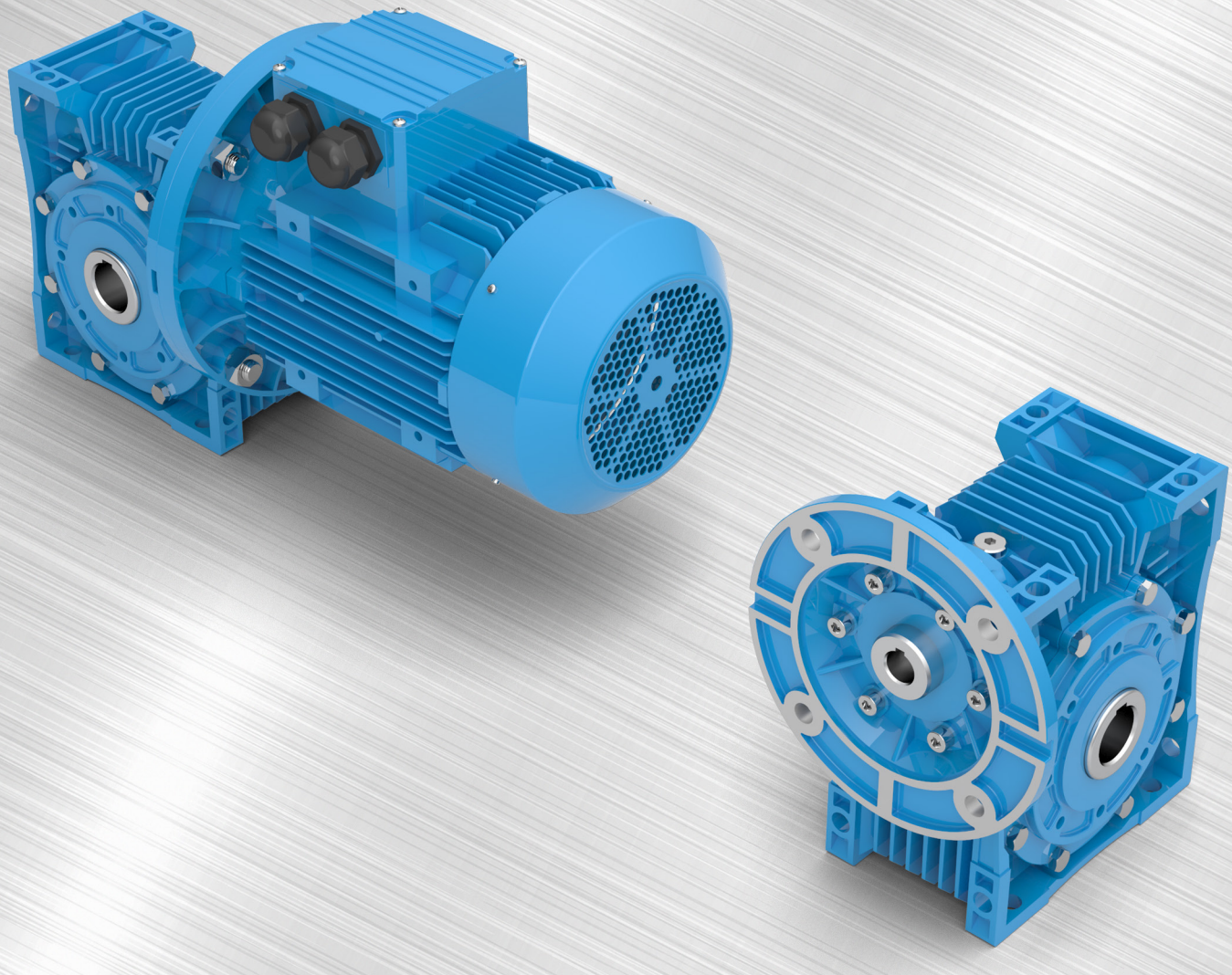
DANA BREVINI® Motion Systems

DC3A1G1_0000000
01 2022

Product Catalog

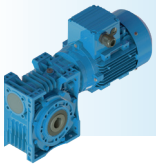
Brevini® Gearmotors
E Series

Torques from 5 Nm to 1.000 Nm

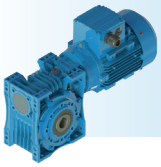


Worm Gearboxes

The worm gearboxes of the E series feature input and output shafts that are perpendicular to each other.Their worms are made of steel and gears are made of bronze.They can be mounted to the driven machine by foot, flange or torque arm.

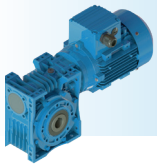


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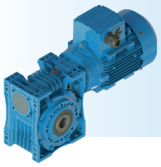


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c_t	: Coefficient of switch on time.	
f_s	: Service factor	
F_{ama}	: Permissible axial loads which can be applied to output shafts	[kN]
F_{ame}	: Permissible axial loads which can be applied to input shafts	[kN]
F_{qam}	: Permissible radial loads which can be applied to output shafts	[N]
F_{qem}	: Permissible radial loads which can be applied to input shafts	[N]
F_{qa}	: Radial loads applied to the output shaft	[N]
F_{qe}	: Radial loads applied to the input shafts	[N]
F_q	: Radial loads on output shaft	[N]
F_a	: Axial loads on output shaft	[N]
i	: Transmission ratio	
J_{ext}	: The total inertia of rotating parts at outside reduced at the motor shaft	[kgm^2]
M_2	: Output torque	[Nm]
M_a	: Nominal torque	[Nm]
n_1	: Input speed of gearbox	[rpm]
n_2	: Output speed of gearbox	[rpm]
P_2	: Output Power	[kW]
P_{eq}	: Equivalent Power	[kW]
P_e	: Nominal Power of gearbox (given on performance tables)	[kW]
P_M	: Power consumption of the driven machine (for alternating power, refer to equivalent power)	[kW]
P_g	: Electric Motor Power	[kW]
P_t	: Thermal Power	[kW]
t	: Time	[s]
T_e	: Equivalent torque	[Nm]

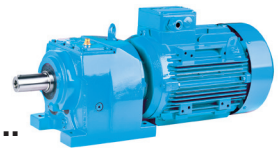


GENERAL INFORMATIONS

Production Range

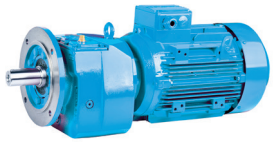
This catalogue is containing **E series** of gearboxes only.

- M and N Series
M and N series of Dana are helical geared. The input and output shafts are parallel to each other and on the same plane.
The gearbox can be connected to the machine by using the foot or flange on the gearbox. Has solid output shaft.



M ...

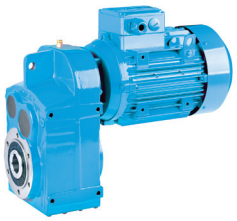
13 different sizes:
Torque range: 50 - 18.000 Nm
Speed range: 0,1 - 500 rpm



N ...

13 different sizes:
Torque range: 50 - 18.000 Nm
Speed range: 0,1 - 500 rpm

- D Series
D series are helical geared gearboxes with parallel input and output shafts. The shafts have a distance in between and located on the same plane. The gearbox can be assembled to the machine by using the foot, the connection screws on the sides, flange or torque arm on the gearbox.
Can have hollow or solid output shaft.



D...

11 different sizes:
Torque range: 150 - 18.000 Nm
Speed range: 0,1 - 350 rpm

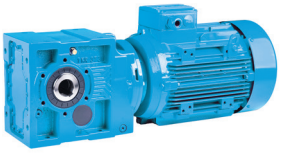
- E Series
E series gearboxes are with worm and wormwheel. The input and output shafts are perpendicular to each other and have a distance in between. It can be assembled to the driven machine by the use of the foot, flange or torque arm on the gearbox.
Can have hollow or solid output shaft.



E ...

8 different sizes:
Torque range: 5 - 1.000 Nm
Speed range: 0,1 - 400 rpm

- K Series
These are gearboxes with helical and bevel gears. The input and output shafts are perpendicular to each other and have a distance in between. It can be assembled to the driven machine using the foot, flange or torque arm on the gearbox.
They have high efficiency compared to E series. Can have hollow or solid output shaft.



K ...

12 different sizes:
Torque range: 200 - 20.000 Nm
Speed range: 0,1 - 400 rpm

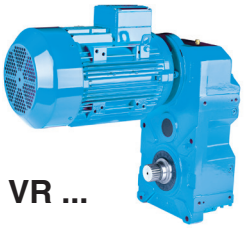
- T Series
T Series are gear units which are helical geared, two staged, hollow shaft mounted gear units and manufactured according to monoblock principal.
T Series gearboxes have hollow shaft and compact housing so that T series can be mounted on smaller places.



T ...

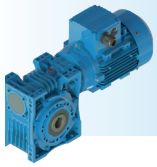
10 different sizes:
Torque range: 200-18.000 Nm
Speed range: 46-280 rpm

- VR Serie
VR hoist drives are produced according to M1 - M8 (1Dm - 5m) load classification.



VR ...

VR Hoist Drive Units
M1 - M8 ,(1Dm - 5m) load classification
ISO 4301 / 1 ,(FEM 1.001 / III)



General Specifications of E Series Gearboxes

E Series gearboxes are worm geared gearboxes. Input and output shafts are perpendicular to each other. Hardened and grounded cylindrical worm (21NiCrMo2) and phosphorus bronze worm wheel (Gz12SnCuNi) gives maximum strength and maximum efficiency.

With alternative mounting position from all sides provided easy and flexible assembly condition. Flange and output shaft connections are convenient for wide range of mounting.

From E030 to E080 gearbox housings are made of Aluminium injection casting , E100 and E125 sizes are made of iron casting housings.

As we are Dana, our design principals are;

-Using high technology
-Reliability
-High power density
-High efficiency
-Mounting compatible
-Flexible solutions

Attention to the following points !

- Drawings are examples only and the details on the drawings or illustrations are not strictly binding.

- Dana reserve the right to make all kinds of changes in products and catalogues without any notice.

- Prior to commissioning, the operating instructions provided with the gearbox must be observed.

- Oil quantities given are guide values only. The exact quantity of oil should be checked by using the provided oil level plugs according mounting positions. For correct oil viscosity refer to the nameplate.

- If the mounting position is not informed upon ordering, the gear unit is delivered according to **M1** mounting position. If the mounting position is different than the indicated mounting position ont the nameplate The product warranty cancels. The weights given in this catalogue are mean values.
Depending on the ratio and accessories the weights can differ.

Technical Explanations

- Output Torque : M_2 [Nm]
Multiplication of motor torque with transmission ratio and efficiency gives the result of output torque on the output shaft of the gear unit.

- Nominal Torque : M_a [Nm]
Nominal torque is the mechanical torque which the gearbox can resist under f_s=1 conditions.

- Nominal Power : P_e [kW]
The nominal power is the power which gearbox can mechanically resist under f_s=1 condition. The nominal powers are given on the performance tables.

- Ratio : i
Ratio between output shaft speed and input shaft speed. Available ratios of Dana E series are between 3.5 to 14000.

- Equivalent Power and Torque : P_{eq} [kW], T_e [Nm]
For gearbox value with constant speed but variable working conditions : This is the calculated power or torque which is equivalent to the values at working under constant working conditions. Calculation methods are given on page 25.

- Required Power : P_M [kW]
Required power for the applications which is able to drive the system.

- Required Torque : T [Nm]
Required torque for applications. Required torque always must be equal or smaller than output torque of selected gearbox.

- Permissible Axial and Radial Loads: F_{qem}, F_{qam} [N]
Permissible axial and radial load on the output or input shaft of gearboxes.

- Service Factor f_s:
Service factor is a safety coefficient, which takes into account the different running conditions of the driven machine. f_s=1 is used for uniform loads 8 hours working per day and up to 100 cycle per hour.

- Coating and Corrosion Protection:
The gearboxes are painted with RAL 5012 according DIN1843.
Different colors are avaliable upon request. Paintings for high humidity or chemically aggressive environments are avaliable upon request .

- Noise Level:
The noise level of our gearboxes is lower than permitted values defined in VDI guidelines 2159 for gear units.

- Lubrication:
E series of gearboxes are filled with oils which are indicated on lubrication tables. For lubrication details please refer to the lubrication section.

Accessories

The following accessories can be applied to E series gearboxes.

- IEC B5 Motor connection flange
- Output flanges
- Backstops
- Special sealing solutions.
- Transparent oil level indicator,
- Torque arm
- Electromagnetic brakes.

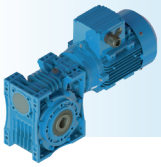
For other accessories please contact, Dana.

Surface Protection

Our products are all painted unless otherwise stated. 4 corrosion categories which are mentioned below can be offered according to corrosion categories of DIN EN ISO 12944-2 standard. Our standard paint meets C2 corrosion category. If different category is requested, please inform before order.

Unpainted parts such as shaft, flange connection surface are coated with anti-corrosion paint before shipment against corrosion.

Corrosion Categories	Ambient Conditions	Paint Type	Paint Thickness
C2 (Standard)	Indoor installation and outdoor installation with protection roof Environments with low humidity and contamination	Two-Component Primer Coat Acrylic Top Coat	60 µm 40 µm
C3	Indoor installation and outdoor installation subject to weathering Environments with mean humidity and contamination	Epoxy Primer Coat Acrylic Top Coat	80 µm 40 µm
C4	Indoor installation and outdoor installation subject to weathering Environments with occasionally high humidity and chemical contamination	Epoxy Primer Coat Acrylic Top Coat	180 µm 40 µm
C5-I / C5-M	Indoor installation and outdoor installation subject to weathering Environments with permanent high humidity and chemical cleaning contamination	Epoxy Zinc Primer Coat Epoxy Miox Primer Coat Acrylic Top Coat	70 µm 150 µm 40 µm



Unit Designation

E V 063 . 01 - 3 E90S/4C - L05

Brake
L-220V With Fan
P-24V With Fan
S-220 V Without Fan
Z-24 V Without Fan
00-5 Nm **10**-100Nm
01-10 Nm
02-25 Nm
04-40 Nm
05-50 Nm

Number of Poles

Motor Size

For EV types

E90S / 4
- Pole Number
- Frame Lenght
- Motor size
- Motor type

For EN Types

A05 :56 B5	**A09** :90 B5
B05 :56 B14	**B09** :90 B14
A06 :63 B5	**A10** :100 B5
B06 :63 B14	**B10** :100 B14
A07 :71 B5	**A11** :112 B5
B07 :71 B14	**B11** :112 B14
A08 :80 B5	**A13** :132 B5
B08 :80 B14	**B13** :132 B14

Motor Efficiency Class

Output Shaft

00 :Hollow Output Shaft
01 :Solid Output Shaft
02 :Solid Output Shaft and Output Flange
03 :Output Shaft and Output Flange
04 :With Double Output Shaft
05 :With Double Flange and Double Output Shaft
***06** :With Shaft Extension from the Opposite Side of the Motor
****07** :With Double Input Shaft Without Motor
08 :With Double Output Shaft and Hollow Output Flange

Housing Size
030, 040, 050, 063, 075, 080,100, 125

Input Type

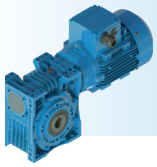
N :IEC B5 / B14 Input Flange without Motor
V :IEC B5 / B14 Input Flange with Motor
T :Without Motor Solid Input Shaft

Gearbox Type

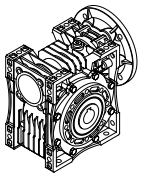
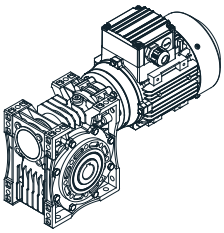
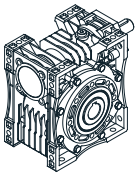
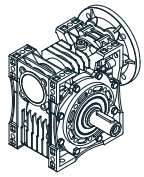
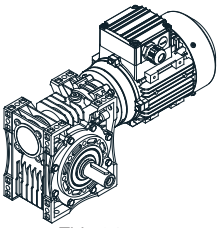
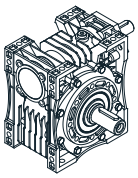
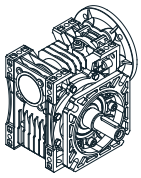
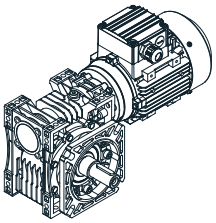
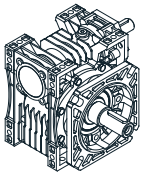
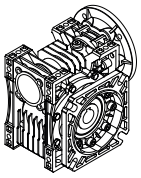
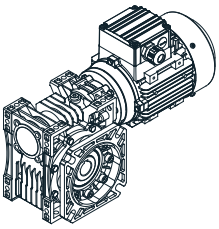
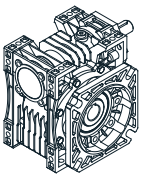
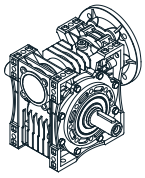
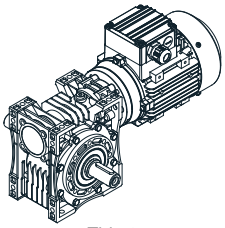
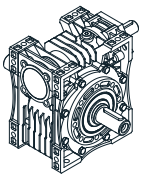
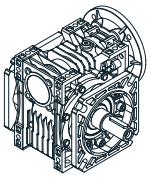
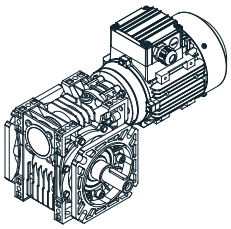
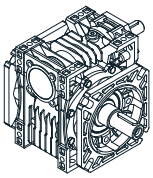
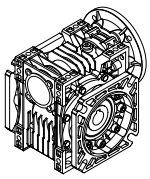
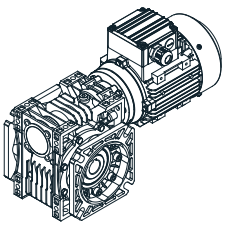
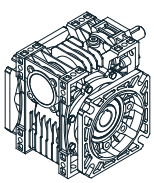
E serie

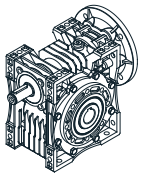
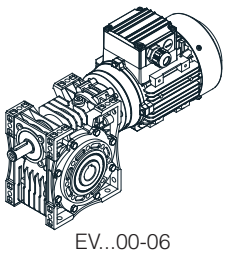
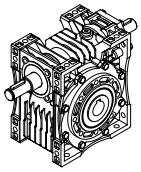
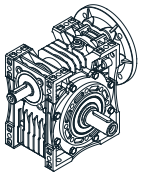
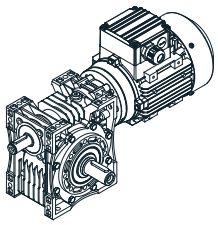
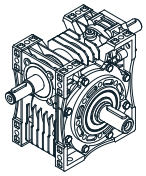
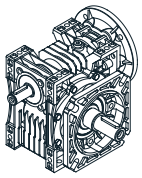
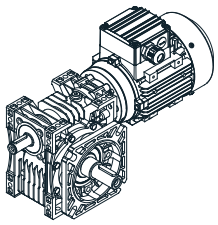
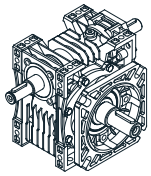
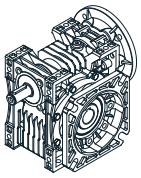
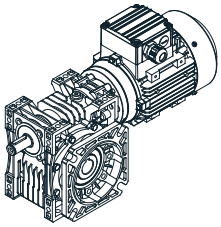
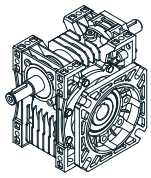
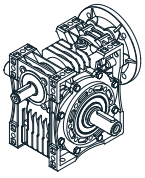
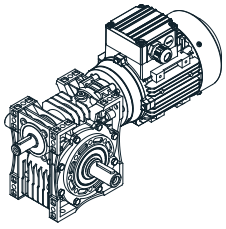
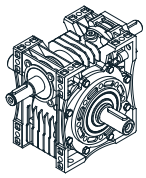
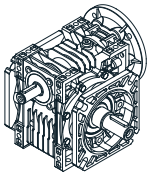
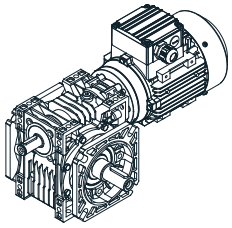
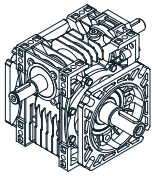
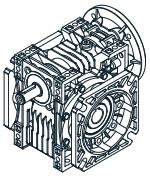
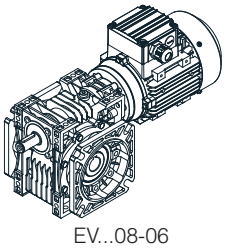
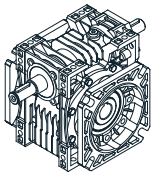
*06 code is optional input shaft option for EN and EV types. Description as EN050.01-06.A06.

*07 code is optional input shaft types for ET types. Description as ET050.00-07

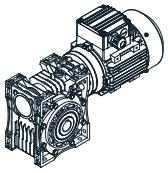


EN..00..	Worm geared units IEC B5/B14 input flange with hollow output shaft
EN..01..	Worm geared units IEC B5/B14 input flange, with solid output shaft
EN..02..	Worm geared units IEC B5/B14 input flange, with solid output shaft and output flange
EN..03..	Worm geared units IEC B5/B14 input flange ,with hollow output shaft and output flange
EN..04..	Worm geared units IEC B5/B14 input flange, with double output shaft
EN..05..	Worm geared units IEC B5/B14 input flange, with double output shaft and double output flange
EN..08..	Worm geared units IEC B5/B14 input flange, with double output flange and hollow output shaft
EN.....-06	Worm geared units IEC B5/B14 input flange,shaft extension from the opposite side of the motor
EV..00..	Worm geared motors IEC B5/B14 input flange with motor, hollow output shaft
EV..01..	Worm geared motors IEC B5/B14 input flange with motor, solid output shaft
EV..02..	Worm geared motors IEC B5/B14 input flange with motor, solid output shaft and output flange
EV..03..	Worm geared motors IEC B5/B14 input flange with motor, hollow output shaft and output flange with motor
EV..04..	Worm geared motors IEC B5/B14 input flange with motor, double output shaft with motor
EV..05..	Worm geared motors IEC B5/B14 input flange with motor, double output shaft and double output flange
EV..08..	Worm geared motors IEC B5/B14 input flange with motor, double output flange and hollow output shaft
EV....-06	Worm geared motors IEC B5/B14 input flange with motor, shaft extension from the opposite side of the motor
ET..00..	Worm geared units solid input shaft , hollow output shaft
ET..01..	Worm geared units solid input shaft , solid output shaft
ET..02..	Worm geared units solid input shaft , solid output shaft and output flange
ET..03..	Worm geared units solid input shaft , hollow output shaft and output flange
ET..04..	Worm geared units solid input shaft , double output shaft
ET..05..	Worm geared units solid input shaft , double output shaft and double output flange
ET..08..	Worm geared units solid input shaft , double flange and hollow output shaft
ET....-07	Worm geared units solid input shaft, double input shaft

 EN...00	 EV...00	 ET...00
 EN...01	 EV...01	 ET...01
 EN...02	 EV...02	 ET...02
 EN...03	 EV...03	 ET...03
 EN...04	 EV...04	 ET...04
 EN...05	 EV...05	 ET...05
 EN...08	 EV...08	 ET...08

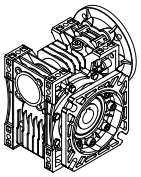
 EN...00-06	 EV...00-06	 ET...00-07
 EN...01-06	 EV...01-06	 ET...01-07
 EN...02-06	 EV...02-06	 ET...02-07
 EN...03-06	 EV...03-06	 ET...03-07
 EN...04-06	 EV...04-06	 ET...04-07
 EN...05-06	 EV...05-06	 ET...05-07
 EN...08-06	 EV...08-06	 ET...08-07

EV063.00.3E90S/4C



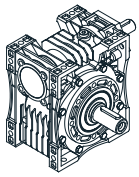
E.....: E series gearbox
V.....: IEC B5/B14 Motor Connection
063.....: Gear Unit Size
00.....: Hollow Shaft Output
3.....: Efficiency Class
E.....: Motor type
90S.....: Motor frame size
4C.....: Number of poles
L02.....: Brake Type

EN075.03 - A11



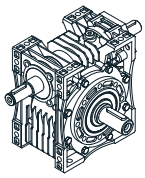
E.....: E series of gearbox
N.....: IEC B5/B14 flange without motor input
075.....: Gear unit size
03.....: Hollow output shaft and output flange
A11.....: IEC 112 B5/B14 motor connection flange.

ET075.01



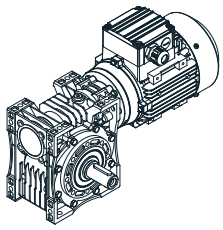
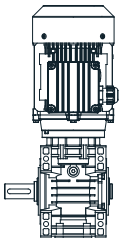
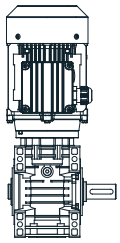
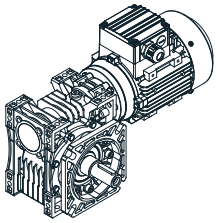
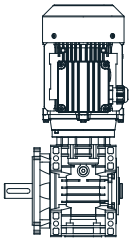
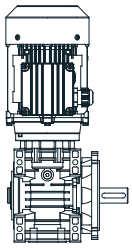
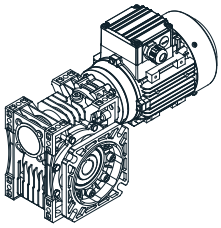
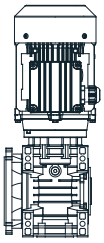
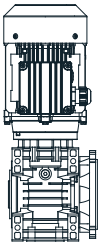
E.....: E series gearbox
T.....: Solid input shaft
075.....: Gear unit size
01.....: Solid output shaft

ET063.01-07



E.....: E series gearbox
T.....: Solid input shaft
063.....: Gear unit size
01.....: Solid output shaft
07.....: Double input shaft

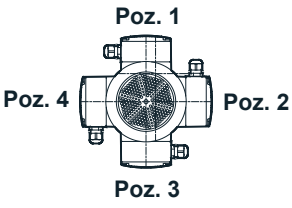
Gearbox Output Shaft and Flange Arrangement

Gearbox Output Specification	R	L
 E..01		
 E..02		
 E..03		

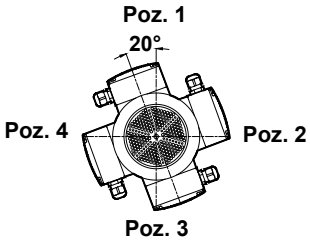
Terminal Box Positions

Terminal Boxes can be at different angular positions (A,B,C) as shown below. Please take in to account related gearbox dimension pages for right position.

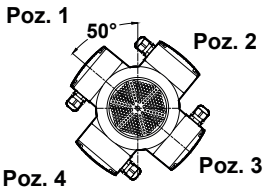
A



B

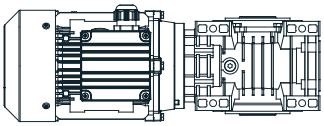


C

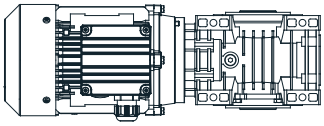


Terminal Box Cable Output Positions

Terminal box cable output positions can be selected as right side or left side according to top view of terminal box.

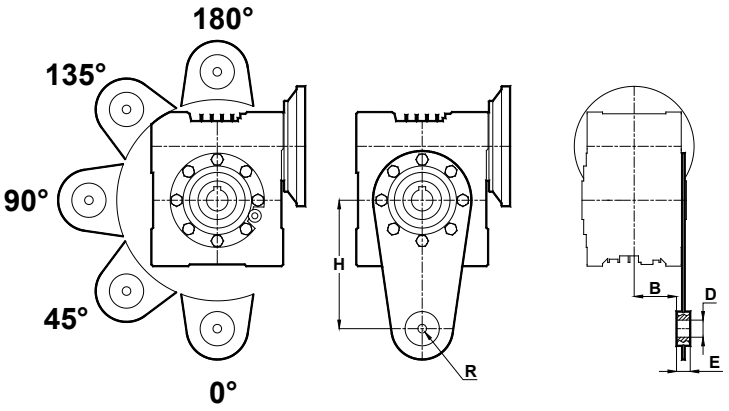


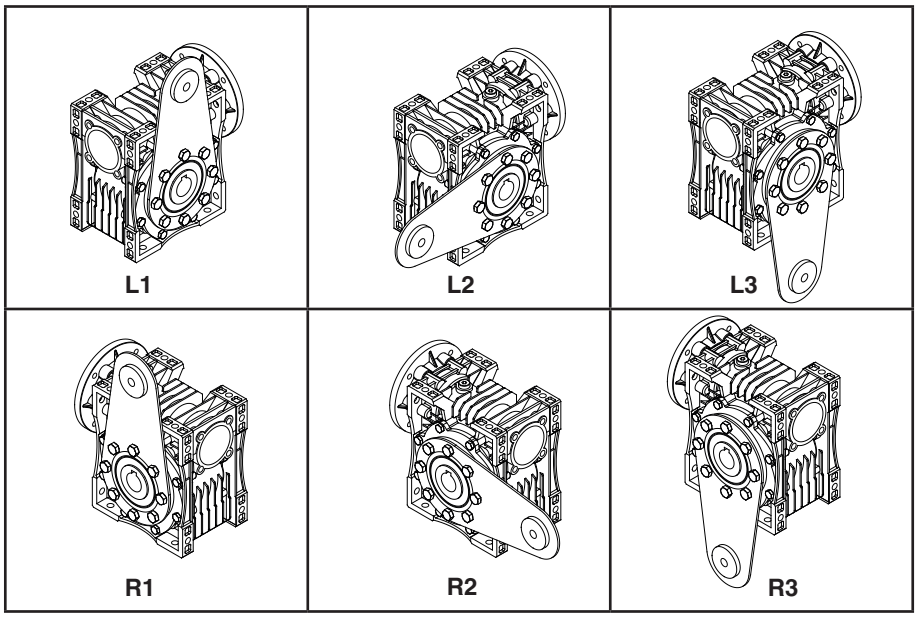
A type Cable Output



B type Cable output

Torque Arm Positions

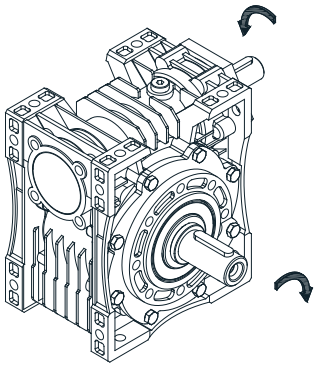
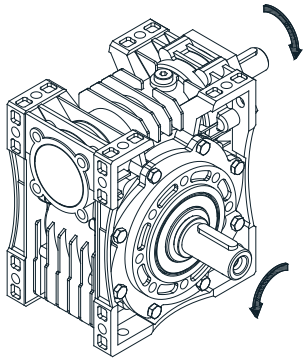
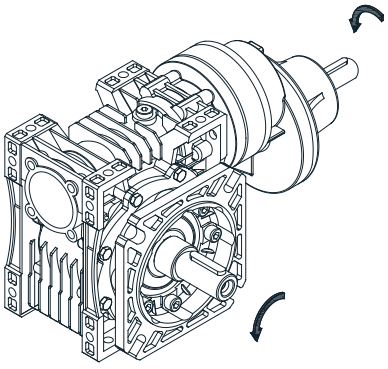
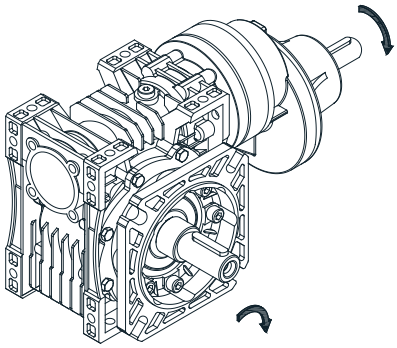
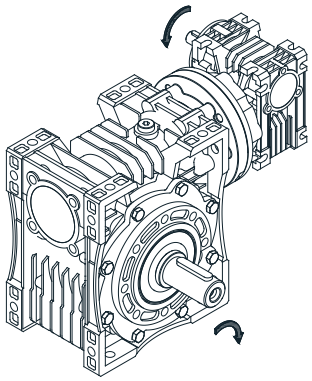
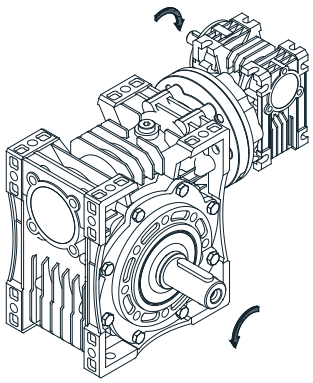


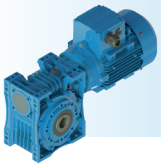


Type	b	e	d	h	R	Part No.
EX030	22	14	10	85	25	9E030
EX040	31	14	10	100	25	9E040
EX050	38	16	10	100	32	9E050
EX063	49.5	16	10	150	36	9E063
EX075	46.5	25	20	200	45	9E075
EX080	49.5	25	20	200	45	9E080
EX100	57.5	30	25	250	50	9E100
EX125	72	30	25	300	55	9E125

Direction of Rotation

Output shaft rotation directions according to the input shaft rotation directions are as follows.

Type	Clockwise	Counter Clockwise
ET...01		
ET...-NT..		
ET...01-ET...		



Geometrically Possible Combinations

Motor Size									
Type	**Stages**	**56**	**63**	**71**	**80**	**90**	**100**	**112**	**132**
E..030..	W	5.25-80	5.25-80	-	-	-	-	-	-
E..040..	W		8-100	8-100	-	-	-	-	-
E..040-030..	W+W	84-3720	84-3720	-	-	-	-	-	-
E..050..	W	-	19-100	7.25-100	7.25-100	7.25-29	-	-	-
E..050-N01..	W+H	-	87-498	87-498	87-498	-	-	-	-
E..050-030..	W+W	138-4980	138-4980	-	-	-	-	-	-
E..063..	W	-	-	7.25-100	7.25-100	7.25-100	-	-	-
E..063-N01..	W+H	-	117-600	117-600	117-600	-	-	-	-
E..063-030..	W+W	210.25-4920	210.25-4920	-	-	-	-	-	-
E..075..	W	-	-	-	7.5-100	7.5-100	7.5-60	7.5-60	-
E..075-N11..	W+H	-	-	111.75-745	111.75-745	-	-	-	-
E..075-040..	W+W	-	80-6200	80-6200	-	-	-	-	-
E..080..	W	-	-	-	10-110	7.5-110	7.5-110	7.5-110	-
E..080-N11..	W+H	-	-	111.75-819.5	111.75-819.5	-	-	-	-
E..080-040..	W+W	-	180-5084	180-5084	-	-	-	-	-
E..100..	W	-	-	-	20-107	7.5-107	7.25-107	7.25-107	-
E..100-N11	W+H	-	-	149-797.15	149-797.15	-	-	-	-
E..100-050..	W+W	-	180-5084	180-5084	180-5084	180-435	-	-	-
E..125..	W	-	-	-	-	7.25-107	7.25-107	7.25-107	7.25-62
E..125-N21..	W+H	-	-	125.58-516.81	125.58-516.81	125.58-516.81	-	-	-
E..125-063	W+W	-	-	184.88-5084	184.88-5084	184.88-5084	-	-	-

Service Factor

Service Factor (fs) is a safety coefficient, which takes into account the different running conditions of the driven machine.'' fs=1'' is used for uniform loads 8 hours working per day and up to 100 starts per hour.

Service factor depends on:

- Running time
- Nature of load
- Frequency of starting
- Driver type
- Other considerations

For the right selection of the needed service factor for your machine;

1. Determine the running time of driven machine.

2. Select the nature of load of driven machine (Page 18).

U - Uniform loads
M - Moderate loads
H - Heavy shock loads

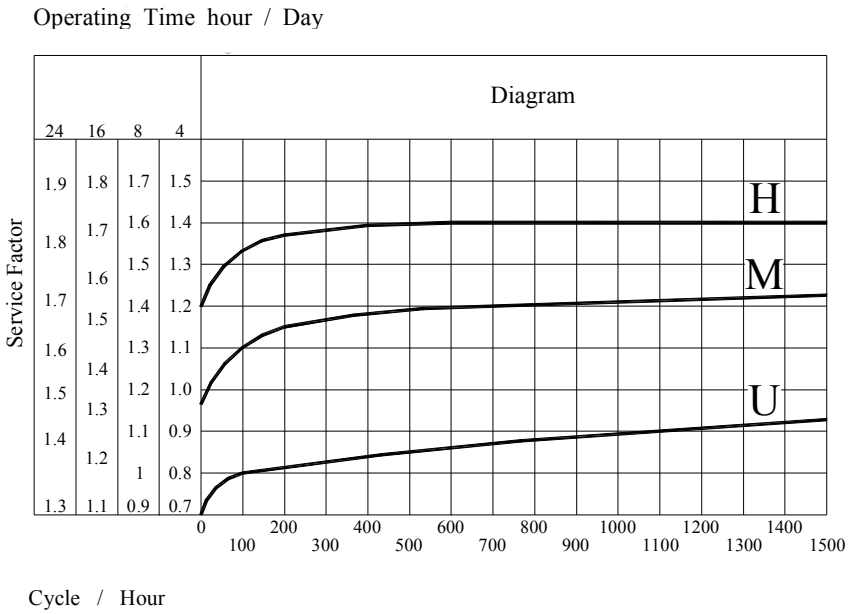
For a better selection, the nature of load can be calculated from the formulas given (page 18).

3. Determine frequency of starting.

4. After determining the above mentioned factors, the service factor can be easily selected from the table given bellow.

5. The selected service factor multiplied with the factor ''k'' according to the driver type;

k=1 :Electric motor or Hydraulic motor
k=1.25 :Multicylinder internal combustion engine
k=1.5 :Single cylinder internal combustion engine



Load Classification

Cranes:

U - Hoist Gears
- Lifting Gears

M - Defrocking jib Gears
- Slowing Gears

H - Travelling Gears

Pumps:

U - Centrifugal Pumps (light liquids)

M - Centrifugal Pumps (semi liquid)

H - Pressure Pumps
- Plunger Pumps

Stone and Clay Working Machines:

H - Hammer Mills
- Rotary Kilns
- Beater Mills
- Breakers
- Ball Mills
- Brick Presses
- Tup Mills

Textile Machines:

M - Printing and Dyeing Machines
- Looms
- Willow
- Batchers
- Tanning Vats

Oil Industry:

M - Pipeline Pumps
- Rotary Drilling Equipment

Food Industry:

M - Cane Knives
- Cane Crushers
- Mach Tubs

H - Cane Mills

Laundries:

M - Tumblers
- Washing Machines
- Bulk Belt Conveyors

Metal Rolling Mills:

M - Roller Adjustment Drives
- Roller Straightened
- Winding Machines
- Wire Drawing Benches

H - Billet Shears
- Rotary Tables (heavy)
- Descaling Machines,
- Sheet Mills
- Manipulators
- Cold Rolling Mills

Building Machines:

M - Concreate Mixers
- Hoist

Paper Machines:

H - Wet Presses
- Pulpers
- Drying Cylinders
- Glazing Cylinders

Rubber Machinery:

M - Calenders
- Mixers

H - Extruders
- Pug Mills
- Rolling Mills

Chemical Ind.:

M - Aggidators (semi- liquit)
- Drying Drums.
- Mixers and Rolling Mills

Conveyors:

M - Band Pocket Conveyors
- Steel Belt Conveyors
- Belt Conveyors

H - Hoists
- Bulk Belt Conveyors

U	Uniform Loads	$F_i < 0,25$
M	Moderate Loads	$F_i < 3$
H	Heavy Shock Loads	$F_i < 10$

J_{ext} : External moments of inertia reduced to the motor shaft

$$J'_{ext} = \frac{J_{ext}}{i^2}$$

i : Transmission ratio

J_{rotor} : Moments of inertia to the motor

$$F_i = \frac{J'_{ext}}{J_{rotor}}$$

Radial Loads

The permissible radial loads are calculated by considering working life and is listed on the tables. The given permissible radial loads F_{qam} are based on safety factor 1 and are valid for forces which are applied to the midpoint of the shaft.
For shock loading (f_s= 1) permissible radial loads must be divided with service factor. The listed permissible radial loads are based on the worst loading direction. Higher radial loads can be applied for different loading directions (Please ask if requested). The effective radial load at the gearbox shaft F_q will be determined with the given formulas on page 20.

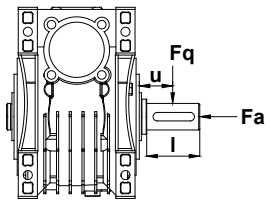
In Selection ;

$$F_{qa} \leq F_{qam}$$
$$F_{qe} \leq F_{qem}$$

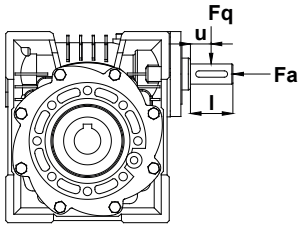
these formulas must be taken into consideration.
If the load is not applied at the midpoint of the shaft; the given permissible load must be corrected with the following formulas.

$$F_{qam}{}' = F_{qam} \frac{t}{y + u}$$
$$F_{qem}{}' = F_{qem} \frac{t}{y + u}$$

The values “t”,”y” can be taken from the below table. The value “u” is the length of the application point as shown below.

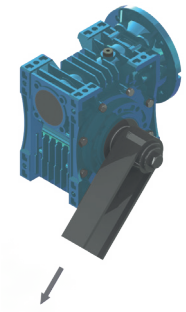


Radial Load correcting values on output shaft								
Type	**E.030**	**E.040**	**E.050**	**E.063**	**E..075**	**E.080**	**E.100**	**E.125**
t	67	86	107	131	138.5	163	185	210
y	53	66	82	106	106	123	135	155
l	30	40	50	50	65	65	80	100

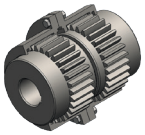


Radial load correcting values on input shaft								
Type	**ET030**	**ET040**	**ET050**	**ET063**	**ET075**	**ET080**	**ET100**	**ET125**
t	85	118	144	172.5	195	207	247	310
y	75	103	129	152.5	170	182	217	278
l	20	30	40	40	50	50	60	65

Calcolation of Radial Loads

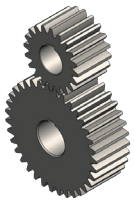


Radial Load F_q (N) is calculated with the following equations where required moment M (Nm) and hoop or gear diameter D (mm) is used.



1. Elastic Coupling

If Elastic Coupling is working in its relaible working area, the radial loads can be neglected.



2. For Spur Gear

(Pressure angle 20°)

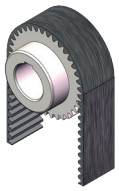
$$F_q = \frac{2100 \times M_2}{D}$$



3. For Chain Drive

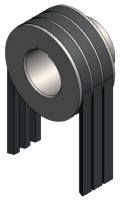
With Low Speed (z>17)

$$F_q = \frac{2100 \times M_2}{D}$$



4. For Trigger Belt

$$F_q = \frac{2500 \times M_2}{D}$$



5. For V Belt

$$F_q = \frac{5000 \times M_2}{D}$$



6. Flat Belt With

Spanning Pulley

$$F_q = \frac{5000 \times M_2}{D}$$

Thermal Power

Nominal thermal power P_t , indicated in our catalogue in performance tables can be applied at the gear reducer input when operating in continuous duty at a maximum ambient temperature of 20° C without exceeding 70° C oil temperature.

Thermal power P_{tg}, can be higher than the nominal P_t , described above, as per the following formula,

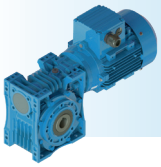
$$P_{tg} = P_t \times k_t$$

where k_t is the thermal factor depending on ambient temperature and type of duty as indicated in the table below.

Applied power P_g , should be less than or equal to the P_{tg} value ($P_g < P_{tg}=P_t .k_t$).
If Pg > Ptg , explore the possibilities and consult us.

Thermal power need not be taken into account when maximum duration of continuous running time is 1 - 3 h followed by shutdown periods long enough to restore the gear reducer to near ambient temperature (approx. 1 - 3 h).

Maximum Ambient Temperature [°C]	k_t for Operation Type				
	Continuously (S1)	Duty on intermittent load (S3...S6) Intermittence ratio for 60 minutes running			
	-	%60	%40	%25	%15
40	0.8	0.9	1	1.2	1.3
30	0.9	1.1	1.2	1.4	1.5
20	1	1.2	1.4	1.5	1.7
10	1.2	1.4	1.5	1.7	1.9



Efficiency

Efficiency is derived from the $\eta = P_{N2} / P_{N1}$ ratio. The value obtained will be valid assuming normal working conditions, correct lubrication and a load near the nominal value. In worm gearboxes, during the initial working period (about 50 hours) efficiency will be less than the catalogue values (according worm start number) referred to the values below ;

z1 = 1 ; 12%.
z1 = 2 ; 6%.
z1 = 3 ; 3%

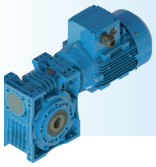
Static efficiency η_s is the efficiency on starting, and is less than η; as speed picks up gradually, efficiency will rise correspondingly until the catalogue value is reached. On the helical gearboxes the efficiency is not given on the performance tables.

In these types (Monoblock, Hollow Shaft and Horizontal type gearboxes) the efficiency is about 0,98 for each stage.
Inverse efficiency $\eta_{inv.}$ that produced by the worm wheel as drive is always less than η . It can be calculated approximately as follow:

$$\eta_{inv.} = 2 - \frac{1}{\eta}$$

Likewise Static inverse efficiency;

$$\eta_{S\,inv.} = 2 - \frac{1}{\eta_s}$$



Irreversibility

A) Dynamic Irreversibility

Dynamic irreversibility is a self blocking event on the driving side, directly after the moment of inertia of driving motor and moment of the driving side elements (like coupling, rotor shaft, cooling fan etc.) settles down to zero.

There is dynamic irreversibility if $\eta < 0.5$. This state becomes necessary wherever there is a need for stopping and holding the load, even without the aid of a brake. Where continuous vibration occurs, dynamic irreversibility may not be obtainable.

B) Static Irreversibility

A gear unit or geared motor is statically irreversible (that is,rotation cannot be imparted by way of the low speed shaft) when $\eta_s < 0.5$. This is a state necessary to keeping the load standstill; taking into account, however, that efficiency can increase with time spent in operation, it would be advisable to assume $\eta_s \leq 0.4$ (γ_m<5°30).

Where continuous vibration occurs, static irreversibility may not be obtainable.

A gear reducer or geared motor has low static reversibility (i.e. rotation may be imparted by way of the low speed shaft with high torque and / or vibration) when $0.5 < \eta_s < 0.55$ (7°< γ_m <11°).

A gear reducer or geared motor has complete static reversibility (i.e. rotation may be imparted by way of the low speed shaft) when $\eta_s \geq 0.55$ ($\gamma_m \geq 11°$). This state is advisable where there is a need for easy startup of the gear reducer by way of the low speed shaft.

Equivalent Power Rating

The equivalent power by an equivalent constant torque can be calculated for gearboxes working in constant speed but variable torques (or powers).
Using this equivalent power it is possible to make a gearbox selection according the usual gearbox selection method with constant torques. The equivalent torque will be determined according the mean of dominating torques.
The gearbox working in constant equivalent torque will theoretically have the same lifetime and safety compared to the variable torque one.
To calculate the equivalent torques, the variable torques in a cycle must be sorted from the maximal to the minimal on a horizontal time line (Check the graphic below). According to the graphic below the equivalent torque can be calculated with the following formula;

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6.6} + \ldots. + \Delta t_n \times T_n^{6.6}}{t}\right)^{\left(\frac{1}{6.6}\right)}$$

If T_n (the lowest torque) is lower than 50 % of T_e, this torque part must be taken out of the torque graph and the calculation must be repeated;

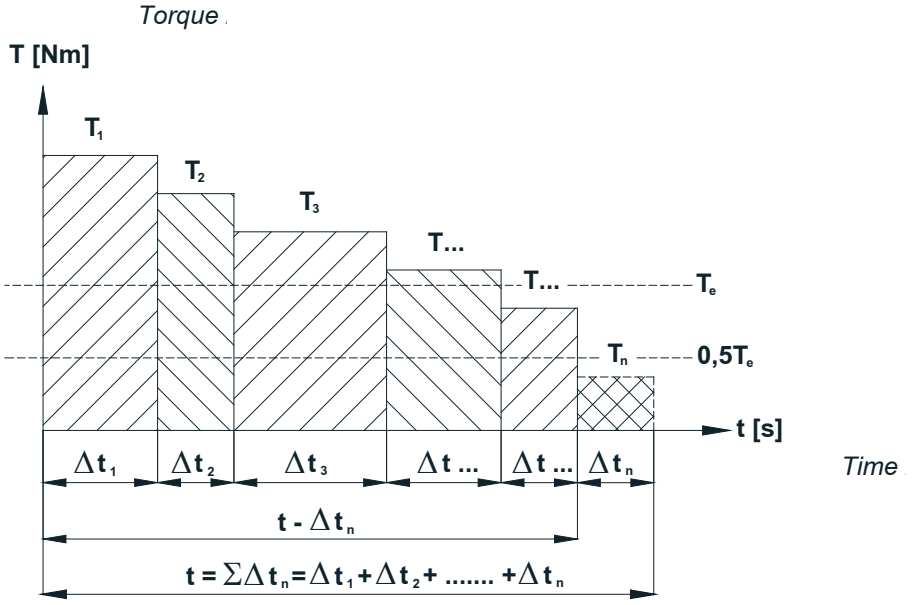
If $T_n < T_e \times 0.5$ then

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6.6} + \ldots. + \Delta t_{n-1} \times T_{n-1}^{6.6}}{t - \Delta t_n}\right)^{\left(\frac{1}{6.6}\right)}$$

If all T_n values are higher then 50% of T_e then the equivalent power can be calculated by the following formula;

$$P_{eq} = P_N = \frac{T_e \times n}{9550}$$

After the equivalent power is determined the selection of gearbox is made according to the selection procedures given on the gearbox selection part in this catalogue.



