

Energy Efficient Geared Motors

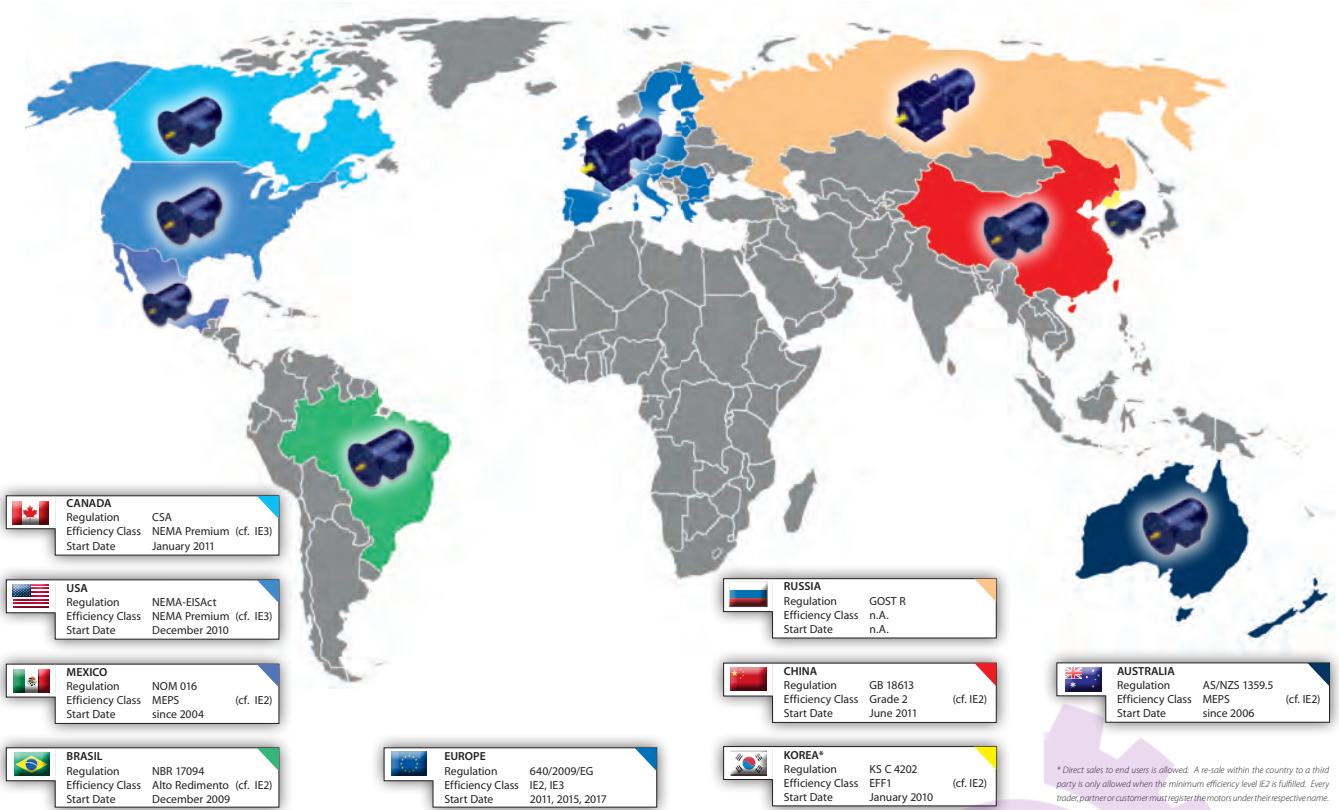
Catalogue Edition 03/2012 EN



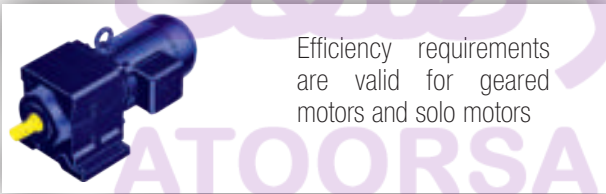
 **Bauer**[®]
Gear Motor

An Altra Industrial Motion Company

Worldwide Efficiency Regulations



Legend



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

Operating conditions	Ambient conditions	Ambient conditions
<ul style="list-style-type: none"> Motors designed to operate fully submerged in a liquid (IP68) 	<ul style="list-style-type: none"> at heights above 1,000 metres above sea level at ambient temperatures above 40° C at maximum operating temperatures above 400 °C at ambient temperatures below -15° C (all motors) or ambient temperatures below 0° C (air cooled motors) with coolant temperatures at product intake below 5 °C or above 25 °C 	<ul style="list-style-type: none"> in areas with a potentially explosive atmosphere as mentioned in Directive 94/9/EC of the European Parliament and Council
Construction		Other
<ul style="list-style-type: none"> motors that are completely integrated in a product (such as a transmission, pump, fan or compressor) whose energy efficiency cannot be determined independently of this product 		<ul style="list-style-type: none"> Brake motors Pole changing motors 8,10,12 pole motors Single phase motors DC motors Duty cycles other than S1 Motors exclusively designed for inverter duty

Type Designations

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

BK 50 Z X - 1 1 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

What does the EU directive mean?

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

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

As things stand today

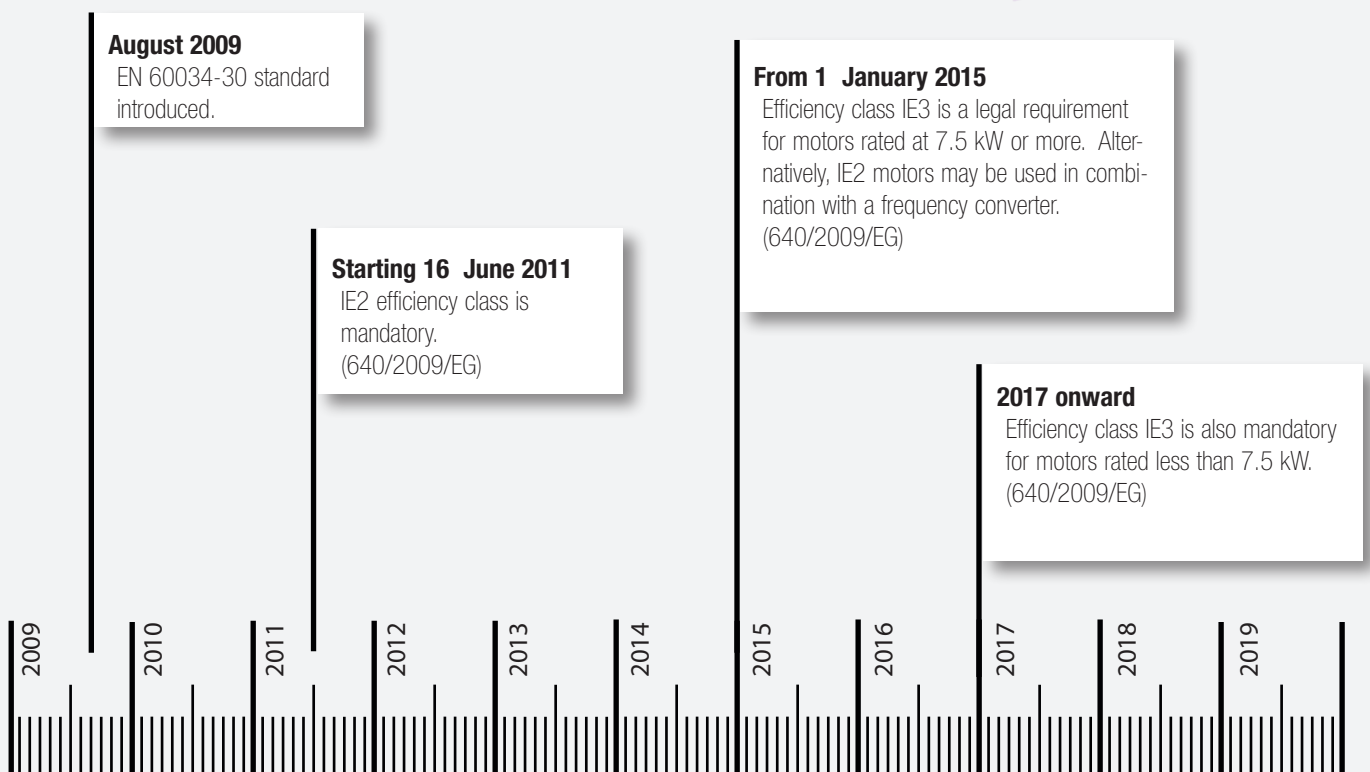
New IE (International Energy Efficiency) efficiency classes were introduced at the beginning of 2009:





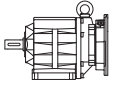
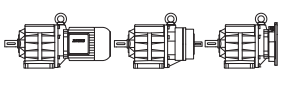
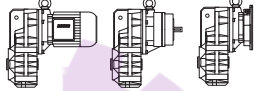
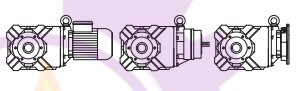
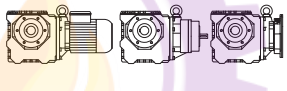


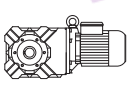
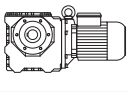

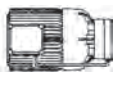
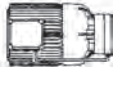
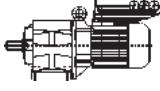

- IE1 = Standard Efficiency (~ EFF2)
- IE2 = High Efficiency (~ EFF1)
- IE3 = Premium Efficiency (10–15 % higher efficiency than IE2)
- IE4 = Super Premium Efficiency

The IE classes cover the following:

Rated voltage	up to 1,000 V
Power	0.75 kW to 375 kW
Number of poles	2, 4 or 6 (50 and 60 Hz)
Operation	Mains Duty
Operating modes	S1
Remarks	A new consideration: geared motors

What happens when?



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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“

Helical-Geared Motor Series BG



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

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

Shaft-Mounted Geared Motor Series BF



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

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

Bevel-Geared Motor Series BK



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

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

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 IP 67 and IP 69K with acid and alkali resistant coating as standard
- Motor connection through standard stainless steel plug connector
- Efficiency Classification IE2 / IE3

CleanDrive™



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

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

CleanConnect®



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

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

Worm-Geared Motor Series BS



Economical, right-angle, worm-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 IP 65 as standard
- Service friendly built-on brake

Overhead Monorail Geared Motor Series BM



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

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

Frequency Converter Geared Motor Series Eta-K



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

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

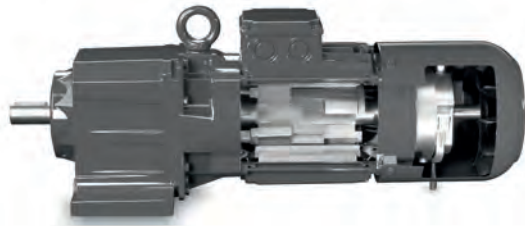
Explosion-proof BAUER Geared Motors



Geared motors suitable for use in explosive areas:

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

Energy Saving Geared Motors



η	Advantages	Your benefits
Without	<ul style="list-style-type: none"> • Motor design according to duty • Small installation volume and minimum weight • Higher motor powers 	<ul style="list-style-type: none"> • Economical • Small installation space • Efficient motor utilisation • Tailored to customer application • Smaller motor frame size
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

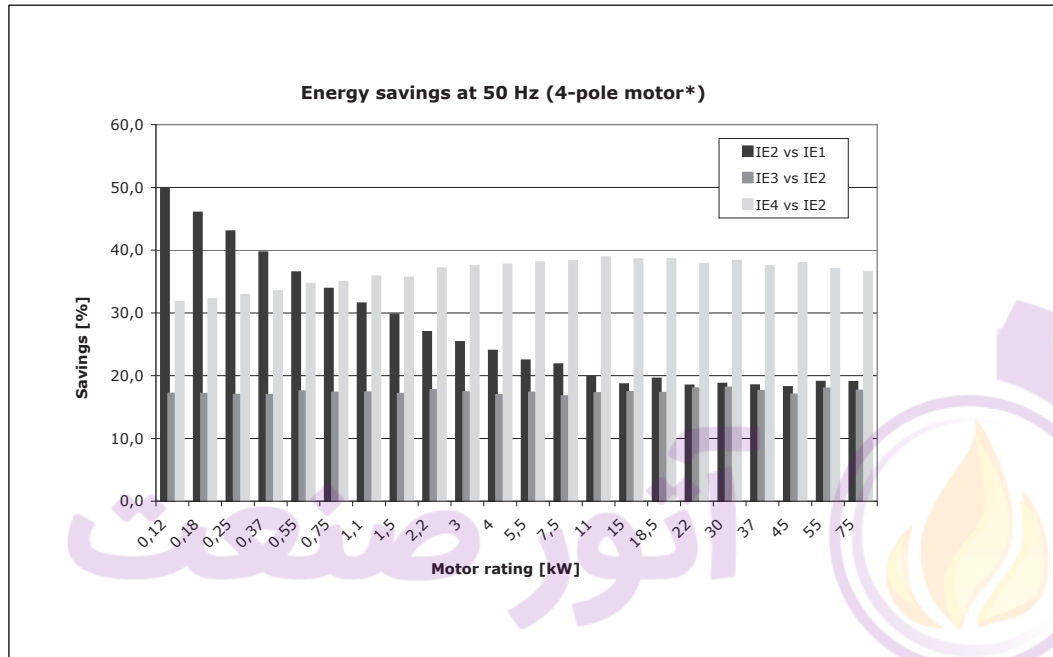
Investment security for the future

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

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

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

Potential for energy savings in drive technology



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

*at 1,500 rpm





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Advantages for Bauer Geared Motors

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Bauer Geared Motors

Bauer Gearboxes

Bauer-Motors

Bauer-Brakes

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Bauer-Gearmotors

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

Bauer Gearboxes

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

Bauer Motors

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

Bauer Brakes

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

صنعت

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Selection of geared motors

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Safety Information

Cover of Rotating Parts

Contact Protection

Noise Behaviour

Coating and Corrosion Protection

Modular system overview

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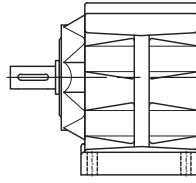
Installed positions of geared motors	Bauer geared motors can be supplied for any type of fitting position. Vertical installation positions (motor-down) place a particularly severe strain on the shaft seal. It is advisable to avoid this arrangement especially at high motor speeds (e.g. above 1800 r/min) and continuous operation
Notes on safety	See the notes on safety regarding installation in Operating Instructions.
Guards for rotating parts	<p>The shrink disk (SSV) guards required under the German law relating to technical materials (Law Concerning Industrial Equipment - Equipment safety law GPSG) or by the Accident Prevention Regulations (UVV) are not included in the standard scope of supply because they are fitted by the customer in most cases, or the risk of accident can be eliminated by suitable installation.</p> <p>See the Operating Instruction.</p>
Protection against accidental contact	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	<p>The typical operating noise levels of BAUER geared motors are within the limits stipulated by VDI directive 2159 for gears and EN 60034-9, Table 2 for motors.</p> <p>For physical reasons, low-ratio, high-speed gears produce more noise than medium- and high-ratio gears operating at low speeds.</p> <p>See BAUER special imprint SD18.. for more information</p>
Paint finish and corrosion protection	<p>BAUER geared motors are spray-painted in RAL 7031 to DIN 1843 as standard. Other RAL colours are available at extra cost.</p> <p>The output shafts are shipped in protective sleeves or with a protective coating to prevent corrosion.</p> <p>If high requirements for corrosion resistance are required, the drives are available with enhanced corrosion protection: CORO 1, CORO 2, CORO 3 or CORO 4.</p> <p>Paint finishes up to 200 µm in thickness are available on request at extra cost. Thicker paint finishes for geared motors are impractical, because the paint tends to flake at the ribs and when the terminal box is opened.</p>

2

Gear design

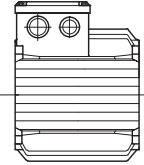
Motor terminal box design

BG



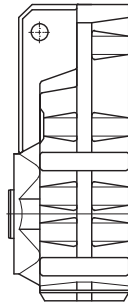
Helical gear

System cover



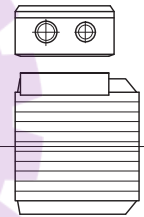
Motor with cast-in terminal box (KAG)

BF



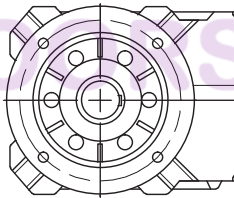
Shaft-mounted gear

Pre-stage



Motor with screw-on terminal box (TB)

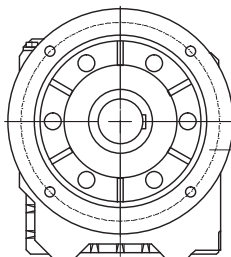
BK



Bevel gear

Pre-stage + System cover

BS



Worm gear

Intermediate gear

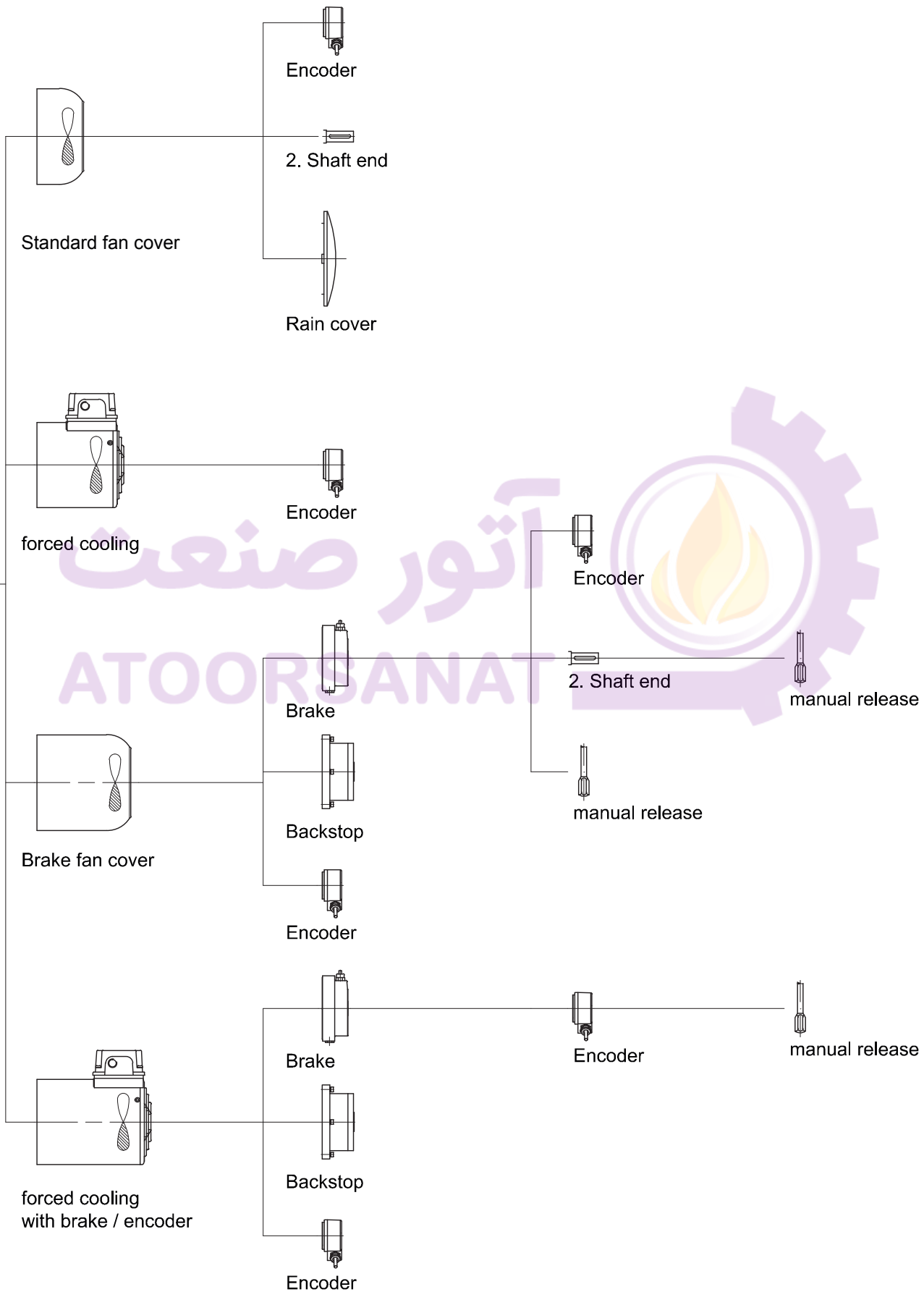
Motor with ETA-K-Inverter

(System cover + Intermediate gear + System cover)

Covers
B-side

Extensions
Standard motor

Extensions
Motor with brake







Page

19-28

Type Designations

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

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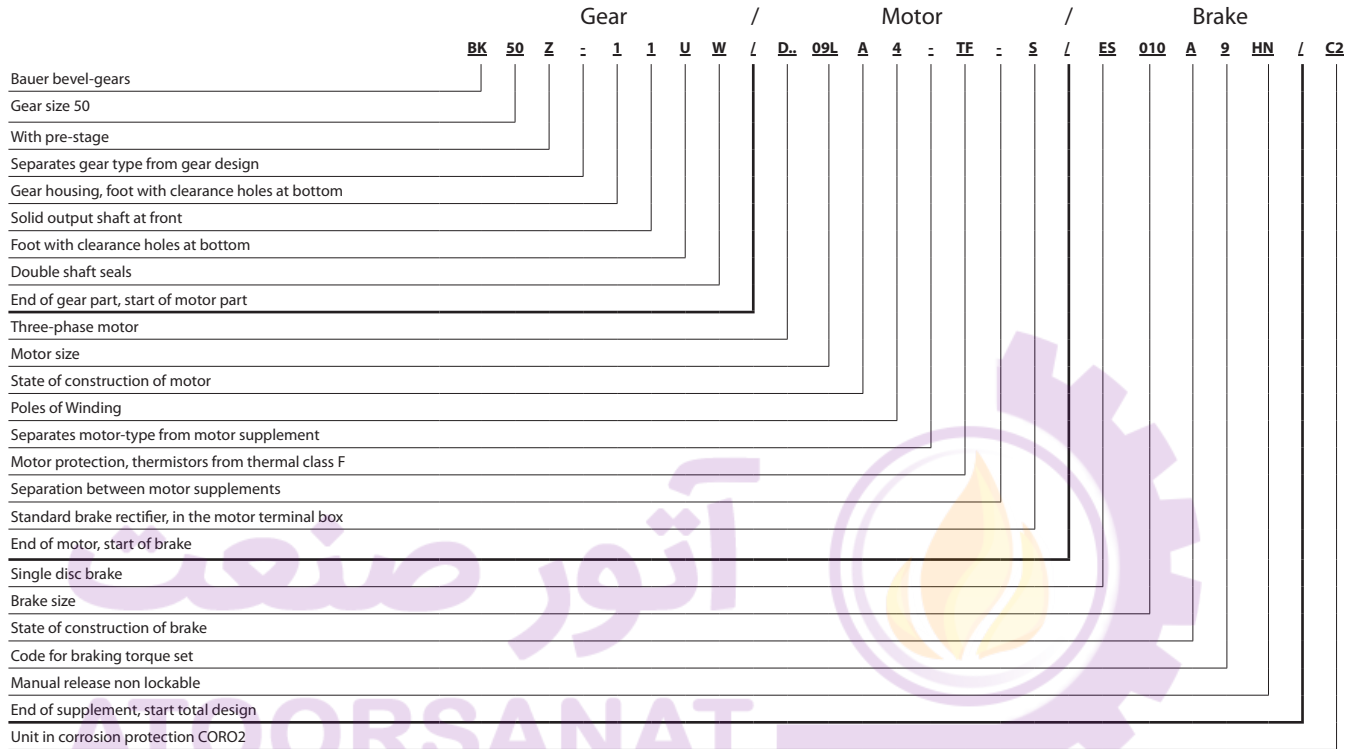
Bauer bevel-gear motor with brake and standard add-ons

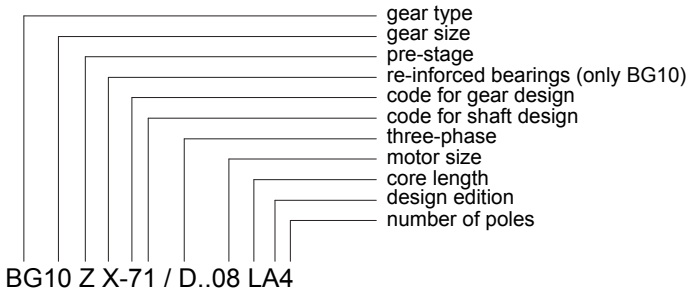
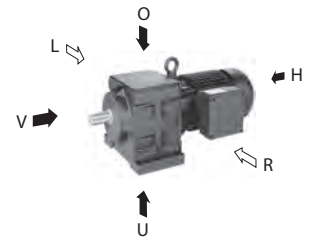
Example: Bauer bevel-gear motor with brake and standard add-ons

Significance of type designation

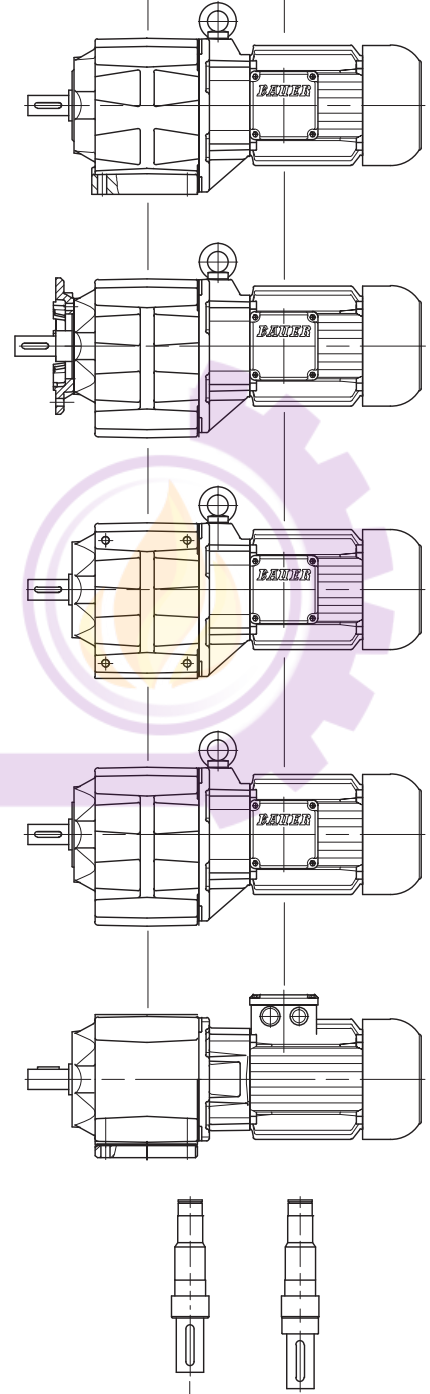
The type designation of a BAUER geared motor is a code designating all the features in the drive configuration.

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





- 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

3

gear type
gear size
pre-stage
re-inforced bearing (\geq BF60)
code for gear design
code for shaft design
three phase
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

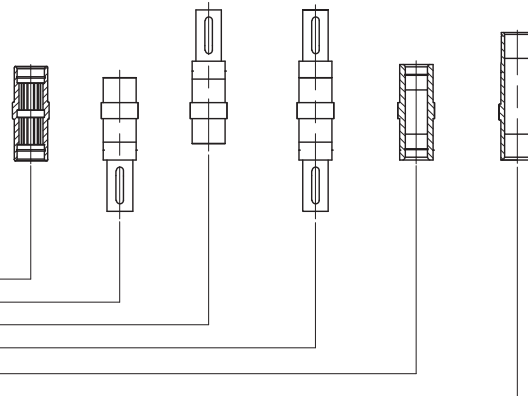
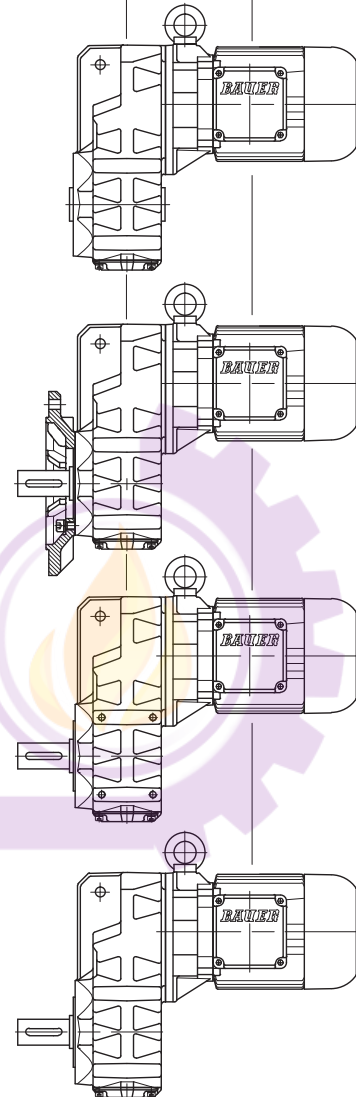
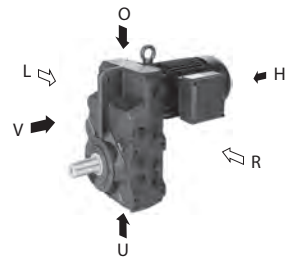
0 . cast-in torque arm

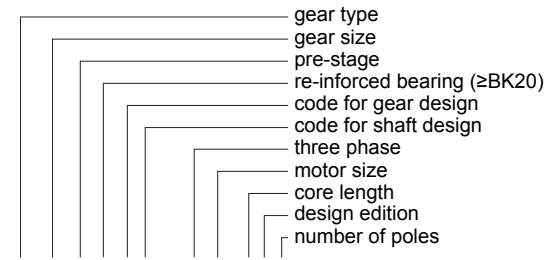
2 . small A-flange with through holes
3 . standard A-flange with through holes
4 . large A-flange with through holes

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

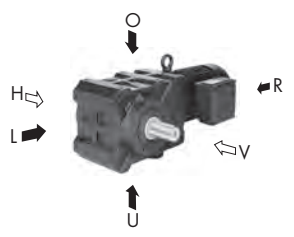
7 . C-flange with threaded holes
8 . completely machined

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

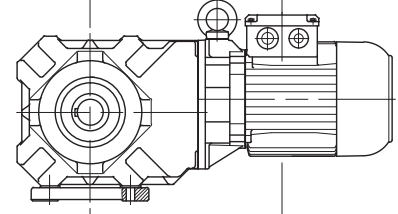




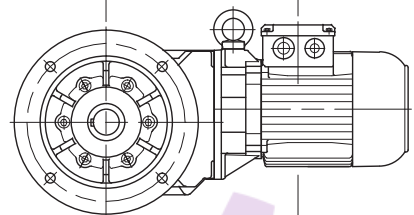
BK20 Z X-64U / D06 LA4



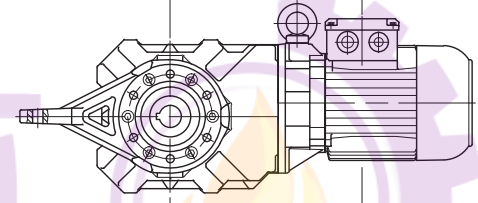
- 1 . U ——— foot with through holes, bottom
- 1 . L ——— foot with through holes, left
- 1 . O ——— foot with through holes, top



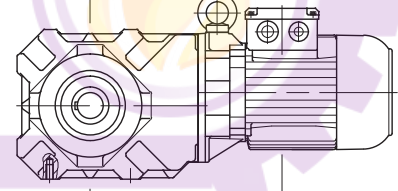
- 2 . V ——— small A-flange with through holes, front
- 3 . V ——— standard A-flange with through holes, front
- 4 . V ——— large A-flange with through holes, front
- . . H ——— A-flange, rear
- . . VH ——— A-flange, front and rear



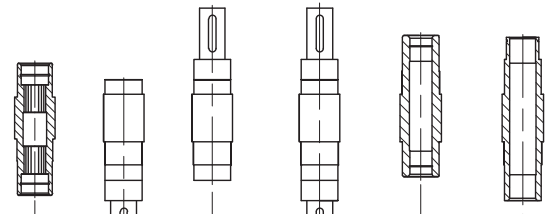
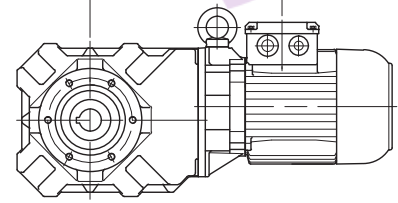
- 5 . V ——— torque arm, front
- 5 . VL ——— torque arm, front to left
- 5 . VO ——— torque arm, front to top
- 5 . VU ——— torque arm, front to bottom
- 5 . HL ——— torque arm, rear to left
- 5 . HO ——— torque arm, rear to top
- 5 . HU ——— torque arm, rear to bottom



- 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
- . . W double shaft seals
- . . A cover for shrink disk SSV

3



BS40 Z-64U/ D..08 LA4

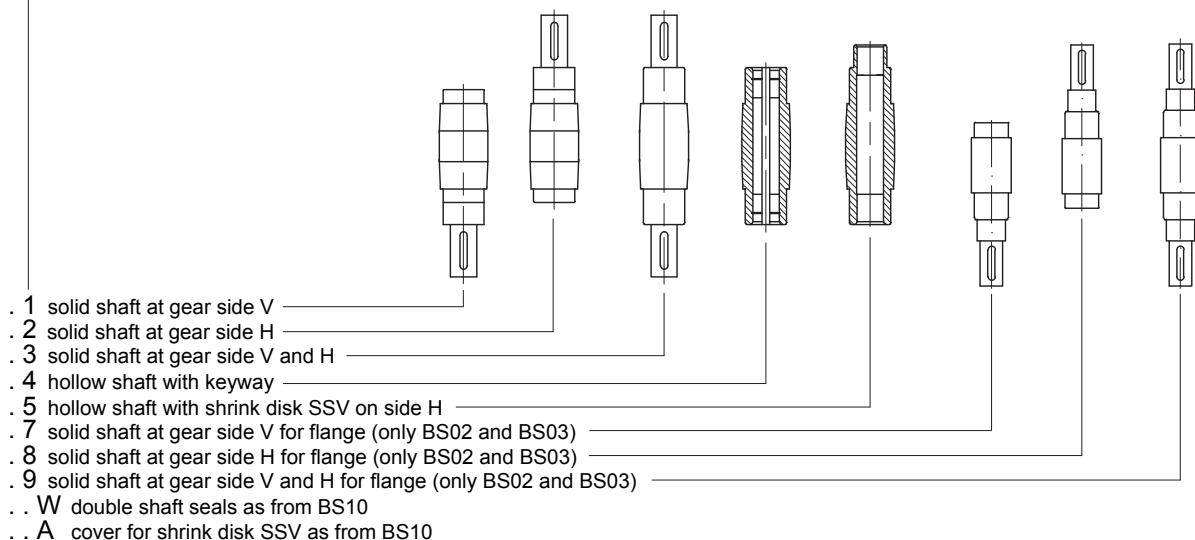
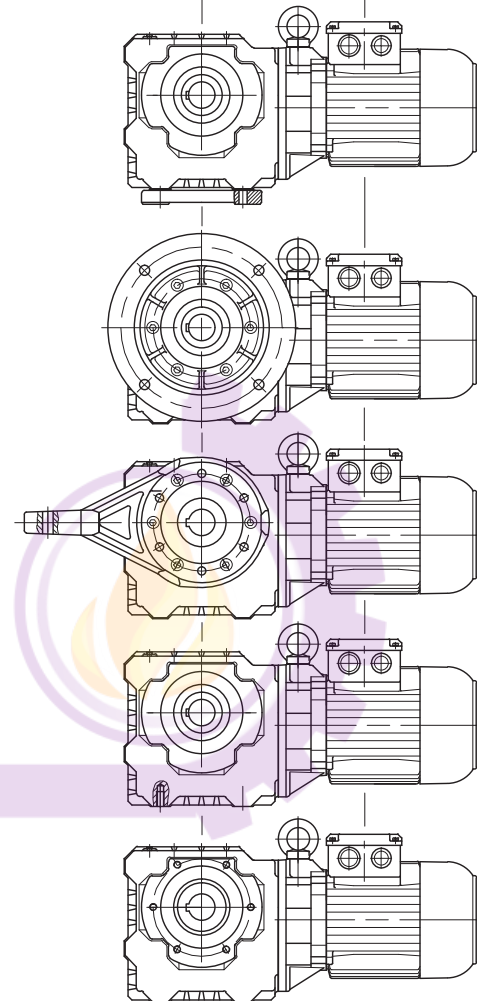
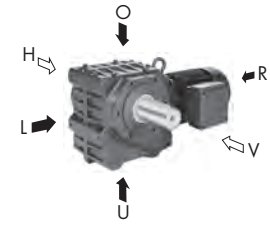
- 1 . U ————— foot with through holes, bottom
- 1 . L ————— foot with through holes, left
- 1 . O ————— foot with through holes, top

- 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

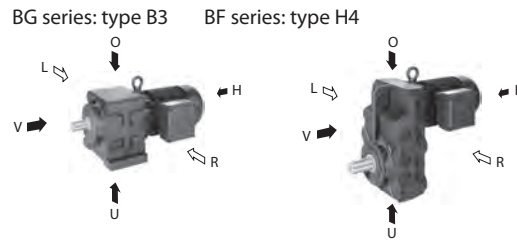
- 6 . U ————— foot with threaded holes, bottom
- 6 . L ————— foot with threaded holes, left
- 6 . O ————— foot with threaded holes, top

- 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

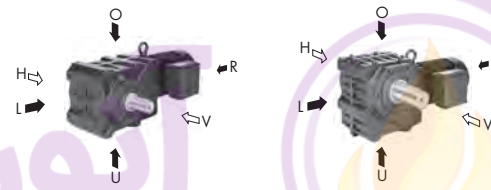
BG and BF series



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

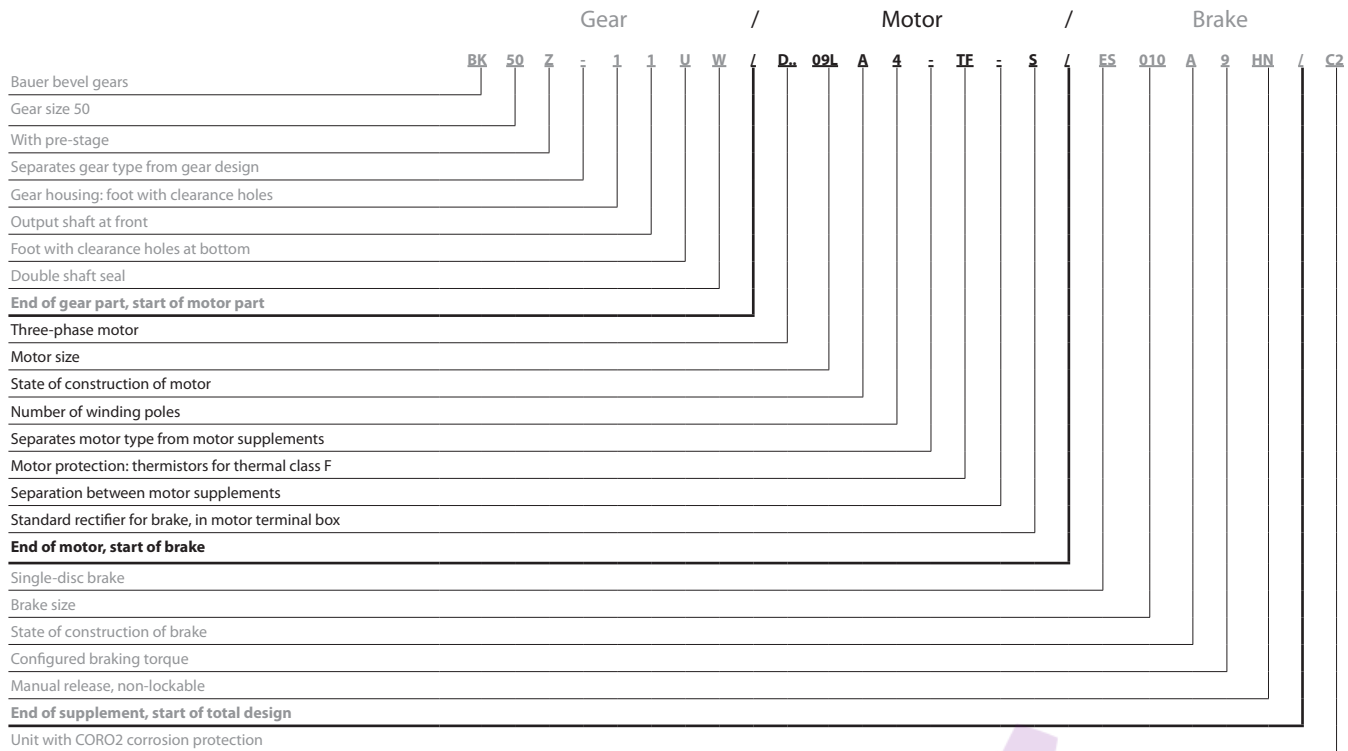
BK and BS series

BK series: type H1 BS series: type H1



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

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

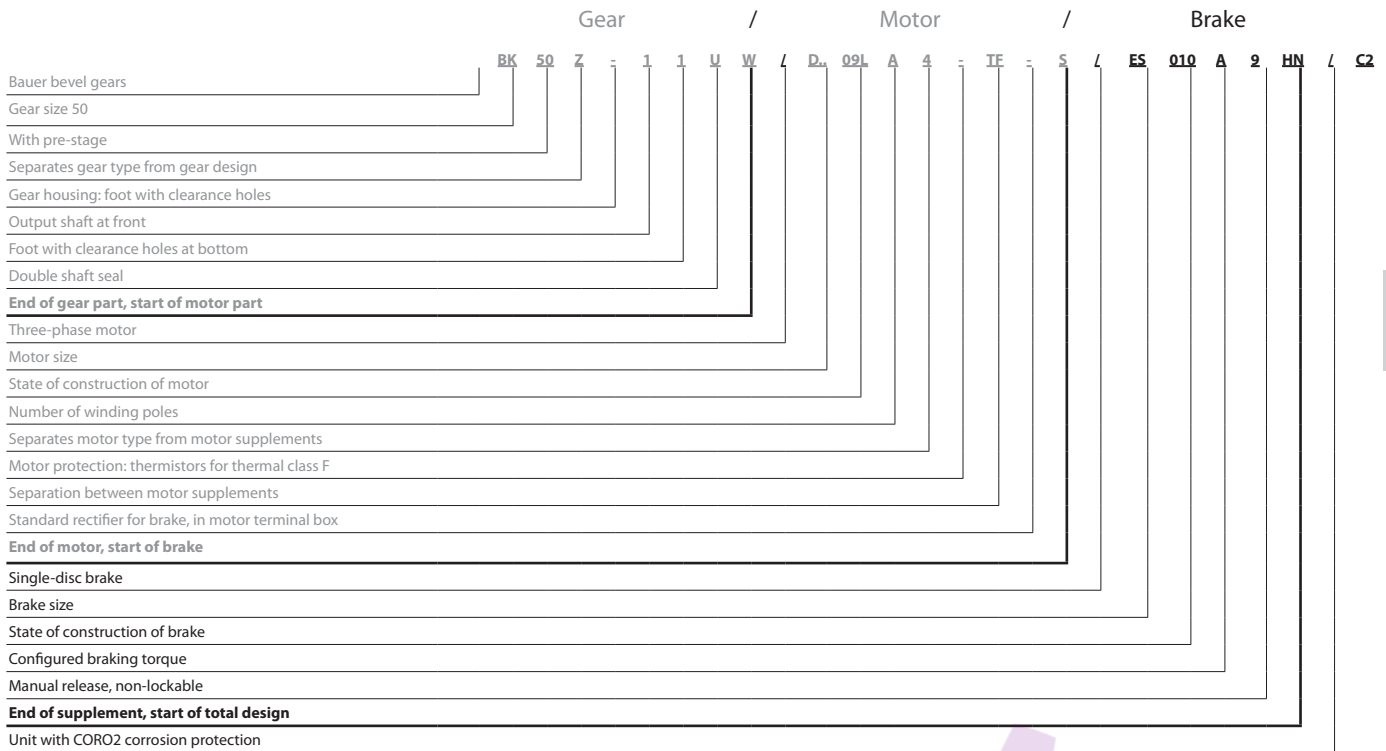
SL

Protective cover

D

CleanDrive™

CD = Aseptic drive with cable



Brake

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

Reverse rotation block

RR	= Blocking direction clockwise
RL	= Blocking direction anticlockwise

Digital and analogue encoder

G

Second shaft end

ZW	= With key
ZV	= With square shaft

Forced ventilation

FV

Overall design

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

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Page

Geared Motor Selection

29-50

Specification of geared motors

Drive configuration

Motor configuration

Radial and axial forces on the output shaft

Sizing based on efficiency

Shock loads of machinery

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Gear Motor Selection

Selection of geared motors

RFQ data

Order

Bauer Gear Motor GmbH

Order / RFQ no.:

Fax: +49 (0)711 3518 381

Contact data:

Email: info@bauergears.com

Application:

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

Gearbox type



BG

BF

BK

BS

Number of items

Efficiency class

not IE IE2 IE3

Type _____

Power _____ kW

Output shaft speeds _____ 1/min

Torque _____ Nm

Service factor $f_B =$ _____

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 _____ °C

Altitude [m] _____

Ambient conditions & installation site _____

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

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

Axial force on output shaft _____ N

Operation with inverter

speeds of _____ 1/min to _____ 1/min

Cutoff frequency _____ Hz

Integrated frequency converter

Cabinet-mounted frequency converter

Gear unit design

Foot with clearance holes

A-Flange with clearance holes D = _____ mm

C-Flange with tapped holes

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

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

Output shaft

Solid shaft on F/B/FB end _____

Hollow shaft

Hollow shaft for shrink-on disk

Motor-mounted components

brake

Type _____ Braking torque = _____ Nm

Supply voltage = _____ VAC _____ Hz or _____ V DC

manual release yes no

Microswitch yes no

Encoder

incremental

absolute

Pulse count _____

Output signal HTL TTL

Forced ventilation

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

Special design features

4

Drive configuration

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

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

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

All motions can be divided into:

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

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

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

**Required data
for drive configuration**

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

Designation	Description	Unit
Z	Cycle rate	[1/h]
t _d	Operating time per day	[h]
t _a	Deceleration time	[s]
n ₂	Output speed	[rpm]
n	Rated rotor shaft speed	[rpm]
J	Moment of inertia	[kgm ²]
J _{ext}	External moment of inertia	[kgm ²]
J _{ext}	External moment of inertia referred to the rotor shaft	[kgm ²]
J _{rot}	Rotor moment of inertia	[kgm ²]
F	Force	[N]
m	Mass	[kg]
v	Velocity	[m/s]
a	Acceleration	[m/s ²]
g	Earth gravitational constant	[m/s ²]
P _{dyn}	Dynamic power	[kW]
P _s	Static power	[kW]
P	Power	[kW]
M ₂	Output torque	[Nm]
M _{2erf}	Required drive torque	[Nm]
M _N	Rated torque at rotor shaft	[Nm]
M _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 Section 15 for assistance in selecting the right motor power.

Determining the required torque

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

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

Determining the gear reduction ratio

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

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

Gearbox size selection

Determining the factor of inertia

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

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

Determining the shock load

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

Determining the minimum service factor f_{Bmin}

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

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

Note: The service factor relates solely to the required torque for static operation needed by the application, which should be covered by the output torque of the selected geared motor.
The dynamic portion is not taken into consideration here.

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

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

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

Brake specification

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

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

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

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

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

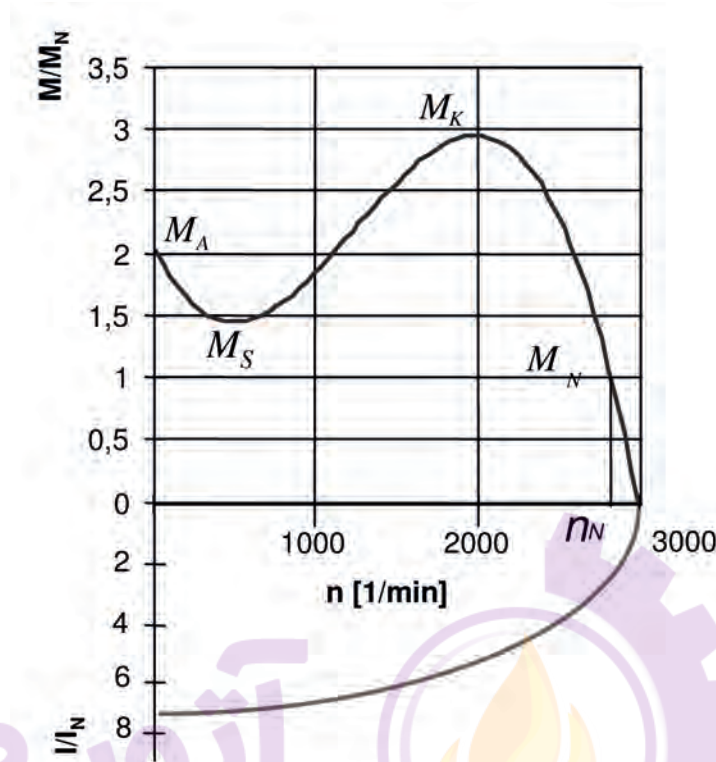
In the case of applications with significant external moments of inertia (FI greater than 2) and with operating cycles per hour, the brake size must always be selected on the basis of the thermally allowable braking energy. See Section 16 for detailed information on brake configuration.

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

Torque–speed characteristic

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

Torque vs. Speed Curve



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

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

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

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

Dynamic power

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

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

- P_{dyn} Dynamic power [W]
- m Mass [kg]
- a Acceleration [m/s²]
- v Velocity [m/s]
- 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

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

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

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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]	$Z = Z_0 \times \frac{1 - \left[\frac{M_L \times \eta}{M_A} \right]}{\left[\frac{J_s + J_M + (J_{ext} \times \eta)}{J_M} \right]} \times K_L$

Motor selection

Example:

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

Required static torque at motor 70.0 Nm

Total torque at motor: 196 Nm

IE2

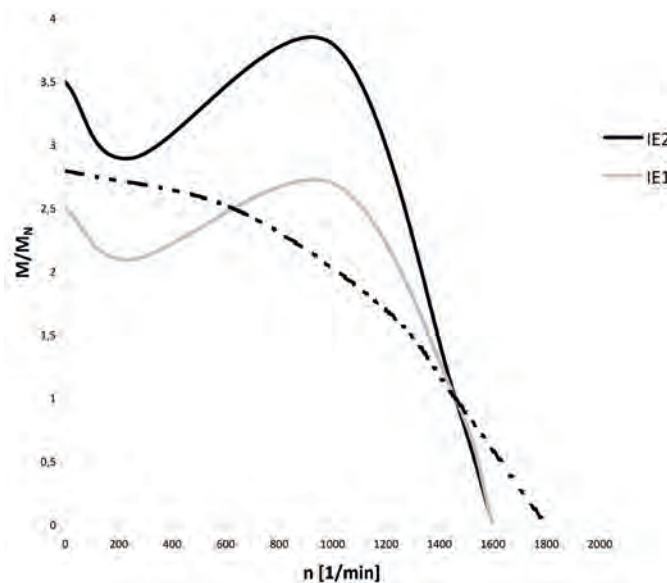
P_N [kW]	Type	n_N [rpm]	M_N [Nm]	I_N 400 V [A]	$\cos \varphi$	η (100% load) [%]	η (75% load) [%]	η (50% load) [%]	I_A/I_N	M_A/M_N	M_S/M_N	M_K/M_N	J_{rot} [kgm ²]
7,5	DHE13LA4	1460	49	15,1	0,81	88,9	89,2	87,9	7,0	3,3	3,0	3,5	0,0345
9,5	DHE16MA4	1470	62	19,7	0,78	89,4	89,4	86,5	6,8	2,9	2,5	3,2	0,057
11	DHE16LA4	1470	71	22,5	0,78	90,3	90,0	88,3	7,9	3,5	2,9	3,8	0,076
15	DHE16XA4	1470	97	31	0,77	90,6	90,8	88,8	7,2	3,2	2,8	3,5	0,087
18,5	DHE18LA4	1470	120	35	0,83	91,5	91,7	90,0	7,9	3,6	3,0	3,3	0,160

IE1

P_N [kW]	Type	n_N [rpm]	M_N [Nm]	I_N 400 V [A]	$\cos \varphi$	η (100% load) [%]	η (75% load) [%]	η (50% load) [%]	I_A/I_N	M_A/M_N	M_S/M_N	M_K/M_N	J_{rot} [kgm ²]
7,5	DSE13MA4	1440	50	15,3	0,81	87,5	87,8	87,1	6,2	2,8	2,5	3,2	0,02900
9,5	DSE13LA4	1440	63	19,2	0,82	87,1	87,5	87,5	6,0	2,9	2,6	3,0	0,03450
11	DSE16MA4	1460	72	22,6	0,81	87,7	88,0	87,3	6,0	2,5	2,1	2,7	0,05700
15	DSE16LA4	1460	98	29,5	0,83	88,9	89,2	88,9	6,1	2,5	2,1	2,8	0,07600
18,5	DSE16XA4	1460	121	37,5	0,81	89,3	89,9	88,5	6,1	2,6	2,2	2,8	0,08700

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

Selected motor: 11.0 kW
IE2: DHE16LA4



No-load cycle rate Z_0

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

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

No-load cycle rate Z_0 :

P_N [kW]	Type	Z_0 [c/h]
0,37	DHE08MA4	27000
0,55	DHE08LA4	19000
0,75	DHE08XA4	15000
1,1	DHE09LA4	11000
1,5	DHE09XA4	8700
2,2	DHE09XA4C	6400
3	DHE11MA4	5000
4	DHE11LA4	4000
5,5	DHE11LA4C	3100
7,5	DHE13LA4	2400
9,5	DHE16MA4	2000
11	DHE16LA4	1800
15	DHE16XA4	1400
18,5	DHE18LA4	1200
22	DHE18XA4	1000
30	DHENF20LG4	790
37	DHENF22SG4	670
45	DHENF22MG4	570
55	DHENF25MG4	490
75	DHENF28MG4	380

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

Load factor K_L

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

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

The load factor K_L for 4-pole motors is determined as follows:

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

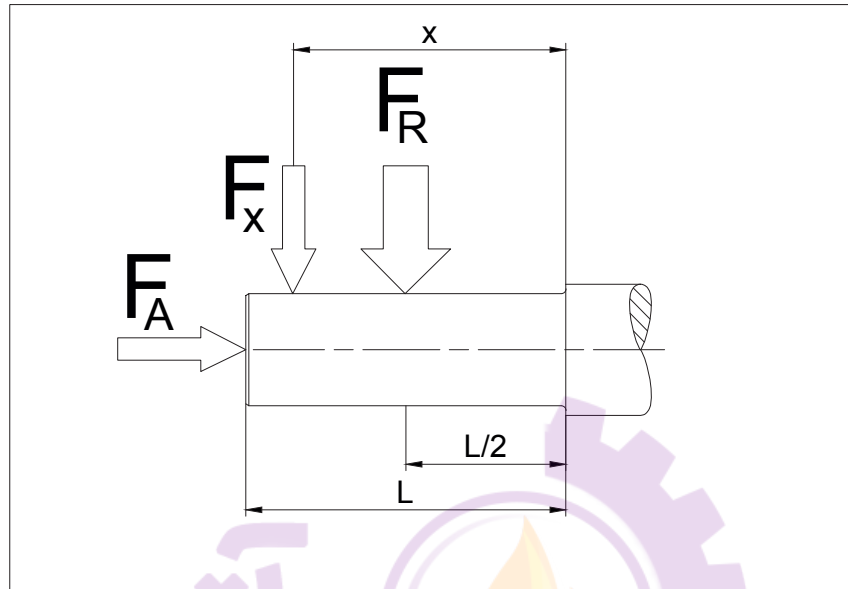
$$K_L = 0,35 + (K_{L100} - 0,25) \times ED$$

Radial and axial forces on the output shaft

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

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 us.

Bearing load limit

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

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

Shaft strength

$$F_{xw1} = F_{qmax} \times \frac{0,5}{\left(\frac{X}{I}\right)}$$

$$F_{xw2} = F_{qmax} \times \frac{0,5 + c}{\left(\frac{X}{I} + c\right)}$$

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

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

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

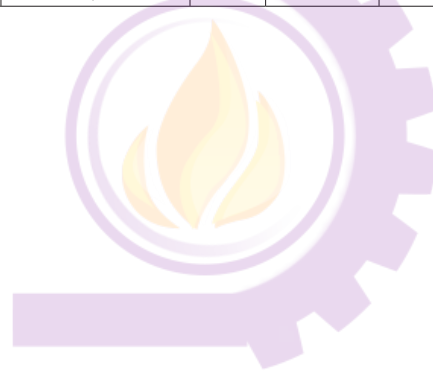
Helical gear unit BG series

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

Shaft-mounted gear unit BF series

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

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Bevel gear unit BK series

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

4

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.

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 hollow-shaft versions:

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

Please consult us in case of larger axial forces.



Drive configuration based on efficiency

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

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

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

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

The overall efficiency of a system is calculated as follows:

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

Savings potential

Motor: η_{motor}

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

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

Environmental analysis

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

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

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

P_N [kW]	Type	n_N [rpm]	M_N [Nm]	I_N 400 V [A]	$\cos \varphi$	η (100% load) [%]	η (75% load) [%]	η (50% load) [%]	I_A/I_N	M_A/M_N	M_S/M_N	M_k/M_N	J_{rot} [kgm ²]
1.1	DHE09LA4	1440	7.3	2.5	0.75	82.7	82.3	79.8	5.9	2.9	2.7	3.4	0.0032
2.2	DHE09XA4C	1440	14.5	4.75	0.79	84.5	85.0	83.5	5.2	1.8	1.7	2.7	0.0053
2.2	DHE11SA4	1440	14.5	4.6	0.80	86.2	86.0	84.7	7.0	3.1	2.8	3.6	0.0081

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

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

However, with very high cycle rates the higher starting torque of IE2 motors, and the associated higher gear acceleration loads, should be taken into account. See separate publication EP34 for additional information.

Calculation of the efficiency under partial load

The motor data sheets list motor efficiency figures according to Motor Regulation 640/2009/EC for operation at several load levels (50%, 75% and 100%). The efficiency at any partial load point can be calculated approximately from the efficiency figures for 75% and 100% load, and the energy balance of the application can be evaluated accordingly.

$$R_{VL} = \frac{\left[\frac{100}{\eta_{100}} - 1 \right] - 0,75 \times \left[\frac{100}{\eta_{75}} - 1 \right]}{0,4375}$$

$$R_{Vo} = \left[\frac{100}{\eta_{100}} - 1 \right] - R_{VL}$$

$$\eta_p = \frac{100}{\left[1 + \frac{R_{Vo}}{p} \right] + R_{VL} \times p}$$

with

η_{100}	Efficiency at 100% load
η_{75}	Efficiency at 75% load
R_{VL}, R_{Vo}	Intermediate results
p	Partial load (value range: 0 to 1 or overload)
η_p	Efficiency at partial load point p

Economic analysis

As described above, the economic analysis does not permit especially large safety factors. The energy savings required by the ErP Directive 2009/125/EC can be achieved very easily with electric motors, but there is a price attached. With the change from IE1 to IE2 efficiency class (effective 16 June 2011) for mains-powered motors operating in S1 duty, users of electric motors are faced with power-dependent additional costs when purchasing these products. The drive should essentially be selected based on the investment payback time as a function of the period under consideration. Operating a 2.2-kW motor constantly at 50% load (as described above) does not make sense from an economic perspective. In this case, an additional amount must be paid for changing to a different frame size or package length and for material expenditures with IE2 motors. As a result, the investment payback time of the motor will extend longer into the lifetime of the system.

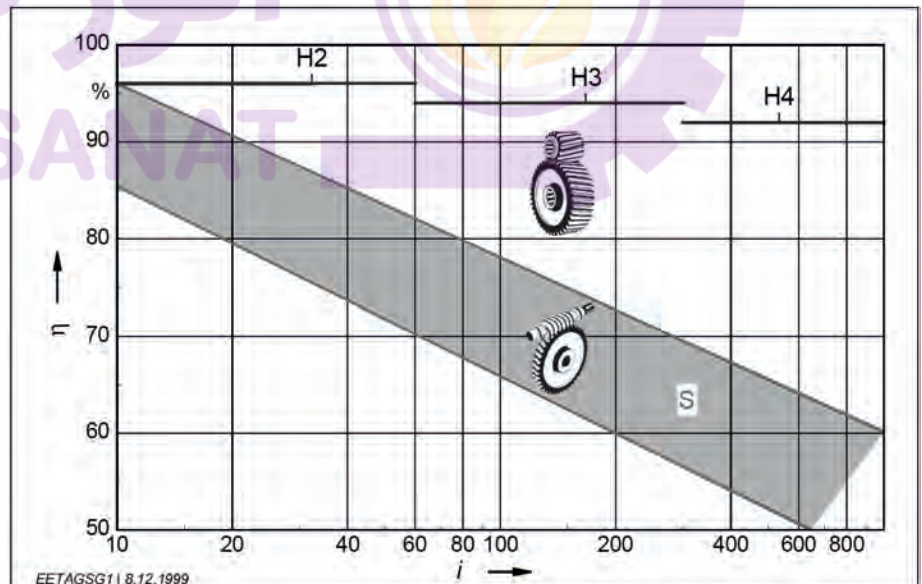
Consequently, the most cost-effective motor selection must be based on the following factors.

- 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.

System efficiency η_{system}

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

Transmission component	Conditions	Efficiency
Wire rope	Per full turn on the wire drum (with journal or roller bearings)	0.91–0.95
V-belt	Per full turn on the belt pulley (with normal belt tension)	0.88–0.93
Synthetic belts	For each full turn or roll, with roller bearings (normal belt tension)	0.81–0.85
Rubber belts	For each full turn or roll, with roller bearings (normal belt tension)	0.81–0.85
Toothed belts	For each full turn or roll, with roller bearings (normal belt tension)	0.90–0.96
Chains	For each full turn or chainwheel, with roller bearings (depending on chain size)	0.90–0.96
Spindles	Trapezoid-thread spindle	0.30 – 0.70
	Ballscrew spindle	0.70 – 0.95
Gear unit	With spur gears or bevel gears: 2% per stage, with worm gears and other types of 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 an shock load class of III, this is justified. On the other hand, under favourable conditions a belt conveyor could have an shock load class of I, but this could quickly change to III with on/off operation, high speed and overdrive due to a loose chain. Consequently, the classifications in the following table should by no means be taken blindly. They provide a rough point of reference, but the ultimate classification of the shock load should always take into account the factors specified by Bauer, in particular the inertia ratio, the cycle rate and the transmission component(s).

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

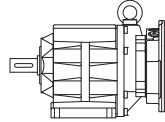
Drive	Shock load		
Rubber			
Extruders			III
Calenders		II	
Kneaders			III
Mixers		II	
Rolling mills			III
Timber processing and woodworking			
Debarking drums			III
Planers		II	
Woodworking machinery	I		
Saw frames			III
Crane systems			
Luffing mechanisms	I		
Traversing mechanisms			III
Hoisting mechanisms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

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

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Gearboxes and Lubrication

Standard fitting

- 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

Additional lubricant quantities,

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

Position of threaded plugs

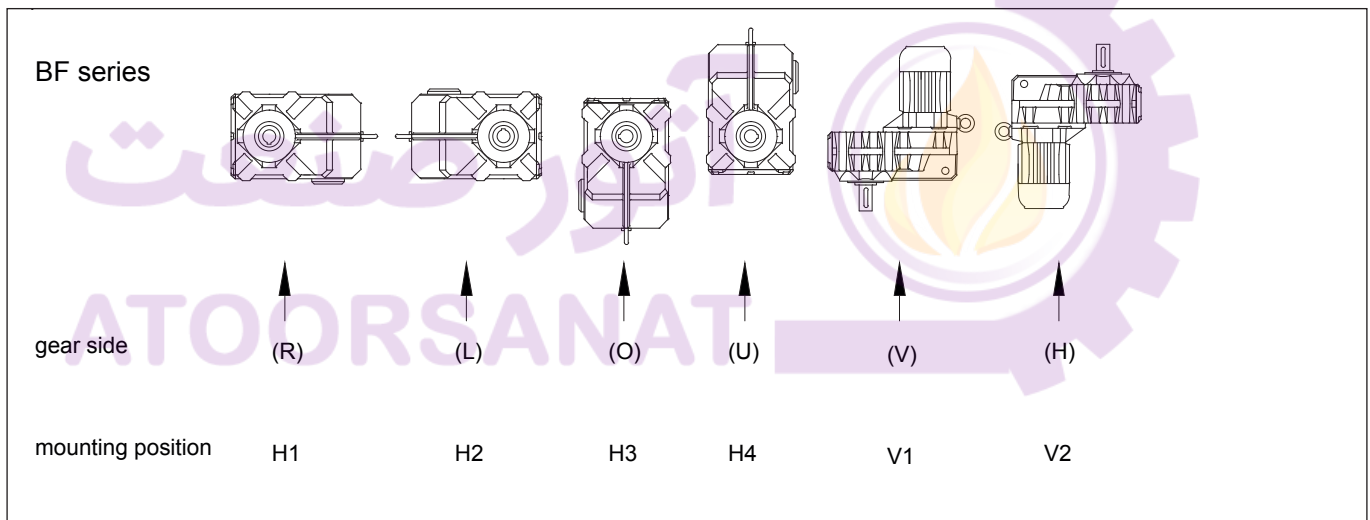
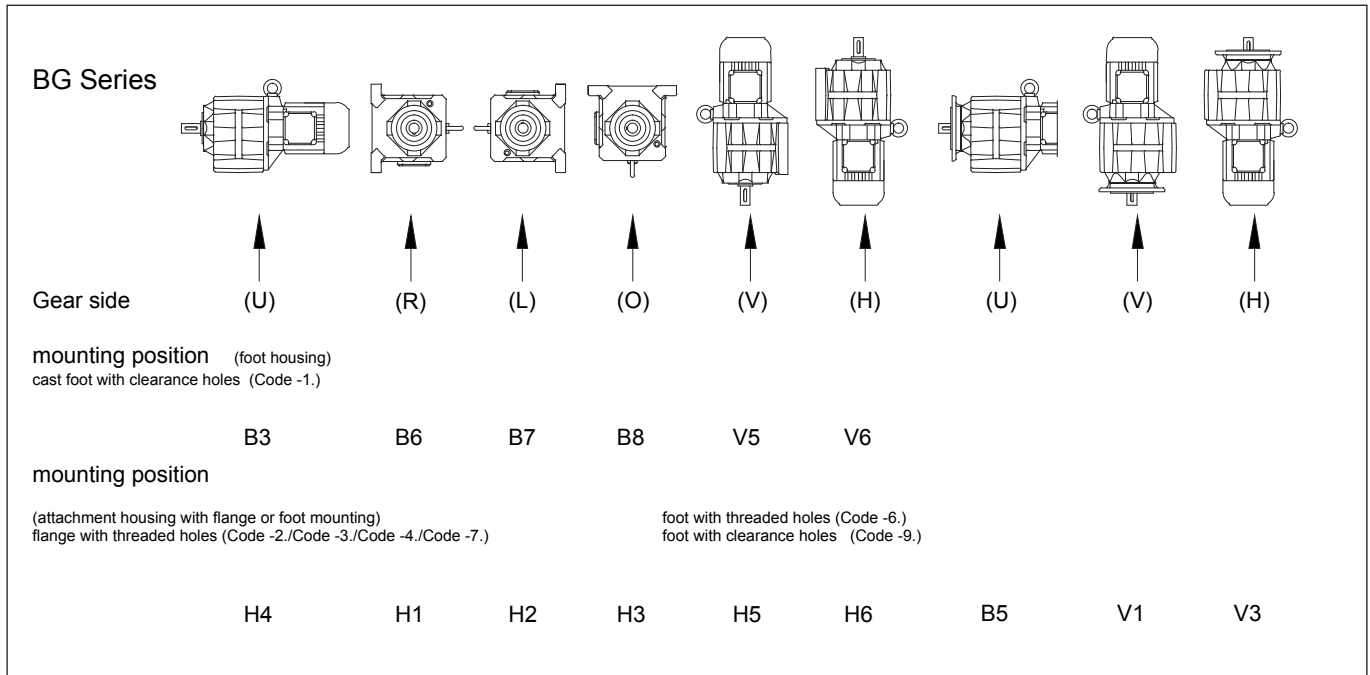
- BG-series gears
- BG-20-01R
- BF-series gears
- BK-series gears
- BS-series gears
- pre-stage gears (Z)

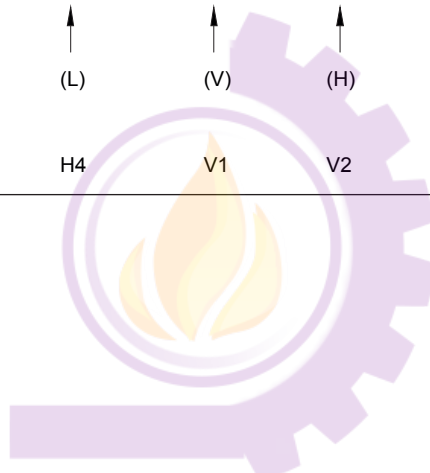
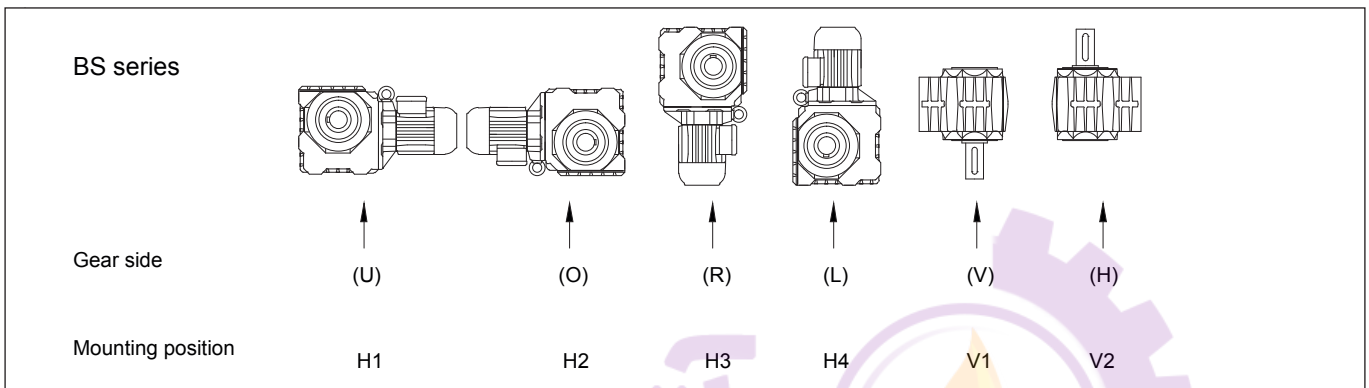
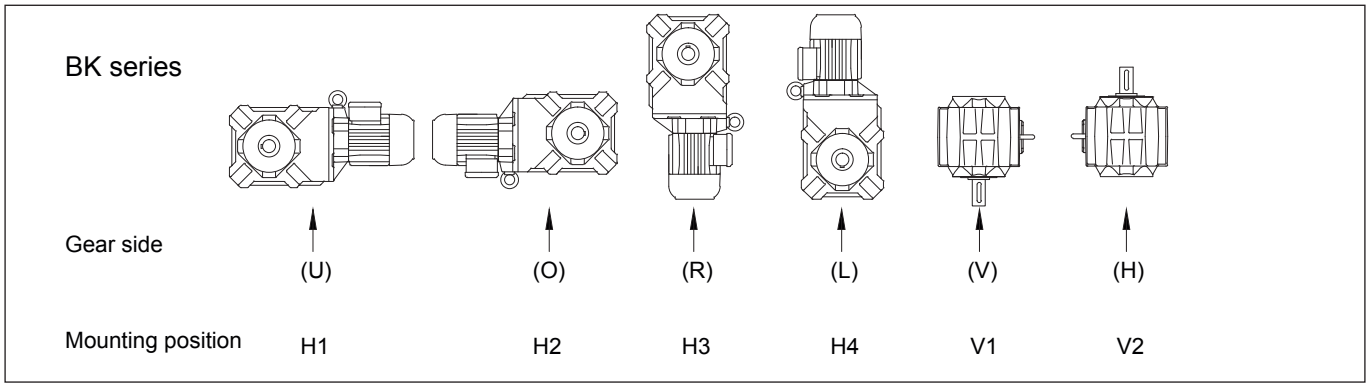
Position of the grease nipple for gearbox designs with

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

Position of the drain plugs in the System Cover

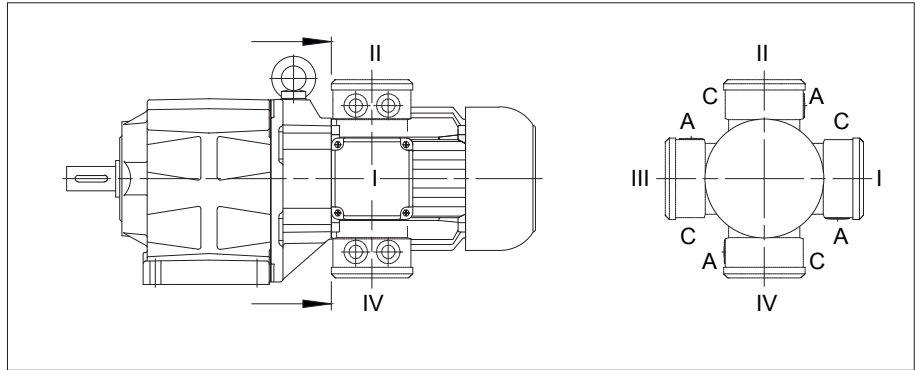




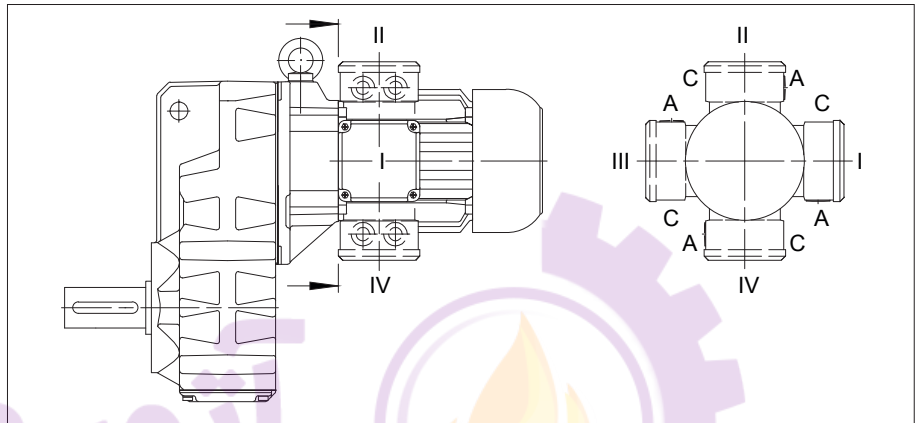


Position of the terminal box and the cable entry points (BG and BF)

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.



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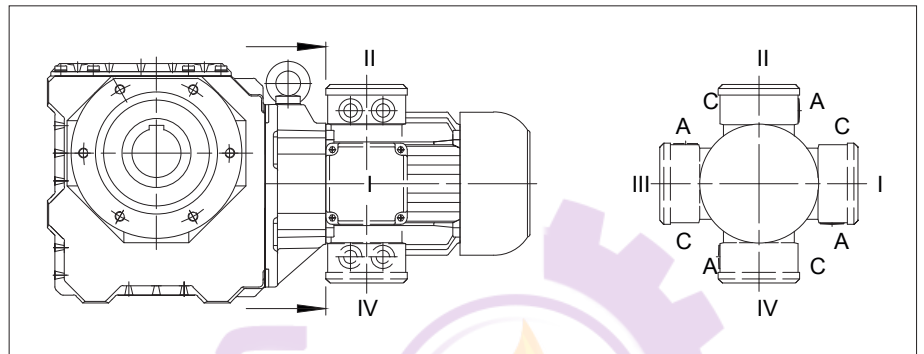
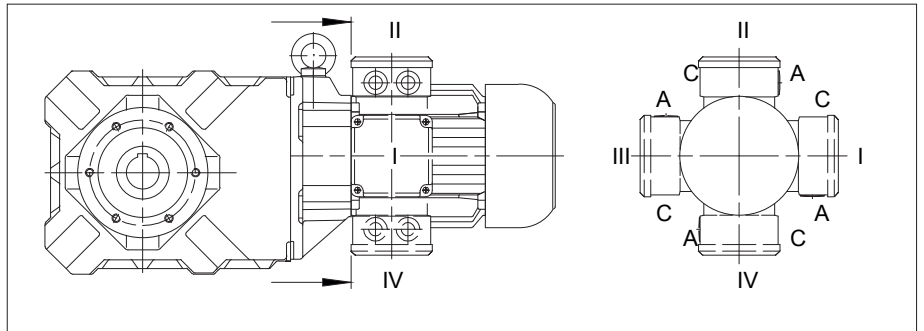


Turning or rotating the gearbox in space in the different mounting positions according to DIN 42950 does not influence the marking as shown. The details of the terminal box always show the position of the terminal box and the cable entry in relation to the gearbox and not in space. The mounting according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

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Radial and axial forces at the output shaft

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

Dimensions and fits of output shafts and keyways

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

Solid shaft

Shaft diameter	to D = 50 mm in ISO k6 (DIN 748 Page1) as of D = 50 mm in ISO m6 (DIN 748 Page 1)
Keyway	ISO P9 (DIN 6885 Page 1)
Key, height	ISO h9 (DIN 6885 Page 1 and DIN 6880)
Bore - customer	ISO H7

Hollow shaft with keyway

Bore diameter	ISO H7 (DIN 748)
Keyway	ISO JS9 (DIN 6885 Page 1)
Key, height	ISO h9 (DIN 6885 Page 1 and DIN 6880)
Customer shaft	ISO h6

Hollow shaft for shrink-on disc coupling (SSV)

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

Installing transmission elements

Note:

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

Gear with solid shaft

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

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

Gear with hollow shaft

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

Shrink disc coupling

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

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

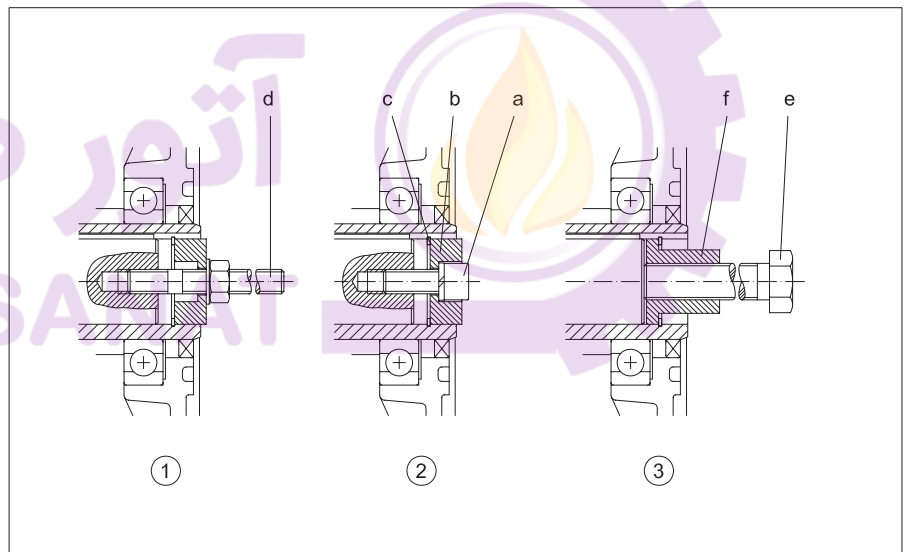
Threaded bolt (d) is screwed into the end thread of the shaft to be driven. By tightening the nut, apply force to thrust plate (b) and locating ring (c) to draw the gear unit onto the shaft.

(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

Lubricants

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

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

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

Important:

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

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

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

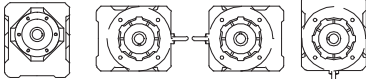
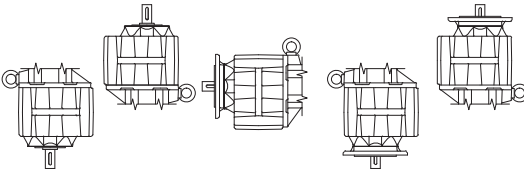
Lubricant quantities

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


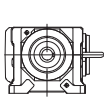
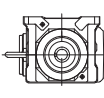

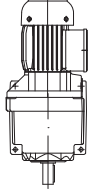
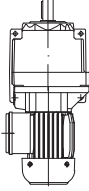
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Lubricant quantities, BG-series gears

Lubrication quantity in l										
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	* -	0.03	0.03	0.03	-	-	0.03	0.05	0.05	
	** 0.05	0.05	0.05	0.05	0.1	0.05	-	-	-	
BG05	* -	0.05	0.05	0.05	-	-	0.05	0.08	0.08	
	** 0.08	0.08	0.08	0.08	0.16	0.08	-	-	-	
BG06	* -	0.08	0.08	0.08	-	-	0.08	0.15	0.15	
	** 0.12	0.12	0.12	0.12	0.24	0.15	-	-	-	
BG10	* 0.65	0.65	0.65	0.85	1.05	0.85	0.65	1.05	0.85	
	** 0.45	0.45	0.45	0.6	0.75	0.6	-	-	-	
BG15	** 0.4	0.4	0.4	0.35	0.62	0.55	-	-	-	
BG20	* 0.8	0.8	0.8	1.1	1.4	1.1	0.8	1.4	1.1	
	** 0.6	0.6	0.6	1.0	1.15	0.9	-	-	-	
BG30	* 1.0	1.0	1.0	1.7	2.2	1.6	1.0	2.2	1.6	
	** 1.0	1.0	1.0	1.7	2.3	1.7	-	-	-	
BG40	* 1.7	1.7	1.7	2.5	3.5	2.1	1.7	3.5	2.1	
	** 1.7	1.7	1.7	2.5	3.5	2.1	-	-	-	
BG50	* 3.0	3.0	3.0	4.5	5.5	3.3	3.0	5.5	3.3	
	** 3.0	3.0	3.0	4.5	5.5	3.3	-	-	-	
BG60	* 5.5	5.5	5.5	7.0	10.9	6.4	5.5	10.9	6.4	
	** 5.5	5.5	5.5	7.0	10.9	6.4	-	-	-	
BG70		6.5	6.5	6.5	8.0	13.5	9.0	6.5	13.5	
BG80		11.0	11.0	11.0	11.0	22.5	15.0	11.0	22.5	
BG90		19.0	19.0	19.0	19.0	40.0	26.0	19.0	40.0	
BG100		35.0	35.0	55.0	50.0	66.0	50.0	35.0	66.0	
	* Attachment housing				** Gearbox housing					

Lubricant quantities, BG20-01R

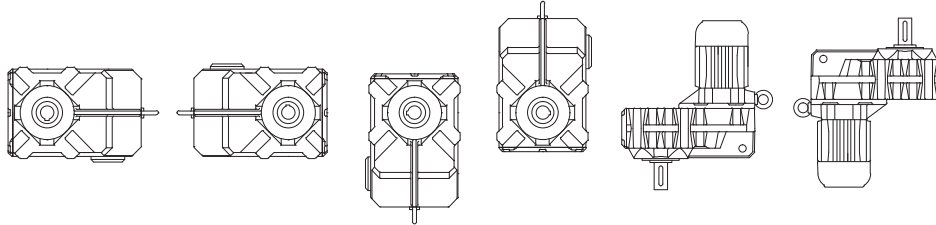
Gear type	Lubrication quantity in l					
						
	H4	H1	H2	H3	V5	V6
BG20-01R	0.8	1.0	0.8	1.4	1.65	1.0

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Lubricant quantities, BF-series gears

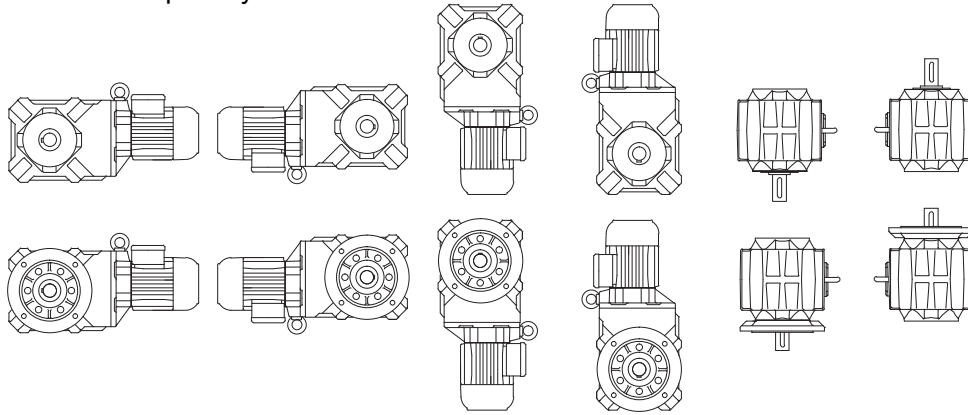
Lubrication quantity in l



Gear type	H1	H2	H3	H4	V1	V2
BF06	0.25	0.25	0.25	0.37	0.35	0.3
BF10	0.85	0.85	0.85	1.1	1.45	1.5
BF20	1.3	1.3	1.3	1.7	2.2	2.25
BF30	1.7	1.7	1.7	2.2	3.2	3.0
BF40	2.7	2.7	2.7	3.5	4.9	4.8
BF50	3.8	3.8	3.8	5.0	6.7	6.7
BF60	6.7	6.7	6.7	9.0	12.3	12.0
BF70	12.2	12.2	12.2	16.0	24.2	21.8
BF80	17.0	17.0	17.0	21.0	32.2	27.5
BF90	32.0	32.0	32.0	41.0	62.0	53.0

Lubricant quantities, BK-series gears

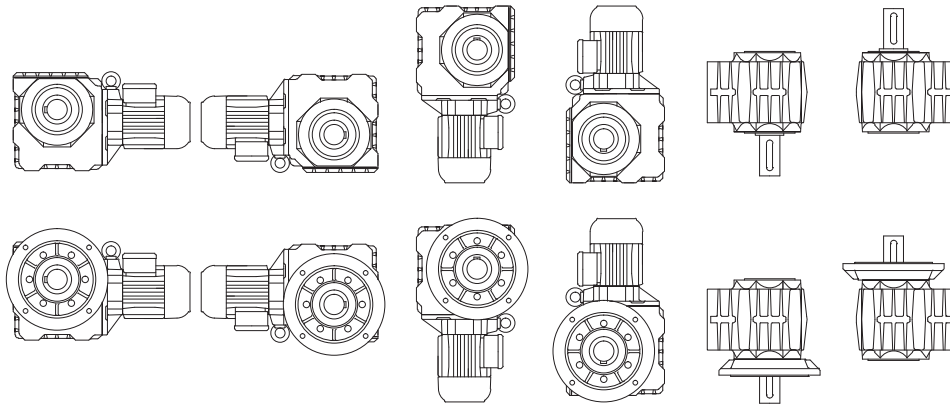
Lubrication quantity in l



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

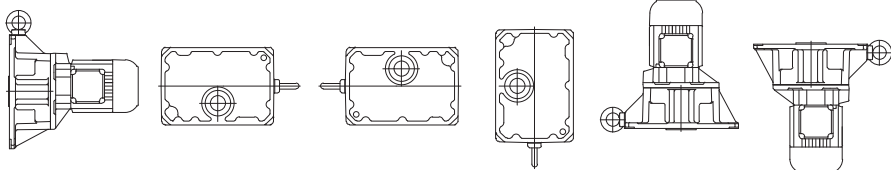
Lubricant quantities, BS-series gears

Lubrication quantity in l



Gear type	H1	H2	H3	H4	V1	V2
BS02	0.06	0.06	0.06	0.06	0.06	0.06
BS03	0.17	0.17	0.17	0.17	0.17	0.17
BS04	0.11	0.17	0.11	0.2	0.11	0.11
BS06	0.24	0.36	0.24	0.45	0.24	0.24
BS10	0.9	1.3	0.9	1.6	0.9	0.9
BS20	1.5	2.1	1.5	2.7	1.5	1.5
BS30	2.2	3.0	2.2	3.8	2.2	2.2
BS40	3.5	4.7	3.5	6.0	3.5	3.5

Lubricant quantities, pre-stage gears (Z)

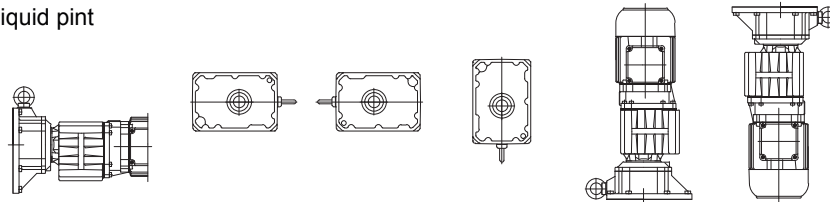
Lubrication quantity in l							
		B3 H4 B5	B6 H1	B7 H2	B8 H3	V5/H5 V1	V6/H6 V3 V2
BK / BS		H1	V1	V2	H2	H4	H3
Gear type							
BG10Z BF10Z BK10Z BS10Z	0.10	0.05	0.12	0.07	0.16	0.07	
BG20Z BF20Z BK20Z BS20Z	0.15	0.07	0.19	0.17	0.27	0.10	
BG30Z BF30Z BK30Z BS30Z BM30Z	0.2*	0.10	0.35	0.22	0.35	0.19	
BG40Z BF40Z BK40Z BS40Z BM40Z	0.32*	0.17	0.50	0.37	0.6	0.32	
BG50Z BF50Z BK50Z	0.5	0.3	0.92	0.7	1.15	0.5	
BG60Z BF60Z BK60Z	0.9	0.5	1.55	1.1	2.0	0.7	
BG70Z BF70Z BK70Z BF80Z	1.2	0.6	1.8	1.6	2.4	1.4	
BG80Z BF90Z BK80Z BG100Z	3.1	1.3	4.0	2.6	5.2	2.0	
BG90Z BK90Z	4.2	1.5	5.4	3.5	7.7	3.0	
<p>*: The lubricant of the pre-stage for BM30Z/BM40Z is filled in the main gearbox.</p>							

Lubrication quantity for intermediate gear

Definition of the terminal box position

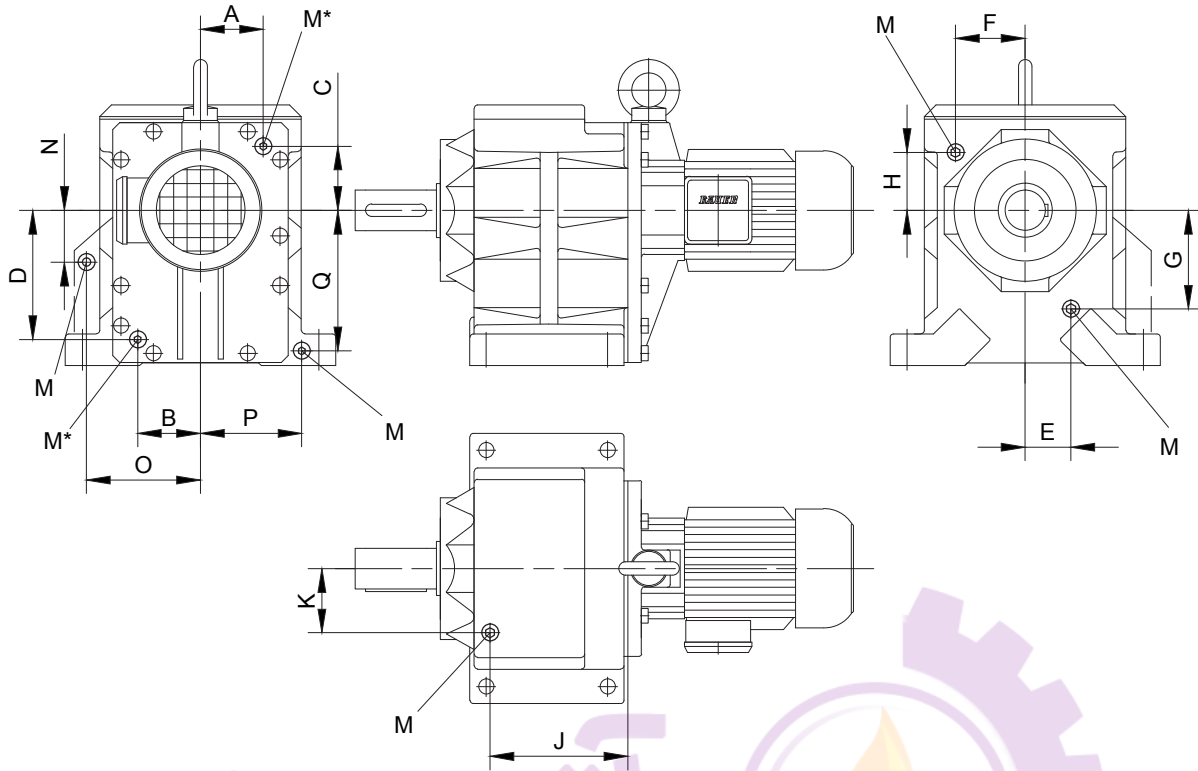
Terminal box position for intermediate gear is similar to the main gearbox that means
Main gearbox BG,BF terminal box pos. I
-> intermediate gearbox terminal box pos. I
Main gearbox BK,BS terminal box pos. II
-> intermediate gearbox terminal box pos. II

Lubrication quantity in liquid pint



Mounting position of main gearbox	BG / BF	B3 H4 B5	B6 H1	B7 H2	B8 H3	V5/H5 V1	V6/H6 V3 V2	
	BK / BS	H1	V1	V2	H2	H4	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		0.03	0.03	0.03	0.03	0.05	0.05	
BG10G06 BF10G06 BK10G06 BS10G06		0.08	0.08	0.08	0.08	0.15	0.15	
BG20G06 BF20G06 BK20G06 BS20G06		0.08	0.08	0.08	0.08	0.15	0.15	
BG30G06 BF30G06 BK30G06 BS30G06		0.08	0.08	0.08	0.08	0.15	0.15	
BG40G10 BF40G10 BK40G10 BS40G10		0.65	0.65	0.65	0.85	1.05	0.85	
BG50G10 BF50G10 BK50G10		0.65	0.65	0.65	0.85	1.05	0.85	
BG60G20 BF60G20 BK60G20		0.8	0.8	0.8	1.1	1.4	1.1	
BG70G20 BF70G20 BK70G20		0.8	0.8	0.8	1.1	1.4	1.1	
BG80G40 BF80G40 BK80G40		1.7	1.7	1.7	2.5	3.3	2.1	
BG90G50 BF90G50 BK90G50 BG100G50		3.0	3.0	3.0	4.5	5.5	3.3	

Position of threaded plugs, BG-series gears



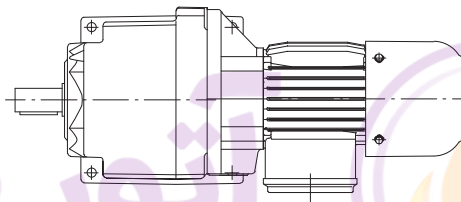
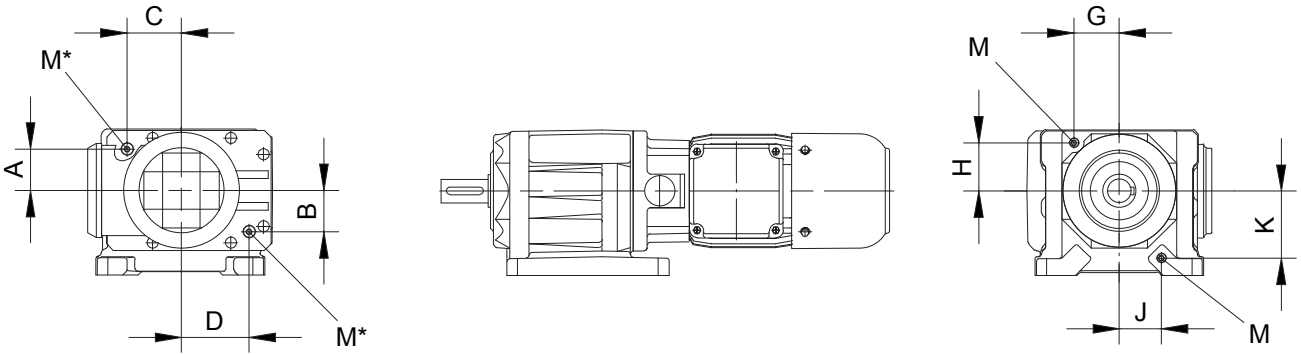
5

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			33	42	48	41.5	-	-	-	-	-	-	-	M10x1
BG10 Attachment housing		Tab.I-Tab.III size B10			27	-	73	-	-	-	-	-	-	-	-	M10x1
BG15 Foot housing		Tab.I-Tab.III size B10			-	-	-	-	-	-	-	-	-	-	-	-
BG20 Foot housing		Tab.I-Tab.III size B20			-	47	-	52.5	-	-	-	-	-	-	-	M10x1
BG20 Attachment housing		Tab.I-Tab.III size B20			-	28	-	68	-	-	-	-	-	-	-	M10x1
BG30 Foot housing		Tab.I-Tab.III size B30			-	54	-	58	-	-	-	-	-	-	-	M10x1
BG30 Attachment housing		Tab.I-Tab.III size B30			-	58	-	48	-	-	-	-	-	-	-	M10x1
BG40 Foot housing		Tab.I-Tab.III size B40			-	75	-	48	-	-	-	-	-	-	-	M14x1.5
BG40 Attachment housing		Tab.I-Tab.III size B40			-	75	-	48	-	-	-	-	-	-	-	M14x1.5
BG50 Foot housing		Tab.I-Tab.III size B50			-	53	-	100	-	-	-	-	-	-	-	M14x1.5
BG50 Attachment housing		Tab.I-Tab.III size B50			-	53	-	100	-	-	-	-	-	-	-	M14x1.5
BG60 Foot housing		Tab.I-Tab.III size B60			-	70	-	119	-	-	-	-	-	-	-	M20x1.5
BG60 Attachment housing		Tab.I-Tab.III size B60			-	70	-	119	-	-	-	-	-	-	-	M20x1.5
BG70		Tab.I-Tab.III size B70			-	103	-	86	204	95	-	-	-	-	-	M20x1.5
BG80		Tab.I-Tab.III size B80			-	133	-	110	237	111	-	-	-	-	-	M20x1.5
BG90		Tab.I-Tab.III size B90			-	165	-	124	297	140	-	-	-	-	-	M24x1.5
BG100	Tab.I-Tab.III size B80			-	202	-	128	420	165	135	263	202	293	-	M24x1.5	

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

Position of threaded plugs, BG-20-01R

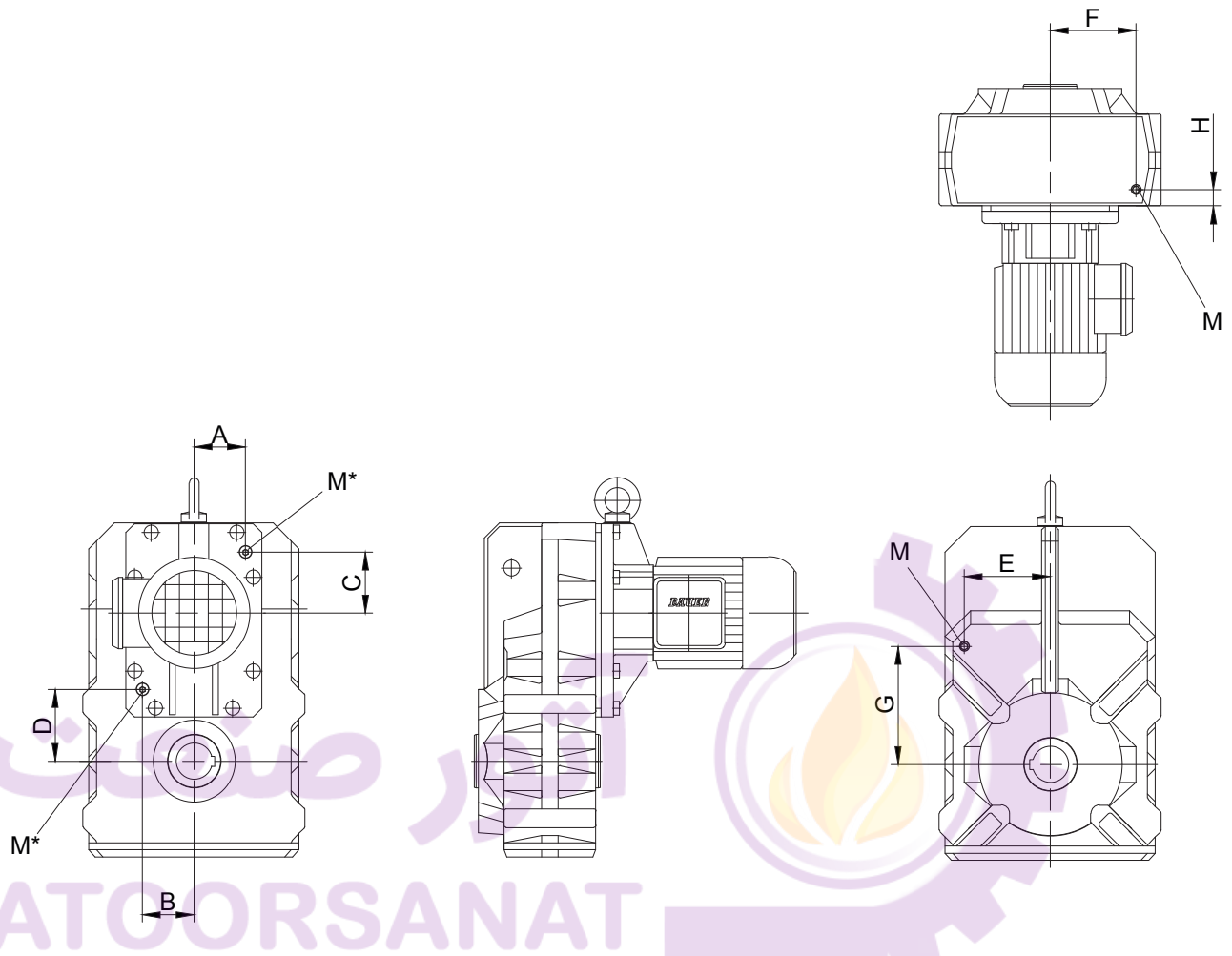


M = Plug according to DIN 908

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

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

Position of threaded plugs, BF-series gears



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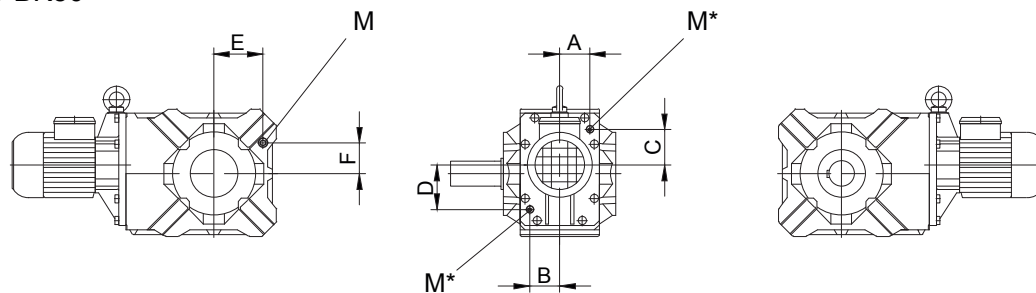
M = Plug according to DIN 908

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	64	65	97	28	M10x1		
BF20		Tab.I - Tab.III size B.20	77	70	115	30.5	M10x1		
BF30		Tab.I - Tab.III size B.30	88	82	125	36.5	M10x1		
BF40		Tab.I - Tab.III size B.40	100	86	141	33	M14x1.5		
BF50		Tab.I - Tab.III size B.50	120	105	165	42.5	M14x1.5		
BF60		Tab.I - Tab.III size B.60	140	145	200	50.5	M20x1.5		
BF70		Tab.I - Tab.III size B.70	165	177	235	52.5	M20x1.5		
BF80		Tab.I - Tab.III size B.70	145	148	255	123	M20x1.5		
BF90		Tab.I - Tab.III size B.80	155	176	347.5	260	M24x1.5		

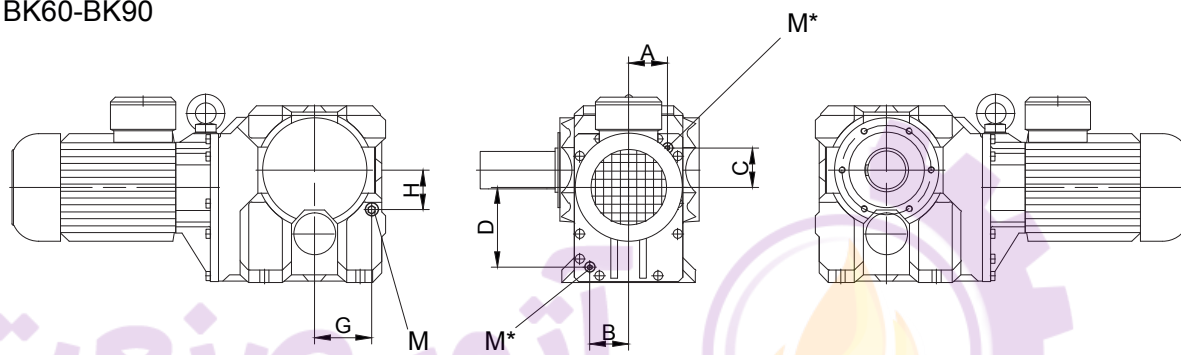
M* =Factor and position of the drain plug see page 73.

Position of threaded plugs, BK-series gears

BK10-BK50



BK60-BK90



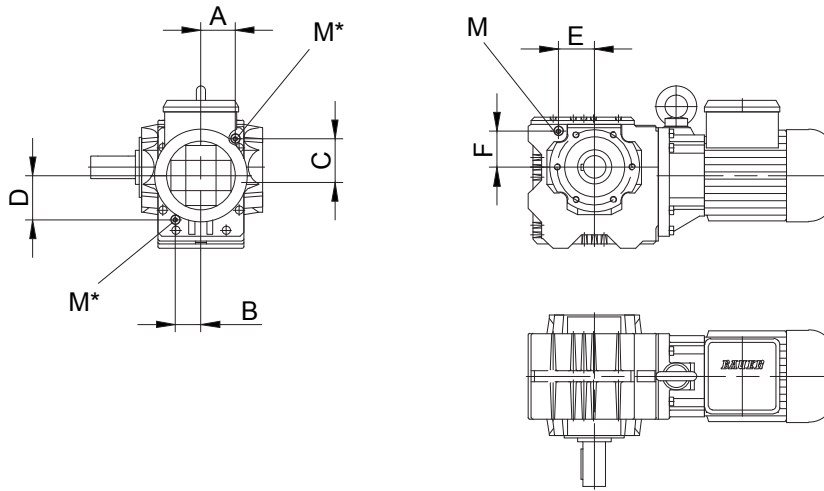
M = Plug according to DIN 908

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

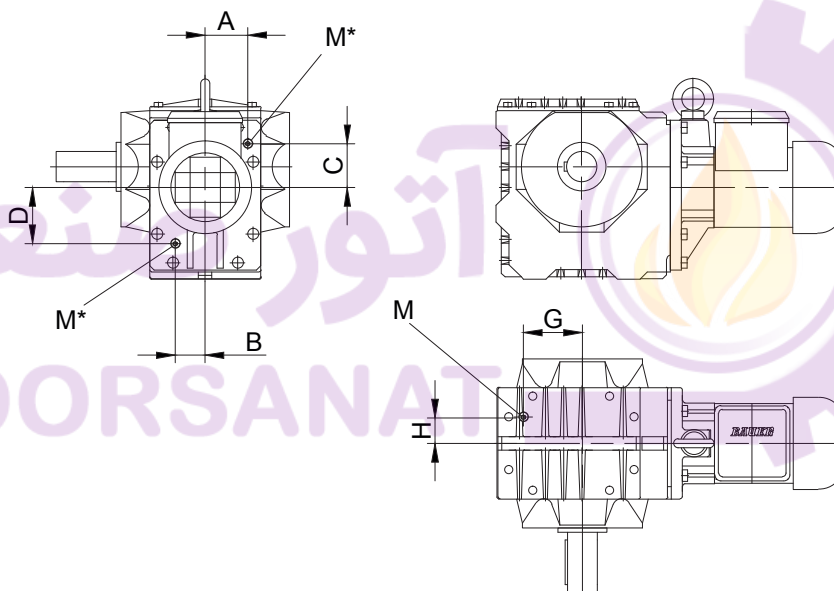
M* =Factor and position of the drain plug see page 73.

Position of threaded plugs, BS-series gears

BS10 - BS20



BS30 - BS40



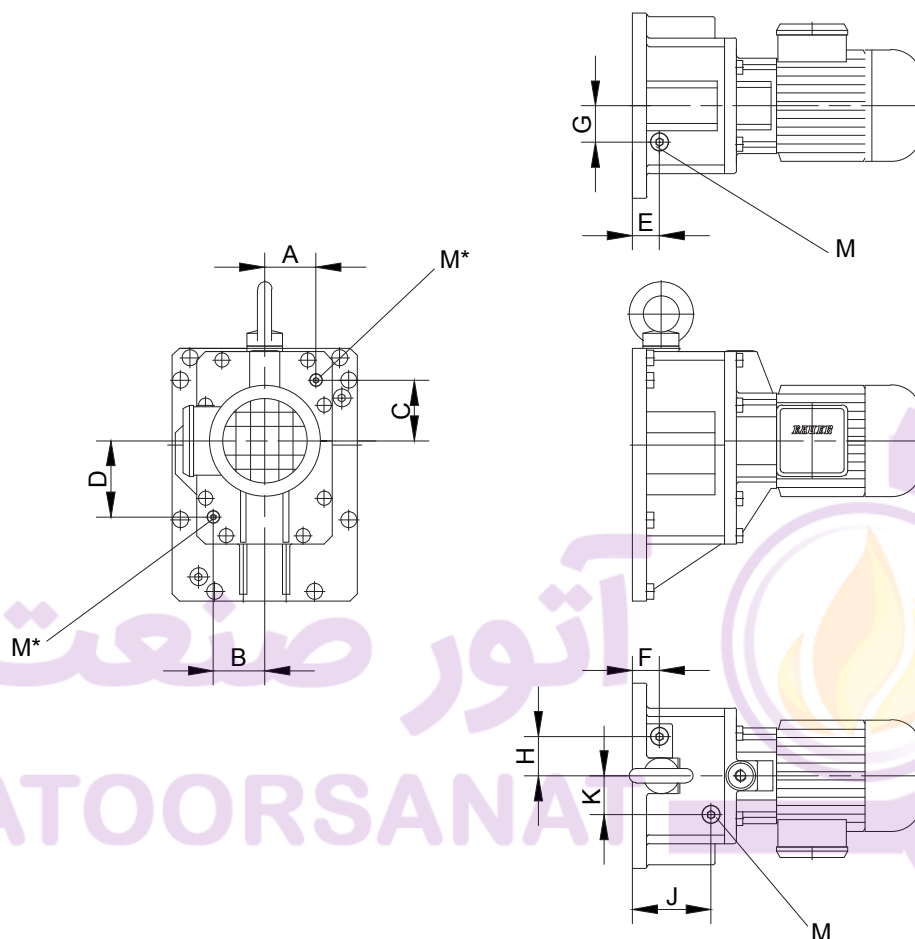
M = Plug according to DIN 908

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

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

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

5

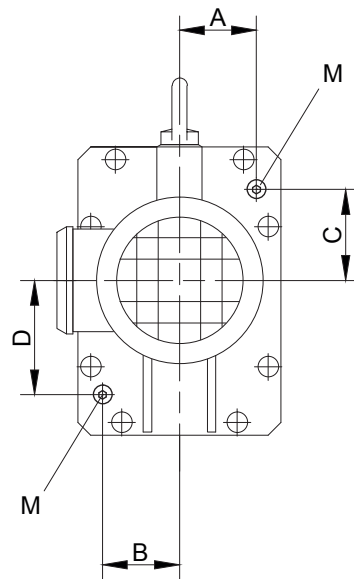


M = Plug according to DIN 908

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

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

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



5

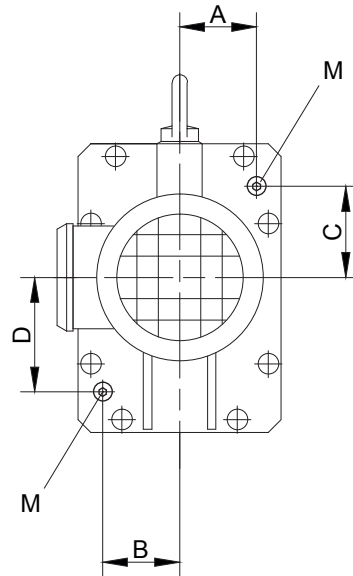
M = Plug according to DIN 908

Table I: Design with standard geared motor

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

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

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



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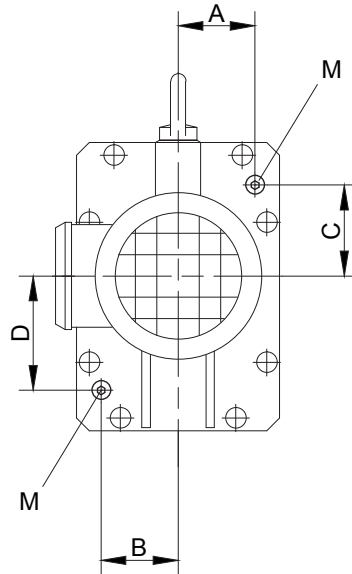
M = Plug according to DIN 908

Table III: Design with pre-stage Z

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

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

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



5



M = Plug according to DIN 908

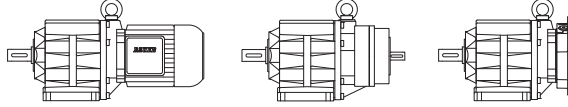
Table II: Design with foreign motor or gear design with input shaft

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.

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**BG-series helical-geared motors
Selection**

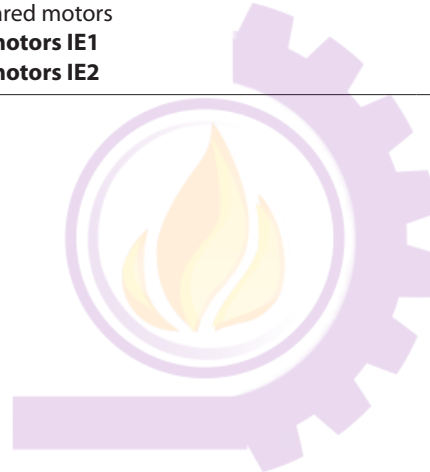
Description of helical-geared units

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

Selection - helical geared motors IE1

Selection - helical geared motors IE2

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Sizes

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

Bauer service factors (f_B) for helical-gear motors

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

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

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

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

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

Factor f_1 for shock classification and operating time

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

Switching duty

Factor f_2 for shock classification and switching frequency

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

Shock classification	$1 < Z \leq 100$	$100 < Z \leq 1000$	$1000 < Z$
I	0,95	1,1	1,15
II	1,2	1,35	1,4
III	1,55	1,6	1,6

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

Shock classification	$1 < Z \leq 100$	$100 < Z \leq 1000$	$1000 < Z$
I	1,3	1,45	1,5
II	1,5	1,6	1,65
III	1,75	1,8	1,8

Bauer service factor

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

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

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)

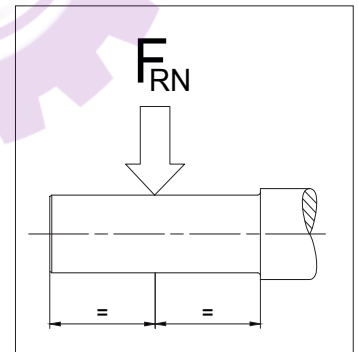
Key to abbreviations

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)



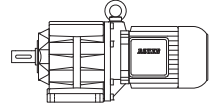
Use the selection tables to determine the size of geared motor required. The codes clearly define the Type of gear (see chapter 10 "dimensional drawings, helical-geared motors").

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

Motor power overload protection

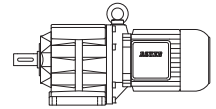
Motor-power ratings, particularly in conjunction with four-stage and multi-stage gear units, are more than ample in some instances. Consequently, and in much the same way as with low-power motors, rated current is not a measure of gear loading and cannot be used to protect the gear unit against overloading. 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).

P = 0.03 kW



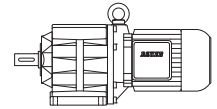
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
540	0.53	7.5	2.51	BG04-../D04LA4	4.4	340	-	650	0.44	9.1
370	0.77	6.5	3.65	"	"	390	-	445	0.64	7.8
310	0.92	7.6	4.39	"	"	380	-	370	0.77	9.1
255	1.12	8.0	5.36	"	"	380	-	305	0.93	9.7
205	1.39	7.2	6.67	"	"	410	-	245	1.16	8.6
158	1.81	6.1	8.58	"	"	410	-	189	1.51	7.3
150	1.91	6.3	9.00	"	"	470	-	180	1.59	7.5
137	2.05	6.3	9.90	"	"	480	-	164	1.74	7.5
125	2.25	6.2	10.82	"	"	480	-	150	1.91	7.3
114	2.5	6.0	11.90	"	"	490	-	137	2.05	7.3
108	2.65	5.7	12.55	"	"	490	-	130	2.2	6.8
103	2.75	5.8	13.20	"	"	500	-	123	2.3	7.0
93	3.05	5.6	14.52	"	"	510	-	112	2.55	6.7
83	3.45	5.2	16.44	"	"	530	-	99	2.85	6.3
75	3.8	4.7	18.08	"	"	540	-	90	3.15	5.7
64	4.45	4.3	21.12	"	"	560	-	77	3.7	5.1
59	4.85	4.1	23.23	"	"	600	-	70	4.05	4.9
56	5.1	3.9	24.45	"	"	610	-	67	4.25	4.7
51	5.6	3.6	26.89	"	"	650	-	61	4.65	4.3
44	6.5	3.1	30.91	"	"	690	-	53	5.4	3.7
40	7.1	2.8	34.00	"	"	720	-	48	5.9	3.4
38.5	7.4	2.7	35.35	"	"	730	-	46	6.2	3.2
35	8.1	2.5	38.89	"	"	750	-	42	6.8	2.9
32	8.9	2.2	42.24	"	"	750	-	38.5	7.4	2.7
29.5	9.7	2.1	46.47	"	"	750	-	35	8.1	2.5
28.5	10	2.0	47.52	"	"	750	-	34.5	8.3	2.4
26	11	1.8	52.28	"	"	750	-	31	9.2	2.2
25	11.4	1.75	54.97	"	"	750	-	29.5	9.7	2.1
22.5	12.7	1.55	60.47	"	"	750	-	27	10.6	1.9
31	9.2	3.3	43.57	BG05-../D04LA4	5.1	900	-	37.5	7.6	3.9
29	9.8	3.1	47.00	"	"	930	-	34.5	8.3	3.6
26.5	10.8	2.8	51.27	"	"	970	-	32	8.9	3.4
25.5	11.2	2.7	53.44	"	"	980	-	30.5	9.3	3.2
23.5	12.1	2.5	58.30	"	"	1000	-	28	10.2	2.9
20.5	13.9	3.2	66.79	BG06-../D04LA4	6.1	1070	-	24.5	11.6	3.9
18	13.8	2.9	75.99	BG06G04-../D04LA4	8.4	1070	-	21.5	11.2	3.6
16.5	15	2.9	82.89	"	"	1070	-	20	12	3.6
15	16.5	2.7	93.00	"	"	1070	-	17.5	13.8	3.3
13.5	18.4	2.4	101.5	"	"	1070	-	16	15.1	3.0
11.5	21	2.1	122.0	"	"	1070	-	13.5	17.3	2.6
9.1	26	1.75	149.0	"	"	1070	-	11	21	2.1
7.3	33.5	1.35	185.4	"	"	1070	-	8.8	26.5	1.7
5.4	46	0.98	250.2	"	"	1070	-	6.5	37	1.2
5.0	50	0.9	275.2	"	"	1070	-	5.9	41	1.1
4.1	45*	1.0	330.8	"	"	1070	-	4.9	45	1.0
3.7	45*	1.0	367.0	"	"	1070	-	4.5	45	1.0
3.0	45*	1.0	457.0	"	"	1070	-	3.6	45	1.0
2.7	45*	1.0	502.6	"	"	1070	-	3.3	45	1.0
2.3	45*	1.0	587.1	"	"	1070	-	2.8	45	1.0
2.1	45*	1.0	645.8	"	"	1070	-	2.6	45	1.0
1.9	45*	1.0	747.5	"	"	1070	-	2.2	45	1.0
1.6	45*	1.0	859.3	"	"	1070	-	1.9	45	1.0
1.5	45*	1.0	945.2	"	"	1070	-	1.8	45	1.0
1.3	45*	1.0	1081	"	"	1070	-	1.5	45	1.0
1.2	45*	1.0	1174	"	"	1070	-	1.4	45	1.0
1.1	45*	1.0	1321	"	"	1070	-	1.3	45	1.0
0.9	45*	1.0	1528	"	"	1070	-	1.1	45	1.0
0.85	45*	1.0	1681	"	"	1070	-	1.0	45	1.0
0.7	45*	1.0	1948	"	"	1070	-	0.85	45	1.0
0.65	45*	1.0	2126	"	"	1070	-	0.8	45	1.0
0.6	45*	1.0	2435	"	"	1070	-	0.7	45	1.0

P = 0.03 kW



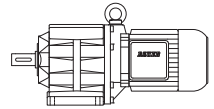
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
7.4	38.5	3.1	184.0	BG10Z-../D04LA4	11	2000	2800	8.9	32	3.8
7.0	40.5	3.0	194.6	"	"	2000	2800	8.4	34	3.5
6.3	45	2.7	215.7	"	"	2000	2800	7.6	37.5	3.2
5.7	50	2.4	240.4	"	"	2000	2800	6.8	42	2.9
5.1	56	2.1	266.3	"	"	2000	2800	6.1	46.5	2.6
4.9	58	2.1	276.0	"	"	2000	2800	5.9	48.5	2.5
4.5	63	1.9	305.8	"	"	2000	2800	5.3	54	2.2
3.6	49	2.7	379.6	BG10G06-../D04LA4	14	2000	2800	4.3	36	3.6
3.1	57	2.3	435.9	"	"	2000	2800	3.8	40	3.3
2.7	68	1.9	512.6	"	"	2000	2800	3.2	51	2.5
2.3	83	1.55	613.6	"	"	2000	2800	2.7	65	2.0
1.9	105	1.25	748.9	"	"	2000	2800	2.2	84	1.55
1.6	130	1.0	899.5	"	"	2000	2800	1.9	102	1.25
1.3	130*	1.0	1081	"	"	2000	2800	1.5	130	1.0
1.1	130*	1.0	1272	"	"	2000	2800	1.3	130	1.0
0.9	130*	1.0	1523	"	"	2000	2800	1.1	130	1.0
0.75	130*	1.0	1863	"	"	2000	2800	0.9	130	1.0
0.6	130*	1.0	2356	"	"	2000	2800	0.7	130	1.0
0.55	130*	1.0	2699	"	"	2000	2800	0.65	130	1.0
0.46	130*	1.0	2944	"	"	2000	2800	0.6	130	1.0
0.4	130*	1.0	3378	"	"	2000	2800	0.48	130	1.0
0.37	130*	1.0	3684	"	"	2000	2800	0.44	130	1.0
0.31	130*	1.0	4477	"	"	2000	2800	0.37	130	1.0
0.28	130*	1.0	4884	"	"	2000	2800	0.34	130	1.0
2.5	77	2.9	550.6	BG20G06-../D04LA4	17	5000	-	3.0	58	3.8
2.1	95	2.3	671.9	"	"	5000	-	2.5	73	3.0
1.7	125	1.75	807.1	"	"	5000	-	2.1	93	2.4
1.4	160	1.4	969.9	"	"	5000	-	1.7	123	1.8
1.2	188	1.15	1142	"	"	5000	-	1.5	141	1.55
1.0	230	0.96	1366	"	"	5000	-	1.2	186	1.2
0.85	220*	1.0	1672	"	"	5000	-	1.0	220	1.0
0.75	220*	1.0	1824	"	"	5000	-	0.9	220	1.0
0.65	220*	1.0	2114	"	"	5000	-	0.8	220	1.0
0.6	220*	1.0	2422	"	"	5000	-	0.7	220	1.0
0.55	220*	1.0	2642	"	"	5000	-	0.65	220	1.0
0.45	220*	1.0	3031	"	"	5000	-	0.55	220	1.0
0.41	220*	1.0	3306	"	"	5000	-	0.5	220	1.0
0.34	220*	1.0	4017	"	"	5000	-	0.41	220	1.0
0.31	220*	1.0	4383	"	"	5000	-	0.37	220	1.0
2.0	101	3.2	690.6	BG30G06-../D04LA4	21	6000	-	2.4	77	4.2
1.8	116	2.8	760.7	"	"	6000	-	2.2	87	3.7
1.7	124	2.6	829.5	"	"	6000	-	2.0	98	3.3
1.4	158	2.1	996.8	"	"	6000	-	1.7	122	2.7
1.3	173	1.9	1088	"	"	6000	-	1.5	143	2.3
1.1	205	1.6	1280	"	"	6000	-	1.3	166	1.95
1.0	230	1.4	1404	"	"	6000	-	1.2	184	1.75
0.8	295	1.1	1718	"	"	6000	-	0.95	240	1.35
0.75	320	1.0	1875	"	"	6000	-	0.9	255	1.25
0.65	325*	1.0	2173	"	"	6000	-	0.75	325	1.0
0.5	325*	1.0	2715	"	"	6000	-	0.6	325	1.0
0.44	325*	1.0	3115	"	"	6000	-	0.55	325	1.0
0.4	325*	1.0	3398	"	"	6000	-	0.48	325	1.0
0.35	325*	1.0	3867	"	"	6000	-	0.42	325	1.0
0.3	325*	1.0	4504	"	"	6000	-	0.36	325	1.0

P = 0.04 kW



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

P = 0.04 kW



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

P = 0.06 kW

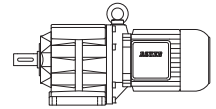
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
540	1.06	3.8	2.51	BG04-../D04LA4	4.4	340	-	650	0.88	4.5
370	1.54	3.2	3.65	"	"	390	-	445	1.28	3.9
310	1.84	3.8	4.39	"	"	380	-	370	1.54	4.5
255	2.2	4.1	5.36	"	"	380	-	305	1.87	4.8
205	2.75	3.6	6.67	"	"	410	-	245	2.3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

P = 0.06 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
72	7.9	3.3	18.82	BG05-../D04LA4	5.1	680	-	87	6.5	4.0
66	8.6	3.1	20.53	"	"	700	-	79	7.2	3.8
57	10	2.8	24.00	"	"	740	-	68	8.4	3.3
52	11	2.6	26.18	"	"	760	-	62	9.2	3.2
49	11.6	2.6	27.82	"	"	770	-	59	9.7	3.1
44.5	12.8	2.3	30.35	"	"	760	-	54	10.6	2.8
39	14.6	2.1	35.00	"	"	810	-	46.5	12.3	2.4
35.5	16.1	1.85	38.18	"	"	850	-	42.5	13.4	2.2
34	16.8	1.8	39.94	"	"	860	-	41	13.9	2.2
31	18.4	1.65	43.57	"	"	900	-	37.5	15.2	1.95
29	19.7	1.5	47.00	"	"	930	-	34.5	16.6	1.8
26.5	21.5	1.4	51.27	"	"	970	-	32	17.9	1.7
25.5	22	1.35	53.44	"	"	980	-	30.5	18.7	1.6
23.5	24	1.25	58.30	"	"	1000	-	28	20	1.5
42	13.6	3.3	32.22	BG06-../D04LA4	6.1	890	-	51	11.2	4.0
38.5	14.8	3.0	35.15	"	"	880	-	46.5	12.3	3.7
37	15.4	2.9	36.91	"	"	890	-	44	13	3.5
34	16.8	2.7	40.26	"	"	890	-	40.5	14.1	3.2
29.5	19.4	2.3	46.19	"	"	890	-	35.5	16.1	2.8
27	21	2.1	50.38	"	"	940	-	32.5	17.6	2.6
26	22	2.0	52.56	"	"	950	-	31	18.4	2.4
24	23.5	1.9	57.34	"	"	1000	-	28.5	20	2.3
22.5	25	1.8	61.22	"	"	1020	-	26.5	21.5	2.1
20.5	27.5	1.65	66.79	"	"	1070	-	24.5	23	1.95
18	29.5	1.35	75.99	BG06G04-../D04LA4	8.4	1070	-	21.5	24.5	1.65
16.5	32	1.35	82.89	"	"	1070	-	20	26	1.65
15	35.5	1.25	93.00	"	"	1070	-	17.5	30	1.5
13.5	39.5	1.15	101.5	"	"	1070	-	16	33	1.35
11.5	45.5	0.99	122.0	"	"	1070	-	13.5	38.5	1.15
15	38	3.2	92.19	BG10Z-../D06LA4	14	2000	2800	18	31.5	3.8
13.5	42	2.9	102.1	"	"	2000	2800	16	35.5	3.4
12.5	45.5	2.6	109.8	"	"	2000	2800	15	38	3.2
11.5	49.5	2.4	121.7	"	"	2000	2800	13.5	42	2.9
10.5	54	2.2	131.8	"	"	2000	2800	12.5	45.5	2.6
9.3	61	1.95	146.0	"	"	2000	2800	11.5	49.5	2.4
8.2	69	1.75	166.0	"	"	2000	2800	9.8	58	2.1
7.4	77	1.55	184.0	"	"	2000	2800	8.9	64	1.9
7.0	81	1.5	194.6	"	"	2000	2800	8.4	68	1.75
6.3	90	1.35	215.7	"	"	2000	2800	7.6	75	1.6
5.7	100	1.2	240.4	"	"	2000	2800	6.8	84	1.45
5.1	112	1.05	266.3	"	"	2000	2800	6.1	93	1.3
4.9	116	1.05	276.0	"	"	2000	2800	5.9	97	1.25
4.5	127	0.94	305.8	"	"	2000	2800	5.3	108	1.1
4.1	107	1.2	332.0	BG10G06-../D06LA4	18	2000	2800	4.9	84	1.55
3.6	128	1.0	379.6	"	"	2000	2800	4.3	102	1.25
3.1	149	0.87	435.9	"	"	2000	2800	3.8	115	1.15
8.4	68	2.9	162.2	BG20Z-../D06LA4	16	5000	-	10	57	3.5
7.5	76	2.6	180.1	"	"	5000	-	9.0	63	3.2
6.8	84	2.4	199.9	"	"	5000	-	8.2	69	2.9
6.1	93	2.2	222.1	"	"	5000	-	7.3	78	2.6
5.5	77	2.9	248.0	BG20G06-../D06LA4	20	5000	-	6.6	60	3.7
4.6	95	2.3	297.9	"	"	5000	-	5.5	75	2.9
3.9	118	1.85	352.1	"	"	5000	-	4.7	93	2.4
3.5	132	1.65	391.1	"	"	5000	-	4.2	104	2.1
3.0	156	1.4	460.0	"	"	5000	-	3.6	125	1.75
2.5	192	1.15	550.6	"	"	5000	-	3.0	154	1.45
2.1	230	0.96	671.9	"	"	5000	-	2.5	188	1.15
6.0	95	3.2	225.9	BG30Z-../D06LA4	22	6000	-	7.2	79	3.8
5.2	110	2.7	261.9	"	"	6000	-	6.2	92	3.3
4.7	121	2.5	290.5	"	"	6000	-	5.6	102	2.9

P = 0.06 kW

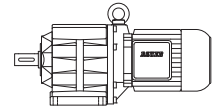


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
3.9	118	2.8	346.8	BG30G06-../D06LA4	25	6000	-	4.7	93	3.5
3.4	136	2.4	401.9	"	"	6000	-	4.1	107	3.0
2.9	162	2.0	472.8	"	"	6000	-	3.5	128	2.5
2.4	200	1.65	565.8	"	"	6000	-	2.9	159	2.0
2.0	240	1.35	690.6	"	"	6000	-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

P = 0.09 kW

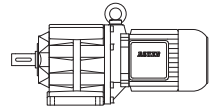
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
540	1.59	2.5	2.51	BG04-../D04LA4	4.4	340	-	650	1.32	3.0
370	2.3	2.2	3.65	"	"	390	-	445	1.93	2.6
310	2.75	2.5	4.39	"	"	380	-	370	2.3	3.0
255	3.35	2.7	5.36	"	"	380	-	305	2.8	3.2
205	4.15	2.4	6.67	"	"	410	-	245	3.5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

P = 0.09 kW



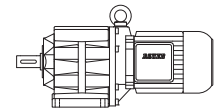
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
128	6.7	3.0	10.59	BG05-../D04LA4	5.1	590	-	153	5.6	3.6
117	7.3	2.9	11.55	"	"	600	-	141	6.0	3.5
113	7.6	2.8	12.05	"	"	510	-	135	6.3	3.3
108	7.9	2.8	12.60	"	"	610	-	129	6.6	3.3
99	8.6	2.7	13.75	"	"	630	-	118	7.2	3.2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

P = 0.09 kW



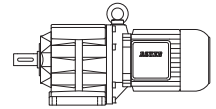
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
5.5	130	1.7	248.0	BG20G06-../D06LA4	20	5000	-	6.6	103	2.1
4.6	157	1.4	297.9	"	"	5000	-	5.5	127	1.75
3.9	192	1.15	352.1	"	"	5000	-	4.7	154	1.45
3.5	210	1.05	391.1	"	"	5000	-	4.2	173	1.25
3.0	250	0.88	460.0	"	"	5000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

P = 0.12 kW



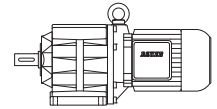
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
540	2.1	1.9	2.51	BG04-../D04LA4	4.4	340	-	650	1.76	2.3
370	3.05	1.65	3.65	"	"	390	-	445	2.55	1.95
310	3.65	1.9	4.39	"	"	380	-	370	3.05	2.3
255	4.45	2.0	5.36	"	"	380	-	305	3.75	2.4
205	5.5	1.8	6.67	"	"	410	-	245	4.65	2.2
158	7.2	1.55	8.58	"	"	410	-	189	6.0	1.85
150	7.6	1.6	9.00	"	"	470	-	180	6.3	1.9
137	8.3	1.55	9.90	"	"	480	-	164	6.9	1.9
125	9.1	1.55	10.82	"	"	480	-	150	7.6	1.85
114	10	1.5	11.90	"	"	490	-	137	8.3	1.8
108	10.6	1.4	12.55	"	"	490	-	130	8.8	1.7
103	11.1	1.45	13.20	"	"	500	-	123	9.3	1.7
93	12.3	1.4	14.52	"	"	510	-	112	10.2	1.65
83	13.8	1.3	16.44	"	"	530	-	99	11.5	1.55
75	15.2	1.2	18.08	"	"	540	-	90	12.7	1.4
64	17.9	1.05	21.12	"	"	560	-	77	14.8	1.3
59	19.4	1.05	23.23	"	"	600	-	70	16.3	1.25
56	20	1.0	24.45	"	"	610	-	67	17.1	1.15
51	22	0.91	26.89	"	"	650	-	61	18.7	1.05
295	3.85	3.1	4.59	BG05-../D04LA4	5.1	490	-	355	3.2	3.8
250	4.55	3.1	5.46	"	"	490	-	300	3.8	3.7
205	5.5	2.9	6.60	"	"	510	-	250	4.55	3.5
174	6.5	2.8	7.80	"	"	530	-	210	5.4	3.3
166	6.9	2.6	8.15	"	"	510	-	199	5.7	3.2
159	7.2	2.6	8.51	"	"	550	-	191	6.0	3.2
128	8.9	2.2	10.59	"	"	590	-	153	7.4	2.7
117	9.7	2.2	11.55	"	"	600	-	141	8.1	2.6
113	10.1	2.1	12.05	"	"	510	-	135	8.4	2.5
108	10.6	2.1	12.60	"	"	610	-	129	8.8	2.5
99	11.5	2.0	13.75	"	"	630	-	118	9.7	2.4
89	12.8	1.9	15.23	"	"	640	-	107	10.7	2.2
82	13.9	1.8	16.62	"	"	660	-	98	11.6	2.2
72	15.9	1.65	18.82	"	"	680	-	87	13.1	2.0
66	17.3	1.55	20.53	"	"	700	-	79	14.5	1.85
57	20	1.4	24.00	"	"	740	-	68	16.8	1.65
52	22	1.3	26.18	"	"	760	-	62	18.4	1.6
49	23	1.3	27.82	"	"	770	-	59	19.4	1.55
44.5	25.5	1.2	30.35	"	"	760	-	54	21	1.45
39	29	1.05	35.00	"	"	810	-	46.5	24.5	1.2
35.5	32	0.94	38.18	"	"	850	-	42.5	26.5	1.15
34	33.5	0.9	39.94	"	"	860	-	41	27.5	1.1
31	36.5	0.82	43.57	"	"	900	-	37.5	30.5	0.98
110	10.4	3.2	12.30	BG06-../D04LA4	6.1	670	-	132	8.6	3.8
105	10.9	3.0	12.98	"	"	600	-	125	9.1	3.6
92	12.4	2.7	14.78	"	"	730	-	110	10.4	3.3
84	13.6	2.6	16.13	"	"	740	-	101	11.3	3.1
78	14.6	2.6	17.40	"	"	760	-	94	12.1	3.1
72	15.9	2.5	18.98	"	"	770	-	86	13.3	3.0
65	17.6	2.3	20.82	"	"	800	-	78	14.6	2.7
60	19.1	2.3	22.71	"	"	810	-	72	15.9	2.7
53	21.5	2.1	25.48	"	"	850	-	64	17.9	2.5
49	23	1.95	27.80	"	"	840	-	59	19.4	2.3
42	27	1.65	32.22	"	"	890	-	51	22	2.0
38.5	29.5	1.55	35.15	"	"	880	-	46.5	24.5	1.85
37	30.5	1.5	36.91	"	"	890	-	44	26	1.75
34	33.5	1.35	40.26	"	"	890	-	40.5	28	1.6
29.5	38.5	1.15	46.19	"	"	890	-	35.5	32	1.4
27	42	1.05	50.38	"	"	940	-	32.5	35	1.3
26	44	1.0	52.56	"	"	950	-	31	36.5	1.25
24	47.5	0.95	57.34	"	"	1000	-	28.5	40	1.15
22.5	50	0.9	61.22	"	"	1020	-	26.5	43	1.05
20.5	55	0.82	66.79	"	"	1070	-	24.5	46.5	0.97

P = 0.12 kW



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

P = 0.12 kW

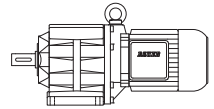


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
6.0	191	3.3	226.9	BG50Z-../D06LA4	47	10000	-	7.2	159	4.0
5.3	215	2.9	258.6	"	"	10000	-	6.3	181	3.5
4.8	235	2.7	286.7	"	"	10000	-	5.7	200	3.2
3.1	260	2.7	446.5	BG50G10-../D06LA4	51	10000	-	3.7	200	3.5
2.6	320	2.2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

P = 0.18 kW

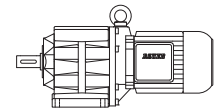
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
520	3.3	2.7	2.64	BG05-../D05LA4	7.0	420	-	620	2.75	3.3
400	4.25	2.4	3.38	"	"	460	-	480	3.55	2.8
295	5.8	2.1	4.59	"	"	490	-	355	4.8	2.5
250	6.8	2.1	5.46	"	"	490	-	300	5.7	2.5
205	8.3	1.95	6.60	"	"	510	-	250	6.8	2.4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

P = 0.18 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
78	22	1.75	17.40	BG06-../D05LA4	"	760	-	94	18.2	2.1
72	23.5	1.7	18.98	"	"	770	-	86	19.9	2.0
65	26	1.55	20.82	"	"	800	-	78	22	1.8
60	28.5	1.5	22.71	"	"	810	-	72	23.5	1.85
53	32	1.4	25.48	"	"	850	-	64	26.5	1.7
49	35	1.3	27.80	"	"	840	-	59	29	1.55
42	40.5	1.1	32.22	"	"	890	-	51	33.5	1.35
38.5	44.5	1.0	35.15	"	"	880	-	46.5	36.5	1.25
37	46	0.98	36.91	"	"	890	-	44	39	1.15
34	50	0.9	40.26	"	"	890	-	40.5	42	1.05
46.5	36.5	3.3	29.09	BG10-../D06LA4	13	1540	2150	56	30.5	3.9
43	39.5	3.0	31.52	"	"	1600	2200	52	33	3.6
39	44	2.7	34.92	"	"	1690	2350	46.5	36.5	3.3
34.5	49.5	2.4	39.70	"	"	1780	2450	41	41.5	2.9
31	55	2.2	43.99	"	"	1880	2600	37	46	2.6
29.5	58	2.1	46.55	"	"	1920	2650	35	49	2.4
26.5	64	1.9	51.57	"	"	2000	2800	31.5	54	2.2
23.5	73	1.65	57.48	"	"	2000	2800	28.5	60	2.0
21.5	79	1.5	63.69	"	"	2000	2800	25.5	67	1.8
20.5	83	1.45	66.00	"	"	2000	2800	25	68	1.75
18.5	92	1.3	73.13	"	"	2000	2800	22.5	76	1.6
17.5	98	1.2	77.40	BG10Z-../D06LA4	14	2000	2800	21	81	1.5
16	107	1.1	85.76	"	"	2000	2800	19	90	1.35
15	114	1.05	92.19	"	"	2000	2800	18	95	1.25
13.5	127	0.94	102.1	"	"	2000	2800	16	107	1.1
12.5	137	0.88	109.8	"	"	2000	2800	15	114	1.05
11.5	149	0.81	121.7	"	"	2000	2800	13.5	127	0.94
36	47.5	3.2	37.90	BG15-../D06LA4	13	3000	6000	43	39.5	3.8
28.5	60	3.3	47.92	BG20-../D06LA4	16	4750	-	34	50	4.0
25.5	67	3.0	53.22	"	"	4950	-	30.5	56	3.6
23	74	2.7	59.07	"	"	5000	-	27.5	62	3.2
21	81	2.5	65.62	"	"	5000	-	25	68	2.9
20	85	2.4	67.53	BG20Z-../D06LA4	16	5000	-	24	71	2.8
17.5	98	2.0	78.60	"	"	5000	-	21	81	2.5
15.5	110	1.8	87.30	"	"	5000	-	19	90	2.2
14.5	118	1.7	94.27	"	"	5000	-	17.5	98	2.0
13	132	1.5	104.7	"	"	5000	-	15.5	110	1.8
12	143	1.4	112.8	"	"	5000	-	14.5	118	1.7
11	156	1.3	125.3	"	"	5000	-	13	132	1.5
9.6	179	1.1	141.3	"	"	5000	-	11.5	149	1.35
8.4	200	1.0	162.2	"	"	5000	-	10	171	1.15
7.5	225	0.89	180.1	"	"	5000	-	9.0	191	1.05
6.8	250	0.8	199.9	"	"	5000	-	8.2	205	0.98
21	81	3.3	65.79	BG30Z-../D06LA4	22	6000	-	25	68	3.9
18.5	92	3.3	73.51	"	"	6000	-	22.5	76	3.9
17	101	3.0	81.55	"	"	6000	-	20	85	3.5
16	107	2.8	86.13	"	"	6000	-	19	90	3.3
14.5	118	2.5	95.55	"	"	6000	-	17	101	3.0
12.5	137	2.2	109.6	"	"	6000	-	15	114	2.6
11.5	149	2.0	121.6	"	"	6000	-	13.5	127	2.4
11	156	1.9	128.5	"	"	6000	-	13	132	2.3
9.5	180	1.65	142.5	"	"	6000	-	11.5	149	2.0
9.0	191	1.55	151.5	"	"	6000	-	11	156	1.9
8.1	210	1.45	168.1	"	"	6000	-	9.7	177	1.7
7.4	230	1.3	182.9	"	"	6000	-	8.9	193	1.55
6.7	255	1.2	202.9	"	"	6000	-	8.0	210	1.45
6.0	285	1.05	225.9	"	"	6000	-	7.2	235	1.3
5.2	330	0.91	261.9	"	"	6000	-	6.2	275	1.1
4.7	365	0.82	290.5	"	"	6000	-	5.6	305	0.98
4.5	350	0.93	306.2	BG30G06-../D06LA4	25	6000	-	5.3	290	1.1

P = 0.18 kW

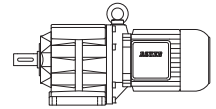


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
13	132	3.2	107.5	BG40Z-../D06LA4	38	7000	-	15.5	110	3.9
11.5	149	2.9	121.3	"	"	7000	-	13.5	127	3.3
10.5	163	2.6	134.6	"	"	7000	-	12.5	137	3.1
9.6	179	2.4	141.4	"	"	7000	-	11.5	149	2.9
8.7	197	2.2	156.9	"	"	7000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

P = 0.25 kW

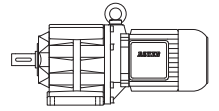
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
520	4.55	2.0	2.64	BG05-../D05LA4	7.0	420	-	620	3.85	2.3
400	5.9	1.7	3.38	"	"	460	-	480	4.95	2.0
295	8.0	1.5	4.59	"	"	490	-	355	6.7	1.8
250	9.5	1.45	5.46	"	"	490	-	300	7.9	1.75
205	11.6	1.4	6.60	"	"	510	-	250	9.5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

P = 0.25 kW



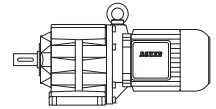
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
113	21	1.0	12.05	BG05-../D05LA4	"	510	-	135	17.6	1.2
108	22	1.0	12.60	"	"	610	-	129	18.5	1.2
99	24	0.96	13.75	"	"	630	-	118	20	1.15
89	26.5	0.91	15.23	"	"	640	-	107	22	1.1
82	29	0.86	16.62	"	"	660	-	98	24	1.05
360	6.6	3.0	3.78	BG06-../D05LA4	8.0	520	-	430	5.5	3.6
300	7.9	2.8	4.54	"	"	530	-	360	6.6	3.3
230	10.3	2.3	5.96	"	"	570	-	275	8.6	2.8
193	12.3	2.1	7.01	"	"	580	-	235	10.1	2.6
161	14.8	1.9	8.39	"	"	600	-	194	12.3	2.3
144	16.5	1.8	9.38	"	"	640	-	173	13.8	2.2
132	18	1.7	10.24	"	"	640	-	159	15	2.1
120	19.8	1.6	11.28	"	"	670	-	144	16.5	1.95
110	21.5	1.55	12.30	"	"	670	-	132	18	1.85
105	22.5	1.45	12.98	"	"	600	-	125	19.1	1.75
92	25.5	1.35	14.78	"	"	730	-	110	21.5	1.6
84	28	1.25	16.13	"	"	740	-	101	23.5	1.5
78	30.5	1.25	17.40	"	"	760	-	94	25	1.5
72	33	1.2	18.98	"	"	770	-	86	27.5	1.45
65	36.5	1.1	20.82	"	"	800	-	78	30.5	1.3
60	39.5	1.1	22.71	"	"	810	-	72	33	1.3
53	45	1.0	25.48	"	"	850	-	64	37	1.2
49	48.5	0.93	27.80	"	"	840	-	59	40	1.15
42	56	0.8	32.22	"	"	890	-	51	46.5	0.97
66	36	3.3	20.51	BG10-../D06LA4	13	1290	1800	79	30	4.0
62	38.5	3.1	22.04	"	"	1330	1860	74	32	3.8
56	42.5	2.8	24.42	"	"	1410	1970	67	35.5	3.4
52	45.5	2.6	26.26	"	"	1460	2000	62	38.5	3.1
46.5	51	2.4	29.09	"	"	1540	2150	56	42.5	2.8
43	55	2.2	31.52	"	"	1600	2200	52	45.5	2.6
39	61	1.95	34.92	"	"	1690	2350	46.5	51	2.4
34.5	69	1.75	39.70	"	"	1780	2450	41	58	2.1
31	77	1.55	43.99	"	"	1880	2600	37	64	1.9
29.5	80	1.5	46.55	"	"	1920	2650	35	68	1.75
26.5	90	1.35	51.57	"	"	2000	2800	31.5	75	1.6
23.5	101	1.2	57.48	"	"	2000	2800	28.5	83	1.45
21.5	111	1.1	63.69	"	"	2000	2800	25.5	93	1.3
20.5	116	1.05	66.00	"	"	2000	2800	25	95	1.25
18.5	129	0.93	73.13	"	"	2000	2800	22.5	106	1.15
17.5	136	0.88	77.40	BG10Z-../D06LA4	14	2000	2800	21	113	1.05
16	149	0.81	85.76	"	"	2000	2800	19	125	0.96
50	47.5	3.2	27.08	BG15-../D06LA4	13	3000	6000	60	39.5	3.8
45	53	2.8	30.08	"	"	3000	6000	54	44	3.4
39.5	60	2.5	34.20	"	"	3000	6000	47.5	50	3.0
36	66	2.3	37.90	"	"	3000	6000	43	55	2.7
36.5	65	3.1	37.02	BG20-../D06LA4	16	4300	-	44	54	3.7
32.5	73	2.7	41.76	"	"	4500	-	39	61	3.3
29.5	80	2.5	46.38	"	"	4700	-	35	68	2.9
28.5	83	2.4	47.92	"	"	4750	-	34	70	2.9
25.5	93	2.2	53.22	"	"	4950	-	30.5	78	2.6
23	103	1.95	59.07	"	"	5000	-	27.5	86	2.3
21	113	1.75	65.62	"	"	5000	-	25	95	2.1
20	119	1.7	67.53	BG20Z-../D06LA4	16	5000	-	24	99	2.0
17.5	136	1.45	78.60	"	"	5000	-	21	113	1.75
15.5	154	1.3	87.30	"	"	5000	-	19	125	1.6
14.5	164	1.2	94.27	"	"	5000	-	17.5	136	1.45
13	183	1.1	104.7	"	"	5000	-	15.5	154	1.3
12	198	1.0	112.8	"	"	5000	-	14.5	164	1.2
11	215	0.93	125.3	"	"	5000	-	13	183	1.1
9.6	245	0.82	141.3	"	"	5000	-	11.5	205	0.98

P = 0.25 kW



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

P = 0.3 kW



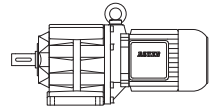
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
520	5.5	1.65	2.64	BG05-../D07LA4	11	420	-	620	4.6	1.95
400	7.1	1.4	3.38	"	"	460	-	480	5.9	1.7
295	9.7	1.25	4.59	"	"	490	-	355	8.0	1.5
250	11.4	1.25	5.46	"	"	490	-	300	9.5	1.45
205	13.9	1.15	6.60	"	"	510	-	250	11.4	1.4
174	16.4	1.1	7.80	"	"	530	-	210	13.6	1.3
166	17.2	1.05	8.15	"	"	510	-	199	14.3	1.25
159	18	1.05	8.51	"	"	550	-	191	15	1.25
128	22	0.91	10.59	"	"	590	-	153	18.7	1.05
117	24	0.88	11.55	"	"	600	-	141	20	1.05
113	25	0.84	12.05	"	"	510	-	135	21	1.0
108	26.5	0.83	12.60	"	"	610	-	129	22	1.0
99	28.5	0.81	13.75	"	"	630	-	118	24	0.96
360	7.9	2.5	3.78	BG06-../D07LA4	12	520	-	430	6.6	3.0
300	9.5	2.3	4.54	"	"	530	-	360	7.9	2.8
230	12.4	1.95	5.96	"	"	570	-	275	10.4	2.3
193	14.8	1.75	7.01	"	"	580	-	235	12.1	2.1
161	17.7	1.6	8.39	"	"	600	-	194	14.7	1.9
144	19.8	1.5	9.38	"	"	640	-	173	16.5	1.8
132	21.5	1.45	10.24	"	"	640	-	159	18	1.7
120	23.5	1.35	11.28	"	"	670	-	144	19.8	1.6
110	26	1.25	12.30	"	"	670	-	132	21.5	1.55
105	27	1.2	12.98	"	"	600	-	125	22.5	1.45
92	31	1.1	14.78	"	"	730	-	110	26	1.3
84	34	1.05	16.13	"	"	740	-	101	28	1.25
78	36.5	1.05	17.40	"	"	760	-	94	30	1.25
72	39.5	1.0	18.98	"	"	770	-	86	33	1.2
65	44	0.91	20.82	"	"	800	-	78	36.5	1.1
60	47.5	0.91	22.71	"	"	810	-	72	39.5	1.1
53	54	0.83	25.48	"	"	850	-	64	44.5	1.0
73	39	3.1	18.51	BG10-../D07LA4	15	1210	1690	88	32.5	3.7
66	43	2.8	20.51	"	"	1290	1800	79	36	3.3
62	46	2.6	22.04	"	"	1330	1860	74	38.5	3.1
56	51	2.4	24.42	"	"	1410	1970	67	42.5	2.8
52	55	2.2	26.26	"	"	1460	2000	62	46	2.6
46.5	61	1.95	29.09	"	"	1540	2150	56	51	2.4
43	66	1.8	31.52	"	"	1600	2200	52	55	2.2
39	73	1.65	34.92	"	"	1690	2350	46.5	61	1.95
34.5	83	1.45	39.70	"	"	1780	2450	41	69	1.75
31	92	1.3	43.99	"	"	1880	2600	37	77	1.55
29.5	97	1.25	46.55	"	"	1920	2650	35	81	1.5
26.5	108	1.1	51.57	"	"	2000	2800	31.5	90	1.35
23.5	121	0.99	57.48	"	"	2000	2800	28.5	100	1.2
21.5	133	0.9	63.69	"	"	2000	2800	25.5	112	1.05
20.5	139	0.86	66.00	"	"	2000	2800	25	114	1.05
50	57	2.6	27.08	BG15-../D07LA4	15	3000	6000	60	47.5	3.2
45	63	2.4	30.08	"	"	3000	6000	54	53	2.8
39.5	72	2.1	34.20	"	"	3000	6000	47.5	60	2.5
36	79	1.9	37.90	"	"	3000	6000	43	66	2.3
44	65	3.1	30.94	BG20-../D07LA4	18	4000	-	53	54	3.7
41	69	2.9	33.33	"	"	4100	-	49	58	3.4
36.5	78	2.6	37.02	"	"	4300	-	44	65	3.1
32.5	88	2.3	41.76	"	"	4500	-	39	73	2.7
29.5	97	2.1	46.38	"	"	4700	-	35	81	2.5
28.5	100	2.0	47.92	"	"	4750	-	34	84	2.4
25.5	112	1.8	53.22	"	"	4950	-	30.5	93	2.2
23	124	1.6	59.07	"	"	5000	-	27.5	104	1.9
21	136	1.45	65.62	"	"	5000	-	25	114	1.75
20	143	1.4	67.53	BG20Z-../D07LA4	19	5000	-	24	119	1.7
17.5	163	1.25	78.60	"	"	5000	-	21	136	1.45
15.5	184	1.1	87.30	"	"	5000	-	19	150	1.35
14.5	197	1.0	94.27	"	"	5000	-	17.5	163	1.25
13	220	0.91	104.7	"	"	5000	-	15.5	184	1.1
12	235	0.85	112.8	"	"	5000	-	14.5	197	1.0

P = 0.3 kW



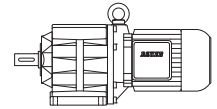
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
29	98	3.1	47.11	BG30-../D07LA4	22	6000	-	34.5	83	3.6
26	110	2.7	52.44	"	"	6000	-	31	92	3.3
23.5	121	2.5	58.18	"	"	6000	-	28	102	2.9
22.5	127	2.4	60.79	"	"	6000	-	27	106	2.8
20.5	139	2.2	67.44	"	"	6000	-	24.5	116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

P = 0.37 kW



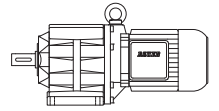
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
520	6.7	1.35	2.64	BG05-../D07LA4	11	420	-	620	5.6	1.6
400	8.8	1.15	3.38	"	"	460	-	480	7.3	1.35
295	11.9	1.0	4.59	"	"	490	-	355	9.9	1.2
250	14.1	0.99	5.46	"	"	490	-	300	11.7	1.2
205	17.2	0.93	6.60	"	"	510	-	250	14.1	1.15
174	20	0.9	7.80	"	"	530	-	210	16.8	1.05
166	21	0.86	8.15	"	"	510	-	199	17.7	1.0
159	22	0.86	8.51	"	"	550	-	191	18.5	1.05
360	9.8	2.0	3.78	BG06-../D07LA4	12	520	-	430	8.2	2.4
300	11.7	1.9	4.54	"	"	530	-	360	9.8	2.2
230	15.3	1.55	5.96	"	"	570	-	275	12.8	1.9
193	18.3	1.4	7.01	"	"	580	-	235	15	1.75
161	21.5	1.3	8.39	"	"	600	-	194	18.2	1.55
144	24.5	1.2	9.38	"	"	640	-	173	20	1.5
132	26.5	1.15	10.24	"	"	640	-	159	22	1.4
120	29	1.1	11.28	"	"	670	-	144	24.5	1.3
110	32	1.05	12.30	"	"	670	-	132	26.5	1.25
105	33.5	0.99	12.98	"	"	600	-	125	28	1.2
92	38	0.89	14.78	"	"	730	-	110	32	1.05
84	42	0.83	16.13	"	"	740	-	101	34.5	1.0
78	45	0.84	17.40	"	"	760	-	94	37.5	1.0
72	49	0.82	18.98	"	"	770	-	86	41	0.98
103	34	3.2	13.21	BG10-../D07LA4	15	1070	1490	123	28.5	3.9
93	37.5	3.0	14.58	"	"	1100	1540	112	31.5	3.6
84	42	2.8	16.15	"	"	1140	1590	101	34.5	3.4
73	48	2.5	18.51	"	"	1210	1690	88	40	3.0
66	53	2.3	20.51	"	"	1290	1800	79	44.5	2.7
62	56	2.1	22.04	"	"	1330	1860	74	47.5	2.5
56	63	1.9	24.42	"	"	1410	1970	67	52	2.3
52	67	1.8	26.26	"	"	1460	2000	62	56	2.1
46.5	75	1.6	29.09	"	"	1540	2150	56	63	1.9
43	82	1.45	31.52	"	"	1600	2200	52	67	1.8
39	90	1.35	34.92	"	"	1690	2350	46.5	75	1.6
34.5	102	1.2	39.70	"	"	1780	2450	41	86	1.4
31	113	1.05	43.99	"	"	1880	2600	37	95	1.25
29.5	119	1.0	46.55	"	"	1920	2650	35	100	1.2
26.5	133	0.9	51.57	"	"	2000	2800	31.5	112	1.05
23.5	150	0.8	57.48	"	"	2000	2800	28.5	123	0.98
50	70	2.1	27.08	BG15-../D07LA4	15	3000	6000	60	58	2.6
45	78	1.9	30.08	"	"	3000	6000	54	65	2.3
39.5	89	1.7	34.20	"	"	3000	6000	47.5	74	2.0
36	98	1.55	37.90	"	"	3000	6000	43	82	1.85
53	66	3.0	25.79	BG20-../D07LA4	18	3700	-	63	56	3.6
48.5	72	2.8	27.85	"	"	3800	-	59	59	3.4
44	80	2.5	30.94	"	"	4000	-	53	66	3.0
41	86	2.3	33.33	"	"	4100	-	49	72	2.8
36.5	96	2.1	37.02	"	"	4300	-	44	80	2.5
32.5	108	1.85	41.76	"	"	4500	-	39	90	2.2
29.5	119	1.7	46.38	"	"	4700	-	35	100	2.0
28.5	123	1.65	47.92	"	"	4750	-	34	103	1.95
25.5	138	1.45	53.22	"	"	4950	-	30.5	115	1.75
23	153	1.3	59.07	"	"	5000	-	27.5	128	1.55
21	168	1.2	65.62	"	"	5000	-	25	141	1.4
20	176	1.15	67.53	BG20Z-../D07LA4	19	5000	-	24	147	1.35
17.5	200	1.0	78.60	"	"	5000	-	21	168	1.2
15.5	225	0.89	87.30	"	"	5000	-	19	185	1.1
14.5	240	0.83	94.27	"	"	5000	-	17.5	200	1.0
38.5	91	3.3	35.17	BG30-../D07LA4	22	5500	-	46.5	75	4.0
35	100	3.0	39.02	"	"	5800	-	42	84	3.6
32	110	2.7	42.46	"	"	5900	-	38.5	91	3.3
29	121	2.5	47.11	"	"	6000	-	34.5	102	2.9

P = 0.37 kW



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

P = 0.55 kW



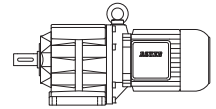
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
500	10.5	1.7	2.82	BG06-../D08MA4	16	470	-	600	8.7	2.1
375	14	1.45	3.78	"	"	520	-	445	11.8	1.7
310	16.9	1.3	4.54	"	"	530	-	375	14	1.55
235	22	1.1	5.96	"	"	570	-	285	18.4	1.3
200	26	1.0	7.01	"	"	580	-	240	21.5	1.2
167	31	0.9	8.39	"	"	600	-	205	25.5	1.1
150	35	0.86	9.38	"	"	640	-	180	29	1.05
137	38	0.82	10.24	"	"	640	-	165	31.5	0.98
210	25	3.2	6.78	BG10-../D08MA4	16	660	920	250	21	3.9
174	30	2.9	8.07	"	"	660	920	210	25	3.5
151	34.5	2.8	9.33	"	"	950	1330	181	29	3.3
136	38.5	2.6	10.34	"	"	1000	1400	163	32	3.1
118	44.5	2.4	11.92	"	"	1030	1440	141	37	2.8
106	49.5	2.2	13.21	"	"	1070	1490	128	41	2.7
97	54	2.1	14.58	"	"	1100	1540	116	45	2.5
87	60	1.95	16.15	"	"	1140	1590	105	50	2.3
76	69	1.75	18.51	"	"	1210	1690	91	57	2.1
69	76	1.6	20.51	"	"	1290	1800	82	64	1.9
64	82	1.45	22.04	"	"	1330	1860	77	68	1.75
58	90	1.35	24.42	"	"	1410	1970	69	76	1.6
54	97	1.25	26.26	"	"	1460	2000	64	82	1.45
48.5	108	1.1	29.09	"	"	1540	2150	58	90	1.35
44.5	118	1.0	31.52	"	"	1600	2200	54	97	1.25
40.5	129	0.93	34.92	"	"	1690	2350	48.5	108	1.1
35.5	147	0.82	39.70	"	"	1780	2450	42.5	123	0.98
52	101	1.5	27.08	BG15-../D08MA4	16	3000	6000	63	83	1.8
47	111	1.35	30.08	"	"	3000	6000	56	93	1.6
41	128	1.15	34.20	"	"	3000	6000	49.5	106	1.4
37	141	1.05	37.90	"	"	3000	6000	44.5	118	1.25
96	54	3.2	14.67	BG20-../D08MA4	19	3050	-	115	45.5	3.8
90	58	3.1	15.58	"	"	3100	-	108	48.5	3.6
81	64	2.9	17.31	"	"	3200	-	98	53	3.5
71	73	2.7	19.95	"	"	3350	-	85	61	3.2
64	82	2.4	22.16	"	"	3500	-	76	69	2.9
61	86	2.3	23.22	"	"	3550	-	73	71	2.8
55	95	2.1	25.79	"	"	3700	-	66	79	2.5
51	102	1.95	27.85	"	"	3800	-	61	86	2.3
45.5	115	1.75	30.94	"	"	4000	-	55	95	2.1
42.5	123	1.65	33.33	"	"	4100	-	51	102	1.95
38	138	1.45	37.02	"	"	4300	-	45.5	115	1.75
34	154	1.3	41.76	"	"	4500	-	40.5	129	1.55
30.5	172	1.15	46.38	"	"	4700	-	36.5	143	1.4
29.5	178	1.1	47.92	"	"	4750	-	35.5	147	1.35
26.5	198	1.0	53.22	"	"	4950	-	32	164	1.2
24	215	0.93	59.07	"	"	5000	-	28.5	184	1.1
21.5	240	0.83	65.62	"	"	5000	-	26	200	1.0
21	250	0.8	67.53	BG20Z-../D08MA4	20	5000	-	25	210	0.95
56	93	3.2	25.45	BG30-../D08MA4	23	4850	-	67	78	3.8
50	105	2.9	28.24	"	"	5100	-	60	87	3.4
47	111	2.7	29.83	"	"	5200	-	57	92	3.3
42.5	123	2.4	33.09	"	"	5400	-	51	102	2.9
40	131	2.3	35.17	"	"	5500	-	48	109	2.8
36	145	2.1	39.02	"	"	5800	-	43.5	120	2.5
33	159	1.9	42.46	"	"	5900	-	40	131	2.3
30	175	1.7	47.11	"	"	6000	-	36	145	2.1
27	194	1.55	52.44	"	"	6000	-	32.5	161	1.85
24.5	210	1.45	58.18	"	"	6000	-	29	181	1.65
23.5	220	1.35	60.79	"	"	6000	-	28	187	1.6
21	250	1.2	67.44	"	"	6000	-	25	210	1.45
19.5	265	1.15	73.51	BG30Z-../D08MA4	26	6000	-	23	225	1.35
17.5	300	1.0	81.55	"	"	6000	-	21	250	1.2
16.5	315	0.95	86.13	"	"	6000	-	20	260	1.15
15	350	0.86	95.55	"	"	6000	-	18	290	1.05

P = 0.55 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
41	128	3.3	34.20	BG40-../D08MA4	38	7000	-	49.5	106	4.0
37	141	3.0	37.96	"	"	7000	-	44.5	118	3.6
35	150	2.8	40.19	"	"	7000	-	42	125	3.4
31.5	166	2.6	44.62	"	"	7000	-	38	138	3.1
29	181	2.3	48.36	"	"	7000	-	35	150	2.8
26.5	198	2.1	53.69	"	"	7000	-	31.5	166	2.6
23.5	220	1.95	59.64	"	"	7000	-	28.5	184	2.3
21.5	240	1.75	66.20	"	"	7000	-	25.5	205	2.1
21	250	1.7	67.74	BG40Z-../D08MA4	42	7000	-	25	210	2.0
19	275	1.55	75.19	"	"	7000	-	22.5	230	1.85
17.5	300	1.4	82.00	"	"	7000	-	20.5	255	1.65
15.5	335	1.25	91.02	"	"	7000	-	18.5	280	1.5
14.5	360	1.2	96.86	"	"	7000	-	17.5	300	1.4
13.5	385	1.1	107.5	"	"	7000	-	16	325	1.3
12	435	0.98	121.3	"	"	7000	-	14	375	1.15
10.5	500	0.85	134.6	"	"	7000	-	12.5	420	1.0
10	520	0.82	141.4	"	"	7000	-	12	435	0.98
27	194	3.2	52.12	BG50-../D08MA4	46	10000	-	32.5	161	3.9
24	215	2.9	59.42	"	"	10000	-	28.5	184	3.4
21.5	240	2.6	65.86	"	"	10000	-	26	200	3.2
19.5	265	2.4	71.97	BG50Z-../D08MA4	51	10000	-	23.5	220	2.9
18	290	2.2	79.78	"	"	10000	-	21.5	240	2.6
15	350	1.8	95.58	"	"	10000	-	18	290	2.2
13.5	385	1.65	106.0	"	"	10000	-	16	325	1.95
11	475	1.35	128.9	"	"	10000	-	13.5	385	1.65
9.8	530	1.2	142.9	"	"	10000	-	12	435	1.45
8.5	610	1.05	164.9	"	"	10000	-	10.5	500	1.25
7.7	680	0.93	182.8	"	"	10000	-	9.2	570	1.1
6.9	760	0.83	204.7	"	"	10000	-	8.3	630	1.0
14	375	3.2	101.0	BG60Z-../D08MA4	96	16000	-	17	305	3.9
12	435	2.8	119.2	"	"	16000	-	14.5	360	3.3
11	475	2.5	132.1	"	"	16000	-	13	400	3.0
8.9	590	2.0	158.0	"	"	16000	-	11	475	2.5
8.0	650	1.85	175.1	"	"	16000	-	9.6	540	2.2
6.9	760	1.6	204.6	"	"	16000	-	8.3	630	1.9
6.2	840	1.45	226.7	"	"	16000	-	7.5	700	1.7
5.7	920	1.3	247.7	"	"	16000	-	6.8	770	1.55
5.2	1010	1.2	274.5	"	"	16000	-	6.2	840	1.45
5.1	910	1.45	276.2	BG60G20-../D08MA4	103	16000	-	6.1	740	1.75
4.6	1010	1.3	306.1	"	"	16000	-	5.5	820	1.6
4.2	1110	1.15	334.3	"	"	16000	-	5.1	880	1.5
3.8	1220	1.05	370.5	"	"	16000	-	4.6	980	1.35
3.3	1420	0.92	437.3	"	"	16000	-	3.9	1180	1.1
7.3	710	3.2	194.4	BG70Z-../D08MA4	136	20000	-	8.7	600	3.8
6.7	780	2.9	210.5	"	"	20000	-	8.0	650	3.5
5.7	920	2.5	249.8	"	"	20000	-	6.8	770	3.0
5.5	840	3.0	255.5	BG70G20-../D08MA4	133	20000	-	6.6	680	3.7
5.1	910	2.7	276.7	"	"	20000	-	6.1	740	3.4
4.3	1080	2.3	328.4	"	"	20000	-	5.2	870	2.9
3.7	1270	1.95	387.6	"	"	20000	-	4.4	1040	2.4
3.4	1420	1.75	417.8	"	"	20000	-	4.1	1150	2.2
2.9	1660	1.5	495.9	"	"	20000	-	3.4	1390	1.8
2.5	1950	1.3	577.3	"	"	20000	-	3.0	1600	1.55
2.2	2200	1.15	665.8	"	"	20000	-	2.6	1850	1.35
1.8	2700	0.93	790.2	"	"	20000	-	2.2	2150	1.15
1.6	3050	0.82	877.6	"	"	20000	-	2.0	2400	1.05
2.9	1430	3.2	484.3	BG80G40-../D08MA4	215	26000	-	3.5	1120	4.1
2.5	1720	2.7	572.0	"	"	26000	-	3.0	1370	3.4
2.2	1900	2.4	657.8	"	"	26000	-	2.6	1540	3.0
2.0	2100	2.2	730.3	"	"	26000	-	2.4	1690	2.7
1.8	2350	1.95	817.4	"	"	26000	-	2.1	1970	2.3
1.6	2700	1.7	907.6	"	"	26000	-	1.9	2200	2.1

P = 0.55 kW

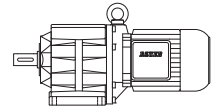


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
1.4	3200	1.45	1042	BG80G40-../D08MA4	"	26000	-	1.7	2500	1.85
1.2	3800	1.2	1261	"	"	26000	-	1.4	3200	1.45
1.0	4700	0.98	1400	"	"	26000	-	1.2	3800	1.2
1.2	3700	2.5	1174	BG90G50-../D08MA4	324	65000	-	1.5	2800	3.3
1.1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

P = 0.75 kW

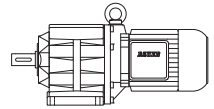
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
500	14.3	1.25	2.82	BG06-../DSE08LA4	18	470	-	600	11.9	1.5
375	19.1	1.05	3.78	"	"	520	-	445	16	1.25
310	23	0.96	4.54	"	"	530	-	375	19.1	1.15
235	30	0.8	5.96	"	"	570	-	285	25	0.96
325	22	3.1	4.36	BG10-../DSE08LA4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

P = 0.75 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
45.5	157	1.25	30.94	BG20-../DSE08LA4	"	4000	-	55	130	1.55
42.5	168	1.2	33.33	"	"	4100	-	51	140	1.45
38	188	1.05	37.02	"	"	4300	-	45.5	157	1.25
34	210	0.95	41.76	"	"	4500	-	40.5	176	1.15
30.5	230	0.87	46.38	"	"	4700	-	36.5	196	1.0
29.5	240	0.83	47.92	"	"	4750	-	35.5	200	1.0
74	96	3.1	18.93	BG30-../DSE08LA4	25	4100	-	89	80	3.8
71	100	3.0	19.99	"	"	4200	-	85	84	3.6
64	111	2.7	22.18	"	"	4600	-	76	94	3.2
56	127	2.4	25.45	"	"	4850	-	67	106	2.8
50	143	2.1	28.24	"	"	5100	-	60	119	2.5
47	152	1.95	29.83	"	"	5200	-	57	125	2.4
42.5	168	1.8	33.09	"	"	5400	-	51	140	2.1
40	179	1.7	35.17	"	"	5500	-	48	149	2.0
36	198	1.5	39.02	"	"	5800	-	43.5	164	1.85
33	215	1.4	42.46	"	"	5900	-	40	179	1.7
30	235	1.3	47.11	"	"	6000	-	36	198	1.5
27	265	1.15	52.44	"	"	6000	-	32.5	220	1.35
24.5	290	1.05	58.18	"	"	6000	-	29	245	1.2
23.5	300	1.0	60.79	"	"	6000	-	28	255	1.2
21	340	0.88	67.44	"	"	6000	-	25	285	1.05
19.5	365	0.82	73.51	BG30Z-../DSE08LA4	28	6000	-	23	310	0.97
54	132	3.2	26.01	BG40-../DSE08LA4	40	6500	-	65	110	3.9
48	149	2.9	29.34	"	"	6800	-	58	123	3.5
43	166	2.6	32.57	"	"	7000	-	52	137	3.1
41	174	2.4	34.20	"	"	7000	-	49.5	144	3.0
37	193	2.2	37.96	"	"	7000	-	44.5	160	2.7
35	200	2.1	40.19	"	"	7000	-	42	170	2.5
31.5	225	1.9	44.62	"	"	7000	-	38	188	2.3
29	245	1.75	48.36	"	"	7000	-	35	200	2.1
26.5	270	1.55	53.69	"	"	7000	-	31.5	225	1.9
23.5	300	1.4	59.64	"	"	7000	-	28.5	250	1.7
21.5	330	1.3	66.20	"	"	7000	-	25.5	280	1.5
21	340	1.25	67.74	BG40Z-../DSE08LA4	43	7000	-	25	285	1.5
19	375	1.15	75.19	"	"	7000	-	22.5	315	1.35
17.5	405	1.05	82.00	"	"	7000	-	20.5	345	1.25
15.5	460	0.92	91.02	"	"	7000	-	18.5	385	1.1
14.5	490	0.87	96.86	"	"	7000	-	17.5	405	1.05
13.5	530	0.8	107.5	"	"	7000	-	16	445	0.96
37	193	3.3	37.89	BG50-../DSE08LA4	48	10000	-	44.5	160	3.9
33.5	210	3.0	42.00	"	"	10000	-	40	179	3.5
30	235	2.7	47.02	"	"	10000	-	36	198	3.2
27	265	2.4	52.12	"	"	10000	-	32.5	220	2.9
24	295	2.1	59.42	"	"	10000	-	28.5	250	2.5
21.5	330	1.9	65.86	"	"	10000	-	26	275	2.3
19.5	365	1.75	71.97	BG50Z-../DSE08LA4	52	10000	-	23.5	300	2.1
18	395	1.6	79.78	"	"	10000	-	21.5	330	1.9
15	475	1.35	95.58	"	"	10000	-	18	395	1.6
13.5	530	1.2	106.0	"	"	10000	-	16	445	1.4
11	650	0.97	128.9	"	"	10000	-	13.5	530	1.2
9.8	730	0.86	142.9	"	"	10000	-	12	590	1.05
18.5	385	3.1	75.71	BG60Z-../DSE08LA4	97	16000	-	22.5	315	3.8
15.5	460	2.6	91.09	"	"	16000	-	18.5	385	3.1
14	510	2.4	101.0	"	"	16000	-	17	420	2.9
12	590	2.0	119.2	"	"	16000	-	14.5	490	2.4
11	650	1.85	132.1	"	"	16000	-	13	550	2.2
8.9	800	1.5	158.0	"	"	16000	-	11	650	1.85
8.0	890	1.35	175.1	"	"	16000	-	9.6	740	1.6
6.9	1030	1.15	204.6	"	"	16000	-	8.3	860	1.4
6.2	1150	1.05	226.7	"	"	16000	-	7.5	950	1.25
5.7	1250	0.96	247.7	"	"	16000	-	6.8	1050	1.15
5.2	1370	0.88	274.5	"	"	16000	-	6.2	1150	1.05
5.1	1280	1.0	276.2	BG60G20-../DSE08LA4	105	16000	-	6.1	1050	1.25
4.6	1420	0.92	306.1	"	"	16000	-	5.5	1170	1.1
4.2	1560	0.83	334.3	"	"	16000	-	5.1	1260	1.05

P = 0.75 kW



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

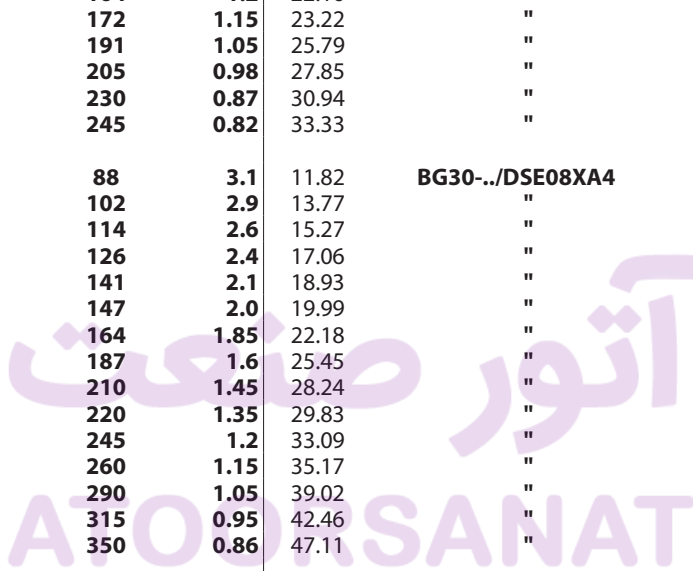
P = 1.1 kW

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

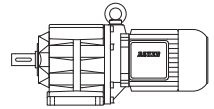
P = 1.1 kW



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



P = 1.1 kW



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

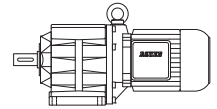
P = 1.5 kW

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

BG-series helical-geared motors

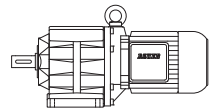
Selection helical-geared motors DSE -IE1

P = 1.5 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
120	119	0.88	11.92	BG10-../DSE09LA4	"	1030	1440	144	99	1.05
108	132	0.83	13.21	"	"	1070	1490	130	110	1.0
430	33	2.8	3.33	BG20-../DSE09LA4	28	1830	-	520	27.5	3.3
325	44	2.4	4.38	"	"	1990	-	395	36	2.9
260	55	2.1	5.49	"	"	2100	-	315	45	2.6
220	65	1.9	6.48	"	"	2250	-	265	54	2.3
178	80	1.7	8.02	"	"	2500	-	215	66	2.1
172	83	1.45	8.29	"	"	2250	-	210	68	1.8
160	89	1.6	8.91	"	"	2600	-	192	74	1.95
148	96	1.25	9.65	"	"	2250	-	178	80	1.55
135	106	1.45	10.54	"	"	2700	-	163	87	1.75
122	117	1.35	11.71	"	"	2800	-	147	97	1.65
108	132	1.25	13.21	"	"	2900	-	130	110	1.5
97	147	1.15	14.67	"	"	3050	-	117	122	1.4
92	155	1.15	15.58	"	"	3100	-	110	130	1.35
83	172	1.05	17.31	"	"	3200	-	99	144	1.25
72	198	0.98	19.95	"	"	3350	-	86	166	1.15
65	220	0.91	22.16	"	"	3500	-	78	183	1.1
62	230	0.87	23.22	"	"	3550	-	74	193	1.05
215	66	3.3	6.75	BG30-../DSE09LA4	33	1760	-	255	56	3.9
180	79	2.7	7.91	"	"	1760	-	220	65	3.3
166	86	2.9	8.60	"	"	2800	-	199	71	3.5
149	96	2.6	9.55	"	"	3000	-	180	79	3.2
134	106	2.5	10.65	"	"	2950	-	161	88	3.0
121	118	2.3	11.82	"	"	3200	-	145	98	2.8
104	137	2.1	13.77	"	"	3150	-	125	114	2.6
93	154	1.95	15.27	"	"	3450	-	112	127	2.4
84	170	1.75	17.06	"	"	3700	-	101	141	2.1
76	188	1.6	18.93	"	"	4100	-	91	157	1.9
72	198	1.5	19.99	"	"	4200	-	86	166	1.8
65	220	1.35	22.18	"	"	4600	-	78	183	1.65
56	255	1.2	25.45	"	"	4850	-	68	210	1.45
51	280	1.05	28.24	"	"	5100	-	61	230	1.3
48	295	1.0	29.83	"	"	5200	-	58	245	1.2
43	330	0.91	33.09	"	"	5400	-	52	275	1.1
40.5	350	0.86	35.17	"	"	5500	-	49	290	1.05
158	90	3.3	9.00	BG40-../DSE09LA4	47	2650	-	190	75	3.9
111	129	3.2	12.86	"	"	4500	-	133	107	3.8
100	143	2.9	14.28	"	"	4900	-	120	119	3.5
87	164	2.6	16.39	"	"	5300	-	105	136	3.1
79	181	2.3	18.19	"	"	5600	-	95	150	2.8
72	198	2.1	19.84	"	"	5800	-	87	164	2.6
65	220	1.95	22.02	"	"	6000	-	78	183	2.3
61	230	1.85	23.43	"	"	6200	-	73	196	2.2
55	260	1.65	26.01	"	"	6500	-	66	215	2.0
48.5	295	1.45	29.34	"	"	6800	-	59	240	1.75
44	325	1.3	32.57	"	"	7000	-	53	270	1.55
42	340	1.25	34.20	"	"	7000	-	50	285	1.5
37.5	380	1.1	37.96	"	"	7000	-	45.5	310	1.35
35.5	400	1.05	40.19	"	"	7000	-	43	330	1.3
32	445	0.96	44.62	"	"	7000	-	38.5	370	1.15
29.5	485	0.88	48.36	"	"	7000	-	35.5	400	1.05
65	220	2.9	21.96	BG50-../DSE09LA4	55	8000	-	78	183	3.4
59	240	2.6	24.34	"	"	8700	-	71	200	3.2
48	295	2.1	29.62	"	"	8000	-	58	245	2.6
43.5	325	1.95	32.84	"	"	8700	-	53	270	2.3
37.5	380	1.65	37.89	"	"	10000	-	45.5	310	2.0
34	420	1.5	42.00	"	"	10000	-	41	345	1.85
30.5	465	1.35	47.02	"	"	10000	-	36.5	390	1.6
27.5	520	1.2	52.12	"	"	10000	-	33	430	1.45
24	590	1.05	59.42	"	"	10000	-	29	490	1.3
22	650	0.97	65.86	"	"	10000	-	26	550	1.15

P = 1.5 kW

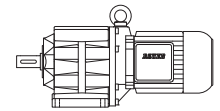


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
20	710	0.89	71.97	BG50Z-../DSE09LA4	60	10000	-	24	590	1.05
18	790	0.8	79.78	"	"	10000	-	21.5	660	0.95
37	385	3.1	38.85	BG60-../DSE09LA4	86	16000	-	44.5	320	3.8
33	430	2.8	43.05	"	"	16000	-	40	355	3.4
28.5	500	2.4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

6

BG-series helical-g geared motors

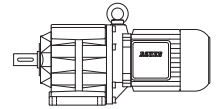
Selection helical-g geared motors DSE -IE1



P = 2.2 kW

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

P = 2.2 kW



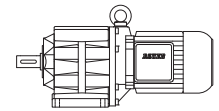
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂	M ₂	f _B						n ₂	M ₂	f _B
1/min	Nm				kg	N	N	1/min	Nm	
34	610	1.05	42.00	BG50-../DSE09XA4	"	10000	-	41	510	1.25
30.5	680	0.93	47.02	"	"	10000	-	36.5	570	1.1
27.5	760	0.83	52.12	"	"	10000	-	33	630	1.0
58	360	3.3	24.82	BG60-../DSE09XA4	90	13800	-	69	300	4.0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

6

BG-series helical-geared motors

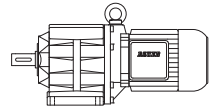
Selection helical-geared motors DSE -IE1

P = 3 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
540	53	2.4	2.67	BG30-../DSE11SA4	40	1450	-	650	44	2.9
420	68	2.0	3.40	"	"	1580	-	510	56	2.5
340	84	2.0	4.21	"	"	1630	-	410	69	2.5
265	108	1.85	5.44	"	"	1670	-	315	90	2.2
215	133	1.65	6.75	"	"	1760	-	255	112	1.95
180	159	1.35	7.91	"	"	1760	-	220	130	1.65
166	172	1.45	8.60	"	"	2800	-	199	143	1.7
149	192	1.3	9.55	"	"	3000	-	180	159	1.6
134	210	1.25	10.65	"	"	2950	-	161	177	1.5
121	235	1.15	11.82	"	"	3200	-	145	197	1.4
104	275	1.05	13.77	"	"	3150	-	125	225	1.3
93	305	0.98	15.27	"	"	3450	-	112	255	1.2
84	340	0.88	17.06	"	"	3700	-	101	280	1.05
76	375	0.8	18.93	"	"	4100	-	91	310	0.97
360	79	3.1	3.97	BG40-../DSE11SA4	59	2400	-	435	65	3.8
290	98	2.7	4.94	"	"	2450	-	350	81	3.3
230	124	2.4	6.29	"	"	2600	-	275	104	2.8
187	153	1.95	7.62	"	"	2650	-	225	127	2.3
171	167	2.1	8.31	"	"	4100	-	210	136	2.5
158	181	1.65	9.00	"	"	2650	-	190	150	1.95
154	186	1.9	9.23	"	"	4350	-	186	154	2.3
138	205	1.85	10.35	"	"	4350	-	166	172	2.2
124	230	1.7	11.49	"	"	4600	-	149	192	2.0
111	255	1.6	12.86	"	"	4500	-	133	215	1.9
100	285	1.5	14.28	"	"	4900	-	120	235	1.8
87	325	1.3	16.39	"	"	5300	-	105	270	1.55
79	360	1.2	18.19	"	"	5600	-	95	300	1.4
72	395	1.1	19.84	"	"	5800	-	87	325	1.3
65	440	0.97	22.02	"	"	6000	-	78	365	1.15
61	465	0.91	23.43	"	"	6200	-	73	390	1.1
55	520	0.82	26.01	"	"	6500	-	66	430	0.99
164	174	2.9	8.70	BG50-../DSE11SA4	69	5300	-	197	145	3.5
148	193	2.7	9.65	"	"	5600	-	178	160	3.3
118	240	2.4	12.06	"	"	5700	-	142	200	2.9
107	265	2.2	13.36	"	"	6100	-	128	220	2.7
86	330	1.9	16.53	"	"	6500	-	104	275	2.3
78	365	1.75	18.33	"	"	7200	-	94	300	2.1
65	440	1.45	21.96	"	"	8000	-	78	365	1.75
59	485	1.3	24.34	"	"	8700	-	71	400	1.6
48	590	1.05	29.62	"	"	8000	-	58	490	1.3
43.5	650	0.97	32.84	"	"	8700	-	53	540	1.15
37.5	760	0.83	37.89	"	"	10000	-	45.5	620	1.0
85	335	3.3	16.80	BG60-../DSE11SA4	101	12000	-	102	280	4.0
77	370	3.1	18.62	"	"	12400	-	92	310	3.7
64	445	2.7	22.40	"	"	13300	-	77	370	3.2
58	490	2.4	24.82	"	"	13800	-	69	415	2.9
48.5	590	2.0	29.31	"	"	14800	-	59	485	2.5
44	650	1.85	32.48	"	"	15400	-	53	540	2.2
37	770	1.55	38.85	"	"	16000	-	44.5	640	1.9
33	860	1.4	43.05	"	"	16000	-	40	710	1.7
28.5	1000	1.2	50.31	"	"	16000	-	34	840	1.45
25.5	1120	1.05	55.76	"	"	16000	-	31	920	1.3
23.5	1210	0.99	60.90	"	"	16000	-	28.5	1000	1.2
21.5	1330	0.9	67.49	"	"	16000	-	25.5	1120	1.05
21	1360	0.88	68.32	BG60Z-../DSE11SA4	117	16000	-	25.5	1120	1.05
19	1500	0.8	75.71	"	"	16000	-	23	1240	0.97
40.5	700	3.3	35.24	BG70-../DSE11SA4	132	18300	-	49	580	4.0
36.5	780	2.9	39.22	"	"	19100	-	44	650	3.5
31	920	2.5	46.54	"	"	20000	-	37	770	3.0
28.5	1000	2.3	50.40	"	"	20000	-	34	840	2.7
24	1190	1.95	59.82	"	"	20000	-	29	980	2.3

P = 3 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
22	1300	1.75	64.85	BG70Z-../DSE11SA4	158	20000	-	26.5	1080	2.1
19.5	1460	1.6	73.82	"	"	20000	-	23.5	1210	1.9
16.5	1730	1.35	87.61	"	"	20000	-	20	1430	1.6
15	1910	1.2	95.74	"	"	20000	-	18	1590	1.45
12.5	2250	1.0	113.6	"	"	20000	-	15.5	1840	1.25
11.5	2450	0.94	124.0	"	"	20000	-	14	2000	1.15
22.5	1270	3.3	63.56	BG80-../DSE11SA4	186	26000	-	27	1060	4.0
21.5	1330	3.2	66.40	BG80Z-../DSE11SA4	228	26000	-	26	1100	3.8
19.5	1460	2.9	73.73	"	"	26000	-	23.5	1210	3.5
17	1680	2.5	84.55	"	"	26000	-	20.5	1390	3.0
15.5	1840	2.3	93.89	"	"	26000	-	18.5	1540	2.7
13	2200	1.9	112.4	"	"	26000	-	15.5	1840	2.3
11.5	2450	1.7	124.8	"	"	26000	-	14	2000	2.1
9.8	2900	1.45	145.4	"	"	26000	-	12	2350	1.8
8.8	3250	1.3	161.5	"	"	26000	-	11	2600	1.6
7.7	3700	1.15	186.8	"	"	26000	-	9.2	3100	1.35
6.9	4150	1.0	207.4	"	"	26000	-	8.3	3450	1.2
6.3	4250	1.1	227.2	BG80G40-../DSE11SA4	236	26000	-	7.6	3450	1.35
5.7	4700	0.98	252.3	"	"	26000	-	6.8	3900	1.2
5.1	5300	0.87	282.8	"	"	26000	-	6.1	4350	1.05
10.5	2700	3.1	139.2	BG90Z-../DSE11SA4	330	65000	-	12.5	2250	3.7
8.8	3250	2.6	163.0	"	"	65000	-	10.5	2700	3.1
8.0	3550	2.4	178.5	"	"	65000	-	9.6	2950	2.8
6.9	4150	2.0	208.3	"	"	65000	-	8.3	3450	2.4
6.3	4500	1.85	228.1	"	"	65000	-	7.5	3800	2.2
5.5	4750	1.95	262.5	BG90G50-../DSE11SA4	347	65000	-	6.6	3900	2.4
4.8	5600	1.65	298.8	"	"	65000	-	5.8	4650	2.0
4.0	6600	1.4	360.3	"	"	65000	-	4.8	5400	1.7
3.3	8200	1.1	435.8	"	"	65000	-	4.0	6700	1.35
2.9	9300	0.99	504.7	"	"	65000	-	3.4	7900	1.15
2.5	10800	0.85	588.8	"	"	65000	-	3.0	8900	1.05
5.5	5200	3.2	259.0	BG100-../DSE11SA4	447	90000	-	6.7	4250	4.0
4.8	5900	3.1	300.4	BG100Z-../DSE11SA4	537	90000	-	5.7	5000	3.7
4.2	6800	2.7	343.6	"	"	90000	-	5.0	5700	3.2
3.8	7500	2.5	382.6	"	"	90000	-	4.5	6300	2.9
3.2	8900	2.1	456.7	"	"	90000	-	3.8	7500	2.5
2.8	10200	1.8	508.5	"	"	90000	-	3.4	8400	2.2
2.5	11400	1.6	591.1	"	"	90000	-	2.9	9800	1.9
2.2	13000	1.4	658.1	"	"	90000	-	2.6	11000	1.7
1.9	15000	1.25	759.0	"	"	90000	-	2.3	12400	1.5
1.7	16800	1.1	845.1	"	"	90000	-	2.1	13600	1.35
1.5	17500	1.05	976.1	BG100G50-../DSE11SA4	534	90000	-	1.8	14300	1.3
1.4	19000	0.97	1043	"	"	90000	-	1.7	15400	1.2
1.2	22200	0.83	1204	"	"	90000	-	1.5	17400	1.05

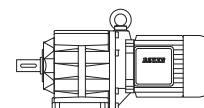
P = 4 kW

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

BG-series helical-geared motors

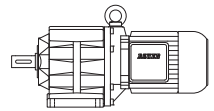
Selection helical-geared motors DSE -IE1

P = 4 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
580	65	3.1	2.46	BG40-../DSE11MA4	65	2150	-	700	54	3.7
450	84	2.7	3.19	"	"	2350	-	540	70	3.2
360	106	2.3	3.97	"	"	2400	-	435	87	2.8
290	131	2.0	4.94	"	"	2450	-	350	109	2.5
230	166	1.8	6.29	"	"	2600	-	275	138	2.1
187	200	1.5	7.62	"	"	2650	-	225	169	1.75
171	220	1.55	8.31	"	"	4100	-	210	181	1.9
158	240	1.25	9.00	"	"	2650	-	190	200	1.5
154	245	1.45	9.23	"	"	4350	-	186	205	1.75
138	275	1.35	10.35	"	"	4350	-	166	230	1.65
124	305	1.3	11.49	"	"	4600	-	149	255	1.55
111	340	1.2	12.86	"	"	4500	-	133	285	1.45
100	380	1.1	14.28	"	"	4900	-	120	315	1.35
87	435	0.98	16.39	"	"	5300	-	105	360	1.2
79	480	0.89	18.19	"	"	5600	-	95	400	1.05
72	530	0.8	19.84	"	"	5800	-	87	435	0.98
290	131	3.0	4.91	BG50-../DSE11MA4	75	3500	-	350	109	3.7
215	177	2.6	6.74	"	"	3750	-	255	149	3.0
164	230	2.2	8.70	"	"	5300	-	197	193	2.6
148	255	2.1	9.65	"	"	5600	-	178	210	2.5
118	320	1.8	12.06	"	"	5700	-	142	265	2.2
107	355	1.65	13.36	"	"	6100	-	128	295	2.0
86	440	1.45	16.53	"	"	6500	-	104	365	1.75
78	485	1.3	18.33	"	"	7200	-	94	405	1.55
65	580	1.1	21.96	"	"	8000	-	78	485	1.3
59	640	0.98	24.34	"	"	8700	-	71	530	1.2
48	790	0.8	29.62	"	"	8000	-	58	650	0.97
117	325	3.0	12.16	BG60-../DSE11MA4	107	10800	-	141	270	3.7
106	360	2.8	13.47	"	"	11200	-	127	300	3.4
85	445	2.5	16.80	"	"	12000	-	102	370	3.0
77	495	2.3	18.62	"	"	12400	-	92	415	2.8
64	590	2.0	22.40	"	"	13300	-	77	495	2.4
58	650	1.85	24.82	"	"	13800	-	69	550	2.2
48.5	780	1.55	29.31	"	"	14800	-	59	640	1.9
44	860	1.4	32.48	"	"	15400	-	53	720	1.65
37	1030	1.15	38.85	"	"	16000	-	44.5	850	1.4
33	1150	1.05	43.05	"	"	16000	-	40	950	1.25
28.5	1340	0.9	50.31	"	"	16000	-	34	1120	1.05
25.5	1490	0.81	55.76	"	"	16000	-	31	1230	0.98
53	720	3.2	27.21	BG70-../DSE11MA4	138	16400	-	63	600	3.8
48	790	2.9	29.69	"	"	16900	-	58	650	3.5
40.5	940	2.4	35.24	"	"	18300	-	49	770	3.0
36.5	1040	2.2	39.22	"	"	19100	-	44	860	2.7
31	1230	1.85	46.54	"	"	20000	-	37	1030	2.2
28.5	1340	1.7	50.40	"	"	20000	-	34	1120	2.1
24	1590	1.45	59.82	"	"	20000	-	29	1310	1.75
22	1730	1.35	64.85	BG70Z-../DSE11MA4	164	20000	-	26.5	1440	1.6
19.5	1950	1.2	73.82	"	"	20000	-	23.5	1620	1.4
16.5	2300	1.0	87.61	"	"	20000	-	20	1910	1.2
15	2500	0.92	95.74	"	"	20000	-	18	2100	1.1
29.5	1290	3.3	48.80	BG80-../DSE11MA4	192	23800	-	35.5	1070	3.9
25	1520	2.8	57.24	"	"	25400	-	30	1270	3.3
22.5	1690	2.5	63.56	"	"	26000	-	27	1410	3.0
21.5	1770	2.4	66.40	BG80Z-../DSE11MA4	234	26000	-	26	1460	2.9
19.5	1950	2.2	73.73	"	"	26000	-	23.5	1620	2.6
17	2200	1.9	84.55	"	"	26000	-	20.5	1860	2.3
15.5	2450	1.7	93.89	"	"	26000	-	18.5	2050	2.0
13	2900	1.45	112.4	"	"	26000	-	15.5	2450	1.7
11.5	3300	1.25	124.8	"	"	26000	-	14	2700	1.55
9.8	3850	1.1	145.4	"	"	26000	-	12	3150	1.35
8.8	4300	0.98	161.5	"	"	26000	-	11	3450	1.2
7.7	4950	0.85	186.8	"	"	26000	-	9.2	4150	1.0

P = 4 kW



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

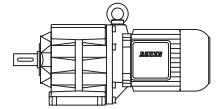
P = 5.5 kW

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

BG-series helical-geared motors

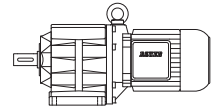
Selection helical-geared motors DSE -IE1

P = 5.5 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
210	250	3.1	6.88	BG60-../DSE11LA4	119	8600	-	250	210	3.7
156	335	2.7	9.13	"	"	9800	-	188	275	3.2
141	370	2.5	10.12	"	"	10200	-	169	310	2.9
117	445	2.2	12.16	"	"	10800	-	141	370	2.7
106	495	2.1	13.47	"	"	11200	-	127	410	2.5
85	610	1.8	16.80	"	"	12000	-	102	510	2.2
77	680	1.7	18.62	"	"	12400	-	92	570	2.0
64	820	1.45	22.40	"	"	13300	-	77	680	1.75
58	900	1.35	24.82	"	"	13800	-	69	760	1.6
48.5	1080	1.1	29.31	"	"	14800	-	59	890	1.35
44	1190	1.0	32.48	"	"	15400	-	53	990	1.2
37	1410	0.85	38.85	"	"	16000	-	44.5	1180	1.0
68	770	3.0	20.98	BG70-../DSE11LA4	149	14600	-	82	640	3.6
62	840	2.7	22.92	"	"	15100	-	75	700	3.3
53	990	2.3	27.21	"	"	16400	-	63	830	2.8
48	1090	2.1	29.69	"	"	16900	-	58	900	2.6
40.5	1290	1.8	35.24	"	"	18300	-	49	1070	2.1
36.5	1430	1.6	39.22	"	"	19100	-	44	1190	1.95
31	1690	1.35	46.54	"	"	20000	-	37	1410	1.65
28.5	1840	1.25	50.40	"	"	20000	-	34	1540	1.5
24	2150	1.05	59.82	"	"	20000	-	29	1810	1.25
22	2350	0.98	64.85	BG70Z-../DSE11LA4	176	20000	-	26.5	1980	1.15
19.5	2650	0.87	73.82	"	"	20000	-	23.5	2200	1.05
41.5	1260	3.3	34.22	BG80-../DSE11LA4	204	20200	-	50	1050	4.0
37.5	1400	3.0	38.00	"	"	21300	-	45	1160	3.6
32.5	1610	2.6	43.94	"	"	22600	-	39	1340	3.1
29.5	1780	2.4	48.80	"	"	23800	-	35.5	1470	2.9
25	2100	2.0	57.24	"	"	25400	-	30	1750	2.4
22.5	2300	1.85	63.56	"	"	26000	-	27	1940	2.2
21.5	2400	1.75	66.40	BG80Z-../DSE11LA4	246	26000	-	26	2000	2.1
19.5	2650	1.6	73.73	"	"	26000	-	23.5	2200	1.9
17	3050	1.4	84.55	"	"	26000	-	20.5	2550	1.65
15.5	3350	1.25	93.89	"	"	26000	-	18.5	2800	1.5
13	4000	1.05	112.4	"	"	26000	-	15.5	3350	1.25
11.5	4550	0.92	124.8	"	"	26000	-	14	3750	1.1
25	2100	3.2	57.04	BG90Z-../DSE11LA4	348	65000	-	30	1750	3.9
23	2250	3.3	62.47	"	"	65000	-	27.5	1910	3.9
19	2750	3.1	76.61	"	"	65000	-	22.5	2300	3.7
17	3050	2.8	83.91	"	"	65000	-	20.5	2550	3.3
15	3500	2.4	96.53	"	"	65000	-	18	2900	2.9
13.5	3850	2.2	105.7	"	"	65000	-	16.5	3150	2.7
11.5	4550	1.85	127.1	"	"	65000	-	13.5	3850	2.2
10.5	5000	1.7	139.2	"	"	65000	-	12.5	4200	2.0
8.8	5900	1.4	163.0	"	"	65000	-	10.5	5000	1.7
8.0	6500	1.3	178.5	"	"	65000	-	9.6	5400	1.55
6.9	7600	1.1	208.3	"	"	65000	-	8.3	6300	1.35
6.3	8300	1.0	228.1	"	"	65000	-	7.5	7000	1.2
5.5	9100	1.0	262.5	BG90G50-../DSE11LA4	365	65000	-	6.6	7500	1.25
4.8	10600	0.87	298.8	"	"	65000	-	5.8	8700	1.05
9.2	5700	2.9	154.8	BG100-../DSE11LA4	465	90000	-	11.5	4550	3.7
8.0	6500	2.6	178.6	"	"	90000	-	9.6	5400	3.1
7.2	7200	2.3	198.8	"	"	90000	-	8.7	6000	2.8
6.2	8400	2.0	232.6	"	"	90000	-	7.4	7000	2.4
5.5	9500	1.75	259.0	"	"	90000	-	6.7	7800	2.2
5.3	9900	1.85	269.8	BG100Z-../DSE11LA4	555	90000	-	6.4	8200	2.3
4.8	10900	1.7	300.4	"	"	90000	-	5.7	9200	2.0
4.2	12500	1.5	343.6	"	"	90000	-	5.0	10500	1.75
3.8	13800	1.35	382.6	"	"	90000	-	4.5	11600	1.6
3.2	16400	1.15	456.7	"	"	90000	-	3.8	13800	1.35
2.8	18700	0.99	508.5	"	"	90000	-	3.4	15400	1.2
2.5	21000	0.88	591.1	"	"	90000	-	2.9	18100	1.0

P = 7.5 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
590	121	2.5	2.47	BG50-../DSE13MA4	98	2900	-	710	100	3.1
410	174	2.0	3.55	"	"	3300	-	495	144	2.4
295	240	1.65	4.91	"	"	3500	-	355	200	2.0
215	330	1.35	6.74	"	"	3750	-	260	275	1.65
166	430	1.2	8.70	"	"	5300	-	200	355	1.45
150	475	1.1	9.65	"	"	5600	-	181	395	1.35
120	590	0.98	12.06	"	"	5700	-	145	490	1.2
108	660	0.9	13.36	"	"	6100	-	131	540	1.1
390	183	3.3	3.74	BG60-../DSE13MA4	132	7100	-	470	152	4.0
290	245	2.8	4.98	"	"	7800	-	350	200	3.4
210	340	2.3	6.88	"	"	8600	-	255	280	2.8
158	450	1.95	9.13	"	"	9800	-	191	375	2.4
143	500	1.8	10.12	"	"	10200	-	172	415	2.2
119	600	1.65	12.16	"	"	10800	-	144	495	2.0
107	660	1.55	13.47	"	"	11200	-	130	550	1.85
86	830	1.35	16.80	"	"	12000	-	104	680	1.65
78	910	1.25	18.62	"	"	12400	-	94	760	1.5
65	1100	1.1	22.40	"	"	13300	-	78	910	1.3
59	1210	0.99	24.82	"	"	13800	-	71	1000	1.2
49.5	1440	0.83	29.31	"	"	14800	-	60	1190	1.0
93	770	3.0	15.53	BG70-../DSE13MA4	162	12700	-	113	630	3.7
82	870	2.6	17.68	"	"	13400	-	99	720	3.2
69	1030	2.2	20.98	"	"	14600	-	83	860	2.7
63	1130	2.0	22.92	"	"	15100	-	76	940	2.4
53	1350	1.7	27.21	"	"	16400	-	64	1110	2.1
49	1460	1.6	29.69	"	"	16900	-	59	1210	1.9
41	1740	1.3	35.24	"	"	18300	-	49.5	1440	1.6
37	1930	1.2	39.22	"	"	19100	-	44.5	1600	1.45
31	2300	1.0	46.54	"	"	20000	-	37.5	1910	1.2
29	2450	0.94	50.40	"	"	20000	-	35	2000	1.15
55	1300	3.2	26.44	BG80-../DSE13MA4	216	17900	-	66	1080	3.9
49.5	1440	2.9	29.36	"	"	18900	-	60	1190	3.5
42.5	1680	2.5	34.22	"	"	20200	-	51	1400	3.0
38	1880	2.2	38.00	"	"	21300	-	46	1550	2.7
33	2150	1.95	43.94	"	"	22600	-	40	1790	2.3
30	2350	1.8	48.80	"	"	23800	-	36	1980	2.1
25.5	2800	1.5	57.24	"	"	25400	-	30.5	2300	1.85
23	3100	1.35	63.56	"	"	26000	-	27.5	2600	1.6
22	3250	1.3	66.40	BG80Z-../DSE13MA4	259	26000	-	26.5	2700	1.55
20	3550	1.2	73.73	"	"	26000	-	24	2950	1.4
17.5	4050	1.05	84.55	"	"	26000	-	21	3400	1.25
15.5	4600	0.91	93.89	"	"	26000	-	19	3750	1.1
27	2650	3.2	53.46	BG90-../DSE13MA4	305	65000	-	33	2150	3.9
25.5	2800	2.4	57.04	BG90Z-../DSE13MA4	361	65000	-	31	2300	3.0
23.5	3000	2.5	62.47	"	"	65000	-	28	2550	2.9
19	3750	2.2	76.61	"	"	65000	-	23	3100	2.7
17.5	4050	2.1	83.91	"	"	65000	-	21	3400	2.5
15	4750	1.75	96.53	"	"	65000	-	18.5	3850	2.2
14	5100	1.65	105.7	"	"	65000	-	16.5	4300	1.95
11.5	6200	1.35	127.1	"	"	65000	-	14	5100	1.65
10.5	6800	1.25	139.2	"	"	65000	-	12.5	5700	1.45
8.9	8000	1.05	163.0	"	"	65000	-	11	6500	1.3
8.1	8800	0.95	178.5	"	"	65000	-	9.8	7300	1.15
7.0	10200	0.82	208.3	"	"	65000	-	8.4	8500	0.99
6.6	10500	0.88	219.9	BG90G50-../DSE13MA4	377	65000	-	8.0	8600	1.05
13.5	5300	3.2	107.5	BG100-../DSE13MA4	477	90000	-	16.5	4300	3.9
12.5	5700	2.9	119.7	"	"	90000	-	15	4750	3.5
10.5	6800	2.5	139.1	"	"	90000	-	13	5500	3.1
9.4	7600	2.2	154.8	"	"	90000	-	11.5	6200	2.7
8.1	8800	1.9	178.6	"	"	90000	-	9.8	7300	2.3

P = 7.5 kW

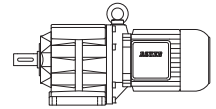


50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
7.3	9800	1.7	198.8	"	"	90000	-	8.8	8100	2.1
6.2	11500	1.45	232.6	"	"	90000	-	7.5	9500	1.75
5.6	12700	1.3	259.0	"	"	90000	-	6.8	10500	1.6
5.4	13200	1.4	269.8	BG100Z-../DSE13MA4	568	90000	-	6.5	11000	1.7
4.8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

P = 9.5 kW

50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
590	153	2.0	2.47	BG50-../DSE13LA4	101	2900	-	710	127	2.4
410	220	1.6	3.55	"	"	3300	-	495	183	1.9
295	305	1.3	4.91	"	"	3500	-	355	255	1.55
215	420	1.1	6.74	"	"	3750	-	260	345	1.3
166	540	0.94	8.70	"	"	5300	-	200	450	1.15
150	600	0.87	9.65	"	"	5600	-	181	500	1.05
390	230	2.7	3.74	BG60-../DSE13LA4	135	7100	-	470	193	3.2
290	310	2.2	4.98	"	"	7800	-	350	255	2.7
210	430	1.8	6.88	"	"	8600	-	255	355	2.2
158	570	1.55	9.13	"	"	9800	-	191	475	1.85
143	630	1.45	10.12	"	"	10200	-	172	520	1.75
119	760	1.3	12.16	"	"	10800	-	144	630	1.55
107	840	1.2	13.47	"	"	11200	-	130	690	1.5
86	1050	1.05	16.80	"	"	12000	-	104	870	1.25
78	1160	0.99	18.62	"	"	12400	-	94	960	1.2
65	1390	0.86	22.40	"	"	13300	-	78	1160	1.05
121	740	3.1	11.97	BG70-../DSE13LA4	165	11200	-	146	620	3.7
111	810	2.8	13.08	"	"	11600	-	134	670	3.4
93	970	2.4	15.53	"	"	12700	-	113	800	2.9
82	1100	2.1	17.68	"	"	13400	-	99	910	2.5
69	1310	1.75	20.98	"	"	14600	-	83	1090	2.1
63	1440	1.6	22.92	"	"	15100	-	76	1190	1.95
53	1710	1.35	27.21	"	"	16400	-	64	1410	1.65
49	1850	1.25	29.69	"	"	16900	-	59	1530	1.5
41	2200	1.05	35.24	"	"	18300	-	49.5	1830	1.25
37	2450	0.94	39.22	"	"	19100	-	44.5	2000	1.15
66	1370	3.1	22.09	BG80-../DSE13LA4	219	16500	-	79	1140	3.7
55	1640	2.6	26.44	"	"	17900	-	66	1370	3.1
49.5	1830	2.3	29.36	"	"	18900	-	60	1510	2.8
42.5	2100	2.0	34.22	"	"	20200	-	51	1770	2.4
38	2350	1.8	38.00	"	"	21300	-	46	1970	2.1
33	2700	1.55	43.94	"	"	22600	-	40	2250	1.85
30	3000	1.4	48.80	"	"	23800	-	36	2500	1.7
25.5	3550	1.2	57.24	"	"	25400	-	30.5	2950	1.4
23	3900	1.1	63.56	"	"	26000	-	27.5	3250	1.3
22	4100	1.0	66.40	BG80Z-../DSE13LA4	262	26000	-	26.5	3400	1.25
20	4500	0.93	73.73	"	"	26000	-	24	3750	1.1
17.5	5100	0.82	84.55	"	"	26000	-	21	4300	0.98
34.5	2600	3.2	41.85	BG90-../DSE13LA4	308	65000	-	42	2150	3.9
29.5	3050	2.8	48.82	"	"	65000	-	36	2500	3.4
27	3350	2.5	53.46	"	"	65000	-	33	2700	3.1
25.5	3550	1.9	57.04	BG90Z-../DSE13LA4	364	65000	-	31	2900	2.3
23.5	3850	1.95	62.47	"	"	65000	-	28	3200	2.3

P = 9.5 kW

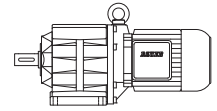


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
19	4750	1.75	76.61	BG90Z-../DSE13LA4	"	65000	-	23	3900	2.2
17.5	5100	1.65	83.91	"	"	65000	-	21	4300	1.95
15	6000	1.4	96.53	"	"	65000	-	18.5	4900	1.7
14	6400	1.3	105.7	"	"	65000	-	16.5	5400	1.55
11.5	7800	1.1	127.1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

P = 11 kW

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

P = 11 kW

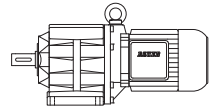


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
30	3500	1.2	48.80	BG80-../DSE16MA4	"	23800	-	36.5	2850	1.45
26	4000	1.05	57.24	"	"	25400	-	31	3350	1.25
23	4550	0.92	63.56	"	"	26000	-	28	3750	1.1
22	4750	0.88	66.40	BG80Z-../DSE16MA4	307	26000	-	27	3850	1.1
20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

P = 15 kW

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

P = 15 kW

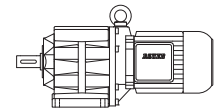


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
94	1520	2.8	15.62	BG80-../DSE16LA4	276	13700	-	113	1260	3.3
85	1680	2.5	17.35	"	"	14600	-	102	1400	3.0
74	1930	2.2	19.89	"	"	15500	-	89	1600	2.6
67	2100	2.0	22.09	"	"	16500	-	80	1790	2.3
56	2550	1.65	26.44	"	"	17900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

P = 18.5 kW

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

P = 18.5 kW

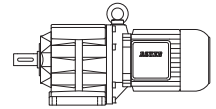


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
85	2050	2.0	17.35	BG80-../DSE16XA4	"	14600	-	102	1730	2.4
74	2350	1.8	19.89	"	"	15500	-	89	1980	2.1
67	2600	1.6	22.09	"	"	16500	-	80	2200	1.9
56	3150	1.35	26.44	"	"	17900	-	67	2600	1.6
50	3500	1.2	29.36	"	"	18900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

P = 22 kW

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

P = 22 kW

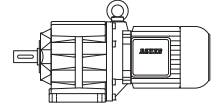


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
82	2550	3.2	17.96	BG90-../DSE18LA4	440	59800	-	98	2100	3.9
75	2800	3.0	19.67	"	"	62400	-	90	2300	3.7
65	3200	2.6	22.62	"	"	65000	-	78	2650	3.2
59	3550	2.4	24.78	"	"	65000	-	72	2900	2.9
49.5	4200	2.0	29.78	"	"	65000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

P = 30 kW

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

P = 30 kW

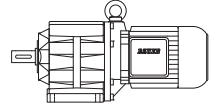


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
45	6300	1.35	32.62	"	"	65000	-	54	5300	1.6
38.5	7400	1.15	38.21	"	"	65000	-	46.5	6100	1.4
35	8100	1.05	41.85	"	"	65000	-	42.5	6700	1.25
30	9500	0.88	48.82	"	"	65000	-	36.5	7800	1.1
27.5	10400	0.81	53.46	"	"	65000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

