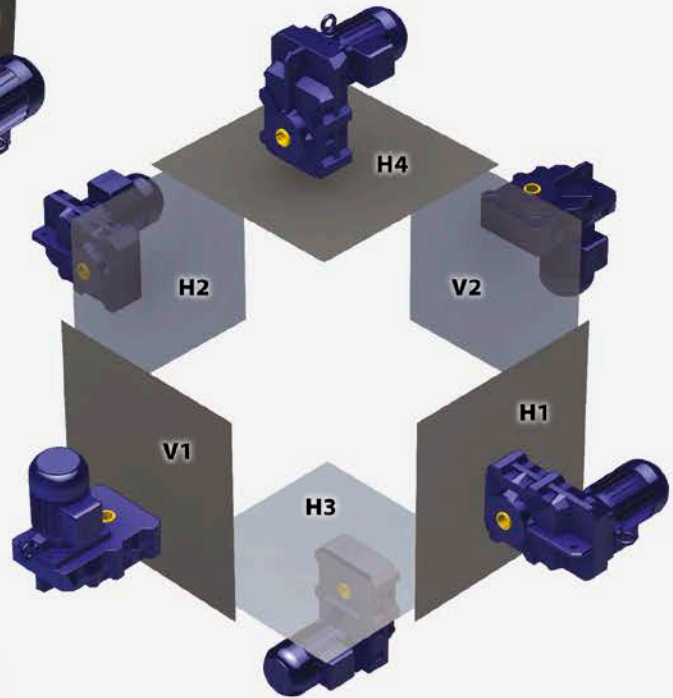


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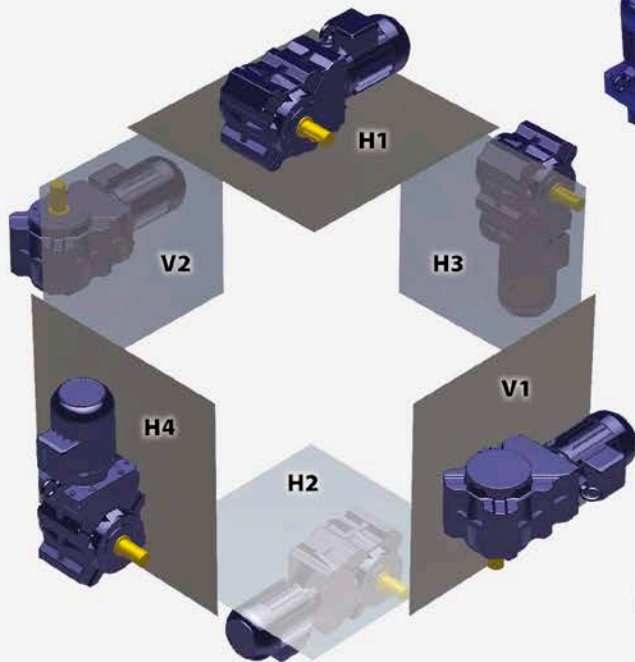
Mounting Positions



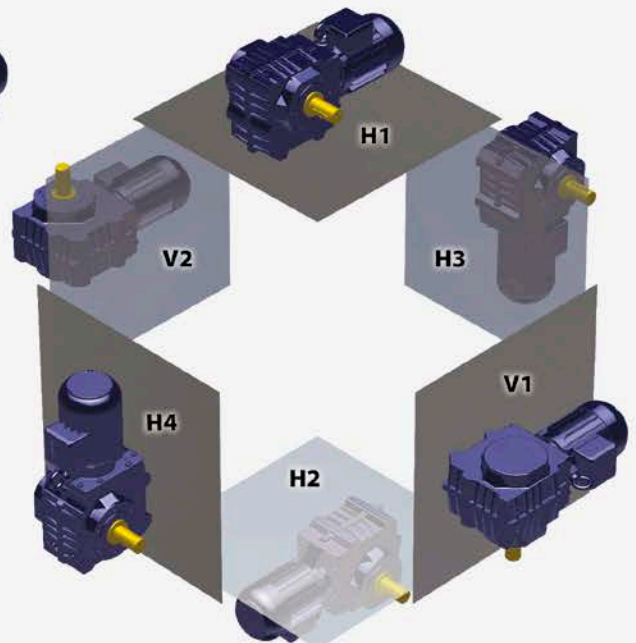
Helical Geared Motors



Parallel Shaft Geared Motors



Bevel Geared Motors



Worm Geared Motors

All Customer Service phone numbers shown in bold

Couplings

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Gear Couplings

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1-800-458-0887

Bibby Turboflex

Disc, Gear, Grid Couplings,
Overload Clutches

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+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

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General Purpose Disc Couplings

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Ameridrives Power Transmission

Universal Joints, Drive Shafts,
Mill Gear Couplings

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Huco Dynatork

Precision Couplings
and Air Motors

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Chambersburg, PA - USA
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Lamiflex Couplings

Flexible Couplings, Bearing Isolators,
and Coupling Guards

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Guardian Couplings

Flywheel, Jaw, Shear, Gear, Grid,
Disc and Engine Couplings

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Engineered Bearing Assemblies

Kilian Manufacturing

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Electromagnetic Clutches and Brakes

Warner Electric

Electromagnetic Clutches
and Brakes

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For application assistance:
1-800-825-9050

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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

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+44 (0) 1356 602000

New Hartford, CT - USA
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Inertia Dynamics

Spring Set Brakes; Power On and
Wrap Spring Clutch/Brakes

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1-800-800-6445

Overrunning Clutches

Formsprag Clutch

Overrunning Clutches
and Holdbacks

Warren, MI - USA
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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

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Heavy Duty Clutches and Brakes

Wichita Clutch

Pneumatic Clutches and Brakes

Wichita Falls, TX - USA
1-800-964-3262

Bedford, England
+44 (0) 1234 350311

Twiflex Limited

Caliper Brakes and Thrusters

Twickenham, England
+44 (0) 20 8894 1161

Industrial Clutch

Pneumatic and Oil Immersed
Clutches and Brakes

Waukesha, WI - USA
1-262-547-3357

Svendborg Brakes

Industrial Brakes and
Brake Systems

Vejstrup, Denmark
+45 63 255 255

Gearing

Boston Gear

Enclosed and Open Gearing,
Electrical and Mechanical
P.T. Components

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Bauer Gear Motor

Gearred Motors

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+49 (711) 3518-0

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Nuttall Gear and Delroyd Worm Gear

Worm Gear and
Helical Speed Reducers

Niagara Falls, NY - USA
1-716-298-4100

Linear Products

Warner Linear

Linear Actuators

Belvidere, IL - USA
1-800-825-6544

For application assistance:
1-800-825-9050

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