Equivalent Power Rating Example

The following data is given for a reversing blooming mill;

Torque steps:

Total one cycle time:	2 min.
1st torque part:	48 kNm, 30 s
2nd torque part:	32 kNm, 22 s
3th torque part:	28 kNm, 15 s
4th torque part:	16 kNm, 10 s
5th torque part:	5 kNm, 43 s
Machine constant speed:	50 rpm

The equivalent power, which is required for gear unit selection, is to determine.

Solution:

Total time in a cycle;

$$t = t_1 + t_2 + t_3 + t_4 + t_5 = 120 \text{ sn}$$

Equivalent Torque;

$$T_e = \left(\frac{30 \times 48^{6.6} + ... + 43 \times 5^{6.6}}{67}\right)^{\left(\frac{1}{6.6}\right)} = 39{,}2 \text{ kNm}$$

50% of Equivalent torque;

$$0{,}5 \times T_e = 19{,}6 \text{ kNm}$$

Every torque part must be lower then this value;

$$T_{4,5} < 0{,}5 \times T_e$$

We are repeating the calculation by taking out the torque parts, which are below 50%;

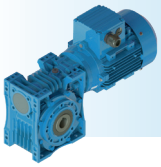
$$t' = t_1 - t_4 - t_5 = 120 - 43 - 10 = 67s$$

$$T_e = \left(\frac{30 \times 48^{6.6} + 22 \times 32^{6.6} + 15 \times 28^{6.6}}{67}\right)^{\left(\frac{1}{6.6}\right)} = 42{,}9 \text{ kNm}$$

By using the equivalent torque and constant speed we calculate the equivalent power;

$$P_{eq} = \frac{T_e \times n}{9550} = \frac{42{,}9 \times 1000 \times 50}{9550} = 225\text{kW}$$

Now by using the above calculated equivalent power and constant speed we camake the gearbox selection with the procedures described in this catalogue.



Gearbox Selection

For the correct selection of the appropriate gear units follow this steps.

1.Determine service factor (fs) on the basis of running conditions (Page 17-18).
2. Determine the required Torque M_2 (required output torque of gearbox) for the driven machine.
3. Determine required speed (output speedof gearbox) for the driven machine.
4. Calculate the required power for your machine(Calculate power ''P_2'' required at output side of gear reducer using the formula);

$$P_2 = \frac{M_2 \times n_2}{9550}$$

5. Calculate radial load required at output shaft according to type of connection between gear unit and machine (Refer to directions and values given on pages 19-20).
After determining the above mentioned values, the gear reducer which corresponds to our requirements can be selected from the performance tables (the service factor and the permissible radial load should be less than or equal to our requirement).
For Helical gears the output power is not given on the performance tables because they have high efficiency and the output power can be taken as input power.
The output torque should be checked if it meets to our requirements. If the output torque is low, search for a higher input power gearbox.

Example:
1. Machine Type: Belt Conveyor (Bulk Load)
2. Required Torque: Required Torque calculated for the driven machine is M_2 = 400 Nm.
3. Required speed: n_2 = 50 rpm
4. Running time: 16 hours per day
5. Frequency of starting: 1 start per hour
6. Connection type between gear reducer: Chain drive (output dimension-130 mm)

- From the load classification table (on page 17-18), the load class M can be selected for the known application.
- The service factor can be selected as fs =1,3 from the service factor table (page 17-18) by taking into consideration 16 hours running time, one start per hour, and load class M.

-Required power for your machine(Power at output side of gear reducer) :

$$P_2 = \frac{M_2 \times n_2}{9550} = \frac{400 \times 50}{9550} = 2,1 \quad kW$$

- For chain drive application the requested overhang load can be calculated from (page 20).;

$$Fq = \frac{2100 \times M_2}{D} = \frac{2100 \times 400}{130} = 6461,53\,N$$

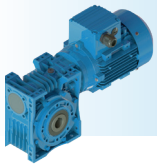
- The required gearbox is as follows:

$P_2 \geq$ 2.1 kW
$M_2 \geq$ 400 Nm
fs $\geq$ 1.3
$n_2 \approx$ 50 rpm
Fq $\geq$ 6461.53 N

From the performance table,

EV125-3E100L/4D selected (page 59).

P_2=3kW > 2.1 kW
M_2= 433 Nm > 400 Nm
fs= 1,7
n_2=56 rpm
fq=6461.53 Nm < 8498 Nm
i=26



Field of Industry.....
Application.....
Required Average Speed..... rpm

Required Power on Driven Machine:
-Normal..... kW
-Maximum..... kW
-Minimum..... kW

Driving Machine:
AC Motor [ ]
AC Motor + Inverter [ ]
DC Motor [ ]
Hydraulic Motor [ ]
Piston Engine with 1-3 cylinder [ ]
Piston Engine with 4-24 cylinder [ ]

Motor Connection Type (Electric Motors):
IEC B5/B14 Flange [ ]
NEMA Flange [ ]
Solid Input Shaft Without Motor [ ]

IEC or NEMA Flange Code.....

Motor Power:
-Nominal.....kW

Motor Speed:
-Normal.....rpm
-Maximum.....rpm
-Minimum.....rpm

Motor Torque:
-Normal.....Nm
-Maximum.....Nm
-Minimum.....Nm

Direction of Rotation:
cw [ ] ccw [ ] variable [ ]

Working hours per day:
<4 [ ] 4-8 [ ] 8-16 [ ] >16 [ ]

Startings per cycle:
0-50 [ ] 50-100 [ ] 100-200 [ ]
200-300 [ ] 300-500 [ ] 500-700 [ ]
700-1000 [ ] >1000 [ ]

Transmission ratio between motor and gear unit.....

Required Starting Torque.....Nm

Peak torques per hour:
1-5 [ ] 6-30 [ ] 31-100 [ ] >100 [ ]

Effective working time in a cycle (ED):
%100 [ ] %80 [ ] %60 [ ] 40% [ ]
20%[ ]

Altitude:
<1000 [ ] <2000 [ ] <3000 [ ]
<4000 [ ] <5000 [ ]

Mounting Place:
Small closed room (w<1m/sn) [ ]
Closed room (w<3m/sn) [ ]
Big rooms and halls (w>=3m/sn) [ ]
Outdoor [ ]

Ambient Conditions:
Normal [ ] Dusty [ ] Humid [ ]
Corrosive [ ] Dry [ ]

Ambient Temperature:
Average.....^{0}C
Maximum.....^{0}C
Minimum.....^{0}C

Backstop Required:
Yes [ ] No [ ]

Gearbox input options:
V..[ ] N..[ ] T..[ ]

Gearbox output options:
00 [ ] 01 [ ] 02 [ ] 03 [ ] 04 [ ] 05 [ ] 08 [ ]

Mounting Position:

M1 [ ] M2 [ ] M3 [ ] M4 [ ] M5 [ ] M6 [ ]

Input Shaft Connection Type:
Elastic Coupling [ ]
Barrel Type Coupling [ ]
Hydraulic Coupling [ ]
Rigid Flange Coupling [ ]
Pulley [ ]
Chain Sprocket [ ]
Pinion [ ]
Diameter of Connection element.....mm
Radial Load.....N
"u" Distance of Radial Load.....
mm
Axial Load (Towards Shaft) .....N

Output Shaft Connection Type:
Elastic Coupling [ ]
Barrel Type Coupling [ ]
Rigid Flange Coupling [ ]
Pulley [ ]
Chain Sprocket [ ]
Pinion [ ]
Hollow Shaft with Torque Arm [ ]
Schrink disc with Torque Arm [ ]
Diameter of Connection Element.....mm
Radial Load.....N
"u" Distance of Radial Load.....
mm
Axial Load (Towards Shaft) .....N

Gearbox assembled by:
Foot [ ] Flange [ ] Torque Arm [ ]

Output Shaft Specification:
Solid Shaft with Keyway [ ]
Solid Shaft without Keyway [ ]
Hollow Shaft [ ]
Special Shaft [ ]

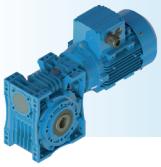
Input Shaft Specification:
Solid Shaft with Keyway [ ]
Solid Shaft without Keyway [ ]
Special Shaft [ ]
Torque arm required Yes[ ] No[ ]

Electrical Supply:
AC-1 Phase [ ] AC-3 Phase [ ] DC [ ]
Voltage.....Volt
Frequency..... Hz

Protection Class:
IP55 [ ] IP65 [ ] Exproof [ ]
Other IP.....

Attachments:
Load Diagram [ ]
Project [ ]
Required Dimensions [ ]
Technical Specifications [ ]

Notes:



Lubrication

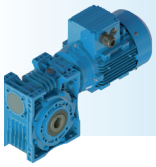
To work in perfect condition and to have long life for the gearbox the lubricant must be chosen correctly and changed in time.

In selection of oil it is important to consider speed, ambient temperature, gear box oil temperature, working conditions and the life required from the lubricant. All units are filled with lubricant before shipping.
Before the gearbox is stored for a long time or before starting up, the top plug (according to the working position) must be removed and the extra given vent plug must be replaced. This prevents excessive pressure which causes oil leakages.

The lubricant in the standard line is given for standard fillings on the table below. If the mounting position not indicated on order Worm Geared gearboxes are filled with mounting position of M1.
For other mounting positions please filling oil or draining oil refer to the table given on the next pages. For special working conditions please contact us.

The mineral lubricant should be changed after every 10000 service hours and the synthetic lubricant should be changed after every 20000 working hours. If the operation conditions are very heavy (e.g. high temperature differences, high humidity) shorter intervals between changes are recommended. Mineral and synthetic oils must not be mixed up.
By changing the lubricant complete cleaning is advised. The oil change should be done after a working period.
Because oil is hot in this condition and impurities are mixed with it the changing of oil will be done in best result and the oil will drain easily.

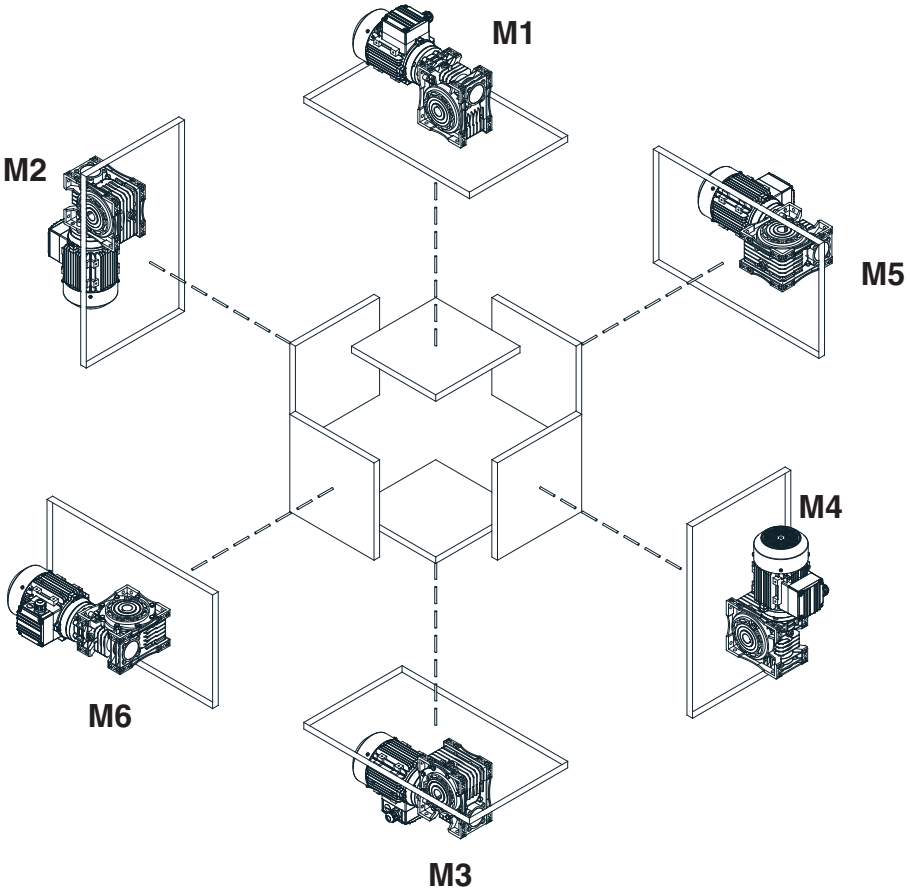
Please look at the label of your gear unit to check the filled oil type of gear unit.



Oil Types

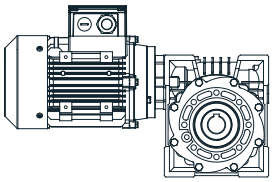
Lubricant	DIN 51517-3	Ambient Temperature (°C)		ISO VG	Aral	Beyond Petroleum	Castrol	Klüber Lubrication	Mobil	Shell	Total
		Dip Lubrication	Forced Lubrication								
Mineral Oil	CLP	0 ... +50	–	680	Degol BG 680	Energol GR-XP 680	Alpha SP 680	Klüberoil GEM 1-680 N	Mobilgear 600 XP 680	Omala S2 GX 680	Carter EP 680
		-5 ... +45	–	460	Degol BG 460	Energol GR-XP 460	Alpha SP 460	Klüberoil GEM 1-460 N	Mobilgear 600 XP 460	Omala S2 GX 460	Carter EP 460
		-10 ... +40	+15 ... +40	320	Degol BG 320	Energol GR-XP 320	Alpha SP 320	Klüberoil GEM 1-320 N	Mobilgear 600 XP 320	Omala S2 GX 320	Carter EP 320
		-15 ... +30	+10 ... +30	220	Degol BG 220	Energol GR-XP 220	Alpha SP 220	Klüberoil GEM 1-220 N	Mobilgear 600 XP 220	Omala S2 GX 220	Carter EP 220
		-20 ... +20	+5 ... +20	150	Degol BG 150	Energol GR-XP 150	Alpha SP 150	Klüberoil GEM 1-150 N	Mobilgear 600 XP 150	Omala S2 GX 150	Carter EP 150
		-25... +10	+3 ... +10	100	Degol BG 100	Energol GR-XP 100	Alpha SP 100	Klüberoil GEM 1-100 N	Mobilgear 600 XP 100	Omala S2 GX 100	Carter EP 100
Synthetic Oil	CLP PG	-10 ... +60	–	680	Degol GS 680	Energsyn SG-XP 680	–	Klübersynth GH 6 -680	Mobil Glygoyle 680	Omala S4 WE 680	Carter SY 680
		-20 ... +50	–	460	Degol GS 460	Energsyn SG-XP 460	Aphasyn PG 460	Klübersynth GH 6 -460	Mobil Glygoyle 460	Omala S4 WE 460	Carter SY 460
		-25 ... +40	+5 ... +40	320	Degol GS 320	Energsyn SG-XP 320	Aphasyn PG 320	Klübersynth GH 6 -320	Mobil Glygoyle 320	Omala S4 WE 320	Carter SY 320
		-30 ...+30	0 ...+30	220	Degol GS 220	Energsyn SG-XP 220	Aphasyn PG 220	Klübersynth GH 6 -220	Mobil Glygoyle 30	Omala S4 WE 220	Carter SY 220
		-35 ... +20	-5 ... +20	150	Degol GS 150	Energsyn SG-XP 150	Aphasyn PG 150	Klübersynth GH 6 -150	Mobil Glygoyle 22	Omala S4 WE 150	Carter SY 150
		-40 ... +10	-8 ... +10	100	–	–	–	Klübersynth GH 6 -100	Mobil Glygoyle 100	–	–
	CLP HC	-10 ... +60	–	680	–	–	–	Klübersynth GEM 4-680 N	Mobil SHC Gear 680	Omala S4 GXV 680	Carter SH 680
		-20 ... +50	–	460	Degol PAS 460	Enersyn EP-XF 460	Alphasyn T 460	Klübersynth GEM 4-460 N	Mobil SHC Gear 460	Omala S4 GXV 460	Carter SH 460
		-30 ... +40	+5 ... +40	320	Degol PAS 320	Enersyn EP-XF 320	Alphasyn T 320	Klübersynth GEM 4-320 N	Mobil SHC Gear 320	Omala S4 GXV 320	Carter SH 320
		-40 ... +40	0 ...+30	220	Degol PAS 220	Enersyn EP-XF 220	Alphasyn T 220	Klübersynth GEM 4-220 N	Mobil SHC Gear 220	Omala S4 GXV 220	Carter SH 220
		-40 ... +40	-5 ... +20	150	Degol PAS 150	Enersyn EP-XF 150	Alphasyn T 150	Klübersynth GEM 4-150 N	Mobil SHC Gear 150	Omala S4 GXV 150	Carter SH 150
		-40 ... +40	-8 ... +10	100	–	–	–	Klübersynth GEM 4-100 N	Mobil SHC 627	Omala S4 GXV 100	–
Food Grade Oil	CLP NSF H1	-30 ... +25	+5 ... +25	220	–	–	Optileb GT 220	Klüberoil 4 UH1-220 N	Mobil SHC Cibus 220	Cassida Fluid GL-220	Nevastane SL 220
Biodegradable Oil	CLP E	-25 ... +40	+5 ... +40	320	–	–	Tribol BioTop 1418-320	Klübersynth GEM 2-320	–	–	Carter Bio 320
Mineral Grease [-20 .... +120 °C Working Temperature]					Aralub HL3	Energrease LS 3	Spheerol AP3	Centoplex 2 EP	Mobilux EP 3	Gadus S2 V100 3	Multis Complex EP 2
Synthetic Grease [-30 .... +100 °C Working Temperature]					–	Energrease SY 2202	–	Petamo GHY 133 N	Mobiltemp SHC 100	Gadus S5 V100 2	Multis Complex SHD 220

Mounting Positions

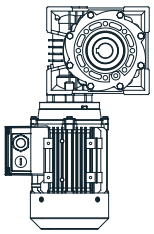


Figured mounting positions of M1 to M6 are determined as reference of directional position of the gearbox.
Mounting surfaces are not binding.

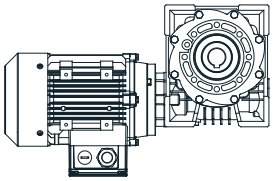
Oil Plugs and Oil Quantities



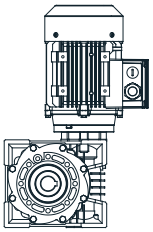
M1



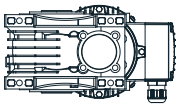
M2



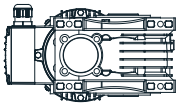
M3



M4



M5



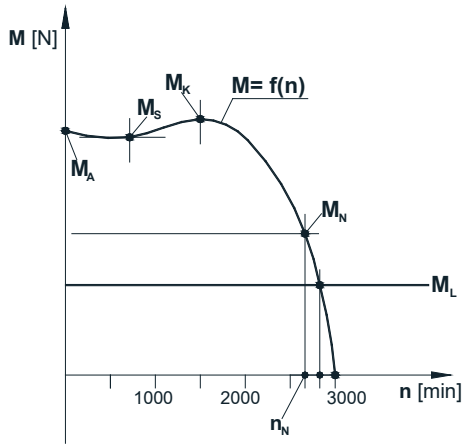
M6

Oil Quantities (lt)

Type	M1	M2	M3	M4	M5	M6
E.30	0.025	0.04	0.02	0.04	0.04	0.04
E.40	0.07	0.10	0.12	0.10	0.10	0.10
E.50	0.15	0.15	0.15	0.15	0.15	0.15
E.63	0.30	0.40	0.26	0.40	0.50	0.40
E.75	0.45	0.65	0.35	0.65	0.65	0.65
E.80	0.60	0.80	0.50	0.80	0.80	0.80
E.100	1.7	2.1	1.2	2.1	2.1	2.1
E.125	3.1	3.6	2.0	3.6	3.6	3.6

AC Motors - General Specifications

On account of its simple and maintenance free construction, good reliability and price, the three phase squirrel cage motor is one of the most frequently employed electric motors. The run up behavior of a three phase squirrel cage motor is described by the torque-speed characteristic curve. An example is shown below.



M_A: Starting torgue

M_S: Pull-up torgue

M_K: Pull -out torgue

M_N: Motor rated torque

M_L: Load torque

The motor follows this torque characteristics up to its stable operating point every time, when it is switched on. Operating point is that point, where the moment speed curve intersects with load torque M_L line.
The magnetic field in the stator rotates at a synchronous speed n_s.

Phase shift of each pole is 120° at 3 phase motors.

$$n_S = 120 \times \frac{f}{p_S}$$

f: supply frequency [Hz]
p_s: number of stator poles

Because of the alternating magnetic field in the rotor, the rotor starts running in the same direction of the stator flux and tries to catch up with the rotating flux. The rotor never catches up the stator field. The rotor runs slower than the speed of the stator field.
This speed is called the base speed n_N.

A decrease in load will cause the rotor to speed up or decrease slip. The slip is defined as follows:

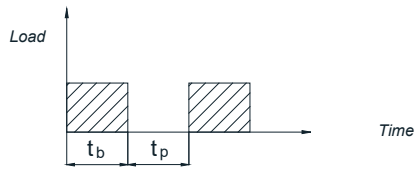
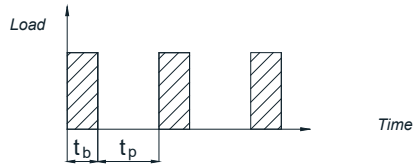
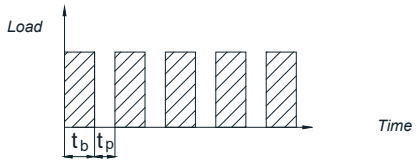
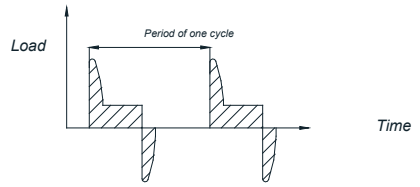
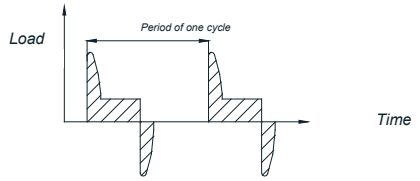
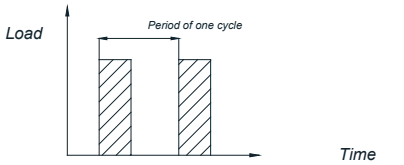
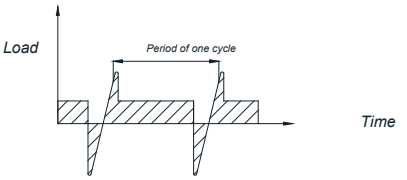
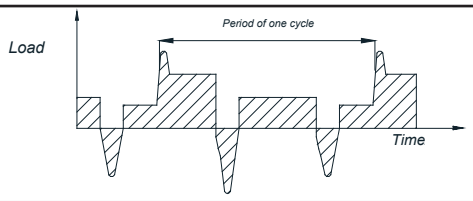
$$s = \frac{n_S - n_N}{n_S} \times 100$$

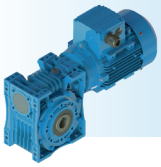
According to the slip, the nominal values of the electric motor can alter as follows:

Slip s: ± 20%
Starting current: ± 20%
Starting torque: -15 /+25 %
Moment of inertia: ± 10%
Efficiency (up to 37 kW): -0,15 (1-η)

AC Motors - Modes of Operation

All motors of the catalogue have been laid out for duty S1 (continuous operation). Other duty types are given on the following table.

Operation	Explanation	Load Graphic
S1	Continuous operation under constant load	
S2	Short-time duty under constant load	
S3	Periodic duty without influence of start-up on temperature	
S4	Periodic duty with influence of start up on temperature	
S5	Periodic duty with influence of startup and braking on temp.	
S6	Continuous operation with intermittent loading	
S7	Continuous operation with intermittent loading and breaking	
S8	Continuous operation duty type with related load-speed changes	



Protection Class

Dana uses IP54 (IEC 34-5) protection class electric motors for standard products. If different kind of protection class is requested please contact us.

Insulation Class

Dana uses F (IEC 317-8) insulation class electric motors for standard products. H insolation class is available upon request.

Efficiency Classes

The method for measuring the efficiency of low voltage three-phase asynchronous motors was revised with the new IEC 60034-2-1:2007 standard. The new IE classes is valid for AC Motors in power range from 0,75 to 375 kW.

Unlike the EFF classes IE classes can be used for 6-pole AC motors. Bellow is the table of efficiency classes.
The instructions for efficiency classes can differ from country to country. Please contact with us for more information.

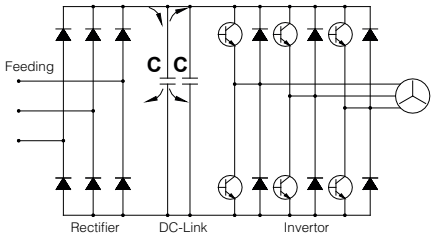
For the motors, which are fully integrated into a product (for example gear, pump) so their energy efficiency can not be recognized independently, the requirements of efficiency are not valid in Europe.

Efficiency Classes			Calculating Efficiency Values of Motors with 4 Poles	
IE1	**EFF 2**	**Standart Efficiency**	A=0,5234 B=-5,0499 C=17,4180 D=74,3171	$\eta_{Mn} = A \times \left[\log_{10}(P_L)\right] + B \times \left[\log_{10}(P_L)\right]^2 + C \times \log_{10}(P_L) + D$
IE2	**EFF 1**	**High Efficiency**	A=0,0278 B=-1,9247 C=10,4395 D=80,9761	P_L : Nominal Load [kW]
IE3	**-**	**Premium Efficiency**	A=0,0773 B=-1,8951 C=9,2984 D=83,7025	η_{Mn} : Nominal Efficiency [kW]
IE4	**-**	**Super Premium Efficiency**	-	

Efficiency Values of Motor with 4 poles	Nominal Load [kW]	Efficiency Class		
		IE1	**IE2**	**IE3**
	0,75	72,1 %	79,6 %	82,5 %
	1,5	77,2 %	82,8 %	85,3 %
	3	81,5 %	85,5 %	87,7 %
	7,5	86 %	88,7 %	90,4 %
	15	88,7 %	90,6 %	92,1 %
	22	89,9 %	91,6 %	93 %
	37	91,2 %	92,7 %	93,9 %
	45	91,7 %	93,1 %	94,2 %
	75	92,7 %	94 %	95 %
	90	93 %	94,2 %	95,2 %
	330	94 %	95,1 %	96 %

AC Frequency Inverters

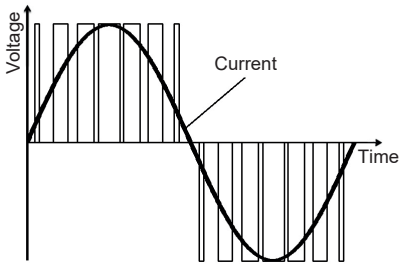
An electronic converter is a device which converts Direct Current (DC) to Alternating Current (AC) is known as an inverter. Electronic speed controllers for AC motors usually convert the AC supply to DC using a rectifier, and then convert it back to a variable frequency, variable voltage AC supply using an inverter bridge.
The connection between the rectifier and inverter is called the DC link.
The block diagram of a speed controller (often called an inverter) is shown below.

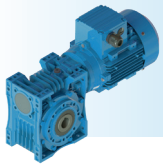


The three phase supply is fed into a full wave rectifier which supplies the DC link capacitors.
The capacitors reduce the voltage ripple (especially on single supplies) and supply energy for short mains breaks.
The voltage on the capacitors is uncontrolled and depends on the peak AC supply voltage.
The DC voltage is converted back to AC using Pulse Width Modulation (PWM).

The desired waveform is built up by switching the output transistors (Insulated Gate Bipolar Transistors; IGBTs) on and off at a fixed frequency (the switching frequency).

By varying the on and off time of the IGBTs the desired current can be generated. The output voltage is still a series of square wave pulses and the inductance of the motor windings results in a sinusodial motor current.
Pulse Width Modulation is shown in the figure below.





DC Motors - General Specifications

DC drive systems have found new possible applications with the development of the electronic components sector. What was previously extremely expensive and in some cases not economically feasible is nowadays realized by miniaturised power converter technology.
Additional functions such as guided startup after a predetermined time, torque and current monitoring with electronic protection against overloading, and many inexpensive special applications have made DC drive systems more attractive.

DC Motors - Operating Principles

The DC motor requires, a converter with DC output. The motor includes windings, such as armature, field, commutation and compensation windings, which are arranged in the stator as well as on rotor. Voltage and current are supplied to the rotor via the carbon brushes and the commutator. The carbon brushes are wearing parts therefore a DC motor requires maintenance at service intervals. While its good control properties, the DC motor is an essential item in automation technology.

DC Motors - Types

Depending on the wiring of the exciting winding or field winding, two basically different variants are regards torque speed characteristics may be distinguished.

DC Motors - Speed Control

In DC motors the speed is adjusted by altering the DC voltage.
DC shunt wounded motors behave similar to three phase induction motors between no load operation and maximum load.
The speed drops with increasing loading of the motor. This difference is greater in small motors and smaller in larger motors.
The speed difference can compensated in the DC converter device by adjusting (I x R). If great control accuracy is required, a speed control with measurement of the actual values by a tachogenerator can be used.

The power of DC motor;

$$P_g = U \times I = \frac{P_c}{\eta}$$

P_g : Input Power W
P_C : Output Power W
U : Armature Voltage V
I : Armature Current A
η : Motor efficiency

Brakes - Types and General Informations

This type of brakes has two friction surfaces. Brake torque is generated by springs when no voltage is applied. The brake is electromagnetically released.
On exciting the electromagnet means of the current, the armature plate is pulled towards the electromagnet itself, thrust loading the pressure spring and enabling the friction disc which is axially movable on the key, to turn freely.
When current fails, the pressured springs drive the armature plate towards the disc, thus braking the motor shaft.

Brake Types:

a) Brakes without cooling
This type of brakes are assembled on the back cover of the electric motor. There is no fan on the backside. This brake type is mostly preferred in short working times and short working cycles.

b) Fan cooled brakes
This type of brakes are assembled on the back cover of electric motor by removing the electric motor fan. A fan is coupled to the backside of the brake by extending the rotor shaft of the electric motor. Fan cooled brakes are preferred in long working times and closed places without airflow.

c) Brakes with hand release
This brakes can be released by help of an arm. It can be applied to both of the above mentioned brakes and used in special cases (fail of electric current, mechanical problems etc.)
These brakes are mostly preferred if operation (relasing) without a current is needed (automatic controlled doors, gates, building wall painting elevators etc.).

Brakes - Working Voltages

Electromagnetic brakes can be ordered with 230V AC or 400V AC supply voltage. The coil of brakes needs DC voltage and therefore depending on brake type a half wave, a full wave rectifier or transformer should be used between supply and coil voltage.
As standard the brakes will be delivered with 230V supply voltage and half wave rectifier, if there is no special request.
For special cases please contact Dana.

a) Brakes with 230V supply voltage
230V AC supply voltage from the motor terminal box will be reduced to the coil voltage depending on the brake type with half-wave or full-wave rectifier. DC brake coil voltage is indicated on the label.

b) Brakes with 400V supply voltage
400V AC supply voltage from the motor terminal box will be reduced to the coil voltage with half-wave rectifier. DC brake coil voltage indicated on the label.

c) 24V DC Brakes
The transformator's size is selected according to value of brake torque. The current is taken from the electric motor terminal box or from the electric panel and is transformed to 29V DC current. This current is transferred to 24V DC current with full-wave rectifier and supplies brake coil.

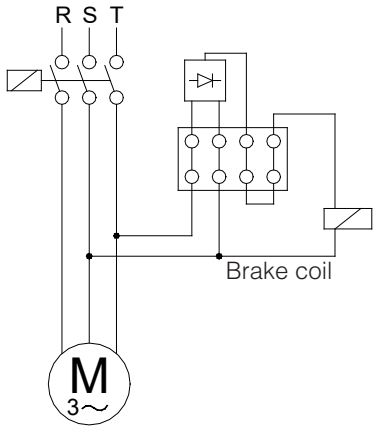
d) Shock voltage supply transformer
Brakes which consist of high power and torques take long time to get in electromagnetic field. Shock voltage supply transformers with time relay are aiming to overcome spring pressure delaying for brakes .
Also this transformers provide to open system suddenly by feeding double(48V DC) voltage in a short time and preventing to frictional loses occurring in delayed opening.

Brakes - Connection Types

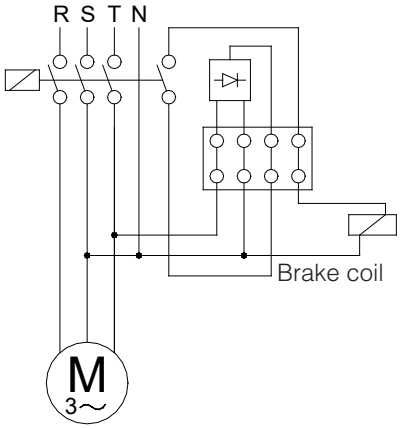
a) Delayed Braking
Generally this type of connection uses in slow and sliding brake intended systems. Delayed connection type using to prevent shock loadings in crane driving systems. Brakes are setting up to delayed connection if any other types are not specified by customer

b) Sudden Braking
This type of connections are mostly used in systems when short braking times are needed. The braking torque will be produced as soon as the current fails. These brakes are mostly used in hoisting of lifting units and elevators.

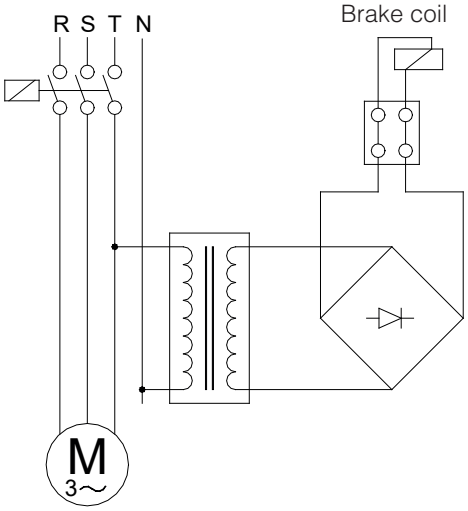
Delayed Running Brake (230 V)



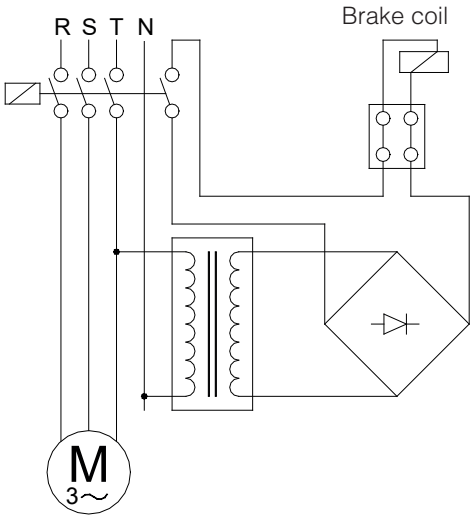
Sudden Brake (230 V)



Delayed Running Brake (24 V)



Sudden Brake (24 V)



Brakes - Selection

To select a brake correctly the following data are necessary;

- **I_{tot} [kg . m²]** : The total inertia of rotating parts reduced at the motor shaft
- **n_0 [rpm]** : Maximum motor speed.
- **t_f [s]** : The maximum admitted time of the braking.
- **c_t** : Coefficient of switch on time (average 0,995).
- **M_L [Nm]** : Required static torque of system.
- **C_S** : Safety coefficient ($C_S \geq 2$)

The necessary braking torque calculates below:

a) The static load torque M_L ,
same direction of motor rotation (Descent of a load or steady resisting torque which favours the rotation of the motor)

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} + M_L$$

b) The static load torque M_L ,
opposes the rotation of the motor (Lifting of a load or steady resisting torque which opposes the rotation of the motor)

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} - M_L$$

The necessary braking torque will result from the following equation using C_S ($C_S \geq 2$);

$$M_f = M_{fc} \times C_s$$

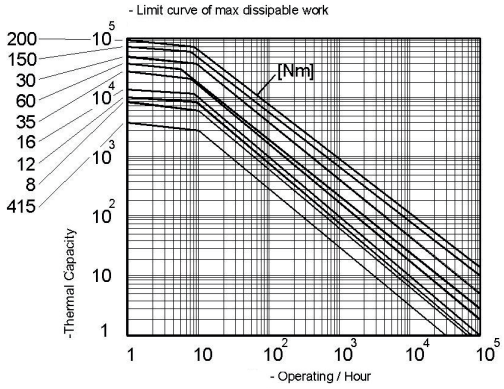
Approximated Brake Selection
Its only the motor power and its maximum speed are known:

W [Watt]: Motor Nominal Power

$$M_f = \frac{W}{(\frac{2\pi \times n_0}{60})} \times C_s \quad (C_s \geq 2)$$

Standard Brakes

Brake Static Torque [Nm]	4,5	8	12	16	35	60	80	150	200
Brake Dynamic Torque [Nm]	3,6	6,4	9,6	12,8	28	48	64	120	160
Maximum Motor Speed [rpm]	3000	3000	3000	3000	3000	3000	3000	1500	1500
Input Power [W]	15	20	25	30	45	50	55	60	65



Brakes - Thermal Capacity

The thermal capacity of the brake must also be checked after the above mentioned calculations.The heat dissipation energy L (joule) can be calculated from the following equation and must be checked if the result is under the limit curve shown on ''Limit curve of may dissipable work''.

a) The static load torgue M_L ,favours the rotation of the motor (Descent of a load which favours the rotation of the motor)

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2} \times \left(\frac{M_f}{M_f - M_L}\right)$$

b) The static load torgue M_L ,opposes the rotation of the motor (Lifting of a load which opposes the rotation of the motor)

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2} \times \left(\frac{M_f}{M_f + M_L}\right)$$

c) The static load torgue M_L ,is constant and opposes or favours the rotation of the motor (except lifting of a load)

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2}$$

Adjustment of the air-gap:

In order to obtain the same performance from the brake during its lifetime,the air-gap of the brake must be re-adjusted after a limited time of operation For the air-gap and the time interval of the adjustment please contact us.

Selection Example:
The maximum admitted time for braking 0,5 s
Motor speed: 1400 rpm
Total inertia reduced at motor shaft: 0,08 kgm^2

Required operating torque:50 Nm
Nature of load: Load direction is same as motor direction(Unloading process: Start-stop time per hour :30)

$$M_{fc} = \frac{(2\pi \times 1400 \div 60)}{0,5 \times 0,995} + 50 = 73,6\ Nm$$

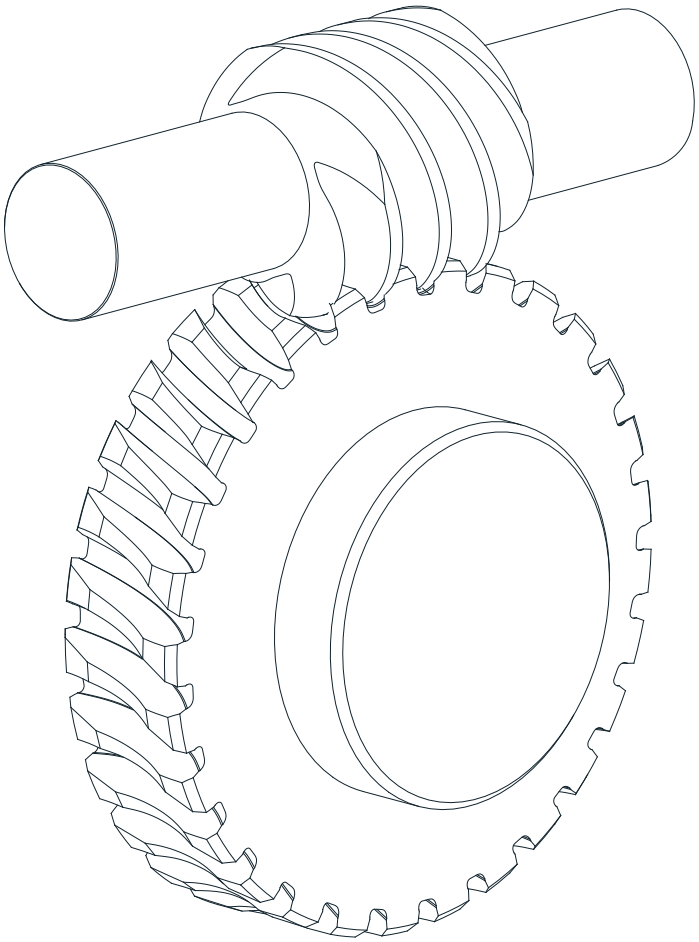
$$M_f = 73,6 \times 2 = 147,2\ Nm$$

From the brake selection table a standard brake of 150 Nm is selected.
Necessary thermal capacity

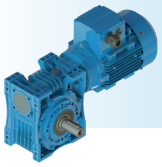
$$L = \frac{0,08 \times (2\pi \times 1400 \div 60)^2}{2} \times \left(\frac{147,2}{147,2 - 50}\right) = 1302,0 < 18000 \text{ Joule (from 150 Nm curve)}$$

The selected brake with 150 Nm is suitable.

PERFORMANCE TABLES

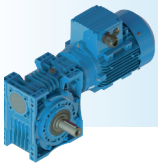


EV version is referenced in the following performace tables, if electric motor data are known you can either select EN version using the same tables or through the on line configurator.