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P = 0.03 kW



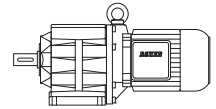
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
540	0.53	7.5	2.51	BG04-../D04LA4	4.4	340	-	650	0.44	9.1
370	0.77	6.5	3.65	"	"	390	-	445	0.64	7.8
310	0.92	7.6	4.39	"	"	380	-	370	0.77	9.1
255	1.12	8.0	5.36	"	"	380	-	305	0.93	9.7
205	1.39	7.2	6.67	"	"	410	-	245	1.16	8.6
158	1.81	6.1	8.58	"	"	410	-	189	1.51	7.3
150	1.91	6.3	9.00	"	"	470	-	180	1.59	7.5
137	2.05	6.3	9.90	"	"	480	-	164	1.74	7.5
125	2.25	6.2	10.82	"	"	480	-	150	1.91	7.3
114	2.5	6.0	11.90	"	"	490	-	137	2.05	7.3
108	2.65	5.7	12.55	"	"	490	-	130	2.2	6.8
103	2.75	5.8	13.20	"	"	500	-	123	2.3	7.0
93	3.05	5.6	14.52	"	"	510	-	112	2.55	6.7
83	3.45	5.2	16.44	"	"	530	-	99	2.85	6.3
75	3.8	4.7	18.08	"	"	540	-	90	3.15	5.7
64	4.45	4.3	21.12	"	"	560	-	77	3.7	5.1
59	4.85	4.1	23.23	"	"	600	-	70	4.05	4.9
56	5.1	3.9	24.45	"	"	610	-	67	4.25	4.7
51	5.6	3.6	26.89	"	"	650	-	61	4.65	4.3
44	6.5	3.1	30.91	"	"	690	-	53	5.4	3.7
40	7.1	2.8	34.00	"	"	720	-	48	5.9	3.4
38.5	7.4	2.7	35.35	"	"	730	-	46	6.2	3.2
35	8.1	2.5	38.89	"	"	750	-	42	6.8	2.9
32	8.9	2.2	42.24	"	"	750	-	38.5	7.4	2.7
29.5	9.7	2.1	46.47	"	"	750	-	35	8.1	2.5
28.5	10	2.0	47.52	"	"	750	-	34.5	8.3	2.4
26	11	1.8	52.28	"	"	750	-	31	9.2	2.2
25	11.4	1.75	54.97	"	"	750	-	29.5	9.7	2.1
22.5	12.7	1.55	60.47	"	"	750	-	27	10.6	1.9
31	9.2	3.3	43.57	BG05-../D04LA4	5.1	900	-	37.5	7.6	3.9
29	9.8	3.1	47.00	"	"	930	-	34.5	8.3	3.6
26.5	10.8	2.8	51.27	"	"	970	-	32	8.9	3.4
25.5	11.2	2.7	53.44	"	"	980	-	30.5	9.3	3.2
23.5	12.1	2.5	58.30	"	"	1000	-	28	10.2	2.9
20.5	13.9	3.2	66.79	BG06-../D04LA4	6.1	1070	-	24.5	11.6	3.9
18	13.8	2.9	75.99	BG06G04-../D04LA4	8.4	1070	-	21.5	11.2	3.6
16.5	15	2.9	82.89	"	"	1070	-	20	12	3.6
15	16.5	2.7	93.00	"	"	1070	-	17.5	13.8	3.3
13.5	18.4	2.4	101.5	"	"	1070	-	16	15.1	3.0
11.5	21	2.1	122.0	"	"	1070	-	13.5	17.3	2.6
9.1	26	1.75	149.0	"	"	1070	-	11	21	2.1
7.3	33.5	1.35	185.4	"	"	1070	-	8.8	26.5	1.7
5.4	46	0.98	250.2	"	"	1070	-	6.5	37	1.2
5.0	50	0.9	275.2	"	"	1070	-	5.9	41	1.1
4.1	45*	1.0	330.8	"	"	1070	-	4.9	45	1.0
3.7	45*	1.0	367.0	"	"	1070	-	4.5	45	1.0
3.0	45*	1.0	457.0	"	"	1070	-	3.6	45	1.0
2.7	45*	1.0	502.6	"	"	1070	-	3.3	45	1.0
2.3	45*	1.0	587.1	"	"	1070	-	2.8	45	1.0
2.1	45*	1.0	645.8	"	"	1070	-	2.6	45	1.0
1.9	45*	1.0	747.5	"	"	1070	-	2.2	45	1.0
1.6	45*	1.0	859.3	"	"	1070	-	1.9	45	1.0
1.5	45*	1.0	945.2	"	"	1070	-	1.8	45	1.0
1.3	45*	1.0	1081	"	"	1070	-	1.5	45	1.0
1.2	45*	1.0	1174	"	"	1070	-	1.4	45	1.0
1.1	45*	1.0	1321	"	"	1070	-	1.3	45	1.0
0.9	45*	1.0	1528	"	"	1070	-	1.1	45	1.0
0.85	45*	1.0	1681	"	"	1070	-	1.0	45	1.0
0.7	45*	1.0	1948	"	"	1070	-	0.85	45	1.0
0.65	45*	1.0	2126	"	"	1070	-	0.8	45	1.0
0.6	45*	1.0	2435	"	"	1070	-	0.7	45	1.0

P = 0.03 kW



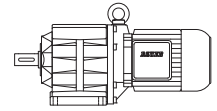
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
7.4	38.5	3.1	184.0	BG10Z-../D04LA4	11	2000	2800	8.9	32	3.8
7.0	40.5	3.0	194.6	"	"	2000	2800	8.4	34	3.5
6.3	45	2.7	215.7	"	"	2000	2800	7.6	37.5	3.2
5.7	50	2.4	240.4	"	"	2000	2800	6.8	42	2.9
5.1	56	2.1	266.3	"	"	2000	2800	6.1	46.5	2.6
4.9	58	2.1	276.0	"	"	2000	2800	5.9	48.5	2.5
4.5	63	1.9	305.8	"	"	2000	2800	5.3	54	2.2
3.6	49	2.7	379.6	BG10G06-../D04LA4	14	2000	2800	4.3	36	3.6
3.1	57	2.3	435.9	"	"	2000	2800	3.8	40	3.3
2.7	68	1.9	512.6	"	"	2000	2800	3.2	51	2.5
2.3	83	1.55	613.6	"	"	2000	2800	2.7	65	2.0
1.9	105	1.25	748.9	"	"	2000	2800	2.2	84	1.55
1.6	130	1.0	899.5	"	"	2000	2800	1.9	102	1.25
1.3	130*	1.0	1081	"	"	2000	2800	1.5	130	1.0
1.1	130*	1.0	1272	"	"	2000	2800	1.3	130	1.0
0.9	130*	1.0	1523	"	"	2000	2800	1.1	130	1.0
0.75	130*	1.0	1863	"	"	2000	2800	0.9	130	1.0
0.6	130*	1.0	2356	"	"	2000	2800	0.7	130	1.0
0.55	130*	1.0	2699	"	"	2000	2800	0.65	130	1.0
0.46	130*	1.0	2944	"	"	2000	2800	0.6	130	1.0
0.4	130*	1.0	3378	"	"	2000	2800	0.48	130	1.0
0.37	130*	1.0	3684	"	"	2000	2800	0.44	130	1.0
0.31	130*	1.0	4477	"	"	2000	2800	0.37	130	1.0
0.28	130*	1.0	4884	"	"	2000	2800	0.34	130	1.0
2.5	77	2.9	550.6	BG20G06-../D04LA4	17	5000	-	3.0	58	3.8
2.1	95	2.3	671.9	"	"	5000	-	2.5	73	3.0
1.7	125	1.75	807.1	"	"	5000	-	2.1	93	2.4
1.4	160	1.4	969.9	"	"	5000	-	1.7	123	1.8
1.2	188	1.15	1142	"	"	5000	-	1.5	141	1.55
1.0	230	0.96	1366	"	"	5000	-	1.2	186	1.2
0.85	220*	1.0	1672	"	"	5000	-	1.0	220	1.0
0.75	220*	1.0	1824	"	"	5000	-	0.9	220	1.0
0.65	220*	1.0	2114	"	"	5000	-	0.8	220	1.0
0.6	220*	1.0	2422	"	"	5000	-	0.7	220	1.0
0.55	220*	1.0	2642	"	"	5000	-	0.65	220	1.0
0.45	220*	1.0	3031	"	"	5000	-	0.55	220	1.0
0.41	220*	1.0	3306	"	"	5000	-	0.5	220	1.0
0.34	220*	1.0	4017	"	"	5000	-	0.41	220	1.0
0.31	220*	1.0	4383	"	"	5000	-	0.37	220	1.0
2.0	101	3.2	690.6	BG30G06-../D04LA4	21	6000	-	2.4	77	4.2
1.8	116	2.8	760.7	"	"	6000	-	2.2	87	3.7
1.7	124	2.6	829.5	"	"	6000	-	2.0	98	3.3
1.4	158	2.1	996.8	"	"	6000	-	1.7	122	2.7
1.3	173	1.9	1088	"	"	6000	-	1.5	143	2.3
1.1	205	1.6	1280	"	"	6000	-	1.3	166	1.95
1.0	230	1.4	1404	"	"	6000	-	1.2	184	1.75
0.8	295	1.1	1718	"	"	6000	-	0.95	240	1.35
0.75	320	1.0	1875	"	"	6000	-	0.9	255	1.25
0.65	325*	1.0	2173	"	"	6000	-	0.75	325	1.0
0.5	325*	1.0	2715	"	"	6000	-	0.6	325	1.0
0.44	325*	1.0	3115	"	"	6000	-	0.55	325	1.0
0.4	325*	1.0	3398	"	"	6000	-	0.48	325	1.0
0.35	325*	1.0	3867	"	"	6000	-	0.42	325	1.0
0.3	325*	1.0	4504	"	"	6000	-	0.36	325	1.0

P = 0.04 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
540	0.7	5.7	2.51	BG04-../D04LA4	4.4	340	-	650	0.58	6.9
370	1.03	4.9	3.65	"	"	390	-	445	0.85	5.9
310	1.23	5.7	4.39	"	"	380	-	370	1.03	6.8
255	1.49	6.0	5.36	"	"	380	-	305	1.25	7.2
205	1.86	5.4	6.67	"	"	410	-	245	1.55	6.5
158	2.4	4.6	8.58	"	"	410	-	189	2.0	5.5
150	2.5	4.8	9.00	"	"	470	-	180	2.1	5.7
137	2.75	4.7	9.90	"	"	480	-	164	2.3	5.7
125	3.05	4.6	10.82	"	"	480	-	150	2.5	5.6
114	3.35	4.5	11.90	"	"	490	-	137	2.75	5.5
108	3.5	4.3	12.55	"	"	490	-	130	2.9	5.2
103	3.7	4.3	13.20	"	"	500	-	123	3.1	5.2
93	4.1	4.1	14.52	"	"	510	-	112	3.4	5.0
83	4.6	3.9	16.44	"	"	530	-	99	3.85	4.7
75	5.0	3.6	18.08	"	"	540	-	90	4.2	4.3
64	5.9	3.2	21.12	"	"	560	-	77	4.95	3.8
59	6.4	3.1	23.23	"	"	600	-	70	5.4	3.7
56	6.8	2.9	24.45	"	"	610	-	67	5.7	3.5
51	7.4	2.7	26.89	"	"	650	-	61	6.2	3.2
44	8.6	2.3	30.91	"	"	690	-	53	7.2	2.8
40	9.5	2.1	34.00	"	"	720	-	48	7.9	2.5
38.5	9.9	2.0	35.35	"	"	730	-	46	8.3	2.4
35	10.9	1.85	38.89	"	"	750	-	42	9.0	2.2
32	11.9	1.7	42.24	"	"	750	-	38.5	9.9	2.0
29.5	12.9	1.55	46.47	"	"	750	-	35	10.9	1.85
28.5	13.4	1.5	47.52	"	"	750	-	34.5	11	1.8
26	14.6	1.35	52.28	"	"	750	-	31	12.3	1.65
25	15.2	1.3	54.97	"	"	750	-	29.5	12.9	1.55
22.5	16.9	1.2	60.47	"	"	750	-	27	14.1	1.4
39	9.7	3.1	35.00	BG05-../D04LA4	5.1	810	-	46.5	8.2	3.7
35.5	10.7	2.8	38.18	"	"	850	-	42.5	8.9	3.4
34	11.2	2.7	39.94	"	"	860	-	41	9.3	3.2
31	12.3	2.4	43.57	"	"	900	-	37.5	10.1	3.0
29	13.1	2.3	47.00	"	"	930	-	34.5	11	2.7
26.5	14.4	2.1	51.27	"	"	970	-	32	11.9	2.5
25.5	14.9	2.0	53.44	"	"	980	-	30.5	12.5	2.4
23.5	16.2	1.85	58.30	"	"	1000	-	28	13.6	2.2
27	14.1	3.2	50.38	BG06-../D04LA4	6.1	940	-	32.5	11.7	3.8
26	14.6	3.1	52.56	"	"	950	-	31	12.3	3.7
24	15.9	2.8	57.34	"	"	1000	-	28.5	13.4	3.4
22.5	16.9	2.7	61.22	"	"	1020	-	26.5	14.4	3.1
20.5	18.6	2.4	66.79	"	"	1070	-	24.5	15.5	2.9
18	19.1	2.1	75.99	BG06G04-../D04LA4	8.4	1070	-	21.5	15.6	2.6
16.5	20.5	2.1	82.89	"	"	1070	-	20	16.8	2.6
15	22.5	2.0	93.00	"	"	1070	-	17.5	19.2	2.3
13.5	25.5	1.75	101.5	"	"	1070	-	16	21	2.1
11.5	29	1.55	122.0	"	"	1070	-	13.5	24	1.9
9.1	36.5	1.25	149.0	"	"	1070	-	11	29.5	1.55
7.3	46.5	0.97	185.4	"	"	1070	-	8.8	37.5	1.2
10.5	36	3.3	131.8	BG10Z-../D04LA4	11	2000	2800	12.5	30.5	3.9
9.3	41	2.9	146.0	"	"	2000	2800	11.5	33	3.6
8.2	46.5	2.6	166.0	"	"	2000	2800	9.8	38.5	3.1
7.4	51	2.4	184.0	"	"	2000	2800	8.9	42.5	2.8
7.0	54	2.2	194.6	"	"	2000	2800	8.4	45	2.7
6.3	60	2.0	215.7	"	"	2000	2800	7.6	50	2.4
5.7	67	1.8	240.4	"	"	2000	2800	6.8	56	2.1
5.1	74	1.6	266.3	"	"	2000	2800	6.1	62	1.95
4.9	77	1.55	276.0	"	"	2000	2800	5.9	64	1.9
4.5	84	1.45	305.8	"	"	2000	2800	5.3	72	1.65
4.1	60	2.2	332.0	BG10G06-../D04LA4	14	2000	2800	4.9	45.5	2.9
3.6	75	1.75	379.6	"	"	2000	2800	4.3	58	2.2

P = 0.04 kW

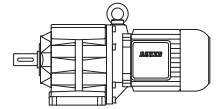


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
3.1	88	1.5	435.9	BG10G06-../D04LA4	"	2000	2800	3.8	65	2.0
2.7	103	1.25	512.6	"	"	2000	2800	3.2	81	1.6
2.3	125	1.05	613.6	"	"	2000	2800	2.7	100	1.3
1.9	155	0.84	748.9	"	"	2000	2800	2.2	128	1.0
6.1	62	3.2	222.1	BG20Z-../D04LA4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

P = 0.06 kW

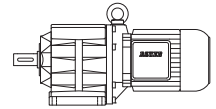
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
540	1.06	3.8	2.51	BG04-../D04LA4	4.4	340	-	650	0.88	4.5
370	1.54	3.2	3.65	"	"	390	-	445	1.28	3.9
310	1.84	3.8	4.39	"	"	380	-	370	1.54	4.5
255	2.2	4.1	5.36	"	"	380	-	305	1.87	4.8
205	2.75	3.6	6.67	"	"	410	-	245	2.3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

P = 0.06 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
72	7.9	3.3	18.82	BG05-../D04LA4	5.1	680	-	87	6.5	4.0
66	8.6	3.1	20.53	"	"	700	-	79	7.2	3.8
57	10	2.8	24.00	"	"	740	-	68	8.4	3.3
52	11	2.6	26.18	"	"	760	-	62	9.2	3.2
49	11.6	2.6	27.82	"	"	770	-	59	9.7	3.1
44.5	12.8	2.3	30.35	"	"	760	-	54	10.6	2.8
39	14.6	2.1	35.00	"	"	810	-	46.5	12.3	2.4
35.5	16.1	1.85	38.18	"	"	850	-	42.5	13.4	2.2
34	16.8	1.8	39.94	"	"	860	-	41	13.9	2.2
31	18.4	1.65	43.57	"	"	900	-	37.5	15.2	1.95
29	19.7	1.5	47.00	"	"	930	-	34.5	16.6	1.8
26.5	21.5	1.4	51.27	"	"	970	-	32	17.9	1.7
25.5	22	1.35	53.44	"	"	980	-	30.5	18.7	1.6
23.5	24	1.25	58.30	"	"	1000	-	28	20	1.5
42	13.6	3.3	32.22	BG06-../D04LA4	6.1	890	-	51	11.2	4.0
38.5	14.8	3.0	35.15	"	"	880	-	46.5	12.3	3.7
37	15.4	2.9	36.91	"	"	890	-	44	13	3.5
34	16.8	2.7	40.26	"	"	890	-	40.5	14.1	3.2
29.5	19.4	2.3	46.19	"	"	890	-	35.5	16.1	2.8
27	21	2.1	50.38	"	"	940	-	32.5	17.6	2.6
26	22	2.0	52.56	"	"	950	-	31	18.4	2.4
24	23.5	1.9	57.34	"	"	1000	-	28.5	20	2.3
22.5	25	1.8	61.22	"	"	1020	-	26.5	21.5	2.1
20.5	27.5	1.65	66.79	"	"	1070	-	24.5	23	1.95
18	29.5	1.35	75.99	BG06G04-../D04LA4	8.4	1070	-	21.5	24.5	1.65
16.5	32	1.35	82.89	"	"	1070	-	20	26	1.65
15	35.5	1.25	93.00	"	"	1070	-	17.5	30	1.5
13.5	39.5	1.15	101.5	"	"	1070	-	16	33	1.35
11.5	45.5	0.99	122.0	"	"	1070	-	13.5	38.5	1.15
15	38	3.2	92.19	BG10Z-../D06LA4	14	2000	2800	18	31.5	3.8
13.5	42	2.9	102.1	"	"	2000	2800	16	35.5	3.4
12.5	45.5	2.6	109.8	"	"	2000	2800	15	38	3.2
11.5	49.5	2.4	121.7	"	"	2000	2800	13.5	42	2.9
10.5	54	2.2	131.8	"	"	2000	2800	12.5	45.5	2.6
9.3	61	1.95	146.0	"	"	2000	2800	11.5	49.5	2.4
8.2	69	1.75	166.0	"	"	2000	2800	9.8	58	2.1
7.4	77	1.55	184.0	"	"	2000	2800	8.9	64	1.9
7.0	81	1.5	194.6	"	"	2000	2800	8.4	68	1.75
6.3	90	1.35	215.7	"	"	2000	2800	7.6	75	1.6
5.7	100	1.2	240.4	"	"	2000	2800	6.8	84	1.45
5.1	112	1.05	266.3	"	"	2000	2800	6.1	93	1.3
4.9	116	1.05	276.0	"	"	2000	2800	5.9	97	1.25
4.5	127	0.94	305.8	"	"	2000	2800	5.3	108	1.1
4.1	107	1.2	332.0	BG10G06-../D06LA4	18	2000	2800	4.9	84	1.55
3.6	128	1.0	379.6	"	"	2000	2800	4.3	102	1.25
3.1	149	0.87	435.9	"	"	2000	2800	3.8	115	1.15
8.4	68	2.9	162.2	BG20Z-../D06LA4	16	5000	-	10	57	3.5
7.5	76	2.6	180.1	"	"	5000	-	9.0	63	3.2
6.8	84	2.4	199.9	"	"	5000	-	8.2	69	2.9
6.1	93	2.2	222.1	"	"	5000	-	7.3	78	2.6
5.5	77	2.9	248.0	BG20G06-../D06LA4	20	5000	-	6.6	60	3.7
4.6	95	2.3	297.9	"	"	5000	-	5.5	75	2.9
3.9	118	1.85	352.1	"	"	5000	-	4.7	93	2.4
3.5	132	1.65	391.1	"	"	5000	-	4.2	104	2.1
3.0	156	1.4	460.0	"	"	5000	-	3.6	125	1.75
2.5	192	1.15	550.6	"	"	5000	-	3.0	154	1.45
2.1	230	0.96	671.9	"	"	5000	-	2.5	188	1.15
6.0	95	3.2	225.9	BG30Z-../D06LA4	22	6000	-	7.2	79	3.8
5.2	110	2.7	261.9	"	"	6000	-	6.2	92	3.3
4.7	121	2.5	290.5	"	"	6000	-	5.6	102	2.9

P = 0.06 kW

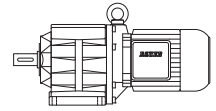


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
3.9	118	2.8	346.8	BG30G06-../D06LA4	25	6000	-	4.7	93	3.5
3.4	136	2.4	401.9	"	"	6000	-	4.1	107	3.0
2.9	162	2.0	472.8	"	"	6000	-	3.5	128	2.5
2.4	200	1.65	565.8	"	"	6000	-	2.9	159	2.0
2.0	240	1.35	690.6	"	"	6000	-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

P = 0.09 kW

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

P = 0.09 kW

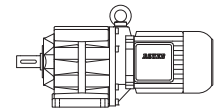


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
128	6.7	3.0	10.59	BG05-../D04LA4	5.1	590	-	153	5.6	3.6
117	7.3	2.9	11.55	"	"	600	-	141	6.0	3.5
113	7.6	2.8	12.05	"	"	510	-	135	6.3	3.3
108	7.9	2.8	12.60	"	"	610	-	129	6.6	3.3
99	8.6	2.7	13.75	"	"	630	-	118	7.2	3.2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

BG-series helical-geared motors

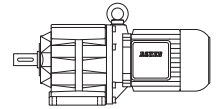
Selection helical-geared motors DHE - IE2

P = 0.09 kW



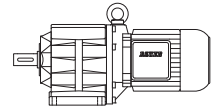
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
6.1	140	1.45	222.1	BG20Z-../D06LA4	"	5000	-	7.3	117	1.7
5.5	130	1.7	248.0	BG20G06-../D06LA4	20	5000	-	6.6	103	2.1
4.6	157	1.4	297.9	"	"	5000	-	5.5	127	1.75
3.9	192	1.15	352.1	"	"	5000	-	4.7	154	1.45
3.5	210	1.05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

P = 0.12 kW



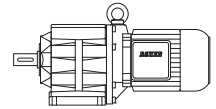
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
540	2.1	1.9	2.51	BG04-../D04LA4	4.4	340	-	650	1.76	2.3
370	3.05	1.65	3.65	"	"	390	-	445	2.55	1.95
310	3.65	1.9	4.39	"	"	380	-	370	3.05	2.3
255	4.45	2.0	5.36	"	"	380	-	305	3.75	2.4
205	5.5	1.8	6.67	"	"	410	-	245	4.65	2.2
158	7.2	1.55	8.58	"	"	410	-	189	6.0	1.85
150	7.6	1.6	9.00	"	"	470	-	180	6.3	1.9
137	8.3	1.55	9.90	"	"	480	-	164	6.9	1.9
125	9.1	1.55	10.82	"	"	480	-	150	7.6	1.85
114	10	1.5	11.90	"	"	490	-	137	8.3	1.8
108	10.6	1.4	12.55	"	"	490	-	130	8.8	1.7
103	11.1	1.45	13.20	"	"	500	-	123	9.3	1.7
93	12.3	1.4	14.52	"	"	510	-	112	10.2	1.65
83	13.8	1.3	16.44	"	"	530	-	99	11.5	1.55
75	15.2	1.2	18.08	"	"	540	-	90	12.7	1.4
64	17.9	1.05	21.12	"	"	560	-	77	14.8	1.3
59	19.4	1.05	23.23	"	"	600	-	70	16.3	1.25
56	20	1.0	24.45	"	"	610	-	67	17.1	1.15
51	22	0.91	26.89	"	"	650	-	61	18.7	1.05
295	3.85	3.1	4.59	BG05-../D04LA4	5.1	490	-	355	3.2	3.8
250	4.55	3.1	5.46	"	"	490	-	300	3.8	3.7
205	5.5	2.9	6.60	"	"	510	-	250	4.55	3.5
174	6.5	2.8	7.80	"	"	530	-	210	5.4	3.3
166	6.9	2.6	8.15	"	"	510	-	199	5.7	3.2
159	7.2	2.6	8.51	"	"	550	-	191	6.0	3.2
128	8.9	2.2	10.59	"	"	590	-	153	7.4	2.7
117	9.7	2.2	11.55	"	"	600	-	141	8.1	2.6
113	10.1	2.1	12.05	"	"	510	-	135	8.4	2.5
108	10.6	2.1	12.60	"	"	610	-	129	8.8	2.5
99	11.5	2.0	13.75	"	"	630	-	118	9.7	2.4
89	12.8	1.9	15.23	"	"	640	-	107	10.7	2.2
82	13.9	1.8	16.62	"	"	660	-	98	11.6	2.2
72	15.9	1.65	18.82	"	"	680	-	87	13.1	2.0
66	17.3	1.55	20.53	"	"	700	-	79	14.5	1.85
57	20	1.4	24.00	"	"	740	-	68	16.8	1.65
52	22	1.3	26.18	"	"	760	-	62	18.4	1.6
49	23	1.3	27.82	"	"	770	-	59	19.4	1.55
44.5	25.5	1.2	30.35	"	"	760	-	54	21	1.45
39	29	1.05	35.00	"	"	810	-	46.5	24.5	1.2
35.5	32	0.94	38.18	"	"	850	-	42.5	26.5	1.15
34	33.5	0.9	39.94	"	"	860	-	41	27.5	1.1
31	36.5	0.82	43.57	"	"	900	-	37.5	30.5	0.98
110	10.4	3.2	12.30	BG06-../D04LA4	6.1	670	-	132	8.6	3.8
105	10.9	3.0	12.98	"	"	600	-	125	9.1	3.6
92	12.4	2.7	14.78	"	"	730	-	110	10.4	3.3
84	13.6	2.6	16.13	"	"	740	-	101	11.3	3.1
78	14.6	2.6	17.40	"	"	760	-	94	12.1	3.1
72	15.9	2.5	18.98	"	"	770	-	86	13.3	3.0
65	17.6	2.3	20.82	"	"	800	-	78	14.6	2.7
60	19.1	2.3	22.71	"	"	810	-	72	15.9	2.7
53	21.5	2.1	25.48	"	"	850	-	64	17.9	2.5
49	23	1.95	27.80	"	"	840	-	59	19.4	2.3
42	27	1.65	32.22	"	"	890	-	51	22	2.0
38.5	29.5	1.55	35.15	"	"	880	-	46.5	24.5	1.85
37	30.5	1.5	36.91	"	"	890	-	44	26	1.75
34	33.5	1.35	40.26	"	"	890	-	40.5	28	1.6
29.5	38.5	1.15	46.19	"	"	890	-	35.5	32	1.4
27	42	1.05	50.38	"	"	940	-	32.5	35	1.3
26	44	1.0	52.56	"	"	950	-	31	36.5	1.25
24	47.5	0.95	57.34	"	"	1000	-	28.5	40	1.15
22.5	50	0.9	61.22	"	"	1020	-	26.5	43	1.05
20.5	55	0.82	66.79	"	"	1070	-	24.5	46.5	0.97

P = 0.12 kW



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

P = 0.12 kW

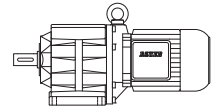


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
6.0	191	3.3	226.9	BG50Z-../D06LA4	47	10000	-	7.2	159	4.0
5.3	215	2.9	258.6	"	"	10000	-	6.3	181	3.5
4.8	235	2.7	286.7	"	"	10000	-	5.7	200	3.2
3.1	260	2.7	446.5	BG50G10-../D06LA4	51	10000	-	3.7	200	3.5
2.6	320	2.2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

P = 0.18 kW

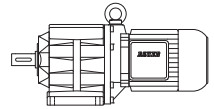
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
520	3.3	2.7	2.64	BG05-../D05LA4	7.0	420	-	620	2.75	3.3
400	4.25	2.4	3.38	"	"	460	-	480	3.55	2.8
295	5.8	2.1	4.59	"	"	490	-	355	4.8	2.5
250	6.8	2.1	5.46	"	"	490	-	300	5.7	2.5
205	8.3	1.95	6.60	"	"	510	-	250	6.8	2.4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

P = 0.18 kW



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

P = 0.18 kW

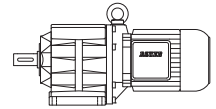


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
13	132	3.2	107.5	BG40Z-../D06LA4	38	7000	-	15.5	110	3.9
11.5	149	2.9	121.3	"	"	7000	-	13.5	127	3.3
10.5	163	2.6	134.6	"	"	7000	-	12.5	137	3.1
9.6	179	2.4	141.4	"	"	7000	-	11.5	149	2.9
8.7	197	2.2	156.9	"	"	7000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

P = 0.25 kW

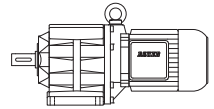
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
520	4.55	2.0	2.64	BG05-../D05LA4	7.0	420	-	620	3.85	2.3
400	5.9	1.7	3.38	"	"	460	-	480	4.95	2.0
295	8.0	1.5	4.59	"	"	490	-	355	6.7	1.8
250	9.5	1.45	5.46	"	"	490	-	300	7.9	1.75
205	11.6	1.4	6.60	"	"	510	-	250	9.5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

P = 0.25 kW



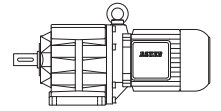
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
113	21	1.0	12.05	BG05-../D05LA4	kg	510	-	135	17.6	1.2
108	22	1.0	12.60	"	"	610	-	129	18.5	1.2
99	24	0.96	13.75	"	"	630	-	118	20	1.15
89	26.5	0.91	15.23	"	"	640	-	107	22	1.1
82	29	0.86	16.62	"	"	660	-	98	24	1.05
360	6.6	3.0	3.78	BG06-../D05LA4	8.0	520	-	430	5.5	3.6
300	7.9	2.8	4.54	"	"	530	-	360	6.6	3.3
230	10.3	2.3	5.96	"	"	570	-	275	8.6	2.8
193	12.3	2.1	7.01	"	"	580	-	235	10.1	2.6
161	14.8	1.9	8.39	"	"	600	-	194	12.3	2.3
144	16.5	1.8	9.38	"	"	640	-	173	13.8	2.2
132	18	1.7	10.24	"	"	640	-	159	15	2.1
120	19.8	1.6	11.28	"	"	670	-	144	16.5	1.95
110	21.5	1.55	12.30	"	"	670	-	132	18	1.85
105	22.5	1.45	12.98	"	"	600	-	125	19.1	1.75
92	25.5	1.35	14.78	"	"	730	-	110	21.5	1.6
84	28	1.25	16.13	"	"	740	-	101	23.5	1.5
78	30.5	1.25	17.40	"	"	760	-	94	25	1.5
72	33	1.2	18.98	"	"	770	-	86	27.5	1.45
65	36.5	1.1	20.82	"	"	800	-	78	30.5	1.3
60	39.5	1.1	22.71	"	"	810	-	72	33	1.3
53	45	1.0	25.48	"	"	850	-	64	37	1.2
49	48.5	0.93	27.80	"	"	840	-	59	40	1.15
42	56	0.8	32.22	"	"	890	-	51	46.5	0.97
66	36	3.3	20.51	BG10-../D06LA4	13	1290	1800	79	30	4.0
62	38.5	3.1	22.04	"	"	1330	1860	74	32	3.8
56	42.5	2.8	24.42	"	"	1410	1970	67	35.5	3.4
52	45.5	2.6	26.26	"	"	1460	2000	62	38.5	3.1
46.5	51	2.4	29.09	"	"	1540	2150	56	42.5	2.8
43	55	2.2	31.52	"	"	1600	2200	52	45.5	2.6
39	61	1.95	34.92	"	"	1690	2350	46.5	51	2.4
34.5	69	1.75	39.70	"	"	1780	2450	41	58	2.1
31	77	1.55	43.99	"	"	1880	2600	37	64	1.9
29.5	80	1.5	46.55	"	"	1920	2650	35	68	1.75
26.5	90	1.35	51.57	"	"	2000	2800	31.5	75	1.6
23.5	101	1.2	57.48	"	"	2000	2800	28.5	83	1.45
21.5	111	1.1	63.69	"	"	2000	2800	25.5	93	1.3
20.5	116	1.05	66.00	"	"	2000	2800	25	95	1.25
18.5	129	0.93	73.13	"	"	2000	2800	22.5	106	1.15
17.5	136	0.88	77.40	BG10Z-../D06LA4	14	2000	2800	21	113	1.05
16	149	0.81	85.76	"	"	2000	2800	19	125	0.96
50	47.5	3.2	27.08	BG15-../D06LA4	13	3000	6000	60	39.5	3.8
45	53	2.8	30.08	"	"	3000	6000	54	44	3.4
39.5	60	2.5	34.20	"	"	3000	6000	47.5	50	3.0
36	66	2.3	37.90	"	"	3000	6000	43	55	2.7
36.5	65	3.1	37.02	BG20-../D06LA4	16	4300	-	44	54	3.7
32.5	73	2.7	41.76	"	"	4500	-	39	61	3.3
29.5	80	2.5	46.38	"	"	4700	-	35	68	2.9
28.5	83	2.4	47.92	"	"	4750	-	34	70	2.9
25.5	93	2.2	53.22	"	"	4950	-	30.5	78	2.6
23	103	1.95	59.07	"	"	5000	-	27.5	86	2.3
21	113	1.75	65.62	"	"	5000	-	25	95	2.1
20	119	1.7	67.53	BG20Z-../D06LA4	16	5000	-	24	99	2.0
17.5	136	1.45	78.60	"	"	5000	-	21	113	1.75
15.5	154	1.3	87.30	"	"	5000	-	19	125	1.6
14.5	164	1.2	94.27	"	"	5000	-	17.5	136	1.45
13	183	1.1	104.7	"	"	5000	-	15.5	154	1.3
12	198	1.0	112.8	"	"	5000	-	14.5	164	1.2
11	215	0.93	125.3	"	"	5000	-	13	183	1.1
9.6	245	0.82	141.3	"	"	5000	-	11.5	205	0.98

P = 0.25 kW



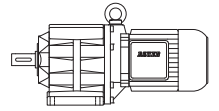
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
26	91	3.3	52.44	BG30-../D06LA4	20	6000	-	31	77	3.9
23.5	101	3.0	58.18	"	"	6000	-	28	85	3.5
22.5	106	2.8	60.79	"	"	6000	-	27	88	3.4
20.5	116	2.6	67.44	"	"	6000	-	24.5	97	3.1
18.5	129	2.3	73.51	BG30Z-../D06LA4	22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

P = 0.3 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
520	5.5	1.65	2.64	BG05-../D07LA4	11	420	-	620	4.6	1.95
400	7.1	1.4	3.38	"	"	460	-	480	5.9	1.7
295	9.7	1.25	4.59	"	"	490	-	355	8.0	1.5
250	11.4	1.25	5.46	"	"	490	-	300	9.5	1.45
205	13.9	1.15	6.60	"	"	510	-	250	11.4	1.4
174	16.4	1.1	7.80	"	"	530	-	210	13.6	1.3
166	17.2	1.05	8.15	"	"	510	-	199	14.3	1.25
159	18	1.05	8.51	"	"	550	-	191	15	1.25
128	22	0.91	10.59	"	"	590	-	153	18.7	1.05
117	24	0.88	11.55	"	"	600	-	141	20	1.05
113	25	0.84	12.05	"	"	510	-	135	21	1.0
108	26.5	0.83	12.60	"	"	610	-	129	22	1.0
99	28.5	0.81	13.75	"	"	630	-	118	24	0.96
360	7.9	2.5	3.78	BG06-../D07LA4	12	520	-	430	6.6	3.0
300	9.5	2.3	4.54	"	"	530	-	360	7.9	2.8
230	12.4	1.95	5.96	"	"	570	-	275	10.4	2.3
193	14.8	1.75	7.01	"	"	580	-	235	12.1	2.1
161	17.7	1.6	8.39	"	"	600	-	194	14.7	1.9
144	19.8	1.5	9.38	"	"	640	-	173	16.5	1.8
132	21.5	1.45	10.24	"	"	640	-	159	18	1.7
120	23.5	1.35	11.28	"	"	670	-	144	19.8	1.6
110	26	1.25	12.30	"	"	670	-	132	21.5	1.55
105	27	1.2	12.98	"	"	600	-	125	22.5	1.45
92	31	1.1	14.78	"	"	730	-	110	26	1.3
84	34	1.05	16.13	"	"	740	-	101	28	1.25
78	36.5	1.05	17.40	"	"	760	-	94	30	1.25
72	39.5	1.0	18.98	"	"	770	-	86	33	1.2
65	44	0.91	20.82	"	"	800	-	78	36.5	1.1
60	47.5	0.91	22.71	"	"	810	-	72	39.5	1.1
53	54	0.83	25.48	"	"	850	-	64	44.5	1.0
73	39	3.1	18.51	BG10-../D07LA4	15	1210	1690	88	32.5	3.7
66	43	2.8	20.51	"	"	1290	1800	79	36	3.3
62	46	2.6	22.04	"	"	1330	1860	74	38.5	3.1
56	51	2.4	24.42	"	"	1410	1970	67	42.5	2.8
52	55	2.2	26.26	"	"	1460	2000	62	46	2.6
46.5	61	1.95	29.09	"	"	1540	2150	56	51	2.4
43	66	1.8	31.52	"	"	1600	2200	52	55	2.2
39	73	1.65	34.92	"	"	1690	2350	46.5	61	1.95
34.5	83	1.45	39.70	"	"	1780	2450	41	69	1.75
31	92	1.3	43.99	"	"	1880	2600	37	77	1.55
29.5	97	1.25	46.55	"	"	1920	2650	35	81	1.5
26.5	108	1.1	51.57	"	"	2000	2800	31.5	90	1.35
23.5	121	0.99	57.48	"	"	2000	2800	28.5	100	1.2
21.5	133	0.9	63.69	"	"	2000	2800	25.5	112	1.05
20.5	139	0.86	66.00	"	"	2000	2800	25	114	1.05
50	57	2.6	27.08	BG15-../D07LA4	15	3000	6000	60	47.5	3.2
45	63	2.4	30.08	"	"	3000	6000	54	53	2.8
39.5	72	2.1	34.20	"	"	3000	6000	47.5	60	2.5
36	79	1.9	37.90	"	"	3000	6000	43	66	2.3
44	65	3.1	30.94	BG20-../D07LA4	18	4000	-	53	54	3.7
41	69	2.9	33.33	"	"	4100	-	49	58	3.4
36.5	78	2.6	37.02	"	"	4300	-	44	65	3.1
32.5	88	2.3	41.76	"	"	4500	-	39	73	2.7
29.5	97	2.1	46.38	"	"	4700	-	35	81	2.5
28.5	100	2.0	47.92	"	"	4750	-	34	84	2.4
25.5	112	1.8	53.22	"	"	4950	-	30.5	93	2.2
23	124	1.6	59.07	"	"	5000	-	27.5	104	1.9
21	136	1.45	65.62	"	"	5000	-	25	114	1.75
20	143	1.4	67.53	BG20Z-../D07LA4	19	5000	-	24	119	1.7
17.5	163	1.25	78.60	"	"	5000	-	21	136	1.45
15.5	184	1.1	87.30	"	"	5000	-	19	150	1.35
14.5	197	1.0	94.27	"	"	5000	-	17.5	163	1.25
13	220	0.91	104.7	"	"	5000	-	15.5	184	1.1
12	235	0.85	112.8	"	"	5000	-	14.5	197	1.0

P = 0.3 kW



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

BG-series helical-geared motors

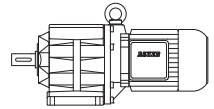
Selection helical-geared motors DHE - IE2

P = 0.37 kW



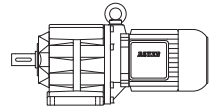
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
520	6.7	1.35	2.64	BG05-../D07LA4	11	420	-	620	5.6	1.6
400	8.8	1.15	3.38	"	"	460	-	480	7.3	1.35
295	11.9	1.0	4.59	"	"	490	-	355	9.9	1.2
250	14.1	0.99	5.46	"	"	490	-	300	11.7	1.2
205	17.2	0.93	6.60	"	"	510	-	250	14.1	1.15
174	20	0.9	7.80	"	"	530	-	210	16.8	1.05
166	21	0.86	8.15	"	"	510	-	199	17.7	1.0
159	22	0.86	8.51	"	"	550	-	191	18.5	1.05
360	9.8	2.0	3.78	BG06-../D07LA4	12	520	-	430	8.2	2.4
300	11.7	1.9	4.54	"	"	530	-	360	9.8	2.2
230	15.3	1.55	5.96	"	"	570	-	275	12.8	1.9
193	18.3	1.4	7.01	"	"	580	-	235	15	1.75
161	21.5	1.3	8.39	"	"	600	-	194	18.2	1.55
144	24.5	1.2	9.38	"	"	640	-	173	20	1.5
132	26.5	1.15	10.24	"	"	640	-	159	22	1.4
120	29	1.1	11.28	"	"	670	-	144	24.5	1.3
110	32	1.05	12.30	"	"	670	-	132	26.5	1.25
105	33.5	0.99	12.98	"	"	600	-	125	28	1.2
92	38	0.89	14.78	"	"	730	-	110	32	1.05
84	42	0.83	16.13	"	"	740	-	101	34.5	1.0
78	45	0.84	17.40	"	"	760	-	94	37.5	1.0
72	49	0.82	18.98	"	"	770	-	86	41	0.98
103	34	3.2	13.21	BG10-../D07LA4	15	1070	1490	123	28.5	3.9
93	37.5	3.0	14.58	"	"	1100	1540	112	31.5	3.6
84	42	2.8	16.15	"	"	1140	1590	101	34.5	3.4
73	48	2.5	18.51	"	"	1210	1690	88	40	3.0
66	53	2.3	20.51	"	"	1290	1800	79	44.5	2.7
62	56	2.1	22.04	"	"	1330	1860	74	47.5	2.5
56	63	1.9	24.42	"	"	1410	1970	67	52	2.3
52	67	1.8	26.26	"	"	1460	2000	62	56	2.1
46.5	75	1.6	29.09	"	"	1540	2150	56	63	1.9
43	82	1.45	31.52	"	"	1600	2200	52	67	1.8
39	90	1.35	34.92	"	"	1690	2350	46.5	75	1.6
34.5	102	1.2	39.70	"	"	1780	2450	41	86	1.4
31	113	1.05	43.99	"	"	1880	2600	37	95	1.25
29.5	119	1.0	46.55	"	"	1920	2650	35	100	1.2
26.5	133	0.9	51.57	"	"	2000	2800	31.5	112	1.05
23.5	150	0.8	57.48	"	"	2000	2800	28.5	123	0.98
50	70	2.1	27.08	BG15-../D07LA4	15	3000	6000	60	58	2.6
45	78	1.9	30.08	"	"	3000	6000	54	65	2.3
39.5	89	1.7	34.20	"	"	3000	6000	47.5	74	2.0
36	98	1.55	37.90	"	"	3000	6000	43	82	1.85
53	66	3.0	25.79	BG20-../D07LA4	18	3700	-	63	56	3.6
48.5	72	2.8	27.85	"	"	3800	-	59	59	3.4
44	80	2.5	30.94	"	"	4000	-	53	66	3.0
41	86	2.3	33.33	"	"	4100	-	49	72	2.8
36.5	96	2.1	37.02	"	"	4300	-	44	80	2.5
32.5	108	1.85	41.76	"	"	4500	-	39	90	2.2
29.5	119	1.7	46.38	"	"	4700	-	35	100	2.0
28.5	123	1.65	47.92	"	"	4750	-	34	103	1.95
25.5	138	1.45	53.22	"	"	4950	-	30.5	115	1.75
23	153	1.3	59.07	"	"	5000	-	27.5	128	1.55
21	168	1.2	65.62	"	"	5000	-	25	141	1.4
20	176	1.15	67.53	BG20Z-../D07LA4	19	5000	-	24	147	1.35
17.5	200	1.0	78.60	"	"	5000	-	21	168	1.2
15.5	225	0.89	87.30	"	"	5000	-	19	185	1.1
14.5	240	0.83	94.27	"	"	5000	-	17.5	200	1.0
38.5	91	3.3	35.17	BG30-../D07LA4	22	5500	-	46.5	75	4.0
35	100	3.0	39.02	"	"	5800	-	42	84	3.6
32	110	2.7	42.46	"	"	5900	-	38.5	91	3.3

P = 0.37 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
29	121	2.5	47.11	BG30-../D07LA4	"	6000	-	34.5	102	2.9
26	135	2.2	52.44	"	"	6000	-	31	113	2.7
23.5	150	2.0	58.18	"	"	6000	-	28	126	2.4
22.5	157	1.9	60.79	"	"	6000	-	27	130	2.3
20.5	172	1.75	67.44	"	"	6000	-	24.5	144	2.1
18.5	191	1.55	73.51	BG30Z-../D07LA4	25	6000	-	22.5	157	1.9
17	205	1.45	81.55	"	"	6000	-	20	176	1.7
16	220	1.35	86.13	"	"	6000	-	19	185	1.6
14.5	240	1.25	95.55	"	"	6000	-	17	205	1.45
12.5	280	1.05	109.6	"	"	6000	-	15	235	1.3
11.5	305	0.98	121.6	"	"	6000	-	13.5	260	1.15
11	320	0.94	128.5	"	"	6000	-	13	270	1.1
9.5	370	0.81	142.5	"	"	6000	-	11.5	305	0.98
20	176	2.4	67.74	BG40Z-../D07LA4	40	7000	-	24	147	2.9
18	196	2.2	75.19	"	"	7000	-	22	160	2.7
16.5	210	2.0	82.00	"	"	7000	-	20	176	2.4
15	235	1.8	91.02	"	"	7000	-	18	196	2.2
14	250	1.7	96.86	"	"	7000	-	17	205	2.1
13	270	1.55	107.5	"	"	7000	-	15.5	225	1.9
11.5	305	1.4	121.3	"	"	7000	-	13.5	260	1.65
10.5	335	1.25	134.6	"	"	7000	-	12.5	280	1.5
9.6	365	1.15	141.4	"	"	7000	-	11.5	305	1.4
8.7	405	1.05	156.9	"	"	7000	-	10.5	335	1.25
8.2	430	0.99	166.1	"	"	7000	-	9.8	360	1.2
7.4	475	0.89	184.4	"	"	7000	-	8.8	400	1.05
6.8	510	0.83	199.9	"	"	7000	-	8.2	430	0.99
17	205	3.1	79.78	BG50Z-../D07LA4	50	10000	-	20.5	172	3.7
14.5	240	2.6	95.58	"	"	10000	-	17	205	3.1
13	270	2.3	106.0	"	"	10000	-	15.5	225	2.8
10.5	335	1.9	128.9	"	"	10000	-	13	270	2.3
9.5	370	1.7	142.9	"	"	10000	-	11.5	305	2.1
8.2	430	1.45	164.9	"	"	10000	-	9.9	355	1.75
7.4	475	1.35	182.8	"	"	10000	-	8.9	395	1.6
6.6	530	1.2	204.7	"	"	10000	-	8.0	440	1.45
6.0	580	1.1	226.9	"	"	10000	-	7.2	490	1.3
5.3	660	0.95	258.6	"	"	10000	-	6.3	560	1.15
4.8	730	0.86	286.7	"	"	10000	-	5.7	610	1.05
3.9	800	0.86	351.7	BG50G10-../D07LA4	54	10000	-	4.7	650	1.05
4.9	600	2.2	276.2	BG60G20-../D07LA4	102	16000	-	5.9	480	2.7
4.5	650	2.0	306.1	"	"	16000	-	5.3	530	2.5
4.1	720	1.8	334.3	"	"	16000	-	4.9	580	2.2
3.7	790	1.65	370.5	"	"	16000	-	4.4	640	2.0
3.1	970	1.35	437.3	"	"	16000	-	3.8	760	1.7
2.7	1160	1.1	504.9	"	"	16000	-	3.3	920	1.4
2.5	1240	1.05	559.5	"	"	16000	-	2.9	1050	1.25
2.1	1510	0.86	651.3	"	"	16000	-	2.5	1240	1.05
3.5	860	2.9	387.6	BG70G20-../D07LA4	132	20000	-	4.2	690	3.6
3.3	940	2.7	417.8	"	"	20000	-	3.9	780	3.2
2.8	1110	2.3	495.9	"	"	20000	-	3.3	920	2.7
2.4	1320	1.9	577.3	"	"	20000	-	2.9	1070	2.3
2.1	1510	1.65	665.8	"	"	20000	-	2.5	1240	2.0
1.8	1760	1.4	790.2	"	"	20000	-	2.1	1480	1.7
1.6	2000	1.25	877.6	"	"	20000	-	1.9	1650	1.5
1.4	2300	1.1	1035	"	"	20000	-	1.6	1980	1.25
1.2	2700	0.93	1193	"	"	20000	-	1.4	2250	1.1

P = 0.55 kW

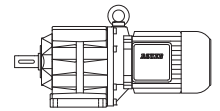


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
41	128	3.3	34.20	BG40-../D08MA4	38	7000	-	49.5	106	4.0
37	141	3.0	37.96	"	"	7000	-	44.5	118	3.6
35	150	2.8	40.19	"	"	7000	-	42	125	3.4
31.5	166	2.6	44.62	"	"	7000	-	38	138	3.1
29	181	2.3	48.36	"	"	7000	-	35	150	2.8
26.5	198	2.1	53.69	"	"	7000	-	31.5	166	2.6
23.5	220	1.95	59.64	"	"	7000	-	28.5	184	2.3
21.5	240	1.75	66.20	"	"	7000	-	25.5	205	2.1
21	250	1.7	67.74	BG40Z-../D08MA4	42	7000	-	25	210	2.0
19	275	1.55	75.19	"	"	7000	-	22.5	230	1.85
17.5	300	1.4	82.00	"	"	7000	-	20.5	255	1.65
15.5	335	1.25	91.02	"	"	7000	-	18.5	280	1.5
14.5	360	1.2	96.86	"	"	7000	-	17.5	300	1.4
13.5	385	1.1	107.5	"	"	7000	-	16	325	1.3
12	435	0.98	121.3	"	"	7000	-	14	375	1.15
10.5	500	0.85	134.6	"	"	7000	-	12.5	420	1.0
10	520	0.82	141.4	"	"	7000	-	12	435	0.98
27	194	3.2	52.12	BG50-../D08MA4	46	10000	-	32.5	161	3.9
24	215	2.9	59.42	"	"	10000	-	28.5	184	3.4
21.5	240	2.6	65.86	"	"	10000	-	26	200	3.2
19.5	265	2.4	71.97	BG50Z-../D08MA4	51	10000	-	23.5	220	2.9
18	290	2.2	79.78	"	"	10000	-	21.5	240	2.6
15	350	1.8	95.58	"	"	10000	-	18	290	2.2
13.5	385	1.65	106.0	"	"	10000	-	16	325	1.95
11	475	1.35	128.9	"	"	10000	-	13.5	385	1.65
9.8	530	1.2	142.9	"	"	10000	-	12	435	1.45
8.5	610	1.05	164.9	"	"	10000	-	10.5	500	1.25
7.7	680	0.93	182.8	"	"	10000	-	9.2	570	1.1
6.9	760	0.83	204.7	"	"	10000	-	8.3	630	1.0
14	375	3.2	101.0	BG60Z-../D08MA4	96	16000	-	17	305	3.9
12	435	2.8	119.2	"	"	16000	-	14.5	360	3.3
11	475	2.5	132.1	"	"	16000	-	13	400	3.0
8.9	590	2.0	158.0	"	"	16000	-	11	475	2.5
8.0	650	1.85	175.1	"	"	16000	-	9.6	540	2.2
6.9	760	1.6	204.6	"	"	16000	-	8.3	630	1.9
6.2	840	1.45	226.7	"	"	16000	-	7.5	700	1.7
5.7	920	1.3	247.7	"	"	16000	-	6.8	770	1.55
5.2	1010	1.2	274.5	"	"	16000	-	6.2	840	1.45
5.1	910	1.45	276.2	BG60G20-../D08MA4	103	16000	-	6.1	740	1.75
4.6	1010	1.3	306.1	"	"	16000	-	5.5	820	1.6
4.2	1110	1.15	334.3	"	"	16000	-	5.1	880	1.5
3.8	1220	1.05	370.5	"	"	16000	-	4.6	980	1.35
3.3	1420	0.92	437.3	"	"	16000	-	3.9	1180	1.1
7.3	710	3.2	194.4	BG70Z-../D08MA4	136	20000	-	8.7	600	3.8
6.7	780	2.9	210.5	"	"	20000	-	8.0	650	3.5
5.7	920	2.5	249.8	"	"	20000	-	6.8	770	3.0
5.5	840	3.0	255.5	BG70G20-../D08MA4	133	20000	-	6.6	680	3.7
5.1	910	2.7	276.7	"	"	20000	-	6.1	740	3.4
4.3	1080	2.3	328.4	"	"	20000	-	5.2	870	2.9
3.7	1270	1.95	387.6	"	"	20000	-	4.4	1040	2.4
3.4	1420	1.75	417.8	"	"	20000	-	4.1	1150	2.2
2.9	1660	1.5	495.9	"	"	20000	-	3.4	1390	1.8
2.5	1950	1.3	577.3	"	"	20000	-	3.0	1600	1.55
2.2	2200	1.15	665.8	"	"	20000	-	2.6	1850	1.35
1.8	2700	0.93	790.2	"	"	20000	-	2.2	2150	1.15
1.6	3050	0.82	877.6	"	"	20000	-	2.0	2400	1.05
2.9	1430	3.2	484.3	BG80G40-../D08MA4	215	26000	-	3.5	1120	4.1
2.5	1720	2.7	572.0	"	"	26000	-	3.0	1370	3.4
2.2	1900	2.4	657.8	"	"	26000	-	2.6	1540	3.0
2.0	2100	2.2	730.3	"	"	26000	-	2.4	1690	2.7
1.8	2350	1.95	817.4	"	"	26000	-	2.1	1970	2.3
1.6	2700	1.7	907.6	"	"	26000	-	1.9	2200	2.1

BG-series helical-geared motors

Selection helical-geared motors DHE - IE2

P = 0.55 kW



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

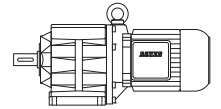
P = 0.75 kW

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

BG-series helical-geared motors

Selection helical-geared motors DHE - IE2

P = 0.75 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
9.7	730	3.2	147.2	BG70Z-../DHE08XA4	138	20000	-	12	590	3.9
8.7	820	2.8	163.8	"	"	20000	-	10.5	680	3.4
7.4	960	2.4	194.4	"	"	20000	-	8.8	810	2.8
6.8	1050	2.2	210.5	"	"	20000	-	8.2	870	2.6
5.7	1250	1.85	249.8	"	"	20000	-	6.9	1030	2.2
5.6	1170	2.1	255.5	BG70G20-../DHE08XA4	136	20000	-	6.7	960	2.6
5.2	1260	2.0	276.7	"	"	20000	-	6.2	1030	2.4
4.4	1490	1.7	328.4	"	"	20000	-	5.3	1210	2.1
3.7	1780	1.4	387.6	"	"	20000	-	4.5	1440	1.75
3.4	1980	1.25	417.8	"	"	20000	-	4.1	1620	1.55
2.9	2300	1.1	495.9	"	"	20000	-	3.5	1900	1.3
2.5	2700	0.93	577.3	"	"	20000	-	3.0	2200	1.15
2.2	3050	0.82	665.8	"	"	20000	-	2.6	2550	0.98
4.0	1450	3.2	360.0	BG80G40-../DHE08XA4	217	26000	-	4.8	1150	4.0
3.6	1610	2.9	399.8	"	"	26000	-	4.3	1290	3.6
3.3	1830	2.5	436.2	"	"	26000	-	4.0	1450	3.2
3.0	2000	2.3	484.3	"	"	26000	-	3.6	1610	2.9
2.5	2450	1.9	572.0	"	"	26000	-	3.0	2000	2.3
2.2	2750	1.65	657.8	"	"	26000	-	2.6	2250	2.0
2.0	3050	1.5	730.3	"	"	26000	-	2.4	2450	1.9
1.8	3450	1.35	817.4	"	"	26000	-	2.1	2850	1.6
1.6	3900	1.2	907.6	"	"	26000	-	1.9	3200	1.45
1.4	4550	1.0	1042	"	"	26000	-	1.7	3650	1.25
1.2	5400	0.85	1261	"	"	26000	-	1.4	4550	1.0
2.0	2900	3.2	714.2	BG90G50-../DHE08XA4	327	65000	-	2.4	2300	4.0
1.7	3500	2.6	883.7	"	"	65000	-	2.0	2900	3.2
1.3	4800	1.9	1174	"	"	65000	-	1.5	4100	2.2
1.1	5800	1.6	1301	"	"	65000	-	1.4	4400	2.1
0.9	7200	1.3	1583	"	"	65000	-	1.1	5800	1.6
0.85	7700	1.2	1756	"	"	65000	-	1.0	6400	1.45
0.75	8800	1.05	2026	"	"	65000	-	0.85	7700	1.2
1.0	5700	3.2	1444	BG100G50-../DHE08XA4	514	90000	-	1.2	4550	4.1
0.85	6800	2.7	1678	"	"	90000	-	1.1	4900	3.8
0.8	7100	2.6	1867	"	"	90000	-	0.95	5700	3.2
0.7	8100	2.3	2154	"	"	90000	-	0.8	6800	2.7
0.55	10600	1.75	2656	"	"	90000	-	0.65	8600	2.2
0.49	12300	1.5	2952	"	"	90000	-	0.6	9600	1.95
0.44	13700	1.35	3286	"	"	90000	-	0.55	10500	1.75
0.39	15800	1.15	3644	"	"	90000	-	0.47	12700	1.45

P = 1.1 kW

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

P = 1.1 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
330	31.5	3.3	4.38	BG20-../DHE09LA4	28	1990	-	400	26	4.0
265	39.5	2.9	5.49	"	"	2100	-	320	32.5	3.5
225	46.5	2.6	6.48	"	"	2250	-	270	38.5	3.2
180	58	2.4	8.02	"	"	2500	-	220	47.5	2.9
174	60	2.0	8.29	"	"	2250	-	210	50	2.4
162	64	2.2	8.91	"	"	2600	-	196	53	2.7
150	70	1.75	9.65	"	"	2250	-	181	58	2.1
137	76	2.0	10.54	"	"	2700	-	166	63	2.4
123	85	1.85	11.71	"	"	2800	-	149	70	2.3
110	95	1.75	13.21	"	"	2900	-	132	79	2.1
99	106	1.6	14.67	"	"	3050	-	119	88	1.95
93	112	1.6	15.58	"	"	3100	-	112	93	1.9
84	125	1.45	17.31	"	"	3200	-	101	104	1.75
73	143	1.35	19.95	"	"	3350	-	88	119	1.65
65	161	1.25	22.16	"	"	3500	-	79	132	1.5
63	166	1.2	23.22	"	"	3550	-	75	140	1.45
56	187	1.05	25.79	"	"	3700	-	68	154	1.3
52	200	1.0	27.85	"	"	3800	-	63	166	1.2
47	220	0.91	30.94	"	"	4000	-	57	184	1.1
43.5	240	0.83	33.33	"	"	4100	-	53	198	1.0
122	86	3.2	11.82	BG30-../DHE09LA4	33	3200	-	148	70	3.9
105	100	2.9	13.77	"	"	3150	-	127	82	3.6
95	110	2.7	15.27	"	"	3450	-	114	92	3.3
85	123	2.4	17.06	"	"	3700	-	102	102	2.9
77	136	2.2	18.93	"	"	4100	-	92	114	2.6
73	143	2.1	19.99	"	"	4200	-	88	119	2.5
65	161	1.85	22.18	"	"	4600	-	79	132	2.3
57	184	1.65	25.45	"	"	4850	-	69	152	1.95
51	205	1.45	28.24	"	"	5100	-	62	169	1.8
48.5	215	1.4	29.83	"	"	5200	-	59	178	1.7
44	235	1.3	33.09	"	"	5400	-	53	198	1.5
41	255	1.2	35.17	"	"	5500	-	49.5	210	1.45
37	280	1.05	39.02	"	"	5800	-	45	230	1.3
34	305	0.98	42.46	"	"	5900	-	41	255	1.2
31	335	0.9	47.11	"	"	6000	-	37	280	1.05
80	131	3.2	18.19	BG40-../DHE09LA4	47	5600	-	96	109	3.9
73	143	3.0	19.84	"	"	5800	-	88	119	3.6
66	159	2.7	22.02	"	"	6000	-	80	131	3.2
62	169	2.5	23.43	"	"	6200	-	75	140	3.0
56	187	2.3	26.01	"	"	6500	-	67	156	2.7
49.5	210	2.0	29.34	"	"	6800	-	60	175	2.4
44.5	235	1.8	32.57	"	"	7000	-	54	194	2.2
42.5	245	1.75	34.20	"	"	7000	-	51	205	2.1
38	275	1.55	37.96	"	"	7000	-	46	225	1.9
36	290	1.45	40.19	"	"	7000	-	43.5	240	1.75
32.5	320	1.35	44.62	"	"	7000	-	39	265	1.6
30	350	1.2	48.36	"	"	7000	-	36	290	1.45
27	385	1.1	53.69	"	"	7000	-	32.5	320	1.35
24.5	425	1.0	59.64	"	"	7000	-	29.5	355	1.2
22	475	0.89	66.20	"	"	7000	-	26.5	395	1.1
21.5	485	0.88	67.74	BG40Z-../DHE09LA4	51	7000	-	26	400	1.05
19.5	530	0.8	75.19	"	"	7000	-	23.5	445	0.96
49	210	3.0	29.62	BG50-../DHE09LA4	55	8000	-	59	178	3.5
44	235	2.7	32.84	"	"	8700	-	53	198	3.2
38.5	270	2.3	37.89	"	"	10000	-	46	225	2.8
34.5	300	2.1	42.00	"	"	10000	-	41.5	250	2.5
31	335	1.9	47.02	"	"	10000	-	37.5	280	2.3
28	375	1.7	52.12	"	"	10000	-	33.5	310	2.0
24.5	425	1.5	59.42	"	"	10000	-	29.5	355	1.75
22	475	1.35	65.86	"	"	10000	-	26.5	395	1.6
20.5	510	1.25	71.97	BG50Z-../DHE09LA4	60	10000	-	24.5	425	1.5
18.5	560	1.15	79.78	"	"	10000	-	22	475	1.35
15.5	670	0.94	95.58	"	"	10000	-	18.5	560	1.15
14	750	0.84	106.0	"	"	10000	-	16.5	630	1.0

P = 1.1 kW

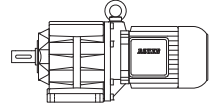


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
29	360	3.3	50.31	BG60-../DHE09LA4	86	16000	-	35	300	4.0
26	400	3.0	55.76	"	"	16000	-	31.5	330	3.6
24	435	2.8	60.90	"	"	16000	-	29	360	3.3
21.5	485	2.5	67.49	"	"	16000	-	26	400	3.0
19.5	530	2.3	75.71	BG60Z-../DHE09LA4	105	16000	-	23	455	2.6
16	650	1.85	91.09	"	"	16000	-	19.5	530	2.3
14.5	720	1.65	101.0	"	"	16000	-	17.5	600	2.0
12.5	840	1.45	119.2	"	"	16000	-	15	700	1.7
11	950	1.25	132.1	"	"	16000	-	13.5	770	1.55
9.2	1140	1.05	158.0	"	"	16000	-	11.5	910	1.3
8.3	1260	0.95	175.1	"	"	16000	-	10	1050	1.15
7.1	1470	0.82	204.6	"	"	16000	-	8.6	1220	0.98
13	800	2.9	113.6	BG70Z-../DHE09LA4	145	20000	-	15.5	670	3.4
12	870	2.6	124.0	"	"	20000	-	14.5	720	3.2
9.8	1070	2.1	147.2	"	"	20000	-	12	870	2.6
8.8	1190	1.95	163.8	"	"	20000	-	11	950	2.4
7.5	1400	1.65	194.4	"	"	20000	-	9.0	1160	2.0
6.9	1520	1.5	210.5	"	"	20000	-	8.3	1260	1.85
5.8	1810	1.25	249.8	"	"	20000	-	7.0	1500	1.55
5.7	1730	1.45	255.5	BG70G20-../DHE09LA4	142	20000	-	6.9	1410	1.75
5.3	1860	1.35	276.7	"	"	20000	-	6.3	1550	1.6
4.4	2200	1.15	328.4	"	"	20000	-	5.3	1840	1.35
3.8	2600	0.96	387.6	"	"	20000	-	4.5	2150	1.15
3.5	2850	0.88	417.8	"	"	20000	-	4.2	2350	1.05
7.8	1340	3.1	186.8	BG80Z-../DHE09LA4	213	26000	-	9.4	1110	3.8
7.0	1500	2.8	207.4	"	"	26000	-	8.4	1250	3.4
5.8	1500	3.1	252.3	BG80G40-../DHE09LA4	224	26000	-	6.9	1210	3.8
5.1	1750	2.6	282.8	"	"	26000	-	6.2	1380	3.3
4.6	1940	2.4	314.0	"	"	26000	-	5.6	1530	3.0
4.0	2250	2.0	360.0	"	"	26000	-	4.9	1800	2.6
3.7	2450	1.9	399.8	"	"	26000	-	4.4	2000	2.3
3.4	2750	1.65	436.2	"	"	26000	-	4.0	2250	2.0
3.0	3100	1.5	484.3	"	"	26000	-	3.6	2500	1.85
2.6	3650	1.25	572.0	"	"	26000	-	3.1	3000	1.55
2.2	4250	1.1	657.8	"	"	26000	-	2.7	3400	1.35
2.0	4750	0.97	730.3	"	"	26000	-	2.4	3850	1.2
1.8	5300	0.87	817.4	"	"	26000	-	2.2	4250	1.1
2.9	3100	3.0	504.7	BG90G50-../DHE09LA4	334	65000	-	3.5	2500	3.7
2.5	3600	2.6	588.8	"	"	65000	-	3.0	2900	3.2
2.3	3950	2.3	644.7	"	"	65000	-	2.7	3250	2.8
2.1	4350	2.1	714.2	"	"	65000	-	2.5	3550	2.6
1.7	5500	1.65	883.7	"	"	65000	-	2.0	4550	2.0
1.3	7400	1.25	1174	"	"	65000	-	1.5	6300	1.45
1.2	8000	1.15	1301	"	"	65000	-	1.4	6800	1.35
1.8	5800	3.2	845.1	BG100Z-../DHE09LA4	522	90000	-	2.1	5000	3.7
1.4	6100	3.0	1043	BG100G50-../DHE09LA4	521	90000	-	1.7	4750	3.9
1.2	7100	2.6	1204	"	"	90000	-	1.5	5300	3.5
1.0	9100	2.0	1444	"	"	90000	-	1.3	6700	2.8
0.9	10000	1.85	1678	"	"	90000	-	1.1	7900	2.3
0.8	11300	1.65	1867	"	"	90000	-	0.95	9200	2.0
0.7	12900	1.45	2154	"	"	90000	-	0.85	10300	1.8
0.55	16700	1.1	2656	"	"	90000	-	0.7	12600	1.45

P = 1.5 kW

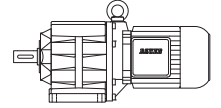
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
580	24.5	2.3	2.52	BG10-../DHE09XA4	30	560	790	700	20	2.8
425	33.5	1.85	3.42	"	"	630	880	510	28	2.2
335	42.5	1.6	4.36	"	"	650	910	400	35.5	1.9

P = 1.5 kW



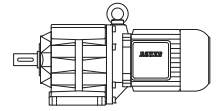
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
270	53	1.4	5.34	BG10-../DHE09XA4	kg	620	910	330	43	1.75
215	66	1.25	6.78	"	"	660	920	260	55	1.45
179	80	1.1	8.07	"	"	660	920	220	65	1.35
155	92	1.05	9.33	"	"	950	1330	187	76	1.3
140	102	0.97	10.34	"	"	1000	1400	169	84	1.2
121	118	0.89	11.92	"	"	1030	1440	146	98	1.05
110	130	0.85	13.21	"	"	1070	1490	132	108	1.0
435	32.5	2.8	3.33	BG20-../DHE09XA4	32	1830	-	530	27	3.4
330	43	2.4	4.38	"	"	1990	-	400	35.5	2.9
265	54	2.1	5.49	"	"	2100	-	320	44.5	2.6
225	63	1.95	6.48	"	"	2250	-	270	53	2.3
180	79	1.75	8.02	"	"	2500	-	220	65	2.1
174	82	1.5	8.29	"	"	2250	-	210	68	1.8
162	88	1.65	8.91	"	"	2600	-	196	73	1.95
150	95	1.3	9.65	"	"	2250	-	181	79	1.55
137	104	1.5	10.54	"	"	2700	-	166	86	1.8
123	116	1.35	11.71	"	"	2800	-	149	96	1.65
110	130	1.3	13.21	"	"	2900	-	132	108	1.55
99	144	1.2	14.67	"	"	3050	-	119	120	1.45
93	154	1.15	15.58	"	"	3100	-	112	127	1.4
84	170	1.1	17.31	"	"	3200	-	101	141	1.3
73	196	0.99	19.95	"	"	3350	-	88	162	1.2
65	220	0.91	22.16	"	"	3500	-	79	181	1.1
63	225	0.89	23.22	"	"	3550	-	75	191	1.05
215	66	3.3	6.75	BG30-../DHE09XA4	37	1760	-	260	55	3.9
183	78	2.8	7.91	"	"	1760	-	220	65	3.3
168	85	2.9	8.60	"	"	2800	-	205	69	3.6
151	94	2.7	9.55	"	"	3000	-	183	78	3.3
136	105	2.5	10.65	"	"	2950	-	164	87	3.1
122	117	2.3	11.82	"	"	3200	-	148	96	2.9
105	136	2.2	13.77	"	"	3150	-	127	112	2.6
95	150	2.0	15.27	"	"	3450	-	114	125	2.4
85	168	1.8	17.06	"	"	3700	-	102	140	2.1
77	186	1.6	18.93	"	"	4100	-	92	155	1.95
73	196	1.55	19.99	"	"	4200	-	88	162	1.85
65	220	1.35	22.18	"	"	4600	-	79	181	1.65
57	250	1.2	25.45	"	"	4850	-	69	205	1.45
51	280	1.05	28.24	"	"	5100	-	62	230	1.3
48.5	295	1.0	29.83	"	"	5200	-	59	240	1.25
44	325	0.92	33.09	"	"	5400	-	53	270	1.1
41	345	0.87	35.17	"	"	5500	-	49.5	285	1.05
160	89	3.3	9.00	BG40-../DHE09XA4	51	2650	-	194	73	4.0
112	127	3.2	12.86	"	"	4500	-	136	105	3.9
101	141	3.0	14.28	"	"	4900	-	122	117	3.6
88	162	2.6	16.39	"	"	5300	-	107	133	3.2
80	179	2.4	18.19	"	"	5600	-	96	149	2.9
73	196	2.2	19.84	"	"	5800	-	88	162	2.6
66	215	2.0	22.02	"	"	6000	-	80	179	2.4
62	230	1.85	23.43	"	"	6200	-	75	191	2.2
56	255	1.65	26.01	"	"	6500	-	67	210	2.0
49.5	285	1.5	29.34	"	"	6800	-	60	235	1.8
44.5	320	1.35	32.57	"	"	7000	-	54	265	1.6
42.5	335	1.25	34.20	"	"	7000	-	51	280	1.5
38	375	1.15	37.96	"	"	7000	-	46	310	1.35
36	395	1.1	40.19	"	"	7000	-	43.5	325	1.3
32.5	440	0.97	44.62	"	"	7000	-	39	365	1.15
30	475	0.89	48.36	"	"	7000	-	36	395	1.1
27	530	0.8	53.69	"	"	7000	-	32.5	440	0.97
66	215	2.9	21.96	BG50-../DHE09XA4	59	8000	-	80	179	3.5
60	235	2.7	24.34	"	"	8700	-	72	198	3.2
49	290	2.2	29.62	"	"	8000	-	59	240	2.6
44	325	1.95	32.84	"	"	8700	-	53	270	2.3
38.5	370	1.7	37.89	"	"	10000	-	46	310	2.0
34.5	415	1.5	42.00	"	"	10000	-	41.5	345	1.85

P = 1.5 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
31	460	1.35	47.02	BG50-../DHE09XA4	"	10000	-	37.5	380	1.65
28	510	1.25	52.12	"	"	10000	-	33.5	425	1.5
24.5	580	1.1	59.42	"	"	10000	-	29.5	485	1.3
22	650	0.97	65.86	"	"	10000	-	26.5	540	1.15
20.5	690	0.91	71.97	BG50Z-../DHE09XA4	64	10000	-	24.5	580	1.1
18.5	770	0.82	79.78	"	"	10000	-	22	650	0.97
37.5	380	3.2	38.85	BG60-../DHE09XA4	90	16000	-	45	315	3.8
33.5	425	2.8	43.05	"	"	16000	-	40.5	350	3.4
29	490	2.4	50.31	"	"	16000	-	35	405	3.0
26	550	2.2	55.76	"	"	16000	-	31.5	450	2.7
24	590	2.0	60.90	"	"	16000	-	29	490	2.4
21.5	660	1.8	67.49	"	"	16000	-	26	550	2.2
19.5	730	1.65	75.71	BG60Z-../DHE09XA4	109	16000	-	23	620	1.95
16	890	1.35	91.09	"	"	16000	-	19.5	730	1.65
14.5	980	1.2	101.0	"	"	16000	-	17.5	810	1.5
12.5	1140	1.05	119.2	"	"	16000	-	15	950	1.25
11	1300	0.92	132.1	"	"	16000	-	13.5	1060	1.15
20	710	3.2	73.82	BG70Z-../DHE09XA4	149	20000	-	24	590	3.9
16.5	860	2.7	87.61	"	"	20000	-	20	710	3.2
15.5	920	2.5	95.74	"	"	20000	-	18.5	770	3.0
13	1100	2.1	113.6	"	"	20000	-	15.5	920	2.5
12	1190	1.95	124.0	"	"	20000	-	14.5	980	2.3
9.8	1460	1.6	147.2	"	"	20000	-	12	1190	1.95
8.8	1620	1.4	163.8	"	"	20000	-	11	1300	1.75
7.5	1910	1.2	194.4	"	"	20000	-	9.0	1590	1.45
6.9	2050	1.1	210.5	"	"	20000	-	8.3	1720	1.35
5.8	2450	0.94	249.8	"	"	20000	-	7.0	2000	1.15
5.7	2400	1.05	255.5	BG70G20-../DHE09XA4	146	20000	-	6.9	1960	1.3
5.3	2550	0.98	276.7	"	"	20000	-	6.3	2150	1.15
4.4	3100	0.81	328.4	"	"	20000	-	5.3	2550	0.98
10	1430	2.9	145.4	BG80Z-../DHE09XA4	217	26000	-	12	1190	3.5
9.0	1590	2.6	161.5	"	"	26000	-	11	1300	3.2
7.8	1830	2.3	186.8	"	"	26000	-	9.4	1520	2.8
7.0	2000	2.1	207.4	"	"	26000	-	8.4	1700	2.5
6.4	1950	2.4	227.2	BG80G40-../DHE09XA4	228	26000	-	7.7	1580	2.9
5.8	2150	2.1	252.3	"	"	26000	-	6.9	1760	2.6
5.1	2500	1.85	282.8	"	"	26000	-	6.2	2000	2.3
4.6	2750	1.65	314.0	"	"	26000	-	5.6	2200	2.1
4.0	3200	1.45	360.0	"	"	26000	-	4.9	2550	1.8
3.7	3450	1.35	399.8	"	"	26000	-	4.4	2850	1.6
3.4	3850	1.2	436.2	"	"	26000	-	4.0	3200	1.45
3.0	4350	1.05	484.3	"	"	26000	-	3.6	3600	1.3
2.6	5100	0.9	572.0	"	"	26000	-	3.1	4200	1.1
4.0	3050	3.0	360.3	BG90G50-../DHE09XA4	338	65000	-	4.9	2400	3.8
3.4	3800	2.4	435.8	"	"	65000	-	4.0	3150	2.9
2.9	4450	2.1	504.7	"	"	65000	-	3.5	3600	2.6
2.5	5100	1.8	588.8	"	"	65000	-	3.0	4200	2.2
2.3	5600	1.65	644.7	"	"	65000	-	2.7	4650	2.0
2.1	6100	1.5	714.2	"	"	65000	-	2.5	5000	1.85
1.7	7700	1.2	883.7	"	"	65000	-	2.0	6400	1.45
1.3	10300	0.89	1174	"	"	65000	-	1.5	8800	1.05
1.2	11200	0.82	1301	"	"	65000	-	1.4	9500	0.97
2.5	5700	3.2	591.1	BG100Z-../DHE09XA4	526	90000	-	3.0	4750	3.9
2.2	6500	2.8	658.1	"	"	90000	-	2.7	5300	3.5
1.9	7500	2.5	759.0	"	"	90000	-	2.3	6200	3.0
1.8	7900	2.3	845.1	"	"	90000	-	2.1	6800	2.7
1.5	7900	2.3	976.1	BG100G50-../DHE09XA4	525	90000	-	1.8	6300	2.9
1.4	8800	2.1	1043	"	"	90000	-	1.7	7000	2.6
1.2	10300	1.8	1204	"	"	90000	-	1.5	7900	2.3
1.0	12900	1.45	1444	"	"	90000	-	1.3	9600	1.95
0.9	14300	1.3	1678	"	"	90000	-	1.1	11400	1.6
0.8	16100	1.15	1867	"	"	90000	-	0.95	13200	1.4
0.7	18400	1.0	2154	"	"	90000	-	0.85	14700	1.25

P = 2.2 kW

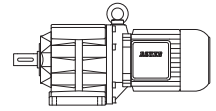


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
580	36	1.55	2.52	BG10-../DHE09XA4C	32	560	790	700	30	1.85
425	49	1.25	3.42	"	"	630	880	510	41	1.5
335	62	1.1	4.36	"	"	650	910	400	52	1.3
270	77	0.97	5.34	"	"	620	910	330	63	1.2
215	97	0.84	6.78	"	"	660	920	260	80	1.0
580	36	2.3	2.52	BG20-../DHE09XA4C	35	1660	-	700	30	2.8
435	48	1.9	3.33	"	"	1830	-	530	39.5	2.3
330	63	1.65	4.38	"	"	1990	-	400	52	2.0
265	79	1.45	5.49	"	"	2100	-	320	65	1.75
225	93	1.3	6.48	"	"	2250	-	270	77	1.6
180	116	1.2	8.02	"	"	2500	-	220	95	1.45
174	120	1.0	8.29	"	"	2250	-	210	100	1.2
162	129	1.1	8.91	"	"	2600	-	196	107	1.35
150	140	0.87	9.65	"	"	2250	-	181	116	1.05
137	153	1.0	10.54	"	"	2700	-	166	126	1.2
123	170	0.93	11.71	"	"	2800	-	149	141	1.1
110	191	0.87	13.21	"	"	2900	-	132	159	1.05
99	210	0.82	14.67	"	"	3050	-	119	176	0.98
540	38.5	3.3	2.67	BG30-../DHE09XA4C	39	1450	-	660	31.5	4.1
425	49	2.8	3.40	"	"	1580	-	520	40	3.5
345	60	2.9	4.21	"	"	1630	-	415	50	3.4
265	79	2.5	5.44	"	"	1670	-	320	65	3.1
215	97	2.2	6.75	"	"	1760	-	260	80	2.7
183	114	1.9	7.91	"	"	1760	-	220	95	2.3
168	125	1.95	8.60	"	"	2800	-	205	102	2.4
151	139	1.85	9.55	"	"	3000	-	183	114	2.2
136	154	1.75	10.65	"	"	2950	-	164	128	2.1
122	172	1.6	11.82	"	"	3200	-	148	141	1.95
105	200	1.45	13.77	"	"	3150	-	127	165	1.8
95	220	1.35	15.27	"	"	3450	-	114	184	1.65
85	245	1.2	17.06	"	"	3700	-	102	205	1.45
77	270	1.1	18.93	"	"	4100	-	92	225	1.35
73	285	1.05	19.99	"	"	4200	-	88	235	1.3
65	320	0.94	22.18	"	"	4600	-	79	265	1.15
57	365	0.82	25.45	"	"	4850	-	69	300	1.0
230	91	3.2	6.29	BG40-../DHE09XA4C	54	2600	-	280	75	3.9
189	111	2.7	7.62	"	"	2650	-	230	91	3.2
174	120	2.9	8.31	"	"	4100	-	210	100	3.4
157	133	2.7	9.23	"	"	4350	-	189	111	3.2
140	150	2.5	10.35	"	"	4350	-	169	124	3.0
126	166	2.3	11.49	"	"	4600	-	152	138	2.8
112	187	2.2	12.86	"	"	4500	-	136	154	2.7
101	205	2.1	14.28	"	"	4900	-	122	172	2.4
88	235	1.8	16.39	"	"	5300	-	107	196	2.2
80	260	1.65	18.19	"	"	5600	-	96	215	2.0
73	285	1.5	19.84	"	"	5800	-	88	235	1.8
66	315	1.35	22.02	"	"	6000	-	80	260	1.65
62	335	1.25	23.43	"	"	6200	-	75	280	1.5
56	375	1.15	26.01	"	"	6500	-	67	310	1.35
49.5	420	1.0	29.34	"	"	6800	-	60	350	1.2
44.5	470	0.9	32.57	"	"	7000	-	54	385	1.1
42.5	490	0.87	34.20	"	"	7000	-	51	410	1.05
120	175	3.3	12.06	BG50-../DHE09XA4C	62	5700	-	145	144	4.0
108	194	3.1	13.36	"	"	6100	-	131	160	3.7
88	235	2.7	16.53	"	"	6500	-	106	198	3.2
79	265	2.4	18.33	"	"	7200	-	95	220	2.9
66	315	2.0	21.96	"	"	8000	-	80	260	2.4
60	350	1.8	24.34	"	"	8700	-	72	290	2.2
49	425	1.5	29.62	"	"	8000	-	59	355	1.75
44	475	1.35	32.84	"	"	8700	-	53	395	1.6
38.5	540	1.15	37.89	"	"	10000	-	46	455	1.4
34.5	600	1.05	42.00	"	"	10000	-	41.5	500	1.25

BG-series helical-g geared motors

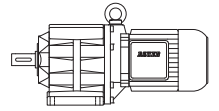
Selection helical-g geared motors DHE - IE2

P = 2.2 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
31	670	0.94	47.02	BG50-../DHE09XA4C	"	10000	-	37.5	560	1.15
28	750	0.84	52.12	"	"	10000	-	33.5	620	1.0
49.5	420	2.9	29.31	BG60-../DHE09XA4C	92	14800	-	60	350	3.4
44.5	470	2.6	32.48	"	"	15400	-	54	385	3.1
37.5	560	2.1	38.85	"	"	16000	-	45	465	2.6
33.5	620	1.95	43.05	"	"	16000	-	40.5	510	2.4
29	720	1.65	50.31	"	"	16000	-	35	600	2.0
26	800	1.5	55.76	"	"	16000	-	31.5	660	1.8
24	870	1.4	60.90	"	"	16000	-	29	720	1.65
21.5	970	1.25	67.49	"	"	16000	-	26	800	1.5
19.5	1070	1.1	75.71	BG60Z-../DHE09XA4C	112	16000	-	23	910	1.3
16	1310	0.92	91.09	"	"	16000	-	19.5	1070	1.1
14.5	1440	0.83	101.0	"	"	16000	-	17.5	1200	1.0
29	720	3.2	50.40	BG70-../DHE09XA4C	130	20000	-	35	600	3.8
24.5	850	2.7	59.82	"	"	20000	-	29.5	710	3.2
22.5	930	2.5	64.85	BG70Z-../DHE09XA4C	151	20000	-	27	770	3.0
20	1050	2.2	73.82	"	"	20000	-	24	870	2.6
16.5	1270	1.8	87.61	"	"	20000	-	20	1050	2.2
15.5	1350	1.7	95.74	"	"	20000	-	18.5	1130	2.0
13	1610	1.45	113.6	"	"	20000	-	15.5	1350	1.7
12	1750	1.3	124.0	"	"	20000	-	14.5	1440	1.6
9.8	2100	1.1	147.2	"	"	20000	-	12	1750	1.3
8.8	2350	0.98	163.8	"	"	20000	-	11	1910	1.2
7.5	2800	0.82	194.4	"	"	20000	-	9.0	2300	1.0
15.5	1350	3.1	93.89	BG80Z-../DHE09XA4C	219	26000	-	19	1100	3.8
13	1610	2.6	112.4	"	"	26000	-	15.5	1350	3.1
12	1750	2.4	124.8	"	"	26000	-	14	1500	2.8
10	2100	2.0	145.4	"	"	26000	-	12	1750	2.4
9.0	2300	1.85	161.5	"	"	26000	-	11	1910	2.2
7.8	2650	1.6	186.8	"	"	26000	-	9.4	2200	1.9
7.0	3000	1.4	207.4	"	"	26000	-	8.4	2500	1.7
6.4	3000	1.55	227.2	BG80G40-../DHE09XA4C	231	26000	-	7.7	2400	1.9
5.8	3300	1.4	252.3	"	"	26000	-	6.9	2700	1.7
5.1	3800	1.2	282.8	"	"	26000	-	6.2	3050	1.5
4.6	4200	1.1	314.0	"	"	26000	-	5.6	3400	1.35
4.0	4900	0.94	360.0	"	"	26000	-	4.9	3950	1.15
3.7	5300	0.87	399.8	"	"	26000	-	4.4	4350	1.05
8.1	2550	3.3	178.5	BG90Z-../DHE09XA4C	329	65000	-	9.8	2100	4.0
7.0	3000	2.8	208.3	"	"	65000	-	8.4	2500	3.4
6.4	3250	2.6	228.1	"	"	65000	-	7.7	2700	3.1
5.5	3350	2.7	262.5	BG90G50-../DHE09XA4C	340	65000	-	6.7	2700	3.4
4.9	4000	2.3	298.8	"	"	65000	-	5.9	3250	2.8
4.0	4750	1.95	360.3	"	"	65000	-	4.9	3800	2.4
3.4	5700	1.6	435.8	"	"	65000	-	4.0	4850	1.9
2.9	6700	1.35	504.7	"	"	65000	-	3.5	5500	1.65
2.5	7800	1.2	588.8	"	"	65000	-	3.0	6400	1.45
2.3	8500	1.1	644.7	"	"	65000	-	2.7	7100	1.3
2.1	9300	0.99	714.2	"	"	65000	-	2.5	7700	1.2
3.2	6500	2.8	456.7	BG100Z-../DHE09XA4C	528	90000	-	3.9	5300	3.5
2.9	7200	2.6	508.5	"	"	90000	-	3.5	6000	3.1
2.5	8400	2.2	591.1	"	"	90000	-	3.0	7000	2.6
2.2	9500	1.95	658.1	"	"	90000	-	2.7	7700	2.4
1.9	11000	1.7	759.0	"	"	90000	-	2.3	9100	2.0
1.8	11600	1.6	845.1	"	"	90000	-	2.1	10000	1.85
1.5	12400	1.5	976.1	BG100G50-../DHE09XA4C	527	90000	-	1.8	10000	1.85
1.4	13600	1.35	1043	"	"	90000	-	1.7	10900	1.7
1.2	15800	1.15	1204	"	"	90000	-	1.5	12300	1.5
1.0	19600	0.94	1444	"	"	90000	-	1.3	14700	1.25

P = 3 kW

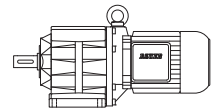


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
540	53	2.4	2.67	BG30-../DHE11MA4	46	1450	-	660	43	3.0
425	67	2.1	3.40	"	"	1580	-	520	55	2.5
345	83	2.1	4.21	"	"	1630	-	415	69	2.5
265	108	1.85	5.44	"	"	1670	-	320	89	2.2
215	133	1.65	6.75	"	"	1760	-	260	110	1.95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

BG-series helical-geared motors

Selection helical-geared motors DHE - IE2

P = 3 kW

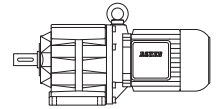


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
15.5	1840	1.25	95.74	BG70Z-../DHE11MA4	"	20000	-	18.5	1540	1.5
13	2200	1.05	113.6	"	"	20000	-	15.5	1840	1.25
12	2350	0.98	124.0	"	"	20000	-	14.5	1970	1.15
22	1300	3.2	66.40	BG80Z-../DHE11MA4	234	26000	-	26.5	1080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

P = 4 kW

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

P = 4 kW



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

BG-series helical-geared motors

Selection helical-geared motors DHE - IE2

P = 4 kW

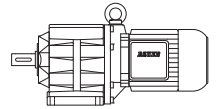


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
14	2700	3.1	105.7	BG90Z-../DHE11LA4	348	65000	-	16.5	2300	3.7
11.5	3300	2.5	127.1	"	"	65000	-	14	2700	3.1
10.5	3600	2.3	139.2	"	"	65000	-	12.5	3050	2.8
8.9	4250	2.0	163.0	"	"	65000	-	11	3450	2.4
8.1	4700	1.8	178.5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

P = 5.5 kW

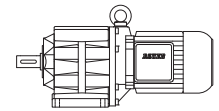
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
550	95	1.35	2.67	BG30-../DHE11LA4C	62	1450	-	660	79	1.6
430	122	1.15	3.40	"	"	1580	-	520	101	1.4
350	150	1.15	4.21	"	"	1630	-	420	125	1.35
270	194	1.05	5.44	"	"	1670	-	325	161	1.25
220	235	0.92	6.75	"	"	1760	-	265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

P = 5.5 kW



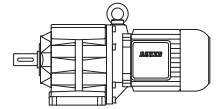
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
215	240	3.3	6.88	BG60-../DHE11LA4C	123	8600	-	260	200	3.9
160	325	2.7	9.13	"	"	9800	-	193	270	3.3
145	360	2.5	10.12	"	"	10200	-	174	300	3.0
121	430	2.3	12.16	"	"	10800	-	145	360	2.7
109	480	2.1	13.47	"	"	11200	-	131	400	2.6
87	600	1.85	16.80	"	"	12000	-	105	500	2.2
79	660	1.75	18.62	"	"	12400	-	95	550	2.1
66	790	1.5	22.40	"	"	13300	-	79	660	1.8
59	890	1.35	24.82	"	"	13800	-	71	730	1.65
50	1050	1.15	29.31	"	"	14800	-	61	860	1.4
45	1160	1.05	32.48	"	"	15400	-	55	950	1.25
38	1380	0.87	38.85	"	"	16000	-	45.5	1150	1.05
70	750	3.1	20.98	BG70-../DHE11LA4C	153	14600	-	84	620	3.7
64	820	2.8	22.92	"	"	15100	-	77	680	3.4
54	970	2.4	27.21	"	"	16400	-	65	800	2.9
49.5	1060	2.2	29.69	"	"	16900	-	60	870	2.6
41.5	1260	1.85	35.24	"	"	18300	-	50	1050	2.2
37.5	1400	1.65	39.22	"	"	19100	-	45	1160	2.0
31.5	1660	1.4	46.54	"	"	20000	-	38	1380	1.65
29	1810	1.25	50.40	"	"	20000	-	35	1500	1.55
24.5	2100	1.1	59.82	"	"	20000	-	29.5	1780	1.3
23	2250	1.0	64.85	BG70Z-../DHE11LA4C	180	20000	-	27.5	1910	1.2
20	2600	0.88	73.82	"	"	20000	-	24	2150	1.05
38.5	1360	3.1	38.00	BG80-../DHE11LA4C	208	21300	-	46.5	1120	3.8
33.5	1560	2.7	43.94	"	"	22600	-	40.5	1290	3.3
30	1750	2.4	48.80	"	"	23800	-	36.5	1430	2.9
26	2000	2.1	57.24	"	"	25400	-	31	1690	2.5
23	2250	1.85	63.56	"	"	26000	-	28	1870	2.2
22	2350	1.8	66.40	BG80Z-../DHE11LA4C	250	26000	-	27	1940	2.2
20	2600	1.6	73.73	"	"	26000	-	24	2150	1.95
17.5	3000	1.4	84.55	"	"	26000	-	21	2500	1.7
16	3250	1.3	93.89	"	"	26000	-	19	2750	1.55
13	4000	1.05	112.4	"	"	26000	-	16	3250	1.3
12	4350	0.97	124.8	"	"	26000	-	14.5	3600	1.15
10.5	5000	0.84	145.4	"	"	26000	-	12.5	4200	1.0
19.5	2650	3.2	76.61	BG90Z-../DHE11LA4C	352	65000	-	23	2250	3.7
17.5	3000	2.8	83.91	"	"	65000	-	21	2500	3.4
15.5	3350	2.5	96.53	"	"	65000	-	18.5	2800	3.0
14	3750	2.2	105.7	"	"	65000	-	17	3050	2.8
11.5	4550	1.85	127.1	"	"	65000	-	14	3750	2.2
10.5	5000	1.7	139.2	"	"	65000	-	13	4000	2.1
9.0	5800	1.45	163.0	"	"	65000	-	11	4750	1.75
8.2	6400	1.3	178.5	"	"	65000	-	9.9	5300	1.6
7.1	7300	1.15	208.3	"	"	65000	-	8.5	6100	1.4
6.5	8000	1.05	228.1	"	"	65000	-	7.8	6700	1.25
5.6	8900	1.05	262.5	BG90G50-../DHE11LA4C	369	65000	-	6.8	7200	1.3
4.9	10400	0.88	298.8	"	"	65000	-	5.9	8600	1.05
9.5	5500	3.1	154.8	BG100-../DHE11LA4C	469	90000	-	11.5	4550	3.7
8.2	6400	2.6	178.6	"	"	90000	-	9.9	5300	3.2
7.4	7000	2.4	198.8	"	"	90000	-	8.9	5900	2.8
6.3	8300	2.0	232.6	"	"	90000	-	7.6	6900	2.4
5.7	9200	1.85	259.0	"	"	90000	-	6.8	7700	2.2
5.5	9500	1.95	269.8	BG100Z-../DHE11LA4C	559	90000	-	6.6	7900	2.3
4.9	10700	1.75	300.4	"	"	90000	-	5.9	8900	2.1
4.3	12200	1.5	343.6	"	"	90000	-	5.2	10100	1.85
3.9	13400	1.4	382.6	"	"	90000	-	4.7	11100	1.65
3.2	16400	1.15	456.7	"	"	90000	-	3.9	13400	1.4
2.9	18100	1.0	508.5	"	"	90000	-	3.5	15000	1.25
2.5	21000	0.88	591.1	"	"	90000	-	3.0	17500	1.05
2.3	22800	0.81	658.1	"	"	90000	-	2.7	19400	0.95

P = 7.5 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
600	119	2.6	2.47	BG50-../DHE13LA4	101	2900	-	720	99	3.1
415	172	2.0	3.55	"	"	3300	-	500	143	2.4
300	235	1.7	4.91	"	"	3500	-	360	198	2.0
220	325	1.4	6.74	"	"	3750	-	265	270	1.65
168	425	1.2	8.70	"	"	5300	-	205	345	1.45
152	470	1.1	9.65	"	"	5600	-	183	390	1.35
122	580	0.99	12.06	"	"	5700	-	146	490	1.2
110	650	0.91	13.36	"	"	6100	-	132	540	1.1
295	240	2.9	4.98	BG60-../DHE13LA4	135	7800	-	355	200	3.4
215	330	2.4	6.88	"	"	8600	-	260	275	2.8
160	445	2.0	9.13	"	"	9800	-	193	370	2.4
145	490	1.85	10.12	"	"	10200	-	174	410	2.2
121	590	1.7	12.16	"	"	10800	-	145	490	2.0
109	650	1.55	13.47	"	"	11200	-	131	540	1.9
87	820	1.35	16.80	"	"	12000	-	105	680	1.65
79	900	1.25	18.62	"	"	12400	-	95	750	1.55
66	1080	1.1	22.40	"	"	13300	-	79	900	1.35
59	1210	0.99	24.82	"	"	13800	-	71	1000	1.2
50	1430	0.84	29.31	"	"	14800	-	61	1170	1.05
95	750	3.1	15.53	BG70-../DHE13LA4	165	12700	-	114	620	3.7
83	860	2.7	17.68	"	"	13400	-	100	710	3.2
70	1020	2.3	20.98	"	"	14600	-	84	850	2.7
64	1110	2.1	22.92	"	"	15100	-	77	930	2.5
54	1320	1.75	27.21	"	"	16400	-	65	1100	2.1
49.5	1440	1.6	29.69	"	"	16900	-	60	1190	1.95
41.5	1720	1.35	35.24	"	"	18300	-	50	1430	1.6
37.5	1910	1.2	39.22	"	"	19100	-	45	1590	1.45
31.5	2250	1.0	46.54	"	"	20000	-	38	1880	1.2
29	2450	0.94	50.40	"	"	20000	-	35	2000	1.15
56	1270	3.3	26.44	BG80-../DHE13LA4	219	17900	-	67	1060	4.0
50	1430	2.9	29.36	"	"	18900	-	60	1190	3.5
43	1660	2.5	34.22	"	"	20200	-	52	1370	3.1
38.5	1860	2.3	38.00	"	"	21300	-	46.5	1540	2.7
33.5	2100	2.0	43.94	"	"	22600	-	40.5	1760	2.4
30	2350	1.8	48.80	"	"	23800	-	36.5	1960	2.1
26	2750	1.55	57.24	"	"	25400	-	31	2300	1.85
23	3100	1.35	63.56	"	"	26000	-	28	2550	1.65
22	3250	1.3	66.40	BG80Z-../DHE13LA4	262	26000	-	27	2650	1.6
20	3550	1.2	73.73	"	"	26000	-	24	2950	1.4
17.5	4050	1.05	84.55	"	"	26000	-	21	3400	1.25
16	4450	0.94	93.89	"	"	26000	-	19	3750	1.1
27.5	2600	3.2	53.46	BG90-../DHE13LA4	308	65000	-	33	2150	3.9
26	2750	2.5	57.04	BG90Z-../DHE13LA4	364	65000	-	31	2300	3.0
23.5	3000	2.5	62.47	"	"	65000	-	28.5	2500	3.0
19.5	3650	2.3	76.61	"	"	65000	-	23	3100	2.7
17.5	4050	2.1	83.91	"	"	65000	-	21	3400	2.5
15.5	4600	1.85	96.53	"	"	65000	-	18.5	3850	2.2
14	5100	1.65	105.7	"	"	65000	-	17	4200	2.0
11.5	6200	1.35	127.1	"	"	65000	-	14	5100	1.65
10.5	6800	1.25	139.2	"	"	65000	-	13	5500	1.55
9.0	7900	1.05	163.0	"	"	65000	-	11	6500	1.3
8.2	8700	0.97	178.5	"	"	65000	-	9.9	7200	1.15
7.1	10000	0.84	208.3	"	"	65000	-	8.5	8400	1.0
6.7	10300	0.89	219.9	BG90G50-../DHE13LA4	380	65000	-	8.1	8500	1.1
14	5100	3.3	107.5	BG100-../DHE13LA4	480	90000	-	16.5	4300	3.9
12.5	5700	2.9	119.7	"	"	90000	-	15	4750	3.5
10.5	6800	2.5	139.1	"	"	90000	-	13	5500	3.1
9.5	7500	2.2	154.8	"	"	90000	-	11.5	6200	2.7
8.2	8700	1.95	178.6	"	"	90000	-	9.9	7200	2.3
7.4	9600	1.75	198.8	"	"	90000	-	8.9	8000	2.1

P = 7.5 kW

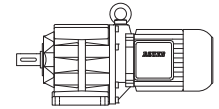


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
6.3	11300	1.5	232.6	BG100-../DHE13LA4	"	90000	-	7.6	9400	1.8
5.7	12500	1.35	259.0	"	"	90000	-	6.8	10500	1.6
5.5	13000	1.4	269.8	BG100Z-../DHE13LA4	571	90000	-	6.6	10800	1.7
4.9	14600	1.25	300.4	"	"	90000	-	5.9	12100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

P = 9.5 kW

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

P = 9.5 kW

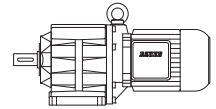


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
19.5	4650	1.8	76.61	BG90Z-../DHE16MA4	"	65000	-	23.5	3850	2.2
18	5000	1.7	83.91	"	"	65000	-	21.5	4200	2.0
15.5	5800	1.45	96.53	"	"	65000	-	18.5	4900	1.7
14	6400	1.3	105.7	"	"	65000	-	17	5300	1.6
12	7500	1.1	127.1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

P = 11 kW

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

P = 11 kW

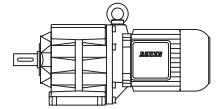


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
22.5	4650	0.9	66.40	BG80Z-../DHE16LA4	320	26000	-	27	3850	1.1
20	5200	0.81	73.73	"	"	26000	-	24.5	4250	0.99
38.5	2700	3.1	38.21	BG90-../DHE16LA4	367	65000	-	46.5	2250	3.7
35.5	2950	2.8	41.85	"	"	65000	-	42.5	2450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

P = 15 kW

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

P = 15 kW

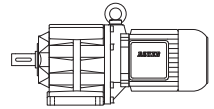


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
56	2550	1.65	26.44	BG80-../DHE16XA4	"	17900	-	67	2100	2.0
51	2800	1.5	29.36	"	"	18900	-	61	2300	1.85
43	3300	1.25	34.22	"	"	20200	-	52	2750	1.55
39	3650	1.15	38.00	"	"	21300	-	47	3000	1.4
33.5	4250	0.99	43.94	"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

P = 18.5 kW

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

P = 18.5 kW

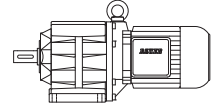


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
56	3150	1.35	26.44	BG80-../DHE18LA4	"	17900	-	67	2600	1.6
51	3450	1.2	29.36	"	"	18900	-	61	2850	1.45
43	4100	1.0	34.22	"	"	20200	-	52	3350	1.25
39	4500	0.93	38.00	"	"	21300	-	47	3750	1.1
33.5	5200	0.81	43.94	"	"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

P = 22 kW

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

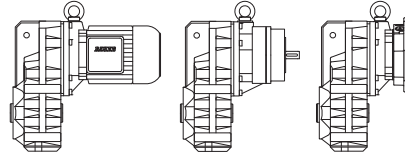
P = 22 kW



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

آتور صنعت
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Page

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

165-238

Description of shaft mounted-gearred units

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

آتور صنعت
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Sizes

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

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

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

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

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

See Bauer special imprint SD32 for more information.

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

Factor f_1 for shock classification and operating time

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

Switching duty

Factor f_2 for shock classification and switching frequency

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

Shock classification	$1 < Z \leq 100$	$100 < Z \leq 1000$	$1000 < Z$
I	0,95	1,1	1,15
II	1,2	1,35	1,4
III	1,55	1,6	1,6

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

Shock classification	$1 < Z \leq 100$	$100 < Z \leq 1000$	$1000 < Z$
I	1,3	1,45	1,5
II	1,5	1,6	1,65
III	1,75	1,8	1,8

Bauer service factor

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

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

Explanation of shock classification

Shock classification I:

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

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

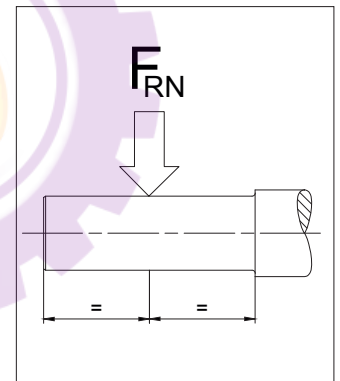
Key to abbreviations

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 $f_B=1,0$.

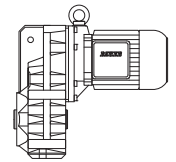
Motor power overload protection

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 DSE -IE1

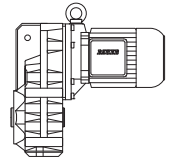
P = 0.03 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
9.0	31.5	7.6	151.2	BF10Z-../D04LA4	21	6400	-	11	26	9.2
8.2	34.5	7.0	166.2	"	"	6400	-	9.8	29	8.3
7.5	38	6.3	180.1	"	"	6400	-	9.0	31.5	7.6
6.9	41.5	5.8	198.0	"	"	6400	-	8.2	34.5	7.0
6.3	45	5.3	214.5	"	"	6400	-	7.6	37.5	6.4
5.8	49	4.9	235.8	"	"	6400	-	6.9	41.5	5.8
5.3	54	4.4	257.4	"	"	6400	-	6.3	45	5.3
4.8	59	4.1	283.1	"	"	6400	-	5.8	49	4.9
4.2	68	3.5	324.3	"	"	6400	-	5.0	57	4.2
3.8	75	3.2	356.6	"	"	6400	-	4.6	62	3.9
3.6	79	3.0	380.2	"	"	6400	-	4.3	66	3.6
3.3	86	2.8	418.0	"	"	6400	-	3.9	73	3.3
2.9	98	2.4	469.5	"	"	6400	-	3.5	81	3.0
2.6	110	2.2	539.1	"	"	6400	-	3.1	92	2.6
2.3	124	1.95	592.8	"	"	6400	-	2.8	102	2.4
1.8	97	2.7	768.2	BF10G06-../D04LA4	25	6400	-	2.2	68	3.8
1.6	110	2.4	845.1	"	"	6400	-	2.0	75	3.5
1.4	130	2.0	994.0	"	"	6400	-	1.7	94	2.8
1.2	159	1.65	1190	"	"	6400	-	1.4	125	2.1
0.95	210	1.25	1452	"	"	6400	-	1.2	150	1.75
0.8	260*	1.0	1744	"	"	6400	-	0.95	260	1.0
0.65	260*	1.0	2096	"	"	6400	-	0.8	260	1.0
0.55	260*	1.0	2467	"	"	6400	-	0.7	260	1.0
0.46	260*	1.0	2952	"	"	6400	-	0.55	260	1.0
0.42	260*	1.0	3220	"	"	6400	-	0.55	260	1.0
0.35	260*	1.0	3942	"	"	6400	-	0.42	260	1.0
0.3	260*	1.0	4569	"	"	6400	-	0.36	260	1.0
0.24	260*	1.0	5709	"	"	6400	-	0.29	260	1.0
0.21	260*	1.0	6550	"	"	6400	-	0.25	260	1.0
0.19	260*	1.0	7144	"	"	6400	-	0.23	260	1.0
0.16	260*	1.0	8681	"	"	6400	-	0.19	260	1.0
0.15	260*	1.0	9471	"	"	6400	-	0.18	260	1.0
1.2	162	2.8	1140	BF20G06-../D04LA4	31	7900	-	1.5	114	4.0
1.0	200	2.3	1392	"	"	7900	-	1.2	154	3.0
0.9	230	2.0	1533	"	"	7900	-	1.1	173	2.7
0.8	265	1.75	1764	"	"	7900	-	0.95	210	2.2
0.65	345	1.35	2192	"	"	7900	-	0.75	285	1.6
0.55	410	1.1	2579	"	"	7900	-	0.65	330	1.4
0.48	460*	1.0	2829	"	"	7900	-	0.6	460	1.0
0.44	460*	1.0	3086	"	"	7900	-	0.55	460	1.0
0.36	460*	1.0	3778	"	"	7900	-	0.43	460	1.0
0.31	460*	1.0	4379	"	"	7900	-	0.37	460	1.0
0.25	460*	1.0	5471	"	"	7900	-	0.3	460	1.0
0.2	460*	1.0	6847	"	"	7900	-	0.24	460	1.0
0.17	460*	1.0	8320	"	"	7900	-	0.2	460	1.0
0.15	460*	1.0	9077	"	"	7900	-	0.18	460	1.0
1.0	200	3.2	1404	BF30G06-../D04LA4	41	7400	-	1.2	153	4.1
0.85	245	2.6	1686	"	"	7400	-	1.0	196	3.2
0.7	315	2.0	2026	"	"	7400	-	0.8	260	2.4
0.6	370	1.7	2386	"	"	7400	-	0.7	305	2.1
0.48	485	1.3	2854	"	"	7400	-	0.6	365	1.75
0.39	610	1.05	3493	"	"	7400	-	0.47	485	1.3
0.36	630*	1.0	3811	"	"	7400	-	0.43	630	1.0
0.31	630*	1.0	4417	"	"	7400	-	0.37	630	1.0
0.27	630*	1.0	5060	"	"	7400	-	0.33	630	1.0
0.22	630*	1.0	6333	"	"	7400	-	0.26	630	1.0
0.19	630*	1.0	7206	"	"	7400	-	0.23	630	1.0
0.18	630*	1.0	7861	"	"	7400	-	0.21	630	1.0
0.15	630*	1.0	9157	"	"	7400	-	0.18	630	1.0

7

P = 0.04 kW



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

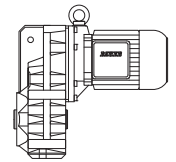
P = 0.06 kW

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

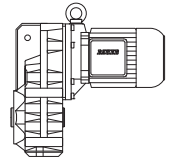
P = 0.06 kW



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

7

P = 0.09 kW

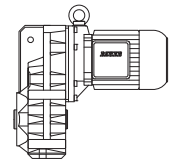


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
34	25	9.6	39.75	BF10-../D06LA4	23	3950	-	41	20.5	12
31.5	27	8.9	43.06	"	"	4100	-	38	22.5	11
29	29.5	8.1	47.35	"	"	4250	-	34.5	24.5	9.8
26.5	32	7.5	51.28	"	"	4400	-	32	26.5	9.1
24	35.5	6.8	56.39	"	"	4550	-	29	29.5	8.1
22	39	6.2	61.55	"	"	4700	-	26.5	32	7.5
20	42.5	5.6	67.69	"	"	4900	-	24	35.5	6.8
17.5	49	4.9	77.55	"	"	5100	-	21	40.5	5.9
16	53	4.5	85.27	"	"	5300	-	19	45	5.3
15	57	4.2	90.91	"	"	5400	-	18	47.5	5.1
14	61	3.9	99.97	"	"	5600	-	16.5	52	4.6
12.5	68	3.5	112.3	"	"	5900	-	14.5	59	4.1
11	78	3.1	123.5	"	"	6100	-	13.5	63	3.8
10.5	81	3.0	128.9	"	"	6200	-	13	66	3.6
9.6	89	2.7	141.8	"	"	6400	-	11.5	74	3.2
9.0	95	2.5	151.2	BF10Z-../D06LA4	24	6400	-	11	78	3.1
8.2	104	2.3	166.2	"	"	6400	-	9.8	87	2.8
7.5	114	2.1	180.1	"	"	6400	-	9.0	95	2.5
6.9	124	1.95	198.0	"	"	6400	-	8.2	104	2.3
6.3	136	1.75	214.5	"	"	6400	-	7.6	113	2.1
5.8	148	1.6	235.8	"	"	6400	-	6.9	124	1.95
5.3	162	1.5	257.4	"	"	6400	-	6.3	136	1.75
4.8	179	1.35	283.1	"	"	6400	-	5.8	148	1.6
4.2	200	1.2	324.3	"	"	6400	-	5.0	171	1.4
3.8	225	1.05	356.6	"	"	6400	-	4.6	186	1.3
3.6	235	1.0	380.2	"	"	6400	-	4.3	199	1.2
3.3	260	0.92	418.0	"	"	6400	-	3.9	220	1.1
2.9	295	0.81	469.5	"	"	6400	-	3.5	245	0.98
2.6	270	0.96	536.0	BF10G06-../D06LA4	28	6400	-	3.1	220	1.2
6.3	136	3.1	216.9	BF20Z-../D06LA4	31	7900	-	7.5	114	3.7
5.8	148	2.8	235.9	"	"	7900	-	6.9	124	3.4
5.3	162	2.6	259.6	"	"	7900	-	6.3	136	3.1
4.6	186	2.3	295.5	"	"	7900	-	5.5	156	2.7
4.2	200	2.1	325.2	"	"	7900	-	5.0	171	2.5
4.0	210	2.0	339.1	"	"	7900	-	4.8	179	2.3
3.7	230	1.85	373.1	"	"	7900	-	4.4	195	2.2
3.3	260	1.6	418.1	"	"	7900	-	3.9	220	1.9
3.0	285	1.45	460.0	"	"	7900	-	3.6	235	1.8
2.7	260	1.75	513.7	BF20G06-../D06LA4	34	7900	-	3.2	210	2.2
2.2	330	1.4	617.0	"	"	7900	-	2.7	255	1.8
1.9	390	1.2	736.1	"	"	7900	-	2.3	310	1.5
1.7	440	1.05	810.0	"	"	7900	-	2.0	360	1.3
1.5	500	0.92	952.7	"	"	7900	-	1.8	405	1.15
4.7	182	3.2	289.8	BF30Z-../D06LA4	42	7400	-	5.6	153	3.8
4.4	195	2.9	310.7	"	"	7400	-	5.3	162	3.5
4.0	210	2.7	341.8	"	"	7400	-	4.8	179	3.2
3.6	235	2.4	375.1	"	"	7400	-	4.4	195	2.9
3.3	260	2.2	412.6	"	"	7400	-	4.0	210	2.7
3.0	285	2.0	463.3	"	"	7400	-	3.5	245	2.3
2.6	330	1.75	537.0	"	"	7400	-	3.1	275	2.1
2.3	370	1.55	590.7	"	"	7400	-	2.8	305	1.9
2.2	330	1.9	622.4	BF30G06-../D06LA4	45	7400	-	2.7	255	2.5
2.0	370	1.7	705.1	"	"	7400	-	2.3	315	2.0
1.7	435	1.45	817.1	"	"	7400	-	2.0	360	1.75
1.5	500	1.25	961.1	"	"	7400	-	1.7	430	1.45
1.2	630	1.0	1150	"	"	7400	-	1.5	495	1.25
1.1	690	0.91	1286	"	"	7400	-	1.3	570	1.1
1.0	770	0.82	1404	"	"	7400	-	1.2	630	1.0

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 0.09 kW

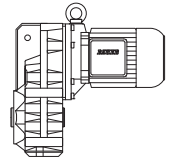


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
3.0	285	3.2	459.1	BF40Z-../D06LA4	53	10600	-	3.6	235	3.8
2.7	315	2.9	514.6	"	"	10600	-	3.2	265	3.4
2.4	355	2.5	566.1	"	"	10600	-	2.9	295	3.1
1.5	350	2.9	928.9	BF40G10-../D06LA4	58	10600	-	1.8	255	3.9
1.3	420	2.4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

P = 0.12 kW

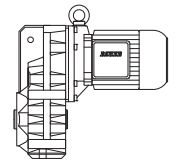
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
47.5	24	10	28.47	BF10-../D06LA4	23	3450	-	57	20	12
43.5	26	9.2	31.31	"	"	3600	-	52	22	11
37.5	30.5	7.9	36.15	"	"	3800	-	45	25	9.6
34	33.5	7.2	39.75	"	"	3950	-	41	27.5	8.7
31.5	36	6.7	43.06	"	"	4100	-	38	30	8.0
29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

P = 0.12 kW



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

P = 0.12 kW



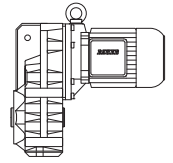
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
0.95	820	3.0	1494	BF60G20-../D06LA4	134	15300	43300	1.1	660	3.8
0.85	920	2.7	1658	"	"	15300	43300	1.0	720	3.5
0.7	1190	2.1	1955	"	"	15300	43300	0.85	900	2.8
0.65	1300	1.9	2172	"	"	15300	43300	0.75	1060	2.4
0.49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

7

P = 0.18 kW

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

P = 0.18 kW

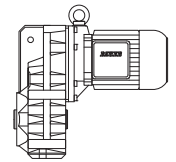


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
7.5	225	1.85	180.8	BF20Z-../D06LA4	"	7900	-	9.0	191	2.2
6.9	245	1.7	197.1	"	"	7900	-	8.3	205	2.0
6.3	270	1.55	216.9	"	"	7900	-	7.5	225	1.85
5.8	295	1.4	235.9	"	"	7900	-	6.9	245	1.7
5.3	320	1.3	259.6	"	"	7900	-	6.3	270	1.55
4.6	370	1.15	295.5	"	"	7900	-	5.5	310	1.35
4.2	405	1.05	325.2	"	"	7900	-	5.0	340	1.25
4.0	425	0.99	339.1	"	"	7900	-	4.8	355	1.2
3.7	460	0.91	373.1	"	"	7900	-	4.4	390	1.1
3.3	520	0.81	418.1	"	"	7900	-	3.9	440	0.95
9.9	173	3.3	137.1	BF30-../D06LA4	40	7400	-	12	143	4.0
9.0	191	3.0	150.7	BF30Z-../D06LA4	42	7400	-	11	156	3.7
8.2	205	2.8	165.8	"	"	7400	-	9.8	175	3.3
7.7	220	2.6	176.6	"	"	7400	-	9.2	186	3.1
7.0	245	2.3	194.3	"	"	7400	-	8.4	200	2.9
6.1	280	2.1	224.8	"	"	7400	-	7.3	235	2.4
5.5	310	1.85	247.3	"	"	7400	-	6.6	260	2.2
5.2	330	1.75	263.5	"	"	7400	-	6.2	275	2.1
4.7	365	1.6	289.8	"	"	7400	-	5.6	305	1.9
4.4	390	1.45	310.7	"	"	7400	-	5.3	320	1.8
4.0	425	1.35	341.8	"	"	7400	-	4.8	355	1.6
3.6	475	1.2	375.1	"	"	7400	-	4.4	390	1.45
3.3	520	1.1	412.6	"	"	7400	-	4.0	425	1.35
3.0	570	1.0	463.3	"	"	7400	-	3.5	490	1.15
2.6	660	0.87	537.0	"	"	7400	-	3.1	550	1.05
2.2	720	0.88	622.4	BF30G06-../D06LA4	45	7400	-	2.7	570	1.1
6.1	280	3.2	222.4	BF40Z-../D06LA4	53	10600	-	7.3	235	3.8
5.4	315	2.9	253.2	"	"	10600	-	6.4	265	3.4
4.9	350	2.6	278.5	"	"	10600	-	5.9	290	3.1
4.6	370	2.4	295.1	"	"	10600	-	5.5	310	2.9
4.2	405	2.2	324.7	"	"	10600	-	5.0	340	2.6
3.9	440	2.0	346.8	"	"	10600	-	4.7	365	2.5
3.6	475	1.9	381.5	"	"	10600	-	4.3	395	2.3
3.3	520	1.75	417.3	"	"	10600	-	3.9	440	2.0
3.0	570	1.6	459.1	"	"	10600	-	3.6	475	1.9
2.7	630	1.45	514.6	"	"	10600	-	3.2	530	1.7
2.4	710	1.25	566.1	"	"	10600	-	2.9	590	1.55
2.3	560	1.8	597.3	BF40G10-../D06LA4	58	10600	-	2.8	425	2.4
1.9	690	1.45	731.6	"	"	10600	-	2.3	540	1.85
1.5	920	1.1	928.9	"	"	10600	-	1.8	730	1.35
1.3	1080	0.93	1106	"	"	10600	-	1.5	900	1.1
4.3	395	3.3	316.6	BF50Z-../D06LA4	82	13600	-	5.2	330	3.9
3.9	440	3.0	354.0	"	"	13600	-	4.6	370	3.5
3.5	490	2.7	392.8	"	"	13600	-	4.2	405	3.2
3.1	550	2.4	439.3	"	"	13600	-	3.7	460	2.8
2.8	610	2.1	496.4	"	"	13600	-	3.3	520	2.5
2.5	680	1.9	555.2	"	"	13600	-	3.0	570	2.3
2.0	660	2.1	680.9	BF50G10-../D06LA4	86	13600	-	2.4	520	2.7
1.6	860	1.65	864.5	"	"	13600	-	1.9	690	2.0
1.4	1000	1.4	1029	"	"	13600	-	1.6	840	1.65
1.2	1220	1.15	1203	"	"	13600	-	1.4	1010	1.4
1.0	1470	0.95	1359	"	"	13600	-	1.2	1190	1.2
1.5	870	2.9	937.6	BF60G20-../D06LA4	134	15300	43300	1.8	670	3.7
1.2	1120	2.2	1211	"	"	15300	43300	1.4	920	2.7
0.95	1430	1.75	1494	"	"	15300	43300	1.1	1180	2.1
0.85	1600	1.55	1658	"	"	15300	43300	1.0	1290	1.95
0.7	2000	1.25	1955	"	"	15300	43300	0.85	1570	1.6
0.65	2150	1.15	2172	"	"	15300	43300	0.75	1830	1.35

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 0.18 kW



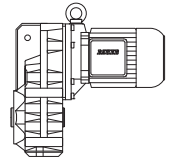
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
0.75	1850	3.1	1912	BF70G20-../D06LA4	212	16100	47700	0.85	1580	3.6
0.6	2350	2.4	2448	"	"	16100	47700	0.7	1970	2.9
0.48	3050	1.85	2849	"	"	16100	47700	0.6	2350	2.4
0.4	3800	1.5	3417	"	"	16100	47700	0.48	3050	1.85
0.34	4550	1.25	4090	"	"	16100	47700	0.4	3800	1.5
0.3	5200	1.1	4542	"	"	16100	47700	0.36	4250	1.35

P = 0.25kW

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

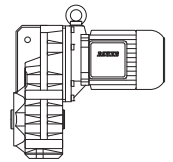
7

P = 0.25 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
13	183	3.1	107.6	BF30-../D06LA4	40	6700	-	15.5	154	3.7
11.5	205	2.8	118.3	"	"	7000	-	14	170	3.4
11	215	2.7	124.7	"	"	7100	-	13	183	3.1
9.9	240	2.4	137.1	"	"	7400	-	12	198	2.9
9.0	265	2.2	150.7	BF30Z-../D06LA4	42	7400	-	11	215	2.7
8.2	290	2.0	165.8	"	"	7400	-	9.8	240	2.4
7.7	310	1.85	176.6	"	"	7400	-	9.2	255	2.3
7.0	340	1.7	194.3	"	"	7400	-	8.4	280	2.1
6.1	390	1.45	224.8	"	"	7400	-	7.3	325	1.75
5.5	430	1.35	247.3	"	"	7400	-	6.6	360	1.6
5.2	455	1.25	263.5	"	"	7400	-	6.2	385	1.5
4.7	500	1.15	289.8	"	"	7400	-	5.6	425	1.35
4.4	540	1.05	310.7	"	"	7400	-	5.3	450	1.3
4.0	590	0.97	341.8	"	"	7400	-	4.8	495	1.15
3.6	660	0.87	375.1	"	"	7400	-	4.4	540	1.05
3.3	720	0.8	412.6	"	"	7400	-	4.0	590	0.97
8.7	270	3.3	155.6	BF40Z-../D06LA4	53	10600	-	10.5	225	4.0
7.9	300	3.0	171.2	"	"	10600	-	9.5	250	3.6
7.2	330	2.7	188.3	"	"	10600	-	8.7	270	3.3
6.7	355	2.5	202.2	"	"	10600	-	8.1	290	3.1
6.1	390	2.3	222.4	"	"	10600	-	7.3	325	2.8
5.4	440	2.0	253.2	"	"	10600	-	6.4	370	2.4
4.9	485	1.85	278.5	"	"	10600	-	5.9	400	2.3
4.6	510	1.75	295.1	"	"	10600	-	5.5	430	2.1
4.2	560	1.6	324.7	"	"	10600	-	5.0	475	1.9
3.9	610	1.5	346.8	"	"	10600	-	4.7	500	1.8
3.6	660	1.35	381.5	"	"	10600	-	4.3	550	1.65
3.3	720	1.25	417.3	"	"	10600	-	3.9	610	1.5
3.0	790	1.15	459.1	"	"	10600	-	3.6	660	1.35
2.7	880	1.0	514.6	"	"	10600	-	3.2	740	1.2
2.4	990	0.91	566.1	"	"	10600	-	2.9	820	1.1
2.3	850	1.2	597.3	BF40G10-../D06LA4	58	10600	-	2.8	660	1.5
1.9	1050	0.95	731.6	"	"	10600	-	2.3	830	1.2
5.5	430	3.0	247.5	BF50Z-../D06LA4	82	13600	-	6.6	360	3.6
4.9	485	2.7	276.8	"	"	13600	-	5.9	400	3.3
4.3	550	2.4	316.6	"	"	13600	-	5.2	455	2.9
3.9	610	2.1	354.0	"	"	13600	-	4.6	510	2.5
3.5	680	1.9	392.8	"	"	13600	-	4.2	560	2.3
3.1	770	1.7	439.3	"	"	13600	-	3.7	640	2.0
2.8	850	1.55	496.4	"	"	13600	-	3.3	720	1.8
2.5	950	1.35	555.2	"	"	13600	-	3.0	790	1.65
2.0	1000	1.4	680.9	BF50G10-../D06LA4	86	13600	-	2.4	800	1.75
1.6	1280	1.1	864.5	"	"	13600	-	1.9	1050	1.35
1.4	1480	0.95	1029	"	"	13600	-	1.6	1260	1.1
2.4	750	3.3	569.3	BF60G20-../D06LA4	134	15300	43300	2.9	580	4.3
2.0	900	2.8	689.0	"	"	15300	43300	2.4	700	3.6
1.7	1090	2.3	813.2	"	"	15300	43300	2.0	880	2.8
1.5	1310	1.9	937.6	"	"	15300	43300	1.8	1050	2.4
1.2	1680	1.5	1211	"	"	15300	43300	1.4	1390	1.8
0.95	2100	1.2	1494	"	"	15300	43300	1.1	1790	1.4
0.85	2350	1.05	1658	"	"	15300	43300	1.0	1960	1.3
1.0	2000	2.9	1390	BF70G20-../D06LA4	212	16100	47700	1.2	1630	3.5
0.85	2350	2.4	1621	"	"	16100	47700	1.0	1970	2.9
0.75	2700	2.1	1912	"	"	16100	47700	0.85	2350	2.4
0.6	3500	1.65	2448	"	"	16100	47700	0.7	2900	1.95
0.48	4450	1.3	2849	"	"	16100	47700	0.6	3450	1.65
0.4	5400	1.05	3417	"	"	16100	47700	0.48	4450	1.3

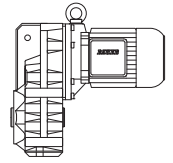
P = 0.3 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
177	16.1	4.2	7.66	BF06-../D07LA4	14	1800	-	215	13.3	5.1
147	19.4	3.6	9.21	"	"	1900	-	176	16.2	4.3
112	25.5	2.9	12.07	"	"	2000	-	135	21	3.6
96	29.5	2.9	14.21	"	"	2100	-	115	24.5	3.5
80	35.5	2.7	16.99	"	"	2500	-	96	29.5	3.2
67	42.5	2.2	20.42	"	"	2700	-	80	35.5	2.7
51	56	1.7	26.76	"	"	3000	-	61	46.5	2.0
43	66	1.45	31.50	"	"	3200	-	52	55	1.75
36	79	1.2	37.69	"	"	3500	-	43	66	1.45
29.5	97	0.98	46.14	"	"	3800	-	35.5	80	1.2
37.5	76	3.2	36.15	BF10-../D07LA4	26	3800	-	45	63	3.8
34	84	2.9	39.75	"	"	3950	-	41	69	3.5
31.5	90	2.7	43.06	"	"	4100	-	38	75	3.2
29	98	2.4	47.35	"	"	4250	-	34.5	83	2.9
26.5	108	2.2	51.28	"	"	4400	-	32	89	2.7
24	119	2.0	56.39	"	"	4550	-	29	98	2.4
22	130	1.85	61.55	"	"	4700	-	26.5	108	2.2
20	143	1.7	67.69	"	"	4900	-	24	119	2.0
17.5	163	1.45	77.55	"	"	5100	-	21	136	1.75
16	179	1.35	85.27	"	"	5300	-	19	150	1.6
15	191	1.25	90.91	"	"	5400	-	18	159	1.5
14	200	1.2	99.97	"	"	5600	-	16.5	173	1.4
12.5	225	1.05	112.3	"	"	5900	-	14.5	197	1.2
11	260	0.92	123.5	"	"	6100	-	13.5	210	1.15
10.5	270	0.89	128.9	"	"	6200	-	13	220	1.1
9.6	295	0.81	141.8	"	"	6400	-	11.5	245	0.98
21.5	133	3.2	64.08	BF20-../D07LA4	32	5900	-	25.5	112	3.8
19.5	146	2.9	69.70	"	"	6100	-	23.5	121	3.5
18	159	2.6	76.69	"	"	6300	-	21.5	133	3.2
15.5	184	2.3	87.31	"	"	6600	-	19	150	2.8
14.5	197	2.1	96.08	"	"	6900	-	17	168	2.5
13.5	210	2.0	100.2	"	"	7000	-	16.5	173	2.4
12.5	225	1.85	110.2	"	"	7300	-	15	191	2.2
11	260	1.6	123.5	"	"	7600	-	13.5	210	2.0
10	285	1.45	135.9	"	"	7900	-	12	235	1.8
9.6	295	1.4	141.2	BF20Z-../D07LA4	34	7900	-	11.5	245	1.7
8.7	325	1.3	155.4	"	"	7900	-	10.5	270	1.55
8.3	345	1.2	164.3	"	"	7900	-	9.9	285	1.45
7.5	380	1.1	180.8	"	"	7900	-	9.0	315	1.35
6.9	415	1.0	197.1	"	"	7900	-	8.3	345	1.2
6.3	450	0.93	216.9	"	"	7900	-	7.5	380	1.1
5.8	490	0.86	235.9	"	"	7900	-	6.9	415	1.0
16	179	3.2	87.08	BF30-../D07LA4	42	6200	-	19	150	3.8
14.5	197	2.9	95.79	"	"	6400	-	17	168	3.4
13	220	2.6	107.6	"	"	6700	-	15.5	184	3.1
11.5	245	2.3	118.3	"	"	7000	-	14	200	2.9
11	260	2.2	124.7	"	"	7100	-	13	220	2.6
9.9	285	2.0	137.1	"	"	7400	-	12	235	2.4
9.0	315	1.85	150.7	BF30Z-../D07LA4	45	7400	-	11	260	2.2
8.2	345	1.65	165.8	"	"	7400	-	9.8	290	2.0
7.7	370	1.55	176.6	"	"	7400	-	9.2	310	1.85
7.0	405	1.4	194.3	"	"	7400	-	8.4	340	1.7
6.1	465	1.25	224.8	"	"	7400	-	7.3	390	1.45
5.5	520	1.1	247.3	"	"	7400	-	6.6	430	1.35
5.2	550	1.05	263.5	"	"	7400	-	6.2	460	1.25
4.7	600	0.96	289.8	"	"	7400	-	5.6	510	1.15
4.4	650	0.88	310.7	"	"	7400	-	5.3	540	1.05
4.0	710	0.81	341.8	"	"	7400	-	4.8	590	0.97

7

P = 0.3 kW



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

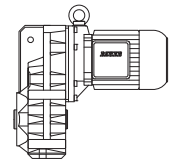
P = 0.37 kW

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

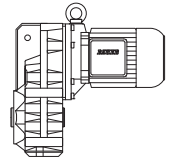
P = 0.37 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
31.5	112	2.1	43.06	BF10-../D07LA4	"	4100	-	38	92	2.6
29	121	2.0	47.35	"	"	4250	-	34.5	102	2.4
26.5	133	1.8	51.28	"	"	4400	-	32	110	2.2
24	147	1.65	56.39	"	"	4550	-	29	121	2.0
22	160	1.5	61.55	"	"	4700	-	26.5	133	1.8
20	176	1.35	67.69	"	"	4900	-	24	147	1.65
17.5	200	1.2	77.55	"	"	5100	-	21	168	1.45
16	220	1.1	85.27	"	"	5300	-	19	185	1.3
15	235	1.0	90.91	"	"	5400	-	18	196	1.2
14	250	0.96	99.97	"	"	5600	-	16.5	210	1.15
12.5	280	0.86	112.3	"	"	5900	-	14.5	240	1.0
28	126	3.3	48.56	BF20-../D07LA4	32	5200	-	33.5	105	4.0
25.5	138	3.0	53.43	"	"	5500	-	30.5	115	3.7
23.5	150	2.8	58.24	"	"	5600	-	28	126	3.3
21.5	164	2.6	64.08	"	"	5900	-	25.5	138	3.0
19.5	181	2.3	69.70	"	"	6100	-	23.5	150	2.8
18	196	2.1	76.69	"	"	6300	-	21.5	164	2.6
15.5	225	1.85	87.31	"	"	6600	-	19	185	2.3
14.5	240	1.75	96.08	"	"	6900	-	17	205	2.0
13.5	260	1.6	100.2	"	"	7000	-	16.5	210	2.0
12.5	280	1.5	110.2	"	"	7300	-	15	235	1.8
11	320	1.3	123.5	"	"	7600	-	13.5	260	1.6
10	350	1.2	135.9	"	"	7900	-	12	290	1.45
9.6	365	1.15	141.2	BF20Z-../D07LA4	34	7900	-	11.5	305	1.4
8.7	405	1.05	155.4	"	"	7900	-	10.5	335	1.25
8.3	425	0.99	164.3	"	"	7900	-	9.9	355	1.2
7.5	470	0.89	180.8	"	"	7900	-	9.0	390	1.1
6.9	510	0.82	197.1	"	"	7900	-	8.3	425	0.99
20.5	172	3.3	67.28	BF30-../D07LA4	42	5500	-	24.5	144	4.0
19	185	3.1	72.13	"	"	5700	-	22.5	157	3.7
17.5	200	2.9	79.34	"	"	5900	-	20.5	172	3.3
16	220	2.6	87.08	"	"	6200	-	19	185	3.1
14.5	240	2.4	95.79	"	"	6400	-	17	205	2.8
13	270	2.1	107.6	"	"	6700	-	15.5	225	2.6
11.5	305	1.9	118.3	"	"	7000	-	14	250	2.3
11	320	1.8	124.7	"	"	7100	-	13	270	2.1
9.9	355	1.6	137.1	"	"	7400	-	12	290	2.0
9.0	390	1.45	150.7	BF30Z-../D07LA4	45	7400	-	11	320	1.8
8.2	430	1.35	165.8	"	"	7400	-	9.8	360	1.6
7.7	455	1.25	176.6	"	"	7400	-	9.2	380	1.5
7.0	500	1.15	194.3	"	"	7400	-	8.4	420	1.35
6.1	570	1.0	224.8	"	"	7400	-	7.3	480	1.2
5.5	640	0.9	247.3	"	"	7400	-	6.6	530	1.1
5.2	670	0.86	263.5	"	"	7400	-	6.2	560	1.05
9.6	365	2.5	141.4	BF40Z-../D07LA4	55	10600	-	11.5	305	3.0
8.7	405	2.2	155.6	"	"	10600	-	10.5	335	2.7
7.9	445	2.0	171.2	"	"	10600	-	9.5	370	2.4
7.2	490	1.85	188.3	"	"	10600	-	8.7	405	2.2
6.7	520	1.75	202.2	"	"	10600	-	8.1	435	2.1
6.1	570	1.6	222.4	"	"	10600	-	7.3	480	1.9
5.4	650	1.4	253.2	"	"	10600	-	6.4	550	1.65
4.9	720	1.25	278.5	"	"	10600	-	5.9	590	1.55
4.6	760	1.2	295.1	"	"	10600	-	5.5	640	1.4
4.2	840	1.05	324.7	"	"	10600	-	5.0	700	1.3
3.9	900	1.0	346.8	"	"	10600	-	4.7	750	1.2
3.6	980	0.92	381.5	"	"	10600	-	4.3	820	1.1
3.3	1070	0.84	417.3	"	"	10600	-	3.9	900	1.0

7

P = 0.37 kW



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

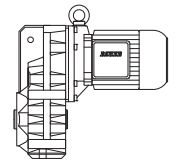
P = 0.55 kW

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

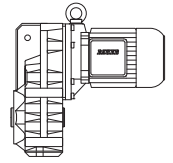
P = 0.55 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
26.5	198	2.1	53.43	BF20-../D08MA4	"	5500	-	31.5	166	2.5
24.5	210	2.0	58.24	"	"	5600	-	29	181	2.3
22	235	1.8	64.08	"	"	5900	-	26.5	198	2.1
20.5	255	1.65	69.70	"	"	6100	-	24.5	210	2.0
18.5	280	1.5	76.69	"	"	6300	-	22	235	1.8
16.5	315	1.35	87.31	"	"	6600	-	19.5	265	1.6
15	350	1.2	96.08	"	"	6900	-	17.5	300	1.4
14	375	1.1	100.2	"	"	7000	-	17	305	1.4
13	400	1.05	110.2	"	"	7300	-	15.5	335	1.25
11.5	455	0.92	123.5	"	"	7600	-	14	375	1.1
10.5	500	0.84	135.9	"	"	7900	-	12.5	420	1.0
10	520	0.81	141.2	BF20Z-../D08MA4	35	7900	-	12	435	0.97
27	194	3.0	52.20	BF30-../D08MA4	43	5000	-	32.5	161	3.6
24.5	210	2.7	57.41	"	"	5200	-	29.5	178	3.2
23	225	2.6	61.17	"	"	5300	-	27.5	191	3.0
21	250	2.3	67.28	"	"	5500	-	25	210	2.7
19.5	265	2.2	72.13	"	"	5700	-	23.5	220	2.6
18	290	2.0	79.34	"	"	5900	-	21.5	240	2.4
16.5	315	1.85	87.08	"	"	6200	-	19.5	265	2.2
15	350	1.65	95.79	"	"	6400	-	18	290	2.0
13.5	385	1.5	107.6	"	"	6700	-	16	325	1.75
12	435	1.3	118.3	"	"	7000	-	14.5	360	1.6
11.5	455	1.25	124.7	"	"	7100	-	13.5	385	1.5
10.5	500	1.15	137.1	"	"	7400	-	12.5	420	1.35
9.3	560	1.05	150.7	BF30Z-../D08MA4	46	7400	-	11.5	455	1.25
8.5	610	0.94	165.8	"	"	7400	-	10.5	500	1.15
8.0	650	0.88	176.6	"	"	7400	-	9.6	540	1.05
7.3	710	0.81	194.3	"	"	7400	-	8.7	600	0.96
18	290	3.1	78.55	BF40-../D08MA4	53	8500	-	21.5	240	3.8
17	305	3.0	83.91	"	"	8700	-	20.5	255	3.5
15.5	335	2.7	92.31	"	"	9100	-	18.5	280	3.2
14	375	2.4	101.0	"	"	9400	-	17	305	3.0
13	400	2.3	111.1	"	"	9800	-	15.5	335	2.7
11.5	455	2.0	124.5	"	"	10200	-	13.5	385	2.3
10.5	500	1.8	137.0	"	"	10600	-	12.5	420	2.1
10	520	1.75	141.4	BF40Z-../D08MA4	56	10600	-	12	435	2.1
9.0	580	1.55	155.6	"	"	10600	-	11	475	1.9
8.2	640	1.4	171.2	"	"	10600	-	9.9	530	1.7
7.5	700	1.3	188.3	"	"	10600	-	9.0	580	1.55
7.0	750	1.2	202.2	"	"	10600	-	8.4	620	1.45
6.3	830	1.1	222.4	"	"	10600	-	7.6	690	1.3
5.6	930	0.97	253.2	"	"	10600	-	6.7	780	1.15
5.1	1020	0.88	278.5	"	"	10600	-	6.1	860	1.05
4.8	1090	0.83	295.1	"	"	10600	-	5.7	920	0.98
12.5	420	3.1	114.0	BF50-../D08MA4	81	12900	-	15	350	3.7
11	475	2.7	127.5	"	"	13600	-	13.5	385	3.4
10.5	500	2.6	138.1	BF50Z-../D08MA4	86	13600	-	12.5	420	3.1
9.1	570	2.3	154.5	"	"	13600	-	11	475	2.7
7.7	680	1.9	183.5	"	"	13600	-	9.2	570	2.3
6.9	760	1.7	205.2	"	"	13600	-	8.2	640	2.0
5.7	920	1.4	247.5	"	"	13600	-	6.8	770	1.7
5.1	1020	1.25	276.8	"	"	13600	-	6.1	860	1.5
4.5	1160	1.1	316.6	"	"	13600	-	5.4	970	1.35
4.0	1310	0.99	354.0	"	"	13600	-	4.8	1090	1.2
3.6	1450	0.9	392.8	"	"	13600	-	4.3	1220	1.05
7.5	700	3.3	187.7	BF60Z-../D08MA4	130	15300	43300	9.0	580	4.0
6.4	820	2.8	221.4	"	"	15300	43300	7.6	690	3.3
5.8	900	2.6	245.6	"	"	15300	43300	6.9	760	3.0
4.8	1090	2.1	293.4	"	"	15300	43300	5.8	900	2.6

7

P = 0.55 kW



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

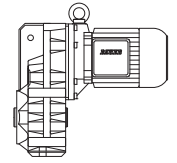
P = 0.75 kW

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

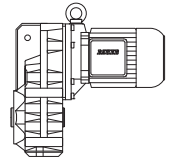
P = 0.75 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
30	235	1.0	47.35	BF10-../DSE08LA4	"	4250	-	35.5	200	1.2
27.5	260	0.92	51.28	"	"	4400	-	33	215	1.1
25	285	0.84	56.39	"	"	4550	-	30	235	1.0
58	123	3.3	24.25	BF20-../DSE08LA4	35	3950	-	70	102	4.0
51	140	3.0	27.62	"	"	4150	-	61	117	3.6
46.5	154	2.7	30.40	"	"	4400	-	56	127	3.3
43	166	2.5	32.58	"	"	4450	-	52	137	3.1
39.5	181	2.3	35.85	"	"	4650	-	47	152	2.8
34	210	2.0	41.72	"	"	4950	-	40.5	176	2.4
31	230	1.85	45.90	"	"	5100	-	37	193	2.2
29	245	1.7	48.56	"	"	5200	-	35	200	2.1
26.5	270	1.55	53.43	"	"	5500	-	31.5	225	1.85
24.5	290	1.45	58.24	"	"	5600	-	29	245	1.7
22	325	1.3	64.08	"	"	5900	-	26.5	270	1.55
20.5	345	1.2	69.70	"	"	6100	-	24.5	290	1.45
18.5	385	1.1	76.69	"	"	6300	-	22	325	1.3
16.5	430	0.98	87.31	"	"	6600	-	19.5	365	1.15
15	475	0.88	96.08	"	"	6900	-	17.5	405	1.05
14	510	0.82	100.2	"	"	7000	-	17	420	1.0
40	179	3.2	35.00	BF30-../DSE08LA4	45	4200	-	48	149	3.9
36.5	196	2.9	38.49	"	"	4400	-	44	162	3.5
34.5	205	2.8	41.01	"	"	4500	-	41	174	3.3
31.5	225	2.6	45.10	"	"	4700	-	37.5	191	3.0
27	265	2.2	52.20	"	"	5000	-	32.5	220	2.6
24.5	290	2.0	57.41	"	"	5200	-	29.5	240	2.4
23	310	1.85	61.17	"	"	5300	-	27.5	260	2.2
21	340	1.7	67.28	"	"	5500	-	25	285	2.0
19.5	365	1.6	72.13	"	"	5700	-	23.5	300	1.9
18	395	1.45	79.34	"	"	5900	-	21.5	330	1.75
16.5	430	1.35	87.08	"	"	6200	-	19.5	365	1.6
15	475	1.2	95.79	"	"	6400	-	18	395	1.45
13.5	530	1.1	107.6	"	"	6700	-	16	445	1.3
12	590	0.97	118.3	"	"	7000	-	14.5	490	1.15
11.5	620	0.93	124.7	"	"	7100	-	13.5	530	1.1
10.5	680	0.85	137.1	"	"	7400	-	12.5	570	1.0
26.5	270	3.3	53.82	BF40-../DSE08LA4	54	7200	-	31.5	225	4.0
23	310	2.9	61.25	"	"	7600	-	27.5	260	3.5
21	340	2.6	67.38	"	"	8000	-	25	285	3.2
20	355	2.5	71.40	"	"	8100	-	24	295	3.1
18	395	2.3	78.55	"	"	8500	-	21.5	330	2.7
17	420	2.1	83.91	"	"	8700	-	20.5	345	2.6
15.5	460	1.95	92.31	"	"	9100	-	18.5	385	2.3
14	510	1.75	101.0	"	"	9400	-	17	420	2.1
13	550	1.65	111.1	"	"	9800	-	15.5	460	1.95
11.5	620	1.45	124.5	"	"	10200	-	13.5	530	1.7
10.5	680	1.3	137.0	"	"	10600	-	12.5	570	1.6
10	710	1.25	141.4	BF40Z-../DSE08LA4	58	10600	-	12	590	1.55
9.0	790	1.15	155.6	"	"	10600	-	11	650	1.4
8.2	870	1.05	171.2	"	"	10600	-	9.9	720	1.25
7.5	950	0.95	188.3	"	"	10600	-	9.0	790	1.15
7.0	1020	0.88	202.2	"	"	10600	-	8.4	850	1.05
6.3	1130	0.8	222.4	"	"	10600	-	7.6	940	0.96
17.5	405	3.2	81.33	BF50-../DSE08LA4	83	11300	-	21	340	3.8
16	445	2.9	90.24	"	"	11800	-	19	375	3.5
14	510	2.5	100.9	"	"	12300	-	17	420	3.1
12.5	570	2.3	114.0	"	"	12900	-	15	475	2.7
11	650	2.0	127.5	"	"	13600	-	13.5	530	2.5

7

P = 0.75 kW

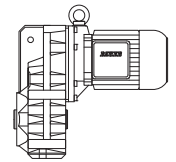


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
10.5	680	1.9	138.1	BF50Z-../DSE08LA4	88	13600	-	12.5	570	2.3
9.1	780	1.65	154.5	"	"	13600	-	11	650	2.0
7.7	930	1.4	183.5	"	"	13600	-	9.2	770	1.7
6.9	1030	1.25	205.2	"	"	13600	-	8.2	870	1.5
5.7	1250	1.05	247.5	"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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

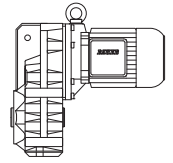
P = 1.1 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
245	42.5	1.45	5.72	BF06-../DSE08XA4	18	1630	-	295	35.5	1.75
183	57	1.2	7.66	"	"	1800	-	220	47.5	1.45
153	68	1.05	9.21	"	"	1900	-	183	57	1.25
116	90	0.83	12.07	"	"	2000	-	140	75	1.0
99	106	0.8	14.21	"	"	2100	-	119	88	0.97
250	42	3.3	5.60	BF10-../DSE08XA4	30	1980	-	300	35	3.9
185	56	2.7	7.58	"	"	2200	-	225	46.5	3.3
145	72	2.5	9.69	"	"	2350	-	174	60	3.0
119	88	2.1	11.84	"	"	2500	-	142	73	2.5
94	111	1.65	15.04	"	"	2800	-	112	93	1.95
77	136	1.75	18.23	"	"	2900	-	93	112	2.1
70	150	1.6	20.05	"	"	3000	-	84	125	1.9
61	172	1.4	23.28	"	"	3200	-	73	143	1.7
55	191	1.25	25.60	"	"	3350	-	66	159	1.5
49.5	210	1.15	28.47	"	"	3450	-	60	175	1.35
45	230	1.05	31.31	"	"	3600	-	54	194	1.25
39	265	0.91	36.15	"	"	3800	-	46.5	225	1.05
35.5	295	0.81	39.75	"	"	3950	-	42.5	245	0.98
134	78	3.3	10.51	BF20-../DSE08XA4	36	3100	-	160	65	3.9
107	98	2.9	13.18	"	"	3300	-	128	82	3.5
91	115	2.7	15.54	"	"	3450	-	109	96	3.2
84	125	2.9	16.77	"	"	3500	-	101	104	3.5
76	138	2.7	18.45	"	"	3600	-	92	114	3.2
64	164	2.4	22.04	"	"	3800	-	77	136	2.9
58	181	2.2	24.25	"	"	3950	-	70	150	2.7
51	205	2.0	27.62	"	"	4150	-	61	172	2.4
46.5	225	1.85	30.40	"	"	4400	-	56	187	2.2
43	240	1.75	32.58	"	"	4450	-	52	200	2.1
39.5	265	1.6	35.85	"	"	4650	-	47	220	1.9
34	305	1.4	41.72	"	"	4950	-	40.5	255	1.65
31	335	1.25	45.90	"	"	5100	-	37	280	1.5
29	360	1.15	48.56	"	"	5200	-	35	300	1.4
26.5	395	1.05	53.43	"	"	5500	-	31.5	330	1.25
24.5	425	0.99	58.24	"	"	5600	-	29	360	1.15
22	475	0.88	64.08	"	"	5900	-	26.5	395	1.05
20.5	510	0.82	69.70	"	"	6100	-	24.5	425	0.99
65	161	3.3	21.85	BF30-../DSE08XA4	46	3500	-	77	136	3.9
59	178	3.1	24.03	"	"	3600	-	70	150	3.7
50	210	2.7	28.23	"	"	3800	-	60	175	3.3
45.5	230	2.5	31.05	"	"	4000	-	55	191	3.0
40	260	2.2	35.00	"	"	4200	-	48	215	2.7
36.5	285	2.0	38.49	"	"	4400	-	44	235	2.4
34.5	300	1.9	41.01	"	"	4500	-	41	255	2.3
31.5	330	1.75	45.10	"	"	4700	-	37.5	280	2.1
27	385	1.5	52.20	"	"	5000	-	32.5	320	1.8
24.5	425	1.35	57.41	"	"	5200	-	29.5	355	1.6
23	455	1.25	61.17	"	"	5300	-	27.5	380	1.5
21	500	1.15	67.28	"	"	5500	-	25	420	1.35
19.5	530	1.1	72.13	"	"	5700	-	23.5	445	1.3
18	580	0.99	79.34	"	"	5900	-	21.5	485	1.2
16.5	630	0.91	87.08	"	"	6200	-	19.5	530	1.1
15	700	0.82	95.79	"	"	6400	-	18	580	0.99
37.5	280	3.2	37.64	BF40-../DSE08XA4	55	6200	-	45	230	3.9
34	305	3.0	41.42	"	"	6500	-	41	255	3.5
31	335	2.7	45.56	"	"	6800	-	37	280	3.2
29	360	2.5	48.92	"	"	7000	-	34.5	300	3.0
26.5	395	2.3	53.82	"	"	7200	-	31.5	330	2.7
23	455	2.0	61.25	"	"	7600	-	27.5	380	2.4
21	500	1.8	67.38	"	"	8000	-	25	420	2.1

7

P = 1.1 kW

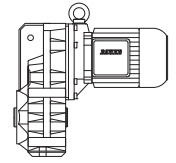


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
20	520	1.75	71.40	BF40-../DSE08XA4	"	8100	-	24	435	2.1
18	580	1.55	78.55	"	"	8500	-	21.5	485	1.85
17	610	1.5	83.91	"	"	8700	-	20.5	510	1.75
15.5	670	1.35	92.31	"	"	9100	-	18.5	560	1.6
14	750	1.2	101.0	"	"	9400	-	17	610	1.5
13	800	1.15	111.1	"	"	9800	-	15.5	670	1.35
11.5	910	0.99	124.5	"	"	10200	-	13.5	770	1.15
10.5	1000	0.9	137.0	"	"	10600	-	12.5	840	1.05
10	1050	0.86	141.4	BF40Z-../DSE08XA4	59	10600	-	12	870	1.05
25	420	3.1	56.86	BF50-../DSE08XA4	84	9300	-	30	350	3.7
22.5	465	2.8	63.59	"	"	9800	-	26.5	395	3.3
19.5	530	2.5	72.72	"	"	10700	-	23.5	445	2.9
17.5	600	2.2	81.33	"	"	11300	-	21	500	2.6
16	650	2.0	90.24	"	"	11800	-	19	550	2.4
14	750	1.75	100.9	"	"	12300	-	17	610	2.1
12.5	840	1.55	114.0	"	"	12900	-	15	700	1.85
11	950	1.35	127.5	"	"	13600	-	13.5	770	1.7
10.5	1000	1.3	138.1	BF50Z-../DSE08XA4	88	13600	-	12.5	840	1.55
9.1	1150	1.15	154.5	"	"	13600	-	11	950	1.35
7.7	1360	0.96	183.5	"	"	13600	-	9.2	1140	1.15
6.9	1520	0.86	205.2	"	"	13600	-	8.2	1280	1.0
10	1050	2.2	140.8	BF60Z-../DSE08XA4	132	15300	43300	12	870	2.6
8.3	1260	1.85	169.2	"	"	15300	43300	10	1050	2.2
7.5	1400	1.65	187.7	"	"	15300	43300	9.0	1160	2.0
6.4	1640	1.4	221.4	"	"	15300	43300	7.6	1380	1.65
5.8	1810	1.25	245.6	"	"	15300	43300	6.9	1520	1.5
4.8	2150	1.05	293.4	"	"	15300	43300	5.8	1810	1.25
4.3	2400	0.96	325.6	"	"	15300	43300	5.2	2000	1.15
3.7	2800	0.82	380.0	"	"	15300	43300	4.5	2300	1.0
6.1	1720	3.0	233.0	BF70Z-../DSE08XA4	220	16100	47700	7.3	1430	3.6
5.5	1910	2.7	258.7	"	"	16100	47700	6.5	1610	3.2
4.7	2200	2.4	301.8	"	"	16100	47700	5.6	1870	2.8
4.1	2550	2.0	341.7	"	"	16100	47700	5.0	2100	2.5
3.6	2900	1.8	398.7	"	"	16100	47700	4.3	2400	2.2
3.2	3250	1.6	439.2	"	"	16100	47700	3.9	2650	1.95
2.8	3750	1.4	512.4	"	"	16100	47700	3.3	3150	1.65
2.7	3650	1.55	524.1	BF70G20-../DSE08XA4	218	16100	47700	3.3	2950	1.95
2.5	3950	1.45	577.5	"	"	16100	47700	3.0	3250	1.75
2.1	4700	1.2	673.6	"	"	16100	47700	2.5	3900	1.45
1.7	5900	0.97	872.1	"	"	16100	47700	2.0	4950	1.15
3.2	3250	3.2	450.4	BF80Z-../DSE08XA4	337	39600	75000	3.8	2750	3.8
2.8	3750	2.8	511.2	"	"	39600	75000	3.3	3150	3.3
2.4	4350	2.4	583.4	"	"	39600	75000	2.9	3600	2.9
2.2	4750	2.2	662.1	"	"	39600	75000	2.6	4000	2.6
1.9	5500	1.9	770.6	"	"	39600	75000	2.2	4750	2.2
1.7	6100	1.7	874.6	"	"	39600	75000	2.0	5200	2.0
1.5	7000	1.5	990.4	"	"	39600	75000	1.7	6100	1.7
1.3	8000	1.3	1124	"	"	39600	75000	1.5	7000	1.5
1.1	8100	1.3	1329	BF80G40-../DSE08XA4	342	39600	75000	1.3	6600	1.6
0.95	9600	1.1	1491	"	"	39600	75000	1.2	7300	1.45
1.4	6100	3.0	1043	BF90G50-../DSE08XA4	613	42800	120000	1.7	4750	3.9
1.2	7100	2.6	1204	"	"	42800	120000	1.4	5800	3.2
1.0	9100	2.0	1444	"	"	42800	120000	1.2	7300	2.5
0.85	10700	1.75	1678	"	"	42800	120000	1.1	7900	2.3
0.75	12200	1.5	1867	"	"	42800	120000	0.9	9800	1.9
0.65	14100	1.3	2154	"	"	42800	120000	0.8	11000	1.7
0.55	16700	1.1	2656	"	"	42800	120000	0.65	13700	1.35

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

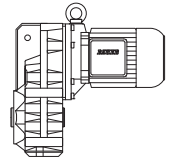
P = 1.5 kW



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

7

P = 1.5 kW

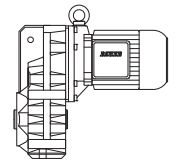


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
34	420	3.1	42.15	BF50-../DSE09LA4	90	8500	-	41	345	3.8
30.5	465	2.8	47.14	"	"	8900	-	36.5	390	3.3
25	570	2.3	56.86	"	"	9300	-	30.5	465	2.8
22.5	630	2.1	63.59	"	"	9800	-	27	530	2.5
20	710	1.85	72.72	"	"	10700	-	24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

BF-series shaft-mounted geared motors

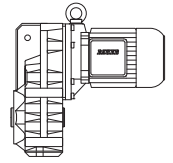
Selection - shaft-mounted geared motors DSE -IE1

P = 2.2 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
255	82	1.7	5.60	BF10-../DSE09XA4	40	1980	-	310	67	2.1
188	111	1.4	7.58	"	"	2200	-	230	91	1.7
147	142	1.25	9.69	"	"	2350	-	177	118	1.5
120	175	1.05	11.84	"	"	2500	-	145	144	1.25
95	220	0.83	15.04	"	"	2800	-	114	184	0.99
78	265	0.91	18.23	"	"	2900	-	94	220	1.1
71	295	0.81	20.05	"	"	3000	-	86	240	1.0
240	87	2.3	6.04	BF20-../DSE09XA4	46	2550	-	285	73	2.7
178	118	1.85	8.00	"	"	2850	-	215	97	2.3
136	154	1.65	10.51	"	"	3100	-	163	128	2.0
108	194	1.45	13.18	"	"	3300	-	130	161	1.75
92	225	1.35	15.54	"	"	3450	-	111	189	1.65
85	245	1.5	16.77	"	"	3500	-	102	205	1.75
77	270	1.35	18.45	"	"	3600	-	93	225	1.65
65	320	1.25	22.04	"	"	3800	-	78	265	1.5
59	355	1.15	24.25	"	"	3950	-	71	295	1.35
52	400	1.05	27.62	"	"	4150	-	62	335	1.25
47	445	0.94	30.40	"	"	4400	-	57	365	1.15
44	475	0.88	32.58	"	"	4450	-	53	395	1.05
40	520	0.81	35.85	"	"	4650	-	48	435	0.97
225	93	2.8	6.34	BF30-../DSE09XA4	57	2400	-	270	77	3.4
176	119	2.4	8.07	"	"	2650	-	215	97	2.9
143	146	2.2	9.99	"	"	2850	-	172	122	2.6
110	191	1.9	12.91	"	"	3050	-	133	157	2.3
89	235	1.75	16.00	"	"	3250	-	107	196	2.1
81	255	1.9	17.65	"	"	3300	-	97	215	2.2
74	280	1.8	19.41	"	"	3400	-	89	235	2.1
65	320	1.65	21.85	"	"	3500	-	79	265	2.0
60	350	1.6	24.03	"	"	3600	-	72	290	1.9
51	410	1.4	28.23	"	"	3800	-	61	340	1.7
46	455	1.25	31.05	"	"	4000	-	56	375	1.55
41	510	1.15	35.00	"	"	4200	-	49	425	1.35
37	560	1.05	38.49	"	"	4400	-	44.5	470	1.2
35	600	0.96	41.01	"	"	4500	-	42	500	1.15
31.5	660	0.87	45.10	"	"	4700	-	38	550	1.05
187	112	3.3	7.62	BF40-../DSE09XA4	66	3900	-	225	93	4.0
150	140	3.0	9.48	"	"	4150	-	181	116	3.6
121	173	2.7	11.79	"	"	4450	-	146	143	3.3
95	220	2.4	15.02	"	"	4800	-	114	184	2.8
82	255	2.5	17.35	"	"	4950	-	99	210	3.0
75	280	2.4	19.09	"	"	5100	-	90	230	2.9
66	315	2.2	21.60	"	"	5200	-	80	260	2.7
60	350	2.1	23.77	"	"	5400	-	72	290	2.5
53	395	1.95	26.86	"	"	5600	-	64	325	2.4
48.5	430	1.9	29.55	"	"	5800	-	58	360	2.2
42	500	1.7	34.21	"	"	6000	-	50	420	2.0
38	550	1.6	37.64	"	"	6200	-	45.5	460	1.95
34.5	600	1.5	41.42	"	"	6500	-	41.5	500	1.8
31.5	660	1.35	45.56	"	"	6800	-	38	550	1.65
29.5	710	1.25	48.92	"	"	7000	-	35	600	1.5
26.5	790	1.15	53.82	"	"	7200	-	32	650	1.4
23.5	890	1.0	61.25	"	"	7600	-	28	750	1.2
21.5	970	0.93	67.38	"	"	8000	-	25.5	820	1.1
20	1050	0.86	71.40	"	"	8100	-	24	870	1.05
18.5	1130	0.8	78.55	"	"	8500	-	22	950	0.95

P = 2.2 kW

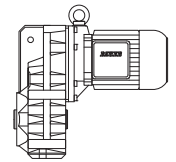


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
62	335	3.3	23.14	BF50-../DSE09XA4	94	6800	-	74	280	4.0
55	380	3.1	25.88	"	"	7100	-	67	310	3.8
45	465	2.7	31.73	"	"	7500	-	54	385	3.3
40.5	510	2.5	35.49	"	"	7800	-	48.5	430	3.0
34	610	2.1	42.15	"	"	8500	-	41	510	2.5
30.5	680	1.9	47.14	"	"	8900	-	36.5	570	2.3
25	840	1.55	56.86	"	"	9300	-	30.5	680	1.9
22.5	930	1.4	63.59	"	"	9800	-	27	770	1.7
20	1050	1.25	72.72	"	"	10700	-	24	870	1.5
17.5	1200	1.1	81.33	"	"	11300	-	21.5	970	1.35
16	1310	0.99	90.24	"	"	11800	-	19	1100	1.2
14.5	1440	0.9	100.9	"	"	12300	-	17	1230	1.05
31	670	3.3	46.16	BF60-../DSE09XA4	124	9900	28000	37.5	560	4.0
26.5	790	2.9	54.44	"	"	10500	29700	31.5	660	3.5
24	870	2.6	60.40	"	"	11100	31400	28.5	730	3.2
20	1050	2.2	72.15	"	"	12000	34000	24	870	2.6
18	1160	2.0	80.05	"	"	12600	35600	21.5	970	2.4
15.5	1350	1.7	93.44	"	"	13500	38200	18.5	1130	2.0
14	1500	1.55	103.7	"	"	14100	39900	16.5	1270	1.8
13	1610	1.45	113.1	"	"	14600	41300	15.5	1350	1.7
11.5	1820	1.25	125.5	"	"	15300	43300	14	1500	1.55
10.5	2000	1.15	140.8	BF60Z-../DSE09XA4	143	15300	43300	12.5	1680	1.35
8.4	2500	0.92	169.2	"	"	15300	43300	10.5	2000	1.15
7.6	2750	0.84	187.7	"	"	15300	43300	9.2	2250	1.0
12	1750	3.0	122.7	BF70-../DSE09XA4	210	16100	47700	14	1500	3.5
11	1910	2.7	133.0	BF70Z-../DSE09XA4	231	16100	47700	13	1610	3.2
9.3	2250	2.3	154.0	"	"	16100	47700	11.5	1820	2.9
8.0	2600	2.0	179.7	"	"	16100	47700	9.6	2150	2.4
7.2	2900	1.8	199.7	"	"	16100	47700	8.6	2400	2.2
6.1	3400	1.55	233.0	"	"	16100	47700	7.4	2800	1.85
5.5	3800	1.35	258.7	"	"	16100	47700	6.7	3100	1.7
4.8	4350	1.2	301.8	"	"	16100	47700	5.7	3650	1.4
4.2	5000	1.05	341.7	"	"	16100	47700	5.1	4100	1.25
3.6	5800	0.9	398.7	"	"	16100	47700	4.3	4850	1.05
3.3	6300	0.83	439.2	"	"	16100	47700	3.9	5300	0.98
6.8	3050	3.1	209.4	BF80-../DSE09XA4	307	34300	75000	8.2	2550	3.7
6.0	3500	2.7	237.1	"	"	36900	75000	7.3	2850	3.3
5.3	3950	2.4	269.1	"	"	39600	75000	6.4	3250	2.9
4.9	4250	2.5	291.7	BF80Z-../DSE09XA4	348	39600	75000	5.9	3550	3.0
4.1	5100	2.1	347.3	"	"	39600	75000	5.0	4200	2.5
3.7	5600	1.9	394.2	"	"	39600	75000	4.4	4750	2.2
3.2	6500	1.6	450.4	"	"	39600	75000	3.8	5500	1.9
2.8	7500	1.4	511.2	"	"	39600	75000	3.4	6100	1.7
2.5	8400	1.25	583.4	"	"	39600	75000	3.0	7000	1.5
2.2	9500	1.1	662.1	"	"	39600	75000	2.6	8000	1.3
1.9	11000	0.95	770.6	"	"	39600	75000	2.3	9100	1.15
1.7	12300	0.85	874.6	"	"	39600	75000	2.0	10500	1.0
3.2	6500	2.8	456.7	BF90Z-../DSE09XA4	612	42800	120000	3.8	5500	3.4
2.8	7500	2.5	508.5	"	"	42800	120000	3.4	6100	3.0
2.5	8400	2.2	591.1	"	"	42800	120000	2.9	7200	2.6
2.2	9500	1.95	658.1	"	"	42800	120000	2.6	8000	2.3
1.9	11000	1.7	759.0	"	"	42800	120000	2.3	9100	2.0
1.7	12300	1.5	845.1	"	"	42800	120000	2.1	10000	1.85
1.5	12400	1.5	976.1	BF90G50-../DSE09XA4	624	42800	120000	1.8	10000	1.85
1.4	13600	1.35	1043	"	"	42800	120000	1.7	10900	1.7
1.2	15800	1.15	1204	"	"	42800	120000	1.5	12300	1.5
1.0	19600	0.94	1444	"	"	42800	120000	1.2	16100	1.15

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

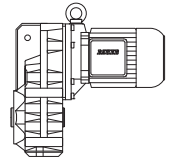
P = 3 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
225	127	2.1	6.34	BF30-../DSE11SA4	60	2400	-	270	106	2.5
176	162	1.75	8.07	"	"	2650	-	215	133	2.2
143	200	1.6	9.99	"	"	2850	-	172	166	1.95
110	260	1.4	12.91	"	"	3050	-	133	215	1.7
89	320	1.3	16.00	"	"	3250	-	107	265	1.55
81	350	1.35	17.65	"	"	3300	-	97	295	1.6
74	385	1.3	19.41	"	"	3400	-	89	320	1.55
65	440	1.2	21.85	"	"	3500	-	79	360	1.45
60	475	1.15	24.03	"	"	3600	-	72	395	1.4
51	560	1.05	28.23	"	"	3800	-	61	465	1.25
46	620	0.93	31.05	"	"	4000	-	56	510	1.15
41	690	0.83	35.00	"	"	4200	-	49	580	0.99
245	116	2.9	5.87	BF40-../DSE11SA4	74	3550	-	295	97	3.5
187	153	2.4	7.62	"	"	3900	-	225	127	2.9
150	191	2.2	9.48	"	"	4150	-	181	158	2.6
121	235	2.0	11.79	"	"	4450	-	146	196	2.4
95	300	1.75	15.02	"	"	4800	-	114	250	2.1
82	345	1.85	17.35	"	"	4950	-	99	285	2.2
75	380	1.75	19.09	"	"	5100	-	90	315	2.1
66	430	1.65	21.60	"	"	5200	-	80	355	2.0
60	475	1.55	23.77	"	"	5400	-	72	395	1.85
53	540	1.45	26.86	"	"	5600	-	64	445	1.75
48.5	590	1.35	29.55	"	"	5800	-	58	490	1.65
42	680	1.25	34.21	"	"	6000	-	50	570	1.5
38	750	1.2	37.64	"	"	6200	-	45.5	620	1.45
34.5	830	1.1	41.42	"	"	6500	-	41.5	690	1.3
31.5	900	1.0	45.56	"	"	6800	-	38	750	1.2
29.5	970	0.93	48.92	"	"	7000	-	35	810	1.1
26.5	1080	0.83	53.82	"	"	7200	-	32	890	1.0
133	215	3.1	10.68	BF50-../DSE11SA4	104	5600	-	161	177	3.8
97	295	2.7	14.65	"	"	6100	-	117	240	3.3
86	330	2.9	16.70	"	"	6200	-	103	275	3.5
77	370	2.7	18.68	"	"	6400	-	92	310	3.2
62	460	2.4	23.14	"	"	6800	-	74	385	2.9
55	520	2.2	25.88	"	"	7100	-	67	425	2.7
45	630	2.0	31.73	"	"	7500	-	54	530	2.4
40.5	700	1.85	35.49	"	"	7800	-	48.5	590	2.2
34	840	1.55	42.15	"	"	8500	-	41	690	1.9
30.5	930	1.4	47.14	"	"	8900	-	36.5	780	1.65
25	1140	1.15	56.86	"	"	9300	-	30.5	930	1.4
22.5	1270	1.0	63.59	"	"	9800	-	27	1060	1.25
20	1430	0.91	72.72	"	"	10700	-	24	1190	1.1
17.5	1630	0.8	81.33	"	"	11300	-	21.5	1330	0.98
46	620	3.1	31.20	BF60-../DSE11SA4	135	8800	24900	55	520	3.7
41.5	690	2.9	34.62	"	"	9100	25700	49.5	570	3.5
34.5	830	2.6	41.60	"	"	9600	27100	41.5	690	3.1
31	920	2.4	46.16	"	"	9900	28000	37.5	760	2.9
26.5	1080	2.1	54.44	"	"	10500	29700	31.5	900	2.6
24	1190	1.95	60.40	"	"	11100	31400	28.5	1000	2.3
20	1430	1.6	72.15	"	"	12000	34000	24	1190	1.95
18	1590	1.45	80.05	"	"	12600	35600	21.5	1330	1.75
15.5	1840	1.25	93.44	"	"	13500	38200	18.5	1540	1.5
14	2000	1.15	103.7	"	"	14100	39900	16.5	1730	1.35
13	2200	1.05	113.1	"	"	14600	41300	15.5	1840	1.25
11.5	2450	0.94	125.5	"	"	15300	43300	14	2000	1.15
10.5	2700	0.85	140.8	BF60Z-../DSE11SA4	151	15300	43300	12.5	2250	1.0
17.5	1630	3.2	81.82	BF70-../DSE11SA4	214	12800	41300	21	1360	3.8
15	1910	2.7	95.46	"	"	14000	43700	18	1590	3.3
13.5	2100	2.5	105.2	"	"	14700	45100	16.5	1730	3.0
12	2350	2.2	122.7	"	"	16100	47700	14	2000	2.6

7

P = 3 kW



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

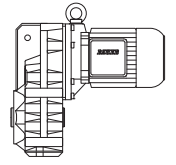
P = 4 kW

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

BF-series shaft-mounted geared motors

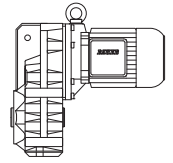
Selection - shaft-mounted geared motors DSE -IE1

P = 4 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
42	900	0.95	34.21	BF40-../DSE11MA4	"	6000	-	50	760	1.15
38	1000	0.89	37.64	"	"	6200	-	45.5	830	1.1
34.5	1100	0.82	41.42	"	"	6500	-	41.5	920	0.98
185	205	2.8	7.71	BF50-../DSE11MA4	110	5100	-	225	169	3.3
133	285	2.4	10.68	"	"	5600	-	161	235	2.9
97	390	2.0	14.65	"	"	6100	-	117	325	2.4
86	440	2.2	16.70	"	"	6200	-	103	370	2.6
77	495	2.0	18.68	"	"	6400	-	92	415	2.4
62	610	1.8	23.14	"	"	6800	-	74	510	2.2
55	690	1.7	25.88	"	"	7100	-	67	570	2.0
45	840	1.5	31.73	"	"	7500	-	54	700	1.8
40.5	940	1.4	35.49	"	"	7800	-	48.5	780	1.65
34	1120	1.15	42.15	"	"	8500	-	41	930	1.4
30.5	1250	1.05	47.14	"	"	8900	-	36.5	1040	1.25
25	1520	0.86	56.86	"	"	9300	-	30.5	1250	1.05
100	380	3.1	14.24	BF60-../DSE11MA4	141	7100	20000	121	315	3.8
84	450	3.2	16.96	"	"	7300	20600	101	375	3.9
76	500	3.0	18.81	"	"	7600	21500	91	415	3.7
63	600	2.8	22.58	"	"	8000	22600	76	500	3.3
57	670	2.6	25.05	"	"	8200	23200	69	550	3.2
46	830	2.3	31.20	"	"	8800	24900	55	690	2.8
41.5	920	2.2	34.62	"	"	9100	25700	49.5	770	2.6
34.5	1100	1.95	41.60	"	"	9600	27100	41.5	920	2.3
31	1230	1.8	46.16	"	"	9900	28000	37.5	1010	2.2
26.5	1440	1.6	54.44	"	"	10500	29700	31.5	1210	1.9
24	1590	1.45	60.40	"	"	11100	31400	28.5	1340	1.7
20	1910	1.2	72.15	"	"	12000	34000	24	1590	1.45
18	2100	1.1	80.05	"	"	12600	35600	21.5	1770	1.3
15.5	2450	0.94	93.44	"	"	13500	38200	18.5	2050	1.1
14	2700	0.85	103.7	"	"	14100	39900	16.5	2300	1.0
23	1660	3.1	61.94	BF70-../DSE11MA4	220	10800	37400	28	1360	3.8
20	1910	2.7	72.26	"	"	12000	39600	24	1590	3.3
17.5	2150	2.4	81.82	"	"	12800	41300	21	1810	2.9
15	2500	2.1	95.46	"	"	14000	43700	18	2100	2.5
13.5	2800	1.85	105.2	"	"	14700	45100	16.5	2300	2.3
12	3150	1.65	122.7	"	"	16100	47700	14	2700	1.95
11	3450	1.5	133.0	BF70Z-../DSE11MA4	247	16100	47700	13	2900	1.8
9.3	4100	1.25	154.0	"	"	16100	47700	11.5	3300	1.6
8.0	4750	1.1	179.7	"	"	16100	47700	9.6	3950	1.3
7.2	5300	0.98	199.7	"	"	16100	47700	8.6	4400	1.2
6.1	6200	0.84	233.0	"	"	16100	47700	7.4	5100	1.0
12	3150	3.0	122.4	BF80-../DSE11MA4	316	24500	75000	14	2700	3.5
10.5	3600	2.6	139.7	"	"	26700	75000	12.5	3050	3.1
9.0	4200	2.3	158.5	"	"	29000	75000	11	3450	2.8
7.7	4950	1.9	184.5	"	"	31800	75000	9.3	4100	2.3
6.8	5600	1.7	209.4	"	"	34300	75000	8.2	4650	2.0
6.0	6300	1.5	237.1	"	"	36900	75000	7.3	5200	1.85
5.3	7200	1.3	269.1	"	"	39600	75000	6.4	5900	1.6
4.9	7700	1.35	291.7	BF80Z-../DSE11MA4	363	39600	75000	5.9	6400	1.65
4.1	9300	1.15	347.3	"	"	39600	75000	5.0	7600	1.4
3.7	10300	1.0	394.2	"	"	39600	75000	4.4	8600	1.2
3.2	11900	0.88	450.4	"	"	39600	75000	3.8	10000	1.05
7.2	5300	3.2	198.8	BF90-../DSE11MA4	569	36000	111300	8.7	4350	3.9
6.2	6100	2.8	232.6	"	"	39900	118300	7.4	5100	3.3
5.5	6900	2.4	259.0	"	"	42800	120000	6.7	5700	2.9
5.3	7200	2.6	269.8	BF90Z-../DSE11MA4	629	42800	120000	6.4	5900	3.1
4.8	7900	2.3	300.4	"	"	42800	120000	5.7	6700	2.8
4.2	9000	2.1	343.6	"	"	42800	120000	5.0	7600	2.4

P = 4 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
3.8	10000	1.85	382.6	BF90Z-../DSE11MA4	"	42800	120000	4.5	8400	2.2
3.2	11900	1.55	456.7	"	"	42800	120000	3.8	10000	1.85
2.8	13600	1.35	508.5	"	"	42800	120000	3.4	11200	1.65
2.5	15200	1.2	591.1	"	"	42800	120000	2.9	13100	1.4
2.2	17300	1.05	658.1	"	"	42800	120000	2.6	14600	1.25
1.9	20100	0.92	759.0	"	"	42800	120000	2.3	16600	1.1
1.7	22400	0.83	845.1	"	"	42800	120000	2.1	18100	1.0

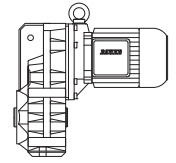
P = 5.5 kW

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 5.5 kW

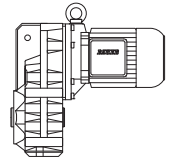


50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
11	4750	1.1	133.0	BF70Z-../DSE11LA4	258	16100	47700	13	4000	1.3
9.3	5600	0.93	154.0	"	"	16100	47700	11.5	4550	1.15
8.0	6500	0.8	179.7	"	"	16100	47700	9.6	5400	0.96
17.5	3000	3.2	83.16	BF80-../DSE11LA4	328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

P = 7.5 kW

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

P = 7.5 kW



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

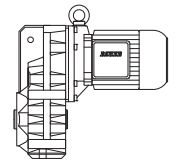
P = 9.5 kW

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

P = 9.5 kW

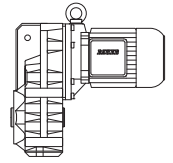


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
39.5	2250	2.3	36.88	BF70-../DSE13LA4	"	7900	31100	47.5	1910	2.7
33.5	2700	1.95	43.02	"	"	8700	32800	40.5	2200	2.4
30.5	2950	1.75	47.82	"	"	9100	34000	36.5	2450	2.1
26	3450	1.5	55.79	"	"	10200	36000	31.5	2850	1.8
23.5	3850	1.35	61.94	"	"	10800	37400	28.5	3150	1.65
20	4500	1.15	72.26	"	"	12000	39600	24.5	3700	1.4
18	5000	1.05	81.82	"	"	12800	41300	21.5	4200	1.25
15.5	5800	0.9	95.46	"	"	14000	43700	18.5	4900	1.05
14	6400	0.81	105.2	"	"	14700	45100	17	5300	0.98
30.5	2950	2.9	47.46	BF80-../DSE13LA4	344	13400	53700	37	2450	3.5
27	3350	2.7	53.86	"	"	14000	55800	32.5	2750	3.3
23.5	3850	2.4	61.55	"	"	14800	58100	28.5	3150	3.0
21	4300	2.2	69.86	"	"	15900	60600	25	3600	2.6
17.5	5100	1.85	83.16	"	"	18400	65100	21	4300	2.2
15.5	5800	1.65	94.38	"	"	20300	68500	18.5	4900	1.95
13.5	6700	1.4	107.9	"	"	22400	72300	16.5	5400	1.75
12	7500	1.25	122.4	"	"	24500	75000	14.5	6200	1.55
10.5	8600	1.1	139.7	"	"	26700	75000	12.5	7200	1.3
9.1	9900	0.96	158.5	"	"	29000	75000	11	8200	1.15
7.9	11400	0.83	184.5	"	"	31800	75000	9.5	9500	1.0
18	5000	3.3	80.85	BF90-../DSE13LA4	596	17500	77500	22	4100	4.0
16	5600	3.0	90.02	"	"	18900	80600	19.5	4650	3.6
13.5	6700	2.5	107.5	"	"	22300	86900	16.5	5400	3.1
12.5	7200	2.3	119.7	"	"	24500	90800	15	6000	2.8
10.5	8600	1.95	139.1	"	"	27700	96300	13	6900	2.4
9.4	9600	1.75	154.8	"	"	30100	100800	11.5	7800	2.2
8.1	11200	1.5	178.6	"	"	33400	106700	9.8	9200	1.85
7.3	12400	1.35	198.8	"	"	36000	111300	8.8	10300	1.65
6.2	14600	1.15	232.6	"	"	39900	118300	7.5	12000	1.4
5.6	16200	1.05	259.0	"	"	42800	120000	6.8	13300	1.25
5.4	16800	1.1	269.8	BF90Z-../DSE13LA4	657	42800	120000	6.5	13900	1.35
4.8	18900	0.98	300.4	"	"	42800	120000	5.8	15600	1.2
4.2	21600	0.86	343.6	"	"	42800	120000	5.1	17700	1.05

P = 11 kW

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

P = 11 kW

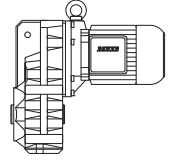


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
34	3050	1.7	43.02	BF70-../DSE16MA4	"	8700	32800	41	2550	2.0
31	3350	1.55	47.82	"	"	9100	34000	37	2800	1.85
26.5	3950	1.3	55.79	"	"	10200	36000	32	3250	1.6
24	4350	1.2	61.94	"	"	10800	37400	28.5	3650	1.4
20.5	5100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

P = 15 kW

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

P = 15 kW

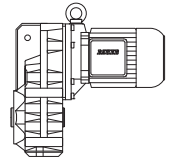


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
89	1600	3.3	16.49	BF80-../DSE16LA4	406	11400	41400	107	1330	4.0
63	2250	2.8	23.29	"	"	11800	44900	76	1880	3.4
48.5	2950	2.4	30.21	"	"	12300	47900	59	2400	3.0
43.5	3250	2.4	33.61	"	"	11700	48400	53	2700	2.9
38.5	3700	2.2	38.14	"	"	12200	50300	46.5	3050	2.6
31	4600	1.85	47.46	"	"	13400	53700	37.5	3800	2.3
27.5	5200	1.7	53.86	"	"	14000	55800	33	4300	2.1
24	5900	1.6	61.55	"	"	14800	58100	29	4900	1.9
21	6800	1.4	69.86	"	"	15900	60600	25.5	5600	1.7
18	7900	1.2	83.16	"	"	18400	65100	21.5	6600	1.45
15.5	9200	1.05	94.38	"	"	20300	68500	19	7500	1.25
14	10200	0.93	107.9	"	"	22400	72300	16.5	8600	1.1
12	11900	0.8	122.4	"	"	24500	75000	14.5	9800	0.97
31.5	4500	3.1	46.43	BF90-../DSE16LA4	654	13800	65500	38	3750	3.8
28.5	5000	2.9	51.70	"	"	14600	67800	34.5	4150	3.5
23	6200	2.5	63.49	"	"	15800	72000	28	5100	3.0
21	6800	2.3	70.69	"	"	16800	74700	25	5700	2.8
18.5	7700	2.1	80.85	"	"	17500	77500	22	6500	2.5
16.5	8600	1.95	90.02	"	"	18900	80600	20	7100	2.4
14	10200	1.65	107.5	"	"	22300	86900	16.5	8600	1.95
12.5	11400	1.45	119.7	"	"	24500	90800	15	9500	1.75
10.5	13600	1.25	139.1	"	"	27700	96300	13	11000	1.55
9.5	15000	1.1	154.8	"	"	30100	100800	11.5	12400	1.35
8.2	17400	0.97	178.6	"	"	33400	106700	9.9	14400	1.15
7.4	19300	0.87	198.8	"	"	36000	111300	8.9	16000	1.05

P = 18.5 kW

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

P = 18.5 kW



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

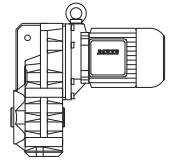
P = 22 kW

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

BF-series shaft-mounted geared motors

Selection - shaft-mounted geared motors DSE -IE1

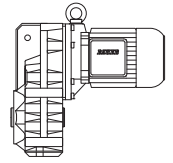
P = 30 kW



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

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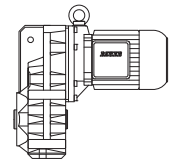
P = 0.03 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
9.0	31.5	7.6	151.2	BF10Z-../D04LA4	21	6400	-	11	26	9.2
8.2	34.5	7.0	166.2	"	"	6400	-	9.8	29	8.3
7.5	38	6.3	180.1	"	"	6400	-	9.0	31.5	7.6
6.9	41.5	5.8	198.0	"	"	6400	-	8.2	34.5	7.0
6.3	45	5.3	214.5	"	"	6400	-	7.6	37.5	6.4
5.8	49	4.9	235.8	"	"	6400	-	6.9	41.5	5.8
5.3	54	4.4	257.4	"	"	6400	-	6.3	45	5.3
4.8	59	4.1	283.1	"	"	6400	-	5.8	49	4.9
4.2	68	3.5	324.3	"	"	6400	-	5.0	57	4.2
3.8	75	3.2	356.6	"	"	6400	-	4.6	62	3.9
3.6	79	3.0	380.2	"	"	6400	-	4.3	66	3.6
3.3	86	2.8	418.0	"	"	6400	-	3.9	73	3.3
2.9	98	2.4	469.5	"	"	6400	-	3.5	81	3.0
2.6	110	2.2	539.1	"	"	6400	-	3.1	92	2.6
2.3	124	1.95	592.8	"	"	6400	-	2.8	102	2.4
1.8	97	2.7	768.2	BF10G06-../D04LA4	25	6400	-	2.2	68	3.8
1.6	110	2.4	845.1	"	"	6400	-	2.0	75	3.5
1.4	130	2.0	994.0	"	"	6400	-	1.7	94	2.8
1.2	159	1.65	1190	"	"	6400	-	1.4	125	2.1
0.95	210	1.25	1452	"	"	6400	-	1.2	150	1.75
0.8	260*	1.0	1744	"	"	6400	-	0.95	260	1.0
0.65	260*	1.0	2096	"	"	6400	-	0.8	260	1.0
0.55	260*	1.0	2467	"	"	6400	-	0.7	260	1.0
0.46	260*	1.0	2952	"	"	6400	-	0.55	260	1.0
0.42	260*	1.0	3220	"	"	6400	-	0.55	260	1.0
0.35	260*	1.0	3942	"	"	6400	-	0.42	260	1.0
0.3	260*	1.0	4569	"	"	6400	-	0.36	260	1.0
0.24	260*	1.0	5709	"	"	6400	-	0.29	260	1.0
0.21	260*	1.0	6550	"	"	6400	-	0.25	260	1.0
0.19	260*	1.0	7144	"	"	6400	-	0.23	260	1.0
0.16	260*	1.0	8681	"	"	6400	-	0.19	260	1.0
0.15	260*	1.0	9471	"	"	6400	-	0.18	260	1.0
1.2	162	2.8	1140	BF20G06-../D04LA4	31	7900	-	1.5	114	4.0
1.0	200	2.3	1392	"	"	7900	-	1.2	154	3.0
0.9	230	2.0	1533	"	"	7900	-	1.1	173	2.7
0.8	265	1.75	1764	"	"	7900	-	0.95	210	2.2
0.65	345	1.35	2192	"	"	7900	-	0.75	285	1.6
0.55	410	1.1	2579	"	"	7900	-	0.65	330	1.4
0.48	460*	1.0	2829	"	"	7900	-	0.6	460	1.0
0.44	460*	1.0	3086	"	"	7900	-	0.55	460	1.0
0.36	460*	1.0	3778	"	"	7900	-	0.43	460	1.0
0.31	460*	1.0	4379	"	"	7900	-	0.37	460	1.0
0.25	460*	1.0	5471	"	"	7900	-	0.3	460	1.0
0.2	460*	1.0	6847	"	"	7900	-	0.24	460	1.0
0.17	460*	1.0	8320	"	"	7900	-	0.2	460	1.0
0.15	460*	1.0	9077	"	"	7900	-	0.18	460	1.0
1.0	200	3.2	1404	BF30G06-../D04LA4	41	7400	-	1.2	153	4.1
0.85	245	2.6	1686	"	"	7400	-	1.0	196	3.2
0.7	315	2.0	2026	"	"	7400	-	0.8	260	2.4
0.6	370	1.7	2386	"	"	7400	-	0.7	305	2.1
0.48	485	1.3	2854	"	"	7400	-	0.6	365	1.75
0.39	610	1.05	3493	"	"	7400	-	0.47	485	1.3
0.36	630*	1.0	3811	"	"	7400	-	0.43	630	1.0
0.31	630*	1.0	4417	"	"	7400	-	0.37	630	1.0
0.27	630*	1.0	5060	"	"	7400	-	0.33	630	1.0
0.22	630*	1.0	6333	"	"	7400	-	0.26	630	1.0
0.19	630*	1.0	7206	"	"	7400	-	0.23	630	1.0
0.18	630*	1.0	7861	"	"	7400	-	0.21	630	1.0
0.15	630*	1.0	9157	"	"	7400	-	0.18	630	1.0

BF-series parallel shaft geared motors

Selection - parallel shaft geared motors DHE - IE2



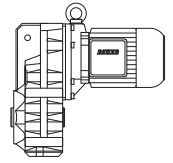
P = 0.04 kW

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

P = 0.06 kW

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

P = 0.06 kW

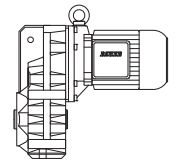


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
4.2	136	1.75	324.3	BF10Z-../D06LA4	"	6400	-	5.0	114	2.1
3.8	150	1.6	356.6	"	"	6400	-	4.6	124	1.95
3.6	159	1.5	380.2	"	"	6400	-	4.3	133	1.8
3.3	173	1.4	418.0	"	"	6400	-	3.9	146	1.65
2.9	197	1.2	469.5	"	"	6400	-	3.5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

BF-series parallel shaft geared motors

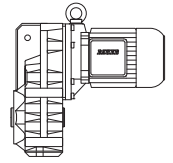
Selection - parallel shaft geared motors DHE - IE2

P = 0.09 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
34	25	9.6	39.75	BF10-../D06LA4	23	3950	-	41	20.5	12
31.5	27	8.9	43.06	"	"	4100	-	38	22.5	11
29	29.5	8.1	47.35	"	"	4250	-	34.5	24.5	9.8
26.5	32	7.5	51.28	"	"	4400	-	32	26.5	9.1
24	35.5	6.8	56.39	"	"	4550	-	29	29.5	8.1
22	39	6.2	61.55	"	"	4700	-	26.5	32	7.5
20	42.5	5.6	67.69	"	"	4900	-	24	35.5	6.8
17.5	49	4.9	77.55	"	"	5100	-	21	40.5	5.9
16	53	4.5	85.27	"	"	5300	-	19	45	5.3
15	57	4.2	90.91	"	"	5400	-	18	47.5	5.1
14	61	3.9	99.97	"	"	5600	-	16.5	52	4.6
12.5	68	3.5	112.3	"	"	5900	-	14.5	59	4.1
11	78	3.1	123.5	"	"	6100	-	13.5	63	3.8
10.5	81	3.0	128.9	"	"	6200	-	13	66	3.6
9.6	89	2.7	141.8	"	"	6400	-	11.5	74	3.2
9.0	95	2.5	151.2	BF10Z-../D06LA4	24	6400	-	11	78	3.1
8.2	104	2.3	166.2	"	"	6400	-	9.8	87	2.8
7.5	114	2.1	180.1	"	"	6400	-	9.0	95	2.5
6.9	124	1.95	198.0	"	"	6400	-	8.2	104	2.3
6.3	136	1.75	214.5	"	"	6400	-	7.6	113	2.1
5.8	148	1.6	235.8	"	"	6400	-	6.9	124	1.95
5.3	162	1.5	257.4	"	"	6400	-	6.3	136	1.75
4.8	179	1.35	283.1	"	"	6400	-	5.8	148	1.6
4.2	200	1.2	324.3	"	"	6400	-	5.0	171	1.4
3.8	225	1.05	356.6	"	"	6400	-	4.6	186	1.3
3.6	235	1.0	380.2	"	"	6400	-	4.3	199	1.2
3.3	260	0.92	418.0	"	"	6400	-	3.9	220	1.1
2.9	295	0.81	469.5	"	"	6400	-	3.5	245	0.98
2.6	270	0.96	536.0	BF10G06-../D06LA4	28	6400	-	3.1	220	1.2
6.3	136	3.1	216.9	BF20Z-../D06LA4	31	7900	-	7.5	114	3.7
5.8	148	2.8	235.9	"	"	7900	-	6.9	124	3.4
5.3	162	2.6	259.6	"	"	7900	-	6.3	136	3.1
4.6	186	2.3	295.5	"	"	7900	-	5.5	156	2.7
4.2	200	2.1	325.2	"	"	7900	-	5.0	171	2.5
4.0	210	2.0	339.1	"	"	7900	-	4.8	179	2.3
3.7	230	1.85	373.1	"	"	7900	-	4.4	195	2.2
3.3	260	1.6	418.1	"	"	7900	-	3.9	220	1.9
3.0	285	1.45	460.0	"	"	7900	-	3.6	235	1.8
2.7	260	1.75	513.7	BF20G06-../D06LA4	34	7900	-	3.2	210	2.2
2.2	330	1.4	617.0	"	"	7900	-	2.7	255	1.8
1.9	390	1.2	736.1	"	"	7900	-	2.3	310	1.5
1.7	440	1.05	810.0	"	"	7900	-	2.0	360	1.3
1.5	500	0.92	952.7	"	"	7900	-	1.8	405	1.15
4.7	182	3.2	289.8	BF30Z-../D06LA4	42	7400	-	5.6	153	3.8
4.4	195	2.9	310.7	"	"	7400	-	5.3	162	3.5
4.0	210	2.7	341.8	"	"	7400	-	4.8	179	3.2
3.6	235	2.4	375.1	"	"	7400	-	4.4	195	2.9
3.3	260	2.2	412.6	"	"	7400	-	4.0	210	2.7
3.0	285	2.0	463.3	"	"	7400	-	3.5	245	2.3
2.6	330	1.75	537.0	"	"	7400	-	3.1	275	2.1
2.3	370	1.55	590.7	"	"	7400	-	2.8	305	1.9
2.2	330	1.9	622.4	BF30G06-../D06LA4	45	7400	-	2.7	255	2.5
2.0	370	1.7	705.1	"	"	7400	-	2.3	315	2.0
1.7	435	1.45	817.1	"	"	7400	-	2.0	360	1.75
1.5	500	1.25	961.1	"	"	7400	-	1.7	430	1.45
1.2	630	1.0	1150	"	"	7400	-	1.5	495	1.25
1.1	690	0.91	1286	"	"	7400	-	1.3	570	1.1
1.0	770	0.82	1404	"	"	7400	-	1.2	630	1.0

P = 0.09 kW



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

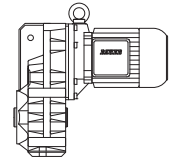
P = 0.12 kW

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

BF-series parallel shaft geared motors

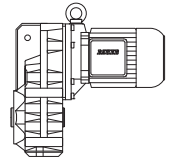
Selection - parallel shaft geared motors DHE - IE2

P = 0.12 kW



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

P = 0.12 kW



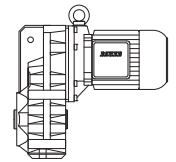
50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
0.95	820	3.0	1494	BF60G20-../D06LA4	134	15300	43300	1.1	660	3.8
0.85	920	2.7	1658	"	"	15300	43300	1.0	720	3.5
0.7	1190	2.1	1955	"	"	15300	43300	0.85	900	2.8
0.65	1300	1.9	2172	"	"	15300	43300	0.75	1060	2.4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

P = 0.18 kW

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

BF-series parallel shaft geared motors

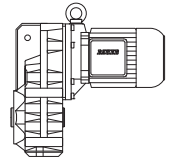
Selection - parallel shaft geared motors DHE - IE2



P = 0.18 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
5.8	295	1.4	235.9	BF20Z-../D06LA4	"	7900	-	6.9	245	1.7
5.3	320	1.3	259.6	"	"	7900	-	6.3	270	1.55
4.6	370	1.15	295.5	"	"	7900	-	5.5	310	1.35
4.2	405	1.05	325.2	"	"	7900	-	5.0	340	1.25
4.0	425	0.99	339.1	"	"	7900	-	4.8	355	1.2
3.7	460	0.91	373.1	"	"	7900	-	4.4	390	1.1
3.3	520	0.81	418.1	"	"	7900	-	3.9	440	0.95
9.9	173	3.3	137.1	BF30-../D06LA4	40	7400	-	12	143	4.0
9.0	191	3.0	150.7	BF30Z-../D06LA4	42	7400	-	11	156	3.7
8.2	205	2.8	165.8	"	"	7400	-	9.8	175	3.3
7.7	220	2.6	176.6	"	"	7400	-	9.2	186	3.1
7.0	245	2.3	194.3	"	"	7400	-	8.4	200	2.9
6.1	280	2.1	224.8	"	"	7400	-	7.3	235	2.4
5.5	310	1.85	247.3	"	"	7400	-	6.6	260	2.2
5.2	330	1.75	263.5	"	"	7400	-	6.2	275	2.1
4.7	365	1.6	289.8	"	"	7400	-	5.6	305	1.9
4.4	390	1.45	310.7	"	"	7400	-	5.3	320	1.8
4.0	425	1.35	341.8	"	"	7400	-	4.8	355	1.6
3.6	475	1.2	375.1	"	"	7400	-	4.4	390	1.45
3.3	520	1.1	412.6	"	"	7400	-	4.0	425	1.35
3.0	570	1.0	463.3	"	"	7400	-	3.5	490	1.15
2.6	660	0.87	537.0	"	"	7400	-	3.1	550	1.05
2.2	720	0.88	622.4	BF30G06-../D06LA4	45	7400	-	2.7	570	1.1
6.1	280	3.2	222.4	BF40Z-../D06LA4	53	10600	-	7.3	235	3.8
5.4	315	2.9	253.2	"	"	10600	-	6.4	265	3.4
4.9	350	2.6	278.5	"	"	10600	-	5.9	290	3.1
4.6	370	2.4	295.1	"	"	10600	-	5.5	310	2.9
4.2	405	2.2	324.7	"	"	10600	-	5.0	340	2.6
3.9	440	2.0	346.8	"	"	10600	-	4.7	365	2.5
3.6	475	1.9	381.5	"	"	10600	-	4.3	395	2.3
3.3	520	1.75	417.3	"	"	10600	-	3.9	440	2.0
3.0	570	1.6	459.1	"	"	10600	-	3.6	475	1.9
2.7	630	1.45	514.6	"	"	10600	-	3.2	530	1.7
2.4	710	1.25	566.1	"	"	10600	-	2.9	590	1.55
2.3	560	1.8	597.3	BF40G10-../D06LA4	58	10600	-	2.8	425	2.4
1.9	690	1.45	731.6	"	"	10600	-	2.3	540	1.85
1.5	920	1.1	928.9	"	"	10600	-	1.8	730	1.35
1.3	1080	0.93	1106	"	"	10600	-	1.5	900	1.1
4.3	395	3.3	316.6	BF50Z-../D06LA4	82	13600	-	5.2	330	3.9
3.9	440	3.0	354.0	"	"	13600	-	4.6	370	3.5
3.5	490	2.7	392.8	"	"	13600	-	4.2	405	3.2
3.1	550	2.4	439.3	"	"	13600	-	3.7	460	2.8
2.8	610	2.1	496.4	"	"	13600	-	3.3	520	2.5
2.5	680	1.9	555.2	"	"	13600	-	3.0	570	2.3
2.0	660	2.1	680.9	BF50G10-../D06LA4	86	13600	-	2.4	520	2.7
1.6	860	1.65	864.5	"	"	13600	-	1.9	690	2.0
1.4	1000	1.4	1029	"	"	13600	-	1.6	840	1.65
1.2	1220	1.15	1203	"	"	13600	-	1.4	1010	1.4
1.0	1470	0.95	1359	"	"	13600	-	1.2	1190	1.2
1.5	870	2.9	937.6	BF60G20-../D06LA4	134	15300	43300	1.8	670	3.7
1.2	1120	2.2	1211	"	"	15300	43300	1.4	920	2.7
0.95	1430	1.75	1494	"	"	15300	43300	1.1	1180	2.1
0.85	1600	1.55	1658	"	"	15300	43300	1.0	1290	1.95
0.7	2000	1.25	1955	"	"	15300	43300	0.85	1570	1.6
0.65	2150	1.15	2172	"	"	15300	43300	0.75	1830	1.35
0.75	1850	3.1	1912	BF70G20-../D06LA4	212	16100	47700	0.85	1580	3.6
0.6	2350	2.4	2448	"	"	16100	47700	0.7	1970	2.9
0.48	3050	1.85	2849	"	"	16100	47700	0.6	2350	2.4
0.4	3800	1.5	3417	"	"	16100	47700	0.48	3050	1.85
0.34	4550	1.25	4090	"	"	16100	47700	0.4	3800	1.5
0.3	5200	1.1	4542	"	"	16100	47700	0.36	4250	1.35

P = 0.18 kW

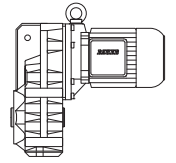


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
177	13.4	5.1	7.66	BF06-../D05LA4	10	1800	-	215	11.1	6.1
147	16.2	4.3	9.21	"	"	1900	-	176	13.5	5.2
112	21	3.6	12.07	"	"	2000	-	135	17.6	4.3
96	24.5	3.5	14.21	"	"	2100	-	115	20.5	4.1
80	29.5	3.2	16.99	"	"	2500	-	96	24.5	3.9
67	35.5	2.7	20.42	"	"	2700	-	80	29.5	3.2
51	46.5	2.0	26.76	"	"	3000	-	61	39	2.4
43	55	1.75	31.50	"	"	3200	-	52	45.5	2.1
36	66	1.45	37.69	"	"	3500	-	43	55	1.75
29.5	80	1.2	46.14	"	"	3800	-	35.5	67	1.4
23.5	101	0.94	58.33	"	"	4000	-	28	85	1.1
20.5	116	0.82	66.82	"	"	4000	-	24.5	97	0.98
31.5	75	3.2	43.06	BF10-../D06LA4	23	4100	-	38	62	3.9
29	82	2.9	47.35	"	"	4250	-	34.5	69	3.5
26.5	90	2.7	51.28	"	"	4400	-	32	74	3.2
24	99	2.4	56.39	"	"	4550	-	29	82	2.9
22	108	2.2	61.55	"	"	4700	-	26.5	90	2.7
20	119	2.0	67.69	"	"	4900	-	24	99	2.4
17.5	136	1.75	77.55	"	"	5100	-	21	113	2.1
16	149	1.6	85.27	"	"	5300	-	19	125	1.9
15	159	1.5	90.91	"	"	5400	-	18	132	1.8
14	170	1.4	99.97	"	"	5600	-	16.5	144	1.65
12.5	191	1.25	112.3	"	"	5900	-	14.5	164	1.45
11	215	1.1	123.5	"	"	6100	-	13.5	176	1.35
10.5	225	1.05	128.9	"	"	6200	-	13	183	1.3
9.6	245	0.98	141.8	"	"	6400	-	11.5	205	1.15
9.0	265	0.91	151.2	BF10Z-../D06LA4	24	6400	-	11	215	1.1
8.2	290	0.83	166.2	"	"	6400	-	9.8	240	1.0
18	132	3.2	76.69	BF20-../D06LA4	30	6300	-	21.5	111	3.8
15.5	154	2.7	87.31	"	"	6600	-	19	125	3.4
14.5	164	2.6	96.08	"	"	6900	-	17	140	3.0
13.5	176	2.4	100.2	"	"	7000	-	16.5	144	2.9
12.5	191	2.2	110.2	"	"	7300	-	15	159	2.6
11	215	1.95	123.5	"	"	7600	-	13.5	176	2.4
10	235	1.8	135.9	"	"	7900	-	12	198	2.1
9.6	245	1.7	141.2	BF20Z-../D06LA4	31	7900	-	11.5	205	2.0
8.7	270	1.55	155.4	"	"	7900	-	10.5	225	1.85
8.3	285	1.45	164.3	"	"	7900	-	9.9	240	1.75
7.5	315	1.35	180.8	"	"	7900	-	9.0	265	1.6
6.9	345	1.2	197.1	"	"	7900	-	8.3	285	1.45
6.3	375	1.1	216.9	"	"	7900	-	7.5	315	1.35
5.8	410	1.0	235.9	"	"	7900	-	6.9	345	1.2
5.3	450	0.93	259.6	"	"	7900	-	6.3	375	1.1
4.6	510	0.82	295.5	"	"	7900	-	5.5	430	0.98
13	183	3.1	107.6	BF30-../D06LA4	40	6700	-	15.5	154	3.7
11.5	205	2.8	118.3	"	"	7000	-	14	170	3.4
11	215	2.7	124.7	"	"	7100	-	13	183	3.1
9.9	240	2.4	137.1	"	"	7400	-	12	198	2.9
9.0	265	2.2	150.7	BF30Z-../D06LA4	42	7400	-	11	215	2.7
8.2	290	2.0	165.8	"	"	7400	-	9.8	240	2.4
7.7	310	1.85	176.6	"	"	7400	-	9.2	255	2.3
7.0	340	1.7	194.3	"	"	7400	-	8.4	280	2.1
6.1	390	1.45	224.8	"	"	7400	-	7.3	325	1.75
5.5	430	1.35	247.3	"	"	7400	-	6.6	360	1.6
5.2	455	1.25	263.5	"	"	7400	-	6.2	385	1.5
4.7	500	1.15	289.8	"	"	7400	-	5.6	425	1.35
4.4	540	1.05	310.7	"	"	7400	-	5.3	450	1.3
4.0	590	0.97	341.8	"	"	7400	-	4.8	495	1.15
3.6	660	0.87	375.1	"	"	7400	-	4.4	540	1.05
3.3	720	0.8	412.6	"	"	7400	-	4.0	590	0.97
8.7	270	3.3	155.6	BF40Z-../D06LA4	53	10600	-	10.5	225	4.0
7.9	300	3.0	171.2	"	"	10600	-	9.5	250	3.6

BF-series parallel shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 0.25 kW

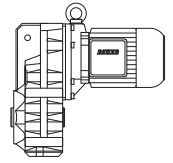


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
7.2	330	2.7	188.3	BF40Z-../D06LA4	"	10600	-	8.7	270	3.3
6.7	355	2.5	202.2	"	"	10600	-	8.1	290	3.1
6.1	390	2.3	222.4	"	"	10600	-	7.3	325	2.8
5.4	440	2.0	253.2	"	"	10600	-	6.4	370	2.4
4.9	485	1.85	278.5	"	"	10600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

P = 0.3 kW

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

P = 0.3 kW

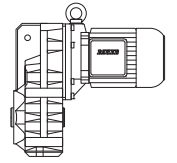


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
22	130	1.85	61.55	BF10-../D07LA4	"	4700	-	26.5	108	2.2
20	143	1.7	67.69	"	"	4900	-	24	119	2.0
17.5	163	1.45	77.55	"	"	5100	-	21	136	1.75
16	179	1.35	85.27	"	"	5300	-	19	150	1.6
15	191	1.25	90.91	"	"	5400	-	18	159	1.5
14	200	1.2	99.97	"	"	5600	-	16.5	173	1.4
12.5	225	1.05	112.3	"	"	5900	-	14.5	197	1.2
11	260	0.92	123.5	"	"	6100	-	13.5	210	1.15
10.5	270	0.89	128.9	"	"	6200	-	13	220	1.1
9.6	295	0.81	141.8	"	"	6400	-	11.5	245	0.98
21.5	133	3.2	64.08	BF20-../D07LA4	32	5900	-	25.5	112	3.8
19.5	146	2.9	69.70	"	"	6100	-	23.5	121	3.5
18	159	2.6	76.69	"	"	6300	-	21.5	133	3.2
15.5	184	2.3	87.31	"	"	6600	-	19	150	2.8
14.5	197	2.1	96.08	"	"	6900	-	17	168	2.5
13.5	210	2.0	100.2	"	"	7000	-	16.5	173	2.4
12.5	225	1.85	110.2	"	"	7300	-	15	191	2.2
11	260	1.6	123.5	"	"	7600	-	13.5	210	2.0
10	285	1.45	135.9	"	"	7900	-	12	235	1.8
9.6	295	1.4	141.2	BF20Z-../D07LA4	34	7900	-	11.5	245	1.7
8.7	325	1.3	155.4	"	"	7900	-	10.5	270	1.55
8.3	345	1.2	164.3	"	"	7900	-	9.9	285	1.45
7.5	380	1.1	180.8	"	"	7900	-	9.0	315	1.35
6.9	415	1.0	197.1	"	"	7900	-	8.3	345	1.2
6.3	450	0.93	216.9	"	"	7900	-	7.5	380	1.1
5.8	490	0.86	235.9	"	"	7900	-	6.9	415	1.0
16	179	3.2	87.08	BF30-../D07LA4	42	6200	-	19	150	3.8
14.5	197	2.9	95.79	"	"	6400	-	17	168	3.4
13	220	2.6	107.6	"	"	6700	-	15.5	184	3.1
11.5	245	2.3	118.3	"	"	7000	-	14	200	2.9
11	260	2.2	124.7	"	"	7100	-	13	220	2.6
9.9	285	2.0	137.1	"	"	7400	-	12	235	2.4
9.0	315	1.85	150.7	BF30Z-../D07LA4	45	7400	-	11	260	2.2
8.2	345	1.65	165.8	"	"	7400	-	9.8	290	2.0
7.7	370	1.55	176.6	"	"	7400	-	9.2	310	1.85
7.0	405	1.4	194.3	"	"	7400	-	8.4	340	1.7
6.1	465	1.25	224.8	"	"	7400	-	7.3	390	1.45
5.5	520	1.1	247.3	"	"	7400	-	6.6	430	1.35
5.2	550	1.05	263.5	"	"	7400	-	6.2	460	1.25
4.7	600	0.96	289.8	"	"	7400	-	5.6	510	1.15
4.4	650	0.88	310.7	"	"	7400	-	5.3	540	1.05
4.0	710	0.81	341.8	"	"	7400	-	4.8	590	0.97
9.6	295	3.1	141.4	BF40Z-../D07LA4	55	10600	-	11.5	245	3.7
8.7	325	2.8	155.6	"	"	10600	-	10.5	270	3.3
7.9	360	2.5	171.2	"	"	10600	-	9.5	300	3.0
7.2	395	2.3	188.3	"	"	10600	-	8.7	325	2.8
6.7	425	2.1	202.2	"	"	10600	-	8.1	350	2.6
6.1	465	1.95	222.4	"	"	10600	-	7.3	390	2.3
5.4	530	1.7	253.2	"	"	10600	-	6.4	445	2.0
4.9	580	1.55	278.5	"	"	10600	-	5.9	485	1.85
4.6	620	1.45	295.1	"	"	10600	-	5.5	520	1.75
4.2	680	1.3	324.7	"	"	10600	-	5.0	570	1.6
3.9	730	1.25	346.8	"	"	10600	-	4.7	600	1.5
3.6	790	1.15	381.5	"	"	10600	-	4.3	660	1.35
3.3	860	1.05	417.3	"	"	10600	-	3.9	730	1.25
3.0	950	0.95	459.1	"	"	10600	-	3.6	790	1.15
2.7	1060	0.85	514.6	"	"	10600	-	3.2	890	1.0
2.3	1050	0.95	597.3	BF40G10-../D07LA4	61	10600	-	2.8	830	1.2

BF-series parallel shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 0.3 kW

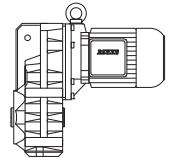


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
6.6	430	3.0	205.2	BF50Z-../D07LA4	85	13600	-	7.9	360	3.6
5.5	520	2.5	247.5	"	"	13600	-	6.6	430	3.0
4.9	580	2.2	276.8	"	"	13600	-	5.9	485	2.7
4.3	660	1.95	316.6	"	"	13600	-	5.2	550	2.4
3.9	730	1.8	354.0	"	"	13600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

P = 0.37 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
177	19.9	3.4	7.66	BF06-../D07LA4	14	1800	-	215	16.4	4.1
147	24	2.9	9.21	"	"	1900	-	176	20	3.5
112	31.5	2.4	12.07	"	"	2000	-	135	26	2.9
96	36.5	2.3	14.21	"	"	2100	-	115	30.5	2.8
80	44	2.2	16.99	"	"	2500	-	96	36.5	2.6
67	52	1.85	20.42	"	"	2700	-	80	44	2.2
51	69	1.4	26.76	"	"	3000	-	61	57	1.65
43	82	1.15	31.50	"	"	3200	-	52	67	1.4
36	98	0.97	37.69	"	"	3500	-	43	82	1.15
29.5	119	0.8	46.14	"	"	3800	-	35.5	99	0.96
47.5	74	3.2	28.47	BF10-../D07LA4	26	3450	-	57	61	3.9
43.5	81	3.0	31.31	"	"	3600	-	52	67	3.6
37.5	94	2.6	36.15	"	"	3800	-	45	78	3.1
34	103	2.3	39.75	"	"	3950	-	41	86	2.8
31.5	112	2.1	43.06	"	"	4100	-	38	92	2.6
29	121	2.0	47.35	"	"	4250	-	34.5	102	2.4
26.5	133	1.8	51.28	"	"	4400	-	32	110	2.2
24	147	1.65	56.39	"	"	4550	-	29	121	2.0
22	160	1.5	61.55	"	"	4700	-	26.5	133	1.8
20	176	1.35	67.69	"	"	4900	-	24	147	1.65
17.5	200	1.2	77.55	"	"	5100	-	21	168	1.45
16	220	1.1	85.27	"	"	5300	-	19	185	1.3
15	235	1.0	90.91	"	"	5400	-	18	196	1.2
14	250	0.96	99.97	"	"	5600	-	16.5	210	1.15
12.5	280	0.86	112.3	"	"	5900	-	14.5	240	1.0
28	126	3.3	48.56	BF20-../D07LA4	32	5200	-	33.5	105	4.0
25.5	138	3.0	53.43	"	"	5500	-	30.5	115	3.7
23.5	150	2.8	58.24	"	"	5600	-	28	126	3.3
21.5	164	2.6	64.08	"	"	5900	-	25.5	138	3.0