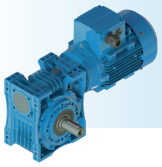


EV / EN - PERFORMANCE TABLES

Power P_g [kW] P_g [HP]	Output Speeds n_2 [r.p.m]	Output Torque M_2 [Nm]	Output Power P_2 [kW]	Ratio i	Radial Loads (Output) F_{qam} [N]	Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	Motor Eff. Class
0.06 0.08	0.28	199	0.01	**4920**	6200	0.5	**EV063-E030-G56/4a**	0.25	10.3	114	IE1
	0.37	152	0.01	**3660**	6200	0.7					
	0.45	187	0.01	**3060**	6200	0.7					
	0.59	149	0.01	**2340**	6200	0.8					
	0.79	110	0.01	**1740**	6200	0.9					
	0.94	146	0.01	**1450**	6200	1.0					
	1.1	124	0.01	**1218**	6200	1.1					
	1.4	105	0.02	**986**	6200	1.3					
	1.6	97	0.02	**841**	6200	1.4					
	1.9	87	0.02	**725**	6200	1.5					
	2.2	78	0.02	**609**	6200	1.7					
	2.8	66	0.02	**493**	6200	1.9					
	3.3	60	0.02	**420.5**	6200	2.1					
	4.5	46	0.02	**304.5**	6200	2.7					
	0.28	214	0.01	**4980**	4800	0.3	**EV050-E030-G56/4a**	0.25	8	113	IE1
	0.37	152	0.01	**3720**	4800	0.3					
	0.46	162	0.01	**3000**	4800	0.3					
	0.60	139	0.01	**2280**	4800	0.5					
	0.79	111	0.01	**1740**	4800	0.5					
	0.94	100	0.01	**1450**	4800	0.5					
	1.1	88	0.01	**1218**	4800	0.6					
	1.4	105	0.02	**986**	4800	0.7					
	1.6	85	0.01	**870**	4800	0.9					
	1.9	77	0.02	**725**	4800	1.0					
	2.2	67	0.02	**609**	4800	1.1					
	2.8	72	0.02	**493**	4800	1.3					
	3.3	67	0.02	**420.5**	4800	1.4					
	3.8	60	0.02	**362.5**	4800	1.6					
	4.5	54	0.03	**304.5**	4800	1.7					
	5.5	46	0.03	**246.5**	4800	2.0					
	6.5	41	0.03	**210.25**	4800	2.2					
	7.9	37	0.03	**174**	4800	2.5					
	10	32	0.03	**137.75**	4800	2.8					
	0.37	141	0.01	**3720**	3400	0.2	**EV040-E030-G56/4a**	0.25	6.2	112	IE1
	0.46	154	0.01	**3000**	3400	0.2					
	0.54	153	0.01	**2520**	3400	0.2					
	0.71	149	0.01	**1920**	3400	0.2					
	0.86	134	0.01	**1600**	3400	0.2					
	1.0	118	0.01	**1344**	3400	0.3					
	1.3	99	0.01	**1088**	3400	0.3					
	1.4	106	0.02	**960**	3400	0.5					
	1.7	96	0.02	**800**	3400	0.5					
	2.0	84	0.02	**672**	3400	0.6					
	2.5	71	0.02	**544**	3400	0.7					
	2.9	65	0.02	**480**	3400	1.0					
	3.4	58	0.02	**400**	3400	1.1					
	4.1	51	0.02	**336**	3400	1.2					
	5.0	43	0.02	**272**	3400	1.4					
	5.9	40	0.02	**232**	3400	1.5					
	6.9	42	0.03	**200**	3400	1.7					
	8.2	37	0.03	**168**	3400	1.8					
	10	32	0.03	**136**	3400	2.1					
	12	29	0.04	**116**	3400	2.3					
	16	22	0.04	**84**	3400	2.8					

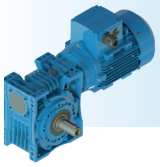


Power P_g [kW] P_g [HP]	Output Speeds n_2 [r.p.m]	Output Torque M_2 [Nm]	Output Power P_2 [kW]	Ratio i	Radial Loads (Output) F_{qam} [N]	Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	Motor Eff. Class
0.06	17	16	0.01	**80**	1830	0.7	**EV030-G56/4a**	0.25	3.9	80	IE1
0.08	23	12	0.03	**60**	1830	0.8					
	27	11	0.03	**50**	1830	1.3					
	33	10	0.03	**42**	1830	1.6					
	40	8	0.03	**34**	1830	2.1					
	47	8	0.04	**29**	1830	2.3					
	55	7	0.04	**25**	1830	2.6					
	65	6	0.04	**21**	1743	2.8					
	81	5	0.04	**17**	1631	3.5					
	94	5	0.05	**14.5**	1551	3.9					
	130	4	0.05	**10.5**	1396	4.7					
	189	3	0.05	**7.25**	1241	6.5					
	261	2	0.05	**5.25**	1115	9.6					
0.09	1.1	185	0.02	**1218**	6200	0.7	**EV063-E030-G56/4b**	0.63	10.4	114	IE1
0.12	1.4	156	0.02	**986**	6200	0.9					
	1.6	145	0.02	**841**	6200	0.9					
	1.9	130	0.03	**725**	6200	1.0					
	2.3	117	0.03	**609**	6200	1.1					
	2.8	99	0.03	**493**	6200	1.3					
	3.3	89	0.03	**420.5**	6200	1.4					
	4.5	68	0.03	**304.5**	6200	1.8					
	6.5	60	0.04	**210.25**	6200	2.4					
	2.3	100	0.02	**609**	4800	0.8	**EV050-E030-G56/4b**	0.63	8.1	113	IE1
	2.8	108	0.03	**493**	4800	0.9					
	3.3	101	0.03	**420.5**	4800	0.9					
	3.8	90	0.04	**362.5**	4800	1.0					
	4.5	81	0.04	**304.5**	4800	1.1					
	5.6	69	0.04	**246.5**	4800	1.3					
	6.5	62	0.04	**210.25**	4800	1.4					
	7.9	55	0.05	**174**	4800	1.7					
	10	48	0.05	**137.75**	4800	1.9					
	4.1	76	0.03	**336**	3400	0.8	**EV040-E030-G56/4b**	0.63	6.3	112	IE1
	5.1	64	0.03	**272**	3400	1.0					
	5.9	60	0.04	**232**	3400	1.0					
	6.9	62	0.04	**200**	3400	1.1					
	8.2	56	0.05	**168**	3400	1.2					
	10	48	0.05	**136**	3400	1.4					
	12	43	0.05	**116**	3400	1.5					
	16	33	0.06	**84**	3400	1.9					
	23	18	0.04	**60**	1830	0.5	**EV030-G56/4b**	0.63	4	80	IE1
	28	16	0.05	**50**	1830	0.9					
	33	14	0.05	**42**	1830	1.1					
	40	12	0.05	**34**	1830	1.4					
	47	11	0.06	**29**	1830	1.5					
	55	10	0.06	**25**	1784	1.7					
	65	9	0.06	**21**	1686	1.9					
	81	8	0.07	**17**	1580	2.3					
	95	7	0.07	**14.5**	1504	2.6					
	131	5	0.07	**10.5**	1356	3.2					
	190	4	0.08	**7.25**	1209	4.3					
	262	3	0.08	**5.25**	1087	6.4					

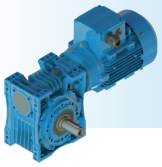


EV / EN - PERFORMANCE TABLES

Power P_g [kW] P_g [HP]	Output Speeds n_2 [r.p.m]	Output Torque M_2 [Nm]	Output Power P_2 [kW]	Ratio i	Radial Loads (Output) F_{qam} [N]	Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	Motor Eff. Class
0.12 0.16	0.73	187	0.02	**1860**	7400	1.0	**EV080-E040-G63/4a**	0.41	16.6	116	IE1
	0.91	346	0.03	**1500**	7400	0.8					
	1.1	315	0.04	**1260**	7400	0.9					
	1.5	141	0.02	**930**	7400	2.1					
	1.8	235	0.04	**750**	7400	1.6					
	2.2	214	0.05	**630**	7400	1.7					
	2.8	180	0.05	**480**	7400	2.0					
	3.6	147	0.06	**375**	7400	2.4					
	1.1	349	0.04	**1260**	7000	0.6	**EV075-E040-G63/4a**	0.41	15	115	IE1
	1.5	154	0.02	**930**	7000	1.5					
	1.8	203	0.04	**750**	7000	1.1					
	2.2	228	0.05	**630**	7000	1.3					
	2.8	192	0.06	**480**	7000	1.5					
	3.6	157	0.06	**375**	7000	1.8					
	4.3	135	0.06	**315**	7000	2.0					
	5.7	107	0.06	**240**	7000	2.5					
	7.6	83	0.07	**180**	7000	3.1					
	1.9	175	0.03	**725**	6200	0.8	**EV063-E030-G63/4a**	0.41	10.8	114	IE1
	2.2	157	0.04	**609**	6200	0.8					
	2.8	133	0.04	**493**	6200	1.0					
	3.2	120	0.04	**420.5**	6200	1.1					
	4.5	92	0.04	**304.5**	6200	1.4					
	6.5	81	0.05	**210.25**	6200	1.8					
	3.7	122	0.05	**366**	6200	0.8	**EV063-NR01-G63/4a**	0.41	15.6	120	IE1
	4.5	131	0.06	**306**	6200	0.9					
	5.8	103	0.06	**234**	6200	1.2					
	7.8	77	0.06	**174**	6200	1.9					
	8.9	85	0.08	**153**	6200	1.6					
	12	67	0.08	**117**	6200	2.2					
	2.8	145	0.04	**493**	4800	0.7	**EV050-E030-G63/4a**	0.41	8.5	113	IE1
	3.2	135	0.05	**420.5**	4800	0.7					
	3.8	121	0.05	**362.5**	4800	0.8					
	4.5	109	0.05	**304.5**	4800	0.9					
	5.5	93	0.05	**246.5**	4800	1.0					
	6.5	83	0.06	**210.25**	4800	1.1					
	7.8	74	0.06	**174**	4800	1.2					
	10	65	0.07	**137.75**	4800	1.4					
	7.8	77	0.06	**174**	4800	1.0	**EV050-NR01-G63/4a**	0.41	13.3	119	IE1
	9.1	80	0.08	**150**	4800	1.0					
	12	64	0.08	**114**	4800	1.3					
	16	50	0.08	**87**	4800	1.8					
	5.0	87	0.05	**272**	3400	0.7	**EV040-E030-G63/4a**	0.41	6.7	112	IE1
	5.9	80	0.05	**232**	3400	0.8					
	6.8	84	0.06	**200**	3400	0.8					
	8.1	75	0.06	**168**	3400	0.9					
	10	64	0.07	**136**	3400	1.0					
	12	57	0.07	**116**	3400	1.1					
	16	44	0.07	**84**	3400	1.4					



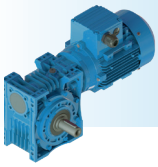
Power P_g [kW] P_g [HP]	Output Speeds n_2 [r.p.m]	Output Torque M_2 [Nm]	Output Power P_2 [kW]	Ratio i	Radial Loads (Output) F_{qam} [N]	Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	Motor Eff. Class
0.12 0.16	14 17 22 27 33 43 55 65 85 114 130 171	46 36 29 25 23 19 16 13 11 8 7 6	0.02 0.03 0.04 0.07 0.08 0.09 0.09 0.09 0.10 0.10 0.10 0.10	**100** **80** **62** **50** **42** **32** **25** **21** **16** **12** **10.5** **8.0**	3400 3340 3026 2734 2586 2375 2198 2084 1914 1746 1673 1531	0.7 0.9 1.2 1.5 1.7 2.0 2.6 3.0 3.8 5.4 5.5 7.2	**EV040-G63/4a**	0.41	5.6	84	IE1
	27 33 40 47 55 65 80 94 130 188 260	22 19 16 15 14 12 10 9 7 5 4	0.06 0.07 0.07 0.07 0.08 0.08 0.09 0.09 0.10 0.10 0.11	**50** **42** **34** **29** **25** **21** **17** **14.5** **10.5** **7.25** **5.25**	1830 1830 1830 1830 1787 1689 1583 1507 1359 1212 1089	0.6 0.8 1.0 1.1 1.3 1.4 1.7 1.9 2.4 3.2 4.8	**EV030-G63/4a**	0.41	4.4	80	IE1
0.18 0.25	1.5 1.8 2.1 2.8 3.6 4.3 5.6 7.4	211 360 323 275 225 194 154 136	0.03 0.07 0.07 0.08 0.08 0.09 0.09 0.11	**930** **750** **630** **480** **375** **315** **240** **180**	7400 7400 7400 7400 7400 7400 7400 7400	1.4 1.0 1.1 1.3 1.6 1.8 2.2 2.7	**EV080-E040-G63/4b**	0.6	17.1	116	IE1
	1.4 1.8 2.1 2.8 3.6 4.3 5.6 7.4	231 311 344 293 239 207 164 127	0.03 0.06 0.08 0.09 0.09 0.09 0.10 0.10	**930** **750** **630** **480** **375** **315** **240** **180**	7000 7000 7000 7000 7000 7000 7000 7000	1.0 0.8 0.8 1.0 1.2 1.3 1.6 2.0	**EV075-E040-G63/4b**	0.6	15	115	IE1
	3.6 4.5 6.0 7.2 9.0 12	237 206 167 155 131 104	0.09 0.10 0.10 0.12 0.12 0.13	**372.5** **298** **223.5** **186.25** **149** **111.75**	7000 7000 7000 7000 7000 7000	0.8 1.0 1.4 1.6 1.9 2.6	**EV075-NR11-G63/4b**	0.6	16	121	IE1
	4.4 6.4	140 123	0.06 0.08	**304.5** **210.25**	6200 6200	0.9 1.2	**EV063-E030-G63/4b**	0.6	11.3	114	IE1
	5.7	157	0.09	**234**	6200	0.8	**EV063-NR01-G63/4b**	0.6	16.1	120	IE1



EV / EN - PERFORMANCE TABLES

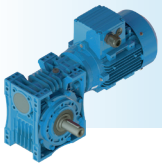
Power P_g [kW] P_g [HP]	IE3 Output Speeds n_2 [r.p.m]	IE3 Output Torque M_2 [Nm]	IE3 Output Power P_2 [kW]	Ratio i	IE3 Radial Loads (Output) F_{qam} [N]	IE3 Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	* Motor Eff. Class
0.18 0.25	7.7 8.8 11	117 130 103	0.09 0.12 0.12	**174** **153** **117**	6200 6200 6200	1.2 1.0 1.4	**EV063-NR01-G63/4b**	0.6	16.1	120	IE1
	9.3 11 15 18 24	79 75 60 58 46	0.08 0.09 0.10 0.11 0.11	**100** **82** **61** **51** **39**	6200 6200 6200 6200 5936	0.9 1.3 1.9 1.9 2.7	**E063-3E71M/6C** **E063-2E71M/6B**	0.55 0.60	13.5 12.7	92	IE3 IE2
	7.7 9.7	112 99	0.09 0.10	**174** **137.75**	4800 4800	0.8 0.9	**EV050-E030-G63/4b**	0.6	10.7	113	IE1
	12 15	98 76	0.12 0.12	**114** **87**	4800 4800	0.8 1.2	**EV050-NR01-G63/4b**	0.6	13.8	119	IE1
	11 15 19 24 32 37 49	78 59 54 43 35 34 27	0.09 0.09 0.10 0.11 0.12 0.13 0.14	**83** **62** **50** **38** **29** **25** **19**	4800 4778 4467 4092 3755 3591 3290	0.7 1.0 1.2 1.6 2.1 2.2 2.6	**EV050-3E71M/6C** **EV050-2E71M/6B**	0.55 0.60	11.2 10.4	88	IE3 IE2
	13 16 22 27 35 46 54	64 57 47 39 32 26 24	0.09 0.10 0.11 0.11 0.12 0.13 0.14	**100** **83** **62** **50** **38** **29** **25**	4800 4723 4297 4028 3685 3376 3236	0.8 0.9 1.3 1.6 2.1 2.8 3.0	**EV050-G63/4b**	0.6	7.8	88	IE1
	12 16	88 67	0.11 0.11	**116** **84**	3400 3400	0.7 0.9	**EV040-E030-G63/4b**	0.6	7.2	112	IE1
	19 22 29 37 44 58 78 89	52 47 40 33 29 23 18 16	0.10 0.11 0.12 0.13 0.13 0.14 0.14 0.15	**50** **42** **32** **25** **21** **16** **12** **10.5**	2856 2703 2491 2315 2203 2030 1863 1786	0.7 0.8 1.0 1.3 1.4 1.9 2.7 2.7	**EV040-3E71M/6C** **EV040-2E71M/6B**	0.55 0.60	9.4 8.6	84	IE3 IE2
	17 22 27 32 42 54	55 44 38 34 29 24	0.10 0.10 0.11 0.11 0.13 0.13	**80** **62** **50** **42** **32** **25**	3270 2945 2610 2477 2278 2114	0.6 0.8 1.0 1.1 1.3 1.7	**EV040-G63/4b**	0.6	6.5	84	IE1

*: Geared motor prices are different for IE2 and IE3 motors.



Power P_g [kW] P_g [HP]	IE3 Output Speeds n_2 [r.p.m]	IE3 Output Torque M_2 [Nm]	IE3 Output Power P_2 [kW]	Ratio i	IE3 Radial Loads (Output) F_{qam} [N]	IE3 Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	* Motor Eff. Class
0.18 0.25	64 84 112 128 168	21 16 13 11 8	0.14 0.14 0.15 0.15 0.16	**21** **16** **12** **10.5** **8.0**	2010 1853 1694 1625 1488	1.9 2.6 3.5 3.6 4.7	**EV040-G63/4b**	0.6	6.5	84	IE1
	39 46 54 64 79 92 128 185 255	25 23 21 19 16 14 11 8 6	0.10 0.11 0.12 0.12 0.13 0.14 0.15 0.15 0.16	**34** **29** **25** **21** **17** **14.5** **10.5** **7.25** **5.25**	1762 1688 1610 1525 1440 1378 1249 1125 1013	0.7 0.8 0.9 0.9 1.1 1.3 1.5 2.1 3.0	**EV030-G63/4b**	0.6	4	80	IE1
0.25 0.34	1.0 1.2 1.6 1.9 2.5	742 682 553 513 410	0.07 0.09 0.09 0.10 0.11	**1640** **1189** **884.5** **739.5** **565.5**	13000 13000 13000 13000 13000	1.1 1.7 2.1 2.2 2.8	**EV125-E063-3E71M/4C** **EV125-E063-2E71M/4B**	0.67 0.71	75.4 74.5	118	IE3 IE2
	1.2 1.5 1.9 2.5 3.3 3.8 5.0	590 562 489 400 324 299 239	0.07 0.09 0.10 0.11 0.11 0.12 0.13	**1240** **930** **750** **570** **435** **375** **285**	8200 8200 8200 8200 8200 8200 8200	0.7 1.1 1.3 1.6 1.9 2.0 2.5	**EV100-E050-3E71M/4C** **EV100-E050-2E71M/4B**	0.67 0.71	42.6 41.7	117	IE3 IE2
	3.1 3.7 4.8 6.4 7.4 9.6	322 335 267 220 219 172	0.10 0.13 0.13 0.15 0.17 0.17	**469.35** **387.4** **298** **223.5** **193.7** **149**	8200 8200 8200 8200 8200 8200	1.0 1.2 1.7 2.5 2.2 3.1	**EV100-NR11-3E71M/4C** **EV100-NR11-2E71M/4B**	0.67 0.71	48.5 47.6	123	IE3 IE2
	1.9 2.3 3.0 3.8 4.6 6.0 8.0	474 425 361 294 251 201 176	0.09 0.10 0.11 0.12 0.12 0.13 0.15	**750** **630** **480** **375** **315** **240** **180**	7400 7400 7400 7400 7400 7400 7400	0.8 0.9 1.0 1.2 1.4 1.7 2.1	**EV080-E040-3E71M/4C** **EV080-E040-2E71M/4B**	0.67 0.71	20.2 19.3	116	IE3 IE2
	4.8 6.4 7.3 9.6 13	261 202 220 167 129	0.13 0.14 0.17 0.17 0.17	**298** **223.5** **197.43** **149** **111.75**	7400 7400 7400 7400 7400	1.0 1.5 1.3 1.9 2.7	**EV080-NR11-3E71M/4C** **EV080-NR11-2E71M/4B**	0.67 0.71	23.8 22.9	122	IE3 IE2

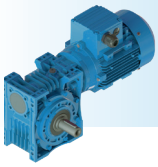
*: Geared motor prices are different for IE2 and IE3 motors.



EV / EN - PERFORMANCE TABLES

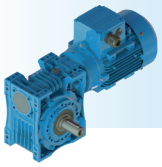
Power P_g [kW] P_g [HP]	IE3 Output Speeds n_2 [r.p.m]	IE3 Output Torque M_2 [Nm]	IE3 Output Power P_2 [kW]	Ratio i	IE3 Radial Loads (Output) F_{qam} [N]	IE3 Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	* Motor Eff. Class
0.25 0.34	3	384	0.12	**480**	7000	0.7	**EV075-040-3E71M/4C**	0.67	19.9	115	IE3
	4	313	0.13	**375**	7000	0.9	**EV075-040-2E71M/4B**	0.71	19.0		IE2
	5	268	0.13	**315**	7000	1.0					
	6	214	0.13	**240**	7000	1.2					
	8	166	0.14	**180**	7000	1.5					
	9	149	0.14	**158**	7000	1.7					
	12	130	0.16	**120**	7000	2.1					
	18	93	0.18	**80**	7000	2.9					
	5	267	0.13	**298**	7000	0.8	**EV075-NR11-3E71M/4C**	0.67	20.9	121	IE3
	6	217	0.15	**223.5**	7000	1.1	**EV075-NR11-2E71M/4B**	0.71	20.0		IE2
	8	201	0.16	**186.25**	7000	1.2					
	10	170	0.17	**149**	7000	1.5					
	13	135	0.18	**111.75**	7000	2.0					
	8.2	152	0.13	**174**	6200	0.9	**EV063-NR01-3E71M/4C**	0.67	19.2	120	IE3
	9.4	168	0.17	**153**	6200	0.8	**EV063-NR01-2E71M/4B**	0.71	18.3		IE2
	12	133	0.17	**117**	6200	1.1					
	9.3	109	0.11	**100**	6200	0.7	**EV063-3E71M/6D**	0.77	14.5	92	IE3
	11	104	0.12	**82**	6200	1.0	**EV063-2E71M/6C**	0.78	13.6		IE2
	15	84	0.13	**61**	6200	1.5					
	18	80	0.15	**51**	6200	1.5					
	24	64	0.16	**39**	5779	2.1					
	32	51	0.17	**29**	5249	3.1					
	36	49	0.19	**25.5**	5055	2.7					
	14	80	0.12	**100**	6200	1.0	**EV063-3E71M/4C**	0.67	13.2	92	IE3
	18	75	0.14	**82**	6200	1.4	**EV063-2E71M/4B**	0.71	12.3		IE2
	24	61	0.15	**61**	5862	2.0					
	28	56	0.17	**51**	5544	2.0					
	37	45	0.17	**39**	5092	2.8					
	15	82	0.13	**62**	4569	0.8	**EV050-3E71M/6D**	0.77	9.8	88	IE3
	19	74	0.14	**50**	4279	0.9	**EV050-2E71M/6C**	0.78	8.9		IE2
	24	60	0.15	**38**	3927	1.2					
	32	49	0.16	**29**	3610	1.7					
	37	47	0.18	**25**	3460	1.7					
	49	37	0.19	**19**	3175	2.1					
	64	29	0.20	**14.5**	2923	2.9					
	23	59	0.14	**62**	4058	1.0	**EV050-3E71M/4C**	0.67	9.9	88	IE3
	29	52	0.16	**50**	3817	1.2	**EV050-2E71M/4B**	0.71	9.0		IE2
	38	42	0.17	**38**	3495	1.6					
	49	34	0.18	**29**	3206	2.1					
	57	32	0.19	**25**	3083	2.2					
	76	25	0.20	**19**	2824	2.7					
	22	66	0.15	**42**	2502	0.7	**EV040-3E71M/6D**	0.77	10.5	84	IE3
	29	56	0.17	**32**	2316	0.8	**EV040-2E71M/6C**	0.78	9.6		IE2
	37	46	0.18	**25**	2162	1.0					
	44	40	0.19	**21**	2065	1.2					

*: Geared motor prices are different for IE2 and IE3 motors.



Power P_g [kW] P_g [HP]	IE3 Output Speeds n_2 [r.p.m]	IE3 Output Torque M_2 [Nm]	IE3 Output Power P_2 [kW]	Ratio i	IE3 Radial Loads (Output) F_{qam} [N]	IE3 Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	* Motor Eff. Class
0.25 0.34	58 78 89 116	32 25 22 18	0.20 0.20 0.21 0.22	**16** **12** **10.5** **8.0**	1912 1763 1692 1553	1.5 2.1 2.1 2.8	**EV040-3E71M/6D** **EV040-2E71M/6C**	0.77 0.78	10.5 9.6	84	IE3 IE2
	23 29 34 45 57 68 90 120 137 179	57 50 48 38 31 27 21 17 15 12	0.14 0.15 0.17 0.18 0.19 0.19 0.20 0.21 0.21 0.22	**62** **50** **42** **32** **25** **21** **16** **12** **10.5** **8.0**	2778 2411 2295 2118 1972 1884 1741 1595 1533 1406	0.6 0.8 0.8 1.0 1.3 1.5 1.9 2.7 2.7 3.6	**EV040-3E71M/4C** **EV040-2E71M/4B**	0.67 0.71	9.2 8.3	84	IE3 IE2
0.37 0.50	1.2 1.6 1.9 2.5 3.4 3.9 5.1	1009 819 759 607 474 443 411	0.13 0.14 0.15 0.16 0.17 0.18 0.22	**1189** **884.5** **739.5** **565.5** **420.5** **369.75** **282.75**	13000 13000 13000 13000 13000 13000 13000	1.2 1.4 1.5 1.9 2.3 2.5 3.0	**EV125-E063-3E71M/4D** **EV125-E063-2E71M/4C**	0.97 1.00	76.2 75.4	118	IE3 IE2
	1.5 1.9 2.5 3.3 3.8 5.0 6.6 8.0	831 724 592 479 442 353 313 263	0.13 0.15 0.16 0.17 0.18 0.19 0.22 0.22	**930** **750** **570** **435** **375** **285** **217.5** **180**	8200 8200 8200 8200 8200 8200 8200 8200	0.8 0.9 1.1 1.3 1.4 1.7 2.1 2.4	**EV100-E050-3E71M/4D** **EV100-E050-2E71M/4C**	0.97 1.00	43.4 42.6	117	IE3 IE2
	3.1 3.7 4.8 6.4 7.4 10	474 496 396 325 324 253	0.15 0.19 0.20 0.22 0.25 0.26	**469.35** **387.4** **298** **223.5** **193.7** **149**	8200 8200 8200 8200 8200 8200	0.7 0.8 1.1 1.7 1.5 2.1	**EV100-NR11-3E71M/4D** **EV100-NR11-2E71M/4C**	0.97 1.00	49.3 48.5	123	IE3 IE2
	8.7 11 15	216 184 148	0.20 0.22 0.23	**107** **82** **63**	8200 8200 8200	0.9 1.8 3.4	**EV100-3E80M/6B** **EV100-2E80M/6A**	1.03 1.08	41.5 40.8	104	IE3 IE2
	3.8 4.6 6.0 8.0	435 372 298 260	0.17 0.18 0.19 0.22	**375** **315** **240** **180**	7400 7400 7400 7400	0.8 0.9 1.1 1.4	**EV080-E040-3E71M/4D** **EV080-E040-2E71M/4C**	0.97 1.00	21.0 20.2	116	IE3 IE2
	6.4 7.3 9.6 13	390 354 248 190	0.20 0.25 0.25 0.26	**223.5** **197.43** **149** **111.75**	7400 7400 7400 7400	1.0 0.8 1.3 1.8	**EV080-NR11-3E71M/4D** **EV080-NR11-2E71M/4C**	0.97 1.00	28.6 27.8	122	IE3 IE2

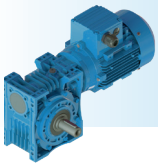
*: Geared motor prices are different for IE2 and IE3 motors.



EV / EN - PERFORMANCE TABLES

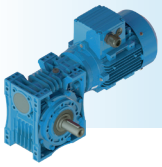
Power P_g [kW] P_g [HP]	IE3 Output Speeds n_2 [r.p.m]	IE3 Output Torque M_2 [Nm]	IE3 Output Power P_2 [kW]	Ratio i	IE3 Radial Loads (Output) F_{qam} [N]	IE3 Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	* Motor Eff. Class
0.37 0.50	11 15 18 23	167 137 129 104	0.20 0.22 0.24 0.25	**82** **62** **53** **40**	7400 7400 7400 7395	0.9 1.8 1.9 2.9	**EV080-3E80M/6B** **EV080-2E80M/6A**	1.03 1.08	28.6 27.9	100	IE3 IE2
	5 6 8	396 317 245	0.19 0.20 0.20	**315** **240** **180**	7000 7000 7000	0.7 0.8 1.0	**EV075-E040-3E71M/4D** **EV075-E040-2E71M/4C**	0.97 1.00	19.7 18.9	115	IE3 IE2
	8 10 13	298 251 199	0.24 0.25 0.27	**186.25** **149** **111.75**	7000 7000 7000	0.8 1.0 1.3	**EV075-NR11-3E71M/4D** **EV075-NR11-2E71M/4C**	0.97 1.00	20.7 19.9	121	IE3 IE2
	9 12 16 19 23 31 37	180 163 129 120 102 80 71	0.18 0.20 0.21 0.23 0.25 0.26 0.28	**100** **80** **60** **50** **40** **30** **25**	7000 7000 7000 7000 7000 7000 7000	0.9 1.2 1.6 1.9 2.3 3.1 3.3	**EV075-3E80M/6B** **EV075-2E80M/6A**	1.03 1.08	21.7 21.0	96	IE3 IE2
	11 15 18 24 32 36 48 64	153 124 119 95 75 72 59 45	0.18 0.20 0.23 0.24 0.25 0.27 0.29 0.30	**82** **61** **51** **39** **29** **25.5** **19.5** **14.5**	6200 6200 5970 5510 5012 4841 4447 4065	0.7 1.0 1.0 1.4 2.1 1.8 2.4 3.6	**EV063-3E80M/6B** **EV063-2E80M/6A**	1.03 1.08	16.2 15.5	92	IE3 IE2
	14 18 24 28 37 49 56 74	119 110 90 83 67 52 49 40	0.18 0.20 0.22 0.24 0.26 0.27 0.29 0.31	**100** **82** **61** **51** **39** **29** **25.5** **19.5**	6200 6180 5618 5325 4903 4464 4316 3958	0.7 0.9 1.3 1.3 1.9 2.7 2.4 3.1	**EV063-3E71M/4D** **EV063-2E71M/4C**	0.97 1.00	14.0 13.2	92	IE3 IE2
	24 32 37 49 64 78 98 128	89 72 69 55 43 37 31 24	0.23 0.24 0.27 0.28 0.29 0.30 0.31 0.32	**38** **29** **25** **19** **14.5** **12** **9.5** **7.25**	3644 3361 3235 2979 2754 2609 2434 2248	0.8 1.1 1.2 1.4 1.9 2.2 2.4 3.3	**EV050-3E80M/6B** **EV050-2E80M/6A**	1.03 1.08	13.9 13.2	88	IE3 IE2
	23 29 38	88 77 63	0.21 0.23 0.25	**62** **50** **38**	3796 3592 3296	0.7 0.8 1.1	**EV050-3E71M/4D** **EV050-2E71M/4C**	0.97 1.00	11.7 10.9	88	IE3 IE2

*: Geared motor prices are different for IE2 and IE3 motors.



Power P_g [kW] P_g [HP]	IE3 Output Speeds n_2 [r.p.m]	IE3 Output Torque M_2 [Nm]	IE3 Output Power P_2 [kW]	Ratio i	IE3 Radial Loads (Output) F_{qam} [N]	IE3 Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	* Motor Eff. Class
0.37 0.50	49 57 76 99 120 151 198	51 47 37 29 25 20 16	0.26 0.28 0.30 0.30 0.31 0.32 0.33	**29** **25** **19** **14.5** **12** **9.5** **7.25**	3030 2931 2691 2482 2348 2189 2016	1.5 1.5 1.8 2.5 2.8 3.1 4.2	**EV050-3E71M/4D** **EV050-2E71M/4C**	0.97 1.00	11.7 10.9	88	IE3 IE2
	57 68 90 120 137 179	46 40 32 25 22 17	0.28 0.28 0.30 0.31 0.31 0.32	**25** **21** **16** **12** **10.5** **8.0**	1793 1727 1607 1480 1426 1310	0.9 1.0 1.3 1.8 1.8 2.4	**EV040-3E71M/4D** **EV040-2E71M/4C**	0.97 1.00	10.0 9.2	84	IE3 IE2
0.55 0.75	1.2 1.6 2.0 2.6 3.4 3.9 5.1 6.9 7.8	1514 1204 1133 893 698 652 603 459 414	0.19 0.21 0.23 0.24 0.25 0.27 0.32 0.33 0.34	**1189** **884.5** **739.5** **565.5** **420.5** **369.75** **282.75** **210.25** **184.88**	13000 13000 13000 13000 13000 13000 13000 13000 13000	0.8 1.0 1.0 1.3 1.6 1.7 2.0 2.6 2.8	**EV125-E063-3E80M/4C** **EV125-E063-2E80M/4B**	1.34 1.45	78.0 77.2	118	IE3 IE2
	4.8 5.8 7.5 10 12	544 551 434 322 335	0.28 0.33 0.34 0.35 0.41	**299.46** **251.16** **193.2** **140.07** **125.58**	13000 13000 13000 13000 13000	1.4 1.4 2.0 3.2 2.6	**EV125-NR21-3E80M/4C** **EV125-NR21-2E80M/4B**	1.34 1.45	90.8 90.0	124	IE3 IE2
	3.3 3.9 5.1 6.7 8.1	705 656 520 460 386	0.25 0.27 0.28 0.32 0.33	**435** **375** **285** **217.5** **180**	8200 8200 8200 8200 8200	0.9 0.9 1.1 1.4 1.6	**EV100-E050-3E80M/4C** **EV100-E050-2E80M/4B**	1.34 1.45	46.4 45.6	117	IE3 IE2
	4.9 6.5 7.5 10	583 478 477 372	0.30 0.33 0.37 0.38	**298** **223.5** **193.7** **149**	8200 8200 8200 8200	0.8 1.2 1.0 1.4	**EV100-NR11-3E80M/4C** **EV100-NR11-2E80M/4B**	1.34 1.45	52.3 51.5	123	IE3 IE2
	8.7 11 15 18 23	320 272 219 195 159	0.29 0.32 0.34 0.37 0.39	**107** **82** **63** **52** **40**	8200 8200 8200 8200 8200	0.6 1.2 2.3 2.4 3.3	**EV100-3E80M/6C** **EV100-2E80M/6B**	1.47 1.50	42.4 41.7	104	IE3 IE2
	14 18 23 28	231 191 149 133	0.33 0.35 0.36 0.39	**107** **82** **63** **52**	8200 8200 8200 8200	0.9 1.7 3.0 3.1	**EV100-3E80M/4C** **EV100-2E80M/4B**	1.34 1.45	42.3 41.5	104	IE3 IE2

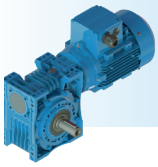
*: Geared motor prices are different for IE2 and IE3 motors.



EV / EN - PERFORMANCE TABLES

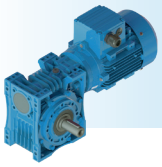
Power P_g [kW] P_g [HP]	IE3 Output Speeds n_2 [r.p.m]	IE3 Output Torque M_2 [Nm]	IE3 Output Power P_2 [kW]	Ratio i	IE3 Radial Loads (Output) F_{qam} [N]	IE3 Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	* Motor Eff. Class
0.55 0.75	15	203	0.32	**62**	7400	1.2	**EV080-3E80M/6C**	1.47	21.7	100	IE3
	18	193	0.36	**53**	7400	1.3	**EV080-2E80M/6B**	1.50	21.0		IE2
	23	153	0.38	**40**	7078	1.9					
	31	121	0.39	**30**	6471	2.7					
	35	113	0.42	**26.5**	6268	2.4					
	47	89	0.43	**20**	5747	3.4					
	18	178	0.33	**82**	7400	0.9	**EV080-3E80M/4C**	1.34	21.6	100	IE3
	23	142	0.35	**62**	7169	1.7	**EV080-2E80M/4B**	1.45	20.8		IE2
	27	133	0.38	**53**	6859	1.7					
	36	106	0.40	**40**	6279	2.5					
	16	191	0.31	**60**	7000	1.1	**EV075-3E80M/6C**	1.47	21.2	96	IE3
	19	178	0.35	**50**	7000	1.3	**EV075-2E80M/6B**	1.50	20.5		IE2
	23	151	0.37	**40**	7000	1.5					
	31	119	0.39	**30**	7000	2.1					
	37	105	0.41	**25**	7000	2.2					
	47	88	0.43	**20**	7000	2.7					
	62	70	0.45	**15**	6895	3.5					
	15	198	0.30	**100**	7000	0.9	**EV075-3E80M/4C**	1.34	22.0	96	IE3
	18	173	0.33	**80**	7000	1.1	**EV075-2E80M/4B**	1.45	21.2		IE2
	24	134	0.34	**60**	7000	1.5					
	29	123	0.37	**50**	7000	1.6					
	36	104	0.40	**40**	7000	2.0					
	48	81	0.41	**30**	7000	2.7					
	58	71	0.43	**25**	7000	2.9					
	15	183	0.29	**61**	5815	0.7	**EV063-3E80M/6C**	1.47	17.1	92	IE3
	18	178	0.34	**51**	5476	0.7	**EV063-2E80M/6B**	1.50	16.4		IE2
	24	142	0.36	**39**	5085	1.0					
	32	111	0.37	**29**	4652	1.4					
	37	106	0.41	**25.5**	4515	1.2					
	48	87	0.44	**19.5**	4158	1.6					
	64	66	0.45	**14.5**	3821	2.4					
	73	61	0.46	**12.75**	3670	2.1					
	96	47	0.47	**9.75**	3406	2.9					
	24	132	0.33	**61**	5243	0.9	**EV063-3E80M/4C**	1.34	17.0	92	IE3
	28	124	0.37	**51**	4973	0.9	**EV063-2E80M/4B**	1.45	16.2		IE2
	37	98	0.38	**39**	4610	1.3					
	50	76	0.40	**29**	4209	1.9					
	57	71	0.43	**25.5**	4089	1.6					
	74	59	0.46	**19.5**	3757	2.1					
	100	45	0.47	**14.5**	3441	3.1					
	32	108	0.36	**29**	2971	0.8	**EV050-3E80M/6C**	1.47	14.8	88	IE3
	37	102	0.40	**25**	2896	0.8	**EV050-2E80M/6B**	1.50	14.1		IE2
	49	81	0.42	**19**	2682	1.0					
	64	64	0.43	**14.5**	2498	1.3					
	78	54	0.44	**12**	2380	1.5					
	98	45	0.46	**9.5**	2231	1.6					
	129	35	0.47	**7.25**	2075	2.2					

*: Geared motor prices are different for IE2 and IE3 motors.



Power P_g [kW] P_g [HP]	IE3 Output Speeds n_2 [r.p.m]	IE3 Output Torque M_2 [Nm]	IE3 Output Power P_2 [kW]	Ratio i	IE3 Radial Loads (Output) F_{qam} [N]	IE3 Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	* Motor Eff. Class
0.55 0.75	38 50 58 76 100 121 153 200	94 75 69 55 43 36 30 23	0.37 0.39 0.42 0.44 0.45 0.46 0.48 0.49	**38** **29** **25** **19** **14.5** **12** **9.5** **7.25**	2981 2763 2692 2486 2306 2192 2050 1898	0.7 1.0 1.0 1.2 1.7 1.9 2.1 2.9	**EV050-3E80M/4C** **EV050-2E80M/4B**	1.34 1.45	14.7 13.9	88	IE3 IE2
0.75 1.0	2.6 3.4 3.9 5.1 6.9 7.8	1218 952 889 1113 625 564	0.33 0.34 0.37 0.44 0.45 0.46	**565.5** **420.5** **369.75** **282.75** **210.25** **184.88**	13000 13000 13000 13000 13000 13000	0.9 1.2 1.2 1.5 1.9 2.1	**EV125-E063-3E80M/4D** **EV125-E063-2E80M/4C**	1.77 1.89	80.3 79.2	118	IE3 IE2
	4.8 5.8 7.5 10 12	742 751 592 440 457	0.38 0.45 0.47 0.48 0.55	**299.46** **251.16** **193.2** **140.07** **125.58**	13000 13000 13000 13000 13000	1.0 1.0 1.5 2.3 1.9	**EV125-NR21-3E80M/4D** **EV125-NR21-2E80M/4C**	1.77 1.89	91.9 90.8	124	IE3 IE2
	8.8 11 15 18	479 393 307 287	0.44 0.47 0.49 0.55	**107** **83** **62** **52**	13000 13000 13000 13000	0.9 1.7 3.1 2.9	**EV125-3E90S/6B** **EV125-2E90S/6A**	1.96 2.00	77.1 75.8	108	IE3 IE2
	5.1 6.7 8.1	709 627 527	0.38 0.44 0.44	**285** **217.5** **180**	8200 8200 8200	0.8 1.0 1.2	**EV100-E050-3E80M/4D** **EV100-E050-2E80M/4C**	1.77 1.89	47.5 46.4	117	IE3 IE2
	7.5 10	651 510	0.51 0.52	**193.7** **149**	8200 8200	0.7 1.0	**EV100-NR11-3E80M/4D** **EV100-NR11-2E80M/4C**	1.77 1.89	53.4 52.3	111	IE3 IE2
	12 15 18 24 32	367 299 263 214 172	0.44 0.47 0.50 0.53 0.57	**82** **63** **52** **40** **30**	8200 8200 8200 8200 8200	0.9 1.7 1.8 2.4 3.5	**EV100-3E90S/6B** **EV100-2E90S/6A**	1.96 2.00	46.6 45.3	104	IE3 IE2
	18 23 28 36 48 56	260 203 182 144 113 107	0.48 0.49 0.53 0.55 0.57 0.63	**82** **63** **52** **40** **30** **26**	8200 8200 8200 8200 8044 7697	1.2 2.2 2.3 3.1 4.4 3.8	**EV100-3E80M/4D** **EV100-2E80M/4C**	1.77 1.89	43.4 42.3	104	IE3 IE2
	15 18 24 32 36	274 260 207 163 152	0.44 0.49 0.51 0.54 0.57	**62** **53** **40** **30** **26.5**	7400 7313 6722 6162 5992	0.9 1.0 1.4 2.0 1.7	**EV080-3E90S/6B** **EV080-2E90S/6A**	1.96 2.00	25.9 24.6	100	IE3 IE2

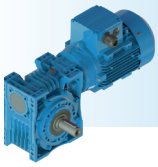
*: Geared motor prices are different for IE2 and IE3 motors.



EV / EN - PERFORMANCE TABLES

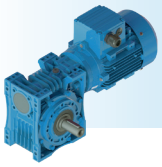
Power P_g [kW] P_g [HP]	IE3 Output Speeds n_2 [r.p.m]	IE3 Output Torque M_2 [Nm]	IE3 Output Power P_2 [kW]	Ratio i	IE3 Radial Loads (Output) F_{qam} [N]	IE3 Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	* Motor Eff. Class
0.75 1.0	47 63	120 94	0.59 0.62	**20** **15**	5511 5044	2.5 3.5	**EV080-3E90S/6B** **EV080-2E90S/6A**	1.96 2.00	25.9 24.6	100	IE3 IE2
	23 27 36 48 55 73	193 182 144 110 102 80	0.47 0.52 0.55 0.56 0.59 0.61	**62** **53** **40** **30** **26.5** **20**	6862 6587 6044 5551 5383 4938	1.3 1.3 1.8 2.6 2.2 3.2	**EV080-3E80M/4D** **EV080-2E80M/4C**	1.77 1.89	22.7 21.6	100	IE3 IE2
	16 19 24 32 38 47 63	257 240 204 160 142 119 94	0.42 0.47 0.51 0.53 0.56 0.59 0.62	**60** **50** **40** **30** **25** **20** **15**	7000 7000 7000 7000 7000 7000 6585	0.8 0.9 1.1 1.5 1.7 2.0 2.6	**EV075-3E90S/6B** **EV075-2E90S/6A**	1.96 2.00	25.5 24.2	96	IE3 IE2
	18 24 29 36 48 58 73 97	235 182 167 142 110 96 80 63	0.45 0.46 0.51 0.54 0.56 0.58 0.61 0.63	**80** **60** **50** **40** **30** **25** **20** **15**	7000 7000 7000 7000 7000 6904 6460 5928	0.8 1.1 1.2 1.5 2.0 2.1 2.6 3.3	**EV075-3E80M/4D** **EV075-2E80M/4C**	1.77 1.89	22.0 20.9	96	IE3 IE2
	24 33 37 48 65 74 97 130	191 150 144 117 89 82 63 49	0.49 0.51 0.56 0.59 0.61 0.63 0.64 0.67	**39** **29** **25.5** **19.5** **14.5** **12.75** **9.75** **7.25**	4629 4255 4153 3838 3550 3413 3185 2935	0.7 1.1 0.9 1.2 1.8 1.5 2.1 3.1	**EV063-3E90S/6B** **EV063-2E90S/6A**	1.96 2.00	21.3 20.0	92	IE3 IE2
	37 50 57 74 100 114 149	133 104 97 80 61 55 42	0.52 0.55 0.58 0.62 0.64 0.65 0.66	**39** **29** **25.5** **19.5** **14.5** **12.75** **9.75**	4298 3938 3851 3545 3263 3143 2922	0.9 1.4 1.2 1.5 2.3 1.9 2.7	**EV063-3E80M/4D** **EV063-2E80M/4C**	1.77 1.89	18.1 17.0	92	IE3 IE2
	50 65 79 99 130	110 87 73 61 48	0.57 0.59 0.60 0.63 0.65	**19** **14.5** **12** **9.5** **7.25**	2356 2216 2129 2009 1881	0.7 1.0 1.1 1.2 1.7	**EV050-3E90S/6B** **EV050-2E90S/6A**	1.96 2.00	19.0 17.7	88	IE3 IE2
	50 58 76	102 95 75	0.53 0.58 0.60	**29** **25** **19**	2473 2439 2266	0.7 0.7 0.9	**EV050-3E80M/4D** **EV050-2E80M/4C**	1.77 1.89	15.8 14.7	88	IE3 IE2

*: Geared motor prices are different for IE2 and IE3 motors.



Power P_g [kW] P_g [HP]	IE3 Output Speeds n_2 [r.p.m]	IE3 Output Torque M_2 [Nm]	IE3 Output Power P_2 [kW]	Ratio i	IE3 Radial Loads (Output) F_{qam} [N]	IE3 Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	* Motor Eff. Class
0.75 1.0	100 121 153 200	59 49 41 32	0.62 0.63 0.65 0.66	**14.5** **12** **9.5** **7.25**	2117 2024 1903 1773	1.2 1.4 1.5 2.1	**EV050-3E80M/4D** **EV050-2E80M/4C**	1.77 1.89	15.8 14.7	88	IE3 IE2
1.1 1.5	3.4 3.9 5.1 6.9 7.8	1396 1304 1206 917 827	0.50 0.54 0.65 0.66 0.68	**420.5** **369.75** **282.75** **210.25** **184.88**	13000 13000 13000 13000 13000	0.8 0.8 1.0 1.3 1.4	**EV125-E063-3E90S/4C** **EV125-E063-2E90S/4B**	2.46 2.60	78.6 76.7	118	IE3 IE2
	7.5 10 12	868 645 671	0.68 0.70 0.81	**193.2** **140.07** **125.58**	13000 13000 13000	1.0 1.6 1.3	**EV125-NR21-3E90S/4C** **EV125-NR21-2E90S/4B**	2.46 2.60	96.6 94.7	124	IE3 IE2
	8.8 11 15 18 24	706 574 453 424 337	0.65 0.68 0.72 0.80 0.83	**107** **83** **62** **52** **40**	13000 13000 13000 13000 12396	0.6 1.2 2.1 2.0 2.9	**EV125-3E90L/6C** **EV125-2E90L/6B**	2.75 2.90	79.6 77.4	108	IE3 IE2
	6.7 8.1	920 772	0.64 0.65	**217.5** **180**	8200 8200	0.7 0.8	**EV100-E050-3E90S/4C** **EV100-E050-2E90S/4B**	2.46 2.60	52.2 50.3	117	IE3 IE2
	15 18 24 31 36 47	436 387 316 253 234 186	0.68 0.73 0.78 0.83 0.88 0.92	**63** **52** **40** **30** **26** **20**	8200 8200 8200 8200 8200 7701	1.1 1.2 1.7 2.3 2.0 2.8	**EV100-3E90L/6C** **EV100-2E90L/6B**	2.75 2.90	49.1 46.9	104	IE3 IE2
	18 23 28 36 48	381 297 267 212 165	0.71 0.72 0.78 0.80 0.84	**82** **63** **52** **40** **30**	8200 8200 8200 8200 7755	0.8 1.5 1.6 2.1 3.0	**EV100-3E90S/4C** **EV100-2E90S/4B**	2.46 2.60	48.1 46.2	104	IE3 IE2
	24 31 35 47 63 71 94	305 241 224 176 139 127 98	0.75 0.79 0.83 0.87 0.91 0.94 0.97	**40** **30** **26.5** **20** **15** **13.25** **10**	6136 5656 5543 5129 4715 4527 4197	1.0 1.4 1.2 1.7 2.4 2.0 2.9	**EV080-3E90L/6C** **EV080-2E90L/6B**	2.75 2.90	28.4 26.2	100	IE3 IE2
	23 27 36 48 55 73 97	284 267 211 162 150 118 91	0.69 0.76 0.80 0.82 0.86 0.90 0.92	**62** **53** **40** **30** **26.5** **20** **15**	6324 6111 5633 5205 5078 4678 4299	0.9 0.9 1.3 1.8 1.5 2.2 3.0	**EV080-3E90S/4C** **EV080-2E90S/4B**	2.46 2.60	27.4 25.5	100	IE3 IE2

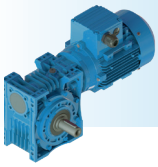
*: Geared motor prices are different for IE2 and IE3 motors.



EV / EN - PERFORMANCE TABLES

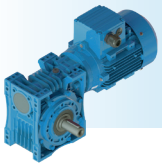
Power P_g [kW] P_g [HP]	IE3 Output Speeds n_2 [r.p.m]	IE3 Output Torque M_2 [Nm]	IE3 Output Power P_2 [kW]	Ratio i	IE3 Radial Loads (Output) F_{qam} [N]	IE3 Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	* Motor Eff. Class
1.1 1.5	24	301	0.74	**40**	7000	0.8	**EV075-3E90L/6C**	2.75	26.7	96	IE3
	31	237	0.78	**30**	7000	1.0	**EV075-2E90L/6B**	2.90	24.5		IE2
	38	210	0.83	**25**	6965	1.1					
	47	176	0.87	**20**	6562	1.4					
	63	138	0.91	**15**	6080	1.8					
	94	97	0.95	**10**	5439	2.4					
	125	74	0.97	**7.5**	5012	3.0					
	24	267	0.68	**60**	7000	0.7	**EV075-3E90S/4C**	2.46	25.9	96	IE3
	29	245	0.75	**50**	7000	0.8	**EV075-2E90S/4B**	2.60	24.0		IE2
	36	209	0.79	**40**	7000	1.0					
	48	161	0.82	**30**	6759	1.4					
	58	141	0.86	**25**	6443	1.5					
	73	118	0.89	**20**	6056	1.8					
	97	92	0.93	**15**	5588	2.3					
	145	64	0.97	**10**	4969	3.1					
	48	173	0.87	**19.5**	3292	0.8	**EV063-3E90L/6C**	2.75	23.8	92	IE3
	65	132	0.89	**14.5**	3091	1.2	**EV063-2E90L/6B**	2.90	21.6		IE2
	74	120	0.93	**12.75**	2979	1.0					
	96	93	0.94	**9.75**	2824	1.4					
	130	72	0.98	**7.25**	2627	2.1					
	50	153	0.80	**29**	3464	0.9	**EV063-3E90S/4C**	2.46	22.8	92	IE3
	57	143	0.85	**25.5**	3433	0.8	**EV063-2E90S/4B**	2.60	20.9		IE2
	74	117	0.91	**19.5**	3174	1.1					
	100	89	0.93	**14.5**	2951	1.6					
	114	80	0.96	**12.75**	2851	1.3					
	149	62	0.96	**9.75**	2678	1.8					
	200	47	0.99	**7.25**	2474	2.6					
	78	108	0.88	**12**	1692	0.8	**EV050-3E90L/6C**	2.75	21.5	88	IE3
	99	90	0.93	**9.5**	1623	0.8	**EV050-2E90L/6B**	2.90	19.3		IE2
	130	70	0.95	**7.25**	1556	1.1					
	100	86	0.90	**14.5**	1786	0.8	**EV050-3E90S/4C**	2.46	20.5	88	IE3
	121	72	0.92	**12**	1730	1.0	**EV050-2E90S/4B**	2.60	18.6		IE2
	153	60	0.96	**9.5**	1646	1.0					
	200	46	0.97	**7.25**	1554	1.4					
1.5 2.0	6.9	1251	0.90	**210.25**	13000	0.9	**EV125-E063-3E90L/4D**	3.30	86.7	118	IE3
	7.8	1128	0.93	**184.88**	13000	1.0	**EV125-E063-2E90L/4C**	3.40	85.9		IE2
	10	879	0.95	**140.07**	13000	1.2	**EV125-NR21-3E90L/4D**	3.30	98.3	124	IE3
	12	915	1.11	**125.58**	13000	0.9	**EV125-NR21-2E90L/4C**	3.40	97.5		IE2
	12	778	0.94	**83**	13000	0.9	**EV125-3E100L/6B**	3.50	85.0	108	IE3
	15	608	0.98	**62**	13000	1.6	**EV125-2E100L/6A**	3.72	82.7		IE2
	18	573	1.10	**52**	12823	1.5					
	24	456	1.14	**40**	11858	2.1					
	33	331	1.14	**29**	10764	3.2					
	37	323	1.24	**26**	10487	2.6					
	48	257	1.28	**20**	9687	3.7					

*: Geared motor prices are different for IE2 and IE3 motors.