P = 0.37 kW

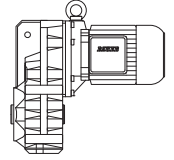


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
19.5	181	2.3	69.70	BF20-../D07LA4	"	6100	-	23.5	150	2.8
18	196	2.1	76.69	"	"	6300	-	21.5	164	2.6
15.5	225	1.85	87.31	"	"	6600	-	19	185	2.3
14.5	240	1.75	96.08	"	"	6900	-	17	205	2.0
13.5	260	1.6	100.2	"	"	7000	-	16.5	210	2.0
12.5	280	1.5	110.2	"	"	7300	-	15	235	1.8
11	320	1.3	123.5	"	"	7600	-	13.5	260	1.6
10	350	1.2	135.9	"	"	7900	-	12	290	1.45
9.6	365	1.15	141.2	BF20Z-../D07LA4	34	7900	-	11.5	305	1.4
8.7	405	1.05	155.4	"	"	7900	-	10.5	335	1.25
8.3	425	0.99	164.3	"	"	7900	-	9.9	355	1.2
7.5	470	0.89	180.8	"	"	7900	-	9.0	390	1.1
6.9	510	0.82	197.1	"	"	7900	-	8.3	425	0.99
20.5	172	3.3	67.28	BF30-../D07LA4	42	5500	-	24.5	144	4.0
19	185	3.1	72.13	"	"	5700	-	22.5	157	3.7
17.5	200	2.9	79.34	"	"	5900	-	20.5	172	3.3
16	220	2.6	87.08	"	"	6200	-	19	185	3.1
14.5	240	2.4	95.79	"	"	6400	-	17	205	2.8
13	270	2.1	107.6	"	"	6700	-	15.5	225	2.6
11.5	305	1.9	118.3	"	"	7000	-	14	250	2.3
11	320	1.8	124.7	"	"	7100	-	13	270	2.1
9.9	355	1.6	137.1	"	"	7400	-	12	290	2.0
9.0	390	1.45	150.7	BF30Z-../D07LA4	45	7400	-	11	320	1.8
8.2	430	1.35	165.8	"	"	7400	-	9.8	360	1.6
7.7	455	1.25	176.6	"	"	7400	-	9.2	380	1.5
7.0	500	1.15	194.3	"	"	7400	-	8.4	420	1.35
6.1	570	1.0	224.8	"	"	7400	-	7.3	480	1.2
5.5	640	0.9	247.3	"	"	7400	-	6.6	530	1.1
5.2	670	0.86	263.5	"	"	7400	-	6.2	560	1.05
9.6	365	2.5	141.4	BF40Z-../D07LA4	55	10600	-	11.5	305	3.0
8.7	405	2.2	155.6	"	"	10600	-	10.5	335	2.7
7.9	445	2.0	171.2	"	"	10600	-	9.5	370	2.4
7.2	490	1.85	188.3	"	"	10600	-	8.7	405	2.2
6.7	520	1.75	202.2	"	"	10600	-	8.1	435	2.1
6.1	570	1.6	222.4	"	"	10600	-	7.3	480	1.9
5.4	650	1.4	253.2	"	"	10600	-	6.4	550	1.65
4.9	720	1.25	278.5	"	"	10600	-	5.9	590	1.55
4.6	760	1.2	295.1	"	"	10600	-	5.5	640	1.4
4.2	840	1.05	324.7	"	"	10600	-	5.0	700	1.3
3.9	900	1.0	346.8	"	"	10600	-	4.7	750	1.2
3.6	980	0.92	381.5	"	"	10600	-	4.3	820	1.1
3.3	1070	0.84	417.3	"	"	10600	-	3.9	900	1.0
8.8	400	3.3	154.5	BF50Z-../D07LA4	85	13600	-	10.5	335	3.9
7.4	475	2.7	183.5	"	"	13600	-	8.9	395	3.3
6.6	530	2.5	205.2	"	"	13600	-	7.9	445	2.9
5.5	640	2.0	247.5	"	"	13600	-	6.6	530	2.5
4.9	720	1.8	276.8	"	"	13600	-	5.9	590	2.2
4.3	820	1.6	316.6	"	"	13600	-	5.2	670	1.95
3.9	900	1.45	354.0	"	"	13600	-	4.6	760	1.7
3.5	1000	1.3	392.8	"	"	13600	-	4.2	840	1.55
3.1	1130	1.15	439.3	"	"	13600	-	3.7	950	1.35
2.8	1260	1.05	496.4	"	"	13600	-	3.3	1070	1.2
2.5	1410	0.92	555.2	"	"	13600	-	3.0	1170	1.1
2.0	1570	0.89	680.9	BF50G10-../D07LA4	89	13600	-	2.4	1280	1.1
2.4	1230	2.0	569.3	BF60G20-../D07LA4	136	15300	43300	2.9	970	2.6
2.0	1470	1.7	689.0	"	"	15300	43300	2.4	1180	2.1
1.7	1770	1.4	813.2	"	"	15300	43300	2.0	1460	1.7
1.5	2050	1.2	937.6	"	"	15300	43300	1.8	1680	1.5
1.2	2600	0.96	1211	"	"	15300	43300	1.4	2200	1.15

BF-series parallel shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 0.37 kW

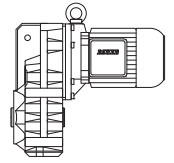


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
1.6	1950	2.9	872.1	BF70G20-../D07LA4	215	16100	47700	1.9	1600	3.6
1.4	2200	2.6	1017	"	"	16100	47700	1.6	1900	3.0
1.0	3150	1.8	1390	"	"	16100	47700	1.2	2550	2.2
0.85	3700	1.55	1621	"	"	16100	47700	1.0	3100	1.85
0.75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

P = 0.55 kW

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

P = 0.55 kW

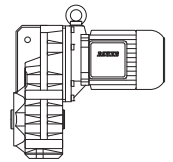


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
18	290	2.0	79.34	BF30-../D08MA4	"	5900	-	21.5	240	2.4
16.5	315	1.85	87.08	"	"	6200	-	19.5	265	2.2
15	350	1.65	95.79	"	"	6400	-	18	290	2.0
13.5	385	1.5	107.6	"	"	6700	-	16	325	1.75
12	435	1.3	118.3	"	"	7000	-	14.5	360	1.6
11.5	455	1.25	124.7	"	"	7100	-	13.5	385	1.5
10.5	500	1.15	137.1	"	"	7400	-	12.5	420	1.35
9.3	560	1.05	150.7	BF30Z-../D08MA4	46	7400	-	11.5	455	1.25
8.5	610	0.94	165.8	"	"	7400	-	10.5	500	1.15
8.0	650	0.88	176.6	"	"	7400	-	9.6	540	1.05
7.3	710	0.81	194.3	"	"	7400	-	8.7	600	0.96
18	290	3.1	78.55	BF40-../D08MA4	53	8500	-	21.5	240	3.8
17	305	3.0	83.91	"	"	8700	-	20.5	255	3.5
15.5	335	2.7	92.31	"	"	9100	-	18.5	280	3.2
14	375	2.4	101.0	"	"	9400	-	17	305	3.0
13	400	2.3	111.1	"	"	9800	-	15.5	335	2.7
11.5	455	2.0	124.5	"	"	10200	-	13.5	385	2.3
10.5	500	1.8	137.0	"	"	10600	-	12.5	420	2.1
10	520	1.75	141.4	BF40Z-../D08MA4	56	10600	-	12	435	2.1
9.0	580	1.55	155.6	"	"	10600	-	11	475	1.9
8.2	640	1.4	171.2	"	"	10600	-	9.9	530	1.7
7.5	700	1.3	188.3	"	"	10600	-	9.0	580	1.55
7.0	750	1.2	202.2	"	"	10600	-	8.4	620	1.45
6.3	830	1.1	222.4	"	"	10600	-	7.6	690	1.3
5.6	930	0.97	253.2	"	"	10600	-	6.7	780	1.15
5.1	1020	0.88	278.5	"	"	10600	-	6.1	860	1.05
4.8	1090	0.83	295.1	"	"	10600	-	5.7	920	0.98
12.5	420	3.1	114.0	BF50-../D08MA4	81	12900	-	15	350	3.7
11	475	2.7	127.5	"	"	13600	-	13.5	385	3.4
10.5	500	2.6	138.1	BF50Z-../D08MA4	86	13600	-	12.5	420	3.1
9.1	570	2.3	154.5	"	"	13600	-	11	475	2.7
7.7	680	1.9	183.5	"	"	13600	-	9.2	570	2.3
6.9	760	1.7	205.2	"	"	13600	-	8.2	640	2.0
5.7	920	1.4	247.5	"	"	13600	-	6.8	770	1.7
5.1	1020	1.25	276.8	"	"	13600	-	6.1	860	1.5
4.5	1160	1.1	316.6	"	"	13600	-	5.4	970	1.35
4.0	1310	0.99	354.0	"	"	13600	-	4.8	1090	1.2
3.6	1450	0.9	392.8	"	"	13600	-	4.3	1220	1.05
7.5	700	3.3	187.7	BF60Z-../D08MA4	130	15300	43300	9.0	580	4.0
6.4	820	2.8	221.4	"	"	15300	43300	7.6	690	3.3
5.8	900	2.6	245.6	"	"	15300	43300	6.9	760	3.0
4.8	1090	2.1	293.4	"	"	15300	43300	5.8	900	2.6
4.3	1220	1.9	325.6	"	"	15300	43300	5.2	1010	2.3
3.7	1410	1.65	380.0	"	"	15300	43300	4.5	1160	2.0
3.4	1540	1.5	421.6	"	"	15300	43300	4.0	1310	1.75
3.1	1690	1.35	459.9	"	"	15300	43300	3.7	1410	1.65
2.8	1870	1.25	510.3	"	"	15300	43300	3.3	1590	1.45
2.5	1860	1.35	569.3	BF60G20-../D08MA4	137	15300	43300	3.0	1510	1.65
2.1	2200	1.15	689.0	"	"	15300	43300	2.5	1810	1.4
1.8	2600	0.96	813.2	"	"	15300	43300	2.1	2150	1.15
3.2	1640	3.2	439.2	BF70Z-../D08MA4	218	16100	47700	3.9	1340	3.9
2.8	1870	2.8	512.4	"	"	16100	47700	3.3	1590	3.3
2.7	1720	3.3	524.1	BF70G20-../D08MA4	216	16100	47700	3.3	1370	4.2
2.5	1850	3.1	577.5	"	"	16100	47700	3.0	1500	3.8
2.1	2200	2.6	673.6	"	"	16100	47700	2.5	1810	3.1
1.7	2800	2.0	872.1	"	"	16100	47700	2.0	2350	2.4
1.4	3450	1.65	1017	"	"	16100	47700	1.7	2750	2.1
1.1	4400	1.3	1390	"	"	16100	47700	1.3	3650	1.55
0.9	5400	1.05	1621	"	"	16100	47700	1.1	4350	1.3

BF-series parallel shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 0.55 kW

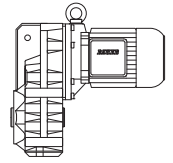


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
1.5	3500	3.0	990.4	BF80Z-../D08MA4	334	39600	75000	1.7	3050	3.4
1.3	4000	2.6	1124	"	"	39600	75000	1.5	3500	3.0
1.1	3300	3.2	1329	BF80G40-../D08MA4	340	39600	75000	1.3	2550	4.1
0.95	4100	2.6	1491	"	"	39600	75000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

P = 0.75 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
250	28.5	2.2	5.72	BF06-../DHE08XA4	18	1630	-	300	23.5	2.6
186	38.5	1.75	7.66	"	"	1800	-	225	31.5	2.2
155	46	1.5	9.21	"	"	1900	-	186	38.5	1.8
118	60	1.25	12.07	"	"	2000	-	142	50	1.5
100	71	1.2	14.21	"	"	2100	-	121	59	1.45
84	85	1.1	16.99	"	"	2500	-	101	70	1.35
70	102	0.93	20.42	"	"	2700	-	84	85	1.1
120	59	3.1	11.84	BF10-../DHE08XA4	30	2500	-	145	49	3.7
95	75	2.4	15.04	"	"	2800	-	114	62	3.0
78	91	2.6	18.23	"	"	2900	-	94	76	3.2
71	100	2.4	20.05	"	"	3000	-	86	83	2.9
61	117	2.1	23.28	"	"	3200	-	74	96	2.5
56	127	1.9	25.60	"	"	3350	-	67	106	2.3
50	143	1.7	28.47	"	"	3450	-	61	117	2.1
45.5	157	1.55	31.31	"	"	3600	-	55	130	1.85
39.5	181	1.35	36.15	"	"	3800	-	47.5	150	1.6
36	198	1.2	39.75	"	"	3950	-	43.5	164	1.45
33	215	1.1	43.06	"	"	4100	-	40	179	1.35
30	235	1.0	47.35	"	"	4250	-	36.5	196	1.2
28	255	0.94	51.28	"	"	4400	-	33.5	210	1.15
25.5	280	0.86	56.39	"	"	4550	-	30.5	230	1.05
23.5	300	0.8	61.55	"	"	4700	-	28	255	0.94
59	121	3.3	24.25	BF20-../DHE08XA4	36	3950	-	71	100	4.0
52	137	3.1	27.62	"	"	4150	-	62	115	3.7
47	152	2.8	30.40	"	"	4400	-	57	125	3.4
44	162	2.6	32.58	"	"	4450	-	53	135	3.1
40	179	2.3	35.85	"	"	4650	-	48	149	2.8
34.5	205	2.0	41.72	"	"	4950	-	41	174	2.4
31	230	1.85	45.90	"	"	5100	-	37.5	191	2.2
29.5	240	1.75	48.56	"	"	5200	-	35.5	200	2.1
27	265	1.6	53.43	"	"	5500	-	32.5	220	1.9
24.5	290	1.45	58.24	"	"	5600	-	29.5	240	1.75
22.5	315	1.35	64.08	"	"	5900	-	27	265	1.6
20.5	345	1.2	69.70	"	"	6100	-	25	285	1.45
19	375	1.1	76.69	"	"	6300	-	22.5	315	1.35
16.5	430	0.98	87.31	"	"	6600	-	20	355	1.2

P = 0.75 kW

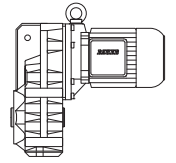


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
14.5	490	0.86	100.2	BF20-../DHE08XA4	"	7000	-	17.5	405	1.05
41	174	3.3	35.00	BF30-../DHE08XA4	46	4200	-	49	146	3.9
37	193	3.0	38.49	"	"	4400	-	44.5	160	3.6
35	200	2.9	41.01	"	"	4500	-	42	170	3.4
31.5	225	2.6	45.10	"	"	4700	-	38	188	3.1
27.5	260	2.2	52.20	"	"	5000	-	33	215	2.7
25	285	2.0	57.41	"	"	5200	-	30	235	2.4
23.5	300	1.9	61.17	"	"	5300	-	28	255	2.3
21.5	330	1.75	67.28	"	"	5500	-	25.5	280	2.1
20	355	1.6	72.13	"	"	5700	-	24	295	1.95
18	395	1.45	79.34	"	"	5900	-	22	325	1.75
16.5	430	1.35	87.08	"	"	6200	-	20	355	1.6
15	475	1.2	95.79	"	"	6400	-	18	395	1.45
13.5	530	1.1	107.6	"	"	6700	-	16	445	1.3
12.5	570	1.0	118.3	"	"	7000	-	14.5	490	1.15
11.5	620	0.93	124.7	"	"	7100	-	14	510	1.15
10.5	680	0.85	137.1	"	"	7400	-	12.5	570	1.0
26.5	270	3.3	53.82	BF40-../DHE08XA4	55	7200	-	32	220	4.1
23.5	300	3.0	61.25	"	"	7600	-	28	255	3.5
21.5	330	2.7	67.38	"	"	8000	-	25.5	280	3.2
20	355	2.5	71.40	"	"	8100	-	24	295	3.1
18.5	385	2.3	78.55	"	"	8500	-	22	325	2.8
17	420	2.1	83.91	"	"	8700	-	20.5	345	2.6
15.5	460	1.95	92.31	"	"	9100	-	19	375	2.4
14.5	490	1.85	101.0	"	"	9400	-	17	420	2.1
13	550	1.65	111.1	"	"	9800	-	15.5	460	1.95
11.5	620	1.45	124.5	"	"	10200	-	14	510	1.75
10.5	680	1.3	137.0	"	"	10600	-	12.5	570	1.6
9.2	770	1.15	155.6	BF40Z-../DHE08XA4	59	10600	-	11	650	1.4
8.3	860	1.05	171.2	"	"	10600	-	10	710	1.25
7.6	940	0.96	188.3	"	"	10600	-	9.1	780	1.15
7.1	1000	0.9	202.2	"	"	10600	-	8.5	840	1.05
6.4	1110	0.81	222.4	"	"	10600	-	7.7	930	0.97
17.5	405	3.2	81.33	BF50-../DHE08XA4	84	11300	-	21.5	330	3.9
16	445	2.9	90.24	"	"	11800	-	19	375	3.5
14.5	490	2.7	100.9	"	"	12300	-	17	420	3.1
12.5	570	2.3	114.0	"	"	12900	-	15	475	2.7
11.5	620	2.1	127.5	"	"	13600	-	13.5	530	2.5
10.5	680	1.9	138.1	BF50Z-../DHE08XA4	88	13600	-	12.5	570	2.3
9.2	770	1.7	154.5	"	"	13600	-	11.5	620	2.1
7.8	910	1.45	183.5	"	"	13600	-	9.4	760	1.7
7.0	1020	1.25	205.2	"	"	13600	-	8.4	850	1.55
5.8	1230	1.05	247.5	"	"	13600	-	7.0	1020	1.25
5.2	1370	0.95	276.8	"	"	13600	-	6.2	1150	1.15
4.5	1590	0.82	316.6	"	"	13600	-	5.5	1300	1.0
8.4	850	2.7	169.2	BF60Z-../DHE08XA4	132	15300	43300	10.5	680	3.4
7.6	940	2.4	187.7	"	"	15300	43300	9.2	770	3.0
6.5	1100	2.1	221.4	"	"	15300	43300	7.8	910	2.5
5.8	1230	1.85	245.6	"	"	15300	43300	7.0	1020	2.3
4.9	1460	1.6	293.4	"	"	15300	43300	5.9	1210	1.9
4.4	1620	1.4	325.6	"	"	15300	43300	5.3	1350	1.7
3.8	1880	1.2	380.0	"	"	15300	43300	4.5	1590	1.45
3.4	2100	1.1	421.6	"	"	15300	43300	4.1	1740	1.3
3.1	2300	1.0	459.9	"	"	15300	43300	3.8	1880	1.2
2.8	2550	0.9	510.3	"	"	15300	43300	3.4	2100	1.1
2.5	2600	0.96	569.3	BF60G20-../DHE08XA4	140	15300	43300	3.1	2050	1.2
2.1	3100	0.81	689.0	"	"	15300	43300	2.5	2550	0.98

BF-series parallel shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 0.75 kW

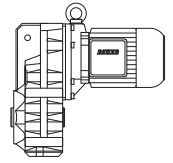


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
4.2	1700	3.1	341.7	BF70Z-../DHE08XA4	220	16100	47700	5.1	1400	3.7
3.6	1980	2.6	398.7	"	"	16100	47700	4.3	1660	3.1
3.3	2150	2.4	439.2	"	"	16100	47700	3.9	1830	2.8
2.8	2550	2.0	512.4	"	"	16100	47700	3.4	2100	2.5
2.5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

P = 1.1 kW

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

P = 1.1 kW

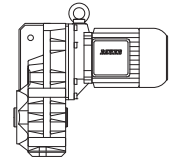


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
30	350	1.2	48.56	BF20-../DHE09LA4	"	5200	-	36	290	1.45
27	385	1.1	53.43	"	"	5500	-	33	315	1.35
25	420	1.0	58.24	"	"	5600	-	30	350	1.2
22.5	465	0.9	64.08	"	"	5900	-	27.5	380	1.1
21	500	0.84	69.70	"	"	6100	-	25	420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

BF-series parallel shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 1.1 kW

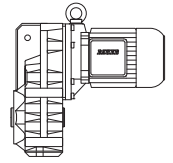


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
5.0	2100	1.1	293.4	BF60Z-../DHE09LA4	"	15300	43300	6.0	1750	1.3
4.5	2300	1.0	325.6	"	"	15300	43300	5.4	1940	1.2
3.8	2750	0.84	380.0	"	"	15300	43300	4.6	2250	1.0
6.2	1690	3.1	233.0	BF70Z-../DHE09LA4	227	16100	47700	7.5	1400	3.7
5.6	1870	2.8	258.7	"	"	16100	47700	6.8	1540	3.4
4.8	2150	2.4	301.8	"	"	16100	47700	5.8	1810	2.9
4.3	2400	2.2	341.7	"	"	16100	47700	5.1	2050	2.5
3.7	2800	1.85	398.7	"	"	16100	47700	4.4	2350	2.2
3.3	3150	1.65	439.2	"	"	16100	47700	4.0	2600	2.0
2.9	3600	1.45	512.4	"	"	16100	47700	3.4	3050	1.7
2.8	3500	1.65	524.1	BF70G20-../DHE09LA4	225	16100	47700	3.4	2850	2.0
2.5	3950	1.45	577.5	"	"	16100	47700	3.1	3100	1.85
2.2	4450	1.3	673.6	"	"	16100	47700	2.6	3750	1.5
1.7	5900	0.97	872.1	"	"	16100	47700	2.0	4950	1.15
1.5	6700	0.85	1017	"	"	16100	47700	1.8	5500	1.05
3.2	3250	3.2	450.4	BF80Z-../DHE09LA4	344	39600	75000	3.9	2650	4.0
2.9	3600	2.9	511.2	"	"	39600	75000	3.5	3000	3.5
2.5	4200	2.5	583.4	"	"	39600	75000	3.0	3500	3.0
2.2	4750	2.2	662.1	"	"	39600	75000	2.7	3850	2.7
1.9	5500	1.9	770.6	"	"	39600	75000	2.3	4550	2.3
1.7	6100	1.7	874.6	"	"	39600	75000	2.0	5200	2.0
1.5	7000	1.5	990.4	"	"	39600	75000	1.8	5800	1.8
1.3	8000	1.3	1124	"	"	39600	75000	1.6	6500	1.6
1.1	8100	1.3	1329	BF80G40-../DHE09LA4	349	39600	75000	1.4	6000	1.75
1.0	9100	1.15	1491	"	"	39600	75000	1.2	7300	1.45
0.9	10000	1.05	1693	"	"	39600	75000	1.1	7900	1.35
1.8	5800	3.2	845.1	BF90Z-../DHE09LA4	608	42800	120000	2.1	5000	3.7
1.4	6100	3.0	1043	BF90G50-../DHE09LA4	620	42800	120000	1.7	4750	3.9
1.2	7100	2.6	1204	"	"	42800	120000	1.5	5300	3.5
1.0	9100	2.0	1444	"	"	42800	120000	1.3	6700	2.8
0.9	10000	1.85	1678	"	"	42800	120000	1.1	7900	2.3
0.8	11300	1.65	1867	"	"	42800	120000	0.95	9200	2.0
0.7	12900	1.45	2154	"	"	42800	120000	0.85	10300	1.8
0.55	16700	1.1	2656	"	"	42800	120000	0.7	12600	1.45

P = 1.5 kW

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

P = 1.5 kW

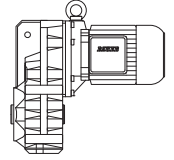


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
60	235	1.7	24.25	BF20-../DHE09XA4	"	3950	-	72	198	2.0
53	270	1.55	27.62	"	"	4150	-	63	225	1.85
47.5	300	1.4	30.40	"	"	4400	-	58	245	1.7
44.5	320	1.3	32.58	"	"	4450	-	54	265	1.6
40.5	350	1.2	35.85	"	"	4650	-	49	290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

BF-series parallel shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

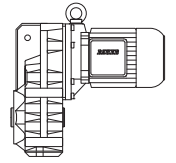
P = 1.5 kW



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

7

P = 2.2 kW

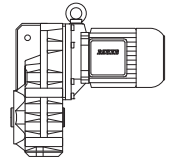


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
260	80	1.75	5.60	BF10-../DHE09XA4C	43	1980	-	315	66	2.1
190	110	1.4	7.58	"	"	2200	-	230	91	1.7
149	141	1.25	9.69	"	"	2350	-	180	116	1.55
122	172	1.05	11.84	"	"	2500	-	147	142	1.3
96	215	0.85	15.04	"	"	2800	-	116	181	1.0
79	265	0.91	18.23	"	"	2900	-	96	215	1.1
72	290	0.83	20.05	"	"	3000	-	87	240	1.0
240	87	2.3	6.04	BF20-../DHE09XA4C	49	2550	-	290	72	2.8
180	116	1.9	8.00	"	"	2850	-	220	95	2.3
138	152	1.7	10.51	"	"	3100	-	166	126	2.0
110	191	1.5	13.18	"	"	3300	-	133	157	1.8
93	225	1.35	15.54	"	"	3450	-	112	187	1.65
86	240	1.5	16.77	"	"	3500	-	104	200	1.8
79	265	1.4	18.45	"	"	3600	-	95	220	1.7
66	315	1.25	22.04	"	"	3800	-	79	265	1.5
60	350	1.15	24.25	"	"	3950	-	72	290	1.4
53	395	1.05	27.62	"	"	4150	-	63	330	1.25
47.5	440	0.95	30.40	"	"	4400	-	58	360	1.15
44.5	470	0.89	32.58	"	"	4450	-	54	385	1.1
40.5	510	0.82	35.85	"	"	4650	-	49	425	0.99
230	91	2.9	6.34	BF30-../DHE09XA4C	59	2400	-	275	76	3.5
179	117	2.4	8.07	"	"	2650	-	220	95	3.0
145	144	2.2	9.99	"	"	2850	-	175	120	2.7
112	187	1.95	12.91	"	"	3050	-	135	155	2.4
90	230	1.75	16.00	"	"	3250	-	109	192	2.1
82	255	1.9	17.65	"	"	3300	-	99	210	2.3
75	280	1.8	19.41	"	"	3400	-	90	230	2.2
66	315	1.7	21.85	"	"	3500	-	80	260	2.0
60	350	1.6	24.03	"	"	3600	-	73	285	1.95
52	400	1.45	28.23	"	"	3800	-	62	335	1.7
46.5	450	1.3	31.05	"	"	4000	-	57	365	1.6
41.5	500	1.15	35.00	"	"	4200	-	50	420	1.35
37.5	560	1.05	38.49	"	"	4400	-	45.5	460	1.25
35.5	590	0.97	41.01	"	"	4500	-	42.5	490	1.15
32	650	0.88	45.10	"	"	4700	-	39	530	1.1
189	111	3.3	7.62	BF40-../DHE09XA4C	69	3900	-	230	91	4.0
152	138	3.0	9.48	"	"	4150	-	184	114	3.6
123	170	2.7	11.79	"	"	4450	-	148	141	3.3
96	215	2.4	15.02	"	"	4800	-	116	181	2.9
83	250	2.5	17.35	"	"	4950	-	101	205	3.1
76	275	2.4	19.09	"	"	5100	-	92	225	3.0
67	310	2.3	21.60	"	"	5200	-	81	255	2.8
61	340	2.2	23.77	"	"	5400	-	74	280	2.6
54	385	2.0	26.86	"	"	5600	-	65	320	2.4
49	425	1.9	29.55	"	"	5800	-	59	355	2.3
42.5	490	1.75	34.21	"	"	6000	-	51	410	2.1
38.5	540	1.65	37.64	"	"	6200	-	46.5	450	2.0
35	600	1.5	41.42	"	"	6500	-	42.5	490	1.85
32	650	1.4	45.56	"	"	6800	-	38.5	540	1.65
29.5	710	1.25	48.92	"	"	7000	-	36	580	1.55
27	770	1.15	53.82	"	"	7200	-	32.5	640	1.4
24	870	1.05	61.25	"	"	7600	-	28.5	730	1.25
21.5	970	0.93	67.38	"	"	8000	-	26	800	1.15
20.5	1020	0.88	71.40	"	"	8100	-	24.5	850	1.05
18.5	1130	0.8	78.55	"	"	8500	-	22.5	930	0.97
56	375	3.1	25.88	BF50-../DHE09XA4C	97	7100	-	68	305	3.8
45.5	460	2.8	31.73	"	"	7500	-	55	380	3.3

BF-series parallel shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

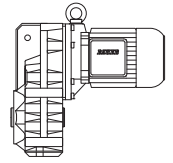
P = 2.2 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
41	510	2.5	35.49	BF50-../DHE09XA4C	"	7800	-	49.5	420	3.1
34.5	600	2.2	42.15	"	"	8500	-	41.5	500	2.6
31	670	1.95	47.14	"	"	8900	-	37	560	2.3
25.5	820	1.6	56.86	"	"	9300	-	31	670	1.95
23	910	1.45	63.59	"	"	9800	-	27.5	760	1.7
20	1050	1.25	72.72	"	"	10700	-	24	870	1.5
18	1160	1.1	81.33	"	"	11300	-	21.5	970	1.35
16	1310	0.99	90.24	"	"	11800	-	19.5	1070	1.2
14.5	1440	0.9	100.9	"	"	12300	-	17.5	1200	1.1
13	1610	0.81	114.0	"	"	12900	-	15.5	1350	0.96
26.5	790	2.9	54.44	BF60-../DHE09XA4C	126	10500	29700	32	650	3.5
24	870	2.6	60.40	"	"	11100	31400	29	720	3.2
20	1050	2.2	72.15	"	"	12000	34000	24.5	850	2.7
18	1160	2.0	80.05	"	"	12600	35600	22	950	2.4
15.5	1350	1.7	93.44	"	"	13500	38200	19	1100	2.1
14	1500	1.55	103.7	"	"	14100	39900	17	1230	1.85
13	1610	1.45	113.1	"	"	14600	41300	15.5	1350	1.7
11.5	1820	1.25	125.5	"	"	15300	43300	14	1500	1.55
10.5	2000	1.15	140.8	BF60Z-../DHE09XA4C	146	15300	43300	12.5	1680	1.35
8.6	2400	0.96	169.2	"	"	15300	43300	10.5	2000	1.15
7.7	2700	0.85	187.7	"	"	15300	43300	9.3	2250	1.0
12	1750	3.0	122.7	BF70-../DHE09XA4C	213	16100	47700	14.5	1440	3.6
11	1910	2.7	133.0	BF70Z-../DHE09XA4C	234	16100	47700	13.5	1550	3.4
9.4	2200	2.4	154.0	"	"	16100	47700	11.5	1820	2.9
8.1	2550	2.0	179.7	"	"	16100	47700	9.7	2150	2.4
7.3	2850	1.8	199.7	"	"	16100	47700	8.8	2350	2.2
6.2	3350	1.55	233.0	"	"	16100	47700	7.5	2800	1.85
5.6	3750	1.4	258.7	"	"	16100	47700	6.8	3050	1.7
4.8	4350	1.2	301.8	"	"	16100	47700	5.8	3600	1.45
4.3	4850	1.05	341.7	"	"	16100	47700	5.1	4100	1.25
3.7	5600	0.93	398.7	"	"	16100	47700	4.4	4750	1.1
3.3	6300	0.83	439.2	"	"	16100	47700	4.0	5200	1.0
6.9	3000	3.2	209.4	BF80-../DHE09XA4C	309	34300	75000	8.4	2500	3.8
6.1	3400	2.8	237.1	"	"	36900	75000	7.4	2800	3.4
5.4	3850	2.5	269.1	"	"	39600	75000	6.5	3200	3.0
5.0	4200	2.5	291.7	BF80Z-../DHE09XA4C	350	39600	75000	6.0	3500	3.0
4.2	5000	2.1	347.3	"	"	39600	75000	5.1	4100	2.6
3.7	5600	1.9	394.2	"	"	39600	75000	4.5	4650	2.3
3.2	6500	1.6	450.4	"	"	39600	75000	3.9	5300	2.0
2.9	7200	1.45	511.2	"	"	39600	75000	3.5	6000	1.75
2.5	8400	1.25	583.4	"	"	39600	75000	3.0	7000	1.5
2.2	9500	1.1	662.1	"	"	39600	75000	2.7	7700	1.35
1.9	11000	0.95	770.6	"	"	39600	75000	2.3	9100	1.15
1.7	12300	0.85	874.6	"	"	39600	75000	2.0	10500	1.0
3.2	6500	2.8	456.7	BF90Z-../DHE09XA4C	614	42800	120000	3.9	5300	3.5
2.9	7200	2.6	508.5	"	"	42800	120000	3.5	6000	3.1
2.5	8400	2.2	591.1	"	"	42800	120000	3.0	7000	2.6
2.2	9500	1.95	658.1	"	"	42800	120000	2.7	7700	2.4
1.9	11000	1.7	759.0	"	"	42800	120000	2.3	9100	2.0
1.8	11600	1.6	845.1	"	"	42800	120000	2.1	10000	1.85
1.5	12400	1.5	976.1	BF90G50-../DHE09XA4C	626	42800	120000	1.8	10000	1.85
1.4	13600	1.35	1043	"	"	42800	120000	1.7	10900	1.7
1.2	15800	1.15	1204	"	"	42800	120000	1.5	12300	1.5
1.0	19600	0.94	1444	"	"	42800	120000	1.3	14700	1.25

7

P = 3 kW

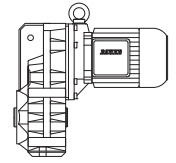


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
230	124	2.1	6.34	BF30-../DHE11MA4	66	2400	-	275	104	2.5
179	160	1.8	8.07	"	"	2650	-	220	130	2.2
145	197	1.6	9.99	"	"	2850	-	175	163	1.95
112	255	1.45	12.91	"	"	3050	-	135	210	1.75
90	315	1.3	16.00	"	"	3250	-	109	260	1.55
82	345	1.4	17.65	"	"	3300	-	99	285	1.7
75	380	1.3	19.41	"	"	3400	-	90	315	1.6
66	430	1.25	21.85	"	"	3500	-	80	355	1.5
60	475	1.15	24.03	"	"	3600	-	73	390	1.4
52	550	1.05	28.23	"	"	3800	-	62	460	1.25
46.5	610	0.94	31.05	"	"	4000	-	57	500	1.15
41.5	690	0.83	35.00	"	"	4200	-	50	570	1.0
250	114	2.9	5.87	BF40-../DHE11MA4	80	3550	-	300	95	3.5
189	151	2.4	7.62	"	"	3900	-	230	124	3.0
152	188	2.2	9.48	"	"	4150	-	184	155	2.7
123	230	2.0	11.79	"	"	4450	-	148	193	2.4
96	295	1.75	15.02	"	"	4800	-	116	245	2.1
83	345	1.85	17.35	"	"	4950	-	101	280	2.3
76	375	1.75	19.09	"	"	5100	-	92	310	2.1
67	425	1.65	21.60	"	"	5200	-	81	350	2.0
61	465	1.6	23.77	"	"	5400	-	74	385	1.9
54	530	1.45	26.86	"	"	5600	-	65	440	1.75
49	580	1.4	29.55	"	"	5800	-	59	485	1.65
42.5	670	1.3	34.21	"	"	6000	-	51	560	1.55
38.5	740	1.2	37.64	"	"	6200	-	46.5	610	1.45
35	810	1.1	41.42	"	"	6500	-	42.5	670	1.35
32	890	1.0	45.56	"	"	6800	-	38.5	740	1.2
29.5	970	0.93	48.92	"	"	7000	-	36	790	1.15
27	1060	0.85	53.82	"	"	7200	-	32.5	880	1.0
135	210	3.2	10.68	BF50-../DHE11MA4	110	5600	-	163	175	3.9
99	285	2.8	14.65	"	"	6100	-	119	240	3.3
87	325	2.9	16.70	"	"	6200	-	105	270	3.5
78	365	2.7	18.68	"	"	6400	-	94	300	3.3
63	450	2.5	23.14	"	"	6800	-	76	375	3.0
56	510	2.3	25.88	"	"	7100	-	68	420	2.8
45.5	620	2.0	31.73	"	"	7500	-	55	520	2.4
41	690	1.9	35.49	"	"	7800	-	49.5	570	2.3
34.5	830	1.55	42.15	"	"	8500	-	41.5	690	1.9
31	920	1.4	47.14	"	"	8900	-	37	770	1.7
25.5	1120	1.15	56.86	"	"	9300	-	31	920	1.4
23	1240	1.05	63.59	"	"	9800	-	27.5	1040	1.25
20	1430	0.91	72.72	"	"	10700	-	24	1190	1.1
18	1590	0.82	81.33	"	"	11300	-	21.5	1330	0.98
46.5	610	3.1	31.20	BF60-../DHE11MA4	141	8800	24900	56	510	3.7
42	680	2.9	34.62	"	"	9100	25700	51	560	3.5
35	810	2.6	41.60	"	"	9600	27100	42	680	3.1
31.5	900	2.5	46.16	"	"	9900	28000	38	750	3.0
26.5	1080	2.1	54.44	"	"	10500	29700	32	890	2.6
24	1190	1.95	60.40	"	"	11100	31400	29	980	2.3
20	1430	1.6	72.15	"	"	12000	34000	24.5	1160	2.0
18	1590	1.45	80.05	"	"	12600	35600	22	1300	1.75
15.5	1840	1.25	93.44	"	"	13500	38200	19	1500	1.55
14	2000	1.15	103.7	"	"	14100	39900	17	1680	1.35
13	2200	1.05	113.1	"	"	14600	41300	15.5	1840	1.25
11.5	2450	0.94	125.5	"	"	15300	43300	14	2000	1.15
10.5	2700	0.85	140.8	BF60Z-../DHE11MA4	157	15300	43300	12.5	2250	1.0
18	1590	3.3	81.82	BF70-../DHE11MA4	220	12800	41300	21.5	1330	3.9
15.5	1840	2.8	95.46	"	"	14000	43700	18.5	1540	3.4
14	2000	2.6	105.2	"	"	14700	45100	17	1680	3.1
12	2350	2.2	122.7	"	"	16100	47700	14.5	1970	2.6

BF-series parallel shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 3 kW

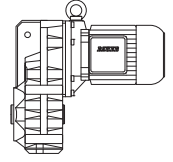


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
11	2600	2.0	133.0	BF70Z-../DHE11MA4	247	16100	47700	13.5	2100	2.5
9.4	3000	1.75	154.0	"	"	16100	47700	11.5	2450	2.1
8.1	3500	1.5	179.7	"	"	16100	47700	9.7	2950	1.75
7.3	3900	1.35	199.7	"	"	16100	47700	8.8	3250	1.6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

P = 4 kW

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

P = 4 kW

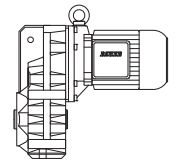


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
49	770	1.05	29.55	BF40-../DHE11LA4	"	5800	-	59	640	1.25
42.5	890	0.96	34.21	"	"	6000	-	51	740	1.15
38.5	990	0.9	37.64	"	"	6200	-	46.5	820	1.1
35	1090	0.83	41.42	"	"	6500	-	42.5	890	1.0
187	200	2.8	7.71	BF50-../DHE11LA4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

BF-series parallel shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 4 kW

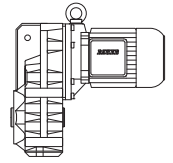


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
5.4	7000	2.6	269.8	BF90Z-../DHE11LA4	641	42800	120000	6.5	5800	3.2
4.8	7900	2.3	300.4	"	"	42800	120000	5.8	6500	2.8
4.2	9000	2.1	343.6	"	"	42800	120000	5.1	7400	2.5
3.8	10000	1.85	382.6	"	"	42800	120000	4.6	8300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

P = 5.5 kW

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

P = 5.5 kW



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

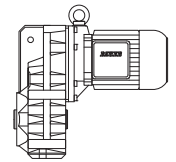
P = 7.5 kW

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

BF-series parallel shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 7.5 kW

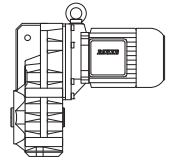


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
59	1210	1.45	25.05	BF60-../DHE13LA4	"	8200	23200	71	1000	1.75
47	1520	1.25	31.20	"	"	8800	24900	57	1250	1.5
42.5	1680	1.2	34.62	"	"	9100	25700	51	1400	1.4
35.5	2000	1.05	41.60	"	"	9600	27100	42.5	1680	1.25
32	2200	1.0	46.16	"	"	9900	28000	38.5	1860	1.2
27	2650	0.87	54.44	"	"	10500	29700	32.5	2200	1.05
40	1790	2.9	36.88	BF70-../DHE13LA4	248	7900	31100	48	1490	3.5
34	2100	2.5	43.02	"	"	8700	32800	41	1740	3.0
31	2300	2.3	47.82	"	"	9100	34000	37	1930	2.7
26.5	2700	1.95	55.79	"	"	10200	36000	32	2200	2.4
24	2950	1.75	61.94	"	"	10800	37400	28.5	2500	2.1
20.5	3450	1.5	72.26	"	"	12000	39600	24.5	2900	1.8
18	3950	1.3	81.82	"	"	12800	41300	22	3250	1.6
15.5	4600	1.15	95.46	"	"	14000	43700	18.5	3850	1.35
14	5100	1.0	105.2	"	"	14700	45100	17	4200	1.25
12	5900	0.88	122.7	"	"	16100	47700	14.5	4900	1.05
11	6500	0.8	133.0	BF70Z-../DHE13LA4	273	16100	47700	13.5	5300	0.98
24	2950	3.2	61.55	BF80-../DHE13LA4	344	14800	58100	29	2450	3.8
21	3400	2.8	69.86	"	"	15900	60600	25.5	2800	3.4
18	3950	2.4	83.16	"	"	18400	65100	21.5	3300	2.9
15.5	4600	2.1	94.38	"	"	20300	68500	19	3750	2.5
14	5100	1.85	107.9	"	"	22400	72300	16.5	4300	2.2
12	5900	1.6	122.4	"	"	24500	75000	14.5	4900	1.95
10.5	6800	1.4	139.7	"	"	26700	75000	13	5500	1.75
9.3	7700	1.25	158.5	"	"	29000	75000	11.5	6200	1.55
8.0	8900	1.05	184.5	"	"	31800	75000	9.6	7400	1.3
7.0	10200	0.93	209.4	"	"	34300	75000	8.5	8400	1.15
6.2	11500	0.83	237.1	"	"	36900	75000	7.5	9500	1.0
14	5100	3.3	107.5	BF90-../DHE13LA4	596	22300	86900	16.5	4300	3.9
12.5	5700	2.9	119.7	"	"	24500	90800	15	4750	3.5
10.5	6800	2.5	139.1	"	"	27700	96300	13	5500	3.1
9.5	7500	2.2	154.8	"	"	30100	100800	11.5	6200	2.7
8.2	8700	1.95	178.6	"	"	33400	106700	9.9	7200	2.3
7.4	9600	1.75	198.8	"	"	36000	111300	8.9	8000	2.1
6.3	11300	1.5	232.6	"	"	39900	118300	7.6	9400	1.8
5.7	12500	1.35	259.0	"	"	42800	120000	6.8	10500	1.6
5.5	13000	1.4	269.8	BF90Z-../DHE13LA4	657	42800	120000	6.6	10800	1.7
4.9	14600	1.25	300.4	"	"	42800	120000	5.9	12100	1.55
4.3	16600	1.1	343.6	"	"	42800	120000	5.2	13700	1.35
3.9	18300	1.0	382.6	"	"	42800	120000	4.7	15200	1.2
3.2	22300	0.83	456.7	"	"	42800	120000	3.9	18300	1.0

P = 9.5 kW

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

P = 9.5 kW

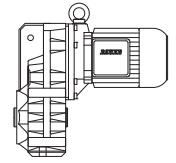


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
104	870	1.35	14.24	BF60-../DHE16MA4	"	7100	20000	125	720	1.65
87	1040	1.4	16.96	"	"	7300	20600	105	860	1.7
79	1140	1.35	18.81	"	"	7600	21500	95	950	1.6
66	1370	1.2	22.58	"	"	8000	22600	79	1140	1.45
59	1530	1.15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

BF-series parallel shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

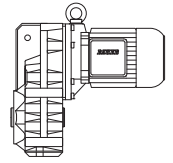
P = 11 kW



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

7

P = 15 kW



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

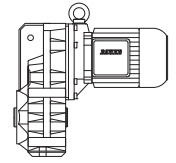
P = 18.5 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
285	610	1.25	5.22	BF60-../DHE18LA4	300	5200	14800	340	510	1.5
190	920	0.94	7.74	"	"	6000	16900	230	760	1.15
143	1230	0.82	10.31	"	"	6500	18400	172	1020	0.99
143	1230	2.0	10.32	BF70-../DHE18LA4	377	4600	18700	172	1020	2.5
123	1430	2.1	12.04	"	"	4900	19700	148	1190	2.5

BF-series parallel shaft geared motors

Selection - parallel shaft geared motors DHE - IE2

P = 18.5 kW

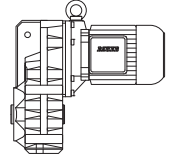


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
99	1780	2.1	14.90	BF70-../DHE18LA4	"	5900	24000	119	1480	2.5
85	2050	2.1	17.39	"	"	6200	25000	102	1730	2.5
70	2500	1.85	21.04	"	"	6400	26300	85	2050	2.2
60	2900	1.75	24.55	"	"	7000	27700	73	2400	2.1
54	3250	1.6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

P = 22 kW

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

P = 22 kW



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

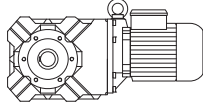
7

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**BK-series bevel-gear motors
Selection**

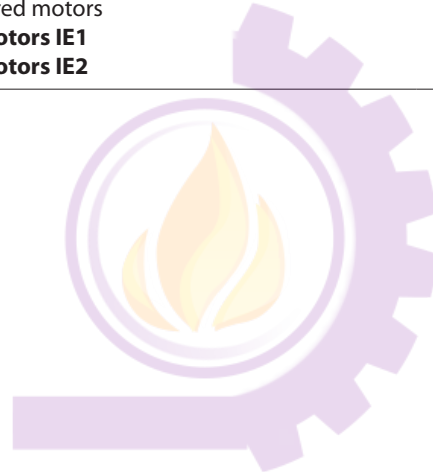
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Description of bevel-gear units

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

Selection - bevel gear motors IE1

Selection - bevel gear motors IE2



Sizes

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

Bauer service factors (f_B) for bevel-gear motors

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

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

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

See Bauer special imprint SD32 for more information.

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

Factor f_1 for shock classification and operating time

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

Switching duty

Factor f_2 for shock classification and switching frequency

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

Shock classification	$1 < Z \leq 100$	$100 < Z \leq 1000$	$1000 < Z$
I	0,95	1,1	1,15
II	1,2	1,35	1,4
III	1,55	1,6	1,6

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

Shock classification	$1 < Z \leq 100$	$100 < Z \leq 1000$	$1000 < Z$
I	1,3	1,45	1,5
II	1,5	1,6	1,65
III	1,75	1,8	1,8

Bauer Service factor

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

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

Explanation of shock classification

Shock classification I:

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

- $FI \leq 1,3$

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

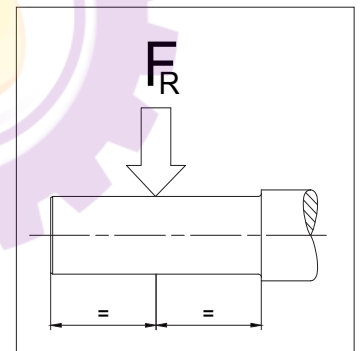
Key to abbreviations

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 $f_B = 1,0$.

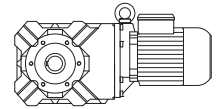
Motor power overload protection

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 DSE -IE1

P = 0.03 kW

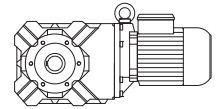


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
28.5	8.9	9.0	47.78	BK06-../D04LA4	7.6	1500	-	34	7.4	11
25	10.1	6.7	54.38	"	"	1600	-	30	8.4	8.1
21.5	11.8	5.4	63.33	"	"	1700	-	26	9.8	6.5
3.7	62	2.7	373.4	BK10Z-../D04LA4	21	7000	-	4.4	52	3.2
3.2	71	2.1	428.8	"	"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

P = 0.04 kW

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

P = 0.04 kW



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

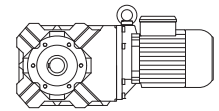
P = 0.06 kW

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

BK-series bevel geared motors

Selection - bevel geared motors DSE -IE1

P = 0.06 kW

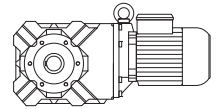


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
1.7	235	2.1	810.9	BK30G06-../D06LA4	"	11200	12000	2.0	196	2.5
1.5	265	1.85	954.1	"	"	11200	12000	1.7	230	2.1
1.2	330	1.5	1142	"	"	11200	12000	1.5	260	1.9
1.1	360	1.35	1281	"	"	11200	12000	1.3	305	1.6
0.85	475	1.05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

P = 0.09 kW

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

P = 0.09 kW



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

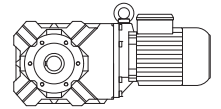
P = 0.12 kW

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

BK-series bevel geared motors

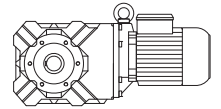
Selection - bevel geared motors DSE -IE1

P = 0.12 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
15.5	64	2.8	89.30	BK10-../D06LA4	23	7000	-	18.5	53	3.4
13.5	72	2.2	102.5	"	"	7000	-	16	60	2.6
11.5	84	1.65	120.3	BK10Z-../D06LA4	24	7000	-	13.5	72	1.9
9.5	101	1.6	143.2	"	"	7000	-	11.5	83	1.95
8.0	118	1.7	170.6	"	"	7000	-	9.5	100	2.0
6.6	142	1.4	204.7	"	"	7000	-	8.0	117	1.7
5.3	177	1.15	257.9	"	"	7000	-	6.3	149	1.35
4.5	205	0.9	302.4	"	"	7000	-	5.4	171	1.1
4.0	210	1.05	343.2	BK10G06-../D06LA4	28	7000	-	4.8	173	1.25
3.3	255	0.86	410.8	"	"	7000	-	4.0	205	1.05
14	70	3.3	96.99	BK20Z-../D06LA4	34	8700	9000	17	57	4.1
9.4	102	3.2	144.5	"	"	8700	9000	11.5	83	4.0
7.8	121	2.7	173.4	"	"	8700	9000	9.4	101	3.3
6.6	142	2.3	207.5	"	"	8700	9000	7.9	118	2.8
5.2	180	1.85	259.9	"	"	8700	9000	6.3	149	2.2
4.6	200	1.55	298.2	"	"	8700	9000	5.5	168	1.85
3.7	245	1.2	367.7	"	"	8700	9000	4.5	200	1.45
3.2	260	1.4	429.7	BK20G06-../D06LA4	38	8700	9000	3.8	215	1.65
2.9	290	1.25	480.4	"	"	8700	9000	3.4	245	1.45
2.6	320	1.15	524.5	"	"	8700	9000	3.1	265	1.35
2.2	380	0.95	630.0	"	"	8700	9000	2.6	320	1.15
6.3	149	3.0	216.5	BK30Z-../D06LA4	41	11200	12000	7.5	125	3.6
5.3	177	2.5	255.3	"	"	11200	12000	6.4	146	3.1
4.4	210	1.85	308.3	"	"	11200	12000	5.3	177	2.2
3.6	255	1.6	380.7	"	"	11200	12000	4.3	215	1.85
3.1	295	1.3	441.3	"	"	11200	12000	3.7	245	1.55
2.9	290	1.7	471.5	BK30G06-../D06LA4	44	11200	12000	3.5	235	2.1
2.4	350	1.4	567.0	"	"	11200	12000	2.9	285	1.7
2.1	400	1.25	652.5	"	"	11200	12000	2.5	335	1.45
1.9	445	1.1	743.0	"	"	11200	12000	2.2	380	1.3
1.7	495	0.99	810.9	"	"	11200	12000	2.0	420	1.15
1.5	560	0.88	954.1	"	"	11200	12000	1.7	490	1.0
3.9	235	2.5	348.7	BK40Z-../D06LA4	64	11700	17000	4.7	197	2.9
3.2	285	2.0	430.0	"	"	11700	17000	3.8	240	2.4
2.8	255	3.3	487.3	BK40G10-../D06LA4	68	11700	17000	3.4	200	4.3
2.5	290	2.9	540.0	"	"	11700	17000	3.0	230	3.7
2.1	355	2.4	660.2	"	"	11700	17000	2.5	285	3.0
1.8	420	2.0	756.7	"	"	11700	17000	2.2	330	2.6
1.7	450	1.9	838.4	"	"	11700	17000	2.0	370	2.3
1.4	550	1.55	998.3	"	"	11700	17000	1.7	450	1.9
1.2	660	1.3	1189	"	"	11700	17000	1.4	550	1.55
0.95	840	1.0	1428	"	"	11700	17000	1.2	660	1.3
3.3	275	3.1	414.8	BK50Z-../D06LA4	92	14100	26000	4.0	225	3.8
2.1	360	3.2	651.7	BK50G10-../D06LA4	96	14100	26000	2.5	295	3.9
1.9	405	2.8	722.2	"	"	14100	26000	2.3	325	3.5
1.6	490	2.3	859.8	"	"	14100	26000	1.9	405	2.8
1.4	560	2.1	1024	"	"	14100	26000	1.6	490	2.3
1.1	730	1.6	1230	"	"	14100	26000	1.4	570	2.0
1.0	800	1.45	1398	"	"	14100	26000	1.2	660	1.75
0.9	900	1.3	1549	"	"	14100	26000	1.1	730	1.6
0.75	1080	1.05	1816	"	"	14100	26000	0.9	900	1.3
0.85	930	2.7	1618	BK60G20-../D06LA4	123	16600	34000	1.1	630	4.0
0.75	1070	2.3	1810	"	"	16600	34000	0.9	810	3.1
0.7	1160	2.2	2010	"	"	16600	34000	0.85	870	2.9
0.6	1400	1.8	2371	"	"	16600	34000	0.7	1130	2.2
0.5	1750	1.45	2733	"	"	16600	34000	0.6	1370	1.8
0.45	1990	1.25	3036	"	"	16600	34000	0.55	1530	1.65
0.39	2350	1.05	3533	"	"	16600	34000	0.46	1940	1.3
0.45	1900	3.0	3041	BK70G20-../D06LA4	201	24100	50000	0.55	1440	4.0
0.39	2250	2.5	3505	"	"	24100	50000	0.47	1750	3.3

P = 0.12 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
0.35	2550	2.2	3894	BK70G20-../D06LA4	"	24100	50000	0.42	2000	2.9
0.3	3100	1.85	4531	"	"	24100	50000	0.36	2450	2.3
0.25	3850	1.5	5436	"	"	24100	50000	0.3	3100	1.85
0.21	4750	1.2	6504	"	"	24100	50000	0.25	3850	1.5

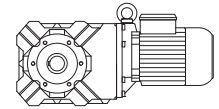
P = 0.18 kW

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

BK-series bevel geared motors

Selection - bevel geared motors DSE -IE1

P = 0.18 kW

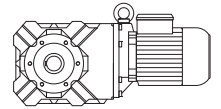


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
4.2	330	3.1	328.2	BK50Z-../D06LA4	92	14100	26000	5.0	275	3.7
3.3	415	2.0	414.8	"	"	14100	26000	4.0	340	2.5
3.0	395	2.9	465.1	BK50G10-../D06LA4	96	14100	26000	3.5	330	3.5
2.7	440	2.6	513.4	"	"	14100	26000	3.2	365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

P = 0.25 kW

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

P = 0.25 kW



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

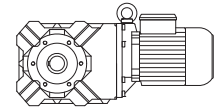
P = 0.3 kW

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

BK-series bevel geared motors

Selection - bevel geared motors DSE -IE1

P = 0.3 kW

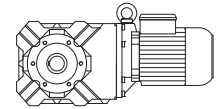


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
12.5	197	1.6	108.6	BK20-../D07LA4	"	8700	9000	15	164	1.9
11	220	1.5	124.2	BK20Z-../D07LA4	37	8700	9000	13.5	180	1.85
9.4	255	1.3	144.5	"	"	8700	9000	11.5	205	1.6
7.8	300	1.1	173.4	"	"	8700	9000	9.4	250	1.3
6.6	355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

P = 0.37 kW

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

P = 0.37 kW

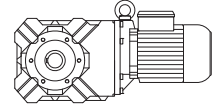


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
47	67	3.0	28.76	BK10-../D07LA4	26	5200	-	57	55	3.6
39.5	80	2.5	34.25	"	"	5600	-	47.5	66	3.0
33.5	94	2.1	40.79	"	"	6000	-	40	79	2.5
28	112	1.8	48.96	"	"	6400	-	33.5	93	2.2
22	142	1.4	61.68	"	"	7000	-	26.5	118	1.7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

BK-series bevel geared motors

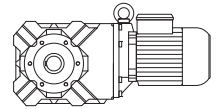
Selection - bevel geared motors DSE -IE1

P = 0.55 kW



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

P = 0.55 kW



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

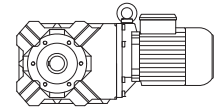
P = 0.75 kW

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

BK-series bevel geared motors

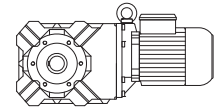
Selection - bevel geared motors DSE -IE1

P = 0.75 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
16	380	1.2	88.38	BK30-../DSE08LA4	"	10600	12000	19.5	315	1.45
14	430	1.05	102.4	"	"	11200	12000	16.5	365	1.25
11.5	520	0.87	123.9	BK30Z-../DSE08LA4	46	11200	12000	14	430	1.05
23.5	265	2.9	59.66	BK40-../DSE08LA4	64	9100	17000	28.5	220	3.5
20	310	2.5	70.11	"	"	9800	17000	24	255	3.1
17	365	2.1	84.36	"	"	10700	17000	20	310	2.5
13.5	450	1.75	104.0	"	"	11700	17000	16.5	365	2.1
12	500	1.55	118.2	BK40Z-../DSE08LA4	69	11700	17000	14.5	415	1.9
9.8	610	1.3	143.0	"	"	11700	17000	12	500	1.55
8.3	710	1.1	169.0	"	"	11700	17000	10	590	1.3
6.7	870	0.9	211.5	"	"	11700	17000	8.0	730	1.05
19	325	3.2	75.40	BK50-../DSE08LA4	93	12600	26000	22.5	275	3.8
15	410	2.6	95.29	"	"	14100	26000	18	340	3.1
12.5	485	2.2	115.4	BK50Z-../DSE08LA4	98	14100	26000	15	405	2.6
9.2	640	1.65	153.3	"	"	14100	26000	11	540	1.95
6.8	860	1.2	206.8	"	"	14100	26000	8.2	710	1.5
5.3	1090	0.96	264.5	"	"	14100	26000	6.4	900	1.15
9.2	770	3.0	153.7	BK60Z-../DSE08LA4	120	16600	34000	11	650	3.5
7.7	930	2.5	183.2	"	"	16600	34000	9.2	770	3.0
6.9	1030	2.2	205.0	"	"	16600	34000	8.2	870	2.6
5.9	1210	1.9	239.7	"	"	16600	34000	7.1	1000	2.3
5.3	1350	1.7	268.2	"	"	16600	34000	6.3	1130	2.0
4.5	1590	1.45	317.7	"	"	16600	34000	5.3	1350	1.7
4.0	1790	1.3	355.5	"	"	16600	34000	4.8	1490	1.55
3.5	2000	1.15	411.5	"	"	16600	34000	4.1	1740	1.3
3.1	2300	1.0	460.4	"	"	16600	34000	3.7	1930	1.2
2.9	2450	0.94	498.0	"	"	16600	34000	3.4	2100	1.1
2.6	2750	0.84	557.2	"	"	16600	34000	3.1	2300	1.0
2.3	2850	0.88	621.5	BK60G20-../DSE08LA4	128	16600	34000	2.8	2250	1.1
4.2	1700	3.1	333.6	BK70Z-../DSE08LA4	208	24100	50000	5.1	1400	3.7
3.7	1930	2.7	379.9	"	"	24100	50000	4.5	1590	3.3
3.3	2150	2.4	432.1	"	"	24100	50000	3.9	1830	2.8
2.8	2550	2.0	501.8	"	"	24100	50000	3.4	2100	2.5
2.5	2850	1.8	570.8	"	"	24100	50000	3.0	2350	2.2
2.2	3250	1.6	644.9	"	"	24100	50000	2.7	2650	1.95
2.0	3550	1.45	733.6	"	"	24100	50000	2.3	3100	1.7
1.7	3850	1.5	847.7	BK70G20-../DSE08LA4	206	24100	50000	2.0	3200	1.8
1.5	4350	1.3	964.6	"	"	24100	50000	1.8	3550	1.6
1.3	5000	1.15	1139	"	"	24100	50000	1.5	4300	1.35
1.1	6100	0.93	1280	"	"	24100	50000	1.4	4700	1.2
1.0	6700	0.85	1457	"	"	24100	50000	1.2	5500	1.05
1.5	3850	3.0	963.0	BK80G40-../DSE08LA4	348	30000	75000	1.8	3050	3.8
1.3	4450	2.6	1079	"	"	30000	75000	1.6	3450	3.3
1.1	5400	2.1	1307	"	"	30000	75000	1.3	4450	2.6
1.0	5900	1.95	1425	"	"	30000	75000	1.2	4750	2.4
0.9	6700	1.7	1583	"	"	30000	75000	1.1	5200	2.2
0.8	7600	1.5	1775	"	"	30000	75000	0.95	6200	1.85
0.65	9600	1.2	2205	"	"	30000	75000	0.8	7500	1.55
0.6	10400	1.1	2449	"	"	30000	75000	0.7	8700	1.3
0.9	6400	2.9	1579	BK90G50-../DSE08LA4	621	49400	120000	1.1	5000	3.7
0.8	7200	2.6	1803	"	"	49400	120000	0.95	5800	3.2
0.7	8300	2.2	2016	"	"	49400	120000	0.85	6500	2.8
0.55	10900	1.7	2764	"	"	49400	120000	0.65	8900	2.1
0.46	13400	1.4	3065	"	"	49400	120000	0.55	10900	1.7
0.39	16200	1.15	3672	"	"	49400	120000	0.46	13400	1.4
0.35	18300	1.0	4070	"	"	49400	120000	0.42	14900	1.25

P = 1.1 kW

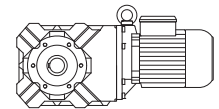


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
194	49.5	1.45	7.25	BK06-../DSE08XA4	18	790	-	235	41	1.8
145	66	1.2	9.71	"	"	880	-	174	55	1.45
120	80	1.0	11.67	"	"	930	-	144	67	1.2
320	30	3.2	4.44	BK10-../DSE08XA4	30	1890	-	380	25	3.8
235	41	2.6	6.02	"	"	2100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

BK-series bevel geared motors

Selection - bevel geared motors DSE -IE1

P = 1.1 kW

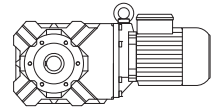


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
4.2	2500	2.1	333.6	BK70Z-../DSE08XA4	"	24100	50000	5.1	2050	2.5
3.7	2800	1.85	379.9	"	"	24100	50000	4.5	2300	2.3
3.3	3150	1.65	432.1	"	"	24100	50000	3.9	2650	1.95
2.8	3750	1.4	501.8	"	"	24100	50000	3.4	3050	1.7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

P = 1.5 kW

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

P = 1.5 kW

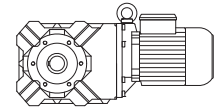


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
50	255	3.1	28.59	BK40-../DSE09LA4	72	6300	17000	60	210	3.7
41.5	310	2.5	34.61	"	"	6900	17000	49.5	260	3.0
35	365	2.1	40.88	"	"	7600	17000	42	305	2.6
28	450	1.75	51.18	"	"	8400	17000	33.5	375	2.1
24	520	1.5	59.66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

BK-series bevel geared motors

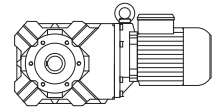
Selection - bevel geared motors DSE -IE1

P = 2.2 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
320	60	1.6	4.44	BK10-../DSE09XA4	40	1890	-	390	49.5	1.9
240	80	1.3	6.02	"	"	2100	-	285	67	1.55
185	104	1.1	7.68	"	"	2400	-	225	85	1.35
152	127	0.91	9.40	"	"	2700	-	182	106	1.1
133	142	1.25	10.70	"	"	3500	-	160	118	1.55
98	192	1.05	14.50	"	"	3900	-	118	160	1.25
77	245	0.82	18.52	"	"	4300	-	93	200	1.0
315	61	3.2	4.54	BK20-../DSE09XA4	50	520	6100	380	50	3.9
240	80	2.7	6.02	"	"	580	6800	285	67	3.3
180	107	2.2	7.91	"	"	1330	7600	220	87	2.7
144	134	1.7	9.91	"	"	1910	8300	173	111	2.1
128	147	2.0	11.14	"	"	3300	8100	154	122	2.5
122	158	1.45	11.69	"	"	2400	8800	147	131	1.75
97	194	1.7	14.75	"	"	3650	9000	116	163	2.0
82	230	1.0	17.42	"	"	3250	9000	99	193	1.2
74	255	1.3	19.39	"	"	4050	9000	89	210	1.55
59	320	1.05	24.29	"	"	4500	9000	71	265	1.25
50	375	0.88	28.66	"	"	4850	9000	60	315	1.05
305	63	3.1	4.73	BK30-../DSE09XA4	56	1550	8800	365	52	3.7
240	80	2.7	6.02	"	"	1690	9600	285	67	3.2
191	101	2.7	7.45	"	"	2200	10400	230	84	3.2
148	130	2.5	9.63	"	"	3150	11500	178	108	3.0
125	151	2.7	11.39	"	"	4150	11000	151	125	3.3
120	161	2.0	11.93	"	"	3650	12000	144	134	2.4
102	187	1.7	13.98	"	"	4050	12000	123	155	2.1
98	192	2.3	14.50	"	"	4900	12000	118	160	2.8
80	235	1.9	17.95	"	"	5300	12000	96	196	2.3
69	275	1.15	20.85	"	"	5000	12000	83	230	1.4
62	300	1.5	23.20	"	"	5900	12000	74	255	1.75
49.5	380	1.2	28.76	"	"	6500	12000	60	315	1.45
42.5	440	1.0	33.70	"	"	7000	12000	51	370	1.2
33.5	550	0.82	42.89	"	"	7800	12000	40	465	0.97
120	161	3.1	11.86	BK40-../DSE09XA4	76	1770	12200	145	133	3.7
79	235	3.3	18.05	"	"	4900	15300	95	199	3.9
64	295	2.6	22.44	"	"	5500	16500	77	245	3.2
50	375	2.1	28.59	"	"	6300	17000	60	315	2.5
41.5	455	1.7	34.61	"	"	6900	17000	49.5	380	2.1
35	540	1.45	40.88	"	"	7600	17000	42	450	1.75
28	660	1.2	51.18	"	"	8400	17000	33.5	550	1.4
24	770	1.0	59.66	"	"	9100	17000	29	630	1.25
20.5	890	0.88	70.11	"	"	9800	17000	24.5	740	1.05
80	235	3.1	17.92	BK50-../DSE09XA4	104	4600	16800	96	199	3.6
54	350	3.0	26.51	"	"	7800	21200	65	290	3.6
40.5	465	2.3	35.21	"	"	8700	23100	49	385	2.7
30	620	1.7	47.50	"	"	10100	25700	36	510	2.1
23.5	780	1.35	60.76	"	"	11400	26000	28.5	640	1.65
19	960	1.1	75.40	"	"	12600	26000	23	790	1.35
15	1200	0.88	95.29	"	"	14100	26000	18	1000	1.05
28.5	730	3.2	50.40	BK60-../DSE09XA4	113	9100	29800	34	610	3.8
24.5	850	2.7	58.95	"	"	9900	31500	29.5	710	3.2
22	950	2.4	65.95	"	"	10900	33000	26	800	2.9
18.5	1130	2.0	78.13	"	"	11900	34000	22	950	2.4
16.5	1270	1.8	87.41	"	"	12900	34000	20	1050	2.2
14.5	1440	1.6	101.2	"	"	13900	34000	17	1230	1.85
13	1610	1.45	113.2	"	"	15000	34000	15.5	1350	1.7
12	1750	1.3	122.5	"	"	15500	34000	14	1500	1.55
10.5	2000	1.15	137.0	"	"	16600	34000	12.5	1680	1.35
9.3	2250	1.0	153.7	BK60Z-../DSE09XA4	132	16600	34000	11.5	1820	1.25
7.8	2650	0.87	183.2	"	"	16600	34000	9.4	2200	1.05
12	1750	3.0	120.2	BK70-../DSE09XA4	199	18600	50000	14.5	1440	3.6
10.5	2000	2.6	136.7	"	"	20700	50000	13	1610	3.2

P = 2.2 kW



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

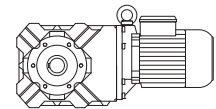
P = 3 kW

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

BK-series bevel geared motors

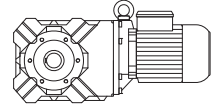
Selection - bevel geared motors DSE -IE1

P = 3 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
30	840	1.25	47.50	BK50-../DSE11SA4	"	10100	25700	36	700	1.5
23.5	1070	0.98	60.76	"	"	11400	26000	28.5	880	1.2
19	1310	0.8	75.40	"	"	12600	26000	23	1080	0.97
38	750	3.1	37.80	BK60-../DSE11SA4	124	7300	26500	45.5	620	3.7
32	890	2.6	45.05	"	"	8200	28300	38	750	3.1
28.5	1000	2.3	50.40	"	"	9100	29800	34	840	2.7
24.5	1160	2.0	58.95	"	"	9900	31500	29.5	970	2.4
22	1300	1.75	65.95	"	"	10900	33000	26	1100	2.1
18.5	1540	1.5	78.13	"	"	11900	34000	22	1300	1.75
16.5	1730	1.35	87.41	"	"	12900	34000	20	1430	1.6
14.5	1970	1.15	101.2	"	"	13900	34000	17	1680	1.35
13	2200	1.05	113.2	"	"	15000	34000	15.5	1840	1.25
12	2350	0.98	122.5	"	"	15500	34000	14	2000	1.15
10.5	2700	0.85	137.0	"	"	16600	34000	12.5	2250	1.0
18	1590	3.3	79.89	BK70-../DSE11SA4	203	14300	47600	21.5	1330	3.9
16	1790	2.9	90.96	"	"	15300	49900	19	1500	3.5
14	2000	2.6	103.5	"	"	17200	50000	17	1680	3.1
12	2350	2.2	120.2	"	"	18600	50000	14.5	1970	2.6
10.5	2700	1.95	136.7	"	"	20700	50000	13	2200	2.4
9.2	3100	1.7	154.4	"	"	21900	50000	11.5	2450	2.1
8.1	3500	1.5	175.7	"	"	24100	50000	9.8	2900	1.8
7.5	3800	1.35	190.4	BK70Z-../DSE11SA4	230	24100	50000	9.0	3150	1.65
6.3	4500	1.15	226.2	"	"	24100	50000	7.6	3750	1.4
5.6	5100	1.0	257.3	"	"	24100	50000	6.7	4250	1.2
4.9	5800	0.9	293.3	"	"	24100	50000	5.9	4850	1.05
8.3	3450	3.0	171.5	BK80-../DSE11SA4	318	30000	75000	10	2850	3.7
8.0	3550	3.2	177.6	BK80Z-../DSE11SA4	360	30000	75000	9.7	2950	3.9
7.2	3950	2.9	198.9	"	"	30000	75000	8.6	3300	3.5
6.3	4500	2.6	226.1	"	"	30000	75000	7.6	3750	3.1
5.7	5000	2.3	253.3	"	"	30000	75000	6.8	4200	2.7
4.8	5900	1.95	300.6	"	"	30000	75000	5.7	5000	2.3
4.3	6600	1.75	336.7	"	"	30000	75000	5.1	5600	2.1
3.7	7700	1.5	389.0	"	"	30000	75000	4.4	6500	1.75
3.3	8600	1.35	435.7	"	"	30000	75000	4.0	7100	1.6
2.9	9800	1.15	499.5	"	"	30000	75000	3.5	8100	1.4
2.6	11000	1.05	559.5	"	"	30000	75000	3.1	9200	1.25
2.4	11100	1.05	607.8	BK80G40-../DSE11SA4	368	30000	75000	2.9	9100	1.25
2.1	12800	0.9	680.9	"	"	30000	75000	2.6	10100	1.15
1.9	14200	0.81	756.3	"	"	30000	75000	2.3	11600	0.99
4.9	5800	3.2	295.6	BK90Z-../DSE11SA4	626	49400	120000	5.8	4900	3.8
4.3	6600	2.8	330.7	"	"	49400	120000	5.2	5500	3.4
3.7	7700	2.4	389.1	"	"	49400	120000	4.4	6500	2.8
3.3	8600	2.2	435.3	"	"	49400	120000	4.0	7100	2.6
2.9	9800	1.9	499.2	"	"	49400	120000	3.5	8100	2.3
2.6	11000	1.7	558.5	"	"	49400	120000	3.1	9200	2.0
2.3	12400	1.5	637.7	"	"	49400	120000	2.7	10600	1.75
2.0	14300	1.3	713.5	"	"	49400	120000	2.4	11900	1.55
1.8	14500	1.3	821.0	BK90G50-../DSE11SA4	642	49400	120000	2.1	12300	1.5
1.7	15600	1.2	882.3	"	"	49400	120000	2.0	13100	1.4
1.5	17700	1.05	1008	"	"	49400	120000	1.7	15500	1.2
1.3	20500	0.9	1127	"	"	49400	120000	1.6	16300	1.15

P = 4 kW

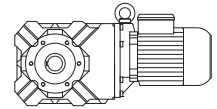


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
305	115	1.7	4.73	BK30-../DSE11MA4	65	1550	8800	365	96	2.0
240	146	1.45	6.02	"	"	1690	9600	285	123	1.7
191	184	1.45	7.45	"	"	2200	10400	230	152	1.75
148	235	1.35	9.63	"	"	3150	11500	178	197	1.6
125	275	1.5	11.39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

BK-series bevel geared motors

Selection - bevel geared motors DSE -IE1

P = 4 kW

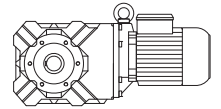


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
6.1	6200	3.0	234.6	BK90Z-../DSE11MA4	632	49400	120000	7.3	5200	3.6
5.5	6900	2.7	262.5	"	"	49400	120000	6.6	5700	3.2
4.9	7700	2.4	295.6	"	"	49400	120000	5.8	6500	2.8
4.3	8800	2.1	330.7	"	"	49400	120000	5.2	7300	2.5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

P = 5.5 kW

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

P = 5.5 kW



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

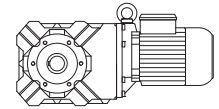
P = 7.5 kW

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

BK-series bevel geared motors

Selection - bevel geared motors DSE -IE1

P = 7.5 kW

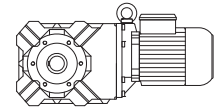


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
32	2200	2.3	45.59	BK70-../DSE13MA4	"	9000	37900	38.5	1860	2.8
27	2650	1.95	54.15	"	"	9900	40200	32.5	2200	2.4
23.5	3000	1.75	61.60	"	"	11500	42800	28.5	2500	2.1
21	3400	1.55	70.23	"	"	12500	44800	25	2850	1.8
18.5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

P = 9.5 kW

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

P = 9.5 kW



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

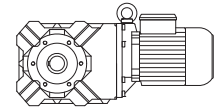
P = 11 kW

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

BK-series bevel geared motors

Selection - bevel geared motors DSE -IE1

P = 11 kW

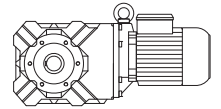


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
43.5	2400	0.96	33.78	BK60-../DSE16MA4	"	6500	25200	53	1980	1.15
39	2650	0.87	37.80	"	"	7300	26500	47	2200	1.05
107	980	3.1	13.70	BK70-../DSE16MA4	286	5400	24800	129	810	3.8
97	1080	2.8	15.16	"	"	5600	25800	117	890	3.4
85	1230	2.8	17.24	"	"	6500	29200	103	1010	3.5
67	1560	2.6	21.88	"	"	6500	30200	81	1290	3.2
59	1780	2.4	24.89	"	"	7000	31500	71	1470	2.9
47.5	2200	2.1	30.90	"	"	7500	33600	57	1840	2.5
42	2500	1.9	35.15	"	"	8000	35000	51	2050	2.3
36.5	2850	1.7	40.08	"	"	8300	36300	44	2350	2.1
32.5	3200	1.6	45.59	"	"	9000	37900	39	2650	1.95
27	3850	1.35	54.15	"	"	9900	40200	33	3150	1.65
24	4350	1.2	61.60	"	"	11500	42800	29	3600	1.45
21	5000	1.05	70.23	"	"	12500	44800	25.5	4100	1.25
18.5	5600	0.93	79.89	"	"	14300	47600	22.5	4650	1.1
16.5	6300	0.83	90.96	"	"	15300	49900	19.5	5300	0.98
43	2400	3.3	34.22	BK80-../DSE16MA4	396	12600	55400	52	2000	3.9
35	3000	2.7	41.78	"	"	13500	58700	42.5	2450	3.4
31.5	3300	2.6	46.80	"	"	14300	60900	38	2750	3.1
27.5	3800	2.3	53.21	"	"	14800	63100	33.5	3100	2.9
24.5	4250	2.2	59.60	"	"	15700	65500	30	3500	2.6
21	5000	1.95	70.72	"	"	16600	68700	25	4200	2.3
18.5	5600	1.8	79.22	"	"	17600	71300	22.5	4650	2.2
16	6500	1.6	91.53	"	"	18300	74200	19.5	5300	1.95
14.5	7200	1.45	102.5	"	"	20500	75000	17.5	6000	1.75
12.5	8400	1.25	117.5	"	"	22300	75000	15	7000	1.5
11.5	9100	1.15	131.6	"	"	24900	75000	13.5	7700	1.35
9.6	10900	0.96	153.1	"	"	27200	75000	11.5	9100	1.15
8.6	12200	0.86	171.5	"	"	30000	75000	10.5	10000	1.05
8.3	12600	0.91	177.6	BK80Z-../DSE16MA4	439	30000	75000	10	10500	1.1
7.4	14100	0.82	198.9	"	"	30000	75000	8.9	11800	0.97
19	5500	3.1	77.51	BK90-../DSE16MA4	649	30300	94400	23	4550	3.7
16.5	6300	2.7	91.19	"	"	33300	101000	19.5	5300	3.2
14.5	7200	2.3	102.0	"	"	36600	107000	17.5	6000	2.8
12.5	8400	2.0	117.0	"	"	39200	113000	15.5	6700	2.5
11.5	9100	1.85	130.9	"	"	42700	119400	13.5	7700	2.2
9.8	10700	1.55	149.5	"	"	45600	120000	12	8700	1.95
8.8	11900	1.4	167.2	"	"	49400	120000	11	9500	1.75
8.4	12500	1.5	174.7	BK90Z-../DSE16MA4	708	49400	120000	10.5	10000	1.85
7.5	14000	1.3	195.4	"	"	49400	120000	9.1	11500	1.6
6.3	16600	1.1	234.6	"	"	49400	120000	7.6	13800	1.35
5.6	18700	0.99	262.5	"	"	49400	120000	6.8	15400	1.2
5.0	21000	0.88	295.6	"	"	49400	120000	6.0	17500	1.05

P = 15 kW

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

P = 15 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
60	2350	0.98	24.45	BK60-../DSE16LA4	"	4850	22000	72	1980	1.15
54	2650	0.87	27.36	"	"	5600	23200	65	2200	1.05
107	1330	2.3	13.70	BK70-../DSE16LA4	299	5400	24800	129	1110	2.7
97	1470	2.1	15.16	"	"	5600	25800	117	1220	2.5
85	1680	2.1	17.24	"	"	6500	29200	103	1390	2.5
67	2100	1.95	21.88	"	"	6500	30200	81	1760	2.3
59	2400	1.8	24.89	"	"	7000	31500	71	2000	2.1
47.5	3000	1.5	30.90	"	"	7500	33600	57	2500	1.8
42	3400	1.4	35.15	"	"	8000	35000	51	2800	1.7
36.5	3900	1.25	40.08	"	"	8300	36300	44	3250	1.5
32.5	4400	1.15	45.59	"	"	9000	37900	39	3650	1.4
27	5300	0.98	54.15	"	"	9900	40200	33	4300	1.2
24	5900	0.88	61.60	"	"	11500	42800	29	4900	1.05
48	2950	2.5	30.56	BK80-../DSE16LA4	408	11900	53400	58	2450	3.1
43	3300	2.4	34.22	"	"	12600	55400	52	2750	2.8
35	4050	2.0	41.78	"	"	13500	58700	42.5	3350	2.5
31.5	4500	1.9	46.80	"	"	14300	60900	38	3750	2.3
27.5	5200	1.7	53.21	"	"	14800	63100	33.5	4250	2.1
24.5	5800	1.6	59.60	"	"	15700	65500	30	4750	1.95
21	6800	1.4	70.72	"	"	16600	68700	25	5700	1.7
18.5	7700	1.3	79.22	"	"	17600	71300	22.5	6300	1.6
16	8900	1.15	91.53	"	"	18300	74200	19.5	7300	1.4
14.5	9800	1.05	102.5	"	"	20500	75000	17.5	8100	1.3
12.5	11400	0.92	117.5	"	"	22300	75000	15	9500	1.1
11.5	12400	0.85	131.6	"	"	24900	75000	13.5	10600	0.99
27	5300	3.0	54.98	BK90-../DSE16LA4	662	24000	81000	32.5	4400	3.7
24	5900	2.8	61.52	"	"	25500	84600	29	4900	3.4
21.5	6600	2.5	69.27	"	"	27200	88900	25.5	5600	3.0
19	7500	2.2	77.51	"	"	30300	94400	23	6200	2.7
16.5	8600	1.95	91.19	"	"	33300	101000	19.5	7300	2.3
14.5	9800	1.7	102.0	"	"	36600	107000	17.5	8100	2.1
12.5	11400	1.45	117.0	"	"	39200	113000	15.5	9200	1.85
11.5	12400	1.35	130.9	"	"	42700	119400	13.5	10600	1.6
9.8	14600	1.15	149.5	"	"	45600	120000	12	11900	1.4
8.8	16200	1.05	167.2	"	"	49400	120000	11	13000	1.3
8.4	17000	1.1	174.7	BK90Z-../DSE16LA4	721	49400	120000	10.5	13600	1.35
7.5	19100	0.97	195.4	"	"	49400	120000	9.1	15700	1.2
6.3	22700	0.81	234.6	"	"	49400	120000	7.6	18800	0.98

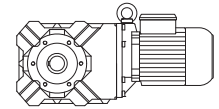
P = 18.5 kW

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

BK-series bevel geared motors

Selection - bevel geared motors DSE -IE1

P = 18.5 kW

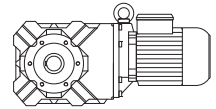


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
47.5	3700	1.2	30.90	BK70-../DSE16XA4	"	7500	33600	57	3050	1.5
42	4200	1.15	35.15	"	"	8000	35000	51	3450	1.35
36.5	4800	1.0	40.08	"	"	8300	36300	44	4000	1.2
32.5	5400	0.95	45.59	"	"	9000	37900	39	4500	1.15
27	6500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

P = 22 kW

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

P = 22 kW



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

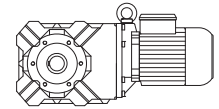
P = 30 kW

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

BK-series bevel geared motors

Selection - bevel geared motors DHE - IE2

P = 0.03 kW

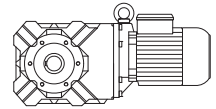


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
28.5	8.9	9.0	47.78	BK06-../D04LA4	7.6	1500	-	34	7.4	11
25	10.1	6.7	54.38	"	"	1600	-	30	8.4	8.1
21.5	11.8	5.4	63.33	"	"	1700	-	26	9.8	6.5
3.7	62	2.7	373.4	BK10Z-../D04LA4	21	7000	-	4.4	52	3.2
3.2	71	2.1	428.8	"	"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

P = 0.04 kW

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

P = 0.04 kW



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

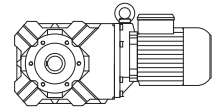
P = 0.06 kW

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

BK-series bevel geared motors

Selection - bevel geared motors DHE - IE2

P = 0.06 kW

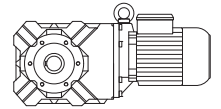


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
1.5	265	1.85	954.1	BK30G06-../D06LA4	"	11200	12000	1.7	230	2.1
1.2	330	1.5	1142	"	"	11200	12000	1.5	260	1.9
1.1	360	1.35	1281	"	"	11200	12000	1.3	305	1.6
0.85	475	1.05	1620	"	"	11200	12000	1.0	400	1.25
1.2	290	2.9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

P = 0.09 kW

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

P = 0.09 kW



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

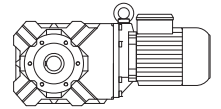
P = 0.12 kW

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

BK-series bevel geared motors

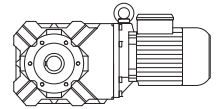
Selection - bevel geared motors DHE - IE2

P = 0.12 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
15.5	64	2.8	89.30	BK10-../D06LA4	23	7000	-	18.5	53	3.4
13.5	72	2.2	102.5	"	"	7000	-	16	60	2.6
11.5	84	1.65	120.3	BK10Z-../D06LA4	24	7000	-	13.5	72	1.9
9.5	101	1.6	143.2	"	"	7000	-	11.5	83	1.95
8.0	118	1.7	170.6	"	"	7000	-	9.5	100	2.0
6.6	142	1.4	204.7	"	"	7000	-	8.0	117	1.7
5.3	177	1.15	257.9	"	"	7000	-	6.3	149	1.35
4.5	205	0.9	302.4	"	"	7000	-	5.4	171	1.1
4.0	210	1.05	343.2	BK10G06-../D06LA4	28	7000	-	4.8	173	1.25
3.3	255	0.86	410.8	"	"	7000	-	4.0	205	1.05
14	70	3.3	96.99	BK20Z-../D06LA4	34	8700	9000	17	57	4.1
9.4	102	3.2	144.5	"	"	8700	9000	11.5	83	4.0
7.8	121	2.7	173.4	"	"	8700	9000	9.4	101	3.3
6.6	142	2.3	207.5	"	"	8700	9000	7.9	118	2.8
5.2	180	1.85	259.9	"	"	8700	9000	6.3	149	2.2
4.6	200	1.55	298.2	"	"	8700	9000	5.5	168	1.85
3.7	245	1.2	367.7	"	"	8700	9000	4.5	200	1.45
3.2	260	1.4	429.7	BK20G06-../D06LA4	38	8700	9000	3.8	215	1.65
2.9	290	1.25	480.4	"	"	8700	9000	3.4	245	1.45
2.6	320	1.15	524.5	"	"	8700	9000	3.1	265	1.35
2.2	380	0.95	630.0	"	"	8700	9000	2.6	320	1.15
6.3	149	3.0	216.5	BK30Z-../D06LA4	41	11200	12000	7.5	125	3.6
5.3	177	2.5	255.3	"	"	11200	12000	6.4	146	3.1
4.4	210	1.85	308.3	"	"	11200	12000	5.3	177	2.2
3.6	255	1.6	380.7	"	"	11200	12000	4.3	215	1.85
3.1	295	1.3	441.3	"	"	11200	12000	3.7	245	1.55
2.9	290	1.7	471.5	BK30G06-../D06LA4	44	11200	12000	3.5	235	2.1
2.4	350	1.4	567.0	"	"	11200	12000	2.9	285	1.7
2.1	400	1.25	652.5	"	"	11200	12000	2.5	335	1.45
1.9	445	1.1	743.0	"	"	11200	12000	2.2	380	1.3
1.7	495	0.99	810.9	"	"	11200	12000	2.0	420	1.15
1.5	560	0.88	954.1	"	"	11200	12000	1.7	490	1.0
3.9	235	2.5	348.7	BK40Z-../D06LA4	64	11700	17000	4.7	197	2.9
3.2	285	2.0	430.0	"	"	11700	17000	3.8	240	2.4
2.8	255	3.3	487.3	BK40G10-../D06LA4	68	11700	17000	3.4	200	4.3
2.5	290	2.9	540.0	"	"	11700	17000	3.0	230	3.7
2.1	355	2.4	660.2	"	"	11700	17000	2.5	285	3.0
1.8	420	2.0	756.7	"	"	11700	17000	2.2	330	2.6
1.7	450	1.9	838.4	"	"	11700	17000	2.0	370	2.3
1.4	550	1.55	998.3	"	"	11700	17000	1.7	450	1.9
1.2	660	1.3	1189	"	"	11700	17000	1.4	550	1.55
0.95	840	1.0	1428	"	"	11700	17000	1.2	660	1.3
3.3	275	3.1	414.8	BK50Z-../D06LA4	92	14100	26000	4.0	225	3.8
2.1	360	3.2	651.7	BK50G10-../D06LA4	96	14100	26000	2.5	295	3.9
1.9	405	2.8	722.2	"	"	14100	26000	2.3	325	3.5
1.6	490	2.3	859.8	"	"	14100	26000	1.9	405	2.8
1.4	560	2.1	1024	"	"	14100	26000	1.6	490	2.3
1.1	730	1.6	1230	"	"	14100	26000	1.4	570	2.0
1.0	800	1.45	1398	"	"	14100	26000	1.2	660	1.75
0.9	900	1.3	1549	"	"	14100	26000	1.1	730	1.6
0.75	1080	1.05	1816	"	"	14100	26000	0.9	900	1.3
0.85	930	2.7	1618	BK60G20-../D06LA4	123	16600	34000	1.1	630	4.0
0.75	1070	2.3	1810	"	"	16600	34000	0.9	810	3.1
0.7	1160	2.2	2010	"	"	16600	34000	0.85	870	2.9
0.6	1400	1.8	2371	"	"	16600	34000	0.7	1130	2.2
0.5	1750	1.45	2733	"	"	16600	34000	0.6	1370	1.8
0.45	1990	1.25	3036	"	"	16600	34000	0.55	1530	1.65
0.39	2350	1.05	3533	"	"	16600	34000	0.46	1940	1.3
0.45	1900	3.0	3041	BK70G20-../D06LA4	201	24100	50000	0.55	1440	4.0
0.39	2250	2.5	3505	"	"	24100	50000	0.47	1750	3.3

P = 0.12 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
0.35	2550	2.2	3894	BK70G20-../D06LA4	"	24100	50000	0.42	2000	2.9
0.3	3100	1.85	4531	"	"	24100	50000	0.36	2450	2.3
0.25	3850	1.5	5436	"	"	24100	50000	0.3	3100	1.85
0.21	4750	1.2	6504	"	"	24100	50000	0.25	3850	1.5

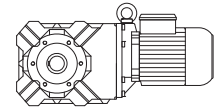
P = 0.18 kW

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

BK-series bevel geared motors

Selection - bevel geared motors DHE - IE2

P = 0.18 kW

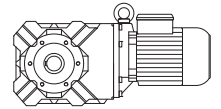


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
4.2	330	3.1	328.2	BK50Z-../D06LA4	92	14100	26000	5.0	275	3.7
3.3	415	2.0	414.8	"	"	14100	26000	4.0	340	2.5
3.0	395	2.9	465.1	BK50G10-../D06LA4	96	14100	26000	3.5	330	3.5
2.7	440	2.6	513.4	"	"	14100	26000	3.2	365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

P = 0.25 kW

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

P = 0.25 kW



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

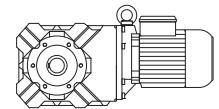
P = 0.3 kW

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

BK-series bevel geared motors

Selection - bevel geared motors DHE - IE2

P = 0.3 kW

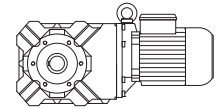


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
15.5	160	2.1	88.12	BK20-../D07LA4	"	8000	9000	18.5	134	2.5
12.5	197	1.6	108.6	"	"	8700	9000	15	164	1.9
11	220	1.5	124.2	BK20Z-../D07LA4	37	8700	9000	13.5	180	1.85
9.4	255	1.3	144.5	"	"	8700	9000	11.5	205	1.6
7.8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

P = 0.37 kW

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

P = 0.37 kW

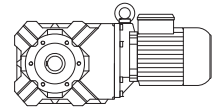


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
47	67	3.0	28.76	BK10-../D07LA4	26	5200	-	57	55	3.6
39.5	80	2.5	34.25	"	"	5600	-	47.5	66	3.0
33.5	94	2.1	40.79	"	"	6000	-	40	79	2.5
28	112	1.8	48.96	"	"	6400	-	33.5	93	2.2
22	142	1.4	61.68	"	"	7000	-	26.5	118	1.7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

BK-series bevel geared motors

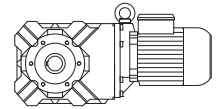
Selection - bevel geared motors DHE - IE2

P = 0.55 kW



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

P = 0.55 kW



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

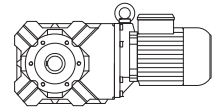
P = 0.75 kW

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

BK-series bevel geared motors

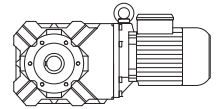
Selection - bevel geared motors DHE - IE2

P = 0.75 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
20	310	1.45	71.56	BK30-../DHE08XA4	"	9700	12000	24	255	1.75
16.5	370	1.2	88.38	"	"	10600	12000	19.5	315	1.45
14	430	1.05	102.4	"	"	11200	12000	17	355	1.25
11.5	520	0.87	123.9	BK30Z-../DHE08XA4	48	11200	12000	14	430	1.05
24	260	3.0	59.66	BK40-../DHE08XA4	65	9100	17000	29	215	3.6
20.5	300	2.6	70.11	"	"	9800	17000	24.5	250	3.1
17	365	2.1	84.36	"	"	10700	17000	20.5	300	2.6
14	430	1.8	104.0	"	"	11700	17000	16.5	365	2.1
12.5	485	1.6	118.2	BK40Z-../DHE08XA4	70	11700	17000	14.5	415	1.9
10	600	1.3	143.0	"	"	11700	17000	12	500	1.55
8.5	690	1.15	169.0	"	"	11700	17000	10.5	560	1.4
6.8	860	0.91	211.5	"	"	11700	17000	8.1	720	1.1
19	325	3.2	75.40	BK50-../DHE08XA4	94	12600	26000	23	270	3.9
15	410	2.6	95.29	"	"	14100	26000	18	340	3.1
12.5	485	2.2	115.4	BK50Z-../DHE08XA4	98	14100	26000	15	405	2.6
9.3	630	1.65	153.3	"	"	14100	26000	11.5	510	2.1
6.9	850	1.25	206.8	"	"	14100	26000	8.3	700	1.5
5.4	1070	0.98	264.5	"	"	14100	26000	6.5	890	1.2
9.3	770	3.0	153.7	BK60Z-../DHE08XA4	121	16600	34000	11.5	620	3.7
7.8	910	2.5	183.2	"	"	16600	34000	9.4	760	3.0
7.0	1020	2.3	205.0	"	"	16600	34000	8.4	850	2.7
6.0	1190	1.95	239.7	"	"	16600	34000	7.2	990	2.3
5.3	1350	1.7	268.2	"	"	16600	34000	6.4	1110	2.1
4.5	1590	1.45	317.7	"	"	16600	34000	5.4	1320	1.75
4.0	1790	1.3	355.5	"	"	16600	34000	4.9	1460	1.6
3.5	2000	1.15	411.5	"	"	16600	34000	4.2	1700	1.35
3.1	2300	1.0	460.4	"	"	16600	34000	3.8	1880	1.2
2.9	2450	0.94	498.0	"	"	16600	34000	3.5	2000	1.15
2.6	2750	0.84	557.2	"	"	16600	34000	3.1	2300	1.0
2.3	2850	0.88	621.5	BK60G20-../DHE08XA4	129	16600	34000	2.8	2250	1.1
4.3	1660	3.1	333.6	BK70Z-../DHE08XA4	210	24100	50000	5.2	1370	3.8
3.8	1880	2.8	379.9	"	"	24100	50000	4.6	1550	3.4
3.3	2150	2.4	432.1	"	"	24100	50000	4.0	1790	2.9
2.9	2450	2.1	501.8	"	"	24100	50000	3.5	2000	2.6
2.5	2850	1.8	570.8	"	"	24100	50000	3.0	2350	2.2
2.3	3100	1.7	644.9	"	"	24100	50000	2.7	2650	1.95
2.0	3550	1.45	733.6	"	"	24100	50000	2.4	2950	1.75
1.7	3850	1.5	847.7	BK70G20-../DHE08XA4	207	24100	50000	2.1	3050	1.85
1.5	4350	1.3	964.6	"	"	24100	50000	1.8	3550	1.6
1.3	5000	1.15	1139	"	"	24100	50000	1.6	4000	1.45
1.2	5500	1.05	1280	"	"	24100	50000	1.4	4700	1.2
1.0	6700	0.85	1457	"	"	24100	50000	1.2	5500	1.05
1.5	3850	3.0	963.0	BK80G40-../DHE08XA4	349	30000	75000	1.8	3050	3.8
1.4	4100	2.8	1079	"	"	30000	75000	1.6	3450	3.3
1.1	5400	2.1	1307	"	"	30000	75000	1.4	4100	2.8
1.0	5900	1.95	1425	"	"	30000	75000	1.2	4750	2.4
0.9	6700	1.7	1583	"	"	30000	75000	1.1	5200	2.2
0.8	7600	1.5	1775	"	"	30000	75000	1.0	5800	2.0
0.65	9600	1.2	2205	"	"	30000	75000	0.8	7500	1.55
0.6	10400	1.1	2449	"	"	30000	75000	0.7	8700	1.3
0.9	6400	2.9	1579	BK90G50-../DHE08XA4	622	49400	120000	1.1	5000	3.7
0.8	7200	2.6	1803	"	"	49400	120000	0.95	5800	3.2
0.75	7600	2.4	2016	"	"	49400	120000	0.85	6500	2.8
0.55	10900	1.7	2764	"	"	49400	120000	0.65	8900	2.1
0.47	13100	1.4	3065	"	"	49400	120000	0.6	9800	1.9
0.39	16200	1.15	3672	"	"	49400	120000	0.47	13100	1.4
0.35	18300	1.0	4070	"	"	49400	120000	0.43	14500	1.3

P = 1.1 kW

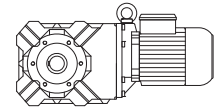


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
325	29.5	3.2	4.44	BK10-../DHE09LA4	36	1890	-	395	24	4.0
240	40	2.6	6.02	"	"	2100	-	290	33	3.2
188	51	2.3	7.68	"	"	2400	-	230	42	2.7
154	62	1.85	9.40	"	"	2700	-	186	51	2.3
135	70	2.6	10.70	"	"	3500	-	163	58	3.1
121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

BK-series bevel geared motors

Selection - bevel geared motors DHE - IE2

P = 1.1 kW

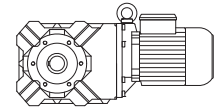


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
3.4	3050	1.7	432.1	BK70Z-../DHE09LA4	"	24100	50000	4.1	2550	2.0
2.9	3600	1.45	501.8	"	"	24100	50000	3.5	3000	1.75
2.6	4000	1.3	570.8	"	"	24100	50000	3.1	3350	1.55
2.3	4550	1.15	644.9	"	"	24100	50000	2.7	3850	1.35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

P = 1.5 kW

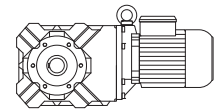
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
325	40.5	2.3	4.44	BK10-../DHE09XA4	40	1890	-	395	33	2.9
240	54	1.95	6.02	"	"	2100	-	290	45	2.3
188	70	1.65	7.68	"	"	2400	-	230	57	2.0
154	85	1.35	9.40	"	"	2700	-	186	70	1.65
135	95	1.9	10.70	"	"	3500	-	163	79	2.3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

P = 1.5 kW



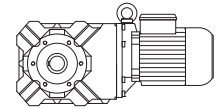
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
29	430	1.05	50.27	BK30-../DHE09XA4	"	8300	12000	35	360	1.25
24.5	510	0.88	59.27	"	"	8900	12000	29.5	425	1.05
51	250	3.1	28.59	BK40-../DHE09XA4	76	6300	17000	61	210	3.7
42	305	2.6	34.61	"	"	6900	17000	51	250	3.1
35.5	360	2.2	40.88	"	"	7600	17000	43	295	2.6
28.5	440	1.75	51.18	"	"	8400	17000	34	370	2.1
24.5	510	1.55	59.66	"	"	9100	17000	29.5	425	1.85
21	590	1.3	70.11	"	"	9800	17000	25	495	1.6
17.5	710	1.1	84.36	"	"	10700	17000	21	590	1.3
14	860	0.91	104.0	"	"	11700	17000	17	710	1.1
12.5	970	0.8	118.2	BK40Z-../DHE09XA4	80	11700	17000	15	810	0.96
30.5	415	2.5	47.50	BK50-../DHE09XA4	104	10100	25700	37	340	3.1
24	520	2.0	60.76	"	"	11400	26000	29	430	2.4
19.5	630	1.65	75.40	"	"	12600	26000	23.5	530	2.0
15.5	790	1.35	95.29	"	"	14100	26000	18.5	660	1.6
12.5	970	1.1	115.4	BK50Z-../DHE09XA4	109	14100	26000	15.5	780	1.35
9.4	1260	0.83	153.3	"	"	14100	26000	11.5	1030	1.0
18.5	770	3.0	78.13	BK60-../DHE09XA4	113	11900	34000	22.5	630	3.7
16.5	860	2.7	87.41	"	"	12900	34000	20	710	3.2
14.5	980	2.3	101.2	"	"	13900	34000	17.5	810	2.8
13	1100	2.1	113.2	"	"	15000	34000	15.5	920	2.5
12	1190	1.95	122.5	"	"	15500	34000	14.5	980	2.3
11	1300	1.75	137.0	"	"	16600	34000	13	1100	2.1
9.4	1520	1.5	153.7	BK60Z-../DHE09XA4	132	16600	34000	11.5	1240	1.85
7.9	1810	1.25	183.2	"	"	16600	34000	9.5	1500	1.55
7.1	2000	1.15	205.0	"	"	16600	34000	8.5	1680	1.35
6.1	2300	1.0	239.7	"	"	16600	34000	7.3	1960	1.15
5.4	2650	0.87	268.2	"	"	16600	34000	6.5	2200	1.05
8.2	1740	3.0	175.7	BK70-../DHE09XA4	199	24100	50000	10	1430	3.6
7.6	1880	2.8	190.4	BK70Z-../DHE09XA4	220	24100	50000	9.2	1550	3.4
6.4	2200	2.4	226.2	"	"	24100	50000	7.7	1860	2.8
5.6	2550	2.0	257.3	"	"	24100	50000	6.8	2100	2.5
5.0	2850	1.8	293.3	"	"	24100	50000	6.0	2350	2.2
4.4	3250	1.6	333.6	"	"	24100	50000	5.3	2700	1.95
3.8	3750	1.4	379.9	"	"	24100	50000	4.6	3100	1.7
3.4	4200	1.25	432.1	"	"	24100	50000	4.1	3450	1.5
2.9	4900	1.05	501.8	"	"	24100	50000	3.5	4050	1.3
2.6	5500	0.95	570.8	"	"	24100	50000	3.1	4600	1.15
2.3	6200	0.84	644.9	"	"	24100	50000	2.7	5300	0.98
3.8	3750	3.1	389.0	BK80Z-../DHE09XA4	349	30000	75000	4.5	3150	3.7
3.4	4200	2.7	435.7	"	"	30000	75000	4.0	3550	3.2
2.9	4900	2.3	499.5	"	"	30000	75000	3.5	4050	2.8
2.6	5500	2.1	559.5	"	"	30000	75000	3.2	4450	2.6
2.4	5200	2.2	607.8	BK80G40-../DHE09XA4	360	30000	75000	2.9	4150	2.8
2.2	5600	2.1	680.9	"	"	30000	75000	2.6	4650	2.5
2.0	6300	1.85	756.3	"	"	30000	75000	2.4	5100	2.3
1.7	7500	1.55	847.2	"	"	30000	75000	2.1	5900	1.95
1.5	8600	1.35	963.0	"	"	30000	75000	1.9	6600	1.75
1.4	9200	1.25	1079	"	"	30000	75000	1.7	7400	1.55
1.2	10900	1.05	1307	"	"	30000	75000	1.4	9200	1.25
1.1	11800	0.97	1425	"	"	30000	75000	1.3	9800	1.15
2.3	6200	3.0	637.7	BK90Z-../DHE09XA4	622	49400	120000	2.8	5100	3.6
2.1	6800	2.7	713.5	"	"	49400	120000	2.5	5700	3.2
1.8	6600	2.8	821.0	BK90G50-../DHE09XA4	633	49400	120000	2.2	5100	3.6
1.7	7200	2.6	882.3	"	"	49400	120000	2.0	5900	3.1
1.5	8100	2.3	1008	"	"	49400	120000	1.8	6600	2.8
1.3	9500	1.95	1127	"	"	49400	120000	1.6	7400	2.5
1.1	11800	1.55	1363	"	"	49400	120000	1.3	9800	1.9
0.95	13500	1.35	1579	"	"	49400	120000	1.2	10400	1.8
0.8	16100	1.15	1803	"	"	49400	120000	1.0	12600	1.45
0.75	17100	1.1	2016	"	"	49400	120000	0.9	13900	1.35

P = 2.2 kW



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

P = 2.2 kW



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

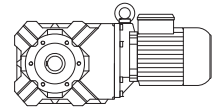
P = 3 kW

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

BK-series bevel geared motors

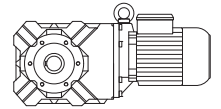
Selection - bevel geared motors DHE - IE2

P = 3 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
30.5	830	1.25	47.50	BK50-../DHE11MA4	"	10100	25700	37	680	1.55
24	1050	1.0	60.76	"	"	11400	26000	29	860	1.2
19.5	1270	0.83	75.40	"	"	12600	26000	23.5	1060	0.99
38.5	740	3.1	37.80	BK60-../DHE11MA4	130	7300	26500	46.5	610	3.8
32	890	2.6	45.05	"	"	8200	28300	39	730	3.2
29	980	2.3	50.40	"	"	9100	29800	35	810	2.8
24.5	1160	2.0	58.95	"	"	9900	31500	30	950	2.4
22	1300	1.75	65.95	"	"	10900	33000	26.5	1080	2.1
18.5	1540	1.5	78.13	"	"	11900	34000	22.5	1270	1.8
16.5	1730	1.35	87.41	"	"	12900	34000	20	1430	1.6
14.5	1970	1.15	101.2	"	"	13900	34000	17.5	1630	1.4
13	2200	1.05	113.2	"	"	15000	34000	15.5	1840	1.25
12	2350	0.98	122.5	"	"	15500	34000	14.5	1970	1.15
11	2600	0.88	137.0	"	"	16600	34000	13	2200	1.05
16	1790	2.9	90.96	BK70-../DHE11MA4	209	15300	49900	19.5	1460	3.6
14	2000	2.6	103.5	"	"	17200	50000	17	1680	3.1
12	2350	2.2	120.2	"	"	18600	50000	14.5	1970	2.6
11	2600	2.0	136.7	"	"	20700	50000	13	2200	2.4
9.4	3000	1.75	154.4	"	"	21900	50000	11.5	2450	2.1
8.2	3450	1.5	175.7	"	"	24100	50000	10	2850	1.8
7.6	3750	1.4	190.4	BK70Z-../DHE11MA4	236	24100	50000	9.2	3100	1.7
6.4	4450	1.15	226.2	"	"	24100	50000	7.7	3700	1.4
5.6	5100	1.0	257.3	"	"	24100	50000	6.8	4200	1.25
5.0	5700	0.91	293.3	"	"	24100	50000	6.0	4750	1.1
4.4	6500	0.8	333.6	"	"	24100	50000	5.3	5400	0.96
8.4	3400	3.1	171.5	BK80-../DHE11MA4	324	30000	75000	10.5	2700	3.9
8.2	3450	3.3	177.6	BK80Z-../DHE11MA4	366	30000	75000	9.8	2900	4.0
7.3	3900	2.9	198.9	"	"	30000	75000	8.8	3250	3.5
6.4	4450	2.6	226.1	"	"	30000	75000	7.7	3700	3.1
5.7	5000	2.3	253.3	"	"	30000	75000	6.9	4150	2.8
4.8	5900	1.95	300.6	"	"	30000	75000	5.8	4900	2.3
4.3	6600	1.75	336.7	"	"	30000	75000	5.2	5500	2.1
3.8	7500	1.55	389.0	"	"	30000	75000	4.5	6300	1.85
3.4	8400	1.35	435.7	"	"	30000	75000	4.0	7100	1.6
2.9	9800	1.15	499.5	"	"	30000	75000	3.5	8100	1.4
2.6	11000	1.05	559.5	"	"	30000	75000	3.2	8900	1.3
2.4	11100	1.05	607.8	BK80G40-../DHE11MA4	374	30000	75000	2.9	9100	1.25
2.2	12100	0.95	680.9	"	"	30000	75000	2.6	10100	1.15
2.0	13500	0.85	756.3	"	"	30000	75000	2.4	11100	1.05
4.9	5800	3.2	295.6	BK90Z-../DHE11MA4	632	49400	120000	5.9	4850	3.8
4.4	6500	2.8	330.7	"	"	49400	120000	5.3	5400	3.4
3.8	7500	2.5	389.1	"	"	49400	120000	4.5	6300	2.9
3.4	8400	2.2	435.3	"	"	49400	120000	4.0	7100	2.6
2.9	9800	1.9	499.2	"	"	49400	120000	3.5	8100	2.3
2.6	11000	1.7	558.5	"	"	49400	120000	3.2	8900	2.1
2.3	12400	1.5	637.7	"	"	49400	120000	2.8	10200	1.8
2.1	13600	1.35	713.5	"	"	49400	120000	2.5	11400	1.6
1.8	14500	1.3	821.0	BK90G50-../DHE11MA4	648	49400	120000	2.2	11600	1.6
1.7	15600	1.2	882.3	"	"	49400	120000	2.0	13100	1.4
1.5	17700	1.05	1008	"	"	49400	120000	1.8	14500	1.3
1.3	20500	0.9	1127	"	"	49400	120000	1.6	16300	1.15

P = 4 kW

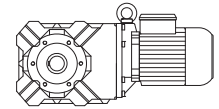


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
305	115	1.7	4.73	BK30-../DHE11LA4	76	1550	8800	370	94	2.1
240	146	1.45	6.02	"	"	1690	9600	290	121	1.75
194	181	1.5	7.45	"	"	2200	10400	235	149	1.8
150	230	1.4	9.63	"	"	3150	11500	181	194	1.65
127	270	1.55	11.39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

BK-series bevel geared motors

Selection - bevel geared motors DHE - IE2

P = 4 kW

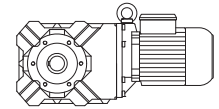


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
6.2	6100	3.0	234.6	BK90Z-../DHE11LA4	643	49400	120000	7.5	5000	3.7
5.5	6900	2.7	262.5	"	"	49400	120000	6.7	5700	3.2
4.9	7700	2.4	295.6	"	"	49400	120000	5.9	6400	2.9
4.4	8600	2.2	330.7	"	"	49400	120000	5.3	7200	2.6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

P = 5.5 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
310	155	1.25	4.73	BK30-../DHE11LA4C	80	1550	8800	375	128	1.5
245	197	1.1	6.02	"	"	1690	9600	295	163	1.3
196	245	1.1	7.45	"	"	2200	10400	240	200	1.35
152	315	1.0	9.63	"	"	3150	11500	183	260	1.25
129	365	1.15	11.39	"	"	4150	11000	155	300	1.4
123	390	0.82	11.93	"	"	3650	12000	148	325	0.98
101	465	0.97	14.50	"	"	4900	12000	122	385	1.15
320	151	2.9	4.63	BK40-../DHE11LA4C	106	430	8900	385	125	3.4
245	197	2.4	6.02	"	"	470	9800	295	163	2.9
195	245	2.0	7.49	"	"	750	10500	235	205	2.4
157	305	1.6	9.31	"	"	1040	11200	190	250	1.95
131	360	2.0	11.17	"	"	4100	13100	158	295	2.4
124	385	1.3	11.86	"	"	1770	12200	149	320	1.55
101	465	1.7	14.50	"	"	4500	14300	122	385	2.0
81	580	1.35	18.05	"	"	4900	15300	98	480	1.65
66	710	1.1	22.44	"	"	5500	16500	79	590	1.3
52	900	0.87	28.59	"	"	6300	17000	62	760	1.05
151	310	3.0	9.73	BK50-../DHE11LA4C	136	5400	15400	181	260	3.6
146	330	2.5	10.00	"	"	1220	13200	176	270	3.0
105	450	2.3	13.95	"	"	6100	17400	127	370	2.8
97	485	2.2	15.19	"	"	6300	18000	116	405	2.6
82	580	1.25	17.92	"	"	4600	16800	99	480	1.5
76	620	1.7	19.33	"	"	6900	19200	92	510	2.1
56	840	1.25	26.51	"	"	7800	21200	67	700	1.5
41.5	1130	0.93	35.21	"	"	8700	23100	50	940	1.1
72	720	3.1	20.54	BK60-../DHE11LA4C	146	4400	20600	86	610	3.7
60	870	2.6	24.45	"	"	4850	22000	72	720	3.2
54	970	2.4	27.36	"	"	5600	23200	65	800	2.9
43.5	1200	1.9	33.78	"	"	6500	25200	53	990	2.3
39	1340	1.7	37.80	"	"	7300	26500	47	1110	2.1
32.5	1610	1.45	45.05	"	"	8200	28300	39.5	1320	1.75
29	1810	1.25	50.40	"	"	9100	29800	35	1500	1.55
25	2100	1.1	58.95	"	"	9900	31500	30	1750	1.3
22.5	2300	1.0	65.95	"	"	10900	33000	27	1940	1.2
19	2750	0.84	78.13	"	"	11900	34000	23	2250	1.0
32.5	1610	3.2	45.59	BK70-../DHE11LA4C	225	9000	37900	39	1340	3.8
27	1940	2.7	54.15	"	"	9900	40200	33	1590	3.3
24	2150	2.4	61.60	"	"	11500	42800	29	1810	2.9
21	2500	2.1	70.23	"	"	12500	44800	25.5	2050	2.5
18.5	2800	1.85	79.89	"	"	14300	47600	22.5	2300	2.3
16.5	3150	1.65	90.96	"	"	15300	49900	19.5	2650	1.95
14.5	3600	1.45	103.5	"	"	17200	50000	17.5	3000	1.75
12.5	4200	1.25	120.2	"	"	18600	50000	15	3500	1.5
11	4750	1.1	136.7	"	"	20700	50000	13	4000	1.3

P = 5.5 kW



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

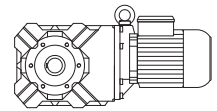
P = 7.5 kW

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

BK-series bevel geared motors

Selection - bevel geared motors DHE - IE2

P = 7.5 kW



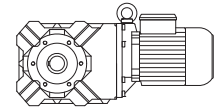
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
24	2950	1.75	61.60	BK70-../DHE13LA4	"	11500	42800	29	2450	2.1
21	3400	1.55	70.23	"	"	12500	44800	25.5	2800	1.85
18.5	3850	1.35	79.89	"	"	14300	47600	22.5	3150	1.65
16.5	4300	1.2	90.96	"	"	15300	49900	19.5	3650	1.4
14.5	4900	1.05	103.5	"	"	17200	50000	17.5	4050	1.3
12.5	5700	0.91	120.2	"	"	18600	50000	15	4750	1.1
11	6500	0.8	136.7	"	"	20700	50000	13	5500	0.95
24.5	2900	3.2	59.60	BK80-../DHE13LA4	351	15700	65500	30	2350	3.9
21	3400	2.8	70.72	"	"	16600	68700	25	2850	3.4
18.5	3850	2.6	79.22	"	"	17600	71300	22.5	3150	3.2
16	4450	2.3	91.53	"	"	18300	74200	19.5	3650	2.8
14.5	4900	2.1	102.5	"	"	20500	75000	17.5	4050	2.6
12.5	5700	1.85	117.5	"	"	22300	75000	15	4750	2.2
11.5	6200	1.7	131.6	"	"	24900	75000	13.5	5300	2.0
9.6	7400	1.4	153.1	"	"	27200	75000	11.5	6200	1.7
8.6	8300	1.25	171.5	"	"	30000	75000	10.5	6800	1.55
8.3	8600	1.35	177.6	BK80Z-../DHE13LA4	394	30000	75000	10	7100	1.6
7.4	9600	1.2	198.9	"	"	30000	75000	8.9	8000	1.45
6.5	11000	1.05	226.1	"	"	30000	75000	7.8	9100	1.25
5.8	12300	0.93	253.3	"	"	30000	75000	7.0	10200	1.15
12.5	5700	2.9	117.0	BK90-../DHE13LA4	603	39200	113000	15.5	4600	3.7
11.5	6200	2.7	130.9	"	"	42700	119400	13.5	5300	3.2
9.8	7300	2.3	149.5	"	"	45600	120000	12	5900	2.8
8.8	8100	2.1	167.2	"	"	49400	120000	11	6500	2.6
8.4	8500	2.2	174.7	BK90Z-../DHE13LA4	659	49400	120000	10.5	6800	2.7
7.5	9500	1.95	195.4	"	"	49400	120000	9.1	7800	2.4
6.3	11300	1.65	234.6	"	"	49400	120000	7.6	9400	1.95
5.6	12700	1.45	262.5	"	"	49400	120000	6.8	10500	1.75
5.0	14300	1.3	295.6	"	"	49400	120000	6.0	11900	1.55
4.5	15900	1.15	330.7	"	"	49400	120000	5.4	13200	1.4
3.8	18800	0.98	389.1	"	"	49400	120000	4.6	15500	1.2
3.4	21000	0.88	435.3	"	"	49400	120000	4.1	17400	1.05

P = 9.5 kW

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

*At 60Hz model changes on the motor size DHE16LA4

P = 9.5 kW



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

*At 60Hz model changes on the motor size DHE16LA4

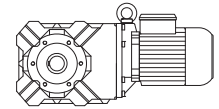
P = 11 kW

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

BK-series bevel geared motors

Selection - bevel geared motors DHE - IE2

P = 11 kW

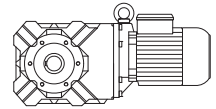


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
108	970	3.1	13.70	BK70-../DHE16LA4	299	5400	24800	130	800	3.8
97	1080	2.8	15.16	"	"	5600	25800	117	890	3.4
86	1220	2.9	17.24	"	"	6500	29200	103	1010	3.5
68	1540	2.6	21.88	"	"	6500	30200	81	1290	3.2
60	1750	2.4	24.89	"	"	7000	31500	72	1450	2.9
48	2150	2.1	30.90	"	"	7500	33600	58	1810	2.5
42	2500	1.9	35.15	"	"	8000	35000	51	2050	2.3
37	2800	1.75	40.08	"	"	8300	36300	44.5	2350	2.1
32.5	3200	1.6	45.59	"	"	9000	37900	39	2650	1.95
27.5	3800	1.35	54.15	"	"	9900	40200	33	3150	1.65
24	4350	1.2	61.60	"	"	11500	42800	29	3600	1.45
21	5000	1.05	70.23	"	"	12500	44800	25.5	4100	1.25
18.5	5600	0.93	79.89	"	"	14300	47600	22.5	4650	1.1
16.5	6300	0.83	90.96	"	"	15300	49900	19.5	5300	0.98
43	2400	3.3	34.22	BK80-../DHE16LA4	408	12600	55400	52	2000	3.9
35.5	2950	2.8	41.78	"	"	13500	58700	42.5	2450	3.4
31.5	3300	2.6	46.80	"	"	14300	60900	38	2750	3.1
28	3750	2.4	53.21	"	"	14800	63100	33.5	3100	2.9
25	4200	2.2	59.60	"	"	15700	65500	30	3500	2.6
21	5000	1.95	70.72	"	"	16600	68700	25.5	4100	2.3
19	5500	1.85	79.22	"	"	17600	71300	22.5	4650	2.2
16.5	6300	1.65	91.53	"	"	18300	74200	19.5	5300	1.95
14.5	7200	1.45	102.5	"	"	20500	75000	17.5	6000	1.75
13	8000	1.3	117.5	"	"	22300	75000	15.5	6700	1.55
11.5	9100	1.15	131.6	"	"	24900	75000	13.5	7700	1.35
9.7	10800	0.97	153.1	"	"	27200	75000	12	8700	1.2
8.6	12200	0.86	171.5	"	"	30000	75000	10.5	10000	1.05
8.3	12600	0.91	177.6	BK80Z-../DHE16LA4	452	30000	75000	10	10500	1.1
7.4	14100	0.82	198.9	"	"	30000	75000	8.9	11800	0.97
19	5500	3.1	77.51	BK90-../DHE16LA4	662	30300	94400	23	4550	3.7
16.5	6300	2.7	91.19	"	"	33300	101000	19.5	5300	3.2
14.5	7200	2.3	102.0	"	"	36600	107000	17.5	6000	2.8
13	8000	2.1	117.0	"	"	39200	113000	15.5	6700	2.5
11.5	9100	1.85	130.9	"	"	42700	119400	14	7500	2.2
9.9	10600	1.6	149.5	"	"	45600	120000	12	8700	1.95
8.8	11900	1.4	167.2	"	"	49400	120000	11	9500	1.75
8.5	12300	1.5	174.7	BK90Z-../DHE16LA4	721	49400	120000	10.5	10000	1.85
7.6	13800	1.35	195.4	"	"	49400	120000	9.1	11500	1.6
6.3	16600	1.1	234.6	"	"	49400	120000	7.6	13800	1.35
5.6	18700	0.99	262.5	"	"	49400	120000	6.8	15400	1.2
5.0	21000	0.88	295.6	"	"	49400	120000	6.0	17500	1.05

P = 15 kW

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

P = 15 kW

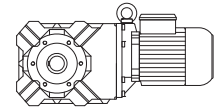


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
108	1320	2.3	13.70	BK70-../DHE16XA4	309	5400	24800	130	1100	2.8
97	1470	2.1	15.16	"	"	5600	25800	117	1220	2.5
86	1660	2.1	17.24	"	"	6500	29200	103	1390	2.5
68	2100	1.95	21.88	"	"	6500	30200	81	1760	2.3
60	2350	1.8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

P = 18.5 kW

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

P = 18.5 kW

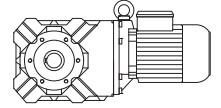


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
103	1710	2.5	14.34	BK80-../DHE18LA4	480	7900	36200	124	1420	3.0
93	1890	2.5	15.88	"	"	8400	38600	112	1570	3.0
83	2100	2.5	17.79	"	"	9400	42100	100	1760	3.0
76	2300	2.5	19.35	"	"	9500	44000	92	1920	3.0
67	2600	2.6	22.19	"	"	10500	48500	80	2200	3.1
60	2900	2.4	24.85	"	"	11200	50400	72	2450	2.9
48.5	3600	2.1	30.56	"	"	11900	53400	58	3000	2.5
43	4100	1.9	34.22	"	"	12600	55400	52	3350	2.3
35.5	4950	1.65	41.78	"	"	13500	58700	42.5	4150	2.0
31.5	5600	1.55	46.80	"	"	14300	60900	38	4600	1.85
28	6300	1.4	53.21	"	"	14800	63100	33.5	5200	1.7
25	7000	1.3	59.60	"	"	15700	65500	30	5800	1.6
21	8400	1.15	70.72	"	"	16600	68700	25.5	6900	1.4
19	9200	1.1	79.22	"	"	17600	71300	22.5	7800	1.3
16.5	10700	0.97	91.53	"	"	18300	74200	19.5	9000	1.15
14.5	12100	0.87	102.5	"	"	20500	75000	17.5	10000	1.05
36	4900	3.0	40.94	BK90-../DHE18LA4	734	21400	73100	43.5	4050	3.7
32.5	5400	2.9	45.80	"	"	22700	76300	39	4500	3.4
27	6500	2.5	54.98	"	"	24000	81000	32.5	5400	3.0
24	7300	2.3	61.52	"	"	25500	84600	29	6000	2.8
21.5	8200	2.0	69.27	"	"	27200	88900	26	6700	2.5
19	9200	1.85	77.51	"	"	30300	94400	23	7600	2.2
16.5	10700	1.55	91.19	"	"	33300	101000	19.5	9000	1.85
14.5	12100	1.4	102.0	"	"	36600	107000	17.5	10000	1.7
13	13500	1.25	117.0	"	"	39200	113000	15.5	11300	1.5
11.5	15300	1.1	130.9	"	"	42700	119400	14	12600	1.35
9.9	17800	0.94	149.5	"	"	45600	120000	12	14700	1.15
8.8	20000	0.84	167.2	"	"	49400	120000	11	16000	1.05
8.5	20700	0.89	174.7	BK90Z-../DHE18LA4	788	49400	120000	10.5	16800	1.1
7.6	23200	0.8	195.4	"	"	49400	120000	9.1	19400	0.95

P = 22 kW

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

P = 22 kW



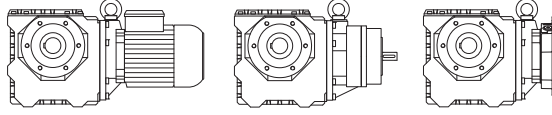
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
48.5	4300	3.1	30.47	BK90-../DHE18XA4	752	19100	65900	59	3550	3.8
43.5	4800	2.9	34.09	"	"	20300	68800	52	4000	3.5
36	5800	2.5	40.94	"	"	21400	73100	43.5	4800	3.1
32.5	6400	2.4	45.80	"	"	22700	76300	39	5300	2.9
27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

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BS-series worm-gear motors Selection

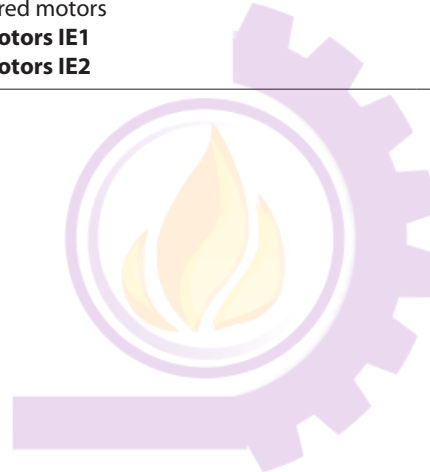
Description of worm-gear units

- Sizes
- Bauer service factors (f_B) for worm-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, worm-gear motors

Selection - worm geared motors IE1

Selection - worm geared motors IE2

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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_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 $t_d \leq 10$ 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

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 > 1 h)

For example: Shock classification II for $Z = 100$ switching operations per hour and multiple-shift operation yields a service factor $f_B = f_2 = 1,8$

Explanation of shock classification

Shock classification I:

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

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

Shock classification II:

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

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

Shock classification III:

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

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

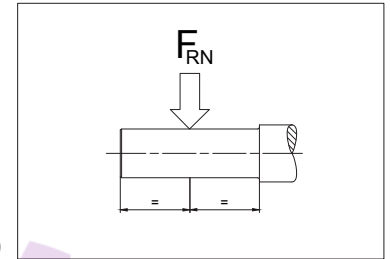
Key to abbreviations

Z	Switching duty number of switching operations per hour
t_d	Daily operating time in hours (h/d)
FI	Factor of inertia $FI = (J_{ext} + J_{rot})/J_{rot}$
J_{ext}	Mass moment of inertia of the machine to be driven, in relation to the motor's rotor shaft (kgm^2)
J_{rot}	Mass moment of inertia of the motor rotor (kgm^2)
M_x	Highest impact torque above the static torque which can occur during normal operation or in emergency situations
M_N	Required static load torque for the application
M_x/M_N	Relative torque - Factor
φ_N	Torsional offset of the resilient coupling under rated torque
UT	Ambient temperature ($^{\circ}C$)

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)



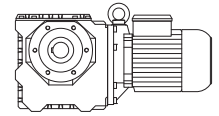
Use the selection tables to determine the size of geared motor required. The codes clearly define the Type of gear unit and output shaft (see chapter 13 "dimensional drawings worm-geared motors").

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

Motor power overload protection

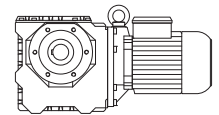
Motor-power ratings, particularly in conjunction with four-stage and multi-stage gear units, are more than ample in some instances. Consequently, and in much the same way as with low-power motors, rated current is not a measure of gear loading and cannot be used to protect the gear unit against overloading. 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).

P = 0.03 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
75	2.8	8.9	18.00	BS02-../D04LA4	3.5	1250	-	90	2.35	11
62	3.2	7.8	22.00	"	"	1250	-	74	2.7	9.3
50	3.6	6.9	27.00	"	"	1250	-	60	3.0	8.3
41	4.15	6.0	33.00	"	"	1250	-	49.5	3.45	7.2
31.5	5.6	4.3	43.00	"	"	1250	-	38	4.65	5.2
25	6.5	3.4	54.00	"	"	1250	-	30	5.4	4.1
19.5	7.4	2.7	70.00	"	"	1250	-	23.5	6.2	3.2
14.5	11.6	3.3	93.92	BS04-../D04LA4	3.9	2250	-	17.5	9.6	4.0
13.5	13.5	2.8	102.9	"	"	2250	-	16	11.4	3.3
12	13.6	2.8	117.0	"	"	2250	-	14	11.6	3.3
11	16.4	2.5	123.0	"	"	2250	-	13.5	13.3	3.1
9.8	18.1	2.3	138.4	"	"	2250	-	12	14.8	2.8
9.0	17.5	2.2	150.3	"	"	2250	-	11	14.3	2.7
8.5	20.5	1.8	160.1	"	"	2250	-	10.5	16.6	2.2
7.8	19.8	2.0	174.0	"	"	2250	-	9.4	16.4	2.4
6.2	24	1.65	220.0	"	"	2250	-	7.4	20.5	1.95
5.4	27.5	1.5	251.6	"	"	2250	-	6.5	22.5	1.8
4.5	32	1.35	300.7	"	"	2250	-	5.4	27	1.6
4.0	35.5	1.25	338.3	"	"	2250	-	4.8	29.5	1.5
3.5	40	1.15	391.3	"	"	2250	-	4.2	33	1.35
5.4	30.5	3.2	252.0	BS06-../D04LA4	8.4	3500	-	6.5	25.5	3.9
4.3	37.5	2.8	315.3	"	"	3500	-	5.2	31	3.4
3.8	42	2.6	358.9	"	"	3500	-	4.6	34.5	3.2
3.3	47.5	2.3	418.0	"	"	3500	-	3.9	40	2.8
2.9	70	1.35	474.8	BS06G04-../D04LA4	11	3500	-	3.5	58	1.6
2.5	79	1.25	552.6	"	"	3500	-	3.0	65	1.55
2.3	88	1.05	610.7	"	"	3500	-	2.7	75	1.25
2.0	101	0.93	704.7	"	"	3500	-	2.3	88	1.05
1.6	94*	1.0	847.0	"	"	3500	-	2.0	94	1.0
1.5	94*	1.0	939.6	"	"	3500	-	1.8	94	1.0
1.2	94*	1.0	1170	"	"	3500	-	1.4	94	1.0
0.9	94*	1.0	1503	"	"	3500	-	1.1	94	1.0
0.85	94*	1.0	1654	"	"	3500	-	1.0	94	1.0
0.75	94*	1.0	1914	"	"	3500	-	0.85	94	1.0
0.65	94*	1.0	2200	"	"	3500	-	0.75	94	1.0
0.49	94*	1.0	2768	"	"	3500	-	0.6	94	1.0
0.45	94*	1.0	3007	"	"	3500	-	0.55	94	1.0
0.41	94*	1.0	3308	"	"	3500	-	0.49	94	1.0
0.37	94*	1.0	3721	"	"	3500	-	0.44	94	1.0
0.32	94*	1.0	4304	"	"	3500	-	0.38	94	1.0
0.28	98*	1.0	4947	"	"	3500	-	0.33	98	1.0
0.25	98*	1.0	5442	"	"	3500	-	0.3	98	1.0
0.22	100*	1.0	6234	"	"	3500	-	0.26	100	1.0
2.5	67	2.8	544.8	BS10Z-../D04LA4	21	6000	-	3.0	56	3.4
2.2	72	2.6	638.7	"	"	6000	-	2.6	61	3.1
1.8	85	2.1	788.7	"	"	6000	-	2.1	73	2.5
1.5	101	1.55	905.6	"	"	6000	-	1.8	84	1.9
1.4	130	1.25	969.9	BS10G06-../D04LA4	25	6000	-	1.7	107	1.5
1.2	152	1.05	1166	"	"	6000	-	1.4	130	1.25
1.1	166	0.96	1342	"	"	6000	-	1.3	141	1.15
0.9	160*	1.0	1528	"	"	6000	-	1.1	160	1.0
0.85	160*	1.0	1668	"	"	6000	-	1.0	160	1.0
0.7	160*	1.0	1963	"	"	6000	-	0.85	160	1.0
0.6	160*	1.0	2348	"	"	6000	-	0.7	160	1.0
0.55	160*	1.0	2635	"	"	6000	-	0.65	160	1.0
0.47	160*	1.0	2875	"	"	6000	-	0.6	160	1.0
0.41	160*	1.0	3332	"	"	6000	-	0.49	160	1.0
0.38	160*	1.0	3635	"	"	6000	-	0.45	160	1.0
0.33	160*	1.0	4163	"	"	6000	-	0.39	160	1.0
0.29	160*	1.0	4776	"	"	6000	-	0.34	160	1.0
0.26	160*	1.0	5209	"	"	6000	-	0.32	160	1.0
0.23	164*	1.0	6019	"	"	6000	-	0.27	164	1.0
0.21	164*	1.0	6565	"	"	6000	-	0.25	164	1.0

P = 0.03 kW

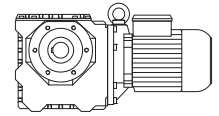


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
0.19	164*	1.0	7471	BS10G06-../D04LA4	"	6000	-	0.22	164	1.0
0.16	164*	1.0	8703	"	"	6000	-	0.19	164	1.0
1.7	111	2.4	831.7	BS20G06-../D04LA4	35	8000	-	2.0	94	2.9
1.4	135	2.0	1000	"	"	8000	-	1.7	111	2.4
1.1	171	1.6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

P = 0.04 kW

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

P = 0.04 kW



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

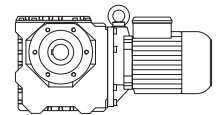
P = 0.06 kW

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

BS-series worm-geared motors

Selection - worm-geared motors DSE - IE1

P = 0.06 kW

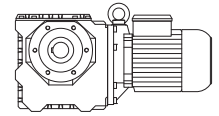


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
9.8	36	1.15	138.4	BS04-../D04LA4	"	2250	-	12	29.5	1.4
9.0	35	1.1	150.3	"	"	2250	-	11	28.5	1.35
8.5	41	0.9	160.1	"	"	2250	-	10.5	33	1.1
7.8	39.5	1.0	174.0	"	"	2250	-	9.4	32.5	1.25
6.2	48.5	0.82	220.0	"	"	2250	-	7.4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

P = 0.09 kW

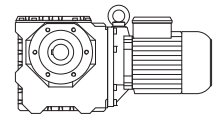
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
295	2.55	5.9	4.60	BS02-../D04LA4	3.5	1000	-	355	2.1	7.1
250	3.0	6.7	5.40	"	"	1000	-	300	2.5	8.0
200	3.65	6.8	6.75	"	"	1000	-	240	3.05	8.2
164	4.4	5.7	8.25	"	"	1100	-	197	3.65	6.8
127	5.5	4.5	10.67	"	"	1250	-	152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

P = 0.09 kW



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

P = 0.09kW

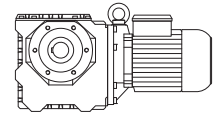


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
1.9	270	2.8	736.5	BS40Z-../D06LA4	68	15000	-	2.2	230	3.3
1.5	335	2.2	908.2	"	"	15000	-	1.8	280	2.7
1.4	425	2.1	965.5	BS40G10-../D06LA4	73	15000	-	1.7	350	2.5
1.2	500	1.75	1180	"	"	15000	-	1.4	425	2.1
0.95	630	1.4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

P = 0.12kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
295	3.4	4.4	4.60	BS02-../D04LA4	3.5	1000	-	355	2.8	5.4
250	4.0	5.0	5.40	"	"	1000	-	300	3.35	6.0
200	4.9	5.1	6.75	"	"	1000	-	240	4.1	6.1
164	5.8	4.3	8.25	"	"	1100	-	197	4.85	5.2
127	7.3	3.4	10.67	"	"	1250	-	152	6.1	4.1
100	8.9	2.8	13.50	"	"	1250	-	120	7.4	3.4
75	11.3	2.2	18.00	"	"	1250	-	90	9.4	2.7
62	12.9	1.95	22.00	"	"	1250	-	74	10.8	2.3
50	14.4	1.75	27.00	"	"	1250	-	60	12	2.1
41	16.7	1.5	33.00	"	"	1250	-	49.5	13.8	1.8
31.5	22.5	1.05	43.00	"	"	1250	-	38	18.6	1.3
25	26	0.85	54.00	"	"	1250	-	30	21.5	1.0
41	17	3.2	33.00	BS03-../D05LA4	5.4	1950	-	49.5	14.1	3.9
35	20.5	2.7	39.00	"	"	1950	-	42	17.4	3.2
27	24.5	2.2	50.00	"	"	1950	-	32.5	20	2.8
22	27.5	1.75	62.00	"	"	1950	-	26.5	22.5	2.1
18	32	1.25	75.00	"	"	1950	-	22	26.5	1.5
83	10.6	3.3	16.31	BS04-../D04LA4	3.9	1970	-	100	8.8	4.0
65	13.3	2.8	20.96	"	"	2100	-	78	11.1	3.3
56	15.5	2.2	24.25	"	"	2250	-	67	12.9	2.6
52	15.6	2.4	26.21	"	"	2250	-	62	13.1	2.9
43	18.6	2.0	31.50	"	"	2250	-	52	15.4	2.5
35.5	22	1.7	38.42	"	"	2250	-	42.5	18.6	2.0
28.5	27	1.4	47.86	"	"	2250	-	34	22.5	1.7
21.5	33.5	1.05	64.06	"	"	2250	-	25.5	28	1.3
19	39.5	0.96	71.18	"	"	2250	-	23	32.5	1.15
18	38.5	0.99	77.00	"	"	2250	-	21.5	32.5	1.15
14.5	46.5	0.82	93.92	"	"	2250	-	17.5	38.5	0.99
28	29	3.0	48.60	BS06-../D04LA4	8.4	3500	-	33.5	24.5	3.6
23.5	34.5	2.6	58.15	"	"	3500	-	28	29	3.1
21.5	36	2.2	64.06	"	"	3500	-	25.5	30.5	2.6
19	42.5	2.2	71.18	"	"	3500	-	23	35	2.7
18	42.5	2.0	77.00	"	"	3500	-	21.5	35.5	2.4
15	53	1.85	90.00	"	"	3500	-	18	44.5	2.2
13.5	58	1.7	103.1	"	"	3500	-	16	49	2.0
11.5	64	1.45	118.8	"	"	3500	-	14	53	1.75
10.5	73	1.4	129.0	"	"	3500	-	13	59	1.75
9.2	80	1.35	146.8	"	"	3500	-	11.5	64	1.65
7.8	88	1.1	174.0	"	"	3500	-	9.4	73	1.35
6.2	109	0.9	220.0	"	"	3500	-	7.4	91	1.1
5.4	123	0.8	252.0	"	"	3500	-	6.5	102	0.97
16.5	51	2.9	84.36	BS10-../D06LA4	23	5300	-	19.5	43	3.5
13.5	54	3.0	103.4	"	"	5600	-	16	45.5	3.5
11.5	73	1.65	119.6	"	"	6000	-	14	60	2.0
10.5	69	2.4	130.3	"	"	6000	-	12.5	58	2.8
8.9	82	2.0	152.7	"	"	6000	-	11	66	2.5
7.2	101	1.7	188.6	"	"	6000	-	8.6	85	2.0
6.3	116	1.55	216.6	"	"	6000	-	7.5	97	1.85

P = 0.12 kW

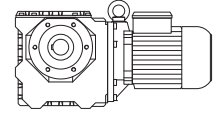


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
5.4	135	1.35	254.0	BS10Z-../D06LA4	24	6000	-	6.4	114	1.6
4.5	157	1.2	302.5	"	"	6000	-	5.4	131	1.45
3.8	186	1.0	360.3	"	"	6000	-	4.5	157	1.2
3.2	215	0.88	432.4	"	"	6000	-	3.8	183	1.05
8.5	88	3.1	159.4	BS20-../D06LA4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

P = 0.18 kW

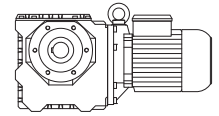
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
295	5.1	2.9	4.60	BS02-../D05LA4	5.3	1000	-	355	4.25	3.5
250	6.0	3.3	5.40	"	"	1000	-	300	5.0	4.0
200	7.3	3.4	6.75	"	"	1000	-	240	6.1	4.1
164	8.8	2.8	8.25	"	"	1100	-	197	7.3	3.4
127	11	2.3	10.67	"	"	1250	-	152	9.2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

P = 0.18 kW



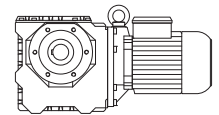
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
56	24.5	3.1	24.25	BS06-../D05LA4	10	2600	-	67	20.5	3.8
52	24	3.2	26.21	"	"	3000	-	62	20	3.9
43	29	2.8	31.50	"	"	3200	-	52	24	3.3
33	37.5	2.3	41.29	"	"	3500	-	39.5	31	2.8
28	44	2.0	48.60	"	"	3500	-	33.5	36.5	2.4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

P = 0.25 kW



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

P = 0.25 kW

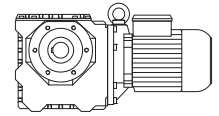


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
9.0	177	3.1	151.1	BS30-../D06LA4	51	9500	-	11	145	3.7
7.3	215	2.5	186.7	"	"	10000	-	8.7	181	3.0
6.3	250	2.1	216.4	"	"	10000	-	7.5	210	2.5
5.2	300	1.85	261.6	BS30Z-../D06LA4	54	10000	-	6.2	250	2.2
4.5	340	1.7	306.6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

P = 0.3 kW

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

P = 0.3 kW

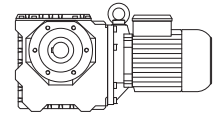


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
52	42.5	3.1	26.42	BS10-../D07LA4	26	3250	-	62	36	3.6
40.5	53	2.5	33.55	"	"	3550	-	48.5	44.5	3.0
34	63	2.2	39.96	"	"	3800	-	41	52	2.7
28.5	75	1.95	47.59	"	"	4050	-	34.5	62	2.3
24	88	1.7	57.12	"	"	4350	-	28.5	74	2.0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

P = 0.37 kW

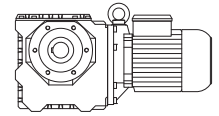
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
295	10.5	1.45	4.60	BS02-../D07LA4	9.3	1000	-	355	8.7	1.7
250	12.4	1.6	5.40	"	"	1000	-	300	10.3	1.95
200	15.1	1.65	6.75	"	"	1000	-	240	12.6	2.0
164	18	1.4	8.25	"	"	1100	-	197	15	1.65
127	22.5	1.1	10.67	"	"	1250	-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

P = 0.37 kW



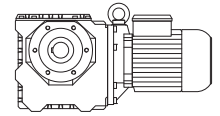
50 Hz			i	Type	m kg	F _{RN} N	F _{RV} N	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
104	26	1.25	13.09	BS04-../D07LA4	"	1760	-	124	21.5	1.55
83	32.5	1.1	16.31	"	"	1970	-	100	27	1.3
65	41	0.9	20.96	"	"	2100	-	78	34	1.1
152	18.8	3.3	8.93	BS06-../D07LA4	14	1710	-	182	15.7	3.9
126	22.5	2.9	10.73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

P = 0.55 kW



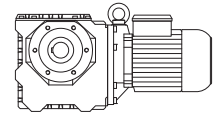
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
305	15.1	2.6	4.60	BS03-../D08MA4	10	1070	-	370	12.4	3.2
235	19.6	2.2	6.00	"	"	1170	-	280	16.5	2.7
175	25.5	1.9	8.00	"	"	1320	-	210	21.5	2.2
140	31.5	1.65	10.00	"	"	1450	-	168	26	2.0
104	39	1.4	13.50	"	"	1600	-	125	32.5	1.7
74	53	1.05	19.00	"	"	1950	-	89	44.5	1.25
56	64	0.86	25.00	"	"	1950	-	68	53	1.05
210	20	2.8	6.67	BS06-../D08MA4	16	1550	-	255	16.6	3.4
157	27	2.3	8.93	"	"	1710	-	189	22.5	2.8
131	32	2.0	10.73	"	"	1850	-	157	27	2.4
100	42.5	1.6	14.07	"	"	2200	-	120	35	1.95
85	49	1.45	16.56	"	"	2400	-	102	41	1.75
71	59	1.25	19.82	"	"	2500	-	85	49	1.55
58	72	1.05	24.25	"	"	2600	-	70	60	1.3
54	71	1.1	26.21	"	"	3000	-	65	58	1.35
44.5	86	0.93	31.50	"	"	3200	-	54	71	1.15
113	37	2.9	12.49	BS10-../D08MA4	27	2400	-	135	31	3.5
83	50	2.4	16.92	"	"	2700	-	100	42	2.9
65	64	1.95	21.61	"	"	3000	-	78	53	2.4
53	77	1.7	26.42	"	"	3250	-	64	64	2.0
46	78	1.65	30.63	"	"	3550	-	55	65	2.0
42	95	1.4	33.55	"	"	3550	-	51	78	1.75
35.5	110	1.25	39.96	"	"	3800	-	42.5	92	1.5
29.5	133	1.1	47.59	"	"	4050	-	35.5	110	1.3
25	155	0.97	57.12	"	"	4350	-	29.5	131	1.15
23.5	149	1.0	60.74	"	"	4550	-	28	125	1.2
19.5	199	0.8	71.96	"	"	5000	-	23.5	165	0.97
51	80	3.1	27.86	BS20-../D08MA4	37	4450	-	61	67	3.7
46	82	3.0	30.63	"	"	4750	-	55	68	3.7
43	94	2.9	32.87	"	"	4750	-	52	77	3.5
35	108	2.4	40.25	"	"	5300	-	42	90	2.9
33.5	119	2.3	42.08	"	"	5200	-	40	99	2.7
29	135	2.0	48.98	"	"	5500	-	34.5	114	2.4
28	125	2.2	50.44	"	"	5700	-	33.5	105	2.6
24	164	1.7	58.74	"	"	5900	-	29	135	2.1
20	196	1.55	70.30	"	"	6300	-	24	164	1.85
18.5	187	1.45	76.18	"	"	6600	-	22.5	154	1.75
16	215	1.25	88.67	"	"	7000	-	19	182	1.5
13.5	255	1.05	106.3	"	"	7600	-	16	215	1.25
11	315	0.86	127.3	"	"	8000	-	13.5	255	1.05
28	144	3.1	50.04	BS30-../D08MA4	55	5900	-	34	118	3.8
24	168	2.7	58.64	"	"	6900	-	29	139	3.3
20	183	2.6	71.17	"	"	7000	-	24	153	3.1
17	235	1.75	83.48	"	"	6800	-	20.5	197	2.1
15.5	230	2.1	90.59	"	"	7700	-	19	190	2.6
13.5	260	1.95	106.2	"	"	8200	-	16	220	2.3
11.5	310	1.7	125.2	"	"	8700	-	13.5	260	2.0
9.3	375	1.45	151.1	"	"	9500	-	11.5	305	1.75
7.5	460	1.2	186.7	"	"	10000	-	9.0	385	1.4
6.5	530	0.98	216.4	"	"	10000	-	7.8	440	1.2
5.4	640	0.88	261.6	BS30Z-../D08MA4	58	10000	-	6.5	530	1.05
11.5	305	3.2	126.0	BS40-../D08MA4	68	14900	-	13.5	260	3.8
9.5	355	2.7	148.1	"	"	15000	-	11.5	295	3.3
7.9	430	1.9	178.2	"	"	15000	-	9.5	355	2.3
6.4	510	1.55	219.7	"	"	15000	-	7.7	425	1.85
5.7	580	1.55	249.6	BS40Z-../D08MA4	71	15000	-	6.8	485	1.85
4.9	790	0.91	287.7	"	"	15000	-	5.9	650	1.1
4.7	700	1.55	302.1	"	"	15000	-	5.6	590	1.8
4.0	820	1.3	356.8	"	"	15000	-	4.8	680	1.6
3.2	1030	0.96	446.8	"	"	15000	-	3.8	870	1.15
2.7	1220	0.9	520.8	"	"	15000	-	3.3	1000	1.1

P = 0.75 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
305	20.5	1.95	4.60	BS03-../DSE08LA4	12	1070	-	370	17	2.4
235	26.5	1.65	6.00	"	"	1170	-	280	22.5	1.95
175	35	1.35	8.00	"	"	1320	-	210	29	1.65
140	42.5	1.2	10.00	"	"	1450	-	168	35.5	1.45
104	53	1.05	13.50	"	"	1600	-	125	44.5	1.25
210	27.5	2.0	6.67	BS06-../DSE08LA4	17	1550	-	255	22.5	2.5
157	36.5	1.7	8.93	"	"	1710	-	189	30.5	2.0
131	44	1.5	10.73	"	"	1850	-	157	36.5	1.8
100	58	1.15	14.07	"	"	2200	-	120	48	1.4
85	67	1.05	16.56	"	"	2400	-	102	56	1.3
71	80	0.94	19.82	"	"	2500	-	85	67	1.1
54	96	0.8	26.21	"	"	3000	-	65	80	0.96
113	50	2.2	12.49	BS10-../DSE08LA4	28	2400	-	135	42	2.6
83	69	1.75	16.92	"	"	2700	-	100	57	2.1
65	88	1.4	21.61	"	"	3000	-	78	73	1.7
53	105	1.25	26.42	"	"	3250	-	64	87	1.5
46	107	1.2	30.63	"	"	3550	-	55	89	1.45
42	129	1.05	33.55	"	"	3550	-	51	106	1.25
35.5	151	0.93	39.96	"	"	3800	-	42.5	126	1.1
29.5	182	0.8	47.59	"	"	4050	-	35.5	151	0.96
83	69	3.2	16.92	BS20-../DSE08LA4	39	3700	-	100	58	3.8
63	92	2.5	22.23	"	"	4100	-	76	76	3.0
51	109	2.3	27.86	"	"	4450	-	61	91	2.7
46	112	2.2	30.63	"	"	4750	-	55	93	2.7
43	128	2.1	32.87	"	"	4750	-	52	106	2.5
35	147	1.75	40.25	"	"	5300	-	42	122	2.1
33.5	162	1.65	42.08	"	"	5200	-	40	136	2.0
29	185	1.45	48.98	"	"	5500	-	34.5	155	1.75
28	171	1.6	50.44	"	"	5700	-	33.5	143	1.9
24	220	1.25	58.74	"	"	5900	-	29	185	1.5
20	265	1.15	70.30	"	"	6300	-	24	220	1.35
18.5	255	1.05	76.18	"	"	6600	-	22.5	210	1.3
16	295	0.92	88.67	"	"	7000	-	19	245	1.1
42	139	3.0	33.55	BS30-../DSE08LA4	56	5200	-	51	115	3.7
37	145	2.9	37.92	"	"	5500	-	44.5	120	3.5
36	161	2.7	39.31	"	"	5500	-	43	134	3.2
28	196	2.3	50.04	"	"	5900	-	34	162	2.8
24	225	2.0	58.64	"	"	6900	-	29	190	2.4
20	250	1.9	71.17	"	"	7000	-	24	205	2.3
17	320	1.3	83.48	"	"	6800	-	20.5	265	1.55
15.5	315	1.55	90.59	"	"	7700	-	19	260	1.9
13.5	360	1.4	106.2	"	"	8200	-	16	300	1.7
11.5	420	1.25	125.2	"	"	8700	-	13.5	360	1.45
9.3	510	1.05	151.1	"	"	9500	-	11.5	415	1.3
7.5	630	0.86	186.7	"	"	10000	-	9.0	520	1.05
20.5	265	2.8	69.60	BS40-../DSE08LA4	69	11800	-	24.5	225	3.3
16.5	295	3.1	86.33	"	"	12900	-	19.5	250	3.6
13	365	2.6	108.1	"	"	14000	-	16	295	3.2
11.5	415	2.4	126.0	"	"	14900	-	13.5	355	2.8
9.5	490	2.0	148.1	"	"	15000	-	11.5	400	2.4
7.9	580	1.4	178.2	"	"	15000	-	9.5	490	1.65
6.4	700	1.15	219.7	"	"	15000	-	7.7	580	1.35
5.7	790	1.15	249.6	BS40Z-../DSE08LA4	73	15000	-	6.8	660	1.35
4.7	960	1.1	302.1	"	"	15000	-	5.6	800	1.35
4.0	1120	0.96	356.8	"	"	15000	-	4.8	940	1.15

P = 1.1 kW

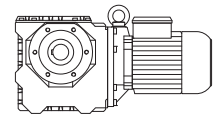


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
305	30	1.35	4.60	BS03-../DSE08XA4	13	1070	-	370	24.5	1.65
235	39	1.15	6.00	"	"	1170	-	280	33	1.35
175	51	0.94	8.00	"	"	1320	-	210	43	1.1
140	63	0.83	10.00	"	"	1450	-	168	52	1.0
210	40.5	1.4	6.67	BS06-../DSE08XA4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

P = 1.5 kW

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

P = 1.5 kW

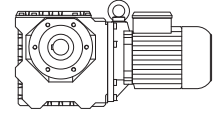


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
35.5	290	0.9	40.25	BS20-../DSE09LA4	"	5300	-	42.5	240	1.1
34	320	0.84	42.08	"	"	5200	-	41	265	1.0
28.5	335	0.81	50.44	"	"	5700	-	34	280	0.96
107	111	3.0	13.29	BS30-../DSE09LA4	64	3600	-	129	92	3.6
84	141	2.6	16.92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

P = 2.2 kW

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

P = 3 kW



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

P = 4 kW

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

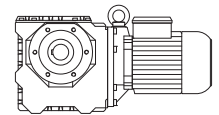
P = 5.5 kW

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

BS-series worm-geared motors

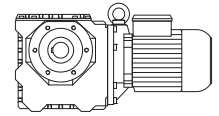
Selection - worm-geared motors DHE - IE2

P = 0.03 kW



50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
75	2.8	8.9	18.00	BS02-../D04LA4	3.5	1250	-	90	2.35	11
62	3.2	7.8	22.00	"	"	1250	-	74	2.7	9.3
50	3.6	6.9	27.00	"	"	1250	-	60	3.0	8.3
41	4.15	6.0	33.00	"	"	1250	-	49.5	3.45	7.2
31.5	5.6	4.3	43.00	"	"	1250	-	38	4.65	5.2
25	6.5	3.4	54.00	"	"	1250	-	30	5.4	4.1
19.5	7.4	2.7	70.00	"	"	1250	-	23.5	6.2	3.2
14.5	11.6	3.3	93.92	BS04-../D04LA4	3.9	2250	-	17.5	9.6	4.0
13.5	13.5	2.8	102.9	"	"	2250	-	16	11.4	3.3
12	13.6	2.8	117.0	"	"	2250	-	14	11.6	3.3
11	16.4	2.5	123.0	"	"	2250	-	13.5	13.3	3.1
9.8	18.1	2.3	138.4	"	"	2250	-	12	14.8	2.8
9.0	17.5	2.2	150.3	"	"	2250	-	11	14.3	2.7
8.5	20.5	1.8	160.1	"	"	2250	-	10.5	16.6	2.2
7.8	19.8	2.0	174.0	"	"	2250	-	9.4	16.4	2.4
6.2	24	1.65	220.0	"	"	2250	-	7.4	20.5	1.95
5.4	27.5	1.5	251.6	"	"	2250	-	6.5	22.5	1.8
4.5	32	1.35	300.7	"	"	2250	-	5.4	27	1.6
4.0	35.5	1.25	338.3	"	"	2250	-	4.8	29.5	1.5
3.5	40	1.15	391.3	"	"	2250	-	4.2	33	1.35
5.4	30.5	3.2	252.0	BS06-../D04LA4	8.4	3500	-	6.5	25.5	3.9
4.3	37.5	2.8	315.3	"	"	3500	-	5.2	31	3.4
3.8	42	2.6	358.9	"	"	3500	-	4.6	34.5	3.2
3.3	47.5	2.3	418.0	"	"	3500	-	3.9	40	2.8
2.9	70	1.35	474.8	BS06G04-../D04LA4	11	3500	-	3.5	58	1.6
2.5	79	1.25	552.6	"	"	3500	-	3.0	65	1.55
2.3	88	1.05	610.7	"	"	3500	-	2.7	75	1.25
2.0	101	0.93	704.7	"	"	3500	-	2.3	88	1.05
1.6	94*	1.0	847.0	"	"	3500	-	2.0	94	1.0
1.5	94*	1.0	939.6	"	"	3500	-	1.8	94	1.0
1.2	94*	1.0	1170	"	"	3500	-	1.4	94	1.0
0.9	94*	1.0	1503	"	"	3500	-	1.1	94	1.0
0.85	94*	1.0	1654	"	"	3500	-	1.0	94	1.0
0.75	94*	1.0	1914	"	"	3500	-	0.85	94	1.0
0.65	94*	1.0	2200	"	"	3500	-	0.75	94	1.0
0.49	94*	1.0	2768	"	"	3500	-	0.6	94	1.0
0.45	94*	1.0	3007	"	"	3500	-	0.55	94	1.0
0.41	94*	1.0	3308	"	"	3500	-	0.49	94	1.0
0.37	94*	1.0	3721	"	"	3500	-	0.44	94	1.0
0.32	94*	1.0	4304	"	"	3500	-	0.38	94	1.0
0.28	98*	1.0	4947	"	"	3500	-	0.33	98	1.0
0.25	98*	1.0	5442	"	"	3500	-	0.3	98	1.0
0.22	100*	1.0	6234	"	"	3500	-	0.26	100	1.0
2.5	67	2.8	544.8	BS10Z-../D04LA4	21	6000	-	3.0	56	3.4
2.2	72	2.6	638.7	"	"	6000	-	2.6	61	3.1
1.8	85	2.1	788.7	"	"	6000	-	2.1	73	2.5
1.5	101	1.55	905.6	"	"	6000	-	1.8	84	1.9
1.4	130	1.25	969.9	BS10G06-../D04LA4	25	6000	-	1.7	107	1.5
1.2	152	1.05	1166	"	"	6000	-	1.4	130	1.25
1.1	166	0.96	1342	"	"	6000	-	1.3	141	1.15
0.9	160*	1.0	1528	"	"	6000	-	1.1	160	1.0
0.85	160*	1.0	1668	"	"	6000	-	1.0	160	1.0
0.7	160*	1.0	1963	"	"	6000	-	0.85	160	1.0
0.6	160*	1.0	2348	"	"	6000	-	0.7	160	1.0
0.55	160*	1.0	2635	"	"	6000	-	0.65	160	1.0
0.47	160*	1.0	2875	"	"	6000	-	0.6	160	1.0
0.41	160*	1.0	3332	"	"	6000	-	0.49	160	1.0
0.38	160*	1.0	3635	"	"	6000	-	0.45	160	1.0
0.33	160*	1.0	4163	"	"	6000	-	0.39	160	1.0
0.29	160*	1.0	4776	"	"	6000	-	0.34	160	1.0
0.26	160*	1.0	5209	"	"	6000	-	0.32	160	1.0
0.23	164*	1.0	6019	"	"	6000	-	0.27	164	1.0
0.21	164*	1.0	6565	"	"	6000	-	0.25	164	1.0

P = 0.03 kW

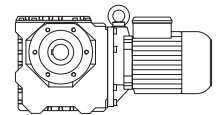


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
0.19	164*	1.0	7471	BS10G06-../D04LA4	"	6000	-	0.22	164	1.0
0.16	164*	1.0	8703	"	"	6000	-	0.19	164	1.0
1.7	111	2.4	831.7	BS20G06-../D04LA4	35	8000	-	2.0	94	2.9
1.4	135	2.0	1000	"	"	8000	-	1.7	111	2.4
1.1	171	1.6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

P = 0.04 kW

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

P = 0.04 kW

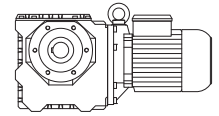


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
4.0	47.5	0.93	338.3	BS04-../D04LA4	"	2250	-	4.8	39.5	1.1
3.5	53	0.85	391.3	"	"	2250	-	4.2	44.5	1.0
7.9	30.5	2.9	171.0	BS06-../D04LA4	8.4	3500	-	9.5	25.5	3.5
6.2	36	2.7	220.0	"	"	3500	-	7.4	30	3.3
5.4	41	2.4	252.0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

P = 0.06 kW

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

P = 0.06 kW

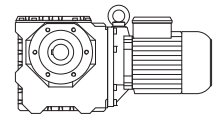


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
9.8	36	1.15	138.4	BS04-../D04LA4	"	2250	-	12	29.5	1.4
9.0	35	1.1	150.3	"	"	2250	-	11	28.5	1.35
8.5	41	0.9	160.1	"	"	2250	-	10.5	33	1.1
7.8	39.5	1.0	174.0	"	"	2250	-	9.4	32.5	1.25
6.2	48.5	0.82	220.0	"	"	2250	-	7.4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

P = 0.09 kW

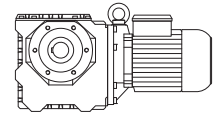
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
295	2.55	5.9	4.60	BS02-../D04LA4	3.5	1000	-	355	2.1	7.1
250	3.0	6.7	5.40	"	"	1000	-	300	2.5	8.0
200	3.65	6.8	6.75	"	"	1000	-	240	3.05	8.2
164	4.4	5.7	8.25	"	"	1100	-	197	3.65	6.8
127	5.5	4.5	10.67	"	"	1250	-	152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

P = 0.09 kW



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

P = 0.09 kW

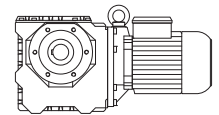


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
1.9	270	2.8	736.5	BS40Z-../D06LA4	68	15000	-	2.2	230	3.3
1.5	335	2.2	908.2	"	"	15000	-	1.8	280	2.7
1.4	425	2.1	965.5	BS40G10-../D06LA4	73	15000	-	1.7	350	2.5
1.2	500	1.75	1180	"	"	15000	-	1.4	425	2.1
0.95	630	1.4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

P = 0.12 kW

50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
295	3.4	4.4	4.60	BS02-../D04LA4	3.5	1000	-	355	2.8	5.4
250	4.0	5.0	5.40	"	"	1000	-	300	3.35	6.0
200	4.9	5.1	6.75	"	"	1000	-	240	4.1	6.1
164	5.8	4.3	8.25	"	"	1100	-	197	4.85	5.2
127	7.3	3.4	10.67	"	"	1250	-	152	6.1	4.1
100	8.9	2.8	13.50	"	"	1250	-	120	7.4	3.4
75	11.3	2.2	18.00	"	"	1250	-	90	9.4	2.7
62	12.9	1.95	22.00	"	"	1250	-	74	10.8	2.3
50	14.4	1.75	27.00	"	"	1250	-	60	12	2.1
41	16.7	1.5	33.00	"	"	1250	-	49.5	13.8	1.8
31.5	22.5	1.05	43.00	"	"	1250	-	38	18.6	1.3
25	26	0.85	54.00	"	"	1250	-	30	21.5	1.0
41	17	3.2	33.00	BS03-../D05LA4	5.4	1950	-	49.5	14.1	3.9
35	20.5	2.7	39.00	"	"	1950	-	42	17.4	3.2
27	24.5	2.2	50.00	"	"	1950	-	32.5	20	2.8
22	27.5	1.75	62.00	"	"	1950	-	26.5	22.5	2.1
18	32	1.25	75.00	"	"	1950	-	22	26.5	1.5
83	10.6	3.3	16.31	BS04-../D04LA4	3.9	1970	-	100	8.8	4.0
65	13.3	2.8	20.96	"	"	2100	-	78	11.1	3.3
56	15.5	2.2	24.25	"	"	2250	-	67	12.9	2.6
52	15.6	2.4	26.21	"	"	2250	-	62	13.1	2.9
43	18.6	2.0	31.50	"	"	2250	-	52	15.4	2.5
35.5	22	1.7	38.42	"	"	2250	-	42.5	18.6	2.0
28.5	27	1.4	47.86	"	"	2250	-	34	22.5	1.7
21.5	33.5	1.05	64.06	"	"	2250	-	25.5	28	1.3
19	39.5	0.96	71.18	"	"	2250	-	23	32.5	1.15
18	38.5	0.99	77.00	"	"	2250	-	21.5	32.5	1.15
14.5	46.5	0.82	93.92	"	"	2250	-	17.5	38.5	0.99
28	29	3.0	48.60	BS06-../D04LA4	8.4	3500	-	33.5	24.5	3.6
23.5	34.5	2.6	58.15	"	"	3500	-	28	29	3.1
21.5	36	2.2	64.06	"	"	3500	-	25.5	30.5	2.6
19	42.5	2.2	71.18	"	"	3500	-	23	35	2.7
18	42.5	2.0	77.00	"	"	3500	-	21.5	35.5	2.4
15	53	1.85	90.00	"	"	3500	-	18	44.5	2.2
13.5	58	1.7	103.1	"	"	3500	-	16	49	2.0
11.5	64	1.45	118.8	"	"	3500	-	14	53	1.75
10.5	73	1.4	129.0	"	"	3500	-	13	59	1.75
9.2	80	1.35	146.8	"	"	3500	-	11.5	64	1.65
7.8	88	1.1	174.0	"	"	3500	-	9.4	73	1.35
6.2	109	0.9	220.0	"	"	3500	-	7.4	91	1.1
5.4	123	0.8	252.0	"	"	3500	-	6.5	102	0.97
16.5	51	2.9	84.36	BS10-../D06LA4	23	5300	-	19.5	43	3.5
13.5	54	3.0	103.4	"	"	5600	-	16	45.5	3.5
11.5	73	1.65	119.6	"	"	6000	-	14	60	2.0
10.5	69	2.4	130.3	"	"	6000	-	12.5	58	2.8
8.9	82	2.0	152.7	"	"	6000	-	11	66	2.5
7.2	101	1.7	188.6	"	"	6000	-	8.6	85	2.0
6.3	116	1.55	216.6	"	"	6000	-	7.5	97	1.85

P = 0.12 kW

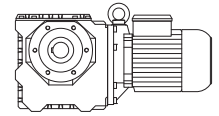


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
5.4	135	1.35	254.0	BS10Z-../D06LA4	24	6000	-	6.4	114	1.6
4.5	157	1.2	302.5	"	"	6000	-	5.4	131	1.45
3.8	186	1.0	360.3	"	"	6000	-	4.5	157	1.2
3.2	215	0.88	432.4	"	"	6000	-	3.8	183	1.05
8.5	88	3.1	159.4	BS20-../D06LA4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

P = 0.18 kW

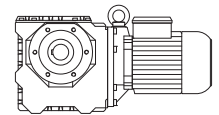
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
295	5.1	2.9	4.60	BS02-../D05LA4	5.3	1000	-	355	4.25	3.5
250	6.0	3.3	5.40	"	"	1000	-	300	5.0	4.0
200	7.3	3.4	6.75	"	"	1000	-	240	6.1	4.1
164	8.8	2.8	8.25	"	"	1100	-	197	7.3	3.4
127	11	2.3	10.67	"	"	1250	-	152	9.2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

P = 0.18 kW



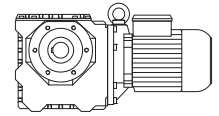
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
56	24.5	3.1	24.25	BS06-../D05LA4	10	2600	-	67	20.5	3.8
52	24	3.2	26.21	"	"	3000	-	62	20	3.9
43	29	2.8	31.50	"	"	3200	-	52	24	3.3
33	37.5	2.3	41.29	"	"	3500	-	39.5	31	2.8
28	44	2.0	48.60	"	"	3500	-	33.5	36.5	2.4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

P = 0.25 kW



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

P = 0.25 kW

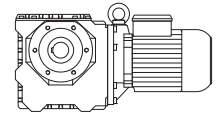


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
9.0	177	3.1	151.1	BS30-../D06LA4	51	9500	-	11	145	3.7
7.3	215	2.5	186.7	"	"	10000	-	8.7	181	3.0
6.3	250	2.1	216.4	"	"	10000	-	7.5	210	2.5
5.2	300	1.85	261.6	BS30Z-../D06LA4	54	10000	-	6.2	250	2.2
4.5	340	1.7	306.6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

P = 0.3 kW

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

P = 0.3 kW

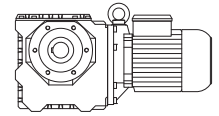


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
52	42.5	3.1	26.42	BS10-../D07LA4	26	3250	-	62	36	3.6
40.5	53	2.5	33.55	"	"	3550	-	48.5	44.5	3.0
34	63	2.2	39.96	"	"	3800	-	41	52	2.7
28.5	75	1.95	47.59	"	"	4050	-	34.5	62	2.3
24	88	1.7	57.12	"	"	4350	-	28.5	74	2.0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

P = 0.37 kW

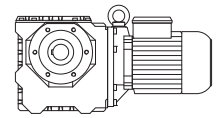
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
295	10.5	1.45	4.60	BS02-../D07LA4	9.3	1000	-	355	8.7	1.7
250	12.4	1.6	5.40	"	"	1000	-	300	10.3	1.95
200	15.1	1.65	6.75	"	"	1000	-	240	12.6	2.0
164	18	1.4	8.25	"	"	1100	-	197	15	1.65
127	22.5	1.1	10.67	"	"	1250	-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

P = 0.37 kW



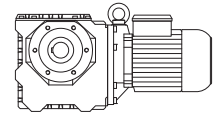
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
126	21.5	1.5	10.73	BS04-../D07LA4	"	1600	-	151	18.2	1.75
104	26	1.25	13.09	"	"	1760	-	124	21.5	1.55
83	32.5	1.1	16.31	"	"	1970	-	100	27	1.3
65	41	0.9	20.96	"	"	2100	-	78	34	1.1
152	18.8	3.3	8.93	BS06-../D07LA4	14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

P = 0.55 kW



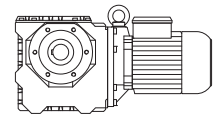
50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
305	15.1	2.6	4.60	BS03-../D08MA4	10	1070	-	370	12.4	3.2
235	19.6	2.2	6.00	"	"	1170	-	280	16.5	2.7
175	25.5	1.9	8.00	"	"	1320	-	210	21.5	2.2
140	31.5	1.65	10.00	"	"	1450	-	168	26	2.0
104	39	1.4	13.50	"	"	1600	-	125	32.5	1.7
74	53	1.05	19.00	"	"	1950	-	89	44.5	1.25
56	64	0.86	25.00	"	"	1950	-	68	53	1.05
210	20	2.8	6.67	BS06-../D08MA4	16	1550	-	255	16.6	3.4
157	27	2.3	8.93	"	"	1710	-	189	22.5	2.8
131	32	2.0	10.73	"	"	1850	-	157	27	2.4
100	42.5	1.6	14.07	"	"	2200	-	120	35	1.95
85	49	1.45	16.56	"	"	2400	-	102	41	1.75
71	59	1.25	19.82	"	"	2500	-	85	49	1.55
58	72	1.05	24.25	"	"	2600	-	70	60	1.3
54	71	1.1	26.21	"	"	3000	-	65	58	1.35
44.5	86	0.93	31.50	"	"	3200	-	54	71	1.15
113	37	2.9	12.49	BS10-../D08MA4	27	2400	-	135	31	3.5
83	50	2.4	16.92	"	"	2700	-	100	42	2.9
65	64	1.95	21.61	"	"	3000	-	78	53	2.4
53	77	1.7	26.42	"	"	3250	-	64	64	2.0
46	78	1.65	30.63	"	"	3550	-	55	65	2.0
42	95	1.4	33.55	"	"	3550	-	51	78	1.75
35.5	110	1.25	39.96	"	"	3800	-	42.5	92	1.5
29.5	133	1.1	47.59	"	"	4050	-	35.5	110	1.3
25	155	0.97	57.12	"	"	4350	-	29.5	131	1.15
23.5	149	1.0	60.74	"	"	4550	-	28	125	1.2
19.5	199	0.8	71.96	"	"	5000	-	23.5	165	0.97
51	80	3.1	27.86	BS20-../D08MA4	37	4450	-	61	67	3.7
46	82	3.0	30.63	"	"	4750	-	55	68	3.7
43	94	2.9	32.87	"	"	4750	-	52	77	3.5
35	108	2.4	40.25	"	"	5300	-	42	90	2.9
33.5	119	2.3	42.08	"	"	5200	-	40	99	2.7
29	135	2.0	48.98	"	"	5500	-	34.5	114	2.4
28	125	2.2	50.44	"	"	5700	-	33.5	105	2.6
24	164	1.7	58.74	"	"	5900	-	29	135	2.1
20	196	1.55	70.30	"	"	6300	-	24	164	1.85
18.5	187	1.45	76.18	"	"	6600	-	22.5	154	1.75
16	215	1.25	88.67	"	"	7000	-	19	182	1.5
13.5	255	1.05	106.3	"	"	7600	-	16	215	1.25
11	315	0.86	127.3	"	"	8000	-	13.5	255	1.05
28	144	3.1	50.04	BS30-../D08MA4	55	5900	-	34	118	3.8
24	168	2.7	58.64	"	"	6900	-	29	139	3.3
20	183	2.6	71.17	"	"	7000	-	24	153	3.1
17	235	1.75	83.48	"	"	6800	-	20.5	197	2.1
15.5	230	2.1	90.59	"	"	7700	-	19	190	2.6
13.5	260	1.95	106.2	"	"	8200	-	16	220	2.3
11.5	310	1.7	125.2	"	"	8700	-	13.5	260	2.0
9.3	375	1.45	151.1	"	"	9500	-	11.5	305	1.75
7.5	460	1.2	186.7	"	"	10000	-	9.0	385	1.4
6.5	530	0.98	216.4	"	"	10000	-	7.8	440	1.2
5.4	640	0.88	261.6	BS30Z-../D08MA4	58	10000	-	6.5	530	1.05
11.5	305	3.2	126.0	BS40-../D08MA4	68	14900	-	13.5	260	3.8
9.5	355	2.7	148.1	"	"	15000	-	11.5	295	3.3
7.9	430	1.9	178.2	"	"	15000	-	9.5	355	2.3
6.4	510	1.55	219.7	"	"	15000	-	7.7	425	1.85
5.7	580	1.55	249.6	BS40Z-../D08MA4	71	15000	-	6.8	485	1.85
4.9	790	0.91	287.7	"	"	15000	-	5.9	650	1.1
4.7	700	1.55	302.1	"	"	15000	-	5.6	590	1.8
4.0	820	1.3	356.8	"	"	15000	-	4.8	680	1.6
3.2	1030	0.96	446.8	"	"	15000	-	3.8	870	1.15
2.7	1220	0.9	520.8	"	"	15000	-	3.3	1000	1.1

P = 0.75 kW



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

P = 1.1 kW

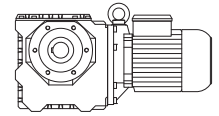


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
116	72	1.5	12.49	BS10-../DHE09LA4	36	2400	-	140	60	1.8
86	97	1.25	16.92	"	"	2700	-	103	81	1.5
67	125	1.0	21.61	"	"	3000	-	81	103	1.2
55	148	0.88	26.42	"	"	3250	-	66	124	1.05
47.5	152	0.86	30.63	"	"	3550	-	57	127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

P = 1.5 kW

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

P = 1.5 kW

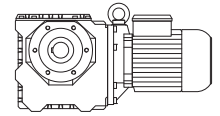


50 Hz			i	Type	m	F _{RN}	F _{RV}	60 Hz		
n ₂ 1/min	M ₂ Nm	f _B						n ₂ 1/min	M ₂ Nm	f _B
43	270	1.55	33.55	BS30-../DHE09XA4	"	5200	-	52	225	1.85
38	280	1.5	37.92	"	"	5500	-	46	230	1.85
37	310	1.4	39.31	"	"	5500	-	44.5	260	1.65
29	380	1.2	50.04	"	"	5900	-	35	315	1.45
25	440	1.05	58.64	"	"	6900	-	30	365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

P = 2.2 kW

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

P = 3 kW



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

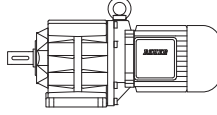
P = 4 kW

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

P = 5.5 kW

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

10



Page

Dimensional drawings helical-gear motors

337-390

- Standard
- Tandem Gearbox

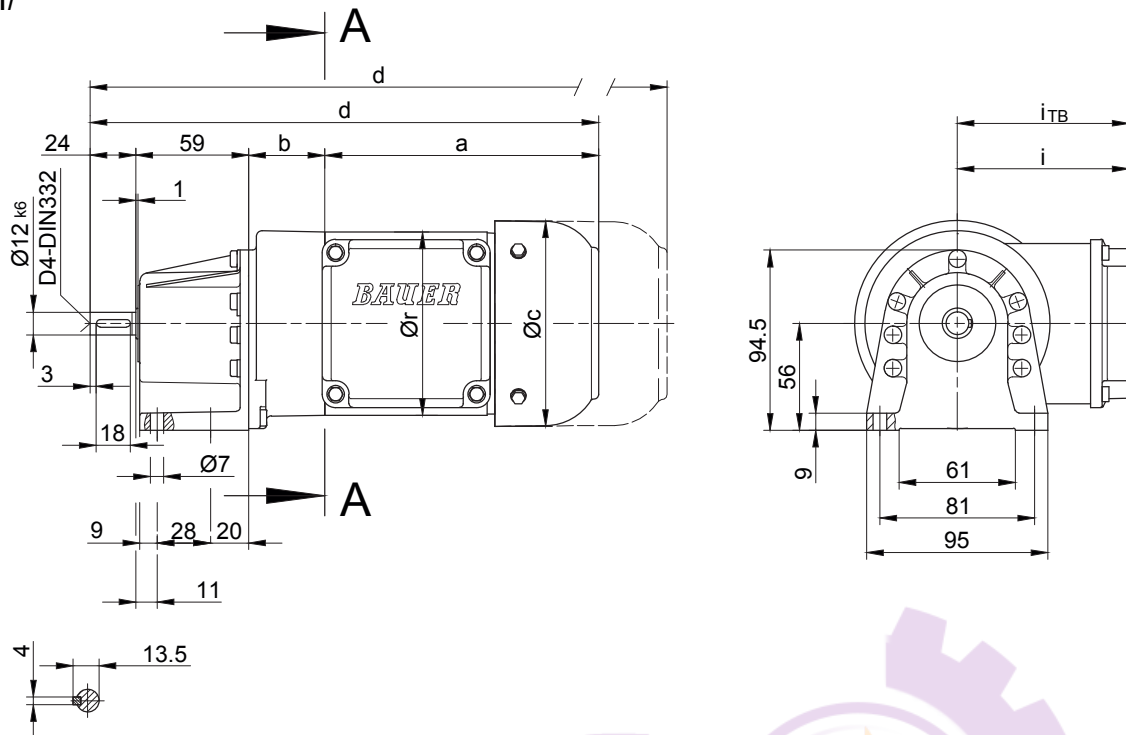
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BG04

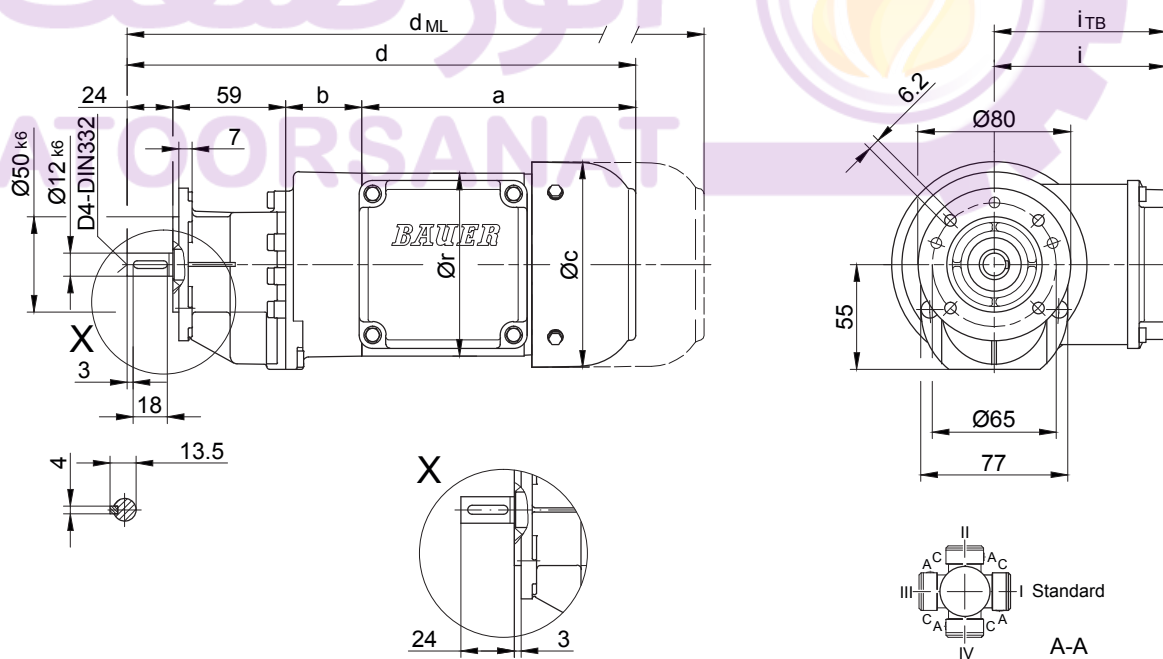
Foot mounting

Code -11/



Flange with clearance holes

Code -31/

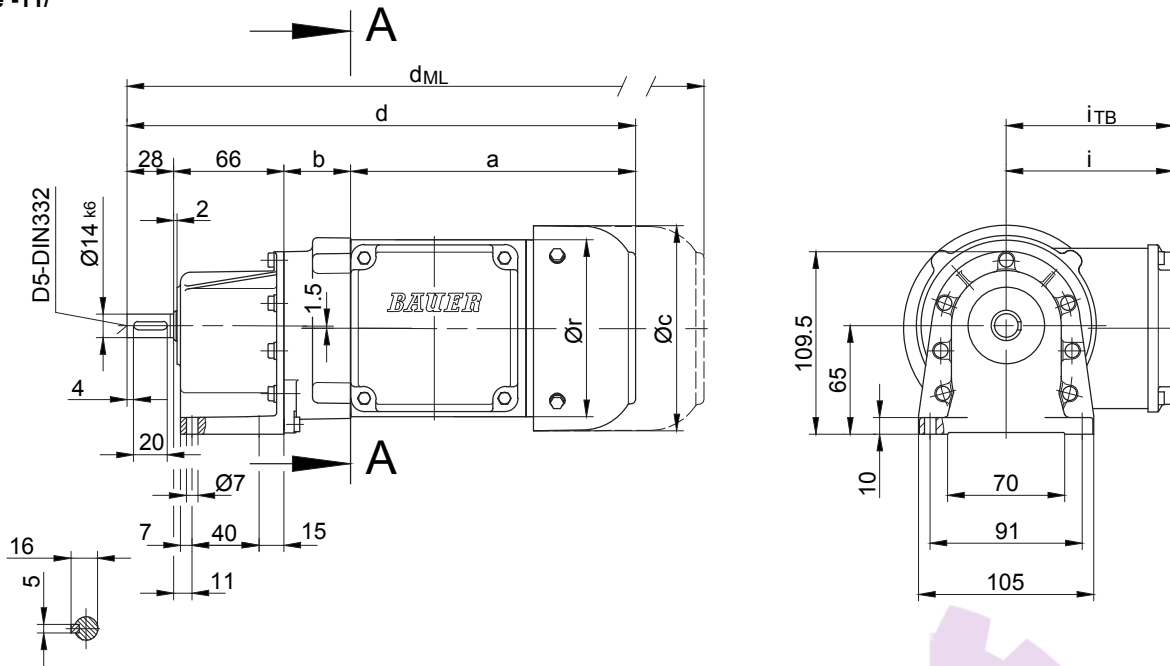


Type	a	b	c	d	i	r	Design with motor extensions				
							i _{TB}	E..	G	E.-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG04-../D04..	143	40	111	266	90	96	112	309.5	328.5	371.5	-

The actual gearbox design can vary from the geometry shown.

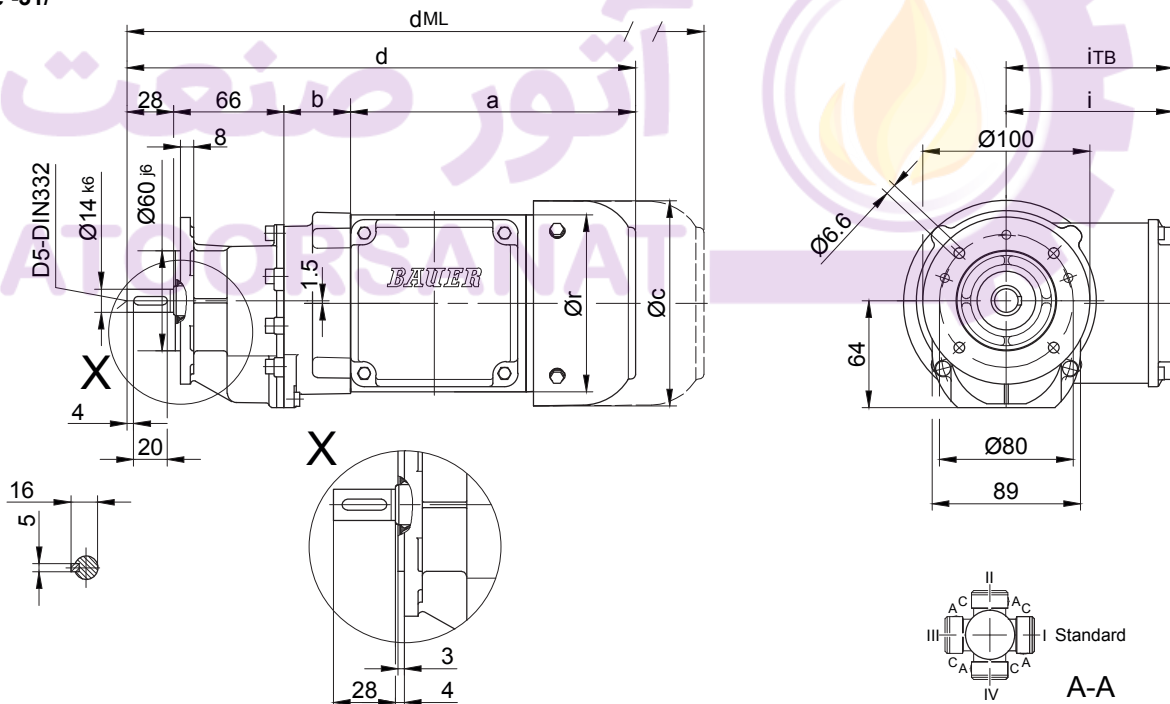
Foot mounting

Code -11/



Flange with clearance holes

Code -31/



10

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

The actual gearbox design can vary from the geometry shown.

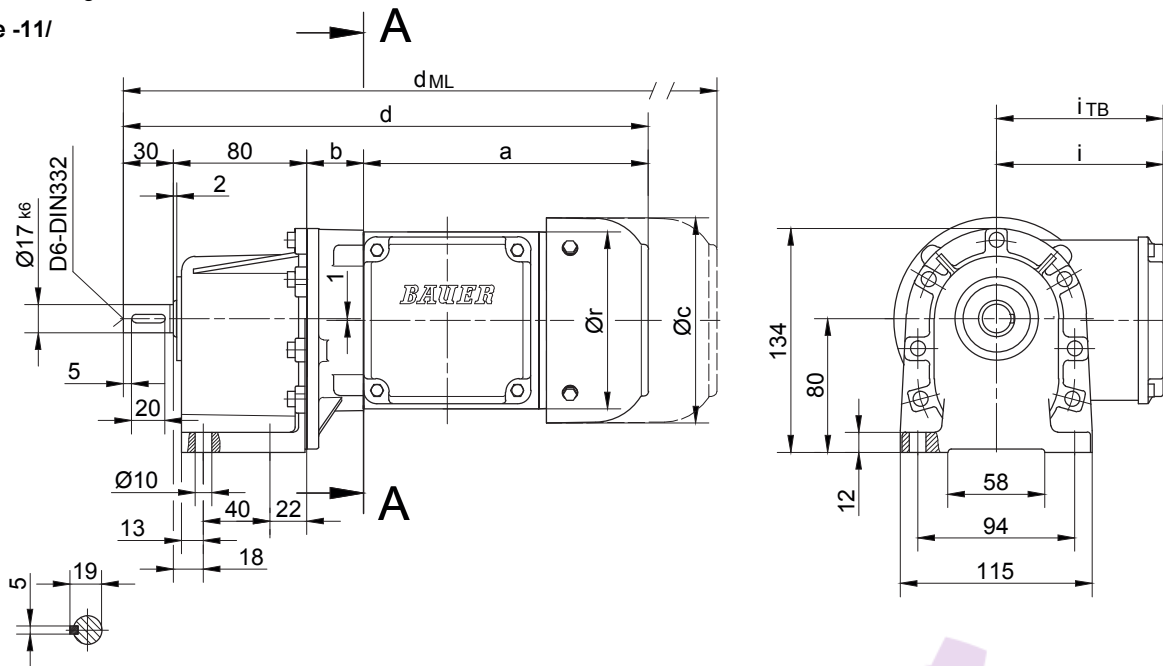
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10

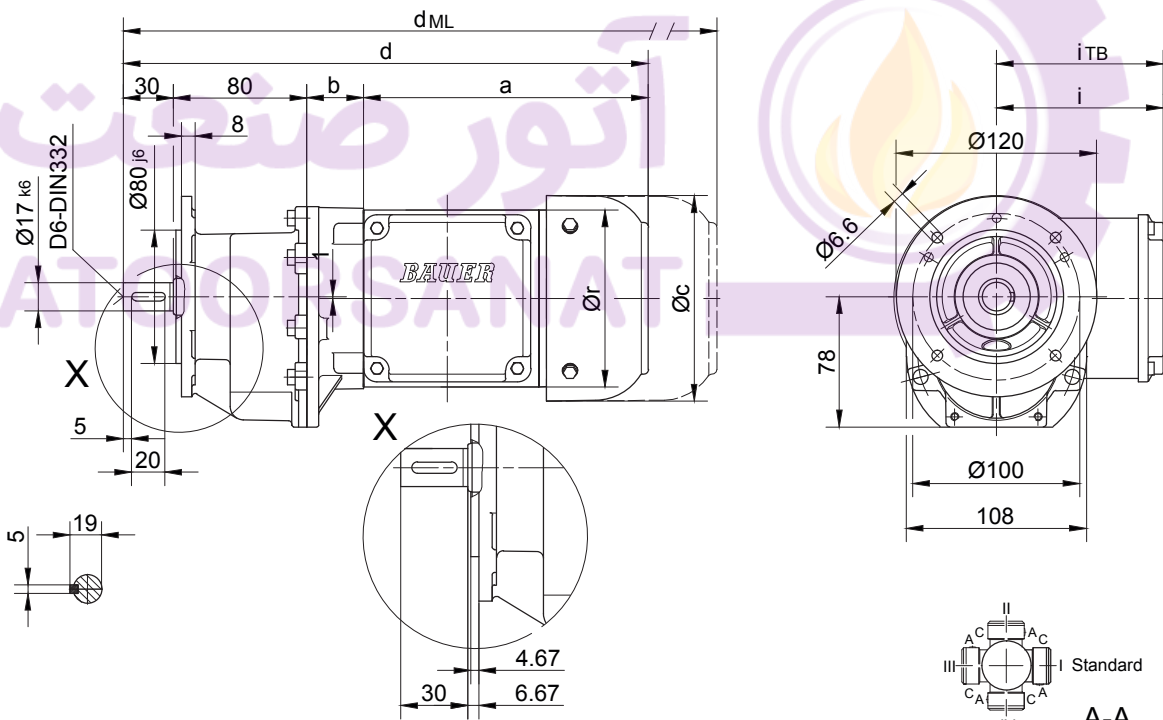
Foot mounting

Code -11/



Flange with clearance holes

Code -31/



10

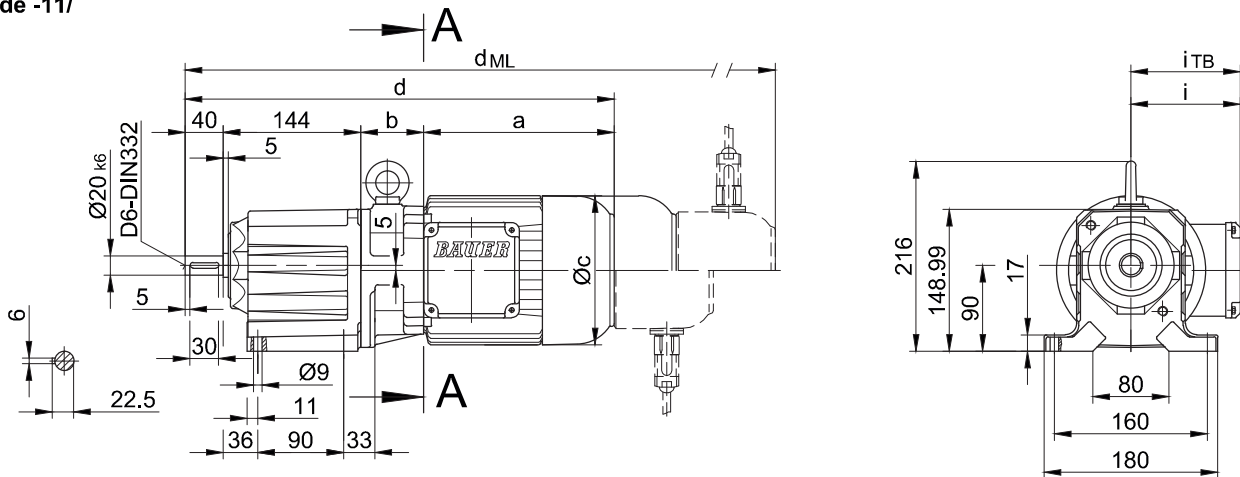
Type	a	b	c	d	i	r	Design with motor extensions				
							i _{TB}	E./ES..	G	E./ES.-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BG06-.../D04..	143	32	111	285	90	96	112	328.5	347.5	390.5	-
BG06-.../D05..	170	34	123	314	100	106	117	356	417	458.5	-
BG06-.../D06..	170	34	123	314	100	121	119	356	417	458.5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

The actual gearbox design can vary from the geometry shown.

BG10 - BG10Z

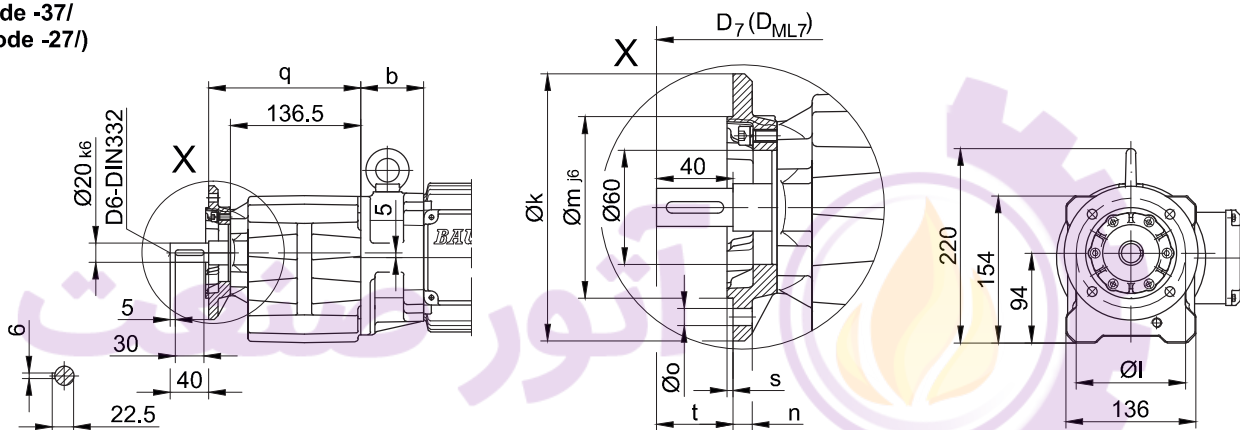
Foot mounting with clearance holes

Code -11/



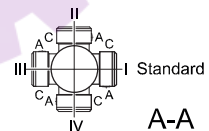
Flange with clearance holes

Code -37/
(Code -27/)



Flange dimensions

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



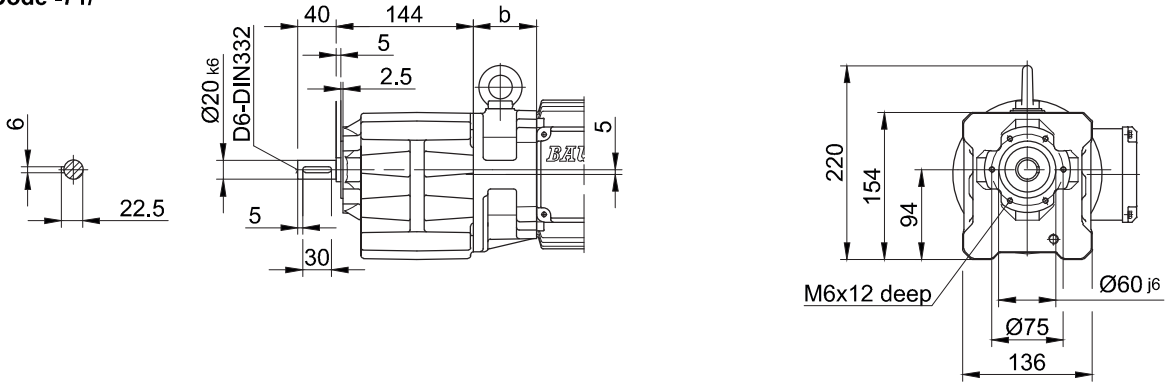
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG10Z-../D04..	143	86	111	413	90	112	456.5	475.5	518.5	-
BG10-../D05..	170	62	123	416	100	117	458	519	560.5	-
BG10Z-../D05..	170	88	123	442	100	117	484	545	586.5	-
BG10-../D06..	170	62	123	416	100	119	458	519	560.5	-
BG10Z-../D06..	170	88	123	442	100	119	484	545	586.5	-
BG10-../D07..	190	62	123	436	100	119	478	539	580.5	-
BG10Z-../D07..	190	88	123	462	100	119	504	565	606.5	-
BG10-../D..08..	200	66	156	450	115	136.5	516	557	623.5	516
BG10Z-../D..08..	200	132	156	516	115	136.5	582	623	689.5	582
BG10-../D..09..	251	80.5	181	515.5	124	158	608.5	622.5	713	608.5

The actual gearbox design can vary from the geometry shown.

BG10 - BG10Z

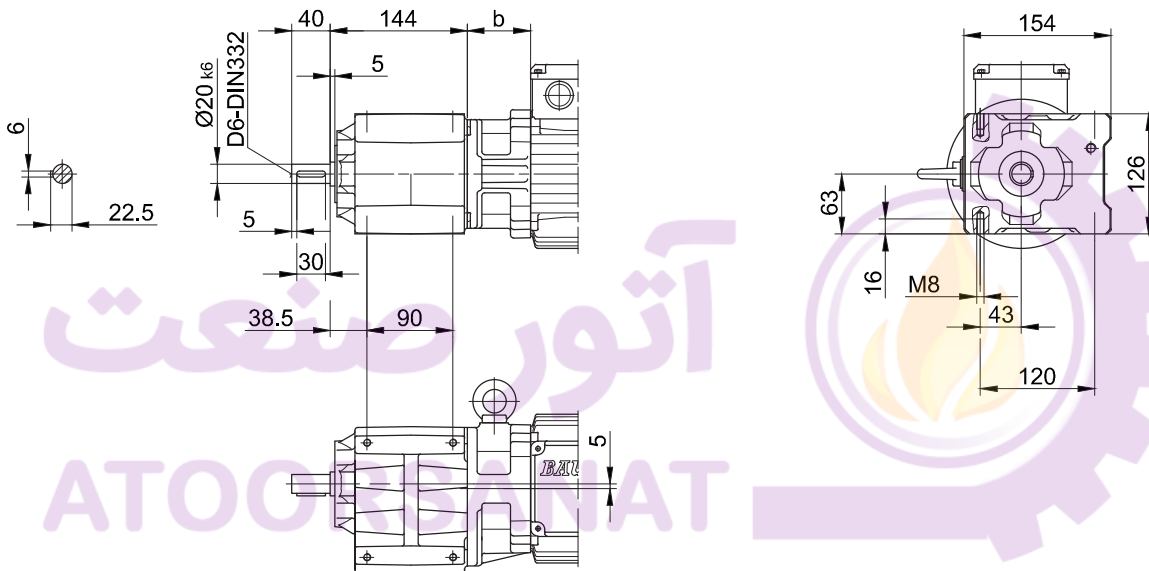
Flange with tapped holes

Code -71/



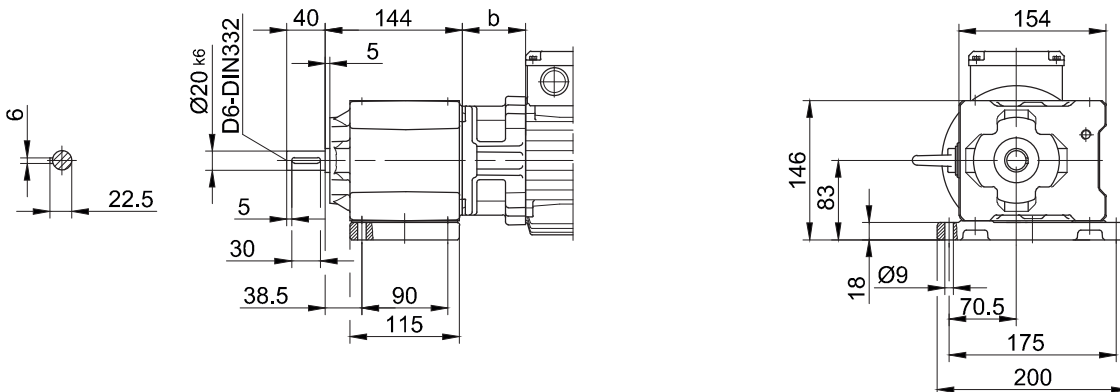
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/

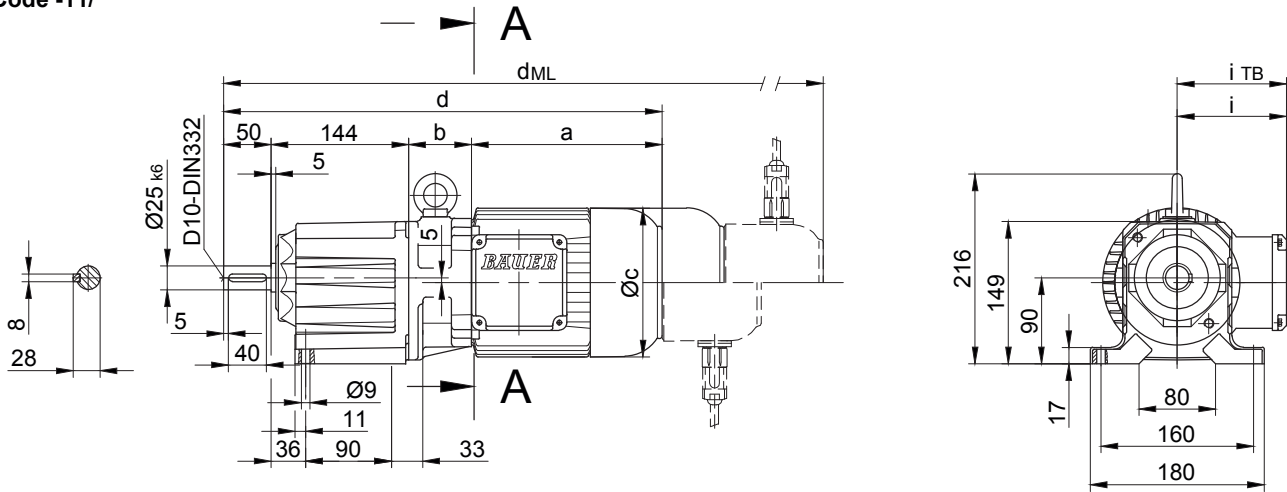


The actual gearbox design can vary from the geometry shown.

BG10X - BG10XZ

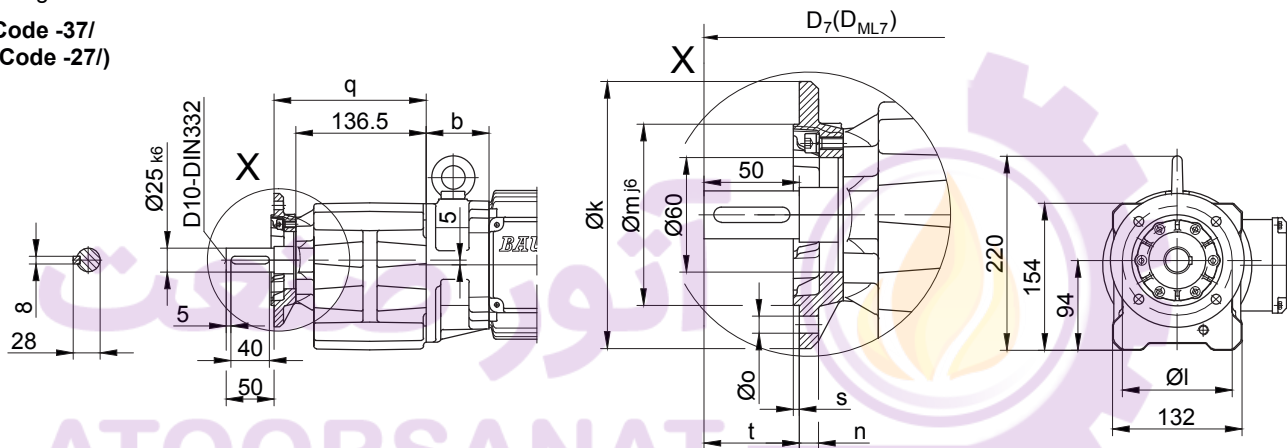
Foot mounting with clearance holes

Code -11/



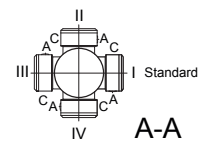
Flange with clearance holes

Code -37/
(Code -27/)



Flange dimensions

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



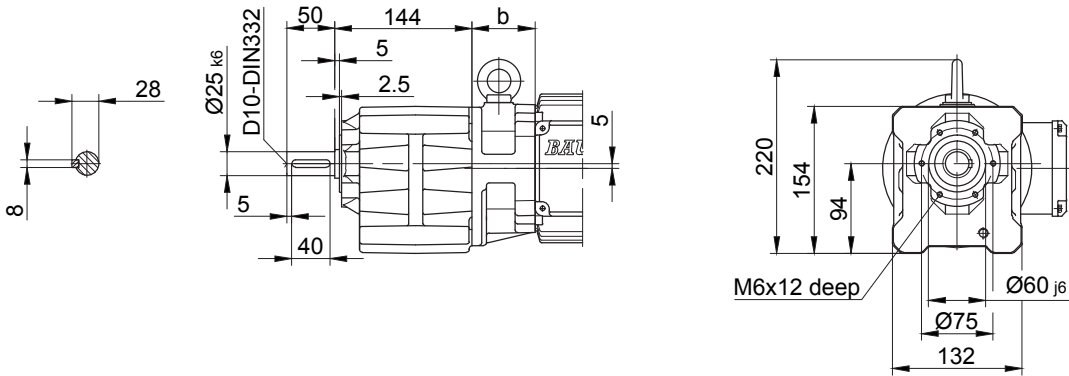
Type	a	b	c	d	i	i _{TB}	Design with motor extensions			
							ES../ZS..	G	ES../ZS..G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG10XZ-.1/D04..	143	86	111	423	90	112	466.5	485.5	528.5	-
BG10X-.1/D05..	170	62	123	426	100	117	468	529	570.5	-
BG10XZ-.1/D05..	170	88	123	452	100	117	494	555	596.5	-
BG10X-.1/D06..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

The actual gearbox design can vary from the geometry shown.

BG10X - BG10XZ

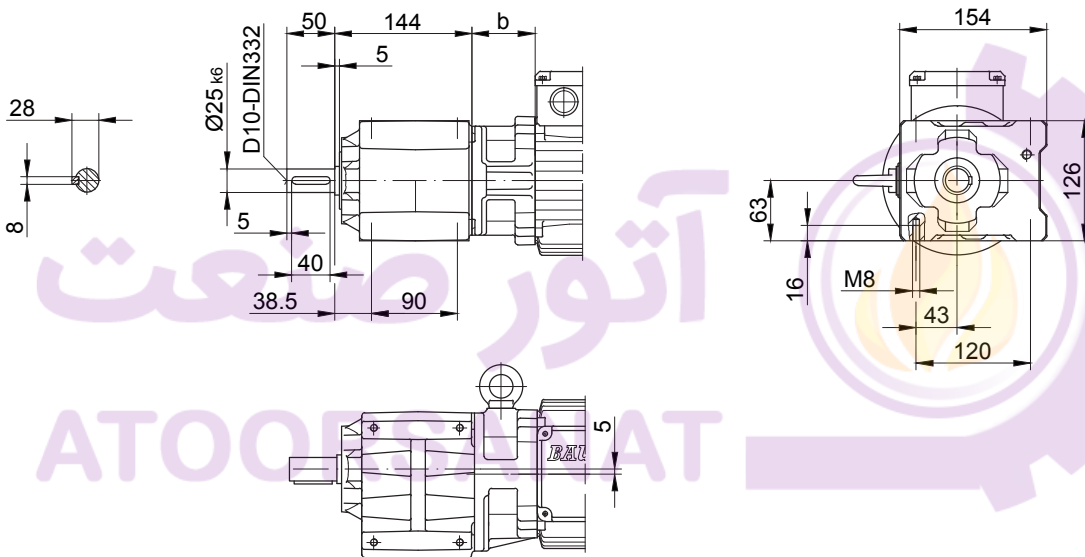
Flange with tapped holes

Code -71/



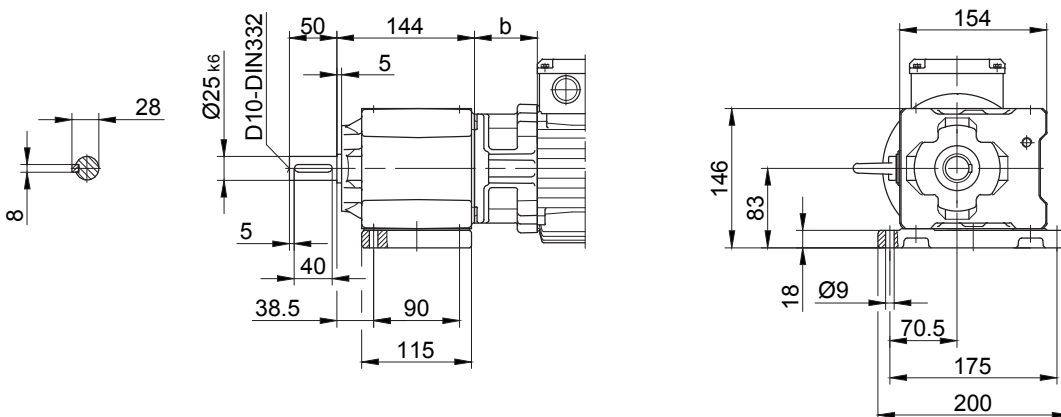
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/



The actual gearbox design can vary from the geometry shown.

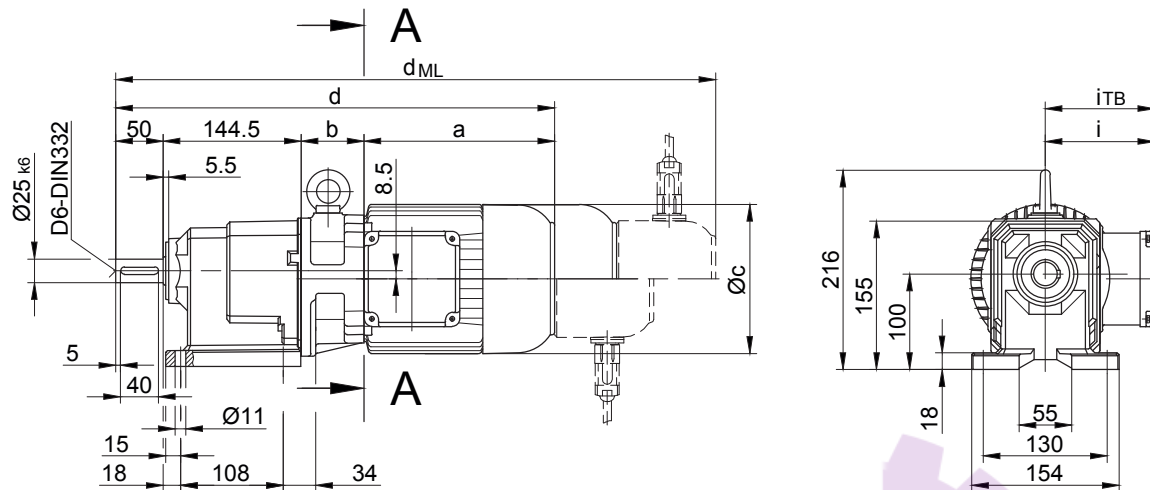
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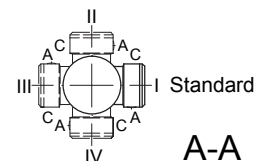
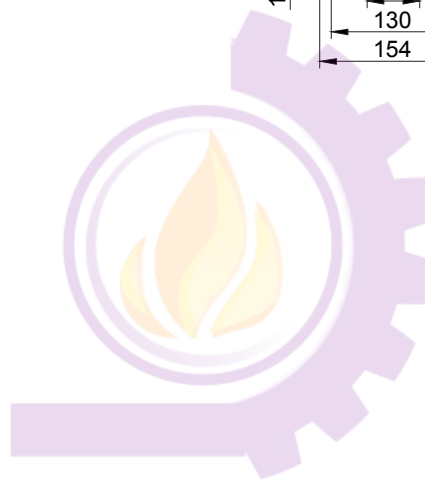
10

Foot mounting with clearance holes

Code -11/



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Type	a	b	c	d	i	Design with motor extensions				
						i_{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d_{ML}	d_{ML}	d_{ML}	d_{ML}
BG15-../D05..	170	62	123	426.5	100	129.5	468.5	529.5	571	-
BG15-../D06..	170	62	123	426.5	100	131.5	468.5	529.5	571	-
BG15-../D07..	190	62	123	446.5	100	131.5	488.5	549.5	591	-
BG15-../D..08..	200	66	156	460.5	115	149.5	526.5	567.5	634	527.5
BG15-../D..09..	251	80.5	181	526	124	164	619	633	723.5	619

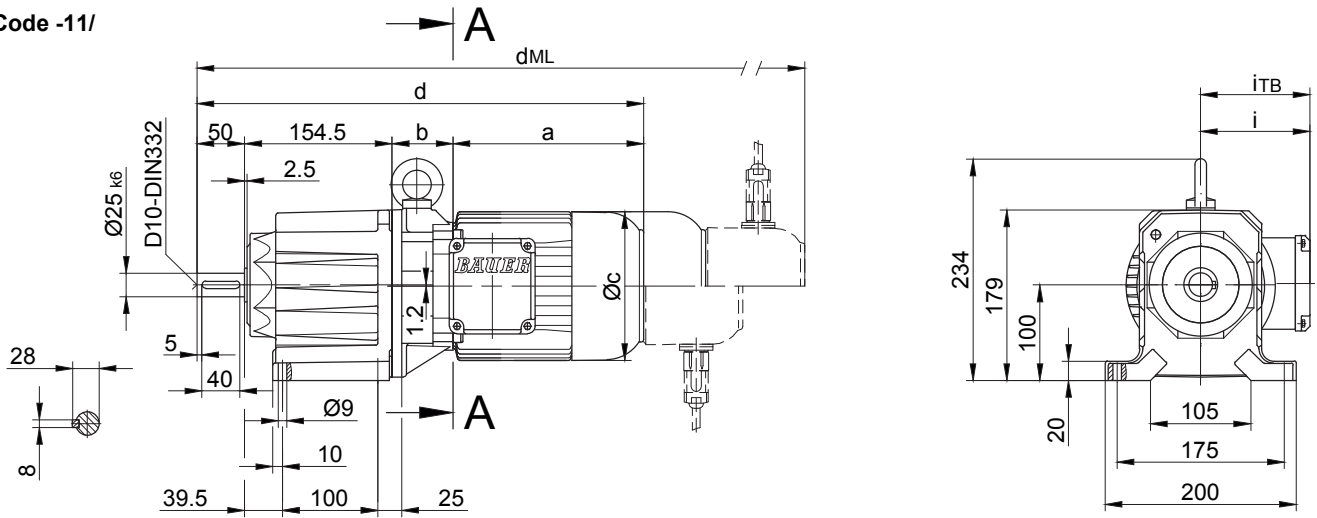
The actual gearbox design can vary from the geometry shown.

Dimension

BG20 - BG20Z

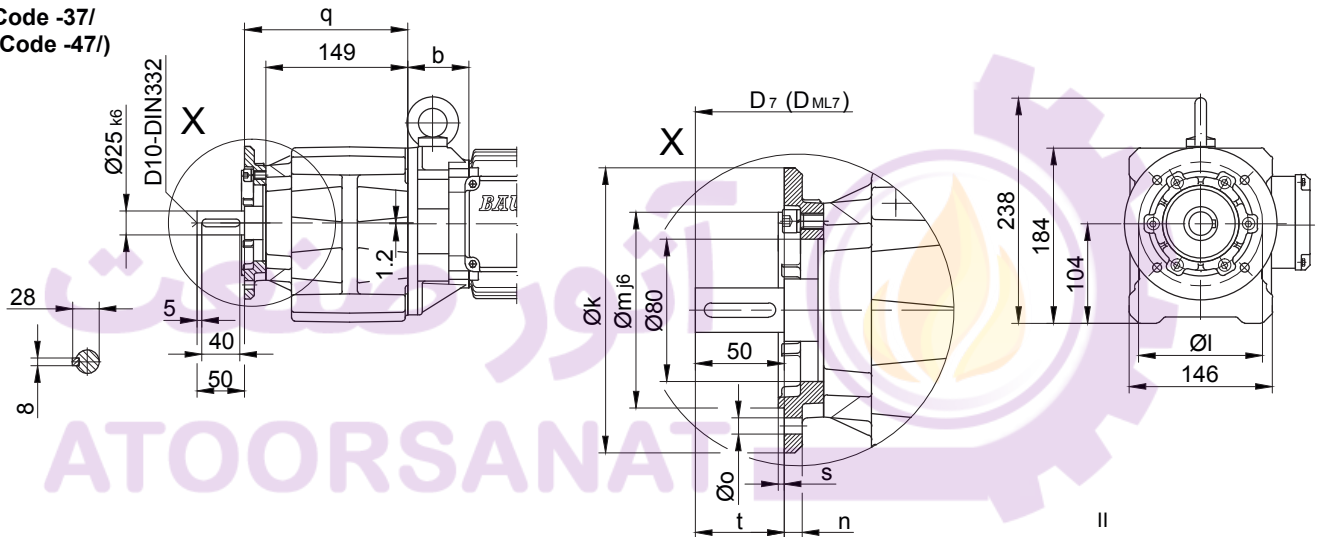
Foot mounting with clearance holes

Code -11/



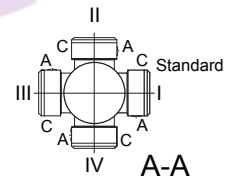
Flange with clearance holes

Code -37/
(Code -47/)



Flange dimensions

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



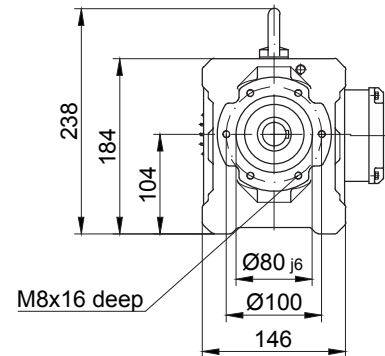
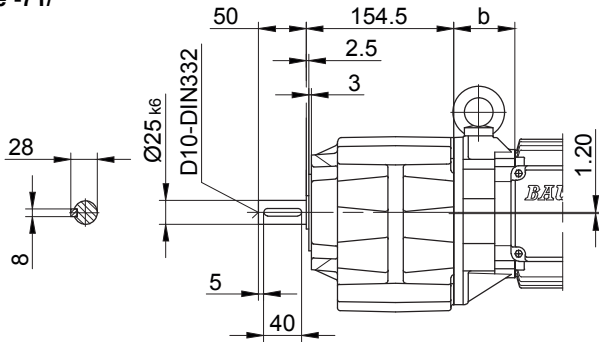
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES.. d _{ML}	G d _{ML}	E../ES..-G d _{ML}	RR/RL d _{ML}
BG20Z-../D04..	143	100	111	447.5	90	112	491	510	553	-
BG20-../D05..	170	60	123	434.5	100	117	476.5	537.5	579	-
BG20Z-../D05..	170	102	123	476.5	100	117	518.5	579.5	621	-
BG20-../D06..	170	60	123	434.5	100	119	476.5	537.5	579	-
BG20Z-../D06..	170	102	123	476.5	100	119	518.5	579.5	621	-
BG20-../D07..	190	60	123	454.5	100	119	496.5	557.5	599	-
BG20Z-../D07..	190	102	123	496.5	100	119	538.5	599.5	641	-
BG20-../D..08..	200	64	156	468.5	115	136.5	534.5	575.5	642	534.5
BG20Z-../D..08..	200	146	156	550.5	115	136.5	616.5	657.5	724	616.5
BG20-../D..09..	251	78.5	181	534	124	158	627	641	731.5	627

The actual gearbox design can vary from the geometry shown.

BG20 - BG20Z

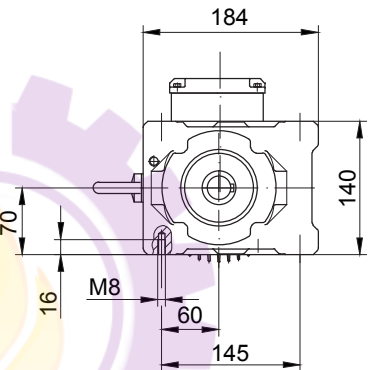
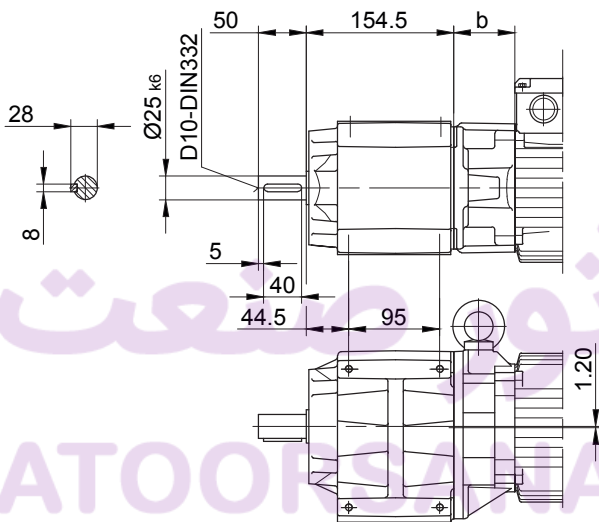
Flange with tapped holes

Code -71/



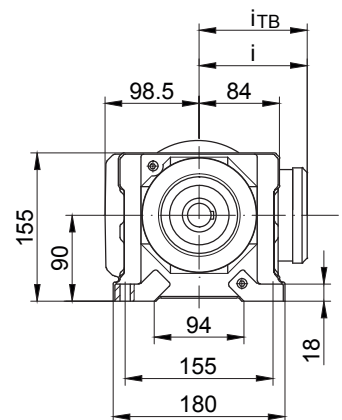
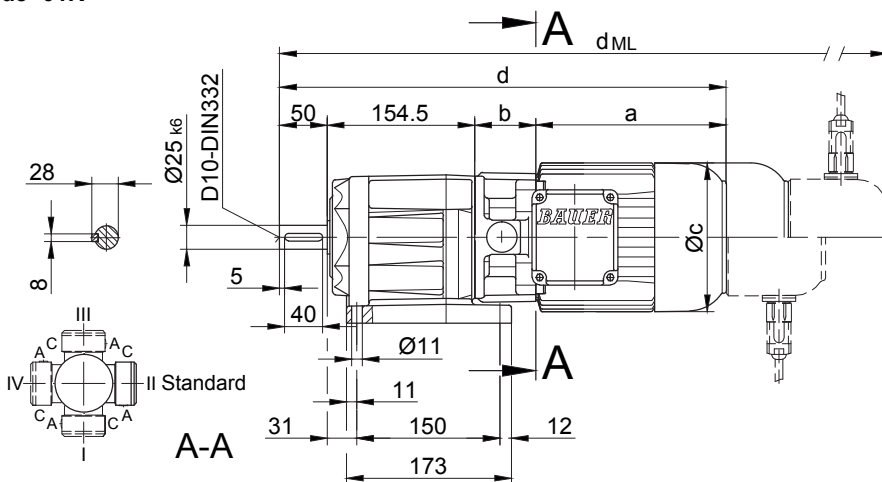
Foot with tapped holes left and right

Code -61LR/



Foot mounting right with clearance holes/

Code -01R



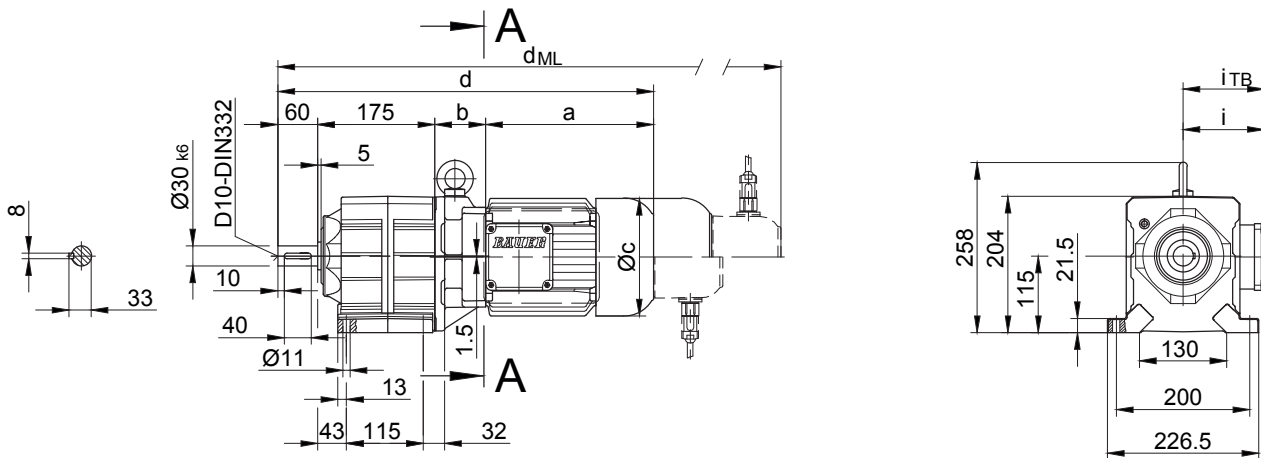
only for BG20-01R !

The actual gearbox design can vary from the geometry shown.

BG30 - BG30Z

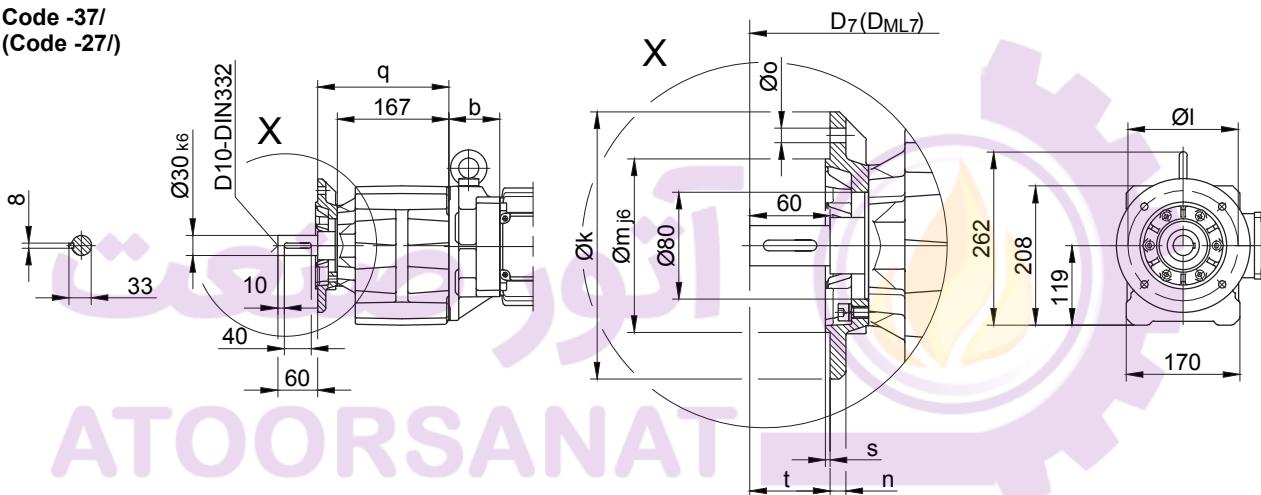
Foot mounting with clearance holes

Code -11/



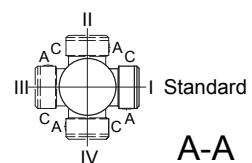
Flange with clearance holes

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



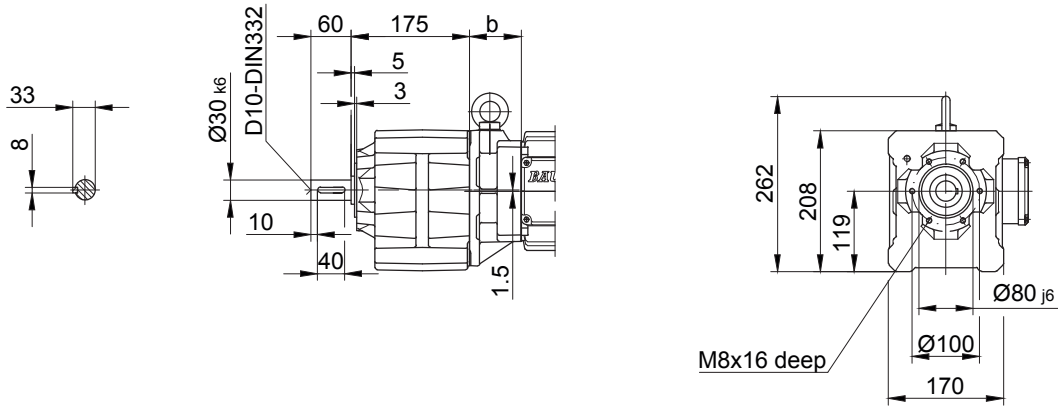
Type	a	b	c	d	i	Design with motor extensions				
						E./ES..	G	E./ES..-G	RR/RL	
						d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BG30-../D05..	170	58	123	464	100	117	505	566	607.5	-
BG30Z-../D05..	170	133.5	123	538.5	100	117	580.5	641.5	683	-
BG30-../D06..	170	58	123	464	100	119	505	566	607.5	-
BG30Z-../D06..	170	133.5	123	538.5	100	119	580.5	641.5	683	-
BG30-../D07..	190	58	123	483	100	119	525	586	627.5	-
BG30Z-../D07..	190	133.5	123	558.5	100	119	600.5	661.5	703	-
BG30-../D..08..	200	62	156	497	115	136.5	563	604	670.5	563
BG30Z-../D..08..	200	137.5	156	572.5	115	136.5	638.5	679.5	746	638.5
BG30-../D..09..	251	76.5	181	562.5	124	158	655.5	669.5	760	655.5
BG30Z-../D..09..	251	152	181	638	124	158	731	745	835.5	731
BG30-../D..11..	319	83	228	637	181	182	735	744	839.5	735

The actual gearbox design can vary from the geometry shown.

BG30 - BG30Z

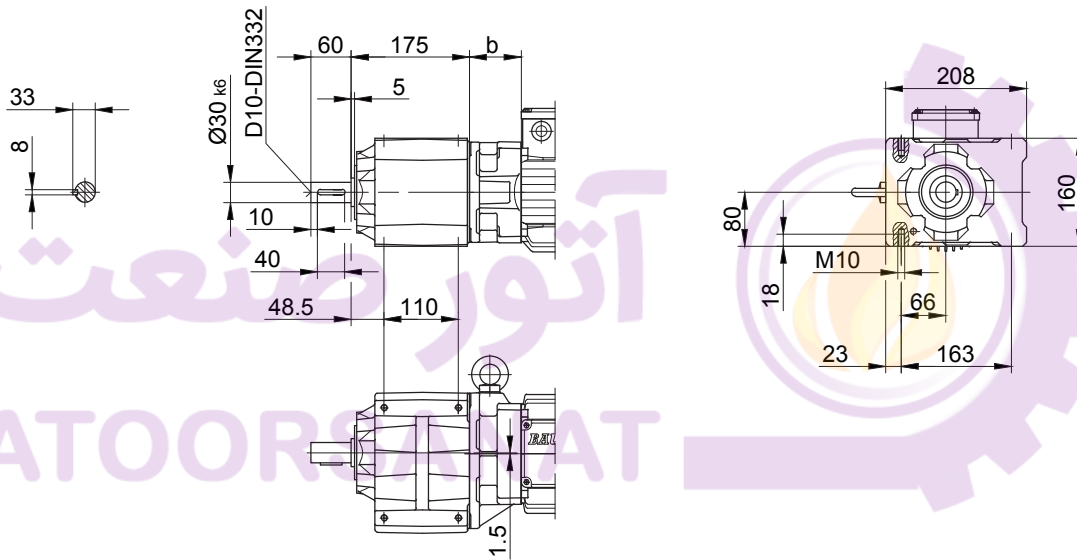
Flange with tapped holes

Code -71/



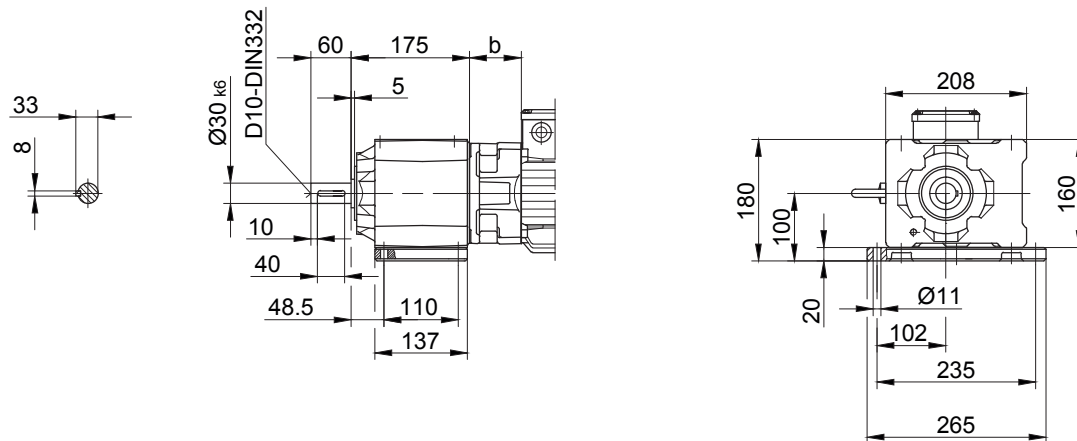
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/

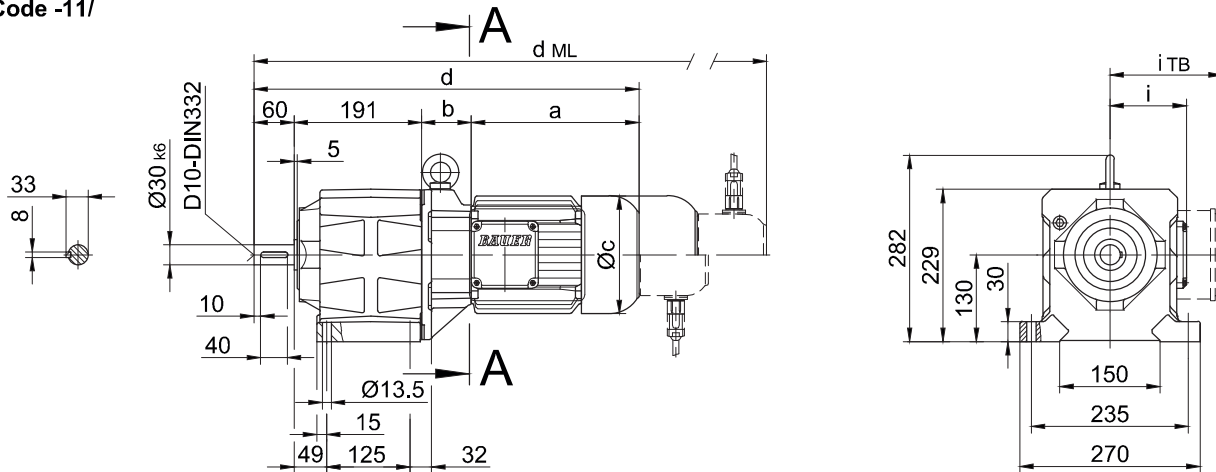


The actual gearbox design can vary from the geometry shown.

BG40 - BG40Z

Foot mounting with clearance holes

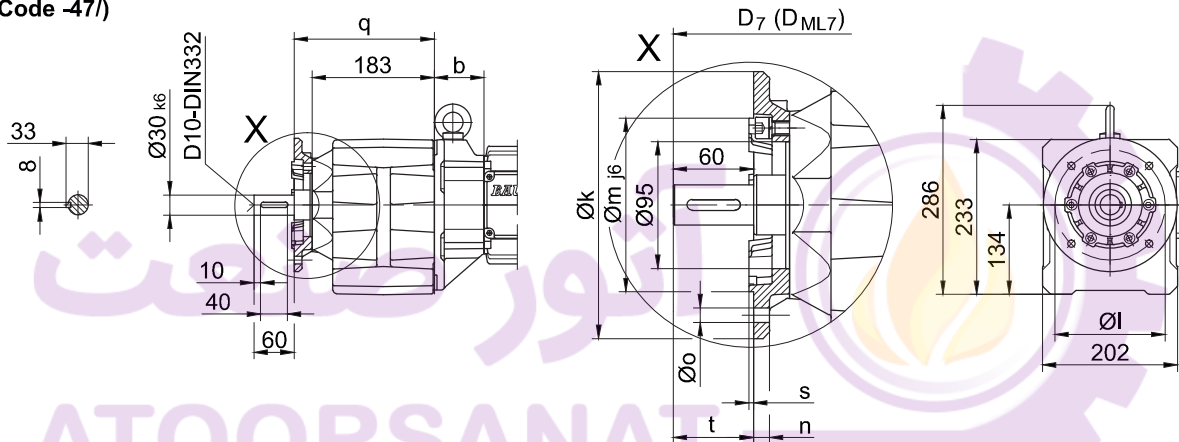
Code -11/



Flange with clearance holes

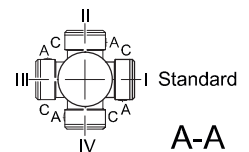
Code -37/

(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



A-A

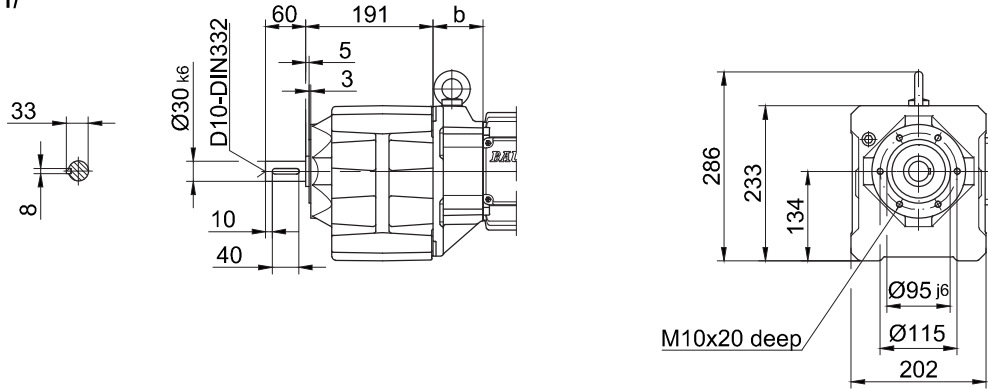
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG40Z-../D05..	170	138.5	123	559.5	100	117	601.5	662.5	704	-
BG40Z-../D06..	170	138.5	123	559.5	100	119	601.5	662.5	704	-
BG40Z-../D07..	190	138.5	123	579.5	100	119	621.5	682.5	724	-
BG40-../D..08..	200	60	156	511	115	136.5	577	618	684.5	577
BG40Z-../D..08..	200	142.5	156	593.5	115	136.5	659.5	700.5	767	659.5
BG40-../D..09..	251	74.5	181	576.5	124	158	669.5	683.5	774	669.5
BG40Z-../D..09..	251	157	181	659	124	158	752	766	856.5	752
BG40-../D..11..	319	81	228	651	181	181	749	758	853.5	749

The actual gearbox design can vary from the geometry shown.

BG40 - BG40Z

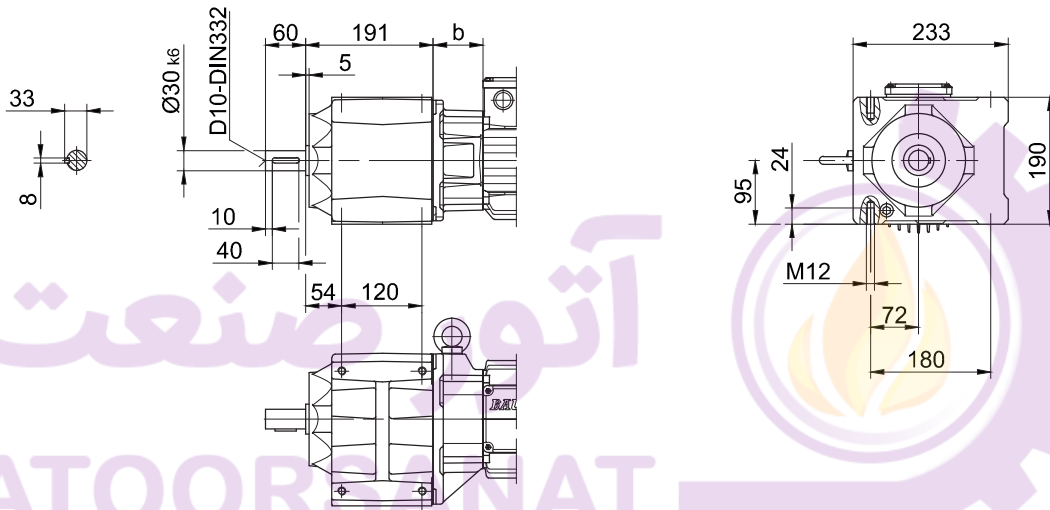
Flange with tapped holes

Code -71/



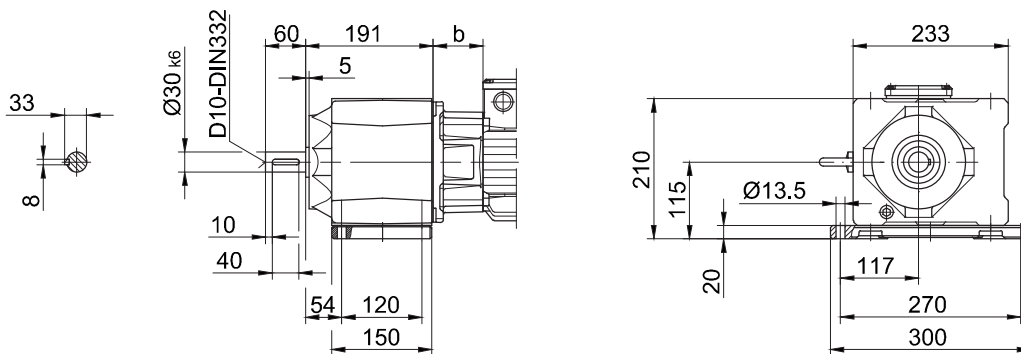
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/



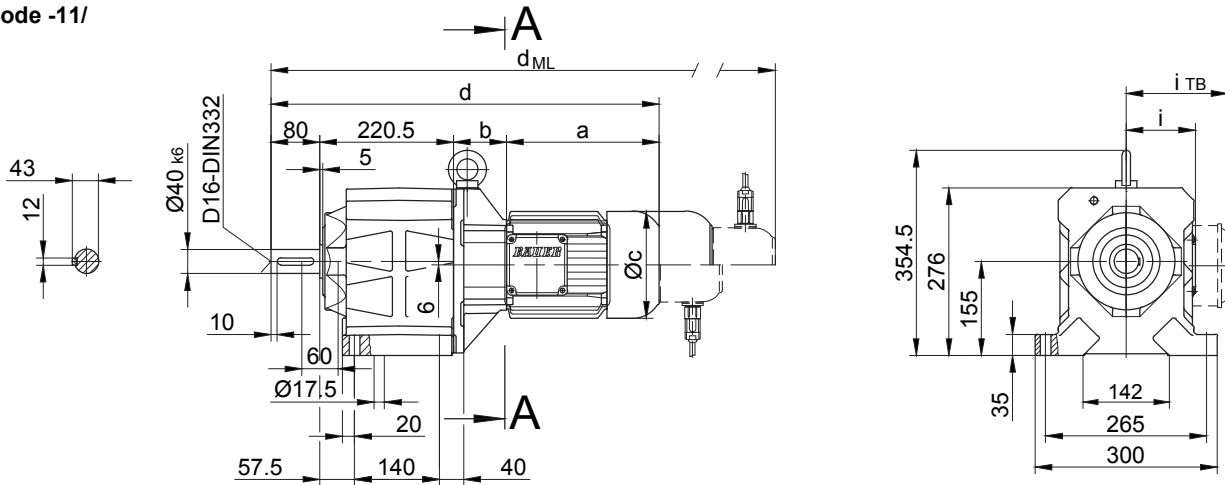
The actual gearbox design can vary from the geometry shown.

Dimension

BG50 - BG50Z

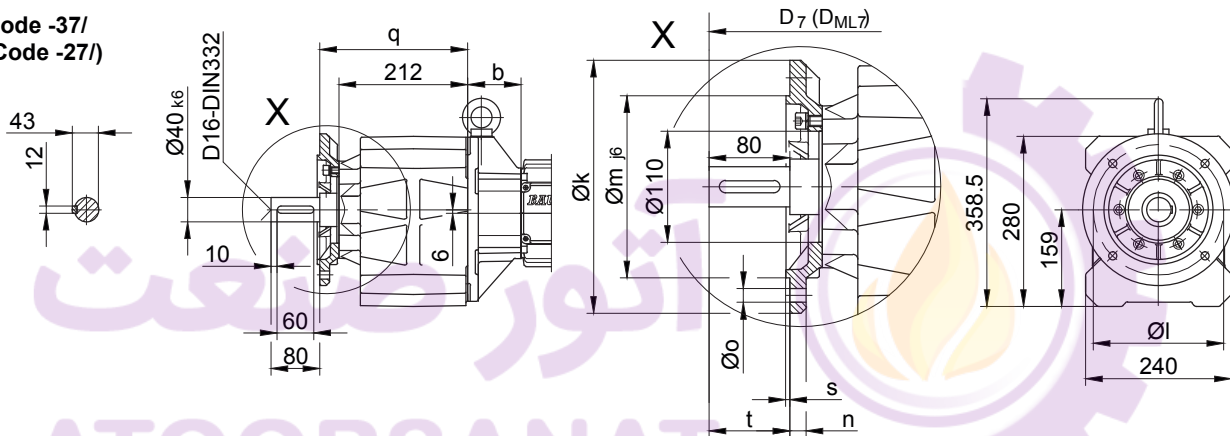
Foot mounting with clearance holes

Code -11/



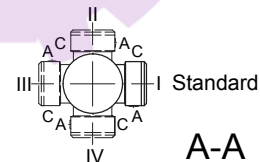
Flange with clearance holes

Code -37/
(Code -27/)



Flange dimensions

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



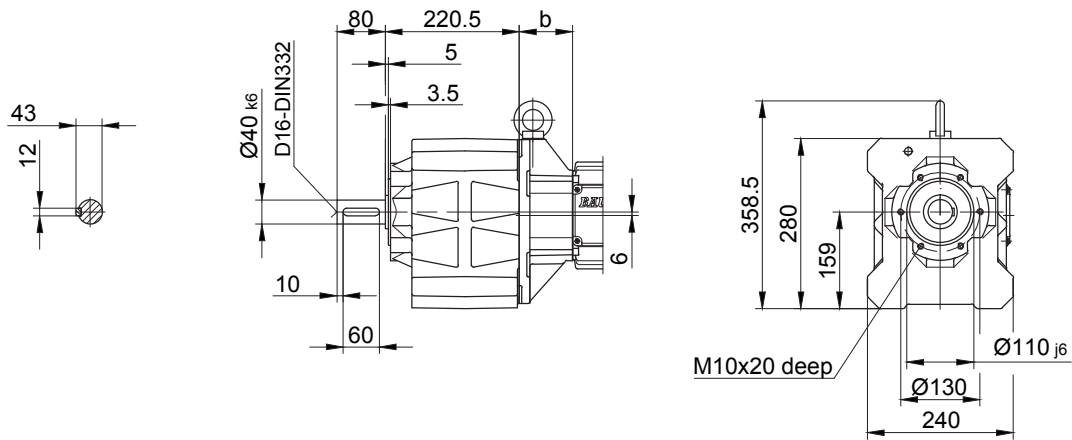
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES..	G	E../ES..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG50Z-../D05..	170	155	123	625.5	100	117	667.5	728.5	771	-
BG50Z-../D06..	170	155	123	625.5	100	119	667.5	728.5	771	-
BG50Z-../D07..	190	155	123	645.5	100	119	687.5	748.5	769	-
BG50-../D..08..	200	73	156	573.5	115	136.5	639.5	680.5	746	639.5
BG50Z-../D..08..	200	159	156	659.5	115	136.5	725.5	766.5	832	725.5
BG50-../D..09..	251	87.5	181	639	124	158	732	746	833	732
BG50Z-../D..09..	251	173.5	181	725	124	158	818	832	919	818
BG50-../D..11..	319	94	228	713.5	181	181	811.5	820.5	917	811.5
BG50-../D..13..	393	107	258	800.5	218	218	911.5	907.5	1006	911.5
BG50-../D..16..	429	121	322	850.5	244	244	994.5	958.5	1103	994.5
BG50-../D..18..	528	143	368	971.5	288	288	1120.5	1079.5	1225	1120.5

The actual gearbox design can vary from the geometry shown.

BG50 - BG50Z

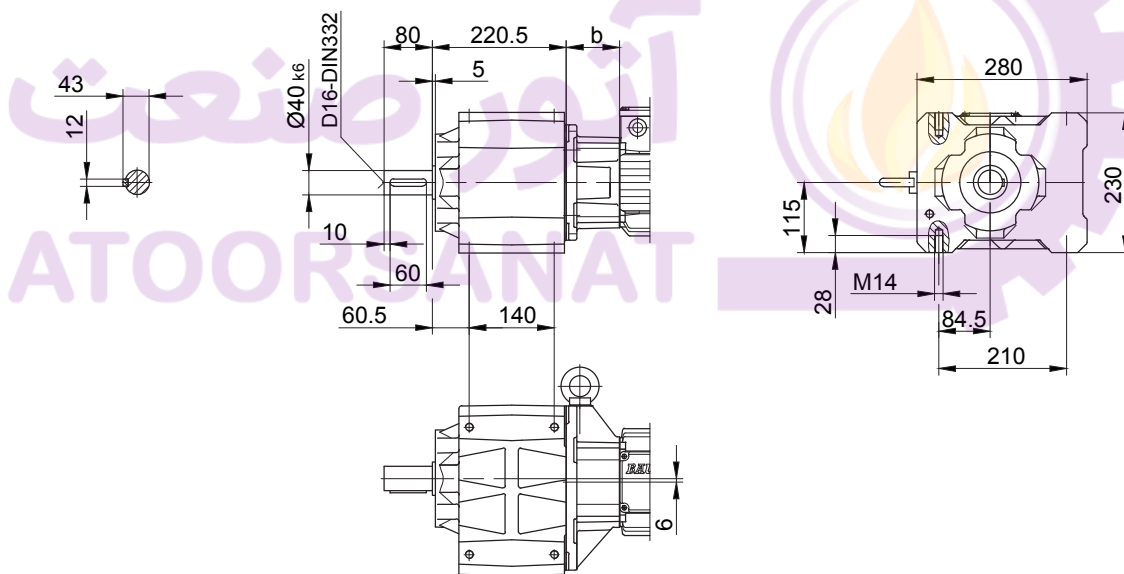
Flange with tapped holes

Code -71/



Foot with tapped holes left and right

Code -61LR/



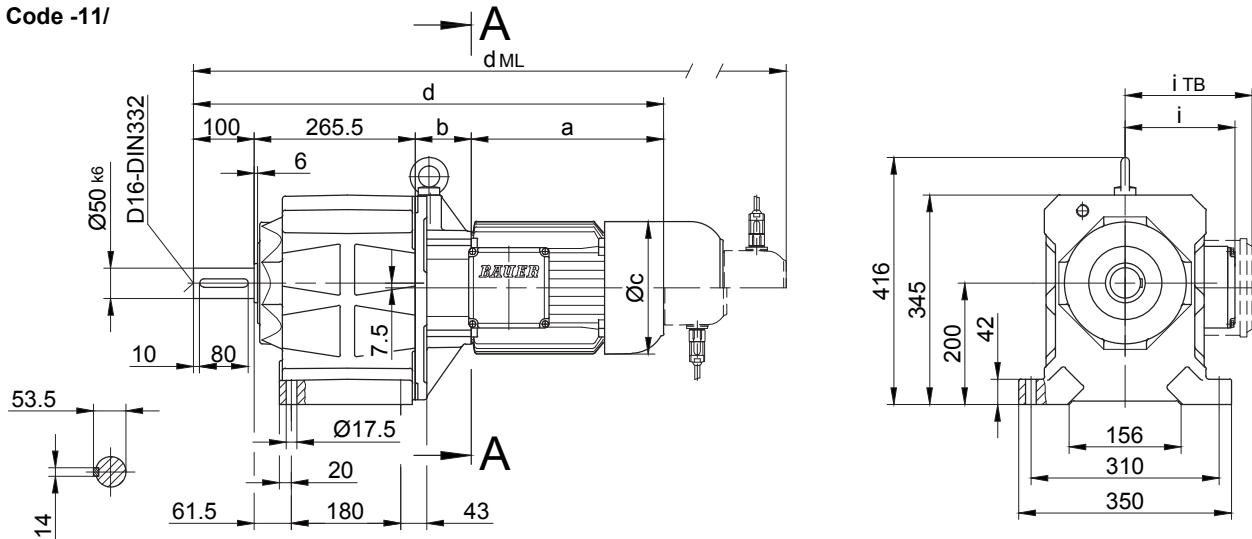
The actual gearbox design can vary from the geometry shown.

Dimension

BG60 - BG60Z

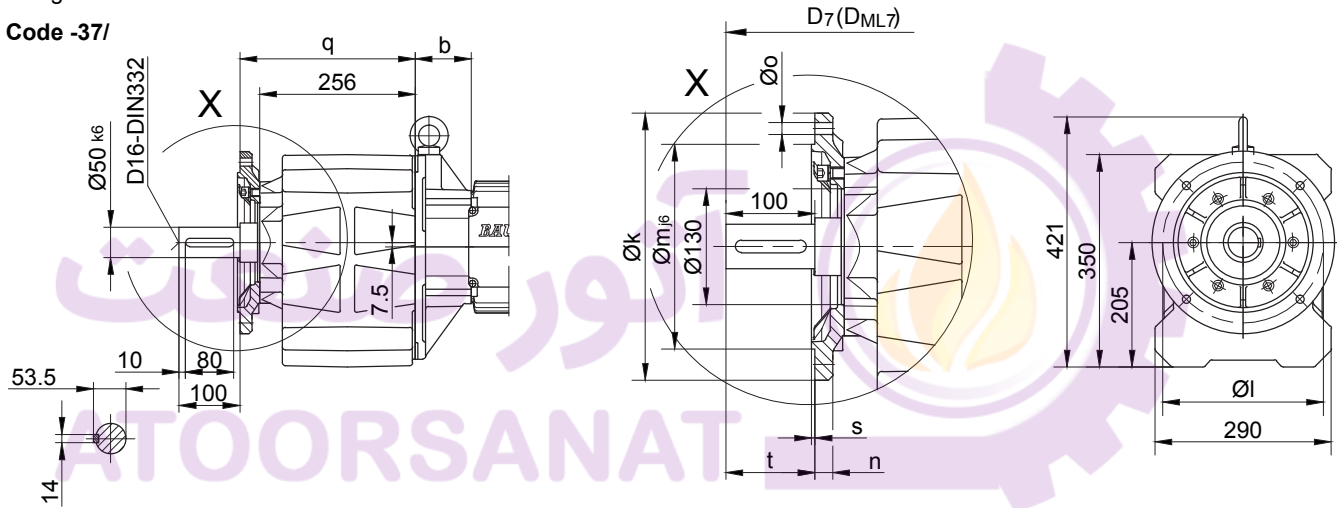
Foot mounting with clearance holes

Code -11/



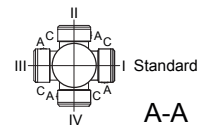
Flange with clearance holes

Code -37/



Flange dimensions

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



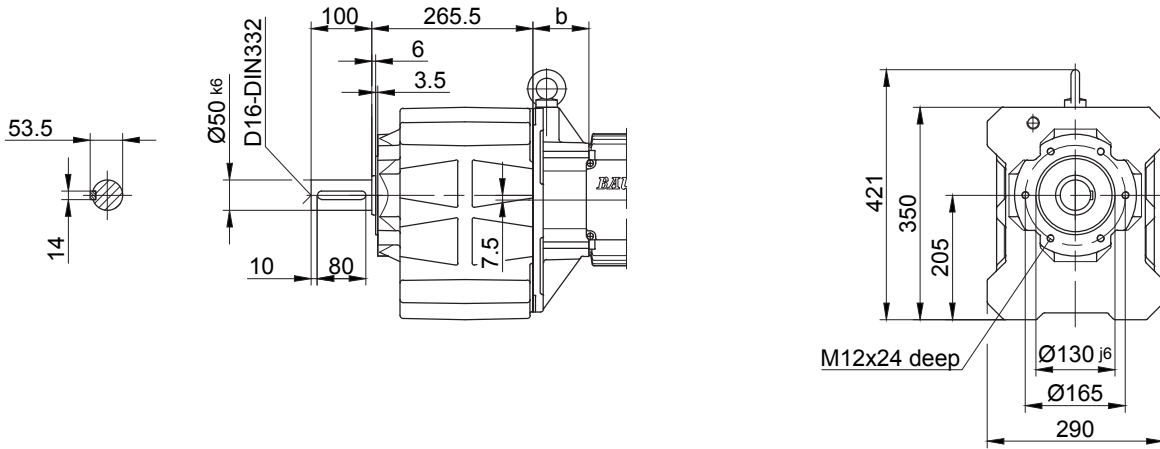
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG60Z-../D..08..	200	181	156	746.6	115	136.5	812.5	853.5	920	812.5
BG60-../D..09..	251	85.5	181	702	124	158	795	809	899.5	795
BG60Z-../D..09..	251	195.5	181	812	124	158	905	919	1009.5	905
BG60-../D..11..	319	92	228	776.5	181	181	874.5	883.5	979	874.5
BG60Z-../D..11..	319	202	228	886.5	181	181	984.5	993.5	1089	984.5
BG60-../D..13..	393	105	258	863.5	218	218	974.5	970.5	1079	974.5
BG60-../D..16..	429	119	322	913.5	244	244	1057.5	1021.5	1161.5	1057.5
BG60-../D..18..	528	272	368	1165.5	288	288	1314.5	1314.5	1418.5	1314.5

The actual gearbox design can vary from the geometry shown.

BG60 - BG60Z

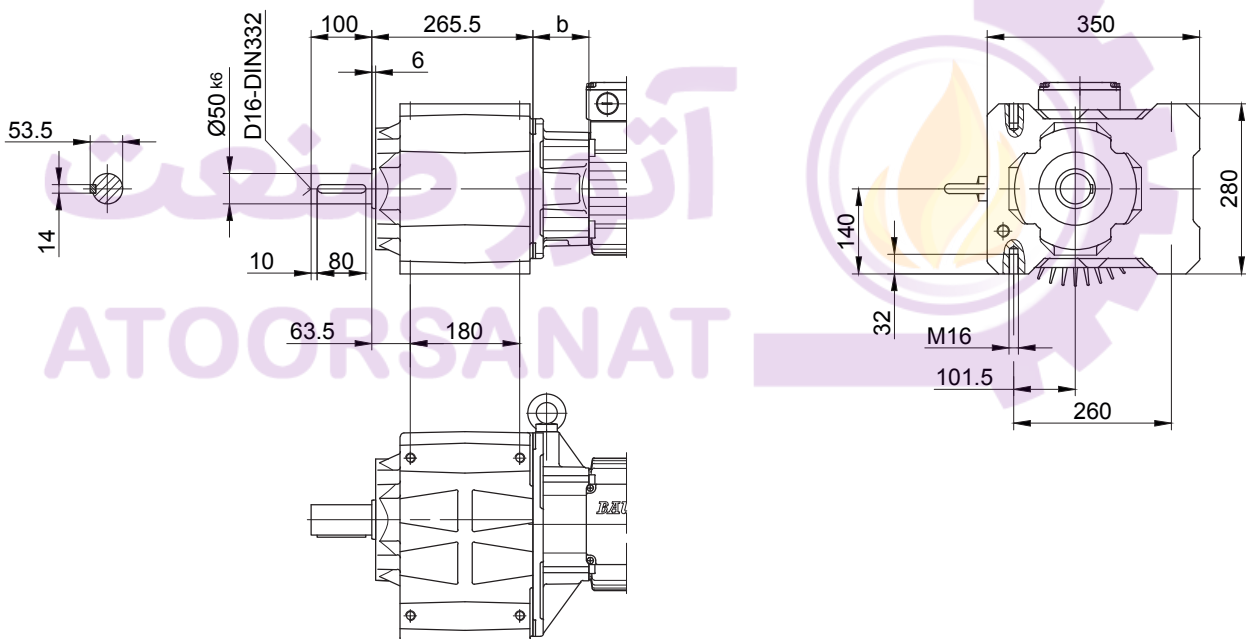
Flange with tapped holes

Code -71/



Foot with tapped holes left and right

Code -61LR/

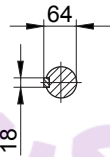
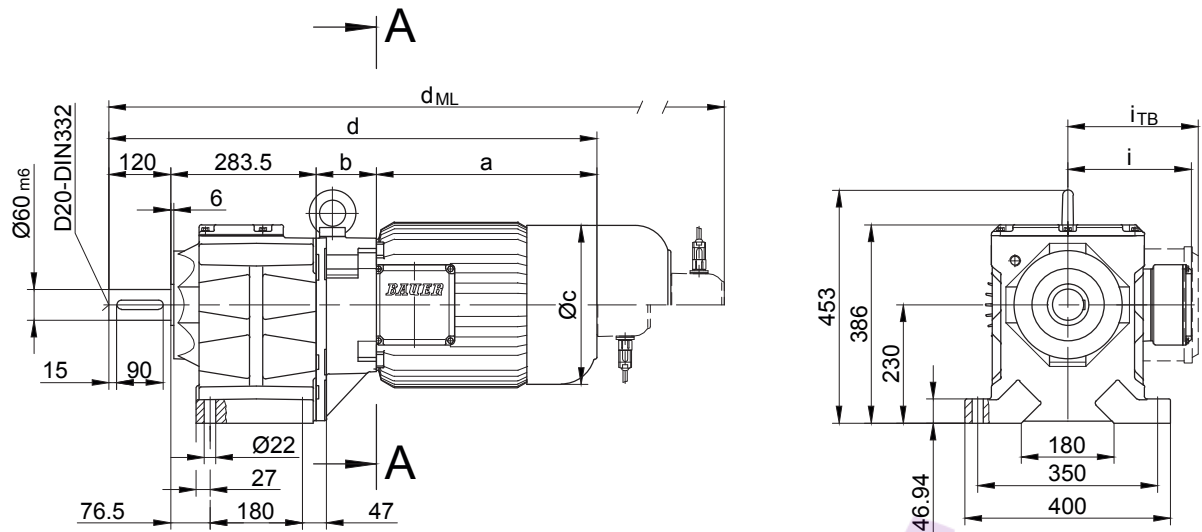


The actual gearbox design can vary from the geometry shown.

BG70 - BG70Z

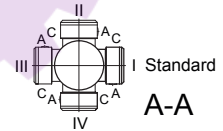
Foot mounting with clearance holes

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	$d+30.5$	$d_{ML}+30.5$



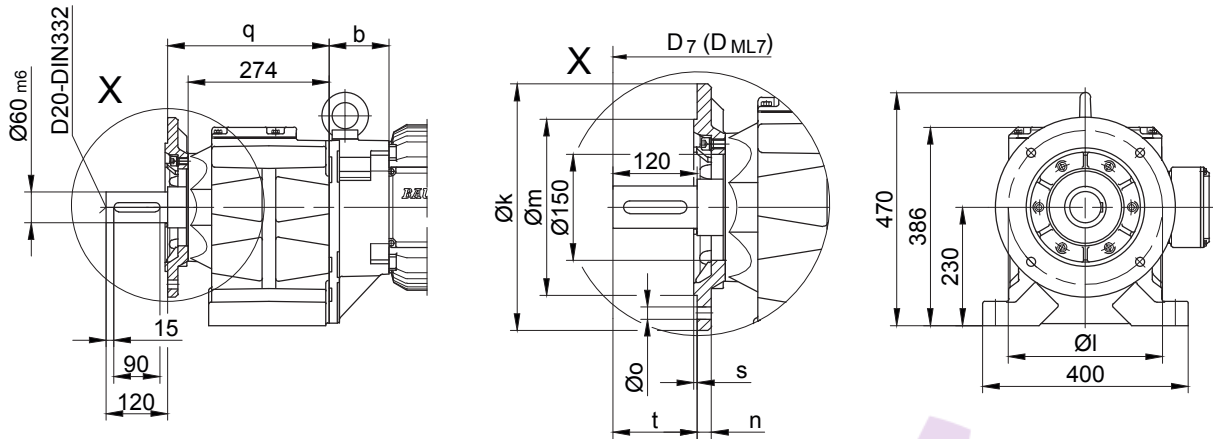
Type	a	b	c	d	i	Design with motor extensions				
						i_{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d_{ML}	d_{ML}	d_{ML}	d_{ML}
BG70Z-../D..08..	200	202	156	805.5	115	136.5	871.5	912.5	979	871
BG70-../D..09..	251	83.5	181	738	124	158	831	845	935.5	831
BG70Z-../D..09..	251	216.5	181	871	124	158	964	978	1068.5	964
BG70-../D..11..	319	90	228	812.5	181	181	910.5	919.5	1015	910.5
BG70Z-../D..11..	319	223	228	945.5	181	181	1043.5	1052.5	1148	1043.5
BG70-../D..13..	393	103	258	899.5	218	218	1010.5	1006.5	1115	1010.5
BG70Z-../D..13..	393	236	258	1032.5	218	218	1143.5	1139.5	1248	1143.5
BG70-../D..16..	429	117	322	949.5	244	244	1093.5	1057.5	1197.5	1093.5
BG70Z-../D..16..	429	250	322	1082.5	244	244	1226.5	1190.5	1330.5	1226.5
BG70-../D..18..	528	139	368	1070.5	288	288	1219.5	1178.5	1323.5	1219.5
BG70Z-../D..18..	528	272	368	1203.5	288	288	1352.5	1311.5	1456.5	1352.5

The actual gearbox design can vary from the geometry shown.

BG70 - BG70Z

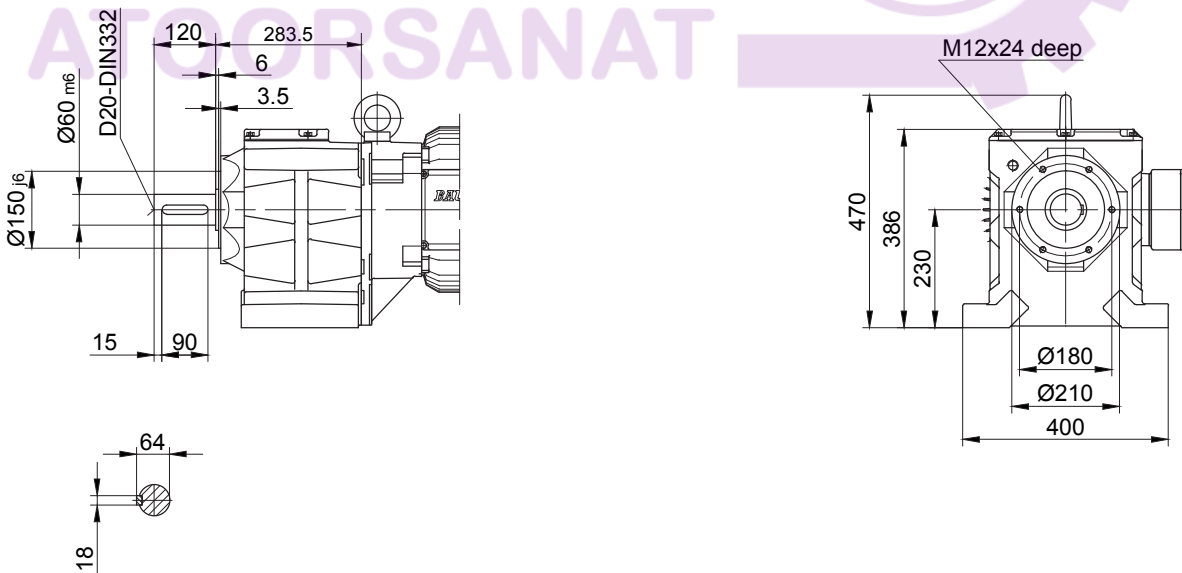
Flange with clearance holes

Code -37/
(Code -27/)



Flange with tapped holes

Code -71/

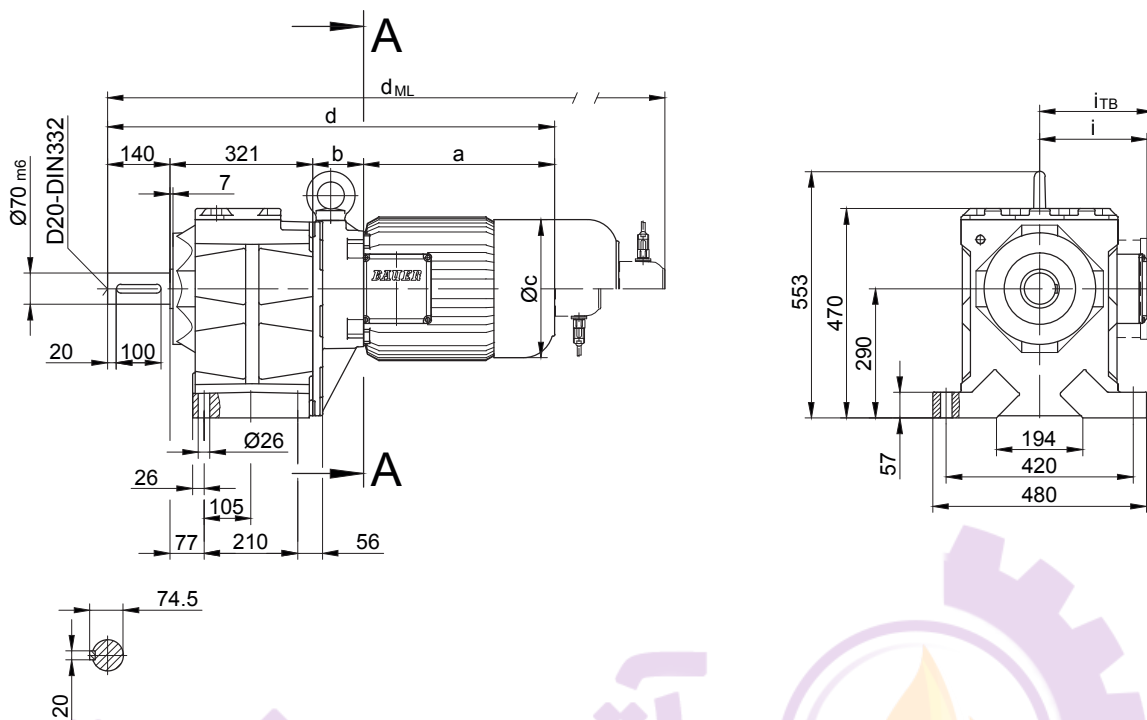


The actual gearbox design can vary from the geometry shown.

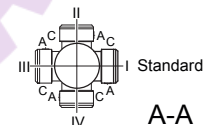
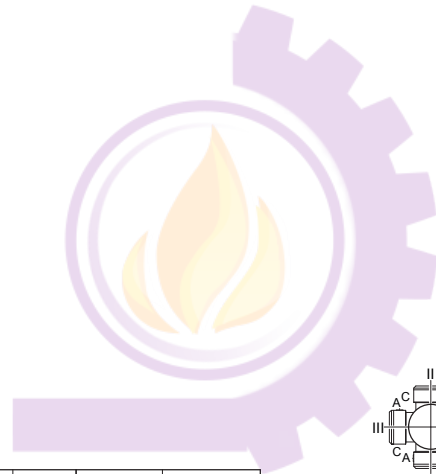
BG80 - BG80Z

Foot mounting with clearance holes

Code -11/



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Flange dimensions

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

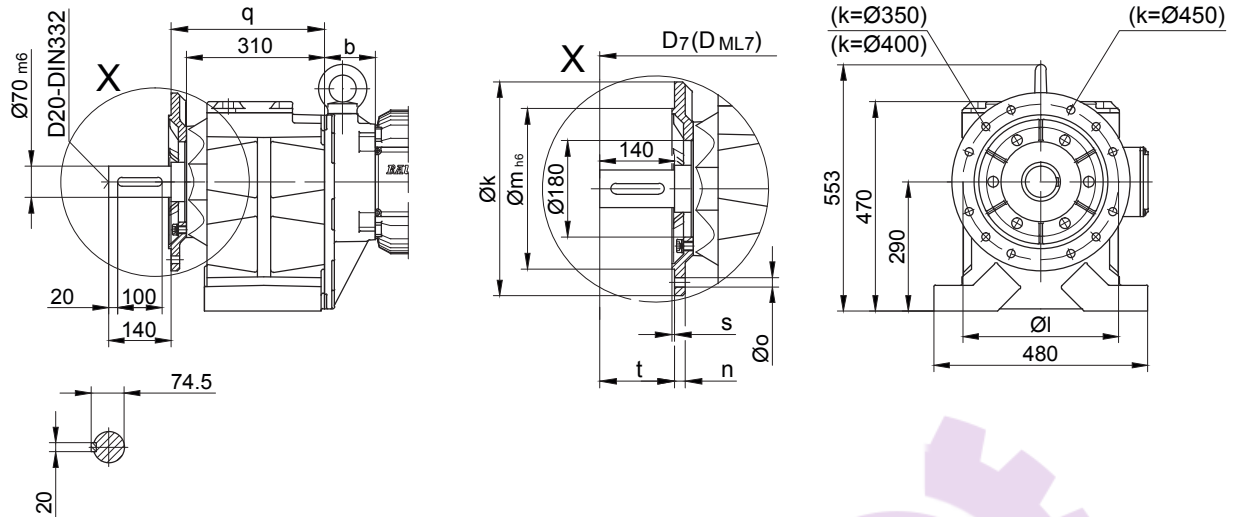
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG80Z-../D..09..	251	252.5	181	964.5	124	158	1057.5	1071.5	1162	1057.5
BG80-../D..11..	319	87	228	867	181	181	965	974	1069.5	965
BG80Z-../D..11..	319	259	228	1039	181	181	1137	1146	1241.5	1137
BG80-../D..13..	393	100	258	954	218	218	1065	1061	1169.5	1065
BG80Z-../D..13..	393	272	258	1126	218	218	1237	1233	1341.5	1237
BG80-../D..16..	429	114	322	1004	244	244	1148	1112	1252	1148
BG80Z-../D..16..	429	286	322	1176	244	244	1320	1284	1424	1320
BG80-../D..18..	528	136	368	1125	288	288	1274	1233	1378	1274
BG80Z-../D..18..	528	308	368	1297	288	288	1446	1405	1550	1446

The actual gearbox design can vary from the geometry shown.

BG80 - BG80Z

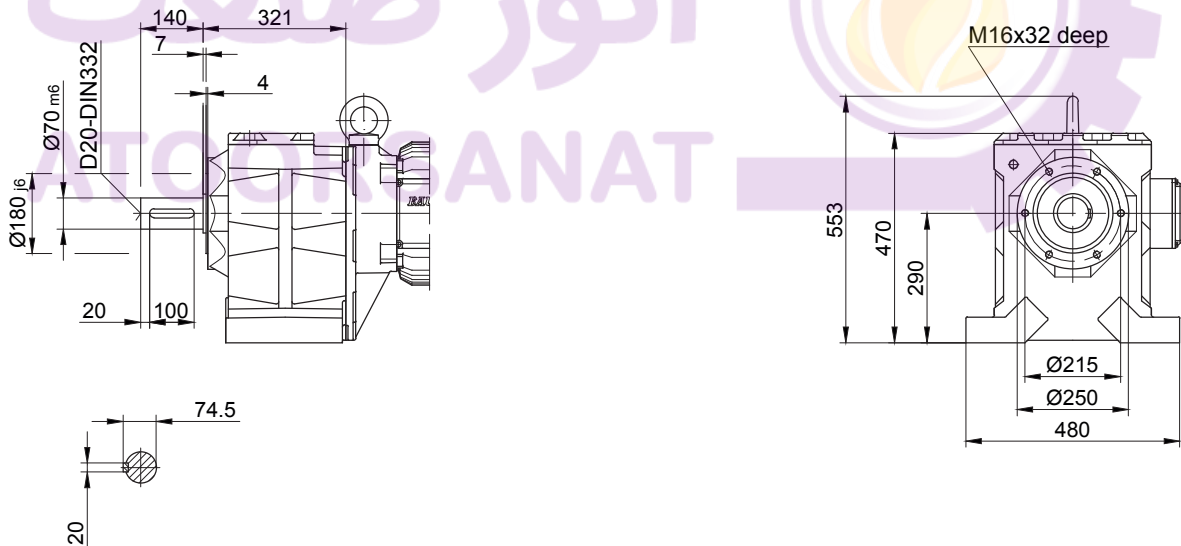
Flange with clearance holes

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



Flange with tapped holes

Code -71/

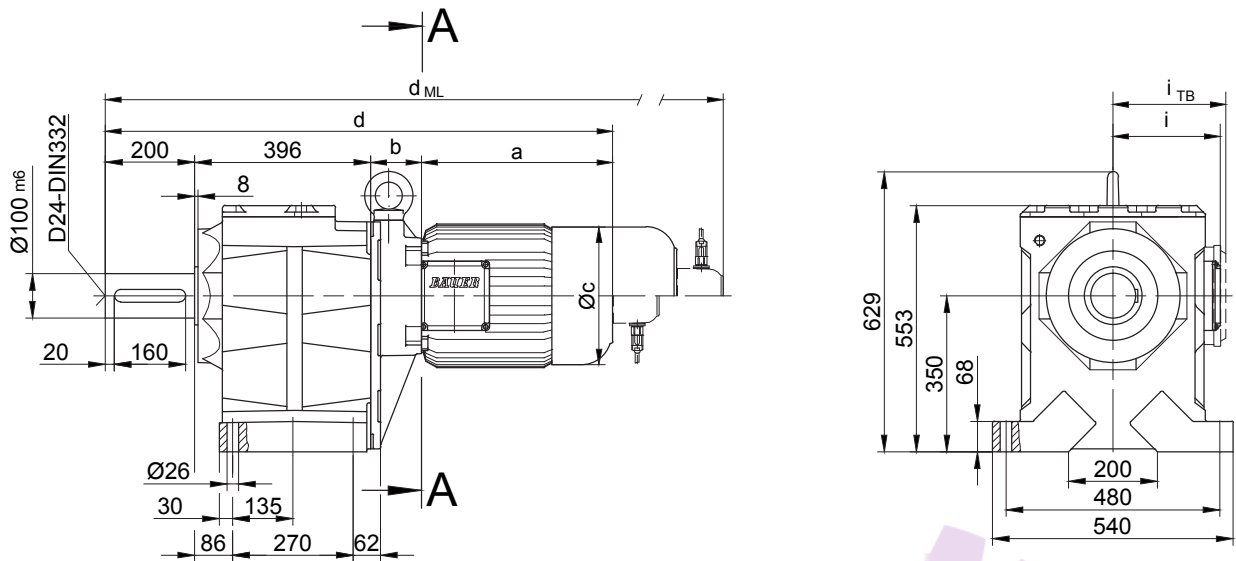


The actual gearbox design can vary from the geometry shown.

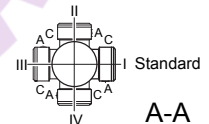
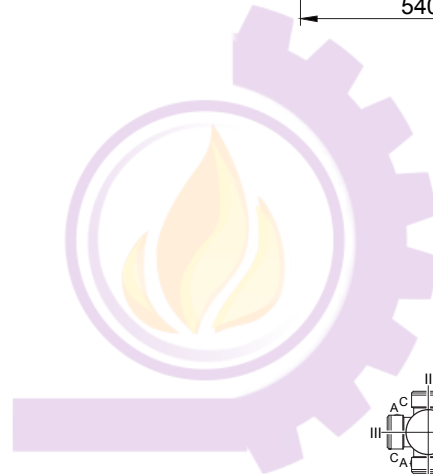
BG90 - BG90Z

Foot mounting with clearance holes

Code -11/



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Flange dimensions

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

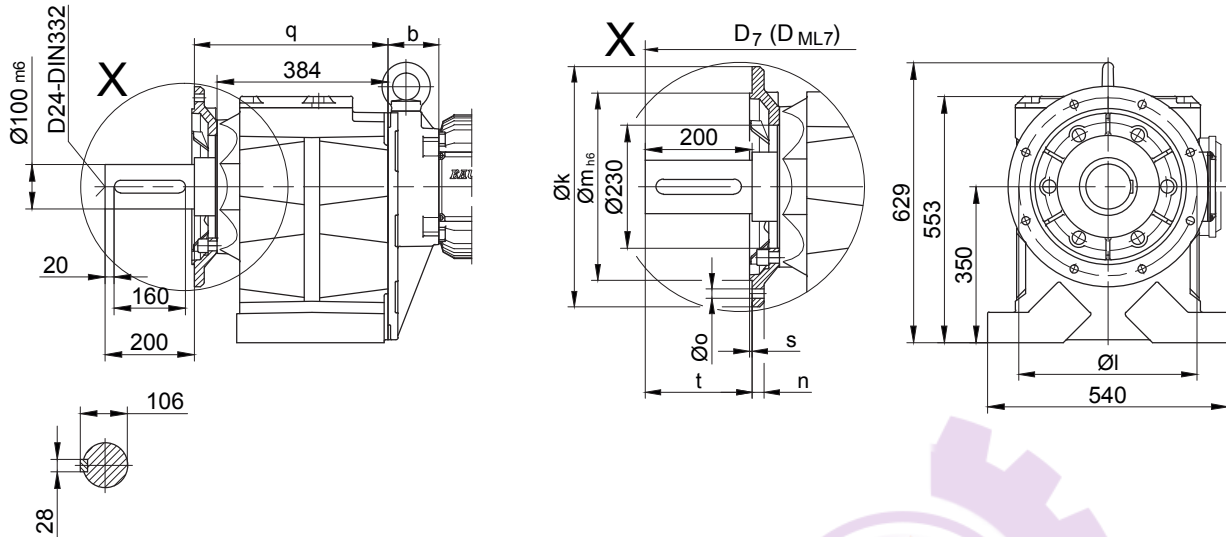
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG90Z-../D..09..	251	267	181	1114	124	158	1207	1221	1311	1207
BG90Z-../D..11..	319	273.5	228	1188.5	181	181	1286.5	1295.5	1391	1286.5
BG90-../D..13..	393	100	258	1015	218	218	1113	1122	1217.5	1113
BG90Z-../D..13..	393	286.5	258	1275.5	218	218	1386.5	1382.5	1491	1386.5
BG90-../D..16..	429	114	322	1103	244	244	1214	1210	1318.5	1214
BG90Z-../D..16..	429	300.5	322	1325.5	244	244	1469.5	1433.5	1573.5	1469.5
BG90-../D..18..	528	136	368	1161	288	288	1305	1269	1409	1305
BG90Z-../D..18..	528	322.5	368	1446	288	288	1595.5	1554.5	1699.5	1595.5

The actual gearbox design can vary from the geometry shown.

BG90 - BG90Z

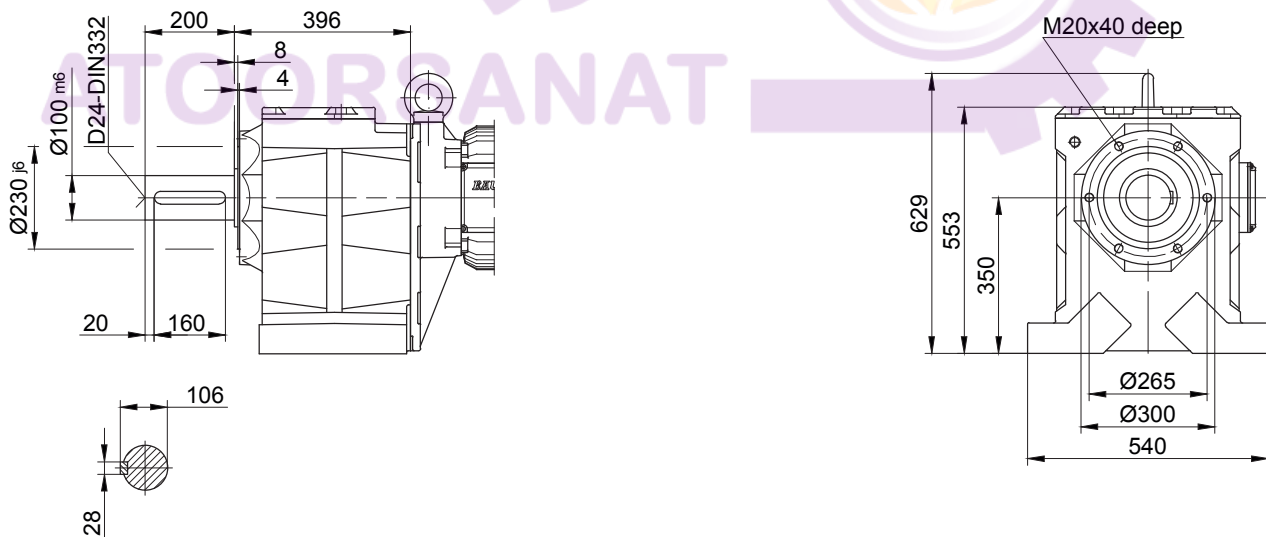
Flange with clearance holes

Code -37/
(Code -47/)



Flange with tapped holes

Code -71/

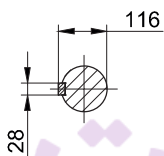
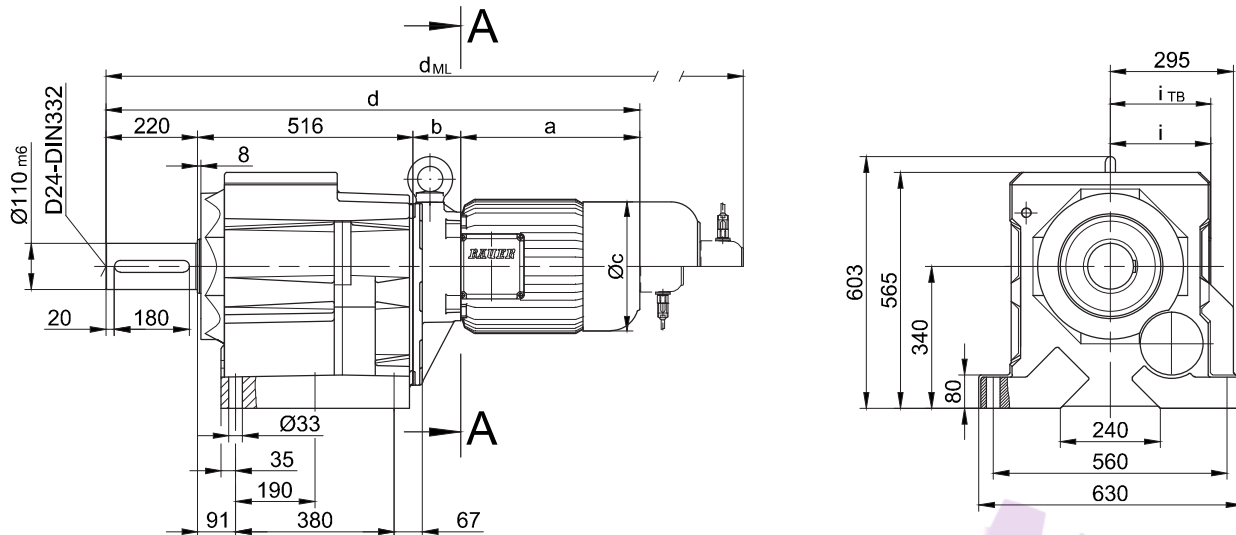


The actual gearbox design can vary from the geometry shown.

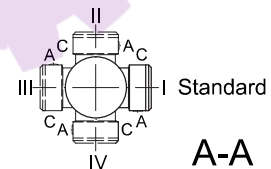
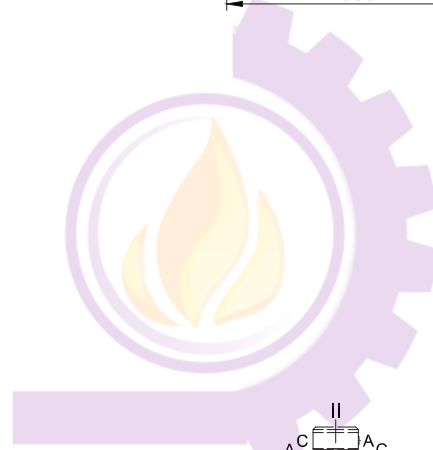
BG100 - BG100Z

Foot mounting with clearance holes

Code -11/



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Flange dimensions

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

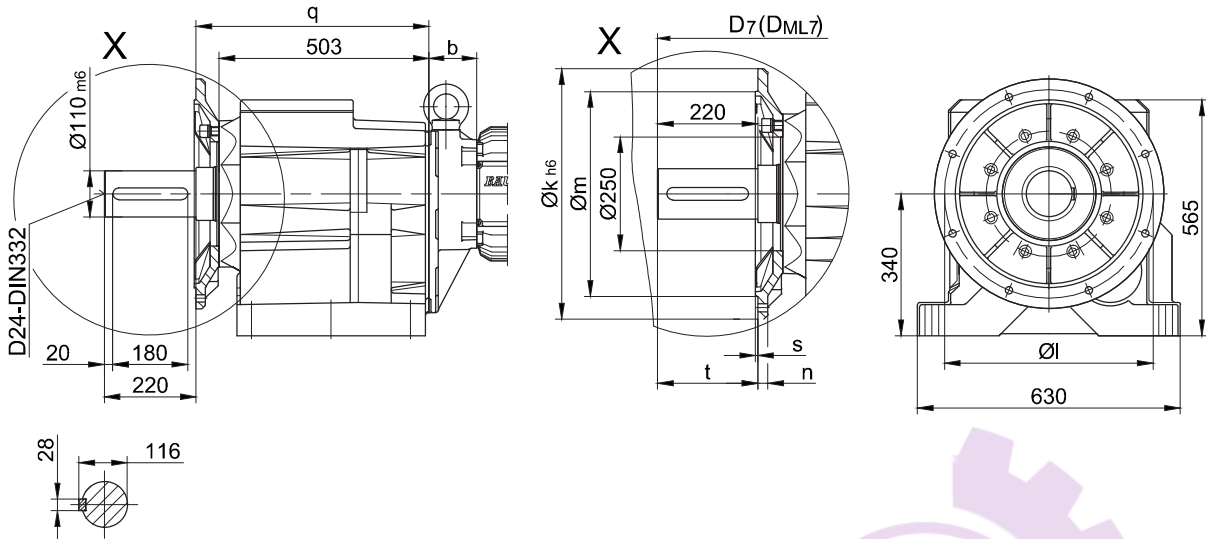
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG100Z-../D..09..	251	252.5	181	1239.5	124	158	1332.5	1346.5	1437	1332.5
BG100-../D..11..	319	87	228	1142	181	181	1240	1249	1344.5	1240
BG100Z-../D..11..	319	259	228	1314	181	181	1412	1421	1516.5	1412
BG100-../D..13..	393	100	258	1229	218	218	1340	1336	1444.5	1340
BG100Z-../D..13..	393	272	258	1401	218	218	1512	1508	1616.5	1512
BG100-../D..16..	429	114	322	1279	244	244	1423	1387	1527	1423
BG100Z-../D..16..	429	286	322	1451	244	244	1595	1559	1699	1595
BG100-../D..18..	528	136	368	1400	288	288	1549	1508	1653	1549
BG100Z-../D..18..	528	308	368	1572	288	288	1721	1680	1825	1721

The actual gearbox design can vary from the geometry shown.

BG100 - BG100Z

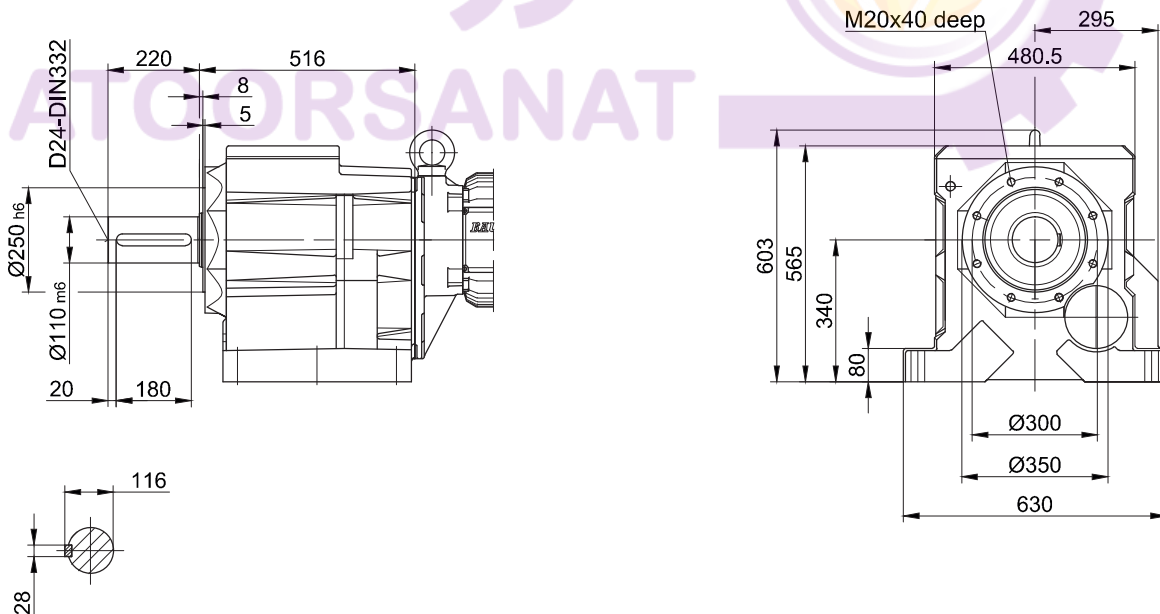
Flange with clearance holes

Code -37/
(Code -47/)



Flange with tapped holes

Code 71/



The actual gearbox design can vary from the geometry shown.

آتور صنعت
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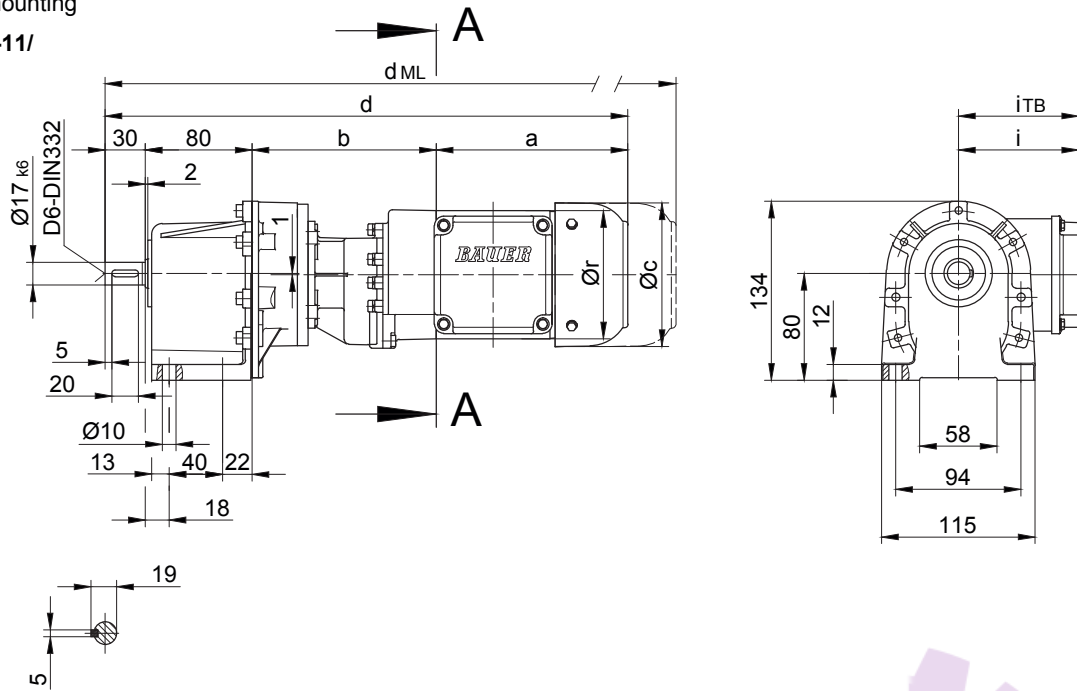


10

BG06G04

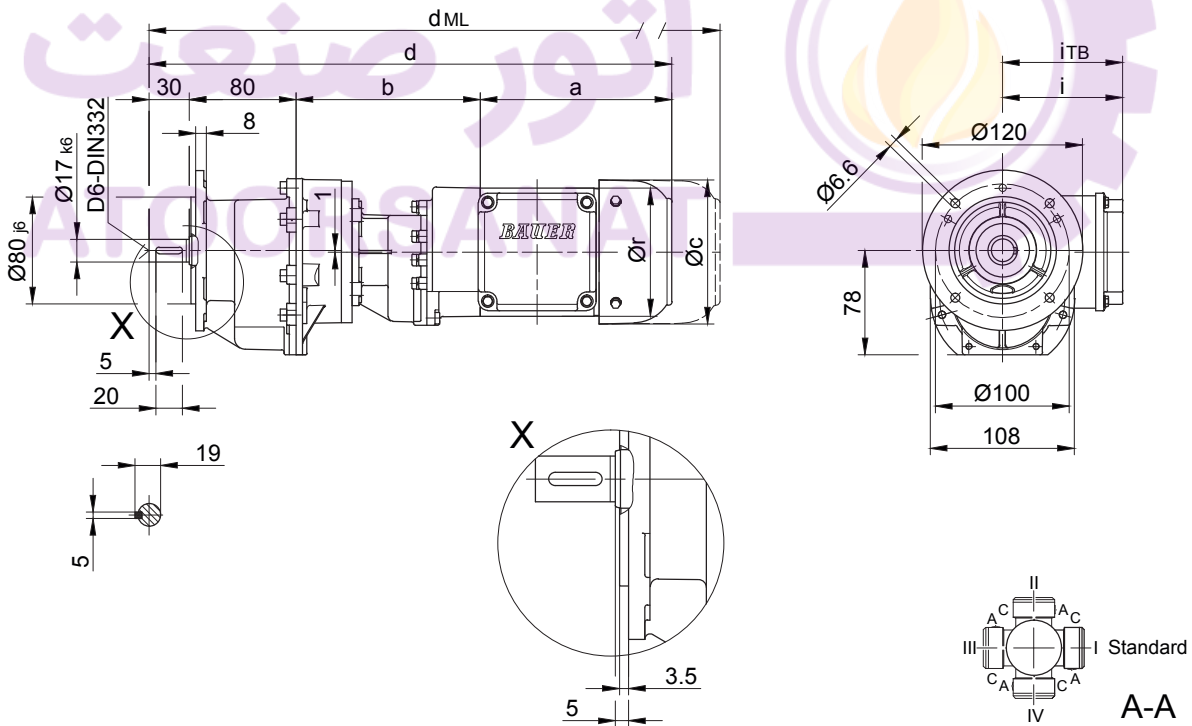
Foot mounting

Code -11/



Flange with clearance holes

Code -31/



10

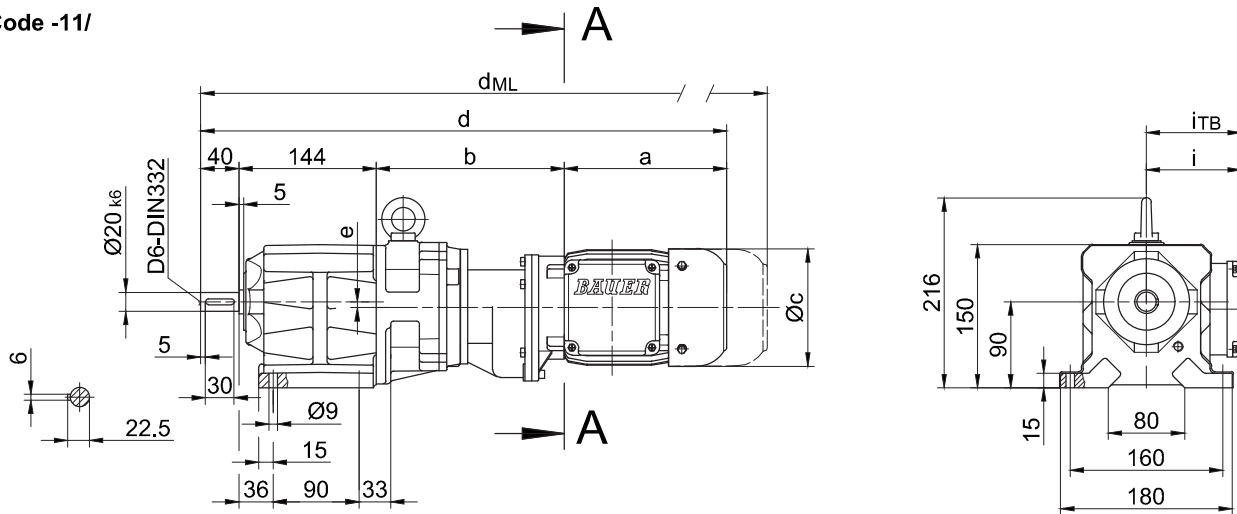
Type	a	b	c	d	i	r	Design with motor extensions				
							i _{TB}	E..	G	E..-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG06G04-../D04..	143	135	111	388	90	96	112	431.5	450.5	493.5	-

The actual gearbox design can vary from the geometry shown.

BG10G06

Foot mounting with clearance holes

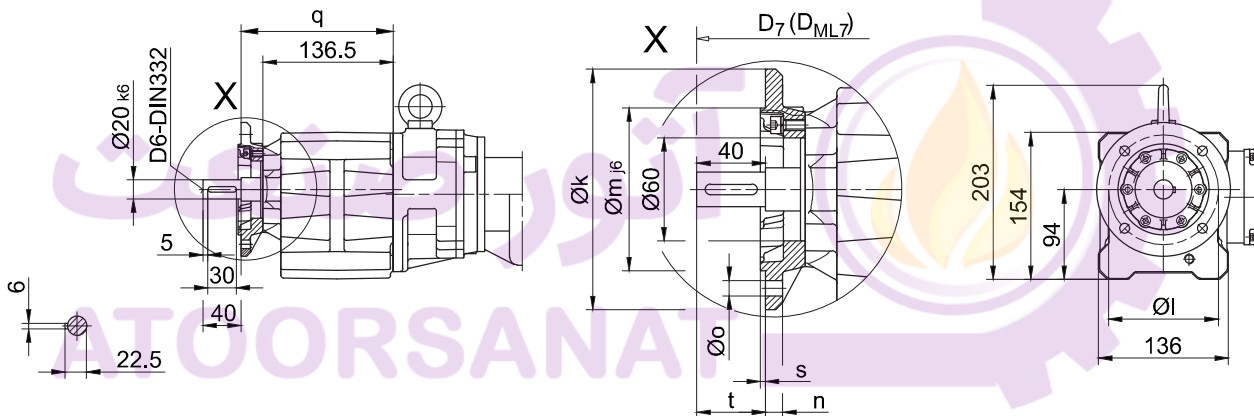
Code -11/



Flange with clearance holes

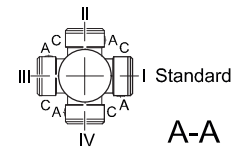
Code -37/

(Code -27/)



Flange dimensions

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



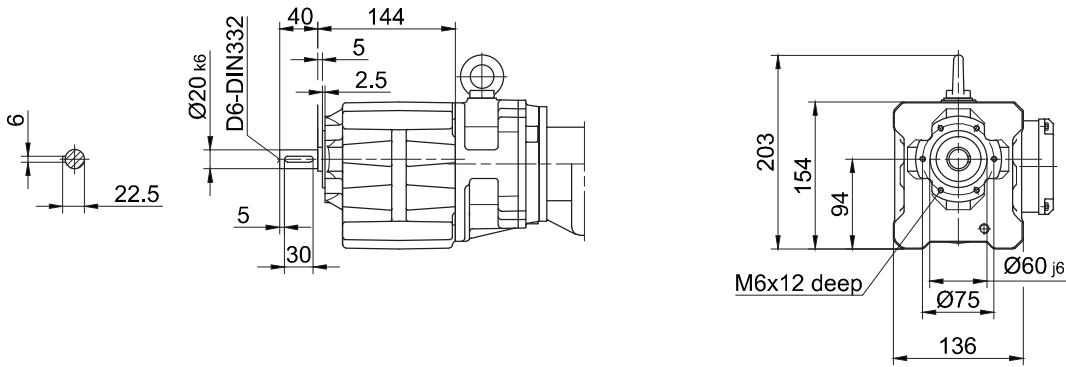
Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BG10G06-./D04..	143	195	111	522	6	90	112	565.5	584.5	627.5	-
BG10G06-./D05..	170	197	123	551	6	100	117	593	654	695.5	-
BG10G06-./D06..	170	197	123	551	6	100	119	593	654	695.5	-
BG10G06-./D07..	190	197	123	571	6	100	119	613	674	715.5	-
BG10G06-./D..08..	200	241	156	625	6	115	136.5	691	732	798.5	691

The actual gearbox design can vary from the geometry shown.

BG10G06

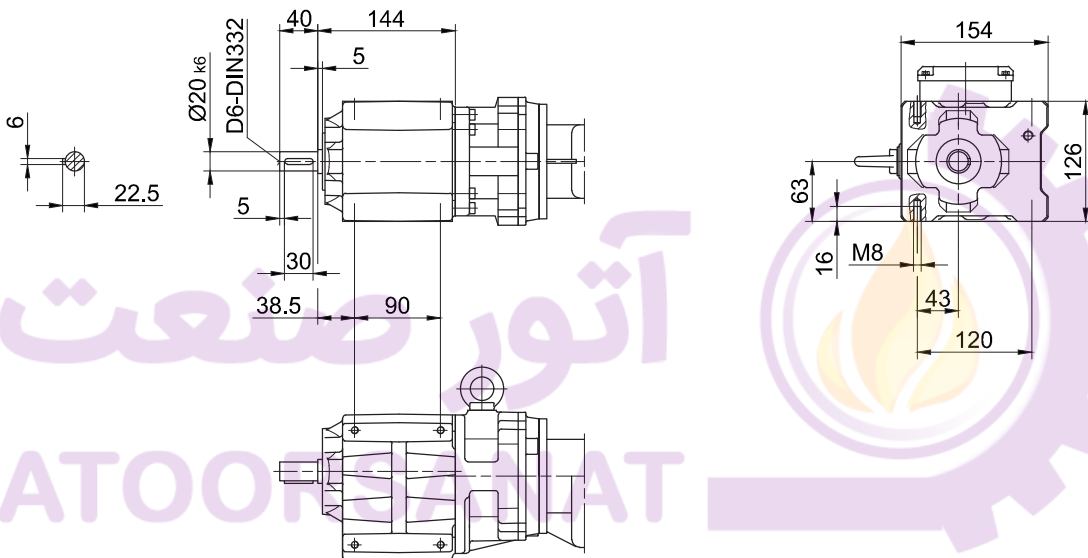
Flange with tapped holes

Code -71/



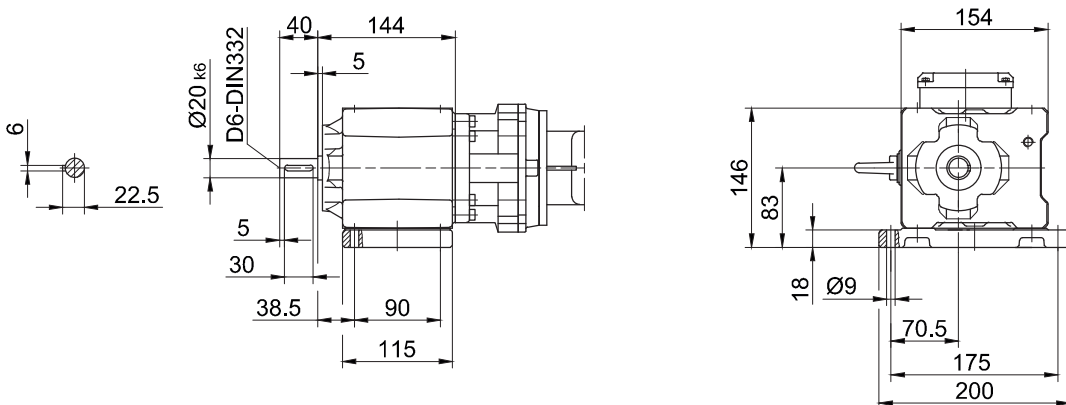
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/

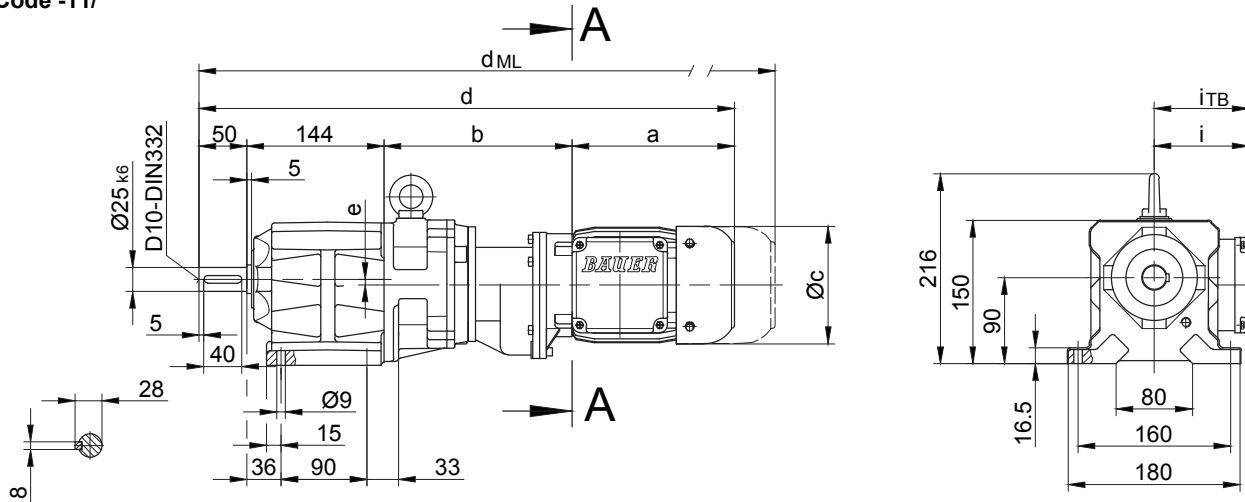


The actual gearbox design can vary from the geometry shown.

BG10XG06

Foot mounting with clearance holes

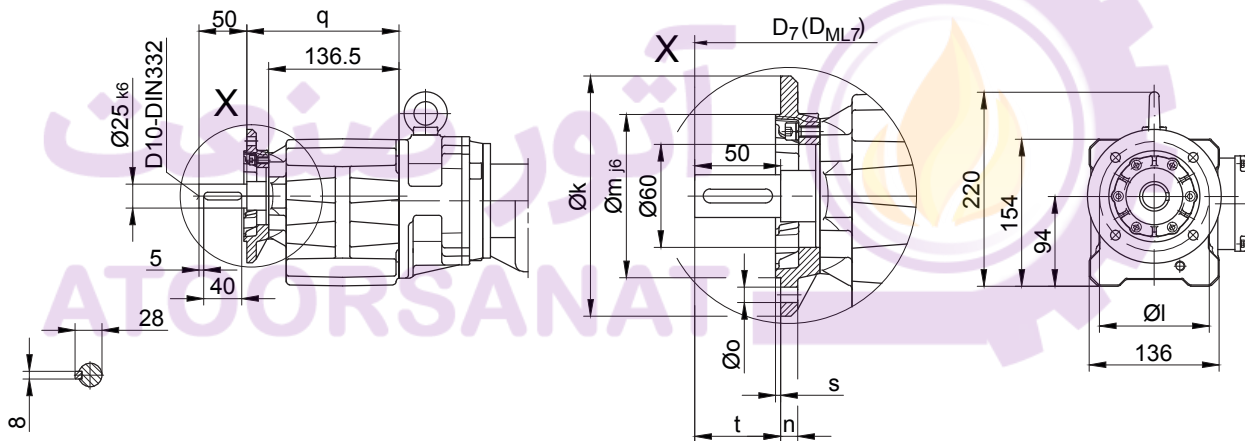
Code -11/



Flange with clearance holes

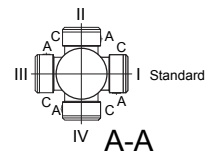
Code -37/

(Code -27/)



Flange dimensions

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

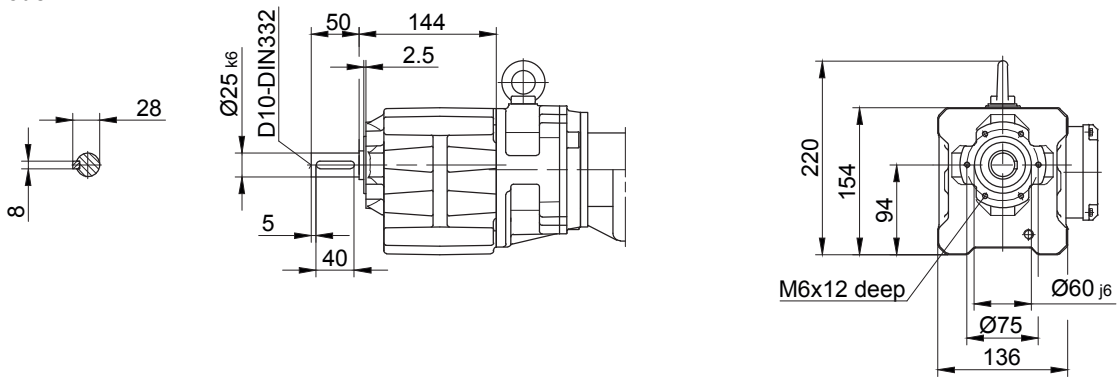


Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BG10XG06-../D04..	143	195	111	532	6	90	112	575.5	594.5	637.5	-
BG10XG06-../D05..	170	197	123	561	6	100	117	603	664	705.5	-
BG10XG06-../D06..	170	197	123	561	6	100	119	603	664	705.5	-
BG10XG06-../D07..	190	197	123	581	6	100	119	623	684	725.5	-
BG10XG06-../D..08..	200	241	156	635	6	115	136.5	701	742	808.5	701

The actual gearbox design can vary from the geometry shown.

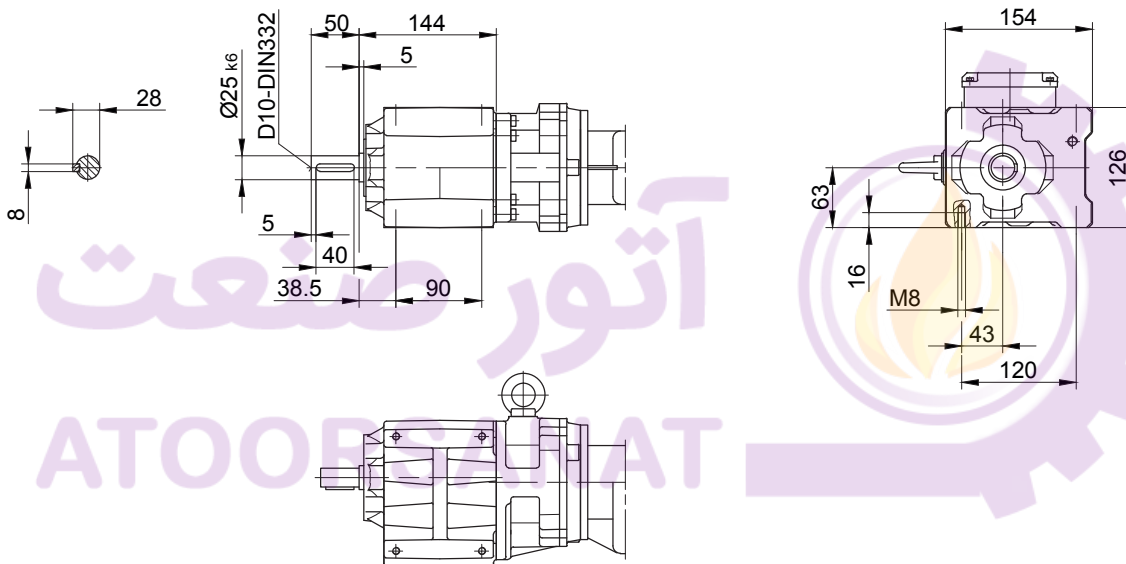
Flange with tapped holes

Code -71/



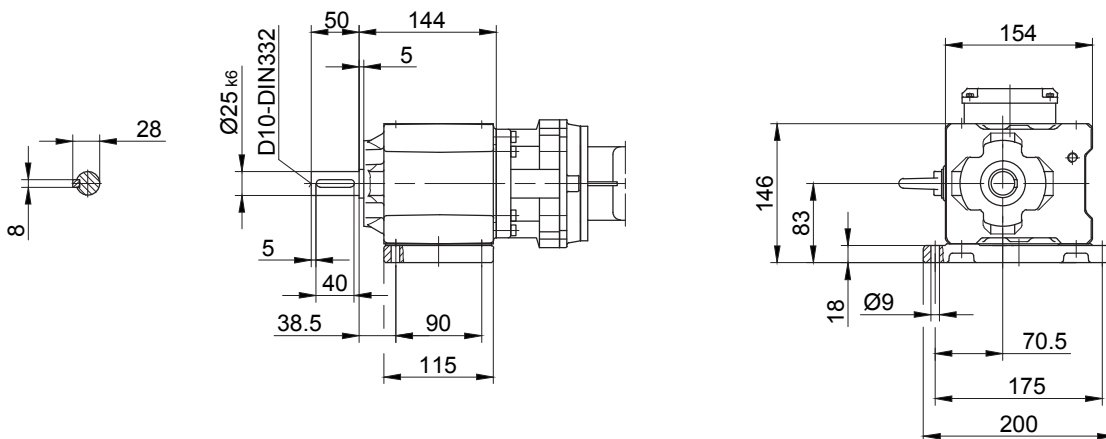
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/

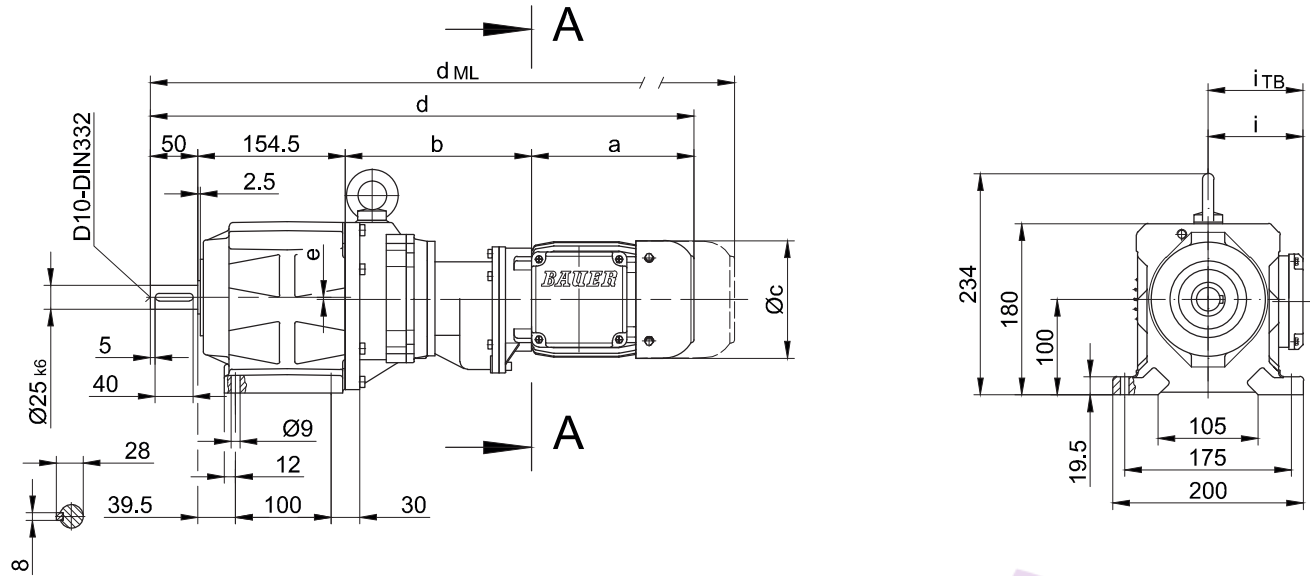


The actual gearbox design can vary from the geometry shown.

BG20G06

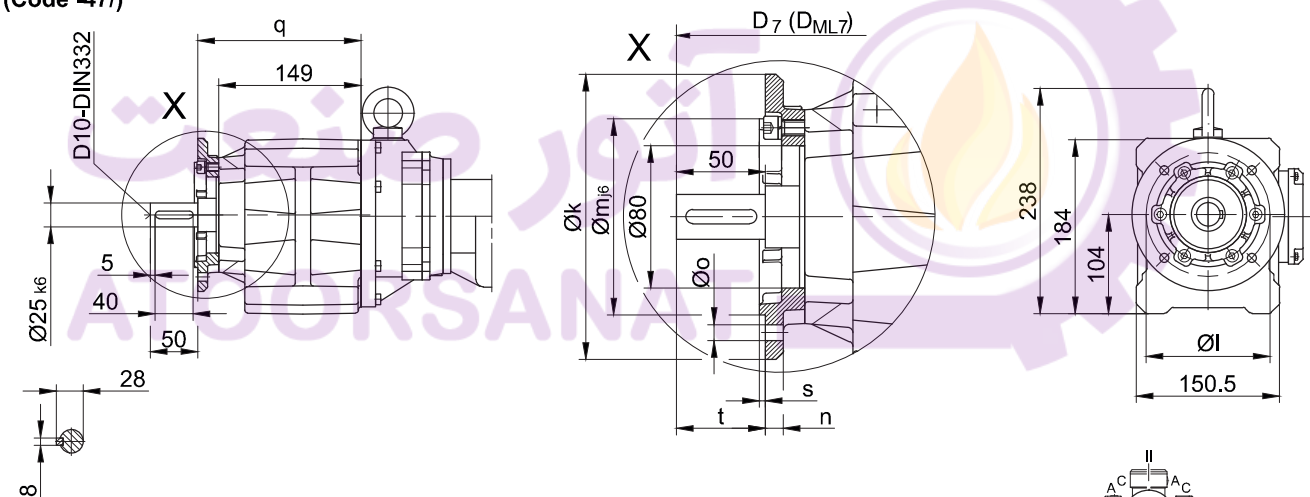
Foot mounting with clearance holes

Code -11/



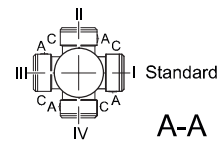
Flange with clearance holes

Code -37/
(Code -47/)



Flange dimensions

BG20(Z)G..	k	l	m	n	o	q	s	t	D_7	D_{ML7}
Standard -37/	160	130	110	10	9	171	3.5	50	$d+16.5$	$d_{ML}+16.5$
big -47/	200	165	130	12	11	178	3.5	43	$d+16.5$	$d_{ML}+16.5$



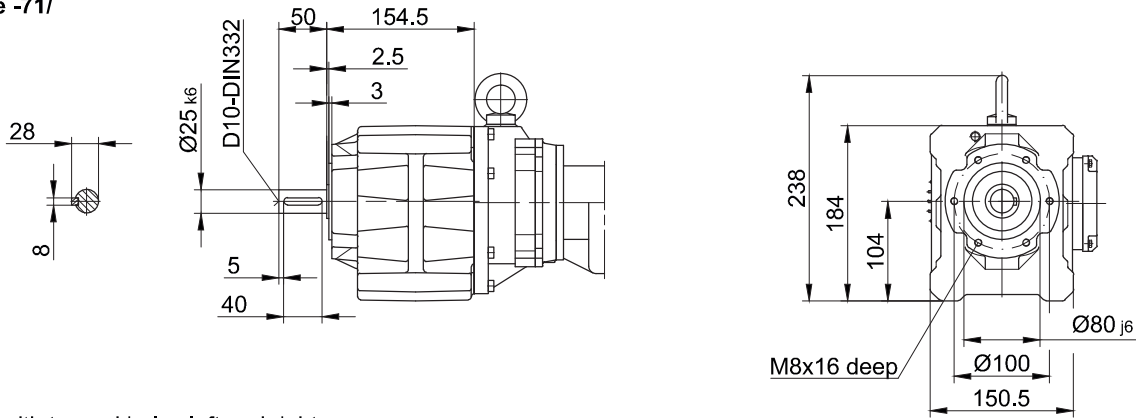
Type	a	b	c	d	e	i	Design with motor extensions				
							i_{TB}	E./ES..	G	E./ES..-G	RR/RL
							d_{ML}	d_{ML}	d_{ML}	d_{ML}	
BG20G06-./D04..	143	193	111	540.5	2	90	112	584	603	646	-
BG20G06-./D05..	170	195	123	569.5	2	100	117	611.5	672.5	714	-
BG20G06-./D06..	170	195	123	569.5	2	100	119	611.5	672.5	714	-
BG20G06-./D07..	190	195	123	589.5	2	100	119	631.5	692.5	734	-
BG20G06-./D..08..	200	239	156	643.5	2	115	136.5	709.5	750.5	817	709.5

The actual gearbox design can vary from the geometry shown.

BG20G06

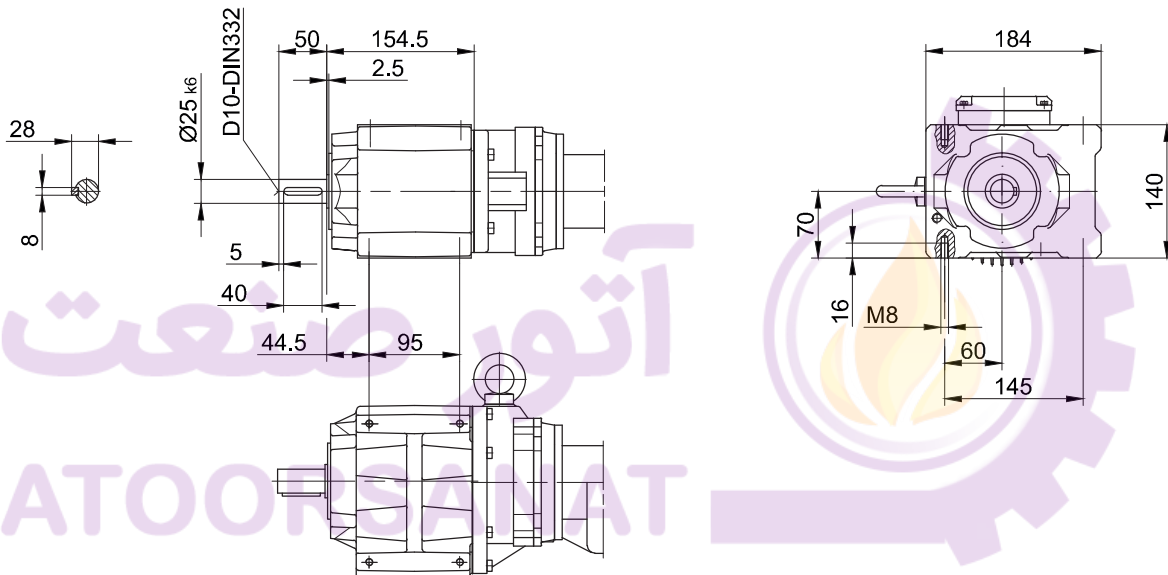
Flange with tapped holes

Code -71/



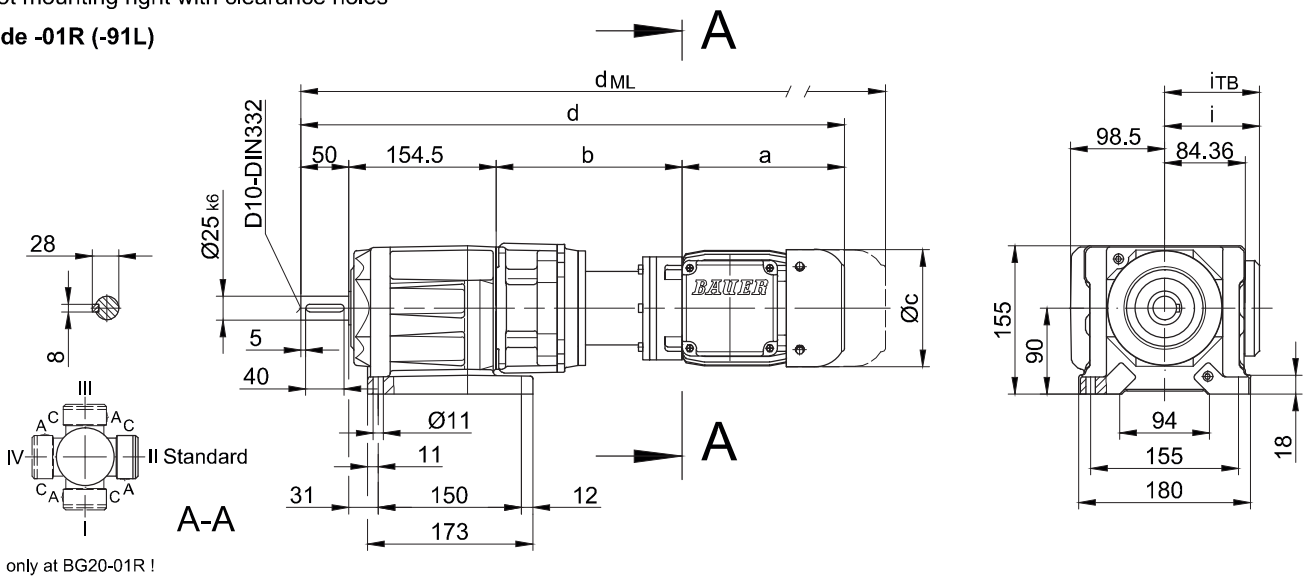
Foot with tapped holes left and right

Code -61LR/



Foot mounting right with clearance holes

Code -01R (-91L)



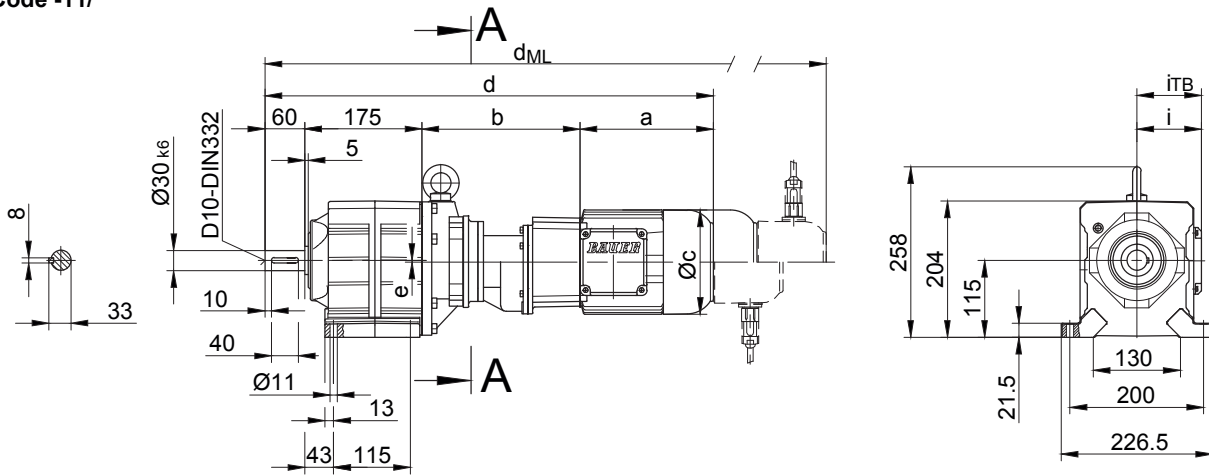
only at BG20-01R !

The actual gearbox design can vary from the geometry shown.

BG30G06

Foot mounting with clearance holes

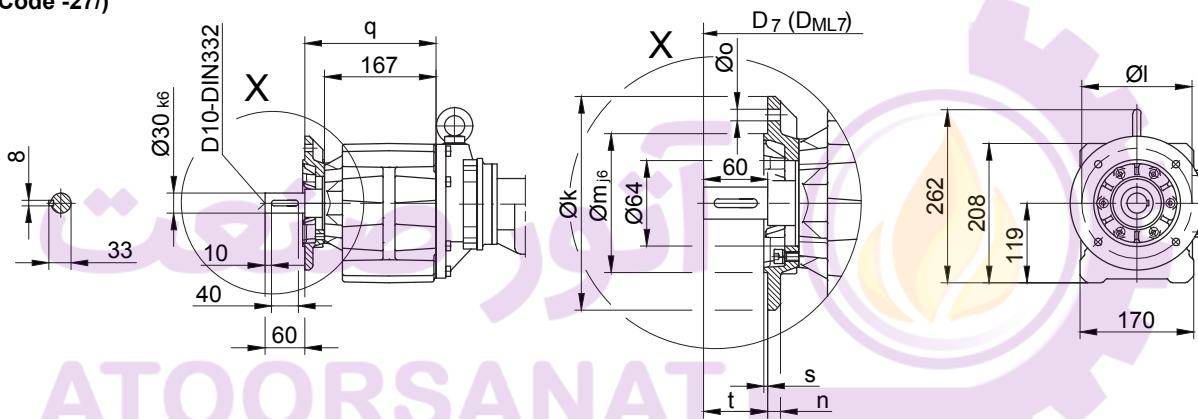
Code -11/



Flange with clearance holes

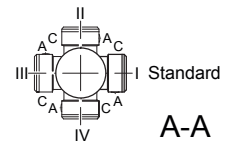
Code -37/

(Code -27/)



Flange dimensions

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



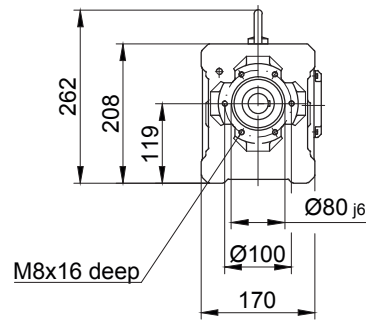
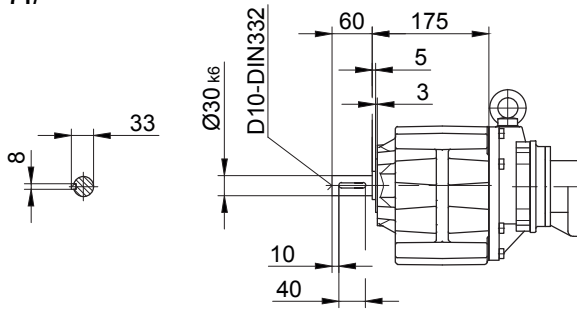
Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BG30G06-../D04..	143	191	111	569	3	90	112	612.5	631.5	674.5	-
BG30G06-../D05..	170	193	123	598	3	100	117	640	701	742.5	-
BG30G06-../D06..	170	193	123	598	3	100	119	640	701	742.5	-
BG30G06-../D07..	190	193	123	618	3	100	119	660	721	762.5	-
BG30G06-../D..08..	200	237	156	672	3	115	136.5	738	779	845.5	738

The actual gearbox design can vary from the geometry shown.

BG30G06

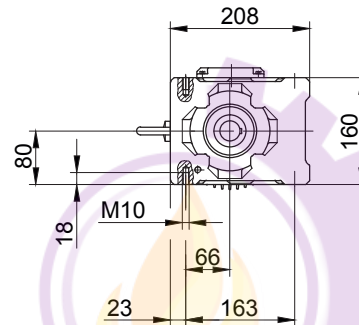
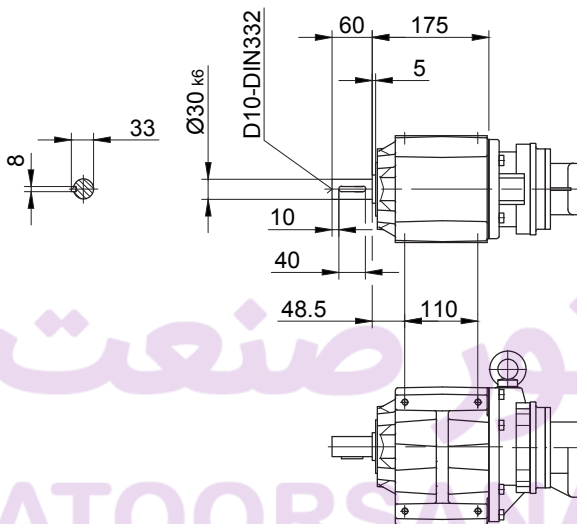
Flange with tapped holes

Code -71/



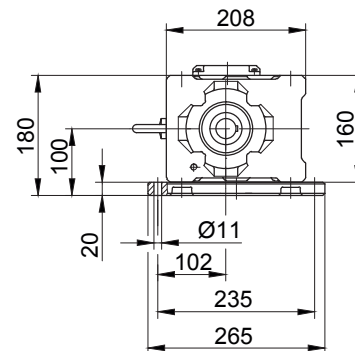
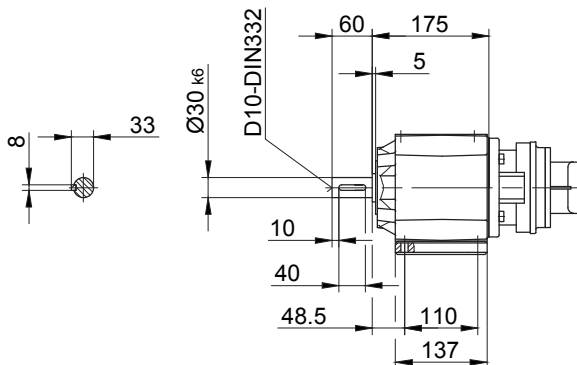
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/



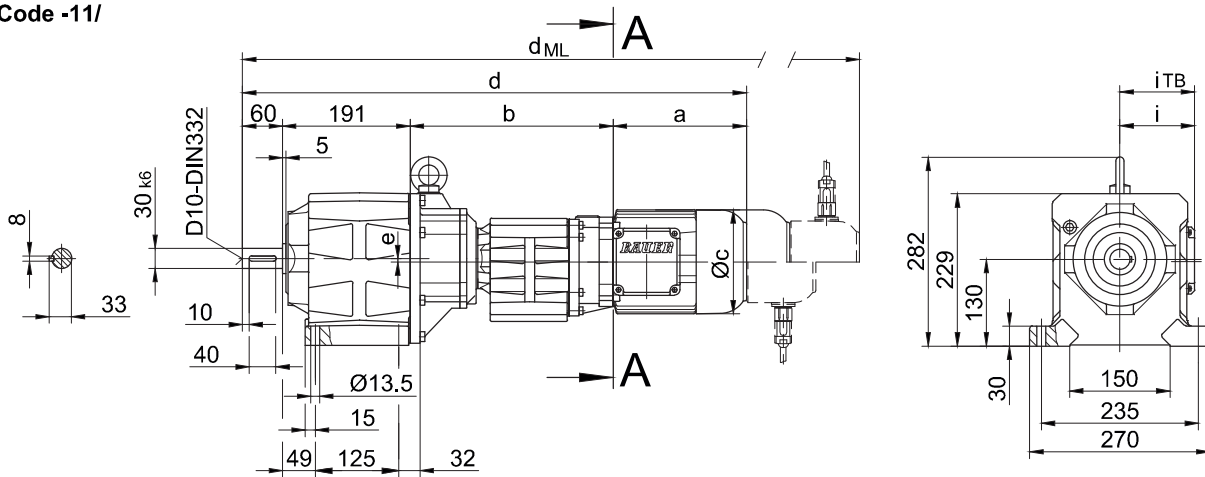
The actual gearbox design can vary from the geometry shown.

Dimension

BG40G10

Foot mounting with clearance holes

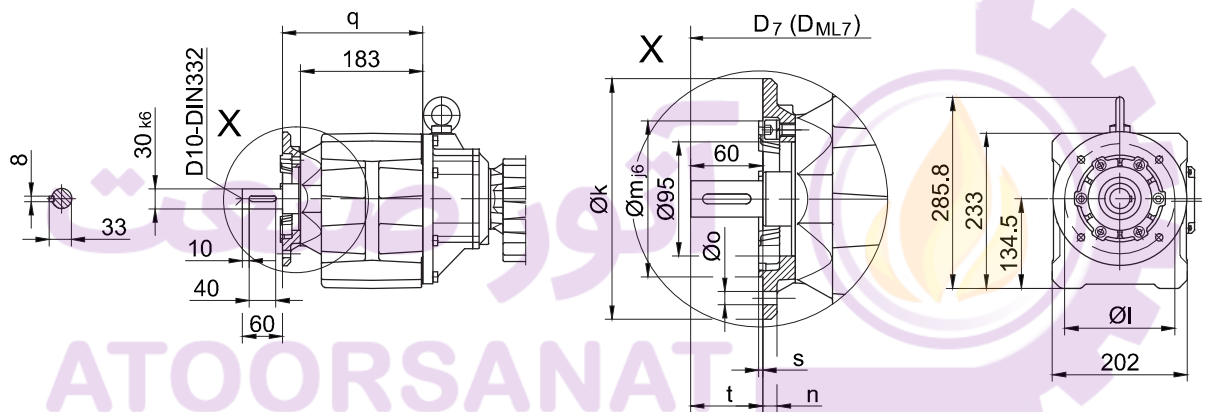
Code -11/



Flange with clearance holes

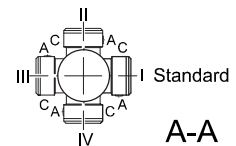
Code -37/

(Code -47/)



Flange dimensions

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



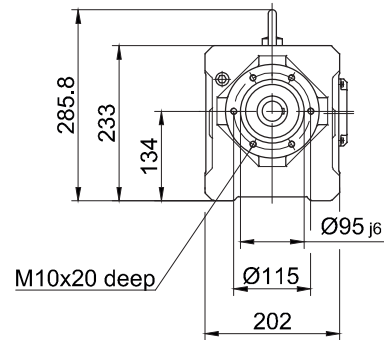
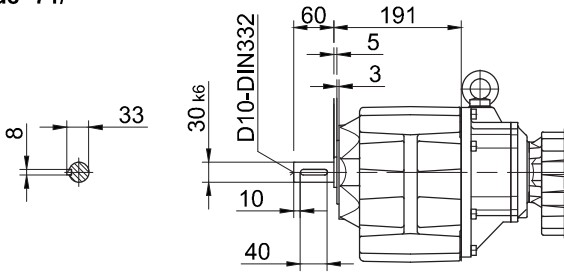
Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E./ES..	G	E./ES..-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG40G10-./D05..	170	300	123	721	5	100	117	763	824	865.5	-
BG40G10-./D06..	170	300	123	721	5	100	119	763	824	865.5	-
BG40G10-./D07..	190	300	123	741	5	100	119	783	844	887	-
BG40G10-./D..08..	200	304	156	755	5	115	136.5	821	862	928.5	821
BG40G10-./D..09..	251	318.5	181	820.5	5	124	158	913.5	927.5	1018	913.5

The actual gearbox design can vary from the geometry shown.

BG40G10

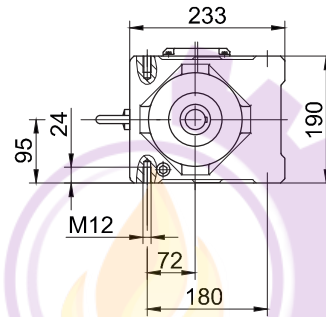
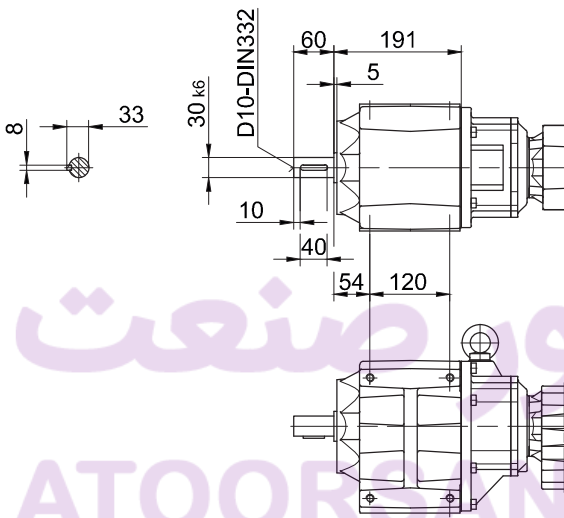
Flange with tapped holes

Code -71/



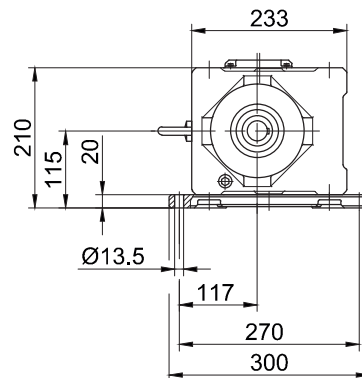
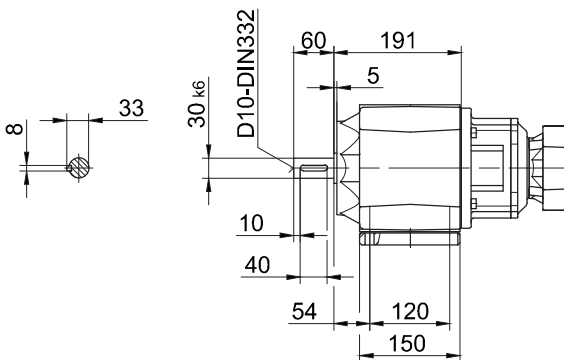
Foot with tapped holes left and right

Code -61LR/



Foot plate left

Code -91L/

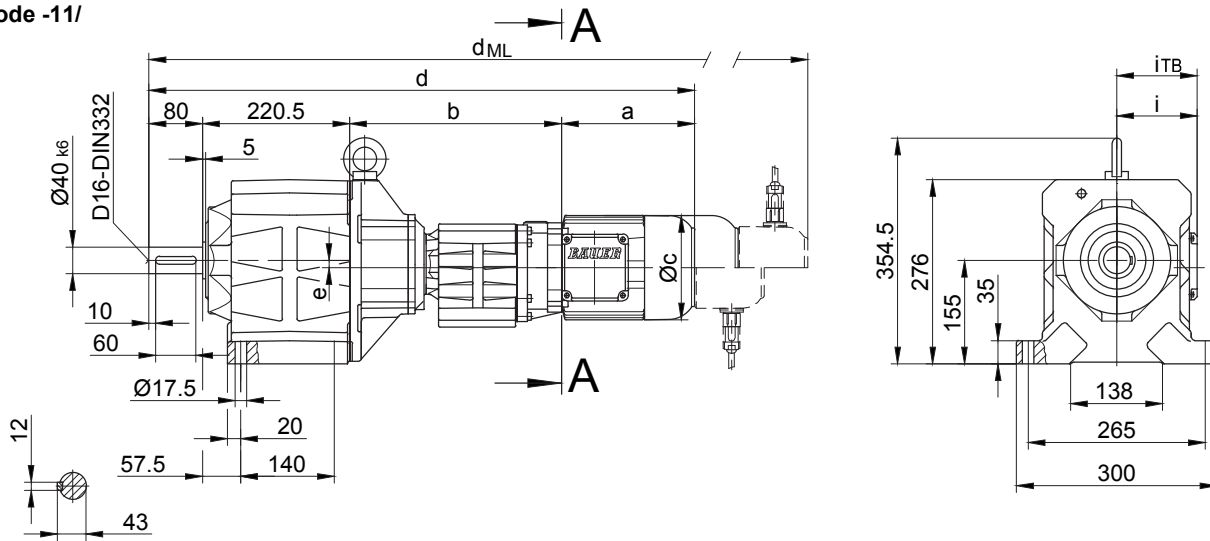


The actual gearbox design can vary from the geometry shown.

BG50G10

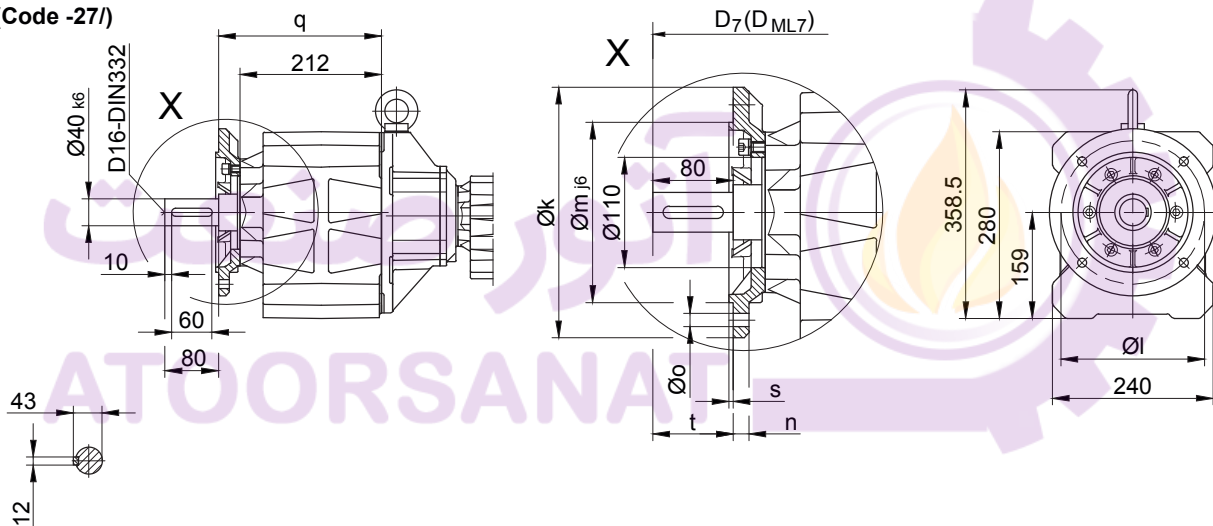
Foot mounting with clearance holes

Code -11/



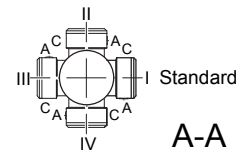
Flange with clearance holes

Code -37/
(Code -27/)



Flange dimensions

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



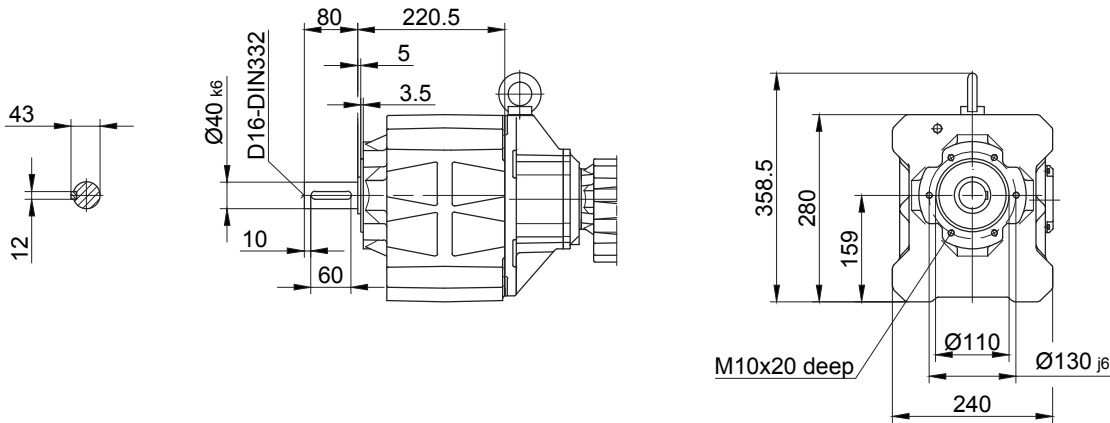
Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BG50G10-../D05..	170	313	123	783.5	11	100	117	825.5	886.5	928	-
BG50G10-../D06..	170	313	123	783.5	11	100	119	825.5	886.5	928	-
BG50G10-../D07..	190	313	123	803.5	11	100	119	845.5	906.5	948	-
BG50G10-../D..08..	200	317	156	817.5	11	115	136.5	883.5	924.5	991	883.5
BG50G10-../D..09..	251	331.5	181	883	11	124	158	976	990	1080.5	976

The actual gearbox design can vary from the geometry shown.

BG50G10

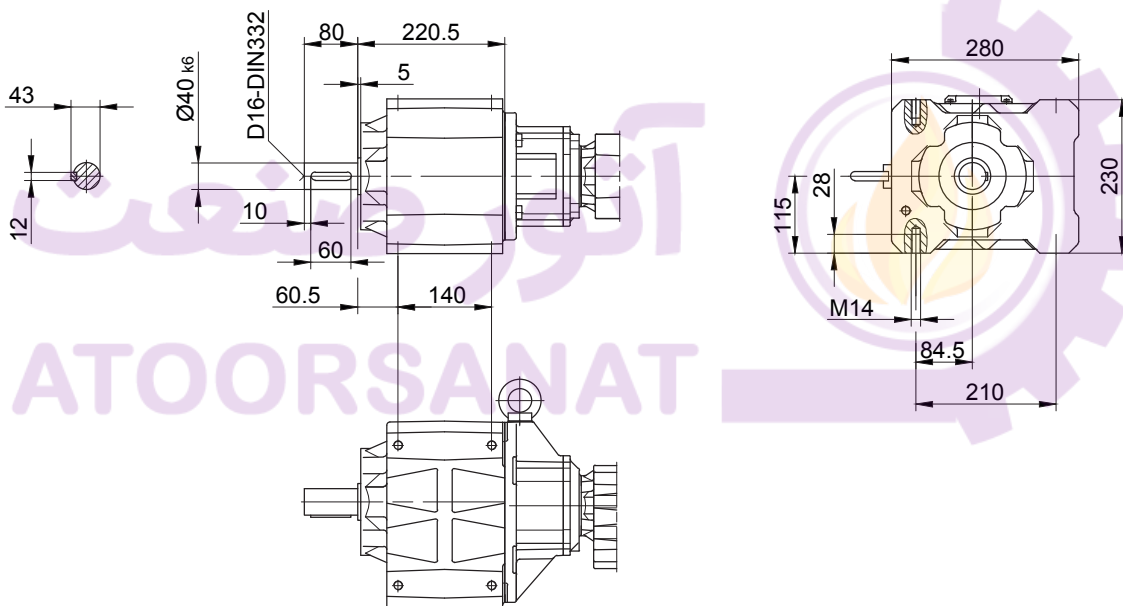
Flange with tapped holes

Code -71/



Foot with tapped holes left and right

Code -61LR/

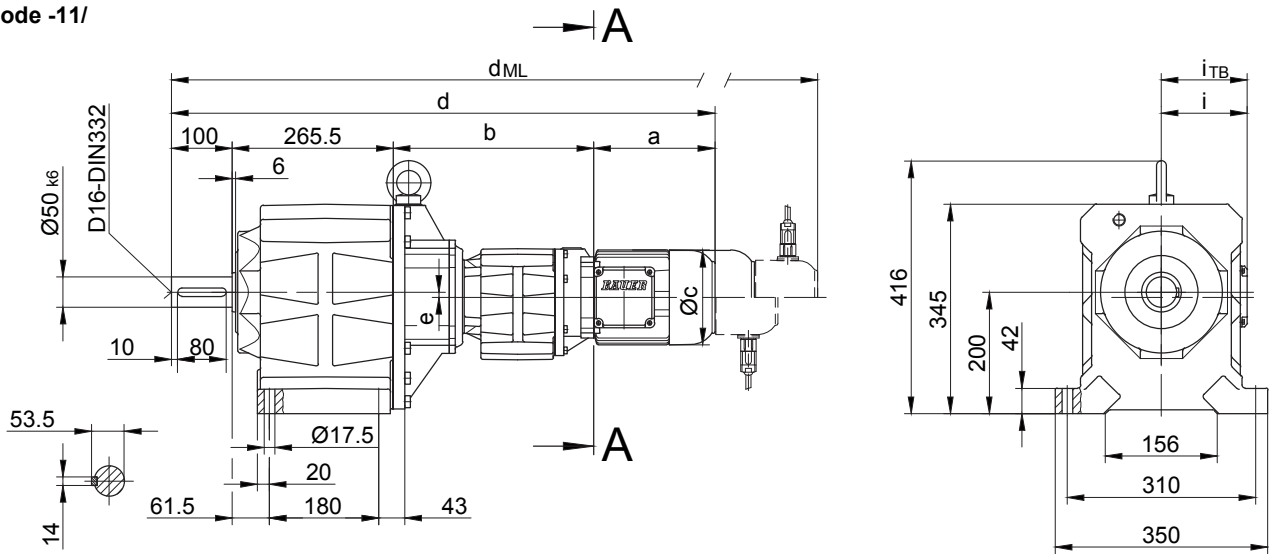


The actual gearbox design can vary from the geometry shown.

BG60G20

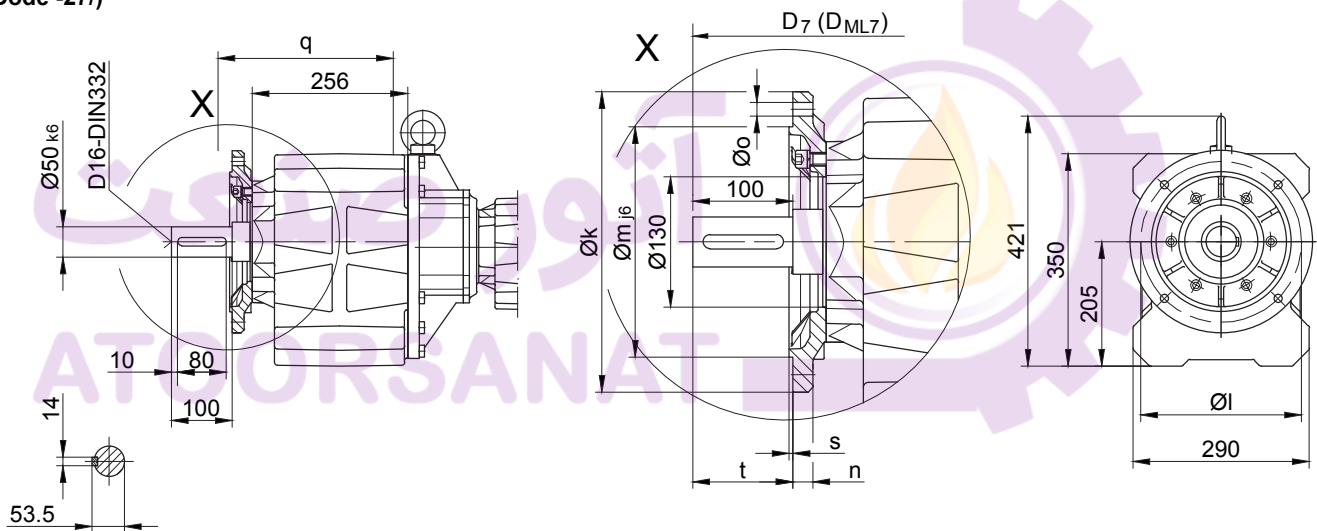
Foot mounting with clearance holes

Code -11/



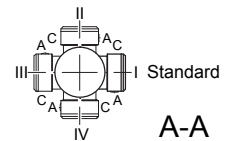
Flange with clearance holes

Code -37/
(Code -27/)



Flange dimensions

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



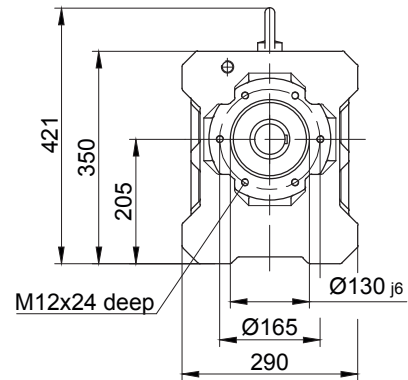
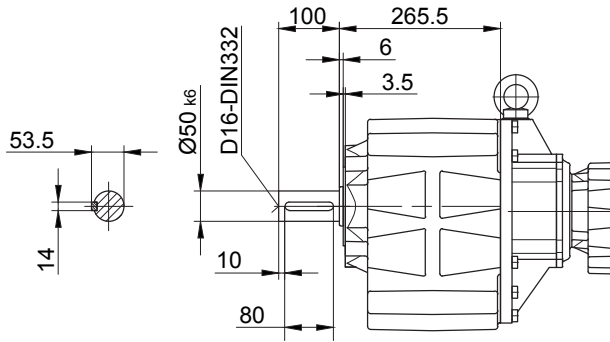
Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES.. d _{ML}	G d _{ML}	E../ES..-G d _{ML}	RR/RL d _{ML}
BG60G20-../D05..	170	326	123	861.5	8.5	100	117	903.5	964.5	1006	-
BG60G20-../D06..	170	326	123	861.5	8.5	100	119	903.5	964.5	1006	-
BG60G20-../D07..	190	326	123	881.5	8.5	100	119	923.5	984.5	1026	-
BG60G20-../D..08..	200	330	156	895.5	8.5	115	136.5	961.5	1002.5	1069	961.5
BG60G20-../D..09..	251	344.5	181	961	8.5	124	158	1054	1068	1158.5	1054

The actual gearbox design can vary from the geometry shown.

BG60G20

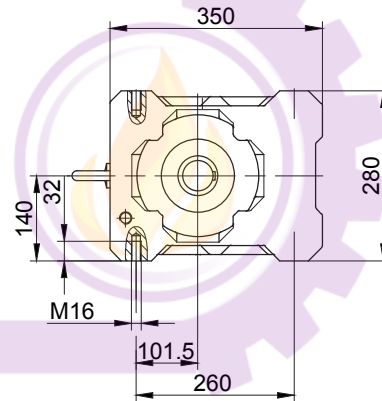
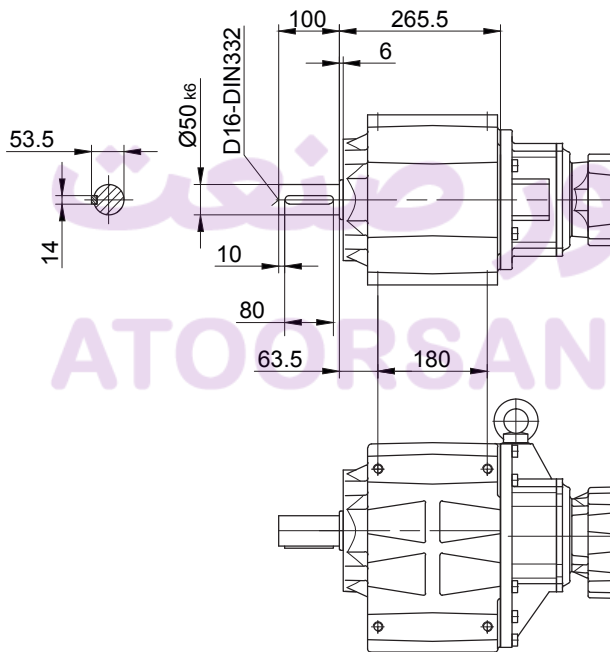
Flange with tapped holes

Code -71/



Foot with tapped holes left and right

Code -61LR/

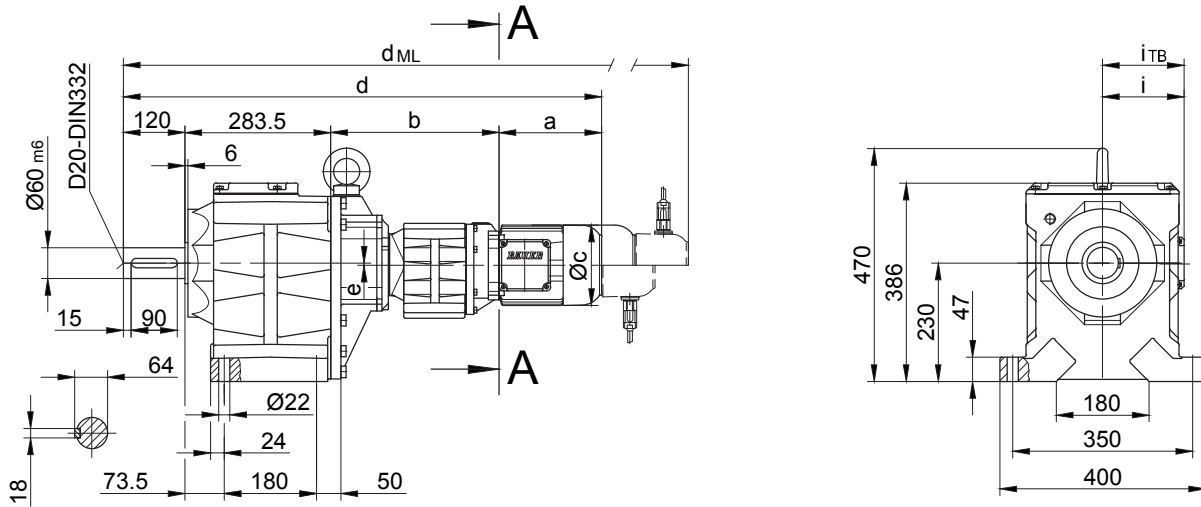


The actual gearbox design can vary from the geometry shown.

BG70G20

Foot mounting with clearance holes

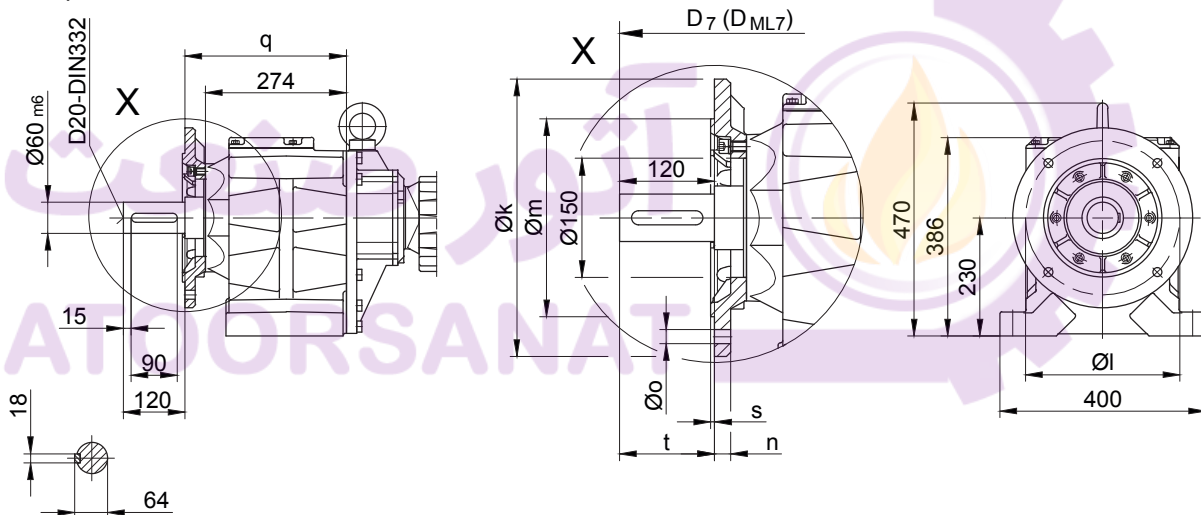
Code -11/



Flange with clearance holes

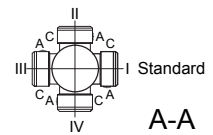
Code -37/

(Code -27/)



Flange dimensions

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



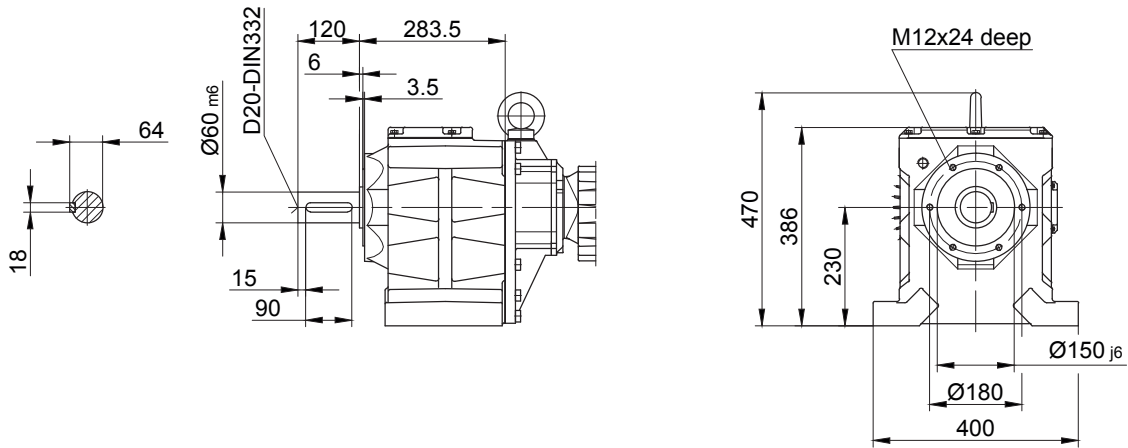
Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BG70G20-../D05..	170	324	123	897.5	1	100	117	939.5	1000.5	1042	-
BG70G20-../D06..	170	324	123	897.5	1	100	119	939.5	1000.5	1042	-
BG70G20-../D07..	190	324	123	917.5	1	100	119	959.5	1020.5	1062	-
BG70G20-../D..08..	200	328	156	931.5	1	115	136.5	997.5	1038.5	1105	997.5
BG70G20-../D..09..	251	342.5	181	997	1	124	158	1090	1104	1194.5	1090

The actual gearbox design can vary from the geometry shown.

BG70G20

Flange with tapped holes

Code -71/



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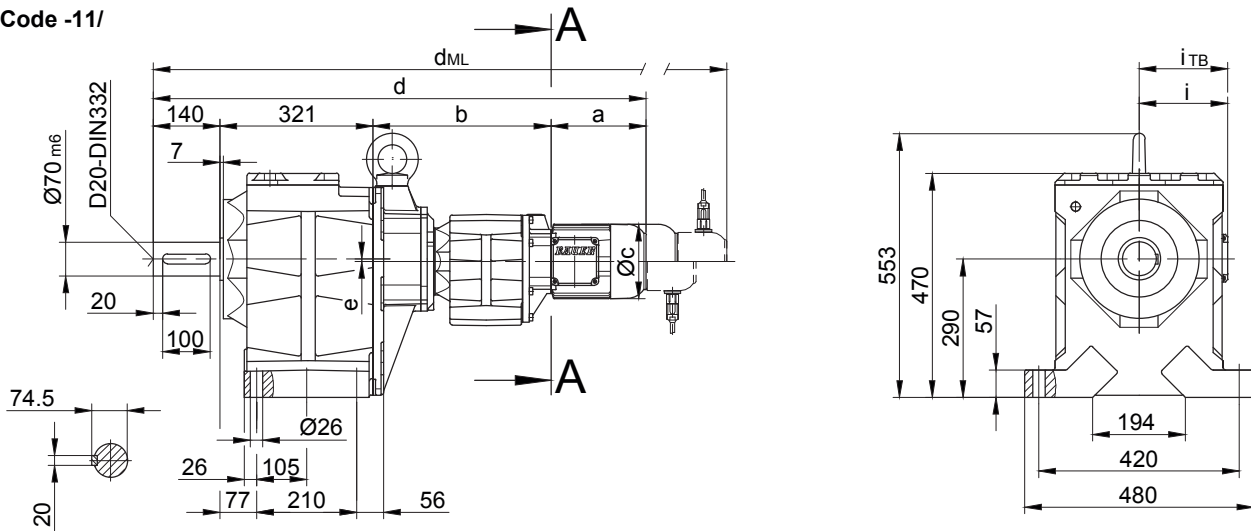


Dimension

BG80G40

Foot mounting with clearance holes

Code -11/

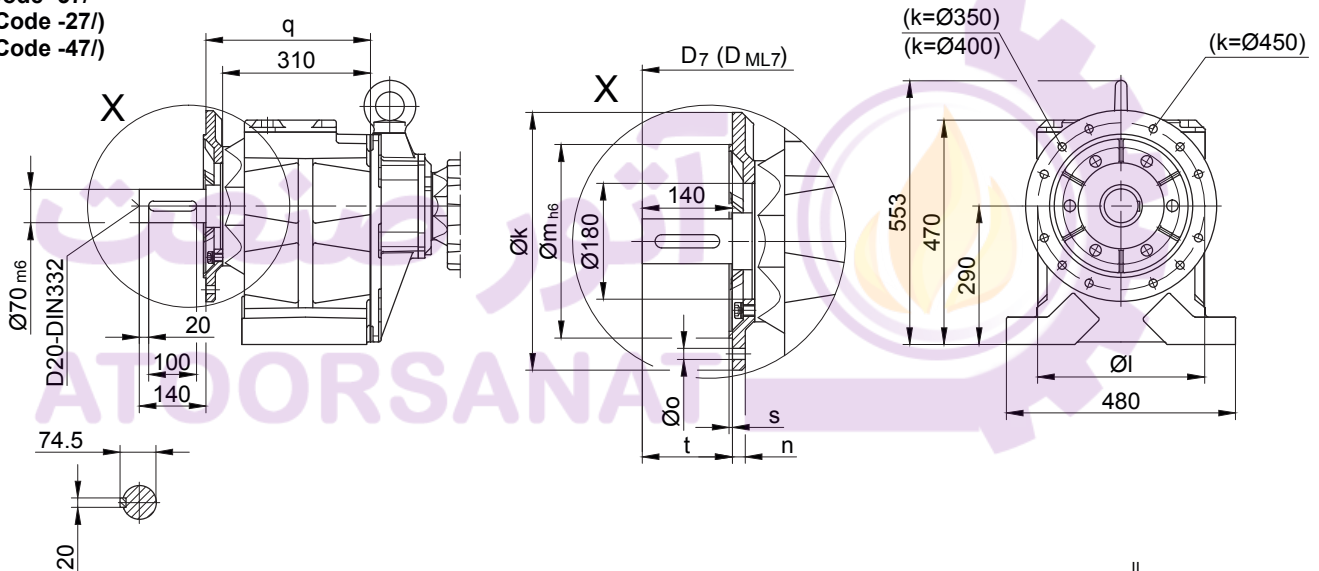


Flange with clearance holes

Code -37/

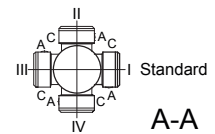
(Code -27/)

(Code -47/)



Flange dimensions

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



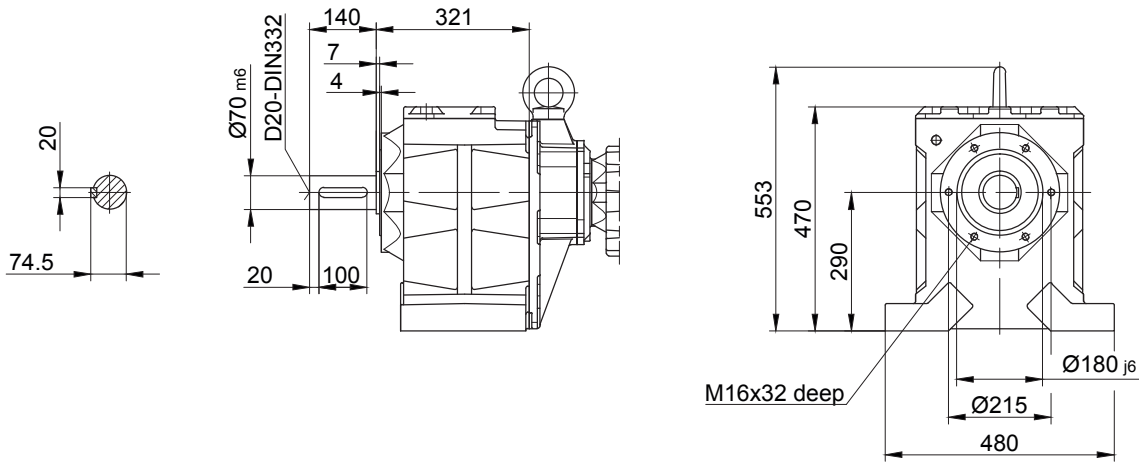
Type	a	b	c	d	e	i	Design with motor extensions				
							ES..	G	ES../ZS..-G	RR/RL	
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BG80G40-../D..08..	200	373	156	1034	-	115	136.5	1100	1141	1207.5	1100
BG80G40-../D..09..	251	387.5	181	1099.5	-	124	158	1192.5	1206.5	1297	1192.5
BG80G40-../D..11..	319	394	228	1174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

The actual gearbox design can vary from the geometry shown.

BG80G40

Flange with tapped holes

Code -71/



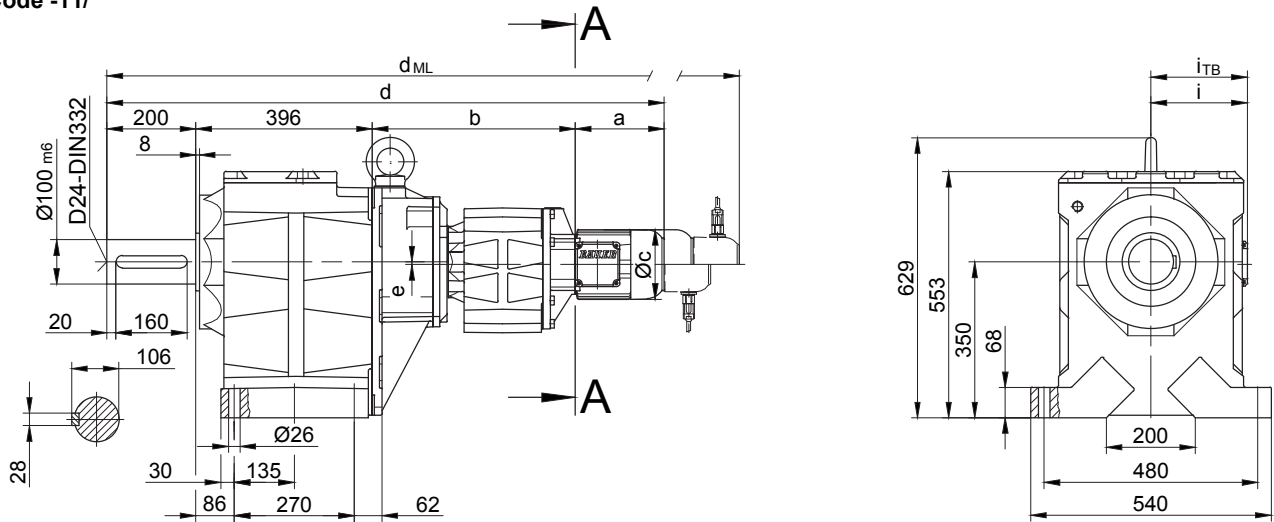
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BG90G50

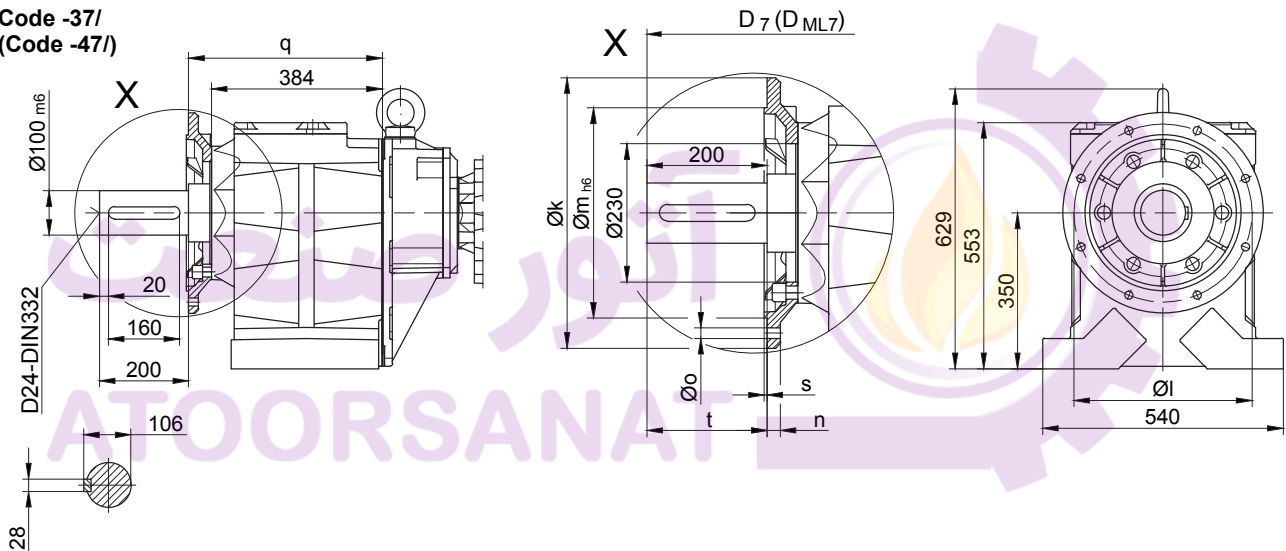
Foot mounting with clearance holes

Code -11/



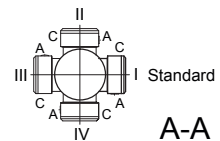
Flange with clearance holes

Code -37/
(Code -47/)



Flange dimensions

BG90G...	k	l	m	n	o	q	s	t	D ₇	D _{ML7}
Standard -37/	450	400	350	22	17.5	439	5	200	d+43	d _{ML} +43
big -47/	550	500	450	22	17.5	444	5	195	d+43	d _{ML} +43

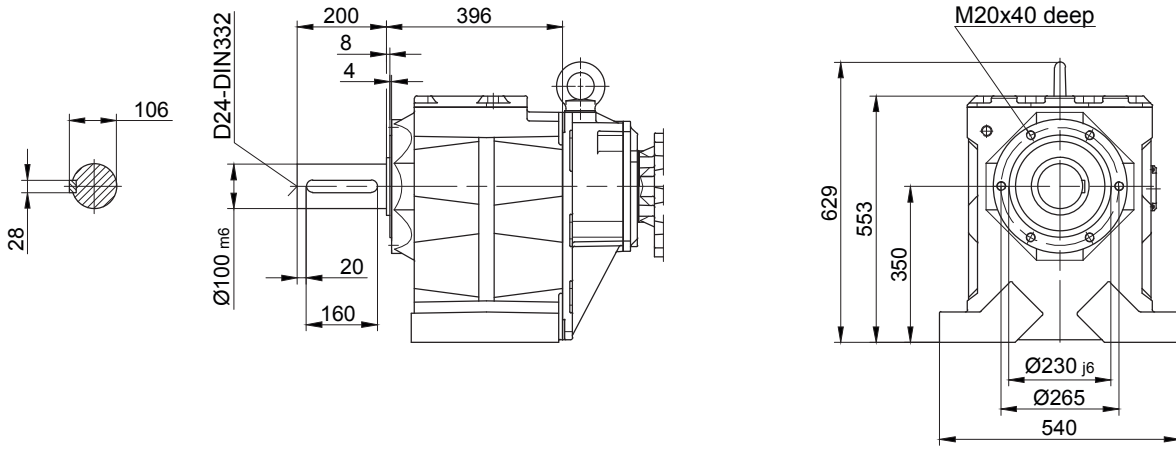


Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG90G50-../D..08..	200	456	156	1252	6	115	136.5	1318	1359	1425.5	1318
BG90G50-../D..09..	251	470.5	181	1317.5	6	124	158	1410.5	1424.5	1514	1410.5
BG90G50-../D..11..	319	477	228	1392	6	181	181	1490	1499	1594.5	1490
BG90G50-../D..13..	393	490	258	1479	6	218	218	1590	1586	1694.5	1590
BG90G50-../D..16..	429	504	322	1529	6	244	244	1673	1637	1777	1673
BG90G50-../D..18..	528	535	368	1659	6	244	244	1808	1767	1912	1808

The actual gearbox design can vary from the geometry shown.

BG90G50

Flange with tapped holes
Code -71/



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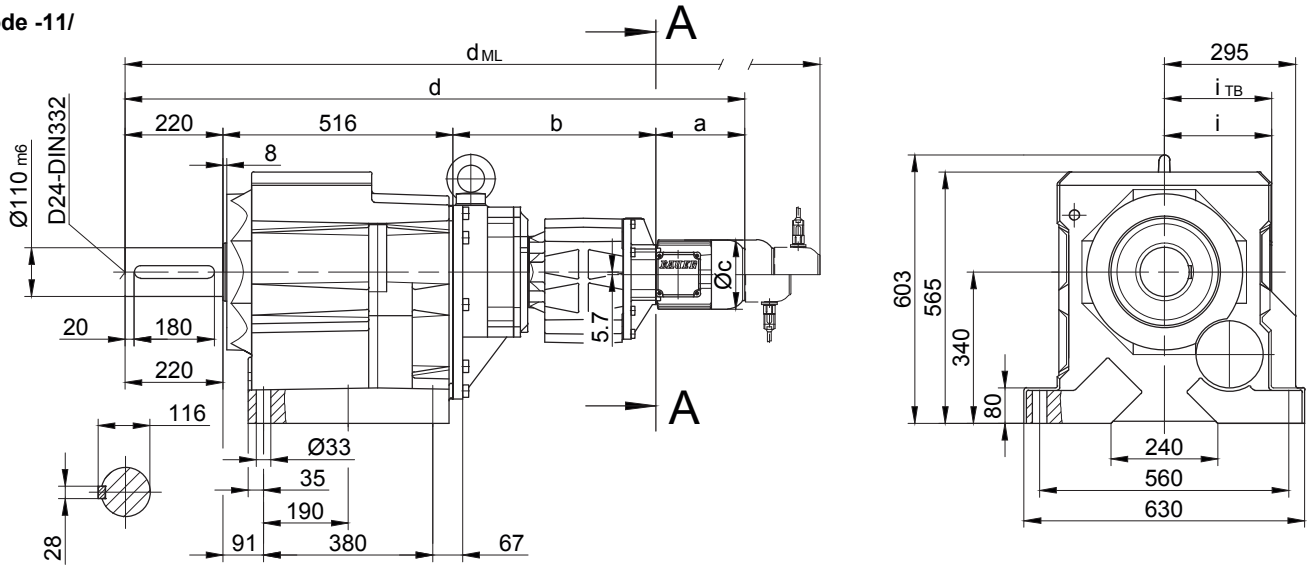


Dimension

BG100G50

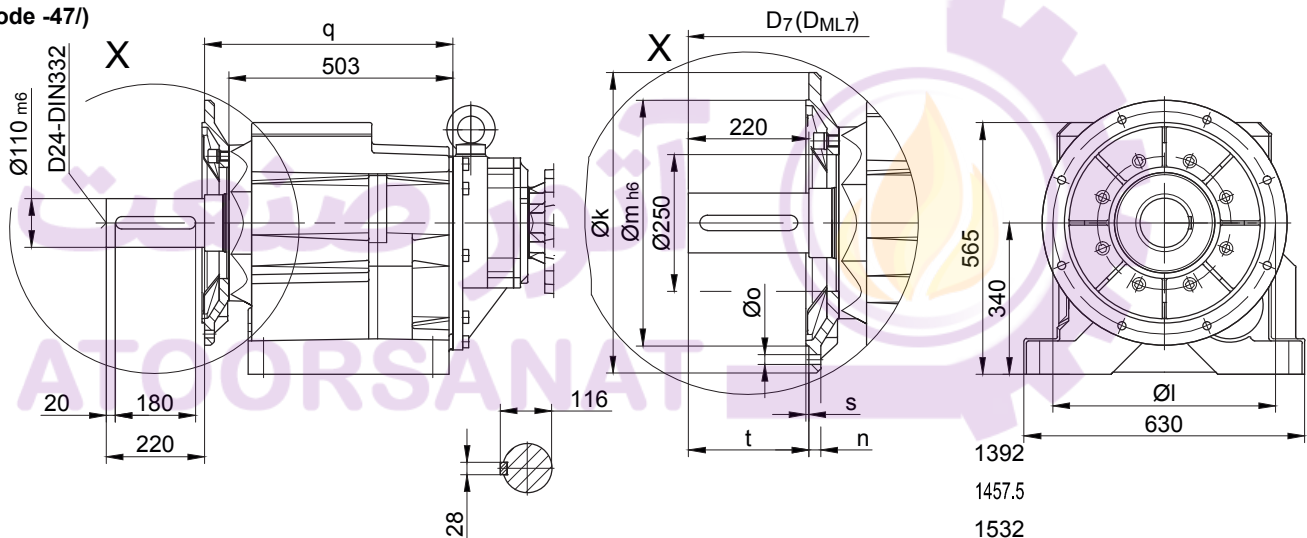
Foot mounting with clearance holes

Code -11/



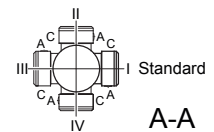
Flange with clearance holes

Code -37/
(Code -47/)



Flange dimensions

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

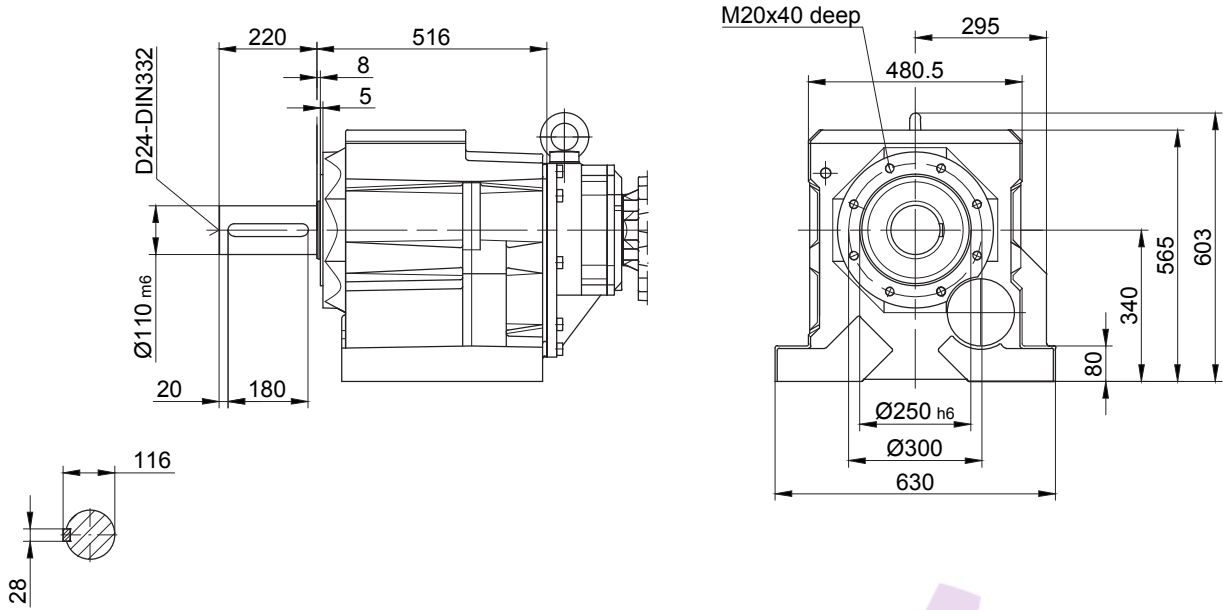


Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BG100G50-../D..08..	200	456	156	1392	115	136.5	1458	1499	1565.5	1458
BG100G50-../D..09..	251	470.5	181	1457.5	124	158	1550.5	1564.5	1655	1550.5
BG100G50-../D..11..	319	477	228	1532	181	181	1630	1639	1734.5	1630
BG100G50-../D..13..	393	490	258	1619	218	218	1730	1726	1834.5	1730
BG100G50-../D..16..	429	504	322	1669	244	244	1813	1777	1917	1813
BG100G50-../D..18..	528	535	368	1799	288	288	1948	1907	2052	1948

The actual gearbox design can vary from the geometry shown.

Flange with tapped holes

Code 71/



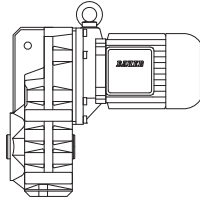
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Page

Dimensional drawings shaft-mounted-geared motors

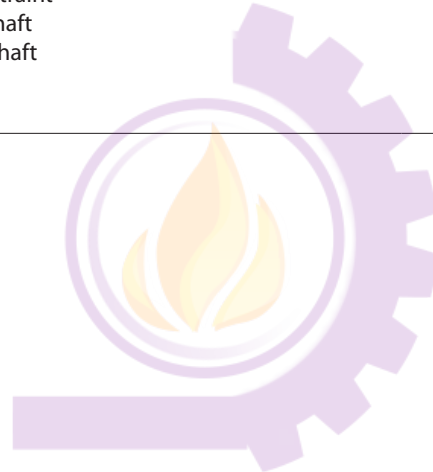
391-442

- Standard
- Tandem Gearbox

Additional Dimension Sheet

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

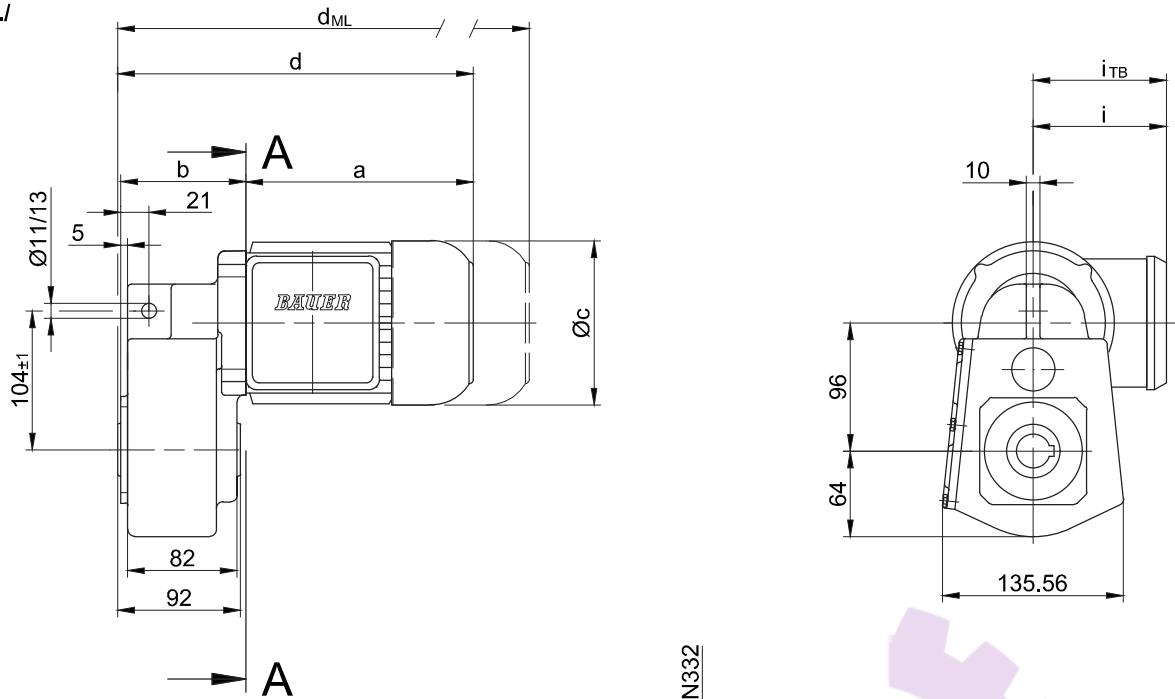
آتور صنعت
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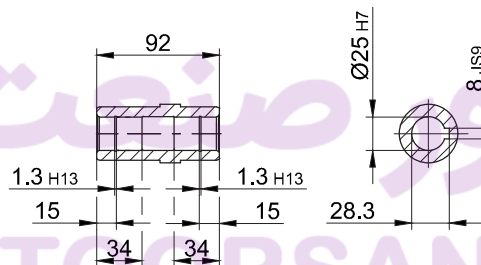
BF06

With torque arm

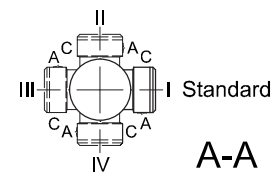
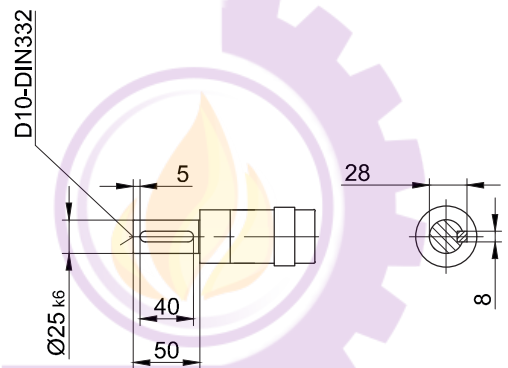
Code -0./



Code -4./



Code -1./



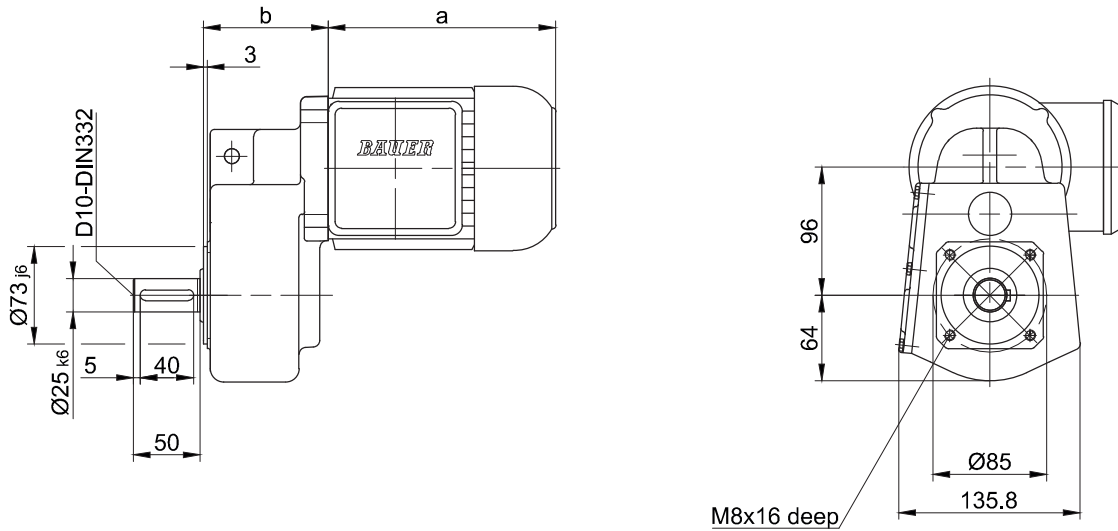
A-A

Type	a	b	c	d	i	Design with motor extensions				
						i_{TB}	E../ES..	G	E../ES..-G	RR/RL
							d_{ML}	d_{ML}	d_{ML}	d_{ML}
BF06-../D05..	170	93.5	123	267.5	100	117	309.5	370.5	412.5	-
BF06-../D06..	170	93.5	123	267.5	100	119	309.5	370.5	412.5	-
BF06-../D07..	190	94.5	123	287.5	100	119	329.5	390.5	432.5	-
BF06-../D08..	200	141	156	344	115	136.5	410	451	517.5	410

The actual gearbox design can vary from the geometry shown.

Flange with tapped holes

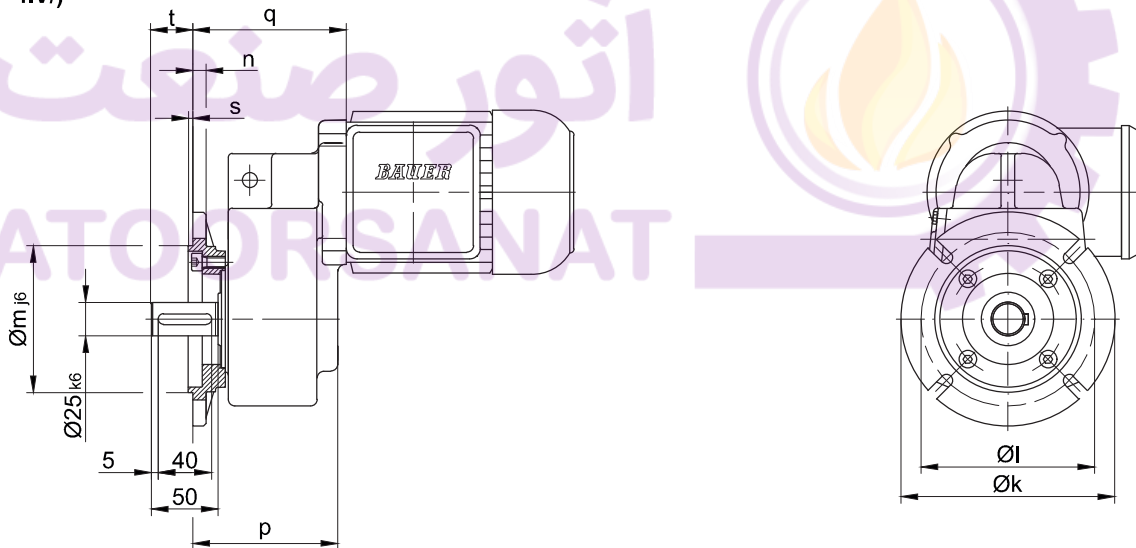
Code -7./



Flange with clearance holes

Code -3.V/

(Code -4.V/)



Flange dimensions

BF06	k	l	m	n	o	p	q ₁)	q ₂)	s	t
Standard -3./	140	115	95	10	9	108.5	115	163	3	31.5
big -4./	160	130	110	10	9	108.5	115	163	3.5	31.5

1) only for motor sizes D05; D06; D07

2) only at motor size D08..

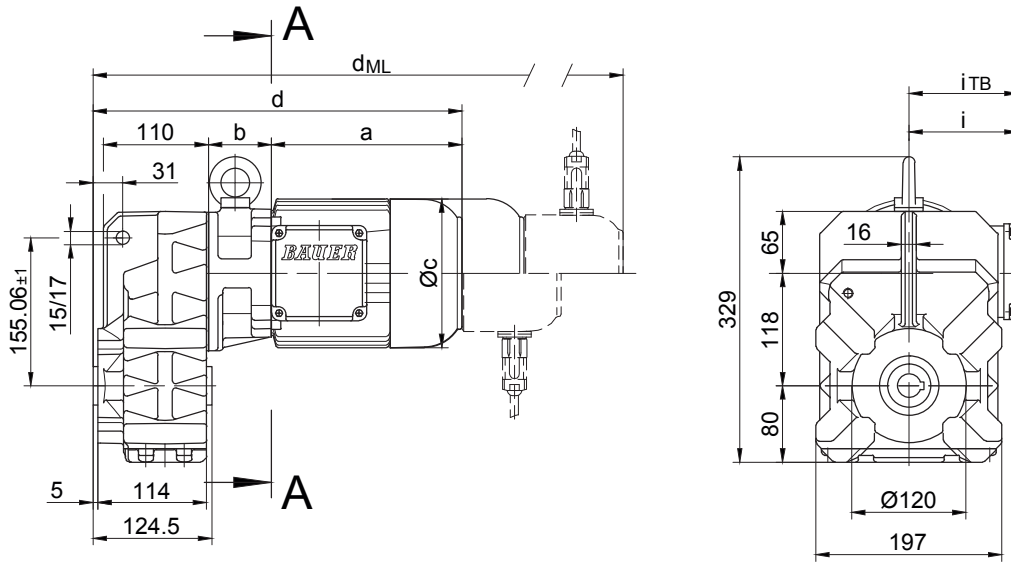
The actual gearbox design can vary from the geometry shown.

Dimension

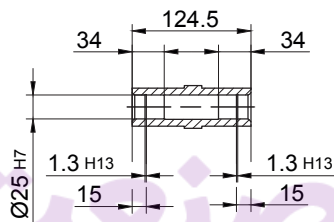
BF10 - BF10Z

With torque arm

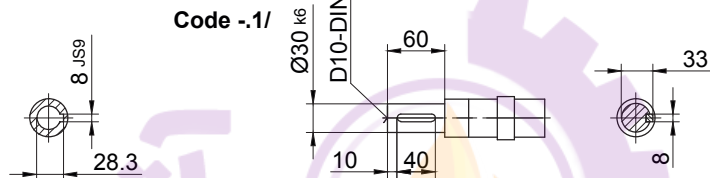
Code -0./



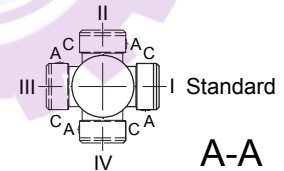
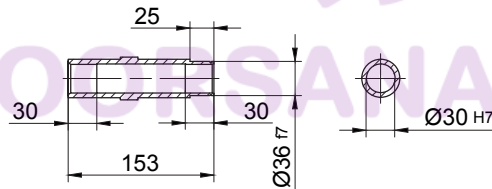
Code -4/



Code -1/



Code -5/



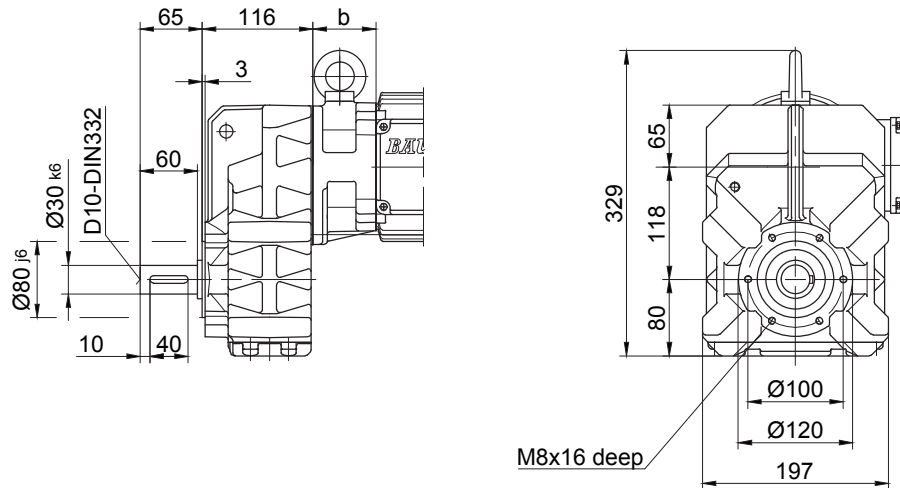
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BF10Z-../D04..	143	86	111	350	90	112	393.5	412.5	455.5	-
BF10-../D05..	170	62	123	353	100	117	395	456	497.5	-
BF10Z-../D05..	170	88	123	379	100	117	421	482	523.5	-
BF10-../D06..	170	62	123	353	100	119	395	456	497.5	-
BF10Z-../D06..	170	88	123	379	100	119	421	482	523.5	-
BF10-../D07..	190	62	123	373	100	119	415	476	517.5	-
BF10Z-../D07..	190	88	123	399	100	119	441	502	543.5	-
BF10-../D..08..	200	66	156	387	115	136.5	453	494	560.5	453
BF10Z-../D..08..	200	132	156	453	115	136.5	519	560	526.5	519
BF10-../D..09..	251	80.5	181	452.5	124	158	545.5	559.5	650	545.5

The actual gearbox design can vary from the geometry shown.

BF10 - BF10Z

Flange with tapped holes

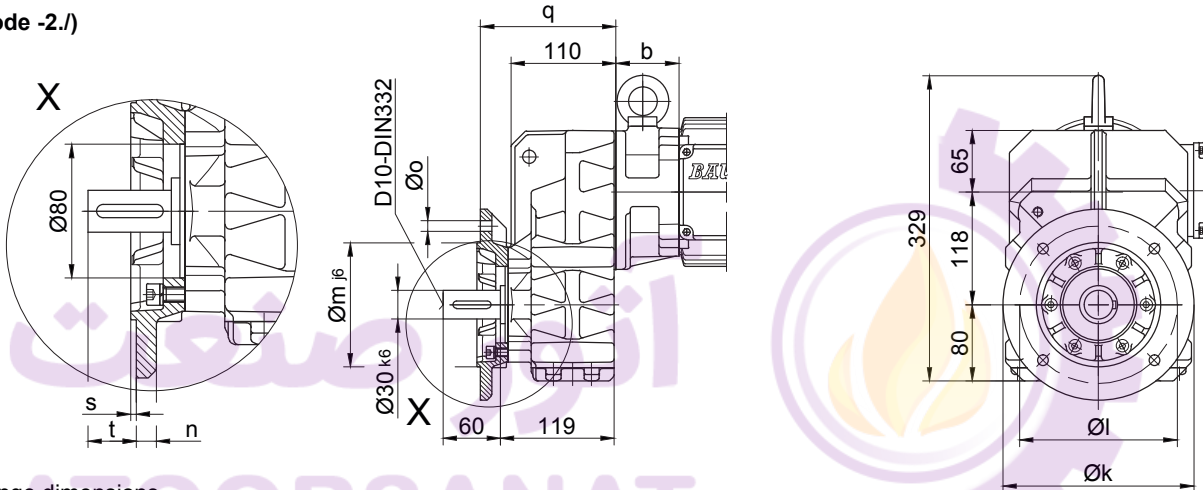
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

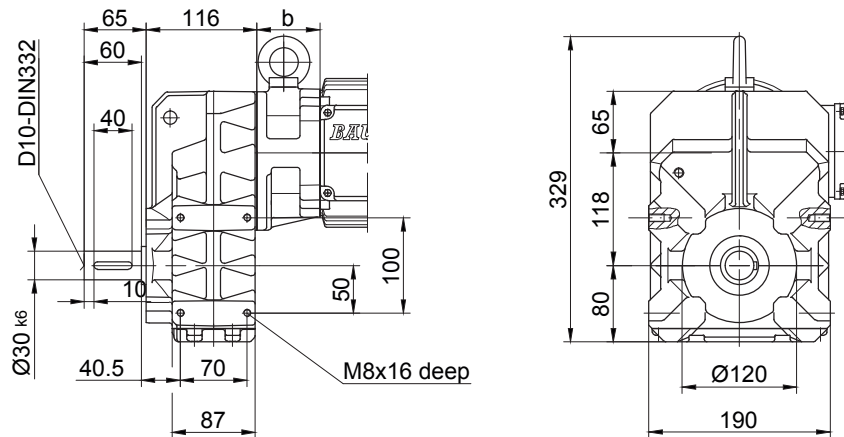


Flange dimensions

BF10(Z)	k	l	m	n	o	q	s	t
Standard -3./	200	165	130	12	11	142	3.5	39
small -2./	160	130	110	10	9	135	3.5	46

Foot with tapped holes left and right

Code -6.LR/



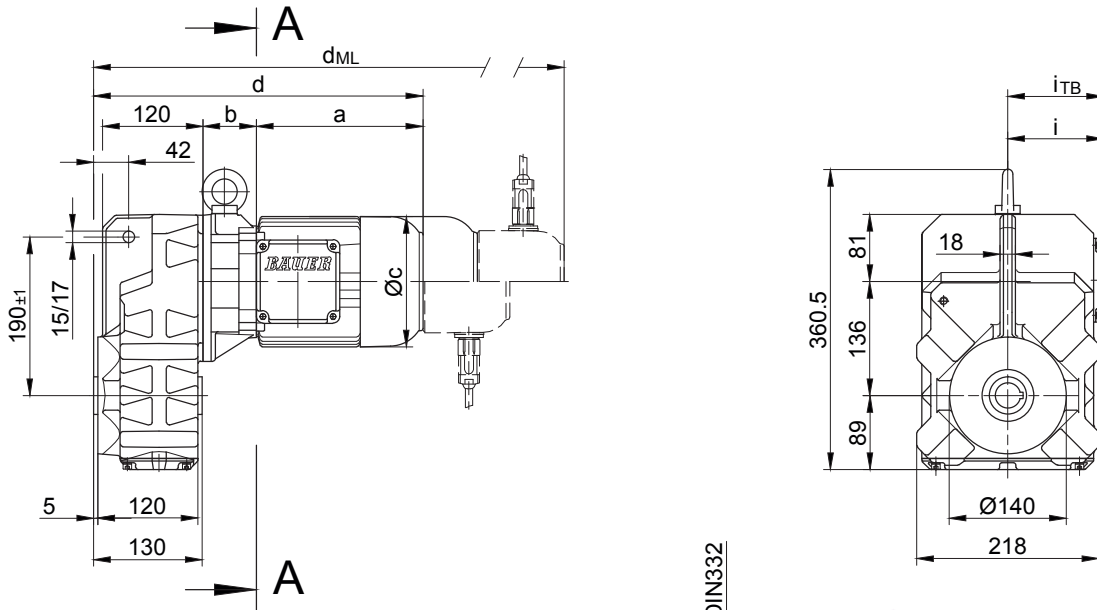
The actual gearbox design can vary from the geometry shown.

Dimension

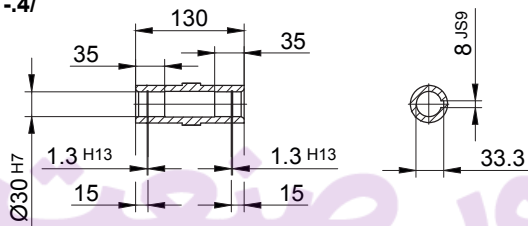
BF20 - BF20Z

With torque arm

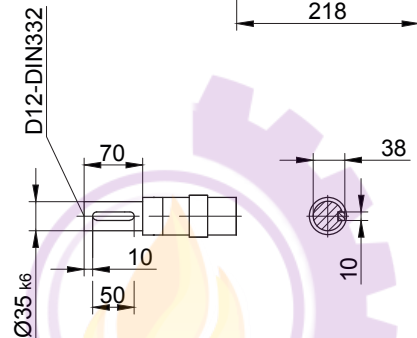
Code -0./



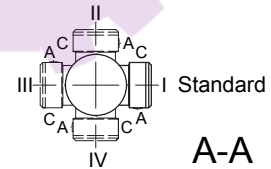
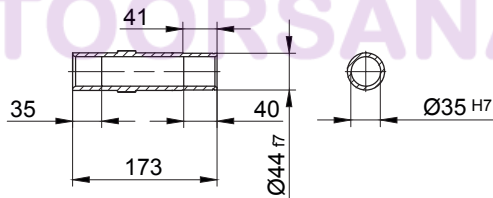
Code -4/



Code -1/



Code -5/



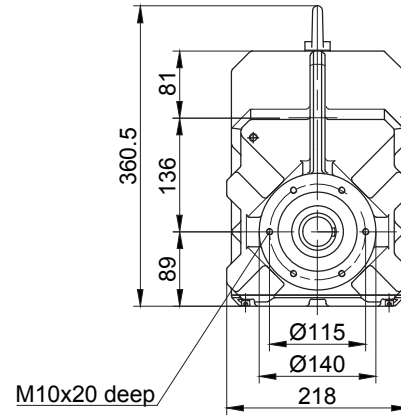
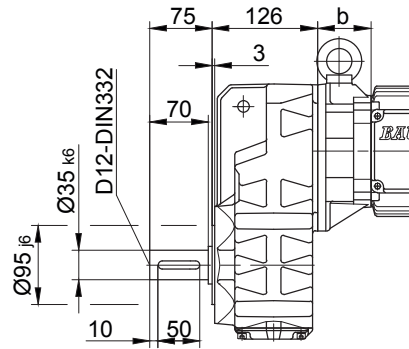
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES..	G	E../ES..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BF20Z-../D04..	143	100	111	374	90	112	417.5	436.5	479.5	-
BF20-../D05..	170	60	123	361	100	117	403	464	505.5	-
BF20Z-../D05..	170	102	123	403	100	117	445	506	547.5	-
BF20-../D06..	170	60	123	361	100	119	403	464	505.5	-
BF20Z-../D06..	170	102	123	403	100	119	445	506	547.5	-
BF20-../D07..	190	60	123	381	100	119	423	484	525.5	-
BF20Z-../D07..	190	102	123	423	100	119	466	526	567.5	-
BF20-../D..08..	200	64	156	395	115	136.5	461	502	568.5	461
BF20Z-../D..08..	200	146	156	477	115	136.5	543	584	650.5	543
BF20-../D..09..	251	78.5	181	460.5	124	158	553.5	567.5	658	553.5

The actual gearbox design can vary from the geometry shown.

BF20 - BF20Z

Flange with tapped holes

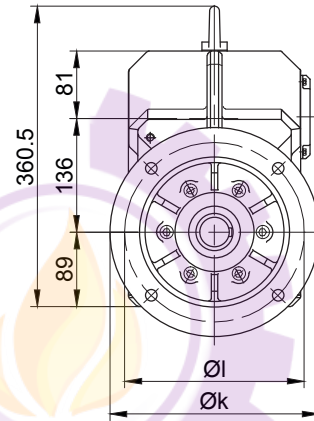
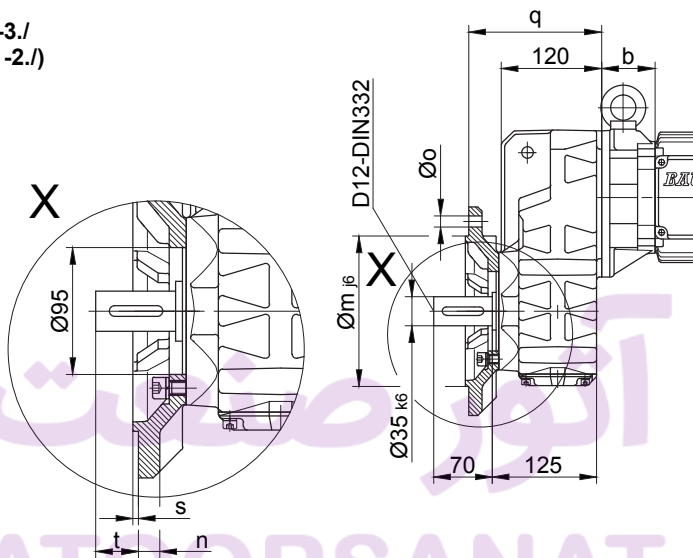
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

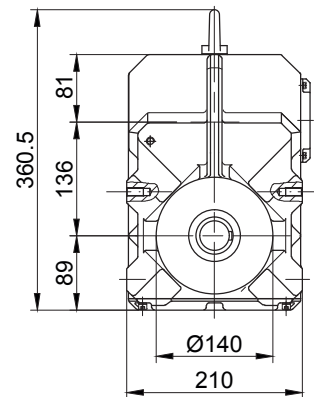
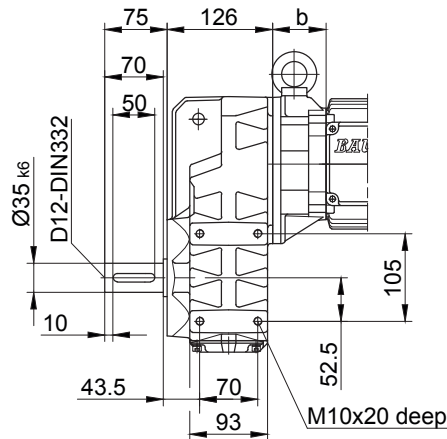


Flange dimensions

BF20(Z)	k	l	m	n	o	q	s	t
Standard -3./	250	215	180	16	13.5	159	4	42
small -2./	200	165	130	12	11	150	3.5	51

Foot with tapped holes left and right

Code -6.LR/



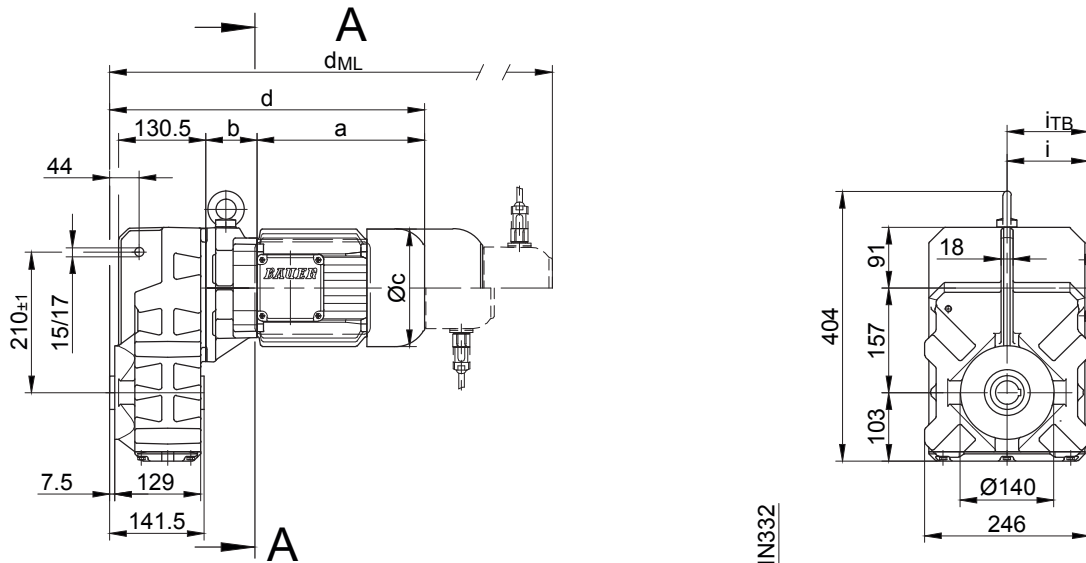
The actual gearbox design can vary from the geometry shown.

Dimension

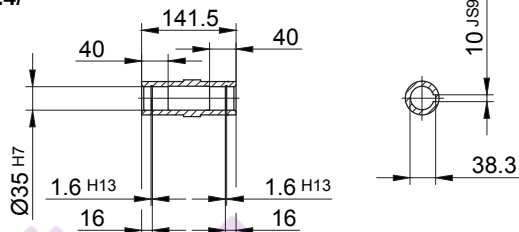
BF30 - BF30Z

With torque arm

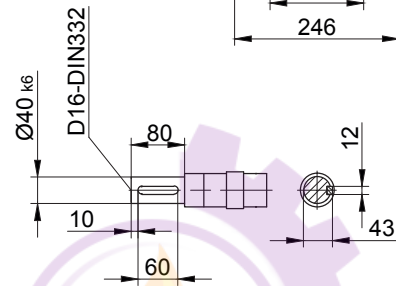
Code -0./



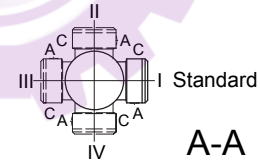
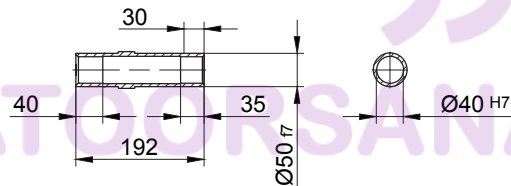
Code -4/



Code -1/



Code -5/



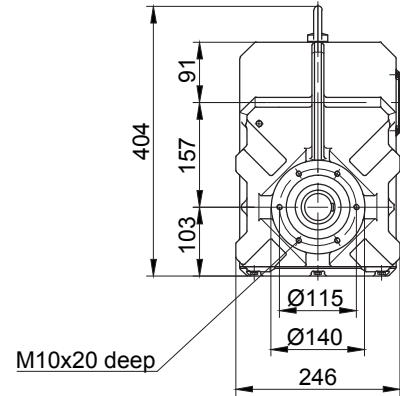
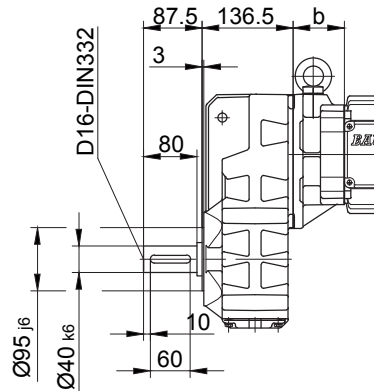
Type	a	b	c	d	i	Design with motor extensions				
						i_{TB}	E./ES..	G	E./ES..-G	RR/RL
						d_{ML}	d_{ML}	d_{ML}	d_{ML}	d_{ML}
BF30-../D05..	170	58	123	373	100	117	415	476	518	-
BF30Z-../D05..	170	133.5	123	448	100	117	490	551	593	-
BF30-../D06..	170	58	123	373	100	119	415	476	518	-
BF30Z-../D06..	170	133.5	123	448	100	119	490	551	593	-
BF30-../D07..	190	58	123	393	100	119	435	496	538	-
BF30Z-../D07..	190	133.5	123	468	100	119	510	571	613	-
BF30-../D..08..	200	62	156	406	115	136.5	472	513	579.5	472
BF30Z-../D..08..	200	137.5	156	481	115	136.5	547	588	654.5	547
BF30-../D..09..	251	76.5	181	471	124	158	564	578	668	558
BF30Z-../D..09..	251	152	181	547	124	158	640	654	744	634
BF30-../D..11..	319	83	228	546	181	181	644	653	746	635

The actual gearbox design can vary from the geometry shown.

BF30 - BF30Z

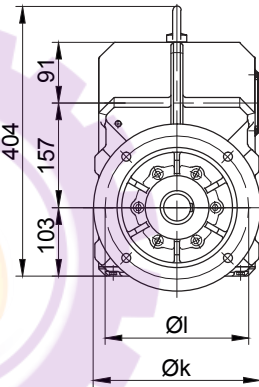
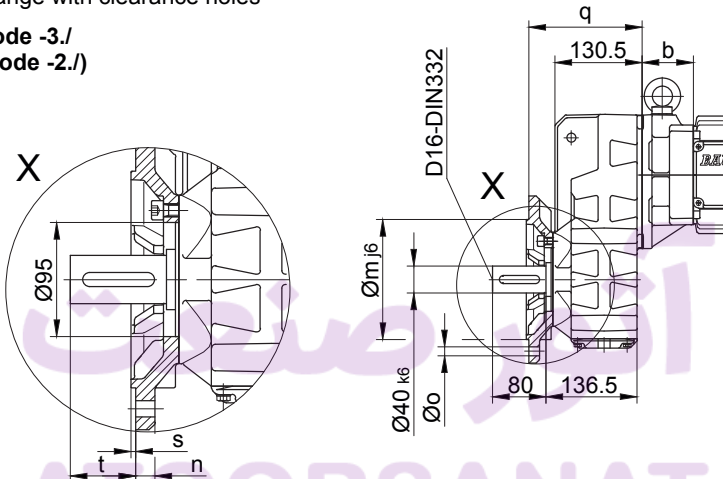
Flange with tapped holes

Code -7./



Flange with clearance holes

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

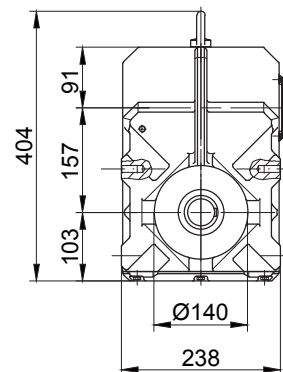
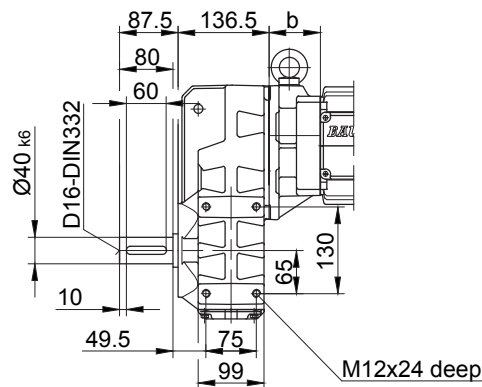


Flange dimensions

BF30(Z)	k	l	m	n	o	q	s	t
Standard -3./	250	215	180	16	13.5	169.5	4	54.5
small -2./	200	165	130	12	11	160.5	3.5	63.5

Foot with tapped holes left and right

Code -6.LR/



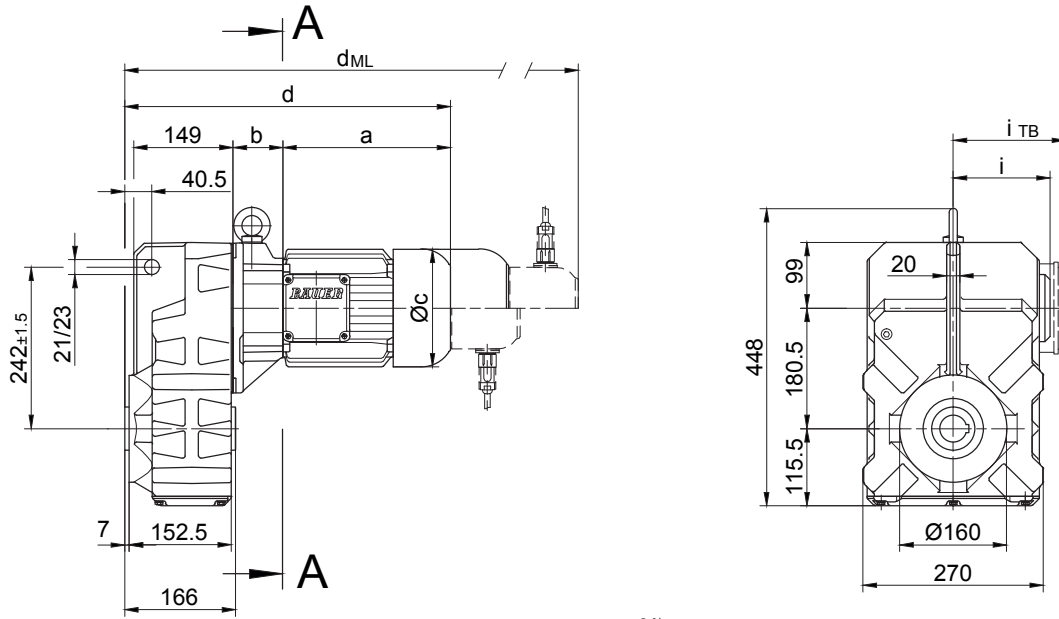
The actual gearbox design can vary from the geometry shown.