Power P_g [kW] P_g [HP]	IE3 Output Speeds n_2 [r.p.m]	IE3 Output Torque M_2 [Nm]	IE3 Output Power P_2 [kW]	Ratio i	IE3 Radial Loads (Output) F_{qam} [N]	IE3 Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	* Motor Eff. Class
1.5	15	591	0.94	**63**	8200	0.9	**EV100-3E100L/6B**	3.50	54.5	104	IE3
2.0	18	520	1.00	**52**	8200	0.9	**EV100-2E100L/6A**	3.72	52.2		IE2
	24	426	1.07	**40**	8200	1.2					
	32	342	1.14	**30**	8075	1.7					
	37	316	1.22	**26**	7832	1.5					
	48	250	1.25	**20**	7297	2.1					
	64	193	1.28	**15**	6702	3.0					
	73	169	1.30	**13**	6431	2.6					
	96	133	1.33	**10**	5973	3.6					
	23	406	0.98	**63**	8200	1.1	**EV100-3E90L/4D**	3.30	49.8	104	IE3
	28	364	1.06	**52**	8200	1.1	**EV100-2E90L/4C**	3.40	49.0		IE2
	36	288	1.09	**40**	8113	1.6					
	48	225	1.14	**30**	7424	2.2					
	56	214	1.25	**26**	7133	1.9					
	73	167	1.27	**20**	6629	2.6					
	24	409	1.02	**40**	5456	0.7	**EV080-3E100L/6B**	3.50	33.8	104	IE3
	32	325	1.08	**30**	5051	1.0	**EV080-2E100L/6A**	3.72	31.5		IE2
	36	301	1.14	**26.5**	5016	0.9					
	48	238	1.19	**20**	4665	1.3					
	64	186	1.24	**15**	4324	1.8					
	72	171	1.29	**13.25**	4146	1.5					
	96	132	1.32	**10**	3882	2.1					
	127	100	1.33	**7.5**	3612	2.6					
	36	288	1.09	**40**	5163	0.9	**EV080-3E90L/4D**	3.30	29.1	100	IE3
	48	221	1.12	**30**	4810	1.3	**EV080-2E90L/4C**	3.40	28.3		IE2
	55	205	1.17	**26.5**	4730	1.1					
	73	161	1.22	**20**	4381	1.6					
	97	124	1.26	**15**	4047	2.2					
	109	115	1.31	**13.25**	3878	1.9					
	145	88	1.34	**10**	3604	2.7					
	193	66	1.33	**7.5**	3340	3.8					
	32	321	1.07	**30**	6397	0.8	**EV075-3E100L/6B**	3.50	33.4	96	IE3
	38	281	1.13	**25**	6178	0.8	**EV075-2E100L/6A**	3.72	31.1		IE2
	48	236	1.18	**20**	5865	1.0					
	64	186	1.24	**15**	5488	1.3					
	96	130	1.30	**10**	4966	1.8					
	127	99	1.32	**7.5**	4606	2.2					
	36	285	1.08	**40**	6502	0.7	**EV075-3E90L/4D**	3.30	25.5	96	IE3
	48	220	1.11	**30**	6166	1.0	**EV075-2E90L/4C**	3.40	24.7		IE2
	58	193	1.17	**25**	5914	1.1					
	73	160	1.22	**20**	5593	1.3					
	97	125	1.27	**15**	5200	1.7					
	145	87	1.33	**10**	4662	2.2					
	193	66	1.33	**7.5**	4309	2.8					
	74	160	1.24	**19.5**	2749	0.8	**EV063-3E90L/4D**	3.30	24.5	92	IE3
	100	121	1.27	**14.5**	2594	1.1	**EV063-2E90L/4C**	3.40	23.7		IE2
	114	109	1.30	**12.75**	2518	1.0					

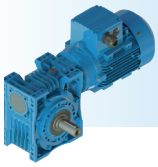
*: Geared motor prices are different for IE2 and IE3 motors.



EV / EN - PERFORMANCE TABLES

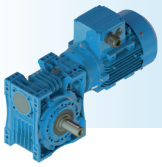
Power P_g [kW] P_g [HP]	IE3 Output Speeds n_2 [r.p.m]	IE3 Output Torque M_2 [Nm]	IE3 Output Power P_2 [kW]	Ratio i	IE3 Radial Loads (Output) F_{qam} [N]	IE3 Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	* Motor Eff. Class
1.5 2.0	149 200	84 65	1.31 1.36	**9.75** **7.25**	2399 2239	1.3 1.9	**EV063-3E90L/4D** **EV063-2E90L/4C**	3.30 3.40	24.5 23.7	92	IE3 IE2
	153 200	82 63	1.30 1.33	**9.5** **7.25**	1352 1303	0.8 1.1	**EV050-3E90L/4D** **EV050-2E90L/4C**	3.30 3.40	22.2 21.4	88	IE3 IE2
2.2 3.0	16 19 24 33 37 48 67	883 831 662 480 469 373 270	1.44 1.61 1.67 1.67 1.82 1.88 1.88	**62** **52** **40** **29** **26** **20** **14.5**	12348 11835 11003 10046 9843 9133 8315	1.1 1.0 1.5 2.2 1.8 2.6 3.9	**EV125-3E112M/6B** **EV125-2E112M/6A**	4.95 5.32	91.9 89.7	108	IE3 IE2
	17 23 28 36 50 56 73	784 587 573 440 319 317 248	1.43 1.44 1.67 1.67 1.67 1.85 1.88	**83** **62** **52** **40** **29** **26** **20**	12442 11485 10887 10145 9222 8975 8319	0.8 1.4 1.3 1.9 2.8 2.3 3.2	**EV125-3E100L/4C** **EV125-2E100L/4B**	4.65 4.85	86.6 84.9	108	IE3 IE2
	24 32 37 48 64 74 97 129	619 496 459 362 280 245 193 147	1.56 1.67 1.78 1.83 1.88 1.91 1.95 1.98	**40** **30** **26** **20** **15** **13** **10** **7.5**	7869 7190 7047 6634 6133 5903 5529 5117	0.8 1.2 1.0 1.4 2.1 1.8 2.5 3.6	**EV100-3E112M/6B** **EV100-2E112M/6A**	4.95 5.32	61.4 59.2	104	IE3 IE2
	28 36 48 56 73 97 112 145 193	534 423 330 315 245 186 165 129 97	1.56 1.61 1.67 1.84 1.86 1.88 1.93 1.95 1.97	**52** **40** **30** **26** **20** **15** **13** **10** **7.5**	7935 7449 6845 6606 6191 5717 5477 5104 4706	0.8 1.1 1.5 1.3 1.8 2.6 2.3 3.1 4.5	**EV100-3E100L/4C** **EV100-2E100L/4B**	4.65 4.85	56.1 54.4	104	IE3 IE2
	48 64 73 97 129	346 270 248 192 145	1.75 1.82 1.89 1.94 1.95	**20** **15** **13.25** **10** **7.5**	3896 3666 3511 3349 3171	0.9 1.2 1.0 1.5 2.1	**EV080-3E112M/6B** **EV080-2E112M/6A**	4.95 5.32	40.7 38.5	100	IE3 IE2
	48 55 73 97 109 145 193	324 300 236 182 168 129 97	1.64 1.72 1.79 1.85 1.93 1.96 1.96	**30** **26.5** **20** **15** **13.25** **10** **7.5**	4119 4119 3860 3605 3451 3251 3049	0.9 0.8 1.1 1.5 1.3 1.8 2.6	**EV080-3E100L/4C** **EV080-2E100L/4B**	4.65 4.85	35.4 33.7	100	IE3 IE2

*: Geared motor prices are different for IE2 and IE3 motors.



Power P_g [kW] P_g [HP]	IE3 Output Speeds n_2 [r.p.m]	IE3 Output Torque M_2 [Nm]	IE3 Output Power P_2 [kW]	Ratio i	IE3 Radial Loads (Output) F_{qam} [N]	IE3 Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	* Motor Eff. Class
2.2 3.0	48 64 97 129	343 269 190 144	1.73 1.82 1.92 1.94	**20** **15** **10** **7.5**	4676 4482 4153 3923	0.7 0.9 1.2 1.5	**EV075-3E112M/6B** **EV075-2E112M/6A**	4.95 5.32	36.7 34.5	96	IE3 IE2
	48 58 73 97 145 193	323 282 235 183 128 97	1.63 1.72 1.79 1.86 1.95 1.96	**30** **25** **20** **15** **10** **7.5**	5125 4987 4781 4518 4123 3854	0.7 0.7 0.9 1.1 1.5 1.9	**EV075-3E100L/4C** **EV075-2E100L/4B**	4.65 4.85	34.1 32.4	96	IE3 IE2
3.0 4.0	24 33 37 49 67 75 97	898 651 636 506 367 340 266	2.28 2.28 2.49 2.57 2.57 2.65 2.70	**40** **29** **26** **20** **14.5** **13** **10**	10053 9251 9131 8522 7806 7576 7081	1.1 1.6 1.3 1.9 2.8 2.3 3.3	**EV125-3E132S/6B** **EV125-2E132S/6A**	6.55 6.85	113.7 109.2	108	IE3 IE2
	23 28 36 50 56 73 100 112 145	801 781 601 435 433 338 245 228 177	1.96 2.28 2.28 2.28 2.53 2.57 2.57 2.67 2.69	**62** **52** **40** **29** **26** **20** **14.5** **13** **10**	10664 10132 9517 8696 8498 7918 7213 6983 6499	1.0 0.9 1.4 2.1 1.7 2.4 3.5 2.9 4.1	**EV125-3E100L/4D** **EV125-2E100L/4C**	6.26 6.42	88.8 86.3	108	IE3 IE2
	36 48 56 73 97 112 145 193	577 450 429 334 254 225 175 133	2.19 2.28 2.50 2.54 2.57 2.63 2.66 2.69	**40** **30** **26** **20** **15** **13** **10** **7.5**	6689 6184 6003 5690 5295 5084 4776 4432	0.8 1.1 1.0 1.3 1.9 1.7 2.3 3.3	**EV100-3E100L/4D** **EV100-2E100L/4C**	6.26 6.42	58.3 55.8	104	IE3 IE2
	73 97 109 145 193	322 249 229 176 132	2.44 2.52 2.63 2.68 2.67	**20** **15** **13.25** **10** **7.5**	3264 3101 2963 2847 2717	0.8 1.1 0.9 1.3 1.9	**EV080-3E100L/4D** **EV080-2E100L/4C**	6.26 6.42	37.6 35.1	100	IE3 IE2
	97 145 193	250 175 132	2.53 2.65 2.67	**15** **10** **7.5**	3738 3506 3333	0.8 1.1 1.4	**EV075-3E100L/4D** **EV075-2E100L/4C**	6.26 6.42	36.4 33.9	96	IE3 IE2
4.0 5.5	24 33 37	1197 868 848	3.04 3.04 3.31	**40** **29** **26**	8878 8269 8254	0.8 1.2 1.0	**EV125-3E132M/6C** **EV125-2E132M/6B**	8.52 8.80	114.6 109.6	108	IE3 IE2

*: Geared motor prices are different for IE2 and IE3 motors.



EV / EN - PERFORMANCE TABLES

Power P_g [kW] P_g [HP]	IE3 Output Speeds n_2 [r.p.m]	IE3 Output Torque M_2 [Nm]	IE3 Output Power P_2 [kW]	Ratio i	IE3 Radial Loads (Output) F_{qam} [N]	IE3 Service Factors f_s	Type	Rated Current [A]	Weight ~ [kg]	Dim. Page	* Motor Eff. Class
4.0	49	674	3.42	**20**	7771	1.4	**EV125-3E132M/6C**	8.52	114.6	108	IE3
5.5	67	489	3.43	**14.5**	7181	2.1	**EV125-2E132M/6B**	8.80	109.6		IE2
	75	453	3.54	**13**	6990	1.7					
	97	354	3.60	**10**	6590	2.5					
	134	260	3.65	**7.25**	6043	3.6					
	28	1034	3.04	**52**	9185	0.7	**EV125-3E112M/4D**	8.05	93.6	108	IE3
	37	795	3.04	**40**	8725	1.0	**EV125-2E112M/4C**	8.20	91.7		IE2
	50	577	3.04	**29**	8033	1.5					
	56	573	3.37	**26**	7894	1.3					
	73	448	3.42	**20**	7408	1.8					
	101	325	3.43	**14.5**	6787	2.7					
	112	302	3.55	**13**	6581	2.2					
	146	234	3.58	**10**	6164	3.1					
	201	176	3.72	**7.25**	5594	4.5					
	49	597	3.04	**30**	5360	0.8	**EV100-3E112M/4D**	8.05	67.8	104	IE3
	56	568	3.34	**26**	5251	0.7	**EV100-2E112M/4C**	8.20	65.9		IE2
	73	443	3.38	**20**	5063	1.0					
	97	336	3.42	**15**	4767	1.4					
	112	298	3.50	**13**	4591	1.3					
	146	232	3.55	**10**	4363	1.7					
	195	176	3.58	**7.5**	4087	2.5					
	97	329	3.36	**15**	2476	0.8	**EV080-3E112M/4D**	8.05	47.1	100	IE3
	110	304	3.51	**13.25**	2358	0.7	**EV080-2E112M/4C**	8.20	45.2		IE2
	146	234	3.57	**10**	2345	1.0					
	195	174	3.56	**7.5**	2304	1.4					
	97	332	3.39	**15**	2757	0.6	**EV075-3E112M/4D**	8.05	45.6	96	IE3
	146	231	3.54	**10**	2741	0.8	**EV075-2E112M/4C**	8.20	43.7		IE2
	195	174	3.56	**7.5**	2688	1.1					
5.5	37	1094	4.18	**40**	7554	0.7	**EV125-3E132S/4C**	10.65	117.6	108	IE3
7.5	50	793	4.18	**29**	7055	1.1	**EV125-2E132S/4B**	11.05	112.0		IE2
	56	788	4.63	**26**	7005	0.9					
	73	616	4.71	**20**	6659	1.3					
	101	447	4.71	**14.5**	6165	1.9					
	112	415	4.89	**13**	5994	1.6					
	146	322	4.93	**10**	5677	2.2					
	201	242	5.11	**7.25**	5177	3.3					
7.5	73	836	6.42	**20**	5664	0.9	**EV125-3E132M/4D**	14.40	121.7	108	IE3
10	101	607	6.42	**14.5**	5336	1.4	**EV125-2E132M/4C**	15.00	117.0		IE2
	113	565	6.66	**13**	5213	1.2					
	147	438	6.72	**10**	5028	1.6					
	202	330	6.97	**7.25**	4622	2.4					

*: Geared motor prices are different for IE2 and IE3 motors.

DANA BREVINI® Motion Systems



ET - PERFORMANCE TABLES

Type	Nominal Torques	Ratio	Output speeds	Input Speeds	Power P_e/P_t [kW] (For Service Factor f_s = 1,0) P_e = Mechanical Power / P_t = Thermal Power				Radial Loads (Output)	Radial Loads (Input)	Weight	Dim. Page
	M_a [Nm]	i	n_2 [rpm]	n_1 [rpm]	P_e [kW]	P_t [kW]	γ	η	F_{qam} [N]	F_{qem} [N]	[kg]	
ET030	**24**	5,25	69	**360**	0,21	0,51	26°33'	0,83	1028	205	1,2	170
	21	7,25	50		0,14	0,42	19°26'	0,79	1407	205		
	21	10,5	34		0,10	0,34	14°02'	0,74	1703	205		
	21	14,5	25		0,08	0,27	10°00'	0,68	1830	205		
	21	17	21		0,07	0,24	8°07'	0,63	1830	205		
	19	21	17		0,06	0,22	7°07'	0,60	1830	205		
	19	25	14		0,05	0,19	5°35'	0,54	1830	205		
	18	29	12		0,05	0,18	5°02'	0,51	1830	205		
	17	34	11		0,04	0,16	4°05'	0,46	1830	205		
	14	42	8,6		0,03	0,15	3°22'	0,42	1830	205		
	11	50	7,2		0,02	0,15	3°12'	0,41	1830	205		
	7	60	6,0		0,01	0,14	2°45'	0,37	1830	205		
	6	80	4,5		0,01	0,12	2°07'	0,32	1830	205		
ET040	**54**	8,0	45	**360**	0,31	0,86	26°33'	0,83	1434	358	2,4	174
	51	10,5	34		0,23	0,71	19°26'	0,79	1823	360		
	54	12	30		0,23	0,59	14°22'	0,75	1863	360		
	49	16	23		0,16	0,57	14°02'	0,74	2328	360		
	46	21	17		0,12	0,46	10°00'	0,68	2669	360		
	43	25	14		0,10	0,41	8°07'	0,64	2919	360		
	42	32	11		0,08	0,38	7°07'	0,61	3260	360		
	39	42	8,6		0,07	0,31	5°02'	0,53	3400	360		
	37	50	7,2		0,06	0,28	4°05'	0,47	3400	360		
	28	62	5,8		0,05	0,24	3°22'	0,37	3400	360		
	23	80	4,5		0,03	0,23	2°51'	0,37	3400	360		
	22	100	3,6		0,02	0,22	2°25'	0,36	3400	360		
ET050	**85**	7,25	50	**360**	0,53	1,3	20°40'	0,83	2046	500	4,1	178
	77	9,5	38		0,39	1,1	19°39'	0,79	2590	500		
	85	12	30		0,35	0,84	13°14'	0,76	2801	500		
	86	14,5	25		0,31	0,84	10°41'	0,73	3073	500		
	76	19	19		0,22	0,71	10°07'	0,68	3697	500		
	77	25	14		0,18	0,65	8°44'	0,65	4199	500		
	78	29	12		0,17	0,54	5°06'	0,58	4241	500		
	65	38	9,5		0,12	0,47	5°23'	0,52	4800	500		
	59	50	7,2		0,09	0,44	4°23'	0,48	4800	500		
	53	62	5,8		0,08	0,38	3°11'	0,41	4800	500		
	46	83	4,3		0,05	0,39	3°22'	0,42	4800	500		
	44	100	3,6		0,04	0,36	2°21'	0,38	4800	500		
ET063	**161**	7,25	50	**360**	0,99	2,2	20°36'	0,85	2373	593	6,4	182
	144	9,75	37		0,68	2,0	20°40'	0,82	3312	700		
	130	12,75	28		0,49	1,7	19°39'	0,79	4121	700		
	164	14,5	25		0,57	1,4	10°39'	0,75	3842	700		
	145	19,5	18		0,38	1,3	10°41'	0,73	4937	700		
	126	25,5	14		0,28	1,1	10°07'	0,67	5818	700		
	148	29	12		0,32	0,86	5°22'	0,59	5448	700		
	129	39	9,2		0,22	0,82	5°23'	0,58	6200	700		
	107	51	7,1		0,15	0,73	5°06'	0,52	6200	700		
	111	61	5,9		0,15	0,64	3°16'	0,45	6200	700		
	86	82	4,4		0,10	0,58	3°11'	0,40	6200	700		
	53	100	3,6		0,06	0,52	2°12'	0,32	6200	700		



Type	Nominal Torques	Ratio	Output speeds	Input Speeds	Power P_e/P_t [kW] (For Service Factor f_s = 1,0) P_e = Mechanical Power / P_t = Thermal Power				Radial Loads (Output)	Radial Loads (Input)	Weight	Dim. Page
	M_a [Nm]	i	n_2 [rpm]	n_1 [rpm]	P_e [kW]	P_t [kW]	γ	η	F_{qam} [N]	F_{qem} [N]	[kg]	
ET075	**239**	7,5	48	**360**	1,4	3,2	26°17'	0,85	4231	1058	9,2	186
	247	10	36		1,1	2,8	20°20'	0,83	5312	1100		
	252	15	24		0,82	2,2	13°52'	0,78	6810	1100		
	244	20	18		0,62	1,8	11°18'	0,74	7000	1100		
	233	25	14		0,51	1,6	9°32'	0,70	7000	1100		
	238	30	12		0,46	1,4	7°3'	0,64	7000	1100		
	216	40	9,0		0,34	1,2	5°43'	0,59	7000	1100		
	201	50	7,2		0,28	1,1	4°48'	0,55	7000	1100		
	188	60	6,0		0,24	0,97	4°8'	0,50	7000	1100		
	166	80	4,5		0,17	0,89	3°15'	0,45	7000	1100		
	128	100	3,6		0,12	0,75	2°40'	0,40	7000	1100		
ET080	**322**	7,5	48	**360**	1,9	3,6	21°48'	0,85	2707	677	11,0	190
	300	10	36		1,3	3,3	20°36'	0,84	3875	969		
	266	13,25	27		0,92	3,1	20°40'	0,82	5050	1100		
	335	15	24		1,1	2,3	11°18'	0,77	4621	1100		
	302	20	18		0,78	2,0	10°39'	0,73	5890	1100		
	265	26,5	14		0,53	1,9	10°41'	0,71	7233	1100		
	307	30	12		0,62	1,5	5°42'	0,63	6722	1100		
	270	40	9,0		0,43	1,4	5°22'	0,59	7400	1100		
	233	53	6,8		0,29	1,3	5°23'	0,58	7400	1100		
	180	62	5,8		0,23	1,0	3°13'	0,47	7400	1100		
	118	82	4,4		0,12	1,0	3°16'	0,45	7400	1100		
	76	110	3,3		0,07	0,90	3°11'	0,39	7400	1100		
ET100	**567**	7,5	48	**360**	3,3	5,9	21°48'	0,86	3582	895	31,7	194
	513	10	36		2,3	5,5	21°48'	0,85	5312	1300		
	473	13	28		1,6	4,8	20°36'	0,83	6712	1300		
	593	15	24		1,9	3,8	11°18'	0,79	6240	1300		
	528	20	18		1,3	3,5	11°18'	0,77	8188	1300		
	472	26	14		0,92	3,2	10°39'	0,74	8200	1300		
	549	30	12		1,1	2,4	5°42'	0,65	8200	1300		
	479	40	9,0		0,73	2,2	5°42'	0,62	8200	1300		
	418	52	6,9		0,52	2,0	5°22'	0,59	8200	1300		
	375	63	5,7		0,44	1,7	3°21'	0,51	8200	1300		
	237	82	4,4		0,23	1,6	3°13'	0,47	8200	1300		
	154	107	3,4		0,12	1,5	3°16'	0,45	8200	1300		
ET125	**1035**	7,25	50	**360**	6,1	10	21°48'	0,88	3778	944	62,2	198
	933	10	36		4,1	9,0	21°48'	0,86	5879	1470		
	837	13	28		2,9	8,3	21°48'	0,85	7877	1800		
	1084	14,5	25		3,5	6,3	11°18'	0,80	6540	1635		
	967	20	18		2,3	5,8	11°18'	0,79	9513	1800		
	855	26	14		1,6	5,3	11°18'	0,77	11769	1800		
	1028	29	12		2,0	3,8	5°42'	0,67	10065	1800		
	885	40	9,0		1,3	3,6	5°42'	0,65	13000	1800		
	767	52	6,9		0,88	3,4	5°42'	0,63	13000	1800		
	772	62	5,8		0,89	2,7	3°24'	0,53	13000	1800		
	494	83	4,3		0,44	2,6	3°22'	0,51	13000	1800		
	310	107	3,4		0,23	2,4	3°13'	0,47	13000	1800		



ET - PERFORMANCE TABLES

Type	Nominal Torques	Ratio	Output speeds	Input Speeds	Power P_e/P_t [kW] (For Service Factor f_s = 1,0) P_e = Mechanical Power / P_t = Thermal Power				Radial Loads (Output)	Radial Loads (Input)	Weight	Dim. Page
	M_a [Nm]	i	n_2 [rpm]	n_1 [rpm]	P_e [kW]	P_t [kW]	γ	η	F_{qam} [N]	F_{qem} [N]	[kg]	
ET030	**22**	5,25	90	**475**	0,26	0,50	26°33'	0,83	915	205	1,2	170
	20	7,25	66		0,17	0,41	19°26'	0,79	1265	205		
	19	10,5	45		0,12	0,33	14°02'	0,74	1533	205		
	20	14,5	33		0,10	0,27	10°00'	0,68	1771	205		
	19	17	28		0,09	0,23	8°07'	0,63	1830	205		
	18	21	23		0,07	0,21	7°07'	0,60	1830	205		
	18	25	19		0,07	0,19	5°35'	0,54	1830	205		
	17	29	16		0,06	0,18	5°02'	0,51	1830	205		
	16	34	14		0,05	0,16	4°05'	0,46	1830	205		
	14	42	11		0,04	0,15	3°22'	0,42	1830	205		
	11	50	10		0,03	0,14	3°12'	0,41	1830	205		
	7	60	7,9		0,02	0,14	2°45'	0,37	1830	205		
	6	80	5,9		0,01	0,13	2°07'	0,35	1830	205		
ET040	**51**	8,0	59	**475**	0,38	0,84	26°33'	0,83	1273	318	2,4	174
	48	10,5	45		0,29	0,70	19°26'	0,79	1630	360		
	53	12	40		0,28	0,66	14°22'	0,78	1662	360		
	47	16	30		0,20	0,56	14°02'	0,74	2089	360		
	44	21	23		0,15	0,46	10°00'	0,68	2399	360		
	43	25	19		0,13	0,41	8°07'	0,64	2590	360		
	41	32	15		0,10	0,38	7°07'	0,61	2936	360		
	38	42	11		0,09	0,31	5°02'	0,53	3239	360		
	36	50	10		0,08	0,28	4°05'	0,47	3400	360		
	30	62	7,7		0,06	0,22	3°22'	0,40	3400	360		
	23	80	5,9		0,04	0,20	2°51'	0,38	3400	360		
	20	100	4,8		0,03	0,17	2°25'	0,36	3400	360		
ET050	**81**	7,25	66	**475**	0,66	1,4	20°40'	0,84	1819	455	4,1	178
	75	9,5	50		0,48	1,2	19°39'	0,82	2318	500		
	82	12	40		0,44	0,99	13°14'	0,77	2504	500		
	83	14,5	33		0,38	0,87	10°41'	0,74	2751	500		
	76	19	25		0,28	0,80	10°07'	0,72	3322	500		
	78	25	19		0,23	0,72	8°44'	0,69	3776	500		
	76	29	16		0,22	0,56	5°23'	0,60	3802	500		
	68	38	13		0,16	0,52	5°06'	0,57	4486	500		
	63	50	10		0,12	0,48	4°23'	0,53	4800	500		
	57	62	7,7		0,10	0,41	3°11'	0,45	4800	500		
	45	83	5,7		0,06	0,39	3°22'	0,42	4800	500		
	37	100	4,8		0,05	0,36	2°21'	0,38	4800	500		
ET063	**152**	7,25	66	**475**	1,2	2,3	20°36'	0,85	2087	522	6,4	182
	138	9,75	49		0,84	2,1	20°40'	0,84	2947	700		
	127	12,75	37		0,61	1,9	19°39'	0,82	3691	700		
	159	14,5	33		0,71	1,5	10°39'	0,76	3417	700		
	140	19,5	24		0,48	1,4	10°41'	0,75	4424	700		
	127	25,5	19		0,35	1,2	10°07'	0,71	5225	700		
	147	29	16		0,41	0,90	5°22'	0,62	4854	700		
	127	39	12		0,27	0,84	5°23'	0,59	6041	700		
	112	51	9,3		0,19	0,79	5°06'	0,56	6200	700		
	111	61	7,8		0,19	0,65	3°16'	0,47	6200	700		
	94	82	5,8		0,13	0,62	3°11'	0,44	6200	700		
	61	100	4,8		0,08	0,55	2°12'	0,37	6200	700		



Type	Nominal Torques	Ratio	Output speeds	Input Speeds	Power P_e/P_t [kW] (For Service Factor f_s = 1,0) P_e = Mechanical Power / P_t = Thermal Power				Radial Loads (Output)	Radial Loads (Input)	Weight	Dim. Page
	M_a [Nm]	i	n_2 [rpm]	n_1 [rpm]	P_e [kW]	P_t [kW]	γ	η	F_{qam} [N]	F_{qem} [N]	[kg]	
ET075	**228**	7,5	63	**475**	1,8	3,3	26°17'	0,86	3725	931	9,2	186
	236	10	48		1,4	3,0	20°20'	0,84	4711	1100		
	243	15	32		1,0	2,3	13°52'	0,79	6064	1100		
	236	20	24		0,78	1,9	11°18'	0,75	7000	1100		
	230	25	19		0,64	1,7	9°32'	0,72	7000	1100		
	233	30	16		0,59	1,4	7°3'	0,66	7000	1100		
	218	40	12		0,44	1,3	5°43'	0,62	7000	1100		
	205	50	10		0,35	1,1	4°48'	0,58	7000	1100		
	187	60	7,9		0,30	0,98	4°8'	0,51	7000	1100		
	167	80	5,9		0,22	0,90	3°15'	0,47	7000	1100		
	133	100	4,8		0,16	0,82	2°40'	0,42	7000	1100		
ET080	**306**	7,5	63	**475**	2,4	3,7	21°48'	0,85	2357	589	11,0	190
	285	10	48		1,7	3,5	20°36'	0,84	3433	858		
	256	13,25	36		1,1	3,3	20°40'	0,84	4511	1100		
	322	15	32		1,4	2,4	11°18'	0,78	4090	1023		
	294	20	24		0,98	2,1	10°39'	0,75	5249	1100		
	257	26,5	18		0,67	2,0	10°41'	0,72	6482	1100		
	301	30	16		0,78	1,5	5°42'	0,64	5977	1100		
	270	40	12		0,54	1,4	5°22'	0,62	7367	1100		
	231	53	9,0		0,37	1,3	5°23'	0,59	7400	1100		
	189	62	7,7		0,31	1,1	3°13'	0,49	7400	1100		
	122	82	5,8		0,16	1,0	3°16'	0,47	7400	1100		
	85	110	4,3		0,09	0,96	3°11'	0,44	7400	1100		
ET100	**541**	7,5	63	**475**	4,1	6,3	21°48'	0,87	3110	777	31,7	194
	488	10	48		2,8	5,6	21°48'	0,85	4701	1175		
	450	13	37		2,1	5,0	20°36'	0,84	5984	1300		
	570	15	32		2,4	4,1	11°18'	0,80	5521	1300		
	510	20	24		1,6	3,8	11°18'	0,78	7311	1300		
	461	26	18		1,2	3,4	10°39'	0,76	8200	1300		
	545	30	16		1,3	2,5	5°42'	0,67	8110	1300		
	472	40	12		0,93	2,3	5°42'	0,63	8200	1300		
	419	52	9,1		0,66	2,1	5°22'	0,61	8200	1300		
	389	63	7,5		0,58	1,7	3°22'	0,53	8200	1300		
	250	82	5,8		0,30	1,6	3°13'	0,50	8200	1300		
	159	107	4,4		0,16	1,5	3°16'	0,46	8200	1300		
ET125	**988**	7,25	66	**475**	7,6	11	21°48'	0,89	3554	889	62,2	198
	893	10	48		5,1	9,6	21°48'	0,87	5162	1290		
	799	13	37		3,6	8,6	21°48'	0,85	6997	1749		
	1051	14,5	33		4,4	6,9	11°18'	0,82	5717	1429		
	934	20	24		2,9	6,2	11°18'	0,80	8457	1800		
	828	26	18		2,0	5,7	11°18'	0,78	10527	1800		
	1022	29	16		2,5	4,2	5°42'	0,70	8869	1800		
	884	40	12		1,6	3,8	5°42'	0,67	12074	1800		
	759	52	9,1		1,1	3,6	5°42'	0,65	13000	1800		
	811	62	7,7		1,2	2,8	3°24'	0,56	13000	1800		
	512	83	5,7		0,58	2,7	3°22'	0,53	13000	1800		
	326	107	4,4		0,30	2,5	3°13'	0,50	13000	1800		



ET - PERFORMANCE TABLES

Type	Nominal Torques	Ratio	Output speeds	Input Speeds	Power P_e/P_t [kW] (For Service Factor f_s = 1,0) P_e = Mechanical Power / P_t = Thermal Power				Radial Loads (Output)	Radial Loads (Input)	Weight	Dim. Page
	M_a [Nm]	i	n_2 [rpm]	n_1 [rpm]	P_e [kW]	P_t [kW]	γ	η	F_{qam} [N]	F_{qem} [N]	[kg]	
ET030	**21**	5,25	138	**725**	0,35	0,60	26°33'	0,86	765	191	1,2	170
	19	7,25	100		0,24	0,49	19°26'	0,83	1073	205		
	19	10,5	69		0,17	0,39	14°02'	0,78	1305	205		
	19	14,5	50		0,14	0,31	10°00'	0,73	1509	205		
	19	17	43		0,13	0,27	8°07'	0,68	1596	205		
	18	21	35		0,10	0,24	7°07'	0,65	1775	205		
	18	25	29		0,09	0,21	5°35'	0,60	1830	205		
	18	29	25		0,08	0,20	5°02'	0,57	1830	205		
	17	34	21		0,07	0,18	4°05'	0,52	1830	205		
	16	42	17		0,06	0,16	3°22'	0,48	1830	205		
	13	50	15		0,04	0,16	3°12'	0,47	1830	205		
	9	60	12		0,03	0,14	2°45'	0,42	1830	205		
	8	80	9,1		0,02	0,13	2°07'	0,41	1830	205		
ET040	**48**	8,0	91	**725**	0,53	0,99	26°33'	0,85	1060	265	2,4	174
	46	10,5	69		0,40	0,82	19°26'	0,82	1372	343		
	50	12	60		0,40	0,70	14°22'	0,79	1395	349		
	46	16	45		0,28	0,65	14°02'	0,78	1770	360		
	44	21	35		0,22	0,53	10°00'	0,73	2038	360		
	44	25	29		0,19	0,48	8°07'	0,70	2195	360		
	41	32	23		0,15	0,44	7°07'	0,67	2504	360		
	40	42	17		0,12	0,35	5°02'	0,59	2760	360		
	38	50	15		0,11	0,31	4°05'	0,53	2942	360		
	29	62	12		0,08	0,24	3°22'	0,43	3279	360		
	27	80	9,1		0,06	0,21	2°51'	0,43	3400	360		
	27	100	7,3		0,05	0,18	2°25'	0,41	3400	360		
ET050	**75**	7,25	100	**725**	0,92	1,5	20°40'	0,85	1518	379	4,1	178
	70	9,5	76		0,67	1,4	19°39'	0,84	1956	489		
	77	12	60		0,61	1,1	13°14'	0,79	2109	500		
	79	14,5	50		0,54	0,96	10°41'	0,77	2323	500		
	73	19	38		0,39	0,87	10°07'	0,75	2822	500		
	76	25	29		0,32	0,78	8°44'	0,72	3212	500		
	75	29	25		0,31	0,61	5°23'	0,64	3218	500		
	67	38	19		0,22	0,56	5°06'	0,60	3816	500		
	62	50	15		0,17	0,50	4°23'	0,56	4366	500		
	59	62	12		0,15	0,44	3°11'	0,50	4688	500		
	50	83	8,7		0,09	0,43	3°22'	0,48	4800	500		
	50	100	7,3		0,08	0,39	2°21'	0,45	4800	500		
ET063	**142**	7,25	100	**725**	1,7	2,6	20°36'	0,87	1711	428	6,4	182
	128	9,75	74		1,2	2,2	20°40'	0,84	2462	700		
	120	12,75	57		0,85	2,1	19°39'	0,84	3117	700		
	150	14,5	50		1,0	1,6	10°39'	0,79	2856	700		
	134	19,5	37		0,67	1,5	10°41'	0,77	3743	700		
	123	25,5	28		0,50	1,3	10°08'	0,73	4431	700		
	144	29	25		0,58	0,96	5°22'	0,65	4072	700		
	127	39	19		0,39	0,91	5°23'	0,62	5112	700		
	113	51	14		0,28	0,85	5°06'	0,60	6007	700		
	114	61	12		0,28	0,69	3°16'	0,51	6112	700		
	98	82	8,8		0,19	0,65	3°11'	0,48	6200	700		
	67	100	7,3		0,13	0,57	2°12'	0,40	6200	700		



Type	Nominal Torques	Ratio	Output speeds	Input Speeds	Power P_e/P_t [kW] (For Service Factor f_s = 1,0) P_e = Mechanical Power / P_t = Thermal Power				Radial Loads (Output)	Radial Loads (Input)	Weight	Dim. Page
	M_a [Nm]	i	n_2 [rpm]	n_1 [rpm]	P_e [kW]	P_t [kW]	γ	η	F_{qam} [N]	F_{qem} [N]	[kg]	
ET075	**212**	7,5	97	**725**	2,5	3,6	26°17'	0,87	3051	763	9,2	186
	220	10	73		2,0	3,2	20°20'	0,85	3920	980		
	229	15	48		1,4	2,5	13°53'	0,81	5075	1100		
	224	20	36		1,1	2,0	11°18'	0,77	6074	1100		
	220	25	29		0,91	1,8	9°32'	0,74	6868	1100		
	228	30	24		0,84	1,5	7°3'	0,69	7000	1100		
	214	40	18		0,62	1,4	5°43'	0,65	7000	1100		
	201	50	15		0,51	1,2	4°48'	0,60	7000	1100		
	191	60	12		0,44	1,0	4°08'	0,54	7000	1100		
	173	80	9,1		0,32	0,96	3°15'	0,51	7000	1100		
	146	100	7,3		0,24	0,87	2°40'	0,46	7000	1100		
ET080	**287**	7,5	97	**725**	3,3	4,3	21°48'	0,88	1929	482	11,0	190
	266	10	73		2,3	3,9	20°36'	0,86	2845	711		
	238	13,25	55		1,6	3,5	20°40'	0,85	3793	948		
	307	15	48		1,9	2,7	11°18'	0,81	3390	848		
	279	20	36		1,4	2,3	10°39'	0,77	4400	1100		
	248	26,5	27		0,95	2,1	10°41'	0,74	5480	1100		
	302	30	24		1,1	1,7	5°42'	0,69	4993	1100		
	266	40	18		0,78	1,5	5°22'	0,65	6211	1100		
	232	53	14		0,53	1,4	5°23'	0,63	7400	1100		
	207	62	12		0,47	1,2	3°13'	0,54	7400	1100		
	133	82	8,8		0,24	1,1	3°16'	0,51	7400	1100		
	93	110	6,6		0,13	1,0	3°11'	0,47	7400	1100		
							-					
ET100	**505**	7,5	97	**725**	5,7	7,4	21°48'	0,89	2719	680	31,7	194
	458	10	73		4,0	6,5	21°48'	0,87	3892	973		
	422	13	56		2,9	5,5	20°36'	0,85	5013	1253		
	548	15	48		3,3	5,0	11°18'	0,84	4577	1144		
	488	20	36		2,3	4,3	11°18'	0,81	6149	1300		
	441	26	28		1,7	3,7	10°39'	0,78	7432	1300		
	549	30	24		1,9	3,0	5°42'	0,73	6773	1300		
	477	40	18		1,3	2,5	5°42'	0,68	8200	1300		
	417	52	14		0,96	2,2	5°22'	0,63	8200	1300		
	434	63	12		0,89	2,0	3°21'	0,59	8200	1300		
	274	82	8,8		0,46	1,8	3°13'	0,55	8200	1300		
	174	107	6,8		0,24	1,6	3°16'	0,50	8200	1300		
ET125	**918**	7,25	100	**725**	11	14	21°48'	0,91	3582	896	62,2	198
	836	10	73		7,1	11	21°48'	0,89	4219	1055		
	753	13	56		5,0	9,9	21°48'	0,87	5832	1458		
	1006	14,5	50		6,2	8,4	11°19'	0,85	4649	1162		
	901	20	36		4,1	7,5	11°19'	0,84	7068	1767		
	796	26	28		2,9	6,4	11°19'	0,81	8887	1800		
	1022	29	25		3,5	5,0	5°43'	0,75	7312	1800		
	894	40	18		2,3	4,6	5°43'	0,73	10146	1800		
	771	52	14		1,6	4,1	5°43'	0,70	12339	1800		
	852	62	12		1,7	3,3	3°24'	0,62	12048	1800		
	572	83	8,7		0,89	3,0	3°22'	0,59	13000	1800		
	357	107	6,8		0,46	2,7	3°13'	0,55	13000	1800		



Type	Nominal Torques	Ratio	Output speeds	Input Speeds	Power P_e/P_t [kW] (For Service Factor f_s = 1,0) P_e = Mechanical Power / P_t = Thermal Power				Radial Loads (Output)	Radial Loads (Input)	Weight	Dim. Page
	M_a [Nm]	i	n_2 [rpm]	n_1 [rpm]	P_e [kW]	P_t [kW]	γ	η	F_{qam} [N]	F_{qem} [N]	[kg]	
ET030	**20**	5,25	181	**950**	0,44	0,63	26°33'	0,87	683	171	1,2	170
	18	7,25	131		0,29	0,52	19°26'	0,84	967	205		
	18	10,5	90		0,21	0,41	14°02'	0,80	1178	205		
	19	14,5	66		0,17	0,32	10°00'	0,74	1364	205		
	19	17	56		0,16	0,28	8°07'	0,70	1441	205		
	18	21	45		0,13	0,25	7°07'	0,67	1605	205		
	18	25	38		0,12	0,22	5°35'	0,62	1700	205		
	18	29	33		0,10	0,20	5°02'	0,59	1821	205		
	17	34	28		0,09	0,18	4°05'	0,54	1830	205		
	16	42	23		0,07	0,17	3°22'	0,51	1830	205		
	13	50	19		0,05	0,16	3°12'	0,49	1830	205		
	14	60	16		0,05	0,15	2°45'	0,45	1830	205		
	13	80	12		0,04	0,14	2°07'	0,44	1830	205		
ET040	**46**	8,0	119	**950**	0,66	1,0	26°33'	0,86	944	236	2,4	174
	43	10,5	90		0,49	0,86	19°26'	0,83	1231	308		
	48	12	79		0,49	0,74	14°22'	0,81	1249	312		
	44	16	59		0,34	0,68	14°02'	0,79	1593	360		
	42	21	45		0,27	0,56	10°00'	0,74	1839	360		
	43	25	38		0,24	0,51	8°07'	0,72	1982	360		
	40	32	30		0,18	0,46	7°07'	0,69	2264	360		
	39	42	23		0,15	0,37	5°02'	0,61	2494	360		
	38	50	19		0,13	0,33	4°05'	0,56	2657	360		
	28	62	15		0,09	0,26	3°22'	0,50	2916	360		
	28	80	12		0,07	0,23	2°51'	0,49	3391	360		
	25	100	10		0,05	0,20	2°25'	0,47	3400	360		
ET050	**72**	7,25	131	**950**	1,1	1,6	20°40'	0,87	1354	338	4,1	178
	67	9,5	100		0,83	1,4	19°39'	0,84	1756	439		
	74	12	79		0,76	1,1	13°14'	0,81	1891	473		
	76	14,5	66		0,67	1,0	10°41'	0,79	2085	500		
	70	19	50		0,48	0,92	10°07'	0,76	2544	500		
	73	25	38		0,40	0,81	8°44'	0,73	2898	500		
	74	29	33		0,39	0,64	5°06'	0,66	2896	500		
	67	38	25		0,28	0,59	5°23'	0,63	3445	500		
	62	50	19		0,21	0,52	4°23'	0,58	3947	500		
	60	62	15		0,18	0,46	3°11'	0,52	4237	500		
	50	83	11		0,12	0,45	3°22'	0,51	4800	500		
	44	100	10		0,10	0,45	2°21'	0,46	4800	500		
ET063	**136**	7,25	131	**950**	2,1	3,0	20°36'	0,89	1509	377	6,4	182
	122	9,75	97		1,5	2,4	20°40'	0,86	2197	549		
	114	12,75	75		1,0	2,2	19°39'	0,84	2802	700		
	146	14,5	66		1,2	1,8	10°39'	0,81	2551	638		
	130	19,5	49		0,83	1,6	10°41'	0,79	3367	700		
	119	25,5	37		0,62	1,3	10°07'	0,74	3991	700		
	144	29	33		0,73	1,1	5°22'	0,68	3638	700		
	125	39	24		0,49	0,95	5°23'	0,65	4598	700		
	112	51	19		0,35	0,89	5°06'	0,62	5421	700		
	115	61	16		0,35	0,72	3°16'	0,53	5497	700		
	99	82	12		0,24	0,68	3°11'	0,50	6200	700		
	71	100	10		0,17	0,59	2°12'	0,43	6200	700		



Type	Nominal Torques	Ratio	Output speeds	Input Speeds	Power P_e/P_t [kW] (For Service Factor f_s = 1,0) P_e = Mechanical Power / P_t = Thermal Power				Radial Loads (Output)	Radial Loads (Input)	Weight	Dim. Page
	M_a [Nm]	i	n_2 [rpm]	n_1 [rpm]	P_e [kW]	P_t [kW]	γ	η	F_{qam} [N]	F_{qem} [N]	[kg]	
ET075	**202**	7,5	127	**950**	3,0	3,9	26°17'	0,88	2690	672	9,2	186
	211	10	95		2,4	3,5	20°20'	0,87	3481	870		
	222	15	63		1,8	2,7	13°52'	0,83	4532	1100		
	218	20	48		1,4	2,2	11°18'	0,79	5439	1100		
	214	25	38		1,1	1,9	9°32'	0,75	6159	1100		
	224	30	32		1,1	1,6	7°3'	0,71	6449	1100		
	212	40	24		0,78	1,4	5°43'	0,67	7000	1100		
	203	50	19		0,64	1,3	4°48'	0,63	7000	1100		
	191	60	16		0,56	1,1	4°8'	0,57	7000	1100		
	176	80	12		0,41	1,0	3°15'	0,54	7000	1100		
	156	100	10		0,32	0,91	2°40'	0,48	7000	1100		
ET080	**273**	7,5	127	**950**	4,1	4,6	21°48'	0,89	1874	469	11,0	190
	255	10	95		2,9	4,3	20°36'	0,88	2530	632		
	228	13,25	72		2,0	3,8	20°40'	0,86	3401	850		
	297	15	63		2,4	3,0	11°18'	0,83	3011	753		
	272	20	48		1,7	2,5	10°39'	0,79	3934	983		
	240	26,5	36		1,2	2,2	10°41'	0,76	4924	1100		
	298	30	32		1,4	1,9	5°42'	0,72	4457	1100		
	267	40	24		0,97	1,7	5°22'	0,68	5574	1100		
	230	53	18		0,67	1,5	5°23'	0,65	6765	1100		
	224	62	15		0,62	1,3	3°13'	0,58	6932	1100		
	141	82	12		0,32	1,1	3°16'	0,54	7400	1100		
	98	110	8,6		0,18	1,1	3°11'	0,50	7400	1100		
ET100	**480**	7,5	127	**950**	7,1	8,0	21°48'	0,90	2555	639	31,7	194
	436	10	95		4,9	7,0	21°48'	0,88	3454	864		
	405	13	73		3,6	6,0	20°36'	0,87	4483	1121		
	528	15	63		4,1	5,6	11°18'	0,86	4067	1017		
	474	20	48		2,8	4,8	11°18'	0,83	5512	1300		
	431	26	37		2,0	4,1	10°39'	0,80	6691	1300		
	538	30	32		2,4	3,3	5°42'	0,75	6050	1300		
	472	40	24		1,7	2,7	5°42'	0,71	7679	1300		
	419	52	18		1,2	2,4	5°22'	0,67	8200	1300		
	457	63	15		1,2	2,1	3°21'	0,63	8200	1300		
	296	82	12		0,61	2,0	3°13'	0,59	8200	1300		
	183	107	8,9		0,32	1,7	3°16'	0,53	8200	1300		
ET125	**863**	7,25	131	**950**	13	14	21°48'	0,91	3486	871	62,2	198
	794	10	95		8,8	12	21°48'	0,90	3714	929		
	718	13	73		6,2	11	21°48'	0,88	5199	1300		
	951	14,5	66		7,6	8,5	11°18'	0,86	4080	1020		
	872	20	48		5,1	8,5	11°18'	0,86	6312	1578		
	776	26	37		3,6	7,1	11°18'	0,83	7974	1800		
	976	29	33		4,4	5,1	5°42'	0,76	6473	1618		
	881	40	24		2,9	5,0	5°42'	0,75	9088	1800		
	767	52	18		2,0	4,5	5°42'	0,73	11112	1800		
	858	62	15		2,1	3,5	3°24'	0,65	10780	1800		
	607	83	11		1,2	3,3	3°22'	0,63	13000	1800		
	386	107	8,9		0,61	3,0	3°13'	0,59	13000	1800		



ET - PERFORMANCE TABLES

Type	Nominal Torques	Ratio	Output speeds	Input Speeds	Power P_e/P_t [kW] (For Service Factor f_s = 1,0) P_e = Mechanical Power / P_t = Thermal Power				Radial Loads (Output)	Radial Loads (Input)	Weight	Dim. Page
	M_a [Nm]	i	n_2 [rpm]	n_1 [rpm]	P_e [kW]	P_t [kW]	γ	η	F_{qam} [N]	F_{qem} [N]	[kg]	
ET030	**18**	5,25	276	**1450**	0,60	0,71	26°33'	0,88	570	142	1,2	170
	17	7,25	200		0,41	0,57	19°26'	0,86	820	205		
	17	10,5	138		0,30	0,44	14°02'	0,81	1003	205		
	18	14,5	100		0,24	0,35	10°00'	0,77	1162	205		
	18	17	85		0,22	0,31	8°07'	0,73	1228	205		
	17	21	69		0,18	0,27	7°07'	0,70	1369	205		
	18	25	58		0,16	0,24	5°35'	0,65	1449	205		
	17	29	50		0,14	0,22	5°02'	0,62	1553	205		
	17	34	43		0,13	0,19	4°05'	0,58	1632	205		
	16	42	35		0,10	0,18	3°22'	0,55	1805	205		
	14	50	29		0,08	0,18	3°12'	0,53	1830	205		
	10	60	24		0,05	0,16	2°45'	0,48	1830	205		
	10	80	18		0,04	0,15	2°07'	0,46	1830	205		
ET040	**42**	8,0	181	**1450**	0,91	1,2	26°33'	0,88	784	196	2,4	174
	40	10,5	138		0,69	0,94	19°26'	0,85	1036	259		
	45	12	121		0,68	0,83	14°22'	0,83	1048	262		
	41	16	91		0,48	0,72	14°02'	0,80	1350	337		
	40	21	69		0,38	0,62	10°00'	0,77	1564	360		
	41	25	58		0,33	0,57	8°07'	0,75	1689	360		
	39	32	45		0,26	0,50	7°07'	0,72	1934	360		
	38	42	35		0,22	0,40	5°02'	0,65	2128	360		
	38	50	29		0,19	0,36	4°05'	0,61	2266	360		
	36	62	23		0,16	0,31	3°22'	0,55	2403	360		
	34	80	18		0,12	0,24	2°51'	0,54	2794	360		
	31	100	15		0,09	0,20	2°25'	0,52	3098	360		
ET050	**67**	7,25	200	**1450**	1,6	1,9	20°40'	0,88	1127	282	4,1	178
	63	9,5	153		1,2	1,6	19°39'	0,87	1480	370		
	70	12	121		1,1	1,3	13°14'	0,83	1591	398		
	73	14,5	100		0,93	1,2	10°41'	0,82	1761	440		
	67	19	76		0,67	1,1	10°07'	0,80	2162	500		
	71	25	58		0,56	0,92	8°44'	0,77	2466	500		
	74	29	50		0,54	0,74	5°23'	0,71	2454	500		
	67	38	38		0,39	0,67	5°06'	0,68	2933	500		
	62	50	29		0,30	0,57	4°23'	0,62	3368	500		
	62	62	23		0,26	0,52	3°11'	0,59	3617	500		
	51	83	17		0,17	0,47	3°22'	0,55	4301	500		
	48	100	15		0,14	0,43	2°21'	0,50	4621	500		
ET063	**125**	7,25	200	**1450**	2,9	3,4	20°37'	0,90	1233	308	6,4	182
	114	9,75	149		2,0	2,6	20°40'	0,87	1832	458		
	107	12,75	114		1,5	2,5	19°39'	0,87	2365	591		
	138	14,5	100		1,7	2,2	10°39'	0,85	2134	534		
	124	19,5	74		1,2	1,9	10°41'	0,83	2852	700		
	115	25,5	57		0,88	1,5	10°08'	0,77	3383	700		
	142	29	50		1,0	1,2	5°22'	0,73	3050	700		
	124	39	37		0,70	1,1	5°23'	0,69	3891	700		
	113	51	28		0,50	1,0	5°06'	0,67	4616	700		
	121	61	24		0,50	0,82	3°16'	0,60	4654	700		
	104	82	18		0,34	0,75	3°11'	0,56	5571	700		
	82	100	15		0,26	0,64	2°26'	0,48	6170	700		



Type	Nominal Torques	Ratio	Output speeds	Input Speeds	Power P_e/P_t [kW] (For Service Factor f_s = 1,0) P_e = Mechanical Power / P_t = Thermal Power				Radial Loads (Output)	Radial Loads (Input)	Weight	Dim. Page
	M_a [Nm]	i	n_2 [rpm]	n_1 [rpm]	P_e [kW]	P_t [kW]	γ	η	F_{qam} [N]	F_{qem} [N]	[kg]	
ET075	**186**	7,5	193	**1450**	4,2	4,1	26°17'	0,89	2483	621	9,2	186
	196	10	145		3,4	4,0	20°20'	0,88	2884	721		
	208	15	97		2,5	2,9	13°52'	0,84	3786	947		
	207	20	73		1,9	2,4	11°18'	0,81	4567	1100		
	205	25	58		1,6	2,1	9°32'	0,78	5182	1100		
	219	30	48		1,5	1,8	7°3'	0,74	5409	1100		
	210	40	36		1,1	1,6	5°43'	0,72	6439	1100		
	202	50	29		0,91	1,4	4°48'	0,68	7000	1100		
	196	60	24		0,81	1,2	4°8'	0,61	7000	1100		
	183	80	18		0,58	1,1	3°15'	0,60	7000	1100		
	172	100	15		0,48	1,0	2°40'	0,55	7000	1100		
ET080	**249**	7,5	193	**1450**	5,7	4,7	21°48'	0,89	1762	441	11,0	190
	236	10	145		4,0	4,8	20°36'	0,89	2094	523		
	213	13,25	109		2,8	4,2	20°40'	0,88	2859	715		
	276	15	97		3,3	3,2	11°18'	0,84	2491	623		
	259	20	73		2,4	2,8	10°39'	0,81	3293	823		
	230	26,5	55		1,7	2,4	10°41'	0,78	4158	1040		
	285	30	48		1,9	2,0	5°42'	0,75	3727	932		
	264	40	36		1,4	1,9	5°22'	0,73	4703	1100		
	230	53	27		0,95	1,7	5°23'	0,69	5747	1100		
	244	62	23		0,95	1,4	3°13'	0,63	5714	1100		
	158	82	18		0,49	1,3	3°16'	0,60	7370	1100		
	110	110	13		0,27	1,2	3°11'	0,56	7400	1100		
ET100	**434**	7,5	193	**1450**	9,8	7,5	21°48'	0,90	2482	621	31,7	194
	399	10	145		6,8	7,0	21°48'	0,89	2851	713		
	375	13	112		5,0	6,3	20°36'	0,88	3750	937		
	480	15	97		5,7	5,4	11°18'	0,86	3374	843		
	441	20	73		4,0	5,1	11°18'	0,85	4640	1160		
	411	26	56		2,9	4,8	10°39'	0,83	5670	1300		
	497	30	48		3,3	3,3	5°42'	0,76	5066	1266		
	453	40	36		2,4	2,9	5°42'	0,73	6471	1300		
	417	52	28		1,7	2,7	5°22'	0,71	7678	1300		
	443	63	23		1,6	2,3	3°21'	0,65	7850	1300		
	322	82	18		0,93	2,2	3°13'	0,64	8200	1300		
	206	107	14		0,49	1,9	3°16'	0,60	8200	1300		
ET125	**796**	7,25	200	**1450**	18	17	21°48'	0,93	3266	816	62,2	198
	720	10	145		12	11	21°48'	0,90	3172	793		
	658	13	112		8,7	11	21°48'	0,89	4328	1082		
	864	14,5	100		11	8,3	11°18'	0,86	3313	828		
	795	20	73		7,1	8,3	11°18'	0,86	5283	1321		
	724	26	56		5,0	7,6	11°18'	0,84	6733	1683		
	894	29	50		6,2	5,0	5°42'	0,76	5346	1336		
	817	40	36		4,1	5,0	5°42'	0,76	7653	1800		
	740	52	28		2,8	5,0	5°42'	0,76	9433	1800		
	797	62	23		3,0	3,5	3°24'	0,65	9057	1800		
	632	83	17		1,8	3,4	3°22'	0,65	11796	1800		
	420	107	14		0,93	3,3	3°13'	0,64	13000	1800		

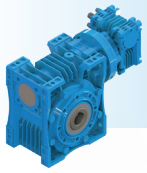


ET - PERFORMANCE TABLES

Type	Nominal Torques	Ratio	Output speeds	Input Speeds	Power P_e/P_t [kW] (For Service Factor f_s = 1,0) P_e = Mechanical Power / P_t = Thermal Power				Radial Loads (Output)	Radial Loads (Input)	Weight	Dim. Page
	M_a [Nm]	i	n_2 [rpm]	n_1 [rpm]	P_e [kW]	P_t [kW]	γ	η	F_{qam} [N]	F_{qem} [N]	[kg]	
ET030	**16**	5,25	552	**2900**	1,0	0,87	26°33'	0,91	458	114	1,2	170
	15	7,25	400		0,69	0,70	19°26'	0,89	625	156		
	15	10,5	276		0,51	0,54	14°02'	0,86	769	192		
	16	14,5	200		0,42	0,42	10°00'	0,82	894	205		
	17	17	171		0,38	0,37	8°07'	0,79	943	205		
	16	21	138		0,31	0,32	7°07'	0,76	1055	205		
	17	25	116		0,28	0,28	5°35'	0,72	1115	205		
	17	29	100		0,25	0,26	5°02'	0,70	1196	205		
	17	34	85		0,23	0,22	4°05'	0,65	1254	205		
	16	42	69		0,18	0,22	3°25'	0,65	1399	205		
	15	50	58		0,15	0,21	3°12'	0,63	1542	205		
	12	60	48		0,10	0,19	2°45'	0,59	1738	205		
	12	80	36		0,08	0,18	2°07	0,56	1830	205		
ET040	**37**	8,0	363	**2900**	1,6	1,4	26°33'	0,90	680	170	2,4	174
	36	10,5	276		1,2	1,1	19°26'	0,88	778	195		
	39	12	242		1,2	0,92	14°22'	0,85	782	196		
	37	16	181		0,83	0,84	14°02'	0,84	1026	256		
	37	21	138		0,65	0,75	10°00'	0,82	1198	300		
	38	25	116		0,56	0,73	8°07'	0,82	1302	325		
	37	32	91		0,44	0,65	7°07'	0,79	1497	360		
	38	42	69		0,37	0,51	5°02'	0,74	1645	360		
	38	50	58		0,33	0,44	4°05'	0,69	1750	360		
	31	62	47		0,23	0,33	3°22'	0,59	1683	360		
	28	80	36		0,18	0,29	2°51	0,58	2226	360		
	25	100	29		0,14	0,24	2°25	0,55	2474	360		
ET050	**57**	7,25	400	**2900**	2,7	1,8	20°4'	0,89	829	207	4,1	178
	54	9,5	305		2,0	1,6	19°39'	0,87	1114	278		
	60	12	242		1,8	1,3	13°14'	0,84	1194	299		
	63	14,5	200		1,6	1,2	14°41'	0,83	1332	333		
	59	19	153		1,2	1,1	10°07'	0,82	1655	414		
	63	25	116		0,97	1,0	8°44'	0,80	1892	473		
	65	29	100		0,94	0,76	5°06'	0,73	1871	468		
	61	38	76		0,68	0,72	5°23'	0,71	2255	500		
	59	50	58		0,53	0,64	4°23'	0,68	2597	500		
	59	62	47		0,45	0,57	3°11'	0,64	2797	500		
	53	83	35		0,30	0,59	3°22'	0,65	3350	500		
	50	100	29		0,26	0,44	2°21'	0,59	3580	500		
ET063	**104**	7,25	414	**2900**	4,9	3,9	20°36'	0,92	1102	276	6,4	182
	94	9,75	308		3,5	2,5	20°40'	0,87	1349	337		
	89	12,75	235		2,5	2,5	19°39'	0,87	1787	447		
	117	14,5	207		2,9	2,5	10°39'	0,88	1591	398		
	104	19,5	154		2,0	2,0	10°41'	0,84	2173	543		
	98	25,5	118		1,5	1,4	10°07'	0,78	2573	643		
	125	29	103		1,8	1,3	5°22'	0,76	2280	570		
	107	39	77		1,2	1,1	5°23'	0,70	2956	700		
	100	51	59		0,88	1,1	5°06'	0,70	3546	700		
	106	61	49		0,89	0,82	3°16'	0,61	3542	700		
	96	82	37		0,62	0,78	3°11'	0,59	4274	700		
	87	100	30		0,52	0,66	2°12'	0,52	4603	700		

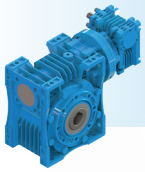


Type	Nominal Torques	Ratio	Output speeds	Input Speeds	Power P_e/P_t [kW] (For Service Factor f_s = 1,0) P_e = Mechanical Power / P_t = Thermal Power				Radial Loads (Output)	Radial Loads (Input)	Weight	Dim. Page
	M_a [Nm]	i	n_2 [rpm]	n_1 [rpm]	P_e [kW]	P_t [kW]	γ	η	F_{qam} [N]	F_{qem} [N]	[kg]	
ET075	**160**	7,5	387	**2900**	7,3	3,9	26°17'	0,89	2269	567	9,2	186
	169	10	290		5,8	4,0	20°20'	0,89	2101	525		
	177	15	193		4,3	2,6	13°52'	0,83	2802	701		
	178	20	145		3,4	2,2	11°18'	0,80	3411	853		
	178	25	116		2,8	1,9	9°32'	0,77	3886	971		
	188	30	97		2,6	1,6	7°30'	0,73	4032	1008		
	185	40	73		1,9	1,6	5°43'	0,73	4886	1100		
	181	50	58		1,6	1,4	4°48'	0,69	5454	1100		
	177	60	48		1,5	1,1	4°8'	0,61	5773	1100		
	169	80	36		1,0	1,2	3°15'	0,62	6852	1100		
	162	100	29		0,86	1,0	2°40'	0,57	7000	1100		
ET080	**215**	7,5	387	**2900**	9,7	4,7	21°48'	0,89	1611	403	11,0	190
	204	10	290		6,8	5,1	20°36'	0,90	1524	381		
	182	13,25	219		4,8	3,9	20°40'	0,87	2142	536		
	242	15	193		5,7	3,5	11°18'	0,86	1816	454		
	228	20	145		4,2	2,8	10°39'	0,83	2446	612		
	201	26,5	109		3,0	2,2	10°41'	0,78	3138	785		
	259	30	97		3,3	2,3	5°42'	0,78	2777	694		
	242	40	73		2,4	2,1	5°22'	0,76	3559	890		
	207	53	55		1,7	1,7	5°23'	0,71	4397	1099		
	244	62	47		1,7	1,6	3°13'	0,69	4239	1060		
	165	82	35		0,99	1,3	3°16'	0,62	5544	1100		
	119	110	26		0,55	1,2	3°11'	0,60	6702	1100		
ET100	**374**	7,5	387	**2900**	17	7,9	21°48'	0,90	2190	547	31,7	194
	345	10	290		12	7,1	21°48'	0,89	2206	552		
	325	13	223		8,6	6,2	20°36'	0,88	2780	695		
	422	15	193		9,7	6,4	11°18'	0,88	2479	620		
	388	20	145		6,8	5,7	11°18'	0,87	3496	874		
	363	26	112		5,0	5,2	10°39'	0,86	4322	1080		
	451	30	97		5,7	3,9	5°42'	0,81	3795	949		
	413	40	73		4,1	3,1	5°42'	0,76	4881	1220		
	384	52	56		3,1	2,8	5°22'	0,73	5838	1300		
	420	63	46		2,9	2,6	3°21'	0,71	5981	1300		
	352	82	35		1,9	2,5	3°13'	0,70	7393	1300		
	215	107	27		0,99	2,0	3°16'	0,61	8200	1300		
ET125	**686**	7,25	400	**2900**	30	22	21°48'	0,95	2020	505	62,2	198
	621	10	290		21	12	21°48'	0,90	2800	700		
	569	13	223		15	11	21°48'	0,89	3183	796		
	758	14,5	200		18	9,9	11°18'	0,88	2340	585		
	699	20	145		12	9,8	11°18'	0,88	3947	987		
	639	26	112		8,7	8,4	11°18'	0,86	5101	1275		
	811	29	100		11	5,9	5°42'	0,81	3911	978		
	745	40	73		7,0	5,9	5°42'	0,81	5790	1447		
	679	52	56		4,9	5,9	5°42'	0,81	7231	1800		
	756	62	47		5,2	4,0	3°24'	0,71	6831	1708		
	689	83	35		3,5	4,0	3°22'	0,71	8672	1800		
	459	107	27		1,9	3,8	3°13'	0,70	10964	1800		

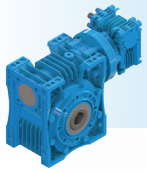


ET - PERFORMANCE TABLES

Type	Nominal Torques	Ratio	Output speeds	Input Speeds	Power P_e/P_t [kW] (For Service Factor f_s = 1,0) P_e = Mechanical Power / P_t = Thermal Power				Radial Loads (Output)	Radial Loads (Input)	Weight	Dim. Page
	M_a [Nm]	i	n_2 [rpm]	n_1 [rpm]	P_e [kW]	P_t [kW]	γ	η	F_{qam} [N]	F_{qem} [N]	[kg]	
ET040-030	**61**	84	17	**1450**	0,17	-	14°02'	0,63	3400	205	4,9	202
	64	116	13		0,14	-	10°00'	0,59	3400	205		
	65	136	11		0,13	-	8°07'	0,57	3400	205		
	67	168	8,6		0,11	-	7°07'	0,54	3400	205		
	69	200	7,3		0,10	-	5°35'	0,51	3400	205		
	60	232	6,3		0,10	-	5°02'	0,41	3400	205		
	61	272	5,3		0,09	-	4°05'	0,38	3400	205		
	62	336	4,3		0,08	-	3°22'	0,36	3400	205		
	63	400	3,6		0,07	-	3°12'	0,35	3400	205		
	64	480	3,0		0,06	-	2°45'	0,32	3400	205		
	47	544	2,7		0,04	-	4°05'	0,32	3400	205		
	48	672	2,2		0,04	-	3°22'	0,30	3400	205		
	48	800	1,8		0,03	-	3°12'	0,29	3400	205		
	48	960	1,5		0,03	-	2°45'	0,26	3400	205		
	32	1088	1,3		0,02	-	4°05'	0,22	3400	205		
	32	1344	1,1		0,02	-	3°22'	0,21	3400	205		
	32	1600	0,91		0,01	-	3°12'	0,20	3400	205		
	32	1920	0,76		0,01	-	2°45'	0,19	3400	205		
	27	2520	0,58		0,01	-	2°45'	0,15	3400	205		
	23	3000	0,48		0,01	-	2°45'	0,12	3400	205		
	22	3720	0,39		0,01	-	2°45'	0,09	3400	205		
ET050-030	**89**	137,75	11	**1450**	0,17	-	10°00'	0,56	4800	205	5,7	203
	90	174	8,3		0,16	-	10°00'	0,51	4800	205		
	88	210,25	6,9		0,13	-	10°00'	0,47	4800	205		
	90	246,5	5,9		0,12	-	8°07'	0,45	4800	205		
	92	304,5	4,8		0,11	-	7°07'	0,43	4800	205		
	93	362,5	4,0		0,10	-	5°35'	0,40	4800	205		
	94	420,5	3,4		0,09	-	5°02'	0,38	4800	205		
	95	493	2,9		0,08	-	4°05'	0,36	4800	205		
	76	609	2,4		0,07	-	3°22'	0,26	4800	205		
	76	725	2,0		0,06	-	3°12'	0,26	4800	205		
	77	870	1,7		0,06	-	2°45'	0,23	4800	205		
	72	986	1,5		0,04	-	4°05'	0,26	4800	205		
	51	1218	1,2		0,04	-	3°22'	0,17	4800	205		
	51	1450	1,0		0,03	-	3°12'	0,17	4800	205		
	52	1740	0,83		0,03	-	2°45'	0,15	4800	205		
	66	2280	0,64		0,03	-	2°45'	0,15	4800	205		
	51	3000	0,48		0,02	-	2°45'	0,13	4800	205		
	48	3720	0,39		0,02	-	2°45'	0,10	4800	205		
	67	4980	0,29		0,02	-	2°45'	0,10	4800	205		
ET063-030	**144**	210,25	6,9	**1450**	0,23	-	5°22'	0,46	6200	205	8,0	204
	124	304,5	4,8		0,17	-	5°22'	0,36	6200	205		
	127	420,5	3,4		0,13	-	5°22'	0,34	6200	205		
	129	493	2,9		0,12	-	5°22'	0,33	6200	205		
	131	609	2,4		0,11	-	5°22'	0,31	6200	205		
	132	725	2,0		0,09	-	5°22'	0,29	6200	205		
	133	841	1,7		0,09	-	5°02'	0,28	6200	205		
	134	986	1,5		0,08	-	4°05'	0,26	6200	205		
	135	1218	1,2		0,07	-	3°22'	0,24	6200	205		
	135	1450	1,0		0,06	-	3°12'	0,24	6200	205		
	96	1740	0,83		0,05	-	2°45'	0,15	6200	205		
	117	2340	0,62		0,05	-	2°45'	0,15	6200	205		
	117	3060	0,47		0,04	-	2°45'	0,15	6200	205		
	96	3660	0,40		0,04	-	2°45'	0,10	6200	205		
	94	4920	0,29		0,03	-	2°45'	0,10	6200	205		

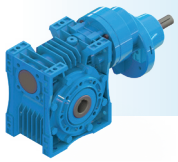


Type	Nominal Torques	Ratio	Output speeds	Input Speeds	Power P_e/P_t [kW] (For Service Factor f_s = 1,0) P_e = Mechanical Power / P_t = Thermal Power				Radial Loads (Output)	Radial Loads (Input)	Weight	Dim. Page
	M_a [Nm]	i	n_2 [rpm]	n_1 [rpm]	P_e [kW]	P_t [kW]	γ	η	F_{qam} [N]	F_{qem} [N]	[kg]	
ET075-040	**269**	80	18	**1450**	0,73	-	20°20'	0,70	7000	360	12,0	205
	267	120	12		0,52	-	13°52'	0,65	7000	360		
	249	158	9,2		0,42	-	13°52'	0,57	7000	360		
	255	180	8,1		0,39	-	13°52'	0,55	7000	360		
	264	240	6,0		0,31	-	13°52'	0,54	7000	360		
	271	315	4,6		0,25	-	10°00'	0,52	7000	360		
	275	375	3,9		0,22	-	8°07'	0,50	7000	360		
	281	480	3,0		0,18	-	7°07'	0,48	7000	360		
	285	630	2,3		0,16	-	5°02'	0,43	7000	360		
	233	750	1,9		0,14	-	4°05'	0,33	7000	360		
	235	930	1,6		0,20	-	3°22'	0,20	7000	360		
	225	1260	1,2		0,08	-	5°02'	0,33	7000	360		
	167	1500	0,97		0,07	-	4°05'	0,23	7000	360		
	168	1860	0,78		0,10	-	3°22'	0,14	7000	360		
	140	2480	0,58		0,07	-	3°22'	0,12	7000	360		
	120	3100	0,47		0,06	-	3°22'	0,10	7000	360		
	104	3720	0,39		0,05	-	3°22'	0,09	7000	360		
	96	4960	0,29		0,04	-	3°14'	0,07	7000	360		
	98	6200	0,23		0,04	-	2°40'	0,06	7000	360		
ET080-040	**365**	180	8,1	**1450**	0,53	-	11°18'	0,59	7400	360	14,0	206
	335	240	6,0		0,42	-	11°18'	0,50	7400	360		
	344	315	4,6		0,34	-	10°00'	0,48	7400	360		
	349	375	3,9		0,30	-	8°07'	0,47	7400	360		
	356	480	3,0		0,25	-	7°07'	0,45	7400	360		
	362	630	2,3		0,22	-	5°02'	0,41	7400	360		
	365	750	1,9		0,19	-	4°05'	0,38	7400	360		
	291	930	1,6		0,27	-	3°22'	0,35	7400	360		
	274	1260	1,2		0,11	-	5°02'	0,30	7400	360		
	275	1500	0,97		0,10	-	4°05'	0,28	7400	360		
	197	1860	0,78		0,14	-	3°22'	0,12	7400	360		
	168	2480	0,58		0,09	-	3°22'	0,11	7400	360		
	144	3286	0,44		0,06	-	3°22'	0,11	7400	360		
	77	3844	0,38		0,04	-	3°13'	0,07	7400	360		
	99	5084	0,29		0,04	-	3°16'	0,07	7400	360		
ET100-050	**636**	180	8,1	**1450**	0,91	-	11°18'	0,59	8200	500	36,8	207
	651	217,5	6,7		0,78	-	10°41'	0,58	8200	500		
	593	285	5,1		0,63	-	10°07'	0,50	8200	500		
	608	375	3,9		0,51	-	8°44'	0,48	8200	500		
	615	435	3,3		0,48	-	5°23'	0,45	8200	500		
	626	570	2,5		0,39	-	5°06'	0,43	8200	500		
	636	750	1,9		0,33	-	4°23'	0,39	8200	500		
	642	930	1,6		0,28	-	3°11'	0,37	8200	500		
	440	1240	1,2		0,18	-	3°11'	0,29	8200	500		
	381	1612	0,90		0,13	-	3°11'	0,28	8200	500		
	482	1860	0,78		0,14	-	3°11'	0,27	8200	500		
	296	2480	0,58		0,09	-	3°11'	0,19	8200	500		
	252	3224	0,45		0,06	-	3°11'	0,18	8200	500		
	242	3906	0,37		0,05	-	3°11'	0,19	8200	500		
	200	5084	0,29		0,05	-	3°11'	0,12	8200	500		
ET125-063	**1158**	184,875	7,8	**1450**	1,5	-	11°18'	0,62	13000	700	70,0	208
	1175	210,25	6,9		1,4	-	10°39'	0,60	13000	700		
	1213	282,75	5,1		1,1	-	10°41'	0,59	13000	700		
	1101	369,75	3,9		0,93	-	10°07'	0,49	13000	700		
	1112	420,5	3,4		0,88	-	5°22'	0,46	13000	700		
	1135	565,5	2,6		0,70	-	5°23'	0,44	13000	700		



ET - PERFORMANCE TABLES

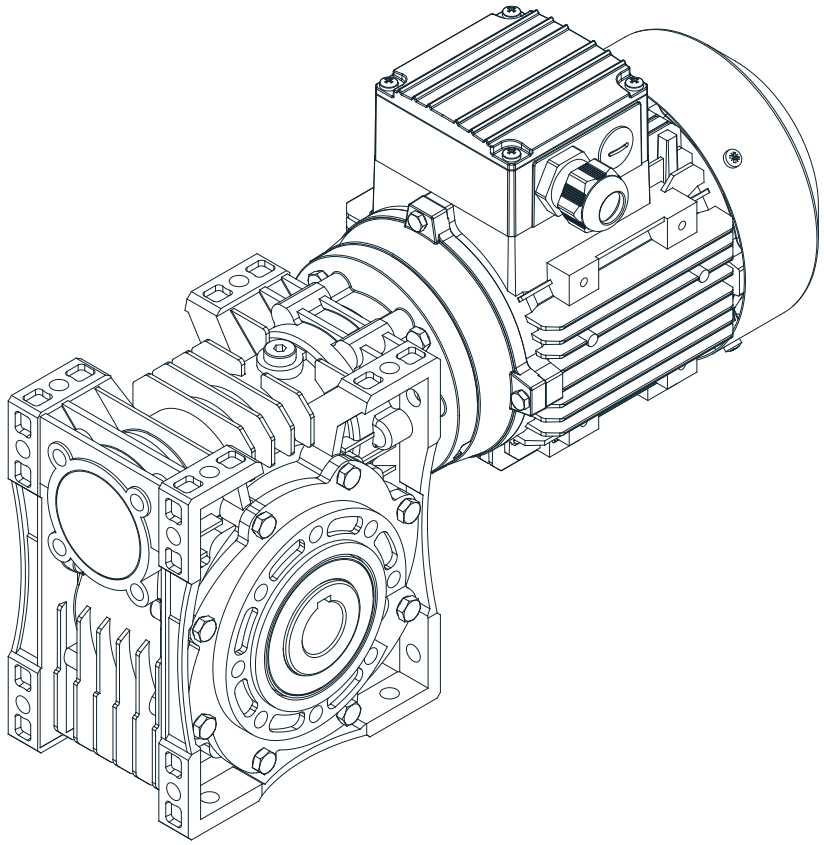
Type	Nominal Torques	Ratio	Output speeds	Input Speeds	Power P_e/P_t [kW] (For Service Factor f_s = 1,0) P_e = Mechanical Power / P_t = Thermal Power				Radial Loads (Output)	Radial Loads (Input)	Weight	Dim. Page
	M_a [Nm]	i	n_2 [rpm]	n_1 [rpm]	P_e [kW]	P_t [kW]	γ	η	F_{qam} [N]	F_{qem} [N]	[kg]	
ET125-063	**1152**	739,5	2,0	**1450**	0,56	-	5°06'	0,42	13000	700	70,0	208
	1161	884,5	1,6		0,53	-	3°16'	0,38	13000	700		
	1174	1189	1,2		0,43	-	3°11'	0,35	13000	700		
	801	1640	0,88		0,27	-	3°11'	0,28	13000	700		
	691	2132	0,68		0,18	-	3°11'	0,28	13000	700		
	878	2378	0,61		0,22	-	3°11'	0,26	13000	700		
	536	3280	0,44		0,14	-	3°11'	0,18	13000	700		
	462	4264	0,34		0,09	-	3°11'	0,18	13000	700		
	312	5084	0,29		0,08	-	3°11'	0,12	13000	700		

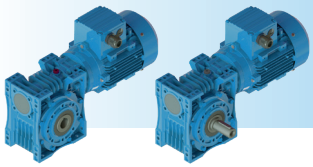


Type	Nominal Torques	Ratio	Output speeds	Input Speeds	Power P_e/P_t [kW] (For Service Factor f_s = 1,0) P_e = Mechanical Power / P_t = Thermal Power				Radial Loads (Output)	Radial Loads (Input)	Weight	Dim. Page
	M_a [Nm]	i	n_2 [rpm]	n_1 [rpm]	P_e [kW]	P_t [kW]	γ	η	F_{qam} [N]	F_{qem} [N]	[kg]	
EN050-NT01	**36**	498	2,9	**1450**	0,03	-	3°22'	0,32	4800	350	7,1	209
	55	372	3,9		0,06	-	3°11'	0,40	4800	350		
	62	300	4,8		0,07	-	4°23'	0,47	4800	350		
	68	228	6,4		0,09	-	5°23'	0,51	4800	350		
	76	174	8,3		0,13	-	5°23'	0,53	4800	350		
	82	150	9,7		0,13	-	8°44'	0,64	4800	350		
	81	114	13		0,16	-	10°07'	0,67	4800	350		
	88	87	17		0,23	-	10°41'	0,68	4800	350		
EN063-NT01	**53**	600	2,4	**1450**	0,04	-	2°12'	0,32	6200	350	9,4	210
	89	492	2,9		0,07	-	3°11'	0,39	6200	350		
	103	366	4,0		0,11	-	3°16'	0,40	6200	350		
	111	306	4,7		0,11	-	5°06'	0,51	6200	350		
	125	234	6,2		0,16	-	5°23'	0,52	6200	350		
	141	174	8,3		0,23	-	5°22'	0,52	6200	350		
	134	153	9,5		0,20	-	10°07'	0,66	6200	350		
	147	117	12		0,28	-	10°41'	0,68	6200	350		
EN075-NT11	**113**	745	1,9	**1450**	0,07	-	2°40'	0,35	7000	450	13,5	211
	155	596	2,4		0,10	-	3°14'	0,40	7000	450		
	180	447	3,2		0,14	-	4°08'	0,45	7000	450		
	196	372,5	3,9		0,16	-	4°48'	0,50	7000	450		
	214	298	4,9		0,20	-	5°42'	0,54	7000	450		
	237	223,5	6,5		0,28	-	7°02'	0,58	7000	450		
	240	186,25	7,8		0,30	-	9°32'	0,65	7000	450		
	252	149	9,7		0,38	-	11°18'	0,68	7000	450		
	265	111,75	13		0,50	-	13°52'	0,72	7000	450		
EN080-NT11	**59**	819,5	1,8	**1450**	0,04	-	3°11'	0,30	7400	450	15,5	212
	106	610,9	2,4		0,07	-	3°16'	0,40	7400	450		
	155	461,9	3,1		0,13	-	3°13'	0,40	7400	450		
	228	394,85	3,7		0,17	-	5°23'	0,52	7400	450		
	261	298	4,9		0,25	-	5°22'	0,53	7400	450		
	294	223,5	6,5		0,37	-	5°42'	0,54	7400	450		
	274	197,43	7,3		0,31	-	10°39'	0,67	7400	450		
	311	149	9,7		0,47	-	11°18'	0,67	7400	450		
	342	111,75	13		0,67	-	11°18'	0,69	7400	450		
EN100-NT11	**138**	797,15	1,8	**1450**	0,07	-	3°16'	0,40	7400	450	36,2	213
	205	610,9	2,4		0,13	-	3°13'	0,40	7400	450		
	310	469,35	3,1		0,24	-	3°21'	0,41	7400	450		
	399	387,4	3,7		0,30	-	5°22'	0,52	7400	450		
	453	298	4,9		0,43	-	5°40'	0,54	7400	450		
	554	223,5	6,5		0,64	-	5°42'	0,59	7400	450		
	481	193,7	7,5		0,55	-	10°39'	0,68	7400	450		
	533	149	9,7		0,78	-	11°18'	0,69	7400	450		
EN125-NT21	**299**	516,81	2,8	**1450**	0,20	-	3°13'	0,45	13000	500	68,5	214
	470	400,89	3,6		0,37	-	3°22'	0,47	13000	500		
	745	299,46	4,8		0,75	-	5°42'	0,50	13000	500		
	764	251,16	5,8		0,76	-	5°42'	0,61	13000	500		
	885	193,2	7,5		1,1	-	5°42'	0,62	13000	500		
	1017	140,07	10		1,7	-	11°18'	0,64	13000	500		
	860	125,58	12		1,4	-	11°18'	0,74	13000	500		

DANA BREVINI® Motion Systems

DIMENSION PAGES

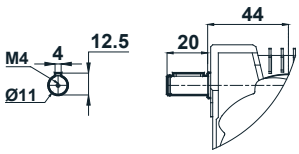




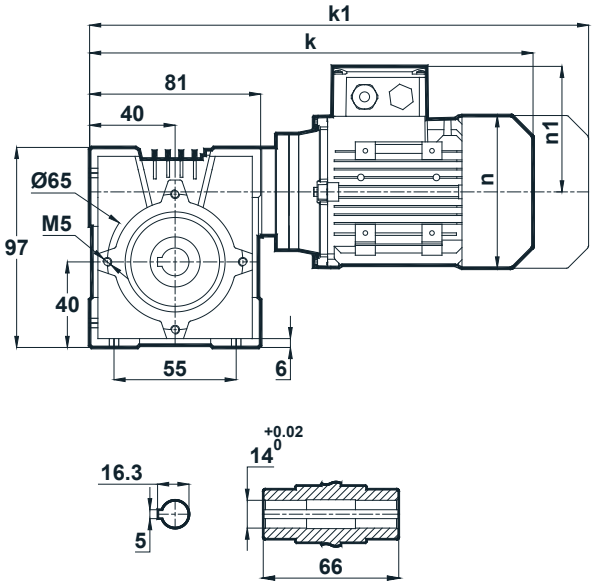
EV - DIMENSION PAGES

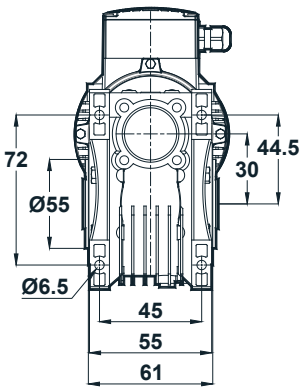
Tapped center hole to DIN 332, sheet 2

EV030.00

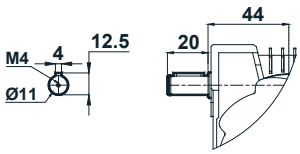


Optional
EV030.00-06

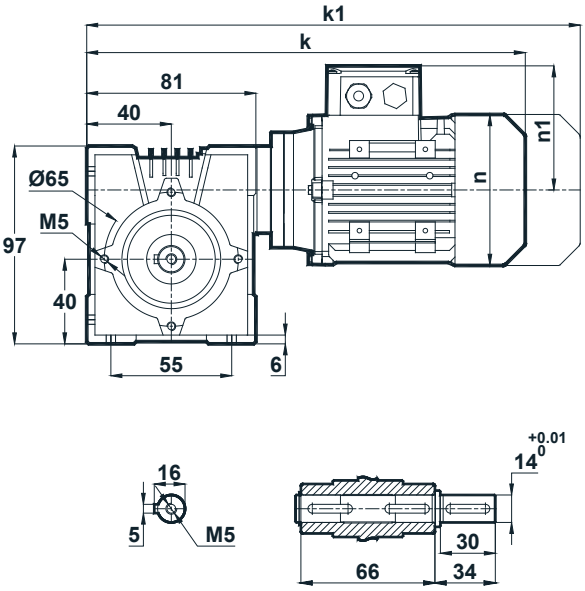


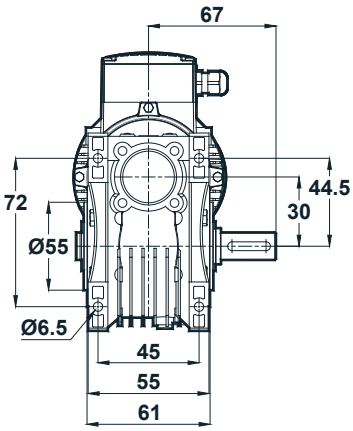


EV030.01



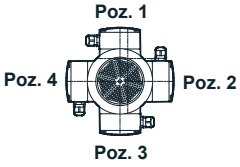
Optional
EV030.01-06





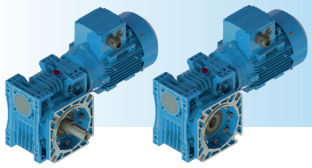
IEC B14 / B5	56	63
k	235.2	287.2
k1	-	348.2
n	105	121
n1	96	97

Terminal Box Positions



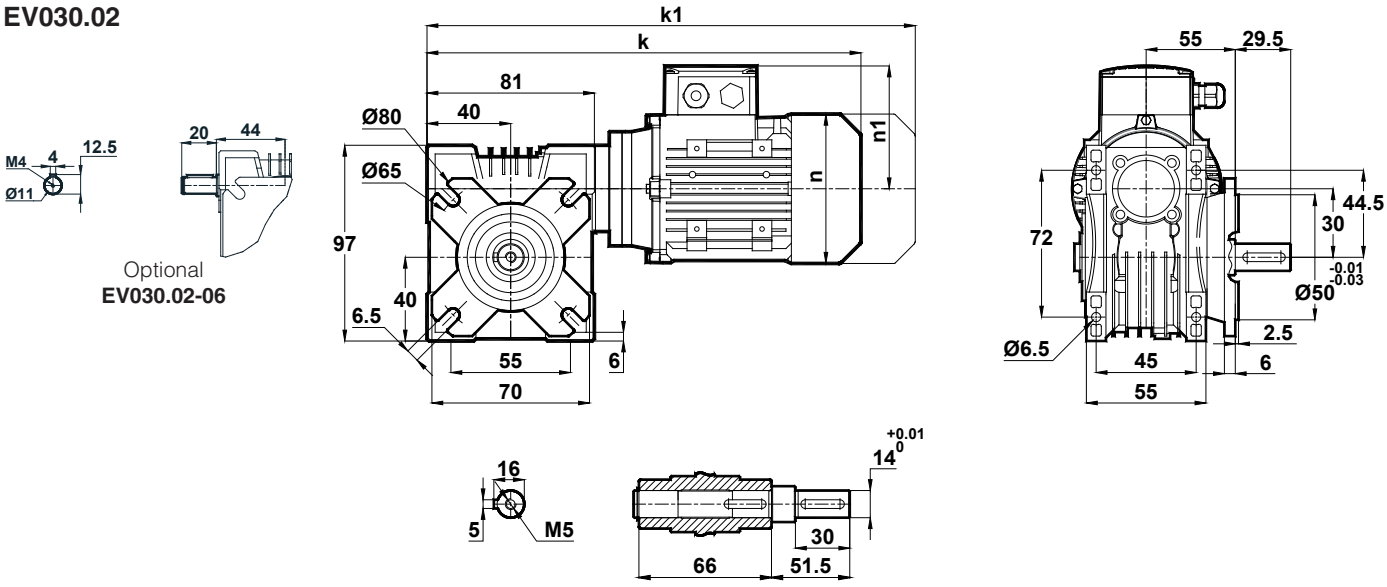
56-63
Type

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

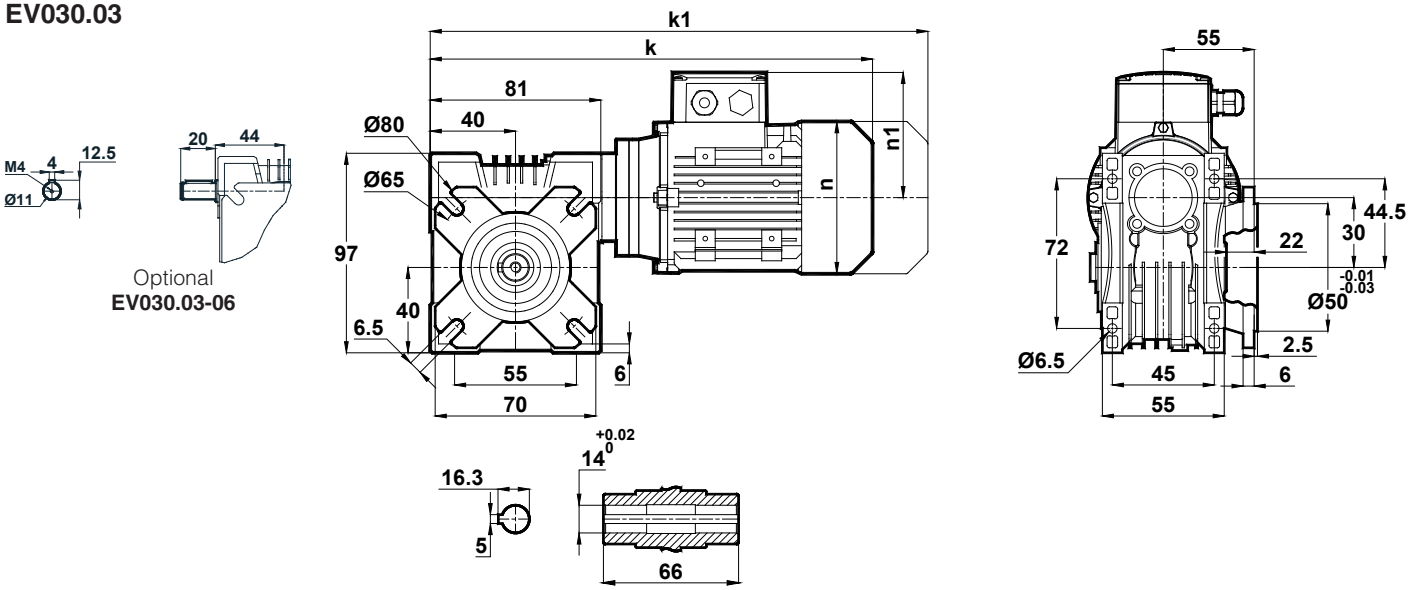


Tapped center hole to DIN 332, sheet 2

EV030.02

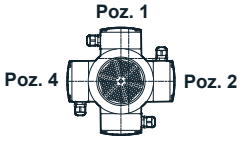


EV030.03



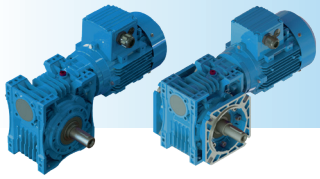
IEC B14 / B5	56	63
k	235.2	287.2
k1	-	348.2
n	105	121
n1	96	97

Terminal Box Positions



56-63
Type

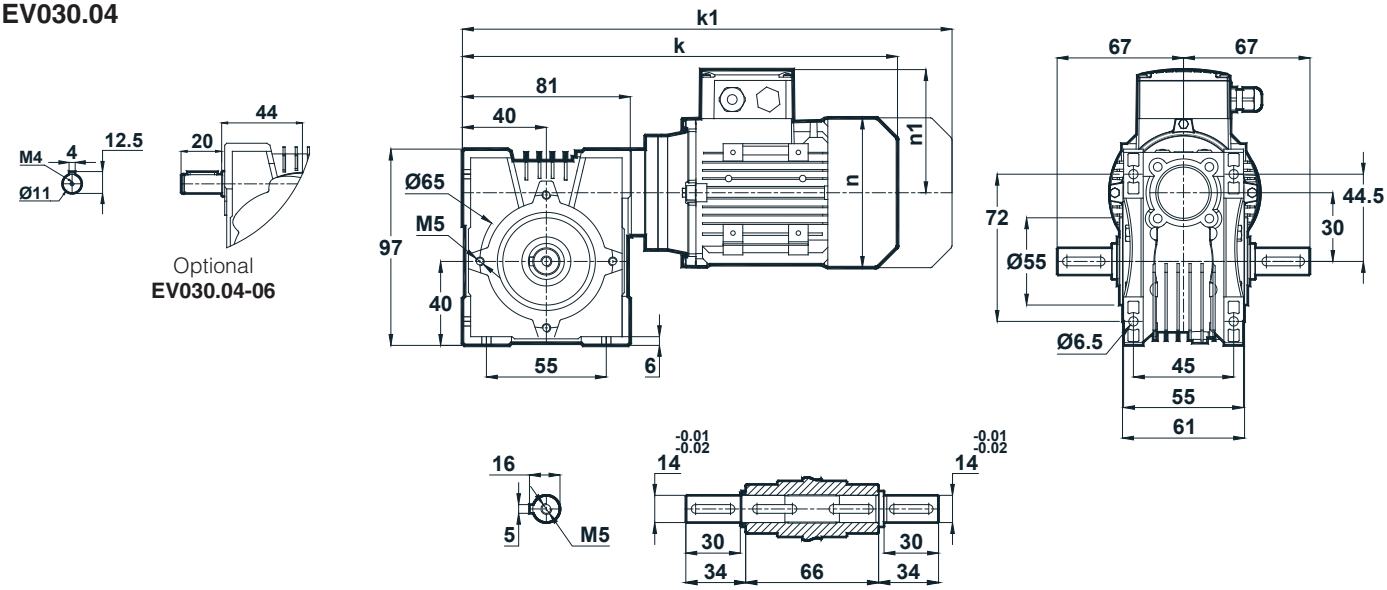
Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



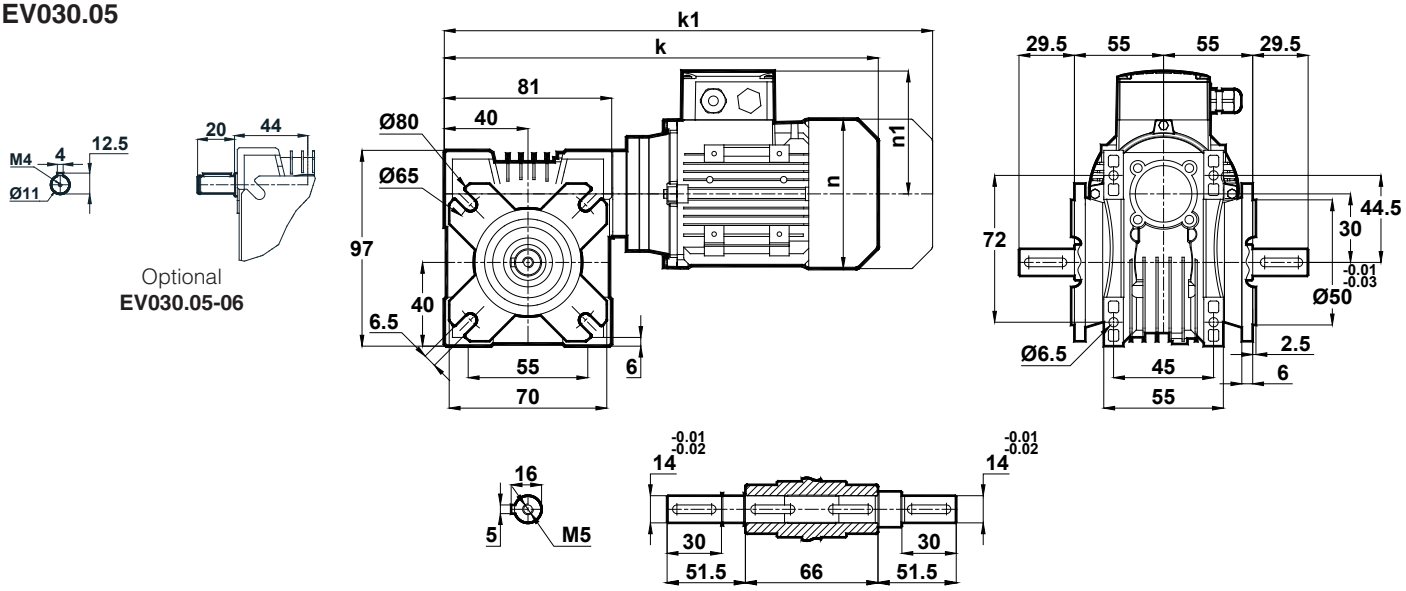
EV - DIMENSION PAGES

Tapped center hole to DIN 332, sheet 2

EV030.04

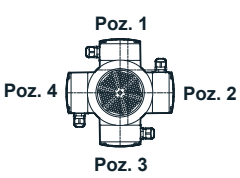


EV030.05



IEC B14 / B5	56	63
k	235.2	287.2
k1	-	348.2
n	105	121
n1	96	97

Terminal Box Positions

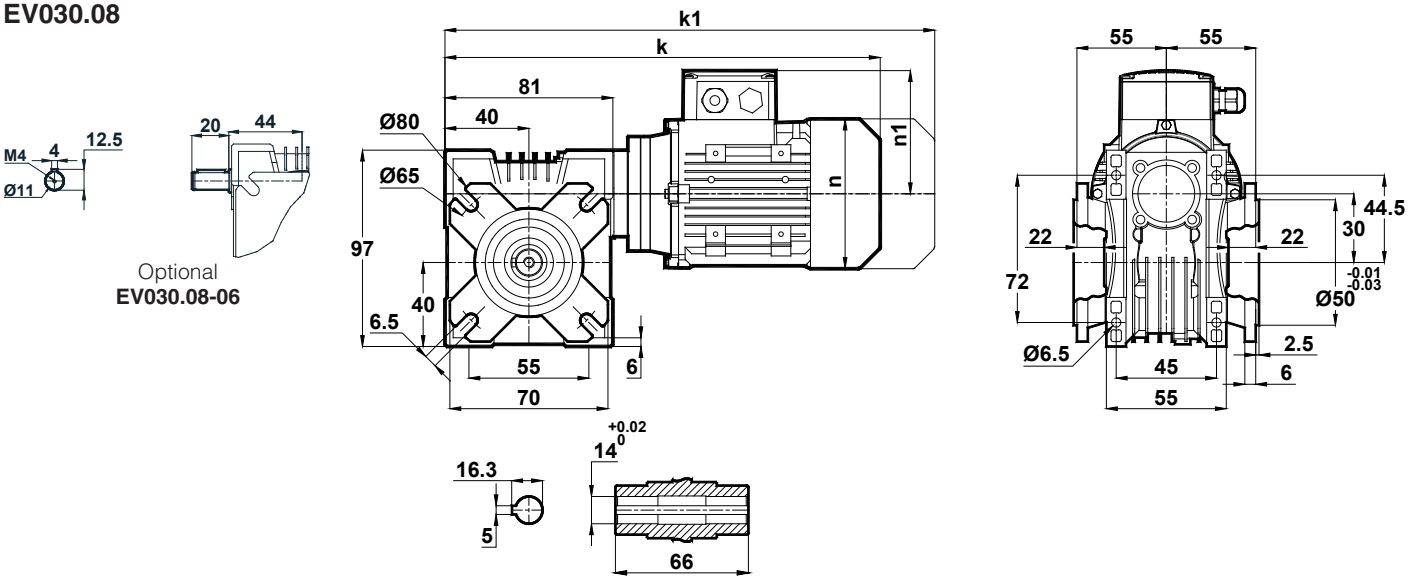


56-63
Type

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

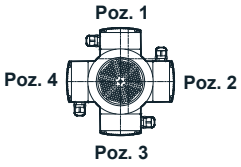
Tapped center hole to DIN 332, sheet 2

EV030.08



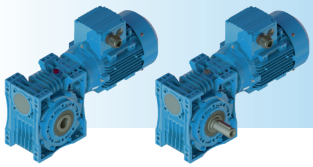
IEC B14 / B5	56	63
k	235.2	287.2
k1	-	348.2
n	105	121
n1	96	97