Dimension

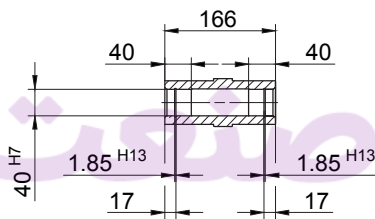
BF40 - BF40Z

With torque arm

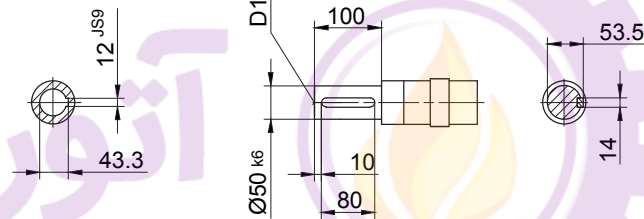
Code -0./



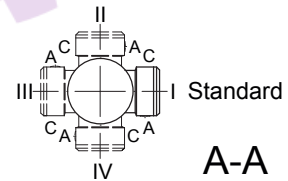
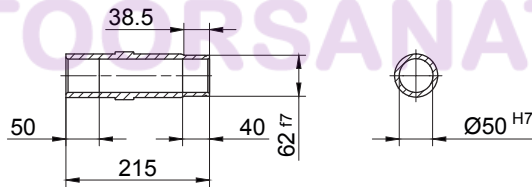
Code -4/



Code -1/



Code -5/



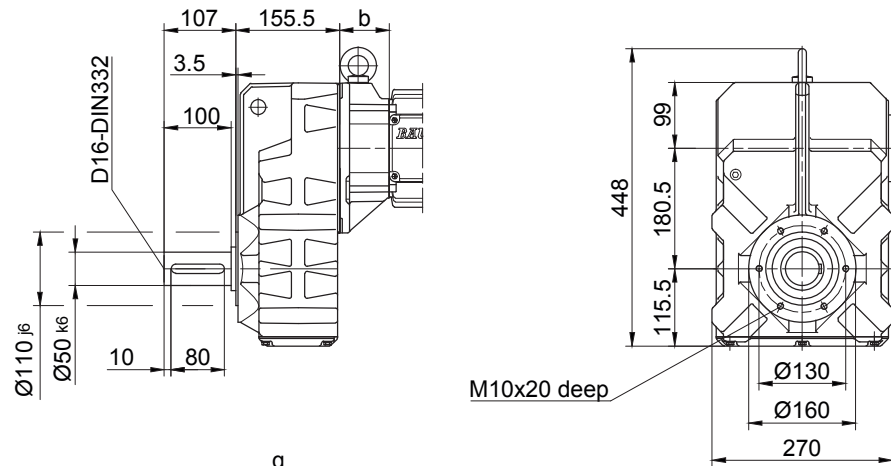
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E./ES..	G	E./ES..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BF40Z-../D05..	170	138.5	123	472	100	117	514	575	617	-
BF40Z-../D06..	170	138.5	123	472	100	119	514	575	617	-
BF40Z-../D07..	190	138.5	123	492	100	119	534	595	637	-
BF40-../D..08..	200	60	156	422	115	136.5	488	529	595	488
BF40Z-../D..08..	200	142.5	156	506	115	136.5	572	613	679	572
BF40-../D..09..	251	74.5	181	489	124	158	582	596	686	576
BF40Z-../D..09..	251	157	181	570	124	158	663	677	767	657
BF40-../D..11..	319	81	228	563	181	181	661	670	763	659

The actual gearbox design can vary from the geometry shown.

BF40 - BF40Z

Flange with tapped holes

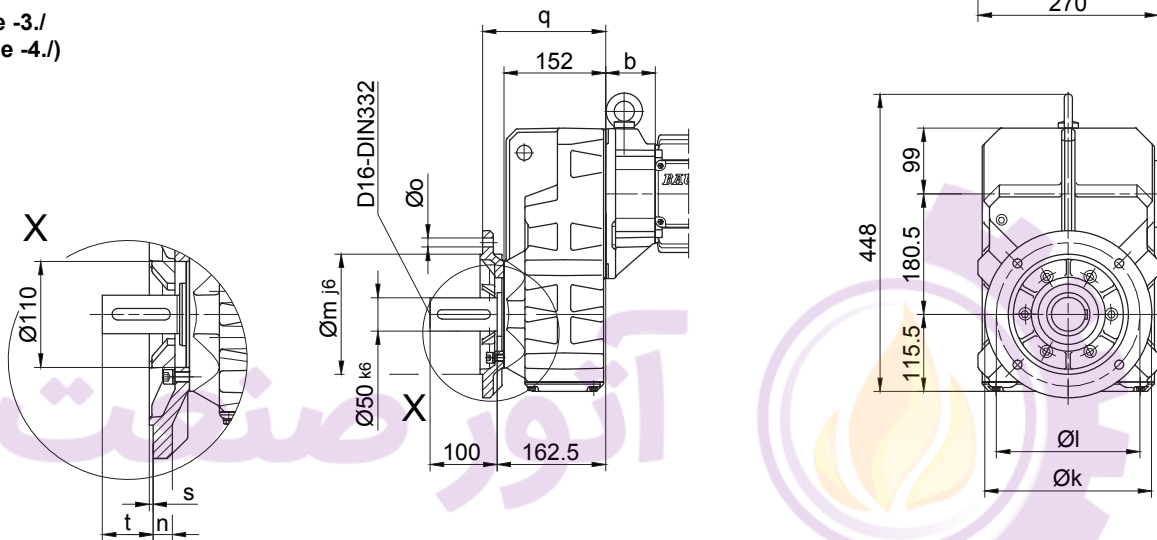
Code -7./



Flange with clearance holes

Code -3./

(Code -4./)

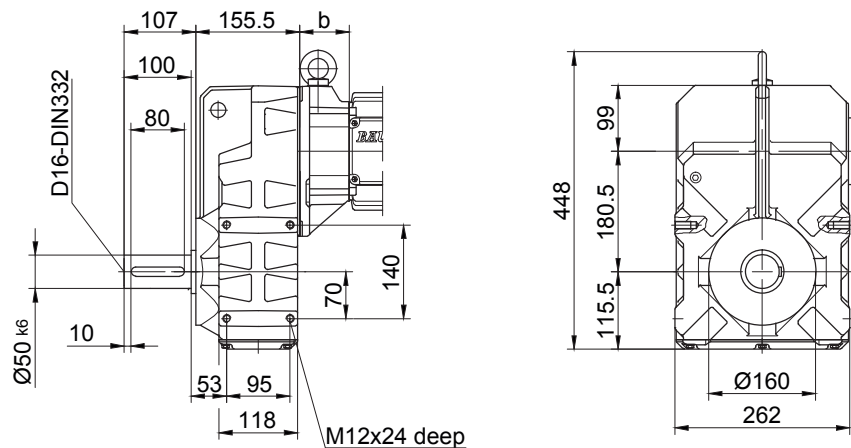


Flange dimensions

BF40(Z)	k	l	m	n	o	q	s	t
Standard -3./	250	215	180	16	13.5	184	4	78.5
big -4./	300	265	230	20	13.5	190	4	72.5

Foot with tapped holes left and right

Code -6.LR/



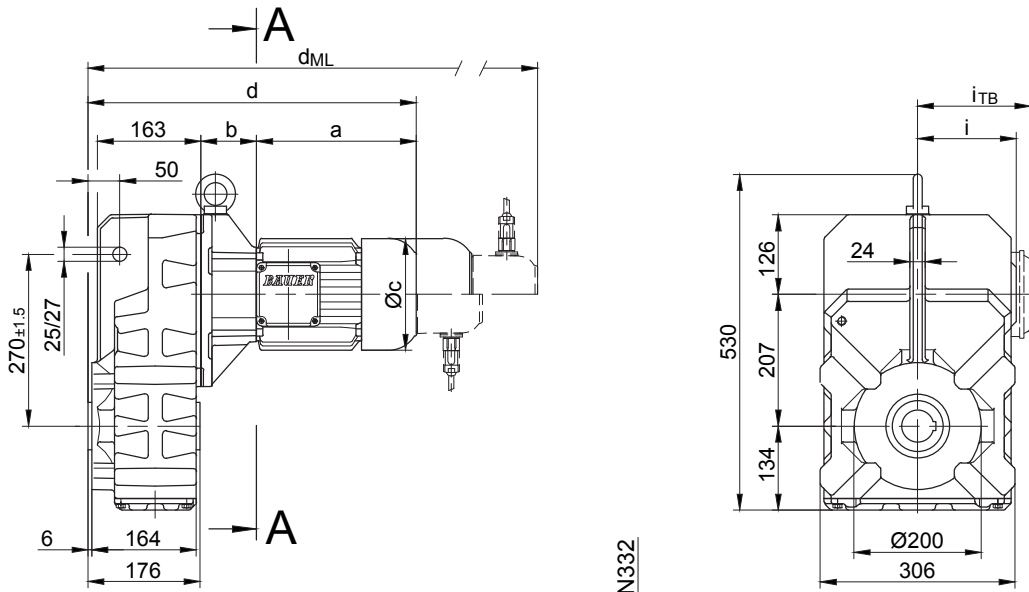
The actual gearbox design can vary from the geometry shown.

Dimension

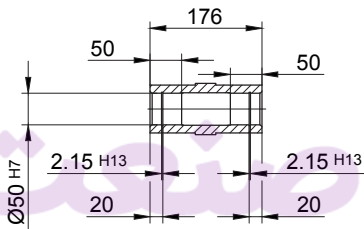
BF50 - BF50Z

With torque arm

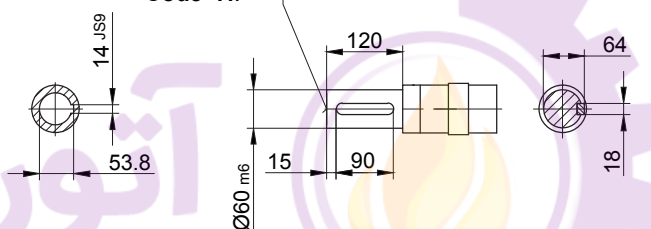
Code -0./



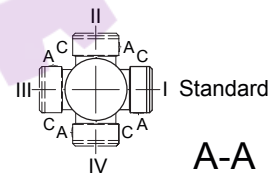
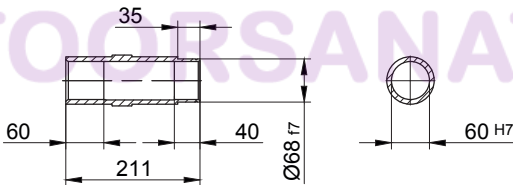
Code -4/



Code -1/



Code -5/



A-A

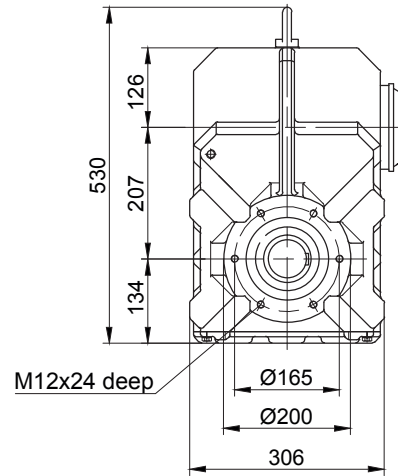
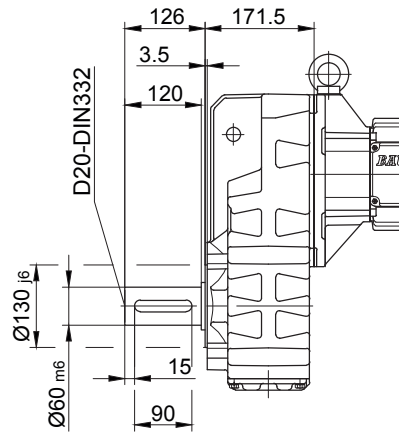
Type	a	b	c	d	i	i _{TB}	Design with motor extensions			
							E./ES./ZS	G	E./ES./ZS-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BF50Z-../D05..	170	155	123	502.5	100	117	544.5	605.5	647	-
BF50Z-../D06..	170	155	123	502.5	100	119	544.5	605.5	647	-
BF50Z-../D07..	190	155	123	522.5	100	119	464.5	625.5	667	-
BF50-../D..08..	200	73	156	450.5	115	136.5	516.5	557.5	624	516.5
BF50Z-../D..08..	200	159	156	536	115	136.5	602.5	643.5	710	602.5
BF50-../D..09..	251	87.5	181	516	124	158	609	623	713.5	609
BF50Z-../D..09..	251	173.5	181	602	124	158	695	709	799.5	695
BF50-../D..11..	319	94	228	590.5	181	181	688.5	697.5	793	688.5
BF50-../D..13..	393	107	258	677.5	218	218	788.5	784.5	893	788.5
BF50-../D..16..	429	121	322	627.5	244	244	871.5	835.5	975.5	871.5
BF50-../D..18..	528	143	368	848.5	288	288	997.5	956.5	1101.5	997.5

The actual gearbox design can vary from the geometry shown.

BF50 - BF50Z

Flange with tapped holes

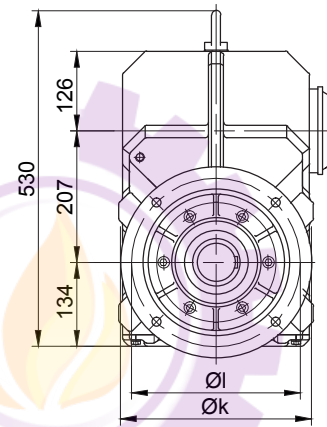
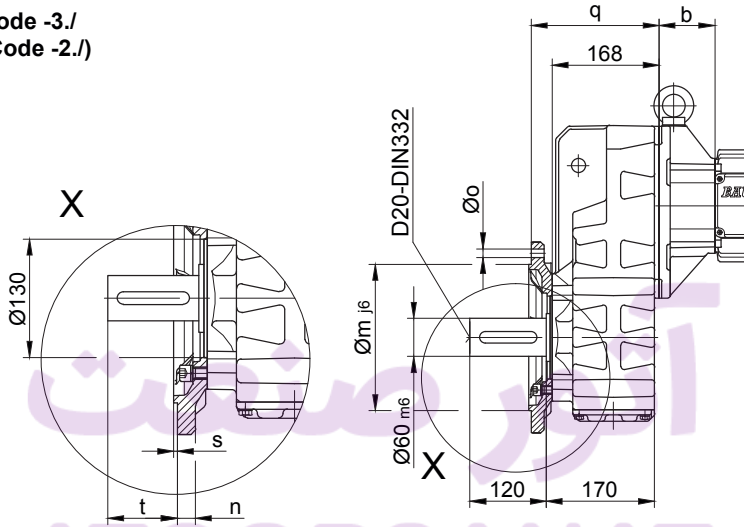
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

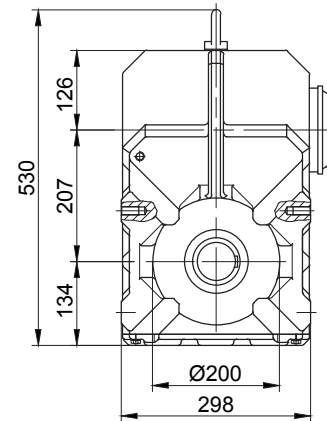
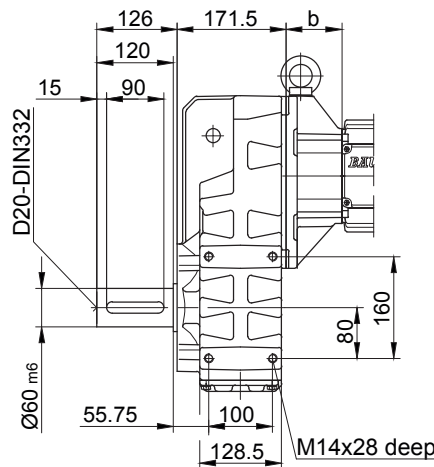


Flange dimensions

BF50(Z)	k	l	m	n	o	q	s	t
Standard -3./	300	265	230	20	13.5	201	4	96.5
small -2./	250	215	180	16	13.5	198	4	99.5

Foot with tapped holes left and right

Code -6.LR/

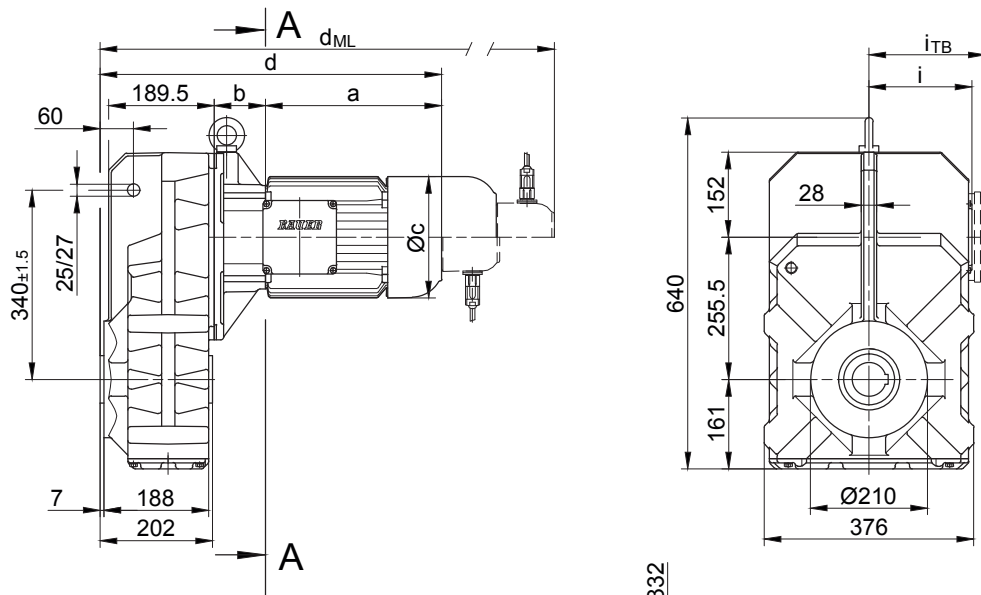


The actual gearbox design can vary from the geometry shown.

BF60 - BF60Z

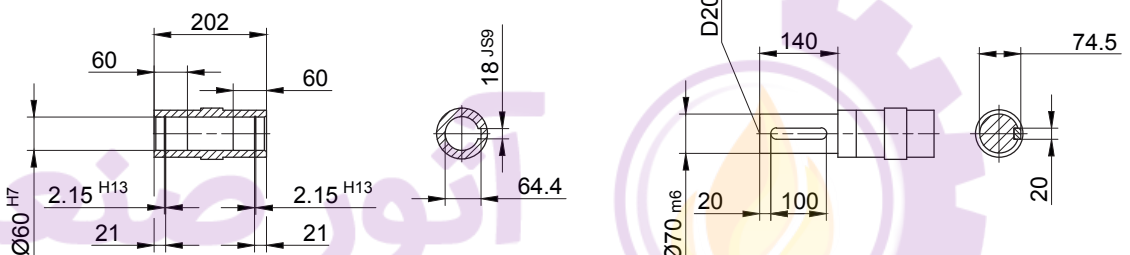
With torque arm

Code -0./

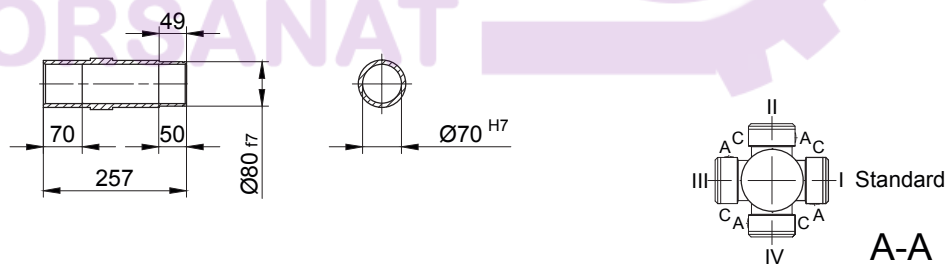


Code -4./

Code -1./



Code -5./



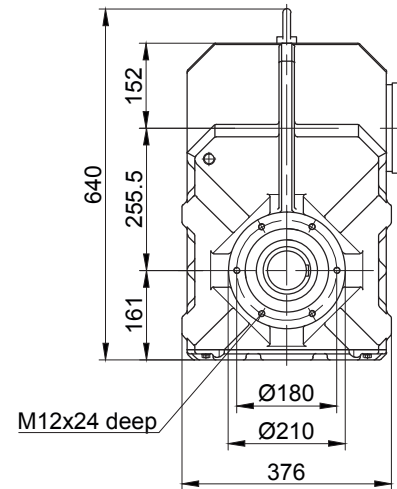
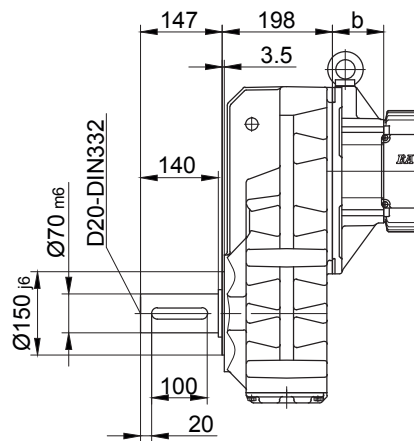
Type	a	b	c	d	i	Design with motor extensions				
						i_{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
						d_{ML}	d_{ML}	d_{ML}	d_{ML}	
BF60Z-../D..08..	200	181	156	586	115	136.5	652	693	759.5	652
BF60-../D..09..	251	85.5	181	541.5	124	158	634.5	648.5	739	634.5
BF60Z-../D..09..	251	195.5	181	651.5	124	158	744.5	758.5	849	744.5
BF60-../D..11..	319	92	228	616	181	181	714	723	818.5	714
BF60Z-../D..11..	319	202	228	726	181	181	824	833	928.5	824
BF60-../D..13..	393	105	258	703	218	218	814	810	918.5	814
BF60-../D..16..	429	119	322	753	244	244	897	861	1001	897
BF60-../D..18..	528	141	368	874	288	288	1023	982	1127	1023

The actual gearbox design can vary from the geometry shown.

BF60 - BF60Z

Flange with tapped holes

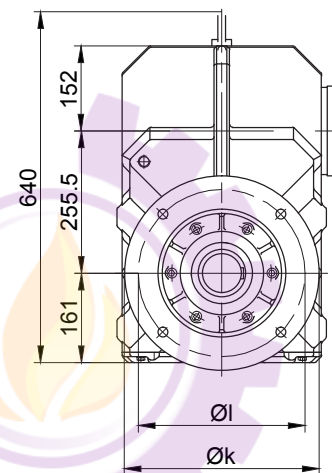
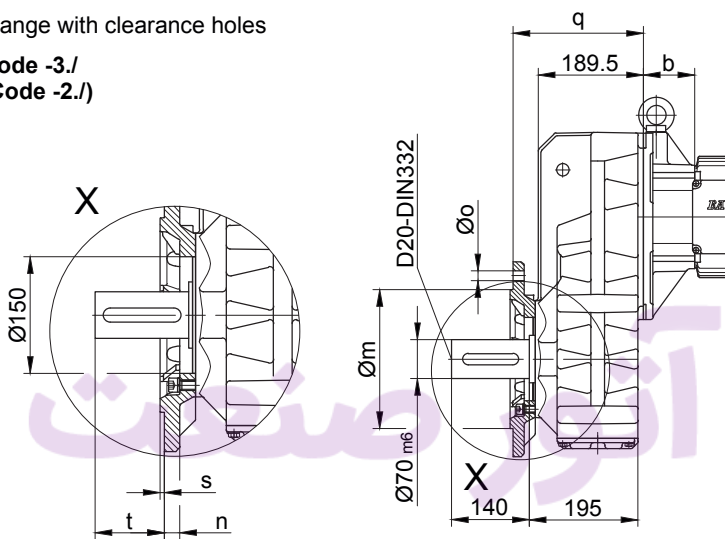
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

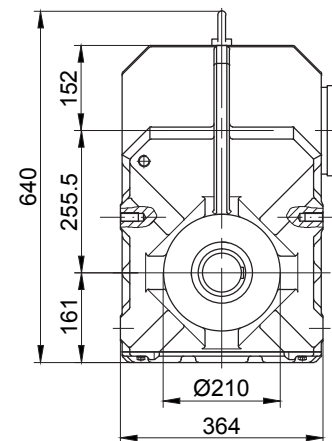
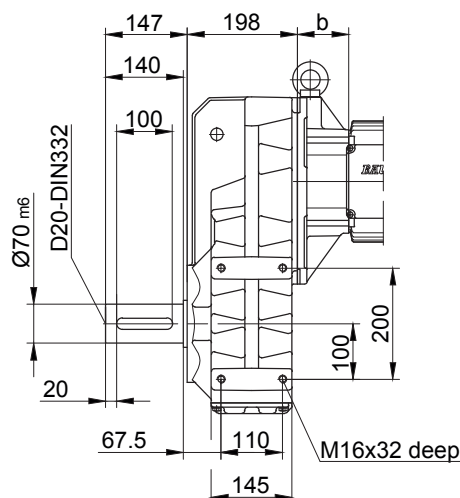


Flange dimensions

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

Foot with tapped holes left and right

Code -6.LR/



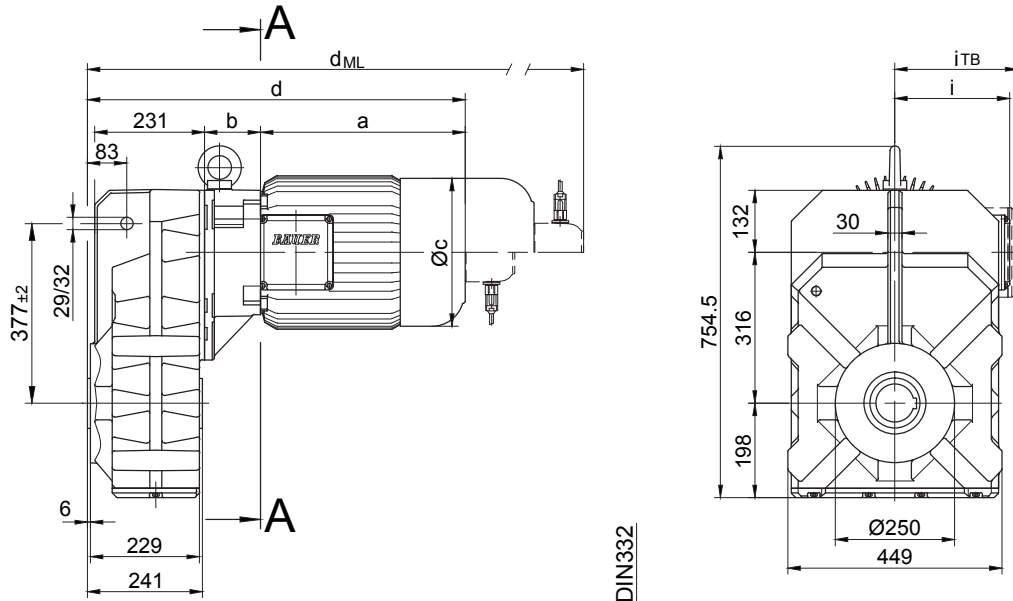
The actual gearbox design can vary from the geometry shown.

Dimension

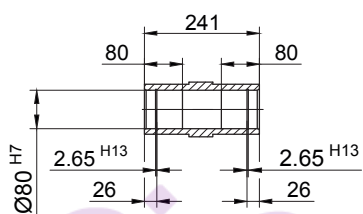
BF70 - BF70Z

With torque arm

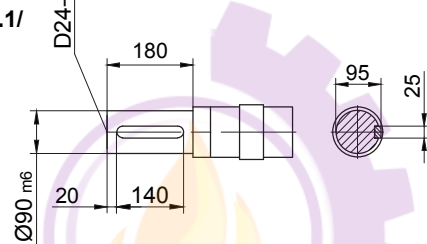
Code -0./



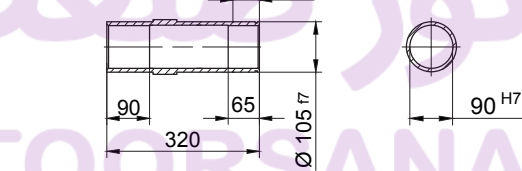
Code -.4/



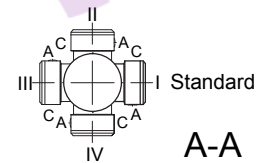
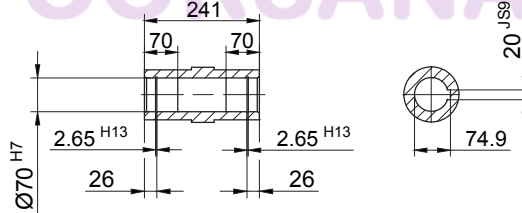
Code -.1/



Code -.5/



Code -.4/K70

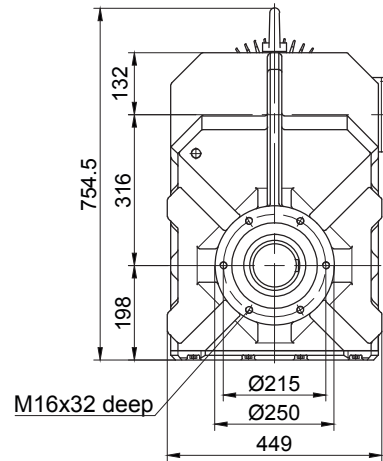
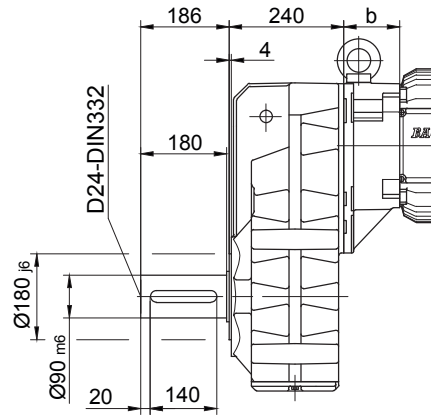


Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BF70Z-../D..08..	200	202	156	648	115	136.5	714	755	821.5	714
BF70-../D..09..	251	83.5	181	580.5	124	158	673.5	687.5	778	673.5
BF70Z-../D..09..	251	216.5	181	713.5	124	158	806.5	820.5	911	806.5
BF70-../D..11..	319	90	228	655	181	181	753	762	857.5	753
BF70Z-../D..11..	319	223	228	788	181	181	886	895	990.5	886
BF70-../D..13..	393	103	258	742	218	218	853	849	957.5	853
BF70Z-../D..13..	393	236	258	875	218	217	986	982	1090.5	986
BF70-../D..16..	429	117	322	792	244	243	936	900	1040	936
BF70Z-../D..16..	429	250	322	925	244	243	1069	1033	1173	1069
BF70-../D..18..	528	139	368	913	288	288	1062	1021	1166	1062
BF70Z-../D..18..	528	272	368	1046	288	288	1195	1154	1299	1195

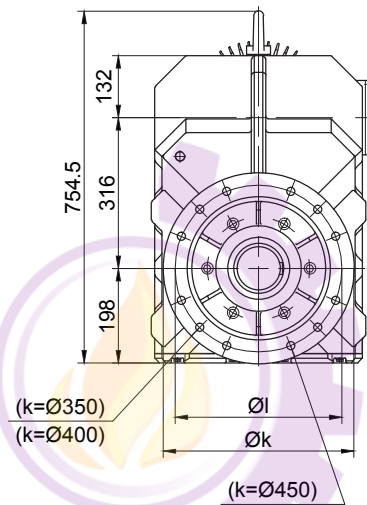
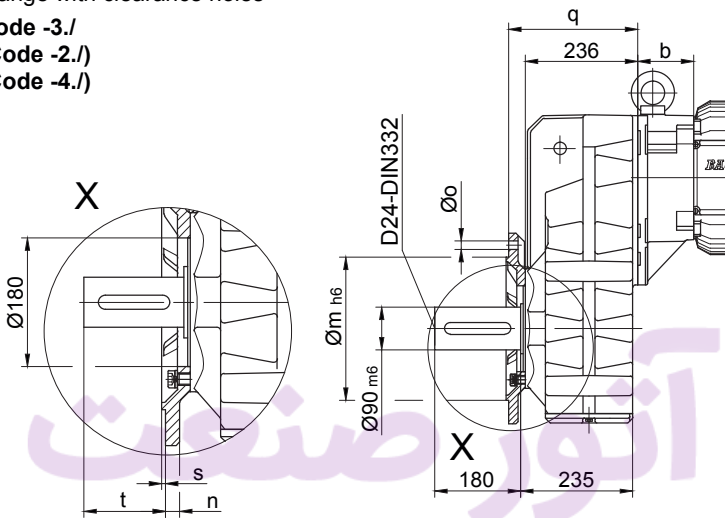
The actual gearbox design can vary from the geometry shown.

BF70 - BF70Z

Flange with tapped holes
Code -7./



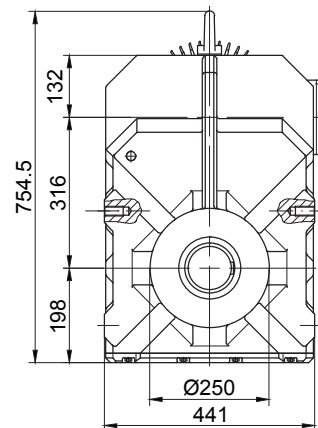
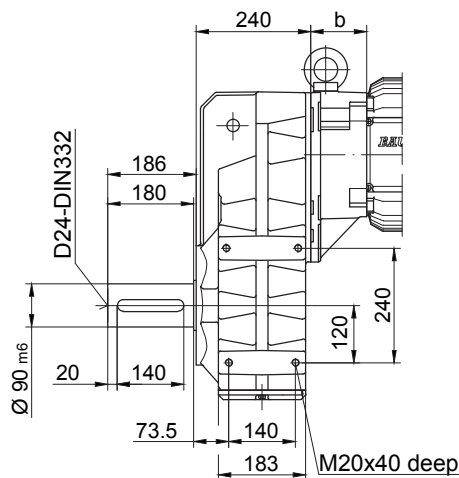
Flange with clearance holes
Code -3./
(Code -2./)
(Code -4./)



Flange dimensions

BF70(Z)	k	l	m	n	o	q	s	t
Standard -3./	400	350	300	20	4xØ17.5	271	5	155
small -2./	350	300	250	20	4xØ17.5	271	5	155
big -4./	450	400	350	22	8xØ17.5	281	5	145

Foot with tapped holes left and right
Code -6.LR/



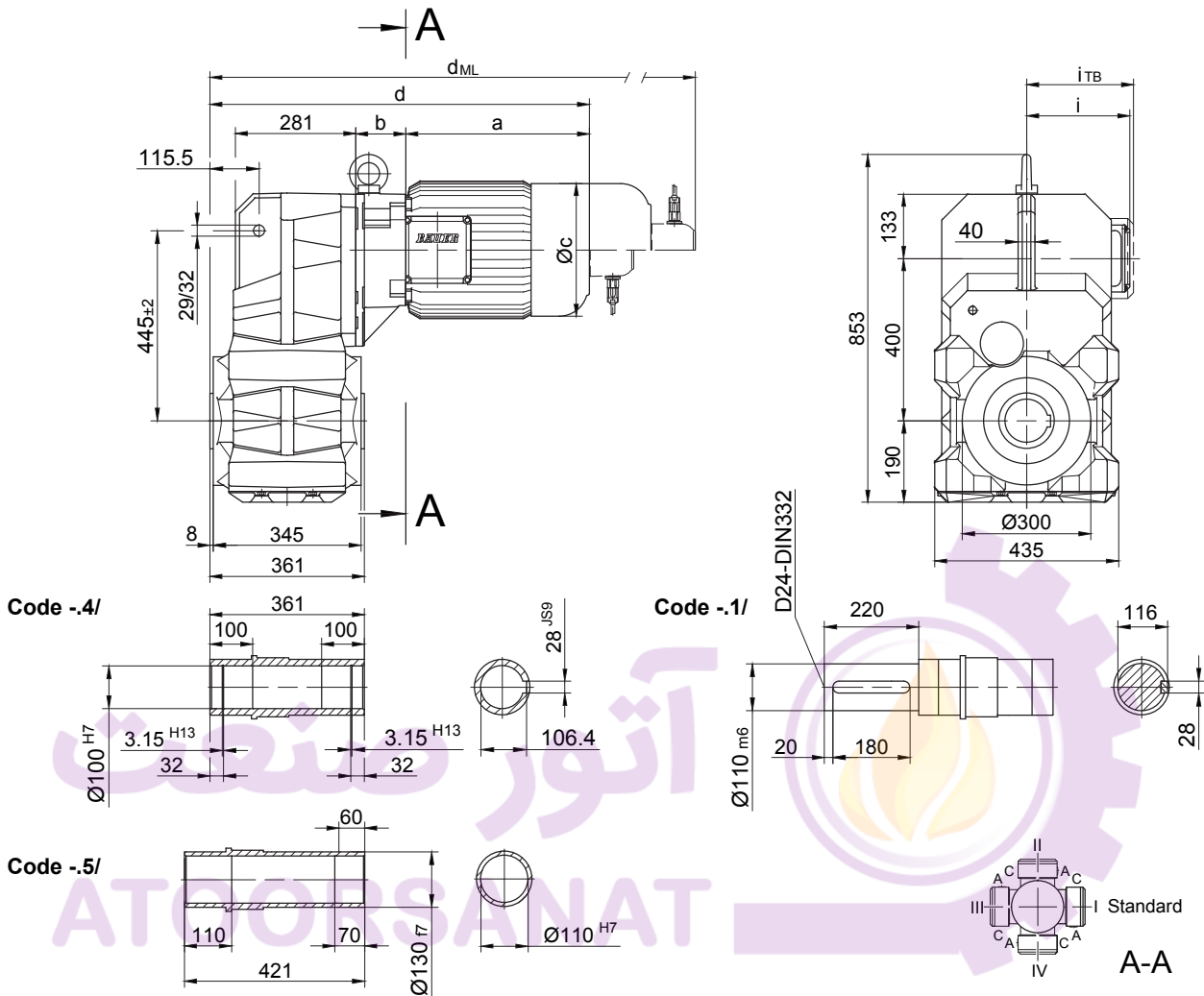
The actual gearbox design can vary from the geometry shown.

Dimension

BF80 - BF80Z

With torque arm

Code -0/



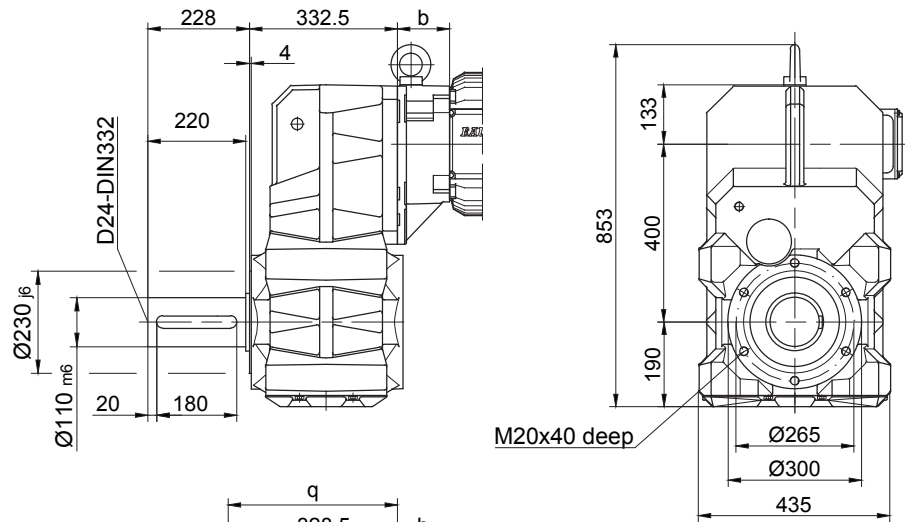
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BF80Z-../D..08..	200	202	156	742.5	115	136.5	808.5	849.5	916	808.5
BF80-../D..09..	251	83.5	181	675	124	158	768	782	872.5	768
BF80Z-../D..09..	251	216.5	181	808	124	158	901	915	1005.5	901
BF80-../D..11..	319	90	228	749.5	181	181	847.5	856.5	952	847.5
BF80Z-../D..11..	319	223	228	882.5	181	181	980.5	989.5	1085	980.5
BF80-../D..13..	393	103	258	836.5	218	218	947.5	943.5	1052	947.5
BF80Z-../D..13..	393	236	258	969.5	218	218	1080.5	1076.5	1185	1080.5
BF80-../D..16..	429	117	322	886.5	244	244	1030.5	994.5	1134.5	1030.5
BF80Z-../D..16..	429	250	322	1019.5	244	244	1163.5	1127.5	1267.5	1163.5
BF80-../D..18..	528	139	368	1007.5	288	288	1156.5	1115.5	1260.5	1156.5
BF80Z-../D..18..	528	272	368	1140.5	288	288	1289.5	1248.5	1393.5	1289.5

The actual gearbox design can vary from the geometry shown.

BF80 - BF80Z

Flange with tapped holes

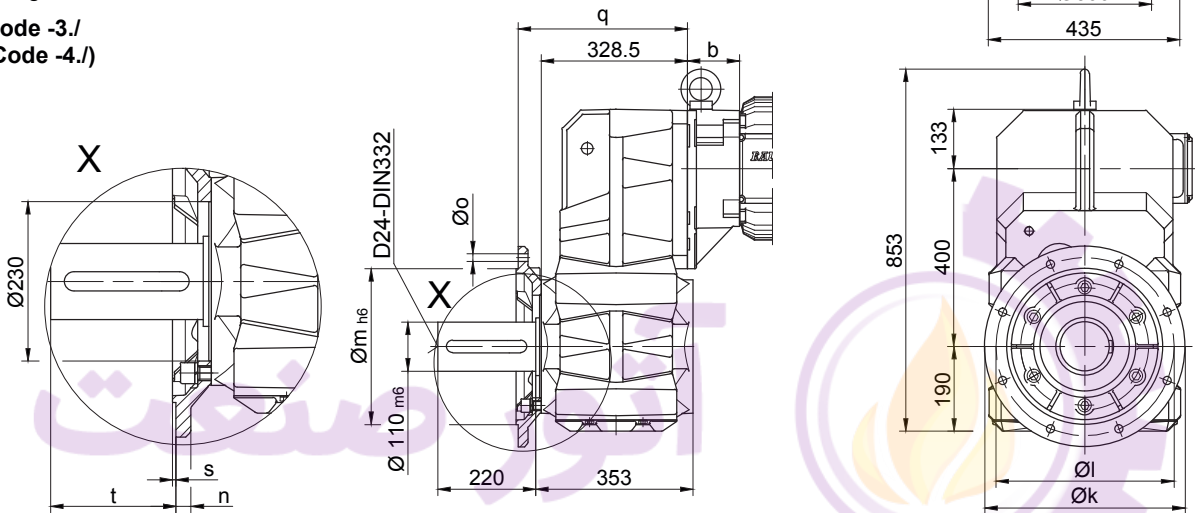
Code -7./



Flange with clearance holes

Code -3./

(Code -4./)

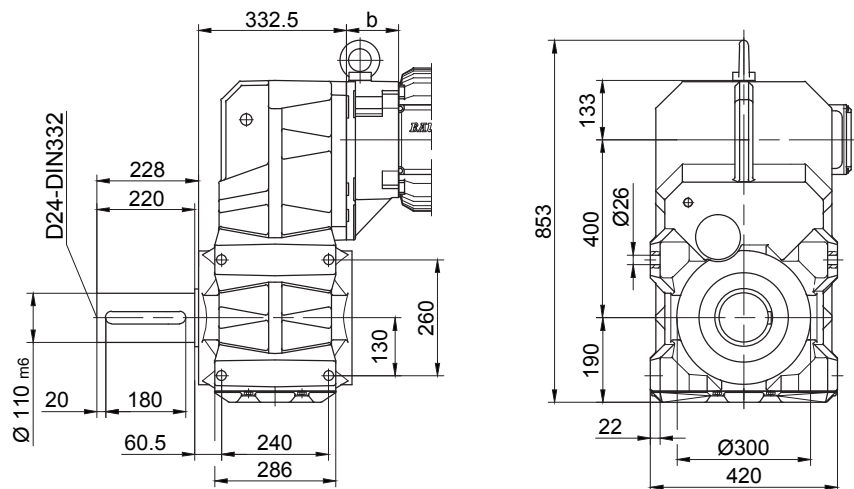


Flange dimensions

BF80(Z)	k	l	m	n	o	q	s	t
Standard -3./	450	400	350	22	17.5	383.5	5	177
big -4./	550	500	450	22	17.5	388.5	5	172

Foot with clearance holes left and right

Code -1.LR/



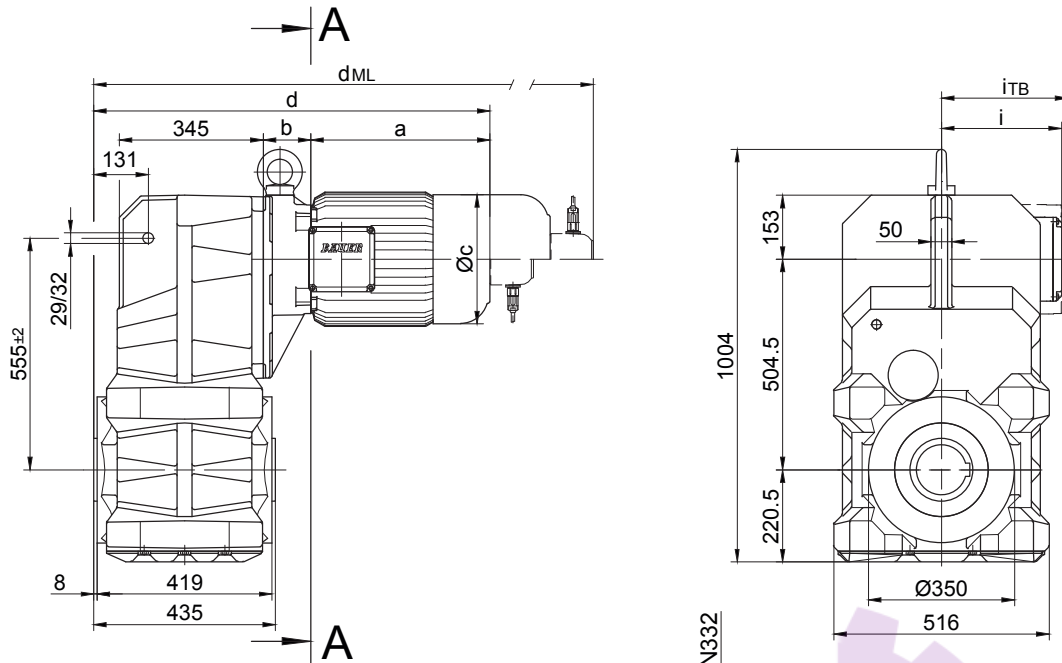
The actual gearbox design can vary from the geometry shown.

Dimension

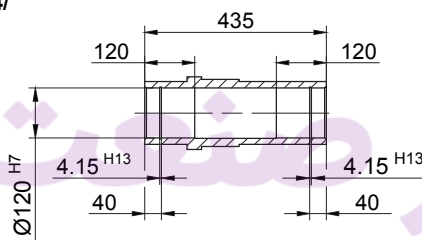
BF90 - BF90Z

With torque arm

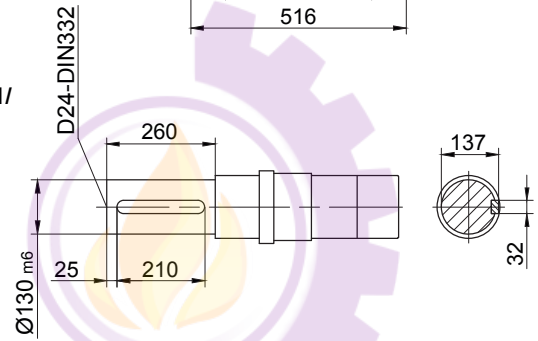
Code -0./



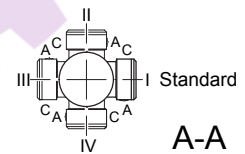
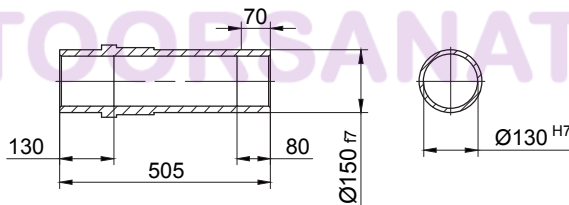
Code -4/



Code -1/



Code -5/



A-A

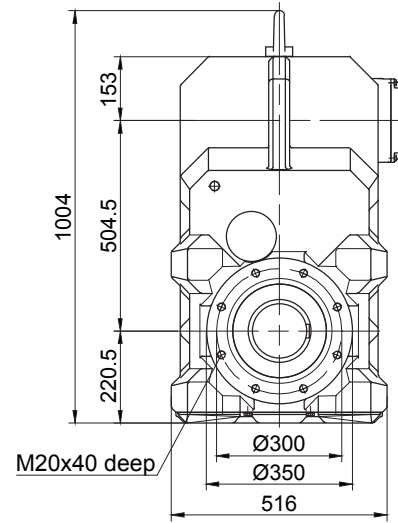
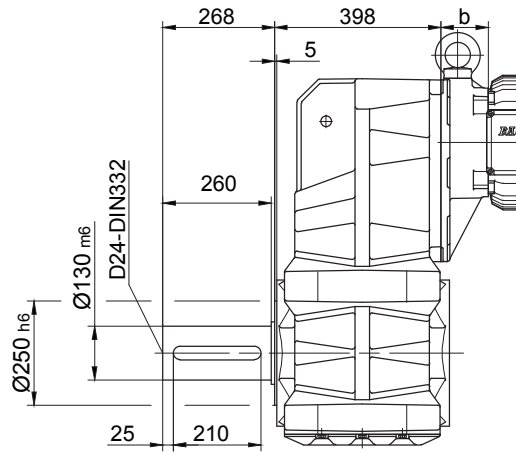
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BF90Z-../D..09..	251	252.5	181	909	124	158	1002	1016	1106	916
BF90-../D..11..	319	87	228	812	181	181	910	919	1012	908
BF90Z-../D..11..	319	259	228	984	181	181	1082	1091	1184	1080
BF90-../D..13..	393	100	258	899	218	218	1010	1006	1111	1007
BF90Z-../D..13..	393	272	258	1071	218	218	1182	1178	1283	1179
BF90-../D..16..	429	114	322	949	244	244	1093	1057	1197	1093
BF90Z-../D..16..	429	286	322	1121	244	244	1265	1229	1369	1265
BF90-../D..18..	528	136	368	1060	288	288	1209	1168	1313	1209

The actual gearbox design can vary from the geometry shown.

BF90 - BF90Z

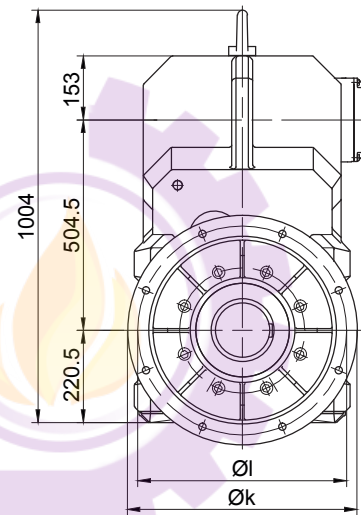
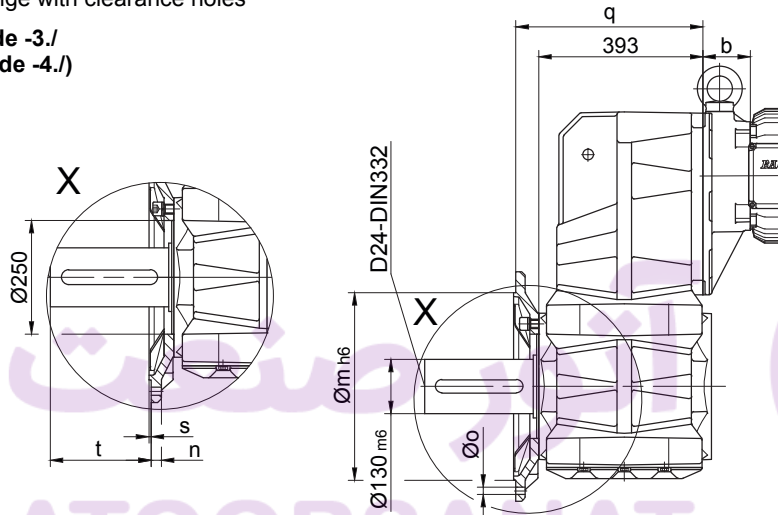
Flange with tapped holes

Code -7./



Flange with clearance holes

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

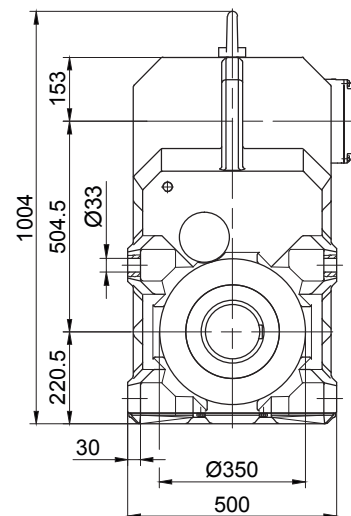
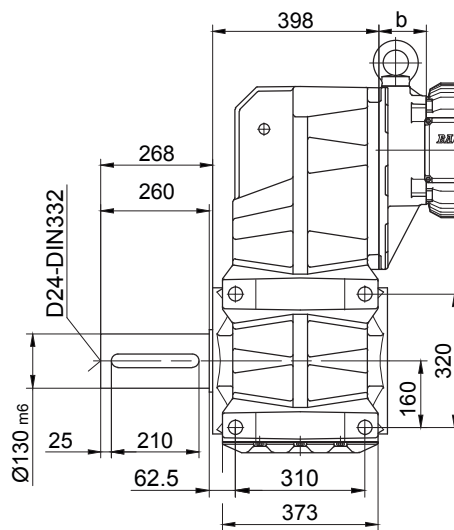


Flange dimensions

BF90(Z)	k	l	m	n	o	q	s	t
Standard -3./	550	500	450	22	17.5	448	5	218
big -4./	660	600	550	25	22	442	6	224

Foot with clearance holes left and right/

Code -1.LR/



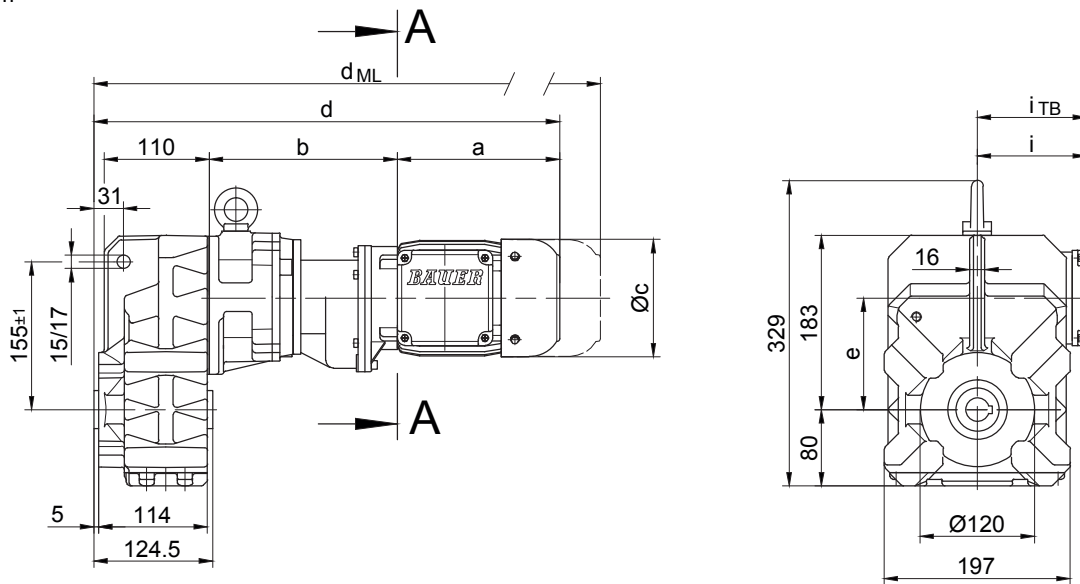
The actual gearbox design can vary from the geometry shown.

Dimension

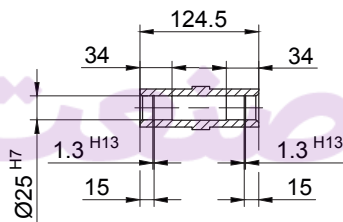
BF10G06

With torque arm

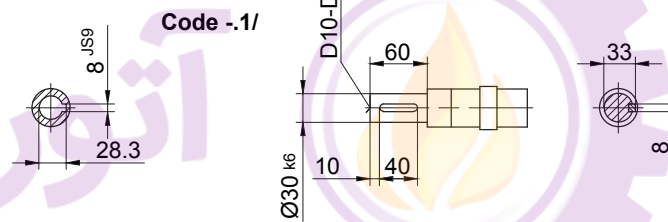
Code -0./



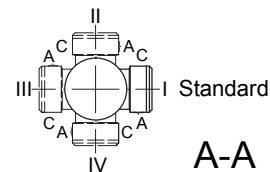
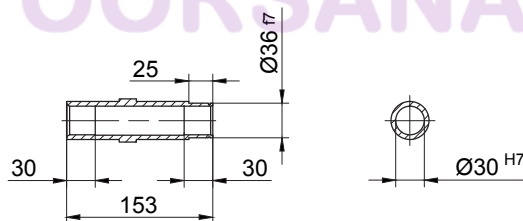
Code -4/



Code -1/



Code -5/



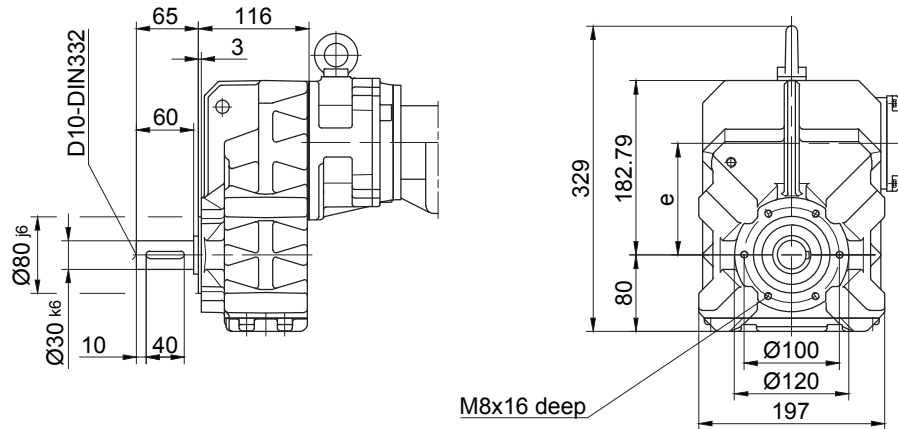
Type	a	b	c	d	e	i	Design with motor extensions				
							i_{TB}	E../ES..	G	E../ES..-G	RR/RL
							d_{ML}	d_{ML}	d_{ML}	d_{ML}	
BF10G06-../D04..	143	195	111	459	117	90	112	502.5	521.5	564.5	502.5
BF10G06-../D05..	170	197	123	489	117	100	117	531	592	634	530
BF10G06-../D06..	170	197	123	489	117	100	119	531	592	634	530
BF10G06-../D07..	190	197	123	509	117	100	119	551	612	654	550
BF10G06-../D..08..	200	241	156	562	117	115	136.5	628	669	735.5	628

The actual gearbox design can vary from the geometry shown.

BF10G06

Flange with tapped holes

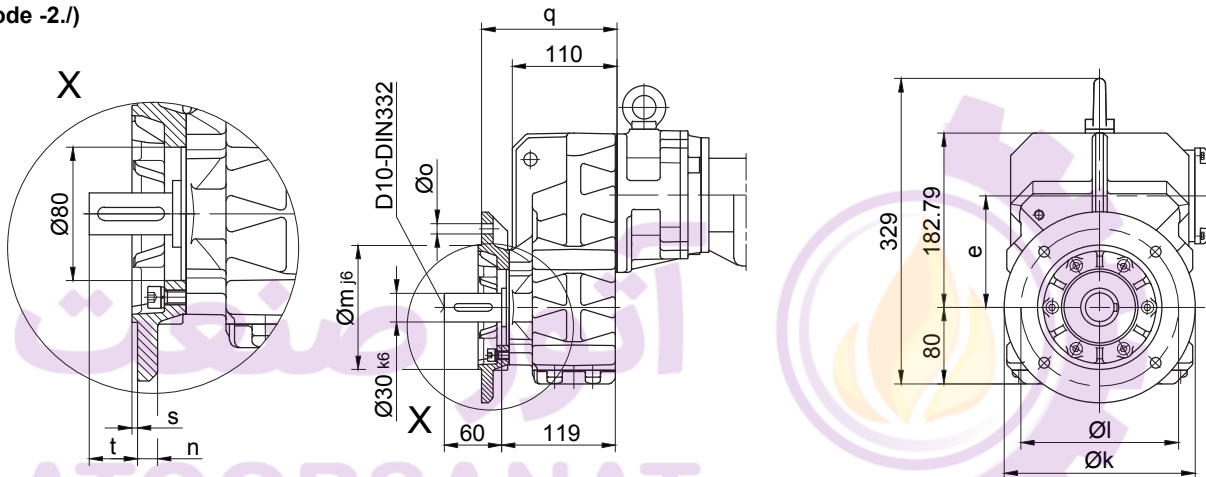
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

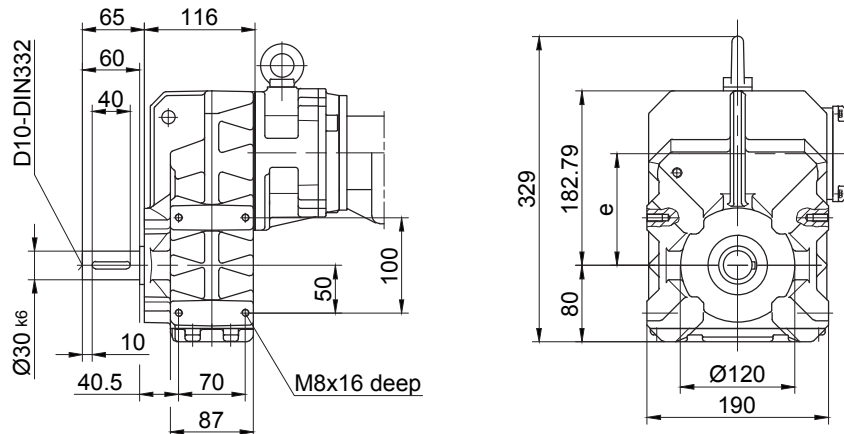


Flange dimensions

BF10G..	k	l	m	n	o	q	s	t
Standard -3./	200	165	130	12	11	142	3.5	39
small -2./	160	130	110	10	9	135	3.5	46

Foot with tapped holes left and right

Code -6.LR/



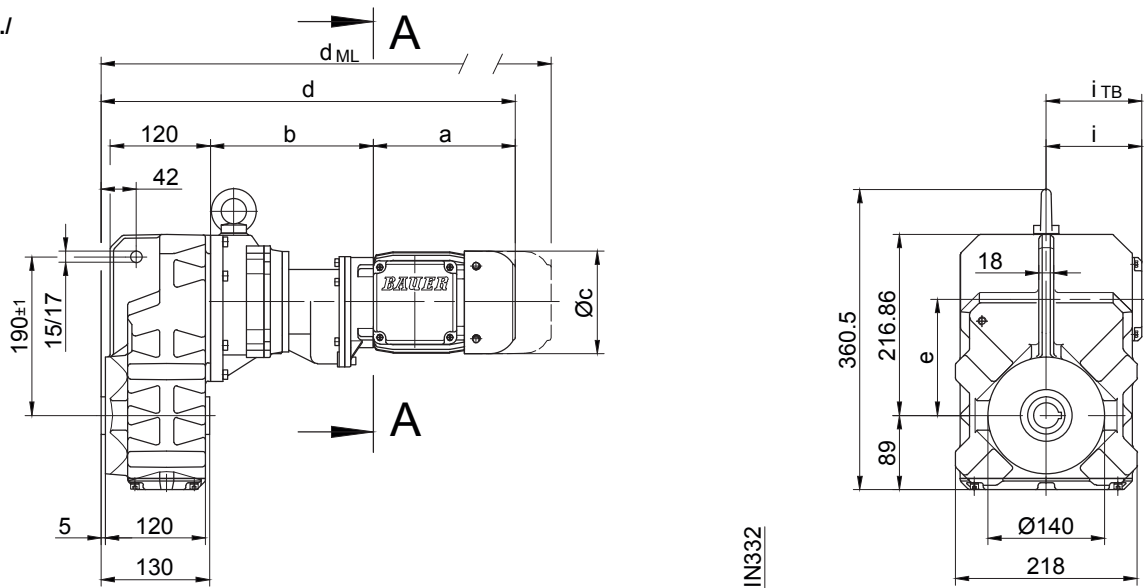
The actual gearbox design can vary from the geometry shown.

Dimension

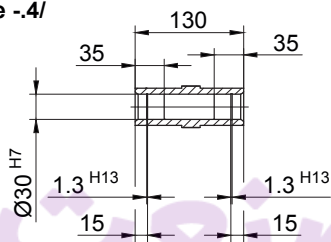
BF20G06

With torque arm

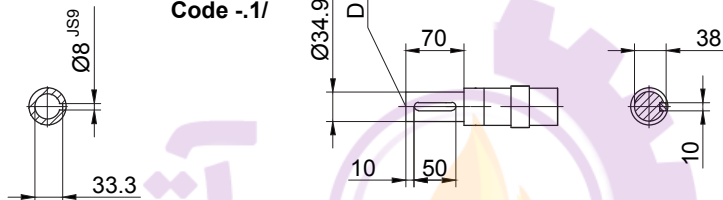
Code -0./



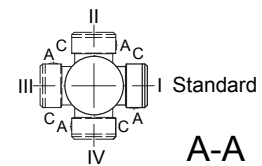
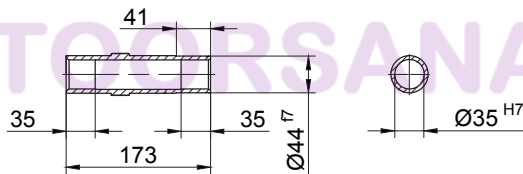
Code -4./



Code -1./



Code -5./



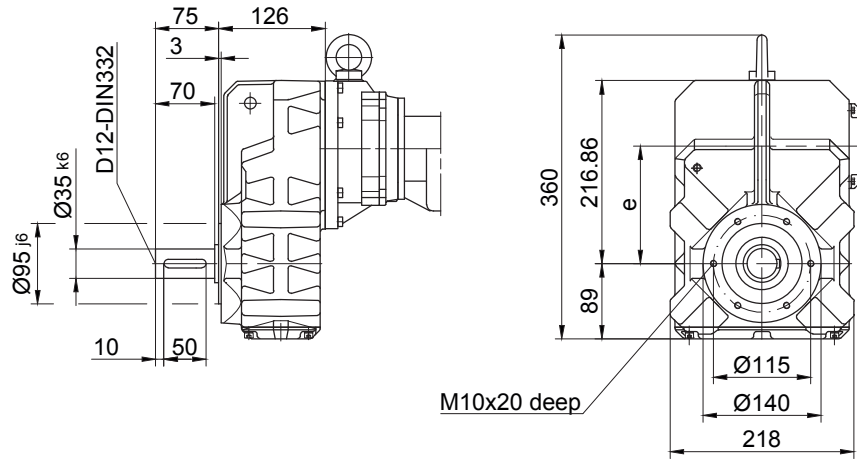
Type	a	b	c	d	e	i	Design with motor extensions				
							i_{TB}	E../ES..	G	E../ES..-G	RR/RL
								d_{ML}	d_{ML}	d_{ML}	d_{ML}
BF20G06-../D04..	143	193	111	467	135	90	112	510.5	529.5	572.5	-
BF20G06-../D05..	170	195	123	497	135	100	117	539	600	642	-
BF20G06-../D06..	170	195	123	497	135	100	119	539	600	642	-
BF20G06-../D07..	190	195	123	517	135	100	119	559	620	662	-
BF20G06-../D..08..	200	239	156	570	135	115	136.5	636	677	743.5	636

The actual gearbox design can vary from the geometry shown.

BF20G06

Flange with tapped holes

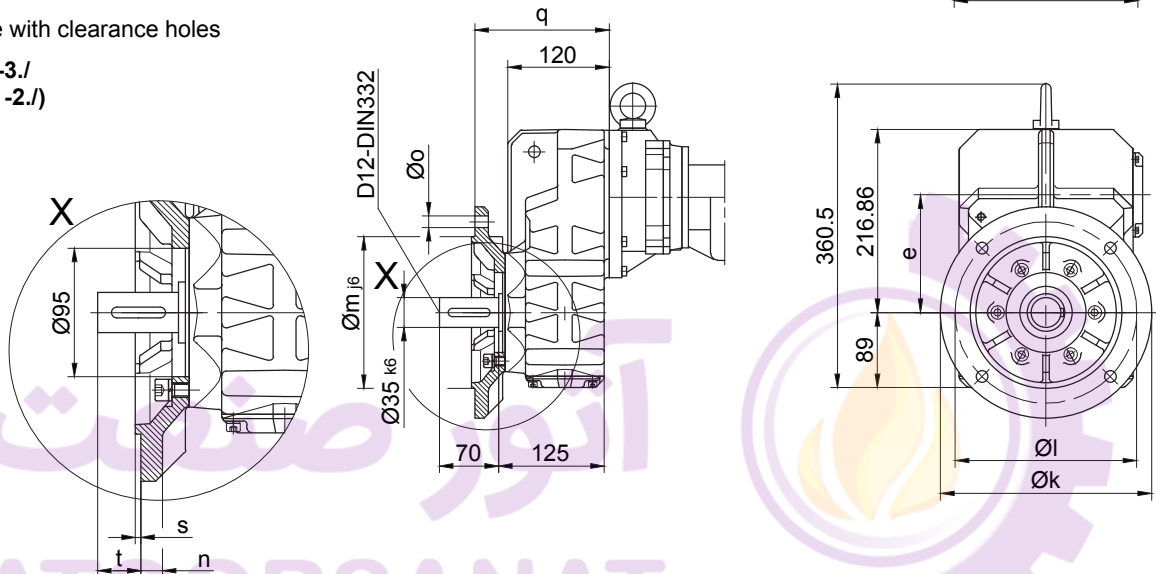
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

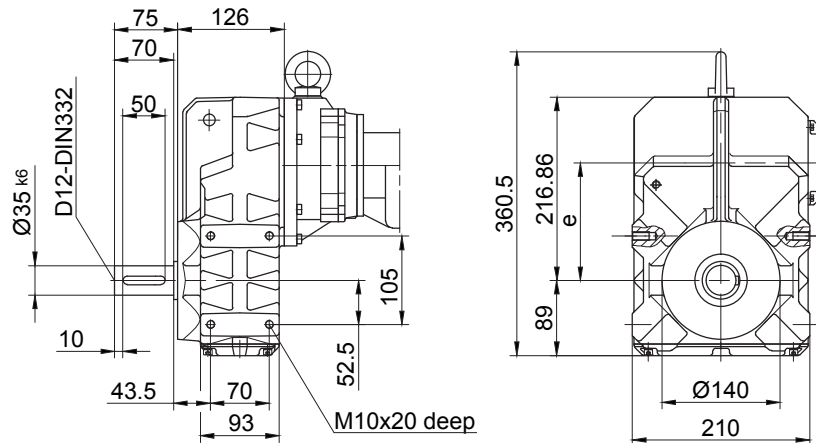


Flange dimensions

BF20G..	k	l	m	n	o	q	s	t
Standard -3./	250	215	180	16	13.5	159	4	42
small -2./	200	165	130	12	11	150	3.5	51

Foot with tapped holes left and right

Code -6.LR/



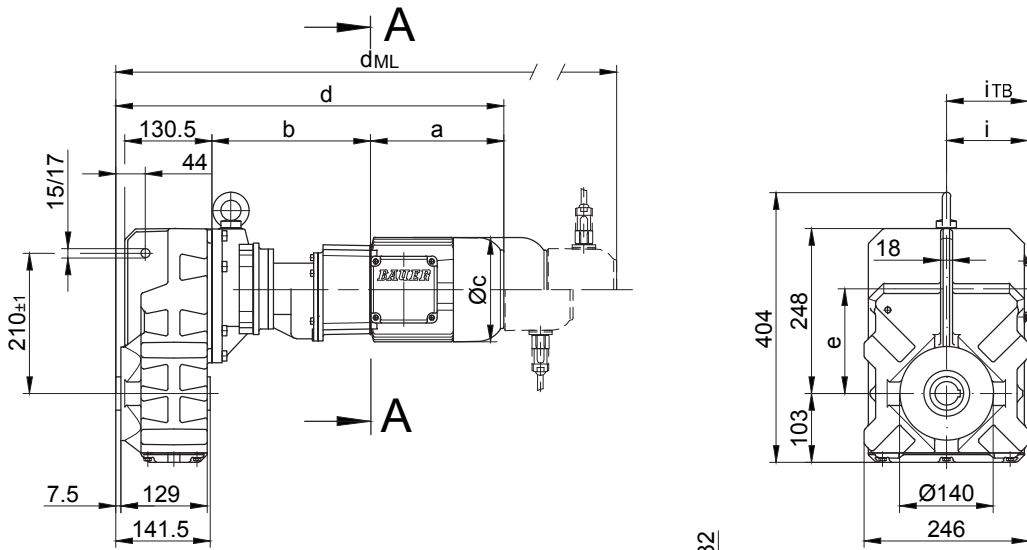
The actual gearbox design can vary from the geometry shown.

Dimension

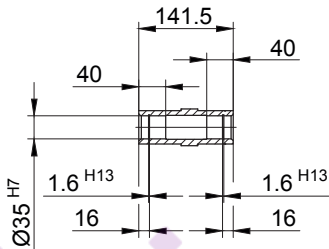
BF30G06

With torque arm

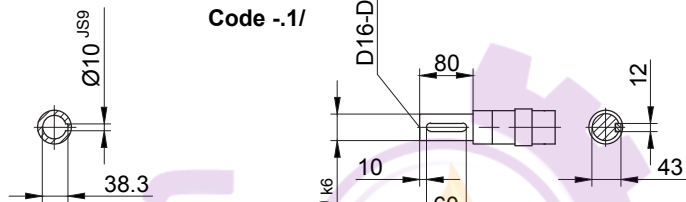
Code -0./



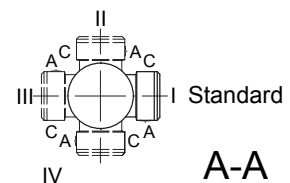
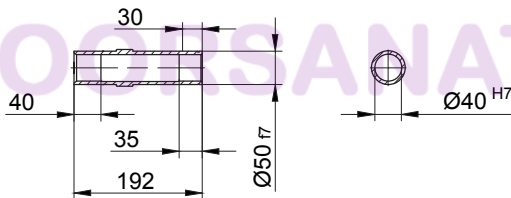
Code -4./



Code -1./



Code -5./



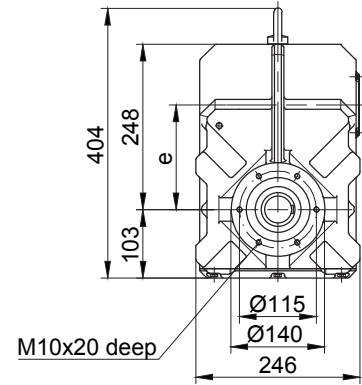
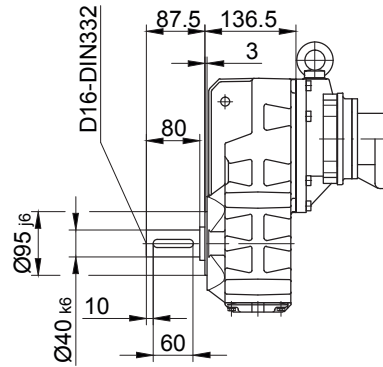
Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BF30G06-../D04..	143	191	111	478	156	90	112	521.5	540.5	583.5	-
BF30G06-../D05..	170	193	123	508	156	100	117	550	611	653	-
BF30G06-../D06..	170	193	123	508	156	100	119	550	611	653	-
BF30G06-../D07..	190	193	123	528	156	100	119	570	631	673	-
BF30G06-../D..08..	200	237	156	581	156	115	136.5	647	688	754.5	647

The actual gearbox design can vary from the geometry shown.

BF30G06

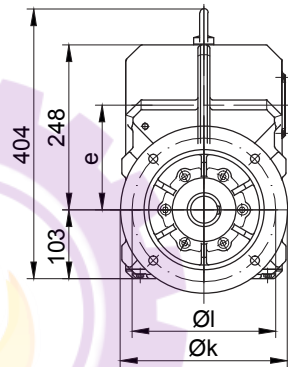
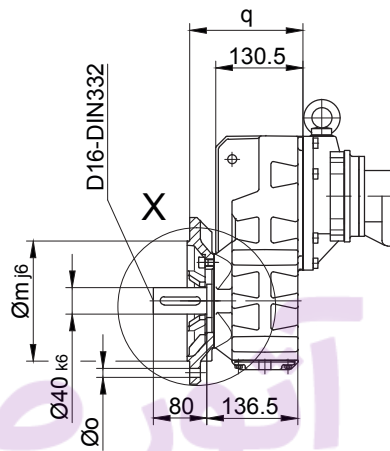
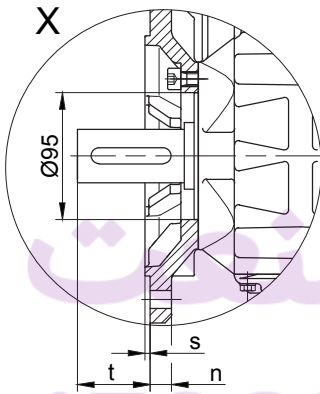
Flange with tapped holes

Code -7./



Flange with clearance holes

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

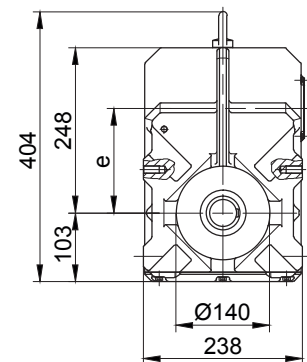
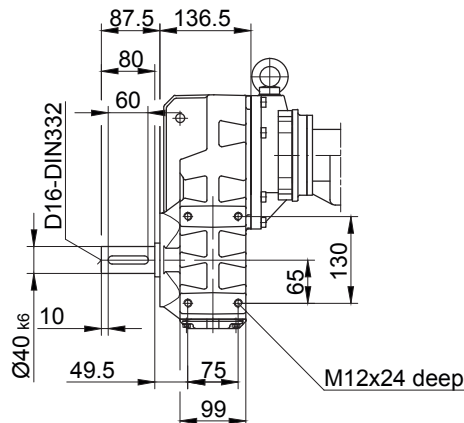


Flange dimensions

BF30G..	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/



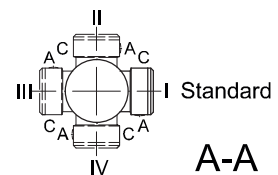
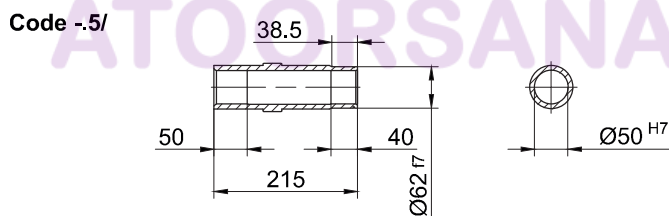
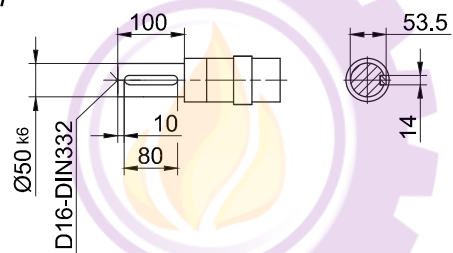
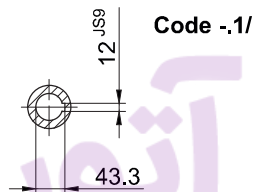
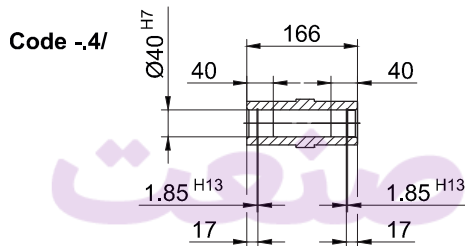
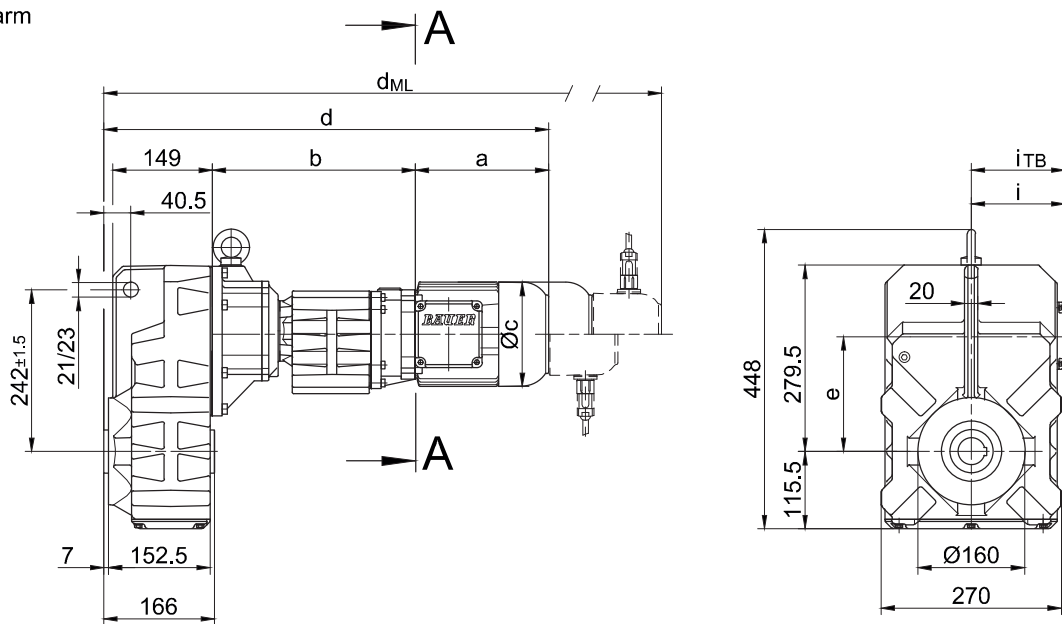
The actual gearbox design can vary from the geometry shown.

Dimension

BF40G10

With torque arm

Code -0/



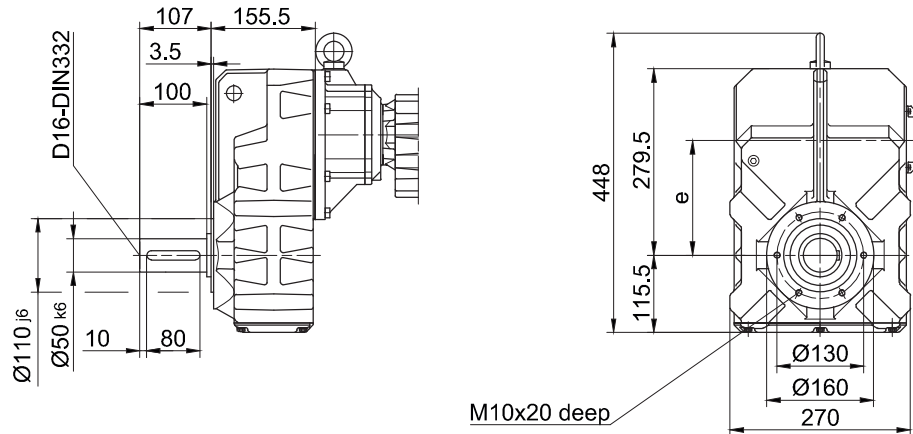
Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BF40G10-../D05..	170	300	123	633	176	100	117	675	736	778	-
BF40G10-../D06..	170	300	123	633	176	100	119	675	736	778	-
BF40G10-../D07..	190	300	123	653	176	100	119	695	756	798	-
BF40G10-../D..08..	200	304	156	666	176	115	136.5	732	773	839.5	732
BF40G10-../D..09..	251	318.5	181	732	176	124	158	825	839	929	819

The actual gearbox design can vary from the geometry shown.

BF40G10

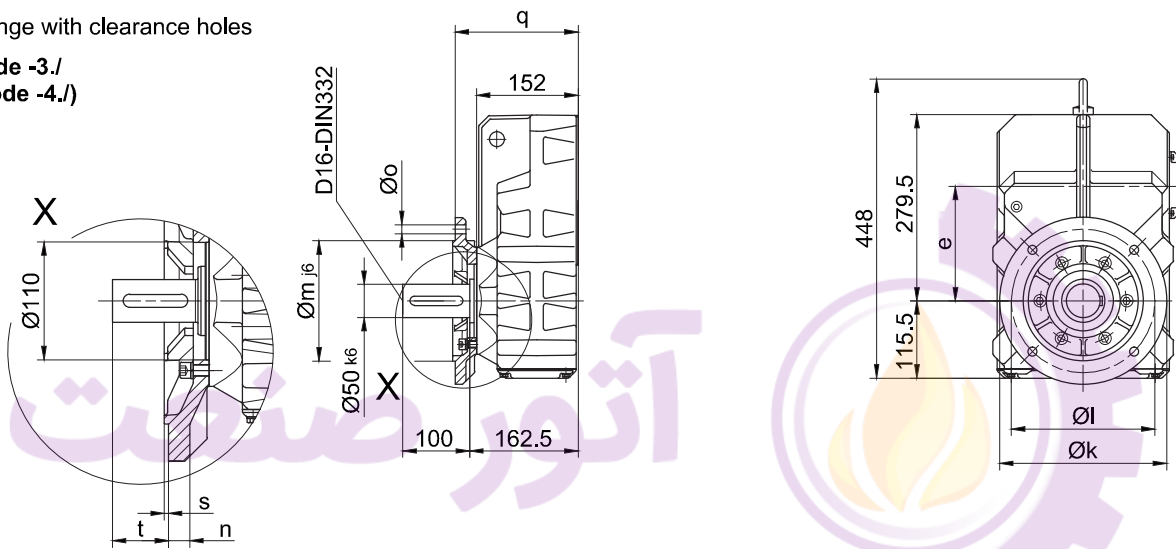
Flange with tapped holes

Code -7./



Flange with clearance holes

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

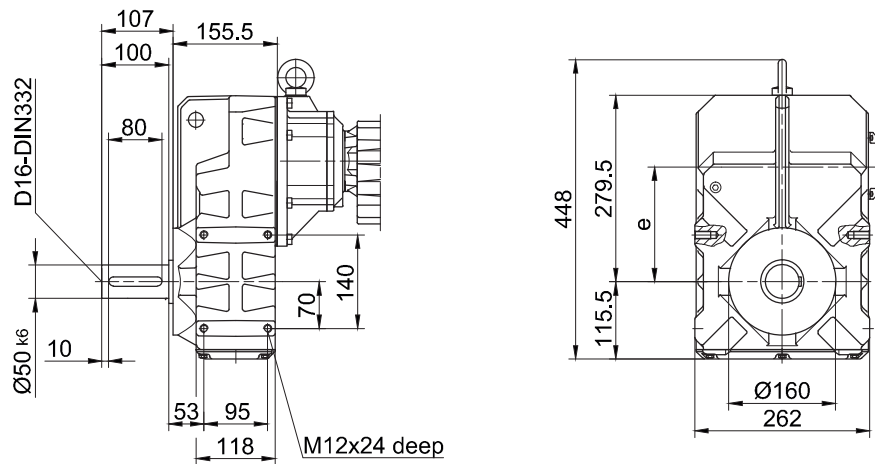


Flange dimensions

BF40G..	k	l	m	n	o	q	s	t
Standard -3./	250	215	180	16	13.5	184	4	78.5
big- 4./	300	265	230	20	13.5	190	4	72.5

Foot with tapped holes left and right

Code -6.LR/



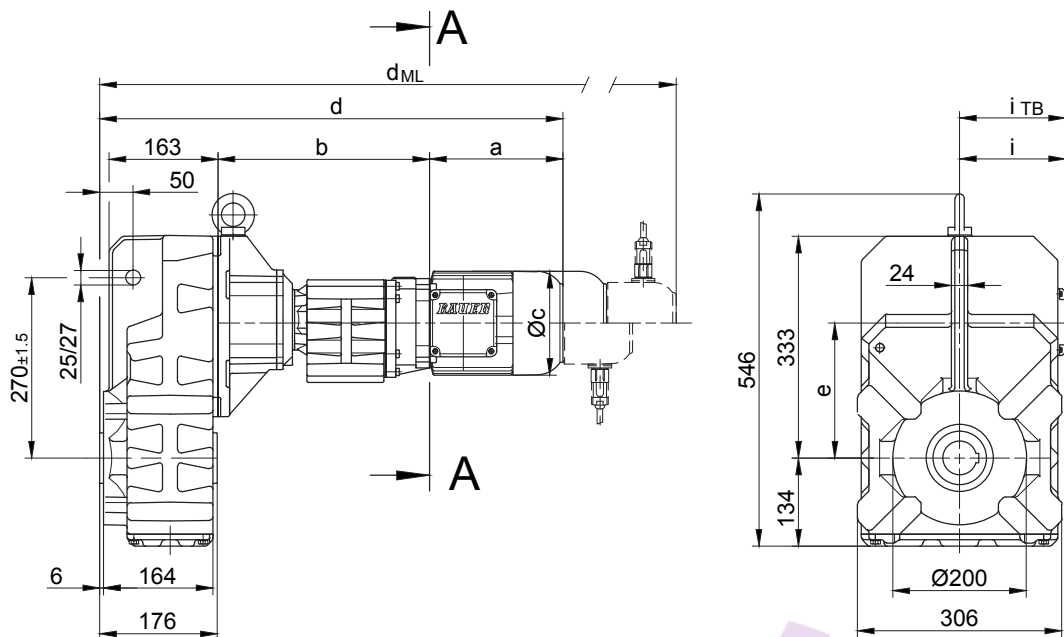
The actual gearbox design can vary from the geometry shown.

Dimension

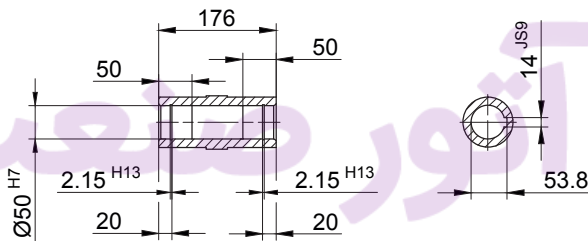
BF50G10

With torque arm

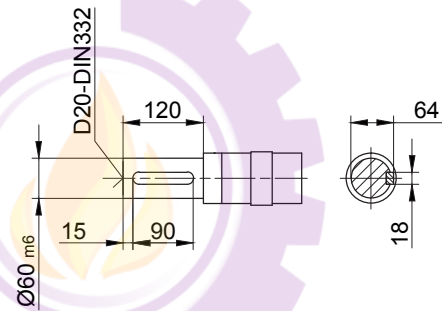
Code -0./



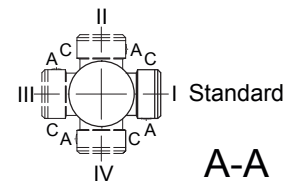
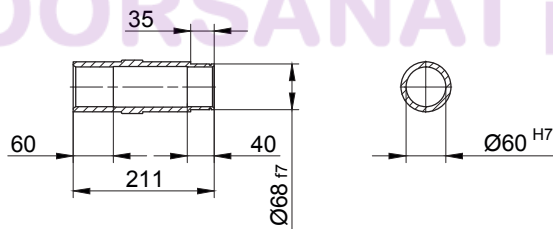
Code -.4/



Code -.1/



Code -.5/



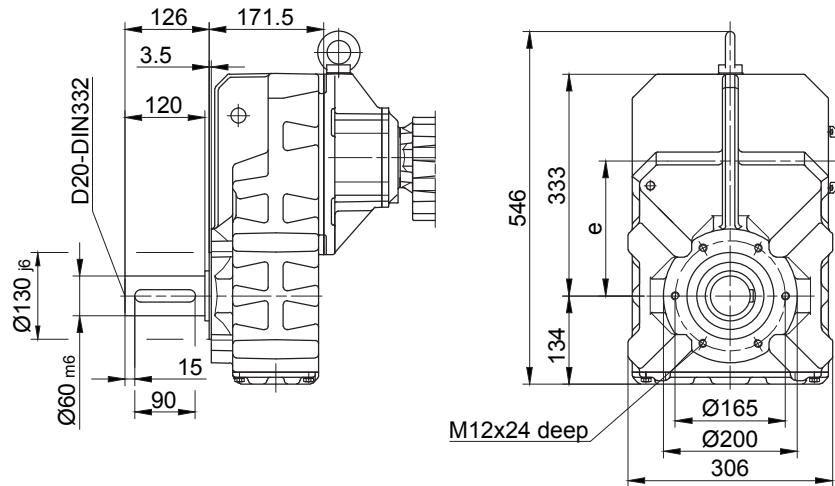
Type	a	b	c	d	e	i	Design with motor extensions				
							i_{TB}	E../ES..	G	E../ES..-G	RR/RL
							d_{ML}	d_{ML}	d_{ML}	d_{ML}	
BF50G10-../D05..	170	313	123	661	202	100	117	703	764	806	-
BF50G10-../D06..	170	313	123	661	202	100	119	703	764	806	-
BF50G10-../D07..	190	313	123	681	202	100	119	723	784	826	-
BF50G10-../D..08..	200	317	156	694	202	115	136.5	760	801	867.5	760
BF50G10-../D..09..	251	332	181	760	202	124	158	853	867	957	847

The actual gearbox design can vary from the geometry shown.

BF50G10

Flange with tapped holes

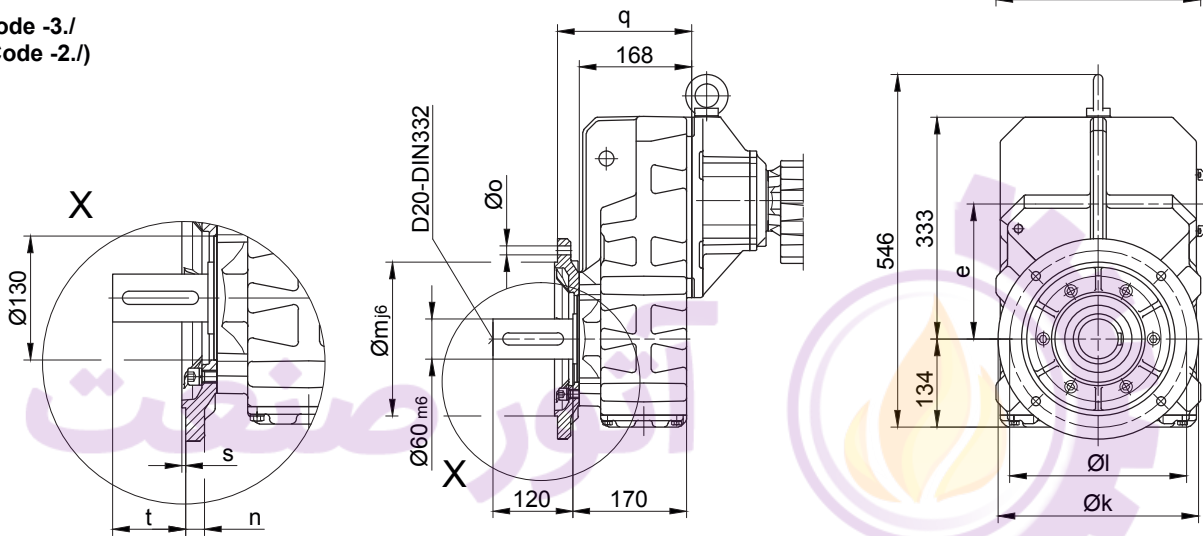
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

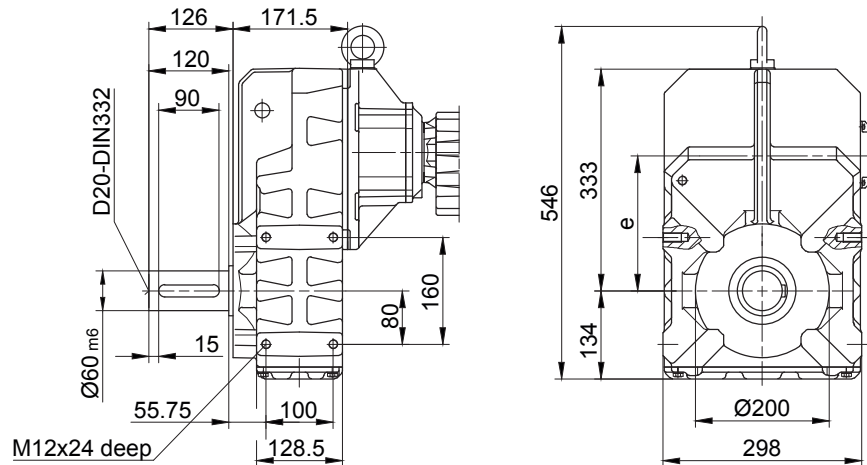


Flange dimensions

BF50G..	k	l	m	n	o	q	s	t
Standard -3./	300	265	230	20	13.5	201	4	96.5
small -2./	250	215	180	16	13.5	198	4	99.5

Foot with tapped holes left and right

Code -6.LR/

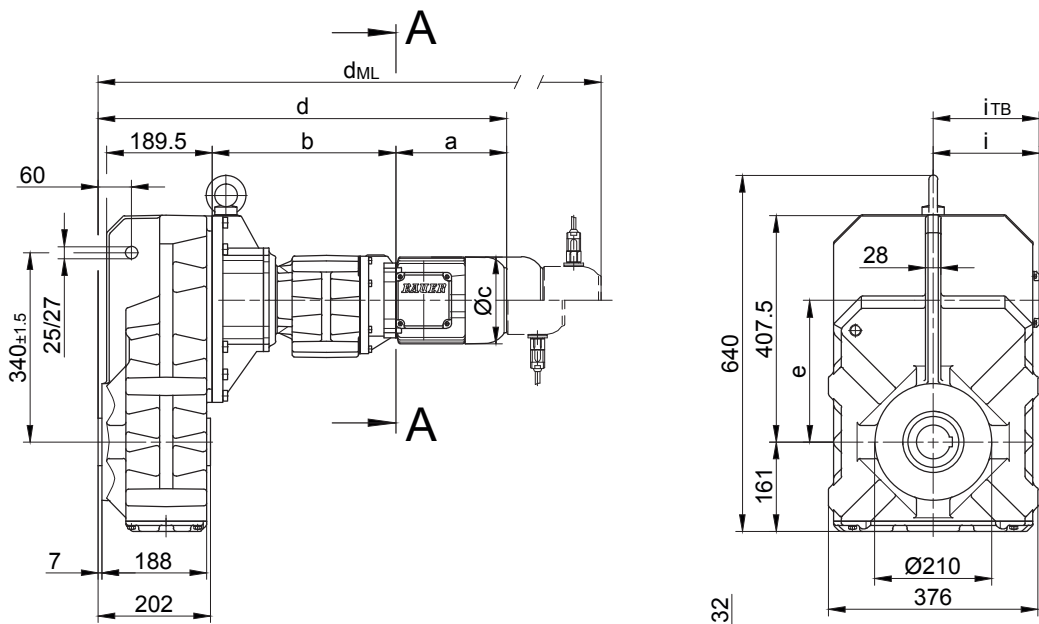


The actual gearbox design can vary from the geometry shown.

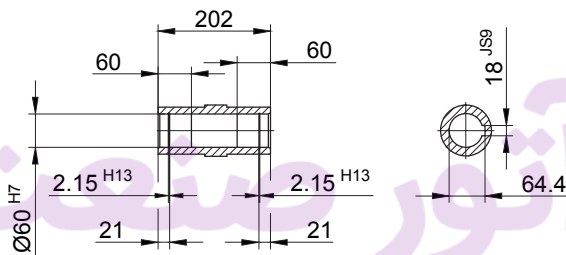
BF60G20

With torque arm

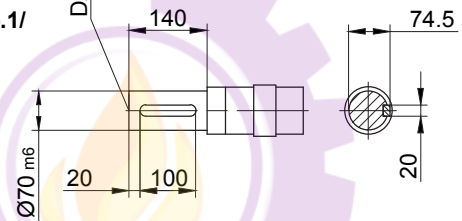
Code -0./



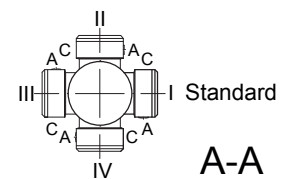
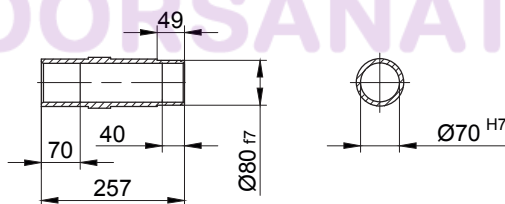
Code -4./



Code -1./



Code -5./



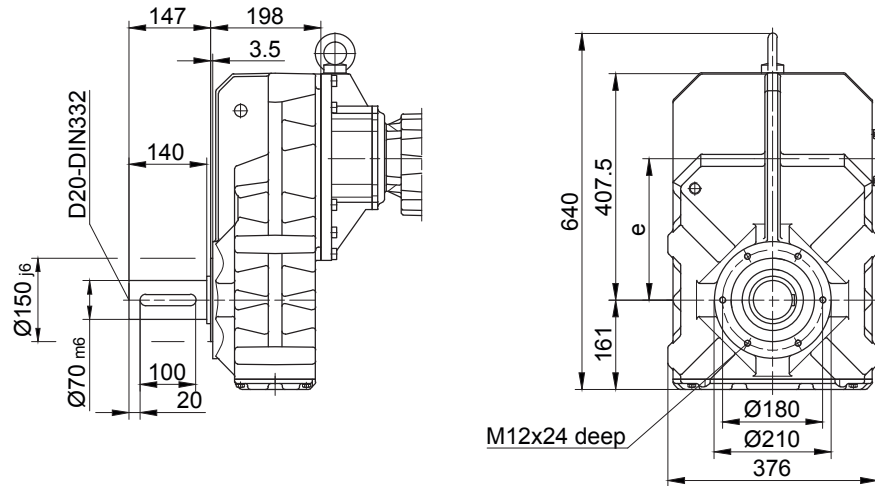
Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	d _{ML}
BF60G20-../D05..	170	326	123	702	254	100	117	744	805	847	-
BF60G20-../D06..	170	326	123	702	254	100	119	742	805	847	-
BF60G20-../D07..	190	326	123	722	254	100	119	764	825	867	-
BF60G20-../D..08..	200	330	156	735	254	115	136.5	801	842	908.5	801
BF60G20-../D..09..	251	344.5	181	800	254	124	158	893	907	973	866

The actual gearbox design can vary from the geometry shown.

BF60G20

Flange with tapped holes

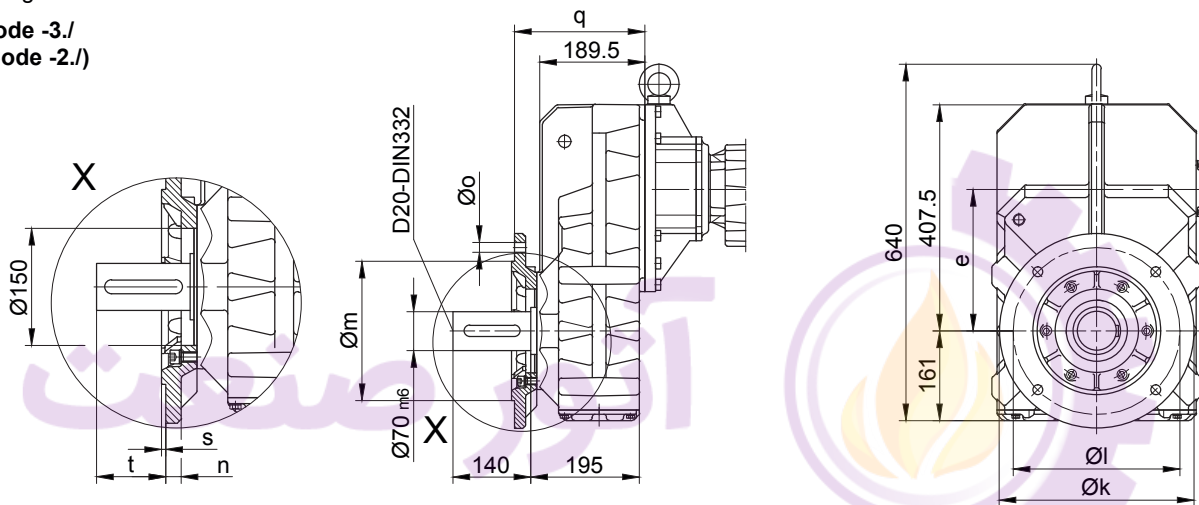
Code -7./



Flange with clearance holes

Code -3./

(Code -2./)

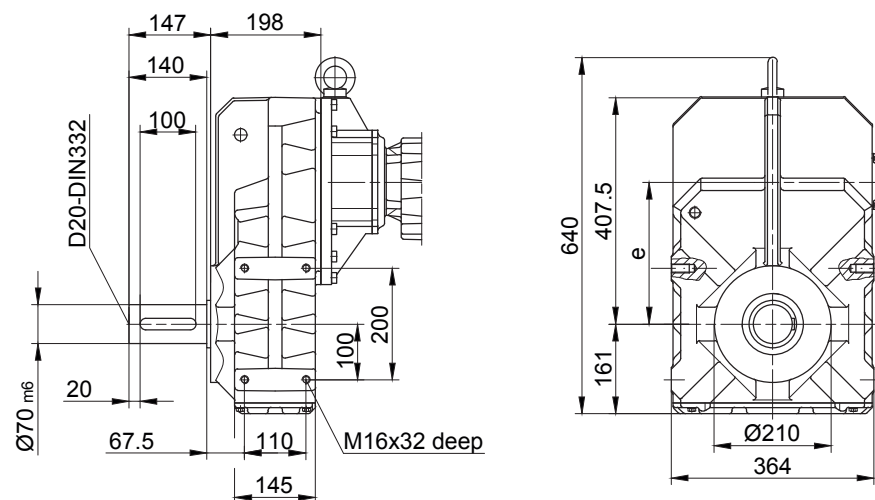


Flange dimensions

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

Foot with tapped holes left and right

Code -6.LR/



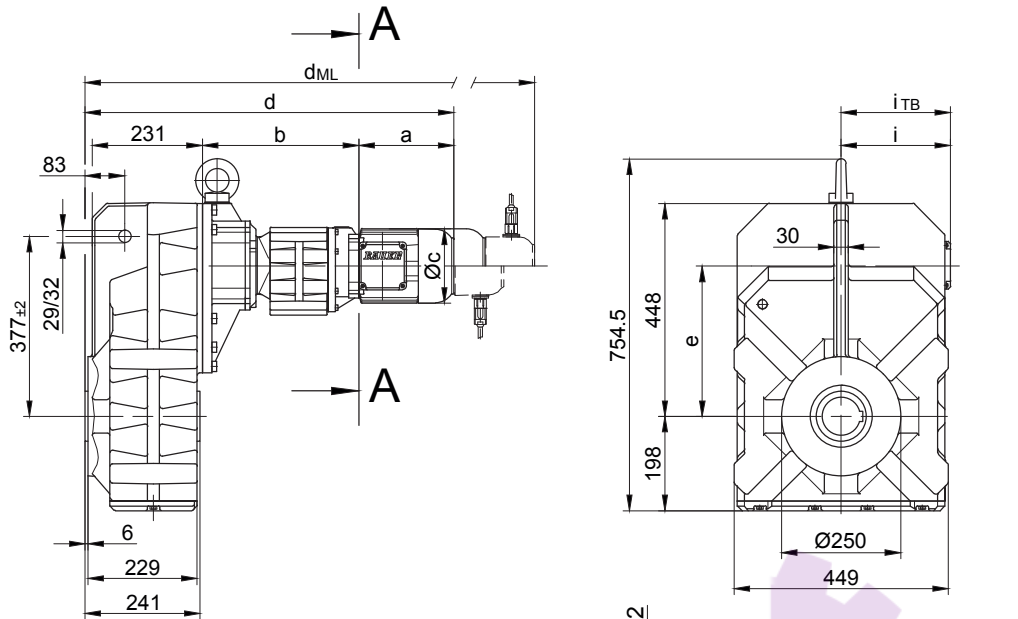
The actual gearbox design can vary from the geometry shown.

Dimension

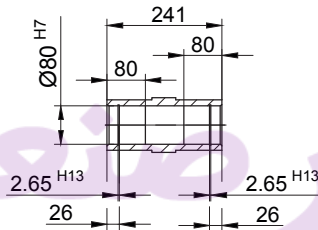
BF70G20

With torque arm

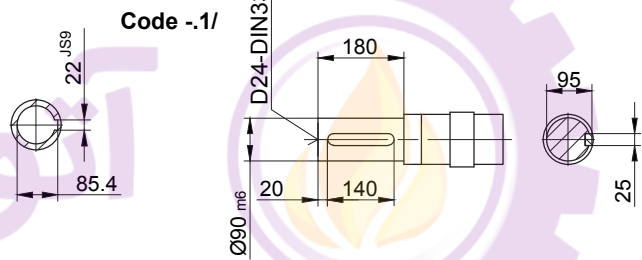
Code -0./



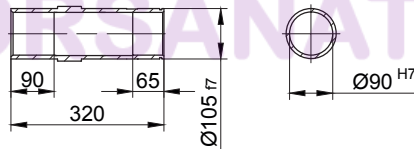
Code -4/



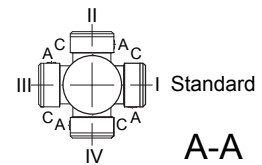
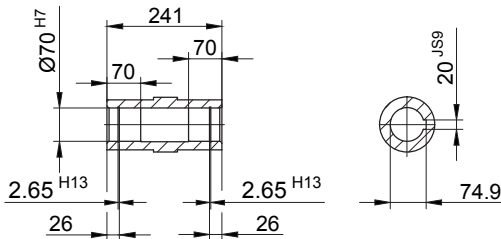
Code -1/



Code -5/



Code -4/K70



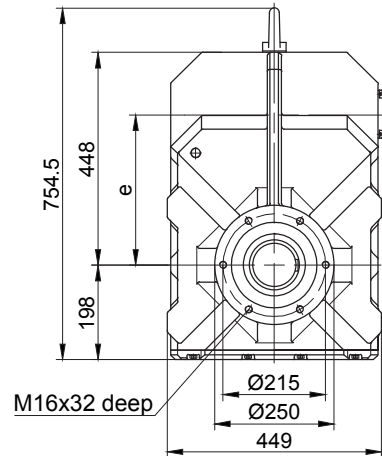
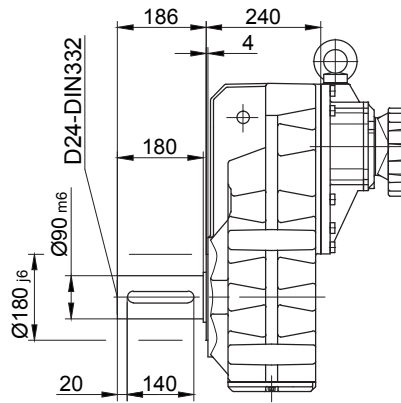
Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BF70G20-../D05..	170	324	123	741	315	100	117	783	844	886	-
BF70G20-../D06..	170	324	123	741	315	100	119	783	844	886	-
BF70G20-../D07..	190	324	123	761	335	100	119	803	864	906	-
BF70G20-../D..08..	200	328	156	775	315	115	136.5	841	882	948.5	841
BF70G20-../D..09..	251	342.5	181	839	315	124	158	932	946	1036	926

The actual gearbox design can vary from the geometry shown.

BF70G20

Flange with tapped holes

Code -7./

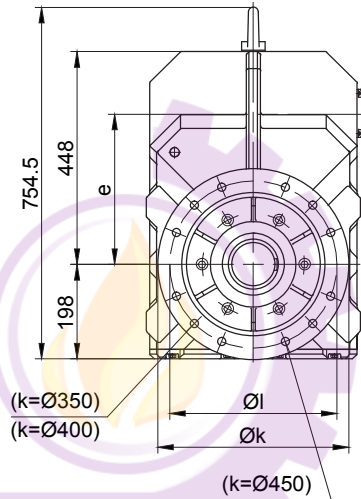
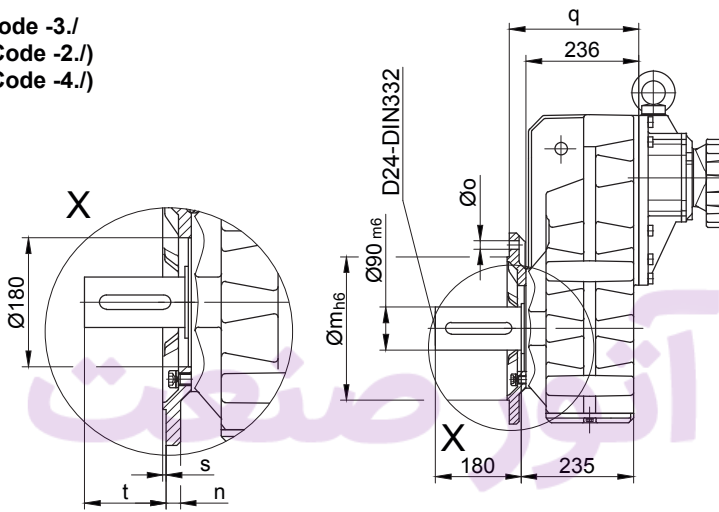


Flange with clearance holes

Code -3./

(Code -2./)

(Code -4./)

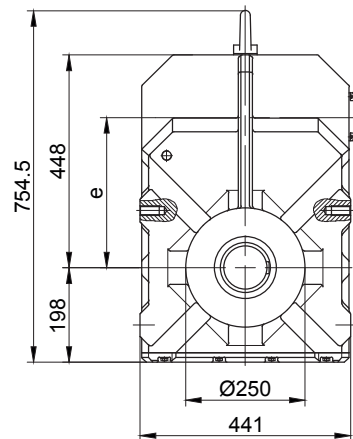
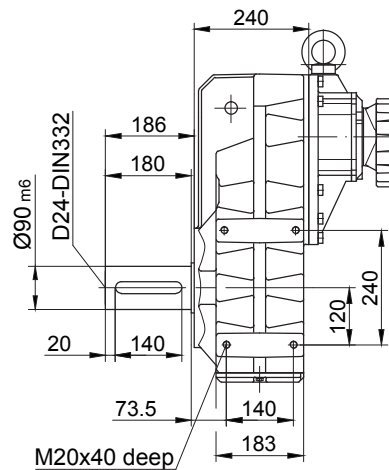


Flange dimensions

BF70G..	k	l	m	n	o	q	s	t
Standard -3./	400	350	300	20	4x17.5	271	5	155
small -2./	350	300	250	20	4x17.5	271	5	155
big -4./	450	400	350	22	8x17.5	281	5	145

Foot with tapped holes left and right

Code -6.LR/



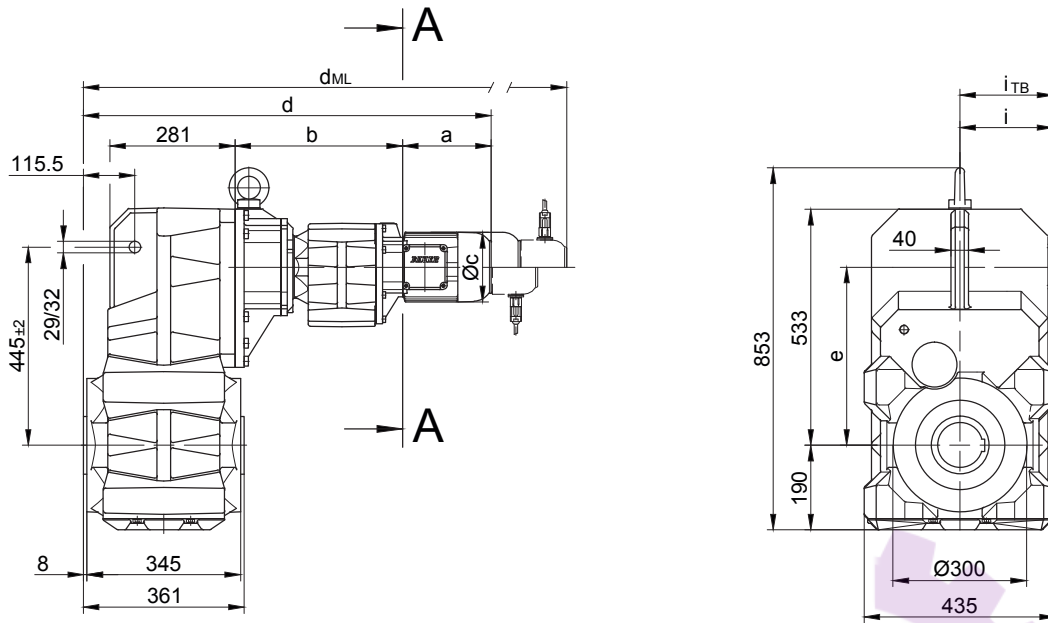
The actual gearbox design can vary from the geometry shown.

Dimension

BF80G40

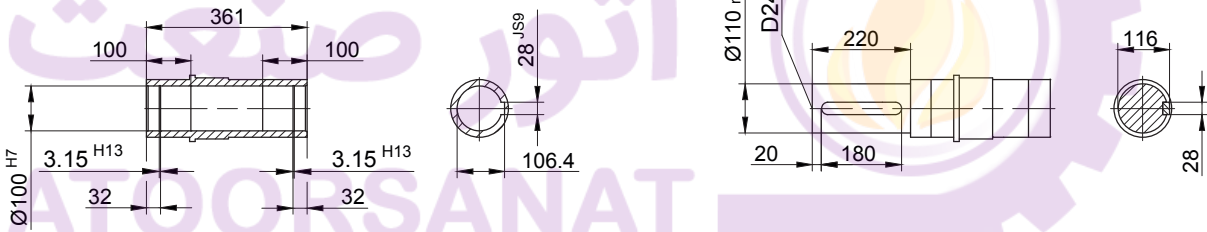
With torque arm

Code -0./

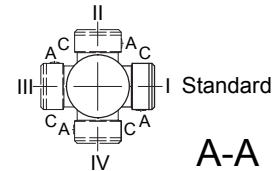
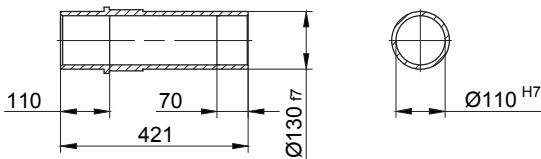


Code -4./

Code -1./



Code -5./



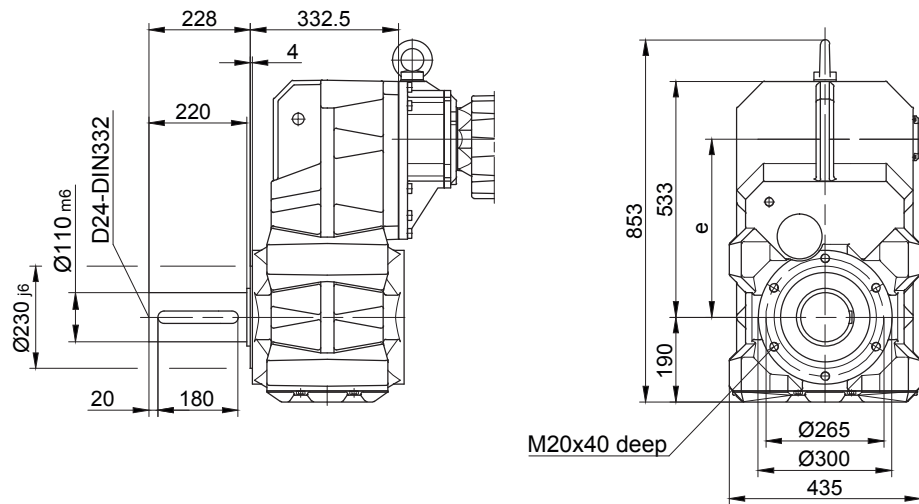
Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	ES..	G	ES.-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BF80G40-../D..08..	200	376	156	916.5	400	115	136.5	982.5	1023.5	1090	982.5
BF80G40-../D..09..	251	390.5	181	982	400	124	158	1075	1089	1179.5	1075
BF80G40-../D..11..	319	397	228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

The actual gearbox design can vary from the geometry shown.

BF80G40

Flange with tapped holes

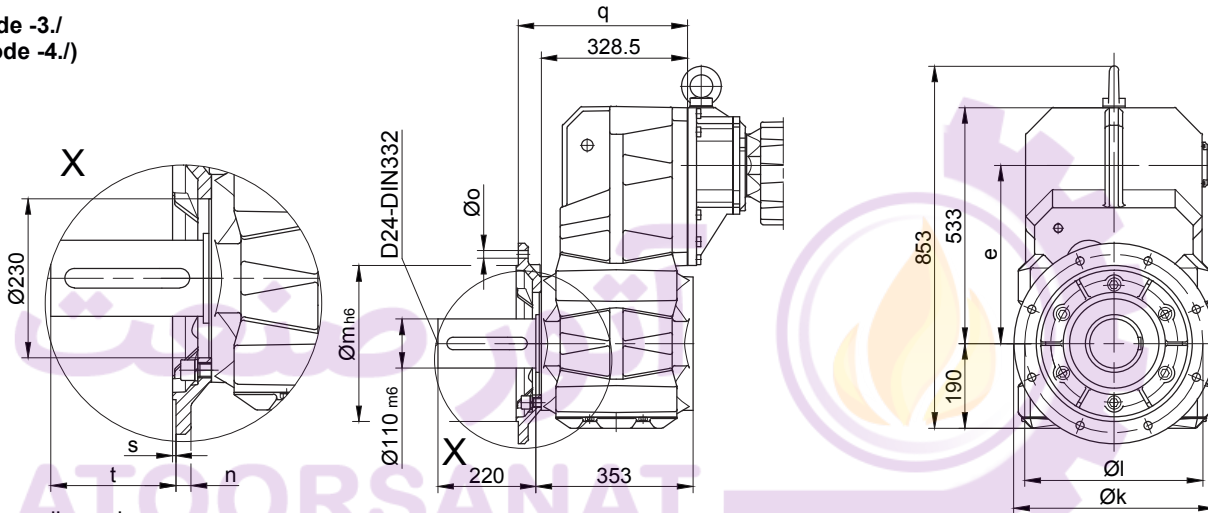
Code -7./



Flange with clearance holes

Code -3./

(Code -4./)

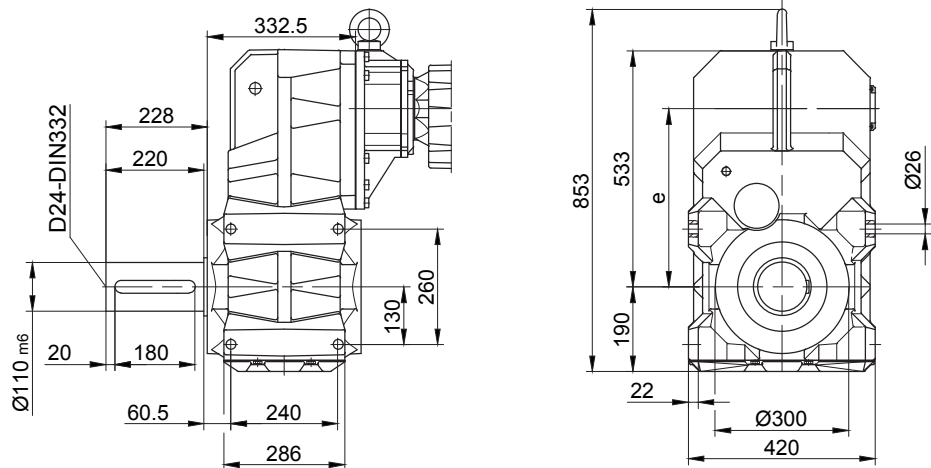


Flange dimensions

BF80G..	k	l	m	n	o	q	s	t
Standard -3./	450	400	350	22	17.5	383.5	5	177
big -4./	550	500	450	22	17.5	388.5	5	172

Foot with clearance holes left and right

Code -1.LR/



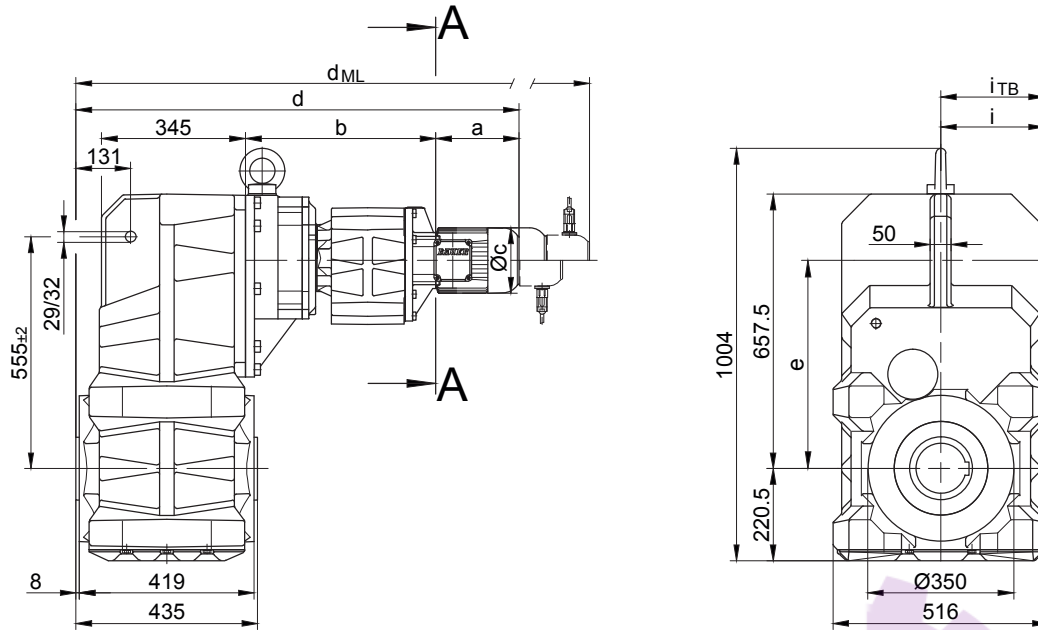
The actual gearbox design can vary from the geometry shown.

Dimension

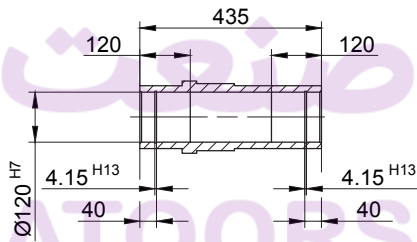
BF90G50

With torque arm

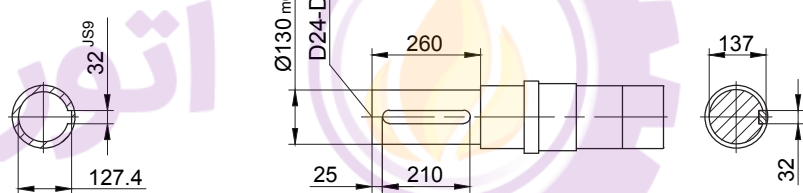
Code -0./



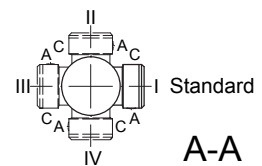
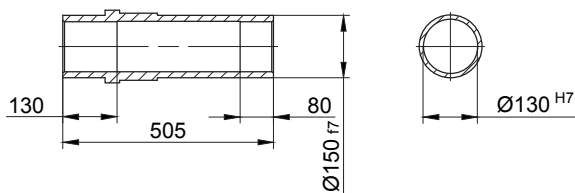
Code -4/



Code -1/



Code -5/



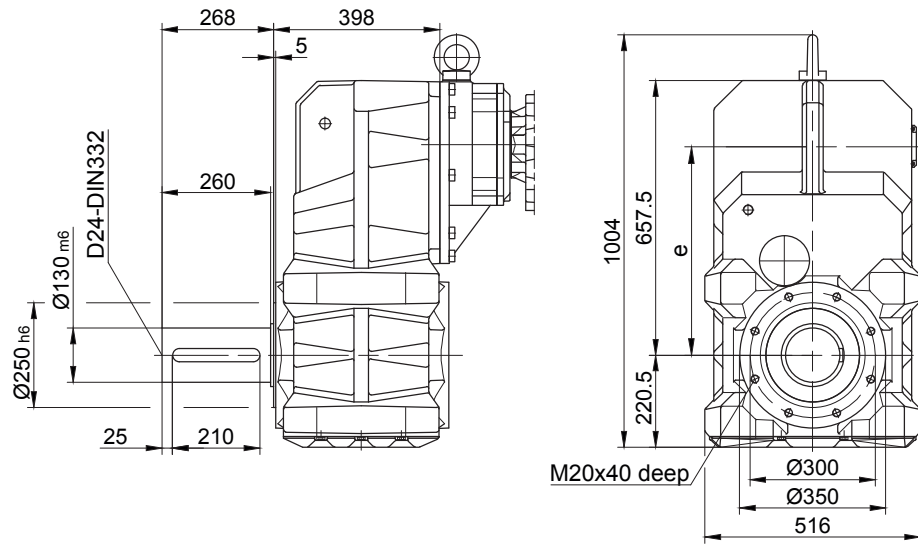
Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BF90G50-../D..08..	200	456	156	1062	503	115	136.5	1128	1169	1235.5	1128
BF90G50-../D..09..	251	470.5	181	1127.5	499	124	158	1220.5	1234.5	1325	1220.5
BF90G50-../D..11..	319	477	228	1202	499	181	181	1300	1309	1404.5	1300
BF90G50-../D..13..	393	490	258	1289	499	218	218	1400	1396	1504.5	1400
BF90G50-../D..16..	429	504	322	1339	499	244	244	1483	1447	1587	1483
BF90G50-../D..18..	528	535	368	1469	499	288	288	1618	1577	1722	1618

The actual gearbox design can vary from the geometry shown.

BF90G50

Flange with tapped holes

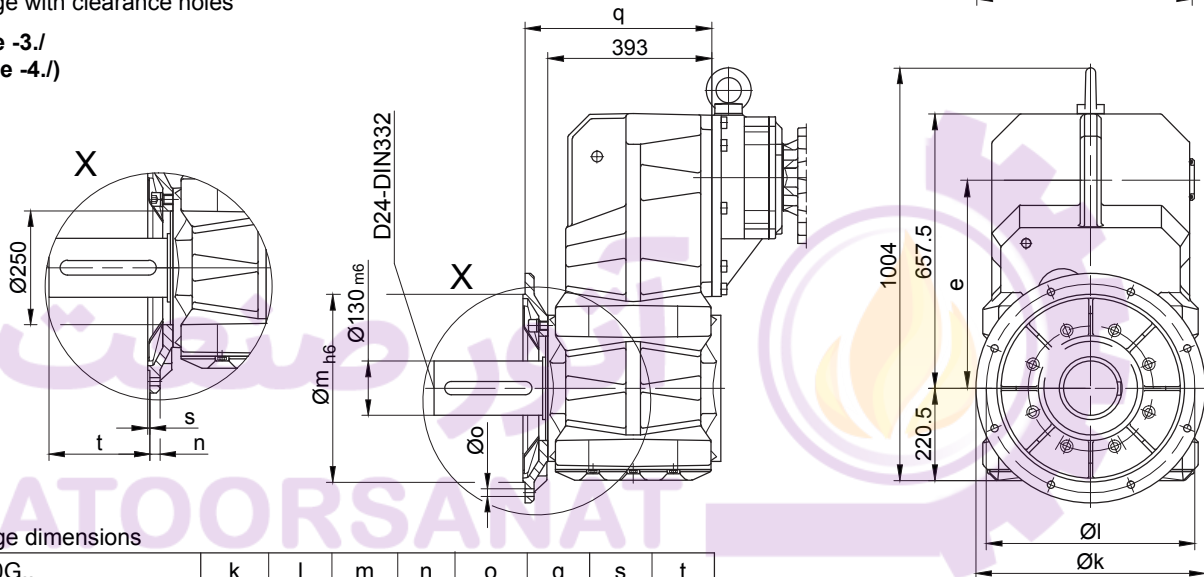
Code -7./



Flange with clearance holes

Code -3./

(Code -4./)

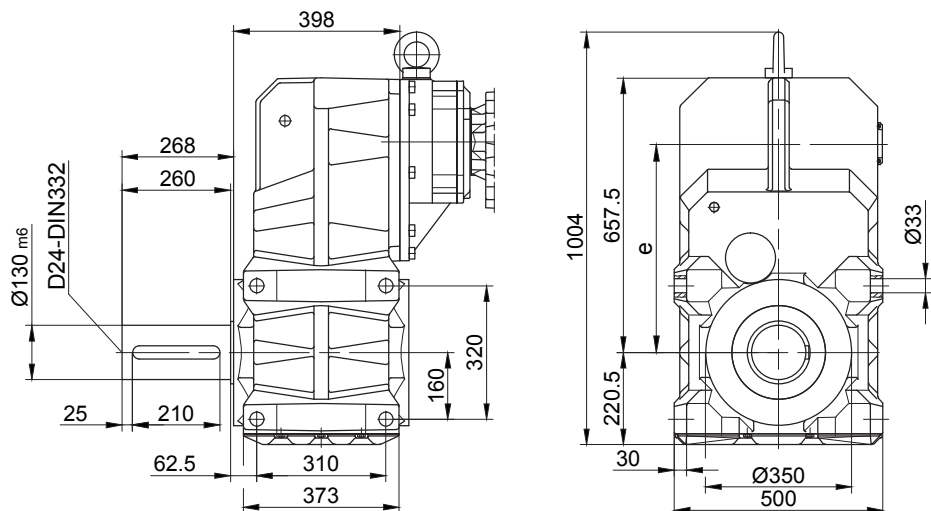


Flange dimensions

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

Foot with clearance holes left and right

Code -1.LR/



The actual gearbox design can vary from the geometry shown.

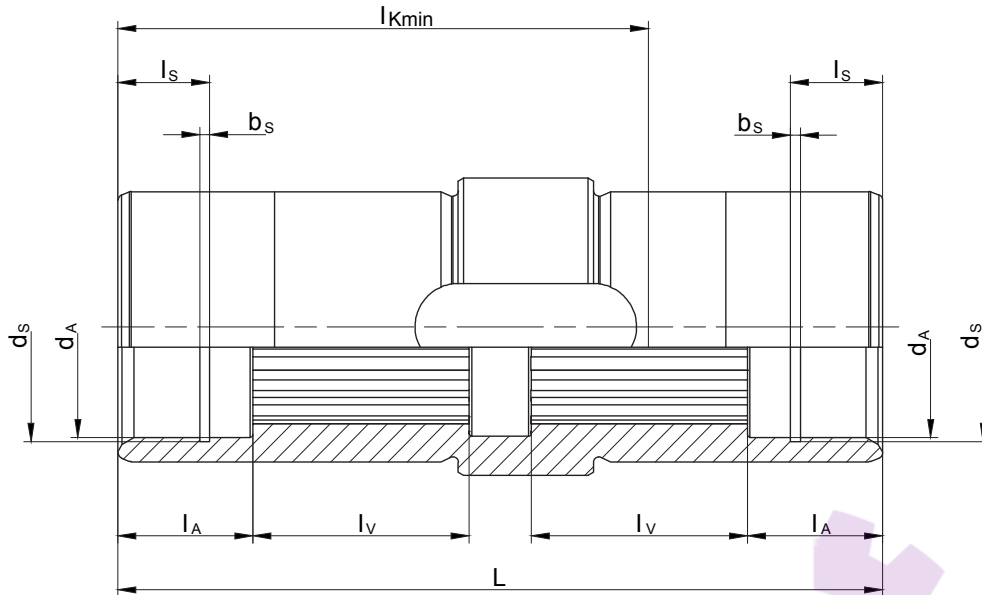
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Splined shaft BF

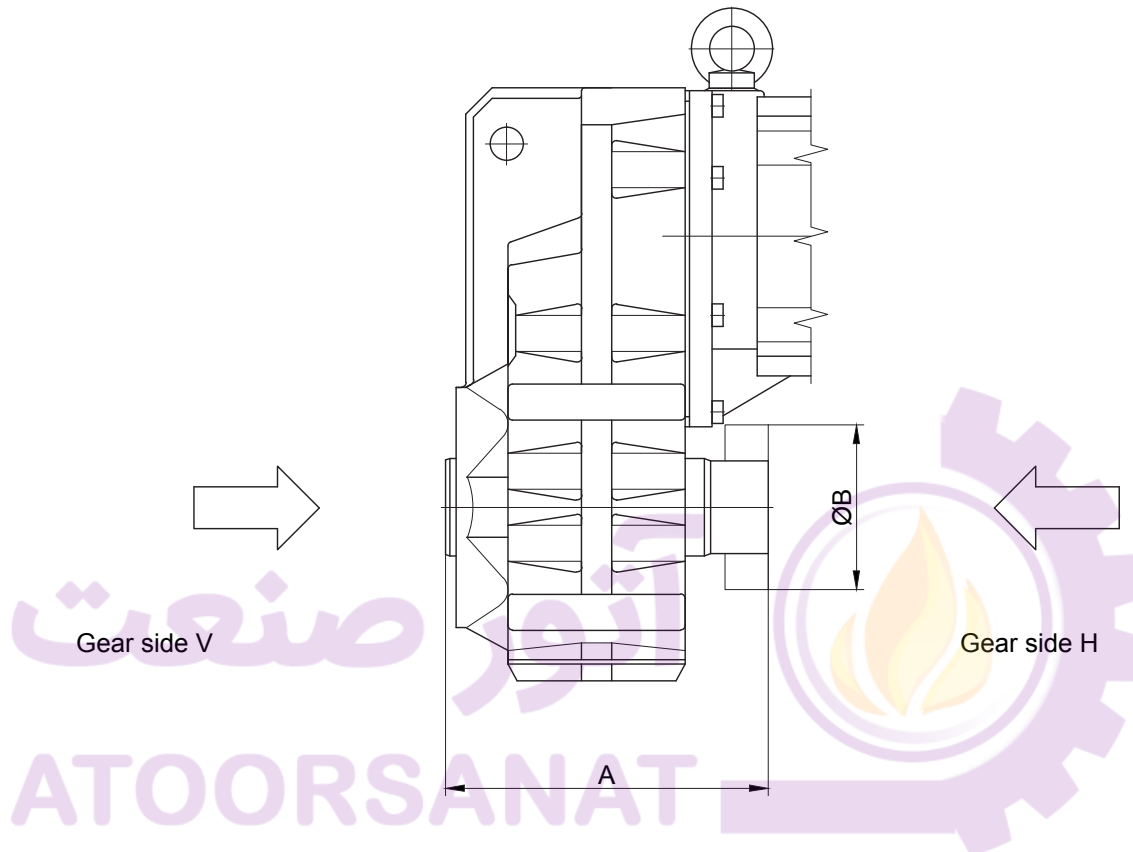


Type	Spline acc. DIN 5480	d_A [mm]	l_A [mm]	l_v [mm]	l_{Kmin} [mm]	L [mm]	d_s [mm]	l_s [mm]	b_s [mm]
BF06	N25x1.25x18x9H	30 ^{G7}	22	20	68	92	31.4 ^{H12}	15	1.3 ^{H13}
BF10	N30x1.25x22x9H	30.5 ^{G7}	22	33.5	87	124.5	31.4 ^{H12}	15	1.3 ^{H13}
BF20	N35x2x16x9H	36 ^{G7}	22	35	92	130	37 ^{H12}	9.5	1.6 ^{H13}
BF30	N40x2x18x9H	41 ^{G7}	25	40	103	141.5	42.5 ^{H12}	15	1.85 ^{H13}
BF40	N50x2x24x9H	51 ^{G7}	25	48	120	166	53 ^{H12}	9.5	2.15 ^{H13}
BF50	N60x2x28x9H	61 ^{G7}	25	55	123	176	63 ^{H12}	17	2.15 ^{H13}
BF60	N70x2x34x9H	72 ^{G7}	25	70	147	202	75 ^{H12}	17	2.65 ^{H13}
BF70	N85x3x27x9H	86 ^{G7}	26	85	185	241	88.5 ^{H12}	17	3.15 ^{H13}
BF80	N110x3x35x9H	112 ^{G7}	50	90	292	361	116 ^{H12}	30	4.15 ^{H13}
BF90	N130x5x24x9H	131.5 ^{G7}	60	110	365	435	134 ^{H12}	30	4.15 ^{H13}

The actual gearbox design can vary from the geometry shown.

Shrink disc coupling (SSV)

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

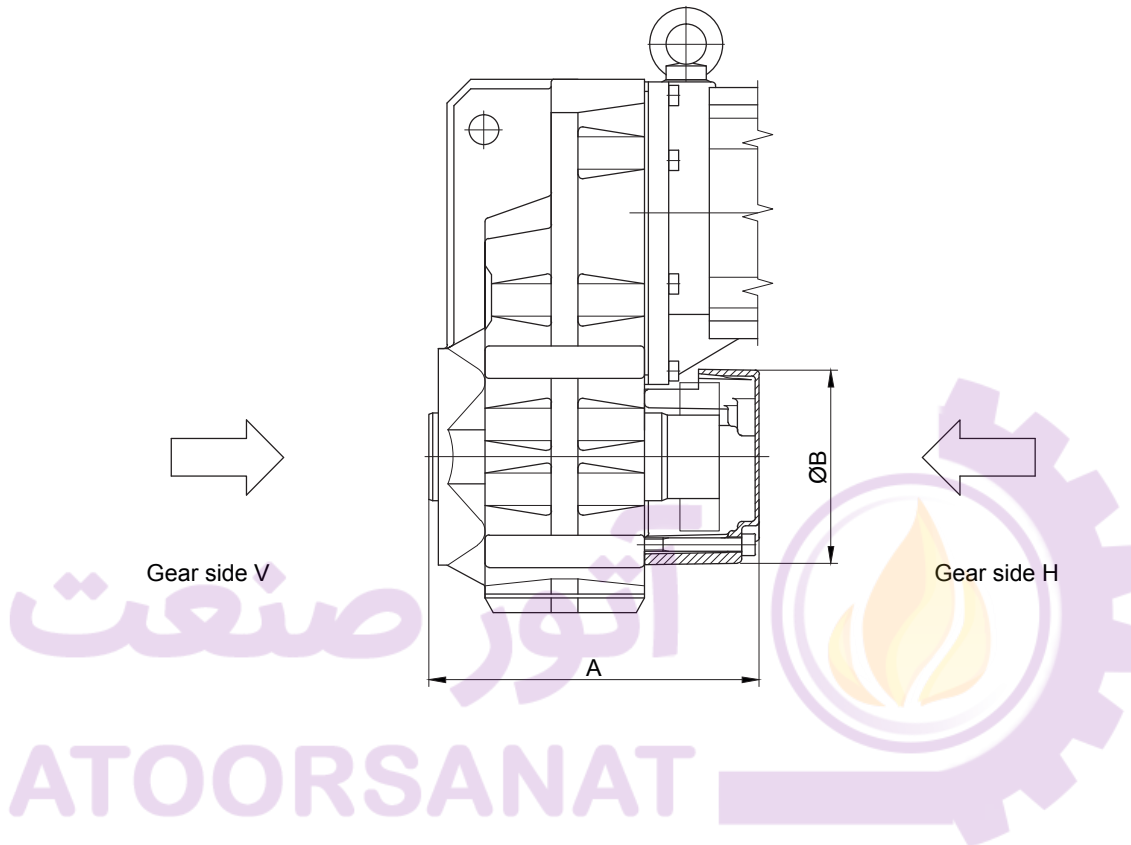


Type	SSV Ringfeder	SSV STÜWE	A	B
BF10	RfN 4161 036x072	HSD 36-22x36	153	72
BF20	RfN 4161 044x080	HSD 44-22x44	173	80
BF30	RfN 4161 050x090	HSD 50-22x50	192	90
BF40	RfN 4161 062x110	HSD 62-22x62	215	110
BF50	RfN 4161 068x115	HSD 68-22x68	211	115
BF60	RfN 4161 080x141	HSD 80-22x80	257	140
BF70	RfN 4161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

The actual gearbox design can vary from the geometry shown.

Shrink disc coupling with (SSV) cover

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

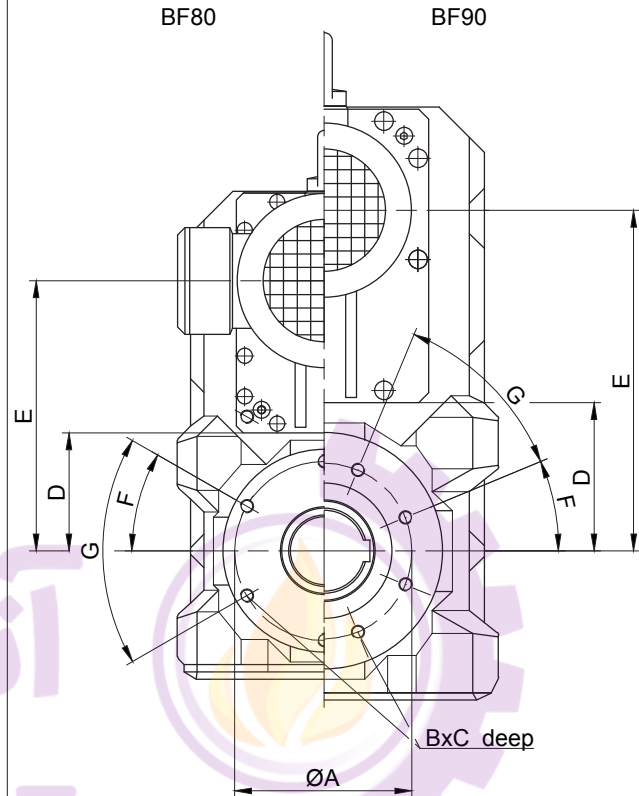
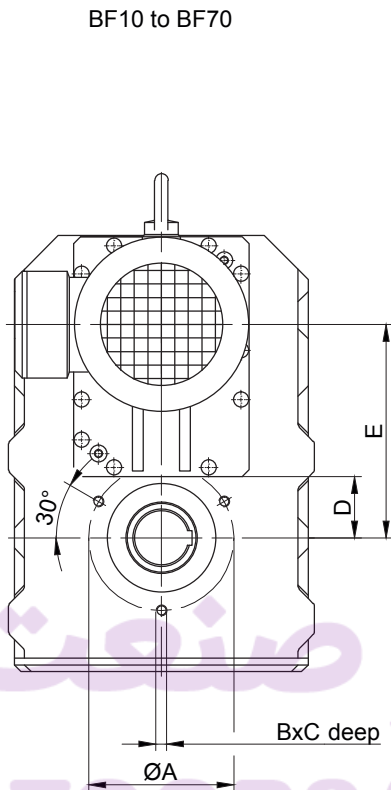


Type	SSV Ringfeder	SSV STÜWE	A	B
BF10	RfN 4161 036x072	HSD 36-22x36	174	120
BF20	RfN 4161 044x080	HSD 44-22x44	211	140
BF30	RfN 4161 050x090	HSD 50-22x50	223	140
BF40	RfN 4161 062x110	HSD 62-22x62	245	160
BF50	RfN 4161 068x115	HSD 68-22x68	227	200
BF60	RfN 4161 080x141	HSD 80-22x80	290	210
BF70	RfN 4161 105x185	HSD 110-22x105	359	250
BF80	RfN 4161 130x215	HSD 125-22x130	463	300
BF90	RfN 4161 150x263	HSD 155-22x150	557	350

The actual gearbox design can vary from the geometry shown.

Screw Holes Side (H)

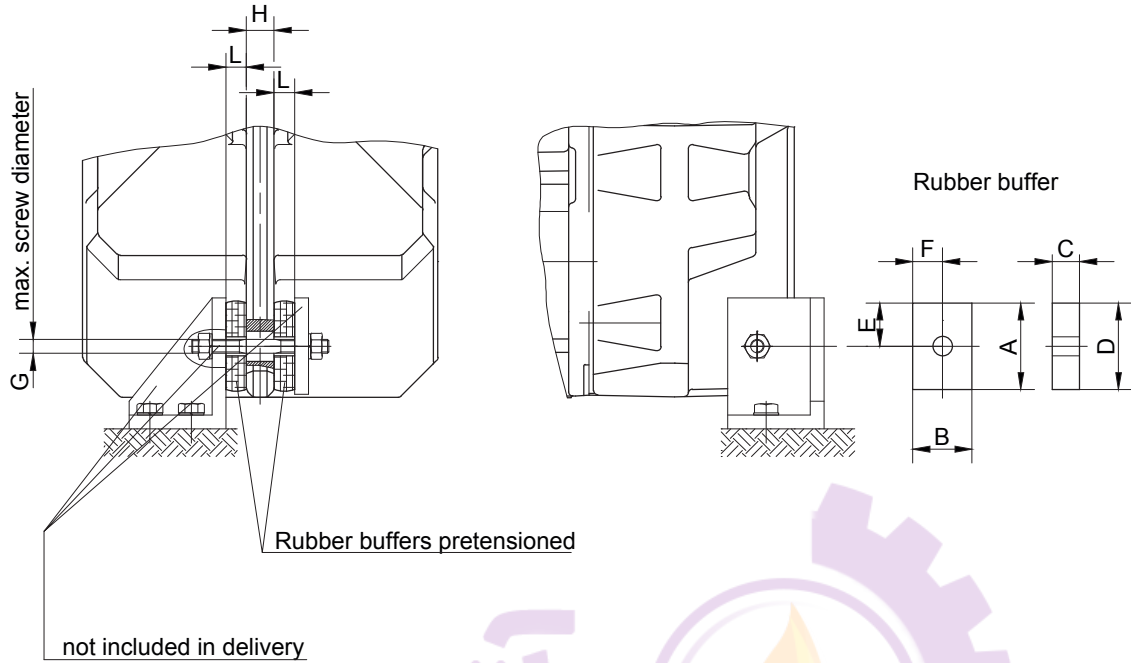
→ Shaft Cover



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

The actual gearbox design can vary from the geometry shown.

Rubber buffer for torque restraint



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Material: Natural rubber
Hardness 50±5 Shore A

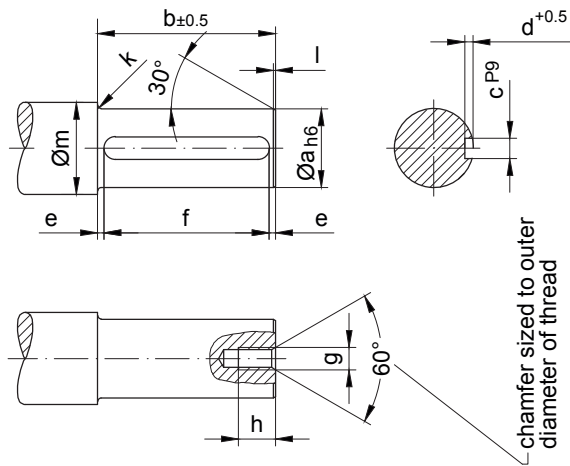
Dimensions of the transverse hole:
see dimensioned sketch of the respective
shaft mounted gearbox

Gear	Pos.	Dimensions (mm)								
		A	B	C	D	E	F	G	H	L
BF06	Pos.0	30	30	12	12	15	15	M10	10	10
BF10	Pos.1	48	32	15	14	24	16	M10	16	13.5
BF20	Pos.1	48	32	15	14	24	16	M10	18	13
BF30	Pos.2	63	43	20	14	31.5	21.5	M10	18	17
BF40	Pos.2	63	43	20	14	31.5	21.5	M10	20	16.5
BF50	Pos.3	88	60	25	22	44	30	M18	24	21.5
BF60	Pos.3	88	60	25	22	44	30	M18	28	21
BF70	Pos.4	123	88	30	26	61.5	44	M20	30	25.5
BF80	Pos.5	133	103	35	26	66.5	51.5	M20	40	30
BF90	Pos.5	133	103	35	26	66.5	51.5	M20	50	29.5

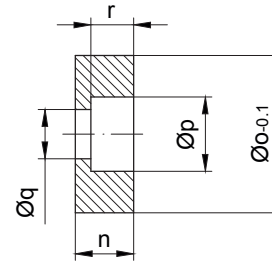
The actual gearbox design can vary from the geometry shown.

Assembly tools for hollow shaft and keyway

Pos.1 Shaft

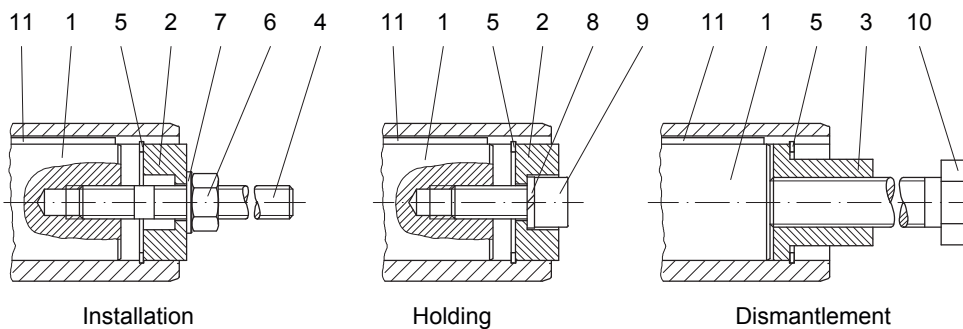


* Pos.2 Disc



✓, edges cut
Material:
C45 DIN 17200

Type	dimensions (mm)															
	Pos.1 Shaft											Pos.2 Disc				
	a	b	c	d	e	f	g	h	k	l	m	n	o	p	q	r
BF06	25	70	8	4	3.5	63 ^{+0.5}	M8	18	2	1.5	33	13.5	24.8	15	9	8.5
BF10	25	102	8	4	6	90 ^{+0.5}	M8	18	2.5	1.5	33	13.5	24.8	15	9	8.5
BF20	30	108	8	4	9	90 ^{+0.5}	M10	20	3	1.5	38	15	29.8	18	11	10
BF30	35	118	10	5	9	100 ^{+0.5}	M10	20	3	1.5	43	16	34.8	18	11	10
BF40	40	141	12	5	8	125 ^{+0.5}	M12	22	3	2	48	18	39.8	20	13.5	12
BF50	50	148	14	5.5	11.5	125 ^{+0.5}	M16	30	3.5	2	58	21	49.8	26	17.5	15
BF60	60	173	18	7	6.5	160 ^{+0.5}	M20	38	3.5	2	68	24	59.8	33	22	18
BF70	80	205	22	9	12.5	180 ^{+0.5}	M20	38	4	2	90	27	79.8	33	22	20
BF70-K70	70	205	20	7.5	12.5	180 ^{+0.5}	M20	38	4	2	90	27	69.8	33	22	20
BF80	100	317	28	10	18.5	280 ^{+0.5}	M24	45	4	3	110	32	99.8	40	26	25
BF90	120	383	32	11	11.5	360 ^{+0.5}	M24	45	4.5	3	130	35	119.8	40	26	28



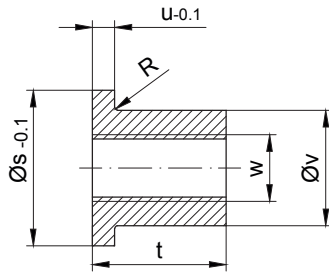
The parts shown are necessary for assembly. ONLY *specified parts are enclosed in the assembly kit.

Suitable measures are to be used to secure Bolt Pos.9 against loosening.

The actual gearbox design can vary from the geometry shown.

Assembly tools for hollow shaft and keyway

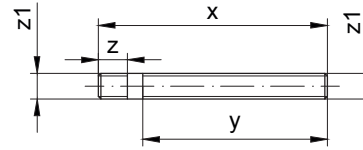
Pos.3 Sleeve



\sqrt{x} , edges cut

Material: C45 DIN 17200

Pos.4 Stud Bolt



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

Type	Dimensions (mm)										* retainer ring DIN 472	hexagon nut DIN 934-8	disc DIN 125-St	lock washer DIN 7980	* Filister head screw DIN 912-8,8	starting torque [Nm]	hexagon bolt DIN EN 24017-8,8	key DIN 6885 width x height x Length							
	Pos.3 Sleeve						Pos.4 Stud Bolt												Pos.5	Pos.6	Pos.7	Pos.8	Pos.9	Pos.10	Pos.11
	s	t	u	v	w	R	x	y	z	z1															
BF06	24.8	24	5	15.4	M12	0.8	160	130	20	M8	25x1.2	M8	8.4	8	M8x30	5	M12x110	A 8x7x63							
BF10	24.8	24	5	15.4	M12	0.8	160	130	20	M8	25x1.2	M8	8.4	8	M8x30	5	M12x140	A 8x7x90							
BF20	29.8	28	5	19.8	M14	0.8	170	135	23	M10	30x1.2	M10	10.5	10	M10x30	8	M14x150	A 8x7x90							
BF30	34.8	28	5	23	M14	-	180	145	23	M10	35x1.5	M10	10.5	10	M10x35		M14x160	A 10x8x100							
BF40	39.8	40	6	27.7	M20	0.8	210	170	28	M12	40x1.75	M12	13	12	M12x35	16	M20x200	A 12x8x125							
BF50	49.8	48	6	36	M24	-	230	175	37	M16	50x2.0	M16	17	16	M16x40	30	M24x210	A 14x9x125							
BF60	59.8	60	6	44	M30	-	270	205	45	M20	60x2.0	M20	21	20	M20x50	42	M30x250	A 18x11x160							
BF70	79.8	60	8	55	M30	-	310	240	45	M20	80x2.5	M20	21	20	M20x50		M30x280	A 22x14x180							
BF70-K70	69.8	60	8	53	M30	-	310	240	45	M20	70x2.5	M20	21	20	M20x50	100	M30x280	A 20x12x180							
BF80	99.8	72	10	75	M36	-	440	360	55	M24	100x3.0	M24	25	24	M24x60		M36x410	A 28x16x280							
BF90	119.8	72	10	80	M36	-	510	430	55	M24	120x4.0	M24	25	24	M24x60		M36x480	A 32x18x360							

The parts shown are necessary for assembly. ONLY *specified parts are enclosed in the assembly kit.

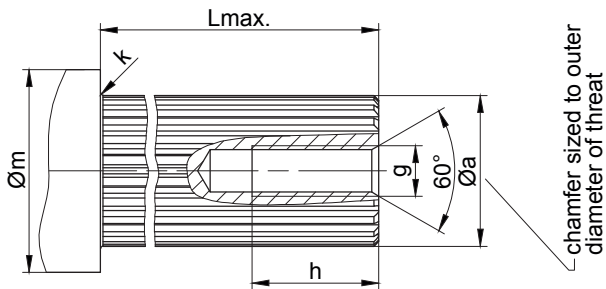
Suitable measures are to be used to secure Bolt Pos.9 against loosening.

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"

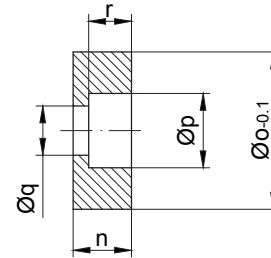
The actual gearbox design can vary from the geometry shown.

Assembly tools for shaft mounted gears with splined shaft

Pos.1 Shaft

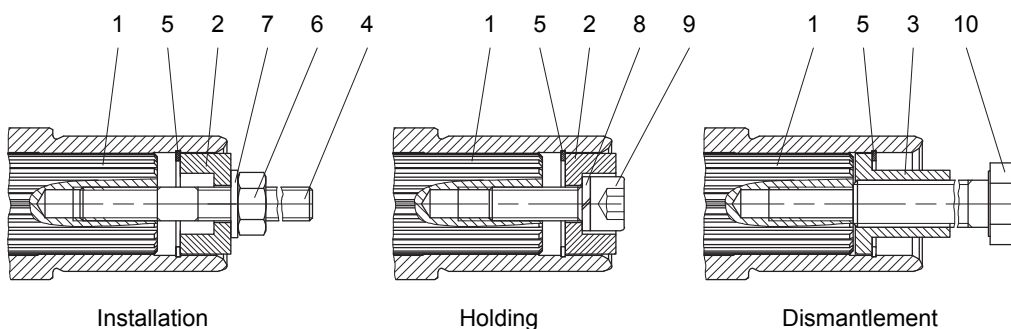


* Pos.2 Disc



✓, edges cut
Material:
C45 DIN 17200

Type	dimensions (mm)										
	Pos.1 Shaft						Pos.2 Disc				
	a	g	h	k	Lmax.	m	n	o	p	q	r
BF06	DIN 5480-W25x1.25x18x8f	M8	20	2	70	33	13	29.9	15	9	8
BF10	DIN 5480-W30x1.25x22x8f	M10	25	2.5	100	33	15	30.4	18	11	10
BF20	DIN 5480-W35x2x16x8f	M10	25	3	115	38	14	35.9	18	11	10
BF30	DIN 5480-W40x2x18x8f	M12	30	3	120	43	18	40.9	20	13.5	12
BF40	DIN 5480-W50x2x24x8f	M16	35	3	150	48	17.5	50.9	26	17.5	12.5
BF50	DIN 5480-W60x2x28x8f	M20	40	3.5	150	58	24	60.9	33	22	18
BF60	DIN 5480-W70x2x34x8f	M20	40	3.5	175	68	24	71.9	33	22	18
BF70	DIN 5480-W85x3x27x8f	M20	40	4	215	90	22	85.9	33	22	16
BF80	DIN 5480-W110x3x35x8f	M24	50	4	320	110	32	111.9	40	26	25
BF90	DIN 5480-W130x5x24x8f	M24	50	4.5	390	130	25	131.4	40	26	18



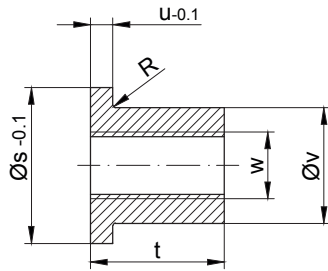
The parts shown are necessary for assembly. ONLY *specified parts are enclosed in the assembly kit.

Suitable measures are to be used to secure Bolt Pos.9 against loosening.

The actual gearbox design can vary from the geometry shown.

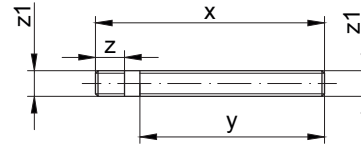
Assembly tools for shaft mounted gears with splined shaft

Pos.3 Sleeve



✓^x, edges cut
Material:
C45 DIN 17200

Pos.4 Stud Bolt



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

Type	Dimensions (mm)										* DIN 472	DIN 934-8	DIN 125-St	DIN 7980	* Filster head screw DIN 7984-8.8	starting torque [Nm]	DIN EN 24017-8.8						
	Pos.3 Sleeve						Pos.4 Stud Bolt											Pos.5	Pos.6	Pos.7	Pos.8	Pos.9	Pos.10
	s	t	u	v	w	R	x	y	z	z1													
BF06	29.9	24	5	15.4	M12	0.8	160	130	20	M8	25x1.2	M8	8.4	8	M8x30	5	M12x110						
BF10	30.4	28	5	19.8	M14	-	170	135	23	M10	30x1.2	M10	10.5	10	M10x30	8	M14x150						
BF20	35.9	28	5	23	M14	-	180	145	23	M10	35x1.5	M10	10.5	10	M10x35		M14x160						
BF30	40.9	40	6	27.7	M20	-	210	170	28	M12	40x1.75	M12	13	12	M12x35	16	M20x200						
BF40	50.9	48	6	36	M24	0.8	230	175	37	M16	50x2.0	M16	17	16	M16x40	30	M24x210						
BF50	60.9	60	6	44	M30	-	270	205	45	M20	60x2.0	M20	21	20	M20x50	42	M30x250						
BF60	71.9	60	6	53	M30	0.8	310	240	45	M20	70x2.5	M20	21	20	M20x50		M30x280						
BF70	85.9	60	8	65	M30	0.8	310	240	45	M20	85x3	M20	21	20	M20x50		M30x280						
BF80	111.9	72	10	85	M36	0.8	440	360	55	M24	112x4	M24	25	24	M24x60	100	M36x410						
BF90	131.4	72	10	95	M36	0.8	510	430	55	M24	130x4	M24	25	24	M24x60		M36x480						

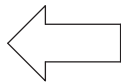
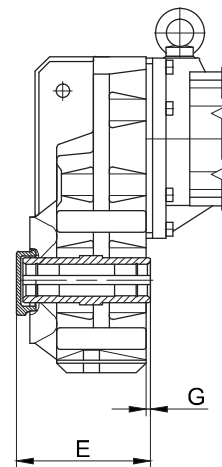
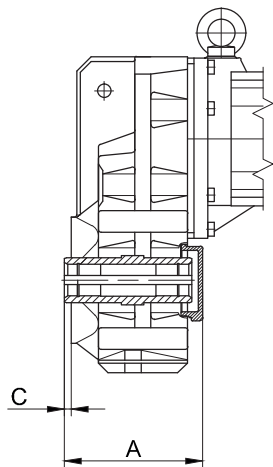
The parts shown are necessary for assembly. ONLY* specified parts are enclosed in the assembly kit.

Suitable measures are to be used to secure Bolt Pos.9 against loosening.

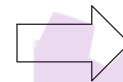
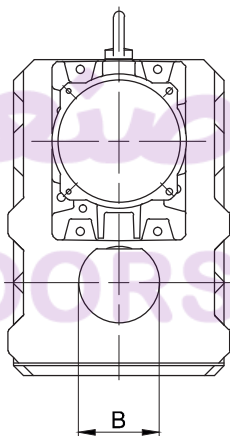
Optional:	Type	Ø s	Order Text
	BF06	30	Id.Nr.4105125 Assembly tool "holding"
	BF10	30.5	Id.Nr.4105133 Assembly tool "holding"
	BF20	36	Id.Nr.4105141 Assembly tool "holding"
	BF30	41	Id.Nr.4105150 Assembly tool "holding"
	BF40	51	Id.Nr.4105168 Assembly tool "holding"
	BF50	61	Id.Nr.4105176 Assembly tool "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.

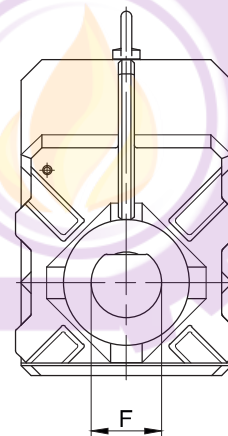
Shaft Cap (VK)



Gear side R



Gear side F



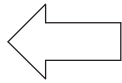
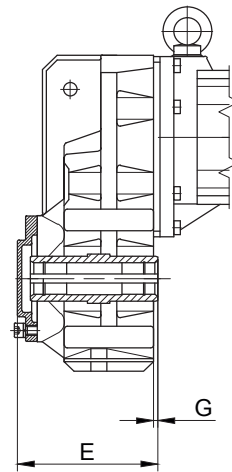
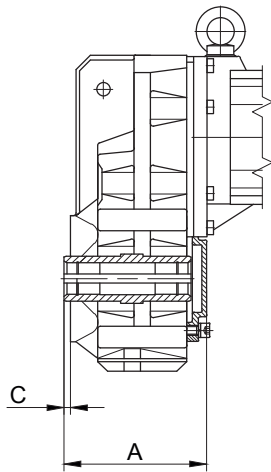
11

Sealing cap REAR			
Type	A	B	C
BF10	134	78	5
BF20	142	85	5
BF30	153.5	90	7.5
BF40	179.5	110	7
BF50	192	125	6
BF60	222	140	7
BF70	258	170	6

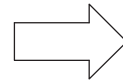
Sealing cap FRONT			
Type	E	F	G
BF30	149	78	7.5
BF50	189.5	110	6
BF70	262	130	6

The actual gearbox design can vary from the geometry shown.

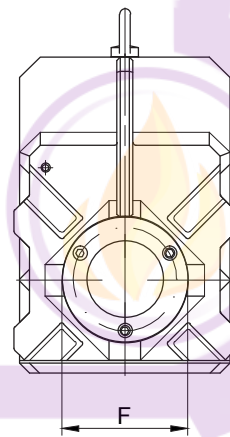
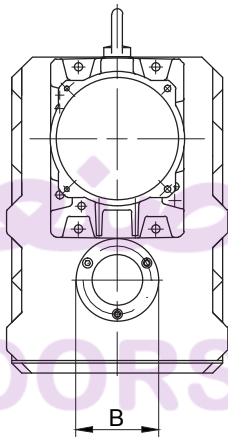
Shaft Cover (VD)



Gear side REAR (H)



Gear side FRONT (V)

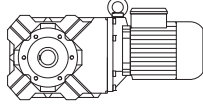


Sealing cover REAR			
Type	A	B	C
BF80	376	300	8
BF90	442	350	8

Sealing cover FRONT			
Type	E	F	G
BF10	135.5	120	5
BF20	144	139.5	5
BF30	153	139.5	7.5
BF40	179.5	160	7
BF50	191.5	199	6
BF60	221.5	210	7
BF70	258	250	6
BF80	376	300	8
BF90	442	350	8

The actual gearbox design can vary from the geometry shown.





Page

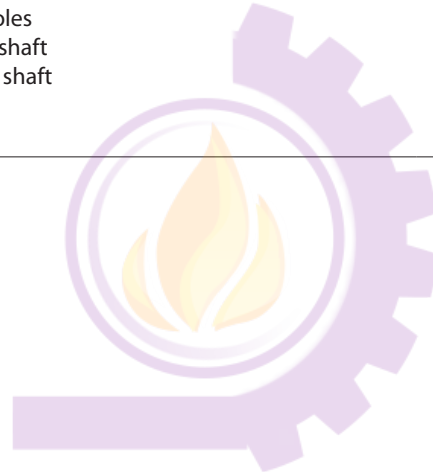
Dimensional drawings bevel-gear motors

443-496

- Standard
- Tandem Gearbox

Additional Dimension Sheet

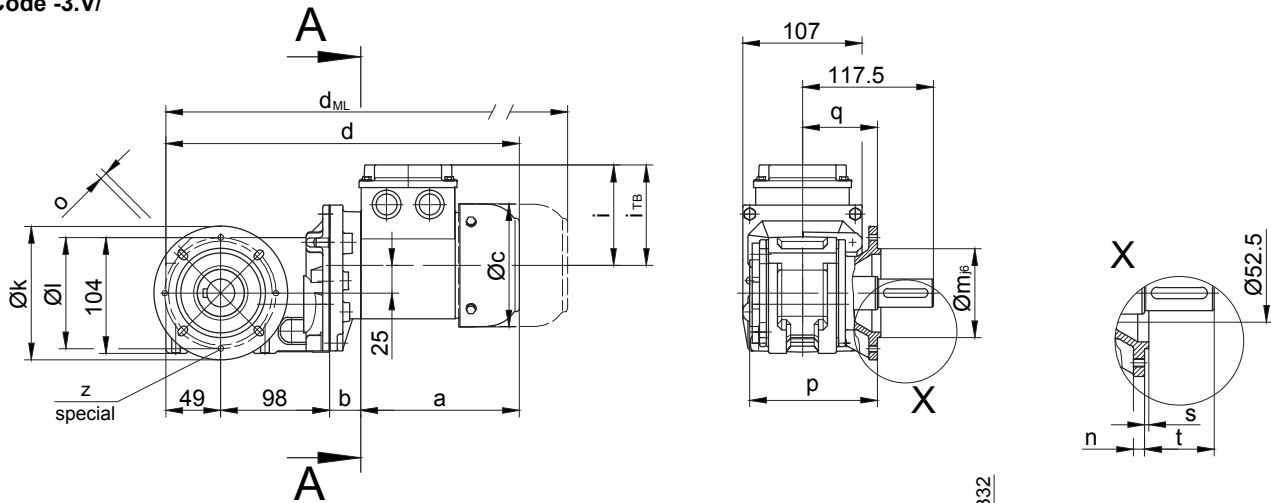
- Splined shaft acc. DIN 5480
- Additional dimension sheet
- Shrink disk connection with cover (SSV)
- Rubber buffer for torque restraint
- Position of the torque arm
- Foot with tapped bores
- Foot plate with through holes
- Assembly tools for hollow shaft
- Assembly tools for splined shaft
- Shaft cap (VK)
- Shaft cover (VD)



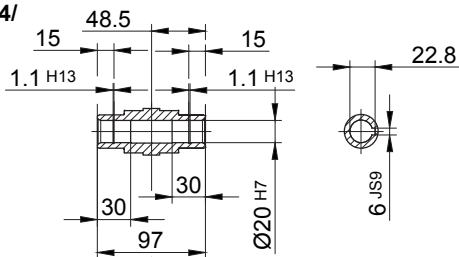
BK06

Flange with clearance holes at front

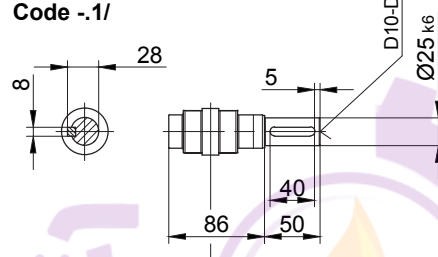
Code -3.V/



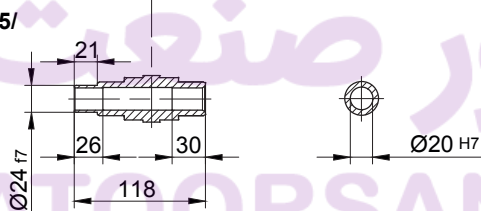
Code -.4/



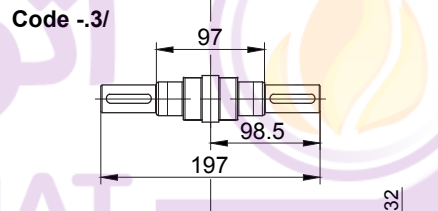
Code -.1/



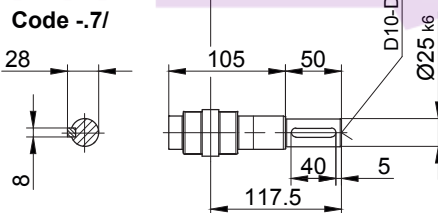
Code -.5/



Code -.3/

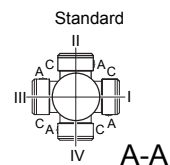


Code -.7/



Flange dimensions

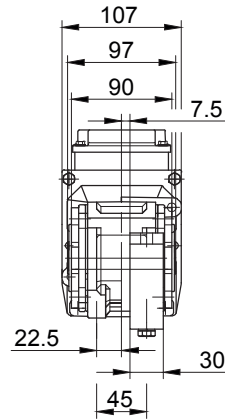
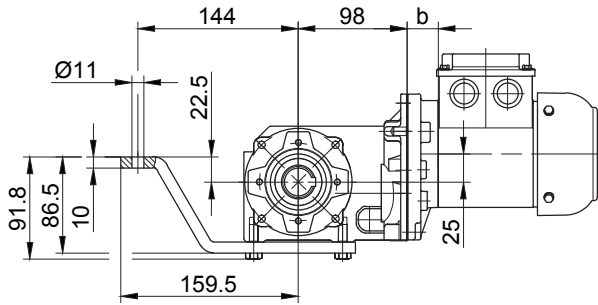
BK06	k	l	m	n	o	p	q	s	t	z
standard -37V/	120	100	80	8	6.6	115	67.5	3	50	-
special -37V	120	100	80	8	6.6	115	67.5	3	50	4xM6



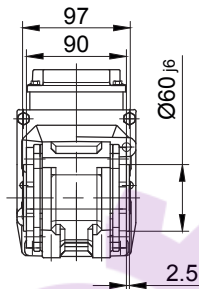
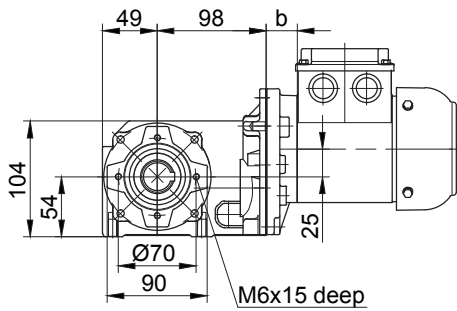
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BK06-../D04..	143	28	111	318	90	112	361.5	380.5	423.5	-
BK06-../D05..	170	30	123	347	100	117	389	450	491.5	-
BK06-../D06..	170	30	123	347	100	119	389	450	491.5	-
BK06-../D07..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

The actual gearbox design can vary from the geometry shown.

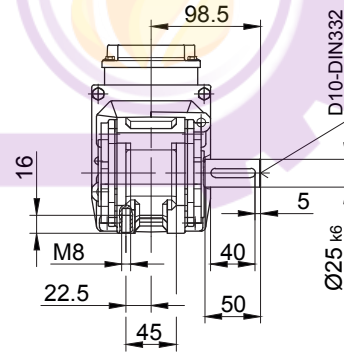
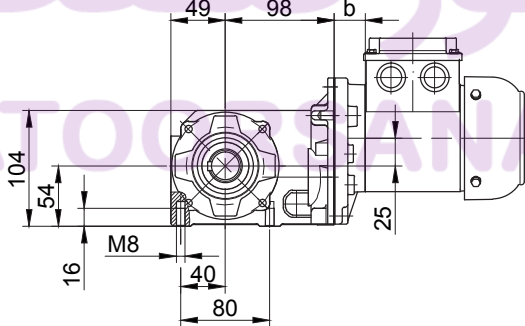
Torque arm at front
Code -5.V/



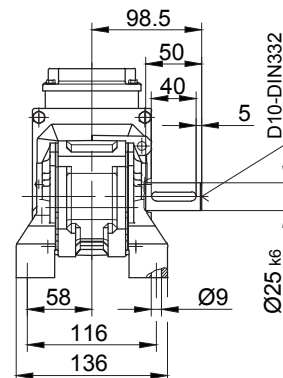
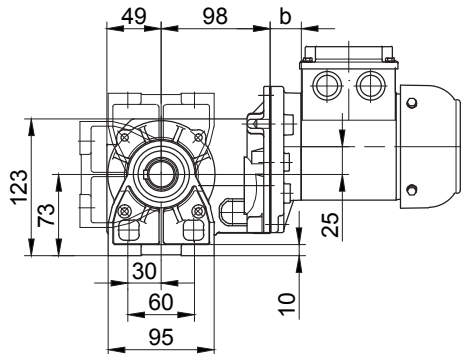
Flange with tapped holes at front
Code -7.V/



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



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

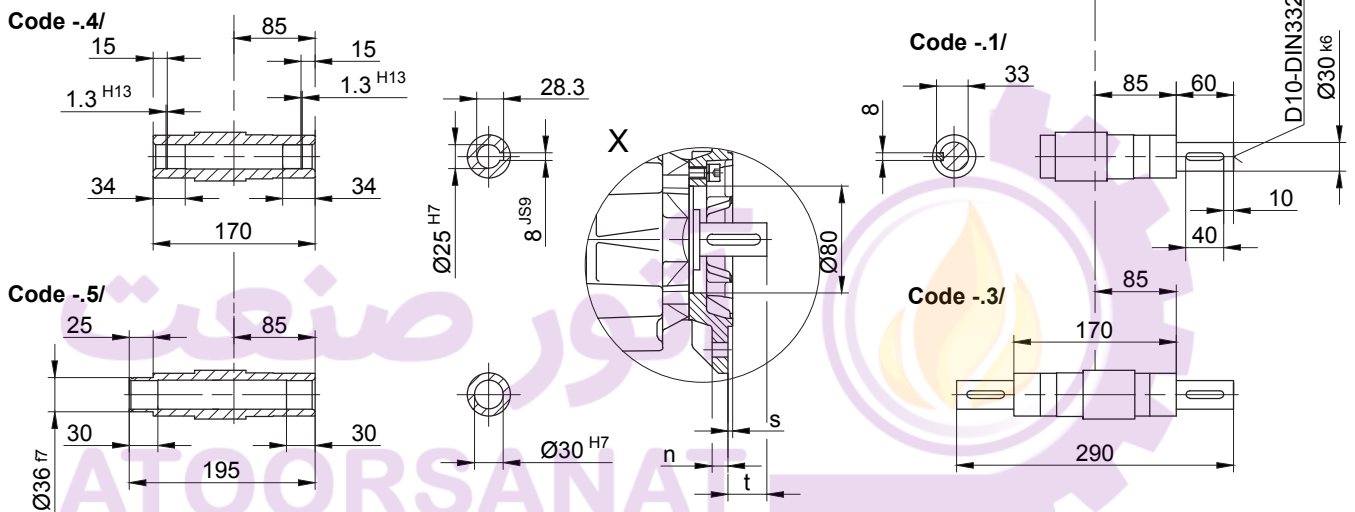
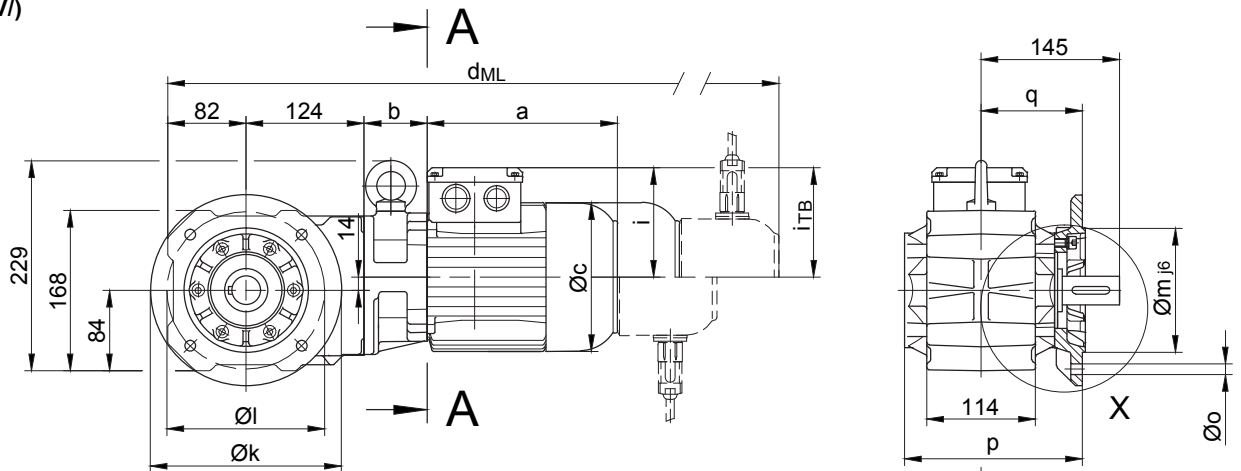


The actual gearbox design can vary from the geometry shown.

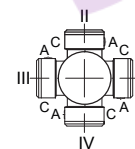
BK10 - BK10Z

Flange with clearance holes at front

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



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

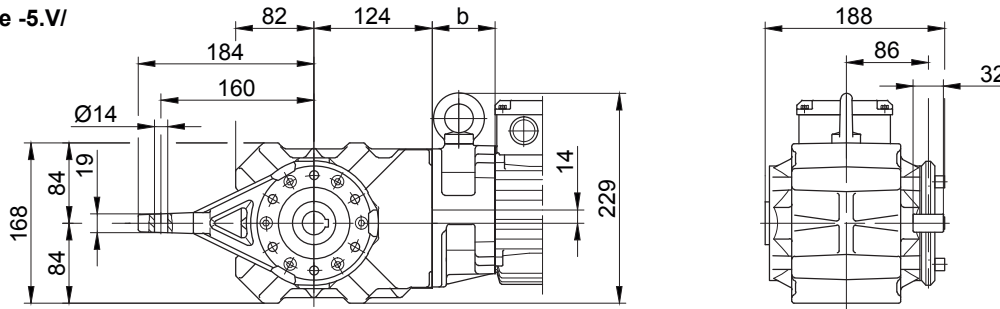
Type	a	b	c	d	i	Design with motor extensions				
						E./ES..	G	E./ES..-G	RR/RL	
						d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BK10Z-../D04..	143	86	111	435	90	112	478.5	497.5	540.5	-
BK10-../D05..	170	62	123	438	100	117	480	541	582.5	-
BK10Z-../D05..	170	88	123	464	100	117	506	567	608.5	-
BK10-../D06..	170	62	123	438	100	119	480	541	582.5	-
BK10Z-../D06..	170	88	123	464	100	119	506	567	608.5	-
BK10-../D07..	190	62	123	458	100	119	500	561	602.5	-
BK10Z-../D07..	190	88	123	484	100	119	526	587	628.5	-
BK10-../D..08..	200	66	156	472	115	136.5	538	579	645.5	538
BK10Z-../D..08..	200	132	156	538	115	136.5	604	645	711.5	604
BK10-../D..09..	251	80.5	181	537.5	124	158	630.5	644.5	735	630.5

The actual gearbox design can vary from the geometry shown.

BK10 - BK10Z

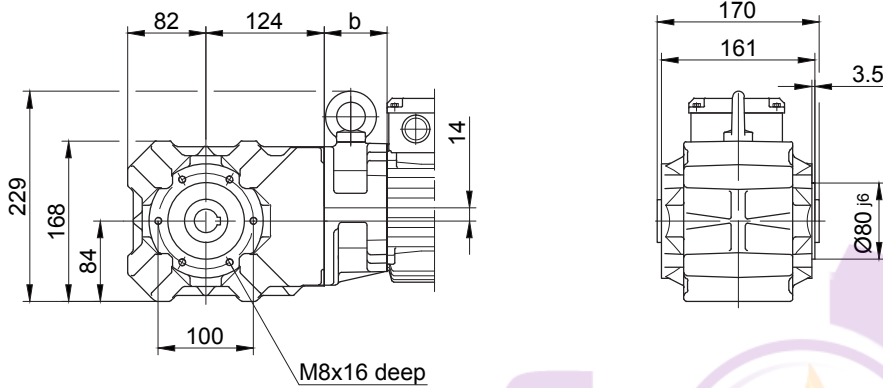
Torque arm at front

Code -5.V/



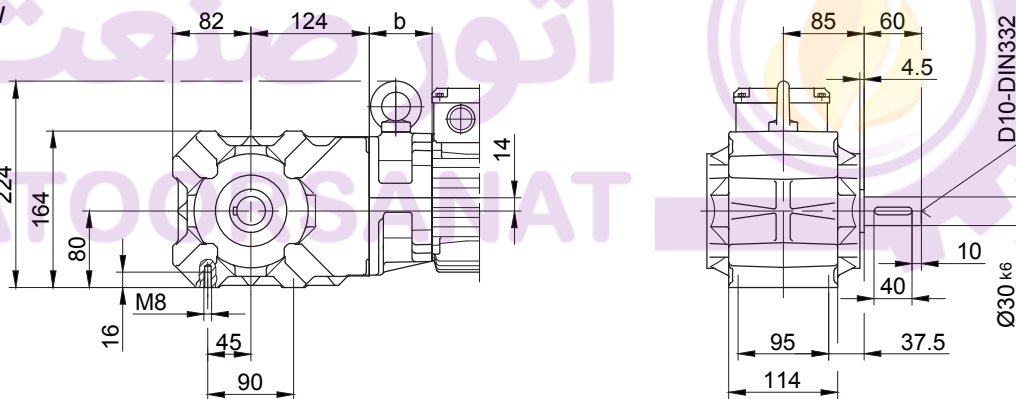
Flange with tapped holes at front

Code -7.V/



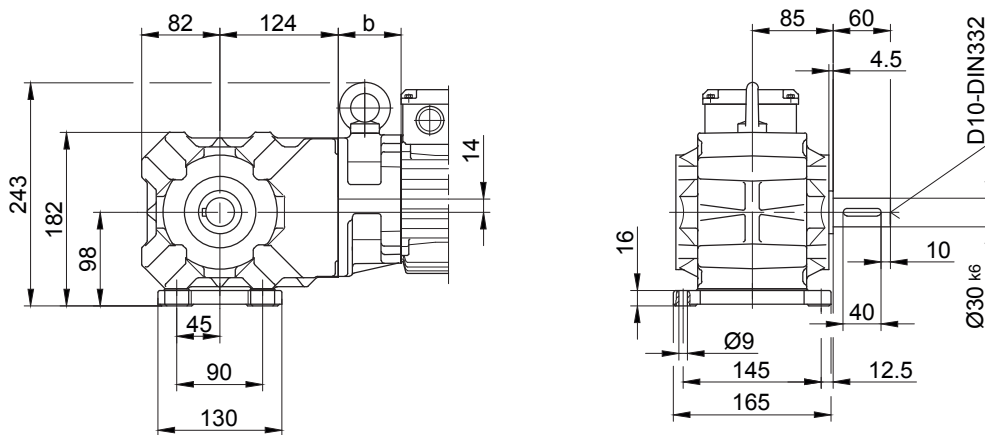
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



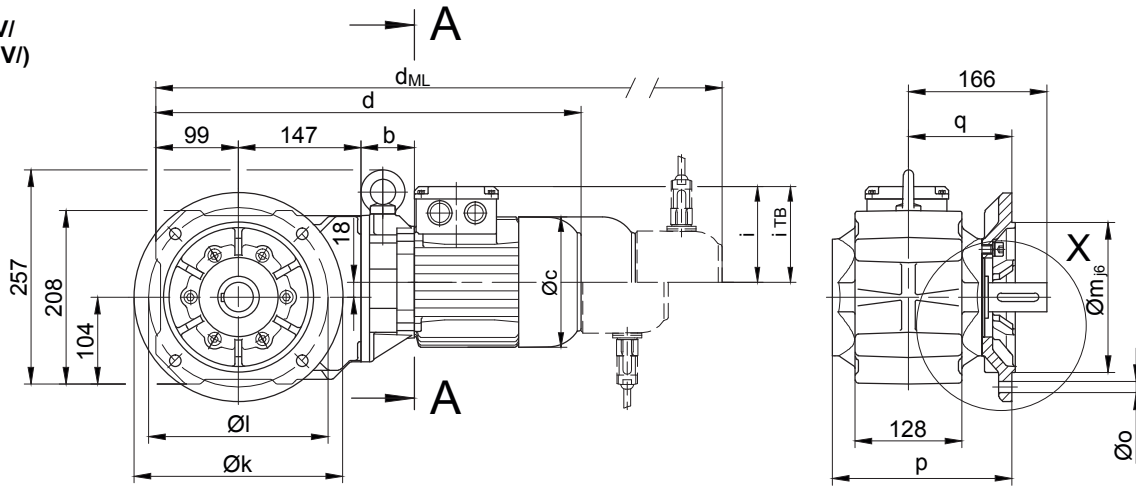
The actual gearbox design can vary from the geometry shown.

Dimension

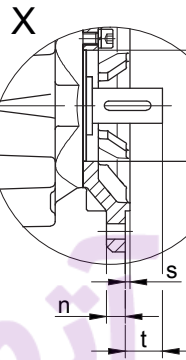
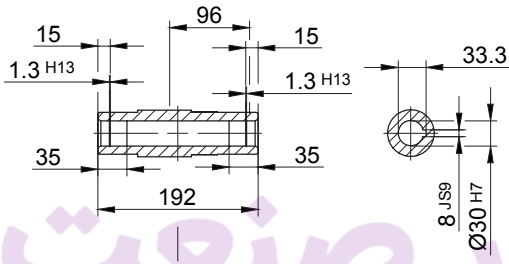
BK20 - BK20Z

Flange with clearance holes at front

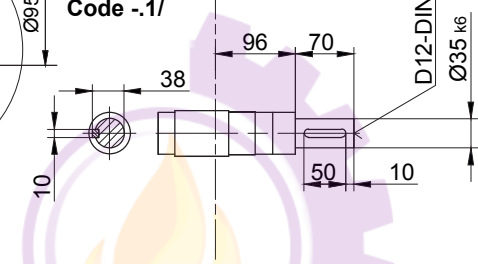
Code -3.V/
(Code -2.V/)



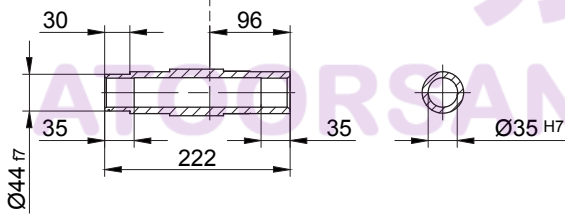
Code -4/



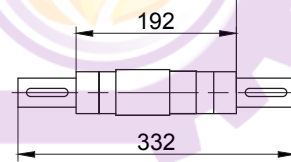
Code -1/



Code -5/

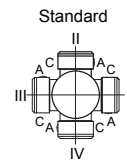


Code -3/



Flange dimensions

BK20(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	250	215	180	16	13.5	215.5	124	4	42
small -2.V/	200	165	130	12	11	206.5	115	3.5	51



A-A

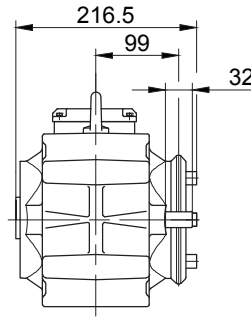
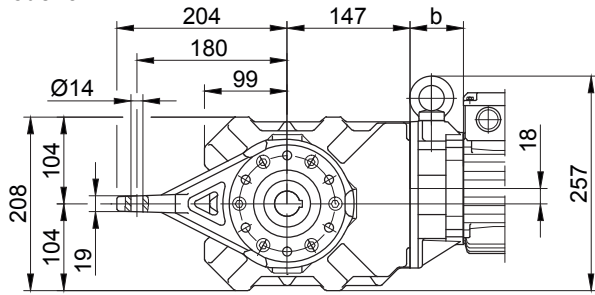
Type	a	b	c	d	i	i _{TB}	Design with motor extensions			
							ES../ZS..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BK20Z-../D04..	143	100	111	489	90	112	532.5	551.5	594.5	-
BK20-../D05..	170	60	123	476	100	117	518	579	620.5	-
BK20Z-../D05..	170	102	123	518	100	117	560	621	662.5	-
BK20-../D06..	170	60	123	476	100	119	518	579	620.5	-
BK20Z-../D06..	170	102	123	518	100	119	560	621	662.5	-
BK20-../D07..	190	60	123	496	100	119	538	599	640.5	-
BK20Z-../D07..	190	102	123	538	100	119	580	641	682.5	-
BK20-../D..08..	200	64	156	510	115	136.5	576	617	683.5	576
BK20Z-../D..08..	200	146	156	592	115	136.5	658	699	765.5	658
BK20-../D..09..	251	78.5	181	575.5	124	158	668.5	682.5	773	668.5

The actual gearbox design can vary from the geometry shown.

BK20 - BK20Z

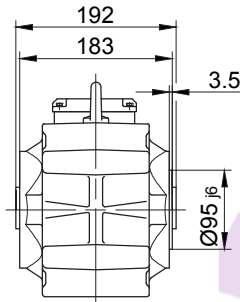
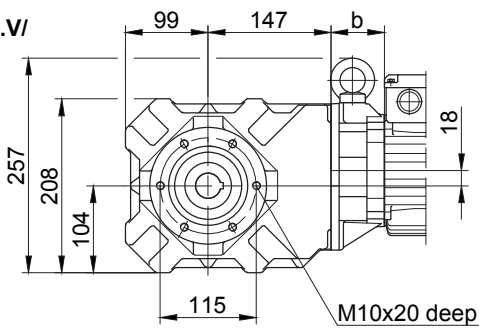
Torque arm at front

Code -5.V/



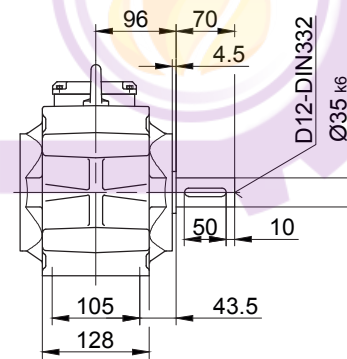
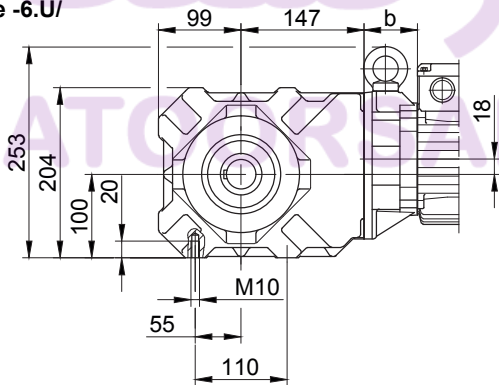
Flange with tapped holes at front

Code -7.V/



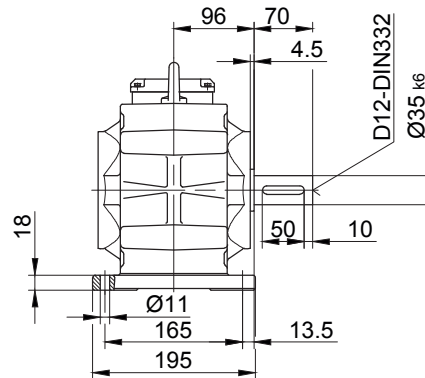
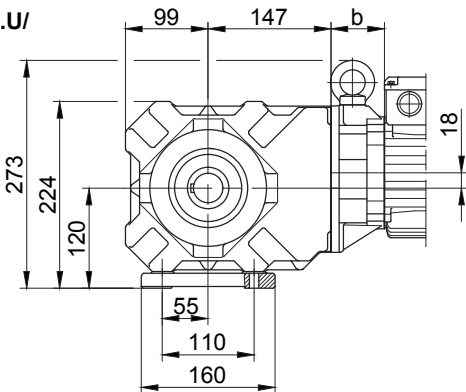
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/

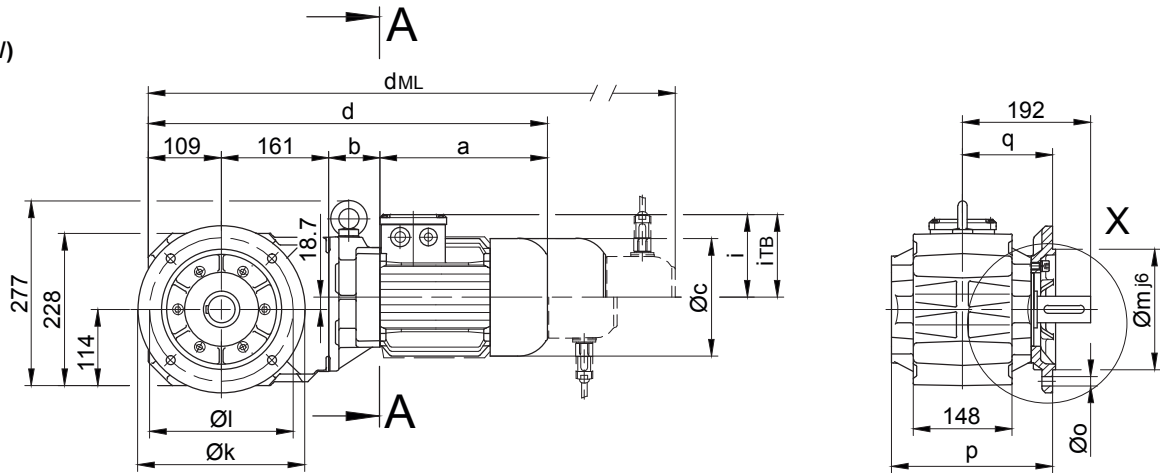


The actual gearbox design can vary from the geometry shown.

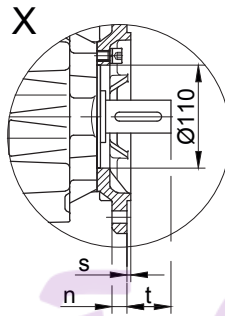
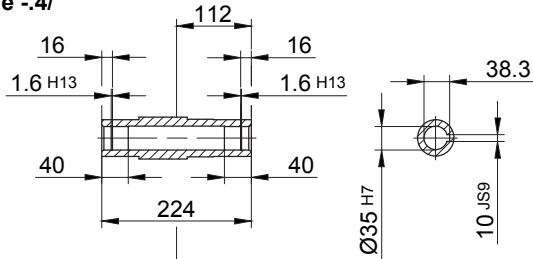
BK30 - BK30Z

Flange with clearance holes at front

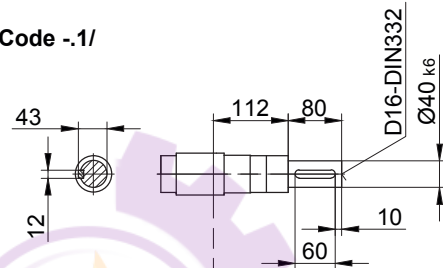
Code -3.V/
(Code -2.V/)



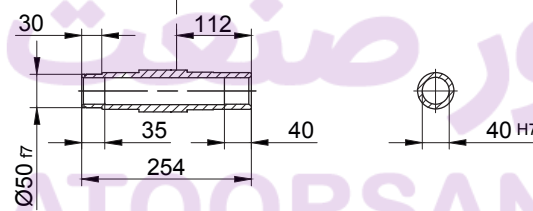
Code -4/



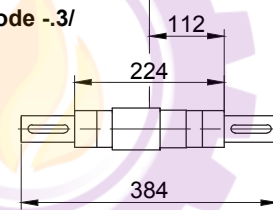
Code -1/



Code -5/

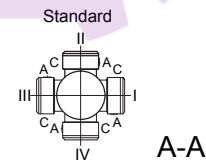


Code -3/



Flange dimensions

BK30(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	250	215	180	16	13.5	242	135	4	57
small-2.V/	200	165	130	12	11	239	132	3.5	60



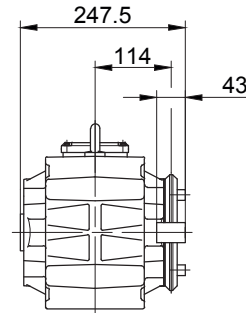
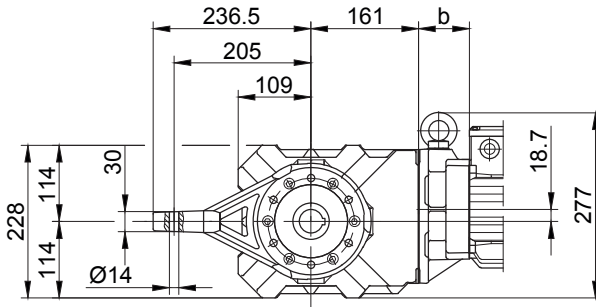
Type	a	b	c	d	i	i _{TB}	Design with motor extensions			
							E./ES..	G	E./ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BK30-../D05..	170	58	123	498	100	117	540	601	642.5	-
BK30Z-../D05..	170	133.5	123	573.5	100	117	615.5	676.5	718	-
BK30-../D06..	170	58	123	498	100	119	540	601	642.5	-
BK30Z-../D06..	170	133.5	123	573.5	100	119	615.5	676.5	718	-
BK30-../D07..	190	58	123	518	100	119	560	621	662.5	-
BK30Z-../D07..	190	133.5	123	593.5	100	119	635.5	696.5	738	-
BK30-../D..08..	200	62	156	532	115	136.5	598	639	705.5	598
BK30Z-../D..08..	200	137.5	156	607.5	115	136.5	673.5	714.5	781	673.5
BK30-../D..09..	251	76.5	181	597.5	124	158	690.5	704.5	795	690.5
BK30Z-../D..09..	251	152	181	673	124	158	766	780	870.5	766
BK30-../D..11..	319	83	228	672	181	181	770	779	874.5	770

The actual gearbox design can vary from the geometry shown.

BK30 - BK30Z

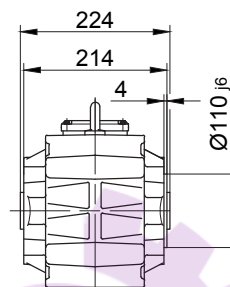
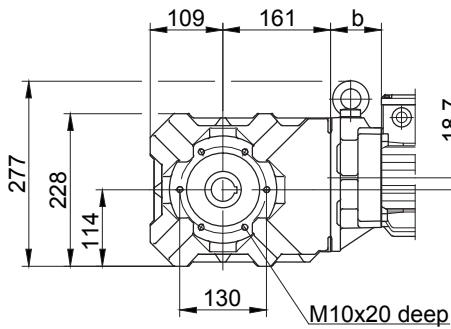
Torque arm at front

Code -5.V/



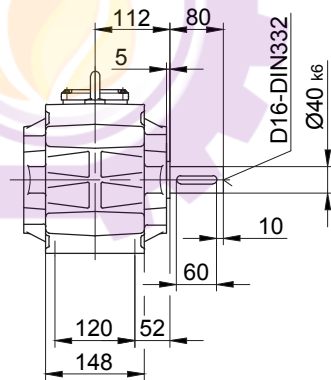
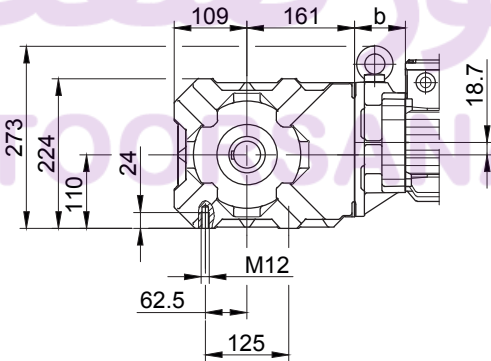
Flange with tapped holes at front

Code -7.V/



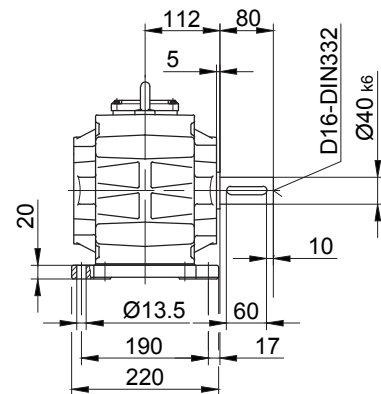
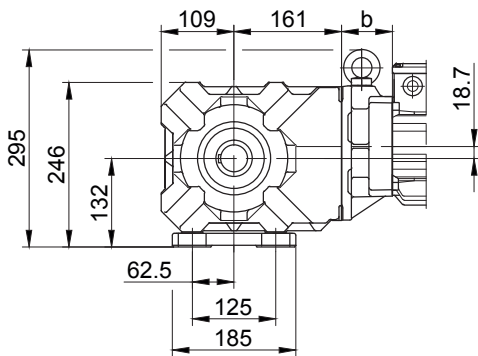
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



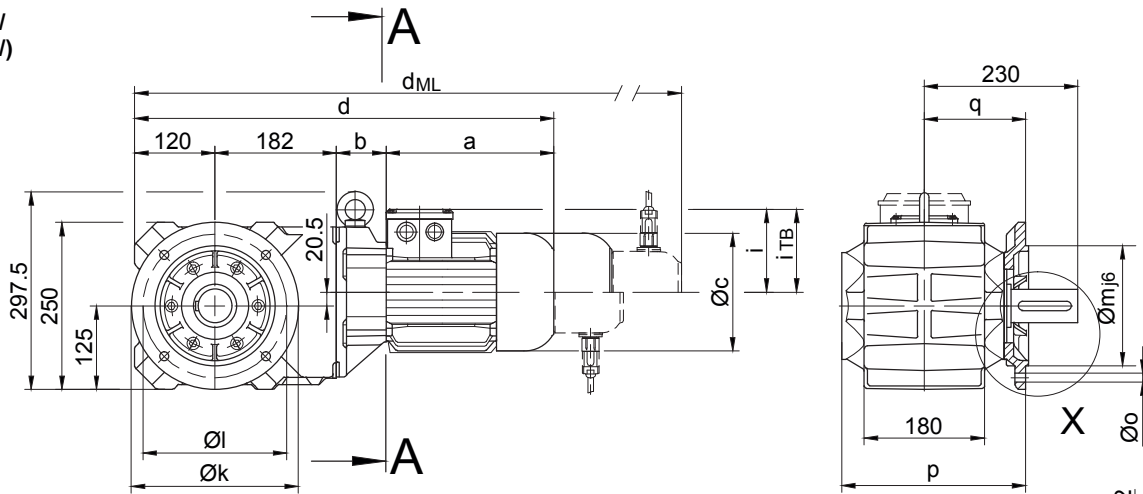
The actual gearbox design can vary from the geometry shown.

Dimension

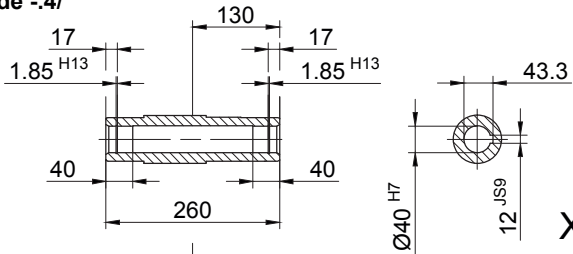
BK40 - BK40Z

Flange with clearance holes at front

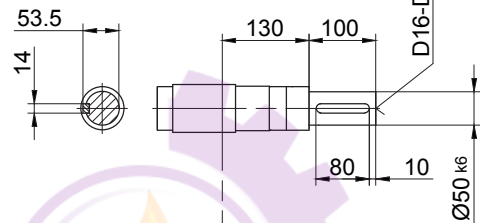
Code -3.V/
(Code 4.V/)



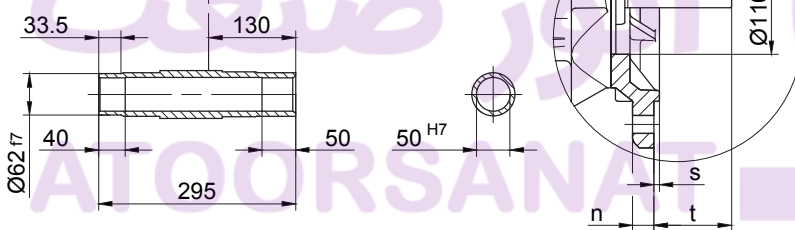
Code -4/



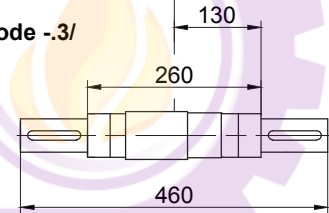
Code -1/



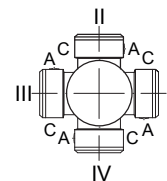
Code -5/



Code -3/



Standard



A-A

Flange dimensions

BK40(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	250	215	180	16	13.5	276	152	4	78
big -4.V/	300	265	230	20	13.5	282	158	4	72

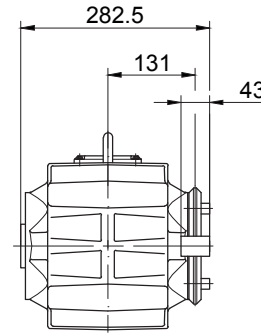
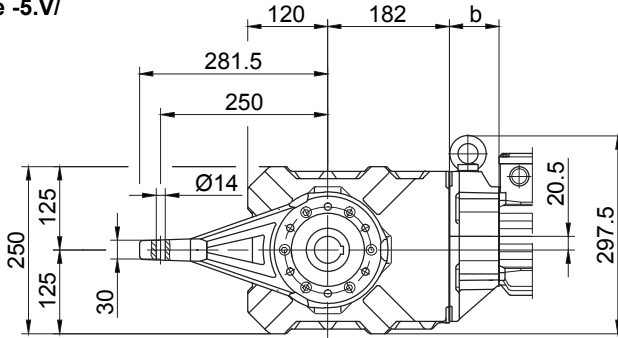
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BK40Z-../D05..	170	138.5	123	610.5	100	117	652.5	713.5	755	-
BK40Z-../D06..	170	138.5	123	610.5	100	119	652.5	713.5	755	-
BK40Z-../D07..	190	138.5	123	630.5	100	119	672.5	733.5	775	-
BK40-../D..08..	200	60	156	562	115	136.5	628	669	735.5	628
BK40Z-../D..08..	200	142.5	156	644.5	115	136.5	710.5	751.5	818	710.5
BK40-../D..09..	251	74.5	181	627.5	124	158	720.5	734.5	825	720.5
BK40Z-../D..09..	251	157	181	710	124	158	803	817	907.5	803
BK40-../D..11..	319	81	228	702	181	181	800	809	904.5	800

The actual gearbox design can vary from the geometry shown.