Terminal Box Positions



56-63
Type

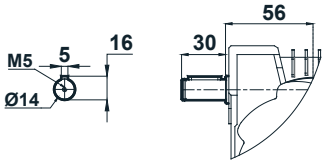
Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



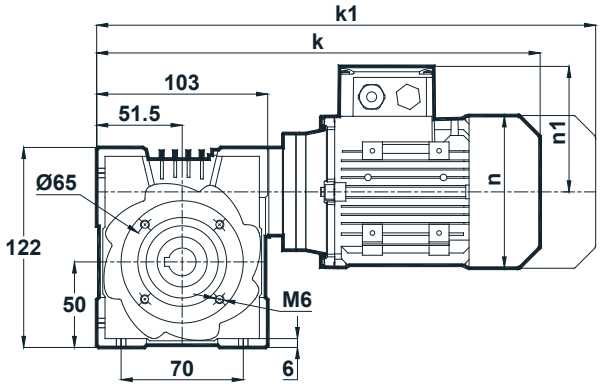
EV - DIMENSION PAGES

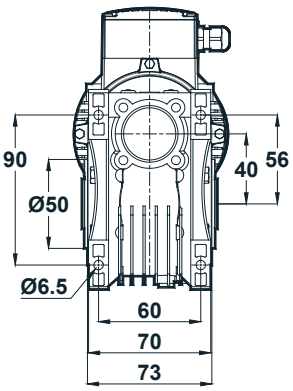
Tapped center hole to DIN 332, sheet 2

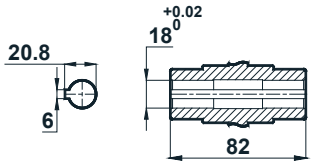
EV040.00



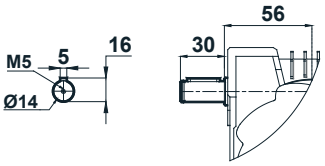
Optional
EV040.00-06



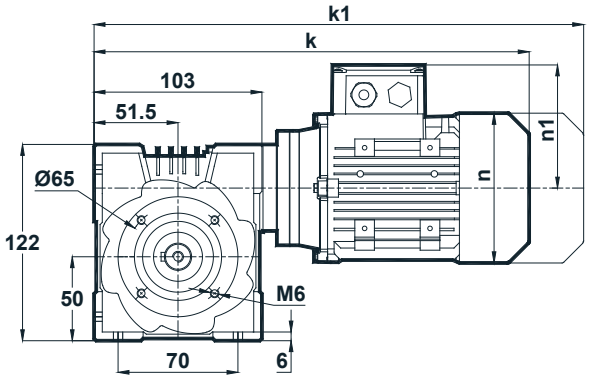


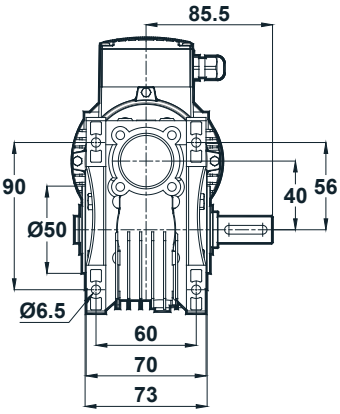


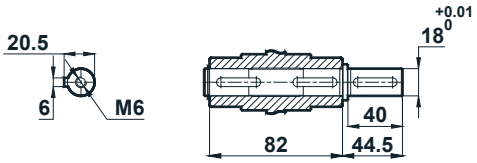
EV040.01



Optional
EV040.01-06

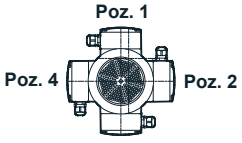






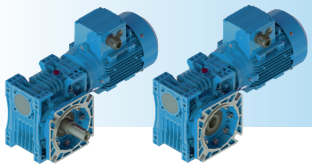
IEC B14 / B5	63	71
k	321	339
k1	382	430
n	121	137
n1	97	112

Terminal Box Positions



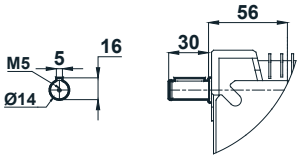
63-71
Type

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

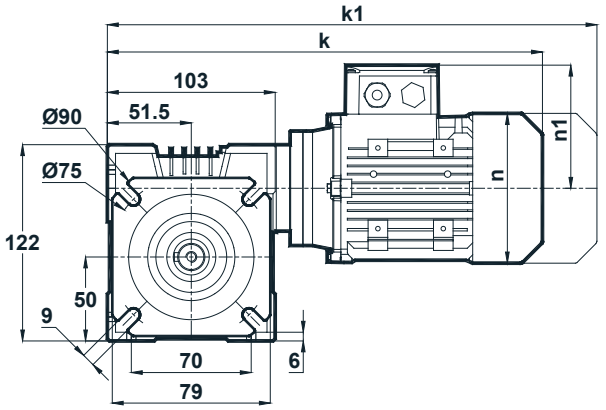


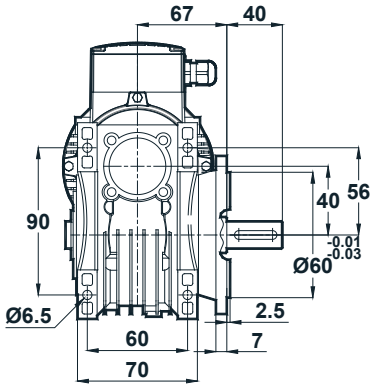
Tapped center hole to DIN 332, sheet 2

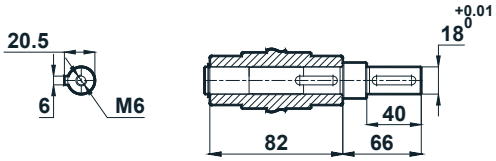
EV040.02



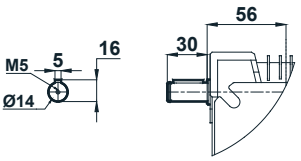
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EV040.02-06



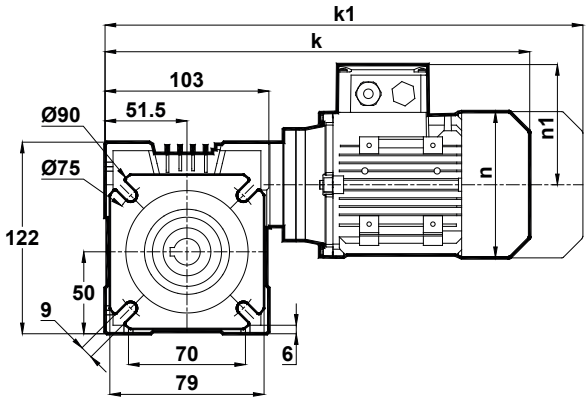


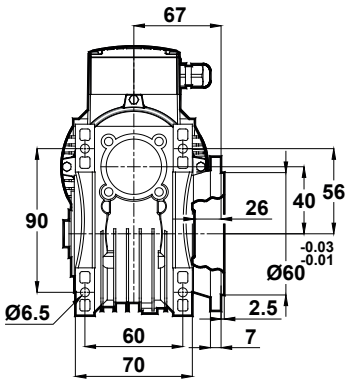


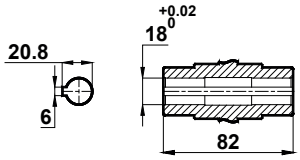
EV040.03



Optional
EV040.03-06

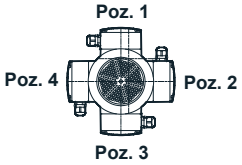






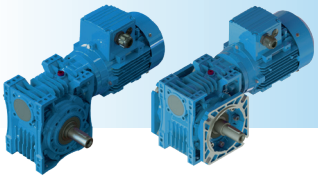
IEC B14 / B5	63	71
k	321	339
k1	382	430
n	121	137
n1	97	112

Terminal Box Positions



63-71
Type

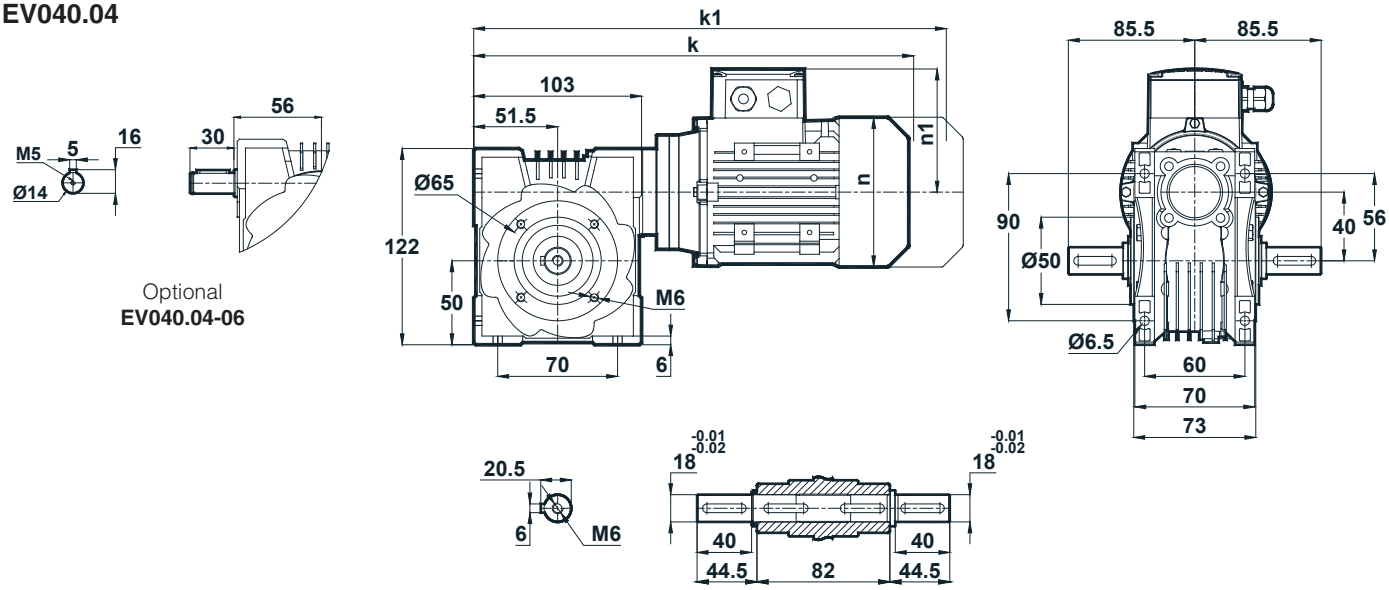
Motor connections are with IEC B14 Flange
Dimensions “k1” is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



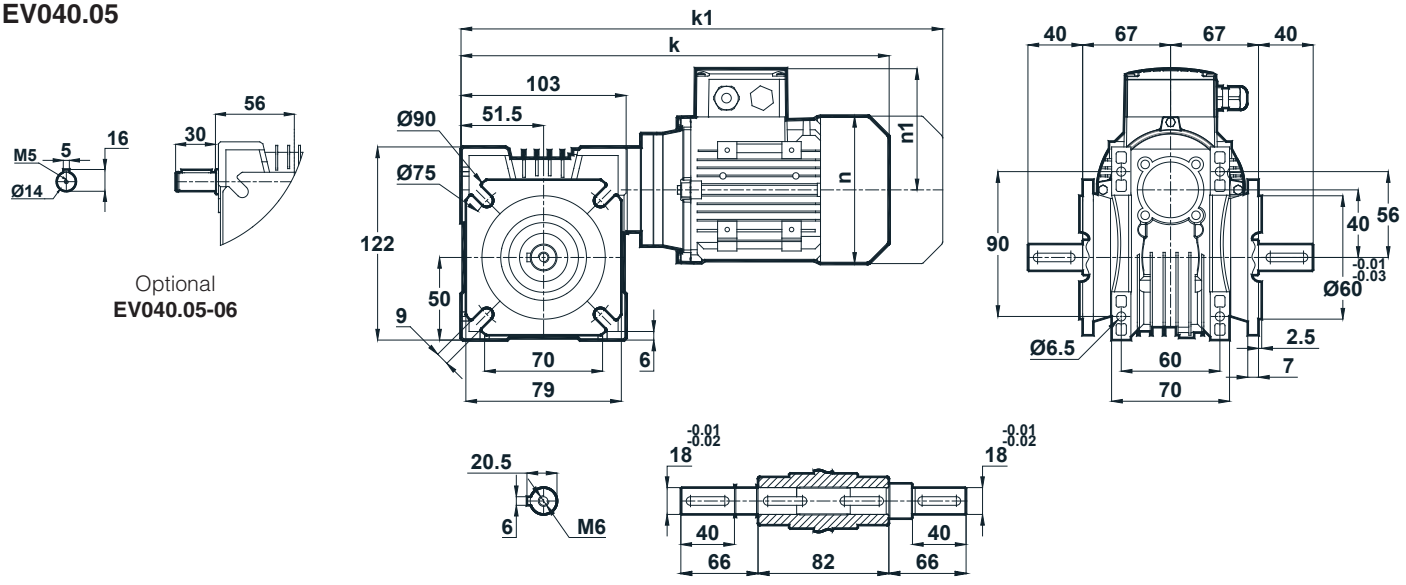
EV - DIMENSION PAGES

Tapped center hole to DIN 332, sheet 2

EV040.04

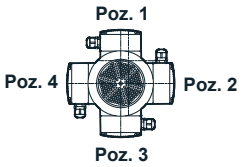


EV040.05



IEC B14 / B5	63	71
k	321	339
k1	382	430
n	121	137
n1	97	112

Terminal Box Positions

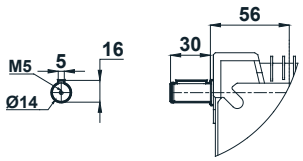


63-71
Type

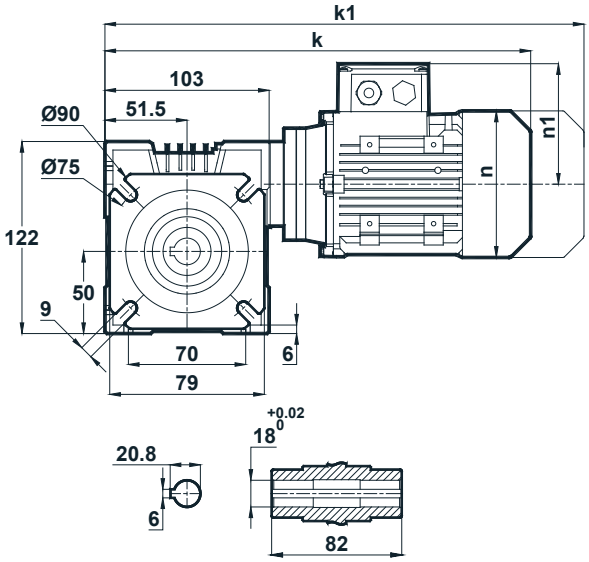
Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

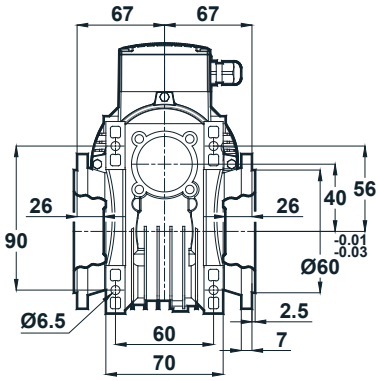
Tapped center hole to DIN 332, sheet 2

EV040.08



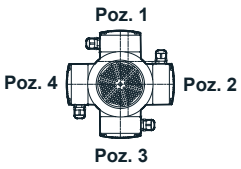
Optional
EV040.08-06





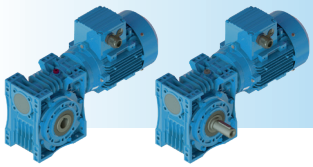
IEC B14 / B5	63	71
k	321	339
k1	382	430
n	121	137
n1	97	112

Terminal Box Positions



63-71
Type

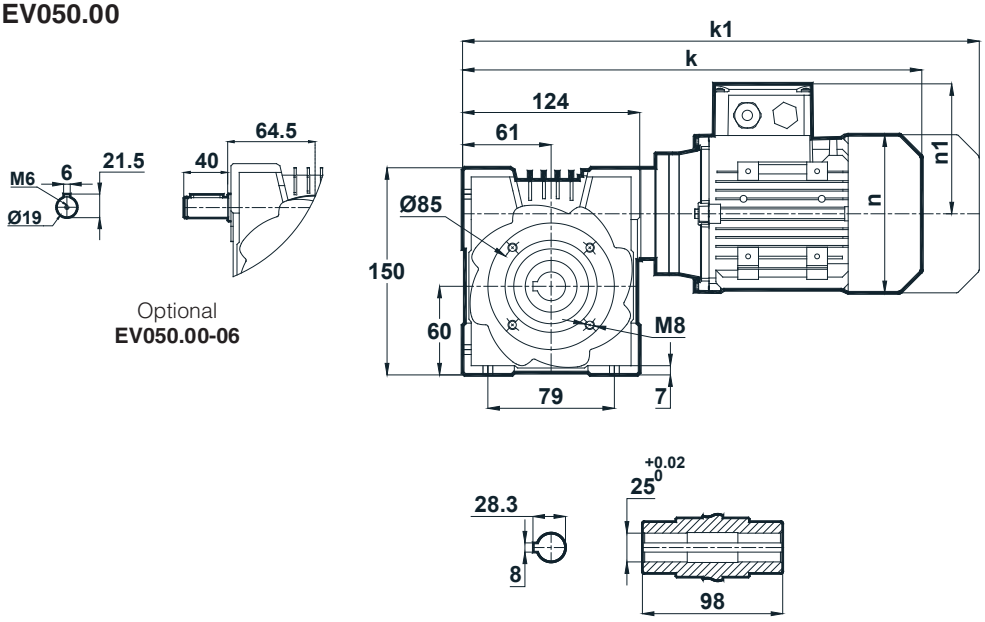
Motor connections are with IEC B14 Flange
Dimensions “k1” is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



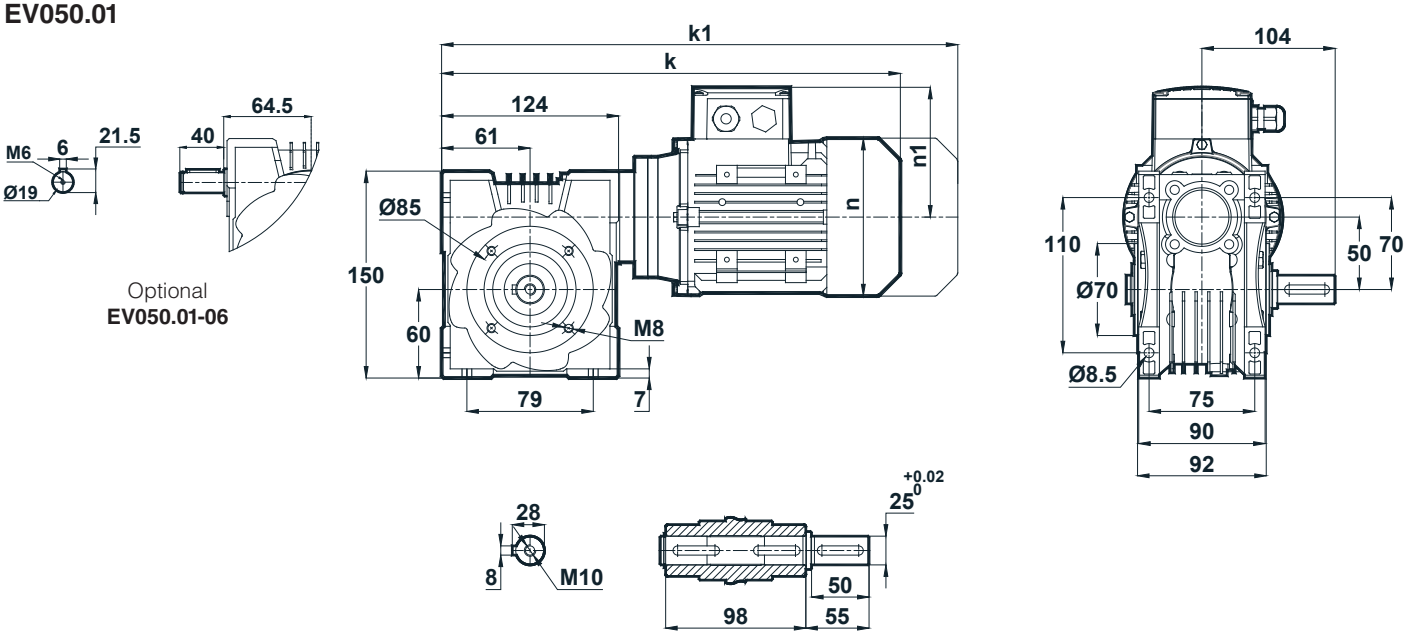
EV - DIMENSION PAGES

Tapped center hole to DIN 332, sheet 2

EV050.00

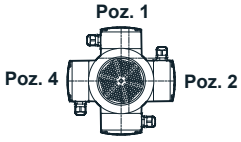


EV050.01



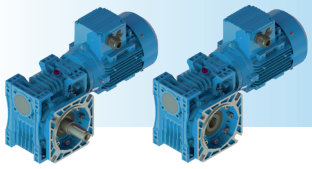
IEC B14 / B5	63	71	80	90S	90L
k	341.7	359.7	382.7	423.7	423.7
k1	402.7	450.7	475.7	527.2	527.2
n	121	137	155	176	176
n1	97	112	121	133	133

Terminal Box Positions



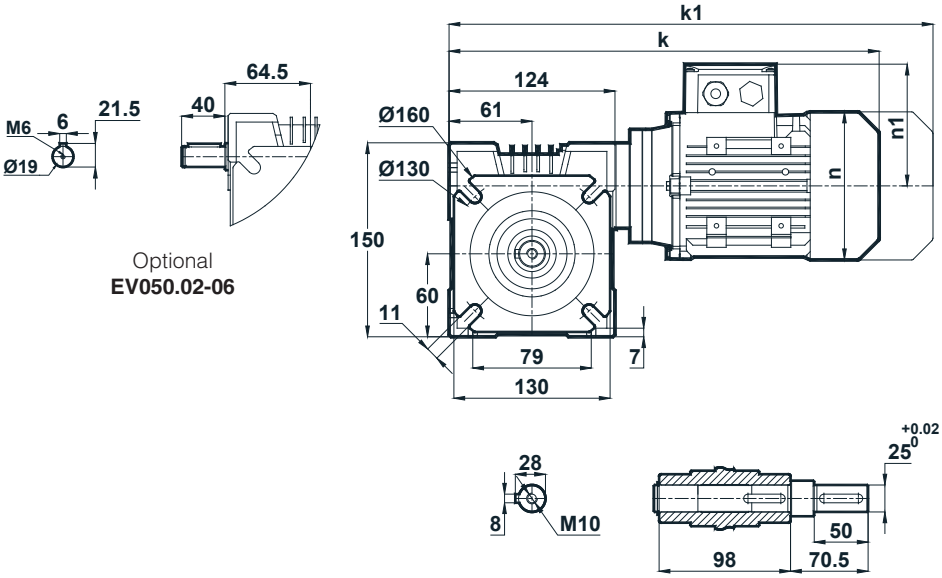
63-71-80-90
Type

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

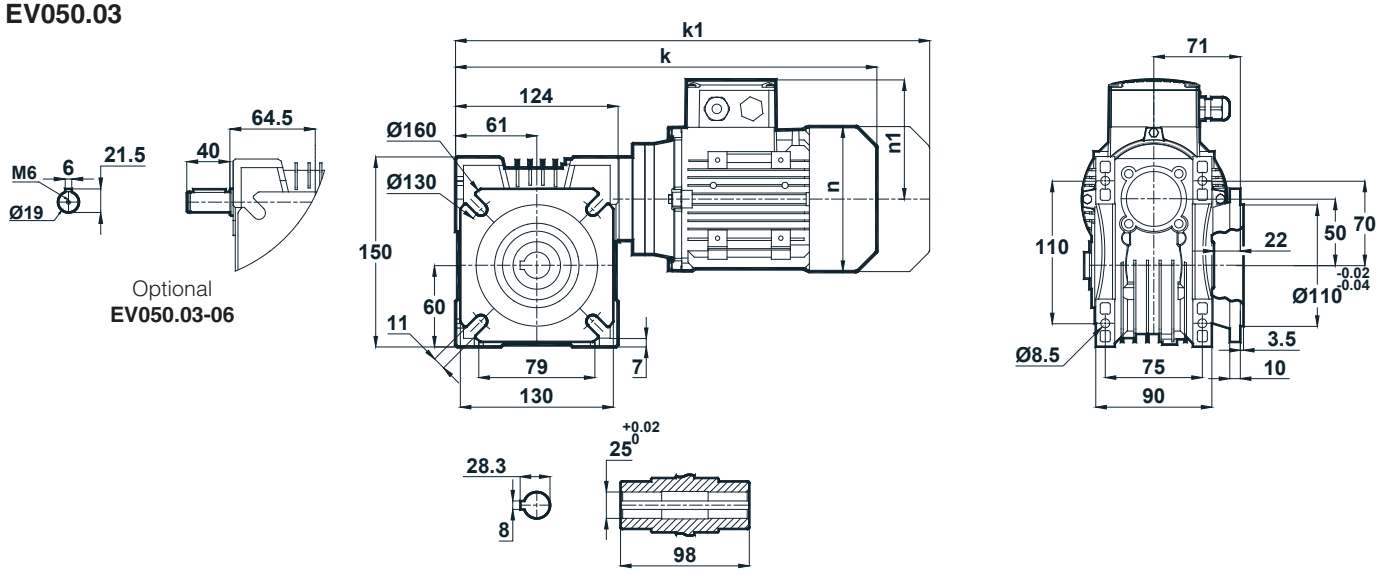


Tapped center hole to DIN 332, sheet 2

EV050.02

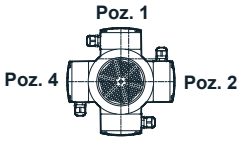


EV050.03



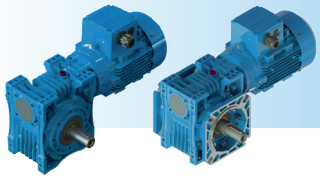
IEC B14 / B5	63	71	80	90S	90L
k	341.7	359.7	382.7	423.7	423.7
k1	402.7	450.7	475.7	527.2	527.2
n	121	137	155	176	176
n1	97	112	121	133	133

Terminal Box Positions



63-71-80-90
Type

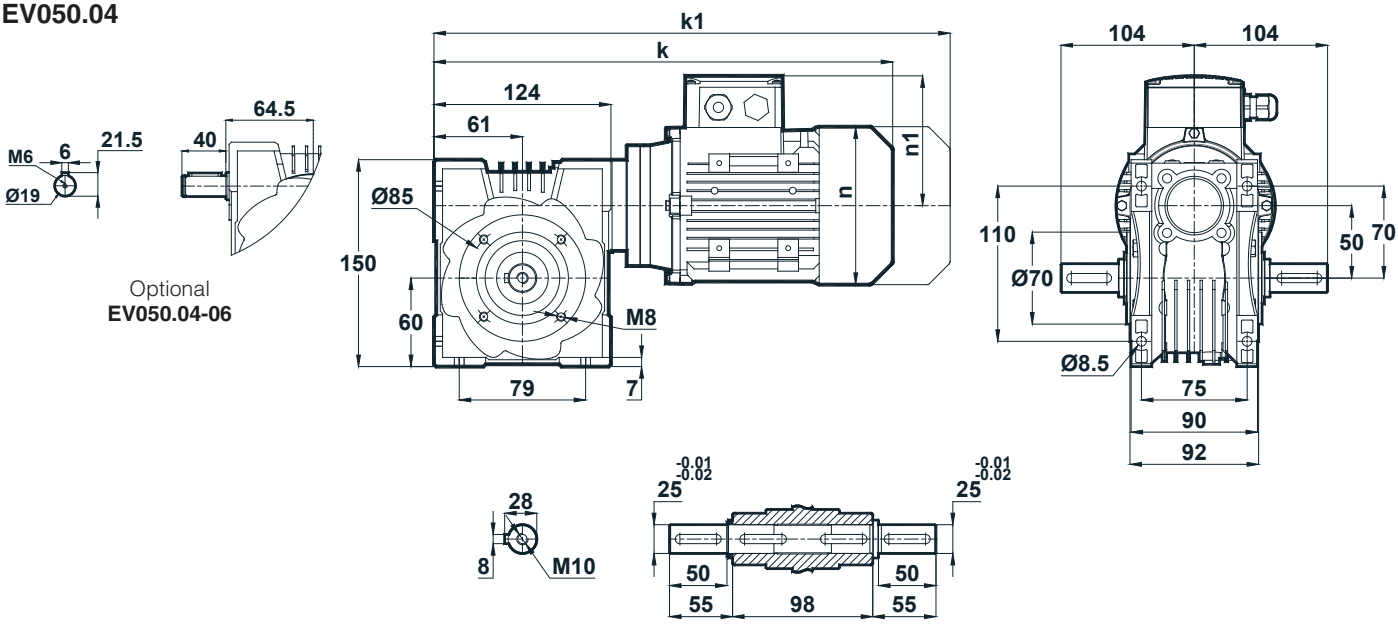
Motor connections are with IEC B14 Flange
Dimensions “k1” is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



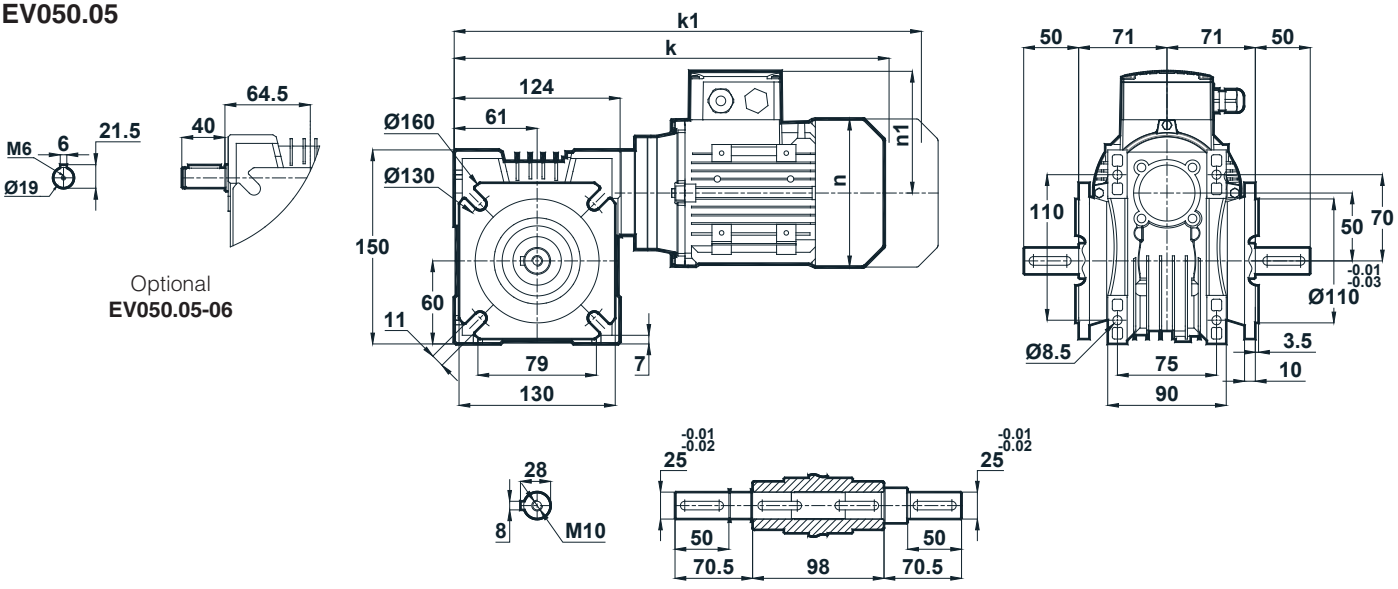
EV - DIMENSION PAGES

Tapped center hole to DIN 332, sheet 2

EV050.04

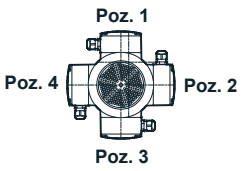


EV050.05



IEC B14 / B5	63	71	80	90S	90L
k	341.7	359.7	382.7	423.7	423.7
k1	402.7	450.7	475.7	527.2	527.2
n	121	137	155	176	176
n1	97	112	121	133	133

Terminal Box Positions

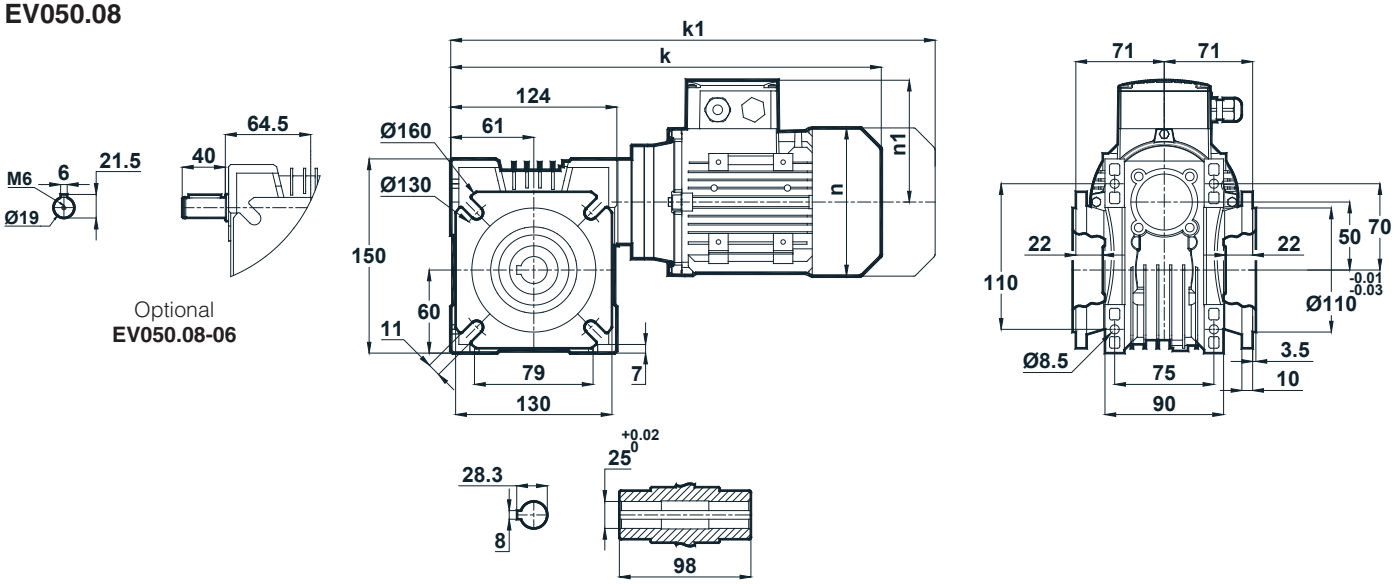


63-71-80-90
Type

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

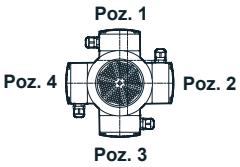
Tapped center hole to DIN 332, sheet 2

EV050.08



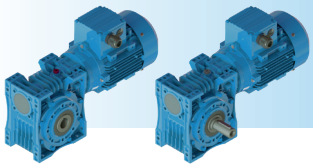
IEC B14 / B5	63	71	80	90S	90L
k	341.7	359.7	382.7	423.7	423.7
k1	402.7	450.7	475.7	527.2	527.2
n	121	137	155	176	176
n1	97	112	121	133	133

Terminal Box Positions



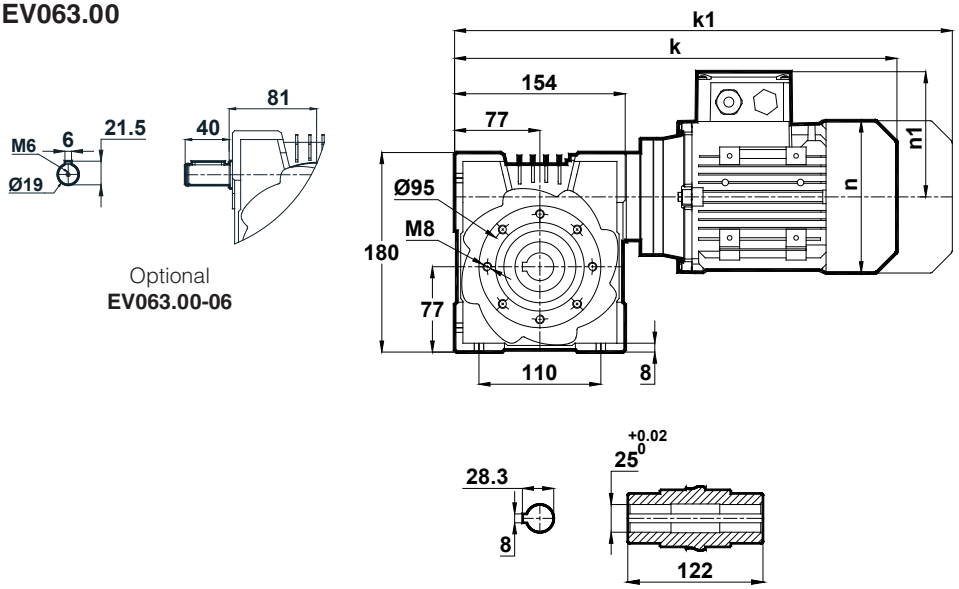
63-71-80-90
Type

Motor connections are with IEC B14 Flange
Dimensions “k1” is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

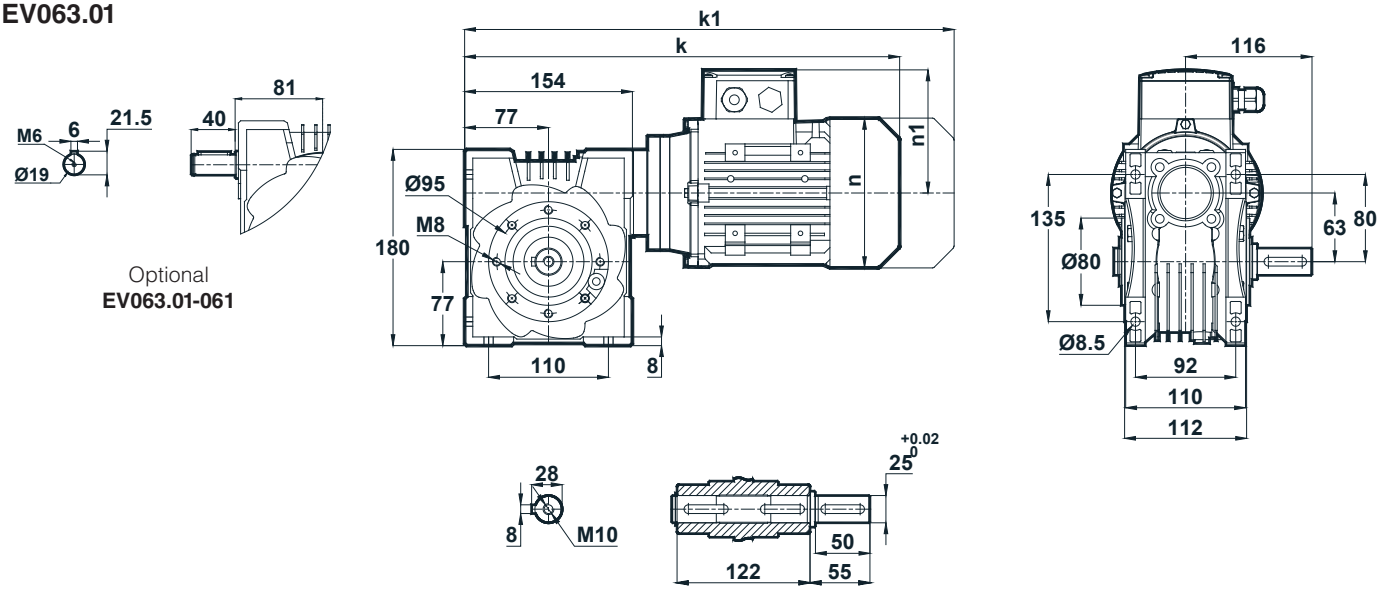


Tapped center hole to DIN 332, sheet 2

EV063.00

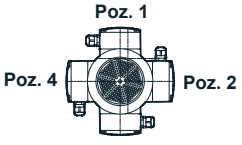


EV063.01



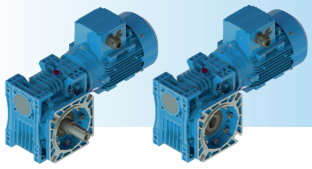
IEC B14 / B5	71	80	90S	90L
k	389.7	412.7	453.7	453.7
k1	480.7	505.7	557.2	557.2
n	137	155	176	176
n1	112	121	133	133

Terminal Box Positions



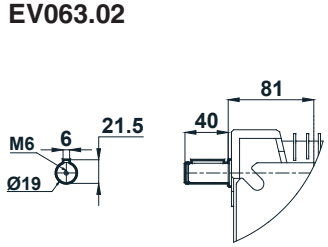
71-80-90
Type

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

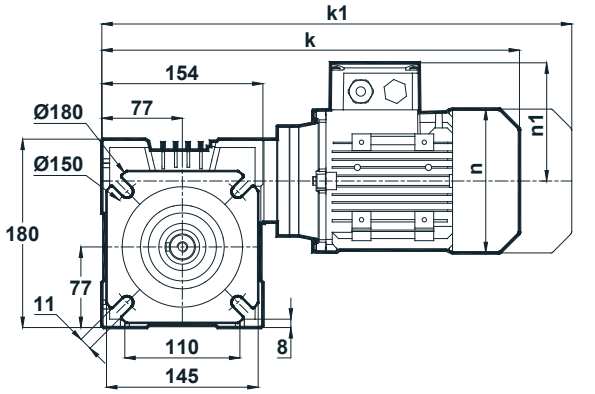


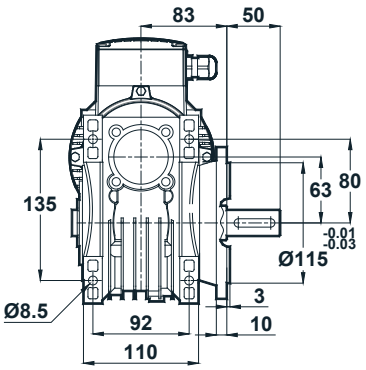
Tapped center hole to DIN 332, sheet 2

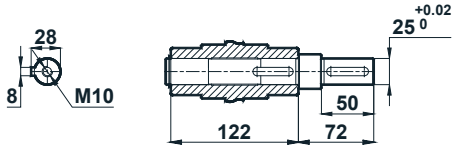
EV063.02



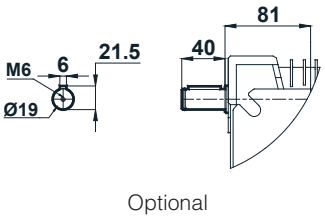
Optional
EV063.02-06



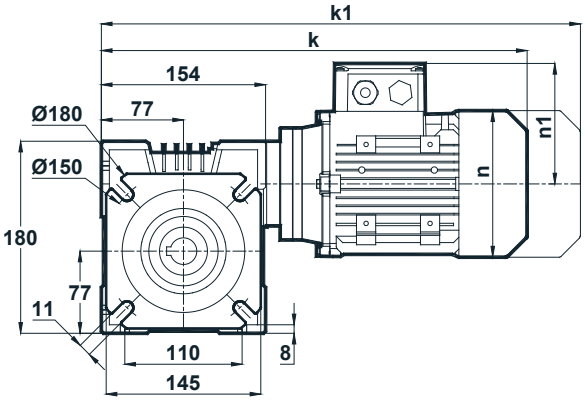


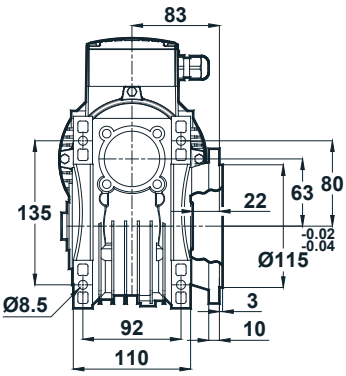


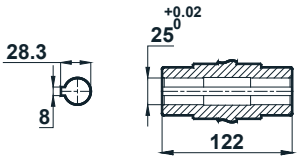
EV063.03



Optional
EV063.03-06

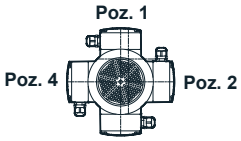






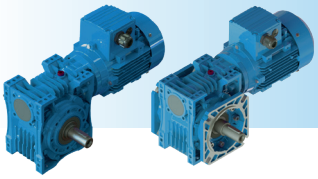
IEC B14 / B5	71	80	90S	90L
k	389.7	412.7	453.7	453.7
k1	480.7	505.7	557.2	557.2
n	137	155	176	176
n1	112	121	133	133

Terminal Box Positions



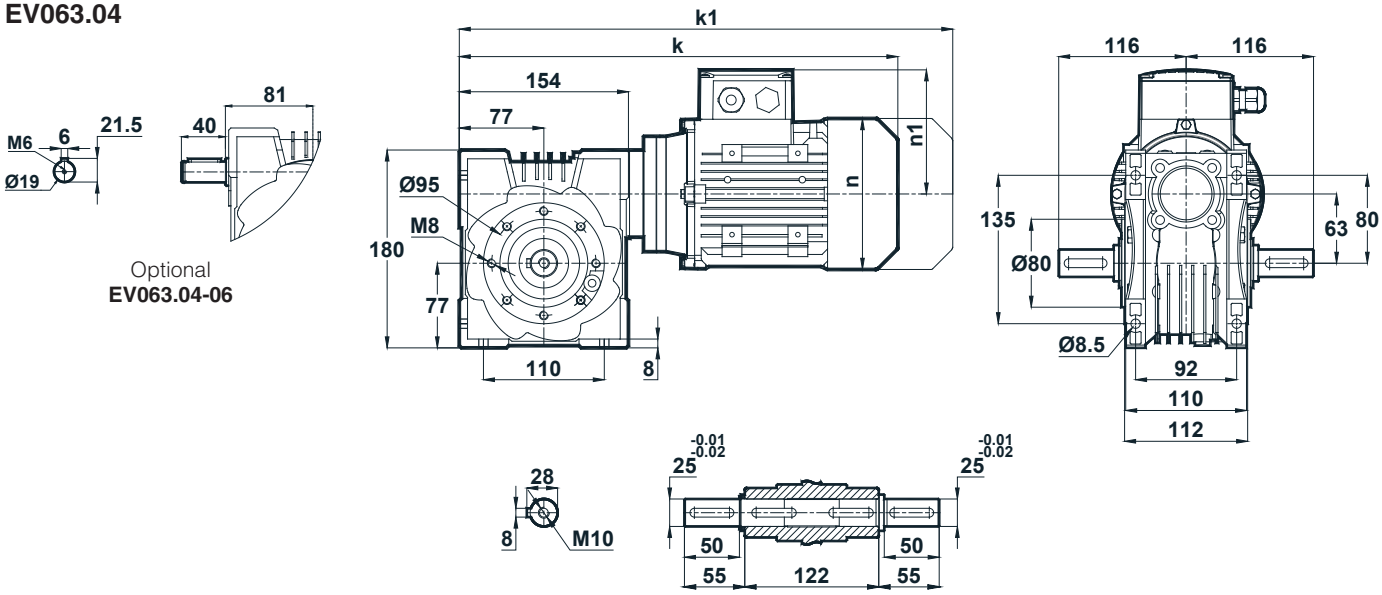
71-80-90
Type

Motor connections are with IEC B14 Flange
Dimensions “k1” is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

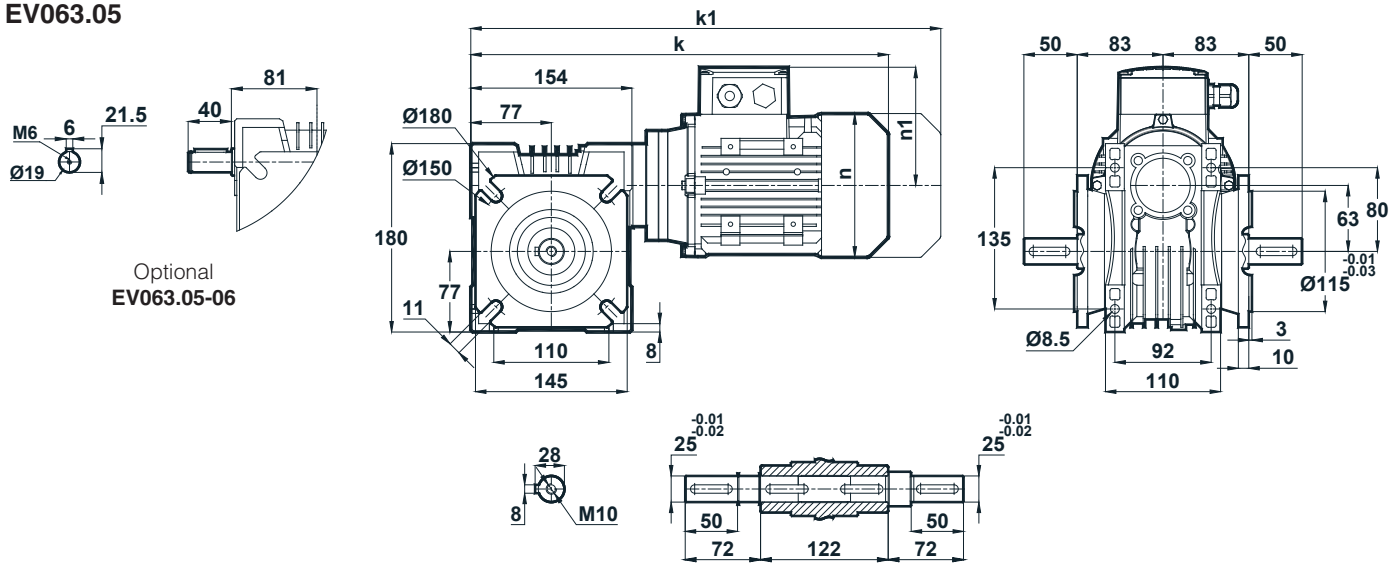


Tapped center hole to DIN 332, sheet 2

EV063.04

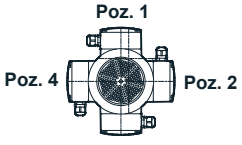


EV063.05



IEC B14 / B5	71	80	90S	90L
k	389.7	412.7	453.7	453.7
k1	480.7	505.7	557.2	557.2
n	137	155	176	176
n1	112	121	133	133

Terminal Box Positions

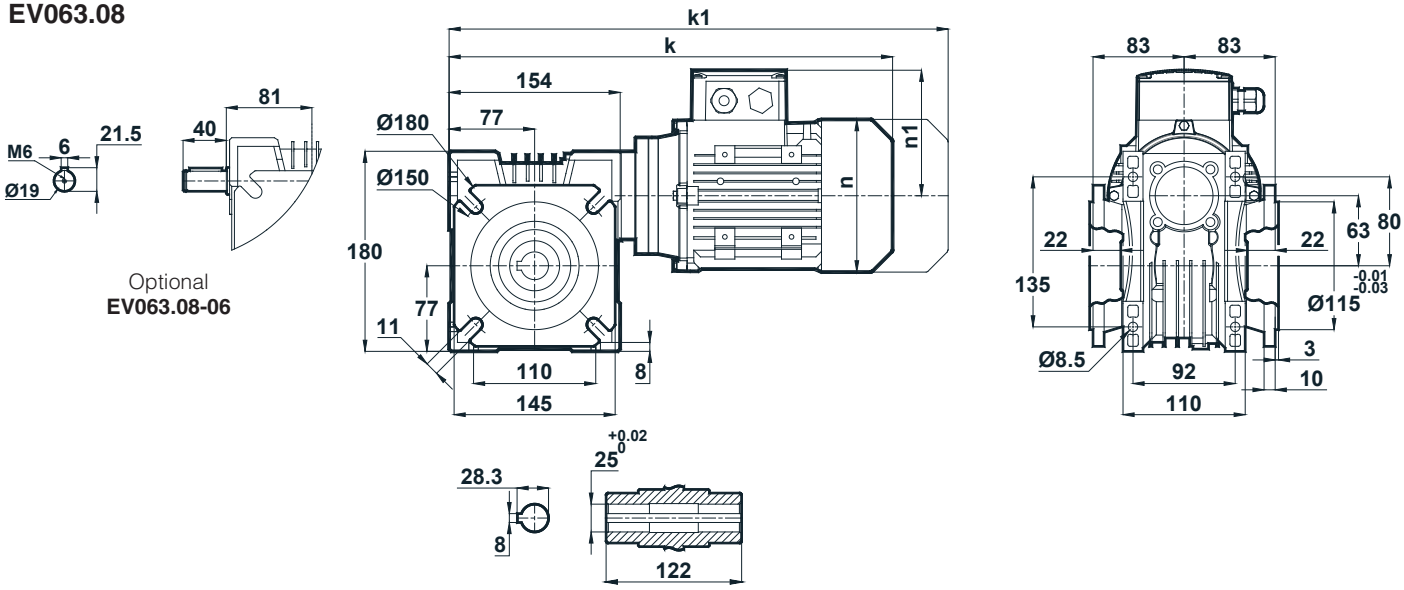


71-80-90
Type

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

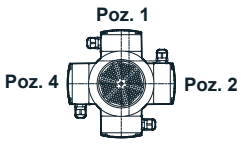
Tapped center hole to DIN 332, sheet 2

EV063.08



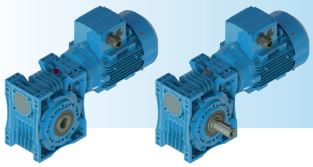
IEC B14 / B5	71	80	90S	90L
k	389.7	412.7	453.7	453.7
k1	480.7	505.7	557.2	557.2
n	137	155	176	176
n1	112	121	133	133

Terminal Box Positions



71-80-90
Type

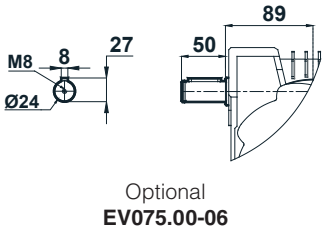
Motor connections are with IEC B14 Flange
Dimensions “k1” is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



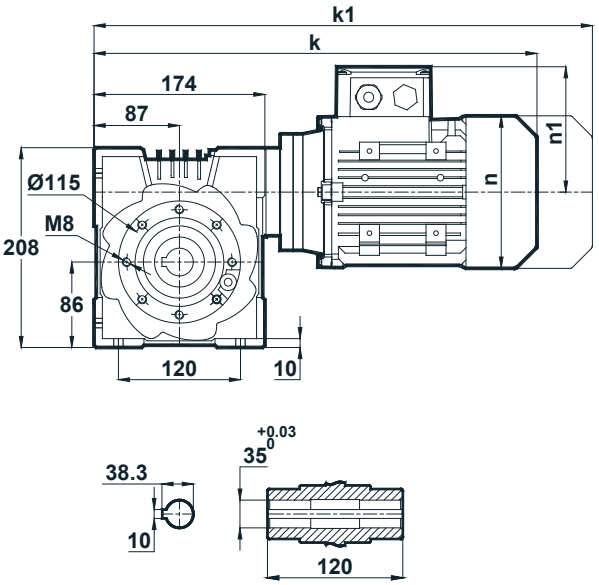
EV - DIMENSION PAGES

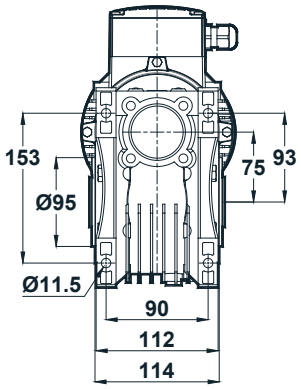
Tapped center hole to DIN 332, sheet 2

EV075.00

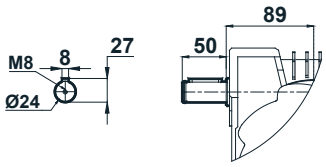


Optional
EV075.00-06

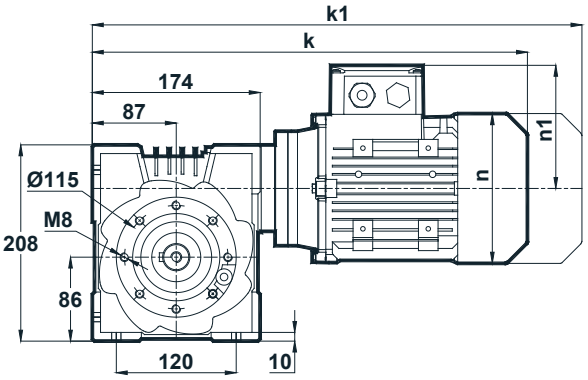


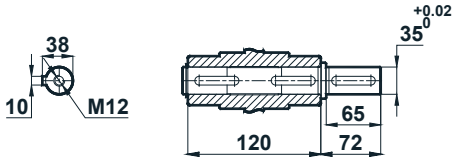


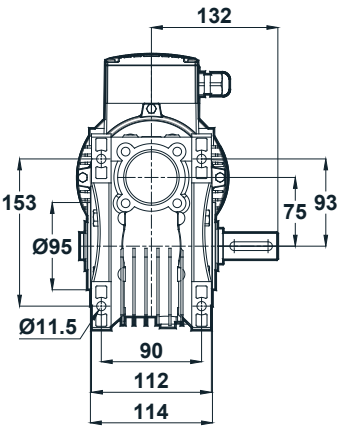
EV075.01



Optional
EV075.01-06

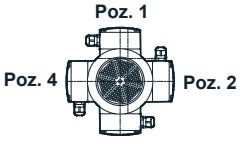






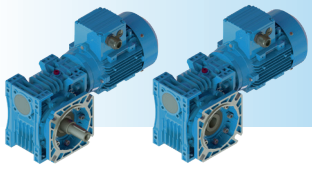
IEC B14 / B5	80	90S	90L	100L	112M
k	434.5	475.5	475.5	511	531.5
k1	527.5	579	579	619.5	636
n	155	176	176	193	215
n1	121	133	133	147	158

Terminal Box Positions



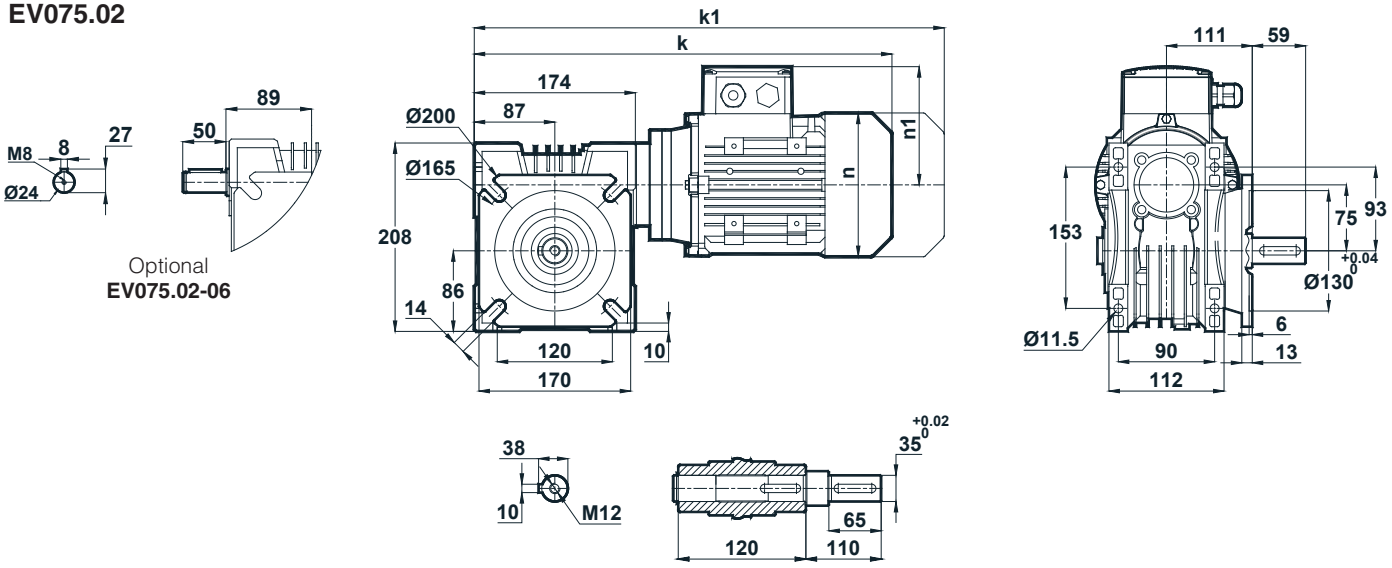
71-80-90-100-112
Type

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

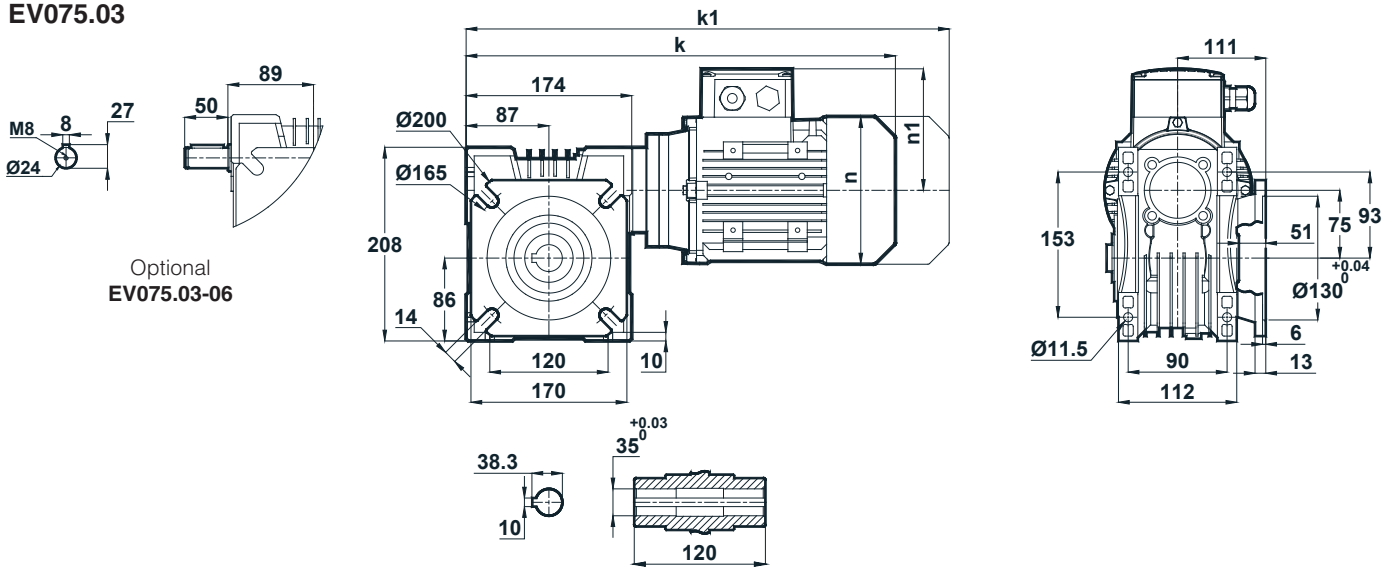


Tapped center hole to DIN 332, sheet 2

EV075.02

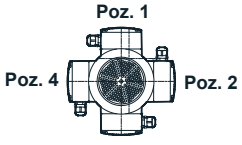


EV075.03



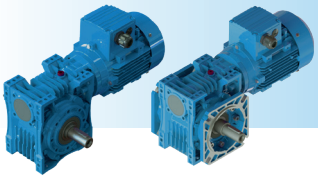
IEC B14 / B5	80	90S	90L	100L	112M
k	434.5	475.5	475.5	511	531.5
k1	527.5	579	579	619.5	636
n	155	176	176	193	215
n1	121	133	133	147	158

Terminal Box Positions



71-80-90-100-112
Type

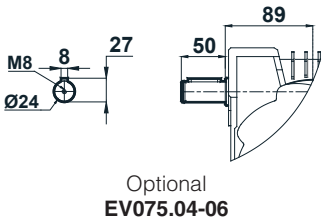
Motor connections are with IEC B14 Flange
Dimensions “k1” is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



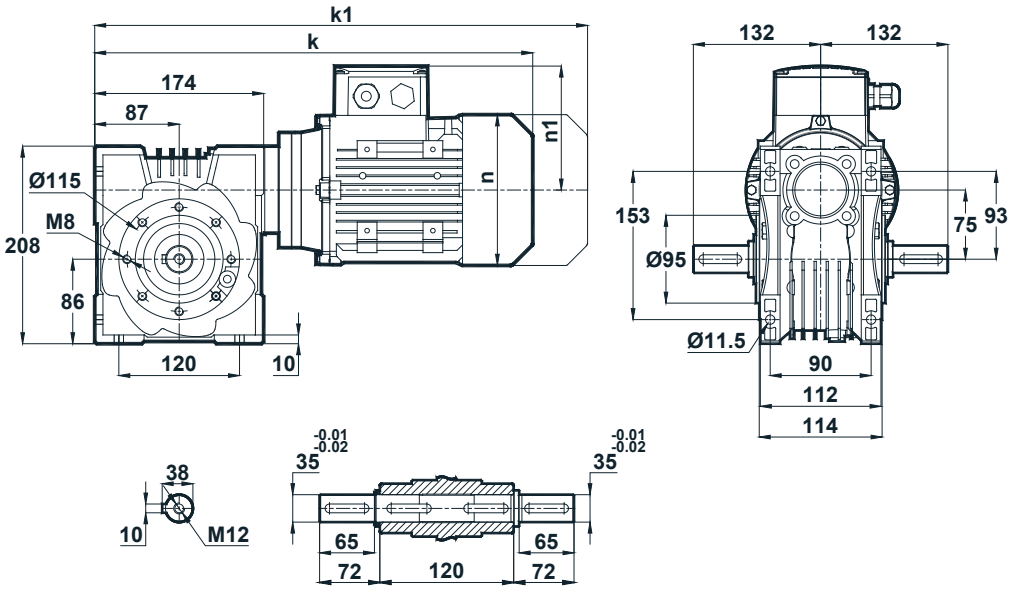
EV - DIMENSION PAGES

Tapped center hole to DIN 332, sheet 2

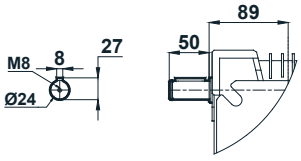
EV075.04



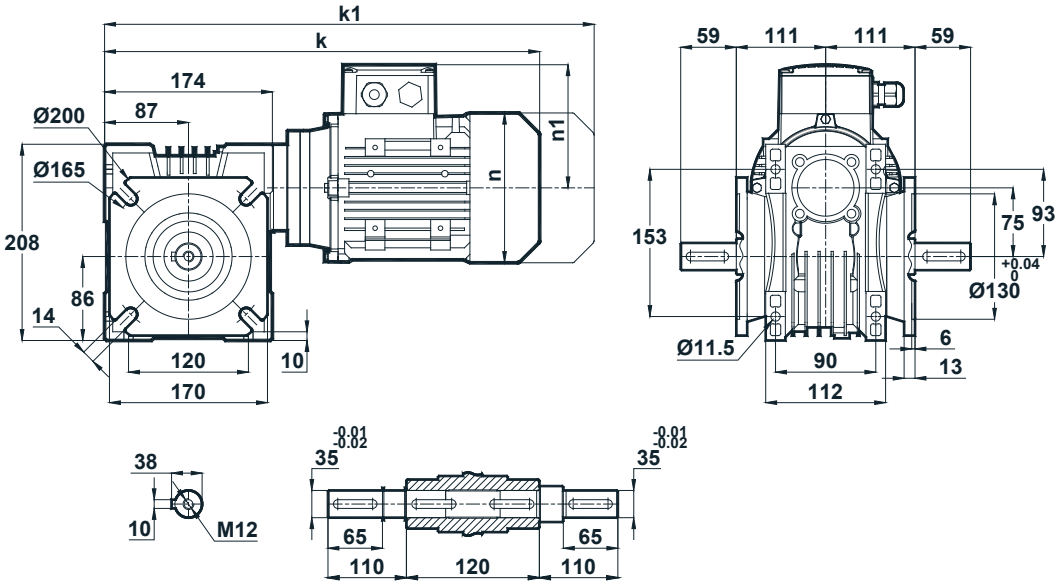
Optional
EV075.04-06



EV075.05

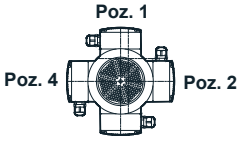


Optional
EV075.05-06



IEC B14 / B5	80	90S	90L	100L	112M
k	434.5	475.5	475.5	511	531.5
k1	527.5	579	579	619.5	636
n	155	176	176	193	215
n1	121	133	133	147	158

Terminal Box Positions

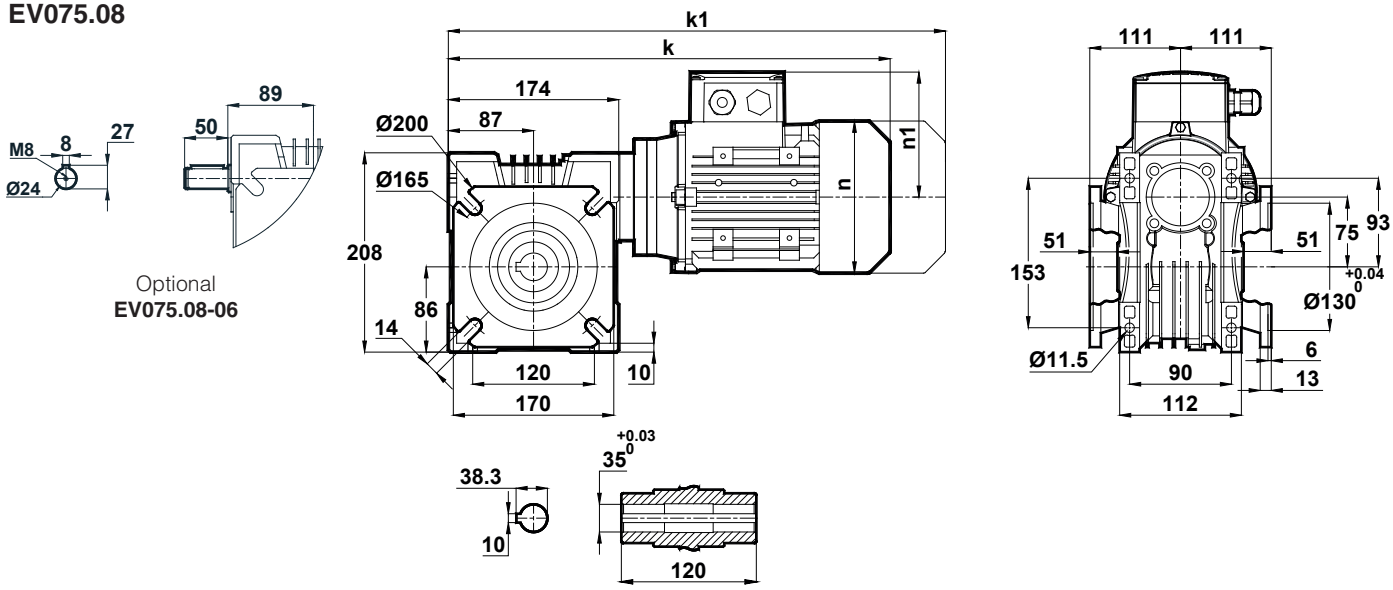


71-80-90-100-112
Type

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

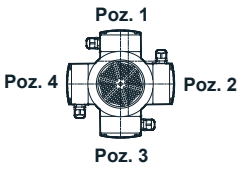
Tapped center hole to DIN 332, sheet 2

EV075.08



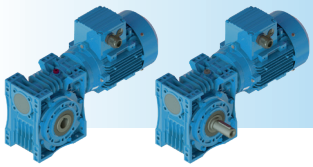
IEC B14 / B5	80	90S	90L	100L	112M
k	434.5	475.5	475.5	511	531.5
k1	527.5	579	579	619.5	636
n	155	176	176	193	215
n1	121	133	133	147	158

Terminal Box Positions



71-80-90-100-112
Type

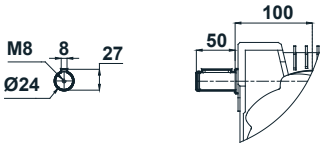
Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



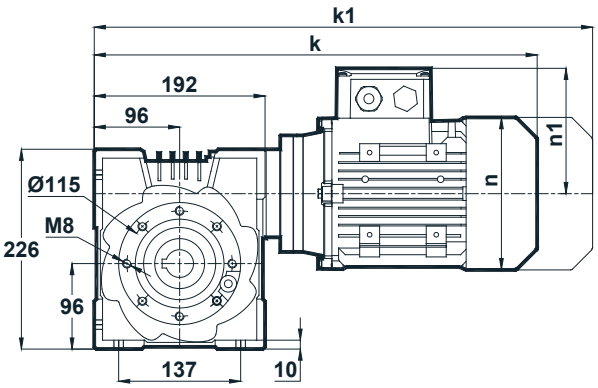
EV - DIMENSION PAGES

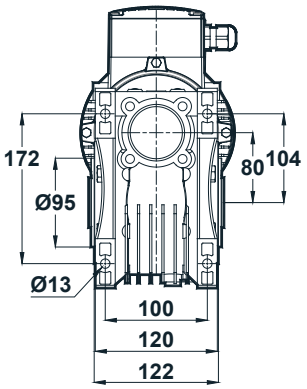
Tapped center hole to DIN 332, sheet 2

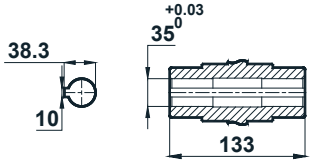
EV080.00



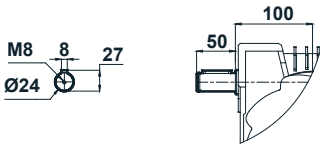
Optional
EV080.00-06



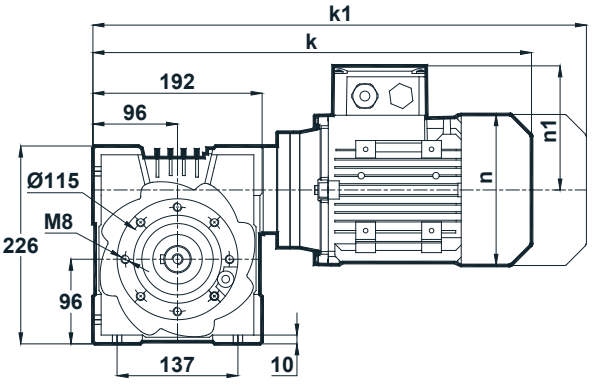


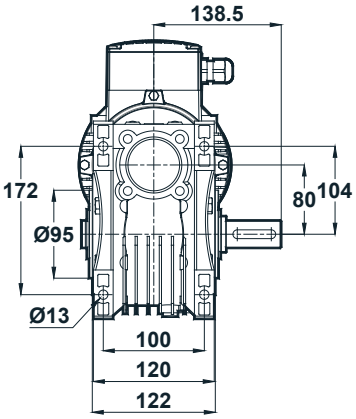


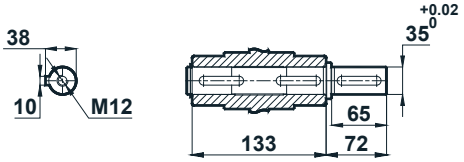
EV080.01



Optional
EV080.01-06

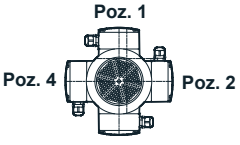






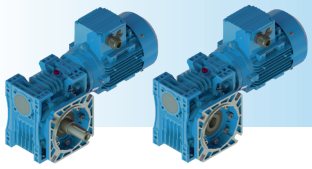
IEC B14 / B5	80	90S	90L	100L	112M
k	452.5	493.5	493.5	529	549.5
k1	545.5	597	597	637.5	654
n	155	176	176	193	215
n1	121	133	133	147	158

Terminal Box Positions



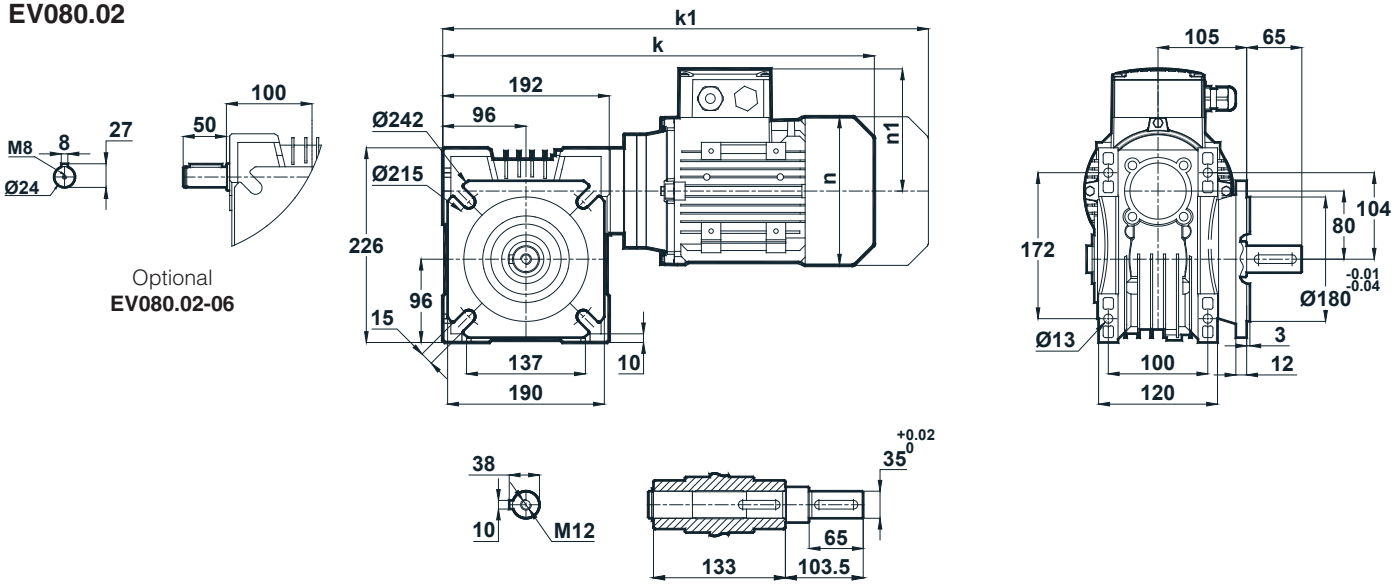
80-90-100-112
Type

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

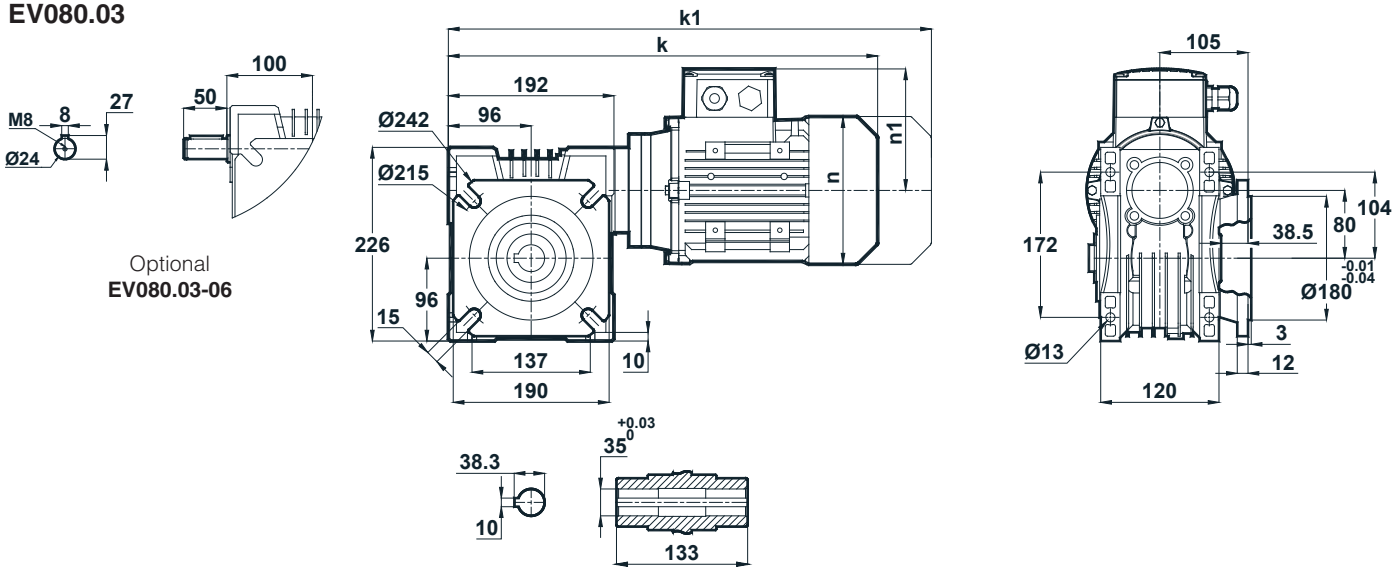


Tapped center hole to DIN 332, sheet 2

EV080.02

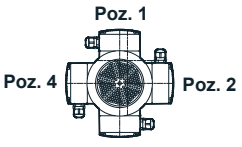


EV080.03



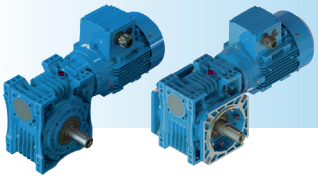
IEC B14 / B5	80	90S	90L	100L	112M
k	452.5	493.5	493.5	529	549.5
k1	545.5	597	597	637.5	654
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Terminal Box Positions



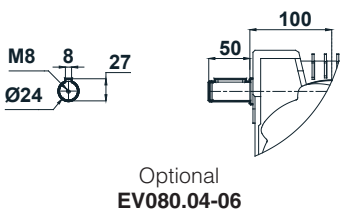
80-90-100-112
Type

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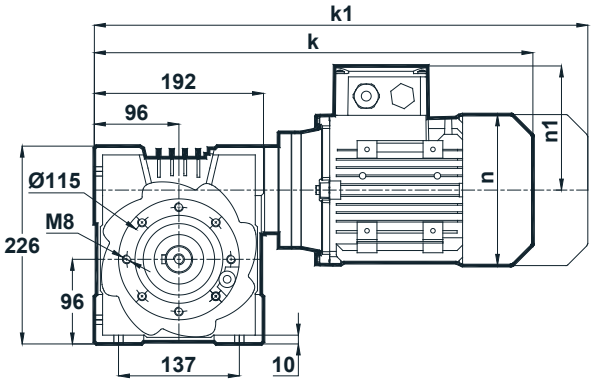


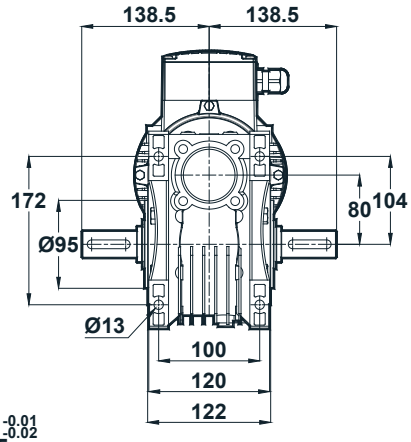
Tapped center hole to DIN 332, sheet 2

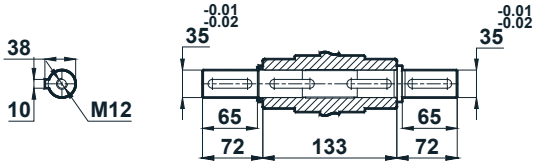
EV080.04



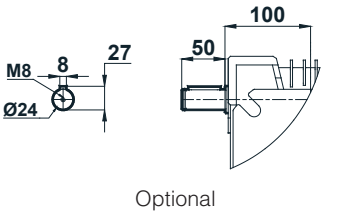
Optional
EV080.04-06



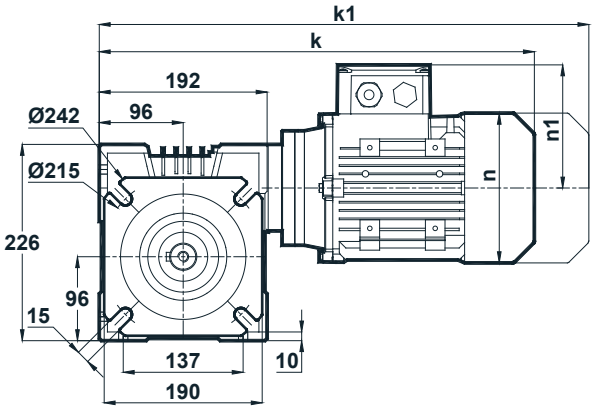


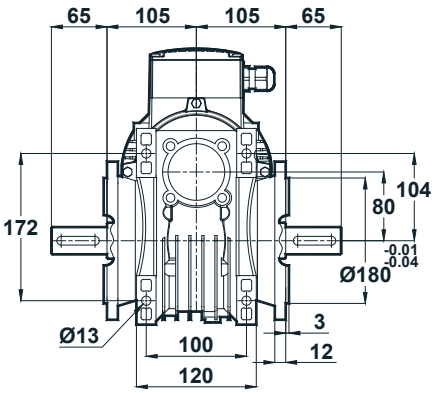


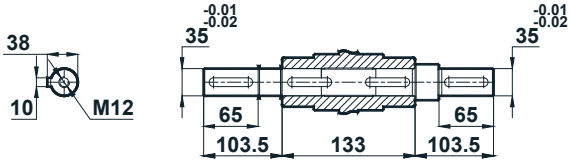
EV080.05



Optional
EV080.05-06

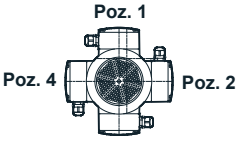






IEC B14 / B5	80	90S	90L	100L	112M
k	452.5	493.5	493.5	529	549.5
k1	545.5	597	597	637.5	654
n	155	176	176	193	215
n1	121	133	133	147	158

Terminal Box Positions

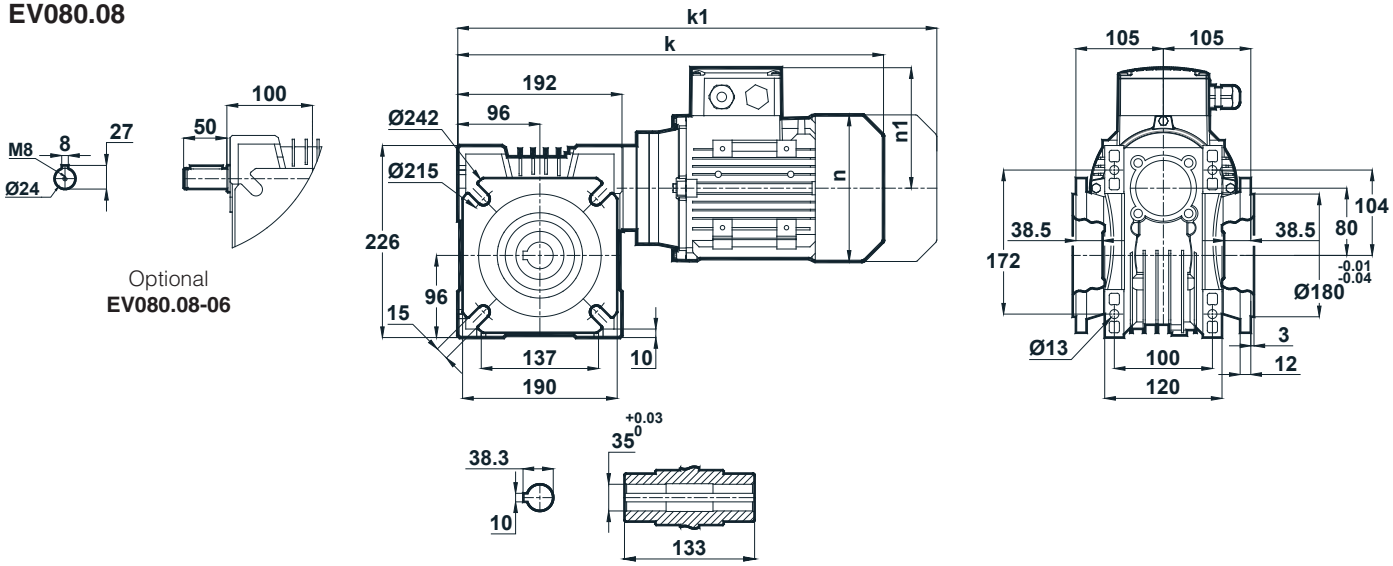


80-90-100-112
Type

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

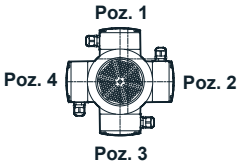
Tapped center hole to DIN 332, sheet 2

EV080.08



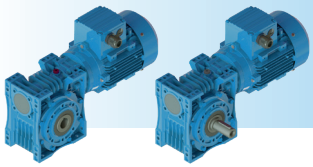
IEC B14 / B5	80	90S	90L	100L	112M
k	452.5	493.5	493.5	529	549.5
k1	545.5	597	597	637.5	654
n	155	176	176	193	215
n1	121	133	133	147	158

Terminal Box Positions



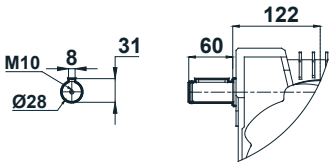
80-90-100-112
Type

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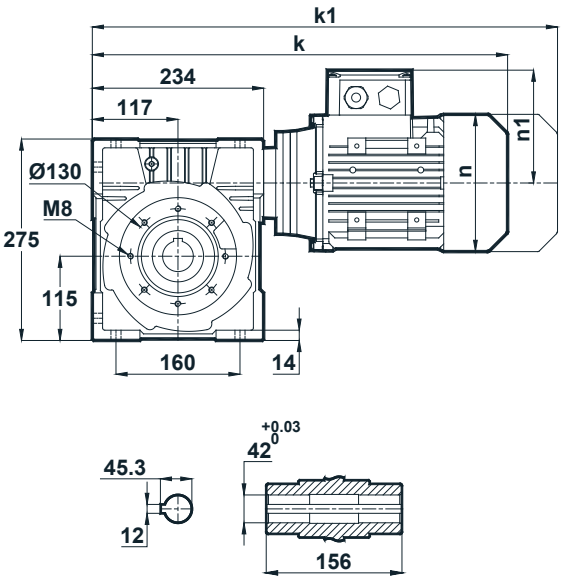


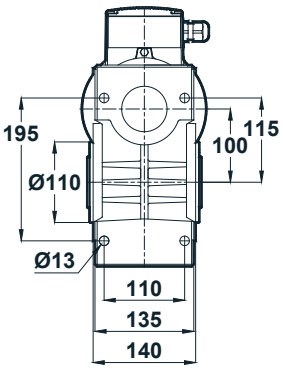
Tapped center hole to DIN 332, sheet 2

EV100.00

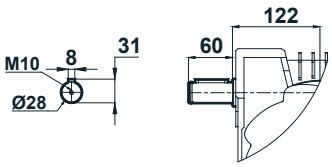


Optional
EV100.00-06

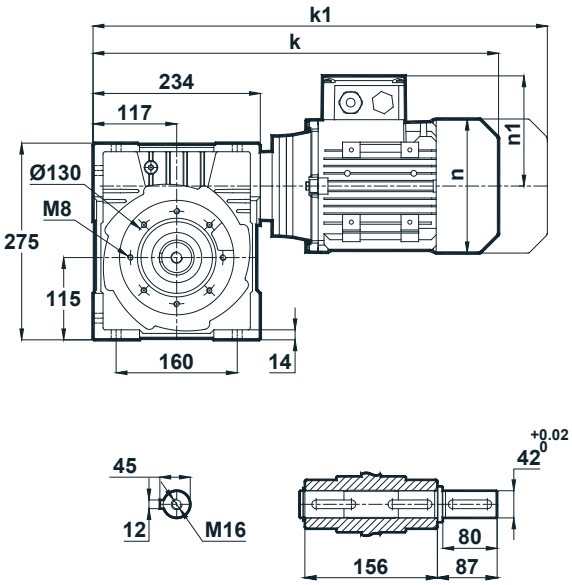


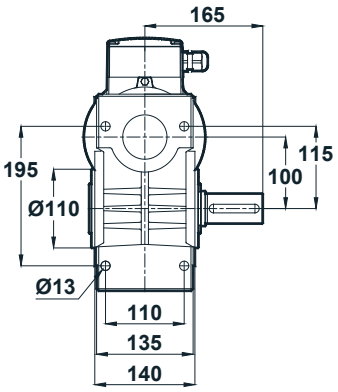


EV100.01



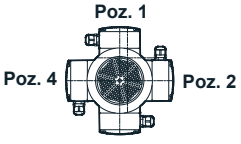
Optional
EV100.01-06





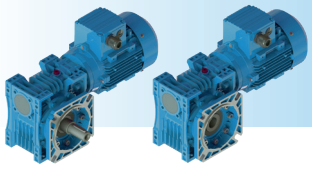
IEC B14 / B5	80	90S	90L	100L	112M
k	494.5	535.5	535.5	571	591.5
k1	587.5	639	639	679.5	696
n	155	176	176	193	215
n1	121	133	133	147	158