BK40 - BK40Z

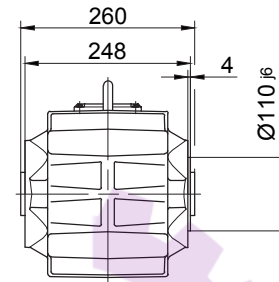
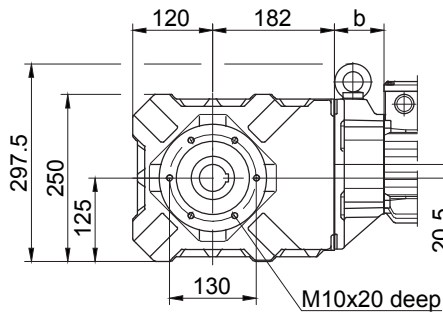
Torque arm at front

Code -5.V/



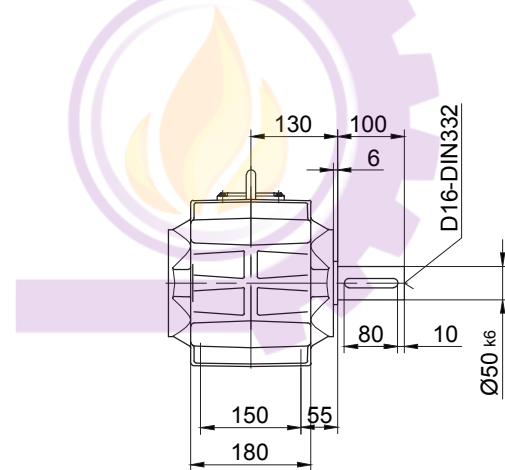
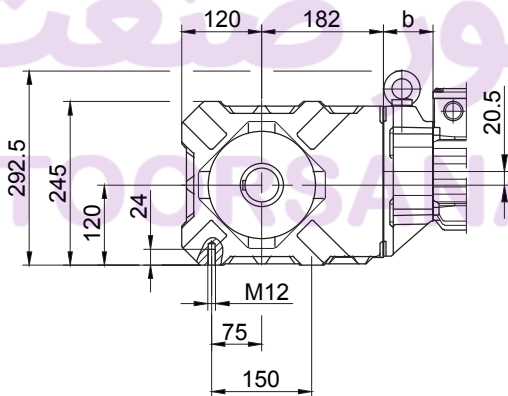
Flange with tapped holes at front

Code -7.V/



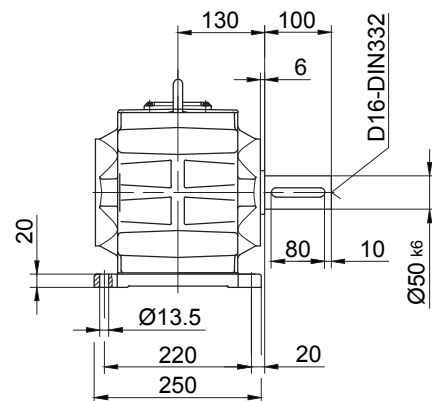
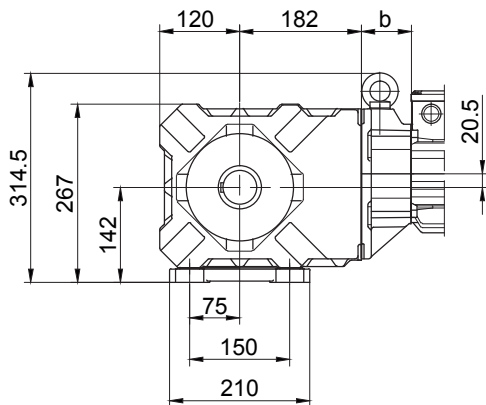
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



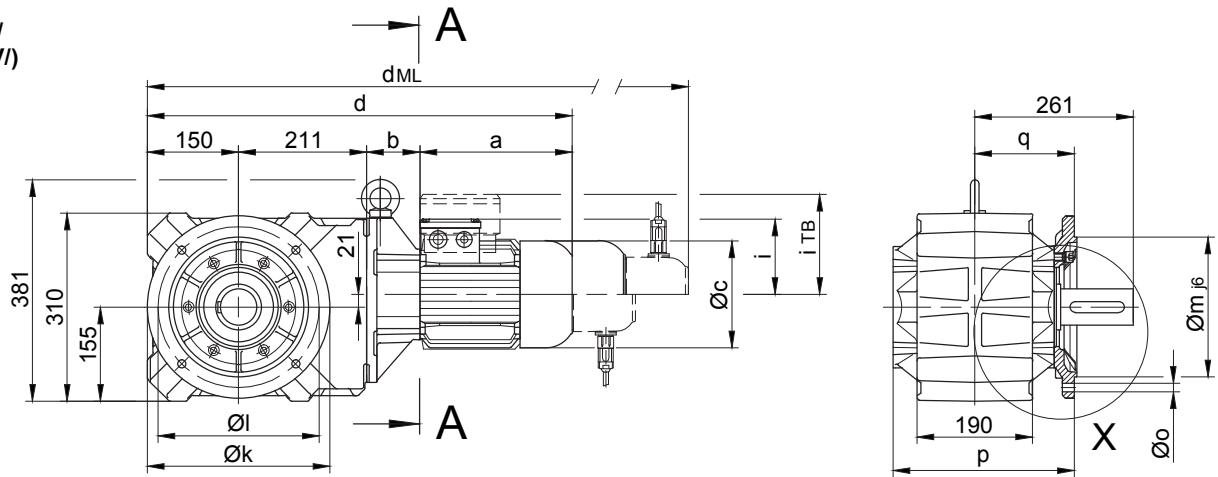
The actual gearbox design can vary from the geometry shown.

Dimension

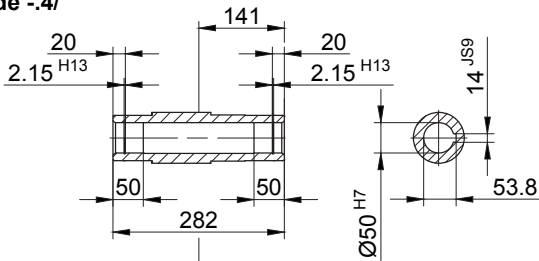
BK50 - BK50Z

Flange with clearance holes at front

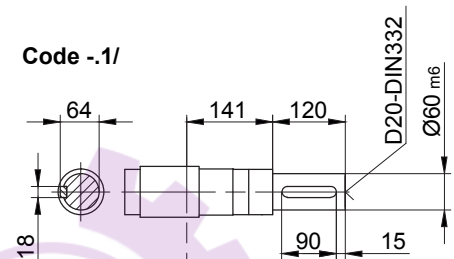
Code -3.V/
(Code -2.V/)



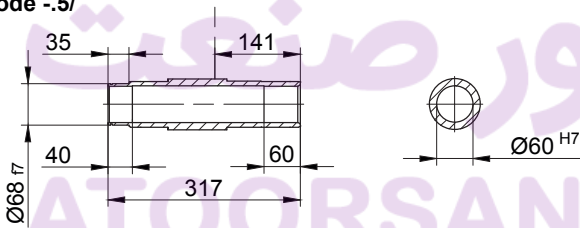
Code -4/



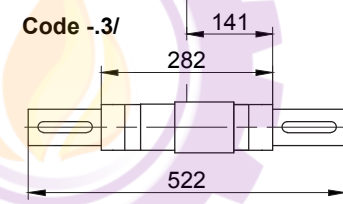
Code -1/



Code -5/

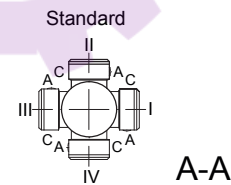


Code -3/



Flange dimensions

	k	l	m	n	o	p	q	s	t
BK50(Z)									
Standard -3.V/	300	265	230	20	13.5	298.5	164	4	97
small -2.V/	250	215	180	16	13.5	296	161	4	100



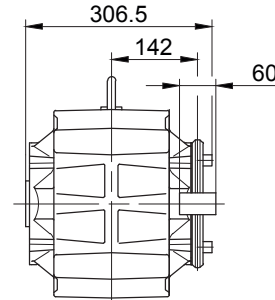
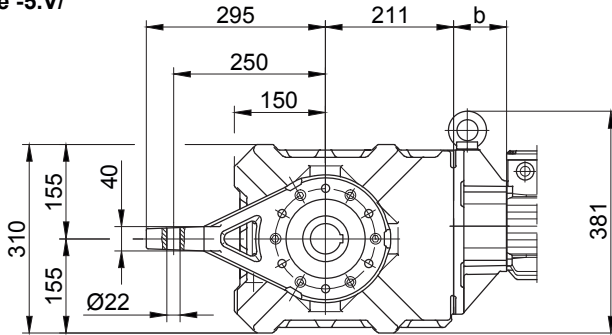
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E..ES../ZS..	G	E..ES../ZS..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BK50Z-../D05..	170	155	123	686	100	117	728	789	830.5	-
BK50Z-../D06..	170	155	123	686	100	119	728	789	830.5	-
BK50Z-../D07..	190	155	123	706	100	119	748	809	850.5	-
BK50-../D..08..	200	73	156	634	115	136.5	700	741	807.5	700
BK50Z-../D..08..	200	159	156	720	115	136.5	786	827	893.5	786
BK50-../D..09..	251	87.5	181	699.5	124	158	792.5	806.5	897	792.5
BK50Z-../D..09..	251	173.5	181	785.5	124	158	878.5	892.5	983	878.5
BK50-../D..11..	319	94	228	774	181	181	872	881	976.5	872
BK50-../D..13..	393	107	258	861	218	218	972	968	1076.5	972
BK50-../D..16..	429	121	322	911	244	244	1055	1019	1159	1055
BK50-../D..18..	528	143	368	1032	288	288	1181	1140	1285	1181

The actual gearbox design can vary from the geometry shown.

BK50 - BK50Z

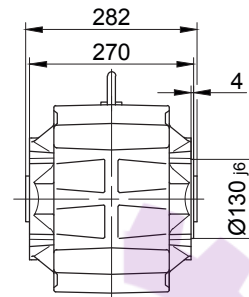
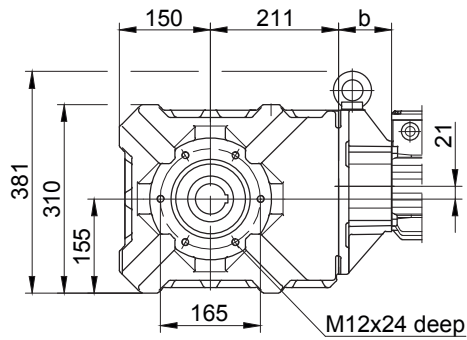
Torque arm at front

Code -5.V/



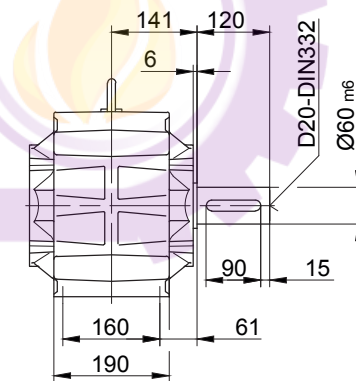
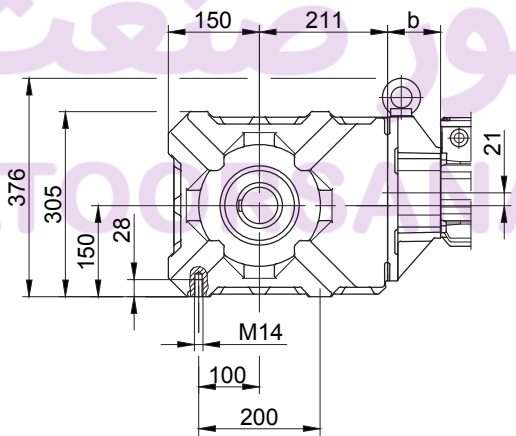
Flange with tapped holes at front

Code -7.V/



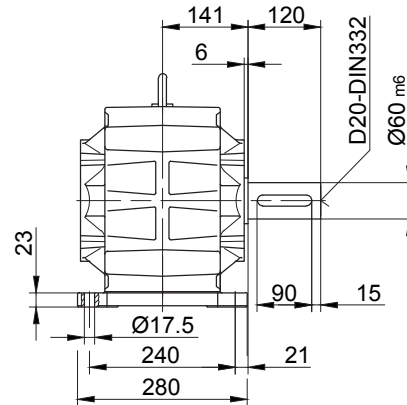
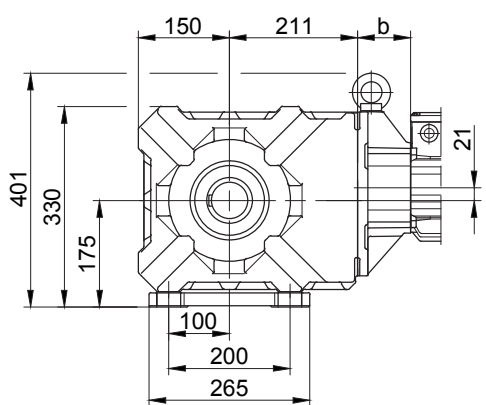
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

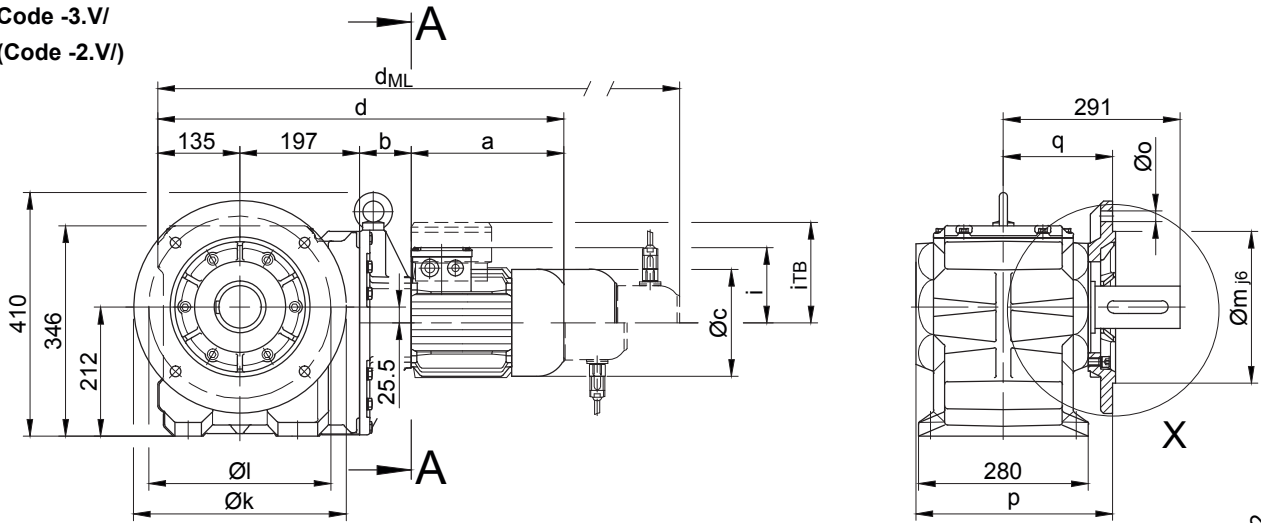
Code -1.U/



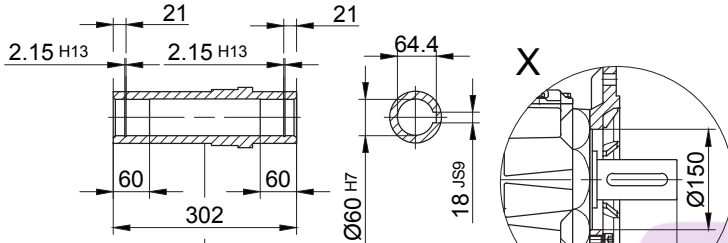
The actual gearbox design can vary from the geometry shown.

BK60 - BK60Z

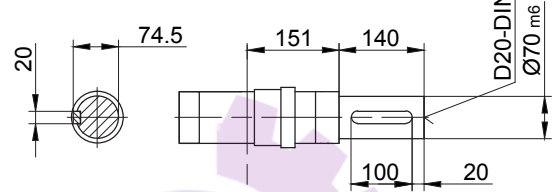
Code -3.V/
(Code -2.V/)



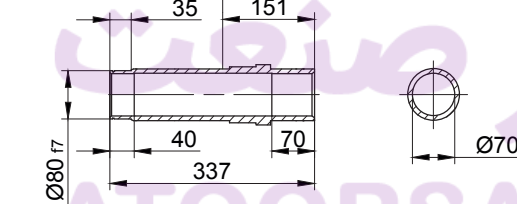
Code -4/



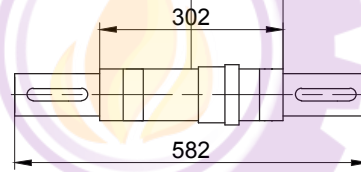
Code -1/



Code -5/

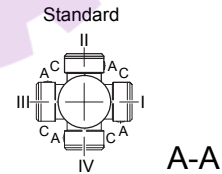


Code -3/



Flange dimensions

BK60(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	350	300	250 _{h6}	20	17.5	324	180	5	111
small -2.V/	300	265	230 _{j6}	20	13.5	332	188	4	103



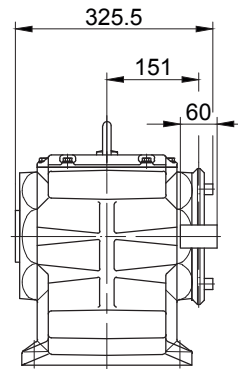
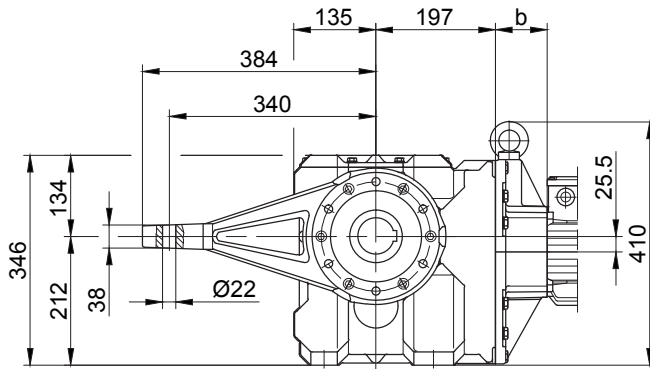
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES./ZS..	G	ES./ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BK60Z-../D..08..	200	181	156	713	115	136.5	779	820	886.5	779
BK60-../D..09..	251	85.5	181	668.5	124	158	761.5	775.5	866	761.5
BK60Z-../D..09..	251	195.5	181	778.5	124	158	871.5	885.5	976	871.5
BK60-../D..11..	319	92	228	743	181	181	841	850	945.5	841
BK60Z-../D..11..	319	202	228	853	181	181	951	960	1055.5	951
BK60-../D..13..	393	105	258	830	218	218	941	937	1045.5	941
BK60-../D..16..	429	119	322	880	244	244	1024	988	1128	1024
BK60Z-../D..16..	528	141	368	902	288	288	1146	1010	1150	1146

The actual gearbox design can vary from the geometry shown.

BK60 - BK60Z

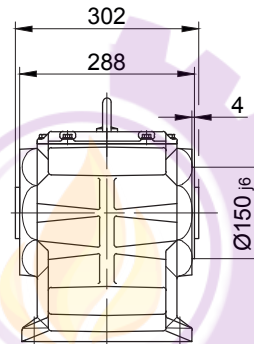
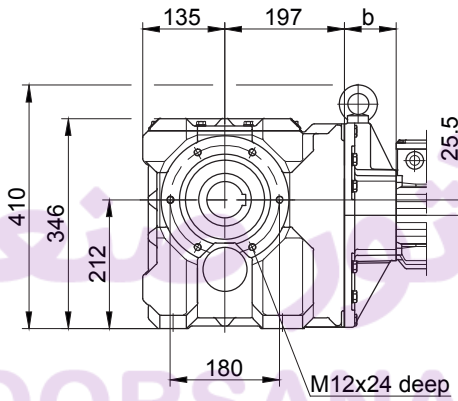
Torque arm at front

Code -5.V/



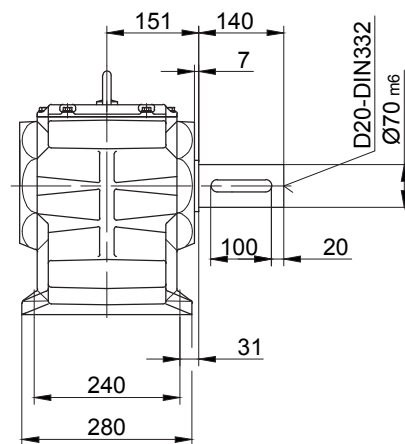
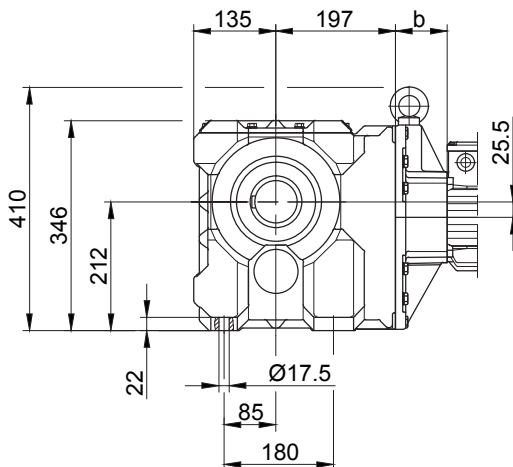
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/

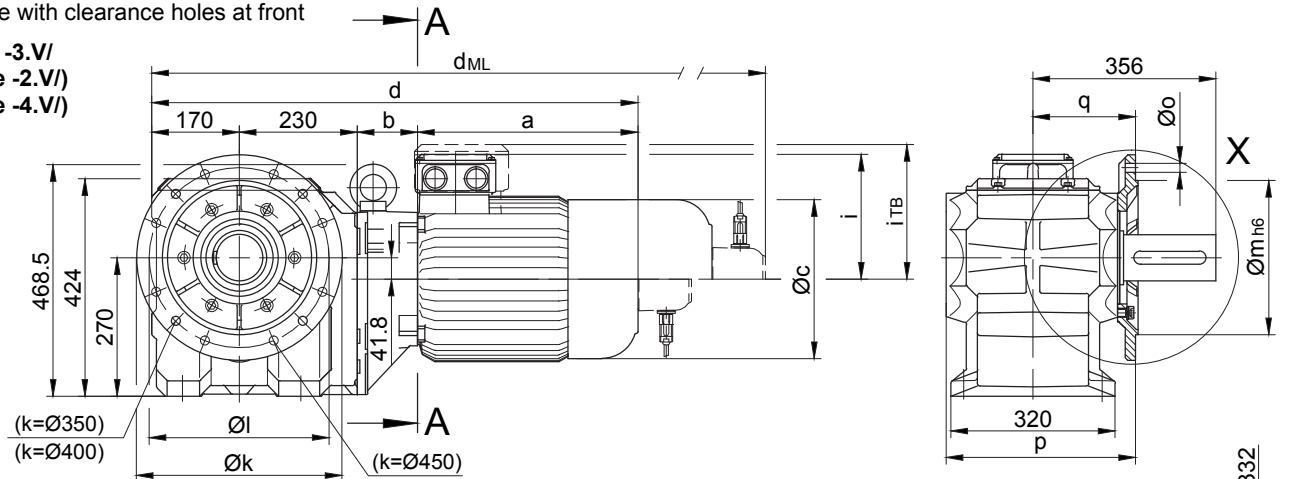


The actual gearbox design can vary from the geometry shown.

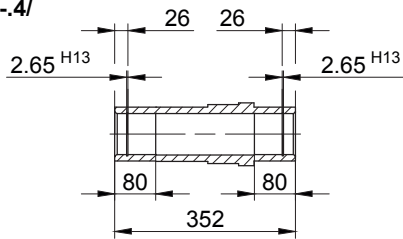
BK70 - BK70Z

Flange with clearance holes at front

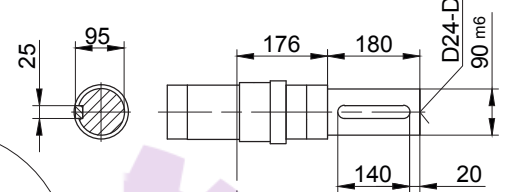
Code -3.V/
(Code -2.V/
(Code -4.V/)



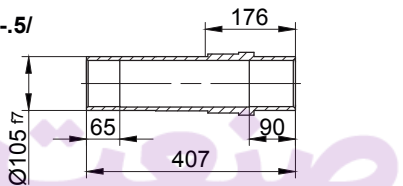
Code -4/



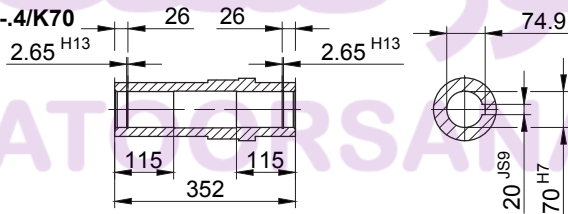
Code -1/



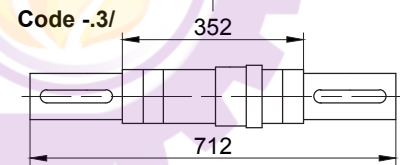
Code -5/



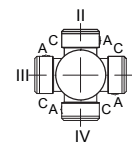
Code -4/K70



Code -3/



Standard



A-A

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

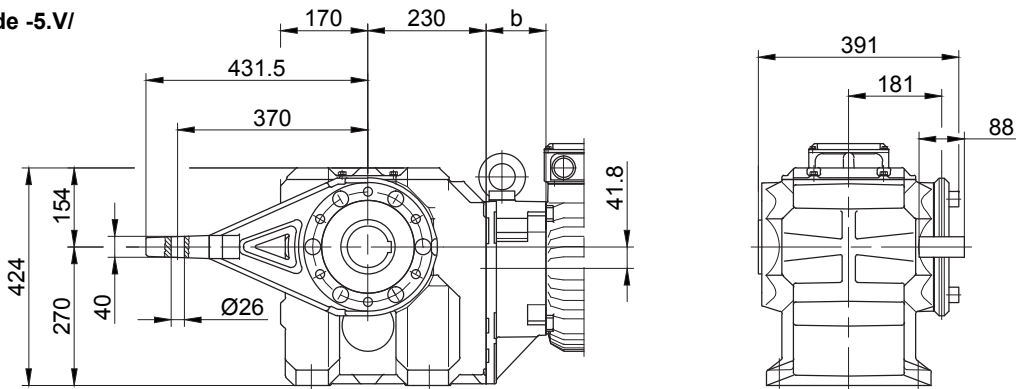
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BK70Z-./D..08..	200	202	156	802	115	136.5	868	909	975.5	868
BK70-./D..09..	251	83.5	181	734.5	124	158	827.5	841.5	932	827.5
BK70Z-./D..09..	251	216.5	181	867.5	124	158	960.5	974.5	1065	960.5
BK70-./D..11..	319	90	228	809	181	181	907	916	1011.5	907
BK70Z-./D..11..	319	223	228	942	181	181	1040	1049	1144.5	1040
BK70-./D..13..	393	103	258	896	218	218	1007	1003	1111.5	1007
BK70Z-./D..13..	393	236	258	1029	218	218	1140	1136	1244.5	1140
BK70-./D..16..	429	117	322	946	244	244	1090	1054	1194	1090
BK70Z-./D..16..	429	250	322	1079	244	244	1223	1187	1327	1223
BK70-./D..18..	528	139	368	1067	288	288	1216	1175	1320	1216
BK70Z-./D..18..	528	272	368	1200	288	288	1349	1308	1453	1349

The actual gearbox design can vary from the geometry shown.

BK70 - BK70Z

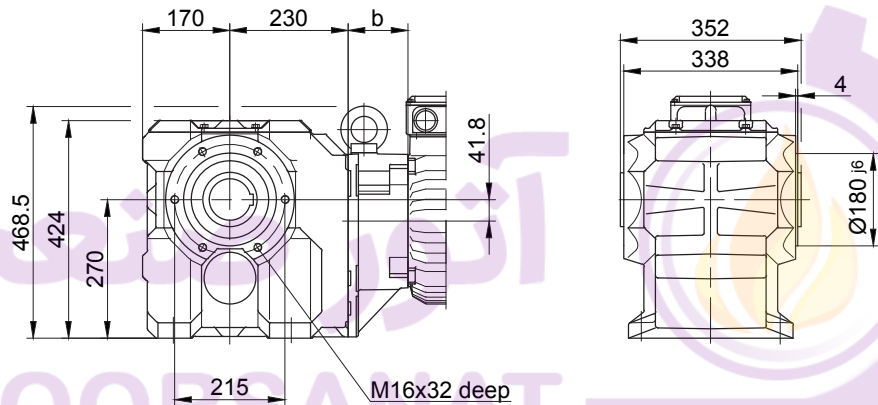
Torque arm at front

Code -5.V/



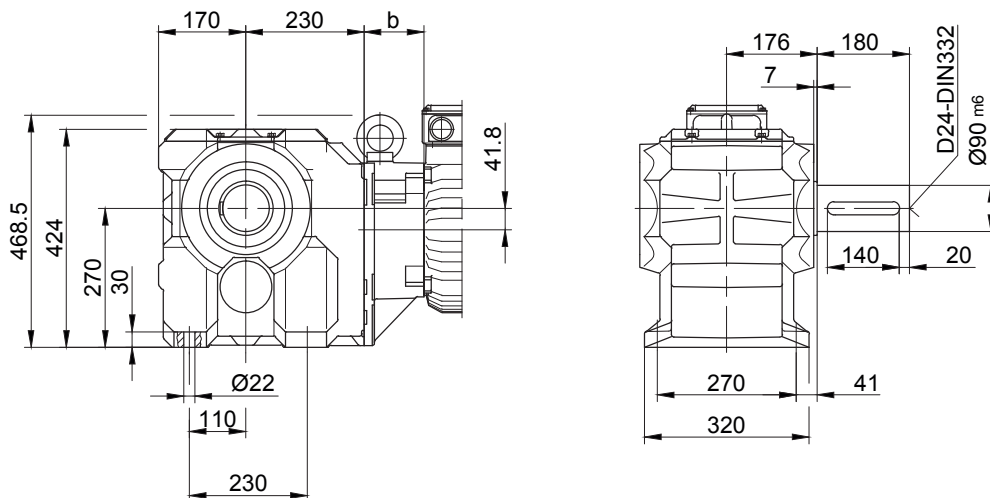
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/

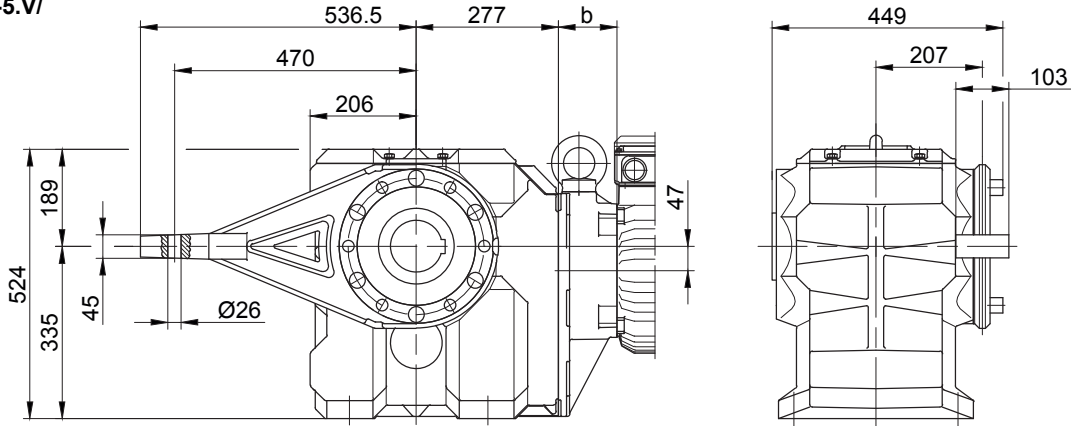


The actual gearbox design can vary from the geometry shown.

BK80 - BK80Z

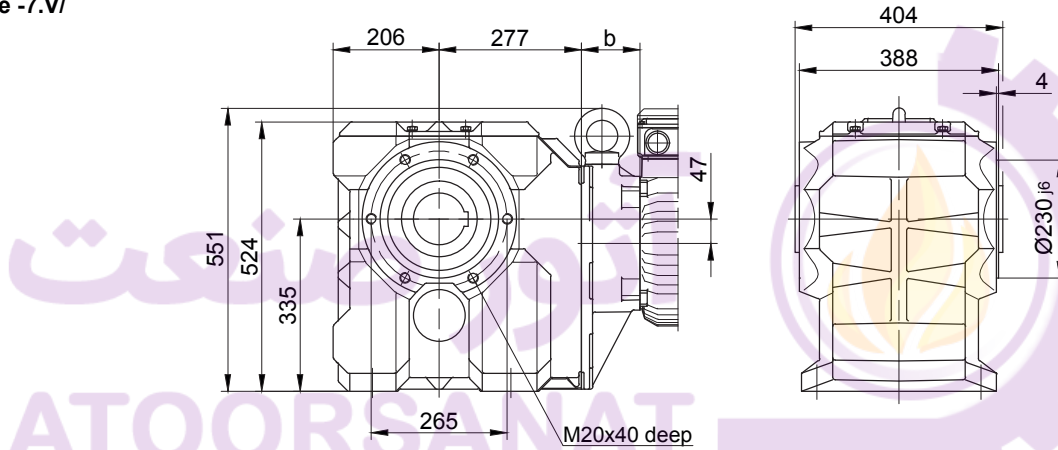
Torque arm at front

Code -5.V/



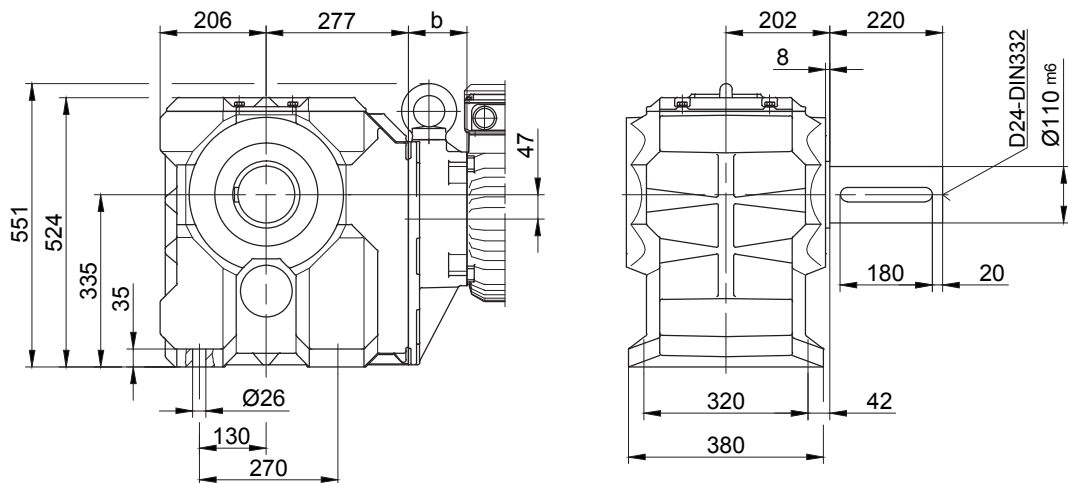
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/

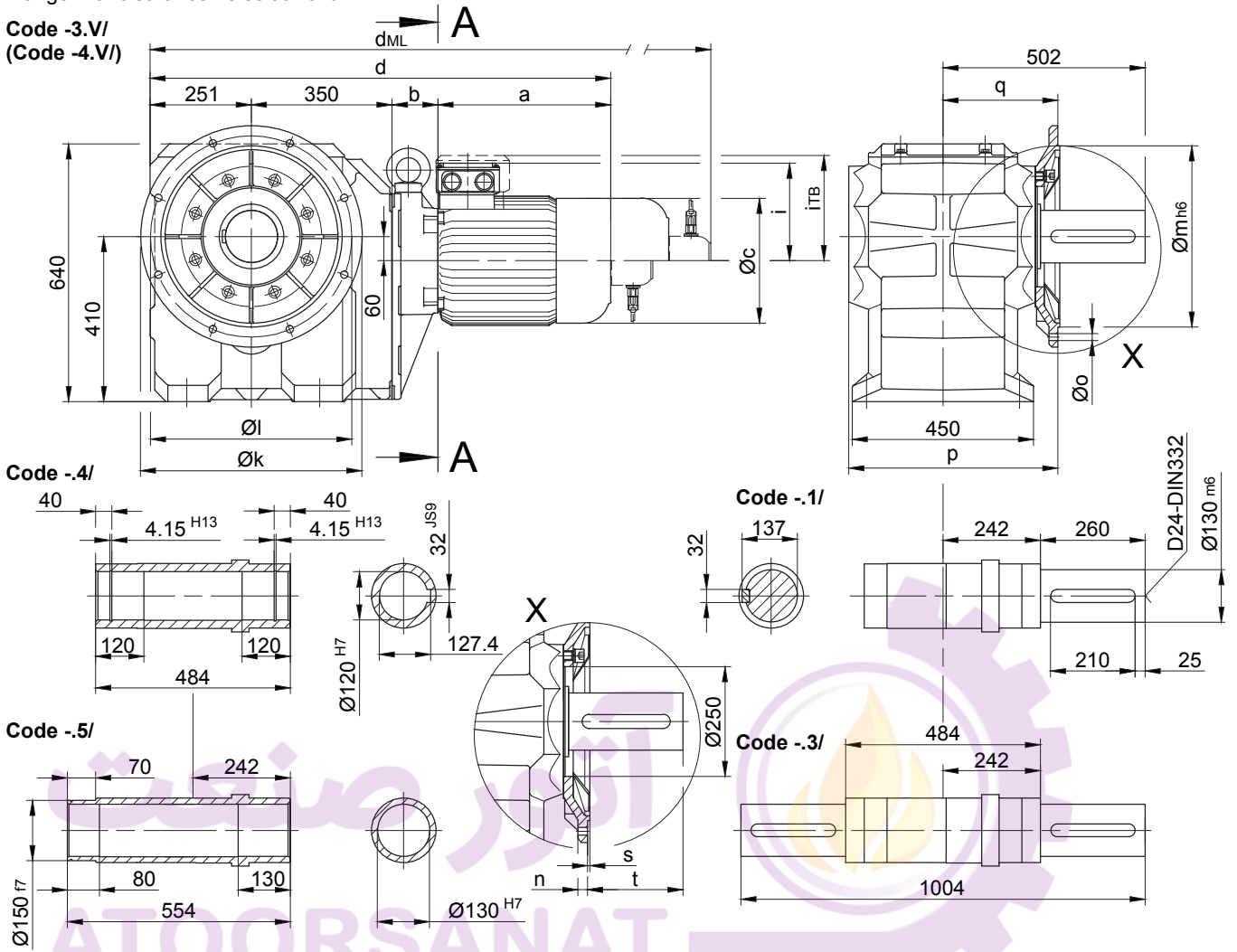


The actual gearbox design can vary from the geometry shown.

BK90 - BK90Z

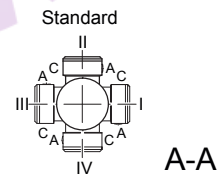
Flange with clearance holes at front

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



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



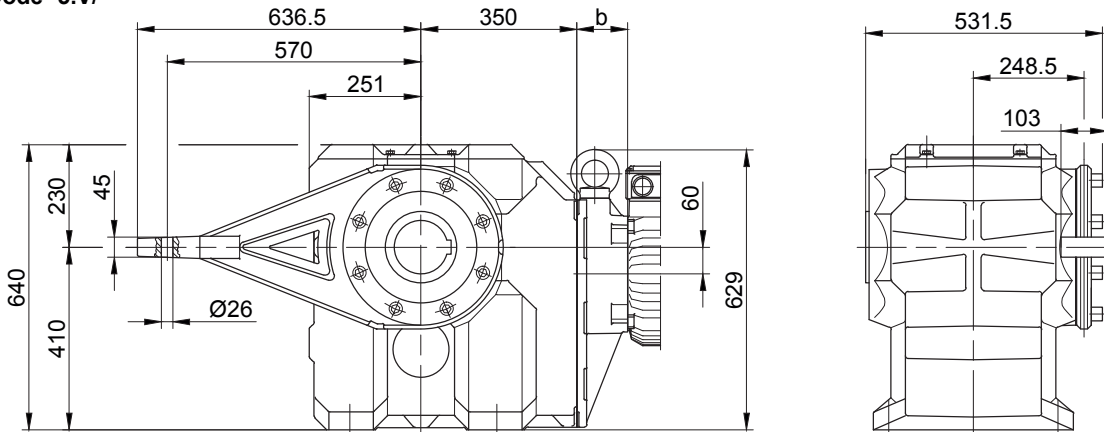
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	ES.../ZS..	G	ES.../ZS..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BK90Z-.../D..09..	251	267	181	1119	124	158	1212	1226	1316.5	1212
BK90Z-.../D..11..	319	273.5	228	1193.5	181	181	1291.5	1300.5	1396	1291.5
BK90-.../D..13..	393	100	258	1020	218	218	1118	1127	1222.5	1118
BK90Z-.../D..13..	393	286.5	258	1280.5	218	218	1391.5	1387.5	1496	1391.5
BK90-.../D..16..	429	114	322	1108	244	244	1219	1215	1323.5	1219
BK90Z-.../D..16..	429	300.5	322	1330.5	244	244	1474.5	1438.5	1578.5	1474.5
BK90-.../D..18..	528	136	368	1166	288	288	1310	1274	1414	1310
BK90Z-.../D..18..	528	322.5	368	1451.5	288	288	1600.5	1559.5	1704.5	1600.5

The actual gearbox design can vary from the geometry shown.

BK90 - BK90Z

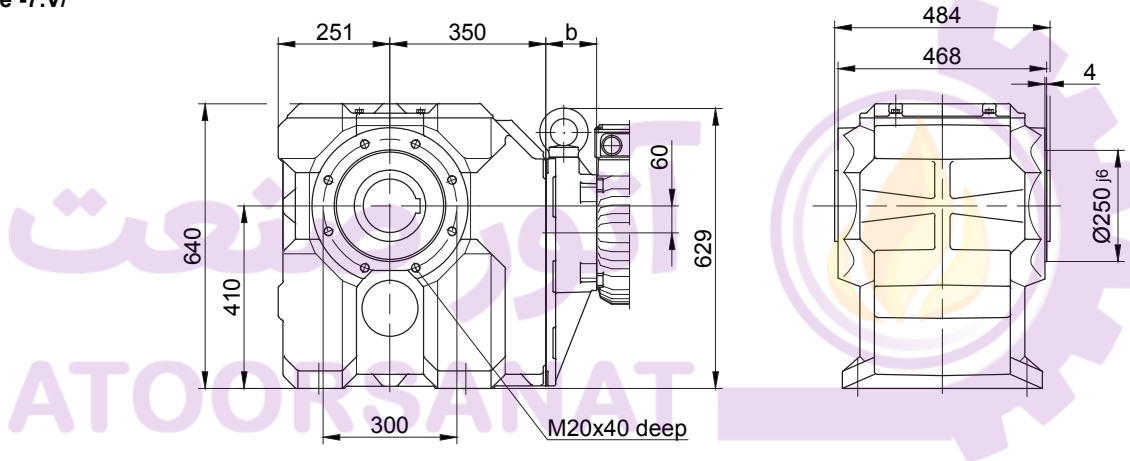
Torque arm at front

Code -5.V/



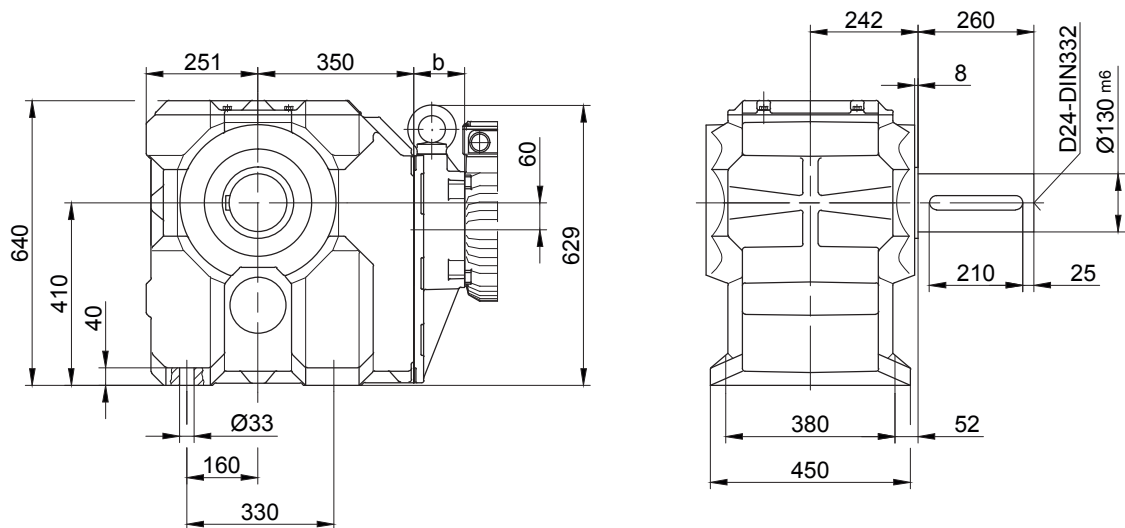
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/

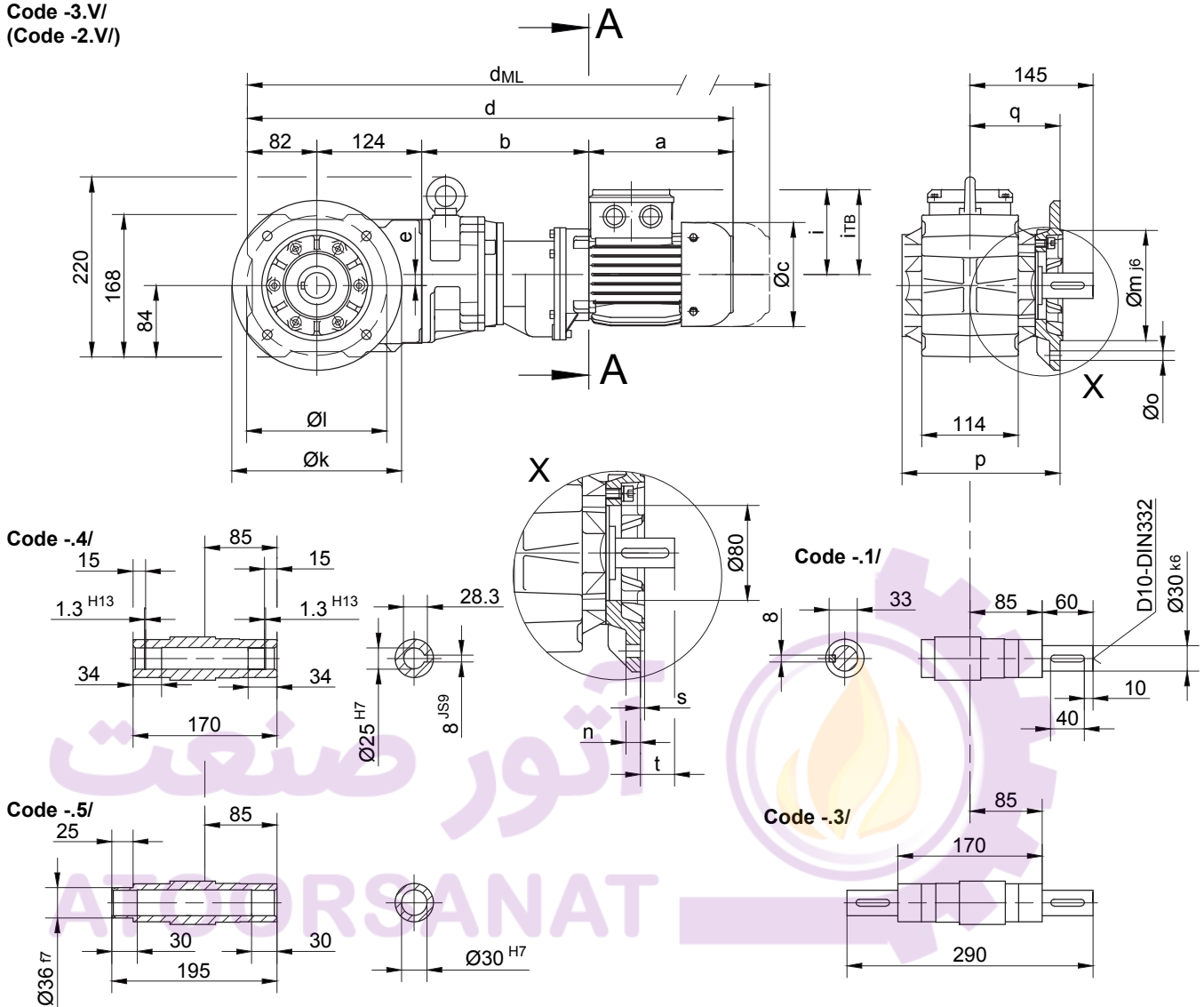


The actual gearbox design can vary from the geometry shown.

BK10G06

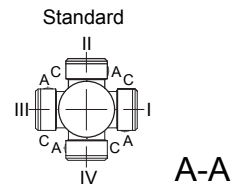
Flange with clearance holes at front

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



Flange dimensions

BK10G..	k	l	m	n	o	p	q	s	t
Standard -3.V/	200	165	130	12	11	186.5	106	3.5	39
small -2.V/	160	130	110	10	9	179.5	99	3.5	46



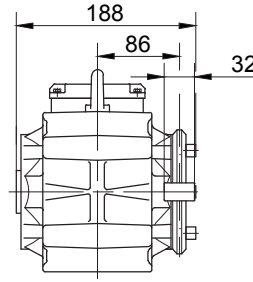
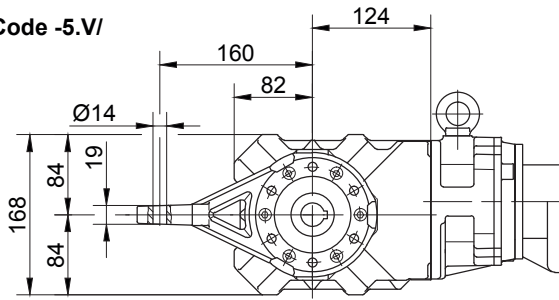
Type	a	b	c	d	e	i	Design with motor extensions				
							i_{TB}	E../ES..	G	E../ES..-G	RR/RL
							d_{ML}	d_{ML}	d_{ML}	d_{ML}	
BK10G06-../D04..	143	195	111	544	13	90	112	587.5	606.5	649.5	-
BK10G06-../D05..	170	197	123	573	13	100	117	615	676	715.5	-
BK10G06-../D06..	170	197	123	573	13	100	119	615	676	715.5	-
BK10G06-../D07..	190	197	123	593	13	100	119	635	696	737.5	-
BK10G06-../D..08..	200	241	156	647	13	115	136.5	713	754	820.5	713

The actual gearbox design can vary from the geometry shown.

BK10G06

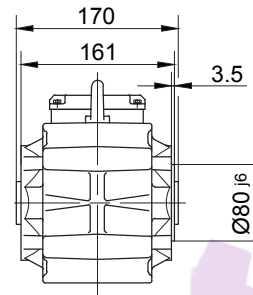
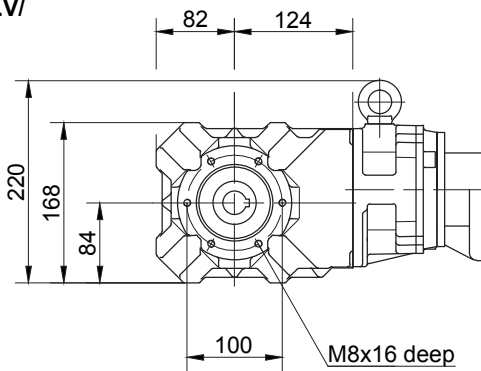
Torque arm at front

Code -5.V/



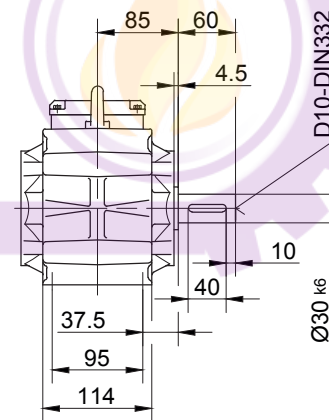
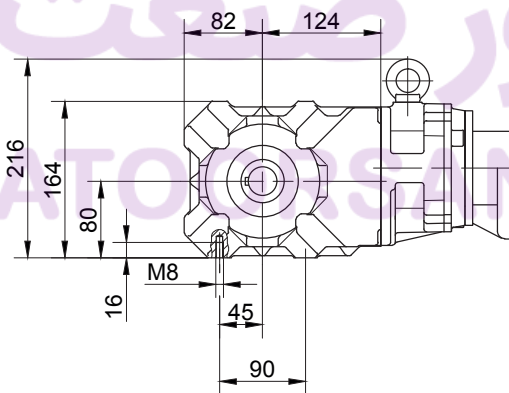
Flange with tapped holes at front

Code -7.V/



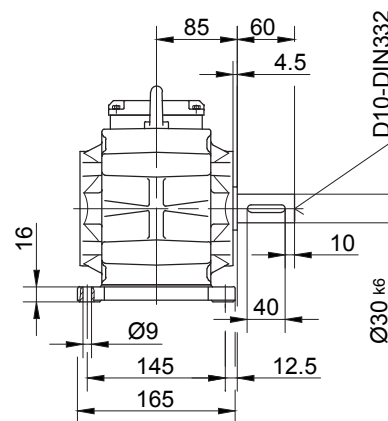
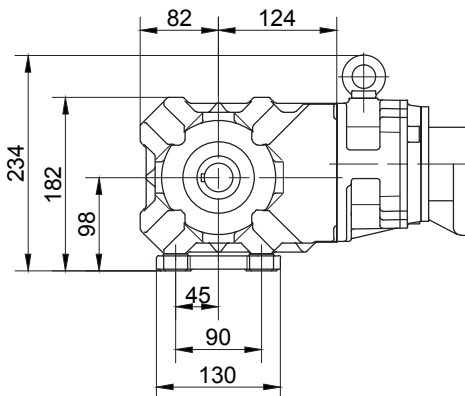
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



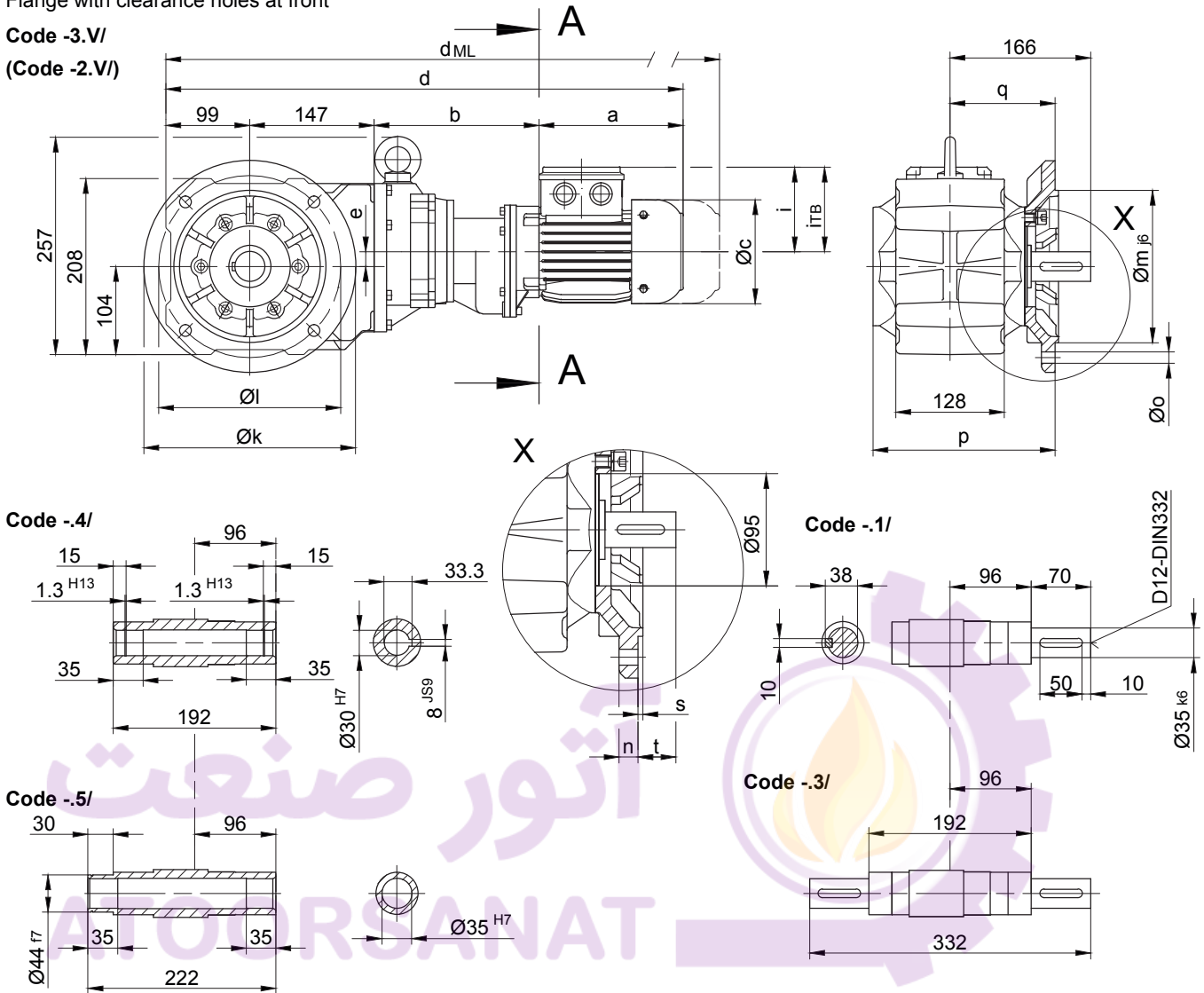
The actual gearbox design can vary from the geometry shown.

BK20G06

Flange with clearance holes at front

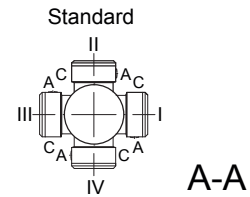
Code -3.V/
(Code -2.V/)

(Code -2.V/)



Flange dimensions

BK20G..	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



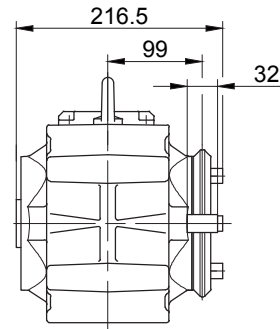
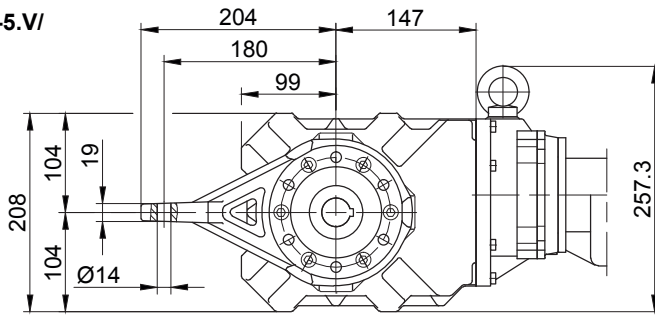
Type	a	b	c	d	e	i	Design with motor extensions				
							i_{TB}	E../ES..	G	E../ES..-G	RR/RL
							d_{ML}	d_{ML}	d_{ML}	d_{ML}	
BK20G06-../D04..	143	193	111	582	17	90	112	625.5	644.5	687.5	-
BK20G06-../D05..	170	195	123	611	17	100	117	653	714	755.5	-
BK20G06-../D06..	170	195	123	611	17	100	119	653	714	755.5	-
BK20G06-../D07..	190	195	123	631	17	100	119	673	734	775.5	-
BK20G06-../D..08..	200	239	156	685	17	115	136.5	751	792	858.5	751

The actual gearbox design can vary from the geometry shown.

BK20G06

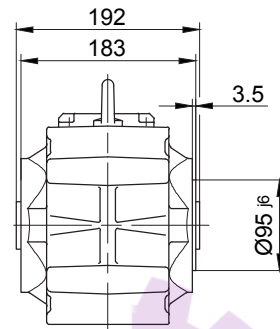
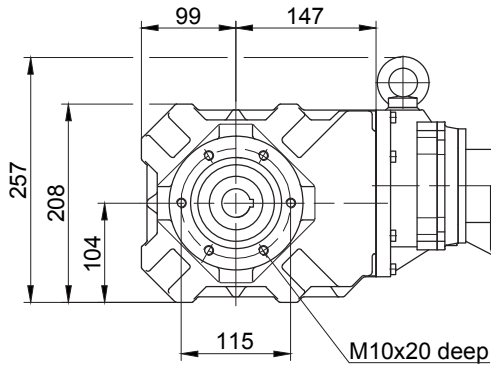
Torque arm at front

Code -5.V/



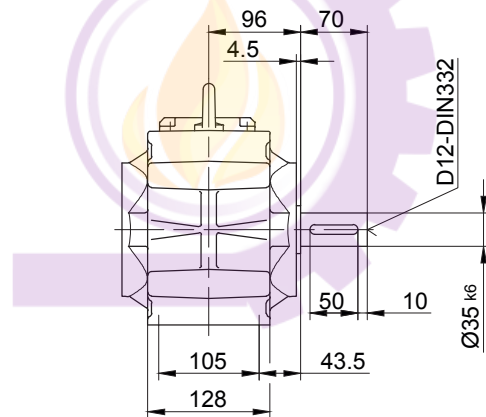
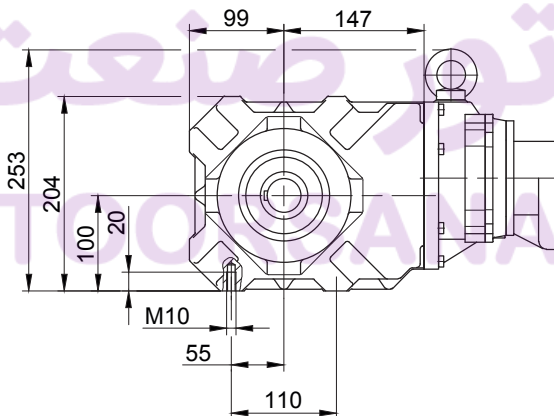
Flange with tapped holes at front

Code -7.V/



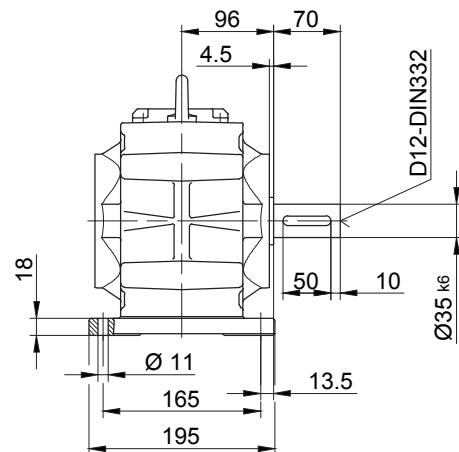
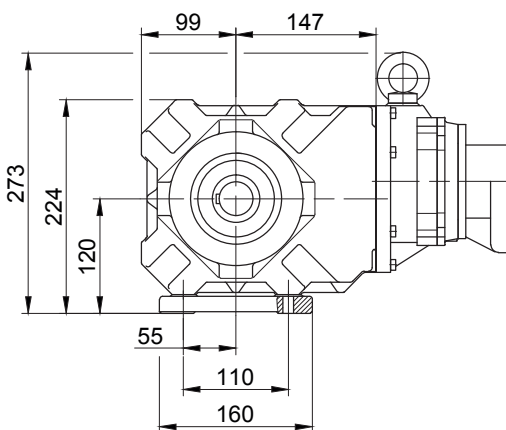
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



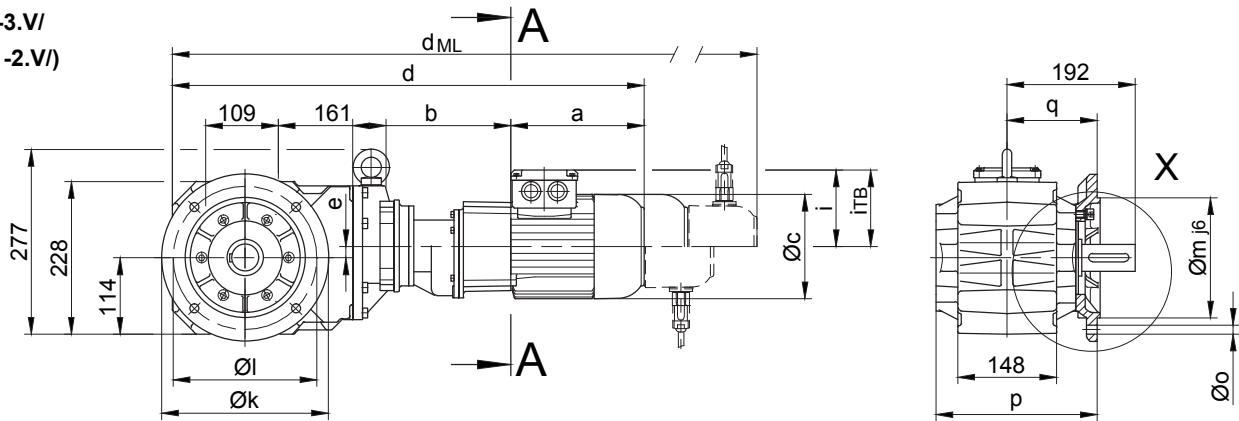
The actual gearbox design can vary from the geometry shown.

BK30G06

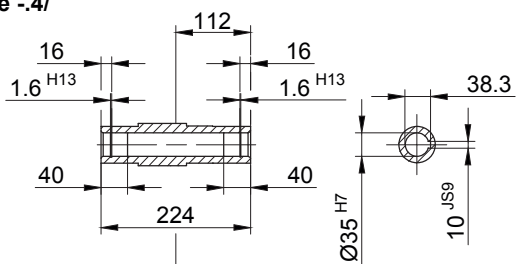
Flange with clearance holes at front

Code -3.V/

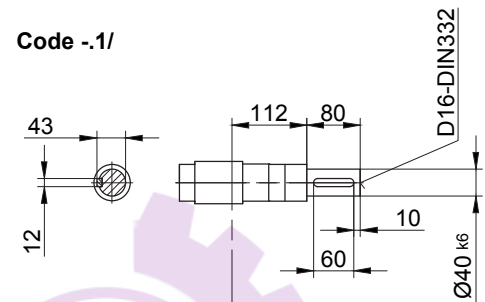
(Code -2.V/)



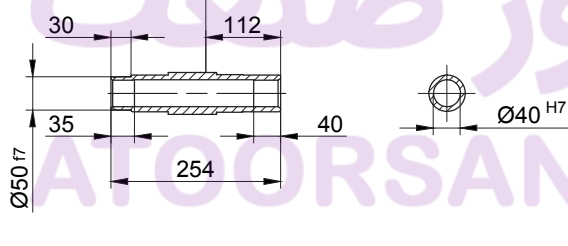
Code -4/



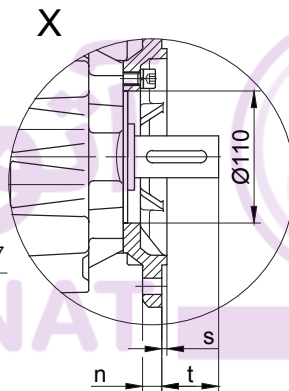
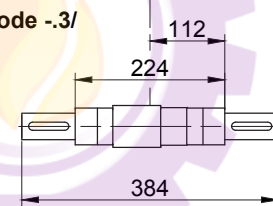
Code -1/



Code -5/



Code -3/

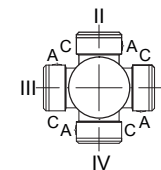


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Flange dimensions

BK30G..	k	l	m	n	o	p	q	s	t
Standard -3.V/	250	215	180	16	13.5	242	135	4	57
small -2.V/	200	165	130	12	11	239	132	3.5	60

Standard



A-A

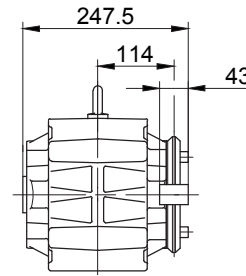
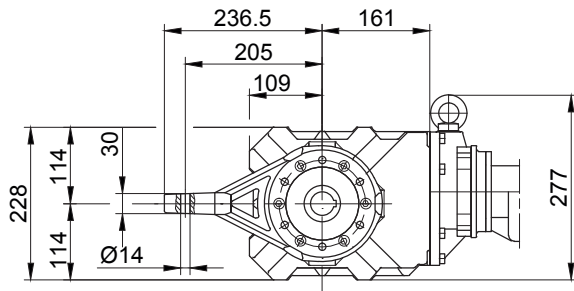
Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BK30G06-../D04..	143	191	111	604	17	90	112	647.5	666.5	709.5	-
BK30G06-../D05..	170	193	123	633	17	100	117	675	736	777.5	-
BK30G06-../D06..	170	193	123	633	17	100	119	675	736	777.5	-
BK30G06-../D07..	190	193	123	653	17	100	119	695	756	797.5	-
BK30G06-../D..08..	200	237	156	707	17	115	136.5	773	814	880.5	773

The actual gearbox design can vary from the geometry shown.

BK30G06

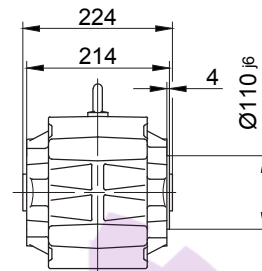
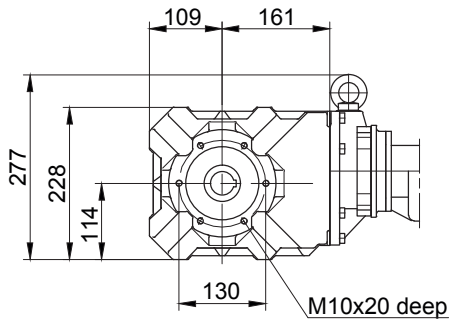
Torque arm at front

Code -5.V/



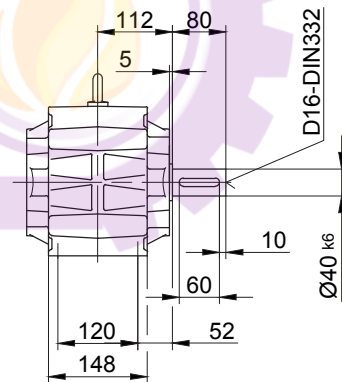
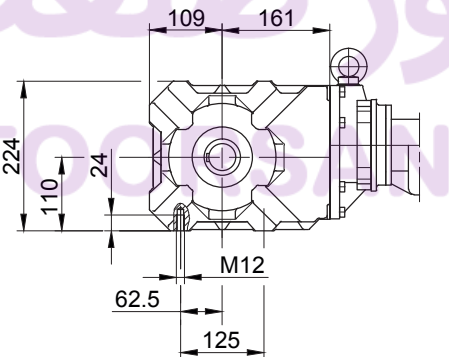
Flange with tapped holes at front

Code -7.V/



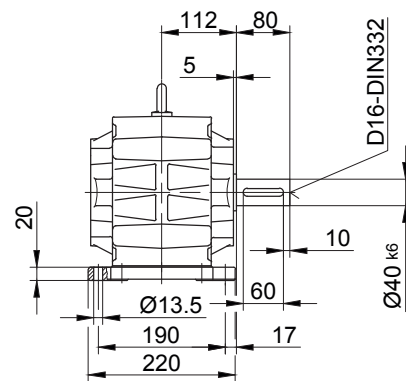
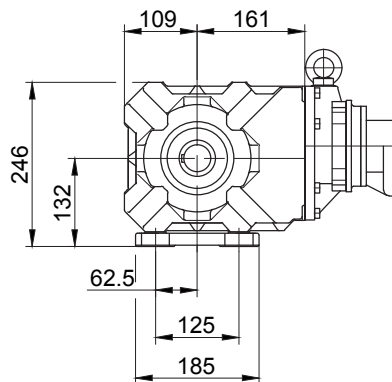
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/

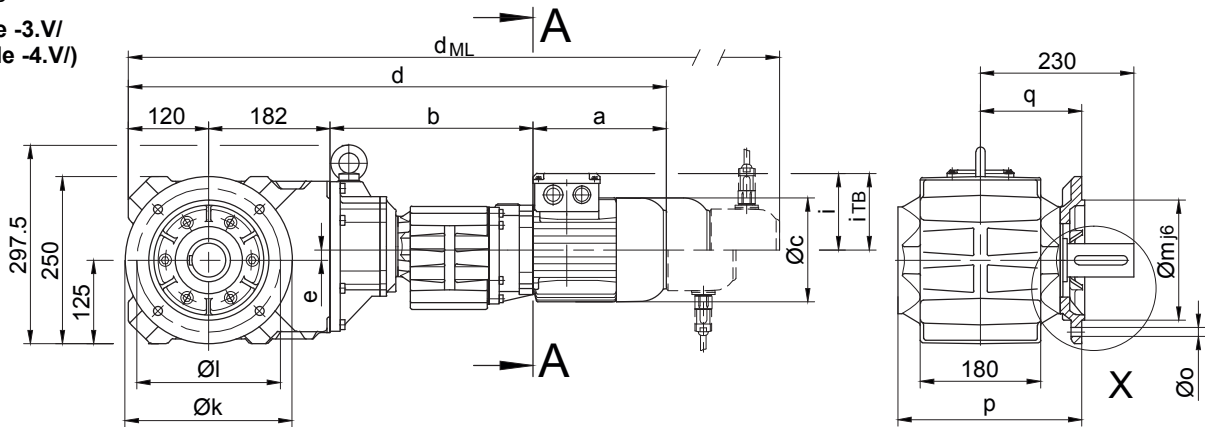


The actual gearbox design can vary from the geometry shown.

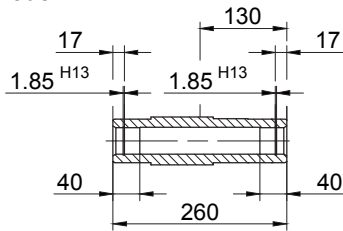
BK40G10

Flange with clearance holes at front

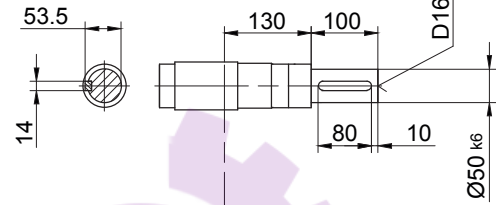
Code -3.V/
(Code -4.V/)



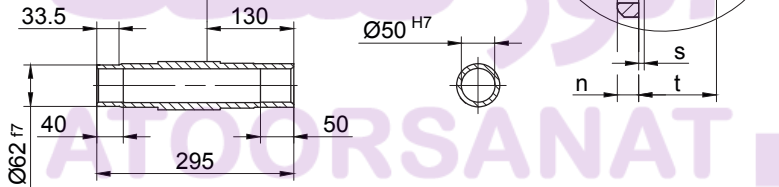
Code -4/



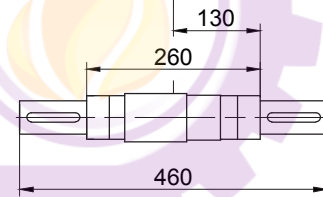
Code -1/



Code -5/



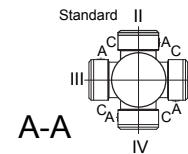
Code -3/



12

Flange dimensions

BK40G..	k	l	m	n	o	p	q	s	t
Standard -3.V/	250	215	180	16	13.5	276	152	4	78
big -4.V/	300	265	230	20	13.5	282	158	4	72



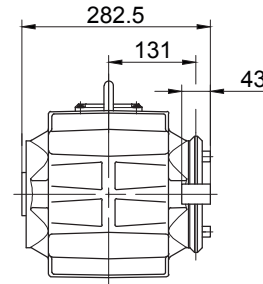
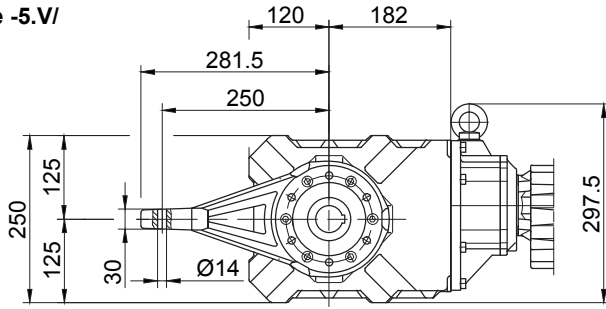
Type	a	b	c	d	e	i	i _{TB}	Design with motor extensions			
								E../ES..	G	E../ES..-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BK40G10-../D05..	170	300	123	772	15.5	100	117	814	875	916.5	-
BK40G10-../D06..	170	300	123	772	15.5	100	119	814	875	916.5	-
BK40G10-../D07..	190	300	123	792	15.5	100	119	834	895	936.5	-
BK40G10-../D..08..	200	304	156	806	15.5	115	136.5	872	913	979.5	872
BK40G10-../D..09..	251	318.5	181	871.5	15.5	124	158	964.5	978.5	1069	964.5

The actual gearbox design can vary from the geometry shown.

BK40G10

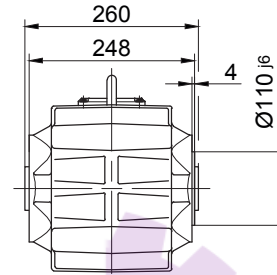
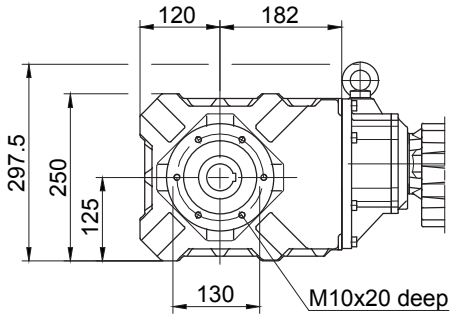
Torque arm at front

Code -5.V/



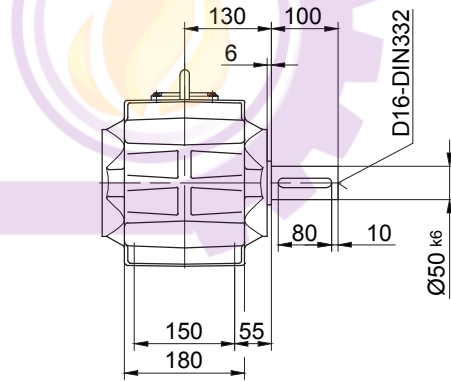
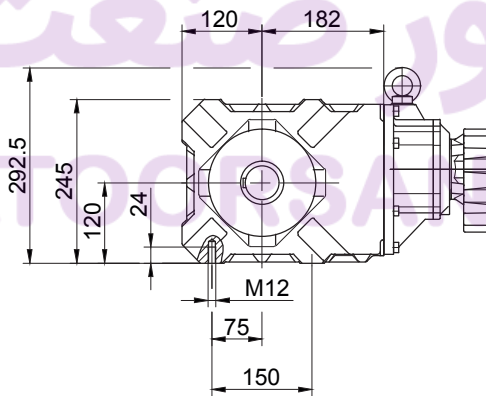
Flange with tapped holes at front

Code -7.V/



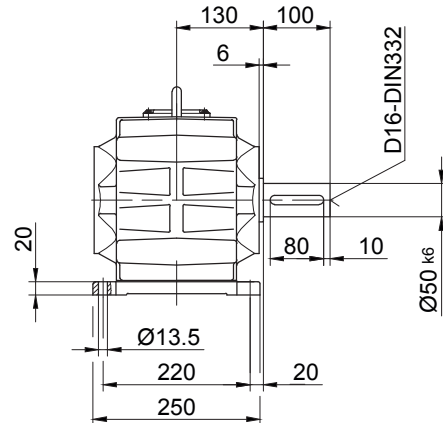
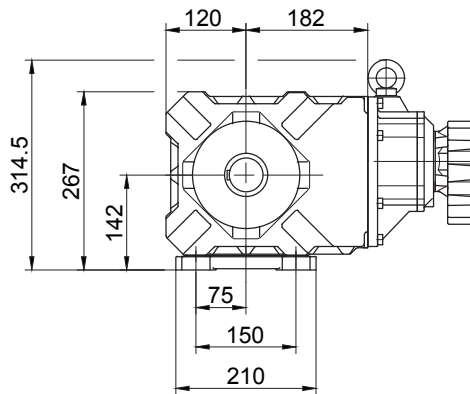
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/

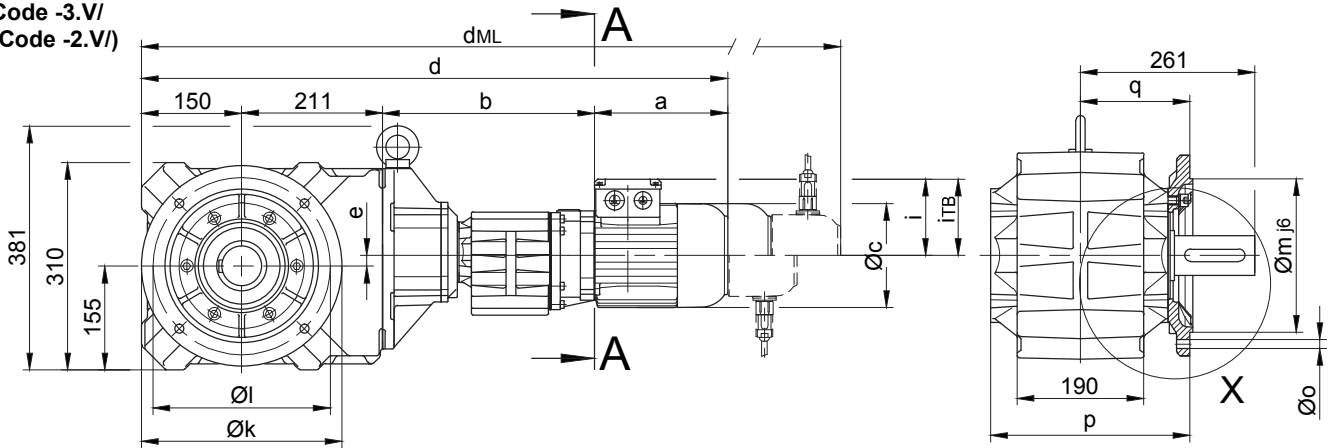


The actual gearbox design can vary from the geometry shown.

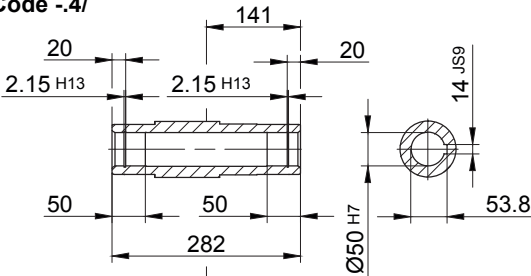
BK50G10

Flange with clearance holes at front

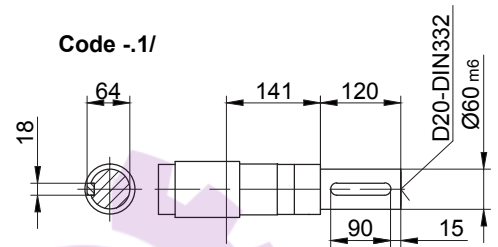
Code -3.V/
(Code -2.V/)



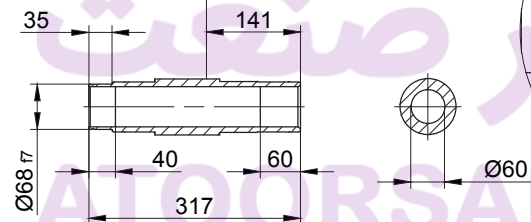
Code -4/



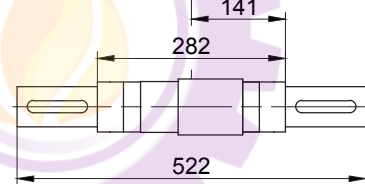
Code -1/



Code -5/



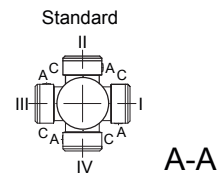
Code -3/



12

Flange dimensions

BK50G..	k	l	m	n	o	p	q	s	t
Standard -3.V/	300	265	230	20	13.5	298.5	164	4	97
small-2.V/	250	215	180	16	13.5	296	161	4	100



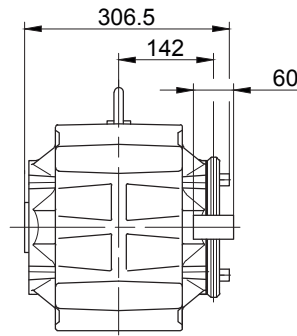
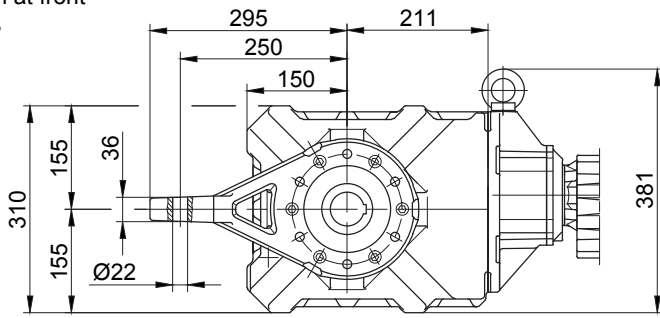
Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RL/RR
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BK50G10-../D05..	170	313	123	844	16	100	117	886	947	988.5	-
BK50G10-../D06..	170	313	123	844	16	100	119	886	947	988.5	-
BK50G10-../D07..	190	313	123	864	16	100	119	906	967	1008.5	-
BK50G10-../D..08..	200	317	156	878	16	115	136.5	944	985	1051.5	944
BK50G10-../D..09..	251	331.5	181	943.5	16	124	158	1036.5	1050.5	1141	1036.5

The actual gearbox design can vary from the geometry shown.

BK50G10

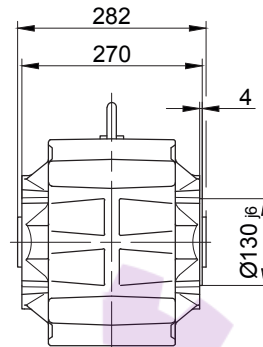
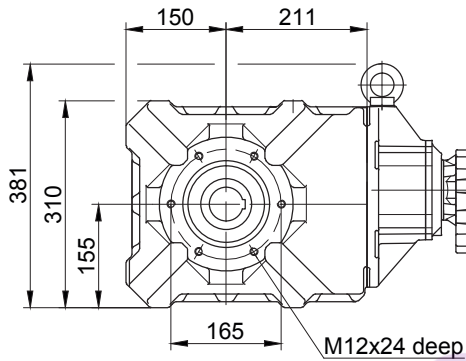
Torque arm at front

Code -5.V/



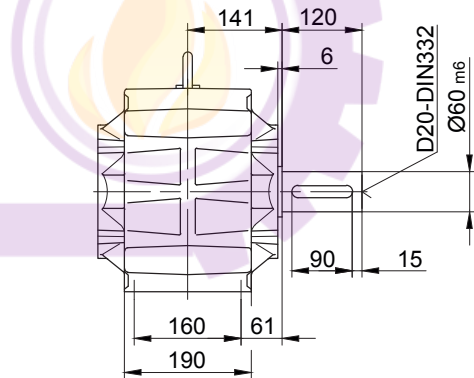
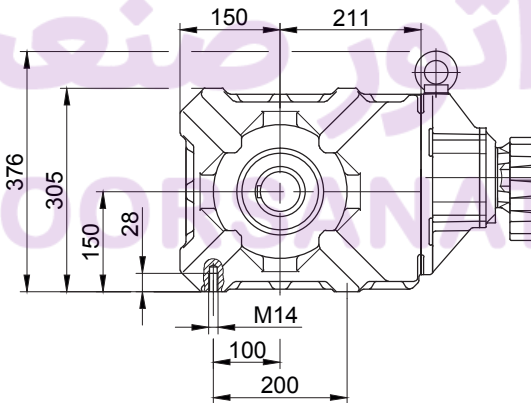
Flange with tapped holes at front

Code -7.V/



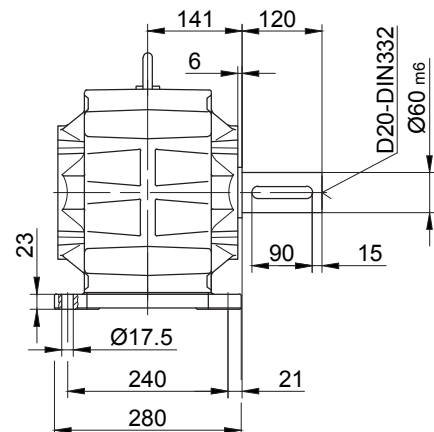
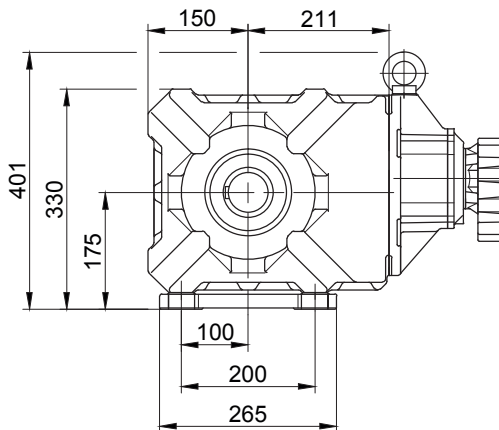
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/

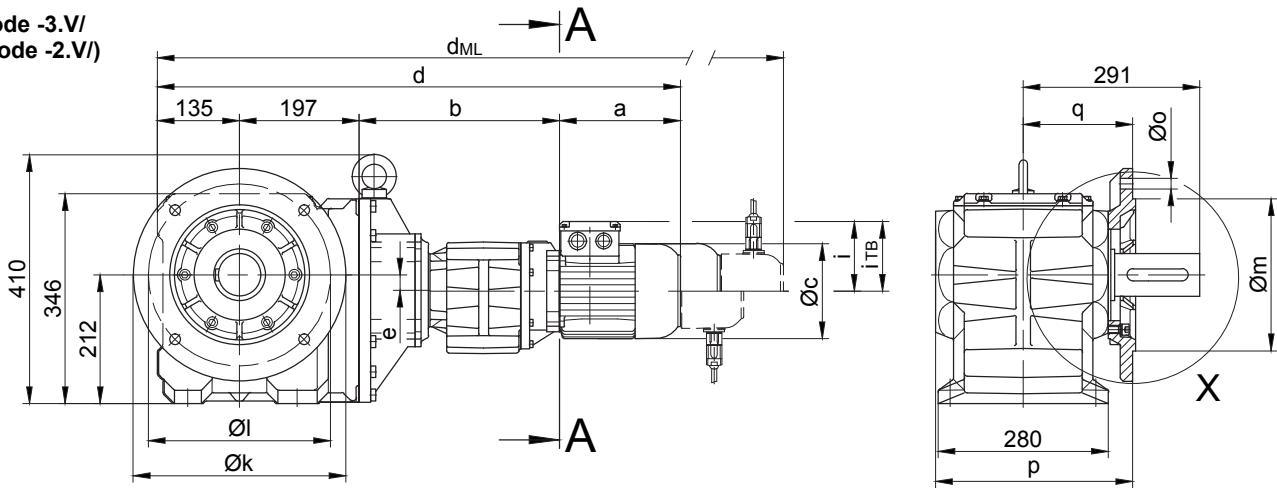


The actual gearbox design can vary from the geometry shown.

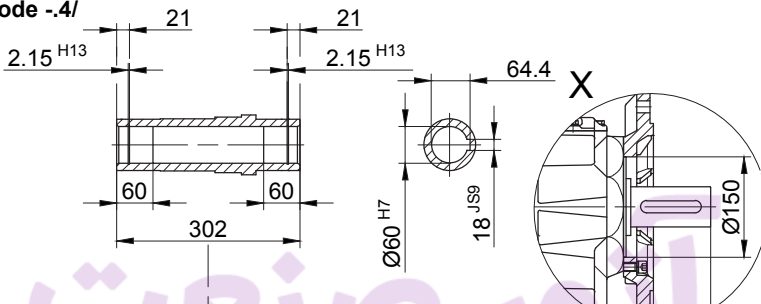
BK60G20

Flange with clearance holes at front

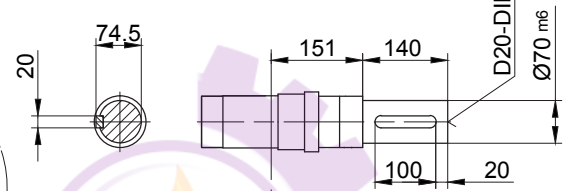
Code -3.V/
(Code -2.V/)



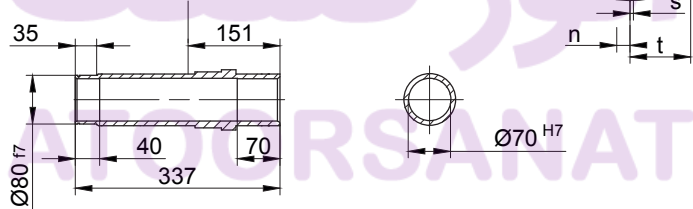
Code -4/



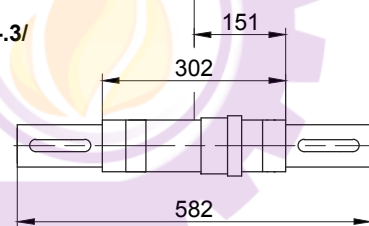
Code -1/



Code -5/



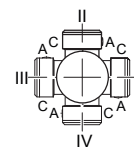
Code -3/



Flange dimensions

BK60G..	k	l	m	n	o	p	q	s	t
Standard -3.V/	350	300	250 _{h6}	20	17.5	324	180	5	111
small -2.V/	300	265	230 _{j6}	20	13.5	332	188	4	103

Standard



A-A

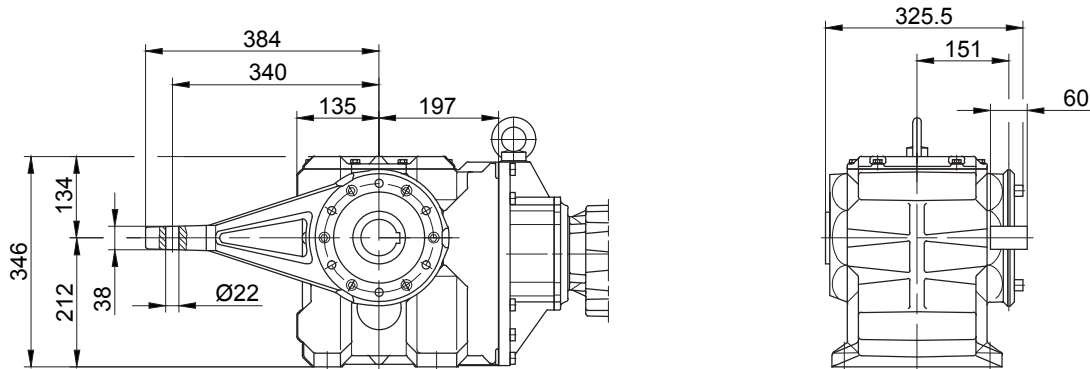
Type	a	b	c	d	e	i	i _{TB}	Design with motor extensions			
								E../ES..	G	E../ES..-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BK60G20-../D05..	170	326	123	828	27	100	117	870	931	972.5	-
BK60G20-../D06..	170	326	123	828	27	100	119	870	931	972.5	-
BK60G20-../D07..	190	326	123	848	27	100	119	890	951	992.5	-
BK60G20-../D..08..	200	330	156	862	27	115	136.5	928	969	1035.5	928
BK60G20-../D..09..	251	344.5	181	927.5	27	124	158	1020.5	1034.5	1125	1020.5

The actual gearbox design can vary from the geometry shown.

BK60G20

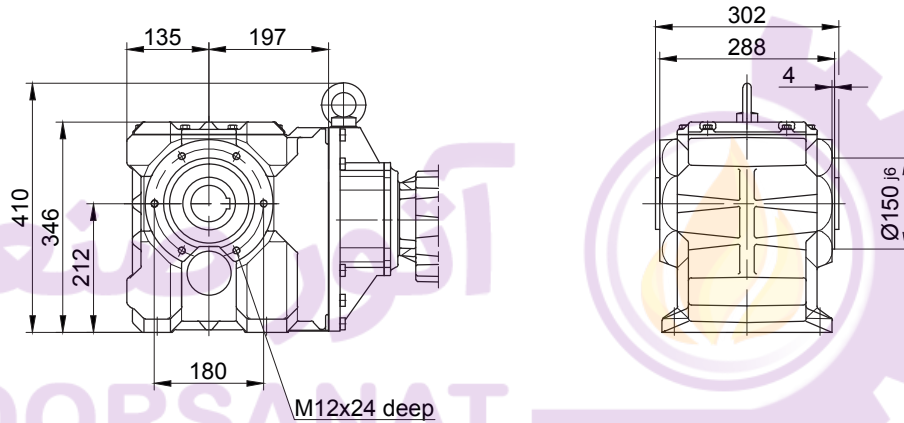
Torque arm at front

Code -5.V/



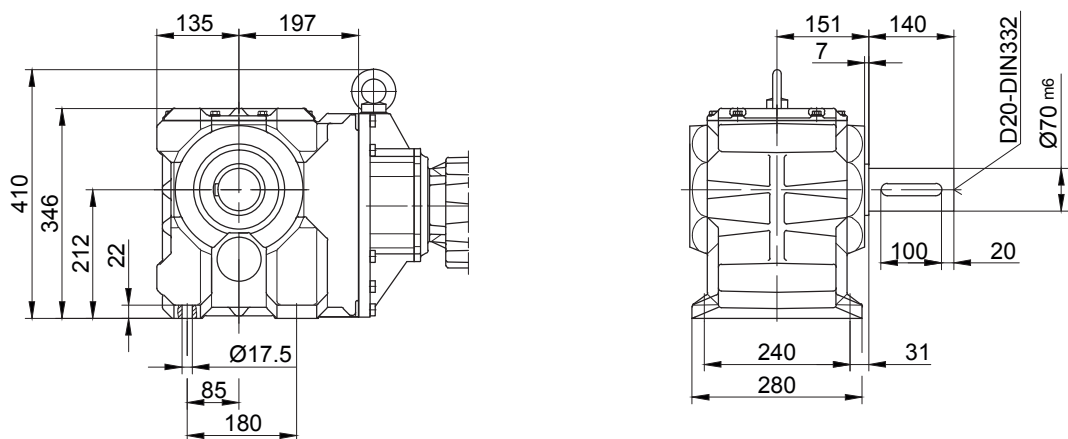
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/

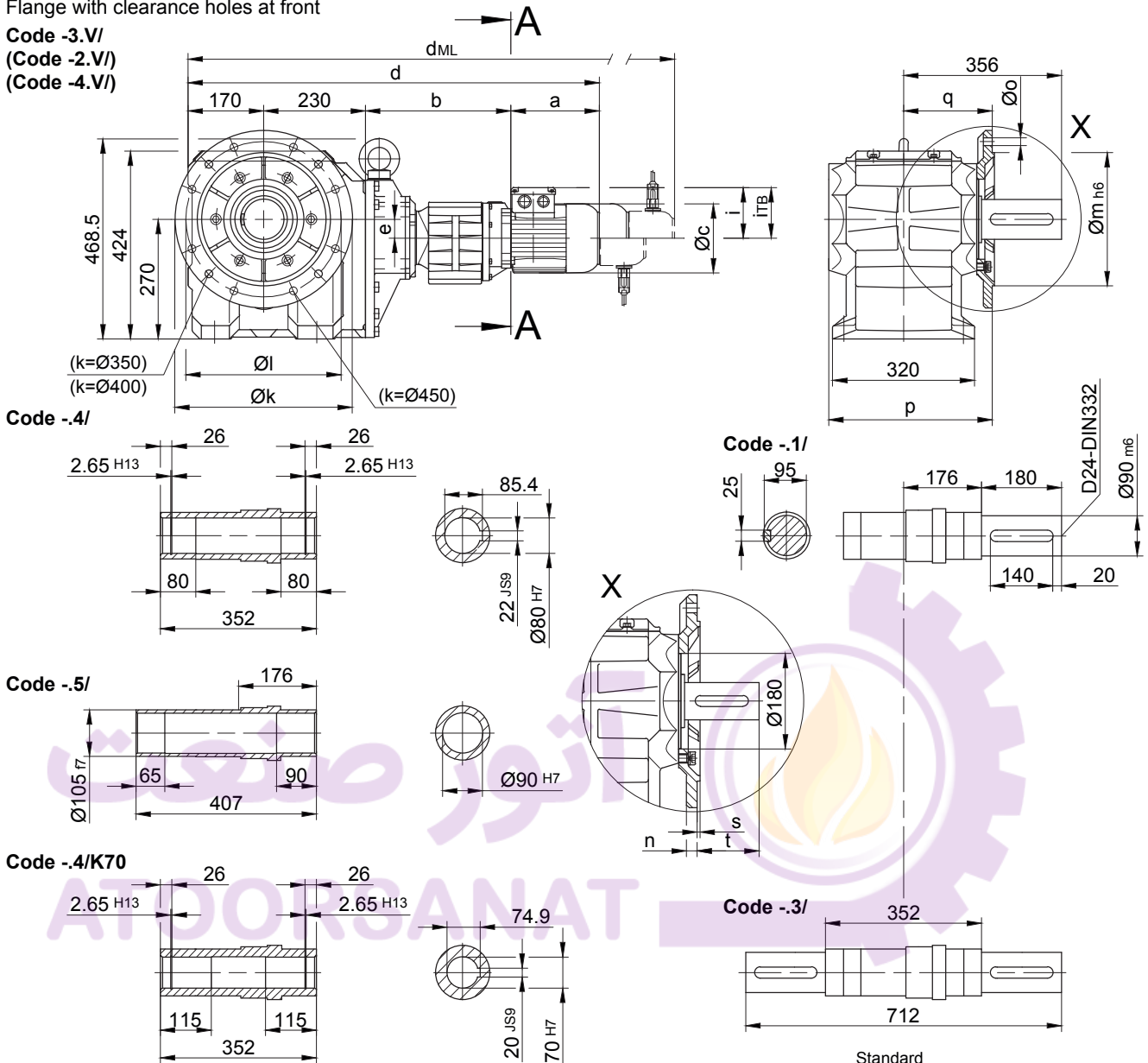


The actual gearbox design can vary from the geometry shown.

BK70G20

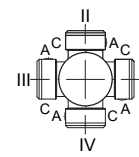
Flange with clearance holes at front

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



Flange dimensions

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



A-A

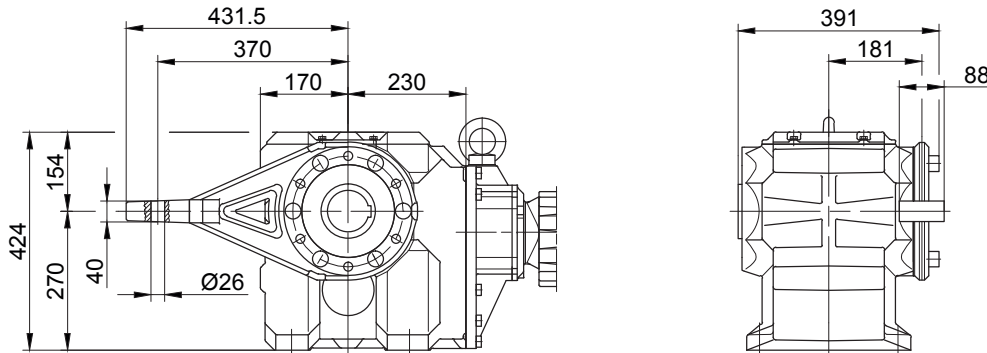
Type	a	b	c	d	e	i	i _{TB}	Design with motor extensions			
								E./ES..	G	E./ES..-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BK70G20-../D05..	170	324	123	894	43	100	117	936	997	1038.5	-
BK70G20-../D06..	170	324	123	894	43	100	119	936	997	1038.5	-
BK70G20-../D07..	190	324	123	914	43	100	119	956	1017	1058.5	-
BK70G20-../D..08..	200	328	156	928	43	115	136.5	994	1035	1101.5	994
BK70G20-../D..09..	251	342.5	181	993.5	43	124	158	1086.5	1100.5	1191	1086.5

The actual gearbox design can vary from the geometry shown.

BK70G20

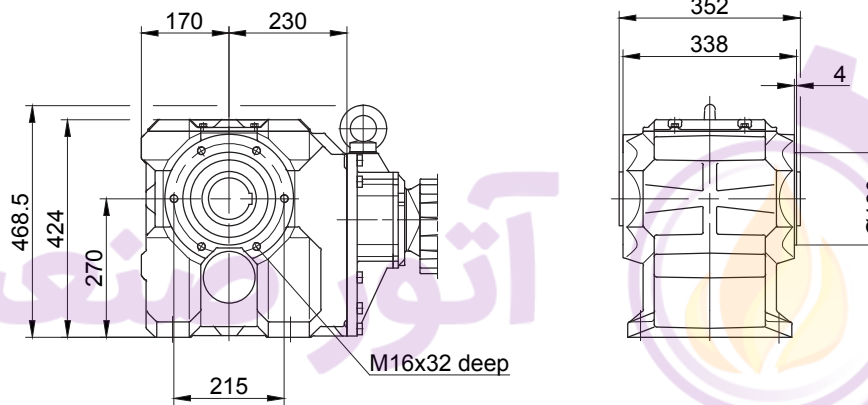
Torque arm at front

Code -5.V/



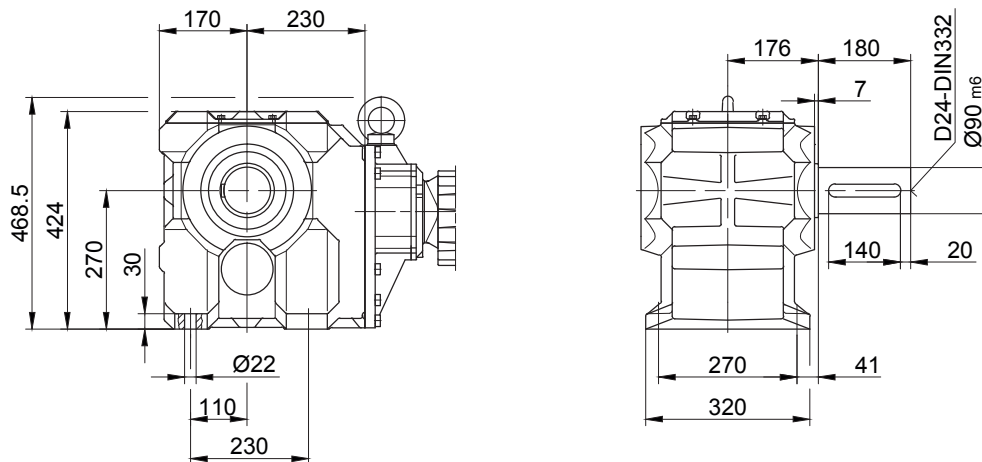
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/

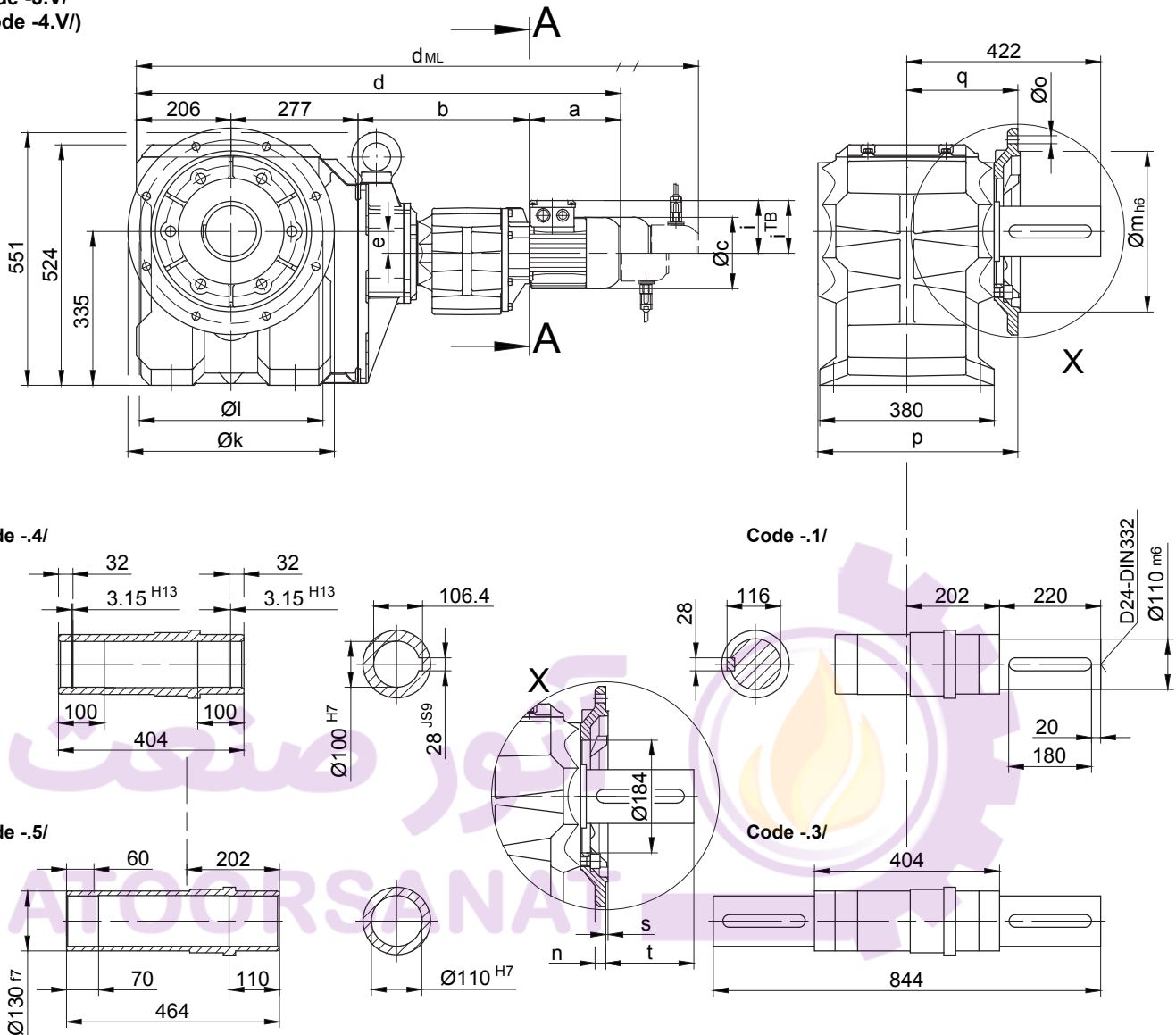


The actual gearbox design can vary from the geometry shown.

BK80G40

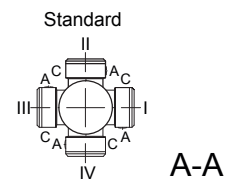
Flange with clearance holes at front

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



Flange dimensions

BK80G..	k	l	m	n	o	p	q	s	t
Standard -3.V/	450	400	350	22	17.5	439	245	5	177
big -4.V/	550	500	450	22	17.5	444	250	5	172

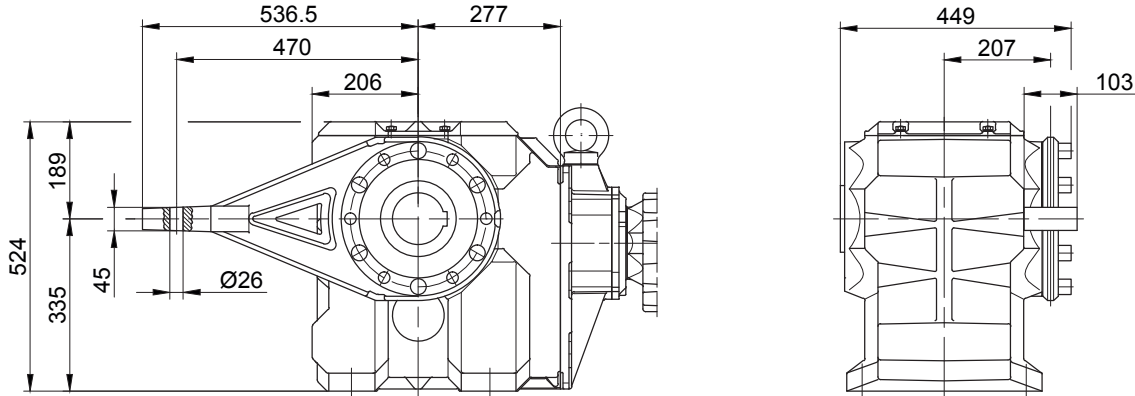


Type	a	b	c	d	e	i	Design with motor extensions				
							i_{TB}	ES..	G	ES..-G	RR/RL
								d_{ML}	d_{ML}	d_{ML}	d_{ML}
BK80G40-../D..08..	200	373	156	1056	47	115	136.5	1122	1163	1229.5	1122
BK80G40-../D..09..	251	387.5	181	1121.5	47	124	158	1214.5	1228.5	1319	1214.5
BK80G40-../D..11..	319	394	228	1196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

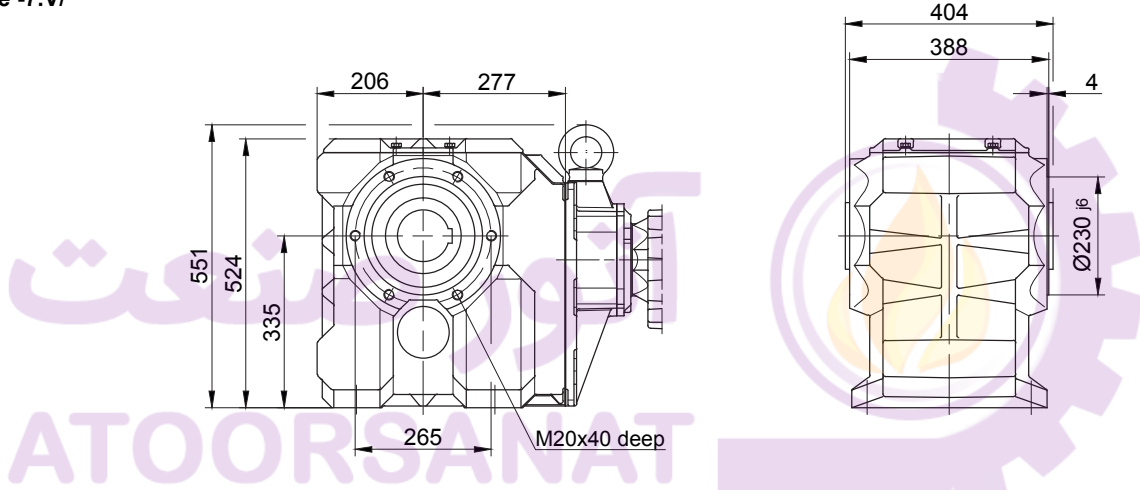
The actual gearbox design can vary from the geometry shown.

BK80G40

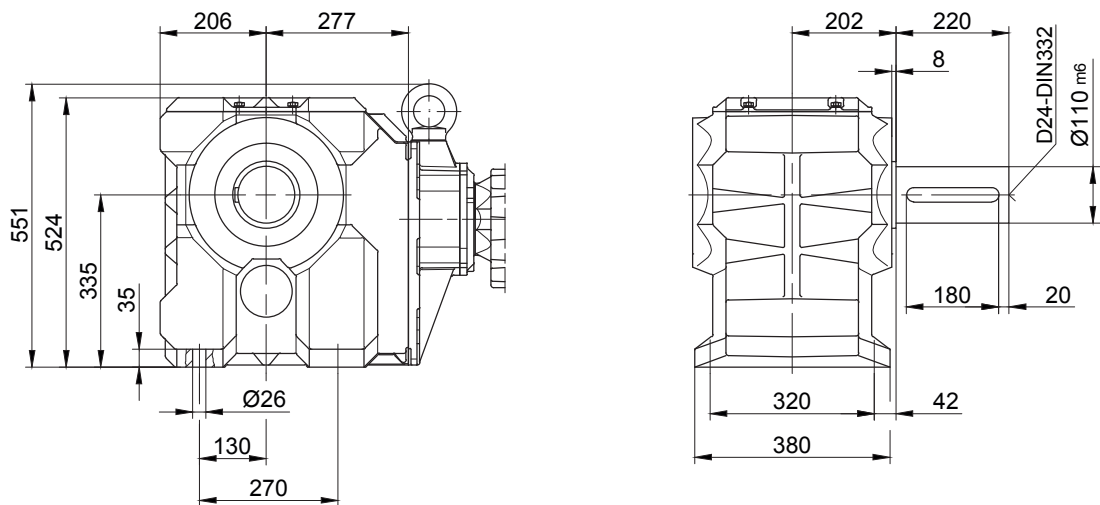
Torque arm at front
Code -5.V/



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



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

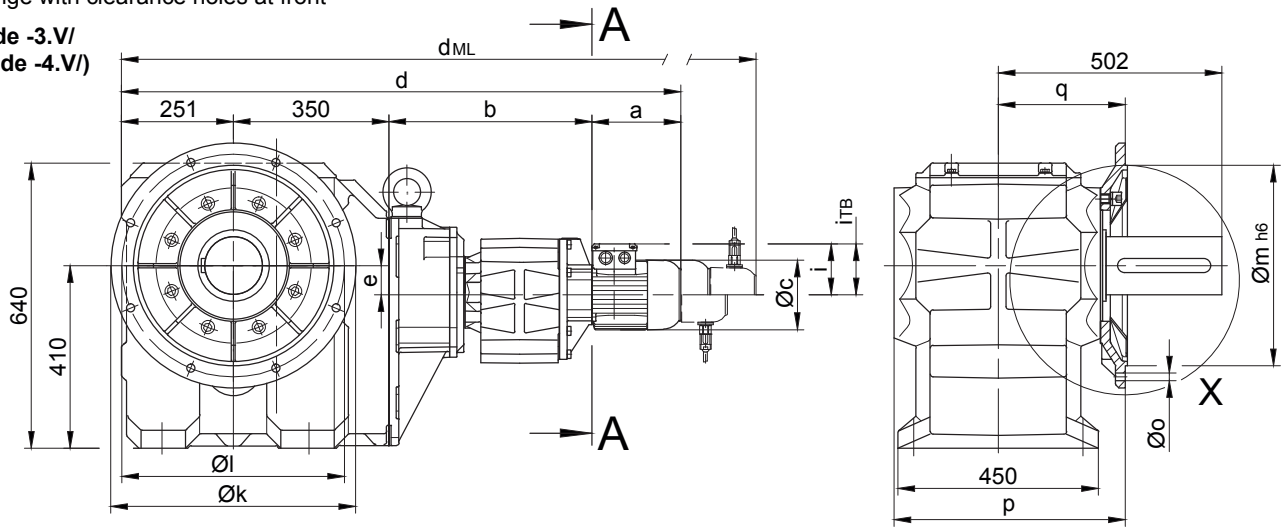


The actual gearbox design can vary from the geometry shown.

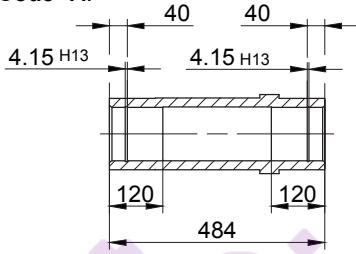
BK90G50

Flange with clearance holes at front

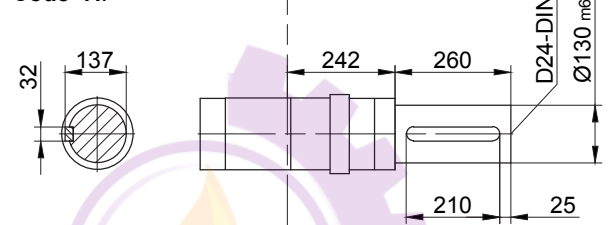
Code -3.V/
(Code -4.V/)



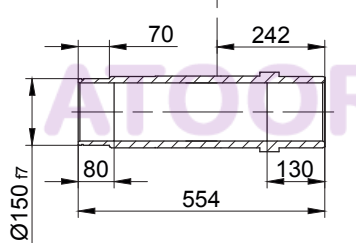
Code -4/



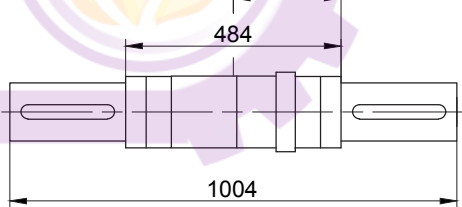
Code -1/



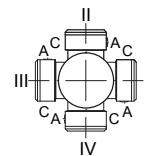
Code -5/



Code -3/



Standard



A-A

Flange dimensions

BK90G..	k	l	m	n	o	p	q	s	t
Standard -3.V/	550	500	450	22	17.5	519	285	5	217
big -4.V/	660	600	550	25	22	513	279	6	223

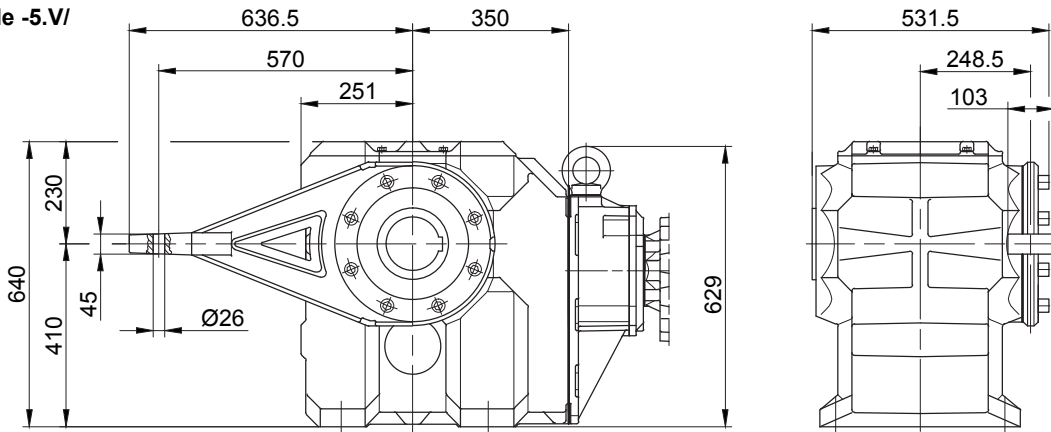
Type	a	b	c	d	e	i	Design with motor extensions				
							i_{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
							d_{ML}	d_{ML}	d_{ML}	d_{ML}	
BK90G50-../D..08..	200	456	156	1257	66	115	136.5	1323	1364	1430.5	1323
BK90G50-../D..09..	251	470.5	181	1322.5	66	124	158	1415.5	1429.5	1520	1415.5
BK90G50-../D..11..	319	477	228	1397	66	181	181	1495	1504	1599.5	1495
BK90G50-../D..13..	393	490	258	1484	66	218	218	1595	1591	1699.5	1595
BK90G50-../D..16..	429	504	322	1534	66	244	244	1678	1642	1782	1678
BK90G50-../D..18..	528	535	368	1664	66	288	288	1813	1772	1917	1813

The actual gearbox design can vary from the geometry shown.

BK90G50

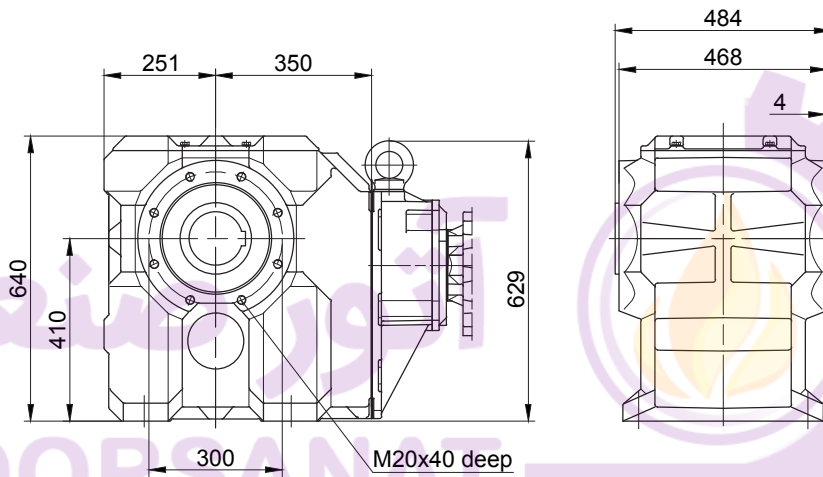
Torque arm at front

Code -5.V/



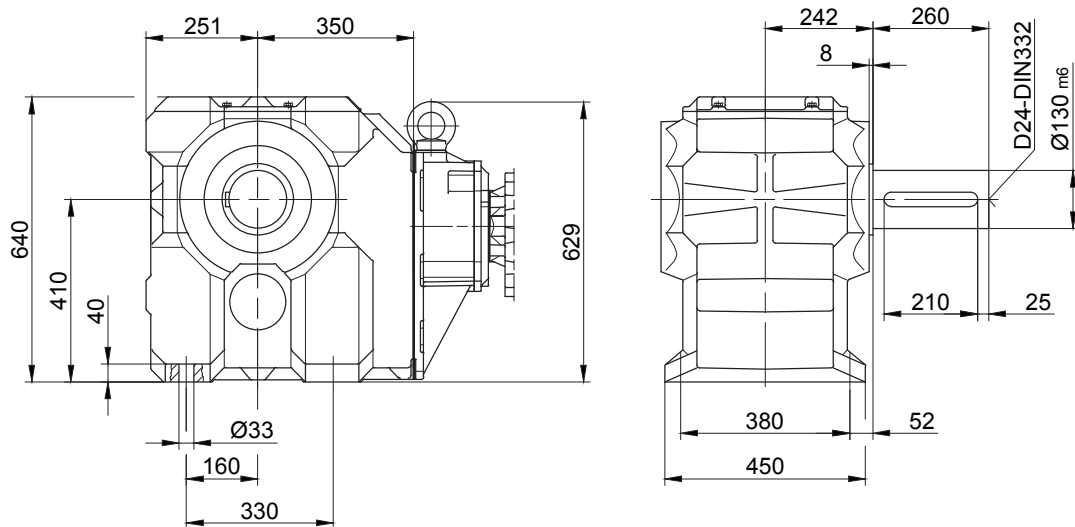
Flange with tapped holes at front

Code -7.V/



Foot with clearance holes at bottom

Code -1.U/



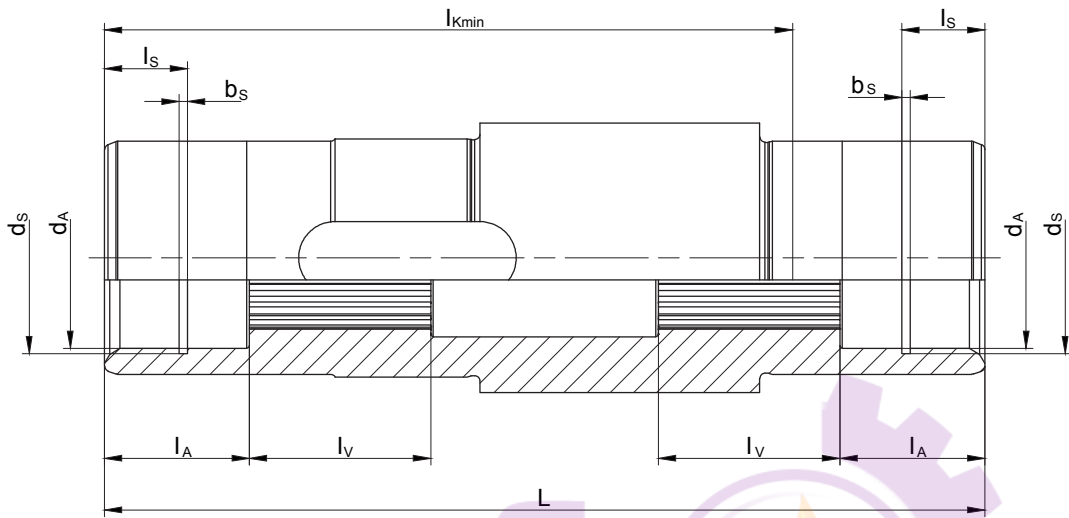
The actual gearbox design can vary from the geometry shown.

آتور صنعت
ATOORSANAT



12

Splined shaft BK

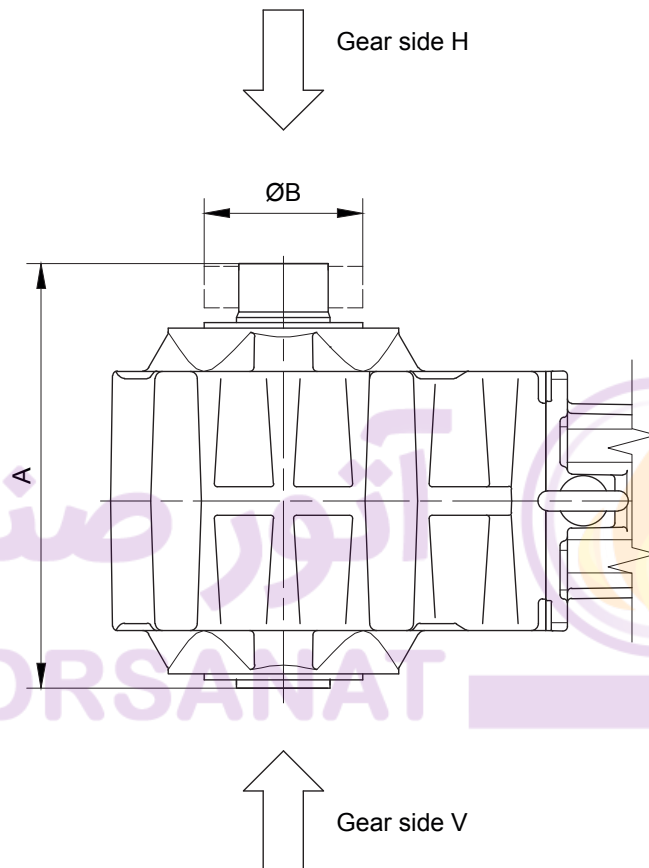


Type	Spline acc. DIN 5480	d_A [mm]	l_A [mm]	l_v [mm]	l_{kmin} [mm]	L [mm]	d_s [mm]	l_s [mm]	b_s [mm]
BK10	N30x1.25x22x9H	35 ^{G7}	28	35	132	170	37 ^{H12}	16	1.6 ^{H13}
BK20	N35x2x16x9H	36 ^{G7}	28	35	154	192	37 ^{H12}	16	1.6 ^{H13}
BK30	N40x2x18x9H	41 ^{G7}	25	42	179	224	42.5 ^{H12}	17	1.85 ^{H13}
BK40	N50x2x24x9H	51 ^{G7}	25	49	214	260	53 ^{H12}	17	2.15 ^{H13}
BK50	N60x2x28x9H	61 ^{G7}	25	58	229	282	63 ^{H12}	17	2.15 ^{H13}
BK60	N70x2x34x9H	72 ^{G7}	25	72	248	302	75 ^{H12}	17	2.65 ^{H13}
BK70	N85x3x27x9H	86 ^{G7}	26	100	295	352	88.5 ^{H12}	17	3.15 ^{H13}
BK80	N110x3x35x9H	112 ^{G7}	60	90	335	404	116 ^{H12}	30	4.15 ^{H13}
BK90	N130x5x24x9H	131.5 ^{G7}	60	110	410	484	134 ^{H12}	30	4.15 ^{H13}

Shrink disc couplings (SSV)

(Code BK10-.5/...)

(Code BK10Z-.5/...)

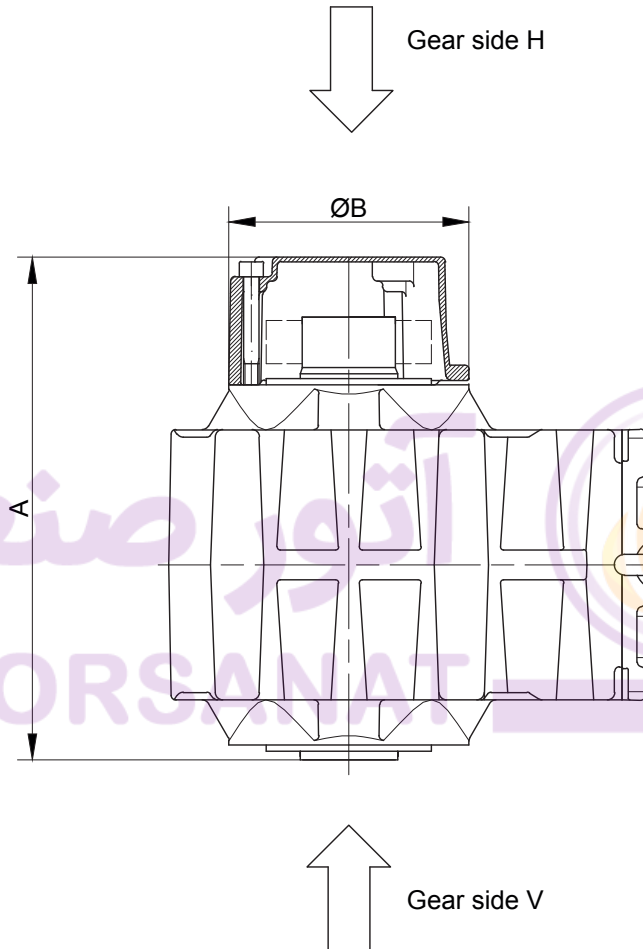


Type	SSV Ringfeder	SSV STÜWE	A	B
BK06	RfN 4161 024x050	HSD 24-22x24	118	50
BK10	RfN 4161 036x072	HSD 36-22x36	195	72
BK20	RfN 4161 044x080	HSD 44-22x44	222	80
BK30	RfN 4161 050x090	HSD 50-22x50	254	90
BK40	RfN 4161 062x110	HSD 62-22x62	295	110
BK50	RfN 4161 068x115	HSD 68-22x68	317	115
BK60	RfN 4161 080x141	HSD 80-22x80	337	140
BK70	RfN 4161 105x185	HSD 110-22x105	407	185
BK80	RfN 4161 130x215	HSD 125-22x130	464	215
BK90	RfN 4161 150x263	HSD 155-22x150	554	263

The actual gearbox design can vary from the geometry shown.

Shrink Disk Connection with Cover (SSV)

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

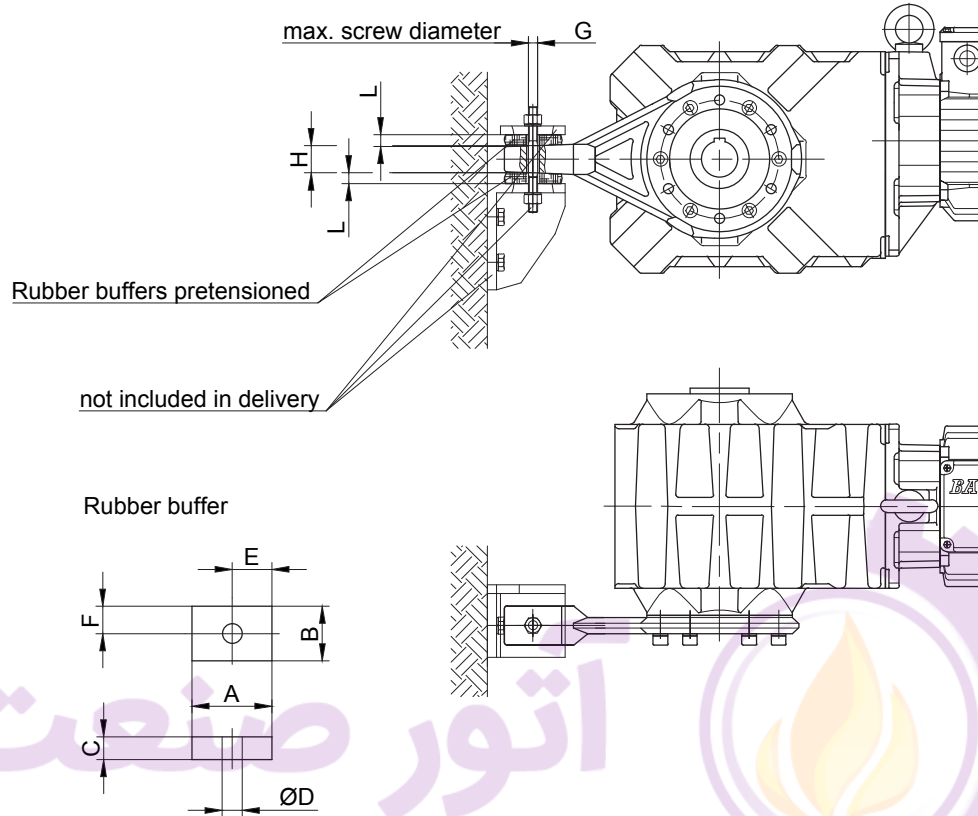


12

Type	SSV Ringfeder	SSV STÜWE	A	B
BK10	RfN 4161 036x072	HSD 36-22x36	217	120
BK20	RfN 4161 044x080	HSD 44-22x44	270	140
BK30	RfN 4161 050x090	HSD 50-22x50	300	160
BK40	RfN 4161 062x110	HSD 62-22x62	335	160
BK50	RfN 4161 068x115	HSD 68-22x68	329	200
BK60	RfN 4161 080x141	HSD 80-22x80	386	210
BK70	RfN 4161 105x185	HSD 110-22x105	465	250
BK80	RfN 4161 130x215	HSD 125-22x130	502	300
BK90	RfN 4161 150x263	HSD 155-22x150	602	350

The actual gearbox design can vary from the geometry shown.

Rubber buffer for torque restraint



Material: Natural rubber
Hardness 50±5 Shore A

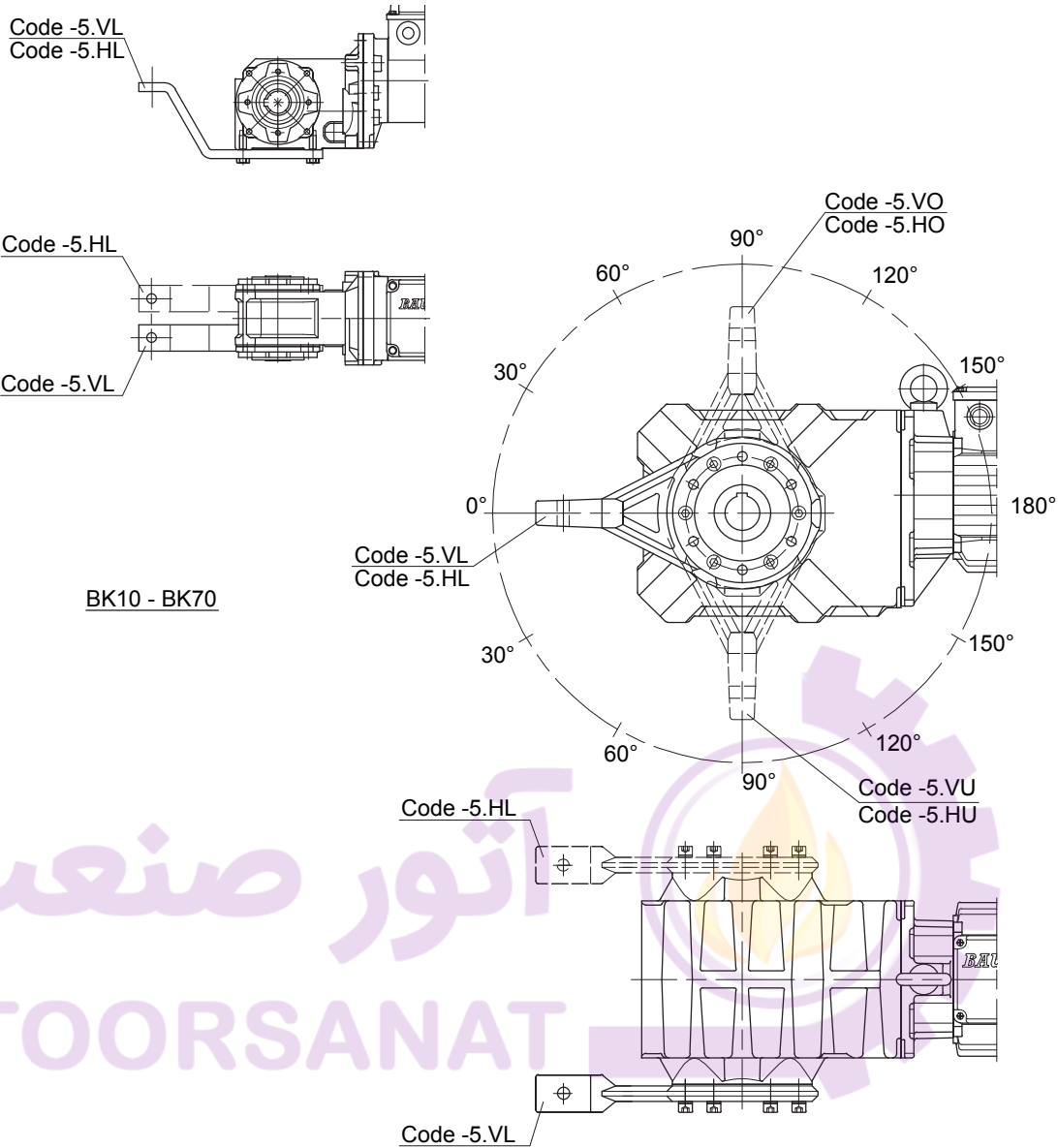
Dimensions of the transverse hole:
see dimensioned sketch of the respective
shaft mounted gearbox

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Gear	Pos.	Dimensions (mm)								
		A	B	C	D	E	F	G	H	L
BK06	Pos.0	30	30	12	12	15	15	M10	10	10
BK10	Pos.1	48	32	15	14	24	16	M10	19	13.5
BK20	Pos.1	48	32	15	14	24	16	M10	19	13
BK30	Pos.2	63	43	20	14	31.5	21.5	M10	30	17
BK40	Pos.2	63	43	20	14	31.5	21.5	M10	30	17
BK50	Pos.3	88	60	25	22	44	30	M18	36	21.5
BK60	Pos.3	88	60	25	22	44	30	M18	38	21
BK70	Pos.4	123	88	30	26	61.5	44	M20	40	25.5
BK80	Pos.5	133	103	35	26	66.5	51.5	M20	45	30
BK90	Pos.5	133	103	35	26	66.5	51.5	M20	45	29.5

The actual gearbox design can vary from the geometry shown.

Position of the torque arm

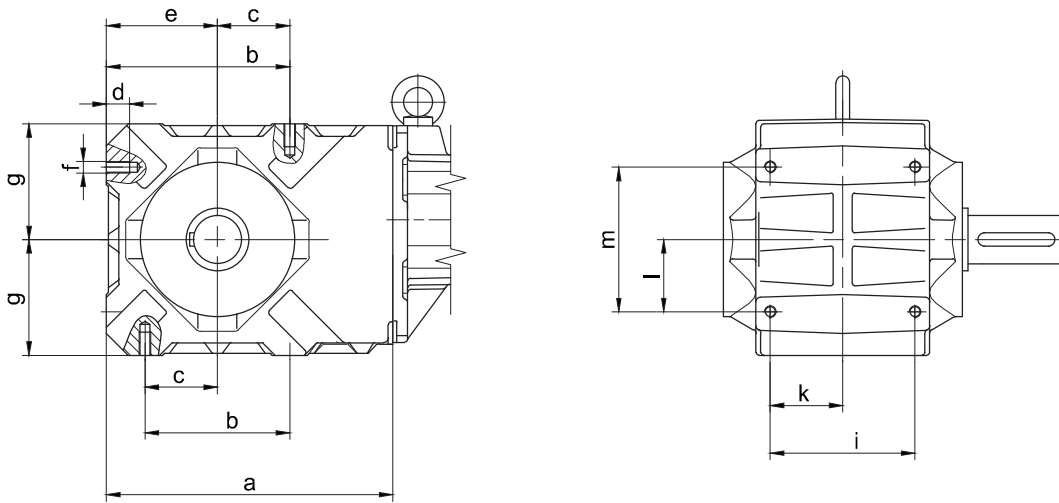


Possible locations.

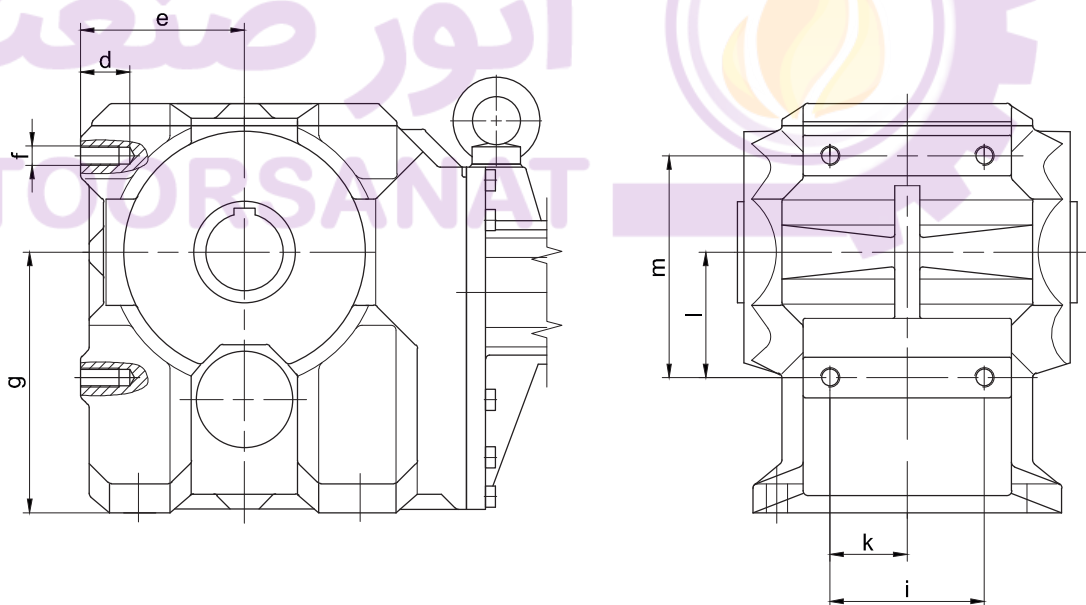
Position	VL / HL		VO / HO VU / HU			VR / HR	
	0°	30°	60°	90°	120°	150°	-
BK06	0°	-	-	-	-	-	-
BK10	0°	30°	60°	90°	120°	150°	-
BK20	0°	30°	60°	90°	120°	150°	-
BK30	0°	30°	60°	90°	120°	150°	-
BK40	0°	30°	60°	90°	120°	150°	-
BK50	0°	30°	60°	90°	120°	150°	-
BK60	0°	30°	60°	90°	120°	150°	-
BK70	0°	30°	60°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

The actual gearbox design can vary from the geometry shown.

Foot with tapped bores



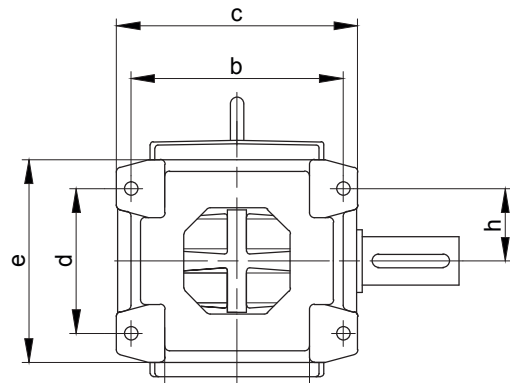
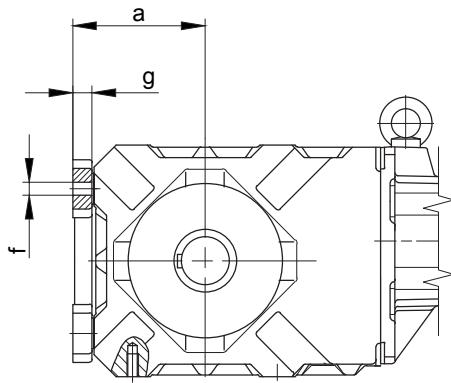
Type	a	b	c	d	e	f	g	i	k	l	m
BK10-BK10Z	202	90	45	16	78	M8	80	95	47.5	45	90
BK20-BK20Z	242	110	55	20	95	M10	100	105	52.5	55	110
BK30-BK30Z	266	125	62.5	24	105	M12	110	120	60	62.5	125
BK40-BK40Z	297	150	75	24	115	M12	120	150	75	75	150
BK50-BK50Z	356	200	100	28	145	M14	150	160	80	100	200



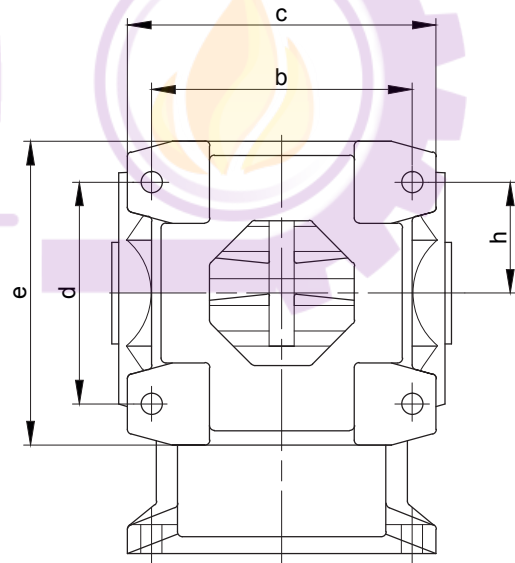
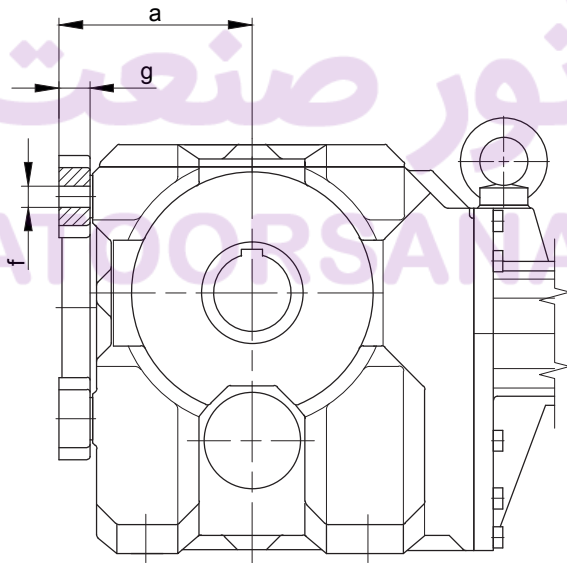
Type	a	b	c	d	e	f	g	i	k	l	m
BK60-BK60Z	-	-	-	40	130	M20	212	160	80	145	230
BK70-BK70Z	-	-	-	40	165	M20	270	160	80	130	230
BK80-BK80Z	-	-	-	60	200	M30	335	210	105	240	360
BK90-BK90Z	-	-	-	60	245	M30	410	210	105	215	360

The actual gearbox design can vary from the geometry shown.

Foot plate with through holes



Type	a	b	c	d	e	f	g	h
BK10-BK10Z	96	145	165	90	130	Ø9	16	45
BK20-BK20Z	115	165	195	110	160	Ø11	18	55
BK30-BK30Z	127	190	220	125	185	Ø13.5	20	62.5
BK40-BK40Z	137	220	250	150	210	Ø13.5	20	75
BK50-BK50Z	170	240	280	200	265	Ø17.5	23	100

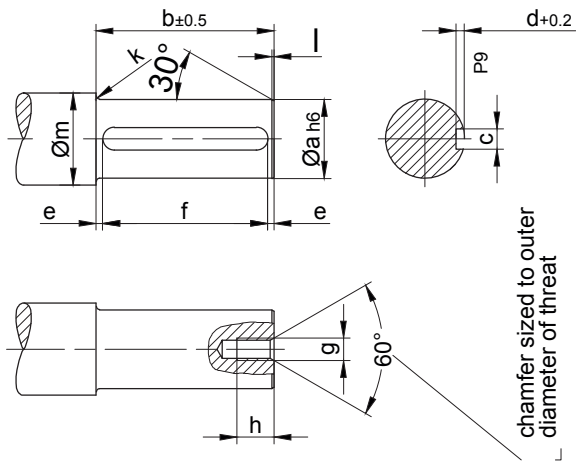


Type	a	b	c	d	e	f	g	h
BK60-BK60Z	165	270	320	230	315	Ø22	32	85
BK70-BK70Z	200	270	320	230	315	Ø22	32	100
BK80-BK80Z	250	400	480	360	480	Ø33	47	120
BK90-BK90Z	295	400	480	360	480	Ø33	47	145

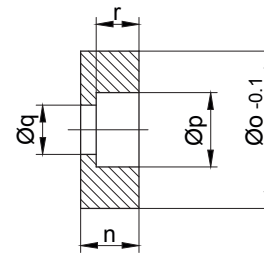
The actual gearbox design can vary from the geometry shown.

Assembly tools for shaft mounted gears with splined shaft

Pos.1 Shaft



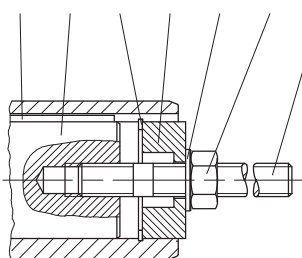
*Pos.2 Disc



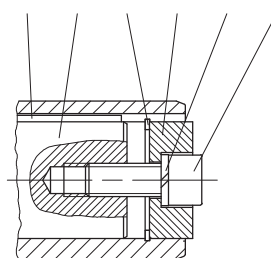
edges cut
Material:
C45 DIN 17200

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
BK06	20	75	6	3.5	6	63 ^{+0.3}	M6	16	2	1	28	13.5	19.8	11	6.6	6.5
BK10	25	148	8	4	11.5	125 ^{+0.5}	M8	18	2.5	1.5	33	13.5	24.8	15	9	8.5
BK20	30	170	8	4	15	140 ^{+0.5}	M10	20	3	1.5	38	15	29.8	18	11	10
BK30	35	201	10	5	10.5	180 ^{+0.5}	M10	20	3	1.5	43	16	34.8	18	11	10
BK40	40	235	12	5	17.5	200 ^{+0.5}	M12	22	3	2	48	18	39.8	20	13.5	12
BK50	50	254	14	5.5	17	220 ^{+0.5}	M16	30	3.5	2	58	21	49.8	26	17.5	15
BK60	60	273	18	7	11.5	250 ^{+0.5}	M20	38	3.5	2	68	24	59.8	33	22	18
BK70	80	316	22	9	18	280 ^{+0.5}	M20	38	4	2	90	27	79.8	33	22	20
BK70-K70	70	316	20	7.5	18	280 ^{+0.5}	M20	38	4	2	90	27	69.8	33	22	20
BK80	100	360	28	10	20	320 ^{+0.5}	M24	45	4	3	110	32	99.8	40	26	25
BK90	120	432	32	11	16	400 ^{+0.5}	M24	45	4.5	3	130	35	119.8	40	26	28

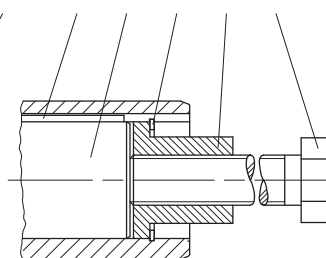
11 1 5 2 7 6 4 11 1 5 2 8 9 11 1 5 3 10



Installation



Holding



Dismantlement

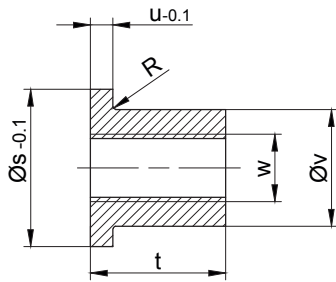
The parts shown are necessary for assembly. ONLY *specified parts are enclosed in the assembly kit.

Suitable measures are to be used to secure Bolt Pos.9 against loosening.

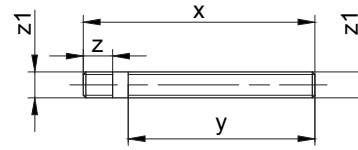
The actual gearbox design can vary from the geometry shown.

Assembly tools for shaft mounted gears with splined shaft

Pos.3 Sleeve



Pos.4 Stud Bolt



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

✓ edges cut
Material: C45 DIN 17200

Type	Dimensions (mm)										* retainer ring DIN 472	Hexagon nut DIN 934-8	Disc DIN 125-St	Lock Washer DIN 7980	* Filister head screw DIN 912-8.8	starting torque [Nm]	hexagon bolt DIN EN 24017-8.8	Key DIN 6885 width x height x Length							
	Pos.3 Sleeve						Pos.4 Stud Bolt												Pos.5	Pos.6	Pos.7	Pos.8	Pos.9	Pos.10	Pos.11
	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	6	M6x30	5	M6x120	A 6x6x63							
BK10	24.8	24	5	15.4	M12	0.8	200	170	20	M8	25x1.2	M8	8.4	8	M8x30	8	M12x190	A 8x7x125							
BK20	29.8	28	5	19.8	M14	0.8	230	195	23	M10	30x1.2	M10	10.5	10	M10x30	8	M14x210	A 8x7x140							
BK30	34.8	28	5	23	M14	-	260	220	23	M10	35x1.5	M10	10.5	10	M10x35	8	M14x240	A 10x8x180							
BK40	39.8	40	6	27.7	M20	0.8	300	260	28	M12	40x1.75	M12	13	12	M12x35	16	M20x290	A 12x8x200							
BK50	49.8	48	6	36	M24	-	340	290	37	M16	50x2.0	M16	17	16	M16x40	30	M24x320	A 14x9x220							
BK60	59.8	60	6	44	M30	-	370	310	45	M20	60x2.0	M20	21	20	M20x50	42	M30x350	A 18x11x250							
BK70	79.8	60	8	55	M30	-	420	360	45	M20	80x2.5	M20	21	20	M20x50	42	M30x400	A 22x14x280							
BK70-K70	69.8	60	8	53	M30	-	420	360	45	M20	70x2.5	M20	21	20	M20x50	42	M30x400	A 20x12x280							
BK80	99.8	72	10	75	M36	-	480	410	55	M24	100x3.0	M24	25	24	M24x60	100	M36x450	A 28x16x320							
BK90	119.8	72	10	80	M36	-	560	480	55	M24	120x4.0	M24	25	24	M24x60	100	M36x520	A 32x18x400							

The parts shown are necessary for assembly. ONLY *specified parts are enclosed in the assembly kit.

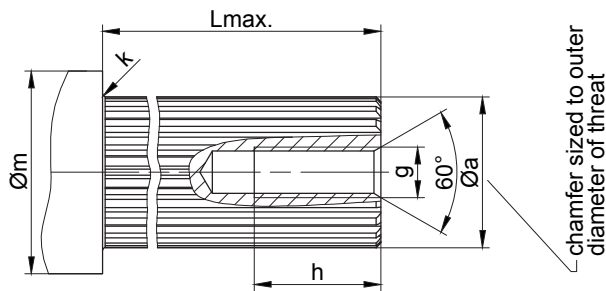
Suitable measures are to be used to secure Bolt Pos.9 against loosening.

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"

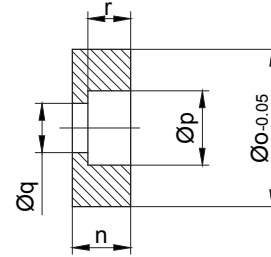
The actual gearbox design can vary from the geometry shown.

Assembly tools for shaft mounted gears with splined shaft

Pos.1 Shaft

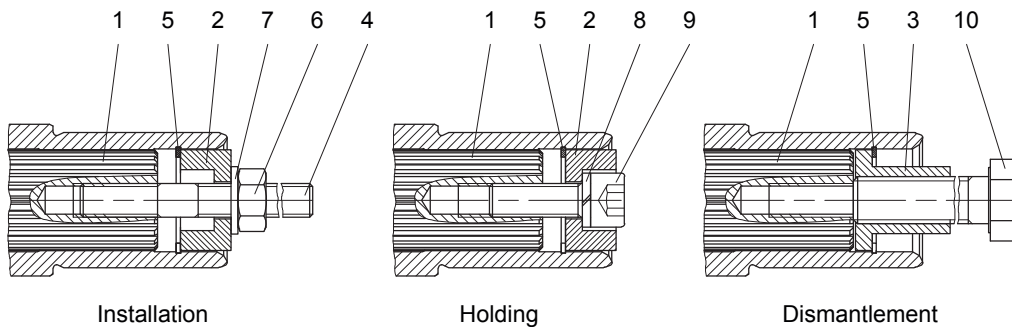


*



✓, 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	33	15	30.4	18	11	10
BK20	DIN 5480-W35x2x16	M10	25	3	170	38	14	35.9	18	11	10
BK30	DIN 5480-W40x2x18	M12	30	3	200	43	18	40.9	20	13.5	12
BK40	DIN 5480-W50x2x24	M16	35	3	235	48	17.5	50.9	26	17.5	12.5
BK50	DIN 5480-W60x2x28	M20	40	3.5	255	58	24	60.9	33	22	18
BK60	DIN 5480-W70x2x34	M20	40	3.5	275	68	24	71.9	33	22	18
BK70	DIN 5480-W85x3x27	M20	40	4	325	90	22	85.9	33	22	16
BK80	DIN 5480-W110x3x35	M24	50	4	360	110	32	111.9	40	26	25
BK90	DIN 5480-W130x5x24	M24	50	4.5	440	130	25	131.4	40	26	18



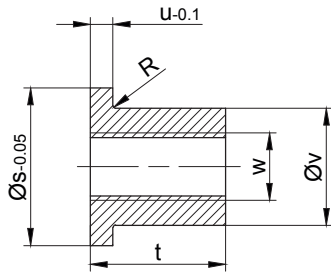
The parts shown are necessary for assembly. ONLY *specified parts are enclosed in the assembly kit.

Suitable measures are to be used to secure Bolt Pos.9 against loosening.

The actual gearbox design can vary from the geometry shown.

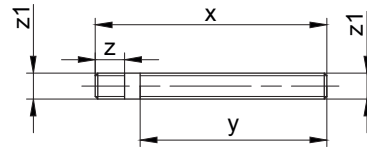
Assembly tools for shaft mounted gears with splined shaft

Pos.3 Sleeve



✓ edges cut
Material:
C45 DIN 17200

Pos.4 Stud Bolt



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

Type	Dimensions (mm)										* retainer ring DIN 472	Hexagon nut DIN 934-8	Disc DIN 125-St	Lock Washer DIN 7980	* 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	Pos.10
	s	t	u	v	w	R	x	y	z	z1													
BK10	30.4	28	5	19.8	M14	-	200	170	23	M10	30x1.2	M10	10.5	10	M10x30	8	M14x190						
BK20	35.9	28	5	23	M14	-	230	195	23	M10	35x1.5	M10	10.5	10	M10x35		M14x210						
BK30	40.9	40	6	27.7	M20	-	260	220	28	M12	40x1.75	M12	13	12	M12x35	16	M20x240						
BK40	50.9	48	6	36	M24	0.8	300	260	37	M16	50x2.0	M16	17	16	M16x40	30	M24x290						
BK50	60.9	60	6	44	M30	-	340	290	45	M20	60x2.0	M20	21	20	M20x50	42	M30x320						
BK60	71.9	60	6	53	M30	0.8	370	310	45	M20	70x2.5	M20	21	20	M20x50		M30x350						
BK70	85.9	60	8	65	M30	0.8	420	360	45	M20	85x3	M20	21	20	M20x50	100	M30x400						
BK80	111.9	72	10	85	M36	0.8	480	410	55	M24	112x4	M24	25	24	M24x60		M36x450						
BK90	131.4	72	10	95	M36	0.8	560	480	55	M24	130x4	M24	25	24	M24x60		M36x520						

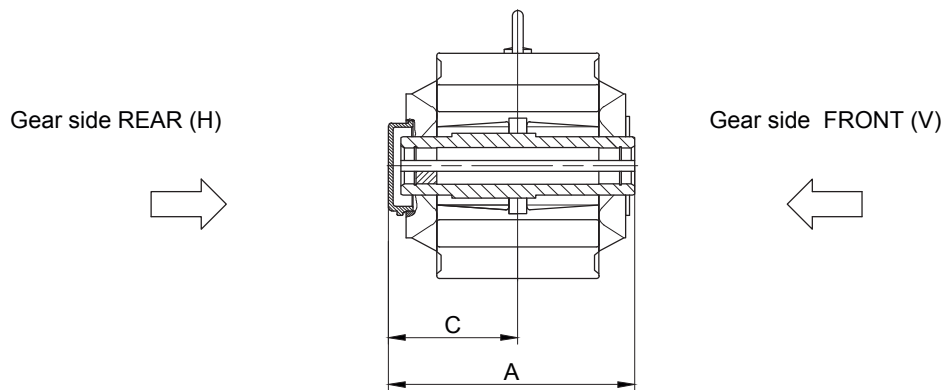
The parts shown are necessary for assembly. ONLY *specified parts are enclosed in the assembly kit.

Suitable measures are to be used to secure Bolt Pos.9 against loosening.

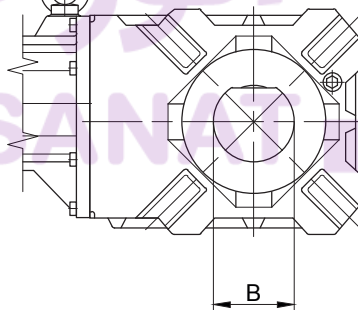
Optional:	Type	Ø s	Order Text
	BK10	30.5	Id.Nr.4105133 Assembly tool "holding"
	BK20	36	Id.Nr.4105141 Assembly tool "holding"
	BK30	41	Id.Nr.4105150 Assembly tool "holding"
	BK40	51	Id.Nr.4105168 Assembly tool "holding"
	BK50	61	Id.Nr.4105176 Assembly tool "holding"
	BK60	72	Id.Nr.4105184 Assembly tool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

Shaft Cap (VK)



Gear side REAR (H)



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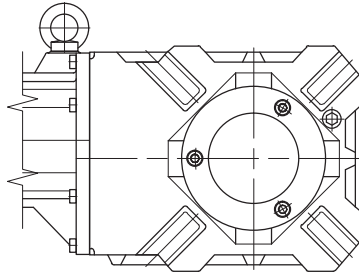
12

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

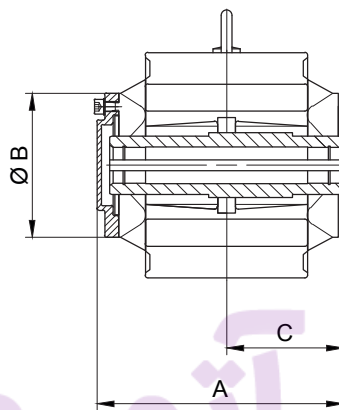
The actual gearbox design can vary from the geometry shown.

Shaft Cover (VD)

Gear side REAR (H)



Gear side REAR (H)



Gear side FRONT (V)

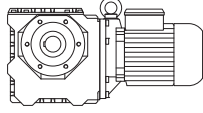


Type	A	B	C
BK10	181	120	85
BK20	206	139.5	96
BK30	239	160	112
BK40	274	160	130
BK50	297	199	141
BK60	321	210	151
BK70	368	250	176
BK80	419	300	202
BK90	492	351	242

The actual gearbox design can vary from the geometry shown.

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Page

Dimensional drawings of worm-geared motors

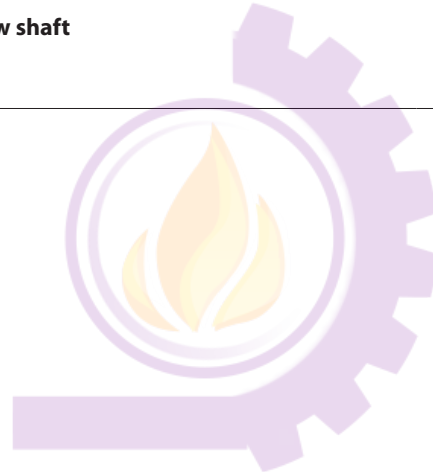
497-534

- Standard
- Tandem Gearbox

Additional Dimension Sheet

- Shrink disc couplings (SSV)
- Shrink disc couplings with (SSV) cover
- Rubber buffer for torque restraint
- Position of the torque arm
- Threaded foot, left
- Foot plate, left
- Assembly tools for hollow shaft
- Shaft cap (VK)
- Shaft cover (VD)

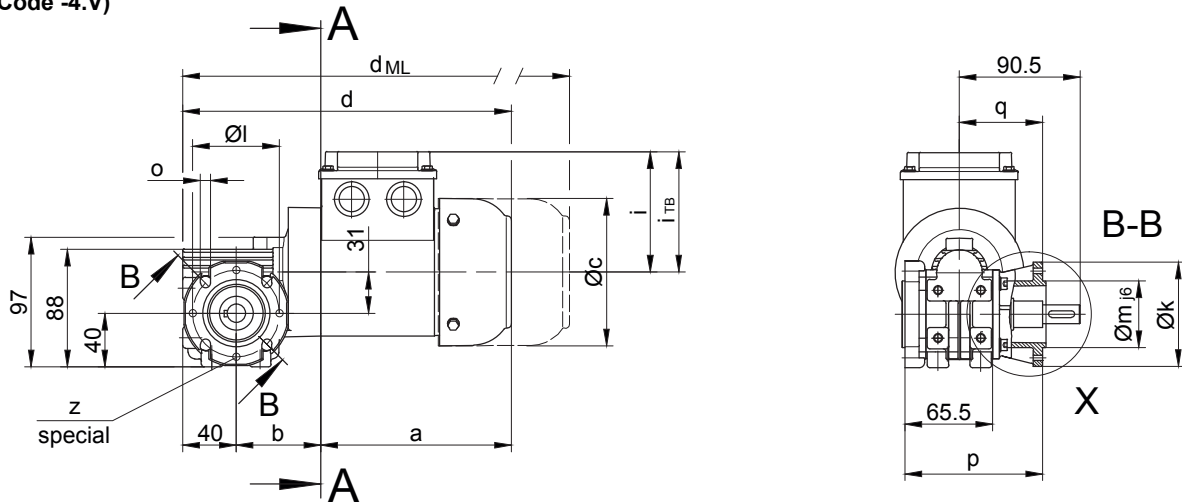
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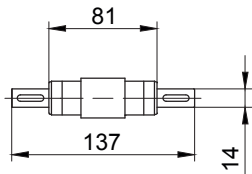
BS02

Flange with clearance holes at front

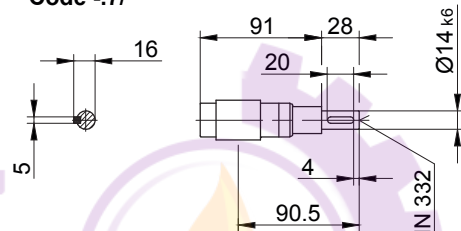
Code -3.V
(Code -4.V)



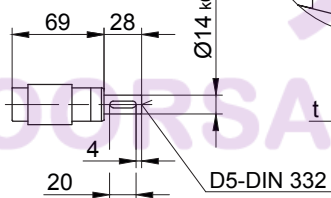
Code -3/



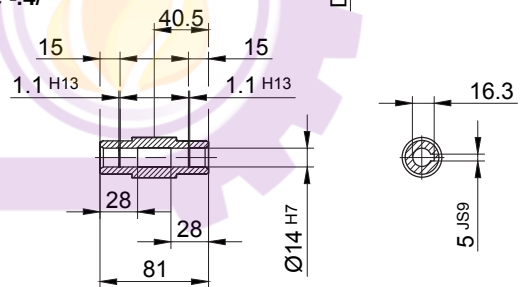
Code -7/



Code -1/

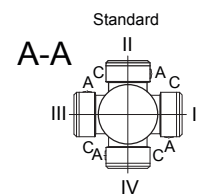


Code -4/



Flange dimensions

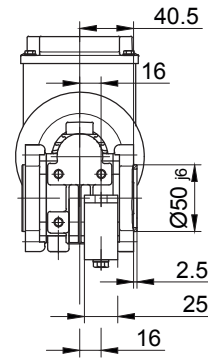
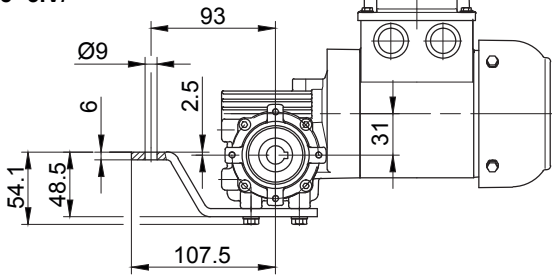
BS02	k	l	m	n	o	p	q	s	t	z
standard -37V/	80	65	50	7	5.5	103	62.5	2.5	28	-
spezial -37V/	80	65	50	7	5.5	103	62.5	2.5	28	4xM5
big -47V/	110	80	60	8	6.6	103	62.5	2.5	28	-
spezial -47V/	110	80	60	8	6.6	103	62.5	2.5	28	4xM6



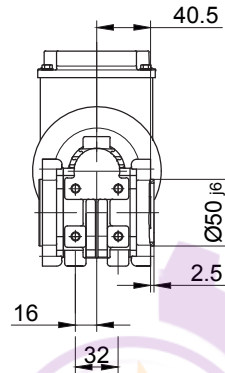
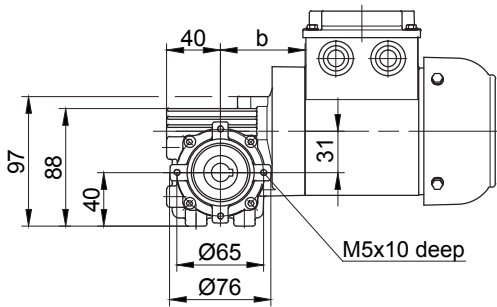
Type	a	b	c	d	u	i	Design with motor extensions				
							i _{TB}	E..	G	E..-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BS02-../D04..	143	63.5	111	246.5	178	90	112	290	309	352	-
BS02-../D05..	170	65.5	123	275.5	188	100	117	317.5	378.5	420	-
BS02-../D06..	170	65.5	123	275.5	188	100	119	317.5	378.5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

The actual gearbox design can vary from the geometry shown.

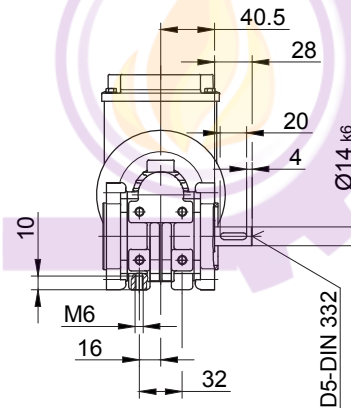
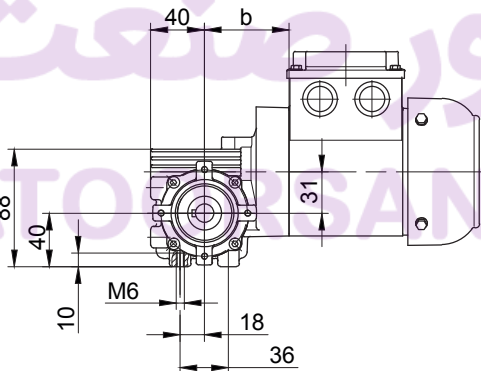
Torque arm at front
Code -5.V/



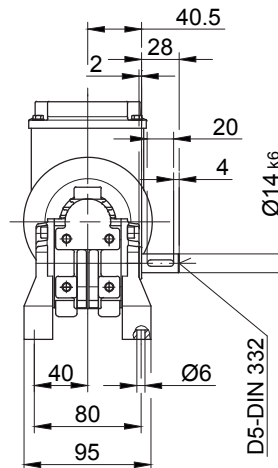
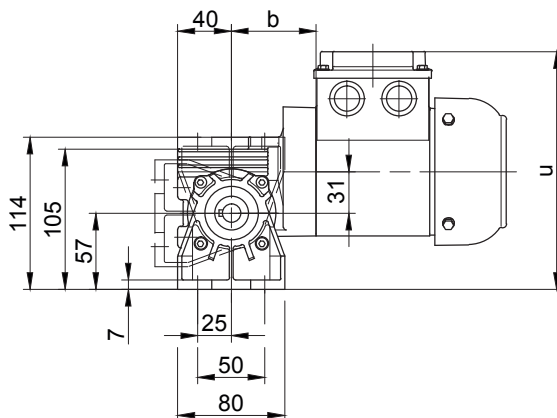
Flange with tapped holes at front
Code -7.V/



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



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

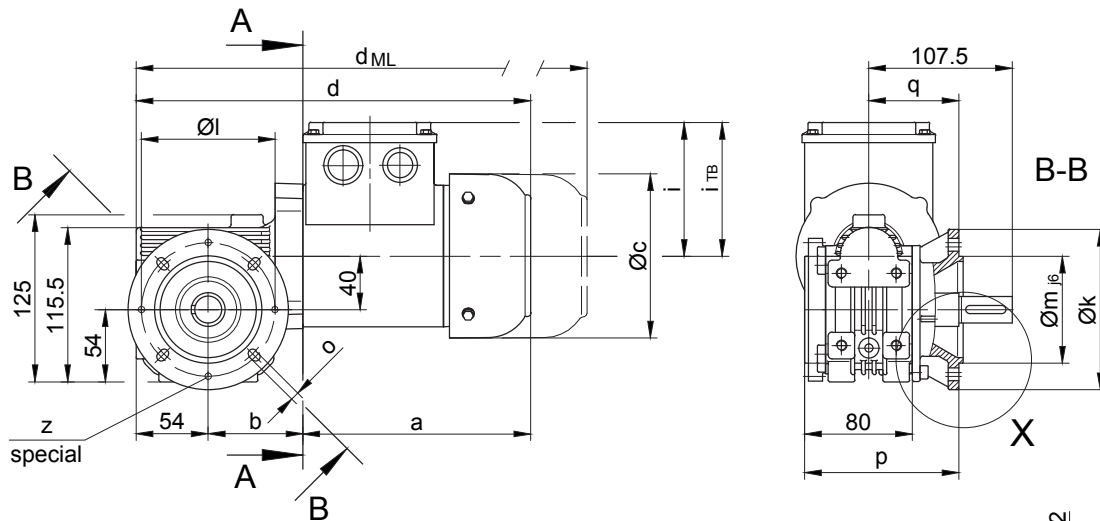


The actual gearbox design can vary from the geometry shown.

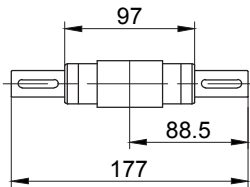
BS03

Flange with clearance holes at front

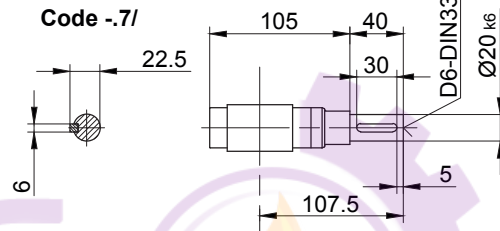
Code -3.V/



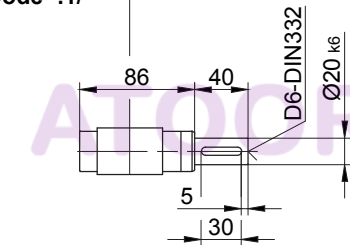
Code -3/



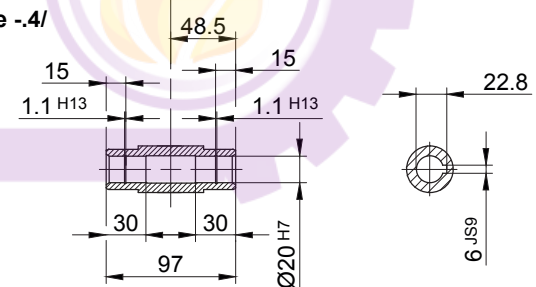
Code -7/



Code -1/

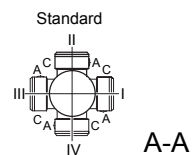


Code -4/



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Flange dimensions

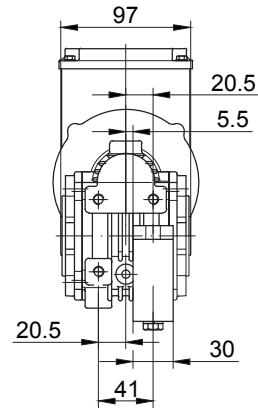
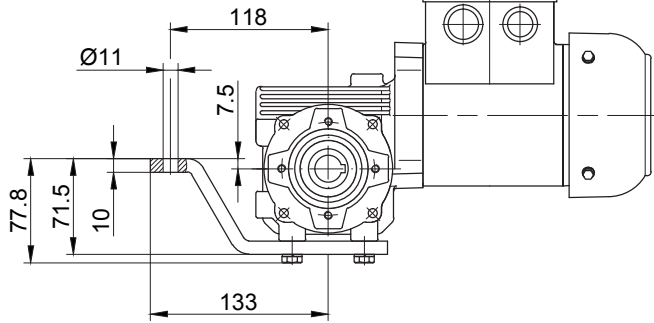


BS03	k	l	m	n	o	p	q	s	t	z
standard -37V/	120	100	80	8	6.6	115	67.5	3	40	-
special -37V/	120	100	80	8	6.6	115	67.5	3	40	4xM6

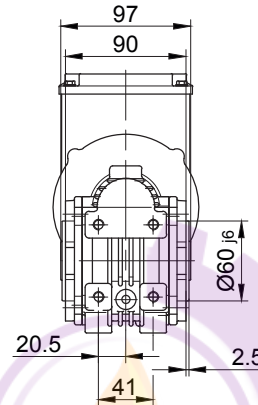
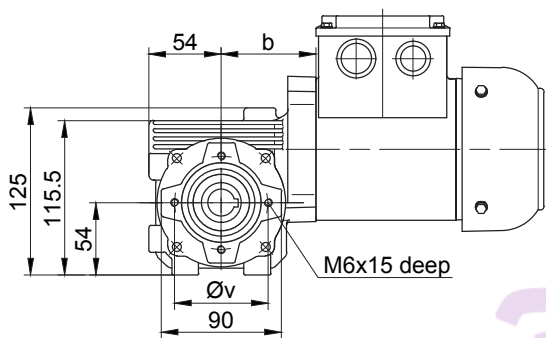
Type	a	b	c	d	u	v	i	Design with motor extensions				
								i_{TB}	E../ES..	G	E../ES..-G	RR/RL
								d_{ML}	d_{ML}	d_{ML}	d_{ML}	
BS03-../D05..	170	71	123	295	213	70	100	117	337	398	439.5	-
BS03-../D06..	170	71	123	295	213	70	100	119	337	398	439.5	-
BS03-../D07..	190	71	123	315	213	70	100	119	357	418	459.5	-
BS03-../D..08..	200	115	156	425	228	-	115	136.5	491	532	598.5	491

The actual gearbox design can vary from the geometry shown.

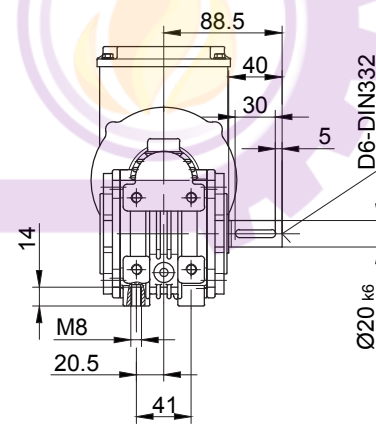
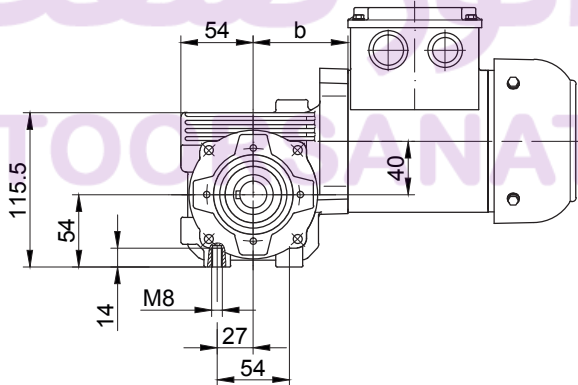
Torque arm at front
Code -5.V/



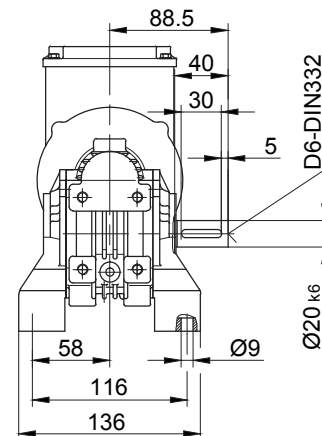
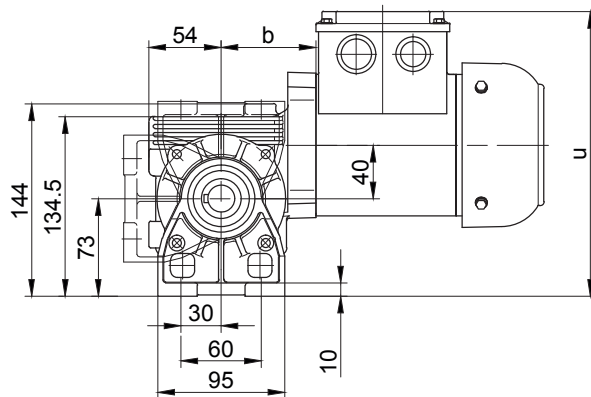
Flange with tapped holes at front
Code -7.V/



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



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

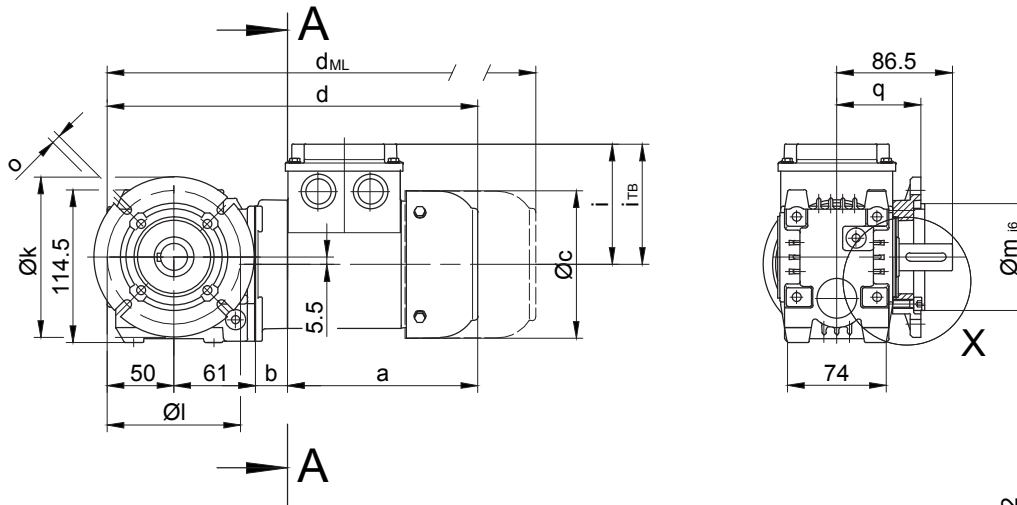


The actual gearbox design can vary from the geometry shown.

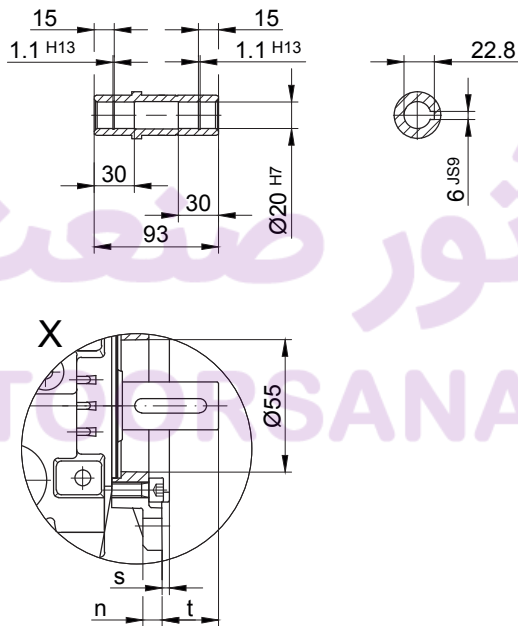
Dimension

BS04

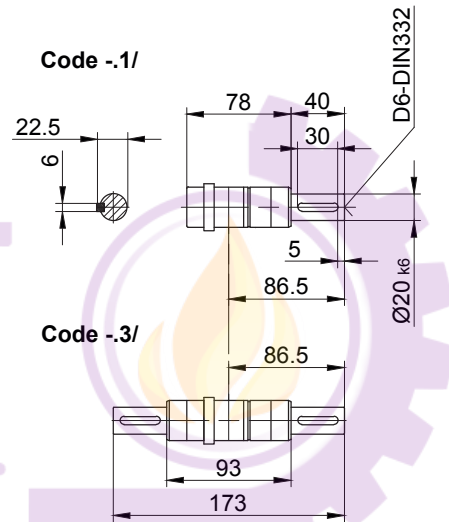
Flange with clearance holes at front
Code -3.V/



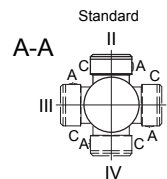
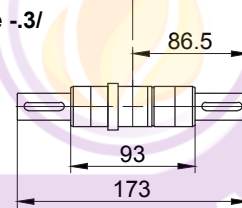
Code -4/



Code -1/



Code -3/



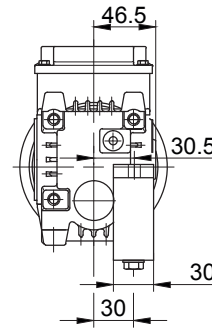
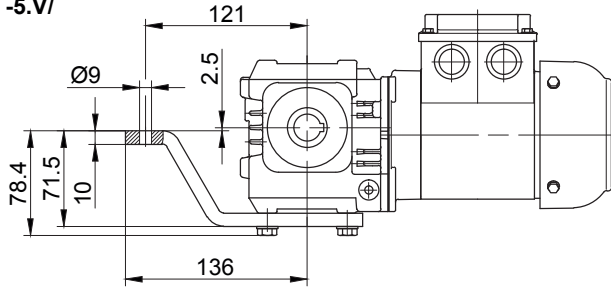
Flange dimensions

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

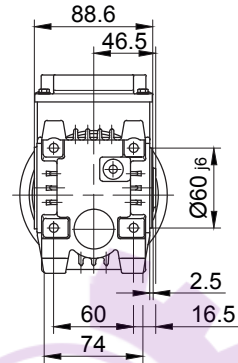
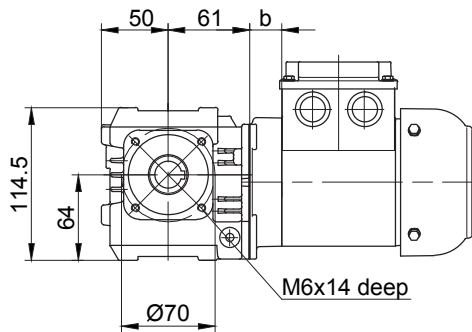
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E..	G	E..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BS04-../D04..	143	24	111	278	90	112	321.5	340.5	383.5	-
BS04-../D05..	170	26	123	307	100	117	349	410	451.5	-
BS04-../D06..	170	26	123	307	100	119	349	410	451.5	-
BS04-../D07..	190	26	123	327	100	119	369	430	471.5	-

The actual gearbox design can vary from the geometry shown.

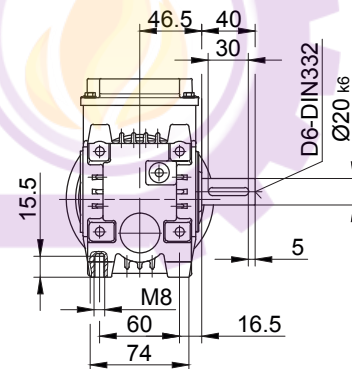
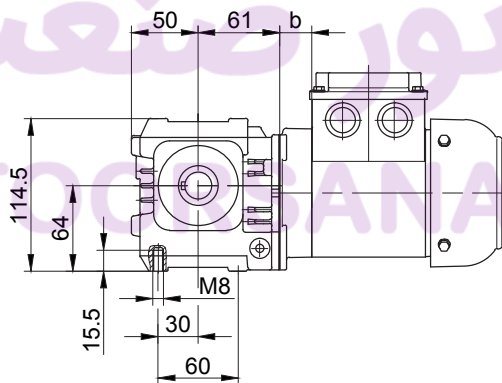
Torque arm at front
Code -5.V/



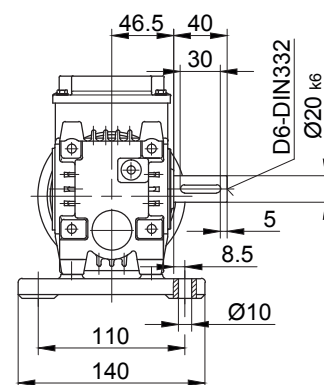
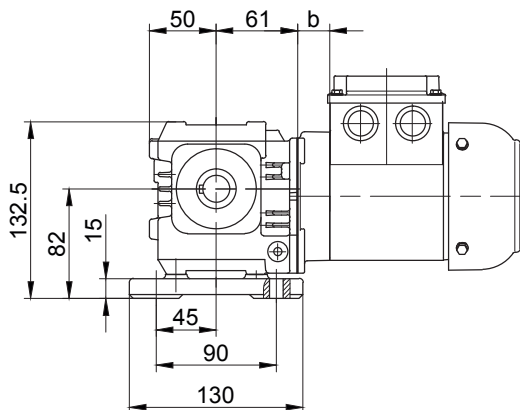
Flange with tapped holes at front
Code -7.V/



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



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

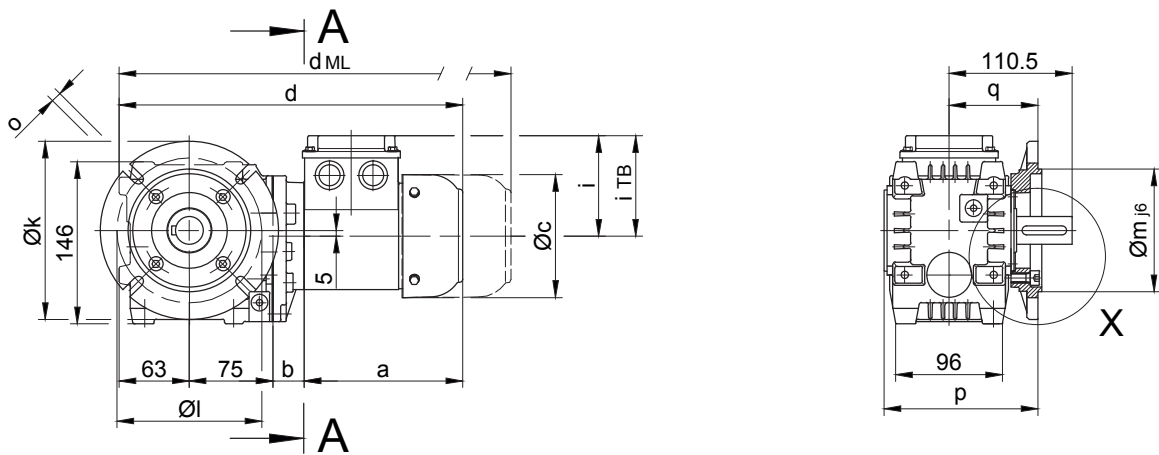


The actual gearbox design can vary from the geometry shown.

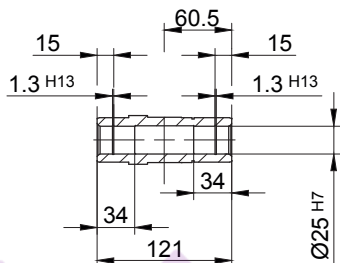
BS06

Flange with clearance holes at front

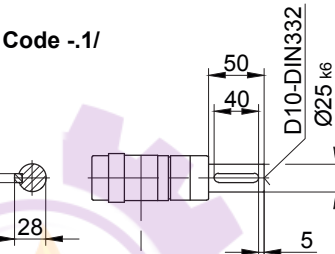
(Code -4.V/)



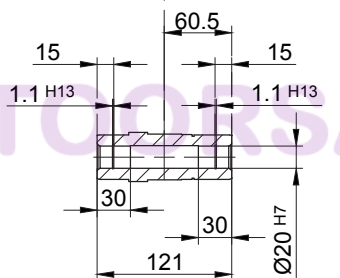
Code -4/
Standard



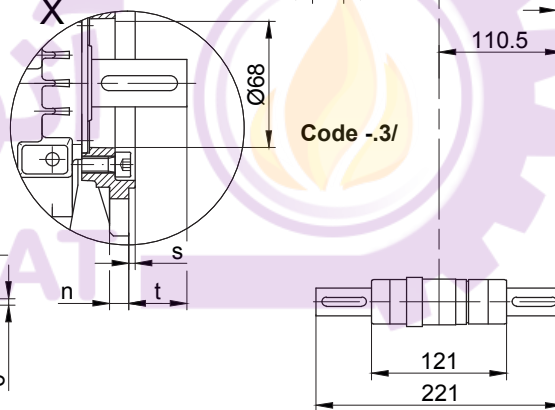
Code -1/



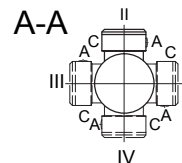
Code -4/K20



Code -3/



Standard



Flange dimensions

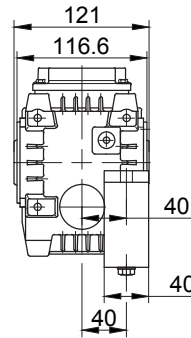
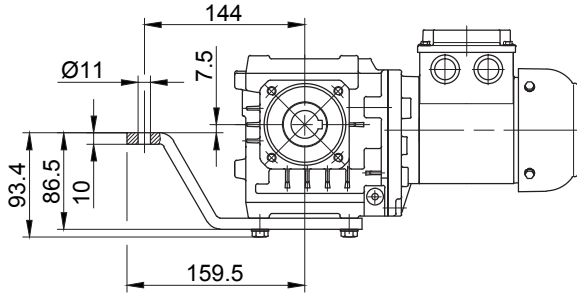
BS06	k	l	m	n	o	p	q	s	t
Standard -3.V/	140	115	95	10	9	138.5	80	3	30.5
big -4.V/	160	130	110	10	9	138.5	80	3.5	30.5

Type	a	b	c	d	i	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	90	112	352.5	371.5	414.5	-
BS06-../D05..	170	30	123	338	100	117	380	441	482.5	-
BS06-../D06..	170	30	123	338	100	119	380	441	482.5	-
BS06-../D07..	190	30	123	358	100	119	400	461	502.5	-
BS06-../D..08..	200	74	156	412	115	136.5	478	519	585.5	478

The actual gearbox design can vary from the geometry shown.

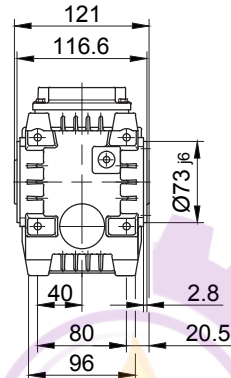
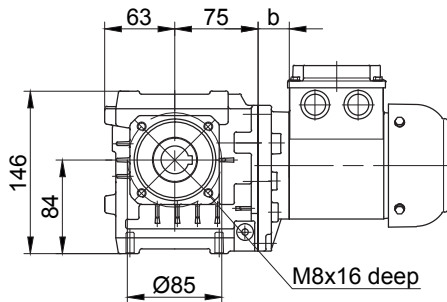
Torque arm at front

Code -5.V/



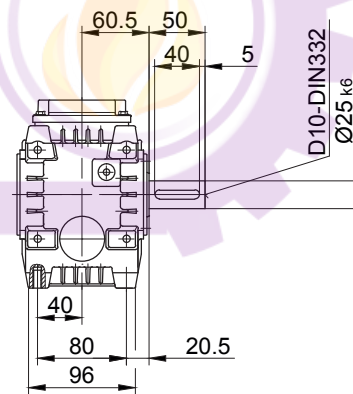
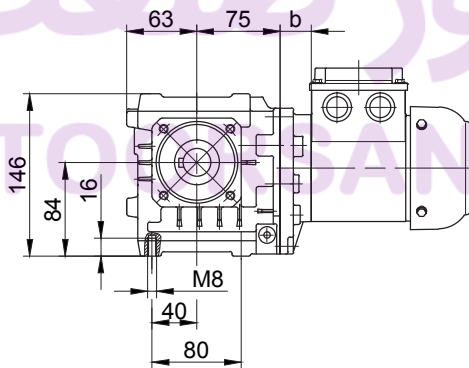
Flange with tapped holes at front

Code -7.V/



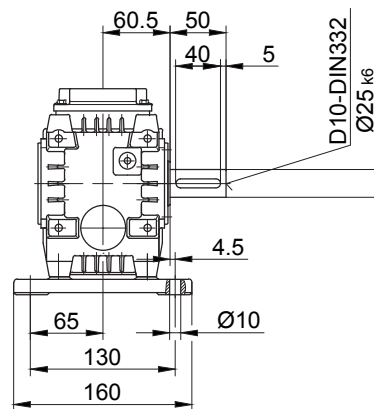
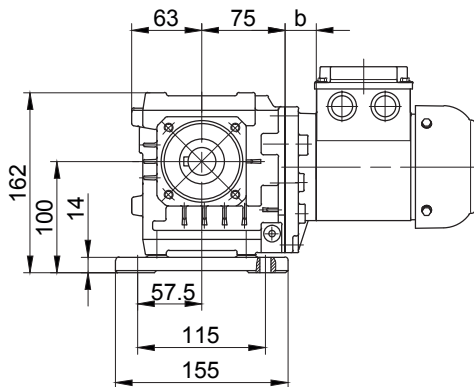
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

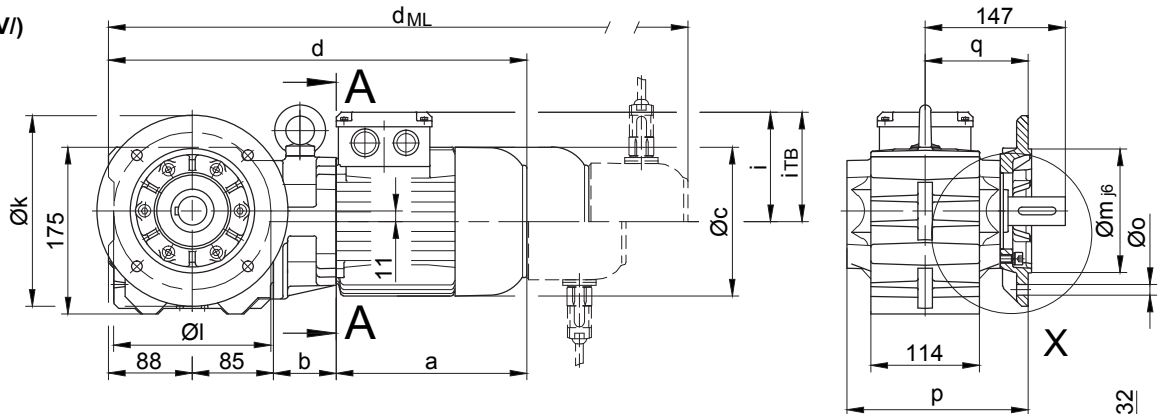
Dimension

BS10 - BS10Z

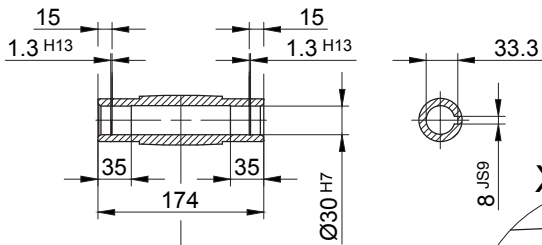
Flange with clearance holes at front

Code -3.V/

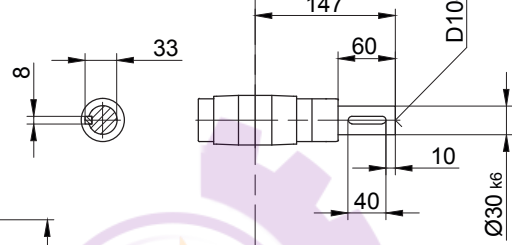
(Code -2.V/)



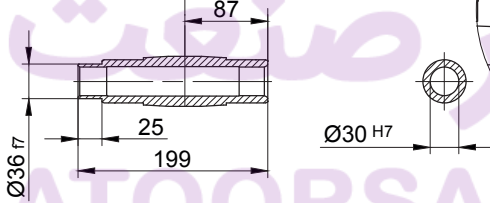
Code -4/



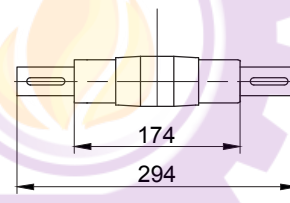
Code -1/



Code -5/

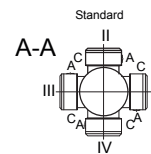


Code -3/



Flange dimensions

BS10(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	200	165	130	12	11	190	108	3.5	39
small -2.V/	160	130	110	10	9	183	101	3.5	46



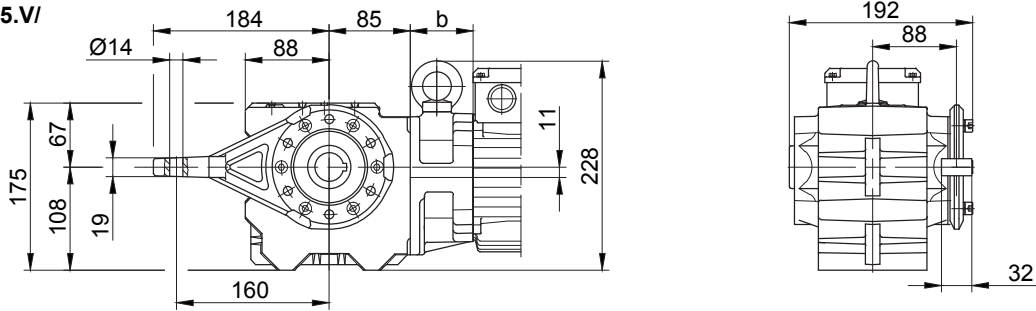
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E../ES..	G	E../ES..-G	RR/RL
							d _{ML}	d _{ML}	d _{ML}	d _{ML}
BS10Z-../D04..	143	86	111	402	90	112	445.5	464.5	507.5	-
BS10-../D05..	170	62	123	405	100	117	447	508	549.5	-
BS10Z-../D05..	170	88	123	431	100	117	473	534	575.5	-
BS10-../D06..	170	62	123	405	100	119	447	508	549.5	-
BS10Z-../D06..	170	88	123	431	100	119	473	534	575.5	-
BS10-../D07..	190	62	123	425	100	119	467	528	569.5	-
BS10Z-../D07..	190	88	123	451	100	119	493	554	595.5	-
BS10-../D..08..	200	66	156	439	115	136.5	505	546	612.5	505
BS10Z-../D..08..	200	132	156	505	115	136.5	571	612	678.5	571
BS10-../D..09..	251	80.5	181	504.5	124	158	597.5	611.5	702	597.5

The actual gearbox design can vary from the geometry shown.

BS10 - BS10Z

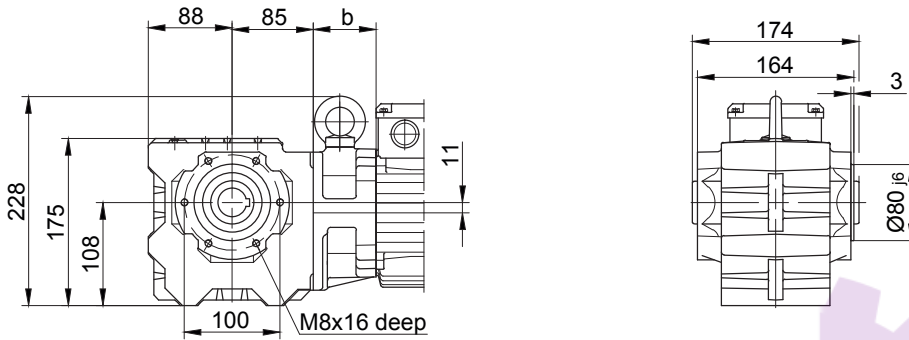
Torque arm at front

Code -5.V/



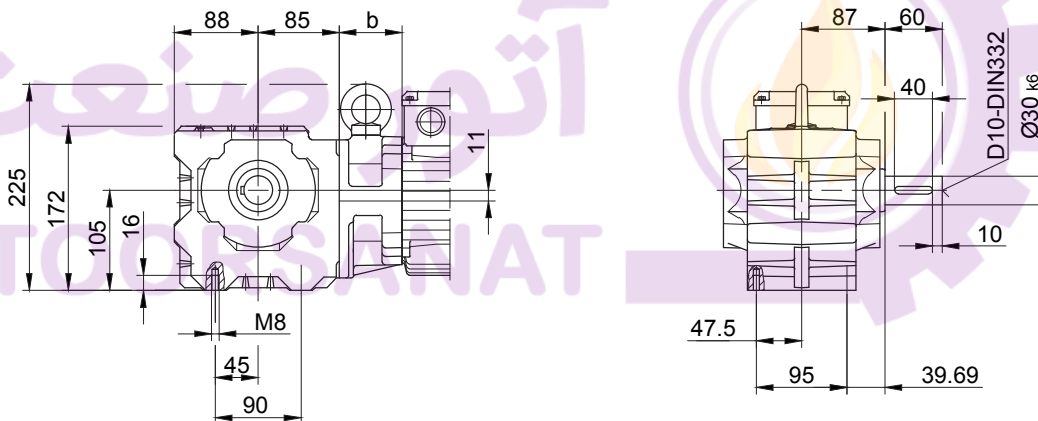
Flange with tapped holes at front

Code -7.V/



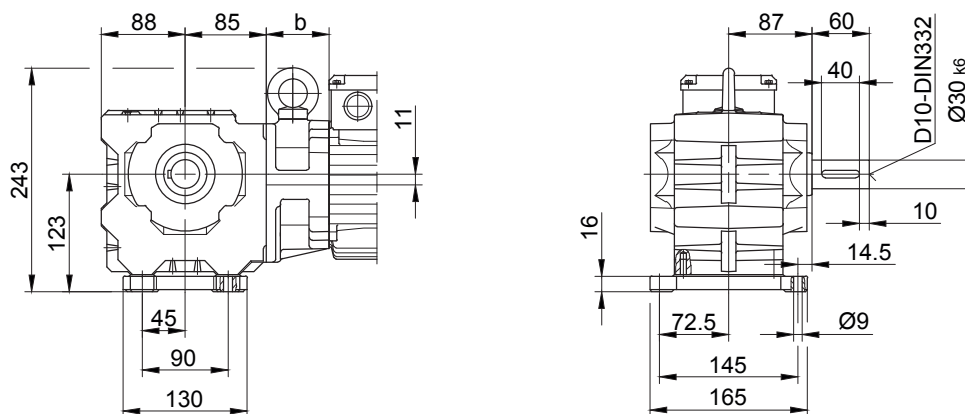
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

Dimension

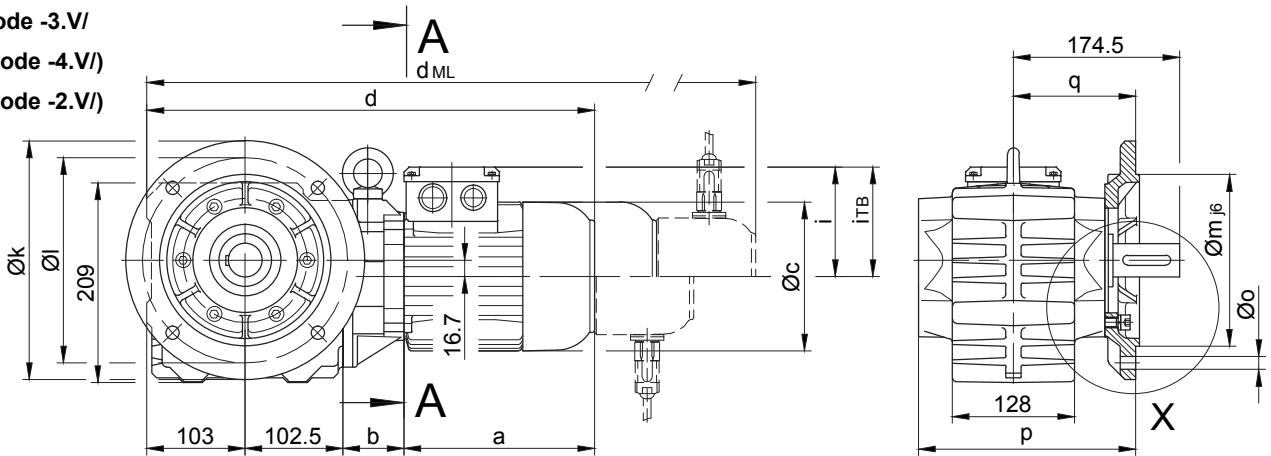
BS20 - BS20Z

Flange with clearance holes at front

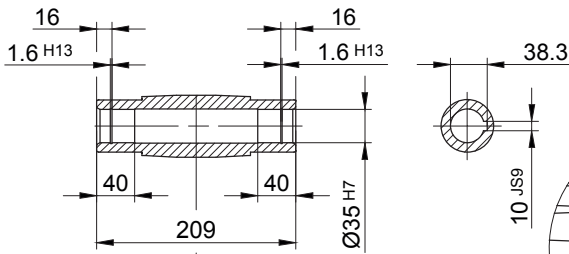
Code -3.V/

(Code -4.V/)

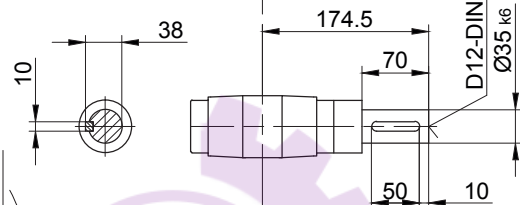
(Code -2.V/)



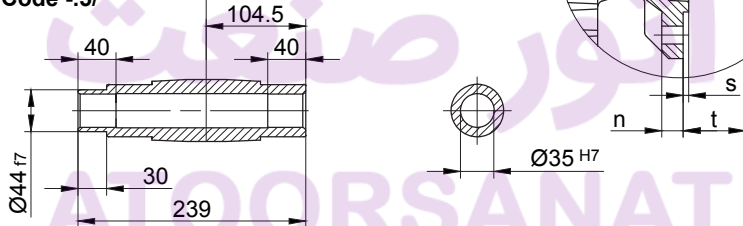
Code -4/



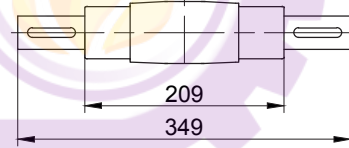
Code -1/



Code -5/

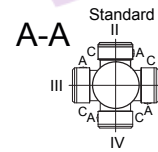


Code -3/



Flange dimensions

BS20(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	250	215	180	16	13.5	227.5	128	4	46.5
small -2.V/	200	165	130	12	11	224.5	125	3.5	49.5
big -4.V/	300	265	230	20	13.5	233.5	134	4	40.5



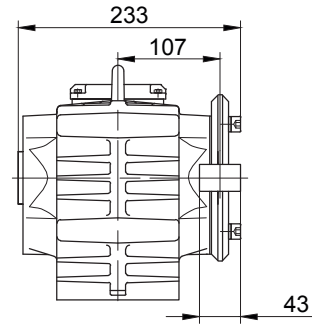
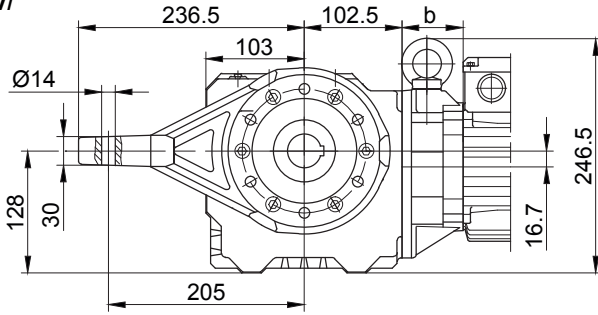
Type	a	b	c	d	i	Design with motor extensions				
						i _{TB}	E./ES..	G	E./ES..-G	RR/RL
						d _{ML}	d _{ML}	d _{ML}	d _{ML}	
BS20Z-../D04..	143	100	111	448.5	90	112	492	511	554	-
BS20-../D05..	170	60	123	435.5	100	117	477.5	538.5	580	-
BS20Z-../D05..	170	102	123	477.5	100	117	519.5	580.5	622	-
BS20-../D06..	170	60	123	435.5	100	119	477.5	538.5	580	-
BS20Z-../D06..	170	102	123	477.5	100	119	519.5	580.5	622	-
BS20-../D07..	190	60	123	455.5	100	119	497.5	558.5	600	-
BS20Z-../D07..	190	102	123	497.5	100	119	539.5	600.5	642	-
BS20-../D..08..	200	64	156	469.5	115	136.5	535.5	576.5	643	535.5
BS20Z-../D..08..	200	146	156	551.5	115	136.5	617.5	658.5	725	617.5
BS20-../D..09..	251	78.5	181	535	124	158	628	642	732.5	628

The actual gearbox design can vary from the geometry shown.

BS20 - BS20Z

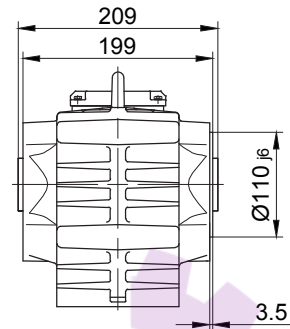
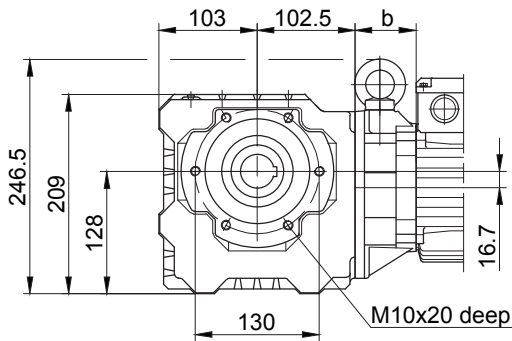
Torque arm at front

Code -5.V/



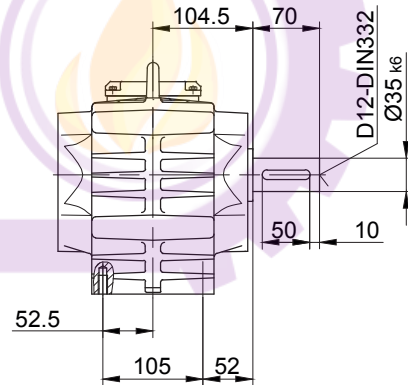
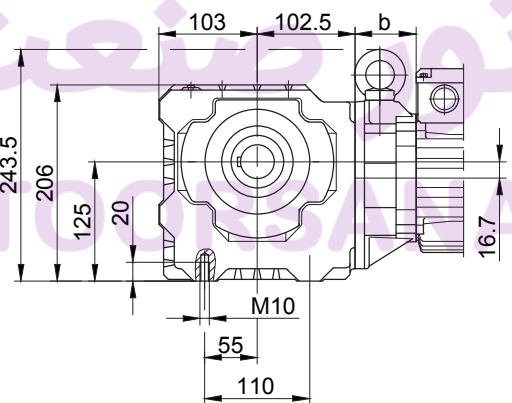
Flange with tapped holes at front

Code -7.V/



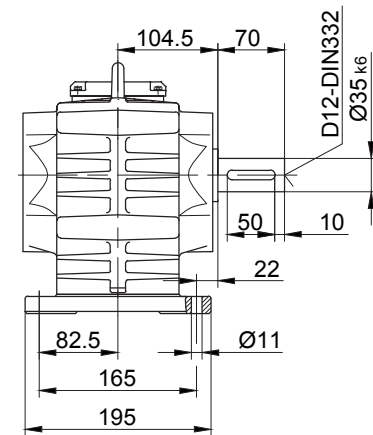
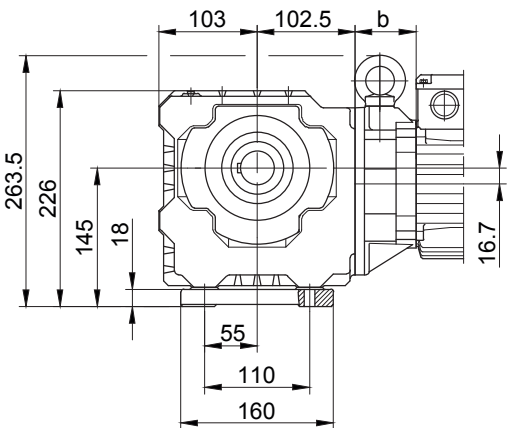
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



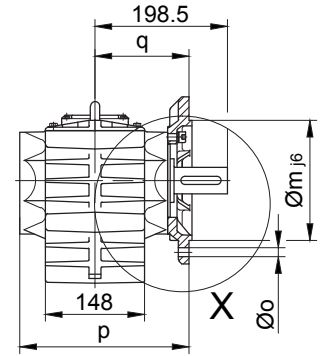
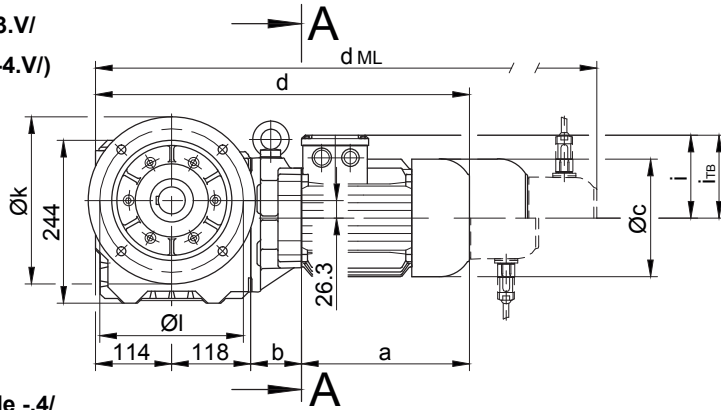
The actual gearbox design can vary from the geometry shown.

BS30 - BS30Z

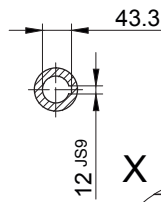
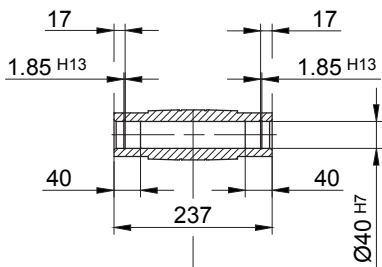
Flange with clearance holes at front

Code -3.V/

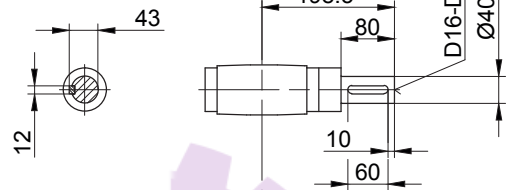
(Code -4.V/)



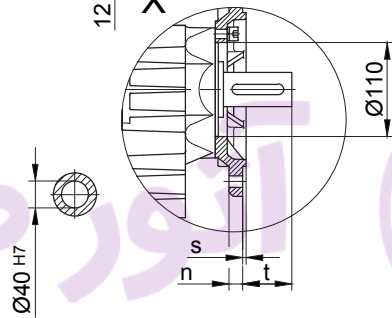
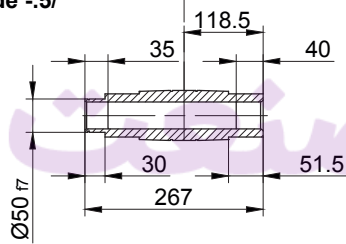
Code -4/



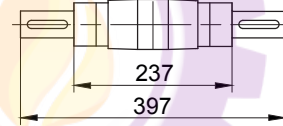
Code -1/



Code -5/

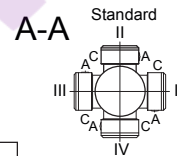


Code -3/



Flange dimensions

BS30(Z)	k	l	m	n	o	p	q	s	t
Standard -3.V/	250	215	180	16	13.5	253.5	141	4	57.5
big -4.V/	300	265	230	20	13.5	259.5	147	4	51.5



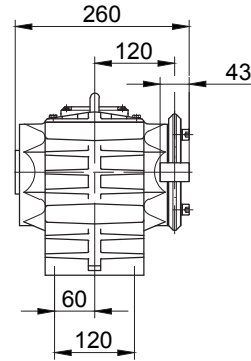
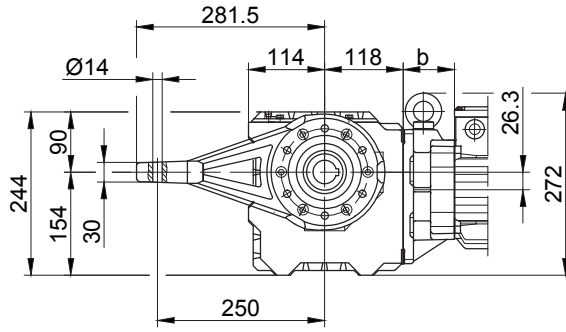
Type	a	b	c	d	i	Design with motor extensions				
						i_{TB}	E../ES..	G	E../ES..-G	RR/RL
							d_{ML}	d_{ML}	d_{ML}	d_{ML}
BS30-../D05..	170	58	123	460	100	117	502	563	604.5	-
BS30Z-../D05..	170	133.5	123	535.5	100	117	577.5	638.5	680	-
BS30-../D06..	170	58	123	460	100	119	502	563	604.5	-
BS30Z-../D06..	170	133.5	123	535.5	100	119	577.5	638.5	680	-
BS30-../D07..	190	58	123	480	100	119	522	583	624.5	-
BS30Z-../D07..	190	133.5	123	555.5	100	119	597.5	658.5	700	-
BS30-../D..08..	200	62	156	494	115	136.5	560	601	667.5	560
BS30Z-../D..08..	200	137.5	156	569.5	115	136.5	635.5	676.5	743	635.5
BS30-../D..09..	251	76.5	181	559.5	124	158	652.5	666.5	757	652.5
BS30Z-../D..09..	251	152	181	635	124	158	728	742	832.5	728
BS30-../D..11..	319	83	228	634	181	181	732	741	836.5	732

The actual gearbox design can vary from the geometry shown.

BS30 - BS30Z

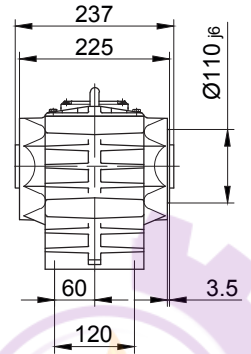
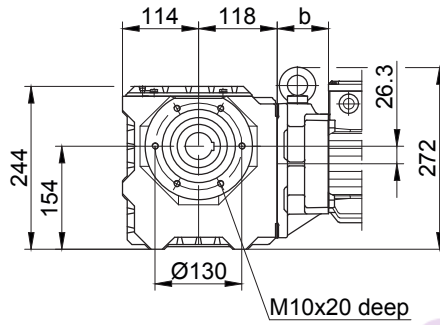
Torque arm at front

Code -5.V/



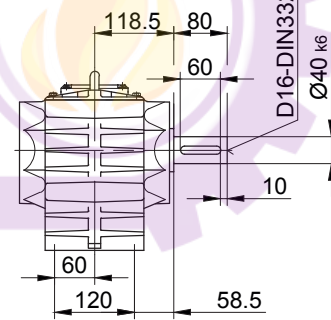
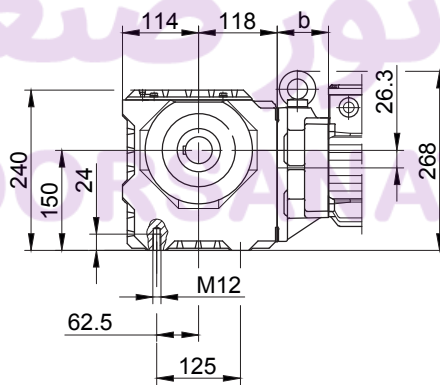
Flange with tapped holes at front

Code -7.V/



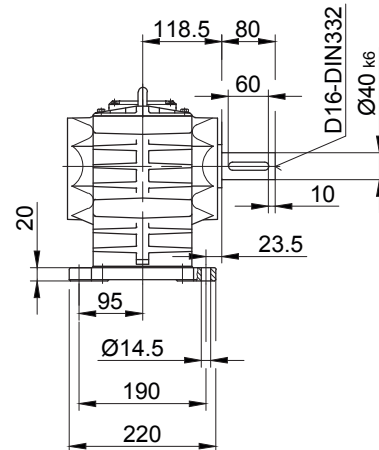
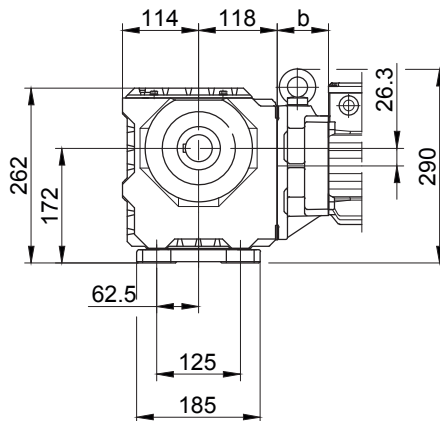
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/

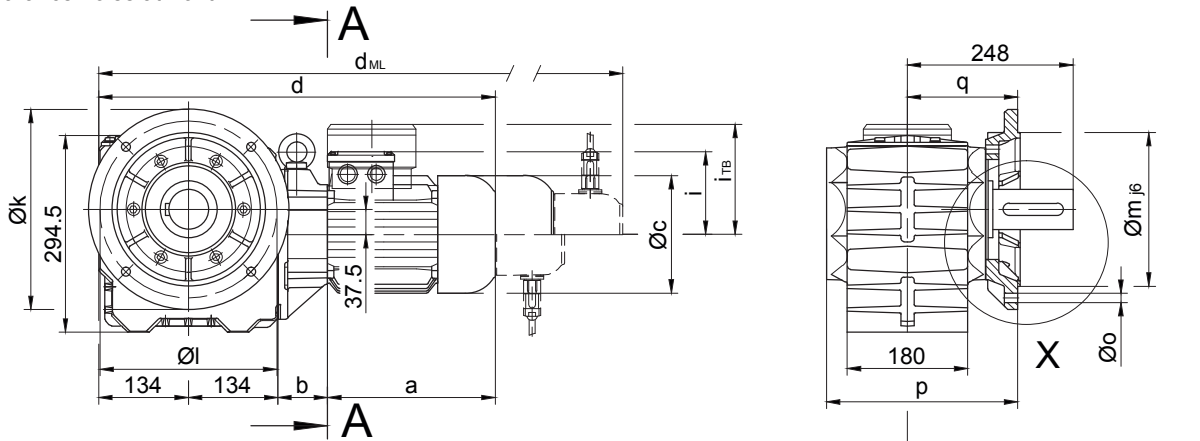


The actual gearbox design can vary from the geometry shown.

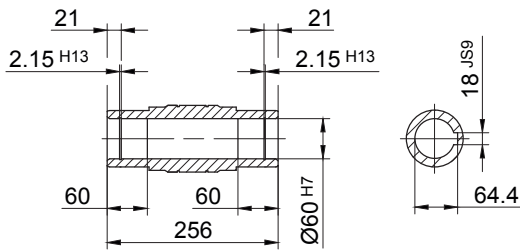
BS40 - BS40Z

Flange with clearance holes at front

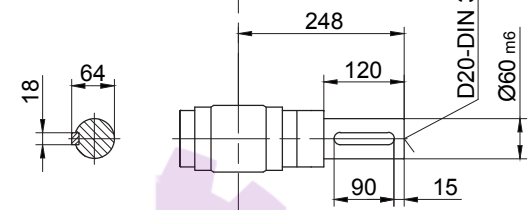
Code -3.V/



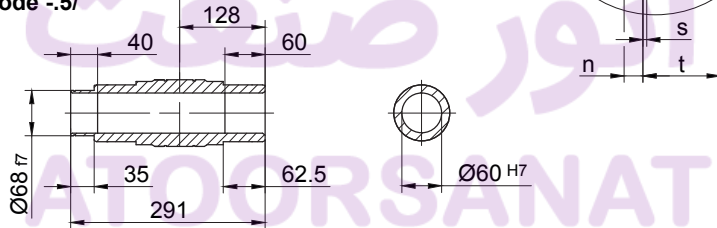
Code -4/



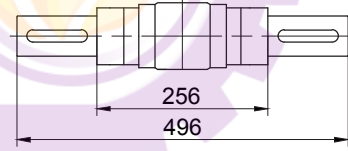
Code -1/



Code -5/

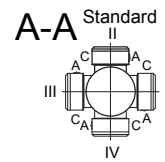


Code -3/



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



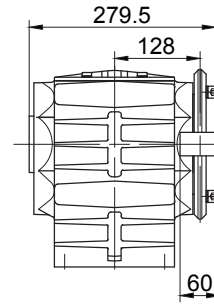
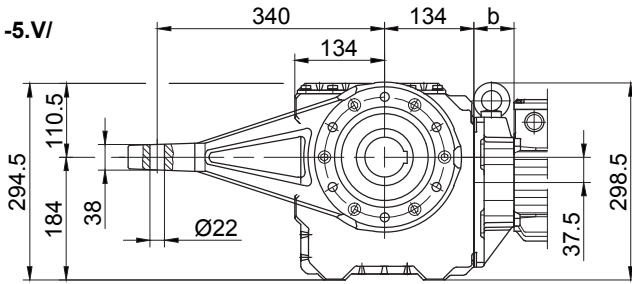
Type	a	b	c	d	i	Design with motor extensions				
						i_TB	E../ES..	G	E../ES..-G	RR/RL
						d_ML	d_ML	d_ML	d_ML	
BS40Z-../D05..	170	138.5	123	576.5	100	117	618.5	679.5	721	-
BS40Z-../D06..	170	138.5	123	576.5	100	119	618.5	679.5	721	-
BS40Z-../D07..	190	138.5	123	596.5	100	119	638.5	699.5	741	-
BS40-../D..08..	200	60	156	528	115	136.5	594	635	701.5	594
BS40Z-../D..08..	200	142.5	156	610.5	115	136.5	676.5	717.5	784	676.5
BS40-../D..09..	251	74.5	181	593.5	124	158	686.5	700.5	791	686.5
BS40Z-../D..09..	251	157	181	676	124	158	769	783	873.5	769
BS40-../D..11..	319	81	228	668	181	181	766	775	870.5	766

The actual gearbox design can vary from the geometry shown.

BS40 - BS40Z

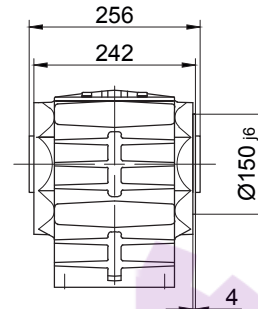
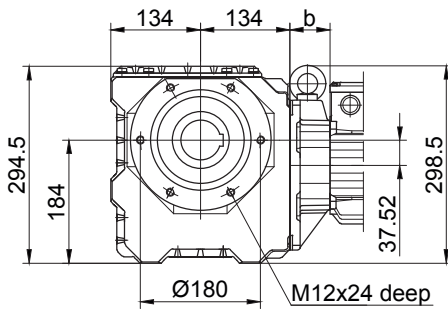
Torque arm at front

Code -5.V/



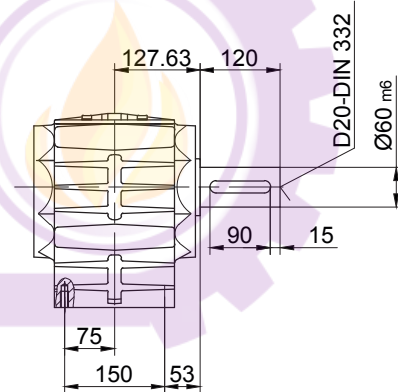
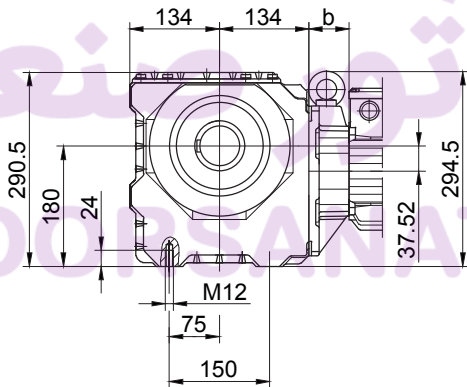
Flange with tapped holes at front

Code -7.V/



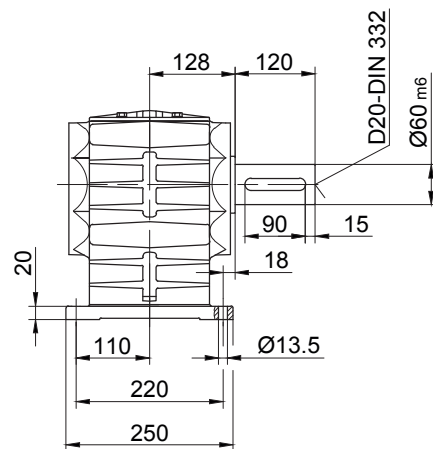
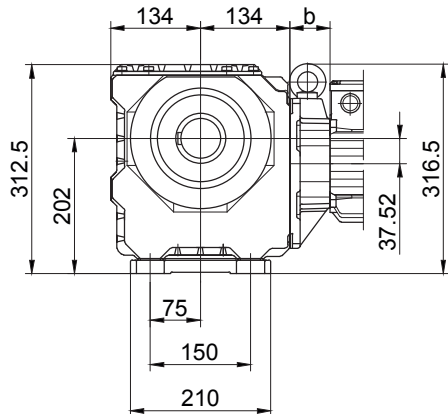
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/

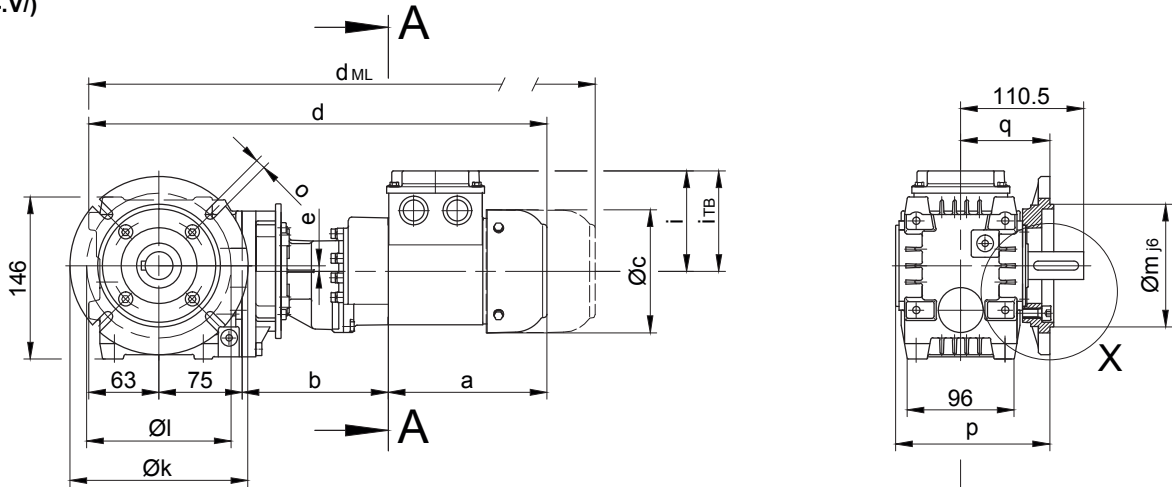


The actual gearbox design can vary from the geometry shown.

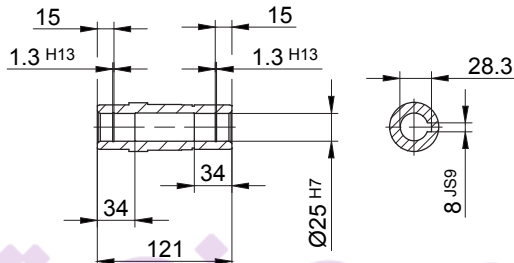
BS06G04

Flange with clearance holes at front

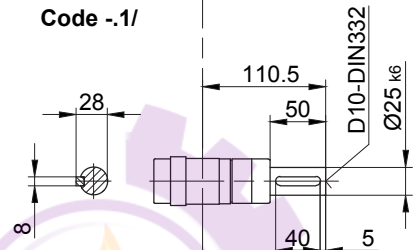
Code -3.V/
(Code -4.V/)



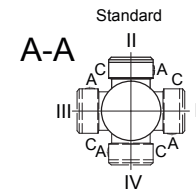
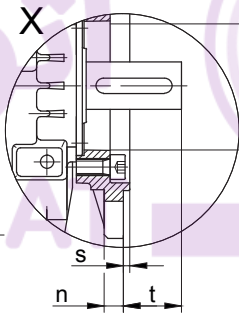
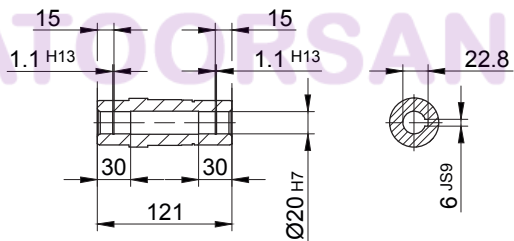
Code -4/
Standard



Code -1/



Code -4/K20



Flange dimensions

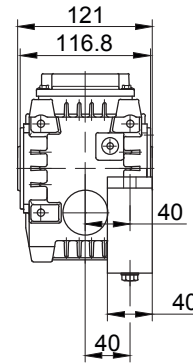
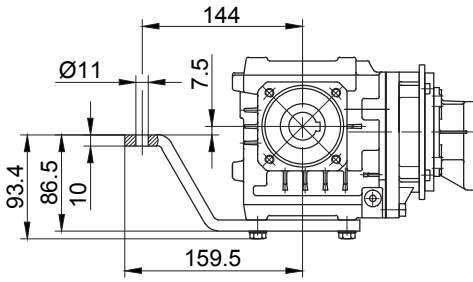
BS06	k	l	m	n	o	p	q	s	t
Standard -3.V/	140	115	95	10	9	138.5	80	3	30.5
big -4.V/	160	130	110	10	9	138.5	80	3.5	30.5

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

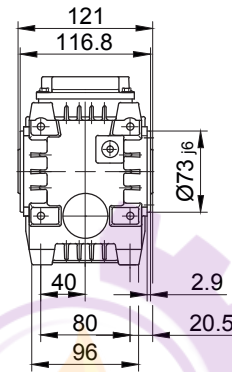
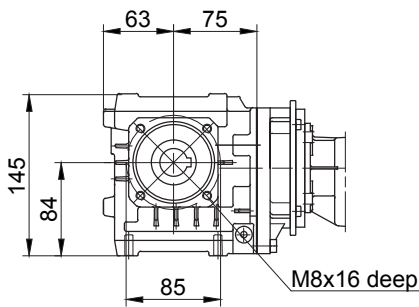
The actual gearbox design can vary from the geometry shown.

BS06G04

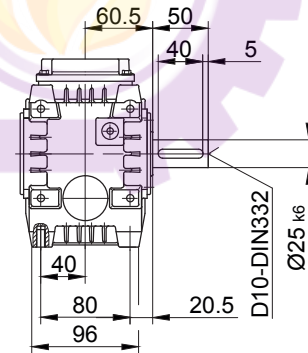
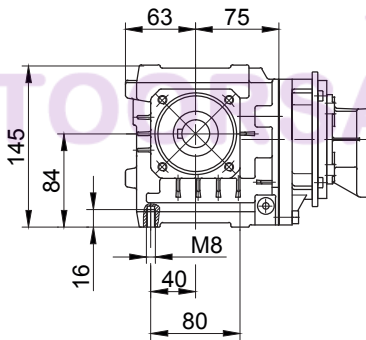
Torque arm at front
Code -5.V/



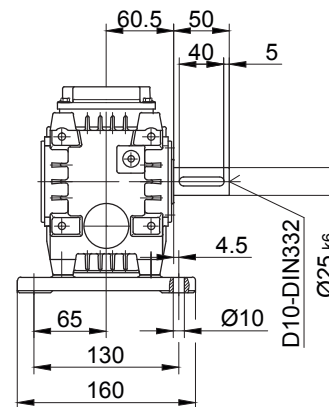
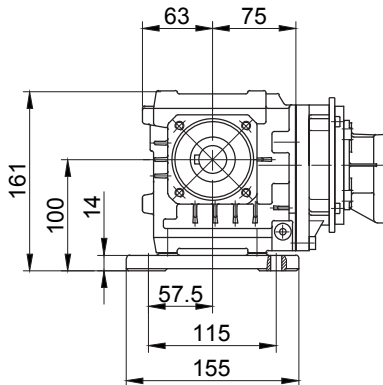
Flange with tapped holes at front
Code -7.V/



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



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



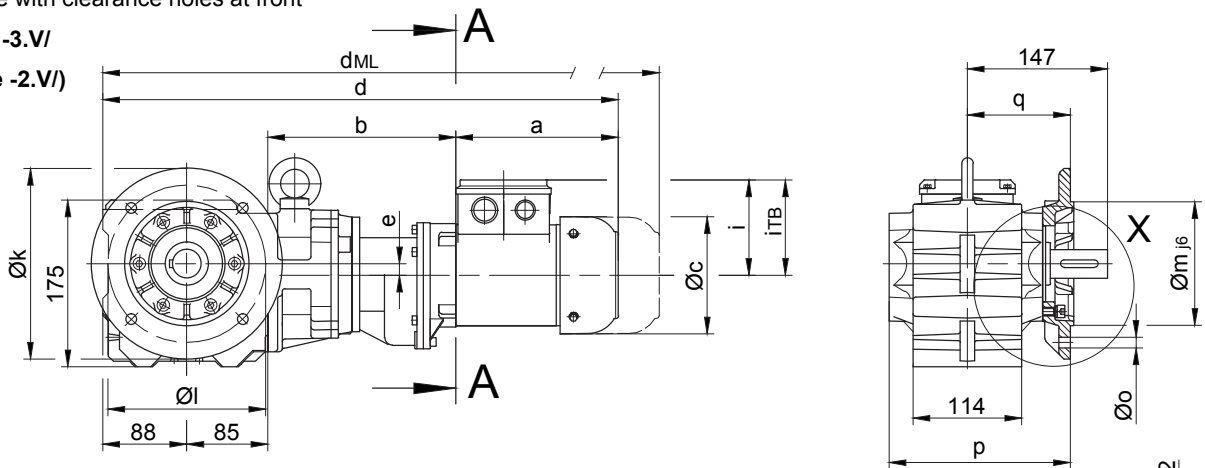
The actual gearbox design can vary from the geometry shown.

BS10G06

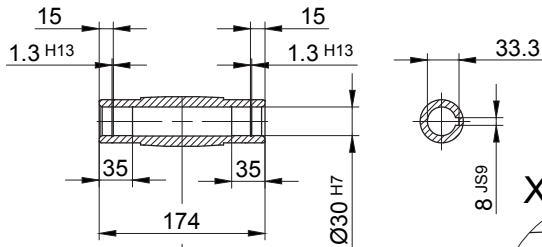
Flange with clearance holes at front

Code -3.V/

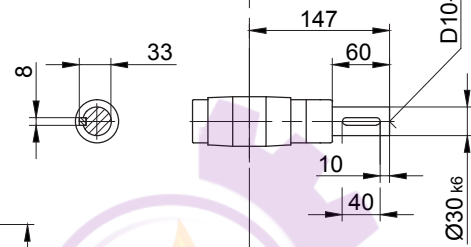
(Code -2.V/)



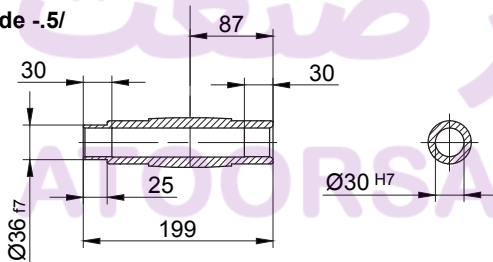
Code -4/



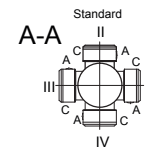
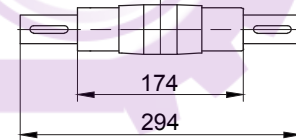
Code -1/



Code -5/



Code -3/



Flange dimensions

BS10G..	k	l	m	n	o	p	q	s	t
Standard -3.V/	200	165	130	12	11	190	108	3.5	39
small -2.V/	160	130	110	10	9	183	101	3.5	46

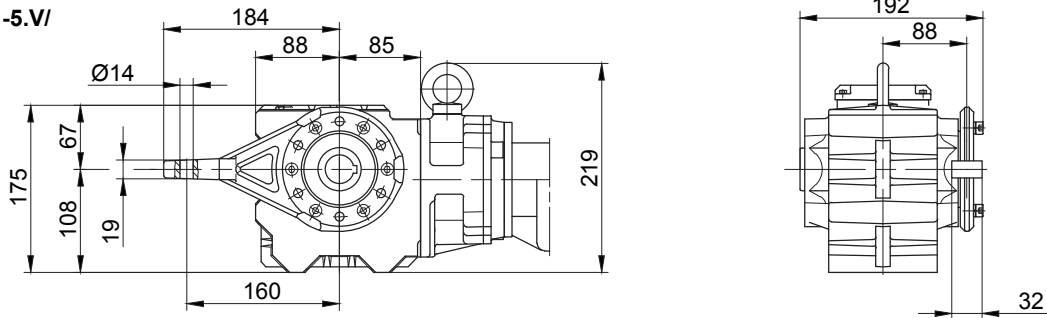
Type	a	b	c	d	e	i	i _{TB}	Design with motor extensions			
								E./ES..	G	E./ES.-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BS10G06-./D04..	143	195	111	511	12	90	112	554.5	573.5	616.5	-
BS10G06-./D05..	170	197	123	540	12	100	117	582	643	684.5	-
BS10G06-./D06..	170	197	123	540	12	100	119	582	643	684.5	-
BS10G06-./D07..	190	197	123	560	12	100	119	602	663	704.5	-
BS10G06-./D..08..	200	241	156	614	12	115	136.5	680	721	787.5	680

The actual gearbox design can vary from the geometry shown.

BS10G06

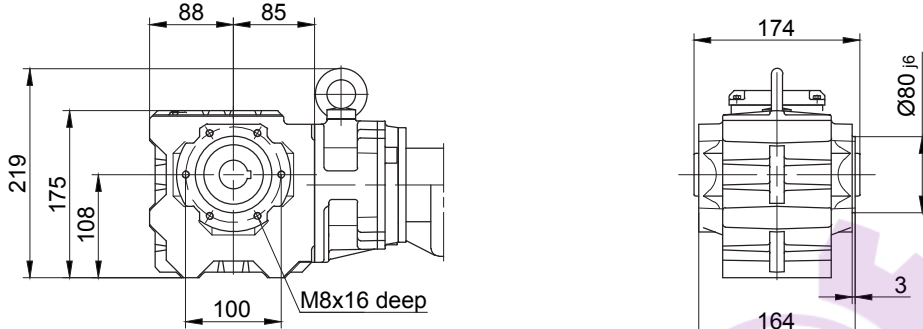
Torque arm at front

Code -5.V/



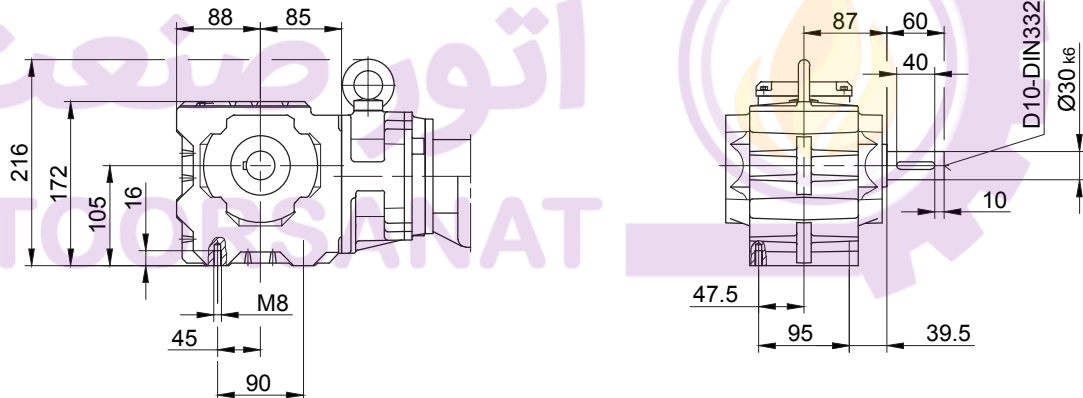
Flange with tapped holes at front

Code -7.V/



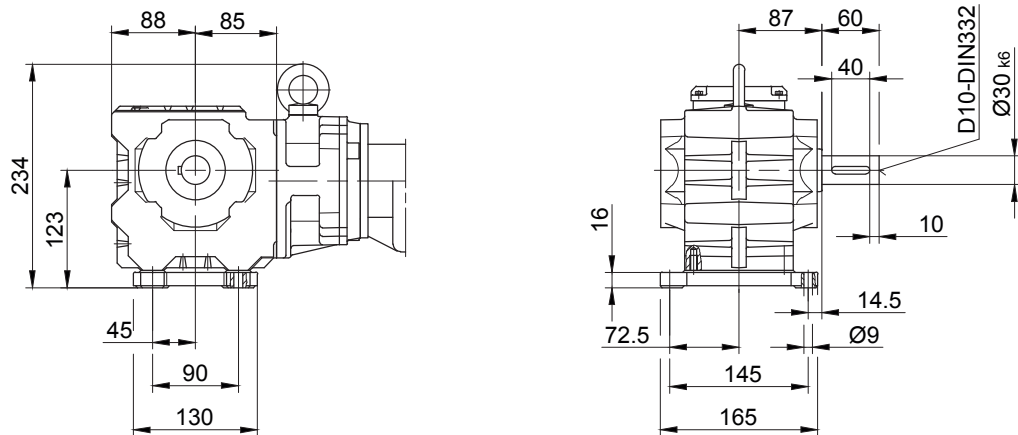
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



The actual gearbox design can vary from the geometry shown.

Dimension

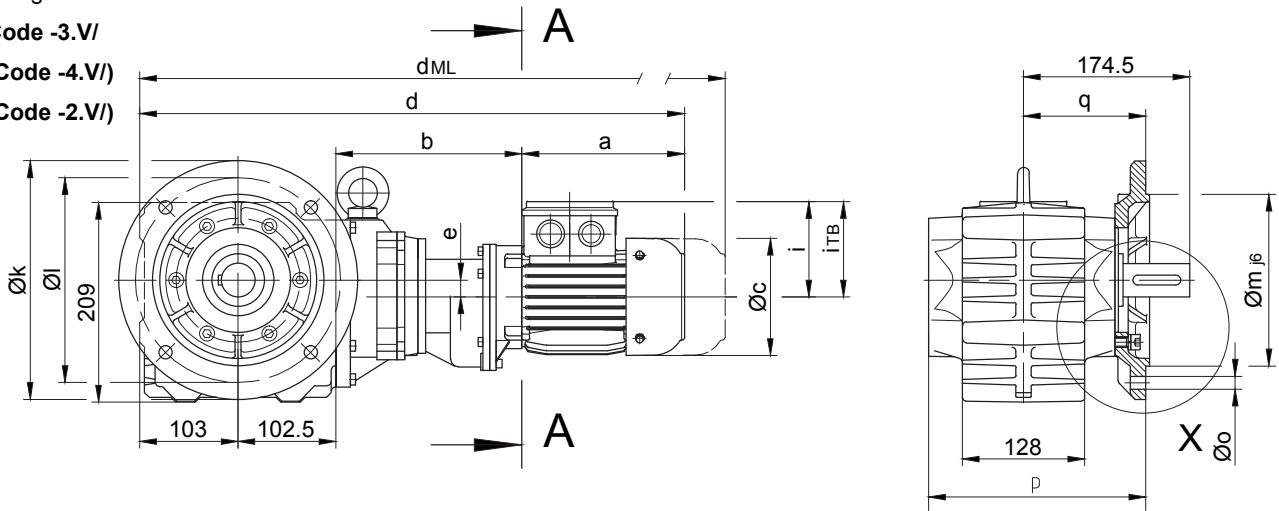
BS20G06

Flange with clearance holes at front

Code -3.V/

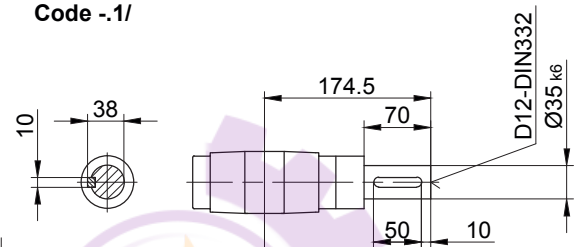
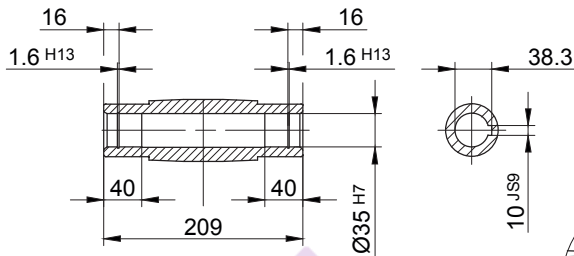
(Code -4.V/)

(Code -2.V/)



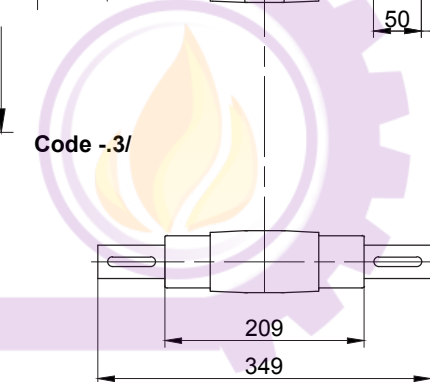
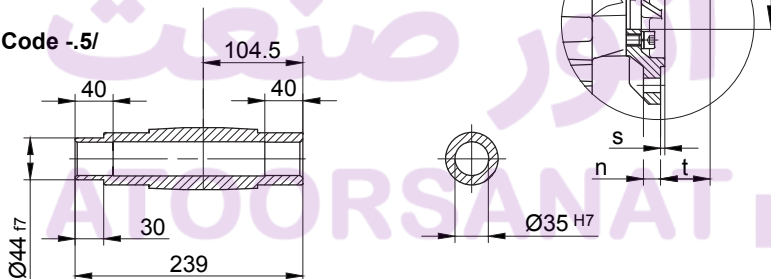
Code -4/

Code -1/



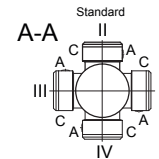
Code -5/

Code -3/



Flange dimensions

BS20G..	k	l	m	n	o	p	q	s	t
Standard -3.V/	250	215	180	16	13.5	227.5	128	4	46.5
small -2.V/	200	165	130	12	11	224.5	125	3.5	49.5
big -4.V/	300	265	230	20	13.5	233.5	134	4	40.5



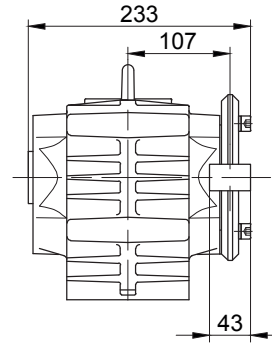
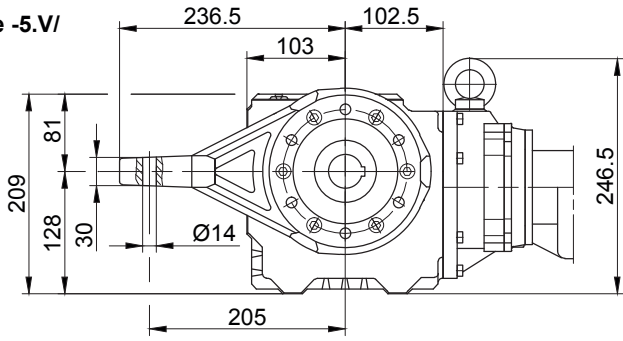
Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	ES../ZS..	G	ES../ZS..-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BS20G06-../D04..	143	193	111	541.5	18	90	112	585	604	647	-
BS20G06-../D05..	170	195	123	570.5	18	100	117	612.5	673.5	715	-
BS20G06-../D06..	170	195	123	570.5	18	100	119	612.5	673.5	715	-
BS20G06-../D07..	190	195	123	590.5	18	100	119	632.5	693.5	735	-
BS20G06-../D..08..	200	239	156	644.5	18	115	136.5	710.5	751.5	818	710.5

The actual gearbox design can vary from the geometry shown.

BS20G06

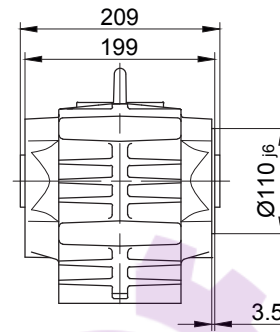
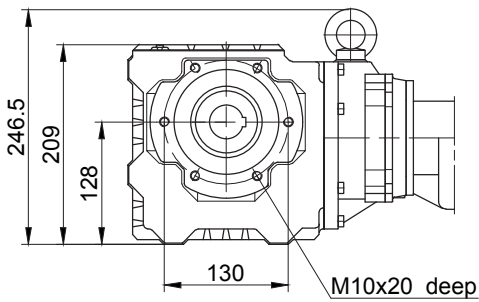
Torque arm at front

Code -5.V/



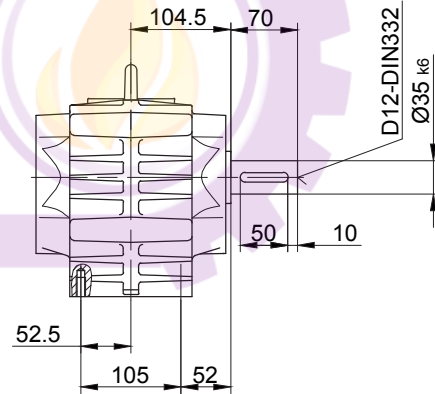
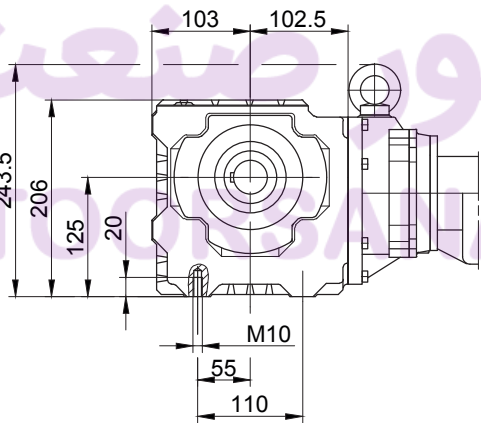
Flange with tapped holes at front

Code -7.V/



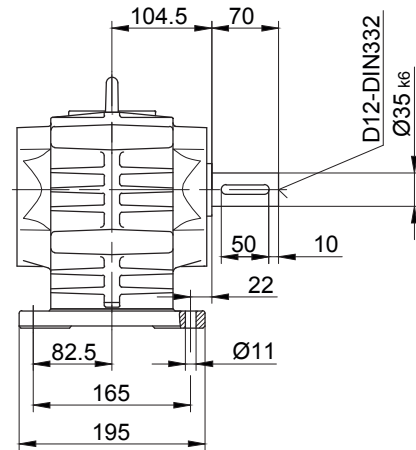
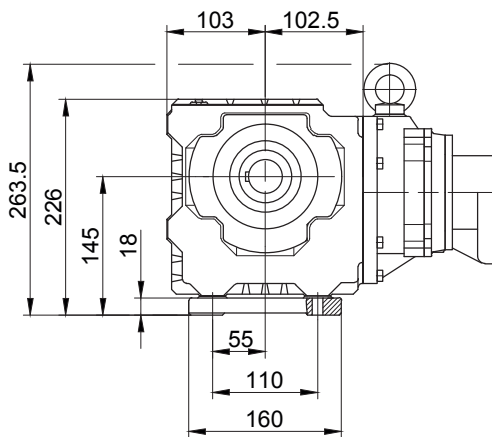
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/



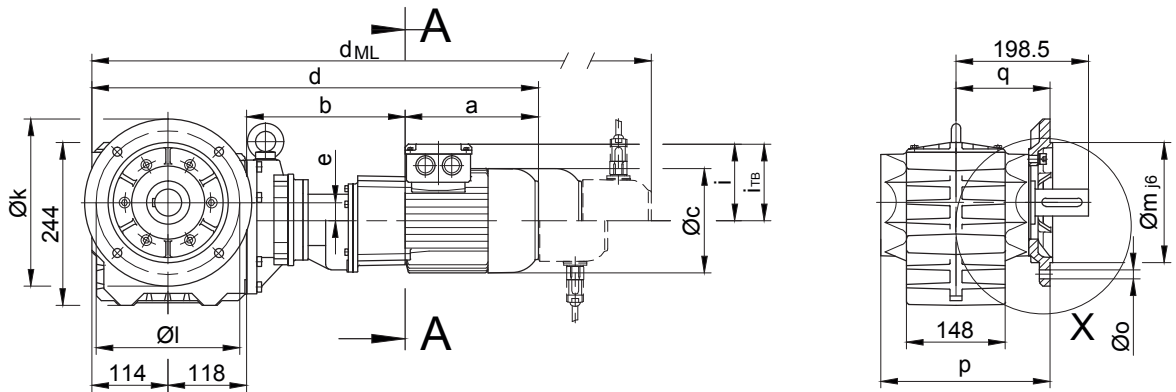
The actual gearbox design can vary from the geometry shown.

BS30G06

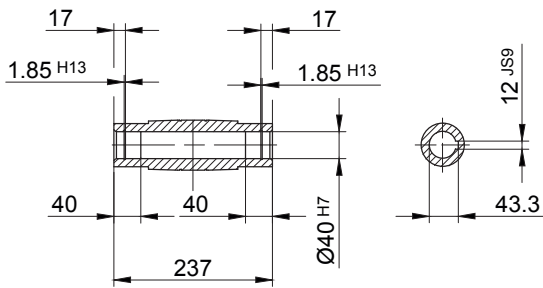
Flange with clearance holes at front

Code -3.V/

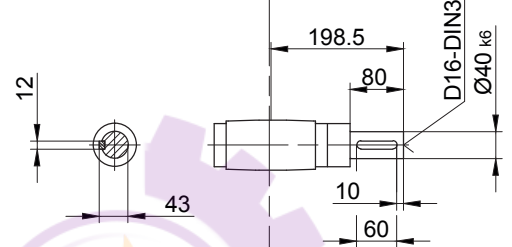
(Code -4.V/)



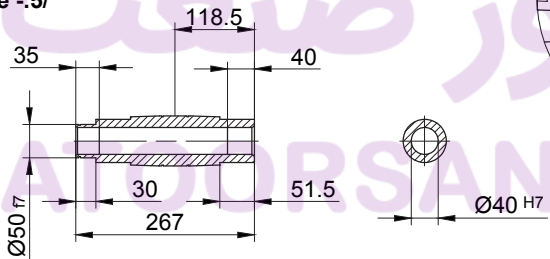
Code -4/



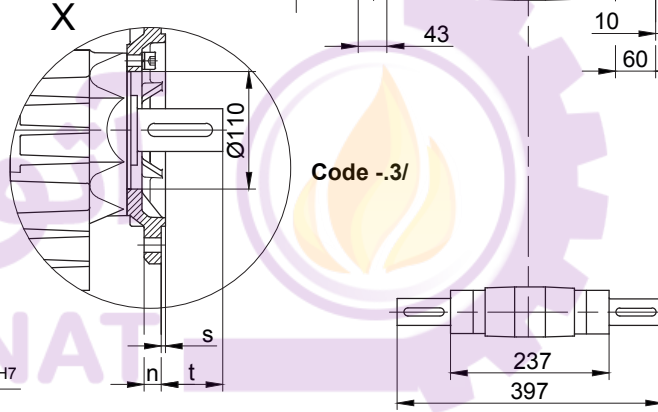
Code -1/



Code -5/



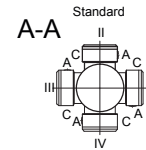
Code -3/



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Flange dimensions

BS30G..	k	l	m	n	o	p	q	s	t
Standard -3.V/	250	215	180	16	13.5	253.5	141	4	57.5
big -4.V/	300	265	230	20	13.5	259.5	147	4	51.5



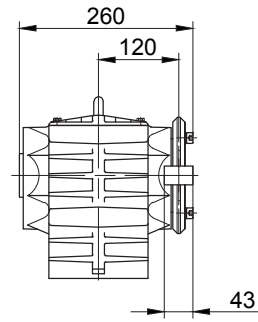
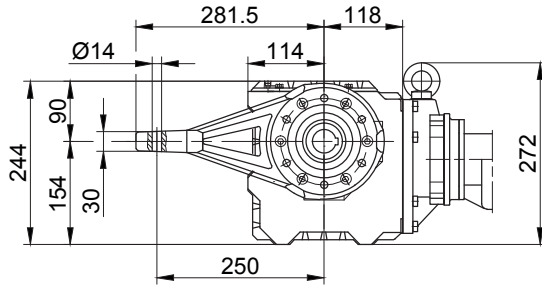
Type	a	b	c	d	e	i	Design with motor extensions				
							i_{TB}	E../ES.. d_{ML}	G d_{ML}	E../ES..-G d_{ML}	RR/RL d_{ML}
BS30G06-../D04..	143	191	111	566	27	90	112	609.5	628.5	671.5	-
BS30G06-../D05..	170	193	123	595	27	100	117	637	698	739.5	-
BS30G06-../D06..	170	193	123	595	27	100	119	637	698	739.5	-
BS30G06-../D07..	190	193	123	615	27	100	119	657	718	759.5	-
BS30G06-../D..08..	200	237	156	669	27	115	136.5	735	776	842.5	735

The actual gearbox design can vary from the geometry shown.

BS30G06

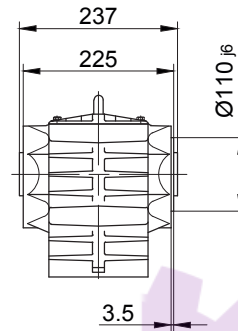
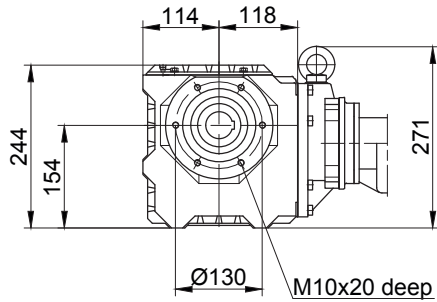
Torque arm at front

Code -5.V/



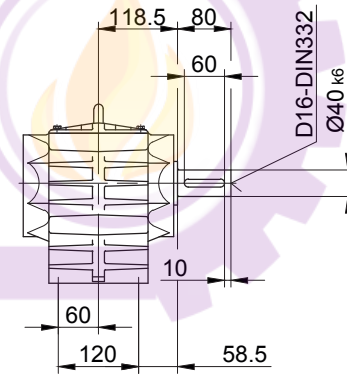
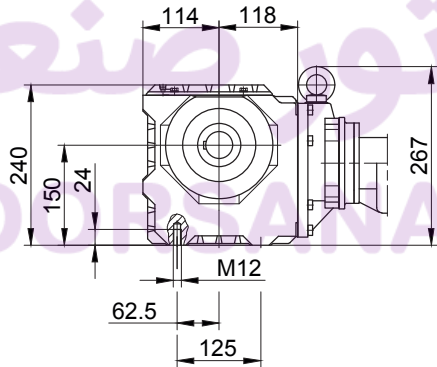
Flange with tapped holes at front

Code -7.V/



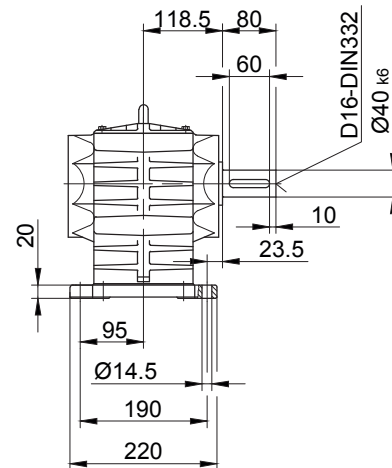
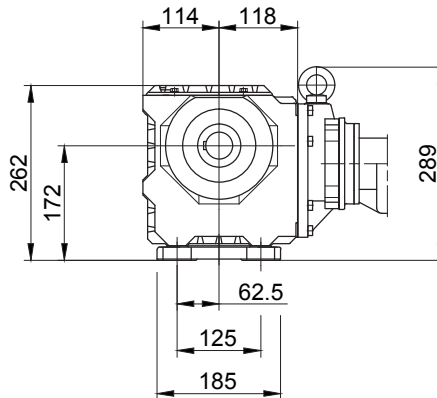
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/

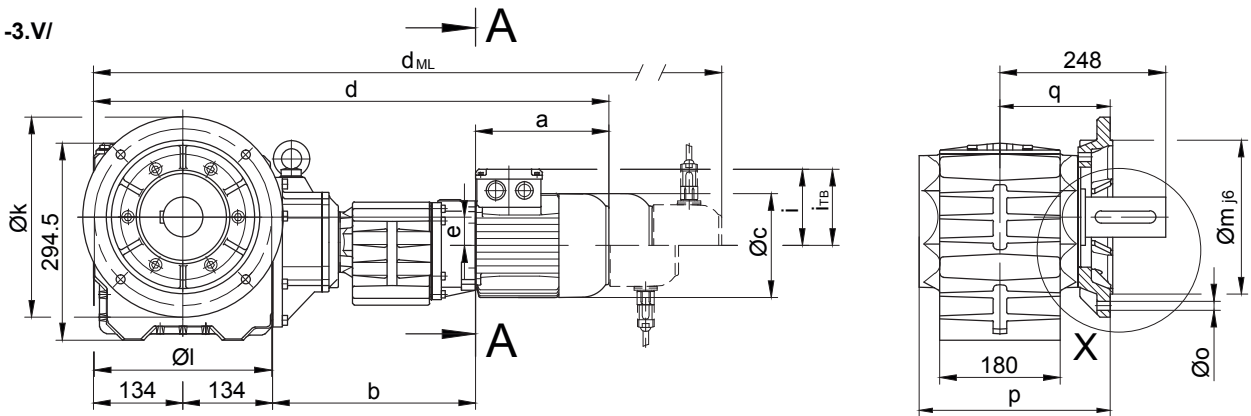


The actual gearbox design can vary from the geometry shown.

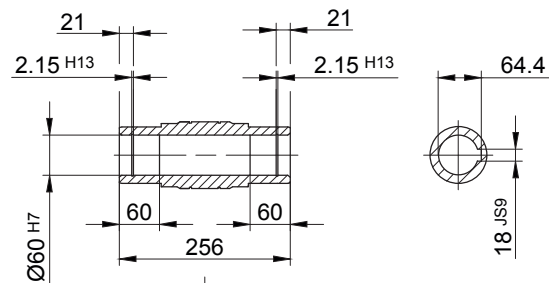
BS40G10

Flange with clearance holes at front

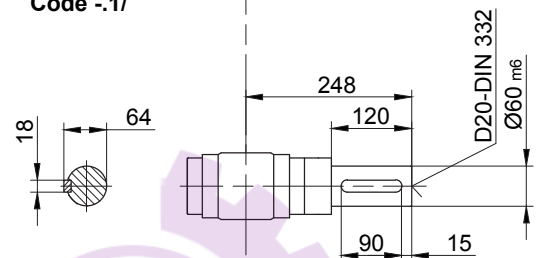
Code -3.V/



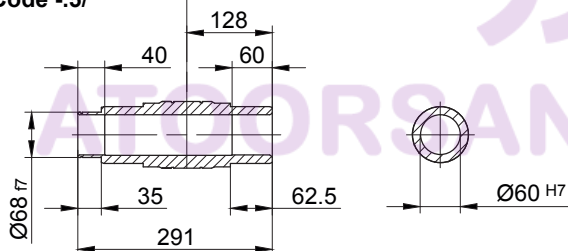
Code -4/



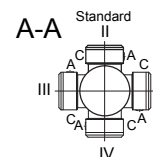
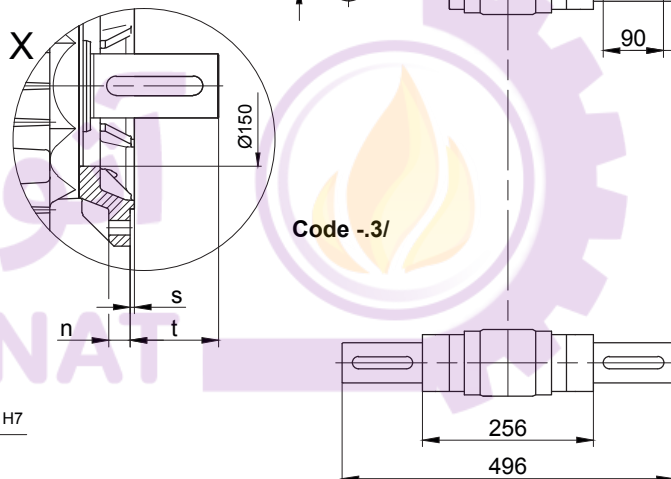
Code -1/



Code -5/



Code -3/



Flange dimensions

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

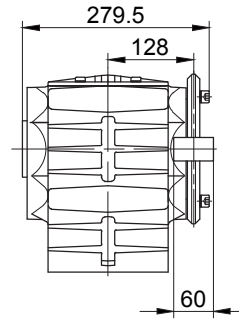
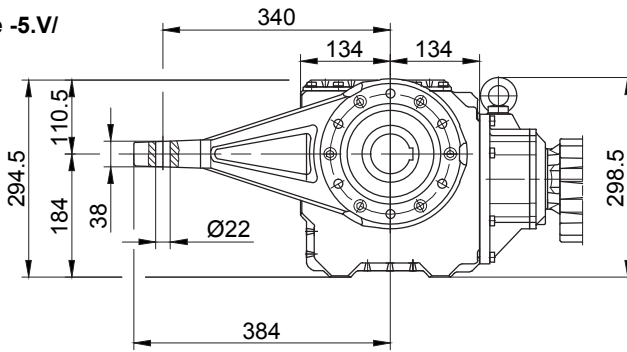
Type	a	b	c	d	e	i	Design with motor extensions				
							i _{TB}	E../ES..	G	E../ES..-G	RR/RL
								d _{ML}	d _{ML}	d _{ML}	d _{ML}
BS40G10-../D05..	170	300	123	738	43	100	117	780	841	882.5	-
BS40G10-../D06..	170	300	123	738	43	100	119	780	841	882.5	-
BS40G10-../D07..	190	300	123	758	43	100	119	800	861	902.5	-
BS40G10-../D..08..	200	304	156	772	43	115	136.5	838	879	945.5	838
BS40G10-../D..09..	251	318.5	181	837.5	43	124	158	930.5	944.5	1035	930.5

The actual gearbox design can vary from the geometry shown.

BS40G10

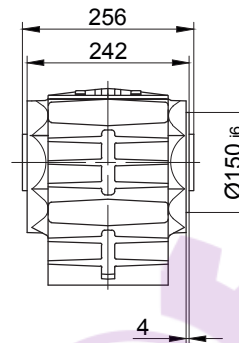
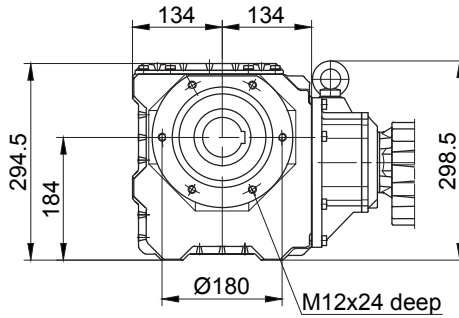
Torque arm at front

Code -5.V/



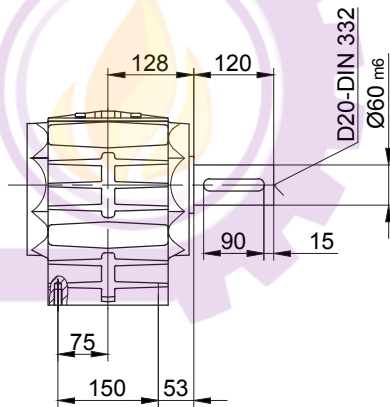
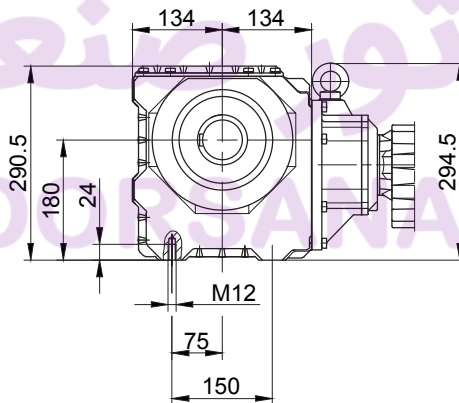
Flange with tapped holes at front

Code -7.V/



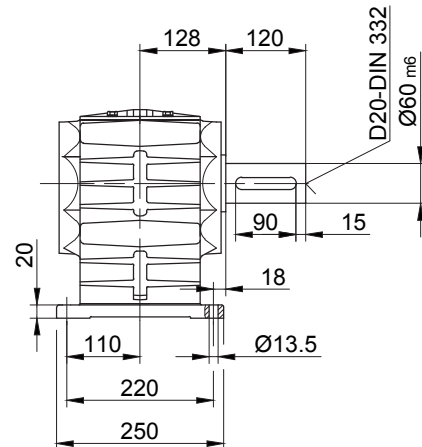
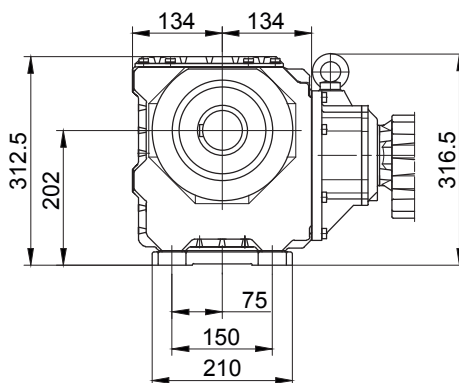
Foot with tapped holes at bottom

Code -6.U/



Foot with clearance holes at bottom

Code -1.U/

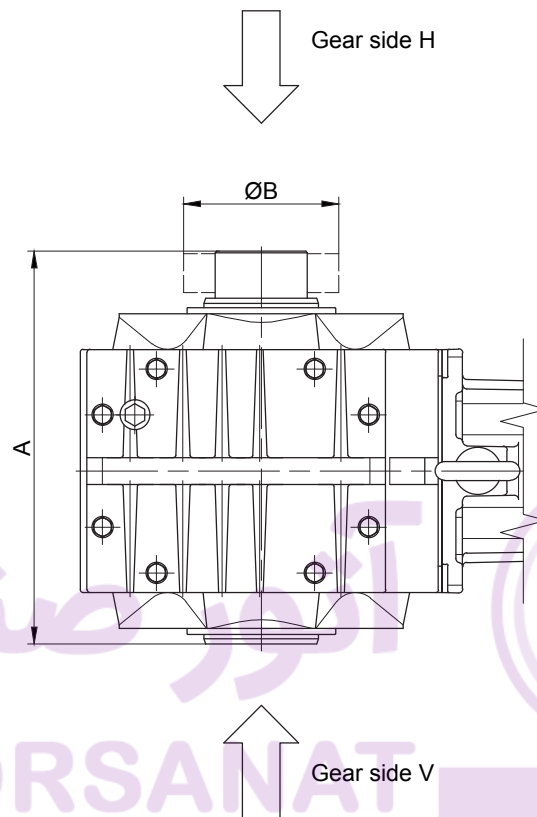


The actual gearbox design can vary from the geometry shown.

Shrink disc couplings (SSV)

(Code BS10Z-5/...)

(Code BS10Z-5A/...)



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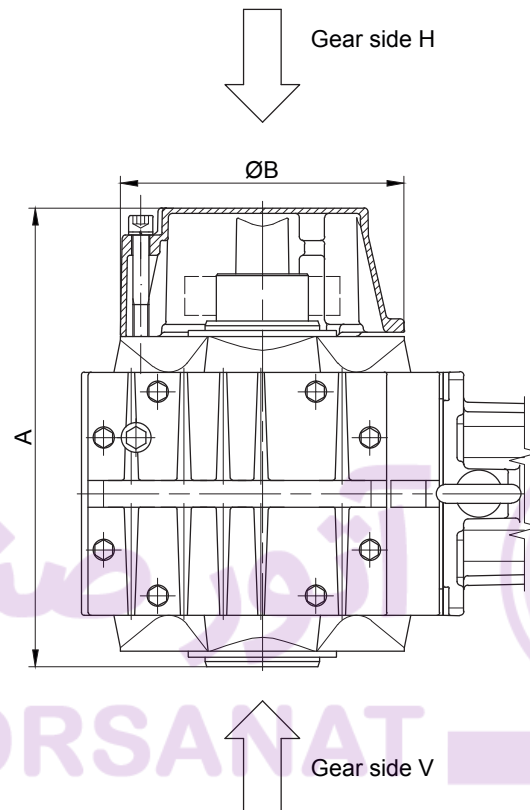
Type	SSV Ringfeder	SSV STÜWE	A	B
BS10	RfN 4161 036x072	HSD 36-22x36	199	72
BS20	RfN 4161 044x080	HSD 44-22x44	239	80
BS30	RfN 4161 050x090	HSD 50-22x50	267	90
BS40	RfN 4161 062x110	HSD 68-22x68	291	115

The actual gearbox design can vary from the geometry shown.

Shrink disc couplings with (SSV) cover

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

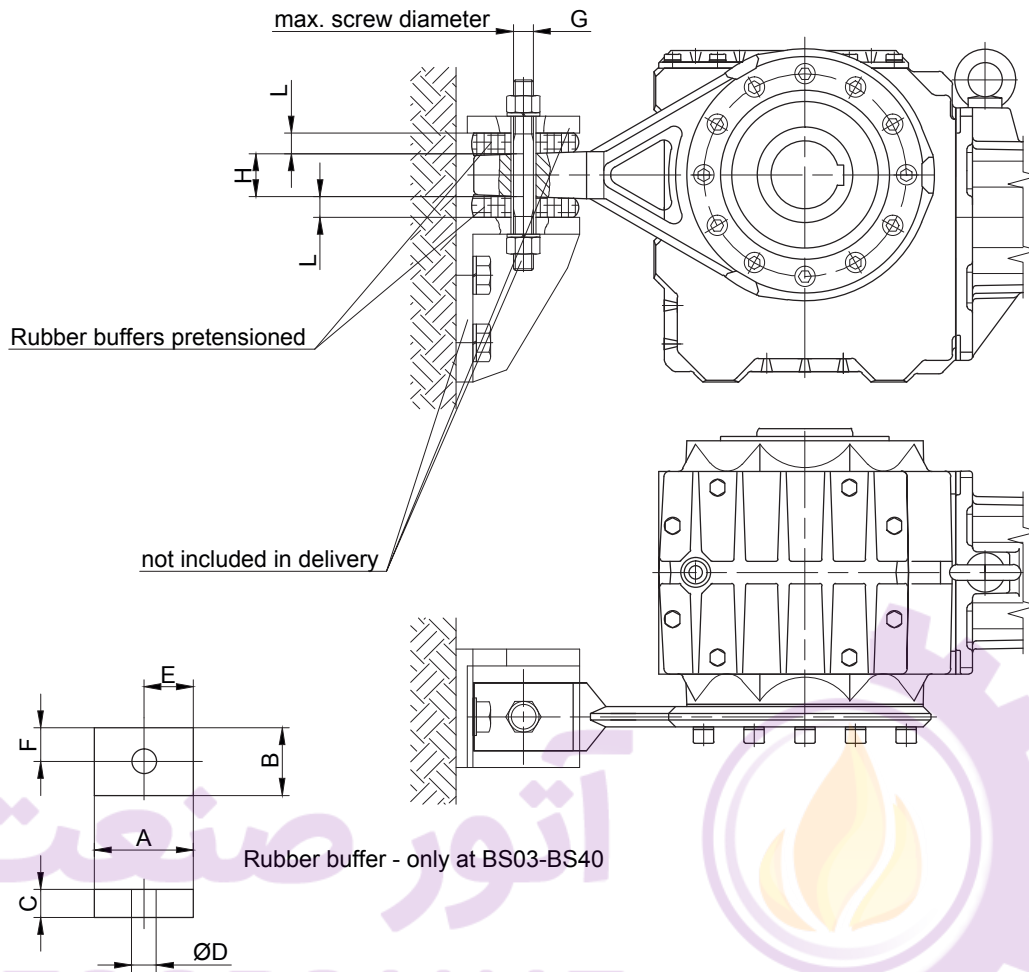
(Code BS10Z-.5A/...)



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

The actual gearbox design can vary from the geometry shown.

Rubber buffer for torque restraint



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Material: Natural rubber
Hardness 50±5 Shore A

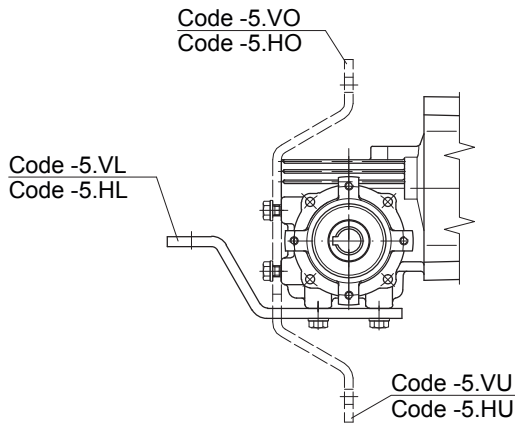
Dimensions of the transverse hole:
see dimensioned sketch of the respective
shaft mounted gearbox

Gear	Pos.	Dimensions (mm)								
		A	B	C	D	E	F	G	H	L
BS02	-	-	-	-	-	-	-	M8	6	-
BS03	Pos.0	30	30	12	12	15	15	M8	10	10.5
BS04	Pos.0	30	30	12	12	15	15	M8	10	10.5
BS06	Pos.0	30	30	12	12	15	15	M10	10	10
BS10	Pos.1	48	32	15	14	24	16	M10	19	13
BS20	Pos.2	63	43	20	14	31.5	21.5	M10	30	17.5
BS30	Pos.2	63	43	20	14	31.5	21.5	M10	30	17
BS40	Pos.3	88	60	25	22	44	30	M18	38	22

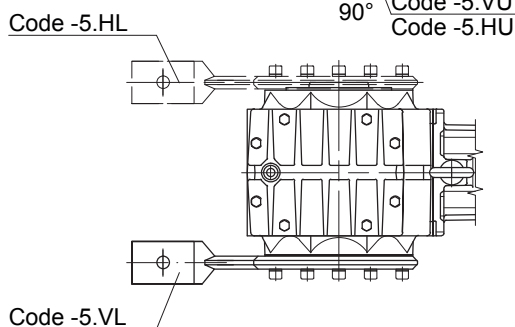
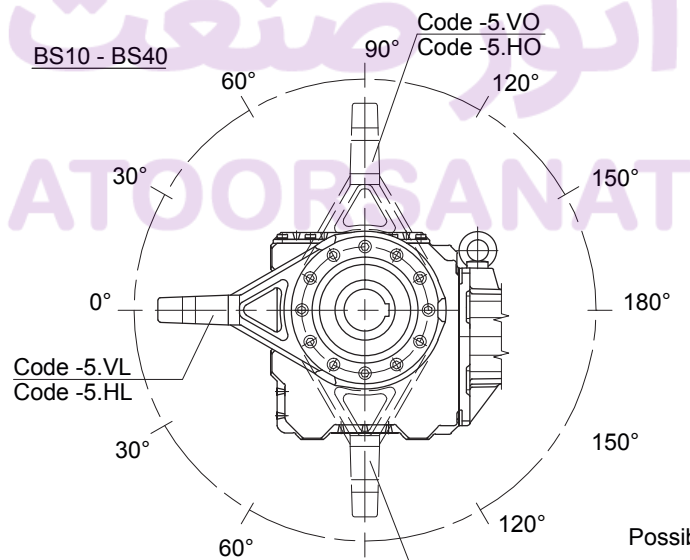
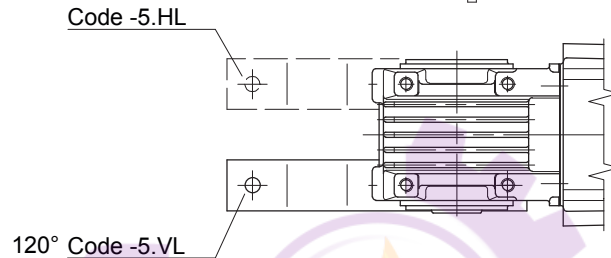
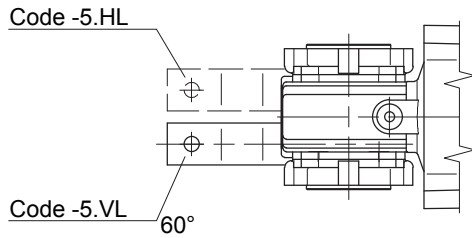
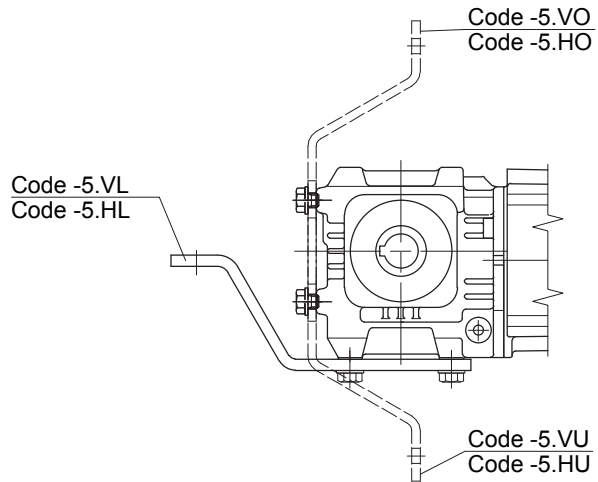
The actual gearbox design can vary from the geometry shown.

Position of the torque arm

BS02 / BS03



BS04 / BS06

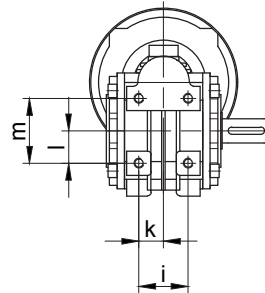
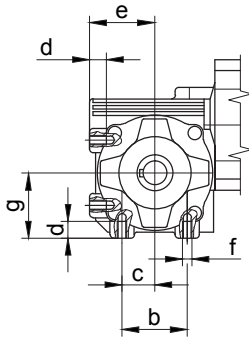


Possible locations.

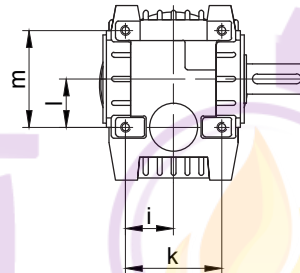
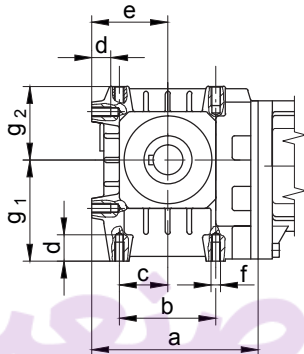
Position	VL / HL		VO / HO VU / HU			VR / HR	
	0°	30°	60°	90°	120°	150°	-
BS10	0°	30°	60°	90°	120°	150°	-
BS20	0°	30°	60°	90°	120°	150°	-
BS30	0°	30°	60°	90°	120°	150°	-
BS40	0°	30°	60°	90°	120°	150°	-

The actual gearbox design can vary from the geometry shown.

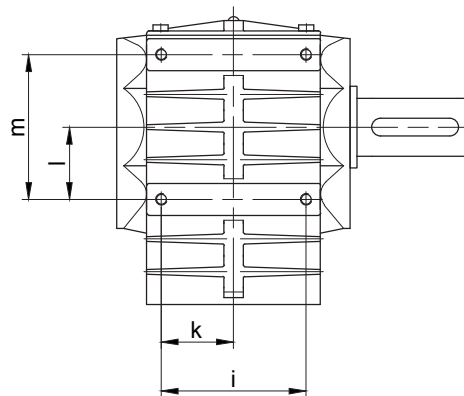
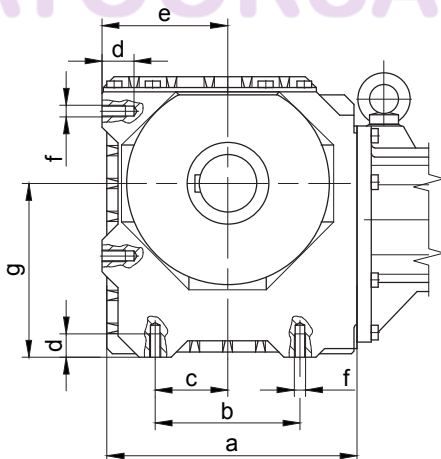
Threaded foot, left



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



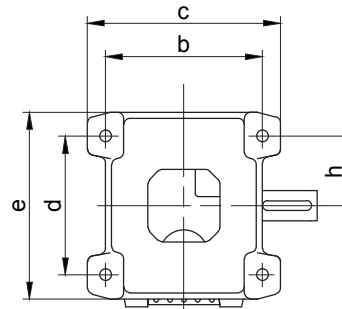
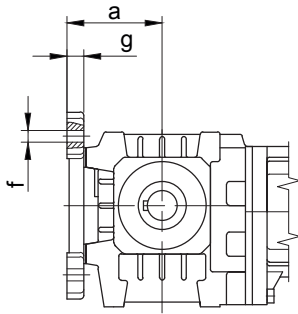
Type	a	b	c	d	e	f	g ₁	g ₂	i	k	l	m
BS04	111	60	30	15.5	50	M8	64	49.5	30	60	30	60
BS06	138	80	40	16	63	M8	84	61	40	80	40	80



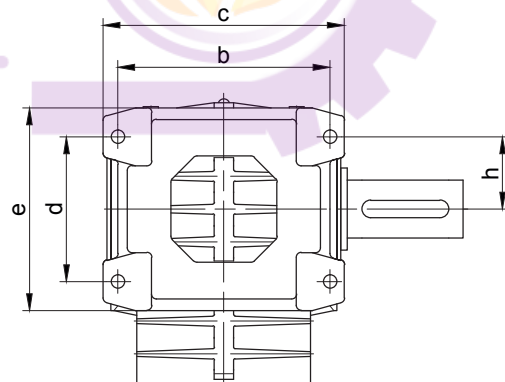
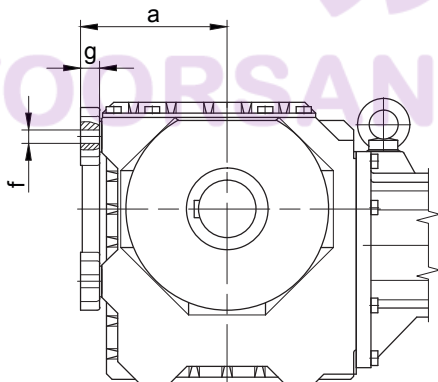
Type	a	b	c	d	e	f	g	-	i	k	l	m
BS10-BS10Z	170	90	45	16	85	M8	105	-	95	47.5	45	90
BS20-BS20Z	202.5	110	55	20	100	M10	125	-	105	52.5	55	110
BS30-BS30Z	228	125	62.5	24	110	M12	150	-	120	60	62.5	125
BS40-BS40Z	264	150	75	24	130	M12	180	-	150	75	75	150

The actual gearbox design can vary from the geometry shown.

Foot plate, left



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

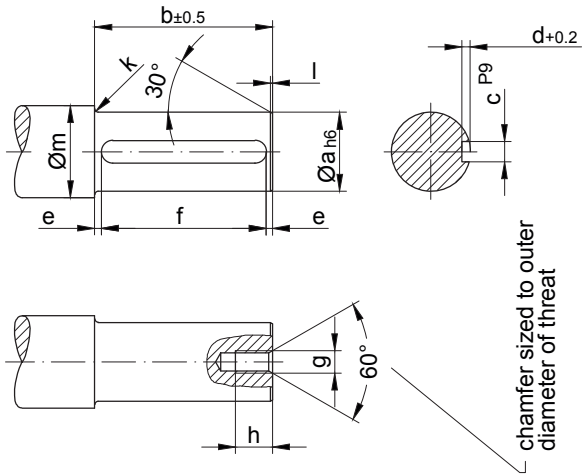


Type	a	b	c	d	e	f	g	h
BS10-BS10Z	103	145	165	90	130	Ø9	16	72.5
BS20-BS20Z	120	165	195	110	160	Ø11	18	55
BS30-BS30Z	132	190	220	125	185	Ø13.5	20	62.5
BS40-BS40Z	152	220	250	150	210	Ø13.5	20	75

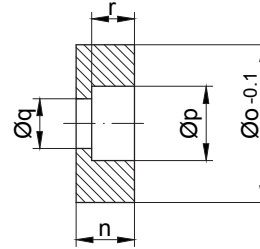
The actual gearbox design can vary from the geometry shown.

Assembly tools for hollow shaft and keyway

Pos.1 Shaft

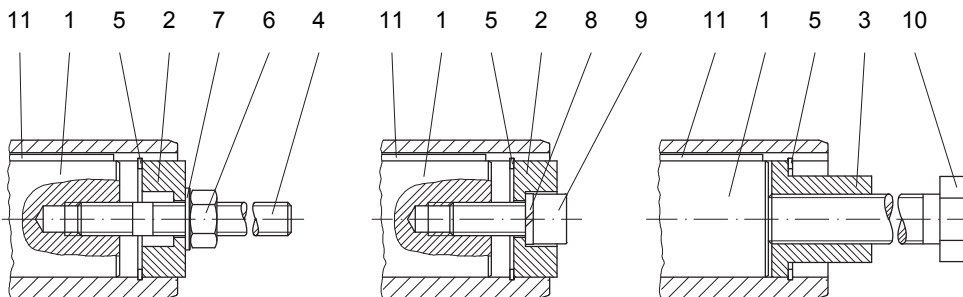


* Pos.2 Disc



✓^x edges cut
Material:
C45 DIN 17200

Type	Dimensions (mm)															
	Pos.1 Shaft											Pos.2 Disc				
	a	b	c	d	e	f	g	h	k	l	m	n	o	p	q	r
BS03	20	75	6	3.5	6	63 ^{+0.3}	M6	16	2	1.5	28	13.5	19.8	11	6.6	6.5
BS04	20	71	6	3.5	7.5	56 ^{+0.3}	M6	16	2	1.5	28	13.5	19.8	11	6.6	6.5
BS06	25	99	8	4	9.5	80 ^{+0.3}	M8	18	2.5	1.5	33	13.5	24.8	15	9	8.5
BS10	30	152	8	4	6	140 ^{+0.5}	M10	20	3	1.5	38	15	29.8	18	11	10
BS20	35	186	10	5	13	160 ^{+0.5}	M10	20	3	1.5	43	16	34.8	18	11	10
BS30	40	212	12	5	6	200 ^{+0.5}	M12	22	3	2	48	18	39.8	20	13.5	12
BS40	60	227	18	7	13.5	200 ^{+0.5}	M20	38	3.5	2	68	24	59.8	33	22	18



Installation

Holding

Dismantlement

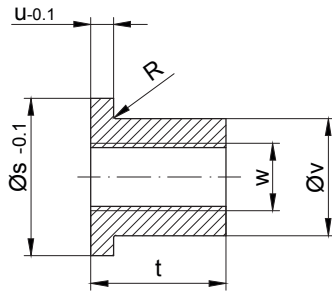
The parts shown are necessary for assembly. ONLY *specified parts are enclosed in the assembly kit.

Suitable measures are to be used to secure Bolt Pos.9 against loosening.

The actual gearbox design can vary from the geometry shown.

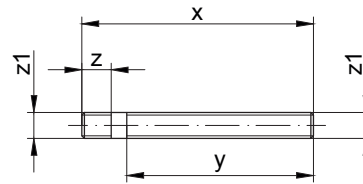
Assembly tools for hollow shaft and keyway

Pos.3 Sleeve



∠, edges cut
Material: C45 DIN 17200

Pos.4 Stud bolt



Material: Steel, tensile strength ³
1000N/mm²
threads rolled

Type	Dimensions (mm)										* Retainer ring DIN 472	Hexagon nut DIN 934-8	Disc DIN 125-St	Lock washer DIN 7980	* Filister head screw DIN 912-8,8	starting torque [Nm]	Hexagon bolt DIN EN 24017-8,8	Key DIN 6865 width x height x Length							
	Pos.3 Sleeve						Pos.4 Stud bolt												Pos.5	Pos.6	Pos.7	Pos.8	Pos.9	Pos.10	Pos.11
	s	t	u	v	w	R	x	y	z	z1															
BS03	19.8	24	5	11	M8	-	120	90	18	M6	20x1.0	M6	6.4	6	M6x25	5	M8x110	A 8x7x63							
BS04	19.8	24	5	11	M8	-	120	90	18	M6	20x1.0	M6	6.4	6	M6x25		M8x110	A 8x7x56							
BS06	19.8	24	5	15.4	M12	0.8	150	120	20	M8	25x1.2	M8	8.4	8	M8x30	8	M12x140	A 8x7x80							
BS10	29.8	28	5	19.8	M14	0.8	210	175	23	M10	30x1.2	M10	10.5	10	M10x30		M14x190	A 8x7x140							
BS20	34.9	28	5	23	M14	-	250	215	23	M10	35x1.5	M10	10.5	10	M10x35		M14x230	A10x8x160							
BS30	39.9	40	6	27.7	M20	0.8	280	240	28	M12	40x1.75	M12	13	12	M12x35	16	M20x270	A 12x8x200							
BS40	59.8	60	6	44	M30	-	320	260	45	M20	60x2.0	M20	21	20	M20x50	42	M30x310	A 18x11x200							

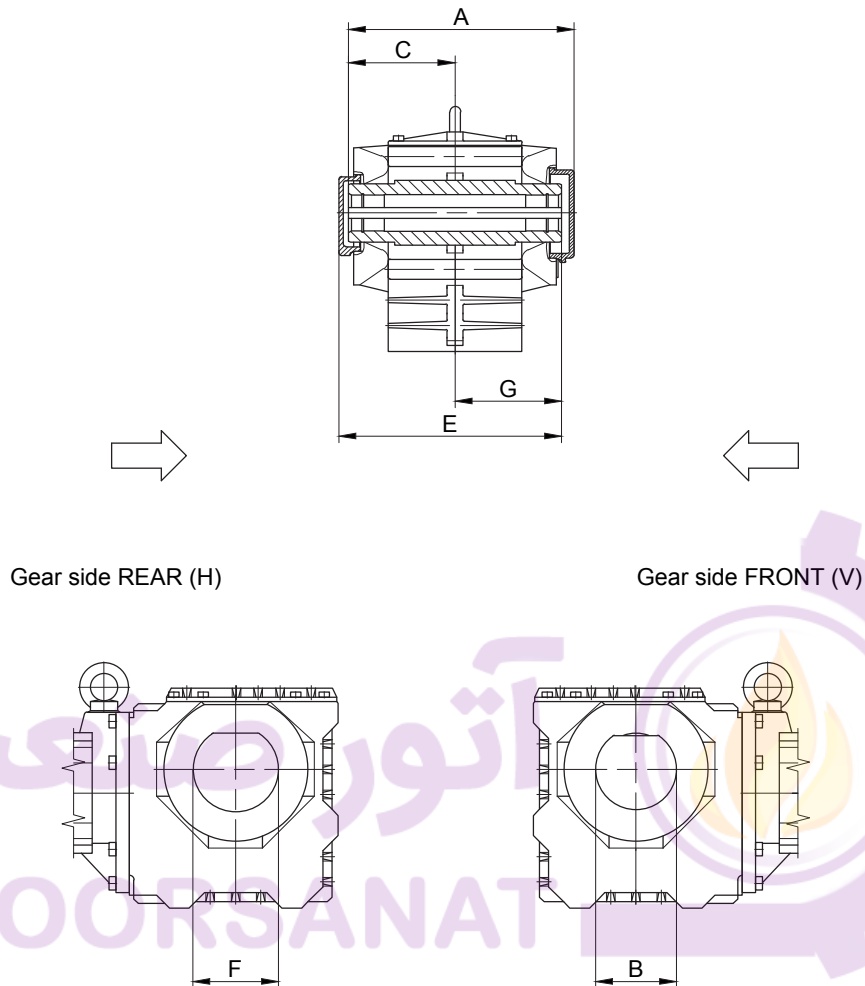
The parts shown are necessary for assembly. ONLY *specified parts are enclosed in the assembly kit.

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.

Shaft Cap (VK)



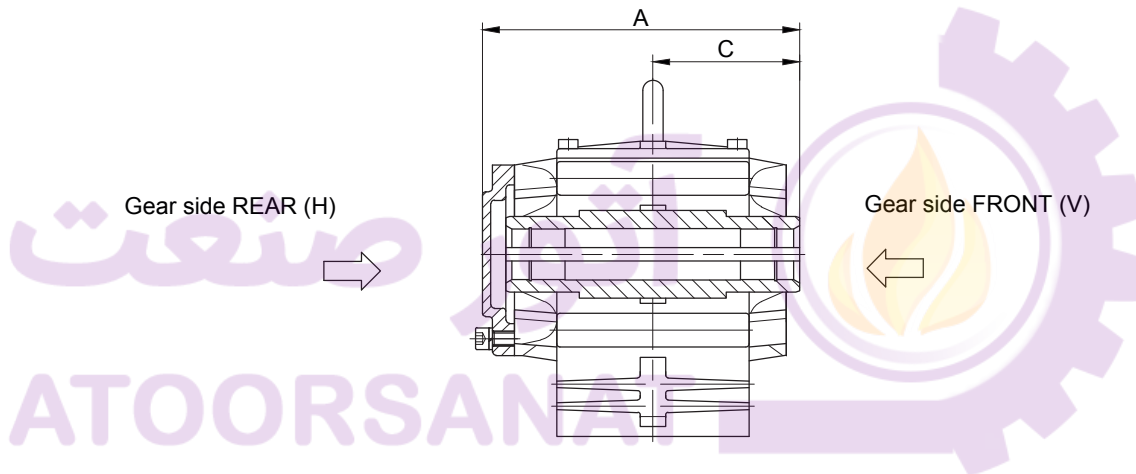
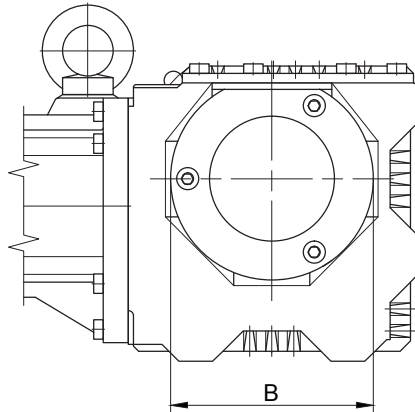
Sealing cap REAR			
Type	E	F	G
BS10	186	68	87
BS30	250.5	100	132
BS40	276	130	128

Sealing cap FRONT			
Type	A	B	C
BS20	221	78	104.5

The actual gearbox design can vary from the geometry shown.

Shaft Cover (VD)

Gear side REAR (H)



Type	A	B	C
BS04	99.5	68	46.5
BS06	128.5	81	60.5
BS10	185	Ø120	87
BS20	224.5	Ø160	104.5
BS30	251.5	Ø160	118.5
BS40	275	Ø210	128

The actual gearbox design can vary from the geometry shown.

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14



Page

Motors

535-586

General

Duty Cycles acc. to DIN EN 60034

Technical data of the 50 Hz motors

Technical data of the 60 Hz motors

Operation with frequency converter

Explosion protection

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ErP Directive 2009/125/EC

Directive 2009/125/EC of the European Parliament and the Council, issued in 2009, specifies requirements for the environmentally responsible design of energy-related products (ErPs). In November 2009 it superseded Directive 2005/32/EC, which formed the framework for requirements for the environmentally responsible design of energy-using products (EuPs). This change has no effect on already proclaimed implementation measures.

From 16 June 2011 onward, new motors or geared motors marketed in the EU must comply with the requirements of **energy efficiency class IE2**. **From 1 January 2015 onward, motors with rated outputs from 7.5 to 375 kW** destined for the European market must comply with **energy efficiency class IE3**, and **from 1 January 2017 onward this requirement also applies to smaller motors rated at 0.75 kW or more**.

Objectives

The ErP Directive has several objectives:

1. Mitigating the environmental impact of energy-using products

This objective is intended to be achieved by the documentation and labelling of products, by regulations for inspection, and by the formulation of individual requirements in implementation measures. As the entire product life cycle is taken into consideration, action must be taken as early as the design phase.

2. Climate protection

Achievement of the EU climate protection objectives is to be supported. This can be implemented by reducing energy consumption and the emission of global warming gasses in the production, operation and disposal of energy-using products.

3. Harmonised legislation

The directive creates a framework for the European regulation of environmental design requirements. This avoids trade impediments resulting from differences in national regulations. This can be achieved by means of the proclamation of legally binding implementation measures for the entire Community and protection of free trade in goods against further-reaching regulations of the Member States.

The new IEC 60034-30 standard

Three-phase motors were previously classified in the EFF1, EFF2 and EFF3 efficiency classes. However, the various national schemes differ in terms of scope and classes. This prompted the IEC to develop a uniform international standard for the efficiency of electric motors. The new IEC 60034-30 standard provides internationally harmonised definitions of the efficiency classes IE1, IE2 and IE3 for three-phase motors.

The new designations are specified as follows:

Efficiency class 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.

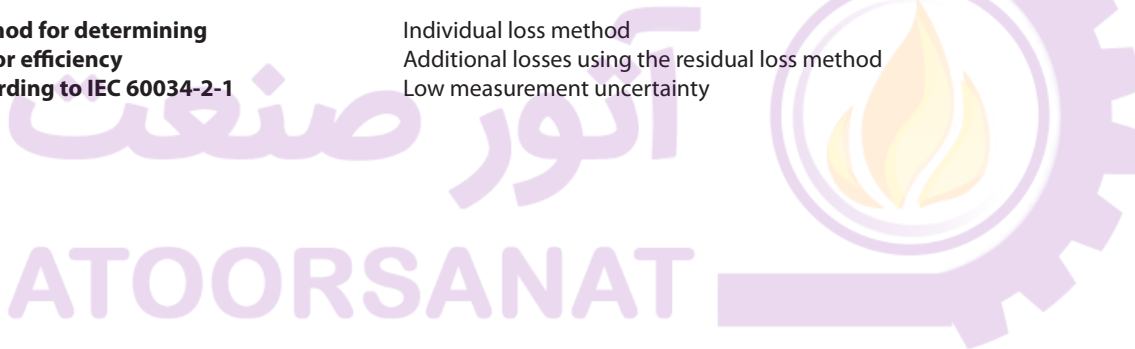
- Single-speed, three-phase, 50 Hz and 50/60 Hz
- 2-, 4- or 6-pole motors
- Rated output from 0.75 to 375 kW
- Rated voltage up to 1000 V
- Duty type S1 (continuous running)
- For operation directly from the mains (50 Hz or 60 Hz)
- For Design N motors complying with IEC 60034-12
- For operating conditions complying with IEC 60034-1 Section 6 (dimensioned for operating conditions at the installation site, elevation 1000 m, ambient temperature -15 °C to +40 °C)
- Motors with two switchable rated voltages, under the condition that the magnetic flux is the same with both voltages
- Geared motors

Motors excluded from regulation

- Motors exclusively manufactured for converter operation in accordance with IEC 60034-25
- Pole-changing motors
- Motors fully integrated into a machine (such as pumps, fans and compressors) that cannot be tested separately from the machine
- From 16 June 2011 onward: IE1 motors for S1 duty destined for the European market
- Explosion-proof motors (explosion protection has higher priority)
- Brake motors

Method for determining motor efficiency according to IEC 60034-2-1

Individual loss method
Additional losses using the residual loss method
Low measurement uncertainty



Bauer geared motors for connection to three-phase supply are supplied with specially designed induction motors. This design ensures maximum operating safety with high breakaway torque and minimum starting current.

The torque/speed characteristic is largely free of torque dips. Torque is optimised to suit requirements and application parameters. See "www.bauergears.com" for more information.

Torques

The torques as stated in the selection tables are fully available at the output shaft. These figures apply for continuous operation (S1-100%) at a maximum ambient temperature of 40° C and at site elevations up to 1000 m above sea level. Drives for higher ambient temperatures and site elevations are available on request. Gear efficiencies, which are lower than the usual values for spur gears, are taken into account in the torques listed in the selection tables.

Line voltages

BAUER motors are available as standard for the following three-phase line voltages:

Motor size	Standard voltages:
D04LA4 - D09XA4	220 V Δ/ 380 V Y 50 Hz
0,06 - 2,2 kW	230 V Δ/ 400 V Y 50 Hz* (anm-iec38)
	240 V Δ / 415 V Y 50 Hz**
	440 V Y / 60 Hz 460 V Y / 60 Hz
from D11SA4	220 V Δ/ 380 V Y 50 Hz
from 3,0 kW	230 V Δ/ 400 V Y 50 Hz
	240 V Δ/ 415 V Y 50 Hz**
	440 V Y / 60 Hz 460 V Y / 60 Hz
	380 V Δ/ 660 V Y 50 Hz
	400 V Δ/ 690 V Y 50 Hz*
	415 V Δ / 50 Hz**
	440 V Δ/ 60 Hz
	460 V Δ/ 60 Hz

*Voltage recommended world-wide by IEC 38 and in Europe by CENELEC.

**= Insulation Class F is necessary.

Designs for other voltages available on request and at extra cost.

Unless otherwise specified, motors for operation in conjunction with frequency converters with a 50 or 60 Hz frequency have a Y-circuit to optimise operating noise and winding load.

Unless otherwise stated, the tolerance for the rated voltage is +/- 5 %, in accordance with IEC 60034-1.

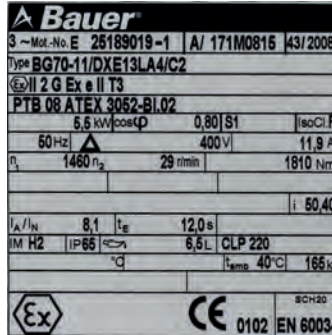
The D04 to D18 motors in 4 pole design can be operated within a tolerance of +/- 10 % of the rated voltage (400 V 50 Hz).

Line frequencies

All motors are available with the same power ratings for either 50 or 60 Hz . Increased power models are available on request.

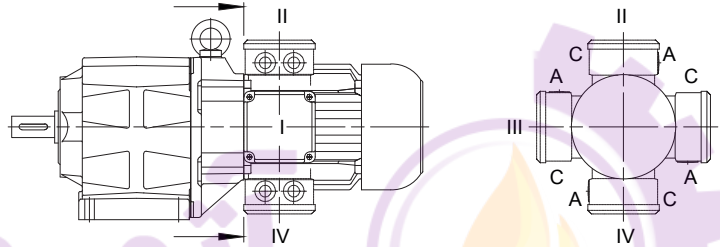
Rating plate

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).



Terminal box

The cables of motors with and without brakes can be introduced into the motor terminal box from side A or side C.

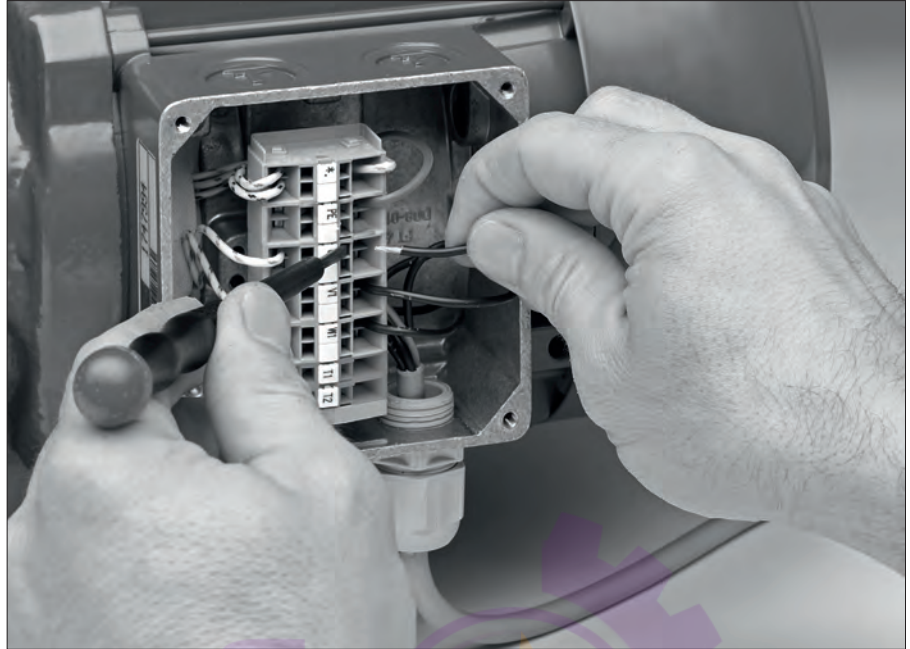


The standard position for the motor terminal box is shown in the dimensional drawings for the geared motors (see chapter 10,11,12 and 13). The terminal box can be installed at any of 3 other positions on request, if on-site space is restricted. The 4 possible positions are 90° offsets around the axis of the motor (dimensional drawing and designation for standard terminal box, see chapter 17 "Dimensional drawing standard terminal box").

Cast-on terminal boxes (KAG) are supplied with knock out entries with metric nut for cable gland. Screw- on terminal boxes (TBl...4 are supplied with a metric screw thread as standard.

Motor connections

The electrical connection of gear motors is time consuming and creates costs, which cannot be neglected both during initial installation and in service cases. These costs are reduced considerably by the use of BAUER Gear Motors, have CAGE CLAMP® connection technology instead of the conventional terminal block – and that without extra charge.



What are the advantages for you ?

Cost reduction during connection

Public timing test have confirmed, that the electrical connection of a cable by means of CAGE CLAMP® technology saves up to 75% working time compared with the classic screw connection.

Simple Handling

Cable connection from the top, very easily accessible: The CAGE CLAMP® spring is pressed, and the cable inserted from the front, i.e. in the field of vision of the installation engineer.

Which cable core diameters ?

Suitable for all copper wires from 0,5 mm² to 25 mm².

Cost saving in material and tooling

- multicore cable ends, cable eyes or cable ring eyes are no longer needed
- Tools such as crimping pliers are no longer needed
- Inadvertently over tightening or breaking of the terminal bolts and the procurement of a new terminal block belong in the past.
- Searching and procurement of nuts and washers for the terminal blocks, which have fallen down, also belongs in the past.

Vibration and shock resistant

Vibration and shock result neither in conductor damage nor in a measurable contact interruption. The connection is service free.

Type of conductors

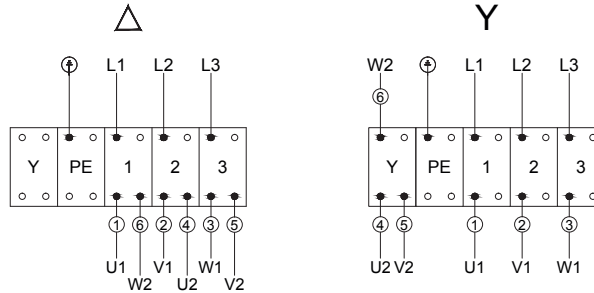
The CAGE CLAMP®-connector can clamp fine stranded, stranded and solid cores wires.

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Terminal connections for single speed motors without motor protection

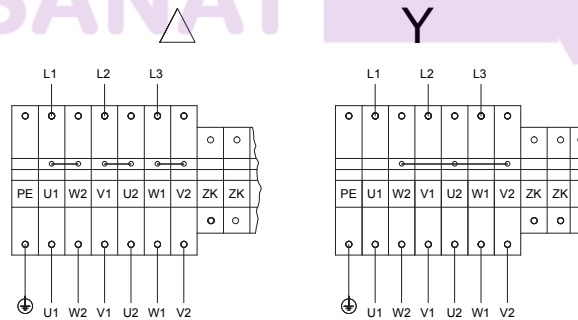
Standard connection of three phase motors without motor protection via CAGE CLAMP®.
D04 ... D..09

Three Phase motor means of CAGE CLAMP®



	IEC / EN 60034-8	NEMA MG 1	Colour
Supply lines	L1 L2 L3	L1 L2 L3	
Motor winding	U1 V1 W1	T1 T2 T3	black blue brown
	U2 V2 W2	T4 T5 T6	yellow red violet
Δ	Connections for the low rated voltage (e.g.: 230 V)		
Y	Connections for the high rated voltage (e.g.: 400 V)		

D..11 ... D..18
Connection of three phase motor via CAGE CLAMP

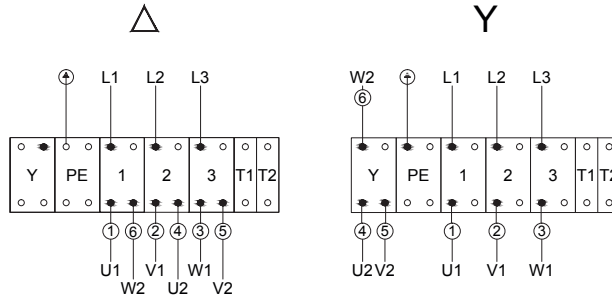


	IEC / EN 60034-8	NEMA MG 1	Colour
Supply lines	L1 L2 L3	L1 L2 L3	
Motor winding	U1 V1 W1	T1 T2 T3	black blue brown
	U2 V2 W2	T4 T5 T6	yellow red violet
Δ	Connections for the low rated voltage (e.g.: 230 V)		
Y	Connections for the high rated voltage (e.g.: 400 V)		
ZK	Optional additional connection		

Terminal connections for single speed motors with motor protection

Standard connection of three phase motors with motor protection via CAGE CLAMP®.
D04 ... DO..09

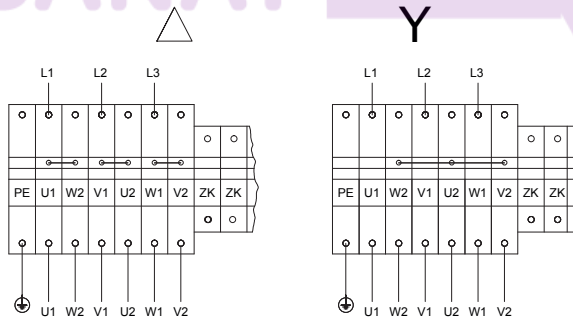
Three Phase motor and thermal protection connection by means of CAGE CLAMP®



	IEC / EN 60034-8	NEMA MG 1	Colour
Supply lines	L1 L2 L3	L1 L2 L3	
Motor winding	U1 V1 W1 U2 V2 W2	T1 T2 T3 T4 T5 T6	black blue brown yellow red violet
Δ	Connections for the low rated voltage (e.g.: 230 V)		
Y	Connections for the high rated voltage (e.g.: 400 V)		
T1 T2	Thermal motor protection		

D..11 ... D..18

Connection of three phase motor via CAGE CLAMP



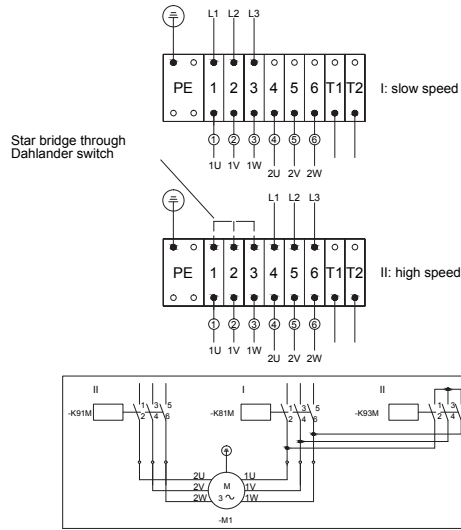
	IEC / EN 60034-8	NEMA MG 1	Colour
Supply lines	L1 L2 L3	L1 L2 L3	
Motor winding	U1 V1 W1 U2 V2 W2	T1 T2 T3 T4 T5 T6	black blue brown yellow red violet
Δ	Connections for the low rated voltage (e.g.: 230 V)		
Y	Connections for the high rated voltage (e.g.: 400 V)		
ZK	Optional additional connection		

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Terminal connections for pole changing motors in Dahlander connection (Δ/YY or Y/YY)

Standard connection of three phase motors without motor protection via CAGE CLAMP®. D04 ... D..09

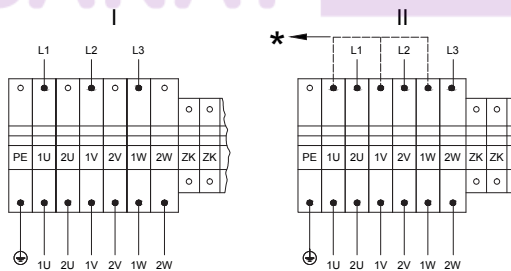
Motor 2 Speeds, Dhalander connection D/YY or Y/YY
(T1-T2 Thermal Motor protection optional)



	IEC / EN 60034-8	NEMA MG 1	Colour
Supply lines	L1 L2 L3	L1 L2 L3	
Motor winding	1U 1V 1W 2U 2V 2W	T1 T2 T3 T5 T6 T4	black blue brown yellow red violet
I	Low speed		
II	High speed		

D..11 ...D..18.

Connection of three phase motor via CAGE CLAMP
Pole changing for 2 speeds; Dahlander connection Δ/YY

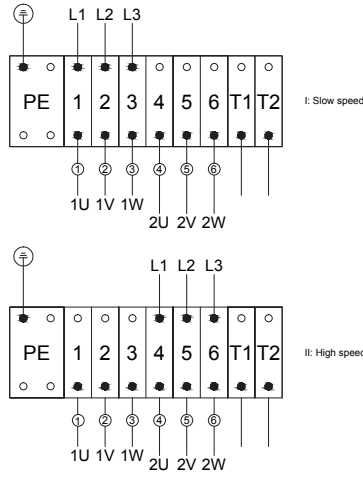


	IEC / EN 60034-8	NEMA MG 1	Colour
Supply lines	L1 L2 L3	L1 L2 L3	
Motor winding	1U 1V 1W 2U 2V 2W	T1 T2 T3 T4 T5 T6	black blue brown yellow red violet
I	Low speed		
II	High speed		
ZK	Optional additional connection		
*	Star point over Dahlander Relay		

Terminal connections for pole changing motors with two separate windings (Y/Y or Δ/Δ)

Standard connection of three phase motors with motor protection via CAGE CLAMP®.
D04 ... D..09

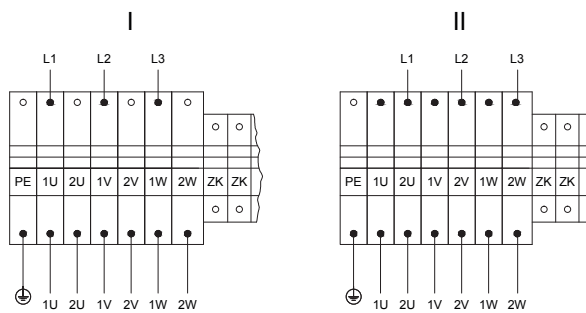
Pole change motor
2 Speeds, 2 windings Y/Y or D/D
(T1-T2 Thermal Motor protection optional)



	IEC / EN 60034-8	NEMA MG 1	Colour
Supply lines	L1 L2 L3	L1 L2 L3	
Motor winding	1U 1V 1W 2U 2V 2W	T1 T2 T3 T11 T12 T13	black blue brown yellow red violet
I		Low speed	
II		High speed	
T1 T2		Thermal motor protection	

D..11 ... D..18

Connection of three phase motor via CAGE CLAMP
Pole changing for 2 speeds; separate windings Y/Y or Δ/Δ



	IEC / EN 60034-8	NEMA MG 1	Colour
Supply lines	L1 L2 L3	L1 L2 L3	
Motor winding	1U 1V 1W 2U 2V 2W	T1 T2 T3 T4 T5 T6	black blue brown yellow red violet
I		Low speed	
II		High speed	
ZK		Optional additional connection	

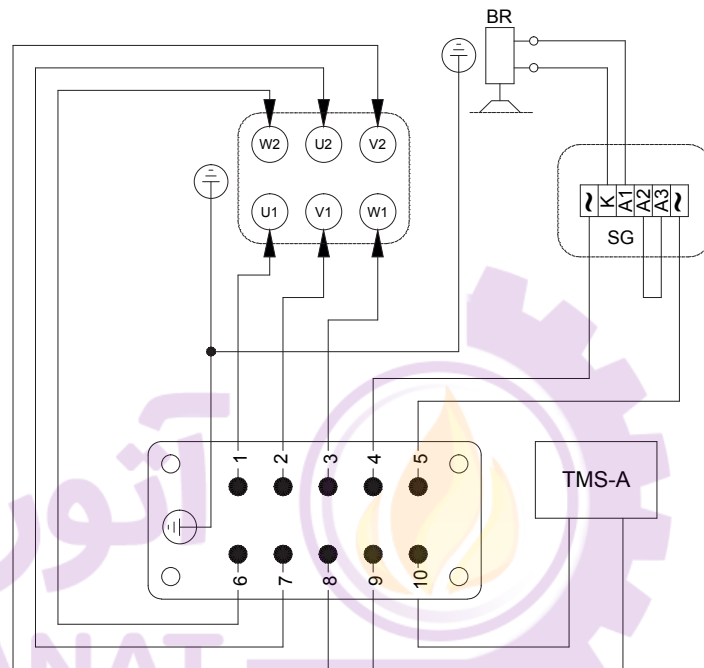
Plug-and-socket connection

D06 to D..16 Bauer motors are available with plug-in motor connection. The socket housing is mounted on the fan-cowl side of the terminal box as standard. This layout minimises the protrusion caused by the plug.

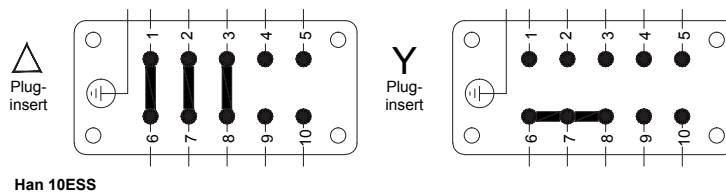
The standard plug-and-socket type connection incorporates the attachment housing, pin insert and cover. Grommet-type housings and jack inserts are available on request at extra cost. Pin assignments on request (dimensional drawing, see chapter 17 "Dimensional drawing, plug-connector terminal box").



A design with single clamp lever according to the DESINA regulation of the „Verbandes Deutscher Werkzeugmaschinenhersteller“ (VDW) is also available.



Δ - or Y-Connection in the plughousing or installation cabinet is performed by the machine manufacturer.



Han 10ESS

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

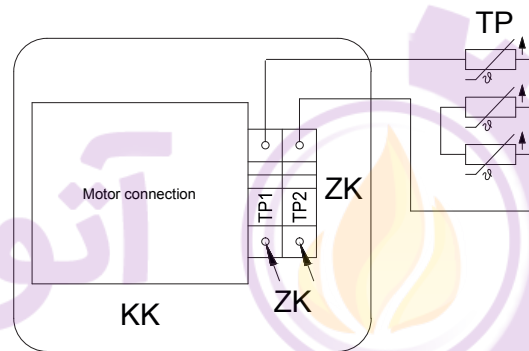
Motor protection



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



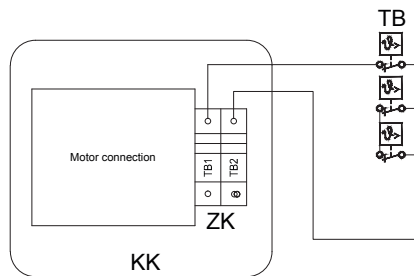
KK	Terminal box
ZK	Additional terminals
TP	PTC-thermistors DIN 44081/IEC 34-11-2 Mark A
TCU	Connection of thermistor control unit EN 60947 Max. permissible testing voltage 2,5 VDC / thermistor in case of  with auth. certificate: 

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).

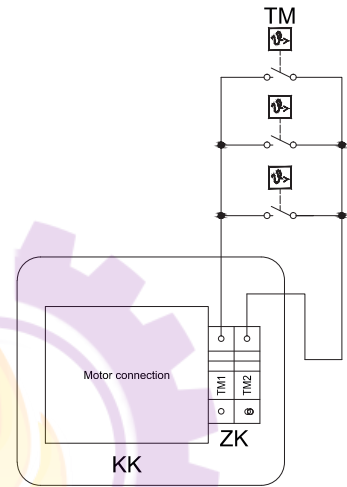
Thermal motor protection with thermostats
(with normally closed contacts)



KK	Terminal box
ZK	Additional terminals
TB	Thermostats with normally closed contacts max. 250VAC 1.6A

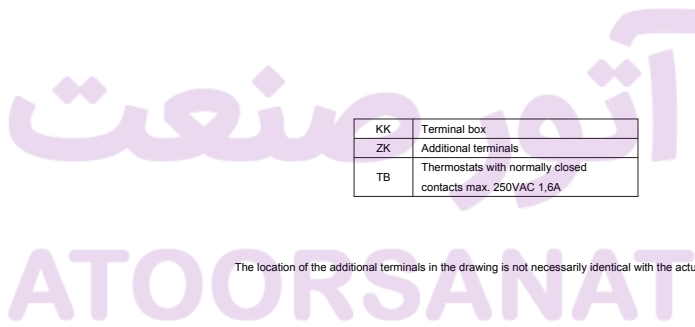
The location of the additional terminals in the drawing is not necessarily identical with the actual arrangement.

Thermal motor protection with thermostats
(with normally opened contacts)



KK	Terminal box
ZK	Additional terminals
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.



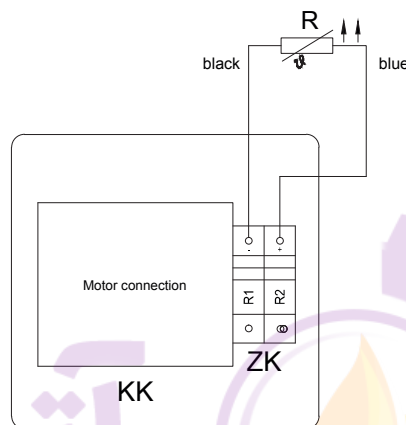
KTY sensors

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

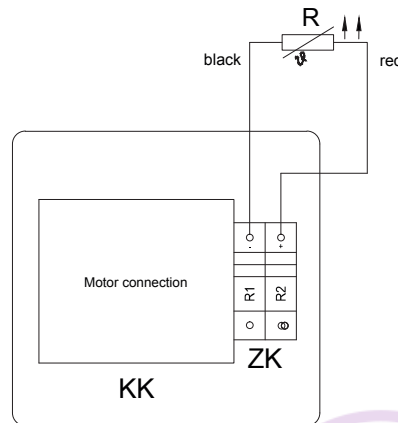
Precise monitoring of motor temperatures is necessary in many fields of industry. Pt100 sensors feature high accuracy, short response time and long-term stability, and they are suitable for use over a wide range of temperatures. Pt100 sensors are available for all motor types at additional cost.

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

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The location of the additional terminals in the drawing is not necessarily identical with the actual arrangement.

Insulation

The gearmotors described in the selection tables of this catalogue with the motor sizes D04, D05, D06, D08, D..09S and D..09L are executed in insulation class B. Temperature class F is available on request at extra cost.

4-pole motors D07 and D..09XA4 (2.2 kW) to D..18XA4 (30 kW) and all multi-speed motors are rated in Temperature Class F as standard.

Insulation Class F bestows the winding a multiple protection against high humidity, acidic gases and heavy tropical influences while making the same shock resistant and more resistant to heat. Protection against insects (termites) is guaranteed through the complete enclosure (IP65) as long as the mains cables are encased in metal.

Degree of protection

Bauer motors from motor size D06 are manufactured to IP65 degree of protection as standard. Motor sizes D04 and D05 have smooth housings, degree of protection IP 54, on request in IP65 at extra cost. The motor terminal box is always IP 65.

Special corrosion protection

If high requirements for corrosion resistance are required, the geared motors are available with three levels of enhanced corrosion protection:

CORO1: Finished with two-component paint to protect against chemically aggressive gases and vapours.

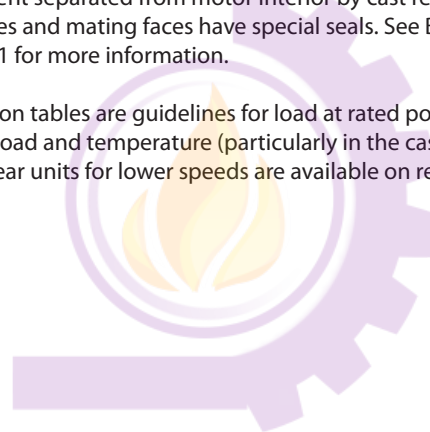
CORO2: External paint as CORO1. In addition, sheet steel fan cowl with coating. The screws for the terminal-box cover are non-rusting steel.

CORO3 with IP 66: Available from motor size D06. Corrosion protection as CORO2. All motors manufactured within Temperature Class F. Terminal box compartment separated from motor interior by cast resin. Threaded cable entries and mating faces have special seals. See Bauer special imprint SD1 for more information.

Speed of output shaft

The rated speeds in the selection tables are guidelines for load at rated power. Speed can vary depending on degree of load and temperature (particularly in the case of relatively small motors). Combination gear units for lower speeds are available on request.

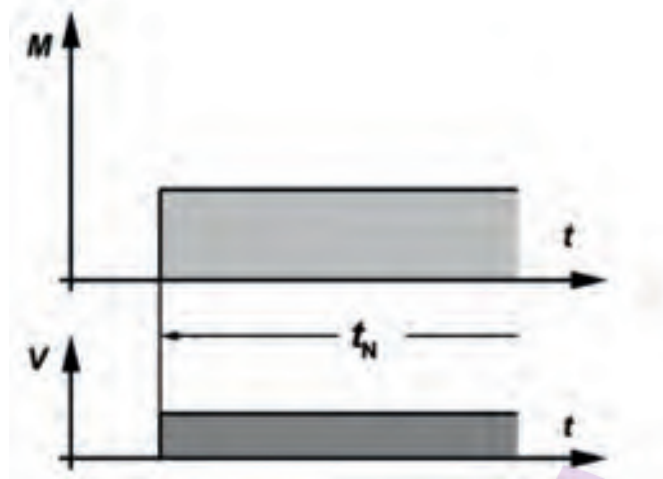
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General

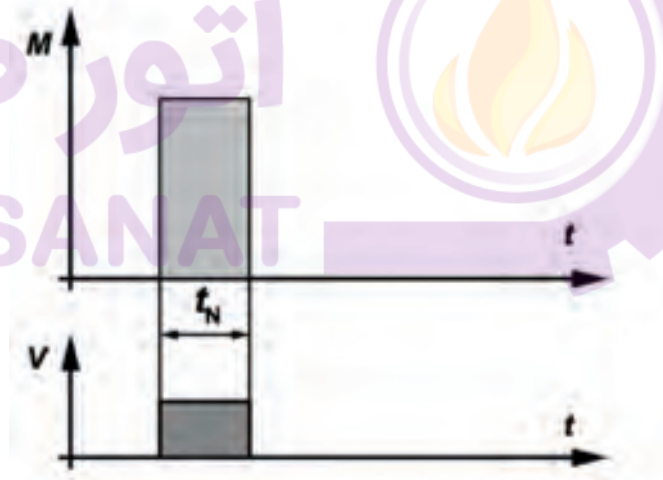
#Aside from special drives (such as lifting equipment), standard motors are always designed for continuous running duty. If the drive is operated with frequent on/off cycles, it may be necessary to select a larger motor with a special design. On the other hand, with pronounced short-time duty it is often 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.

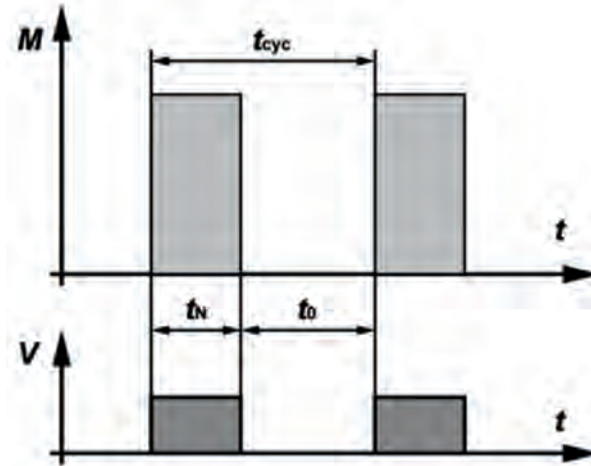
Short-time duty (S2)



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

Intermittent periodic duty (S3)



S3 duty consists of a sequence of identical cycles, each composed of an operating time with constant load and a rest time with the windings de-energised. The cycle is such that the starting current does not significantly affect the temperature rise. The operating time under rated load and the subsequent pause are both short. The equipment can operate under load only during the period indicated by the duty cycle as a percentage of the total cycle time (cycle duration).

The standardised duty cycles are 15, 25, 40 and 60%. The cycle duration is 10 minutes unless otherwise specified.

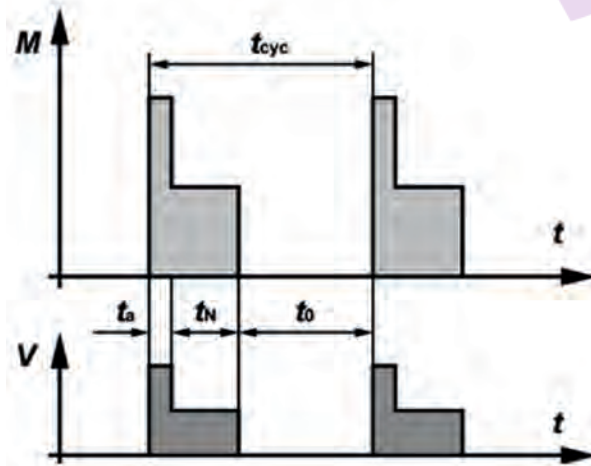
Intermittent periodic duty means that a state of thermal equilibrium is not reached during the load interval.

The duty cycle can be determined as follows:

$$ED = \frac{t_N}{t_{cyc}} \times 100\% = \frac{t_N}{t_N + t_0} \times 100\%$$

Example: S3 – 25%

Intermittent periodic duty with starting (S4)



S4 duty consists of a sequence of identical cycles, each of which is composed of a distinct starting time, a time of operation under constant load, and a rest period with the windings de-energised.

The operating time under rated load and the subsequent pause are both short. The equipment can operate under load only during the period indicated by the duty cycle as a percentage of the total cycle time (cycle duration).

The standardised duty cycles are 15, 20, 40 and 60%. The cycle duration is 10 minutes unless otherwise specified.

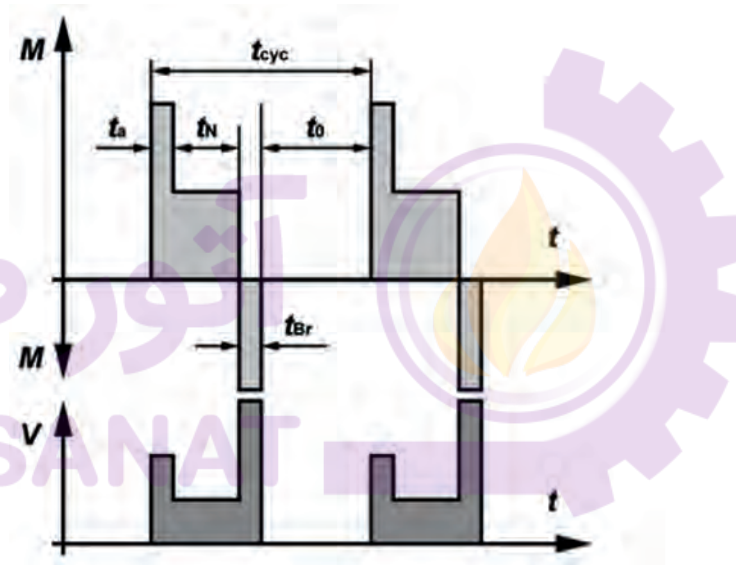
The load cycle corresponds to mode S3, but with additional heating during the starting time that must be taken into account.

The duty cycle can be determined as follows:

$$ED = \frac{(t_a + t_N)}{t_{cyc}} \times 100\% = \frac{t_a + t_N}{t_a + t_N + t_0} \times 100\%$$

Example: S4 – 25%, $J_M = 0.15 \text{ kgm}^2$

Intermittent periodic duty with electric braking (S5)



S5 duty consists of a sequence of identical cycles, each of which is composed of a starting time, a time of operation under constant load, a time of fast electric braking, and a rest period with the windings de-energised.

The operating time under rated load and the subsequent pause are both short. The equipment can operate under load only during the period indicated by the duty cycle as a percentage of the total cycle time (cycle duration).

The standardised duty cycles are 15, 20, 40 and 60%. The cycle duration is 10 minutes unless otherwise specified.

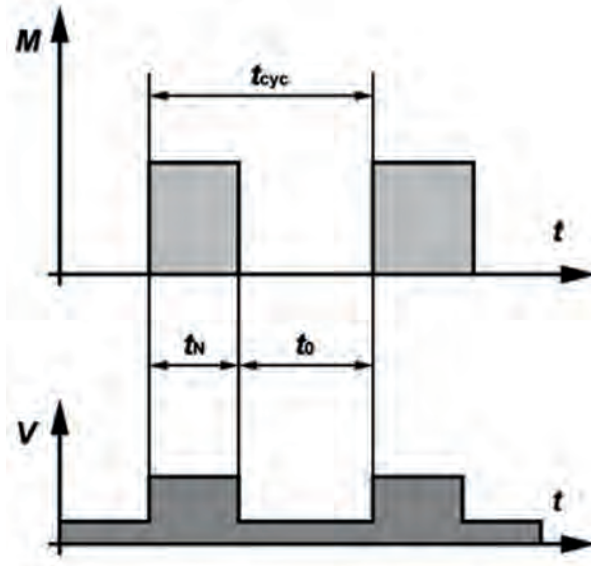
The load cycle corresponds to S3 duty, but with additional warming during the starting time t_a and the braking time t_{Br} taken into account.

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%; $J_M = 0.15 \text{ kgm}^2$, $J_{ext} = 0.7 \text{ kgm}^2$

Continuous-operation periodic duty (S6)



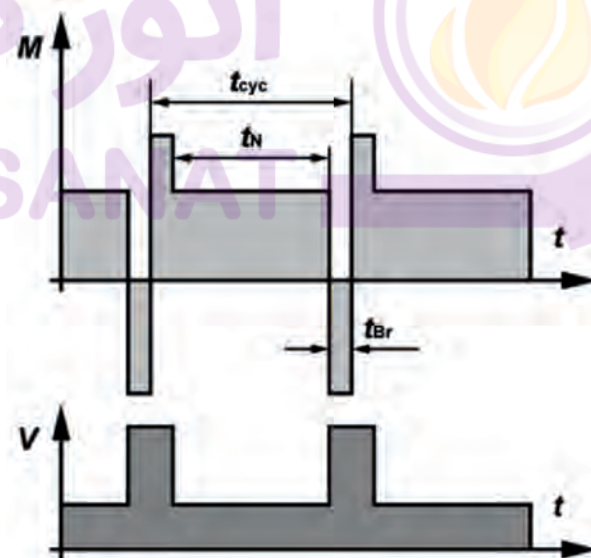
This type of duty corresponds to S3, with the exception that the equipment remains energised during the rest periods. In other words, it operates with no load during these periods. The duty cycle and cycle duration are specified the same way as for S3 duty.

The duty cycle can be determined as follows:

$$ED = \frac{t_N}{t_{cyc}} \times 100\% = \frac{t_N}{t_N + t_0} \times 100\%$$

Example: S6 – 40%

Continuous-operation periodic duty with electric braking (S7)

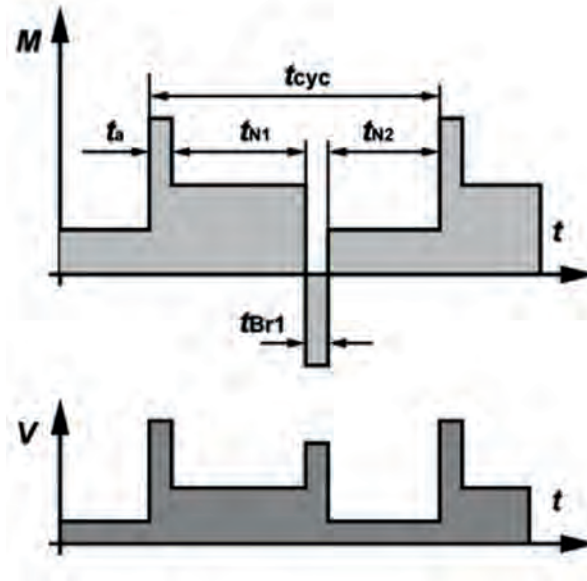


The machine starts up, operates under load, and then is braked electrically, for example by feeding it from a DC power source. Following this, it starts up again immediately. The machine can operate continuously in this manner if the specified moments of inertia of the motor J_M and of the load J_{ext} as well as the specified duty cycle are not exceeded. If the cycle duration is not specified, it is assumed to be 10 minutes.

The duty cycle can be determined as follows: $DC = 1$

Example: S7 – $J_M = 0.4 \text{ kgm}^2$, $J_{ext} = 7.5 \text{ kgm}^2$

Continuous-operation periodic duty with relative load/speed changes (S8)



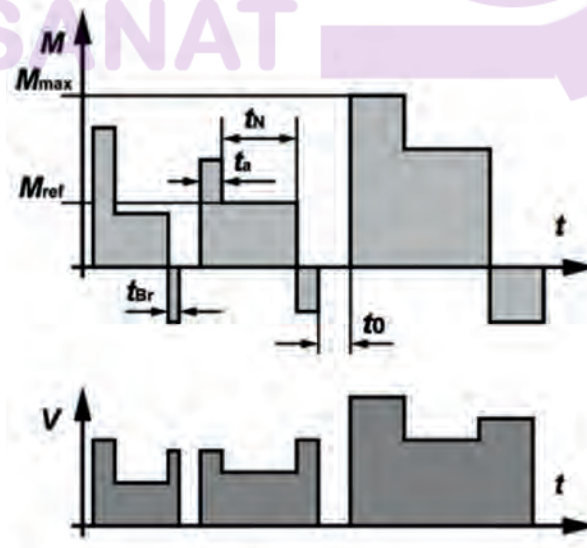
The machine runs continuously under variable load with frequent speed variations. The machine can operate continuously in this manner if at each speed the specified values are not exceeded (moments of inertia J_M and J_{Ext} cycle duration (if other than 10 minutes), rated output and duty cycle. With a moment of inertia of 1 kg m^2 , the acceleration characteristics are the same as with a mass of 1 kg at a distance of 1 m from the axis of rotation).

The duty cycle can be determined as follows:

$$ED = \frac{t_a + t_{N1}}{t_{cyc}} \times 100\% = \frac{t_{Br} + t_{N2}}{t_{cyc}} \times 100\%$$

Example: S8 – $J_M = 0.5 \text{ kgm}^2$, $J_{ext} = 6 \text{ kgm}^2$

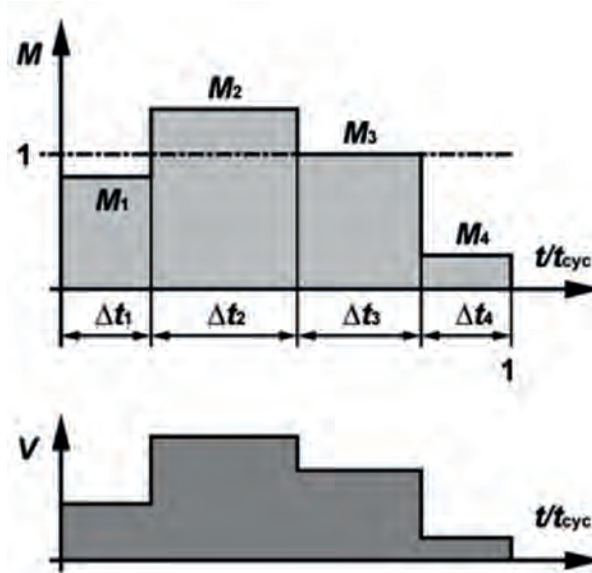
Duty with non-periodic load and speed variations (S9)



In S9 duty the load and the speed vary non-periodically within the permissible operating range. This includes frequently applied overloads, which must never exceed the reference load.

For this duty type, a constant load appropriately selected and based on duty type S1 shall be taken as the reference value M_{ref} for the overload.

Duty with discreet constant loads and speeds (S10)



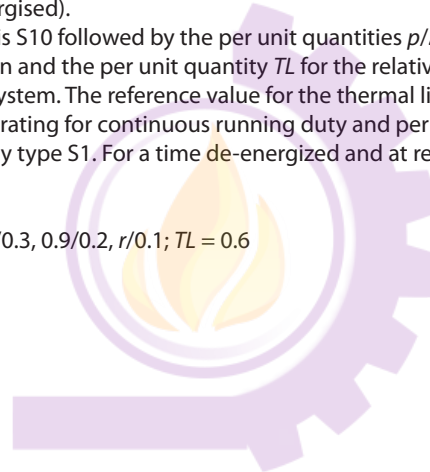
S10 duty comprises operation with at most four different load levels, each of which is maintained long enough to allow the machine to reach thermal equilibrium.

The minimum load within a duty cycle may have a value of zero (no-load operation or at rest with the windings de-energised).

The appropriate abbreviation is S10 followed by the per unit quantities $p/\Delta t$ for the respective load and its duration and the per unit quantity TL for the relative thermal life expectancy of the insulation system. The reference value for the thermal life expectancy is the thermal life expectancy at rating for continuous running duty and permissible limits of temperature rise based on duty type S1. For a time de-energized and at rest, the load shall be indicated by the letter r .

Example: S10 $p/\Delta t = 1.1/0.4, 1/0.3, 0.9/0.2, r/0.1; TL = 0.6$

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4-pole IE1 motors for continuous operation S1, line frequency 50 Hz

For use after 16 June 2011 only in non-EU countries, except for brake motors

P _N kW	Type	n _N 1/min	M _N Nm	I _N 400 V A	Con- nec- tion	cos φ	η (100% - Last) %	η (75% - Last) %	η (50% - Last) %	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot} kgm ²	Brake
0,03	D04LA4	1350	0,21	0,20	Y	0,60	-	-	-	2,2	2,6	2,6	3,0	0,000175	E003
0,04	D04LA4	1350	0,28	0,20	Y	0,60	-	-	-	2,2	2,0	2,0	2,3	0,000175	
0,06	D04LA4	1350	0,42	0,30	Y	0,60	-	-	-	2,3	2,1	2,1	2,4	0,000175	
0,09	D04LA4	1350	0,63	0,45	Y	0,69	-	-	-	2,5	2,2	2,2	2,6	0,000175	
0,12	D04LA4	1350	0,84	0,46	Y	0,73	-	-	-	2,3	1,7	1,7	1,9	0,000175	
0,06	D05LA4	1350	0,42	0,35	Y	0,72	-	-	-	3,7	3,7	3,5	3,7	0,000295	E003
0,09	D05LA4	1350	0,63	0,38	Y	0,70	-	-	-	3,9	3,0	2,8	3,0	0,000295	
0,12	D05LA4	1350	0,85	0,42	Y	0,73	-	-	-	3,4	2,2	2,1	2,2	0,000295	
0,18	D05LA4	1350	1,28	0,63	Y	0,70	-	-	-	3,4	2,3	2,2	2,4	0,000295	
0,25	D05LA4	1350	1,75	0,88	Y	0,69	-	-	-	3,3	2,3	2,2	2,3	0,000295	
0,06	D06LA4	1350	0,42	0,35	Y	0,72	-	-	-	3,7	3,7	3,5	3,7	0,000295	E003
0,09	D06LA4	1350	0,63	0,38	Y	0,70	-	-	-	3,9	3,0	2,8	3,0	0,000295	
0,12	D06LA4	1350	0,85	0,42	Y	0,73	-	-	-	3,4	2,2	2,1	2,2	0,000295	
0,18	D06LA4	1350	1,28	0,63	Y	0,70	-	-	-	3,4	2,3	2,2	2,4	0,000295	
0,25	D06LA4	1350	1,76	0,89	Y	0,69	-	-	-	3,2	2,3	2,2	2,3	0,000295	
0,3	D07LA4	1350	2,1	1,30	Y	0,60	-	-	-	2,7	2,7	2,7	2,8	0,000385	E003
0,37	D07LA4	1350	2,6	1,35	Y	0,66	-	-	-	2,6	2,2	2,2	2,2	0,000385	E004
0,55	DSE08MA4	1400	3,75	1,45	Y	0,72	75,4	75,2	72,0	4,2	2,1	2,0	2,4	0,00115	ES(X)010 EH(X)027
0,75	DSE08LA4	1400	5,1	1,95	Y	0,76	75,6	76,2	72,7	4,6	2,0	2,0	2,4	0,00150	
1,1	DSE08XA4	1400	7,5	2,8	Y	0,75	75,5	76,8	73,5	3,7	2,0	1,8	2,2	0,00170	ES(X)010 ES(X)027 EH(X)040
1,1	DSE09SA4	1420	7,5	2,6	Y	0,76	80,0	80	77,5	4,9	2,5	2,2	2,8	0,00245	
1,5	DSE09LA4	1420	10,1	3,5	Y	0,76	80,7	80,9	79,5	5,0	2,5	2,3	2,9	0,00320	
2,2	DSE09XA4	1420	15	4,9	Y	0,81	80,5	81,1	80,4	4,5	2,3	2,2	2,6	0,00380	
3	DSE11SA4	1420	20	6,4	D	0,80	84,4	85,0	83,8	5,9	2,7	2,5	3,2	0,00810	ES(X)027
4	DSE11MA4	1420	27	8,4	D	0,83	84,0	84,9	84,2	5,5	2,8	2,4	3,0	0,01050	ES(X)040
5,5	DSE11LA4	1420	37	11,3	D	0,83	85,8	86,2	85,4	6,3	2,8	2,6	3,2	0,01400	ES(X)070 EH(X)125
7,5	DSE13MA4	1440	50	15,3	D	0,81	87,5	87,8	87,1	6,2	2,8	2,5	3,2	0,02900	ES(X)040 ES(X)070
9,5	DSE13LA4	1440	63	19,2	D	0,82	87,1	87,5	87,5	6,0	2,9	2,6	3	0,03450	ES(X)125 EH(X)200
11	DSE16MA4	1460	72	22,6	D	0,81	87,7	88,0	87,3	6,0	2,5	2,1	2,7	0,05700	ES(X)125
15	DSE16LA4	1460	98	29,5	D	0,83	88,9	89,2	88,9	6,1	2,5	2,1	2,8	0,07600	ES(X)200
18,5	DSE16XA4	1460	121	37,5	D	0,81	89,3	89,9	88,5	6,1	2,6	2,2	2,8	0,08700	EH(X)400 ZS(X)300
22	DSE18LA4	1460	144	41,5	D	0,85	90,7	91,0	90,5	6,8	3,0	2,5	2,8	0,16000	ES(X)250
30	DSE18XA4	1460	196	56	D	0,85	90,9	91,2	90,8	6,8	3,1	2,4	2,8	0,19500	EH(X)400 ZS(X)500
37	DHENF22SG4	1480	238	63	D	0,89	94,4	94,4	93,7	7,5	2,2	1,5	2,7	0,53	-
45	DHENF22MG4	1480	289	77	D	0,90	94,4	94,4	93,8	7,5	2,0	1,6	2,2	0,58	-
55	DHENF25SG4	1480	355	93	D	0,90	94,3	94,6	94,1	7,0	2,3	1,6	2,5	0,79	-
75	DHENF28MG4	1480	483	126	D	0,91	94,7	94,7	94,3	7,3	2,7	1,9	2,8	0,92	-

- P Rated output at 50 HZ mains frequency
n Typical rated rotor shaft speed with 50 Hz mains frequency
M_N Rated torque at rotor shaft
I_N Rated current at 400 V (for other special voltages, multiply by the inverse voltage ratio to convert the current at 400 V to the current at the desired voltage)
cos φ Power factor
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 See Section 16 for brake configuration.

The standard motor winding configuration is for 400 V / 50 Hz.

All motors designed for thermal class F are suitable for operation over the voltage range 380–420 V or 400 V +/- 10%.

Note: the current, power factor and torque vary depending on the deviation from 400 V.

See "www.bauergears.com" for more information.

4-pole motors for continuous operation S1, line frequency 50 Hz

P _N	Type	n _N	M _N	I _N	Con- tion	cosφ	η	η	η	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot}	Brake
kW		1/min	Nm	(400 V) A			(100% - Last) %	(75% - Last) %	(50% - Last) %					kgm ²	
0,03	D04LA4	1350	0,21	0,20	Y	0,60	-	-	-	2,2	2,6	2,6	3,0	0,000175	E003
0,04	D04LA4	1350	0,28	0,20	Y	0,60	-	-	-	2,2	2,0	2,0	2,3	0,000175	
0,06	D04LA4	1350	0,42	0,30	Y	0,60	-	-	-	2,3	2,1	2,1	2,4	0,000175	
0,09	D04LA4	1350	0,63	0,45	Y	0,69	-	-	-	2,5	2,2	2,2	2,6	0,000175	
0,12	D04LA4	1350	0,84	0,46	Y	0,73	-	-	-	2,3	1,7	1,7	1,9	0,000175	
0,06	D05LA4	1350	0,42	0,35	Y	0,72	-	-	-	3,7	3,7	3,5	3,7	0,000295	E003
0,09	D05LA4	1350	0,63	0,38	Y	0,70	-	-	-	3,9	3,0	2,8	3,0	0,000295	
0,12	D05LA4	1350	0,85	0,42	Y	0,73	-	-	-	3,4	2,2	2,1	2,2	0,000295	
0,18	D05LA4	1350	1,28	0,63	Y	0,70	-	-	-	3,4	2,3	2,2	2,4	0,000295	
0,25	D05LA4	1350	1,75	0,88	Y	0,69	-	-	-	3,3	2,3	2,2	2,3	0,000295	
0,06	D06LA4	1350	0,42	0,35	Y	0,72	-	-	-	3,7	3,7	3,5	3,7	0,000295	E003
0,09	D06LA4	1350	0,63	0,38	Y	0,70	-	-	-	3,9	3,0	2,8	3,0	0,000295	
0,12	D06LA4	1350	0,85	0,42	Y	0,73	-	-	-	3,4	2,2	2,1	2,2	0,000295	
0,18	D06LA4	1350	1,28	0,63	Y	0,70	-	-	-	3,4	2,3	2,2	2,4	0,000295	
0,25	D06LA4	1350	1,76	0,89	Y	0,69	-	-	-	3,2	2,3	2,2	2,3	0,000295	
0,3	D07LA4	1350	2,1	1,30	Y	0,60	-	-	-	2,7	2,7	2,7	2,8	0,000385	E003
0,37	D07LA4	1350	2,6	1,35	Y	0,66	-	-	-	2,6	2,2	2,2	2,2	0,000385	E004
0,37	DHE08MA4	1420	2,45	1,20	Y	0,60	76,2	76,0	74,2	5,4	3,2	3,0	3,6	0,00115	ES(X)010 EH(X)027
0,55	DHE08LA4	1420	3,7	1,36	Y	0,74	78,4	78,8	76,0	6,8	2,1	2,0	2,4	0,0015	
0,75	DHE08XA4	1420	5,0	1,88	Y	0,72	79,7	80,0	77,4	4,7	2,3	2,2	2,7	0,00170	
0,75	DHE09SA4	1440	5,0	1,8	Y	0,73	81,6	81,0	77,4	5,9	3,1	2,7	3,5	0,00245	ES(X)010 ES(X)027 EH(X)040
1,1	DHE09LA4	1440	7,3	2,5	Y	0,75	82,7	82,3	79,8	5,9	2,9	2,7	3,4	0,0032	
1,5	DHE09XA4	1440	10,0	3,3	Y	0,78	83,2	82,8	79,5	5,6	3,0	2,9	3,3	0,0038	
2,2	DHE09XA4C	1440	14,5	4,75	Y	0,79	84,5	85,0	83,5	5,2	1,8	1,7	2,7	0,0053	
2,2	DHE11SA4	1440	14,5	4,6	Y	0,80	86,2	86,0	84,7	7,0	3,1	2,8	3,6	0,0081	ES(X)027 ES(X)040 ES(X)070 EH(X)125
3	DHE11MA4	1440	20	6,3	D	0,80	86,5	86,5	84,7	6,7	3,4	2,8	3,7	0,0105	
4	DHE11LA4	1440	26,5	8,4	D	0,79	87,5	87,0	85,3	7,6	3,6	3,3	4,2	0,0140	
5,5	DHE11LA4C	1460	36	11,0	D	0,82	87,8	88,2	86,5	6,7	2,1	1,6	3,4	0,0162	
5,5	DHE13MA4	1460	36	11,0	D	0,81	88,9	88,9	87,6	7,2	3,2	2,9	3,6	0,0290	
7,5	DHE13LA4	1460	49	15,1	D	0,81	88,9	89,2	87,9	7,0	3,3	3,0	3,5	0,0345	EH(X)200
9,5	DHE16MA4	1470	62	19,7	D	0,78	89,4	89,4	86,5	6,8	2,9	2,5	3,2	0,057	ES(X)125 ES(X)200 EH(X)400 ZS(X)300
11	DHE16LA4	1470	71	22,5	D	0,78	90,3	90,0	88,3	7,9	3,5	2,9	3,8	0,076	
15	DHE16XA4	1470	97	31	D	0,77	90,6	90,8	88,8	7,2	3,2	2,8	3,5	0,087	
18,5	DHE18LA4	1470	120	35	D	0,83	91,5	91,7	90,0	7,9	3,6	3,0	3,3	0,160	ES(X)250 EH(X)400 ZS(X)500
22	DHE18XA4	1470	142	43,5	D	0,80	92,0	91,6	89,6	8,7	4,2	3,3	3,9	0,195	
30	DHENF20LG4	1480	194	53	D	0,87	93,7	93,7	93,1	7,3	2,3	1,9	3,0	0,310	-
37	DHENF22SG4	1480	238	63	D	0,89	94,4	94,4	93,7	7,5	2,2	1,5	2,7	0,53	-
45	DHENF22MG4	1480	289	77	D	0,90	94,4	94,4	93,8	7,5	2,0	1,6	2,2	0,58	-
55	DHENF25SG4	1480	355	93	D	0,90	94,3	94,6	94,1	7,0	2,3	1,6	2,5	0,79	-
75	DHENF28MG4	1480	483	126	D	0,91	94,7	94,7	94,3	7,3	2,7	1,9	2,8	0,92	-

- P Rated power at 50 Hz line frequency
n Guideline value for rated speed at the rotor shaft at 50 Hz line frequency
M_N Rated torque at the rotor shaft
I_N Rated current at 400 V (the current can be converted as inverse ratios of voltages from 400 V to the desired special voltage)
cos φ Power factor
I_A/I_N Relative starting current
M_A/M_N Relative breakaway torque
M_S/M_N Relative pull-up torque
M_K/M_N Relative breakdown torque
J_{rot} Mass moment of inertia of the rotor
Brake recommended standard brake for normal requirements (see chapter 16)

Winding configuration for standard motors for 400 V / 50 Hz.

All motors are suitable for the voltage range 380...420V or 400V +/- 10% if executed in insulation class F.

Important: Current, power factor and torque change as voltage deviates from 400 V.

See "www.bauergears.com" for more information.

4-pole motors for intermittent periodic duty S3/S6, line frequency 50 Hz

P _N kW	Type	n _N 1/min	M _N Nm	I _N 400 V A	Con- nec- tion	cos φ	η	η	η	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot} kgm ²
							(100% - Last) %	(75% - Last) %	(50% - Last) %					
0,75	DPE09LA4	1440	4,9	1,68	Y	0,76	84,0	83,2	79,9	6,6	3,3	2,7	3,7	0,0032
1,1	DPE09XA4	1440	7,25	2,45	Y	0,76	85,0	84,1	81,2	7,1	3,6	3,2	4,0	0,0038
1,5	DPE09XA4C	1460	9,8	3,25	Y	0,78	85,3	85,5	83,0	6	2,1	2	3,1	0,0053
1,5	DPE11SA4	1460	9,8	3,20	Y	0,79	86,8	86,0	83,0	8,2	3,5	3,0	4,3	0,0081
2,2	DPE11MA4	1450	14,5	4,50	Y	0,81	87,0	86,5	84,6	7,8	3,7	3,0	4,0	0,0105
3,0	DPE11LA4	1450	19,7	6,05	D	0,81	88,2	88,1	86,2	8,3	3,6	3	4,2	0,0140
4,0	DPE11LA4C	1470	26	8,3	D	0,78	88,8	88,5	86,5	7,5	2,2	2	4	0,0162
4,0	DPE13MA4	1460	26	7,9	D	0,82	89,1	89,1	87,5	7,7	3,4	2,5	3,7	0,0290
5,5	DPE13LA4	1460	35,9	8,0	D	0,81	89,6	89,6	87,5	8,0	3,9	3,5	4,1	0,0345
7,5	DPE16LA4	1480	48,4	14,8	D	0,81	90,5	89,6	86,7	8,5	3,8	3,1	4,0	0,076
9,5	DPE16XA4	1480	61	18,7	D	0,81	91,0	90,3	87,0	9,5	3,6	3,0	3,9	0,087
11	DPE18LA4	1480	71	21,3	D	0,82	91,5	90,6	88,5	9,3	4,5	3,6	4,0	0,160
15	DPE18XA4	1480	97	28,4	D	0,83	92,2	91,9	90,8	8,7	4,1	3,3	3,8	0,195

- P Rated power at 50 Hz line frequency, duty type S3/S6
n Guideline value for rated speed at the rotor shaft at 50 Hz line frequency
M_N Rated torque at the rotor shaft
I_N Rated current at 400 V (the current can be converted as inverse ratios of voltages from 400 V to the desired special voltage)
cos φ Power factor
I_A/I_N Relative starting current
M_A/M_N Relative breakaway torque
M_S/M_N Relative pull-up torque
M_K/M_N Relative breakdown torque
J_{rot} Mass moment of inertia of the rotor
Brake recommended standard brake for normal requirements (see chapter 16)

Winding configuration for standard motors for 400 V / 50 Hz.

See "www.bauergears.com" for more information.

4 pole motors for periodic duty S3/S6-75%, Mains Frequency 50 Hz

P _N	Type	n _n	M _N	I _N	Conne- tion	cos φ	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot}	Brake
kW		1/min	Nm	400V A							kgm ²	
0,03	D04LA4	1350	0,21	0,20	Y	0,60	2,2	2,6	2,6	3,0	0,000175	E003
0,04	D04LA4	1350	0,28	0,20	Y	0,60	2,2	2,0	2,0	2,3	0,000175	
0,06	D04LA4	1350	0,42	0,30	Y	0,60	2,3	2,1	2,1	2,4	0,000175	
0,09	D04LA4	1350	0,63	0,45	Y	0,69	2,5	2,2	2,2	2,6	0,000175	
0,12	D04LA4	1350	0,84	0,46	Y	0,73	2,3	1,7	1,7	1,9	0,000175	
0,06	D05LA4	1350	0,42	0,35	Y	0,72	3,7	3,7	3,5	3,7	0,000295	E003
0,09	D05LA4	1350	0,63	0,38	Y	0,70	3,9	3,0	2,8	3,0	0,000295	
0,12	D05LA4	1350	0,85	0,42	Y	0,73	3,4	2,2	2,1	2,2	0,000295	
0,18	D05LA4	1350	1,28	0,63	Y	0,70	3,4	2,3	2,2	2,4	0,000295	
0,25	D05LA4	1350	1,75	0,88	Y	0,69	3,3	2,3	2,2	2,3	0,000295	
0,06	D06LA4	1350	0,42	0,35	Y	0,72	3,7	3,7	3,5	3,7	0,000295	E003
0,09	D06LA4	1350	0,63	0,38	Y	0,70	3,9	3,0	2,8	3,0	0,000295	
0,12	D06LA4	1350	0,85	0,42	Y	0,73	3,4	2,2	2,1	2,2	0,000295	
0,18	D06LA4	1350	1,28	0,63	Y	0,70	3,4	2,3	2,2	2,4	0,000295	
0,25	D06LA4	1350	1,76	0,89	Y	0,69	3,2	2,3	2,2	2,3	0,000295	
0,3	D07LA4	1350	2,1	1,30	Y	0,60	2,7	2,7	2,7	2,8	0,000385	E003
0,37	D07LA4	1350	2,6	1,35	Y	0,66	2,6	2,2	2,2	2,2	0,000385	E004
0,55	DSE08MA4	1400	3,75	1,45	Y	0,72	4,2	2,1	2,0	2,4	0,00115	ES(X)010
0,75	DSE08LA4	1400	5,1	1,95	Y	0,76	4,6	2,0	2,0	2,4	0,00150	EH(X)027
1,1	DSE08XA4	1400	7,5	2,8	Y	0,75	3,7	2,0	1,8	2,2	0,00170	
1,1	DSE09SA4	1420	7,5	2,6	Y	0,76	4,9	2,5	2,2	2,8	0,00245	ES(X)010
1,5	DSE09LA4	1420	10,1	3,5	Y	0,76	5,0	2,5	2,3	2,9	0,00320	ES(X)027
2,2	DSE09XA4	1420	15	4,9	Y	0,81	4,5	2,3	2,2	2,6	0,00380	EH(X)040
3	DSE11SA4	1420	20	6,4	D	0,80	5,9	2,7	2,5	3,2	0,00810	ES(X)027
4	DSE11MA4	1420	27	8,4	D	0,83	5,5	2,8	2,4	3,0	0,01050	ES(X)040
5,5	DSE11LA4	1420	37	11,3	D	0,83	6,3	2,8	2,6	3,2	0,01400	ES(X)070
7,5	DSE13MA4	1440	50	15,3	D	0,81	6,2	2,8	2,5	3,2	0,02900	ES(X)040
9,5	DSE13LA4	1440	63	19,2	D	0,82	6,0	2,9	2,6	3	0,03450	ES(X)125
11	DSE16MA4	1460	72	22,6	D	0,81	6,0	2,5	2,1	2,7	0,05700	ES(X)125
15	DSE16LA4	1460	98	29,5	D	0,83	6,1	2,5	2,1	2,8	0,07600	ES(X)200
18,5	DSE16XA4	1460	121	37,5	D	0,81	6,1	2,6	2,2	2,8	0,08700	EH(X)400
22	DSE18LA4	1460	144	41,5	D	0,85	6,8	3,0	2,5	2,8	0,16000	ES(X)250
30	DSE18XA4	1460	196	56	D	0,85	6,8	3,1	2,4	2,8	0,19500	EH(X)400
37	DHENF22SG4	1480	238	63	D	0,89	7,5	2,2	1,5	2,7	0,53	-
45	DHENF22MG4	1480	289	77	D	0,90	7,5	2,0	1,6	2,2	0,58	-
55	DHENF25SG4	1480	355	93	D	0,90	7,0	2,3	1,6	2,5	0,79	-
75	DHENF28MG4	1480	483	126	D	0,91	7,3	2,7	1,9	2,8	0,92	-

- P Rated outputs at 50 Hz line frequency
n Guideline values for rated speeds at the rotor shaft at 50 Hz line frequency
M_N Rated torques at the rotor shaft
I_N Rated currents 400 V Δ/YY (currents can be converted as inverse ratios of volt-
ages from 400 V to the desired special voltage)
cos φ Power factors
I_A/I_N Relative starting currents
M_A/M_N Relative breakaway torques
M_S/M_N Relative pull-up torques
M_K/M_N Relative breakdown torques
J_{rot} Mass moment of inertia of the rotor
Brake Delection of the brake, see chapter 16

Standard motor winding design for 400 V / 50 Hz

4-pole motors for intermittent periodic duty (S3/S6) and 50 Hz mains frequency

P	ED	Type	n	M _N	I _N (400 V)	Con- nection	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	1350	1,05	0,60	Y	0,77	2,0	1,6	1,5	1,6	0,000175
0,3	15%	D05LA4	1350	2,1	0,98	Y	0,75	2,6	1,9	1,8	1,9	0,000295
0,3	60%	D06LA4	1350	2,1	0,98	Y	0,75	2,6	1,9	1,8	1,9	0,000295
0,55	60%	D07LA4	1350	3,9	1,95	Y	0,86	3,4	1,6	1,5	1,6	0,000385
0,75	60%	D08MA4	1400	5,1	2,0	Y	0,81	3,4	1,6	1,4	1,7	0,00115
1,1	60%	D08LA4	1400	7,5	2,8	Y	0,82	3,3	1,5	1,4	1,7	0,0015
1,5	60%	D09SA4	1400	10,2	3,6	Y	0,84	3,9	1,7	1,5	2,0	0,00245
2,2	60%	D09LA4	1400	15	5,0	Y	0,86	3,9	1,6	1,5	1,9	0,0032
3,0	60%	D09XA4	1400	20	6,8	Y	0,86	3,4	1,7	1,6	1,9	0,0038
4,0	60%	D11SA4	1420	26,5	8,9	Δ	0,85	4,0	1,6	1,4	2,0	0,0081
5,5	60%	D11MA4	1420	37	11,7	Δ	0,87	4,3	1,5	1,5	2,0	0,0105
7,5	60%	D11LA4	1420	50	16	Δ	0,87	4,3	1,8	1,7	2,1	0,014
9,5	60%	D13MA4	1420	64	19	Δ	0,87	4,9	1,9	1,6	2,2	0,029
11	60%	D13LA4	1420	72	22	Δ	0,84	5,5	2,4	2,1	2,5	0,0345
13,5	60%	D16MA4	1460	88	28	Δ	0,84	5,6	2,1	1,6	2,0	0,057
18,5	60%	D16LA4	1460	121	38	Δ	0,84	5,1	1,9	1,6	2,1	0,076
22	60%	D16XA4	1460	144	46	Δ	0,84	5,4	2,1	1,3	2,0	0,087
30	60%	D18LA4	1460	196	58	Δ	0,89	4,5	1,8	1,5	1,7	0,16
37	60%	D18XA4	1460	240	74	Δ	0,85	5,5	2,5	2,0	2,3	0,195

P Rated output at 50 Hz mains frequency, S3/S6 duty

DC Permissible duty cycle

n Typical rated rotor shaft speed at 50 Hz

Mains frequency

M_N Rated shaft torque

I_N Rated current at 400 V (for other special voltages, multiply by the inverse voltage ratio to convert the current at 400 V to the current at the desired voltage)

cos φ Power factor

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 400 V / 50 Hz.

See "www.bauergears.com" for more information.

4/2-pole Δ /YY motors for continuous running duty (S1) and 50 Hz mains frequency

P	Type	n	M _N	I _N (400 V)	cos φ	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot}
kW		1/min	Nm	A						kgm ²
0,03 / 0,06	D04LA42	1350 / 2700	0,210 / 0,210	0,230 / 0,250	0,56 / 0,67	2,2 / 3,1	3,4 / 3,1	3,4 / 3,1	3,6 / 3,3	0,000175
0,04 / 0,08	D04LA42	1350 / 2700	0,280 / 0,280	0,250 / 0,280	0,60 / 0,75	2,0 / 2,8	3,0 / 2,1	3,0 / 2,1	3,3 / 2,2	0,000175
0,06 / 0,12	D05LA42	1350 / 2700	0,420 / 0,420	0,450 / 0,450	0,50 / 0,75	2,8 / 3,3	3,1 / 2,0	3,0 / 1,9	3,8 / 2,6	0,000295
0,08 / 0,16	D05LA42	1350 / 2700	0,56 / 0,56	0,50 / 0,50	0,55 / 0,75	2,8 / 3,3	3,1 / 1,8	2,7 / 1,7	3,4 / 2,3	0,000295
0,06 / 0,12	D06LA42	1350 / 2700	0,420 / 0,420	0,450 / 0,450	0,50 / 0,75	2,8 / 3,3	3,1 / 2,0	3,0 / 1,9	3,8 / 2,6	0,000295
0,08 / 0,16	D06LA42	1350 / 2700	0,56 / 0,56	0,50 / 0,50	0,55 / 0,75	2,8 / 3,3	2,8 / 1,8	2,7 / 1,7	3,4 / 2,3	0,000295
0,11 / 0,22	D06LA42	1350 / 2700	0,77 / 0,77	0,68 / 0,68	0,55 / 0,75	2,8 / 3,3	2,8 / 1,8	2,7 / 1,7	3,4 / 2,3	0,000295
0,16 / 0,32	D06LA42	1350 / 2700	1,13 / 1,13	0,90 / 0,90	0,57 / 0,80	2,8 / 3,3	2,6 / 1,7	2,5 / 1,6	3,1 / 2,1	0,000295
0,2 / 0,4	D07LA42	1400 / 2800	1,35 / 1,37	1,10 / 1,15	0,58 / 0,81	2,9 / 3,6	2,8 / 1,6	2,7 / 1,4	3,0 / 2,0	0,000385
0,28 / 0,56	D08MA42	1400 / 2800	1,90 / 1,90	1,20 / 1,75	0,61 / 0,81	3,4 / 2,9	2,3 / 1,5	2,3 / 1,4	3,0 / 1,9	0,00115
0,4 / 0,8	D08LA42	1400 / 2800	2,7 / 2,7	1,53 / 1,91	0,62 / 0,90	4,7 / 5,1	2,7 / 1,8	2,4 / 1,7	3,1 / 2,1	0,0015
0,5 / 1,0	D09SA42	1400 / 2800	3,4 / 3,4	1,65 / 2,4	0,71 / 0,91	5,1 / 4,5	2,9 / 1,9	2,9 / 1,9	3,6 / 2,4	0,00245
0,7 / 1,4	D09SA42	1400 / 2800	4,8 / 4,8	2,1 / 3,3	0,71 / 0,93	4,7 / 4,1	2,5 / 1,6	2,5 / 1,6	3,1 / 2,0	0,00245
1,0 / 2,0	D09LA42	1400 / 2800	6,8 / 6,8	2,9 / 4,7	0,72 / 0,94	4,7 / 4,1	2,5 / 1,6	2,5 / 1,6	3,1 / 2,0	0,0032
1,2 / 2,4	D09XA42	1400 / 2800	8,2 / 8,1	3,8 / 5,7	0,65 / 0,87	6,2 / 3,0	2,5 / 1,8	2,5 / 1,8	3,1 / 2,3	0,0038
1,4 / 2,8	D11SA42	1420 / 2840	9,4 / 9,4	3,6 / 6,2	0,74 / 0,90	6,4 / 4,5	3,0 / 1,7	2,6 / 1,5	4,1 / 2,8	0,0081
2,0 / 4,0	D11MA42	1420 / 2840	13,5 / 13,4	5,5 / 9,1	0,70 / 0,90	6,7 / 5,4	3,1 / 2,1	2,7 / 1,6	3,7 / 2,5	0,0105
2,5 / 5,0	D11LA42	1420 / 2840	16,8 / 16,8	5,5 / 10	0,79 / 0,92	5,6 / 4,6	2,8 / 1,8	2,7 / 1,7	3,7 / 2,6	0,014
3,5 / 7,0	D13MA42	1420 / 2840	23 / 23	8,2 / 14,8	0,76 / 0,91	6,8 / 5,2	3,4 / 2,0	2,8 / 1,8	3,8 / 2,7	0,029
4,5 / 9,0	D13LA42	1420 / 2840	30,2 / 30	10,5 / 19	0,76 / 0,91	6,8 / 5,5	3,2 / 1,9	2,6 / 1,7	3,5 / 2,5	0,0345
5,5 / 11	D16MA42	1460 / 2920	36 / 36	13,4 / 24	0,73 / 0,91	6,7 / 5,2	2,8 / 1,7	2,2 / 1,2	3,2 / 2,3	0,057
7,0 / 14	D16LA42	1460 / 2920	45 / 45	15,5 / 28,5	0,78 / 0,92	7,2 / 5,5	3,1 / 2,1	2,5 / 1,4	3,3 / 2,6	0,076
9,0 / 18	D16XA42	1460 / 2920	58 / 58	19,1 / 36,5	0,79 / 0,92	7,9 / 5,8	2,8 / 1,8	2,2 / 1,2	3,1 / 2,2	0,087
12,5 / 25	D18LA42	1460 / 2920	81 / 81	28,5 / 49,5	0,77 / 0,89	8,5 / 7,0	3,9 / 2,8	3,3 / 1,9	3,8 / 3,0	0,16
16 / 32	D18XA42	1460 / 2920	104 / 104	38,5 / 66	0,77 / 0,89	7,8 / 6,5	3,7 / 2,6	3,1 / 1,8	3,6 / 2,8	0,195

- P Rated output at 50 Hz mains frequency
n Typical rated rotor shaft speed at 50 Hz
Mains frequency
M_N Rated torque at rotor shaft
I_N Rated current at 400 V Δ /YY (for other special voltages, multiply by the inverse voltage ratio to convert the current at 400 V to the current at the desired voltage)
cos φ Power factor
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

8/4-pole Δ/YY motors for continuous running duty (S1) and 50 Hz mains frequency

P	Type	n	M _N	I _N (400 V)	cos φ	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot}
kW		1/min	Nm	A						kgm ²
0,03 / 0,06	D05LA84	680 / 1350	0,410 / 0,420	0,300 / 0,280	0,52 / 0,71	1,6 / 2,6	2,7 / 1,9	1,6 / 1,7	1,6 / 1,7	0,000295
0,03 / 0,06	D06LA84	680 / 1350	0,410 / 0,420	0,300 / 0,280	0,52 / 0,71	1,6 / 2,6	2,7 / 1,9	1,6 / 1,7	1,6 / 1,7	0,000295
0,04 / 0,08	D06LA84	680 / 1350	0,54 / 0,56	0,480 / 0,400	0,52 / 0,66	1,4 / 2,2	2,6 / 2,1	1,6 / 1,7	1,6 / 1,7	0,000295
0,06 / 0,12	D07LA84	680 / 1350	0,84 / 0,85	0,70 / 0,60	0,52 / 0,66	1,7 / 2,8	3,2 / 1,7	3,2 / 1,5	3,3 / 2,1	0,000385
0,06 / 0,12	D08LA84	700 / 1400	0,81 / 0,81	0,50 / 0,50	0,61 / 0,83	2,8 / 3,7	3,1 / 2,3	3,1 / 2,3	3,7 / 3,1	0,0025
0,08 / 0,16	D08LA84	700 / 1400	1,08 / 1,09	0,62 / 0,62	0,61 / 0,83	2,8 / 3,7	3,0 / 2,2	3,0 / 2,2	3,5 / 3,0	0,0025
0,11 / 0,22	D08LA84	700 / 1400	1,49 / 1,5	0,80 / 0,80	0,61 / 0,83	2,8 / 3,7	2,8 / 2,1	2,8 / 2,1	3,3 / 2,8	0,0025
0,14 / 0,28	D08LA84	700 / 1400	1,90 / 1,91	1,00 / 1,00	0,61 / 0,83	2,8 / 3,7	2,8 / 2,1	2,8 / 2,1	3,3 / 2,8	0,0025
0,2 / 0,4	D08LA84	700 / 1400	2,7 / 2,7	1,10 / 1,30	0,55 / 0,77	2,8 / 3,7	2,3 / 1,7	2,3 / 1,7	2,7 / 2,3	0,0025
0,25 / 0,5	D09XC84	700 / 1400	3,3 / 3,3	1,40 / 1,40	0,48 / 0,77	2,9 / 5,0	2,7 / 2,0	2,7 / 2,1	3,1 / 2,7	0,006
0,28 / 0,56	D09XC84	700 / 1400	3,8 / 3,8	1,40 / 1,50	0,57 / 0,80	2,9 / 4,9	2,4 / 1,8	2,4 / 1,9	2,8 / 2,4	0,006
0,4 / 0,8	D09XC84	700 / 1400	5,4 / 5,4	1,95 / 2,4	0,55 / 0,79	2,8 / 4,2	2,3 / 1,7	2,3 / 1,8	2,7 / 2,3	0,006
0,5 / 1,0	D09XC84	700 / 1400	6,8 / 6,8	2,4 / 2,6	0,55 / 0,81	2,6 / 4,0	2,2 / 1,6	2,2 / 1,6	2,5 / 2,2	0,006
0,8 / 1,6	D11LC84	710 / 1420	10,7 / 10,7	3,0 / 4,2	0,63 / 0,88	3,5 / 4,3	2,2 / 1,9	2,2 / 1,7	2,8 / 2,7	0,0215
1,1 / 2,2	D11LC84	710 / 1420	14,7 / 14,7	4,0 / 5,0	0,58 / 0,85	3,9 / 5,7	2,3 / 2,1	2,3 / 1,7	2,7 / 2,5	0,0215
1,6 / 3,2	D11LC84	710 / 1420	21,5 / 21,5	6,0 / 7,6	0,59 / 0,84	3,7 / 5,1	2,2 / 1,8	2,1 / 1,5	2,6 / 2,3	0,0215
2,2 / 4,4	D13LC84	710 / 1420	29 / 29	7,2 / 9,5	0,60 / 0,87	4,3 / 5,4	2,1 / 1,7	2,1 / 1,4	2,9 / 2,8	0,046
2,8 / 5,6	D13LC84	710 / 1420	37,5 / 37,5	9,4 / 12,3	0,60 / 0,86	4,3 / 5,4	2,1 / 1,7	2,1 / 1,4	2,9 / 2,8	0,046
3,5 / 7,0	D16MA84	730 / 1460	45,8 / 45,5	13,9 / 15,6	0,59 / 0,84	3,3 / 4,9	2,1 / 1,8	1,8 / 1,4	2,1 / 2,2	0,057
5,0 / 10	D16LA84	730 / 1460	65 / 65	17,5 / 20,5	0,57 / 0,87	3,6 / 5,6	2,1 / 1,8	1,9 / 1,4	2,1 / 2,2	0,076
7,0 / 14	D16XA84	730 / 1460	91 / 91	24,5 / 29	0,60 / 0,84	3,3 / 5,2	2,1 / 1,9	2,0 / 1,6	2,1 / 2,4	0,087
8,0 / 16	D18LA84	730 / 1460	105 / 104	24 / 32,5	0,60 / 0,86	3,7 / 5,5	2,2 / 2,2	1,8 / 1,8	1,9 / 2,1	0,16
10 / 20	D18XA84	730 / 1460	130 / 130	30 / 41	0,60 / 0,86	3,7 / 5,5	2,2 / 2,2	1,8 / 1,8	1,9 / 2,1	0,195

- P Rated output at 50 Hz mains frequency
n Typical rated rotor shaft speed at 50 Hz
Mains frequency
M_N Rated torque at rotor shaft
I_N Rated current at 400 V Δ/YY (for other special voltages, multiply by the inverse voltage ratio to convert the current at 400 V to the current at the desired voltage)
cos φ Power factor
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

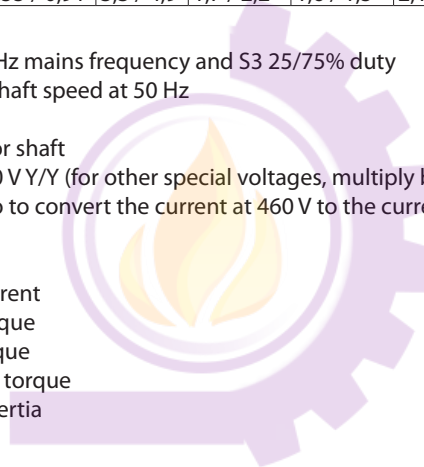
8/2-pole Y/Y motors for intermittent periodic duty S3 25/75% and 50 Hz mains frequency

P	ED	Type	n	M _N	I _N (400 V)	cos φ	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot}
kW			1/min	Nm	A						kgm ²
0,04 / 0,16	25/75%	D05LA82	680 / 2700	0,56 / 0,56	0,400 / 0,80	0,63 / 0,75	1,6 / 3,2	1,9 / 2,2	1,9 / 2,1	2,0 / 2,3	0,000295
0,05 / 0,20	25/75%	D06LA82	680 / 2700	0,70 / 0,70	0,51 / 1,02	0,63 / 0,75	1,4 / 2,8	1,7 / 2,0	1,7 / 1,9	1,8 / 2,1	0,000295
0,063 / 0,25	25/75%	D07LA82	650 / 2840	0,87 / 0,87	0,60 / 1,20	0,69 / 0,62	1,4 / 2,6	1,6 / 1,4	1,6 / 1,4	1,8 / 2,7	0,000385
0,071 / 0,28	25/75%	D07LA82	650 / 2840	0,99 / 0,98	0,65 / 1,40	0,69 / 0,68	1,4 / 2,6	1,5 / 1,3	1,5 / 1,3	1,7 / 2,6	0,000385
0,063 / 0,25	25/75%	D08LA82	700 / 2800	0,85 / 0,85	0,55 / 0,70	0,55 / 0,87	2,8 / 4,0	2,4 / 2,6	2,4 / 2,5	2,8 / 3,0	0,0015
0,09 / 0,36	25/75%	D08LA82	700 / 2800	1,22 / 1,22	0,70 / 1,05	0,60 / 0,92	2,9 / 4,5	2,0 / 2,6	2,0 / 2,5	2,4 / 2,9	0,0015
0,12 / 0,5	25/75%	D08LA82	700 / 2800	1,70 / 1,70	0,95 / 1,43	0,60 / 0,92	2,9 / 4,5	2,0 / 2,6	2,0 / 2,5	2,4 / 2,9	0,0015
0,16 / 0,63	25/75%	D08LA82	700 / 2800	2,1 / 2,1	1,20 / 1,45	0,63 / 0,90	2,0 / 4,6	1,8 / 2,1	1,8 / 2,0	2,2 / 2,4	0,0015
0,25 / 1,0	25/75%	D09XA82	700 / 2800	3,4 / 3,4	1,30 / 2,3	0,62 / 0,90	2,2 / 5,2	1,9 / 2,3	1,9 / 2,3	2,0 / 2,6	0,0038
0,36 / 1,4	25/75%	D09XA82	700 / 2800	4,9 / 4,8	2,1 / 3,3	0,57 / 0,87	2,0 / 4,5	1,9 / 2,1	1,9 / 2,1	2,0 / 2,4	0,0038
0,45 / 1,8	25/75%	D09XA82	700 / 2800	6,1 / 6,1	2,4 / 4,3	0,65 / 0,89	2,0 / 4,3	1,7 / 2,0	1,7 / 2,0	2,0 / 2,5	0,0038
0,56 / 2,2	25/75%	D11LA82	710 / 2840	7,5 / 7,3	2,3 / 4,7	0,60 / 0,94	3,2 / 4,9	1,9 / 2,9	1,9 / 2,4	2,2 / 2,9	0,014
0,71 / 2,8	25/75%	D11LA82	710 / 2840	9,5 / 9,4	2,8 / 5,6	0,58 / 0,94	2,5 / 4,7	1,9 / 2,3	1,9 / 2,0	2,1 / 2,4	0,014
0,90 / 3,6	25/75%	D11LA82	710 / 2840	12,1 / 12,1	3,5 / 7,9	0,58 / 0,94	2,5 / 4,5	1,8 / 2,0	1,8 / 1,8	2,0 / 2,1	0,014
1,10 / 4,5	25/75%	D13LA82	710 / 2840	14,7 / 15,1	4,0 / 10,1	0,59 / 0,90	2,8 / 5,4	1,8 / 2,5	1,8 / 1,8	2,3 / 2,7	0,0345
1,25 / 5,0	25/75%	D13LA82	710 / 2840	16,8 / 16,8	4,5 / 11,5	0,59 / 0,88	2,9 / 5,4	1,6 / 2,3	1,6 / 1,8	2,1 / 2,7	0,0345
1,6 / 6,3	25/75%	D16XA82	730 / 2920	20 / 20,5	7,6 / 13,5	0,48 / 0,88	3,6 / 6,5	2,4 / 3,0	2,2 / 2,1	2,7 / 3,0	0,087
2,0 / 8,0	25/75%	D16XA82	730 / 2920	25,5 / 26	9,5 / 17	0,50 / 0,89	3,6 / 6,1	2,4 / 3,0	2,1 / 2,0	2,7 / 3,0	0,087
2,8 / 11	25/75%	D16XA82	730 / 2920	36,6 / 36	11,5 / 24	0,53 / 0,91	3,0 / 5,9	1,8 / 2,9	1,6 / 2,0	1,9 / 2,8	0,087
3,6 / 14	25/75%	D18XA82	730 / 2920	47 / 45,5	13,6 / 30,5	0,55 / 0,91	3,3 / 4,9	1,7 / 2,2	1,6 / 1,5	2,1 / 2,4	0,195
4,0 / 16	25/75%	D18XA82	730 / 2920	52 / 52	15,1 / 34,5	0,55 / 0,91	3,3 / 4,9	1,7 / 2,2	1,6 / 1,5	2,1 / 2,4	0,195
5,0 / 20	25/75%	D18XA82	730 / 2920	65 / 65	18,8 / 43	0,55 / 0,91	3,3 / 4,9	1,7 / 2,2	1,6 / 1,5	2,1 / 2,4	0,195

P	Rated output at 50 Hz mains frequency and S3 25/75% duty
n	Typical rated rotor shaft speed at 50 Hz Mains frequency
M _N	Rated torque at rotor shaft
I _N	Rated current at 400 V Y/Y (for other special voltages, multiply by the inverse voltage ratio to convert the current at 460 V to the current at the desired voltage)
cos 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

صنعت

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12/2 pole motors Y/Y for periodic duty S3-25/75%, Mains Frequency 50 Hz

P	ED	Type	n	M _N	I _N (400 V)	cos φ	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot}
kW			1/min	Nm	A						kgm ²
0,045 / 0,28	25/75%	D08LA122	470 / 2800	0,92 / 0,95	0,55 / 0,86	0,70 / 0,90	1,4 / 4,5	1,9 / 2,4	1,9 / 2,4	1,9 / 2,7	0,0015
0,063 / 0,4	25/75%	D08LA122	470 / 2800	1,29 / 1,36	0,66 / 1,10	0,70 / 0,90	1,4 / 4,5	1,7 / 2,2	1,7 / 2,2	1,7 / 2,4	0,0015
0,09 / 0,56	25/75%	D08LA122	470 / 2800	1,85 / 1,91	1,00 / 1,45	0,63 / 0,89	1,4 / 4,1	1,7 / 2,1	1,7 / 2,3	1,8 / 2,4	0,0015
0,11 / 0,71	25/75%	D09XA122	470 / 2800	2,3 / 2,4	1,05 / 1,60	0,59 / 0,88	1,5 / 5,5	1,7 / 2,7	1,7 / 2,6	1,8 / 3,3	0,0038
0,16 / 1,0	25/75%	D09XA122	470 / 2800	3,2 / 3,4	1,70 / 2,4	0,62 / 0,89	1,5 / 5,5	1,8 / 2,6	1,8 / 2,5	1,8 / 3,3	0,0038
0,20 / 1,25	25/75%	D09XA122	470 / 2800	4,1 / 4,2	2,0 / 3,0	0,62 / 0,89	1,5 / 5,0	1,7 / 2,4	1,7 / 2,3	1,7 / 3,1	0,0038
0,25 / 1,6	25/75%	D11LA122	470 / 2840	5,1 / 5,3	2,3 / 3,4	0,53 / 0,95	1,6 / 4,9	1,7 / 2,6	1,7 / 2,4	2,0 / 2,8	0,014
0,32 / 2,0	25/75%	D11LA122	470 / 2840	6,5 / 6,7	2,9 / 4,0	0,53 / 0,94	1,6 / 4,7	1,7 / 2,5	1,7 / 2,2	2,0 / 2,7	0,014
0,45 / 2,8	25/75%	D11LA122	470 / 2840	9,2 / 9,4	4,5 / 5,6	0,52 / 0,94	1,6 / 4,7	1,5 / 2,3	1,5 / 2,0	1,8 / 2,4	0,014
0,63 / 4,0	25/75%	D13LA122	470 / 2840	12,9 / 13,4	4,1 / 8,6	0,45 / 0,95	1,6 / 5,6	1,6 / 2,4	1,6 / 1,8	1,8 / 2,7	0,0345
0,80 / 5,0	25/75%	D13LA122	470 / 2840	16,3 / 16,8	6,3 / 11,3	0,41 / 0,92	1,7 / 5,3	1,5 / 2,7	1,5 / 1,9	2,0 / 2,9	0,0345
1,0 / 6,3	25/75%	D16XA122	490 / 2920	19,6 / 20	8,0 / 13,4	0,35 / 0,90	2,2 / 6,3	1,9 / 2,7	1,9 / 1,7	2,4 / 2,8	0,087
1,25 / 8,0	25/75%	D16XA122	490 / 2920	24,5 / 26	9,9 / 16,9	0,35 / 0,90	2,2 / 6,3	1,9 / 2,7	1,9 / 1,7	2,4 / 2,8	0,087
1,6 / 10	25/75%	D16XA122	490 / 2920	30,5 / 32	10,5 / 21	0,40 / 0,92	1,9 / 5,4	1,6 / 2,4	1,6 / 1,4	2,1 / 2,4	0,087
2,4 / 14	25/75%	D18XA122	490 / 2920	47 / 45	16,6 / 31	0,39 / 0,91	1,8 / 4,3	1,6 / 2,6	1,7 / 2,0	1,9 / 2,6	0,195
2,5 / 16	60/60%	D18XA122	490 / 2920	49 / 52	15,5 / 31	0,46 / 0,92	1,8 / 5,4	1,6 / 2,5	1,4 / 1,5	1,6 / 2,6	0,195
2,8 / 18	10/40%	D18XA122	490 / 2920	55 / 58	19,3 / 39,5	0,39 / 0,91	1,8 / 4,3	1,6 / 2,6	1,7 / 2,0	1,9 / 2,6	0,195

- P Nominal Powers for 50 Hz mains frequency, Duty S3-25/75%
- n Guideline values for rated speeds at the rotor shaft at 50 Hz line frequency
- M_N Rated torques at the rotor shaft
- I_N Rated currents 400 V Δ/YY (currents can be converted as inverse ratios of voltages from 400 V to the desired special voltage)
- cos φ Power factors
- I_A/I_N Relative starting currents
- M_A/M_N Relative breakaway torques
- M_S/M_N Relative pull-up torques
- M_K/M_N Relative beakdown torques
- J_{rot} Mass moment of inertia of the rotor

4-pole IE1 motors for continuous running duty S1 and 60 Hz mains frequency

For use after 16 June 2011 only in non-EU countries, except for brake motors

P _N	Type	n _N	M _N	I _N	Con- nec- tion	cos φ	η	η	η	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot}	Brake
kW		1/min	Nm	460 V A			(100% - Last) %	(75% - Last) %	(50% - Last) %					kgm ²	
0,03	D04LA4	1620	0,17	0,18	Y	0,60	-	-	-	2,4	2,9	2,9	3,3	0,000175	
0,04	D04LA4	1620	0,23	0,18	Y	0,60	-	-	-	2,4	2,2	2,2	2,5	0,000175	
0,06	D04LA4	1620	0,35	0,28	Y	0,60	-	-	-	2,5	2,3	2,3	2,7	0,000175	E003
0,09	D04LA4	1620	0,52	0,40	Y	0,69	-	-	-	2,7	2,4	2,4	2,9	0,000175	
0,12	D04LA4	1620	0,7	0,42	Y	0,73	-	-	-	2,5	1,9	1,9	2,1	0,000175	
0,06	D05LA4	1620	0,35	0,32	Y	0,72	-	-	-	4,1	4,1	3,8	4,1	0,000295	
0,09	D05LA4	1620	0,52	0,35	Y	0,70	-	-	-	4,3	3,3	3,1	3,3	0,000295	
0,12	D05LA4	1620	0,7	0,38	Y	0,73	-	-	-	3,7	2,4	2,3	2,4	0,000295	E003
0,18	D05LA4	1620	1,06	0,58	Y	0,70	-	-	-	3,7	2,5	2,4	2,6	0,000295	
0,25	D05LA4	1620	1,45	0,80	Y	0,69	-	-	-	3,6	2,5	2,4	2,5	0,000295	
0,06	D06LA4	1620	0,35	0,32	Y	0,72	-	-	-	4,1	4,1	3,8	4,1	0,000295	
0,09	D06LA4	1620	0,52	0,35	Y	0,70	-	-	-	4,3	3,3	3,1	3,3	0,000295	
0,12	D06LA4	1620	0,7	0,38	Y	0,73	-	-	-	3,7	2,4	2,3	2,4	0,000295	E003
0,18	D06LA4	1620	1,06	0,58	Y	0,70	-	-	-	3,7	2,5	2,4	2,6	0,000295	
0,25	D06LA4	1620	1,45	0,80	Y	0,69	-	-	-	3,6	2,5	2,4	2,5	0,000295	
0,3	D07LA4	1620	1,76	1,20	Y	0,60	-	-	-	3,0	3,0	3,0	3,1	0,000385	E003
0,37	D07LA4	1620	2,1	1,26	Y	0,66	-	-	-	2,8	2,4	2,4	2,4	0,000385	E004
0,55	DSE08MA4	1720	3,1	1,28	Y	0,72	75,4	75,2	73,0	4,6	2,3	2,2	2,7	0,00115	
0,75	DSE08LA4	1720	4,15	1,75	Y	0,69	78,2	77,0	72,7	4,8	2,5	2,4	2,9	0,00150	ES(X)010
1,1	DSE08XA4	1720	6,2	2,4	Y	0,71	79,0	77,0	73,0	4,1	2,2	2,0	2,4	0,00170	EH(X)027
1,1	DSE09SA4	1740	6,05	2,3	Y	0,72	83,6	82,6	79,2	6,5	3,6	3,3	4,0	0,00245	ES(X)010
1,5	DSE09LA4	1740	8,25	3,1	Y	0,72	84,2	83,5	80,4	6,5	3,4	3,1	4,0	0,00320	ES(X)027
2,2	DSE09XA4	1720	12,2	4,3	Y	0,76	84,9	85,0	83,0	6,2	3,3	3,0	3,6	0,00380	EH(X)040
3	DSE11SA4	1740	16,4	5,5	D	0,78	86,7	86,6	84,4	6,9	3,0	2,7	3,8	0,00810	ES(X)027
4	DSE11MA4	1740	21,9	7,2	D	0,81	86,2	86,4	84,9	6,9	3,3	2,7	3,7	0,01050	ES(X)040
5,5	DSE11LA4	1740	30,2	9,7	D	0,81	87,7	87,8	86	7,6	3,3	2,9	4,0	0,01400	ES(X)070
															EH(X)125
7,5	DSE13MA4	1760	41	13,3	D	0,80	89,1	89,1	87,6	7,6	3,4	2,9	3,6	0,02900	ES(X)040
9,5	DSE13LA4	1760	52	16,6	D	0,81	88,4	88,7	87,5	7,3	3,4	2,9	3,4	0,03450	ES(X)070
															EH(X)125
															EH(X)200
11	DSE16MA4	1760	59	19,3	D	0,80	88,7	88,8	87,5	6,9	2,9	2,2	3,0	0,05700	ES(X)125
15	DSE16LA4	1760	81	25,3	D	0,83	89,6	89,8	88,8	6,7	2,7	2,3	3,1	0,07600	ES(X)200
18,5	DSE16XA4	1760	100	32	D	0,81	90,5	89,7	88,7	6,7	2,8	2,4	3,1	0,08700	EH(X)400
															ZS(X)300
22	DSE18LA4	1760	120	36	D	0,85	91,1	91,2	89,9	7,4	3,3	2,7	3,1	0,16000	ES(X)250
30	DSE18XA4	1760	162	49	D	0,83	91,8	91,8	90,8	7,4	3,4	2,6	3,1	0,19500	EH(X)400
															ZS(X)500

- P Rated torque at 60 Hz mains frequency
n Typical rated rotor shaft speed at 60 Hz
Mains frequency
M_N Rated torque at rotor shaft
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 16)

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.

4-pole motors for continuous operation S1, line frequency 60 Hz

P _N	Type	n _N	M _N	I _N	Con- nec- tion	cosφ	η	η	η	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot}	Brake
kW		1/min	Nm	460 V A			(100% - Last) %	(75% - Last) %	(50% - Last) %					kgm ²	
0,03	D04LA4	1620	0,17	0,18	Y	0,60	-	-	-	2,4	2,9	2,9	3,3	0,000175	E003
0,04	D04LA4	1620	0,23	0,18	Y	0,60	-	-	-	2,4	2,2	2,2	2,5	0,000175	
0,06	D04LA4	1620	0,35	0,28	Y	0,60	-	-	-	2,5	2,3	2,3	2,7	0,000175	
0,09	D04LA4	1620	0,52	0,40	Y	0,69	-	-	-	2,7	2,4	2,4	2,9	0,000175	
0,12	D04LA4	1620	0,7	0,42	Y	0,73	-	-	-	2,5	1,9	1,9	2,1	0,000175	
0,06	D05LA4	1620	0,35	0,32	Y	0,72	-	-	-	4,1	4,1	3,8	4,1	0,000295	E003
0,09	D05LA4	1620	0,52	0,35	Y	0,70	-	-	-	4,3	3,3	3,1	3,3	0,000295	
0,12	D05LA4	1620	0,7	0,38	Y	0,73	-	-	-	3,7	2,4	2,3	2,4	0,000295	
0,18	D05LA4	1620	1,06	0,58	Y	0,70	-	-	-	3,7	2,5	2,4	2,6	0,000295	
0,25	D05LA4	1620	1,45	0,80	Y	0,69	-	-	-	3,6	2,5	2,4	2,5	0,000295	
0,06	D06LA4	1620	0,35	0,32	Y	0,72	-	-	-	4,1	4,1	3,8	4,1	0,000295	E003
0,09	D06LA4	1620	0,52	0,35	Y	0,70	-	-	-	4,3	3,3	3,1	3,3	0,000295	
0,12	D06LA4	1620	0,7	0,38	Y	0,73	-	-	-	3,7	2,4	2,3	2,4	0,000295	
0,18	D06LA4	1620	1,06	0,58	Y	0,70	-	-	-	3,7	2,5	2,4	2,6	0,000295	
0,25	D06LA4	1620	1,45	0,80	Y	0,69	-	-	-	3,6	2,5	2,4	2,5	0,000295	
0,3	D07LA4	1620	1,76	1,20	Y	0,60	-	-	-	3,0	3,0	3,0	3,1	0,000385	E003
0,37	D07LA4	1620	2,1	1,26	Y	0,66	-	-	-	2,8	2,4	2,4	2,4	0,000385	E004
0,75	DHE08XA4	1720	4,1	1,60	Y	0,72	82,5	81,0	78,0	5,1	2,5	2,4	3,0	0,0017	ES(X)010 EH(X)027
0,75	DHE09SA4	1740	4,1	1,60	Y	0,70	83,7	82,4	78,3	7,3	3,4	3,0	4,0	0,00245	ES(X)010 ES(X)027
1,1	DHE09LA4	1740	6,0	2,25	Y	0,73	84,8	83,8	80,4	7,3	3,6	3,3	4,3	0,0032	
1,5	DHE09XA4	1740	8,2	2,95	Y	0,74	85,8	85,2	82,5	7,2	3,7	3,5	4,3	0,0038	EH(X)040
2,2	DHE09XA4C	1760	12	4,0	Y	0,79	87,5	87,5	86,0	6,0	2,1	2,0	3,1	0,0053	
2,2	DHE11SA4	1760	12	4,0	Y	0,78	87,7	87,2	84,1	8,3	3,5	3,1	4,3	0,0081	ES(X)027
3	DHE11MA4	1760	16,5	5,5	D	0,78	87,6	87,2	83,9	7,9	3,9	3,1	4,4	0,0105	ES(X)040
4	DHE11LA4	1760	21,5	7,3	D	0,77	88,3	87,5	84,6	9,3	4,1	3,6	4,9	0,0140	ES(X)070
5,5	DHE11LA4C	1760	30	9,5	D	0,81	89,6	89,2	88,3	8,2	2,4	1,8	4,1	0,0162	EH(X)125
5,5	DHE13MA4	1760	30	9,7	D	0,80	89,7	89,3	87,1	8,5	3,8	3,3	4,0	0,0290	ES(X)040 ES(X)070
7,5	DHE13LA4	1760	40,5	13,2	D	0,80	89,6	89,2	87,2	8,2	3,9	3,4	4,0	0,0345	ES(X)125 EH(X)200
9,5	DHE16LA4	1780	51	16,5	D	0,79	91,4	90,1	88,0	9,1	3,7	3,2	4,1	0,076	ES(X)125
11	DHE16LA4	1780	59	19,6	D	0,78	91,0	90,5	88,6	8,7	3,8	3,2	4,2	0,076	ES(X)200
15	DHE16XA4	1780	81	27	D	0,77	91,0	90,8	88,6	7,9	3,8	3,4	4,2	0,087	EH(X)400 ZS(X)300
18,5	DHE18LA4	1780	100	31	D	0,82	92,5	91,2	89,1	8,7	3,9	3,3	3,6	0,160	ES(X)250
22	DHE18XA4	1780	118	38,5	D	0,79	92,5	92,0	89,0	9,5	4,6	3,6	4,3	0,195	EH(X)400 ZS(X)500
30	DHENF20LG4	1780	160	46	D	0,87	93,9	93,9	93,2	8,3	2,3	1,9	3,3	0,310	-
37	DHENF22SG4	1780	198	56	D	0,88	94,6	94,6	93,9	8,4	2,2	1,6	3,0	0,53	-
45	DHENF22MG4	1780	240	67	D	0,89	94,5	94,5	93,9	8,4	2,0	1,6	2,5	0,58	-
55	DHENF25MG4	1780	294	81	D	0,90	94,5	94,7	94,3	7,8	2,3	1,6	2,9	0,79	-
75	DHENF28MG4	1780	400	110	D	0,90	94,8	94,9	94,4	8,2	2,8	1,9	3,2	0,92	-

- P Rated output at 60 Hz line frequency
n Guideline value for rated speed at the rotor shaft at 60 Hz line frequency
M_N Rated torque at the rotor shaft
I_N Rated current at 460 V (the current can be converted as inverse ratios of voltages from 460 V to the desired special voltage)
cos φ Power factor
I_A/I_N Relative starting current
M_A/M_N Relative breakaway torque
M_S/M_N Relative pull-up torque
M_K/M_N Relative breakdown torque
J_{rot} Mass moment of inertia of the rotor
Brake recommended standard brake for normal requirements (see chapter 16)

Winding configuration for standard motors for 460 V / 60 Hz.

All motors are suitable for the voltage range 440...480V or 460V +/- 10% if executed in insulation class F.

Important: Current, power factor and torque change as voltage deviates from 460 V.

See "www.bauergears.com" for more information.

4-pole motors for intermittent periodic duty (S3/S6 75%) and 60 Hz mains frequency

P_N	Type	n_N	M_N	I_N	Connec- tion	$\cos \varphi$	I_A/I_N	M_A/M_N	M_S/M_N	M_K/M_N	J_{rot}	Brake
kW		1/min	Nm	460V A							kgm ²	
0,03	D04LA4	1620	0,17	0,18	Y	0,60	2,4	2,9	2,9	3,3	0,000175	E003
0,04	D04LA4	1620	0,23	0,18	Y	0,60	2,4	2,2	2,2	2,5	0,000175	
0,06	D04LA4	1620	0,35	0,28	Y	0,60	2,5	2,3	2,3	2,7	0,000175	
0,09	D04LA4	1620	0,52	0,40	Y	0,69	2,7	2,4	2,4	2,9	0,000175	
0,12	D04LA4	1620	0,7	0,42	Y	0,73	2,5	1,9	1,9	2,1	0,000175	
0,06	D05LA4	1620	0,35	0,32	Y	0,72	4,1	4,1	3,8	4,1	0,000295	E003
0,09	D05LA4	1620	0,52	0,35	Y	0,70	4,3	3,3	3,1	3,3	0,000295	
0,12	D05LA4	1620	0,7	0,38	Y	0,73	3,7	2,4	2,3	2,4	0,000295	
0,18	D05LA4	1620	1,06	0,58	Y	0,70	3,7	2,5	2,4	2,6	0,000295	
0,25	D05LA4	1620	1,45	0,80	Y	0,69	3,6	2,5	2,4	2,5	0,000295	
0,06	D06LA4	1620	0,35	0,32	Y	0,72	4,1	4,1	3,8	4,1	0,000295	E003
0,09	D06LA4	1620	0,52	0,35	Y	0,70	4,3	3,3	3,1	3,3	0,000295	
0,12	D06LA4	1620	0,7	0,38	Y	0,73	3,7	2,4	2,3	2,4	0,000295	
0,18	D06LA4	1620	1,06	0,58	Y	0,70	3,7	2,5	2,4	2,6	0,000295	
0,25	D06LA4	1620	1,45	0,80	Y	0,69	3,6	2,5	2,4	2,5	0,000295	
0,3	D07LA4	1620	1,76	1,20	Y	0,60	3,0	3,0	3,0	3,1	0,000385	E003
0,37	D07LA4	1620	2,1	1,26	Y	0,66	2,8	2,4	2,4	2,4	0,000385	E004
0,55	DSE08MA4	1720	3,1	1,28	Y	0,72	4,6	2,3	2,2	2,7	0,00115	ES(X)010 EH(X)027
0,75	DSE08LA4	1720	4,15	1,75	Y	0,69	4,8	2,5	2,4	2,9	0,00150	
1,1	DSE08XA4	1720	6,2	2,4	Y	0,71	4,1	2,2	2,0	2,4	0,00170	
1,1	DSE09SA4	1740	6,05	2,3	Y	0,72	6,5	3,6	3,3	4,0	0,00245	ES(X)010
1,5	DSE09LA4	1740	8,25	3,1	Y	0,72	6,5	3,4	3,1	4,0	0,00320	ES(X)027
2,2	DSE09XA4	1720	12,2	4,3	Y	0,76	6,2	3,3	3,0	3,6	0,00380	EH(X)40
3	DSE11SA4	1740	16,4	5,5	D	0,78	6,9	3,0	2,7	3,8	0,00810	ES(X)027
4	DSE11MA4	1740	21,9	7,2	D	0,81	6,9	3,3	2,7	3,7	0,01050	ES(X)040
5,5	DSE11LA4	1740	30,2	9,7	D	0,81	7,6	3,3	2,9	4,0	0,01400	ES(X)070 EH(X)125
7,5	DSE13MA4	1760	41	13,3	D	0,80	7,6	3,4	2,9	3,6	0,02900	ES(X)040 ES(X)070
9,5	DSE13LA4	1760	52	16,6	D	0,81	7,3	3,4	2,9	3,4	0,03450	ES(X)125 EH(X)200
11	DSE16MA4	1760	59	19,3	D	0,80	6,9	2,9	2,2	3,0	0,05700	ES(X)125
15	DSE16LA4	1760	81	25,3	D	0,83	6,7	2,7	2,3	3,1	0,07600	ES(X)200
18,5	DSE16XA4	1760	100	32	D	0,81	6,7	2,8	2,4	3,1	0,08700	EH(X)400 ZS(X)300
22	DSE18LA4	1760	120	36	D	0,85	7,4	3,3	2,7	3,1	0,16000	ES(X)250
30	DSE18XA4	1760	162	49	D	0,83	7,4	3,4	2,6	3,1	0,19500	EH(X)400 ZS(X)500

P Rated torque at 60 Hz mains frequency

n Typical rated rotor shaft speed at 60 Hz
Mains frequency

M_N Rated torque at rotor shaft

I_N Rated current at 460 V (for other special voltages, multiply by the inverse voltage ratio to convert the current at 460 V to the current at the desired voltage)

$\cos \varphi$ 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

Brake Brake configuration (see Section 16)

The standard motor winding configuration is for 460 V / 60 Hz.

4-pole motors for intermittent periodic duty (S3/S6) and 60 Hz mains frequency

P	ED	Type	n	M _N	I _N (460 V)	Connec- 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	Δ	0,85	4,4	1,8	1,5	2,2	0,0081
5,5	60%	D11MA4	1710	30,5	10,7	Δ	0,87	4,7	1,6	1,6	2,2	0,0105
7,5	60%	D11LA4	1710	41,5	14,6	Δ	0,87	5,0	2,0	1,9	2,3	0,014
9,5	60%	D13MA4	1710	53	17,3	Δ	0,87	5,4	2,1	1,8	2,4	0,029
11	60%	D13LA4	1710	60	20	Δ	0,84	6,0	2,6	2,3	2,7	0,0335
13,5	60%	D16MA4	1760	73	25,5	Δ	0,84	6,1	2,3	1,8	2,2	0,057
18,5	60%	D16LA4	1760	100	35	Δ	0,84	5,6	2,1	1,8	2,3	0,076
22	60%	D16XA4	1760	120	42	Δ	0,84	5,9	2,3	1,4	2,2	0,087
30	60%	D18LA4	1760	163	53	Δ	0,89	4,9	2,0	1,6	1,9	0,16
37	60%	D18XA4	1760	200	68	Δ	0,85	6,0	2,7	2,2	2,5	0,195

- P Rated output at 60 Hz mains frequency, S3/S6 duty
DC Permissible duty cycle
n Typical rated rotor shaft speed at 60 Hz
Mains frequency
M_N Rated shaft torque
I_N Rated current at 460 V (for other special voltages, multiply by the inverse voltage ratio to convert the current at 460 V to the current at the desired voltage)
cos φ Power factor
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 "www.bauergears.com" for additional information.

4/2-pole motors Δ/YY for continuous operation S1, line frequency 60 Hz

P kW	Type	n 1/min	M _N Nm	I _N (460 V) A	cos φ	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot} kgm ²
0,03 / 0,06	D04LA42	1620 / 3240	0,160 / 0,170	0,200 / 0,230	0,56 / 0,67	2,4 / 3,4	3,8 / 3,4	3,8 / 3,4	4,0 / 3,7	0,000175
0,04 / 0,08	D04LA42	1620 / 3240	0,230 / 0,230	0,230 / 0,260	0,60 / 0,75	2,2 / 3,1	3,3 / 2,3	3,3 / 2,3	3,7 / 2,4	0,000175
0,06 / 0,12	D05LA42	1620 / 3240	0,350 / 0,350	0,420 / 0,420	0,50 / 0,75	3,1 / 3,6	3,4 / 2,2	3,3 / 2,1	4,2 / 2,9	0,000295
0,08 / 0,16	D05LA42	1620 / 3240	0,470 / 0,470	0,460 / 0,460	0,55 / 0,75	3,1 / 3,6	3,1 / 2,0	3,0 / 1,9	3,8 / 2,5	0,000295
0,06 / 0,12	D06LA42	1620 / 3240	0,350 / 0,350	0,420 / 0,420	0,50 / 0,75	3,1 / 3,6	3,4 / 2,2	3,3 / 2,1	4,2 / 2,9	0,000295
0,08 / 0,16	D06LA42	1620 / 3240	0,470 / 0,470	0,460 / 0,460	0,55 / 0,75	3,1 / 3,6	3,1 / 2,0	3,0 / 1,9	3,8 / 2,5	0,000295
0,11 / 0,22	D06LA42	1620 / 3240	0,64 / 0,64	0,63 / 0,63	0,55 / 0,75	3,1 / 3,6	3,1 / 2,0	3,0 / 1,9	3,8 / 2,5	0,000295
0,16 / 0,32	D06LA42	1620 / 3240	0,94 / 0,94	0,82 / 0,82	0,57 / 0,80	3,1 / 3,6	2,8 / 1,9	2,7 / 1,8	3,4 / 2,3	0,000295
0,2 / 0,4	D07LA42	1680 / 3360	1,12 / 1,14	1,04 / 1,08	0,58 / 0,81	3,2 / 3,9	3,1 / 1,8	3,0 / 1,5	3,3 / 2,2	0,000385
0,28 / 0,56	D08MA42	1680 / 3360	1,58 / 1,58	1,10 / 1,60	0,61 / 0,81	3,7 / 3,2	2,5 / 1,7	2,5 / 1,5	3,3 / 2,1	0,00115
0,4 / 0,8	D08LA42	1680 / 3360	2,2 / 2,2	1,40 / 1,74	0,62 / 0,90	5,1 / 5,6	3,0 / 2,0	2,6 / 1,9	3,4 / 2,3	0,0015
0,5 / 1,0	D09SA42	1680 / 3360	2,8 / 2,8	1,60 / 2,6	0,71 / 0,91	5,5 / 4,6	3,4 / 2,2	3,4 / 2,2	4,2 / 2,6	0,00245
0,7 / 1,4	D09SA42	1680 / 3360	3,9 / 3,9	1,93 / 3,1	0,71 / 0,93	5,1 / 4,5	2,8 / 1,8	2,8 / 1,8	3,4 / 2,2	0,00245
1,0 / 2,0	D09LA42	1680 / 3360	5,6 / 5,6	2,8 / 4,3	0,72 / 0,94	5,1 / 4,5	2,8 / 1,8	2,8 / 1,8	3,4 / 2,2	0,0032
1,2 / 2,4	D09XA42	1680 / 3360	6,8 / 6,7	3,4 / 5,2	0,65 / 0,87	6,8 / 3,3	2,7 / 2,0	2,7 / 2,0	3,4 / 2,5	0,0038
1,4 / 2,8	D11SA42	1710 / 3420	7,8 / 7,8	3,3 / 5,7	0,74 / 0,90	7,0 / 4,9	3,3 / 1,9	2,8 / 1,6	4,5 / 3,1	0,0081
2,0 / 4,0	D11MA42	1710 / 3420	11,2 / 11,1	5,1 / 8,4	0,70 / 0,90	7,3 / 5,9	3,4 / 2,3	3,0 / 1,8	4,1 / 2,8	0,0105
2,5 / 5,0	D11LA42	1710 / 3420	14 / 14	5,0 / 9,1	0,79 / 0,92	6,1 / 5,0	3,1 / 2,0	3,0 / 1,9	4,1 / 2,8	0,014
3,5 / 7,0	D13MA42	1710 / 3420	19,1 / 19,1	7,5 / 13,5	0,76 / 0,91	7,4 / 5,7	3,7 / 2,2	3,1 / 2,0	4,2 / 3,0	0,029
4,5 / 9,0	D13LA42	1710 / 3420	25 / 25	9,6 / 17,3	0,76 / 0,91	7,4 / 6,0	3,5 / 2,1	2,8 / 1,9	3,8 / 2,7	0,0345
5,5 / 11	D16MA42	1760 / 3520	30 / 29,5	12,4 / 22,5	0,73 / 0,91	7,3 / 5,7	3,1 / 1,9	2,4 / 1,3	3,5 / 2,5	0,057
7,0 / 14	D16LA42	1760 / 3520	37,5 / 37,5	14,1 / 26	0,78 / 0,92	7,9 / 6,0	3,4 / 2,3	2,7 / 1,5	3,6 / 2,8	0,076
9,0 / 18	D16XA42	1760 / 3520	48,5 / 48,5	17,6 / 34	0,79 / 0,92	8,7 / 6,4	3,1 / 2,0	2,4 / 1,3	3,4 / 2,4	0,087
12,5 / 25	D18LA42	1760 / 3520	68 / 67	26,5 / 45,5	0,77 / 0,89	9,3 / 7,7	4,3 / 3,1	3,7 / 2,1	4,2 / 3,3	0,16
16 / 32	D18XA42	1760 / 3520	86 / 86	35 / 60	0,77 / 0,89	8,5 / 7,1	4,1 / 2,8	3,4 / 2,0	3,9 / 3,1	0,195

P	Rated outputs at 60 Hz line frequency
n	Guideline values for rated speeds at the rotor shaft at 60 Hz line frequency
M _N	Rated torques at the rotor shaft
I _N	Rated currents 460 V Δ/YY (currents can be converted as inverse ratios of voltages from 460 V to the desired special voltage)
cos φ	Power factors
I _A /I _N	Relative starting currents
M _A /M _N	Relative breakaway torques
M _S /M _N	Relative pull-up torques
M _K /M _N	Relative breakdown torques
J _{rot}	Mass moment of inertia of the rotor

8/4-pole motors Δ/YY for continuous operation S1, line frequency 60 Hz

P kW	Type	n 1/min	M _N Nm	I _N (460 V) A	cos φ	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot} kgm ²
0,03 / 0,06	D05LA84	810 / 1620	0,340 / 0,350	0,280 / 0,260	0,52 / 0,71	1,8 / 2,8	3,0 / 2,1	1,8 / 1,9	1,8 / 1,9	0,000295
0,03 / 0,06	D06LA84	810 / 1620	0,340 / 0,350	0,280 / 0,260	0,52 / 0,71	1,8 / 2,8	3,0 / 2,1	1,8 / 1,9	1,8 / 1,9	0,000295
0,04 / 0,08	D06LA84	810 / 1620	0,450 / 0,460	0,440 / 0,370	0,52 / 0,66	1,5 / 2,4	2,9 / 2,3	1,8 / 1,9	1,8 / 1,9	0,000295
0,06 / 0,12	D07LA84	810 / 1620	0,70 / 0,70	0,65 / 0,55	0,52 / 0,66	1,9 / 3,1	3,5 / 1,9	3,5 / 1,7	3,6 / 2,3	0,000385
0,06 / 0,12	D08LA84	840 / 1680	0,67 / 0,67	0,460 / 0,460	0,61 / 0,83	3,1 / 4,1	3,4 / 2,5	3,4 / 2,5	3,9 / 3,2	0,0025
0,08 / 0,16	D08LA84	840 / 1680	0,90 / 0,90	0,57 / 0,57	0,61 / 0,83	3,1 / 4,1	3,3 / 2,4	3,3 / 2,4	3,9 / 3,3	0,0025
0,11 / 0,22	D08LA84	840 / 1680	1,24 / 1,25	0,74 / 0,74	0,61 / 0,83	3,1 / 4,1	3,1 / 2,3	3,1 / 2,3	3,7 / 3,1	0,0025
0,14 / 0,28	D08LA84	840 / 1680	1,58 / 1,59	0,92 / 0,92	0,61 / 0,83	3,1 / 4,1	3,1 / 2,3	3,1 / 2,3	3,7 / 3,1	0,0025
0,2 / 0,4	D08LA84	840 / 1680	2,2 / 2,2	1,05 / 1,20	0,55 / 0,77	3,1 / 4,1	2,5 / 1,9	2,5 / 1,9	3,0 / 2,5	0,0025
0,25 / 0,5	D09XC84	840 / 1680	2,8 / 2,8	1,28 / 1,28	0,48 / 0,77	3,2 / 5,5	3,0 / 2,2	3,0 / 2,3	3,4 / 3,0	0,006
0,28 / 0,56	D09XC84	840 / 1680	3,1 / 3,1	1,29 / 1,38	0,57 / 0,80	3,2 / 5,4	2,7 / 2,0	2,7 / 2,1	3,1 / 2,7	0,006
0,4 / 0,8	D09XC84	840 / 1680	4,5 / 4,5	1,80 / 2,2	0,55 / 0,79	3,1 / 4,6	2,5 / 1,9	2,5 / 2,0	3,0 / 2,5	0,006
0,5 / 1,0	D09XC84	840 / 1680	5,6 / 5,6	2,2 / 2,4	0,55 / 0,81	2,9 / 4,4	2,4 / 1,8	2,4 / 1,8	2,8 / 2,4	0,006
0,8 / 1,6	D11LC84	850 / 1710	8,9 / 8,9	2,8 / 3,8	0,63 / 0,88	3,8 / 4,7	2,4 / 2,1	2,4 / 1,9	3,1 / 3,0	0,0215
1,1 / 2,2	D11LC84	850 / 1710	12,2 / 12,2	3,7 / 4,5	0,58 / 0,85	4,3 / 6,2	2,5 / 2,3	2,5 / 1,9	3,0 / 2,7	0,0215
1,6 / 3,2	D11LC84	850 / 1710	17,9 / 17,9	5,5 / 7,0	0,59 / 0,84	4,1 / 5,6	2,4 / 2,0	2,3 / 1,6	2,8 / 2,5	0,0215
2,2 / 4,4	D13LC84	850 / 1710	24 / 24	6,6 / 8,7	0,60 / 0,87	4,7 / 5,9	2,3 / 1,9	2,3 / 1,5	3,2 / 3,1	0,046
2,8 / 5,6	D13LC84	850 / 1710	31 / 31	8,6 / 11,2	0,60 / 0,86	4,7 / 5,9	2,3 / 1,9	2,3 / 1,5	3,2 / 3,1	0,046
3,5 / 7,0	D16MA84	880 / 1760	38 / 38	12,7 / 14,2	0,59 / 0,84	3,6 / 5,4	2,3 / 2,0	2,0 / 1,5	2,3 / 2,4	0,057
5,0 / 10	D16LA84	880 / 1760	54 / 54	16,1 / 18,9	0,57 / 0,87	3,9 / 6,1	2,3 / 2,0	2,1 / 1,5	2,3 / 2,4	0,076
7,0 / 14	D16XA84	880 / 1760	76 / 75	22,5 / 26,5	0,60 / 0,84	3,6 / 5,7	2,3 / 2,1	2,2 / 1,8	2,3 / 2,6	0,087
8,0 / 16	D18LA84	880 / 1760	87 / 86	22 / 30	0,60 / 0,86	4,1 / 6,0	2,4 / 2,4	2,0 / 2,0	2,1 / 2,3	0,16
10 / 20	D18XA84	880 / 1760	108 / 108	27,5 / 37,5	0,60 / 0,86	4,1 / 6,0	2,4 / 2,4	2,0 / 2,0	2,1 / 2,3	0,195

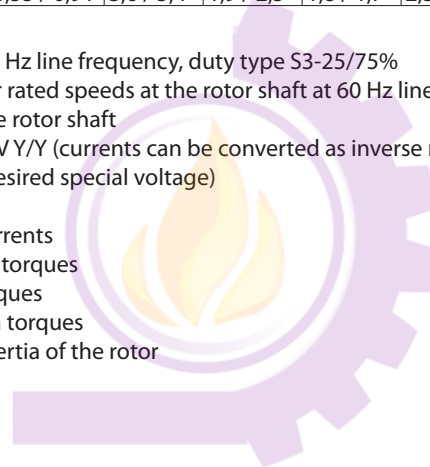
P	Rated outputs at 60 Hz line frequency
n	Guideline values for rated speeds at the rotor shaft at 60 Hz line frequency
M _N	ated torques at the rotor shaft
I _N	Rated currents 460 V Δ/YY (currents can be converted as inverse ratios of volt-ages from 460 V to the desired special voltage)
cos φ	Power factors
I _A /I _N	Relative starting currents
M _A /M _N	Relative breakaway torques
M _S /M _N	Relative pull-up torques
M _K /M _N	Relative breakdown torques
J _{rot}	Mass moment of inertia of the rotor

8/2-pole motors Y/Y for intermittent periodic duty S3-25/75%, line frequency 60 Hz

P kW	ED	Type	n 1/min	M _N Nm	I _N (460 V) A	cos φ	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot} kgm ²
0,04 / 0,16	25/75%	D05LA82	810 / 3240	0,460 / 0,470	0,370 / 0,74	0,63 / 0,75	1,8 / 3,5	2,1 / 2,4	2,1 / 2,3	2,2 / 2,5	0,000295
0,05 / 0,20	25/75%	D06LA82	810 / 3240	0,58 / 0,59	0,470 / 0,94	0,63 / 0,75	1,5 / 3,1	1,9 / 2,2	1,9 / 2,1	2,0 / 2,3	0,000295
0,063 / 0,25	25/75%	D07LA82	800 / 3420	0,75 / 0,75	0,55 / 1,10	0,69 / 0,62	1,5 / 2,8	1,8 / 1,5	1,8 / 1,5	2,0 / 3,0	0,000385
0,071 / 0,28	25/75%	D07LA82	800 / 3420	0,82 / 0,81	0,60 / 1,30	0,69 / 0,68	1,5 / 2,8	1,7 / 1,4	1,7 / 1,4	1,9 / 2,9	0,000385
0,063 / 0,25	25/75%	D08LA82	840 / 3360	0,70 / 0,71	0,51 / 0,65	0,55 / 0,87	3,1 / 4,4	2,6 / 2,9	2,6 / 2,8	3,1 / 3,3	0,0015
0,09 / 0,36	25/75%	D08LA82	840 / 3360	1,01 / 1,01	0,65 / 0,98	0,60 / 0,92	3,2 / 4,9	2,2 / 2,9	2,2 / 2,8	2,7 / 3,2	0,0015
0,12 / 0,50	25/75%	D08LA82	840 / 3360	1,41 / 1,41	0,90 / 1,33	0,60 / 0,92	3,2 / 4,9	2,2 / 2,9	2,2 / 2,8	2,7 / 3,2	0,0015
0,16 / 0,63	25/75%	D08LA82	840 / 3360	1,79 / 1,75	1,12 / 1,35	0,63 / 0,90	2,2 / 5,0	2,0 / 2,3	2,0 / 2,2	2,5 / 2,7	0,0015
0,25 / 1,0	25/75%	D09XA82	840 / 3360	2,8 / 2,8	1,19 / 2,1	0,62 / 0,90	2,4 / 5,7	2,1 / 2,5	2,1 / 2,5	2,2 / 2,8	0,0038
0,36 / 1,4	25/75%	D09XA82	840 / 3360	4,0 / 3,9	1,91 / 3,0	0,57 / 0,87	2,2 / 4,9	2,1 / 2,3	2,1 / 2,3	2,2 / 2,6	0,0038
0,45 / 1,8	25/75%	D09XA82	840 / 3360	5,1 / 5,0	2,2 / 3,9	0,65 / 0,89	2,2 / 4,7	1,9 / 2,2	1,9 / 2,2	2,2 / 2,7	0,0038
0,56 / 2,2	25/75%	D11LA82	850 / 3420	6,2 / 6,0	2,1 / 4,3	0,60 / 0,94	3,5 / 5,4	2,1 / 3,2	2,1 / 2,6	2,4 / 3,2	0,014
0,71 / 2,8	25/75%	D11LA82	850 / 3420	7,9 / 7,8	2,5 / 5,1	0,58 / 0,94	2,7 / 5,1	2,1 / 2,5	2,1 / 2,2	2,3 / 2,6	0,014
0,90 / 3,6	25/75%	D11LA82	850 / 3420	10 / 10	3,2 / 7,2	0,58 / 0,94	2,7 / 4,9	2,0 / 2,2	2,0 / 2,0	2,2 / 2,3	0,014
1,10 / 4,5	25/75%	D13LA82	850 / 3420	12,2 / 12,5	3,6 / 9,2	0,59 / 0,90	3,1 / 5,9	2,0 / 2,7	2,0 / 2,0	2,5 / 3,0	0,0345
1,25 / 5,0	25/75%	D13LA82	850 / 3420	14 / 13,9	4,2 / 10,7	0,59 / 0,88	3,2 / 5,9	1,8 / 2,6	1,8 / 2,0	2,3 / 3,0	0,0345
1,6 / 6,3	25/75%	D16XA82	880 / 3520	16,6 / 17	7,0 / 12,3	0,48 / 0,88	3,9 / 7,1	2,6 / 3,3	2,4 / 2,3	3,0 / 3,3	0,087
2,0 / 8,0	25/75%	D16XA82	880 / 3520	21 / 21,5	8,9 / 15,5	0,50 / 0,89	3,9 / 6,7	2,6 / 3,3	2,3 / 2,2	3,0 / 3,3	0,087
2,8 / 11	25/75%	D16XA82	880 / 3520	30,5 / 29,5	10,7 / 22,5	0,53 / 0,91	3,3 / 6,5	2,0 / 3,2	1,8 / 2,2	2,1 / 3,1	0,087
3,6 / 14	25/75%	D18XA82	880 / 3520	39 / 38	12,7 / 28,5	0,55 / 0,91	3,6 / 5,4	1,9 / 2,5	1,8 / 1,7	2,3 / 2,7	0,195
4,0 / 16	25/75%	D18XA82	880 / 3520	43 / 43	14,1 / 32,5	0,55 / 0,91	3,6 / 5,4	1,9 / 2,5	1,8 / 1,7	2,3 / 2,7	0,195
5,0 / 20	25/75%	D18XA82	880 / 3520	54 / 54	17,5 / 40	0,55 / 0,91	3,6 / 5,4	1,9 / 2,5	1,8 / 1,7	2,3 / 2,7	0,195

- P Rated outputs at 60 Hz line frequency, duty type S3-25/75%
- n Guideline values for rated speeds at the rotor shaft at 60 Hz line frequency
- M_N Rated torques at the rotor shaft
- I_N Rated currents 460 V Y/Y (currents can be converted as inverse ratios of voltages from 460 V to the desired special voltage)
- cos φ Power factors
- I_A/I_N Relative starting currents
- M_A/M_N Relative breakaway torques
- M_S/M_N Relative pull-up torques
- M_K/M_N Relative breakdown torques
- J_{rot} Mass moment of inertia of the rotor

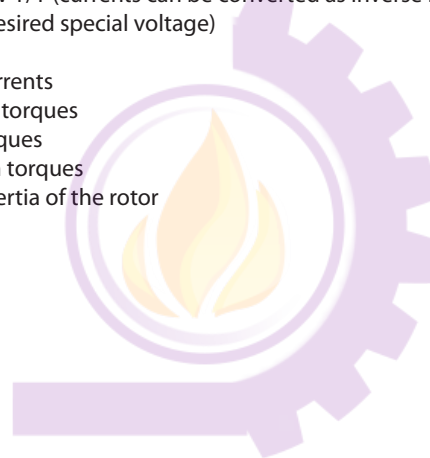
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12/2-pole motors Y/Y for intermittent periodic duty S3-25/75%, line frequency 60 Hz

P kW	ED	Type	n 1/min	M _N Nm	I _N (460 V) A	cos φ	I _A /I _N	M _A /M _N	M _S /M _N	M _K /M _N	J _{rot} kgm ²
0,045 / 0,28	25/75%	D08LA122	560 / 3360	0,76 / 0,79	0,51 / 0,79	0,70 / 0,90	1,5 / 4,9	2,1 / 2,7	2,1 / 2,7	2,1 / 3,0	0,0015
0,063 / 0,40	25/75%	D08LA122	560 / 3360	1,07 / 1,13	0,61 / 1,02	0,70 / 0,90	1,5 / 4,9	1,9 / 2,4	1,9 / 2,4	1,9 / 2,7	0,0015
0,09 / 0,56	25/75%	D08LA122	560 / 3360	1,54 / 1,59	0,95 / 1,35	0,63 / 0,89	1,5 / 4,5	1,9 / 2,3	1,9 / 2,5	2,0 / 2,6	0,0015
0,11 / 0,71	25/75%	D09XA122	560 / 3360	1,88 / 2,0	1,00 / 1,50	0,59 / 0,88	1,6 / 6,0	1,9 / 3,0	1,9 / 2,9	2,0 / 3,6	0,0038
0,16 / 1,0	25/75%	D09XA122	560 / 3360	2,7 / 2,8	1,56 / 2,2	0,62 / 0,89	1,6 / 6,0	2,0 / 2,9	2,0 / 2,7	2,0 / 3,6	0,0038
0,2 / 1,25	25/75%	D09XA122	560 / 3360	3,4 / 3,5	1,85 / 2,8	0,62 / 0,89	1,6 / 5,5	1,9 / 2,6	1,9 / 2,5	1,9 / 3,4	0,0038
0,25 / 1,6	25/75%	D11LA122	560 / 3420	4,2 / 4,4	2,1 / 3,1	0,53 / 0,95	1,8 / 5,4	1,9 / 2,8	1,9 / 2,6	2,2 / 3,1	0,014
0,32 / 2,0	25/75%	D11LA122	560 / 3420	5,4 / 5,5	2,7 / 3,6	0,53 / 0,94	1,8 / 5,1	1,9 / 2,7	1,9 / 2,4	2,2 / 3,0	0,014
0,45 / 2,8	25/75%	D11LA122	560 / 3420	7,6 / 7,8	3,8 / 5,1	0,52 / 0,94	1,8 / 5,1	1,6 / 2,5	1,6 / 2,2	2,0 / 2,6	0,014
0,63 / 4,0	25/75%	D13LA122	560 / 3420	10,7 / 11,1	3,8 / 7,9	0,45 / 0,95	1,8 / 6,1	1,8 / 2,6	1,8 / 2,0	2,0 / 3,0	0,0345
0,80 / 5,0	25/75%	D13LA122	560 / 3420	13,5 / 14	5,8 / 10,3	0,41 / 0,92	1,9 / 5,8	1,6 / 3,0	1,6 / 2,1	2,2 / 3,2	0,0345
1,0 / 6,3	25/75%	D16XA122	590 / 3520	16,3 / 16,6	7,3 / 12,2	0,35 / 0,90	2,4 / 6,9	2,1 / 3,0	2,1 / 1,9	2,6 / 3,1	0,087
1,25 / 8,0	25/75%	D16XA122	590 / 3520	20 / 21,5	9,0 / 15,4	0,35 / 0,90	2,4 / 6,9	2,1 / 3,0	2,1 / 1,8	2,6 / 3,1	0,087
1,6 / 10	25/75%	D16XA122	590 / 3520	25 / 26,5	9,6 / 19,1	0,40 / 0,92	2,1 / 5,9	1,8 / 2,6	1,8 / 1,5	2,3 / 2,6	0,087
2,4 / 14	25/75%	D18XA122	590 / 3520	39 / 37,5	15,1 / 28,5	0,39 / 0,91	2,0 / 4,7	1,8 / 2,8	1,9 / 2,2	2,1 / 2,8	0,195
2,5 / 16	60/60%	D18XA122	590 / 3520	40,5 / 43	14,1 / 28,5	0,46 / 0,92	2,0 / 5,9	1,8 / 2,7	1,5 / 1,6	1,8 / 2,8	0,195
2,8 / 18	10/40%	D18XA122	590 / 3520	45,5 / 48	17,6 / 36	0,39 / 0,91	2,0 / 4,7	1,8 / 2,8	1,9 / 2,2	2,1 / 2,8	0,195

- P Rated outputs at 60 Hz line frequency, duty type S3-25/75%
- n Guideline values for rated speeds at the rotor shaft at 60 Hz line frequency
- M_N Rated torques at the rotor shaft
- I_N Rated currents 460 V Y/Y (currents can be converted as inverse ratios of voltages from 460 V to the desired special voltage)
- cos φ Power factors
- I_A/I_N Relative starting currents
- M_A/M_N Relative breakaway torques
- M_S/M_N Relative pull-up torques
- M_K/M_N Relative breakdown torques
- J_{rot} Mass moment of inertia of the rotor



The figures given in the table below are for Bauer motors operating in conjunction with the frequency inverter. The torques referred to in tables can be entered for the respective frequencies in continuous operation (S1 = duty factor 100%).

Motor torques for frequency-converter range 5 Hz - 70 Hz, line frequency 50 Hz

P kW	Type	Con- nec- tion	5 Hz	10 Hz	20 Hz	30 Hz	50 Hz	60 Hz	70 Hz	5 Hz	10 Hz	20 Hz	30 Hz	50 Hz	60 Hz	70 Hz
			M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	I A	I A	I A	I A	I A	I A
0,03	D04LA4	Y	0,125	0,155	0,185	0,205	0,210	0,210	0,180	0,190	0,193	0,198	0,200	0,200	0,230	0,230
0,04	D04LA4	Y	0,165	0,210	0,250	0,275	0,280	0,275	0,205	0,190	0,193	0,198	0,200	0,200	0,230	0,200
0,06	D04LA4	Y	0,250	0,315	0,375	0,410	0,420	0,420	0,320	0,290	0,295	0,300	0,300	0,300	0,340	0,305
0,09	D04LA4	Y	0,375	0,470	0,56	0,62	0,63	0,63	0,52	0,435	0,440	0,450	0,450	0,450	0,51	0,495
0,12	D04LA4	Y	0,50	0,63	0,75	0,82	0,84	0,69	0,50	0,440	0,450	0,455	0,460	0,460	0,460	0,450
0,06	D05LA4	Y	0,250	0,315	0,375	0,410	0,420	0,420	0,360	0,300	0,315	0,340	0,350	0,350	0,395	0,400
0,09	D05LA4	Y	0,375	0,470	0,56	0,62	0,63	0,63	0,54	0,355	0,365	0,375	0,380	0,380	0,430	0,430
0,12	D05LA4	Y	0,51	0,63	0,76	0,83	0,85	0,81	0,59	0,370	0,385	0,410	0,420	0,420	0,455	0,410
0,18	D05LA4	Y	0,76	0,96	1,15	1,26	1,28	1,28	0,97	0,59	0,60	0,62	0,63	0,63	0,72	0,64
0,25	D05LA4	Y	1,05	1,31	1,57	1,72	1,75	1,74	1,28	0,85	0,86	0,87	0,88	0,88	1,00	0,88
0,06	D06LA4	Y	0,250	0,315	0,375	0,410	0,420	0,420	0,360	0,300	0,315	0,340	0,350	0,350	0,395	0,400
0,09	D06LA4	Y	0,375	0,470	0,56	0,62	0,63	0,63	0,54	0,355	0,365	0,375	0,380	0,380	0,430	0,430
0,12	D06LA4	Y	0,51	0,63	0,76	0,83	0,85	0,81	0,59	0,37	0,385	0,41	0,420	0,42	0,455	0,41
0,18	D06LA4	Y	0,76	0,96	1,15	1,26	1,28	1,28	0,97	0,59	0,60	0,62	0,63	0,63	0,72	0,64
0,25	D06LA4	Y	1,05	1,32	1,58	1,73	1,76	1,75	1,29	0,85	0,87	0,88	0,89	0,89	1,01	0,89
0,3	D07LA4	Y	1,27	1,59	1,9	2,0	2,1	2,1	1,81	1,25	1,27	1,29	1,30	1,30	1,47	1,47
0,37	D07LA4	Y	1,57	1,96	2,3	2,5	2,6	2,5	1,83	1,30	1,32	1,34	1,35	1,35	1,46	1,34
0,37	DHE08MA4	Y	1,47	1,83	2,2	2,4	2,4	2,4	2,1	1,18	1,19	1,2	1,2	1,2	1,36	1,36
0,55	DHE08LA4	Y	2,2	2,8	3,3	3,6	3,7	3,7	2,8	1,13	1,21	1,3	1,36	1,36	1,54	1,38
0,75	DHE08XA4	Y	3	3,8	4,5	4,9	5	5	4,2	1,68	1,75	1,83	1,88	1,88	2,2	2,2
0,75	DHE09SA4	Y	3	3,8	4,5	4,9	5	5	4,2	1,59	1,66	1,75	1,8	1,8	2,1	2,1
1,1	DHE09LA4	Y	4,3	5,4	6,5	7,2	7,3	7,3	6,2	2,2	2,4	2,5	2,6	2,6	2,9	2,9
1,5	DHE09XA4	Y	5,9	7,4	8,9	9,8	9,9	9,9	8,5	2,8	3,1	3,2	3,4	3,4	3,8	3,8
2,2	DHE09XA4C	Y	8,7	10,8	13	14,3	14,5	14,5	12,4	3,8	4,2	4,5	4,8	4,8	5,4	5,4
2,2	DHE11SA4	Y	8,7	10,8	13	14,3	14,5	14,5	12,4	3,6	3,9	4,4	4,6	4,6	5,2	5,3
3	DHE11MA4	Y	12	15	18	19,7	20	20	17,1	4,9	5,4	5,9	6,3	6,3	7,2	7,2
4	DHE11LA4	Y	15,9	19,8	23,5	26	26,5	26,5	22,5	6,5	7,2	7,9	8,4	8,4	9,5	9,5
5,5	DHE11LA4C	Y	21,5	27	32	35,5	36	36	30,5	8,1	9	10	10,7	10,7	12,1	12,1
5,5	DHE13MA4	Y	21,5	27	32	35,5	36	36	30,5	8,2	9,2	10,3	11	11	12,5	12,5
7,5	DHE13LA4	Y	29	36,5	44	48	49	49	42	11,2	12,6	14,1	15	15,1	17,1	17,1
9,5	DHE16MA4	Y	37	46,5	55	61	62	62	53	14,8	16,5	18,4	19,6	19,7	22,5	22,5
11	DHE16LA4	Y	42,5	53	64	70	71	71	61	17,2	19	21,5	22,5	22,5	25,5	25,5
15	DHE16XA4	Y	58	73	87	96	97	97	83	24	26,5	29,5	31	31	35	35,5
18,5	DHE18LA4	Y	72	90	108	118	120	120	102	25	28,5	32,5	35	35	39,5	40
22	DHE18XA4	Y	85	106	127	140	142	142	121	33,5	37	41	43,5	43,5	49,5	49,5
30	DHENF20LG4	Y	116	145	174	191	194	194	166	37	43	49,5	54	54	61	62
37	DHENF22SG4	Y	142	178	210	235	235	235	200	43	51	59	64	64	73	73
45	DHENF22MG4	Y	173	215	260	285	285	275	200	52	61	71	78	78	85	73
55	DHENF25MG4	Y	210	265	315	350	355	355	280	62	73	86	93	94	107	99
75	DHENF25MG4	Y	290	360	435	475	480	480	410	61	72	85	93	94	107	107

Field weakening for frequencies above 50 Hz, winding for standard voltage **400 V Y / 50 Hz**, Temperature Class F.

P	Rated output
n	Guideline value for rated speed at the rotor shaft
M	permissible load torque (S1-100%) for operation with frequency inverter
M _N	Rated torque at the rotor shaft
I	Load current for operation with frequency inverter

Motors with standard windings can be switched from Y- to Δ- circuit for operation with a converter having a single-phase mains connection. This has no effect on the torques and frequencies as listed in the table above. As regards the choice of converter, however, note that currents are higher than those of the Y-circuit by a factor of 1.73.

The load currents in the table are guideline values for selecting the size of frequency inverter. Load current is lower if the load torque is below the values permitted for 30-70 Hz and the frequency inverter used is of the high-grade type. This means that a smaller inverter can sometimes be used, particularly in conjunction with large motors.

Motor torques for frequency-converter range 5 Hz - 100 Hz, line frequency 50 Hz

P kW	Type	Connection	5 Hz	8,7 Hz	10 Hz	20 Hz	87 Hz	100 Hz	5 Hz	8,7 Hz	10 Hz	20 Hz	87 Hz	100 Hz
			M	M	M	M	M	M	M	I	I	I	I	I
			Nm	Nm	Nm	Nm	Nm	Nm	A	A	A	A	A	A
0,03	D04LA4	D	0,125	0,15	0,155	0,185	0,21	0,21	0,33	0,335	0,335	0,345	0,35	0,38
0,04	D04LA4	D	0,165	0,2	0,21	0,25	0,28	0,28	0,33	0,335	0,335	0,345	0,35	0,38
0,06	D04LA4	D	0,25	0,3	0,315	0,375	0,42	0,42	0,51	0,51	0,51	0,52	0,52	0,57
0,09	D04LA4	D	0,375	0,45	0,47	0,56	0,63	0,63	0,76	0,76	0,77	0,78	0,78	0,86
0,12	D04LA4	D	0,5	0,6	0,63	0,75	0,84	0,75	0,76	0,77	0,78	0,79	0,8	0,8
0,06	D05LA4	D	0,25	0,3	0,315	0,375	0,42	0,42	0,52	0,54	0,55	0,59	0,61	0,67
0,09	D05LA4	D	0,375	0,45	0,47	0,56	0,63	0,63	0,62	0,63	0,63	0,65	0,66	0,73
0,12	D05LA4	D	0,51	0,61	0,63	0,76	0,85	0,85	0,64	0,67	0,67	0,71	0,73	0,8
0,18	D05LA4	D	0,76	0,92	0,96	1,15	1,28	1,28	1,01	1,04	1,04	1,07	1,1	1,2
0,25	D05LA4	D	1,05	1,25	1,31	1,57	1,75	1,75	1,46	1,48	1,49	1,51	1,53	1,68
0,06	D06LA4	D	0,25	0,3	0,315	0,375	0,42	0,42	0,52	0,54	0,55	0,59	0,61	0,67
0,09	D06LA4	D	0,375	0,45	0,47	0,56	0,63	0,63	0,62	0,63	0,63	0,65	0,66	0,73
0,12	D06LA4	D	0,51	0,61	0,63	0,76	0,85	0,85	0,64	0,67	0,67	0,71	0,73	0,8
0,18	D06LA4	D	0,76	0,92	0,96	1,15	1,28	1,28	1,01	1,04	1,04	1,07	1,1	1,2
0,25	D06LA4	D	1,05	1,26	1,32	1,58	1,76	1,76	1,47	1,49	1,5	1,53	1,55	1,69
0,3	D07LA4	D	1,27	1,52	1,59	1,9	2,1	2,1	2,2	2,2	2,2	2,2	2,3	2,5
0,37	D07LA4	D	1,57	1,88	1,96	2,3	2,6	2,6	2,2	2,3	2,3	2,4	2,4	2,6
0,37	DHE08MA4	D	1,47	1,76	1,83	2,2	2,4	2,4	2,1	2,1	2,1	2,1	2,1	2,3
0,55	DHE08LA4	D	2,2	2,6	2,8	3,3	3,7	3,7	1,95	2,1	2,1	2,2	2,4	2,6
0,75	DHE08XA4	D	3	3,6	3,8	4,5	5	5	3	3,1	3,1	3,2	3,3	3,6
0,75	DHE09SA4	D	3	3,6	3,8	4,5	5	5	2,8	2,8	2,9	3,1	3,2	3,5
1,1	DHE09LA4	D	4,3	5,2	5,4	6,5	7,3	7,3	3,8	4	4	4,2	4,5	4,9
1,5	DHE09XA4	D	5,9	7,1	7,4	8,9	9,9	9,9	4,6	5	5,1	5,5	5,9	6,4
2,2	DHE09XA4C	D	8,7	10,4	10,8	13	14,5	14,5	6,7	7,1	7,2	7,8	8,3	9,1
2,2	DHE11SA4	D	8,7	10,4	10,8	13	14,5	14,5	6,2	6,7	6,8	7,5	8	8,8
3	DHE11MA4	D	12	14,3	15	18	20	20	8,4	9,1	9,3	10,3	11	12
4	DHE11LA4	D	15,9	19	19,8	23,5	26,5	26,5	11,9	12,6	12,8	13,9	14,6	16
5,5	DHE11LA4C	D	21,5	25,5	27	32	36	36	14,2	15,6	15,9	17,8	19,1	21
5,5	DHE13MA4	D	21,5	25,5	27	32	36	36	14,1	15,5	15,8	17,7	19,1	21
7,5	DHE13LA4	D	29	35	36,5	44	49	49	19,3	21,5	22	24,5	26,5	29
9,5	DHE16MA4	D	37	44,5	46,5	55	62	62	26	28	29	32	34,5	37,5
11	DHE16LA4	D	42,5	51	53	64	71	71	30	32,5	33	36,5	39	43
15	DHE16XA4	D	58	70	73	87	97	97	41,5	45	46	51	54	59
18,5	DHE18LA4	D	72	86	90	108	120	120	43,5	48	49,5	56	61	67
22	DHE18XA4	D	85	102	106	127	142	142	58	63	64	71	76	83
30	DHENF20LG4	D	116	139	145	174	194	194	168	64	72	74	86	94
37	DHENF22SG4	D	142	171	178	210	235	235	205	75	85	87	101	111
45	DHENF22MG4	D	173	205	215	260	285	285	205	90	102	106	123	136
55	DHENF25MG4	D	210	255	265	315	355	355	290	107	122	126	148	163
75	DHENF25MG4	D	290	345	360	435	480	480	420	105	121	125	147	163

Field weakening for frequencies above 87 Hz, winding for
230 V Δ/ 50 Hz ($U_{max} = 400 \text{ V } \Delta/87 \text{ Hz}$), Temperature Class F.

- P Rated output
- n Guideline value for rated speed at the rotor shaft
- M permissible load torque (S1-100%) for operation with frequency inverter
- M_N Rated torque at the rotor shaft
- I Load current for operation with frequency inverter

The load currents in the table are guideline values for selecting the size of frequency inverter. Load current is lower if the load torque is below the values permitted for 30-100 Hz and the frequency inverter used is of the high-grade type. This means that a smaller inverter can sometimes be used, particularly in conjunction with large motors.

Motor torques for frequency-converter range 6 Hz - 84 Hz, line frequency 60 Hz

P	Type	Connec- tion	6 Hz	12 Hz	24 Hz	36 Hz	60 Hz	72 Hz	84 Hz	6 Hz	12 Hz	24 Hz	36 Hz	60 Hz	72 Hz	84 Hz
			M	M	M	M	M	M	M	M	I	I	I	I	I	I
kW			Nm	Nm	Nm	Nm	Nm	Nm	Nm	A	A	A	A	A	A	A
0,03	D04LA4	Y	0,115	0,140	0,165	0,180	0,180	0,180	0,150	0,176	0,178	0,180	0,185	0,180	0,205	0,205
0,04	D04LA4	Y	0,145	0,180	0,215	0,235	0,230	0,230	0,180	0,176	0,178	0,180	0,185	0,180	0,205	0,190
0,06	D04LA4	Y	0,220	0,275	0,325	0,355	0,350	0,350	0,300	0,275	0,280	0,280	0,290	0,280	0,320	0,320
0,09	D04LA4	Y	0,330	0,410	0,485	0,53	0,520	0,520	0,445	0,400	0,400	0,400	0,415	0,400	0,455	0,455
0,12	D04LA4	Y	0,445	0,55	0,65	0,71	0,70	0,63	0,465	0,410	0,415	0,420	0,435	0,420	0,435	0,415
0,06	D05LA4	Y	0,220	0,275	0,325	0,355	0,350	0,350	0,300	0,280	0,295	0,315	0,330	0,320	0,365	0,365
0,09	D05LA4	Y	0,330	0,410	0,485	0,53	0,520	0,520	0,445	0,335	0,340	0,350	0,360	0,350	0,395	0,400
0,12	D05LA4	Y	0,445	0,55	0,65	0,71	0,70	0,70	0,53	0,345	0,36	0,375	0,395	0,38	0,43	0,385
0,18	D05LA4	Y	0,67	0,83	0,99	1,08	1,06	1,06	0,87	0,54	0,56	0,58	0,60	0,58	0,66	0,64
0,25	D05LA4	Y	0,92	1,14	1,36	1,48	1,45	1,45	1,15	0,78	0,79	0,8	0,83	0,8	0,91	0,85
0,06	D06LA4	Y	0,22	0,275	0,325	0,355	0,35	0,35	0,3	0,28	0,295	0,315	0,330	0,32	0,365	0,365
0,09	D06LA4	Y	0,33	0,41	0,485	0,53	0,52	0,52	0,445	0,335	0,34	0,35	0,360	0,35	0,395	0,4
0,12	D06LA4	Y	0,445	0,55	0,65	0,71	0,70	0,70	0,53	0,345	0,36	0,375	0,395	0,38	0,43	0,385
0,18	D06LA4	Y	0,67	0,83	0,99	1,08	1,06	1,06	0,87	0,54	0,56	0,58	0,60	0,58	0,66	0,64
0,25	D06LA4	Y	0,92	1,14	1,36	1,48	1,45	1,45	1,15	0,78	0,79	0,8	0,83	0,8	0,91	0,85
0,3	D07LA4	Y	1,12	1,38	1,65	1,80	1,76	1,76	1,5	1,18	1,19	1,20	1,24	1,2	1,36	1,36
0,37	D07LA4	Y	1,37	1,69	2,0	2,2	2,1	2,1	1,64	1,24	1,25	1,26	1,30	1,26	1,43	1,28
0,55	D08MA4	Y	1,98	2,4	2,9	3,1	3,1	3,1	2,4	1,29	1,36	1,44	1,51	1,47	1,66	1,55
0,75	DHE08XA4	Y	2,4	3,1	3,7	4,1	4,1	4,1	3,7	1,45	1,5	1,56	1,6	1,6	1,78	1,81
0,75	DHE09SA4	Y	2,4	3,1	3,7	4,1	4,1	4,1	3,7	1,34	1,43	1,53	1,6	1,6	1,78	1,81
1,10	DHE09LA4	Y	3,6	4,5	5,4	5,9	6	6	5,4	1,85	1,99	2,2	2,2	2,2	2,5	2,6
1,50	DHE09XA4	Y	4,9	6,1	7,3	8,1	8,2	8,2	7,3	2,4	2,6	2,8	3	3	3,3	3,4
2,2	DHE09XA4C	Y	7,2	9	10,8	11,8	12	12	10,8	3,5	3,7	3,9	4	4	4,5	4,5
2,2	DHE11SA4	Y	7,2	9	10,8	11,8	12	12	10,8	3,1	3,5	3,8	4	4	4,5	4,5
3,0	DHE11MA4	Y	9,9	12,3	14,8	16,2	16,5	16,5	14,8	4,2	4,7	5,2	5,5	5,5	6,1	6,3
4,0	DHE11LA4	Y	13	16,2	19,5	21	21,5	21,5	19,5	5,6	6,2	6,9	7,3	7,3	8,1	8,3
5,5	DHE11LA4C	Y	18	22,5	27	29,5	30	30	27	7	7,8	8,6	9,2	9,2	10,2	10,4
5,5	DHE13MA4	Y	18	22,5	27	29,5	30	30	27	7,3	8,1	9,1	9,7	9,7	10,8	11
7,5	DHE13LA4	Y	24	30	36	40	40,5	40,5	36	9,9	11	12,3	13,1	13,2	14,7	15
9,2	DHE16MA4	Y	30	37,5	45	49	50	50	45	12,8	14,1	15,5	16,4	16,5	18,3	18,7
11,0	DHE16LA4	Y	35	44	53	58	59	59	53	15	16,6	18,4	19,5	19,6	22	22,5
15,0	DHE16XA4	Y	48,5	60	72	80	81	81	72	21	23	25,5	27	27	30	31
18,5	DHE18LA4	Y	60	75	90	98	100	100	90	22	25,5	29	31	31	34,5	35,5
22	DHE18XA4	Y	70	88	106	116	118	118	106	29,5	32,5	36	38,5	38,5	43	43,5

Field weakening for frequencies above 60 Hz, winding for standard voltage **460 VY / 60 Hz**, Temperature Class F.

- P Rated output
n Guideline value for rated speed at the rotor shaft
M permissible load torque (S1-100%) for operation with frequency inverter
M_N Rated torque at the rotor shaft
I Load current for operation with frequency inverter

Motors with standard windings can be switched from Y- to Δ- circuit for operation with a converter having a single-phase mains connection. This has no effect on the torques and frequencies as listed in the table above. As regards the choice of converter, however, note that currents are higher than those of the Y-circuit by a factor of 1.73.

The load currents in the table are guideline values for selecting the size of frequency converter. Load current is lower if the load torque is below the values permitted for 36-84 Hz and the frequency inverter used is of the high-grade type. This means that a smaller inverter can sometimes be used, particularly in conjunction with large motors.

Motor torques for frequency-converter range 6 Hz - 120 Hz, line frequency 60 Hz

P kW	Type	Con- nec- tion	6 Hz	12 Hz	24 Hz	36 Hz	104 Hz	120 Hz	6 Hz	12 Hz	24 Hz	36 Hz	104 Hz	120 Hz
			M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	M Nm	I A	I A	I A	I A	I A
0,03	D04LA4	D	0,105	0,13	0,155	0,18	0,17	0,17	0,245	0,25	0,26	0,325	0,26	0,29
0,04	D04LA4	D	0,145	0,18	0,215	0,235	0,23	0,23	0,28	0,28	0,28	0,325	0,28	0,305
0,06	D04LA4	D	0,22	0,275	0,325	0,355	0,35	0,35	0,455	0,465	0,48	0,5	0,485	0,54
0,09	D04LA4	D	0,33	0,41	0,485	0,53	0,52	0,52	0,72	0,73	0,74	0,72	0,75	0,82
0,12	D04LA4	D	0,445	0,55	0,65	0,71	0,7	0,65	0,63	0,65	0,67	0,75	0,68	0,7
0,06	D05LA4	D	0,22	0,275	0,325	0,355	0,35	0,35	0,48	0,51	0,55	0,57	0,56	0,61
0,09	D05LA4	D	0,33	0,41	0,485	0,53	0,52	0,52	0,58	0,59	0,61	0,63	0,61	0,67
0,12	D05LA4	D	0,445	0,55	0,65	0,71	0,7	0,7	0,6	0,62	0,65	0,68	0,66	0,73
0,18	D05LA4	D	0,67	0,83	0,99	1,08	1,06	1,06	0,93	0,96	1	1,04	1,01	1,11
0,25	D05LA4	D	0,92	1,14	1,36	1,48	1,45	1,45	1,34	1,36	1,38	1,43	1,39	1,53
0,06	D06LA4	D	0,22	0,275	0,325	0,355	0,35	0,35	0,48	0,51	0,55	0,57	0,56	0,61
0,09	D06LA4	D	0,33	0,41	0,485	0,53	0,52	0,52	0,58	0,59	0,61	0,63	0,61	0,67
0,12	D06LA4	D	0,445	0,55	0,65	0,71	0,7	0,7	0,6	0,62	0,65	0,68	0,66	0,73
0,18	D06LA4	D	0,67	0,83	0,99	1,08	1,06	1,06	0,93	0,96	1	1,04	1,01	1,11
0,25	D06LA4	D	0,92	1,14	1,36	1,48	1,45	1,45	1,34	1,36	1,38	1,43	1,39	1,53
0,3	D07LA4	D	1,12	1,38	1,65	1,8	1,76	1,76	2,1	2,1	2,1	2,2	2,1	2,3
0,37	D07LA4	D	1,37	1,69	2	2,2	2,1	2,1	2,2	2,2	2,2	2,2	2,2	2,4
0,55	D08MA4	D	1,98	2,4	2,9	3,1	3,1	3,1	2,2	2,4	2,5	2,7	2,6	2,8
0,75	DHE08XA4	D	2,4	3,1	3,7	4,1	4,1	4,1	2,6	2,6	2,7	2,8	2,8	3,1
0,75	DHE09SA4	D	2,4	3,1	3,7	4,1	4,1	4,1	2,4	2,5	2,7	2,8	2,8	3,1
1,1	DHE09LA4	D	3,6	4,5	5,4	5,9	6	6	3,2	3,5	3,8	3,9	3,9	4,3
1,5	DHE09XA4	D	4,9	6,1	7,3	8,1	8,2	8,2	4,2	4,5	4,9	5,1	5,2	5,7
2,2	DHE09XA4C	D	7,2	9	10,8	11,8	12	12	5,7	6,1	6,6	6,9	7	7,7
2,2	DHE11SA4	D	7,2	9	10,8	11,8	12	12	5,4	5,9	6,5	6,9	7	7,7
3	DHE11MA4	D	9,9	12,3	14,8	16,2	16,5	16,5	7,4	8,1	9	9,5	9,6	10,5
4	DHE11LA4	D	13	16,2	19,5	21	21,5	21,5	10,7	11,4	12,2	12,6	12,7	13,9
5,5	DHE11LA4C	D	18	22,5	27	29,5	30	30	12,4	13,8	15,4	16,4	16,5	18,1
5,5	DHE13MA4	D	18	22,5	27	29,5	30	30	12,6	14,1	15,7	16,7	16,9	18,5
7,5	DHE13LA4	D	24	30	36	40	40,5	40,5	17,1	19,1	21,5	23	23	25,5
9,5	DHE16LA4	D	30,5	38	45,5	50	51	51	21,5	24	27	28,5	29	31,5
11	DHE16LA4	D	35	44	53	58	59	59	26	29	32	34	34	37,5
15	DHE16XA4	D	48,5	60	72	80	81	81	36,5	40	44	46,5	47	52
18,5	DHE18LA4	D	60	75	90	98	100	100	38	43,5	49,5	54	54	60
22	DHE18XA4	D	70	88	106	116	118	118	51	56	63	67	67	74

Field weakening for frequencies above 87 Hz, winding for standard voltage 265 V Δ / 60 Hz (U_{max} = 460 V Δ / 104 Hz), Temperature Class F.

- P Rated output
- n Guideline value for rated speed at the rotor shaft
- M permissible load torque (S1-100%) for operation with frequency inverter
- M_N Rated torque at the rotor shaft
- I Load current for operation with frequency inverter

The load currents in the table are guideline values for selecting the size of frequency converter. Load current is lower if the load torque is below the values permitted for 36-120 Hz and the frequency inverter used is of the high-grade type. This means that a smaller inverter can sometimes be used, particularly in conjunction with large motors.

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.

Energy-saving function

High quality frequency inverters reduce voltage in part-load operation to lower the motor current and thus improve efficiency. This converter function emulates the method of operation of commercially available "energy-saving devices".

Regeneration

Regenerative torques (braking torques) are required for motors used in lifting gear, for example. In conjunction with high quality frequency inverters, the motor torques listed in the table can also be applied as regenerative torques. As with motor torque, an increase in regenerative torque with reduced duty factor is permissible.

Notes on operation with other-make frequency inverters

The precondition is that the motor current generated by the frequency converter is largely free of harmonics. The harmonics generated in the motor by some old-style frequency inverters result in additional losses and cut available torque by some 10% across the entire frequency range. There is also a risk of oscillation causing damage to the gear unit.

At frequencies below approximately 5 Hz, operation without pulse generators is possible only using a frequency inverter with state-of-the-art control. If frequency inverters are used that do not feature load-dependent frequency and current adjustment, the increase in the motor's current consumption means that, particularly in the case of small motors (D04-D..09), torque has to be reduced at frequencies below approximately 10 Hz even if an external fan is used or the duty factor is reduced. Regenerative operation is possible only under certain circumstances.



The **gearboxes** described in this catalogue are suitable for use in explosive areas of Zones 1, 2, 21 and 22. An **EC-Declaration of Conformity** can be supplied on request; it is based on a "ignition hazards assessment report" which has been registered with a notified body (PTB). The explosion class of the associated **motors** are designated according to the Zone in which they should be used and according to the Method of use (e.g. use on inverter). The motor parts are partly larger or – for explosion proof – differently designed compared with the standard design shown in this catalogue. The modular system shown in section 3 allows, in most cases, the gear sizes and the connection dimensions to be maintained.

ATEX

The term ATEX is derived from Atmosphères explosibles. The designation 95 and 137 are based on a new numbering of the articles of the first contract of the foundation of the EU. **ATEX 95:** Directive 94/9/EC on the approximation of the laws of the member states concerning equipment and protective systems intended for use in potentially explosive atmospheres; binding for **placing on the market** since 01.07.2003

ATEX 137: Directive 1999/92/EG on minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres; binding for use in new installations since 01.07.2003 and binding for existing installations to comply with the requirements from 01.07.2006.

For Safety Instructions for the use of explosion protection geared motors, see the operating instructions BA170...

Scope of supply

Type	Type of motor explosion protection	Zone	Temperature Class T3	Temperature Class T4	max. surface temperature 120°C	max. surface temperature <160°C
DXE	II 2 G Ex e II T3	1	X			
DXD	II 2 G Ex d(e) IIC T4	1	X	X		
DXN	II 3 G Ex nA II T3	2	X			
DXC	II 2 D Ex tD A21 IP65 T<160°C	21				X
DXC	II 2 D Ex tD A21 IP65 T120°C	21			X	
DXS	II 3 D Ex tDT<160°C	22				X
DXE	II 2 G Ex e II T3 / II 2D Ex tD A21 IP65T120°C	1 and 21	X		X	
DXD	II 2 G Ex de IIC T4 / II 2 D T120°C	1 and 21	X	X	X	
DXS	II 3 G Ex nA II T3 / II 3 D Ex tDT<160°C	2 and 22	X			X

Gear units with explosion protection for non-electrical equipment

Since 01.07.2003 mechanical apparatus ("equipment") to be placed on the market has had to comply with the requirements of ATEX 95. In ATEX it is defined: "Equipment means machines, apparatus, fixed or mobile devices, control components and instrumentation thereof and detection or prevention systems which, separately or jointly, are intended for the generation, transfer, storage, measurement, control and conversion of energy for the processing of material and which are capable of causing an explosion through their own potential sources of ignition." The requirement is to be applied on the gear unit of a geared motor; as well as on the driven machine or processing equipment if installed in classified areas with explosion hazard. In order to **declare the conformity** the manufacturer of the driven equipment has to assess and register the **ignition hazard**. This task is simplified if for the geared motor as a component a separate assessment has been performed. Such assessment could be based on the ATEX requirements only. It is positive for the product if the investigation has been based on an existing or draft standard, however.

Should differing conditions come together (e.g. ambient temperature > 40 °C, Speed > 1500 r/min, vertical arrangement of the motor, Temperature Class T4) this could lead to a restriction in the selection of the possible gear units in the higher power range.

For the assessment of Bauer-Gears the following standards, among others, have been taken into account:

EN 1127	Explosive atmospheres, Explosion prevention and protection; Basic concepts and methodology
EN 13463	Non-electrical equipment for use in potentially explosive atmospheres
EN 13463-1	Basic methods and requirements
EN 13463-5	Protection by constructional safety
EN 13463-8	Protection by liquid immersion „k“

Speed change by means of inverter

Zone	Category	Available explosion class with TMS as sole protection	Seperate inverter	Built-on inverter
1	2G	II 2G Ex de IIC T4	Power up to 45 kW	
2	3G	II 3G Ex nA T3	Power up to 30 kW	Power up to 7,5 kW
21	2D	II 2D Ex tD A21 IP65T<160°C	Power up to 30 kW	
22	3D	II 3D Ex tD T <160 °C	Power up to 30 kW	Power up to 7,5 kW
1 and 21	2G/D	II 2 G Ex de IIC T4 / II 2 D T120°C	Power up to 45 kW	-

Motors for explosion protection „nA“ and „e“ must be tested together with the inverter as one unit.

For **explosion protection “e”**, this test must be a Type Examination performed by a named body (EN 60079-14). This combination is not a part of the scope of supply of Bauer.

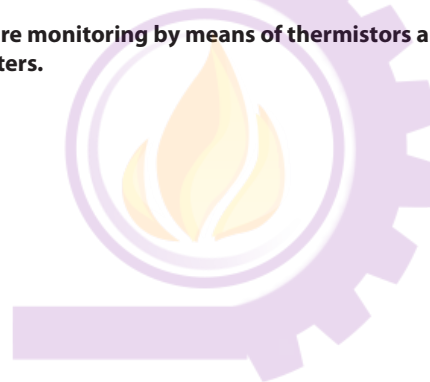
For **explosion protection “nA”**, the successful test is confirmed by the manufacturer by means of a Certificate of Conformity (EN60079-15).

For motor with **explosion protection “d” and “de” for temperature class T4**, the motor and the inverter do not have to be tested together; the surface temperature which is decisive for the explosion protection is monitored by the monitoring device and thermal protection (EN 60079-14).

For **explosion protection “tD”**, the surface temperature which is decisive for the explosion protection is monitored by the monitoring device and thermal protection; the test for the connection between the motor and the inverter is not necessary (EN 61241-14).

Only motors with temperature monitoring by means of thermistors are permissible for use with frequency inverters.

آتور صنعت
ATOORSANAT



Technical data for motors in explosion class "increased safety"

II 2G Ex e II T3 2p = 4, 50 Hz

P	Type	n	M _N	I _N (400 V)	Conne- ction	cos φ	I _A /I _N	M _A /M _N	M _K /M _N	EU Type examination certificate	T1	T2	T3	T4
kW		rpm	Nm	A							s	s	s	s
0,12	DXE06LA4	1350	0,85	0,42	Y	0,73	3,4	2,2	2,2	PTB 08 ATEX 3048-BI.01	160	160	160	40
0,18	DXE06LA4	1350	1,28	0,63	Y	0,7	3,4	2,3	2,4	PTB 08 ATEX 3048-BI.02	50	50	50	19
0,25	DXE06LA4	1350	1,75	0,88	Y	0,69	3,3	2,3	2,3	PTB 08 ATEX 3048-BI.03	30	30	30	0
0,37	DXE08MA4	1400	2,5	1,08	Y	0,73	4,7	2,3	2,6	PTB 08 ATEX 3049-BI.09	25	25	25	0
0,55	DXE08MA4	1400	3,8	1,6	Y	0,75	4,2	2,1	2,3	PTB 08 ATEX 3049-BI.02	21	21	21	0
0,75	DXE08LA4	1400	5,1	2	Y	0,76	4,6	2,2	2,5	PTB 08 ATEX 3049-BI.03	16	16	16	0
1,1	DXE09SA4	1400	7,5	2,8	Y	0,78	5,1	2,3	2,7	PTB 08 ATEX 3050-BI.02	17	17	17	0
1,5	DXE09LA4	1400	10,2	3,6	Y	0,8	5,4	2,4	2,8	PTB 08 ATEX 3050-BI.03	12	12	12	0
2,2	DXE11SA4	1420	14,8	5,1	Y	0,82	6,2	2,2	2,9	PTB 08 ATEX 3051-BI.02	12	12	12	0
3	DXE11MA4	1420	20,2	6,5	Δ	0,85	6,3	2,2	2,8	PTB 08 ATEX 3051-BI.03	11	11	11	0
4	DXE11LA4	1420	26,5	8,7	Δ	0,81	7,8	2,9	3,6	PTB 08 ATEX 3051-BI.04	9	9	9	0
5,5	DXE13LA4	1460	36	11,9	Δ	0,8	8,1	3,2	3,5	PTB 08 ATEX 3052-BI.02	13	13	12	0
7,5	DXE16MA4	1460	49	15,2	Δ	0,84	6,9	2,5	2,7	PTB 08 ATEX 3053-BI.01	16	16	15	0
9,5	DXE16LA4	1460	64	19,1	Δ	0,84	8	2,7	2,8	PTB 08 ATEX 3053-BI.02	14	14	9	0
11	DXE16XA4	1460	71	22	Δ	0,84	8,1	3	3,1	PTB 08 ATEX 3053-BI.04	12	12	10	0

II 2G Ex e II T3 2p = 4, 60 Hz

P	Type	n	M _N	I _N (440 V)	Conne- ction	cos φ	I _A /I _N	M _A /M _N	M _K /M _N	EU Type examination certificate	T1	T2	T3	T4
kW		rpm	Nm	A							s	s	s	s
0,12	DXE06LA4	1660	0,7	0,37	Y	0,73	3,9	2,4	2,4	PTB 08 ATEX 3048-BI.05	160	160	160	40
0,18	DXE06LA4	1660	1,06	0,57	Y	0,7	3,8	2,6	2,7	PTB 08 ATEX 3048-BI.04	50	50	50	19
0,25	DXE06LA4	1660	1,45	0,8	Y	0,69	3,6	2,5	2,5	PTB 08 ATEX 3048-BI.06	30	30	30	0
0,37	DXE08MA4	1680	2	0,98	Y	0,73	5,1	2,5	2,9	PTB 08 ATEX 3049-BI.10	25	25	25	0
0,55	DXE08MA4	1680	3,1	1,45	Y	0,75	4,6	2,3	2,5	PTB 08 ATEX 3049-BI.05	21	21	21	0
0,75	DXE08LA4	1680	4,2	1,82	Y	0,76	5	2,4	2,7	PTB 08 ATEX 3049-BI.06	16	16	16	0
1,1	DXE09SA4	1710	6,2	2,5	Y	0,78	5,6	2,5	3	PTB 08 ATEX 3050-BI.04	17	17	17	0
1,5	DXE09LA4	1710	8,5	3,3	Y	0,8	5,9	2,6	3,1	PTB 99 ATEX 3272-BI.05	12	12	12	0
2,2	DXE11SA4	1710	12,2	4,6	Y	0,82	6,8	2,4	3,2	PTB 08 ATEX 3051-BI.05	12	12	12	0
3	DXE11MA4	1710	16,7	5,9	Δ	0,85	6,9	2,4	3,1	PTB 08 ATEX 3051-BI.06	11	11	11	0
4	DXE11LA4	1710	22	7,9	Δ	0,81	8,4	3,2	3,9	PTB 09 ATEX 3051-BI.07	9	9	9	0
5,5	DXE13LA4	1760	30	10,7	Δ	0,8	8,6	3,5	3,8	PTB 08 ATEX 3052-BI.03	13	13	12	0
7,5	DXE16MA4	1760	40,5	13,8	Δ	0,84	7,6	2,7	3	PTB 08 ATEX 3053-BI.05	16	16	15	0
9,5	DXE16LA4	1760	53	17,3	Δ	0,84	8,2	3	3,1	PTB 08 ATEX 3053-BI.06	14	14	9	0
11	DXE16XA4	1760	59	19,8	Δ	0,84	8,7	3,3	3,4	PTB 08 ATEX 3053-BI.08	12	12	10	0

Technical Data for motors in ignition protection "flame proof"

Ex d(e) IIC T4 2p=4 50 Hz single speed

P	Type	n	M _N	I _N (400 V)	Conne- ction	cos φ	I _A /I _N	M _A /M _N	M _K /M _N	EC Type Test Certificate
kW		rpm	Nm	A						
0,25	DNFXD07K0D4	1350	1,74	0,7	Y	0,8	3,5	2	2,5	09 ATEX 1050X
0,37	DNFXD07L0D4	1350	2,6	0,95	Y	0,8	3,6	2,2	2,6	09 ATEX 1050X
0,55	DNFXD08K0D4	1400	3,8	1,36	Y	0,8	3,8	2	2,3	09 ATEX 1051X
0,75	DNFXD08L0D4	1400	5,1	1,83	Y	0,79	4,2	2,1	2,5	09 ATEX 1051X
1,1	DNFXD09L1D4	1400	7,5	2,5	Y	0,84	4,8	2,1	2,5	09 ATEX 1051X
1,5	DNFXD09L2D4	1400	10,2	3,2	Y	0,84	5	2,3	2,7	09 ATEX 1051X
2,2	DNFXD10L1D4	1400	14,8	5	Y	0,8	5,4	2,4	2,8	09 ATEX 1051X
3	DNFXD10L2D4	1400	20,2	6,6	Y	0,82	5,5	2,3	2,7	09 ATEX 1051X
4	DNFXD11M0D4	1420	26,6	8,1	Y	0,84	6,8	2,7	3,2	09 ATEX 1051X
5,5	DNFXD13S0D4	1420	36,5	10,7	Y	0,86	6,2	2,5	2,7	09 ATEX 1051X
7,5	DNFXD13M0D4	1420	50	14,3	Y	0,86	6,5	2,7	2,8	09 ATEX 1051X
11	DNFXD16M0D4	1460	72	21	Δ	0,85	6,6	2,5	2,8	09 ATEX 1051X
15	DNFXD16L0D4	1460	98	28	Δ	0,86	6,5	2,8	3,1	09 ATEX 1051X
18,5	DNFXD18M0D4	1460	121	35	Δ	0,84	6,6	2,9	3	09 ATEX 1052X
22	DNFXD18L0D4	1460	144	41	Δ	0,85	6,9	3	3	09 ATEX 1052X
30	DNFXD20L0D4	1460	196	53	Δ	0,88	6,8	2,6	2,9	09 ATEX 1053X
37	DNFXD22S0D4	1460	241	65	Δ	0,89	6,7	2,7	2,6	09 ATEX 1051X
45	DNFXD22M0D4	1460	292	78	Δ	0,89	6,5	2,7	2,6	09 ATEX 1051X

Exd(e) IIC T4 2p = 4 50Hz

P	Type	n	M _N	I _N (400V)	η	η	η	Conne- ction	cos φ	I _A /I _N	M _A /M _N	M _K /M _N	EC Type Test Certificate
kW		1/min	Nm	A	(100% - load)	(75% - load)	(50% - load)						
0,75	DNFXD08L0H4	1445	5	1,71	IE2	81,0%		Y	0,78	6,8	3,2	4,2	09 ATEX 1051X
1,1	DNFXD09L1H4	1455	7,2	2,4	IE2	82,7%		Y	0,8	6,8	2,4	3,1	09 ATEX 1051X
1,5	DNFXD09L2H4	1450	9,9	3,2	IE2	84,0%		Y	0,81	6,9	2,5	3,2	09 ATEX 1051X
2,2	DNFXD10L1H4	1450	14,5	4,4	IE2	85,5%		Y	0,84	7,3	2,9	3,3	09 ATEX 1051X
3	DNFXD10L2H4	1450	18,8	6	IE2	86,6%		Y	0,84	7,4	3,1	3,6	09 ATEX 1051X
4	DNFXD11M0H4	1460	26,2	7,9	IE2	87,6%		Y	0,83	7,2	3	3,4	09 ATEX 1051X
5,5	DNFXD13S0H4	1460	36	10,5	IE2	88,6%		Y	0,85	7,1	3,2	3,5	09 ATEX 1051X
7,5	DNFXD13M0H4	1460	49	14,1	IE2	89,5%		Y	0,86	7,4	3,1	3,3	09 ATEX 1051X
11	DNFXD16M0H4	1470	71	20,5	IE2	90,6%		Δ	0,85	7,1	2,8	3,1	09 ATEX 1051X
15	DNFXD16L0H4	1470	97	28,5	IE2	91,3%		Δ	0,83	7,4	3	3,3	09 ATEX 1051X
18,5	DNFXD18M0H4	1470	120	35	IE2	91,9%		Δ	0,83	7,4	3,3	3,4	09 ATEX 1052X
22	DNFXD18L0H4	1470	143	41,5	IE2	92,3%		Δ	0,83	7,3	3,3	3,3	09 ATEX 1052X
30	DNFXD20L0H4	1470	195	55	IE2	92,9%		Δ	0,85	7,6	3,1	3,3	09 ATEX 1053X
37	DNFXD22S0H4	1475	240	67	IE2	93,3%		Δ	0,85	7,1	3	2,9	09 ATEX 1051X
45	DNFXD22M0H4	1475	291	81	IE2	93,6%		Δ	0,86	7,2	3,1	3	09 ATEX 1051X

Exd(e) IIC T4 2p = 4 50Hz

P	Type	n	M _N	I _N (400V)	η	η	η	Conne- ction	cos φ	I _A /I _N	M _A /M _N	M _K /M _N	EC Type Test Certificate
kW		1/min	Nm	A	(100% - load)	(75% - load)	(50% - load)						
0,75	DNFXD08L0P4	1445	5	1,68	IE3	82,6%		Y	0,78	6,8	3,2	4,2	09 ATEX 1051X
1,1	DNFXD09L1P4	1455	7,2	2,3	IE3	84,2%		Y	0,8	6,8	2,4	3,1	09 ATEX 1051X
1,5	DNFXD09L2P4	1450	9,9	3,1	IE3	85,5%		Y	0,81	6,9	2,5	3,2	09 ATEX 1051X
2,2	DNFXD10L1P4	1450	14,5	4,3	IE3	87,1%		Y	0,84	7,3	2,9	3,3	09 ATEX 1051X
3	DNFXD10L2P4	1450	18,8	5,9	IE3	87,8%		Y	0,84	7,4	3,1	3,6	09 ATEX 1051X
4	DNFXD11M0P4	1460	26,2	7,8	IE3	88,7%		Y	0,83	7,2	3	3,4	09 ATEX 1051X
5,5	DNFXD13S0P4	1460	36	10,4	IE3	89,6%		Y	0,85	7,1	3,2	3,5	09 ATEX 1051X
7,5	DNFXD13M0P4	1460	49	13,9	IE3	90,5%		Y	0,86	7,4	3,1	3,3	09 ATEX 1051X
11	DNFXD16M0P4	1470	71	20,5	IE3	91,5%		Δ	0,85	7,1	2,8	3,1	09 ATEX 1051X
15	DNFXD16L0P4	1470	97	28,5	IE3	92,1%		Δ	0,83	7,4	3,1	3,4	09 ATEX 1051X
18,5	DNFXD18M0P4	1470	120	34,5	IE3	92,7%		Δ	0,83	7,4	3,3	3,4	09 ATEX 1052X
22	DNFXD18L0P4	1470	143	41	IE3	93,2%		Δ	0,83	7,4	3,3	3,3	09 ATEX 1052X
30	DNFXD20L0P4	1470	195	54	IE3	93,8%		Δ	0,85	7,6	3,1	3,3	09 ATEX 1053X
37	DNFXD22S0P4	1475	240	67	IE3	93,9%		Δ	0,85	7,1	3	2,9	09 ATEX 1051X
45	DNFXD22M0P4	1475	291	80	IE3	94,3%		Δ	0,86	7,2	3,1	3	09 ATEX 1051X

Ex d(e) IIC T4 2p=4/2 50 Hz pole changing (4/2-pole)

P kW	Type	n rpm	M _N Nm	I _N (400 V) A	Conne- tion	cos φ	I _A /I _N	M _A /M _N	M _K /M _N	EC Type Test Certificate
0,50 / 0,65	DNFXD08K0D42	1400/2800	3,4 / 2,2	1,43 / 1,66	Δ/YY	0,75/0,89	3,9/4,2	2,0/2,2	2,6/3,0	09 ATEX 1051X
0,70 / 0,85	DNFXD08L0D42	1400/2800	4,8 / 2,8	1,92 / 2,1	Δ/YY	0,75/0,87	4,0/4,8	2,1/2,4	2,7/3,2	09 ATEX 1051X
1,10 / 1,40	DNFXD09L1D42	1400/2800	7,5 / 4,7	2,7 / 3,1	Δ/YY	0,84/0,92	4,2/4,9	1,8/1,9	2,2/3,0	09 ATEX 1051X
1,50 / 1,90	DNFXD09L2D42	1400/2800	10,2 / 6,4	3,5 / 4,1	Δ/YY	0,83/0,92	4,7/5,4	2,0/2,2	2,3/3,0	09 ATEX 1051X
2,6 / 3,2	DNFXD10L0D42	1400/2800	17,6 / 10,6	5,9 / 6,5	Δ/YY	0,82/0,91	4,8/5,8	2,0/2,1	2,7/3,0	09 ATEX 1051X
3,7 / 4,4	DNFXD11M0D42	1420/2840	24,7 / 14,5	7,6 / 8,9	Δ/YY	0,85/0,91	6,0/6,7	2,2/2,5	3,0/3,3	09 ATEX 1051X
5,0 / 6,0	DNFXD13S0D42	1420/2840	33 / 19,6	10,4 / 12	Δ/YY	0,84/0,91	5,0/6,4	2,1/2,5	2,9/2,9	09 ATEX 1051X
7,0 / 9,0	DNFXD13M0D42	1420/2840	46 / 29,5	14,2 / 17,3	Δ/YY	0,85/0,92	5,8/6,8	2,6/2,5	2,8/3,0	09 ATEX 1051X
9,5 / 11,0	DNFXD16M0D42	1460/2920	62 / 35,5	18,7 / 19,8	Δ/YY	0,84/0,92	6,0/6,8	2,5/2,7	2,8/3,1	09 ATEX 1051X
13,0 / 16,0	DNFXD16L0D42	1460/2920	85 / 52	25 / 28,5	Δ/YY	0,84/0,92	6,0/6,8	2,3/2,6	2,8/3,2	09 ATEX 1051X
16,5 / 20	DNFXD18M0D42	1460/2920	108 / 65	32 / 36,5	Δ/YY	0,83/0,90	6,5/6,9	2,8/2,8	2,7/3,0	09 ATEX 1052X
19,0 / 25	DNFXD18L0D42	1460/2920	124 / 81	36,5 / 45,5	Δ/YY	0,83/0,90	6,5/6,8	3,1/3,1	2,9/3,2	09 ATEX 1052X
26 / 31	DNFXD20L0D42	1460/2920	169 / 100	47 / 53	Δ/YY	0,87/0,93	6,6/7,1	2,8/2,7	3,0/3,5	09 ATEX 1053X

Ex d(e) IIC T4 2p=8/4 50 Hz polumschaltbar (8/4-polig)

P kW	Type	n rpm	M _N Nm	I _N (400 V) A	Conne- tion	cos φ	I _A /I _N	M _A /M _N	M _K /M _N	EC Type Test Certificate
0,40 / 0,60	DNFXD09L1D84	700/1400	5,7 / 4,0	1,48 / 1,40	Δ/YY	0,69/0,88	2,7/4,4	1,5/2,0	2,0/2,5	09 ATEX 1051X
0,55 / 0,80	DNFXD09L2D84	700/1400	7,7 / 5,4	2,0 / 1,87	Δ/YY	0,68/0,87	3,3/4,2	1,7/2,0	2,2/2,6	09 ATEX 1051X
0,90 / 1,30	DNFXD10L1D84	700/1400	12,5 / 8,9	3,0 / 3,1	Δ/YY	0,71/0,90	3,1/4,2	1,6/2,1	1,6/2,2	09 ATEX 1051X
1,00 / 1,60	DNFXD10L2D84	700/1400	13,6 / 10,9	3,1 / 3,5	Δ/YY	0,71/0,91	3,5/4,5	1,7/1,7	2,2/2,4	09 ATEX 1051X
1,50 / 2,5	DNFXD11M0D84	710/1420	20,2 / 16,8	4,1 / 5,0	Δ/YY	0,73/0,90	4,4/5,4	1,8/1,9	2,2/2,3	09 ATEX 1051X
2,3 / 3,6	DNFXD13S0D84	710/1420	30,7 / 24	6,8 / 7,3	Δ/YY	0,66/0,89	4,2/5,3	1,7/1,8	2,6/2,5	09 ATEX 1051X
3,0 / 5,0	DNFXD13M0D84	710/1420	40 / 33	8,1 / 9,5	Δ/YY	0,67/0,90	4,6/5,8	1,9/1,9	2,7/2,6	09 ATEX 1051X
4,7 / 5,5	DNFXD16M1D84	730/1460	62 / 36	11,5 / 12,1	Δ/YY	0,73/0,86	4,7/5,7	1,7/2,1	2,5/3,0	09 ATEX 1051X
5,5 / 7,5	DNFXD16M2D84	730/1460	73 / 49,5	12,1 / 14,8	Δ/YY	0,79/0,90	4,6/6,1	1,7/2,0	2,2/2,8	09 ATEX 1051X
7,0 / 11,0	DNFXD16L0D84	730/1460	93 / 72	16,3 / 22	Δ/YY	0,74/0,89	5,5/6,6	2,0/2,0	2,7/3,0	09 ATEX 1051X
11,0 / 18,0	DNFXD18L0D84	730/1460	145 / 117	25 / 32	Δ/YY	0,74/0,92	6,0/6,9	2,2/2,1	2,8/3,2	09 ATEX 1052X
17,0 / 27	DNFXD20L0D84	730/1460	222 / 175	39,5 / 47	Δ/YY	0,70/0,91	6,4/7,1	2,2/2,2	3,5/3,8	09 ATEX 1053X
22 / 32	DNFXD22S0D84	730/1460	286 / 207	47,5 / 56	Δ/YY	0,75/0,91	6,4/7,2	2,3/2,1	3,3/3,5	09 ATEX 1051X
26 / 38	DNFXD22M0D84	730/1460	340 / 246	53 / 65	Δ/YY	0,78/0,93	6,5/7,2	2,4/2,5	3,4/3,6	09 ATEX 1051X

ATOORSANAT

EEx d(e) IIC T4 2p=4 VF 5... 70 Hz $U_{50Hz} = 400V$ 99 ATEX 1105

P	S	Type	Connec- tion	M _{5Hz}	M _{10Hz}	M _{20Hz}	M _{30Hz}	M _{50Hz}	M _{60Hz}	M _{70Hz}
kW				Nm	Nm	Nm	Nm	Nm	Nm	Nm
0,25	S1	DNFXD07K0D4	Y	1,04	1,30	1,56	1,71	1,745	1,45	1,20
0,37	S1	DNFXD07L0D4	Y	1,53	1,92	2,3	2,5	2,5	2,1	1,8
0,55	S1	DNFXD08K0D4	Y	2,2	2,8	3,4	3,8	3,8	3,2	2,8
0,75	S1	DNFXD08L0D4	Y	3,0	3,8	4,5	5,0	5,1	4,3	3,7
1,10	S1	DNFXD09L1D4	Y	4,5	5,6	6,7	7,4	7,5	6,3	5,4
1,50	S1	DNFXD09L2D4	Y	6,1	7,6	9,1	10	10,2	8,5	7,3
2,2	S1	DNFXD10L1D4	Y	8,8	11,1	13,3	14,6	14,8	12,3	10,6
3,0	S1	DNFXD10L2D4	Y	12,1	15,1	18,1	19,9	20	16,9	14,5
4,0	S1	DNFXD11M0D4	Y	15,9	19,9	23,5	26	26,5	22,2	19,0
5,5	S1	DNFXD13S0D4	Y	21,5	27	32,5	36	36,5	30,4	26,0
7,5	S1	DNFXD13M0D4	Y	30	37,5	45	49	50	41	36
11,0	S1	DNFXD16M0D4	Y	43	54	64	71	72	60	51
15,0	S1	DNFXD16L0D4	Y	58	73	88	96	98	82	70
18,5	S1	DNFXD18M0D4	Y	72	90	108	119	121	101	86
22	S1	DNFXD18L0D4	Y	86	108	129	142	144	120	103
30	S1	DNFXD20L0D4	Y	117	147	176	193	196	164	140
37	S1	DNFXD22S0D4	Y	144	180	201	235	240	201	172
45	S1	DNFXD22M0D4	Y	175	215	240	285	290	244	209

**Technical data for motors
in explosion protection
"dust explosion proof"**

Motor range DXN

Power selection: See tables "Technical data of the 50 Hz motors" for the base types D04 ... D18

**Technical data for motors
in explosion protection
"non sparking"**

Motor range DXC for Zone 21 ; max. surface temperature < 160 °C

Power selection: See tables "Technical data of the 50 Hz motors" for the base types D05 ... D18

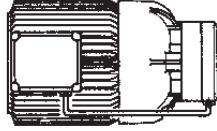
Motor range DXS for Zone 22 ; max. surface temperature < 160 °C

Power selection: See tables "Technical data of the 50 Hz motors" for the base types D05 ... D18

**Technical data for motors
in explosion protection
"gas and dust explosion proof"**

On request

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Page

Motor-mounted components

587-612

Brake
Encoder system
Incremental encoder
Absolute encoder
Modular motor system

آتور صنعت
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Functional description

The compression springs act on the anchor disc, which is free to move in the axial direction and presses the brake disc, which is keyed to the rotor shaft, against the friction plate or the motor bearing plate. This produces the braking torque.

When a DC voltage is applied to the coil in the electromagnet housing, it generates a magnetic force that opposes the spring force and causes the anchor disc to be pulled toward the electromagnet enclosure. This releases the brake disc and disengages the brake.

Brakes are classified into two types according to how they are used: holding brakes and service brakes.

Holding brake ES.. / ZS..

brake that in normal operation does not convert kinetic energy into frictional energy but is only used to hold a mechanism in a particular position, but which can also be used for motion braking in an emergency.

Service brake ESX.. / ZSX..

A brake that converts kinetic energy into frictional energy in normal operation, which means that it brakes mechanical motion.

When a service brake is used as a holding brake, the braking torque tolerance of up to -30% (in new condition) must be taken into account.

Product description of type ES(X) spring-actuated brakes

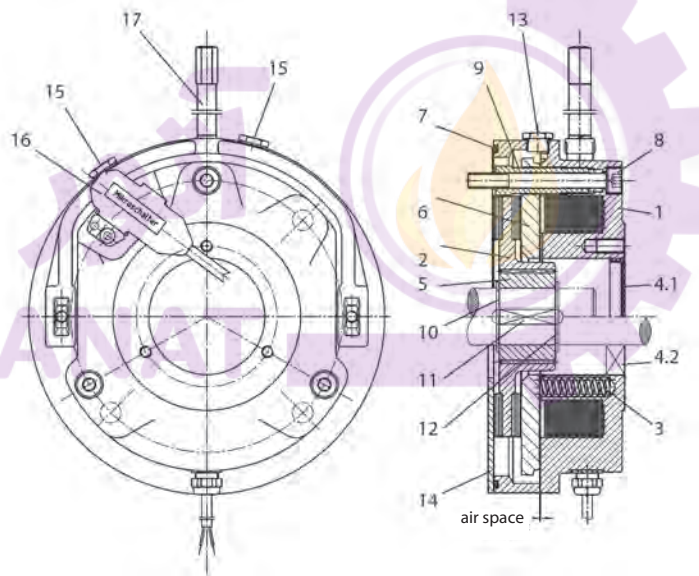


Figure 1: Construction of ES(X) brake

Brake mounting

ES and ESX: Brake mounting is under the fan cover

EH and EHX: Brake mounting is on the fan cover

Options

- Manual release, non-locking or locking
- Microswitch for monitoring operation or wear

Construction

- 1 Electromagnet housing
- 2 Brake disc
- 3 Compression spring
- 4.1 Cover plate with closed brake
- 4.2 Shaft seal with through shaft
- 5 Drive bush
- 6 Anchor disc
- 7 O-ring
- 8 Fitting screw with copper washer
- 9 Hollow screw
- 10 Retaining ring
- 11 Key
- 12 Retaining ring
- 13 Screw plug for checking air gap
- 14 Friction plate (only with motor size Dxx08 or Dxx09)
- 15 Screw plug for checking microswitch setting
- 16 Microswitch (optional)
- 17 Manual release (optional)

Product description of type ZS(X) spring-actuated brakes

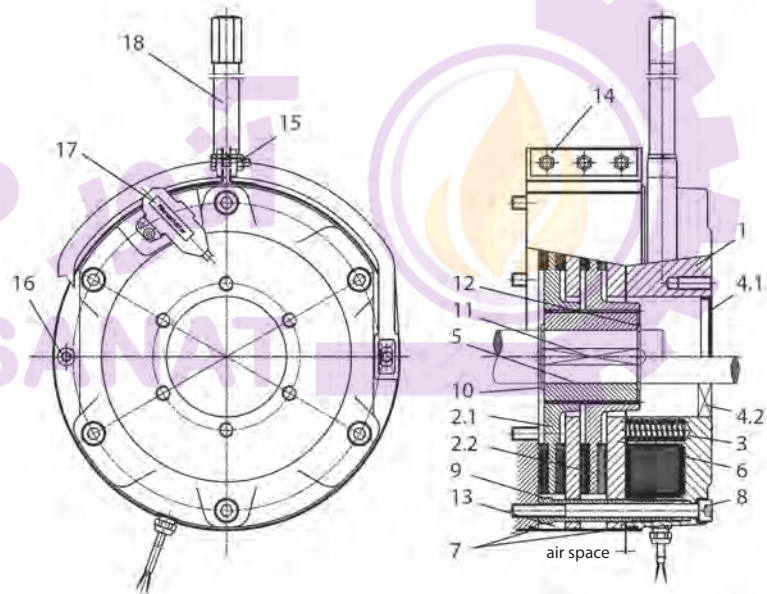


Figure 2: ZS(X) brake construction

Options

- Manual release, non-locking or locking
- Microswitch for monitoring operation or wear

Construction

1	Electromagnet housing
2	Brake disc 2.1 and 2.2
3	Compression spring
4.1	Cover plate
4.2	Shaft seal with through shaft
5	Drive bush
6	Anchor disc
7	O-ring
8	Fitting screw with copper washer
9	Hollow screw
10	Retaining ring
11	Key
12	Retaining ring
13	Cover
14	Fitting screws
15	Bracket
16	Assembly screw/assembly aid
17	Microswitch (optional)
18	Manual release (optional)

Brake selection and sizing

If the service brake is undersized, it will have increased wear and a shorter lifetime. If it is oversized, the resulting mechanical forces may overload the drive.

If specific application data is not available, in the case of horizontally driven equipment we recommend selecting a braking torque with a safety factor (K) of 1 to 1.5 times the rated torque of the motor.

For braking to standstill, the selected braking torque should be at least 80% of the rated torque of the drive.

Rated torque:

$$M_{\text{Bef}} = \frac{P \times 9550}{n_2} \times K$$

M_{Bef}	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

$$J_{\text{ext}'} = \frac{J_{\text{ext}1} \times n_1^2 + J_{\text{ext}2} \times n_2^2 + \dots + J_{\text{ext}n} \times n_n^2}{i^2}$$

or the external moment of inertia reduced by the gear ratio of the gear unit to the value at the rotor shaft.

$$J_{\text{ext}'} = \frac{J_{\text{ext}}}{i^2}$$

J_{ext}	Total external moment of inertia [kgm ²]
$J_{\text{ext}'}$	Total external moment of inertia referenced to the rotor shaft [kgm ²]
$J_{\text{ext}1,2,\dots}$	Individual external moments of inertia [kgm ²]
i	Gear reduction ratio
n	Rotor shaft speed
$n_{1,2,\dots}$	Speeds of the individual moments of inertia [rpm]

Load torque under static load

$$M_L = F \times r$$

M_L	Load torque [Nm]
F	Force [N]
r	radius [m]

Braking torque with dynamic load

A purely dynamic load is present when flywheels, rolls, etc. must be decelerated and the static load torque is negligible.

$$M_a = \frac{J_{\text{ges}} \times n_a}{9,55 \times (t_a - t_A)} = \frac{(J_{\text{ext}'} + J_{\text{rot}} + J_{\text{Br}}) \times n_a}{9,55 \times (t_a - t_A)}$$

J_{Br}	Moment of inertia of the brake [kgm ²]
J_{rot}	Moment of inertia of the rotor shaft and rotor [kgm ²]
M_a	Deceleration torque [Nm]
n_a	Initial speed at start of deceleration [rpm]
t_a	Total deceleration time (from switch-off until drive is stationary) [s]
t_A	The response time of the brake for braking corresponds to t_{AC} or t_{DC} in the specification tables [s]

Dynamic and static loads

In most application situations, both static and dynamic loads are present.

$$M_{\text{Berf}} = (M_a \pm M_L) \times K \quad \text{where} \quad M_{\text{Berf}} \leq M_{\text{Br}} \quad \text{must hold true.}$$

M_L braking (positive) or driving (negative) load torque [Nm]

Heat generated by each brake cycle

Friction converts the kinetic energy of the moving masses into heat. This amounts to

$$W = \frac{J_{\text{ges}} \times n^2}{182,5} = \frac{(J_{\text{ext}'} + J_{\text{rot}} + J_{\text{Br}}) \times n_a^2}{182,5} \quad \text{where} \quad W \leq W_{\text{max}} \quad \text{must hold true.}$$

W	Braking energy for each brake cycle [J]
M_{max}	Maximum permissible frictional energy per brake cycle (see brake tables)

Thermally allowable braking energy of service brakes

With a uniform sequence of brake cycles, which means a certain average number of brake cycles per hour, the temperature rises until an equilibrium between heat input and heat dissipation is reached. The temperature rise must be sized to avoid overheating the coil and the friction layer, taking the ambient temperature into account.

Braking to standstill:

$$W_z = W \times Z \leq W_{th}$$

W_{th} Maximum allowable braking energy per hour

W_z Braking energy with Z brake cycles

Z Number of brake cycles per hour

Lifting operation

In lowering operation, the drive motor acts as a generator and its braking effect results in a steady downward motion (constant speed). If we ignore transmission losses, under full load the drive must brake the load with the rated motor torque. If a mechanical brake with a braking torque equal to the braking torque of the motor is applied after the drive is switched off, the downward motion will continue at the same speed. This means that additional braking torque is necessary to stop the motion of the load. For example, if the brake is dimensioned for 200% braking torque, approximately 100% is used for "static" deceleration and the rest is used for "dynamic" deceleration.

If part of the braking torque is required for braking the load during lowering (downward motion), the brake engagement time is greater, and the thermal load is therefore greater.

In this case

$$W_H = \frac{M_{Br}}{M_{Br} - M_L} \times W_z$$

W_H Friction energy per hour in lifting operation

M_{Br} Braking torque of the brake

Brake lifetime

The energy absorbed during braking causes the brake disc to wear, which increases the air gap. If the air gap increases beyond a certain maximum gap size, the magnetic field is so weak that the pulling force of the electromagnet is no longer sufficient to release the brake. A proper air gap must be restored by adjusting the air gap or by replacing the brake disc, depending on the type of brake construction.

The maximum number of brake cycles until service is necessary can be calculated as follows:

$$Z_L = \frac{W_L}{W}$$

Z_L Number of brake cycles until the air gap limit is reached

W_L Maximum allowable braking energy until maintenance; i.e. replacing the brake disc or adjusting the air gap. Adjustment of the air gap is possible only with type ZXSxx brakes.

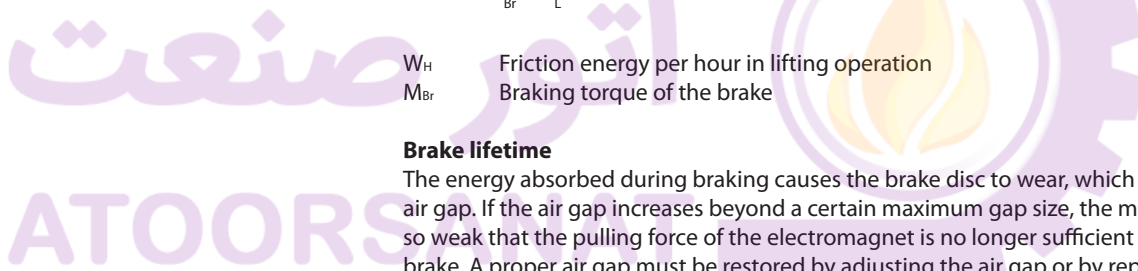
Deceleration time

The pure braking time from the start of mechanical braking to standstill depends on the braking deceleration.

Especially with lifting operation, but also in other types of operation, it is necessary to check whether the load torque reinforces the braking effect or counters the braking effect.

The deceleration time is therefore calculated as follows:

$$t_a = \frac{J_{ges} \times n_a}{9,55 \times (M_{Br} \pm M_L)}$$



Electrical connection

General

There are two basic options for providing the supply voltage for the DC electromagnet:

1. Externally from an existing DC control voltage mains or a rectifier in the cabinet.
2. From a rectifier built into the motor or brake terminal box. In this case, the rectifier can be powered either directly from the motor terminal board or from the mains.

Note that in the following cases the rectifier is not allowed to be connected to the terminal board of the motor:

- Pole-changing motors and motors with wide operating voltage range
- Operation from a frequency converter
- Other configurations in which the motor voltage is not constant, such as operation with soft-start devices, start-up transformers, etc.

Release

When the rated voltage is applied to the electromagnet coil, the current through the coils increases exponentially and with it the generated magnetic field. The current must rise to a certain value (I_{release}) before it overcomes the spring force and starts to release the brake.

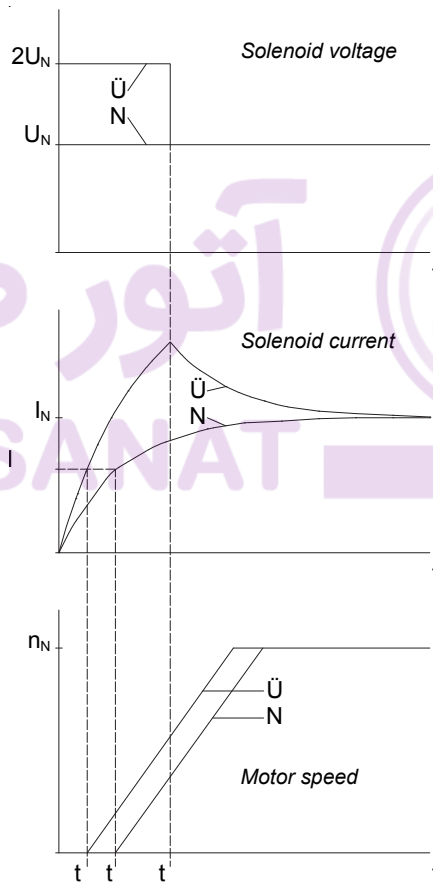


Figure 3: Idealised curves of coil voltage, coil current and motor speed with normal excitation (N) and overexcitation (Ü).
 $t_{Ü}$: overexcitation time; t_{AN} , t_{AU} : Response time with normal excitation and overexcitation.

Two different situations can arise during the response time t_A , assuming that the voltage is applied to the motor and the brake simultaneously:

- The motor is locked if $M_A < M_L + M_{Br}$
The motor draws its locked-rotor current, which increases the thermal load on the motor.
This situation is illustrated in Figure 3.
- The brake slips if $M_A > M_L + M_{Br}$
In this case, the brake is also thermally stressed during start-up and wears faster.

M_A : locked rotor torque of the motor; M_L : load torque; M_{Br} : braking torque

As can be seen, there is an additional load on the motor and brake in both cases. The effect of the response time increases with increasing brake size. Consequently, it is advisable to reduce the response time, especially with medium-sized and large brakes and with a high cycle rate. This can be achieved relatively easily by means of electrical overexcitation. With this approach, the coil is briefly operated at twice its rated voltage after switch-on.

This causes the current to rise faster than with normal excitation, and it reduces the response time by approximately 50%. This overexcitation function is built into the type MSG special rectifier.

The release current increases with increasing air gap, and with it the response time. When the release current exceeds the rated coil current, the brake will not be released with normal excitation and the brake has reached its wear limit.

Braking

The brake does not start generating braking torque immediately after the coil voltage is switched off. First the magnetic energy must decline to the point that the spring force can overcome the magnetic force. This occurs at the holding current I_{hold} , which is lower than the release current.

The response time depends on how the voltage is switched off.

Switching off the AC supply voltage to a type SG standard rectifier

- a) Rectifier powered from the motor terminal board (Figure 4, curve 1)
Response time t_{A1} : very long

Cause: Due to the residual magnetism of the motor, after the motor voltage is switched off a slowly decaying voltage is induced, and it continues to supply power to the rectifier and thereby to the brake. In addition, the magnetic energy of the brake coil is dissipated relatively slowly in the freewheel circuit of the rectifier.

- b) Rectifier powered separately (Figure 4, curve 2)
Response time t_{A2} : long

Cause: After the rectifier voltage is switched off, the magnetic energy of the brake coil is dissipated relatively slowly in the freewheel circuit of the rectifier.

If the supply voltage is interrupted on the AC side, no significant switch-off voltage occurs on the electromagnet coil.

Interrupting the DC circuit of the electromagnet coil (Figure 4, curve 3)

a) By a mechanical switch

- with separate power supply from a DC control voltage mains or
- at the DC switch contacts (A2 and A3) of the type SG standard rectifier

Response time t_{A3} : very short

Cause: The magnetic energy of the brake coil is dissipated very quickly by arcing across the switch contacts.

b) Electronic

Using a type ESG or MSG special rectifier

Response time t_{A3} : short

Cause: The magnetic energy of the brake coil is dissipated quickly by a varistor integrated in the rectifier.

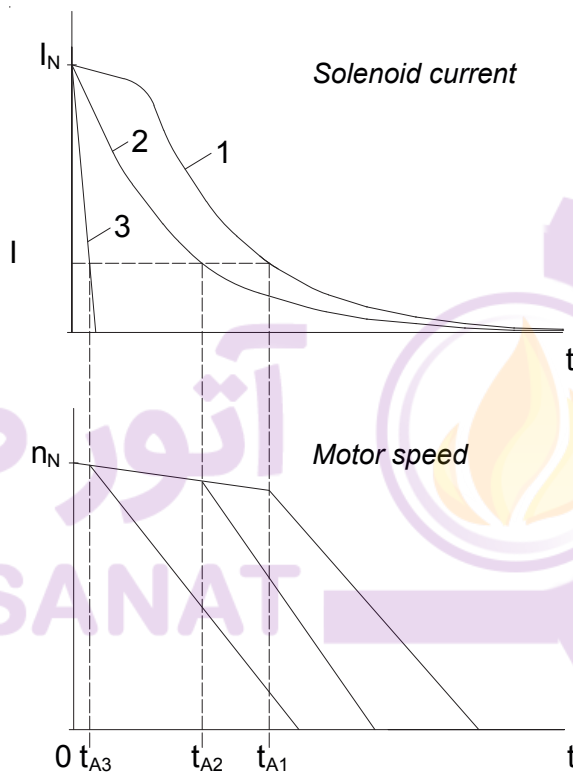


Figure 4: Idealised coil current and motor speed curves after switching off power on the AC side (1 and 2) or DC side (3)

If the circuit is interrupted on the DC side, a high voltage u_q is induced by the electromagnet coil. The magnitude of this voltage depends on the inductance L of the coil and the switch-off speed di/dt according to the formula

$$u_q = L \cdot \frac{di}{dt}$$

Due to the winding design, the inductance L increases with increasing rated coil voltage. Consequently, the voltage spikes induced at switch-off can reach hazardous levels with relatively high coil voltages. For this reason, a varistor is included in the circuit for all brakes with voltages greater than 24 V.

This varistor is solely intended to protect the electromagnet coil; it is not intended to protect adjacent electronic components or devices against electromagnetic interference. On request, brakes with rated voltages of 24 V or less can also be fitted with a varistor. If the circuit is interrupted on the DC side by a mechanical switch, the resulting arcing over the switch contacts causes strong erosion of the contacts. For this reason, only special DC contactors or adapted AC contactors with contacts rated for use class AC3 as specified in EN 60947-4-1 may be used.

Specifications of holding brakes with emergency stop capability

The maximum allowable friction energy values stated here do not apply to brake motors for use in areas with potentially explosive atmospheres.

Refer to separate data in appropriate documents for explosion-proof drives.

Type	M _{Br} [Nm]	W _{max} [10 ³ J]	W _{th} [10 ³ J]	W _L [10 ⁶ J]	t _A [ms]	t _{AC} [ms]	t _{DC} [ms]	P _{el} [W]	J [10 ⁻³ kgm ²]
E003B9	3	1,5	-	-	35	150	15	20	0,01
E003B7	2,2	1,8	-	-	28	210	20		
E003B4	1,5	2,1	-	-	21	275	30		
E004B9	5	2,5	-	-	37	125	15	30	0,017
E004B8	4	3	-	-	30	160	18		
E004B6	2,8	3,6	-	-	23	230	26		
E004B4	2	4,1	-	-	18	290	37		
E004B2	1,4	4,8	-	-	15	340	47		
ES010AX	15*	3	-	-	110	-	30	35	0,045
ES010A9	10	3	-	-	60	100	15		
ES010A8	8	3	-	-	55	150	20		
ES010A5	5	3	-	-	45	220	20		
ES010A4	4	3	-	-	30	250	20		
ES010A2	2,5	3	-	-	25	350	25		
ES027AX	32*	2,5	-	-	80	-	30	50	0,172
ES/EH027A9	27	2,5	-	-	120	100	15		
ES/EH027A7	20	2,5	-	-	100	130	20		
ES/EH027A6	16	2,5	-	-	80	170	25		
ES/EH040A9	40	3,5	-	-	100	100	20	65	0,45
ES/EH040A8	34	3,5	-	-	80	200	25		
ES/EH040A7	27	3,5	-	-	70	250	30		
ES070AX	90*	3,5	-	-	120	-	40	85	0,86
ES070A9	70	3,5	-	-	120	150	18		
ES070A8	63	3,5	-	-	120	200	20		
ES070A7	50	3,5	-	-	90	220	25		
ES/EH125A9	125	4,5	-	-	170	220	25	105	1,22
ES/EH125A8	105	4,5	-	-	150	320	28		
ES/EH125A7	85	4,5	-	-	135	350	30		
ES/EH125A6	70	4,5	-	-	120	440	35		
ES125A5	57	4,5	-	-	100	600	40		
ES125A3	42	4,5	-	-	90	700	45		
ES/EH200A9	200	8	-	-	400	150	22	105	2,85
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		

* Requires overexcitation; permissible only with MSG rectifier

Braking torque tolerance: -10 / +30%

W_{th} and W_L are not specified because little or no braking energy is dissipated by holding brakes when they are used as intended.

For versions with braking torque marked with *, which may only be used with an MSG rectifier, the values of t_A and t_{DC} apply to operation with an MSG rectifier; i.e. t_A for overexcitation or t_{DC} for electronic circuit interruption on the DC side.

Due to the effects of operating temperature and manufacturing tolerances, actual response times may differ from the guideline values listed here.

Specifications of service brakes

The maximum braking energy values stated here do not apply to brake motors for use in areas with potentially explosive atmospheres.

Refer to separate data in appropriate documents for explosion-proof drives.

Type	M _{Br} [Nm]	W _{max} [10 ³ J]	W _{th} [10 ³ J]	W _L [10 ⁶ J]		t _a [ms]	t _{ac} [ms]	t _{DC} [ms]	P _{el} [W]	J [10 ⁻³ kgm ²]
				without HL	with HL					
E003B9	3	1,5	36	55	55	35	150	15	20	0,01
E003B7	2,2	1,8	36	90	90	28	210	20		
E003B4	1,5	2,1	36	140	140	21	275	30		
E004B9	5	2,5	60	50	50	37	125	15	30	0,017
E004B8	4	3	60	100	100	30	160	18		
E004B6	2,8	3,6	60	180	180	23	230	26		
E004B4	2	4,1	60	235	235	18	290	37		
E004B2	1,4	4,8	60	310	310	15	340	47		
ESX010AX	15*	3	250	120	120	110	-	30		
ESX010A9	10	3	250	120	120	60	100	15		
ESX010A8	8	3	250	150	150	55	150	20		
ESX010A5	5	3	250	240	240	45	220	20		
ESX010A4	4	3	250	300	240	30	250	20		
ESX010A2	2,5	3	250	390	240	25	350	25		
ESX027AX	27*	10	350	150	150	80	-	30	50	0,172
ESX/EHX027A9	22	10	350	150	150	120	100	15		
ESX/EHX027A7	16	10	350	300	300	100	130	20		
ESX/EHX027A6	13	10	350	350	350	80	170	25	65	0,45
ESX/EHX040A9	32	20	450	420	420	100	100	20		
ESX/EHX040A8	27	20	450	560	490	80	200	25		
ESX/EHX040A7	22	20	450	700	490	70	250	30	85	0,86
ESX070AX	72*	28	550	700	700	120	-	40		
ESX070A9	58	28	550	500	500	120	150	18		
ESX070A8	50	28	550	800	700	120	200	20	105	1,22
ESX070A7	40	28	550	1200	700	90	220	25		
ESX/EHX125AX	100*	40	700	1900	1900	100	-	70		
ESX/EHX125A9	85	40	700	1700	1700	150	320	28	105	2,85
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		
ESX/EHX200A9	120	60	850	1700	1700	280	250	35	135	6,65
ESX/EHX200A8	110	60	850	2600	2600	200	320	35		
ESX250AX	280*	84	1000	2300	2300	180	-	70		
ESX250A9	200	84	1000	2800	2800	300	500	45		
ESX250A8	160	84	1000	6800	5700	200	960	60		
ESX250A6	120	84	1000	8500	5700	160	1100	60		
ESX250A5	100	84	1000	11000	5700	150	1500	90	75	5,7
ESX250A4	85	84	1000	11000	5700	130	1800	110		
ZSX300A9	250	60	850	1300	1300	280	220	35		
ZSX300A8	200	60	850	2000	2000	210	380	45	180	19,5
EHX400A9	320	120	1100	3000	3000	300	600	60		
EHX400A7	240	120	1100	4800	4800	200	850	75		
EHX400A5	160	120	1100	6000	4800	150	1400	85	100	13,3
ZSX500A9	400	84	1000	2800	2800	320	320	50		
ZSX500A8	320	84	1000	4000	4000	260	600	60		

* 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)

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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)

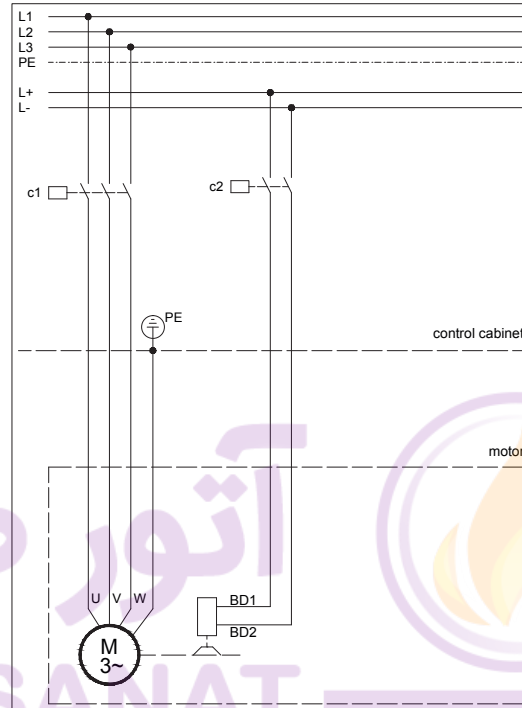
220–230 V 50/60 Hz (brake coil voltage 105 V DC)

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.



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

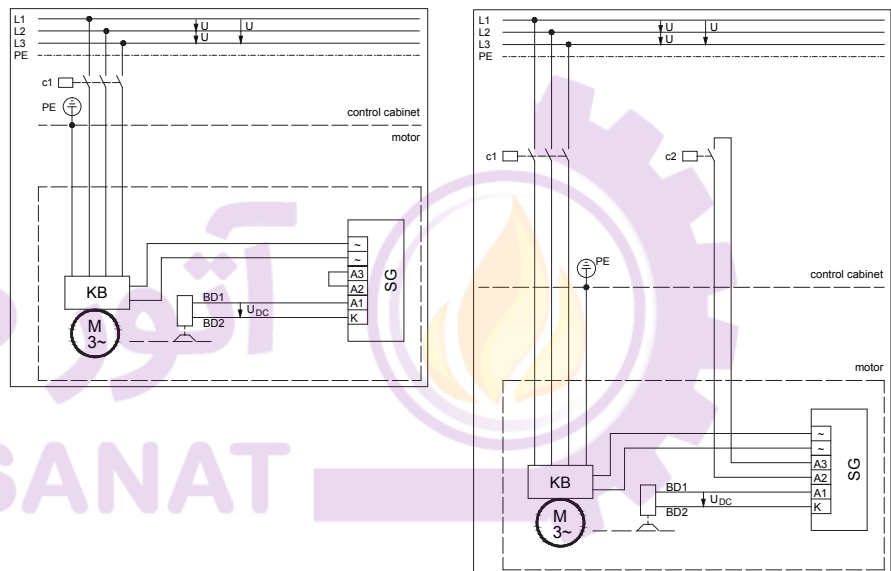
max. 1.5 mm² with wire end sleeve

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 U₁

220–460 V AC ±5%, 50/60 Hz

Output voltage

0.45 × U₁ V DC

Max. output current

1 A DC

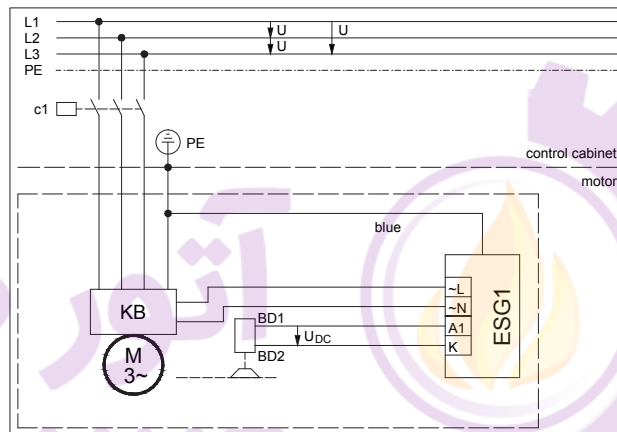
Ambient temperature

-20 °C to +40 °C

Clampable conductor cross-section

max. 1.5 mm²

This rectifier permits electronic DC-side interruption of the brake circuit. No additional cable to the rectifier is necessary. The rectifier is supplied complete with a protective resistor which prevents a mains short-circuit via the shutdown arc of the high-speed motor contactor. Brake response times are significantly shorter than those achievable by AC-side interruption of the brake circuit. They are, however, longer than those achievable with DC-side interruption by a mechanical switch. The brake must be connected to the alternating current via the rapid shutdown rectifier in the motor terminal box or the brake terminal box. The standard voltages are 380 ... 420 V 50/60 Hz or 220 ... 230 V 50/60 Hz. Other voltages up to 460 V are available at extra cost.



Voltage connection for the rectifier from the motor terminal block or cage clamp (see Rectifier Connection on Motor Terminal Block or Cage Clamp)

Standard rectifier (M)

Working principle

MSG 1.5.480I

Half-wave rectifier with time-limited overexcitation and electronic DC-side circuit interruption
Fast shutdown due to no motor current in one phase

Input voltage U1

220–480 V AC +6 / -10%, 50/60 Hz

Output voltage

0.9 x U1 V DC during overexcitation

0.45 x U1 V DC over overexcitation period

Overexcitation time

0.3 s

Max. output current

1.5 A DC

Ambient temperature

-20 °C to +40 °C

Clampable

conductor cross-section

max. 1.5 mm²

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 U1

220–500 V AC ±10%, 50/60 Hz

Output voltage

0.9 x U1 V DC during overexcitation

0.45 x U1 V DC over overexcitation period

Overexcitation time

0.3 s

Max. output current

1.5 A DC

Ambient temperature

-20 °C to +40 °C

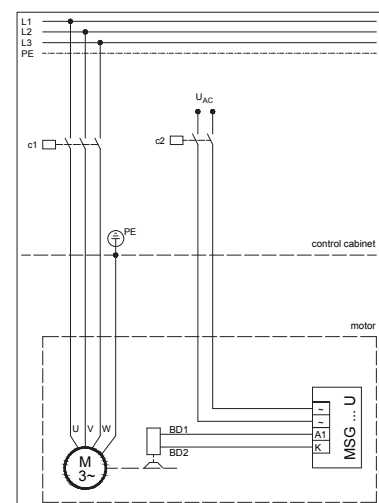
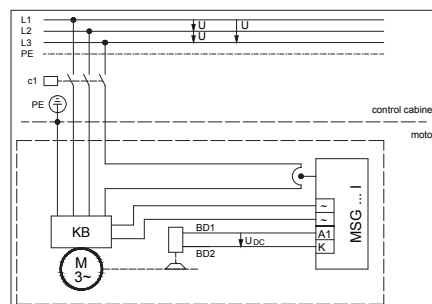
Clampable

conductor cross-section

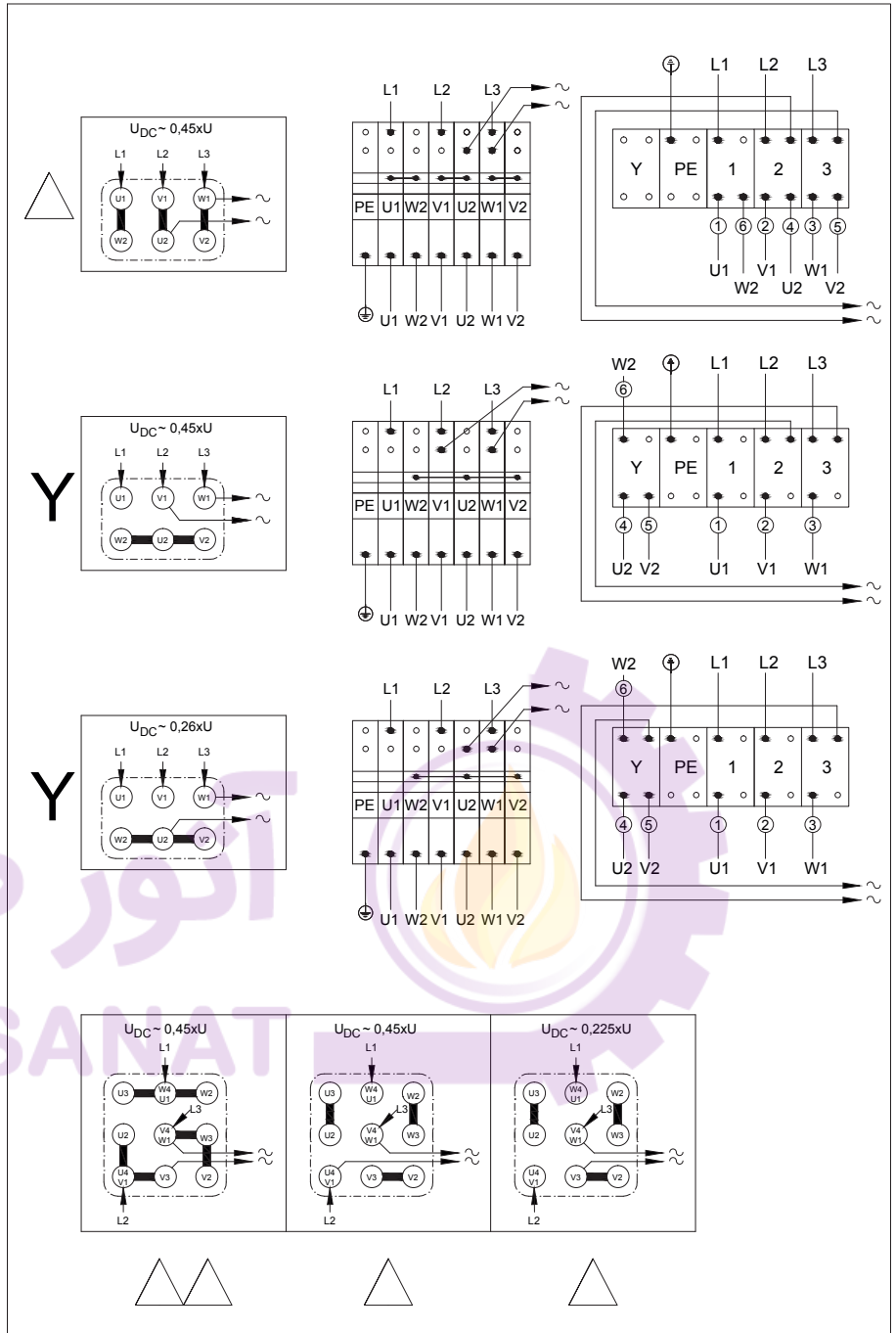
max. 1.5 mm²

In cases where there are high motor switching frequencies, the brake can be de-energised more rapidly with this rectifier thereby significantly reducing the thermal stress on the motor. In addition, interrupting the brake's DC circuit by electronic means significantly reduces response times. Depending on the circumstances in which they are to be used, either the MSG 1.5.500 U (rapid shutdown brought about by removed supply voltage) or MSG 1.5.480 I (rapid shutdown brought about by removed motor current in a phase) is used. Power supply 220 to 480 V AC.

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Rectifier Connection on Motor Terminal Block or Cage Clamp



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 vapours.
- CORO2 (C2):** Same finish as CORO1. The screws for the terminal-box cover are non-rusting steel. The mechanical internals of the brake are made of corrosion-proofed material.

CE mark

BAUER geared motors with externally mounted spring-loaded brakes bear the CE mark.

The brakes comply with:

- the **Machinery Directive (2006/42/EG)**
Manufacturer's declaration available on request
- the **Low-Voltage Directive (2006/95/EG)**
Documented by the CE mark
- the **EMC Directive (2004/108/EG)**
Documented by the CE mark

See BAUER special print SD33.. for more information.

Explosion protection

Brakes for use in hazardous areas are subject to special regulations. Please consult our support specialists in these special cases.

Back stop (RR, RL)

Motors of size D..09 (1,1kW) up to D..18 (30kW) are available with backstop. The locking rotational direction clockwise (RR) or anticlockwise (RL) is to given in the order. The reference is the connection side of the gearbox. Should the connection side not be clearly defined, gearbox side "V" (front) will be assumed (see chapter 17 Dimensions drawing "Motor with back stop").

Note that the back-stop functionality on a motor operating with a frequency converter is guaranteed only at rotor speeds above 670/min.

It is advisable to consult BAUER for applications in corrosive atmospheres, especially for motor-down installed positions.

Second motor shaft extension (ZW, ZV)

The motors are also available on request with a second motor shaft extension in design ZW (shaft with key) or ZV (shaft with square end).

Half the central motor's rated power is available at each of the two shafts. Permissible radial loads available on request. Guards are not included in the scope of supply (for dimensional drawing see chapter 17).

Motors with brakes are available on request with a second shaft stub extended through the brake.

Protective fan cowl (D)

A protective hood over the fan cowl is recommended for outdoor installations where the motor is pointing upward and subject to severe or prolonged exposure to water (dimensional drawing, see chapter 17).

This protective hood is mandatory for upright explosion-proof motors.

A special fan cowl for the textiles industry is available on request at extra cost. This design prevents airborne fibres and fluff clogging the fan cowl.

Motor-independent fan (FV)

For special applications, standard motors and brake motors of size D08 and larger are available with externally mounted motor-independent fans. The standard line voltage of the motor-independent fan matches the voltage of the geared motor (dimensional drawing for motor-independent fan, see chapter 17).

The independent fans are supplied as standard with Bayonet-fitting for standard motors sizes D..16 and D..18 and brake motors sizes D..11 to D..18. Standard enclosure IP66.

Technical Data:

Multivolt Conception Running capacitor for single phase duty enclosed as standard.

Mode	Frame size	Blower diameter (mm)	Range of voltage		max. permissible current (A)	max. power input (W)
			50 Hz	60 Hz		
1 ~ Δ	63	118	230-277	230-277	0,12	32
	71	132	230-277	230-277	0,12	33
	80	150	230-277	230-277	0,14	37
	90	169	230-277	230-277	0,29	65
	100	187	230-277	230-277	0,30	75
	112	210	230-277	230-277	0,37	94
	132	250	230-277	230-277	0,60	149
	160-200	300	230-277	---	0,96	236
3 ~ Y	63	118	380-500	380-575	0,06	28
	71	132	380-500	380-575	0,06	29
	80	156	380-500	380-575	0,06	34
	90	169	380-500	380-575	0,19	75
	100	187	380-500	380-575	0,17	94
	112	210	380-500	380-575	0,17	99
	132	250	380-500	380-575	0,25	148
	160-200	300	380-500	380-575	0,54	360
3 ~ Δ	63	118	220-290	220-332	0,10	28
	71	132	220-290	220-332	0,10	28
	80	156	220-290	220-332	0,10	34
	90	169	220-290	220-332	0,33	78
	100	187	220-290	220-332	0,31	87
	112	210	220-290	220-332	0,31	103
	132	250	220-290	220-332	0,45	146
	160-200	300	220-290	220-332	0,91	360

Shaft encoder (G)

Bauer gear motors can be fitted with either an incremental encoder or an absolute encoder for special applications. Both the standard incremental encoder and the absolute encoder are optimised and suitable for use with all modern inverters.

Bauer standard encoders as from motor frame size D05 (0,18kW) 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)

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Functional description



Incremental encoders are used to determine motor shaft positions. An incremental encoder detects rotary motion and converts it into an electrical output signal. An encoder disc with a specific number of periods per rotation senses angular motion. The optoelectronic scanning unit generates signals and issues pulses after the signals have been processed in trigger stages. The resolution is defined by the number of opaque and clear segments on the encoder disc. For example, an encoder with 1024 lines will generate a sequence of 1024 pulses for one full rotation.

The combination of an incremental encoder and a frequency converter allows optimised solutions to be developed, such as

- speed controllers with a wide adjustment range
- accurate speed control
- constant-speed control
- position control

Supply voltage:	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:	max. ±20 mA	max. ±20 mA	max. ±20 mA	max. ±20 mA
Pulse rate:	max. 300 kHz	max. 300 kHz	max. 300 kHz	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


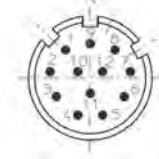
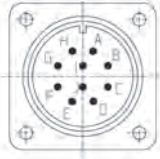
CE compliant in accordance with EN 61000-6-2, EN 61000-6-3 and EN 61000-6-4

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

Plug end view with male pin insert

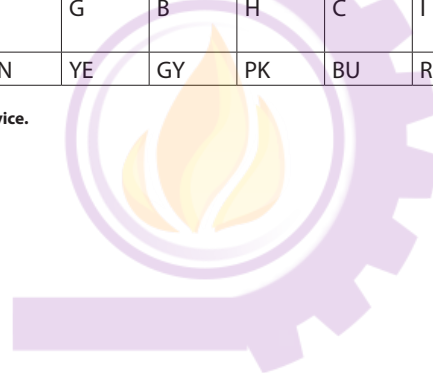
Connector type	8-pin M12 plug	12-pin M23 plug	MIL connector 10-pin
Layout			
Order code:	8.5000.XXX3.XXXX 8.5000.XXX4.XXXX	8.5000.XXX7.XXXX 8.5000.XXX8.XXXX	8.5000XXX.YXXXX
Mating 05.CMB-8181-0 connector:		8.0000.5012.0000	8.0000.5062.0000

Signal assignments

Signal:	0 V GND	+U _B	0 V Sens	+U _B Sens	A	A	B	B	Z	Z	Shield
M23 Multifast, 12-pin connector; pin assignments: M12 Eurofast, 8-pin connector; pin assignments:	10 1	12 2	11	2	5 3	6 4	8 5	1 6	3 7	4 8	1) 1)
Military version; 10-pin connector; pin assignments:	F	D		E	A	G	B	H	C	I	J ¹⁾
Cable; lead colour:	WH	BN	GY PK	RD BU	GN	YE	GY	PK	BU	RD	Shield

¹ Shield connected to plug housing.

Insulate unused outputs before putting into service.



Functional description

Absolute encoders detect both angular and rotational motions and convert them into electrical signals. In contrast to incremental encoders, with absolute encoders the current position is directly available. If an absolute encoder is moved mechanically while it is switched off, after the power is switched on again the current position can be read out immediately and directly. Absolute encoders are available in single-turn and multi-turn versions.

Profibus DP interface



Specifications

Supply voltage	11–27 VDC
No-load current consumption	< 350 mA
Total resolution ¹	≤ 33 bits
Number of steps per revolution, standard/extended ¹	≤ 8,192 / ≤ 32,768
Number of turns, standard/extended ¹	≤ 4,096 / ≤ 256,000
Profibus DP V0	IEC 61158, IEC 61784
PNO encoder profile	Class 1/Class 2
parameters ¹	Counting direction switchover, scaling function, etc.
Output code ¹	Binary, Gray, truncated Gray
Address	3–99, set using a rotary switch
Baud rate	9.6 kbit/s to 12 Mbit/s
TR-specific functions ¹	Gear and speed outputs
Data width on bus for actual position	≤ 25 bits
Permissible mechanical speed	≤ 12,000 rpm
Shaft load	Own mass
Bearing life	≥ 3.9 x 10 ¹⁰ revolutions at
- speed	≤ 6,000 rpm
- operating temperature	≤ 60 °C
Shaft diameter [mm]	8H7, 10H7, 12H7
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

² With mating connector fitted and/or cable glands fitted and tightened

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 x 10 ¹⁰ revolutions at
- speed	≤ 6,000 rpm
- operating temperature	≤ 60 °C
Shaft diameter [mm]	8H7, 10H7, 12H7
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
Optional	- incremental signals, RS422 levels K1+, K1-, K2+, K2- with 1024 or 2048 pulses

¹⁾ Configurable parameter

Ambient conditions

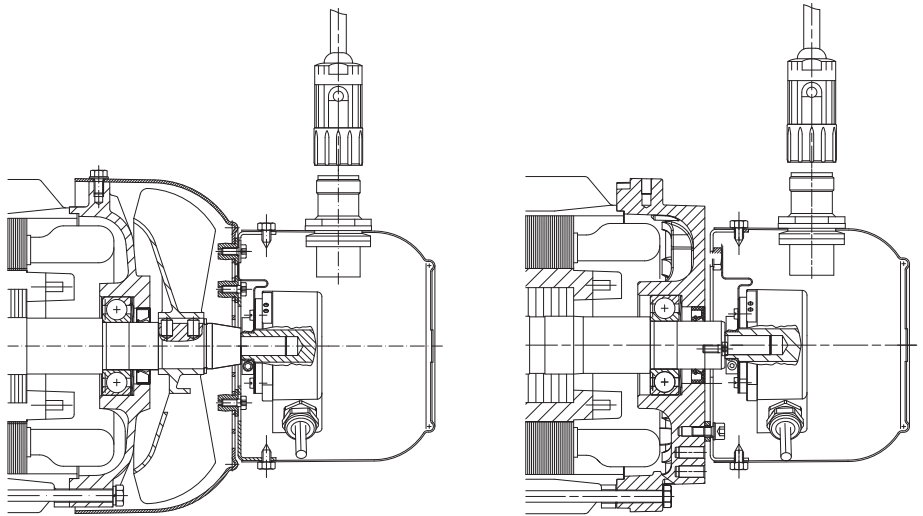
Vibration (EN 60068-2-6:1996)	≤ 100 m/s ² , sinusoidal 50–2,000 Hz
Shock (EN 60068-2-27:1995)	≤ 1000 m/s ² , half-cycle sinusoidal 11 ms
EMC	- Interference emission compliant with EN 61000-6-3:2007 - Interference immunity compliant with EN 61000-6-2:2006
Operating temperature	0 °C to +60 °C; optionally -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

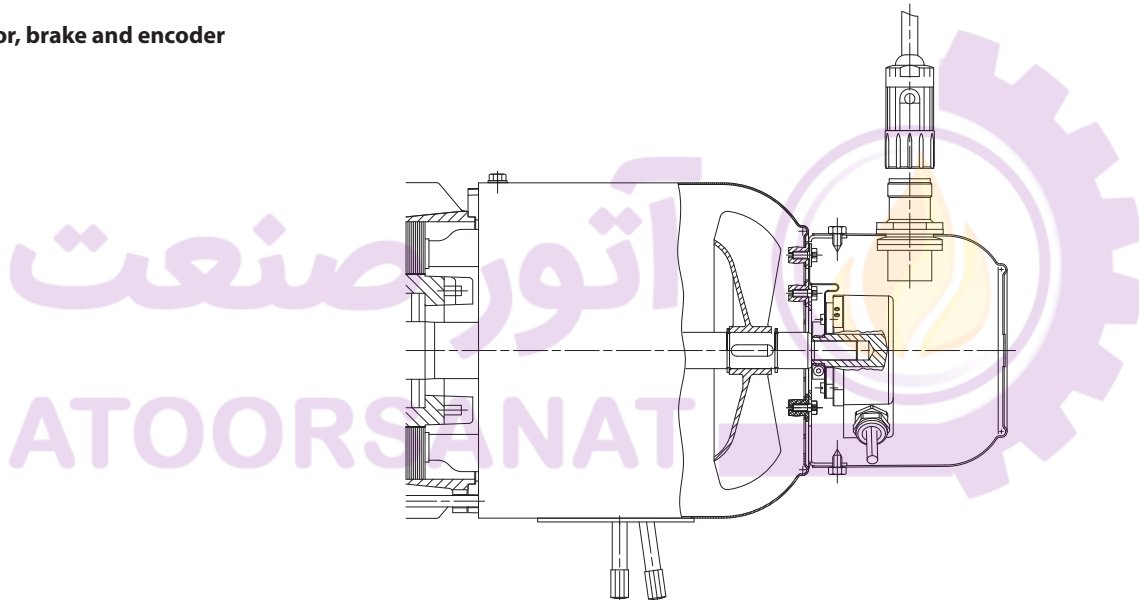
In addition to the angular position within a rotation, multiturn encoders detect multiple rotations. An internal reduction gear mechanism connected to the motor shaft is used to detect the number of turns. Consequently, the value measured by a multiturn encoder consists of the current angular position 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.

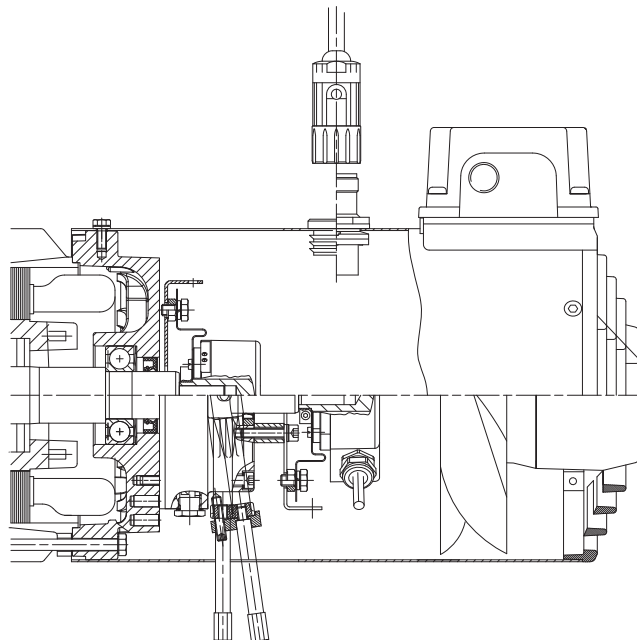
Motor and encoder



Motor, brake and encoder

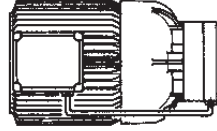


Motor and forced ventilation



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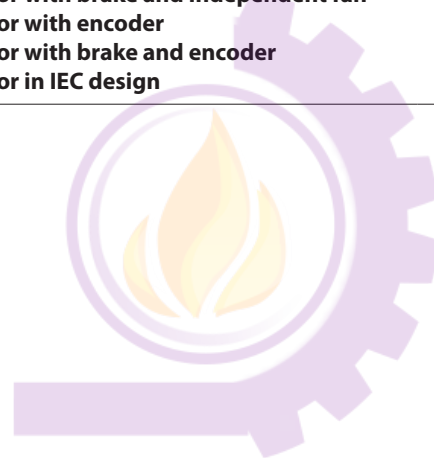
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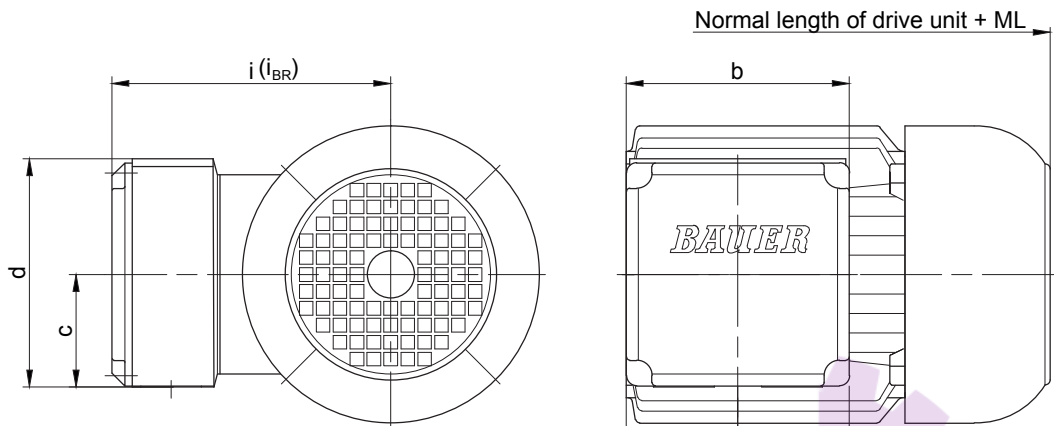
**Additional dimensional drawings for
motor-mounted components**

- 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

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Standard terminal box

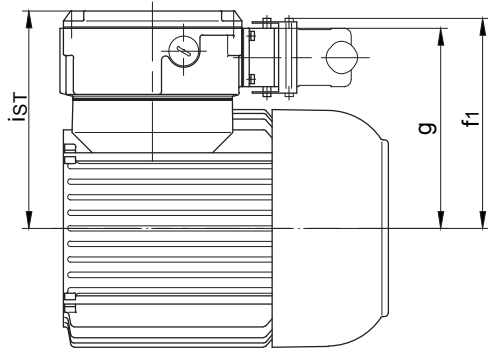


Motor/ Motor with Brake	Dimensions (mm)						Code	Cable entry Major (M) Minor (N)	max. wrench size for cable entry gland
	a	b	c	d	e	i / i _{BR}			
D04..	42.5	88	44	88	44	90	KAG1	M=2xM20x1.5	24 mm
D05..	50	100	50	100	50	100	KAG2	M=2xM25x1.5	29 mm
D06..	50	100	50	100	50	100	KAG2	M=2xM25x1.5	29 mm
D07..	50	100	50	100	50	100	KAG2	M=2xM25x1.5	29 mm
D..08..	50	100	50	100	50	115	KAG2	M=2xM25x1.5	29 mm
D..09..	50	100	50	100	50	124	KAG2	M=2xM25x1.5	29 mm
D..11..	62	132	66.5	135	66	181	TB222	M=2xM32x1.5; N=2xM25x1.5	-
D..13..	78	156	78.5	158	78	217	TB322	M=2xM40x1.5; N=2xM25x1.5	-
D..16..	74	156	78.5	158	78	243	TB322	M=2xM40x1.5; N=2xM25x1.5	-
D..18..	94	200	100.5	201	100	288	TB422	M=2xM50x1.5; N=2xM25x1.5	-

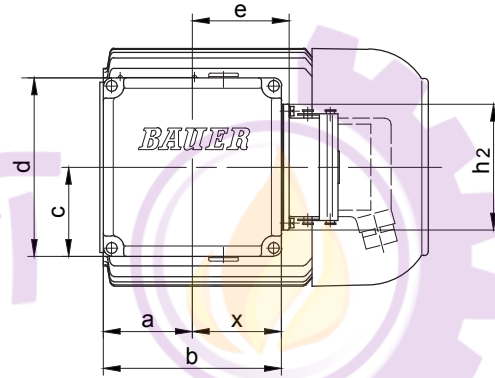
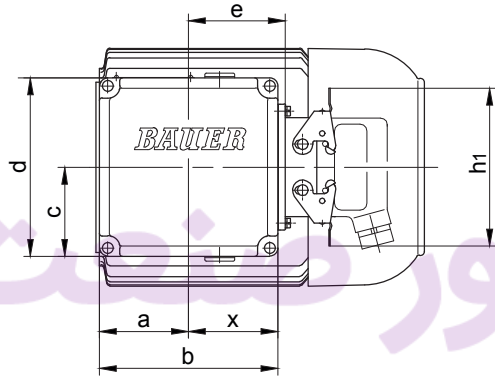
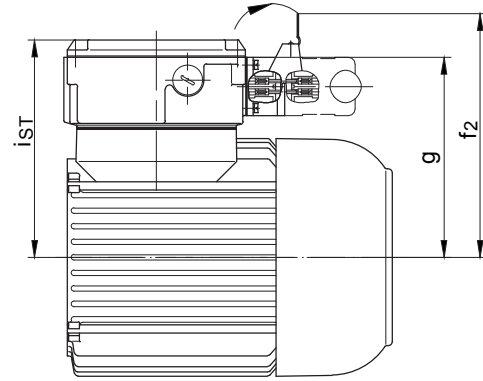
The actual gearbox design can vary from the geometry shown.

Plug-connector terminal box

Standard design (two brackets)



Optional for DESINA (one bracket)

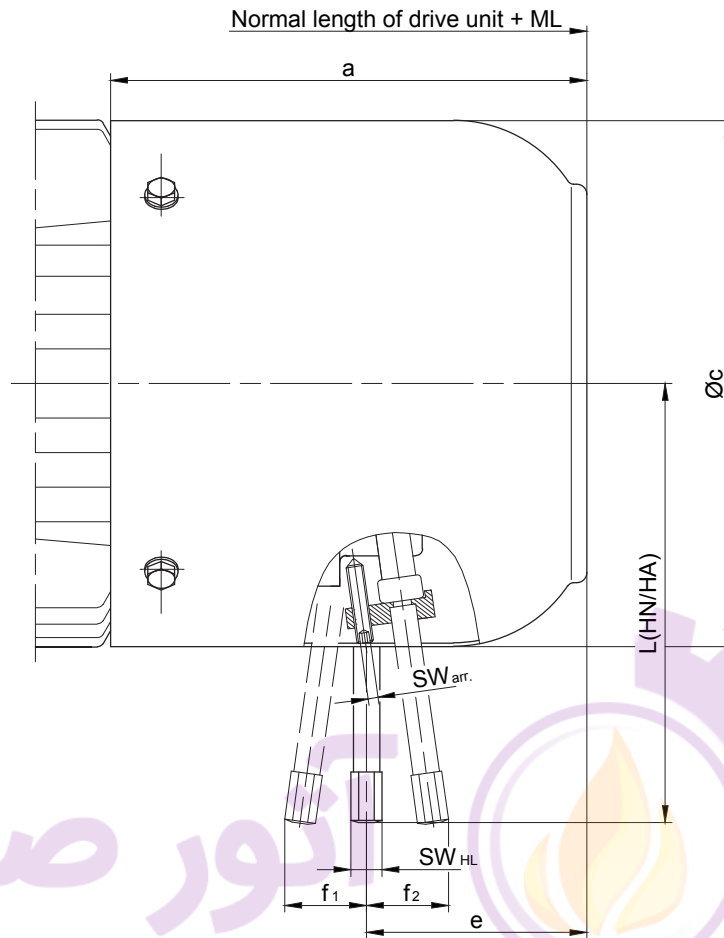


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Motor	Size of Terminalbox	a	b	c	d	e	f ₁	f ₂	g	h ₁	h ₂	i _{ST}	x
D04	TBS1	30	90	52.5	106	49	118.5	147	111	117	93	124.5	46
D05	TBS1	57	90	52.5	106	49	123.5	152	116	117	93	129.5	46
D06	TBS1	45	90	52.5	106	49	125.5	154	118	117	93	131.5	46
D07	TBS1	45	90	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

The actual gearbox design can vary from the geometry shown.

Standard brakes

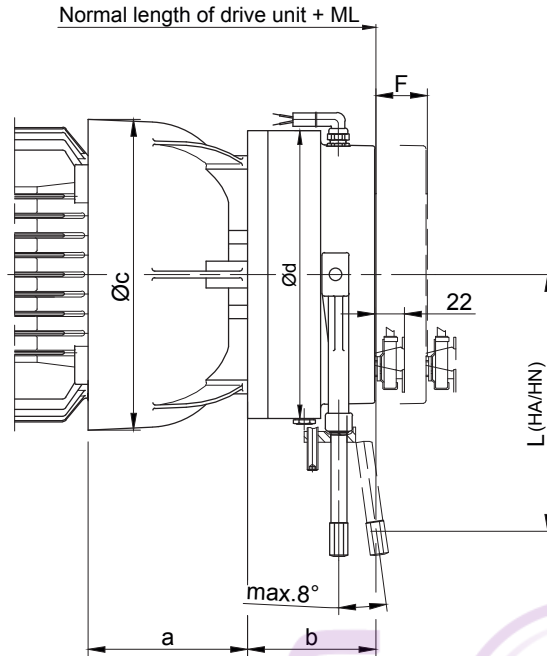


Motor Type	Brake Type	ML(mm) Additional length with brake	Dimensions (mm)								Add. weight kg
			a	Øc	e	f ₁	f ₂	L(HN/HA)	SW _{HL}	SW _{arr.}	
D04	E003	43.5	97	110.5	58.5	20.5	24	96/102	8	2.5	1.0
D05					60						
D06					60						
D07					58.5						
D..08	ES(X)010	66	141	156	68	-	29	132	8	2.5	2.6
D..09	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			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	280	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	149	304	348	153	-	58.5	286	12	4	28
	ZS(X)500				123	-	-	-	19	5	30

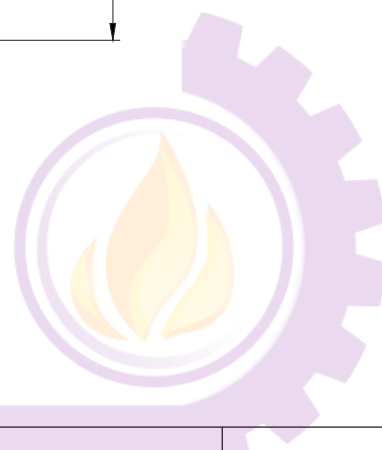
HN = Manual release non-locking

HA = Manual release locking

The actual gearbox design can vary from the geometry shown.

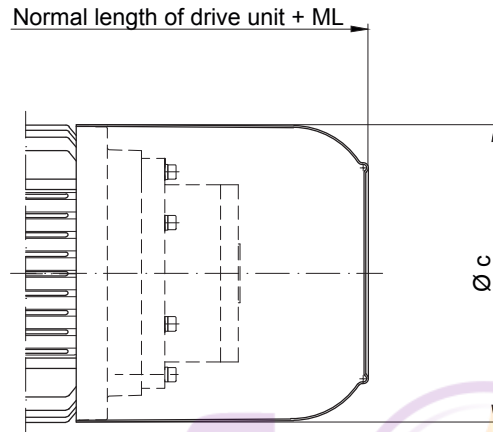


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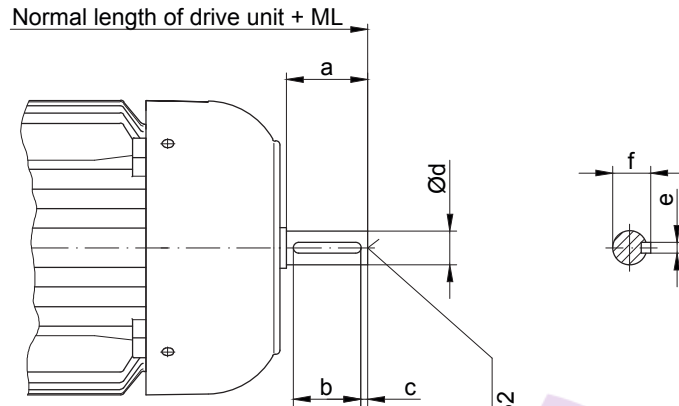
Motor	Brake	ML(mm) Additional length with brake		Dimensions (mm)					Add. weight kg
		Standard	Micro s.	a	b	c	Ød	L (HA/HN)	
D..08	EH(X)027	79	101	83.5	66.5	166	145	162	5.5
D..09	EH(X)040	90	112	102	73	191	168	172	8.3
D..11	EH(X)125	114	136	120	95	231	213	208.5	19.5
D..13	EH(X)200	128	150	140	106	274.5	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 with back stop

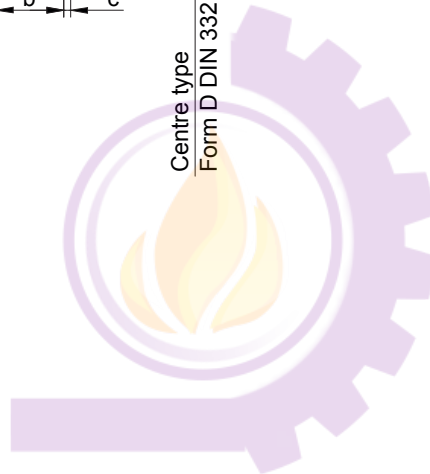


Motor	ML (mm) Add. length with backstop	Dimensions (mm)	Add. weight
		c	kg
D..08	66	156	6.5
D..09	93	181	6.5
D..11	98	228	8
D..13	111	258	13.5
D..16	144	322	16
D..18	149	368	17

Motor with second shaft end



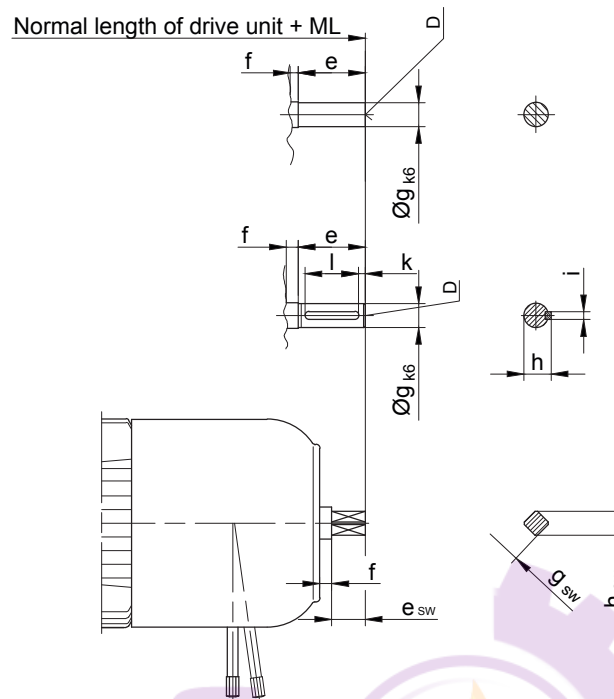
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Motor	ML(mm) Add. length with second shaft extension	Dimensions (mm)						Centre DIN 332
		a	b	c	d	e	f	
D04	20	15	-	-	8g6	-	-	-
D05	25	20	-	-	10k6	-	-	-
D06	25	20	-	-	10k6	-	-	-
D07	25.5	20	-	-	10k6	-	-	-
D..08	45	40	30	5	16k6	5	18	D 5
D..09	55	50	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

The actual gearbox design can vary from the geometry shown.

Motors with brake and second shaft end



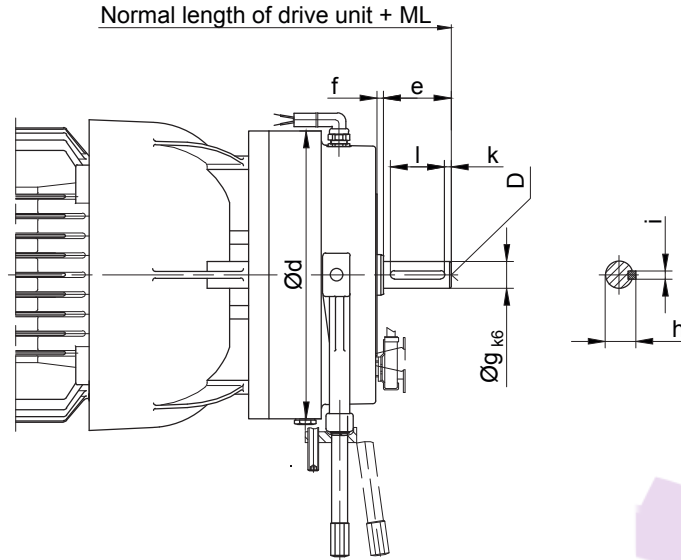
Motor	Brake	Additional length		Dimensions (mm)											Centre D DIN332	
		ML	ML _{sw}	e	e _{sw}	f	g	g _{sw}	h	h _{sw}	i	k	l	Centre D	sw	
D04	E003	63	-	15	-	5	8	-	-	-	-	-	-	-	-	-
D05				20			10									
D06				20			10									
D07				20			10									
D..08	ES(X)..	121	96 *	50	25 *	5	18	SW14 *	20.5	18 *	6	5	40	D6	D4 *	
D..09		98	123 *				20	SW14	22.5 *	18	6 *	40 *	D6 *	D4		
D..11		153.5 *	128	50 *	25		28 *	SW22	31 *	28	8 *	5 *	50 *	D10 *	D10	
D..13		176 *	156	60 *	40		4.5	28 *	SW22	31 *	28	8 *	5 *	50 *	D10 *	D10
D..16	ES(X).. / ZS(X)..	208.5 *	188.5	60 *	40	4.5	28 *	SW22	31 *	28	8 *	5 *	50 *	D10 *	D10	
D..18		359 *	194.5			5	28 *	SW22	31 *	28	8 *	5 *	50 *	D10 *	D10	

* Special design

** with manual release

The actual gearbox design can vary from the geometry shown.

Motor with "heavy duty" brake and second shaft end

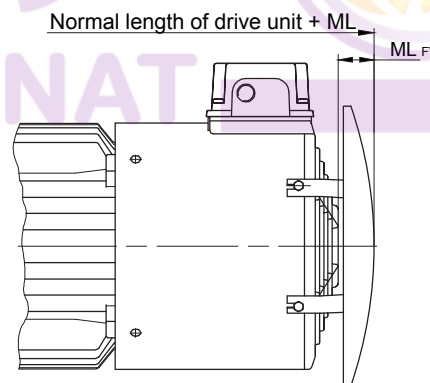
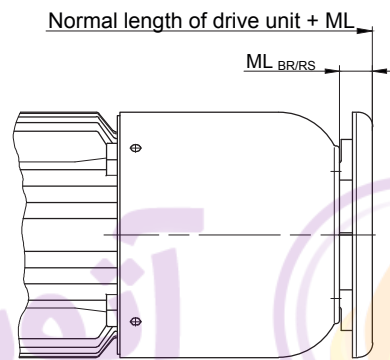
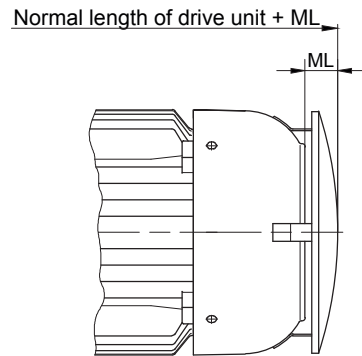


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Motor	Brake	ML(mm) Additional length with brake and encoder	Dimensions (mm)								Centring D 332	Add. weight kg
			Ød	e	f	g	h	i	k	k		
D..08	EH(X)027	132	145	50	4	18	20.5	6	5	6	D06	6
D..09	EH(X)040	144	168		20							22.5
D..11	EH(X)125	169	213			20	22.5					
D..13	EH(X)200	192	245	60	5	28	31	8	8	D10	29.5	
D..16	EH(X)400	205.5	324								30	33
D..18		216.5				30	33					

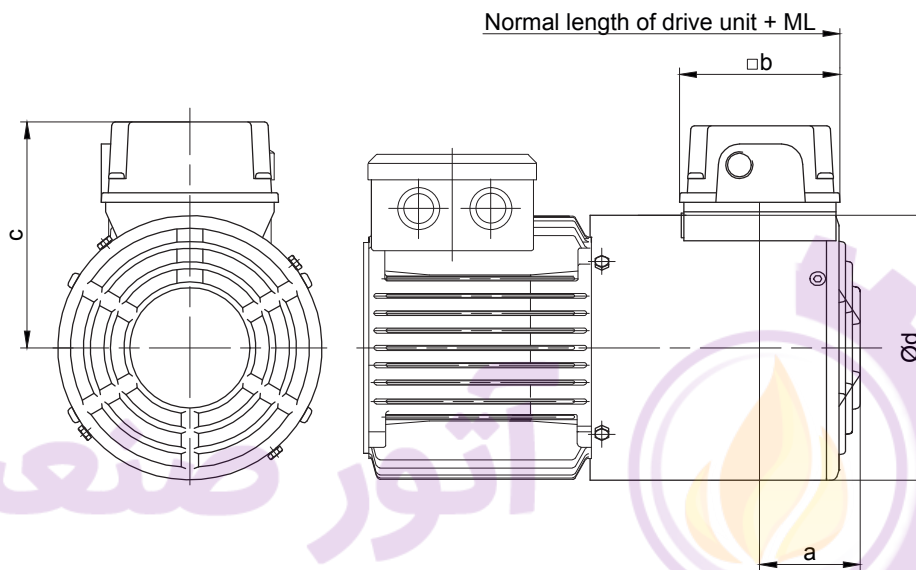
Motor with second shaft end



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	47	34.5	34.5	32	1.8
D..18	54	34.5	34.5	32	5.5

The actual gearbox design can vary from the geometry shown.

Motor with independent fan



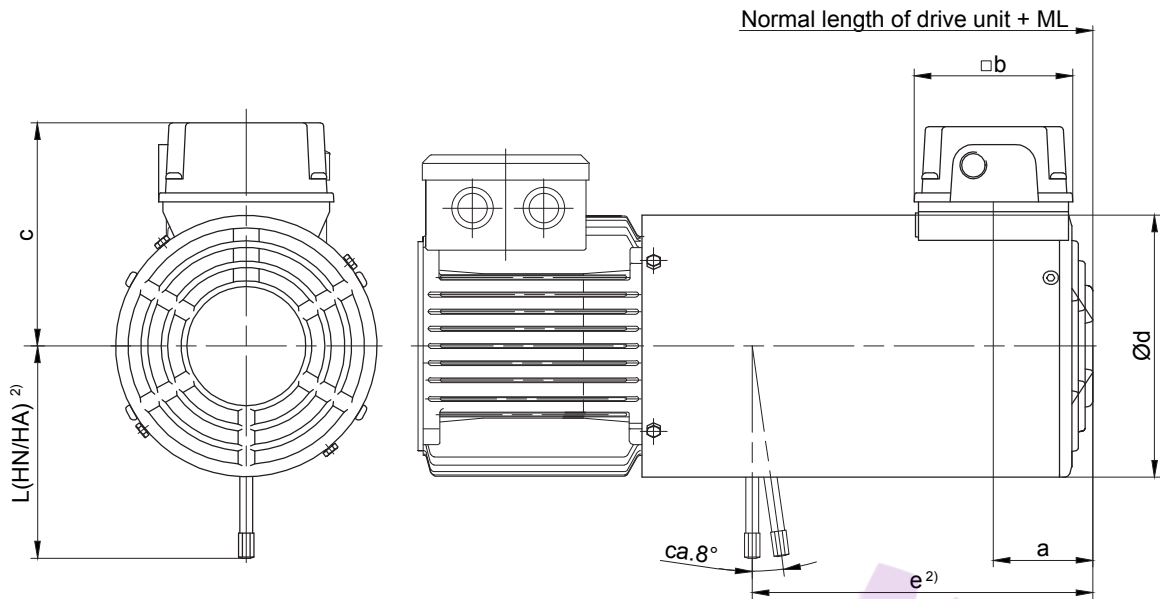
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Drive Motor	Fan Motor			400 V	ML (mm) Additional length forced vent.	Dimensions (mm)				Add. weight
Type	Type	kW	r/min	A		a	b	c	d	~ kg
D..08	FV D08	0.019	2670	0.029	92	69.5	95	131.5	157	2.2
D..09	FV D09	0.046	2820	0.106	97	69.5	95	141.5	176	2.7
D..11	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 with brake and independent fan



Motor	Brake	ML (mm) ¹⁾ Additional length with attached brake and forced ventilation	Dimensions (mm)						Add. weight ~kg
			a	b	c	Ød	e ²⁾	L(HN/HA) ²⁾	
D..08	ES(X)010	202	59	95	131.5	157	204	132	5.0
D..09	ES(X)010	214	69.5	95	141.5	176	220	132	5.5
	212						7.5		
D..11*	ES(X)027	221	69.5	95	162.5	219	226	172	8.0
	ES(X)040						218		12
	ES(X)070						254		11.5
D..13*	ES(X)040	237	79.5	95	182	258	250	225	13.5
	ES(X)070						245		17.5
	ES(X)125						298		19.5
D..16*	ES(X)125	294	78.8	95	208.5	311	291	256	25
	ES(X)200						262		27
	ZS(X)300						307		37
D..18*	ES(X)250	303	78.8	95	208.5	348	277	286	38.5
	ZS(X)500						37		

* bayonet joint

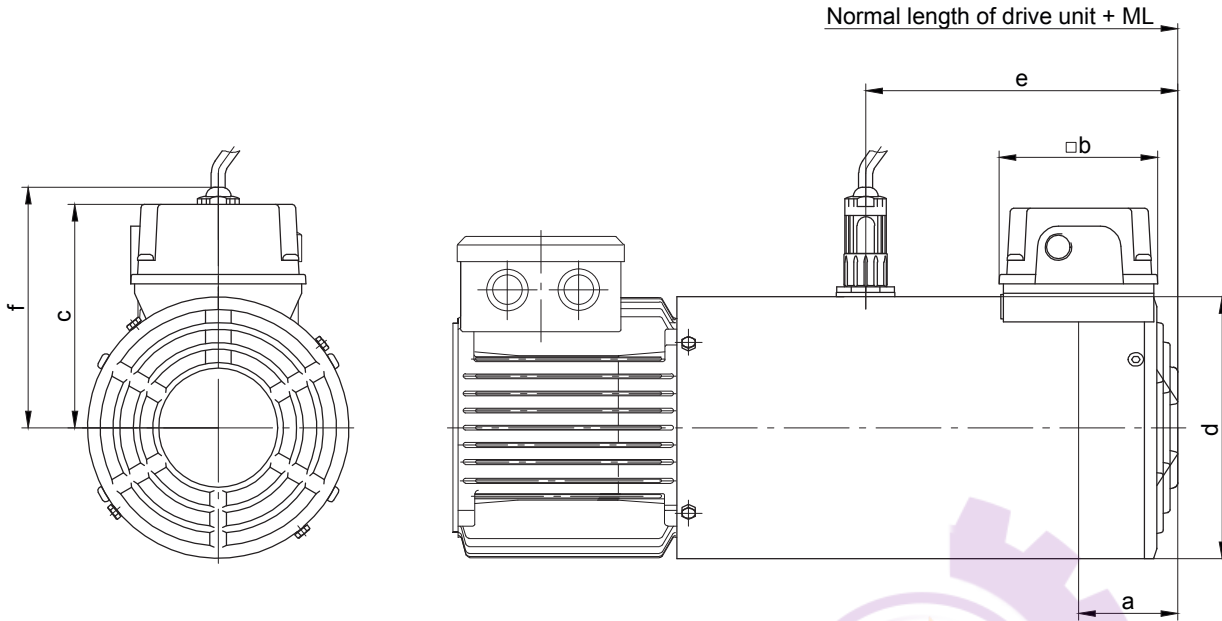
1) The additional length is for normal motor unit without brake.

Other dimensions see the appropriate normal dimensioned sketch

2) Brake release on request

The actual gearbox design can vary from the geometry shown.

Motor with encoder with built-on independent fan



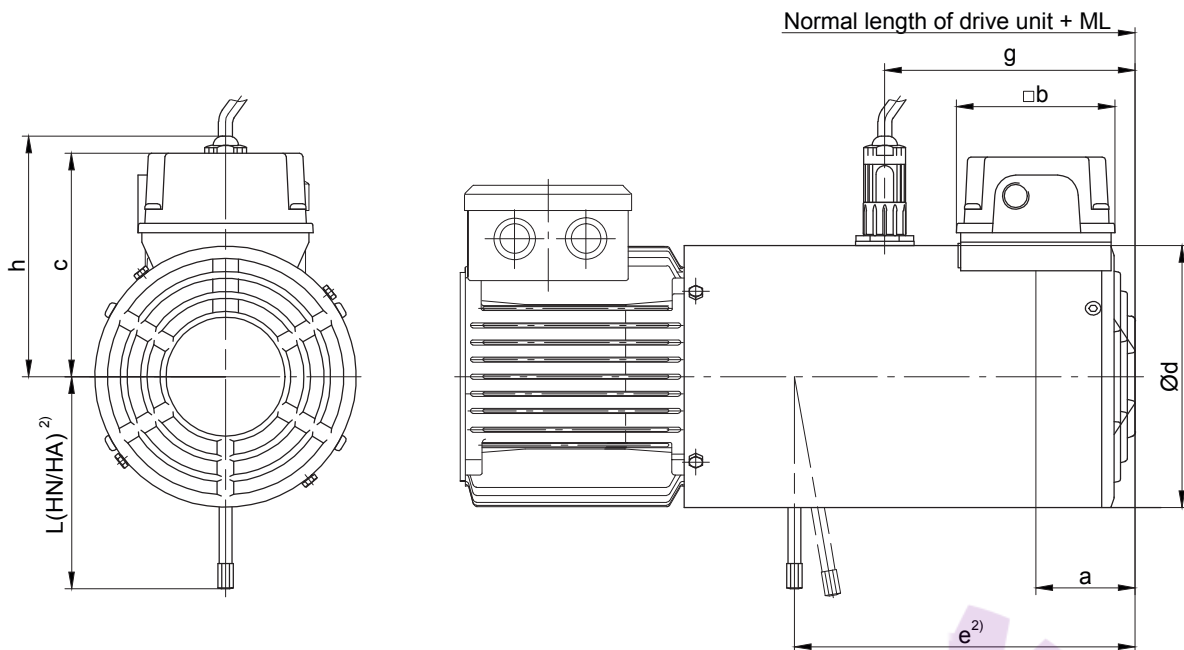
Motor	ML(mm) ¹⁾ Additional length with attached encoder and forced ventilation	Dimensions (mm)						Add. weight ~ kg
		a	b	c	d	e	f	
D..08	202	59	95	131.5	157	187	144	2.6
D..09	214	69.5	95	141.5	176	192	153.5	3.3
D..11*	221	69.5	95	162.5	218	192	-	4.0
D..13*	240	79.5	95	182	258	217	-	5.7
D..16*	294	78.8	95	208.5	311	252	-	7.9
D..18*	303	78.8	95	208.5	348	267	-	10.9

* with bayonet joint

1) The additional length is for normal motor unit without brake.
Other dimensions see the appropriate normal dimensioned sketch

The actual gearbox design can vary from the geometry shown.

Motor with brake and encoder with built-on independent fan



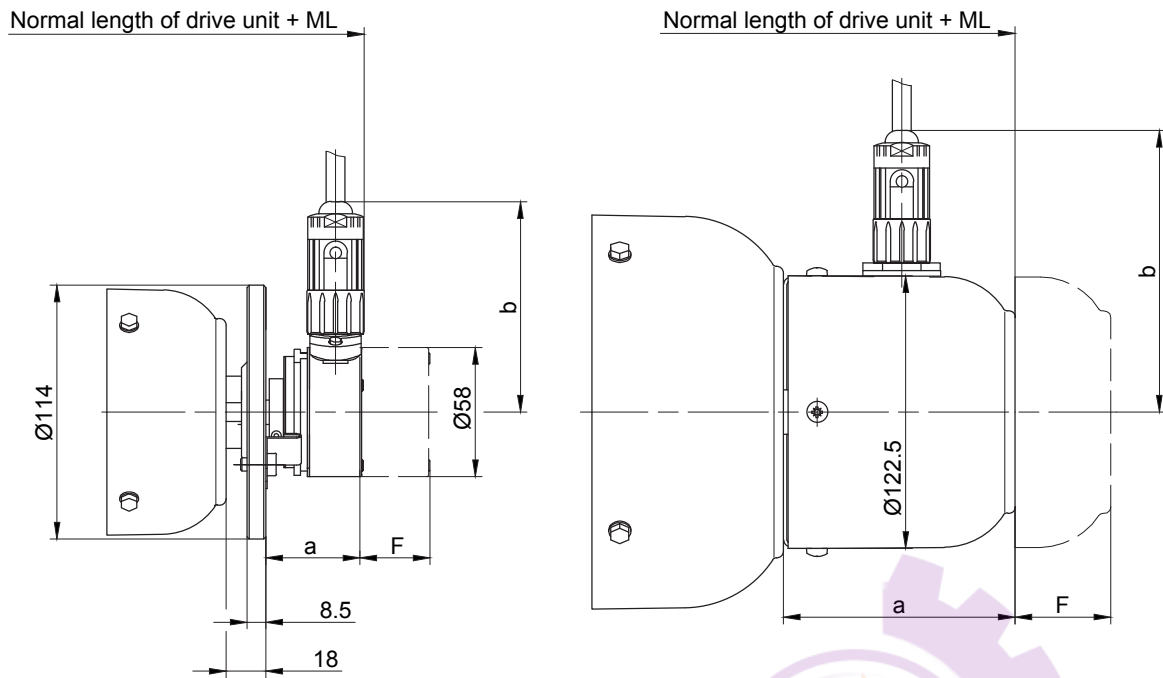
Motor	Brake	ML (mm) ¹⁾ Additional length with attached brake, encoder and forced ventilation	Dimensions (mm)								Add. weight ~ kg
			a	b	c	Ød	e ²⁾	g	h	L(HN/HA) ²⁾	
D..08	ES(X)010	202	59	95	131.5	157	204	150	150	132	6.0
D..09	ES(X)010	214	69.5	95	141.5	176	220	160	160	132	6.5
	212						160	162			
D..11*	ES(X)027	221	69.5	95	162.5	219	226	155	155	162	9.0
	ES(X)040						223	155		172	11.5
	ES(X)070						218	155		184	13.5
D..13*	ES(X)040	240	79.5	95	182	258	254	175	175	202	13
	ES(X)070						250	175		225	15
	ES(X)125						245	175		223	19
D..16*	ES(X)125	294	78.8	95	208.5	311	298	195	195	244	21
	ES(X)200						291	195		256	27
	ZS(X)300						262	195			29
D..18*	ES(X)250	303	78.8	95	208.5	348	207	212	212	286	39
	ZS(X)500						277	212			40.5

bayonet joint

- 1) The additional length is for normal motor unit without brake.
Other dimensions see the appropriate normal dimensioned sketch
- 2) Brake release on request

The actual gearbox design can vary from the geometry shown.

Motor with encoder

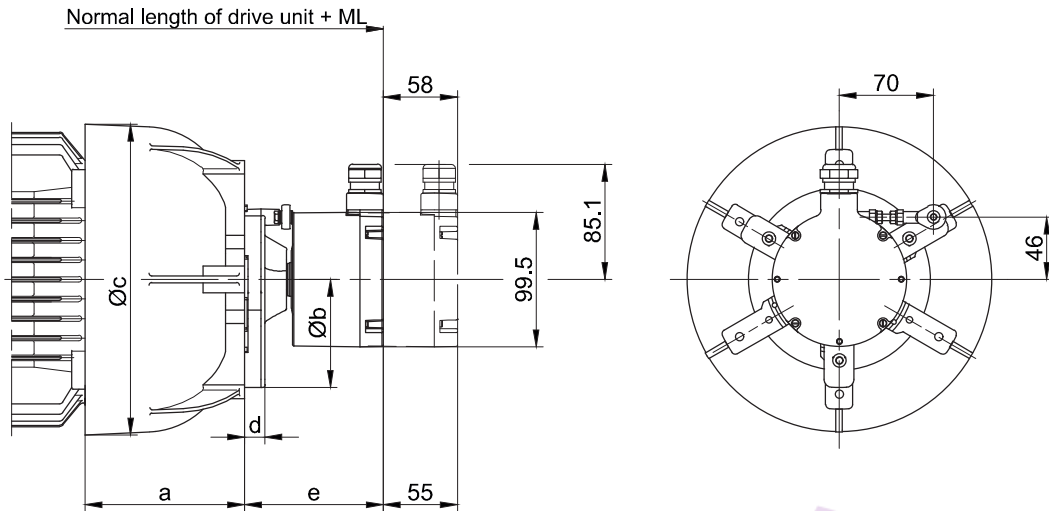


D04

D05-D..18

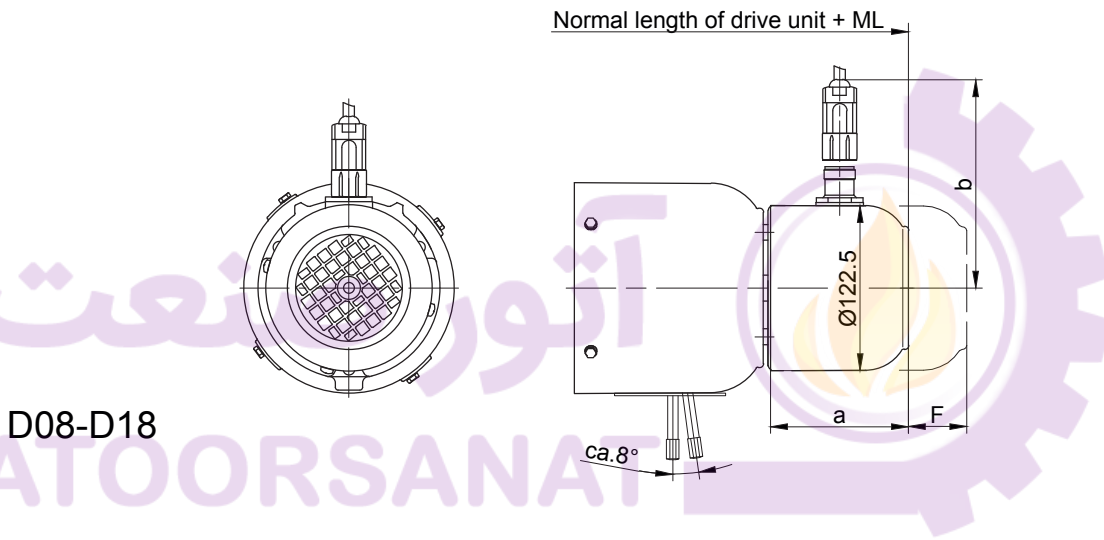
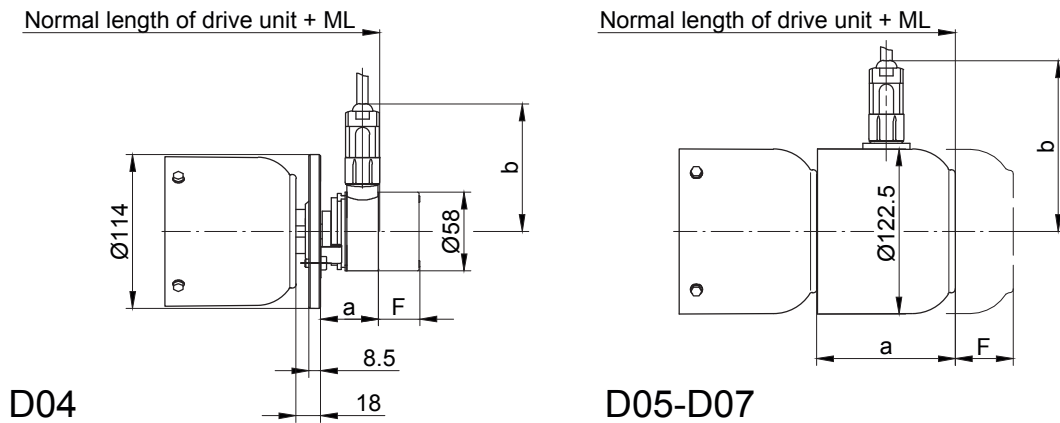
Motor	ML(mm) Additional length with encoder	Dimensions (mm)				Add. weight kg	Free space for removing encoder "F"	
		incremental encoder Fa. Kübler Typ 5820		absolute encoder Fa. TR Typ CS58-M			incremental encoder Fa. Kübler Typ 5820	absolute encoder Fa. TR Typ CS58-M
		a	b	a	b			
D04	62.5	43.5	95	69.5	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								
D..16	108	104	104	104	104	0.8	43	68
D..18								

Motor with "heavy duty" encoder



Motor	ML(mm) Additional length with encoder	Dimensions (mm)					Add. weight kg
		a	b	c	d	e	
D..08	114	83.5	160	166	15	102.5	2
D..09	118.5	102		191			
D..11	121.5	120	185	231	17	94.5	5.4
D..13	115.5	140		274.5			8.6
D..16	113.5	155		326			9.6
D..18	122.5	183	366	11.5			

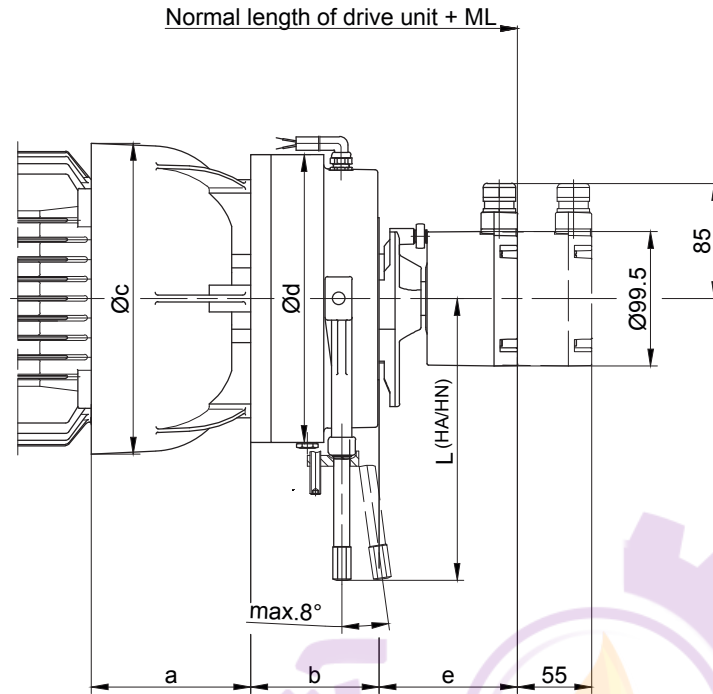
Motor with brake and encoder



Motor	Brake	ML(mm) Additional length with encoder and brake	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. Kübler Typ 5820	absolute encoder Fa. TR Typ CS58-M
			a	b	a	b			
D04	E003 E003 / E004	105.5	43.5	95	69.5	109.5	0.7	30	55
D05		145	102	127	102	127	0.9	63	88
D06									
D07									
D..08	ES(X)..	173.5					102	127	102
D..09	ES(X)..	197							
D..11	ES(X)..	200							
D..13	ES(X)..	212							
D..16	ES(X).. / ZS(X)..	248							
D..18	ES(X).. / ZS(X)..	253							

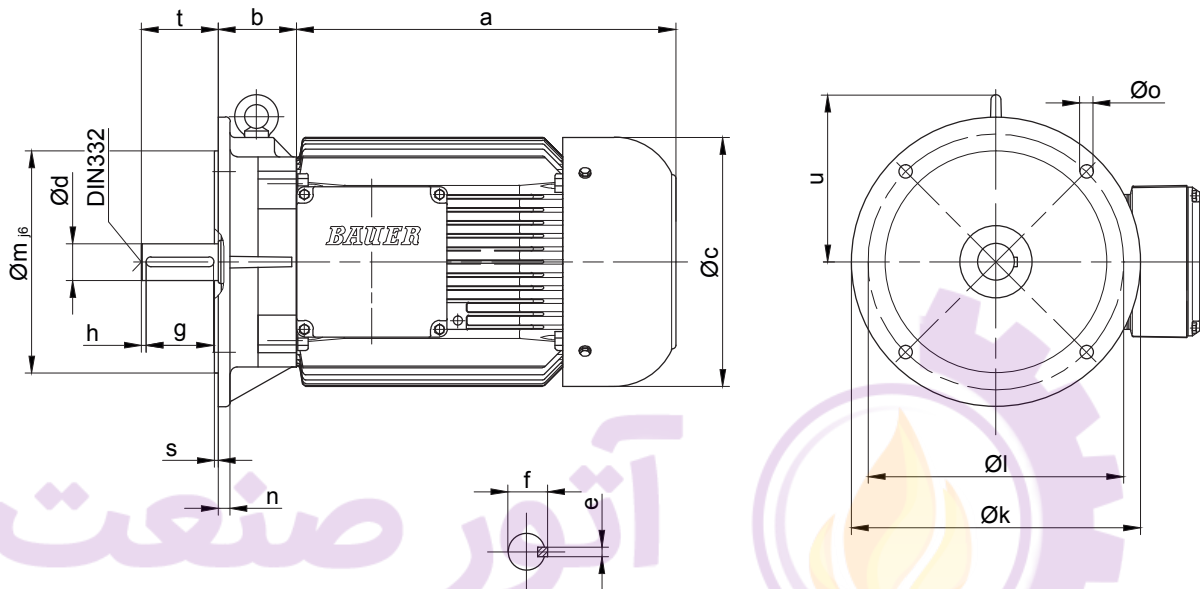
The actual gearbox design can vary from the geometry shown.

Motor with "heavy duty" brake and encoder



Motor	Brake	ML(mm) Additional length with brake and encoder	Dimensions (mm)						Add. weight kg
			a	b	c	Ød	e	L (HA/HN)	
D..08	EH(X)027	180.5	83.5	66.5	166	145	102.5	162	7.1
D..09	EH(X)040	191.5	102	73	191	168		172	10
D..11	EH(X)125	216.5	120	95	231	213		208.5	21.4
D..13	EH(X)200	259	140	106	274.5	245	94.5	221	32
D..16	EH(X)400	243	155	124	326	324		313	58
D..18		254	183		366				61

The actual gearbox design can vary from the geometry shown.

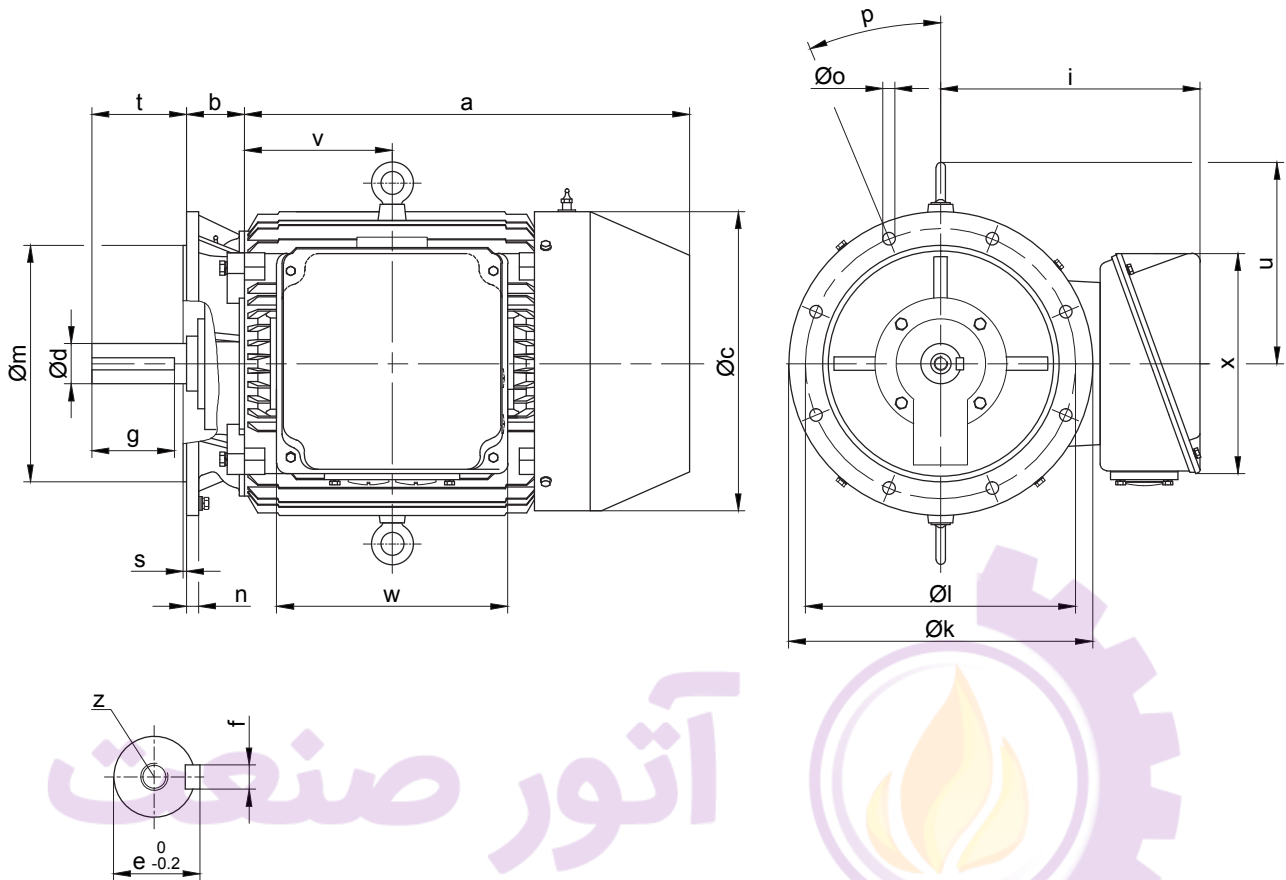


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Motor	Dimensions (mm)																Centre DIN 332
	a	b	c	d	e	f	g	h	k	l	m	n	o	s	t	u	
D06	170	45	123	11 _{j6}	4	12.5	18	2.5	140	115	95	9	10	2.75	23	-	D4
D07	190	45	123	11 _{j6}	4	12.5	18	2.5	140	115	95	9	10	2.75	23	-	D4
D..08	200	49	156	19 _{j6}	6	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	D8
D..13	393	81	266	38 _{k6}	10	41	70	5	300	265	230	12	14	4	80	173	D12
D..16	429	98.5	310	42 _{k6}	12	45	90	10	350	300	250	13	18.5	5	110	215.5	D16

The actual gearbox design can vary from the geometry shown.

Motor in IEC-design



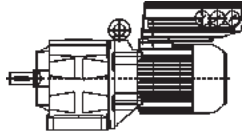
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Motor	Dimensions (mm)																
	a	b	c	d	e	f	g	i	k	l	m	n	o	p	s	t	u
DNF18	551	79	355	48 ^{+0.018} _{+0.002}	14	51.5	80	293	350	300	250	16	Ø19	4x45°	5	110	240
DNF20	613	82	395	55 ^{+0.030} _{+0.011}	16	59	91	313	400	350	300	16	Ø19	4x45°	5	110	270
DNF22	659	86	442	60 ^{+0.030} _{+0.011}	18	64	122	390	450	400	350	18	Ø19	8x22.5°	5	140	300
DNF25	730	95	485	65 ^{+0.030} _{+0.011}	18	69	126	415	550	500	450	18	Ø19	8x22.5°	5	140	330
DNF28	797	98	544	75 ^{+0.030} _{+0.011}	20	79.5	124	445	550	500	450	18	Ø19	8x22.5°	5	140	380

Motor	Center bore			Weight	
	v	w	x		
DNF18	194	200	221	M16x2x24	215
DNF20	203.5	200	221	M20x2.5x30	293
DNF22	218.5	342	326	M20x2.5x30	395
DNF25	247.5	342	326	M20x2.5x30	487
DNF28	276	342	326	M20x2.5x30	692

The actual gearbox design can vary from the geometry shown.

17



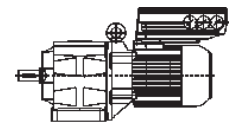
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Drive solutions for decentral and central Drive
technology

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FCD 300

All Bauer gear motors from 0,37 to 3,0kW are available with an externally mounted FCD frequency inverter. The frequency inverters in the range FCD300 are mounted directly to the motor in place of the terminal box. The inverters can alternatively be installed in the vicinity of the motor.



Features of FCD geared motors

Flexible assembly

- The FCD300 can be either mounted on the Bauer gear motor or in the vicinity

Simple cabling

- Through spring connectors and a large installation area in the installation box Cable entries 3 X M25, 2 X M20, 2 X M16
- Maximum cable cross section: Control contacts: 2,5 mm², Power contacts 4 mm², PE: 10 mm²
- The installation box can be used as T-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 parameterised parallel to the standard cycle bus communication by means of the 2nd bus connection RS 485

Clearly visible status information by means of LED

- Bus
- Status
- Alarm
- Warning
- On

Integrated mains filter

- The unit contains filters for Class 1A (Industry) and mains return as standard

Technical Data for FCD 300

Power range:

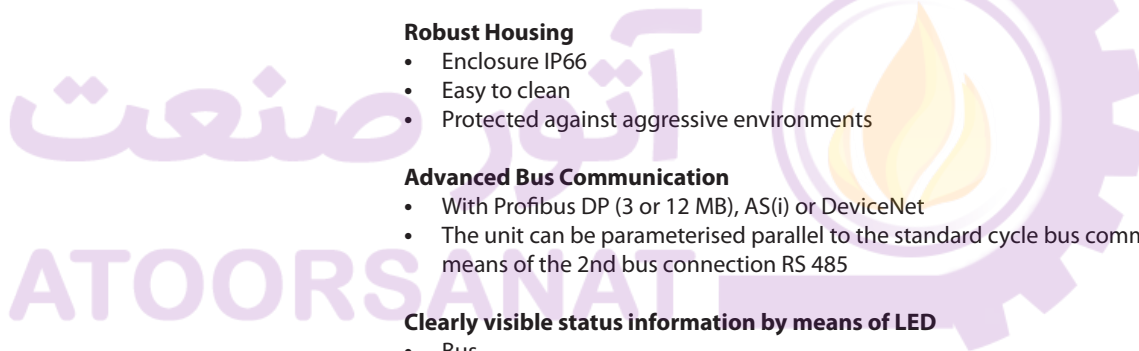
0,37-3 kW (3-phase)

Voltage range:

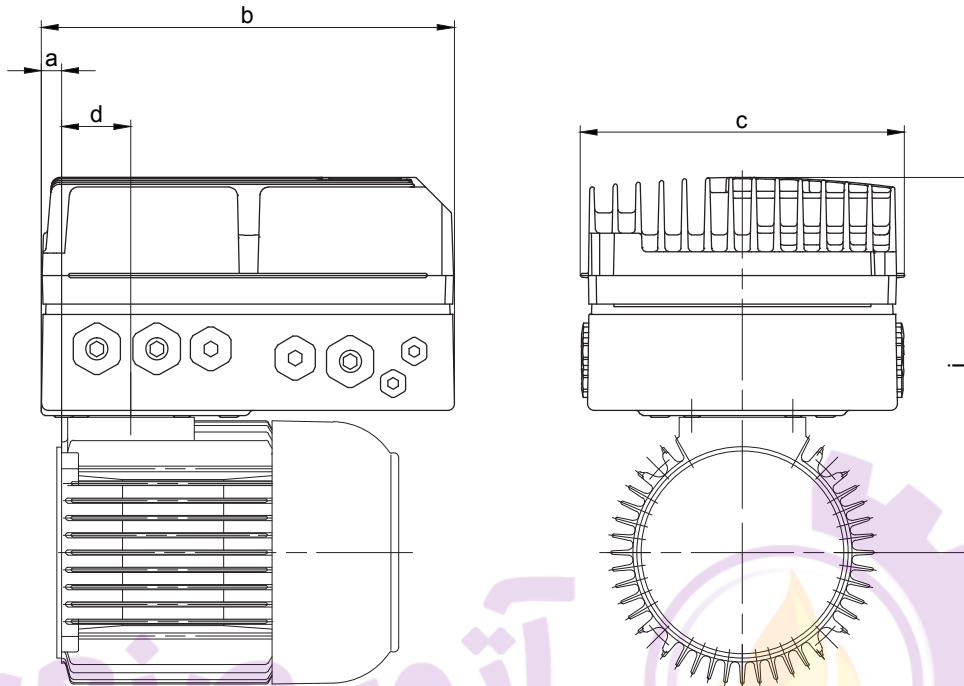
380-480 V

Advantages

- Adaptation to gear motors, standard motors or assembly in the vicinity of the motor
- Enclosure IP66
- High resistance against aggressive environments
- Profibus option
- integrated EMV filter (EN 55011, 1A)
- Convection cooling, no ventilation needed
- Automatic motor adjustment
- Simple operation through separate clear text display



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	4x 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 optimised ex-works for motor and application
- Retrofits available for existing drive configurations
- Cabling is simplified

Replace standards - Boost functionality

- Substitute the convenience of remote operation for mechanical actuation
- Replacement for pole-changing motors with defined ramp functions

Design features

- Compact, slimline geometry
- Plug-fit to motor
- Maintenance-friendly, accessible and easily replaced
- Complete unit, requires no external control voltage

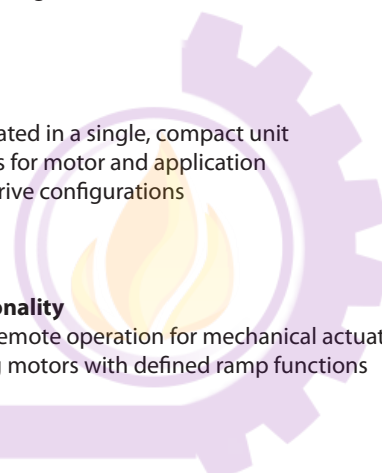
User benefits

- Preconfigured, plug and play on application-specific basis
- Slip compensation for load-independent constant speed
- PID controller for structuring process control
- Switching frequency adjusts automatically to temperature

Technical Data for Eta-K

- 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

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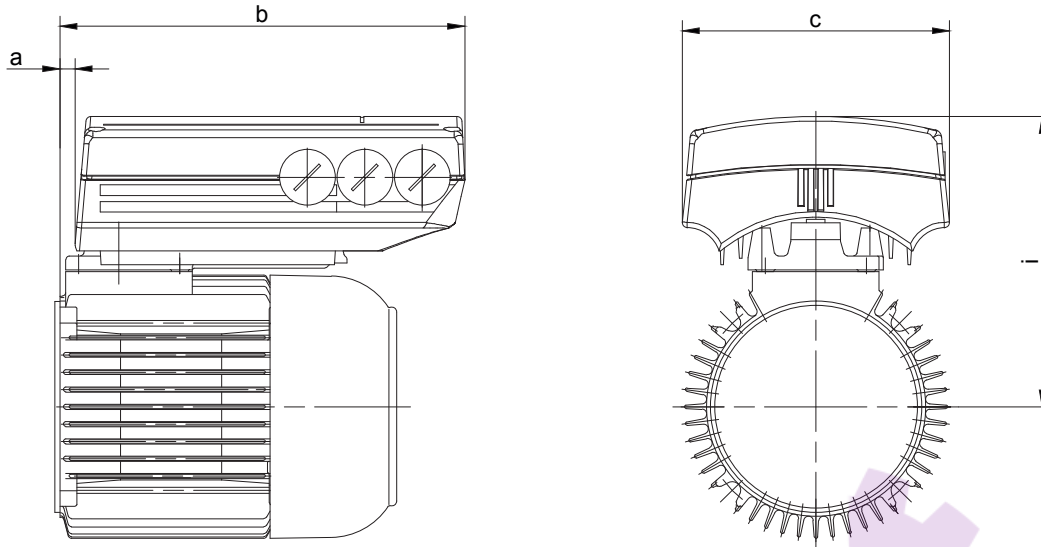


Classification, Eta-K to motor

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	-

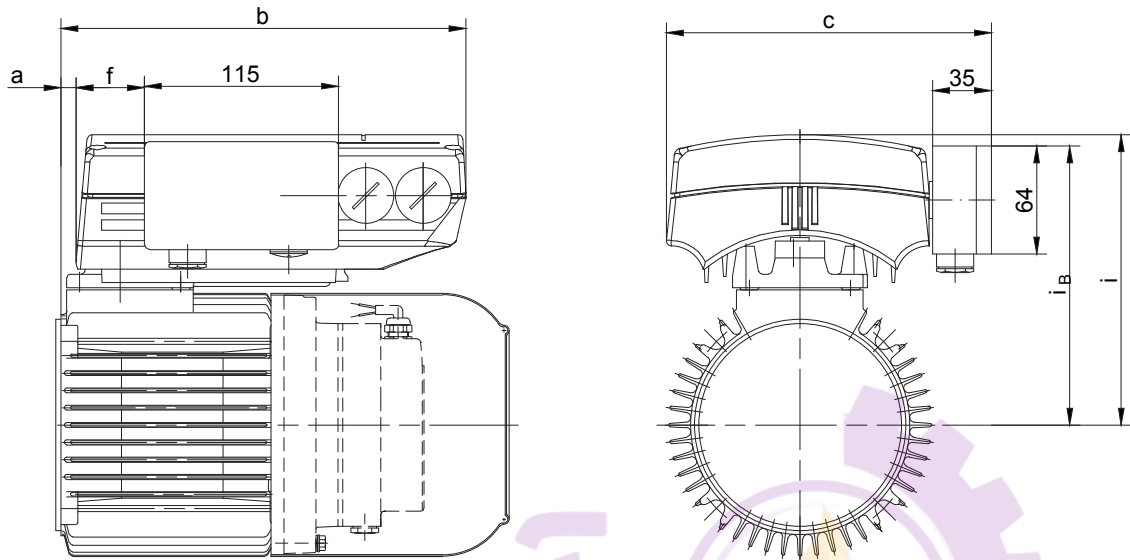
* = Motor design only with Forced Cooling (FV) permissible

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 parameterisation. All parameters can be stored in the control panel for straightforward transfer to other converters. The control panel connects to the RS 485 serial interface. 2 connecting-cable sets are available:

- Connecting cable from LCP to the terminal strip of the converter
- Connecting cable for LCP with plug connector and adapter to terminal strip with plug socket for installation in PG16 hole. A kit complete with connecting cable for installing the control panel in a master panel is also available.



Local operator panel (LOP)

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 parameterisation, initial operation, diagnosis and documentation of the systems. It is possible to network up to 126 inverters. Downtimes for device replacement are cut dramatically using a configuration of this nature.

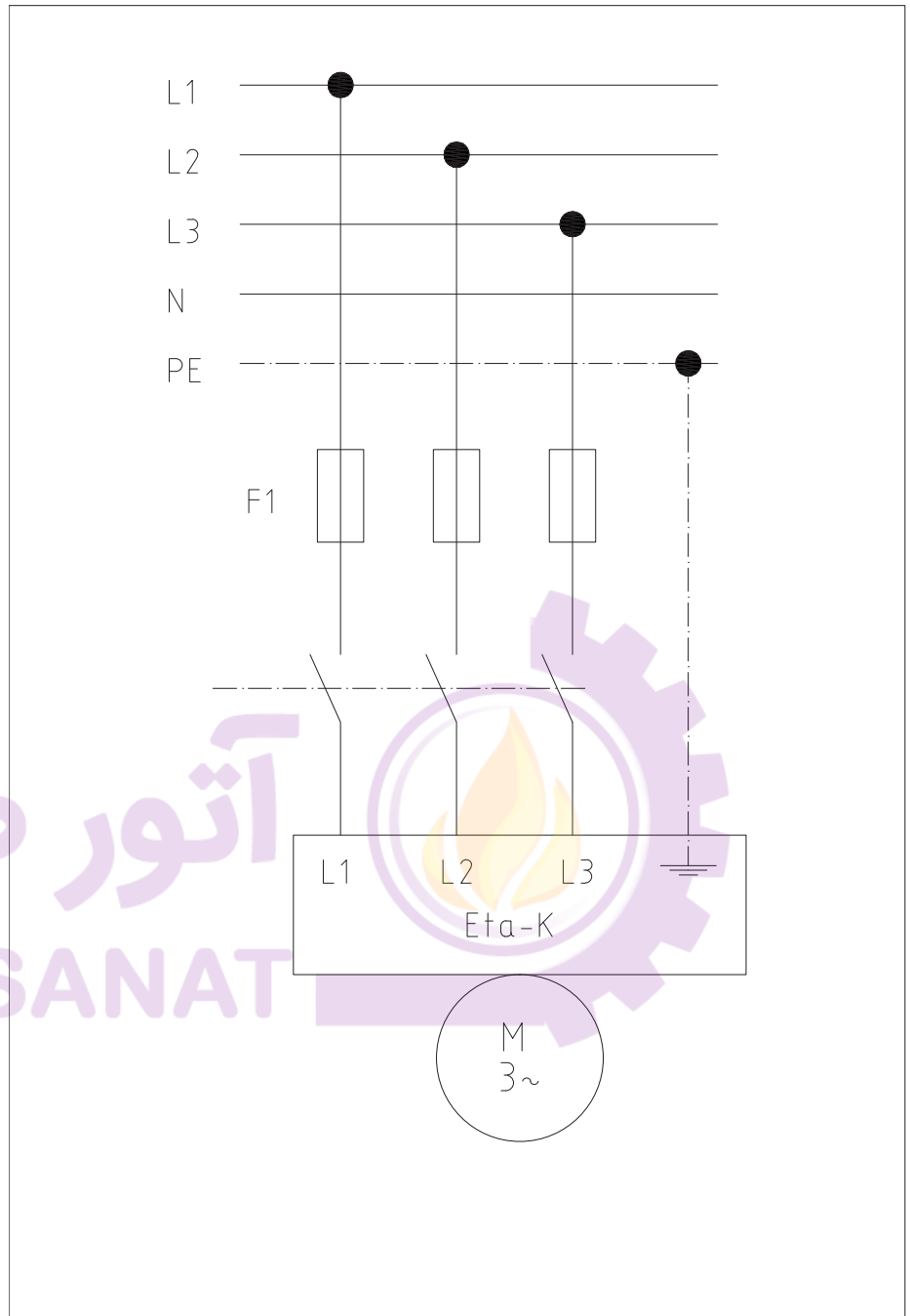
- Basic module for convenient parameterisation and testing.
- Log module with monitor functionality for commissioning complex systems; modem-based communication is possible.
- Compilation module for compiling input and output forms with password protection.

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

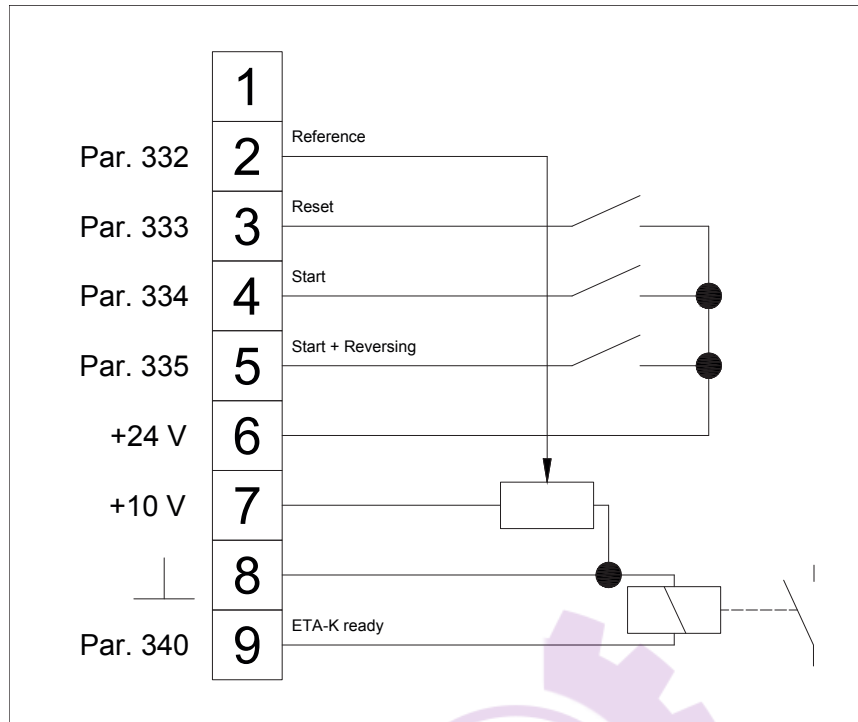


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Control section

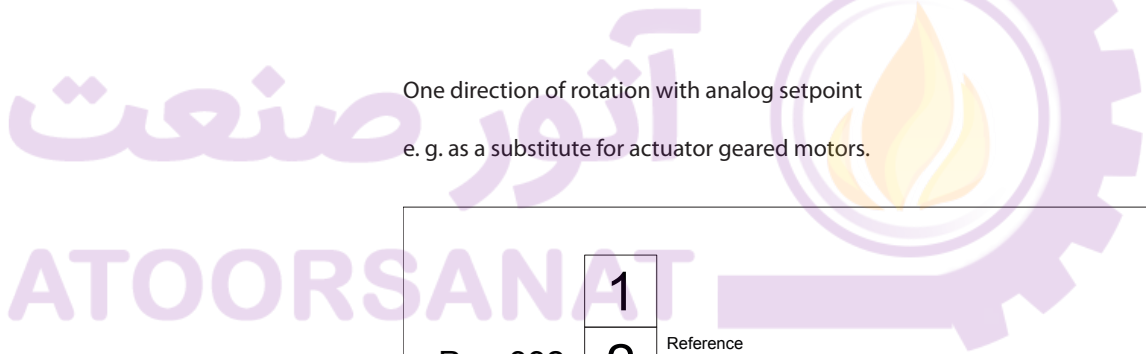
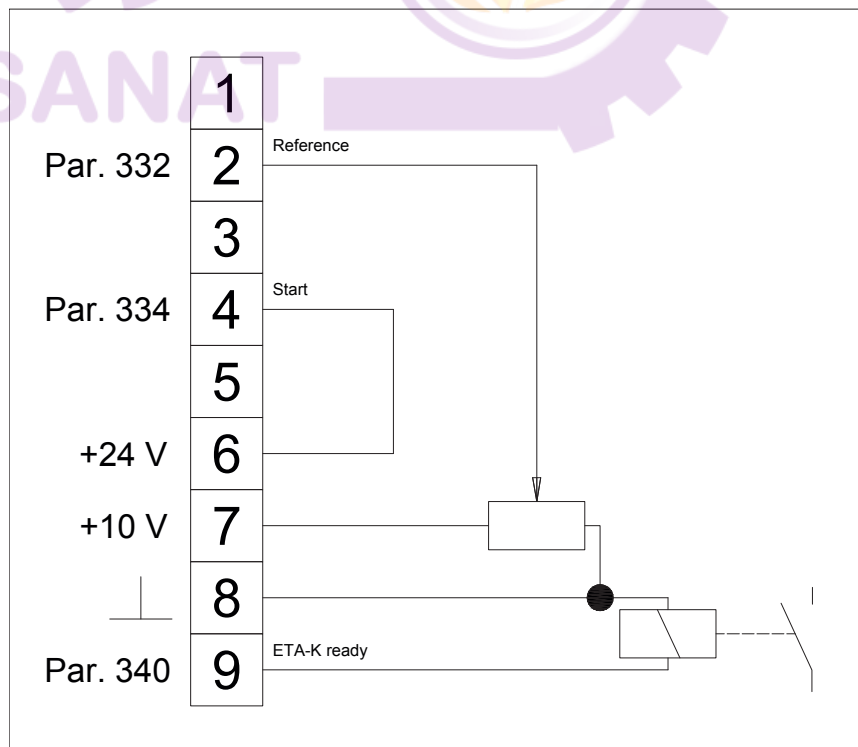
Standard

Two directions of rotation with analog setpoint



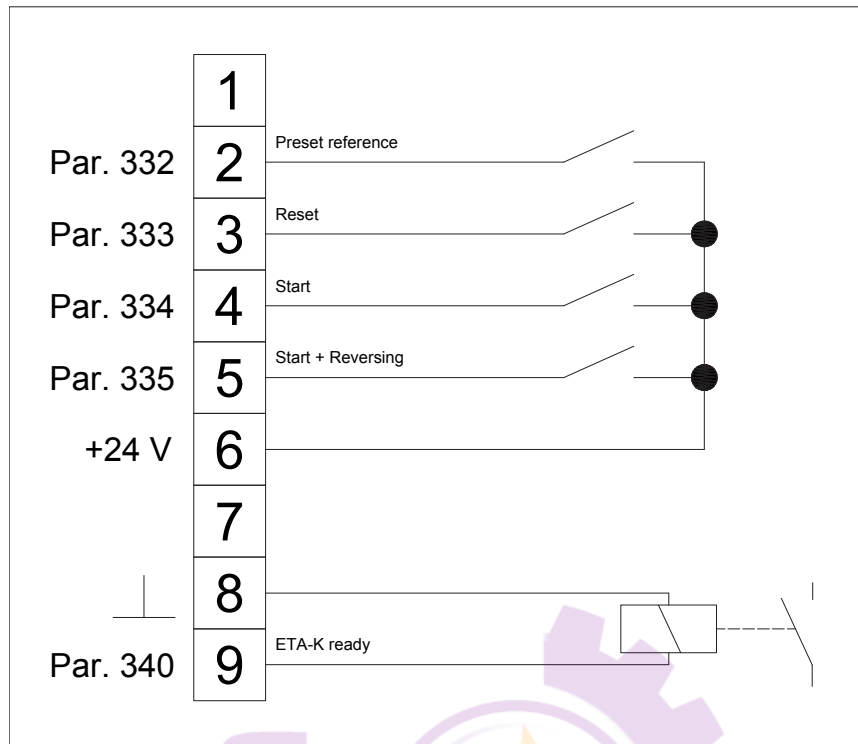
One direction of rotation with analog setpoint

e. g. as a substitute for actuator geared motors.



2 speeds + 2 directions of rotation

e. g. as a substitute for pole-changing drives



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

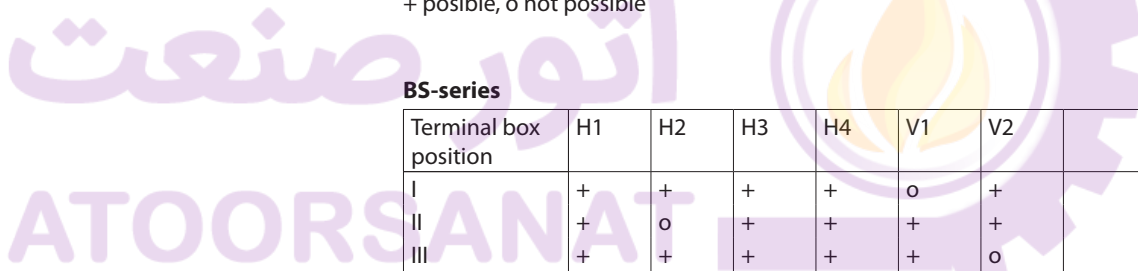
Terminal box position	H1	H2	H3	H4	V1	V2			
I	+	+	+	+	o	+			
II	+	o	+	+	+	+			
III	+	+	+	+	+	o			
IV	o	+	+	+	+	+			

+ 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



VLT® Micro Drive

Microdrive for standard product applications



Technical data for
VLT® Micro Drive

Power range:
0.37–7.5 kW (380–480 V, 3 phase)
0.18–2.2 kW (200–240 V, 1 phase)
0.25–3.7 kW (200–240 V, 3 phase)

Protection:
IP 20 / IP 21

Advantages

- Approx. 40% smaller than comparable drives
- Integrated EMC filter
- Protective housing
- Removable control unit with copy function
- Control unit with setpoint potentiometer (option)
- RS485 port as standard
- Extremely easy commissioning (preconfigured)

VLT® 2800 Series

General-purpose converter for small and medium power levels



Technical data for
VLT® 2800 Series

Power range:
0.55–18.5 kW (380–480 V, 3 phase)
0.37–1.5 kW (200–240 V, 1 phase)
0.37–3.7 kW (200–240 V, 3 phase)

Protection:
IP 20

Advantages

- Integrated EMC filter and RFI choke
- Robust cold-plate heatsink
- Suitable for side-by-side or horizontal mounting
- Large integrated control panel
- RS 485 port as standard
- Optional Profibus DPV1 interface

VLT® AutomationDrive

Modular drive platform with full power spectrum



Technical data for VLT® AutomationDrive

Power range:
0.37–800 kW (380–500 V, 3 phase)
0.25–37 kW (200–240 V, 3 phase)

Protection:
IP 20 / IP 21, IP 55, IP 66

Advantages

- A single drive platform for all main and auxiliary drives
- Modular design for optimal matching to the application
- Safety features: Basic unit with STO/SIL 2
- Integrated EMC filter and RFI choke
- Plain-text control unit with online help and copy function (optional)
- RS485 and USB interfaces as standard
- Motor cable lengths up to 150 m screened without extra fittings
- Mechanical braking/lifting function
- "Smart Logic" simplifies logic tasks
- Optional fieldbus interfaces (Profibus, Profinet, Ethernet/IP, Powerlink, Interbus, Safetybus-p)

MCT 10 Software

Project-oriented PC software for all VLT® series drive systems



Description of MCT 10 software

Supported VLT series:

Eta-K
VLT® FCD 300
VLT® Micro Drive
VLT® 2800 series
VLT® 5000 series
VLT® Automation Drive

Advantages

- Easy project management overview, even with extensive system data
- A single software tool for all VLT® drives
- Online processing for commissioning
- Oscilloscope function
- Supports RS485, USB and Profibus DP-V1 interfaces
- Operational basic version free of charge

Download:
www.danfoss.de/drives (Software)

MCD soft starters

MCD 100/MCD 200 soft-start equipment for gentle handling of mechanical transfer components



Technical data for MCD100 /
MCD 200 Softstarters

Power range:

MCD 100: 1.1–11 kW (200–600 V)

MCD 200: 7.5–110 kW (200–575 V)

Protection:

IP 20 / IP 21

MCD 100 advantages

- Minimal space requirement
- Rail mounting
- Extremely easy to use

MCD 200 advantages

- Motor protection features
- External control unit (optional)
- Fieldbus interfaces (optional)

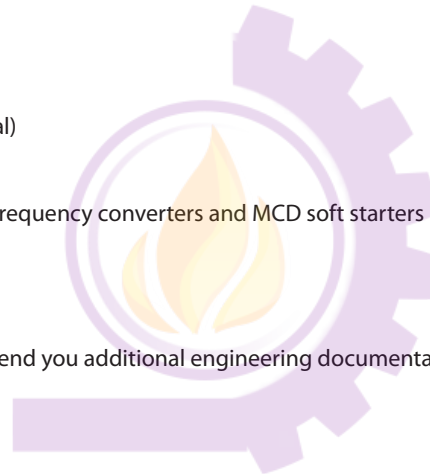
Additional information

Detailed information on VLT® frequency converters and MCD soft starters is available online at

www.danfoss.de/drives

We would also be pleased to send you additional engineering documentation on these products.

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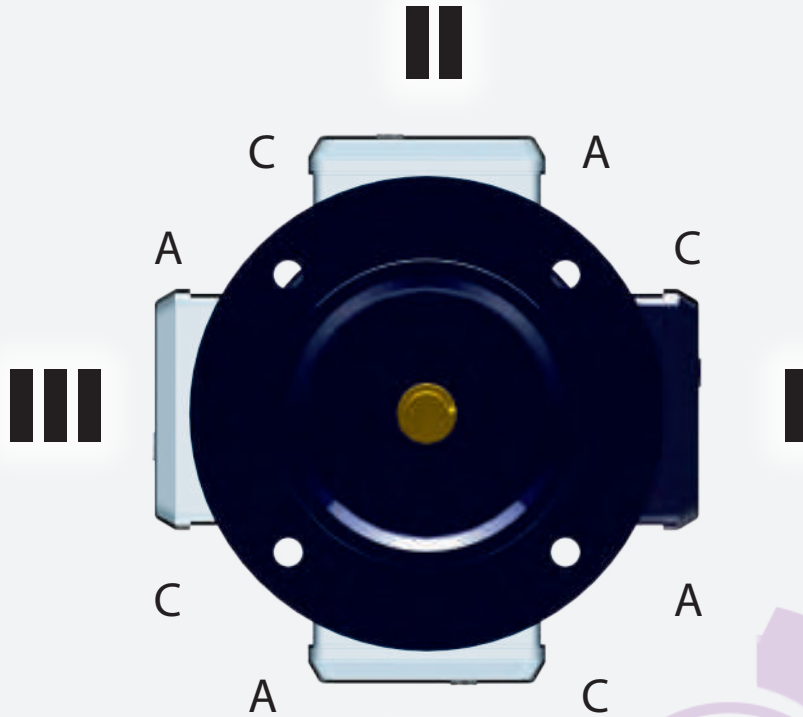


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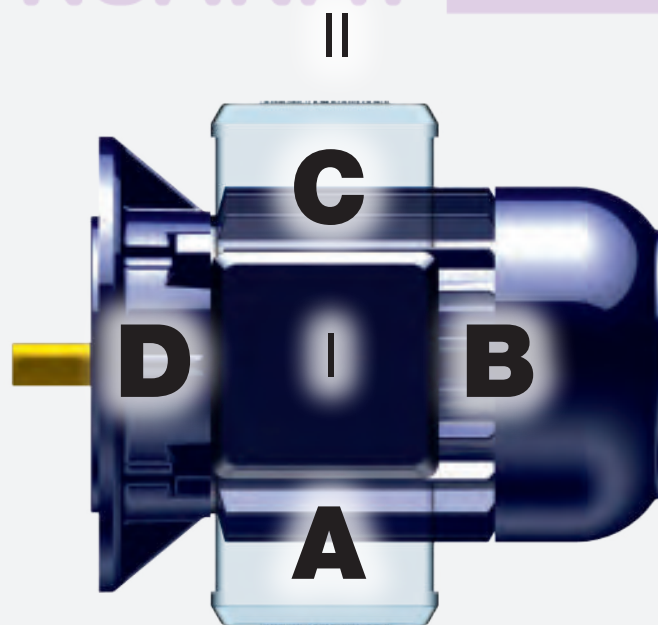


Terminal Box Position



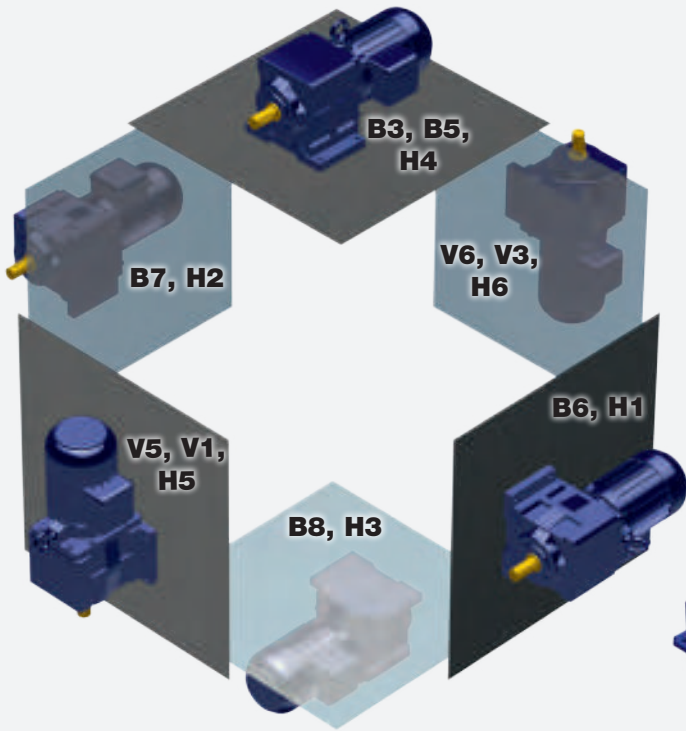
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Cable entry Position

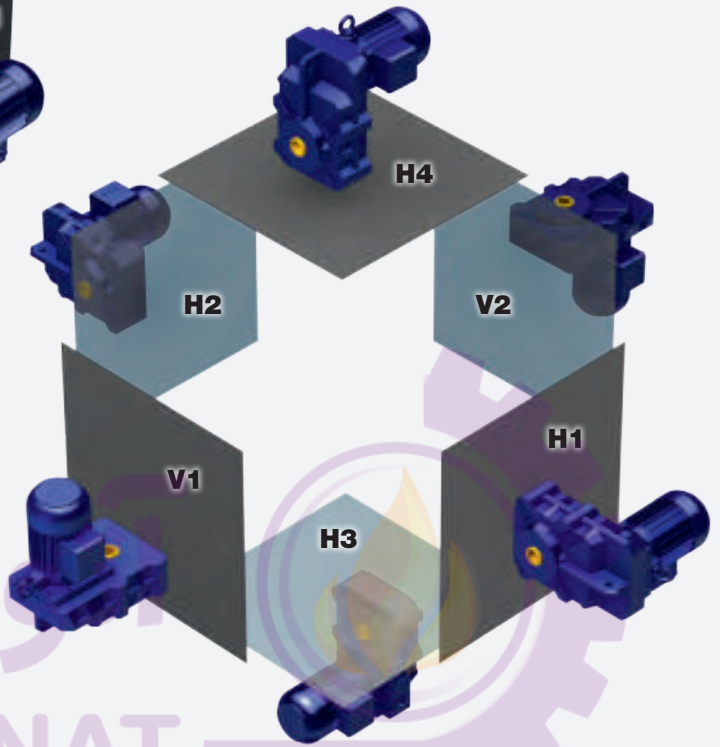


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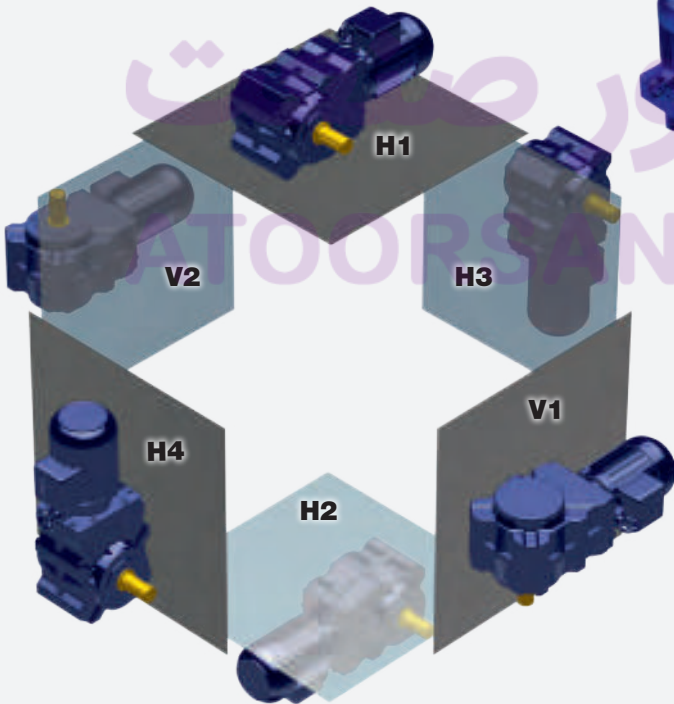
Mounting Positions



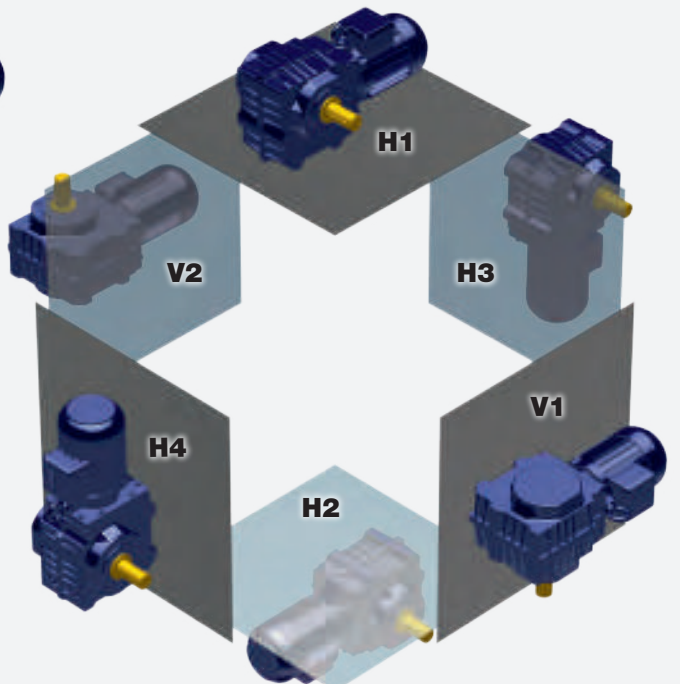
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Parallel Shaft Geared Motors



Bevel Geared Motors



Worm Geared Motors

<http://academy.bauergears.com>

Training	Contents
Basic	<ul style="list-style-type: none"> • Introduction of the current Bauer Gear Motor geared motor range • Definition and dimensioning of the service factor during gearbox selection • Impact of radial forces on the dimensioning of geared motors • Definition of the IP - Enclosures • Basics for the calculation and selection of geared motors • Selection of geared motors for frequency inverter duty
Drive engineering	<ul style="list-style-type: none"> • Introduction to technical mechanics and physics • Derivation of drive specific formulae • Calculation of differing machines (Controlled drives, Non-controlled drives, Travel drives, Hoists, Chain conveyors, Roller conveyors, Turntable, Belt conveyors)
Application	<ul style="list-style-type: none"> • Design and functionality of 3 phase, Pole changing, DC, Synchronous and Servo motors • Design and functionality of frequency inverters and their control • Difference between mains and inverter duty • Industry sector solutions from Bauer Gear Motor (ATEX, Aseptic, Monorail, BasicMetal) • Industry sectors and their design (Ambient conditions, Service factors, Modifications to the geared motors)
ATEX	<ul style="list-style-type: none"> • Explosion protection in general • EC-Guidelines 94/9/EG and 1999/92/EG • Explosion protection types for gas explosion protection according to EN 60079 and dust explosion protection according to EN 61241 • Selection of motors, gearboxes and extras • What has to be observed regarding gearbox service factors • Notes on service and maintenance of Bauer Gear Motor geared motors
Disassembly and Assembly	<ul style="list-style-type: none"> • Professional disassembly and assembly of gearbox, motor, brake and backstop • Composition of Bauer Gear Motor brakes • Mounting position and speed change • Lubricant quantities • Service and maintenance - procedures • Spare part and repair logistics

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Topic	Contents
Hygiene	<ul style="list-style-type: none"> • The continually growing requirements on the food & beverage industry result in higher hygiene and process safety. For this reason the Hygiene Symposium concentrates on the following topics: • Hygiene requirements on production plants in the food & beverage industry • General explanations to the new guidelines for the food & beverage industry • Inactivation of suspended microorganisms and biofilms on surfaces • Why paint coatings and not always stainless steel for surfaces?
Energy	<ul style="list-style-type: none"> • The environmental handling of energy and other resources is becoming more and more important. For this reason the Energy Symposium concentrates on the following topics: • Total Cost of Ownership (TCO) - Considering Total Costs in Drive Technology • Efficiency and Standards - Using the possible savings through consistent implementation of the new regulations • Motor Technologies - Efficiency increase by means of correct selection • Power Electronics and the World of the Revolutionary Motor
Service	<ul style="list-style-type: none"> • Maintenance plays an ever increasing role in the total costing structure of a company. For this reason the Hygiene Symposium concentrates on the following topics: • Total Productive Maintenance: Increasing Productivity through Maintenance • So cheap doesn't become expensive: Optimising the total costs for maintenance of machines and plants • Effect of lubrication on geared motors • Globalisation of Service – a Challenge?

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