Terminal Box Positions



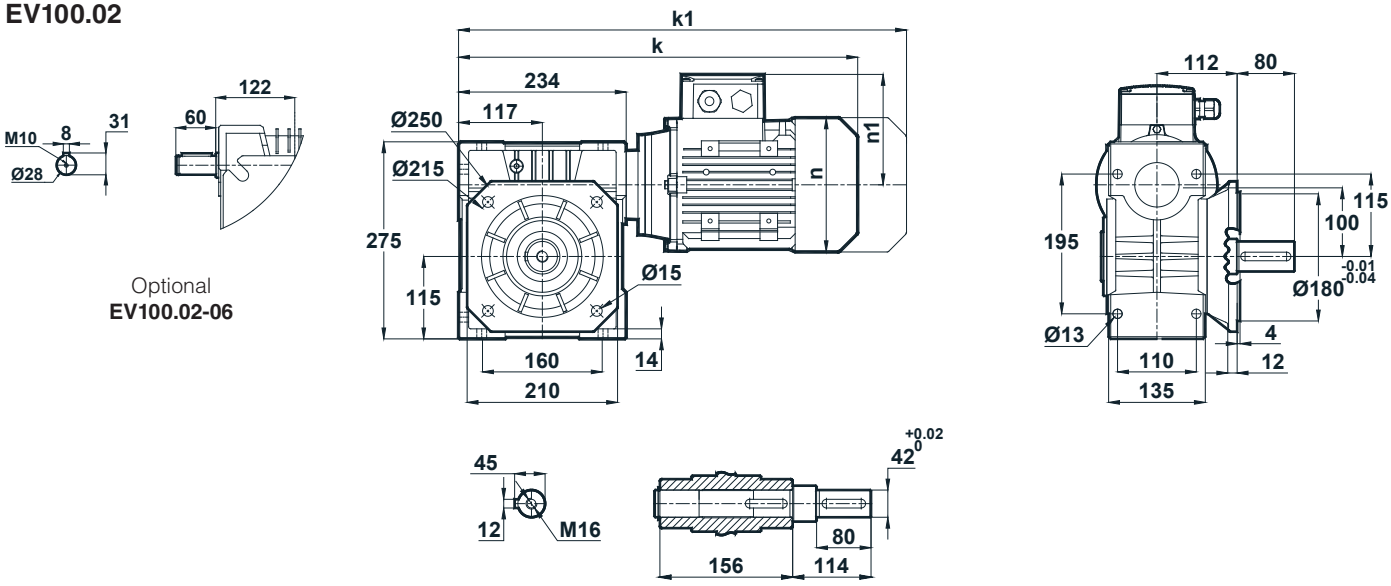
80-90-100-112
Type

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

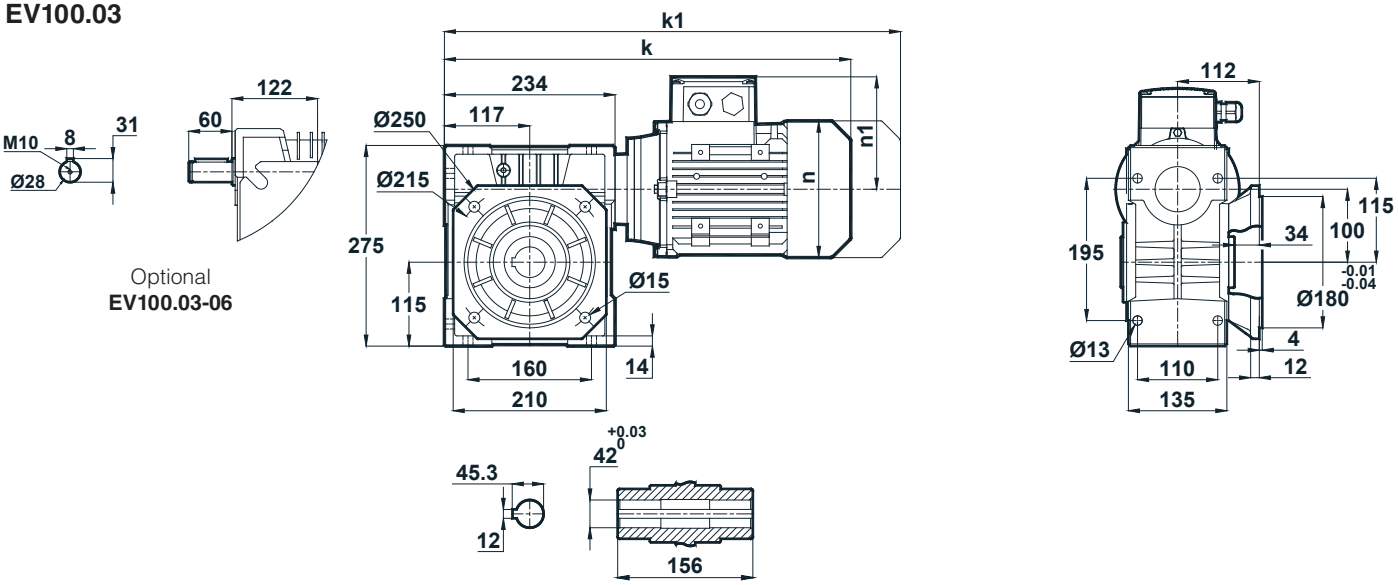


Tapped center hole to DIN 332, sheet 2

EV100.02

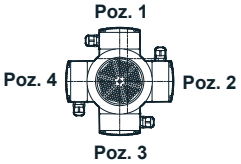


EV100.03



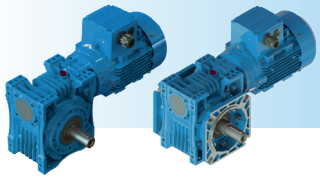
IEC B14 / B5	80	90S	90L	100L	112M
k	494.5	535.5	535.5	571	591.5
k1	587.5	639	639	679.5	696
n	155	176	176	193	215
n1	121	133	133	147	158

Terminal Box Positions



80-90-100-112
Type

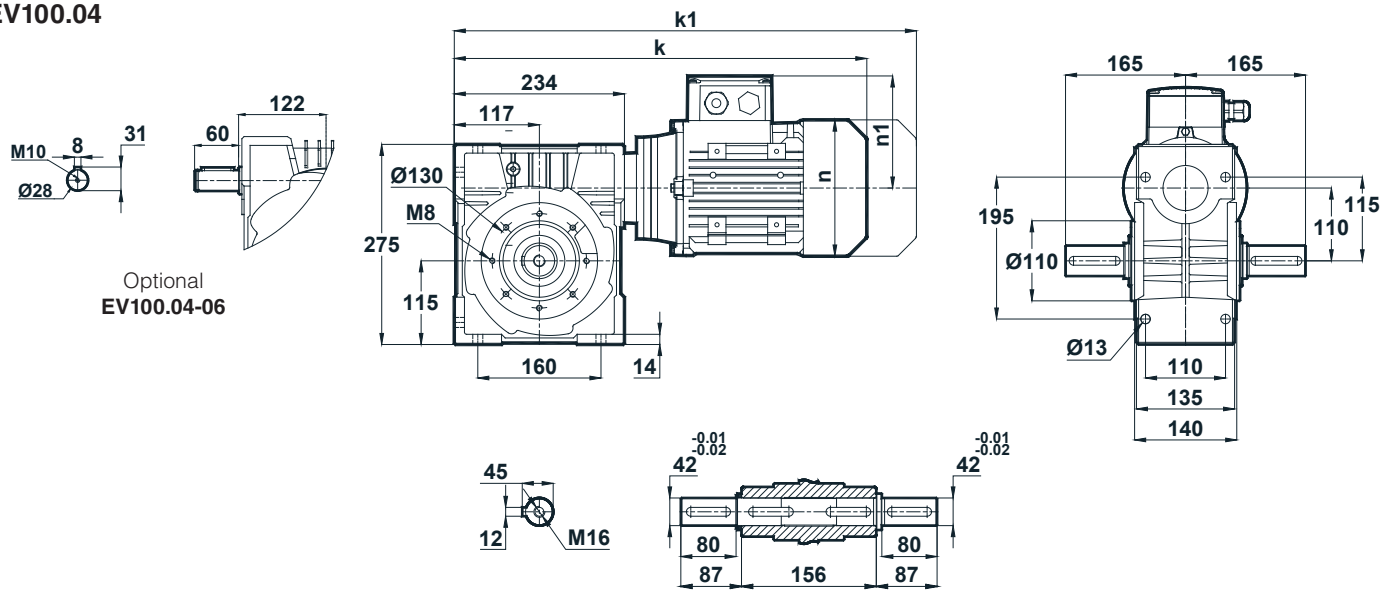
Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



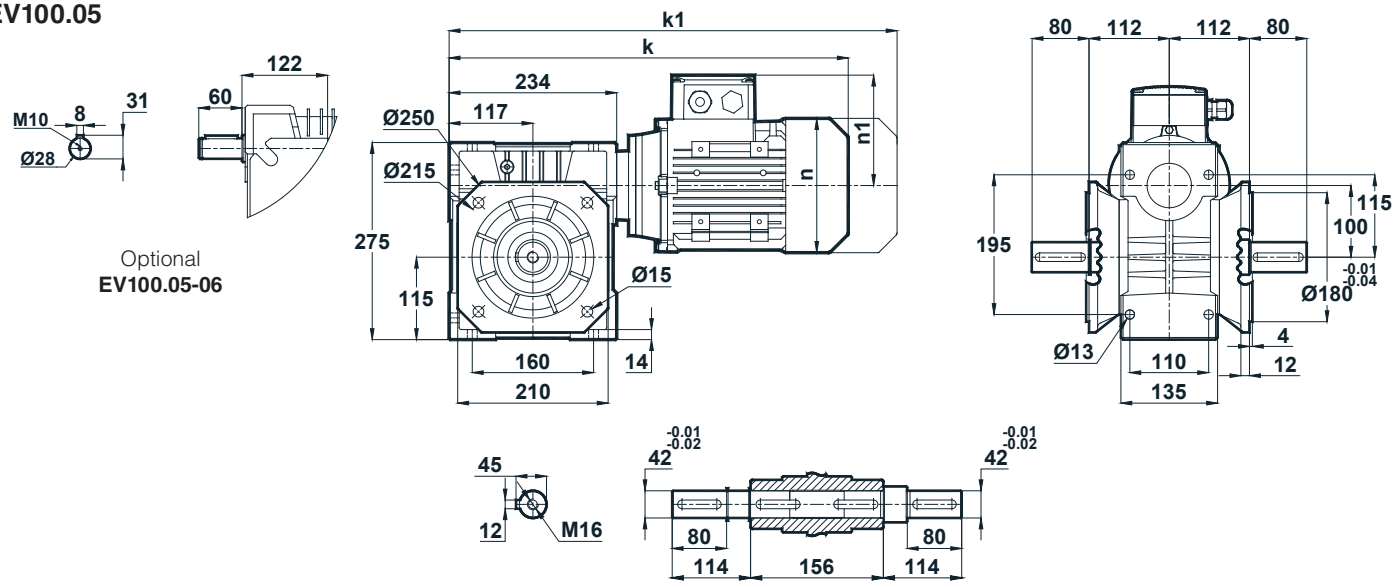
EV - DIMENSION PAGES

Tapped center hole to DIN 332, sheet 2

EV100.04

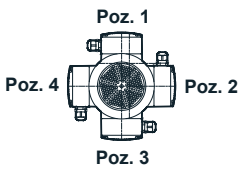


EV100.05



IEC B14 / B5	80	90S	90L	100L	112M
k	494.5	535.5	535.5	571	591.5
k1	587.5	639	639	679.5	696
n	155	176	176	193	215
n1	121	133	133	147	158

Terminal Box Positions

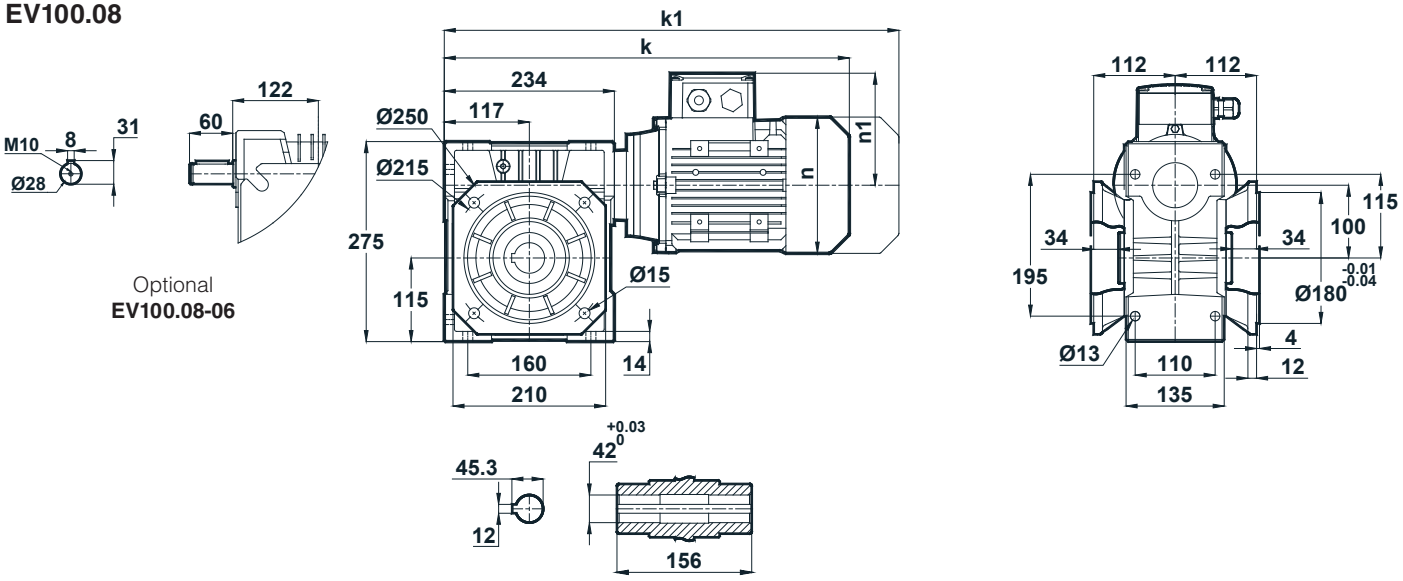


80-90-100-112
Type

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

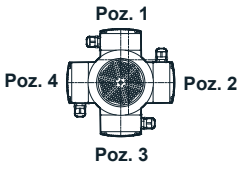
Tapped center hole to DIN 332, sheet 2

EV100.08



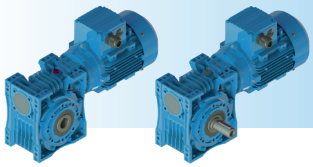
IEC B14 / B5	80	90S	90L	100L	112M
k	494.5	535.5	535.5	571	591.5
k1	587.5	639	639	679.5	696
n	155	176	176	193	215
n1	121	133	133	147	158

Terminal Box Positions



80-90-100-112
Type

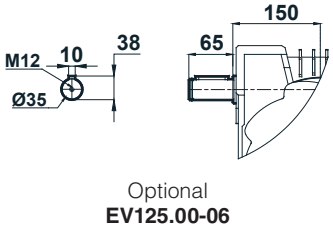
Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



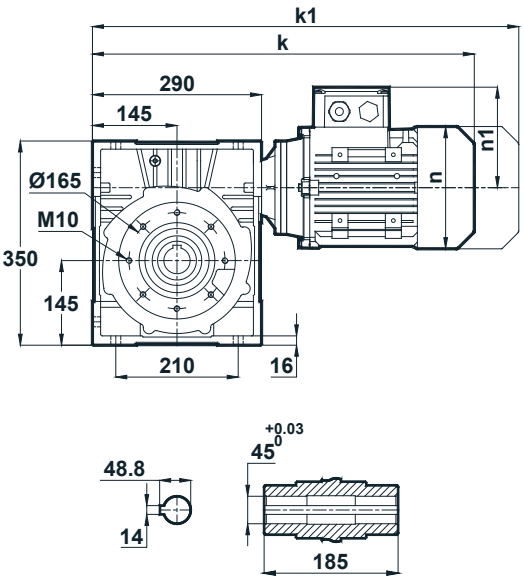
EV - DIMENSION PAGES

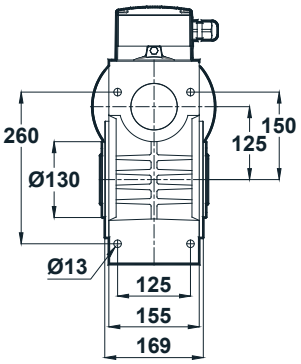
Tapped center hole to DIN 332, sheet 2

EV125.00

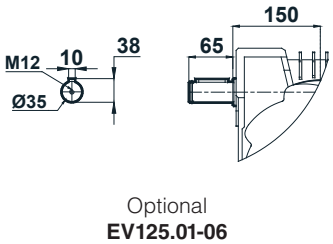


Optional
EV125.00-06

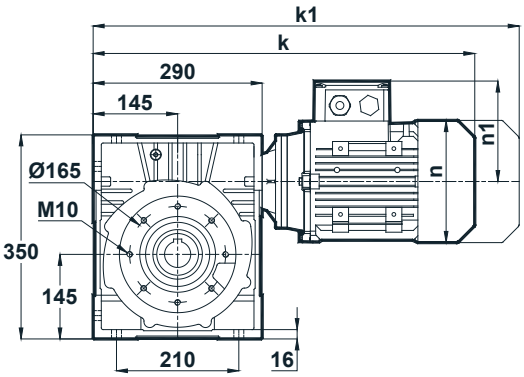


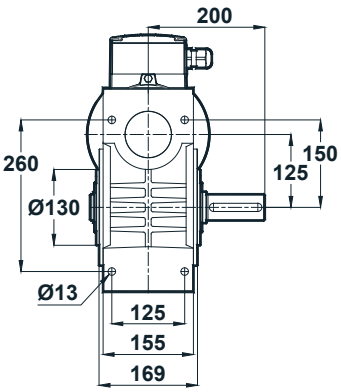


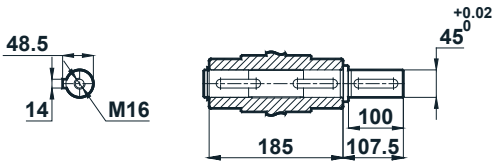
EV125.01



Optional
EV125.01-06

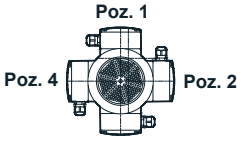






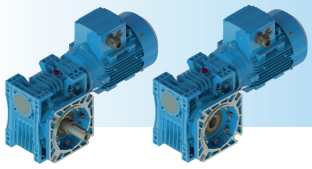
IEC	90S/B5	90L/B5	100L/B14	112M/B14	132S/B14	132M/B14
k	598	598	633.5	654	738	738
k1	701.5	701.5	742	758.5	868	868
n	176	176	193	215	257	257
n1	133	133	147	158	179	179

Terminal Box Positions



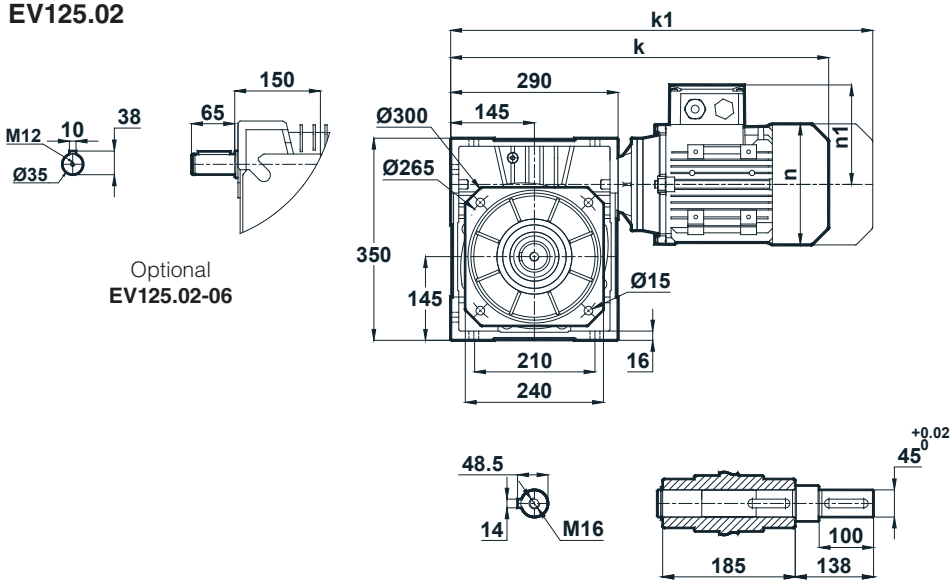
90-100-112-132
Type

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

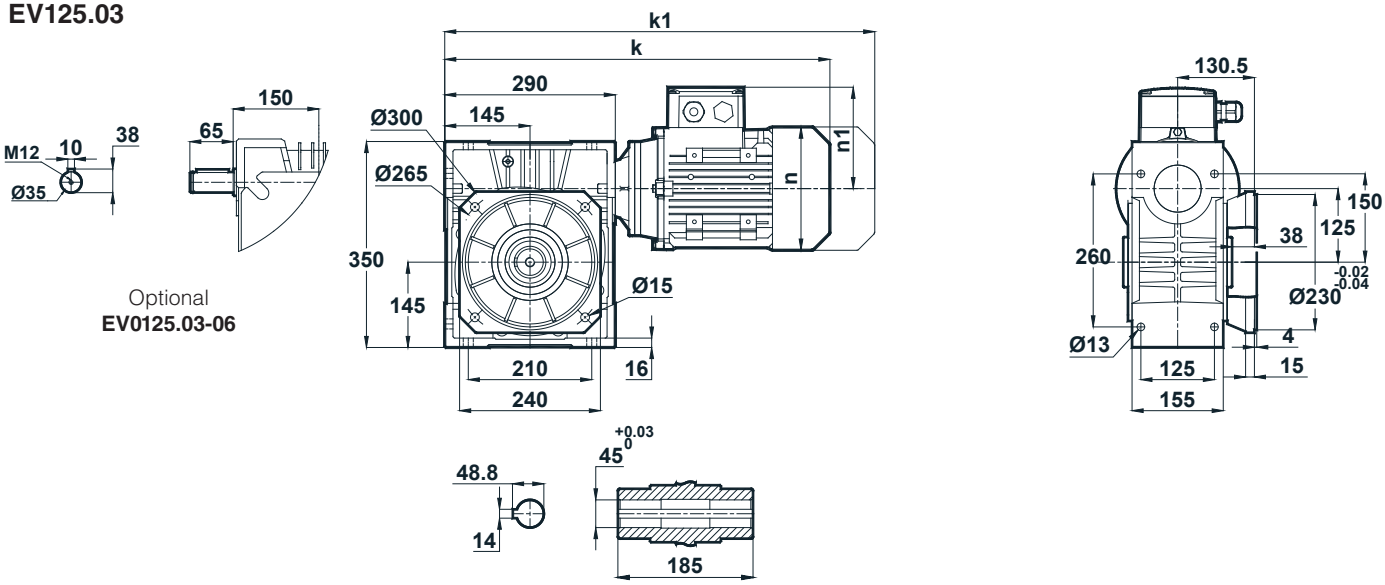


Tapped center hole to DIN 332, sheet 2

EV125.02

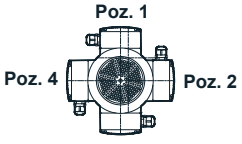


EV125.03



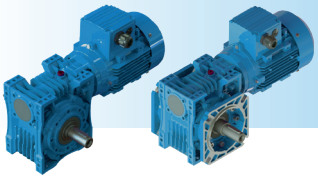
IEC	90S/B5	90L/B5	100L/B14	112M/B14	132S/B14	132M/B14
k	598	598	633.5	654	738	738
k1	701.5	701.5	742	758.5	868	868
n	176	176	193	215	257	257
n1	133	133	147	158	179	179

Terminal Box Positions



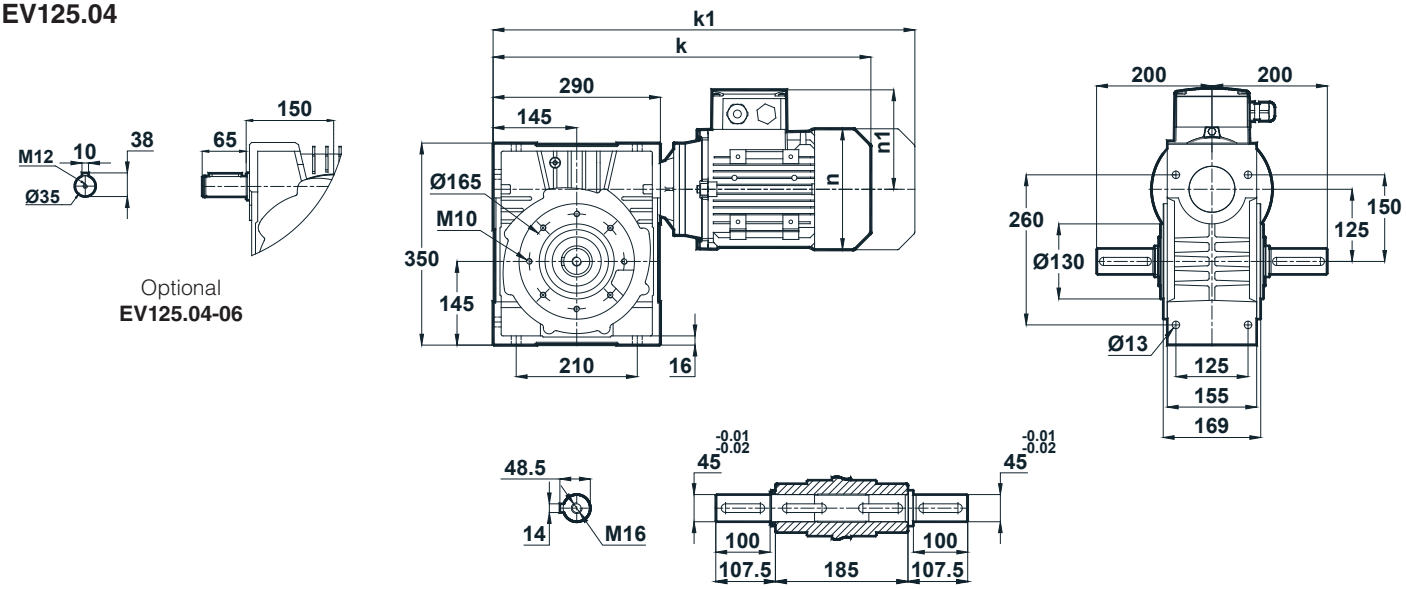
90-100-112-132
Type

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

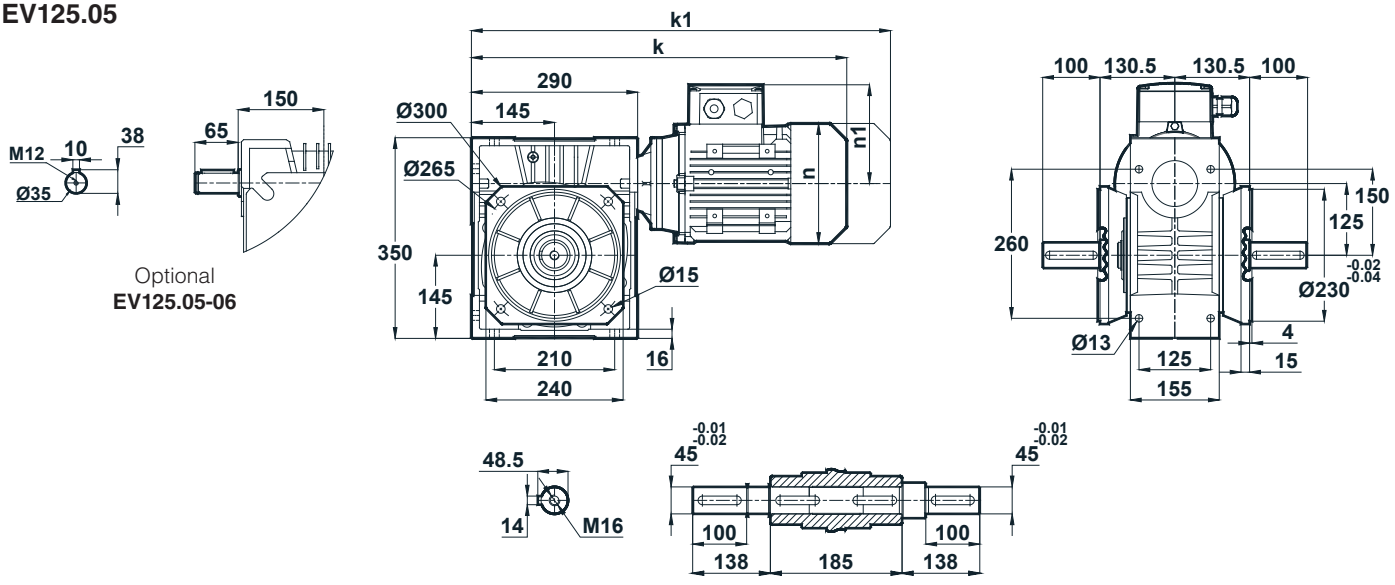


Tapped center hole to DIN 332, sheet 2

EV125.04

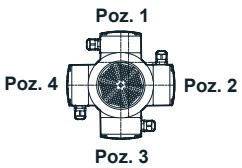


EV125.05



IEC	90S/B5	90L/B5	100L/B14	112M/B14	132S/B14	132M/B14
k	598	598	633.5	654	738	738
k1	701.5	701.5	742	758.5	868	868
n	176	176	193	215	257	257
n1	133	133	147	158	179	179

Terminal Box Positions

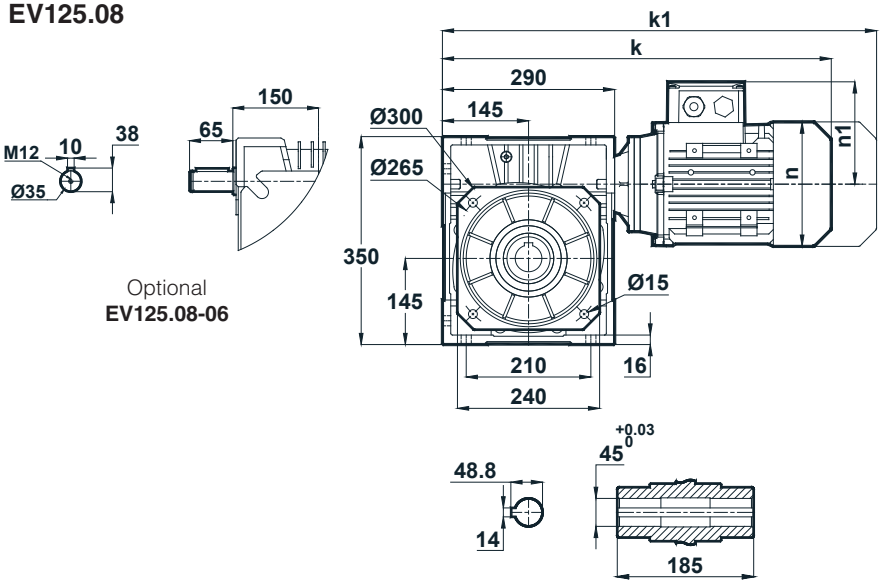


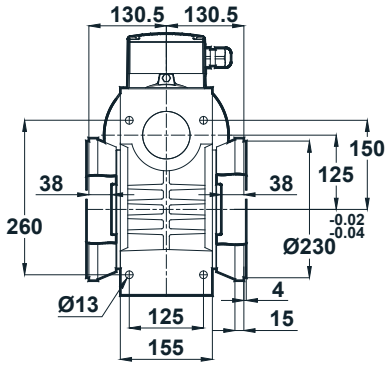
90-100-112-132
Type

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

Tapped center hole to DIN 332, sheet 2

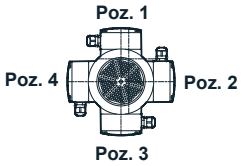
EV125.08





IEC	90S/B5	90L/B5	100L/B14	112M/B14	132S/B14	132M/B14
k	598	598	633.5	654	738	738
k1	701.5	701.5	742	758.5	868	868
n	176	176	193	215	257	257
n1	133	133	147	158	179	179

Terminal Box Positions

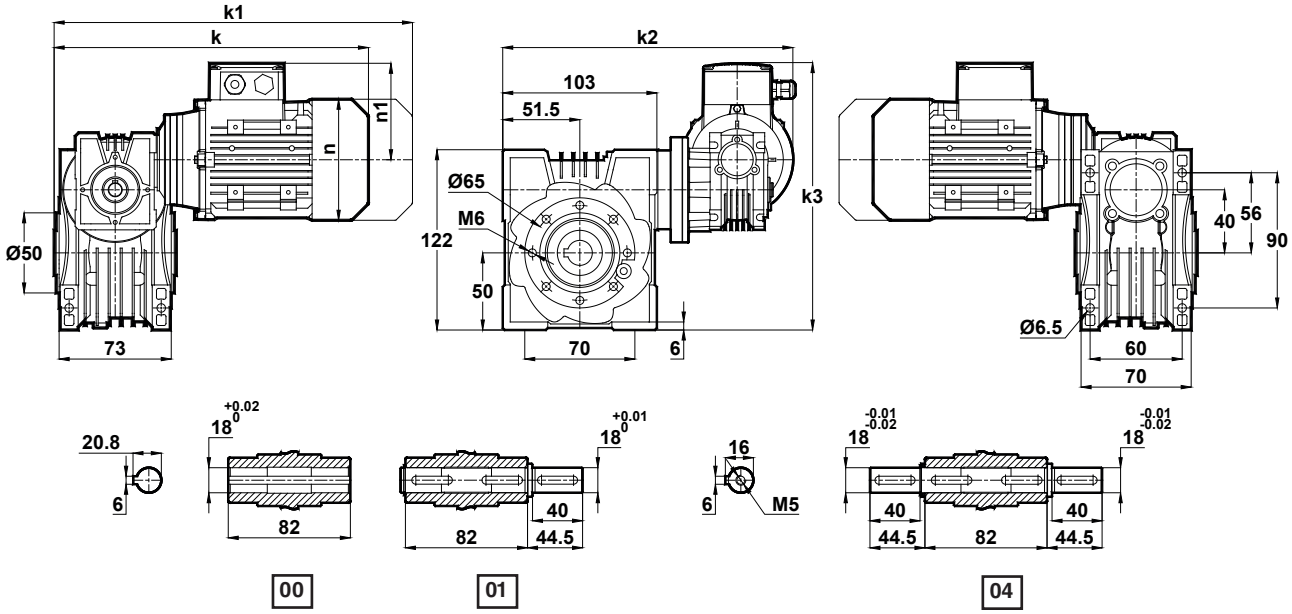


90-100-112-132
Type

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

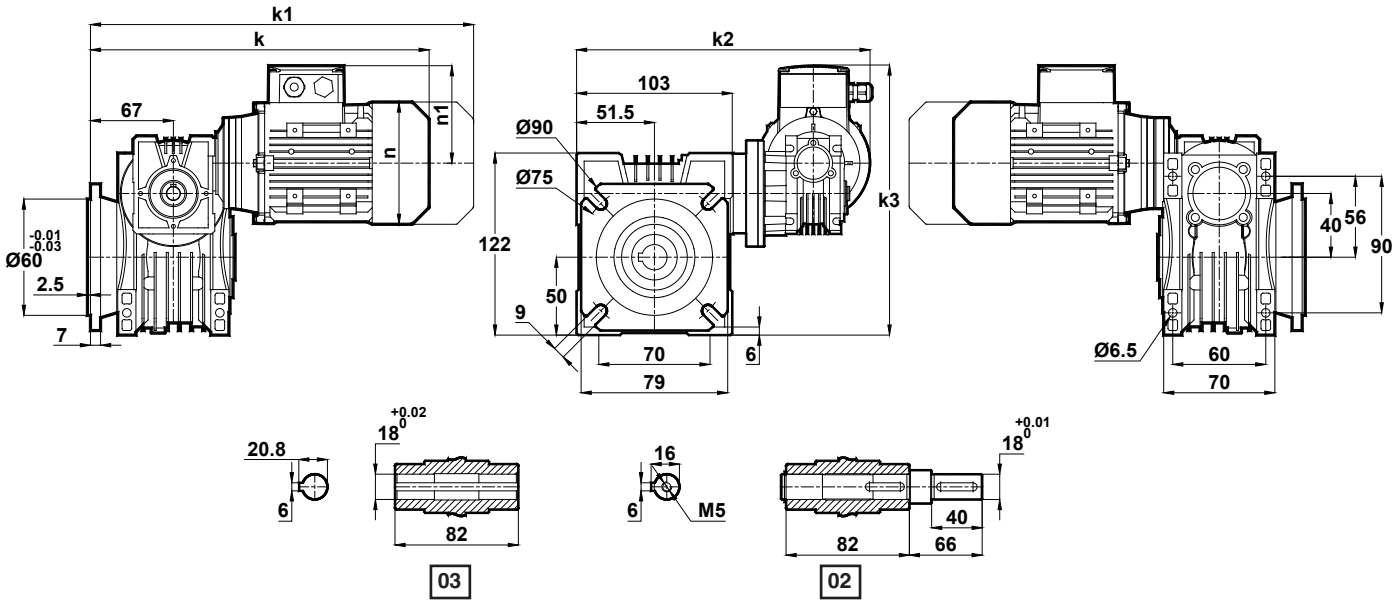
Tapped center hole to DIN 332, sheet 2

EV040.☐ - 030



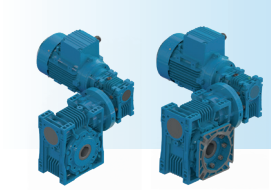
IEC B14	k	k1	k2	k3	n	n1
56	247	-	235.5	216	105	96
63	299	352	243.5	217	121	97

EV040.☐ - 030



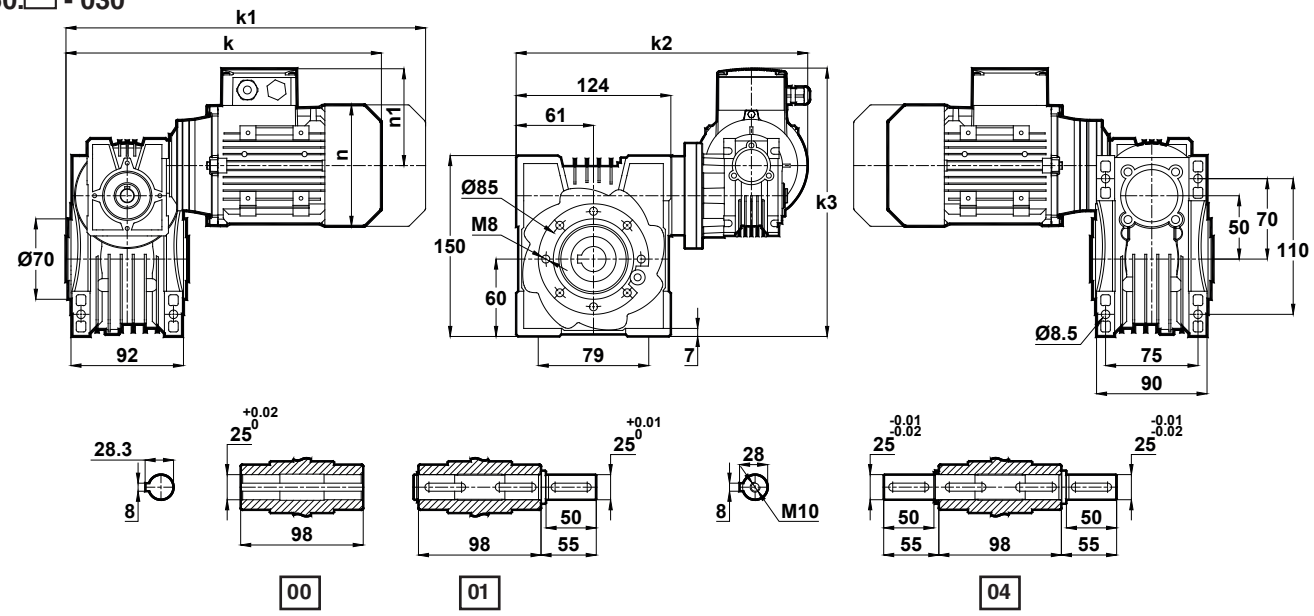
IEC B14	k	k1	k2	k3	n	n1
56	261.5	-	235.5	216	105	96
63	313.5	366.5	243.5	217	121	97

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



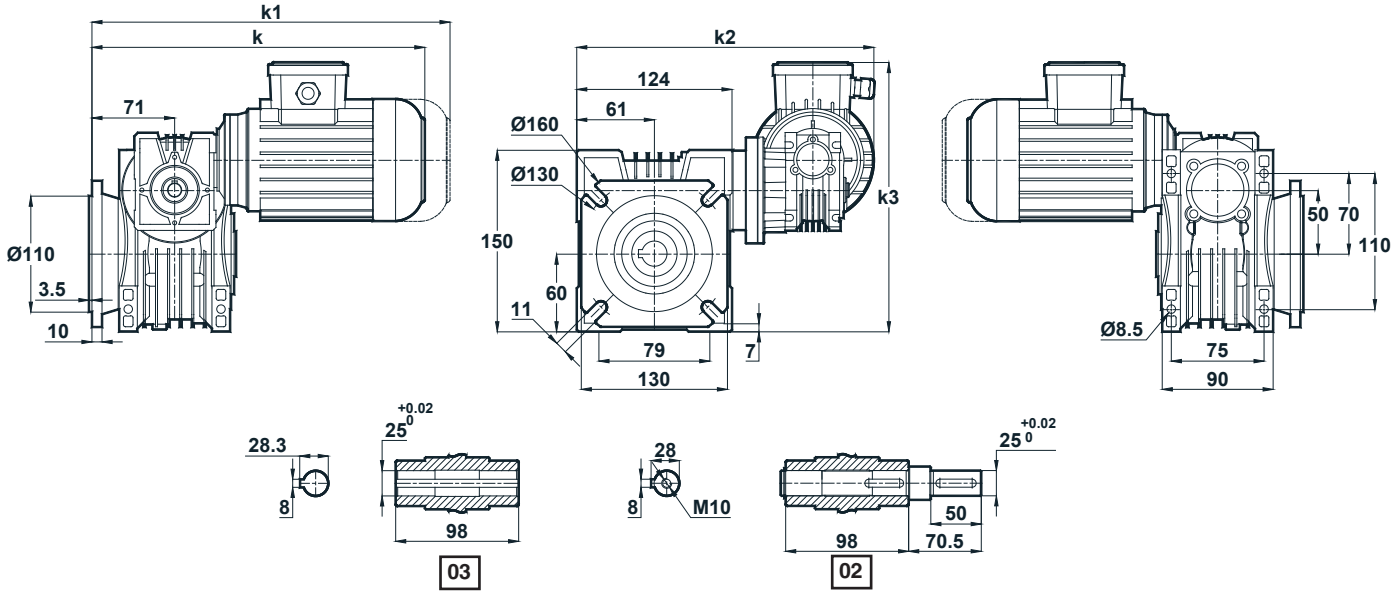
Tapped center hole to DIN 332, sheet 2

EV050.□ - 030



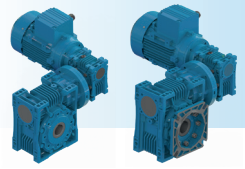
IEC B14	k	k1	k2	k3	n	n1
56	247	-	256.5	236	105	96
63	299	352	264.5	237	121	97

EV050.□ - 030



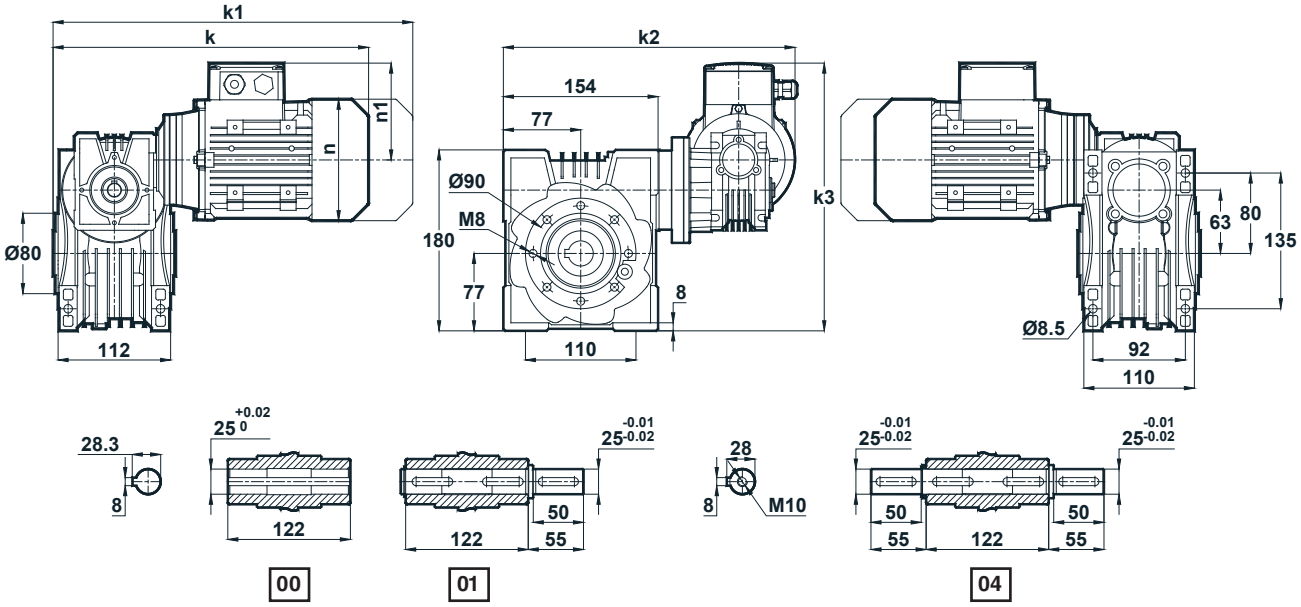
IEC B14	k	k1	k2	k3	n	n1
56	265.5	-	256.5	236	105	96
63	317.5	370.5	264.5	237	121	97

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



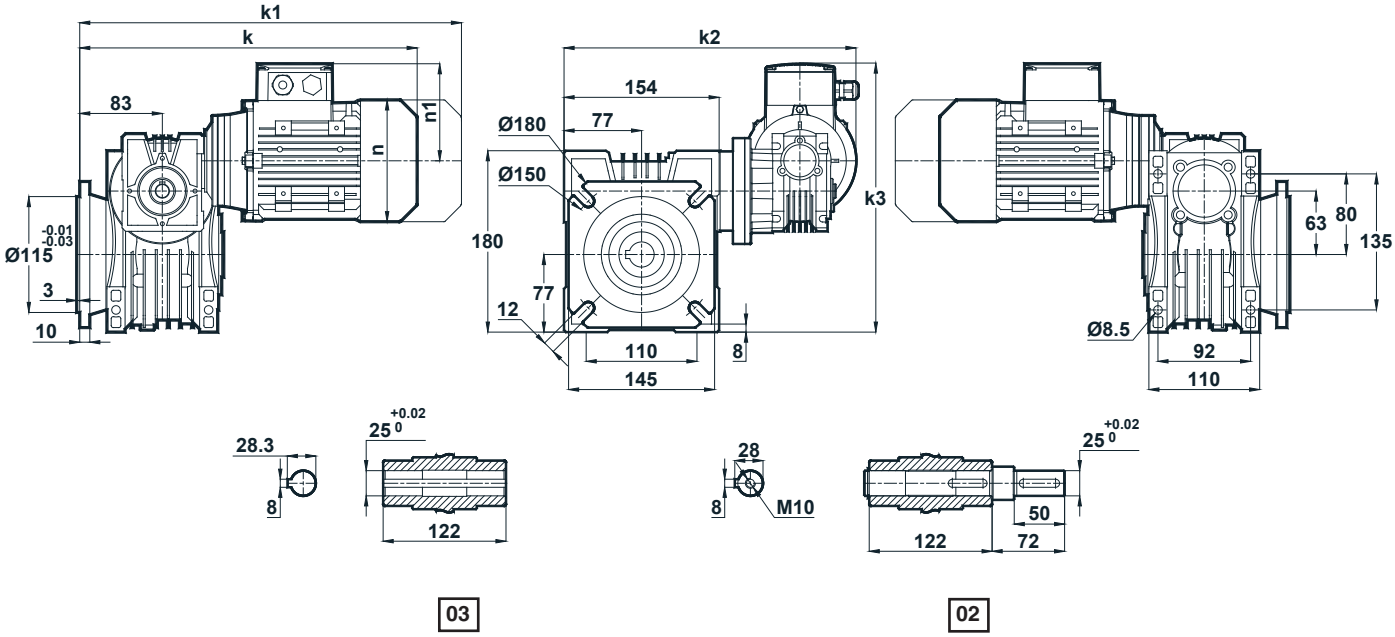
Tapped center hole to DIN 332, sheet 2

EV063.□ - 030



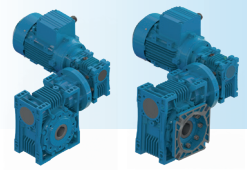
IEC B14	k	k1	k2	k3	n	n1
56	255.5	-	286.5	266	105	96
63	307.5	360.5	294.5	267	121	97

EV063.□ - 030



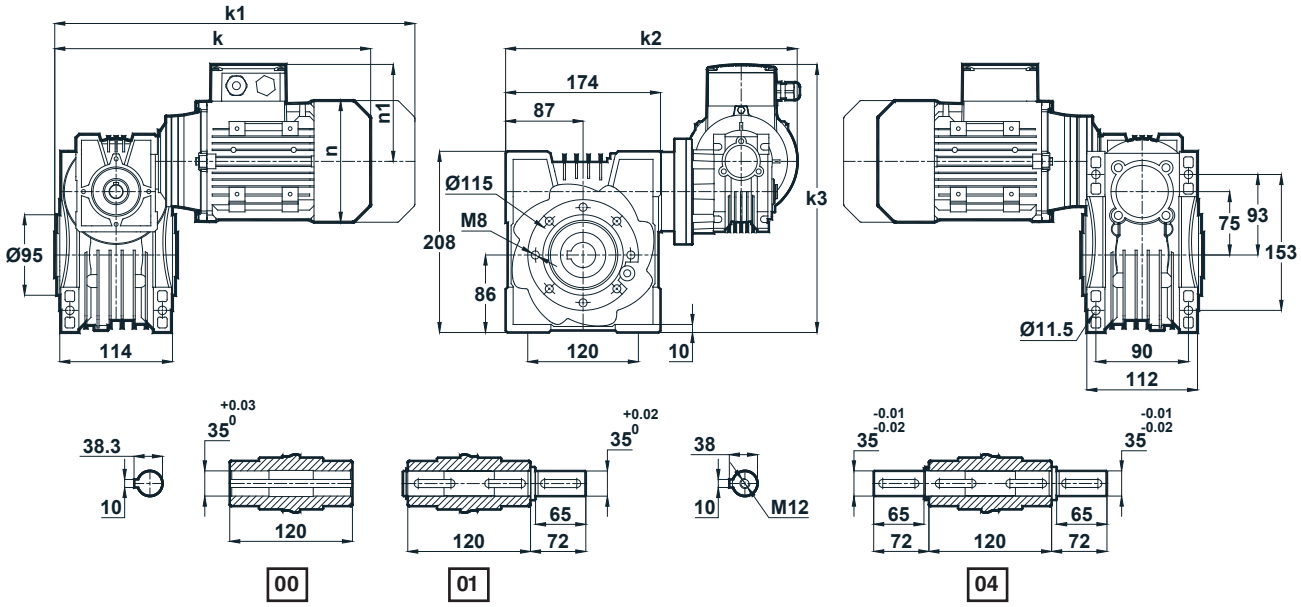
IEC B14	k	k1	k2	k3	n	n1
56	277.5	-	286.5	266	105	96
63	329.5	382.5	294.5	267	121	97

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



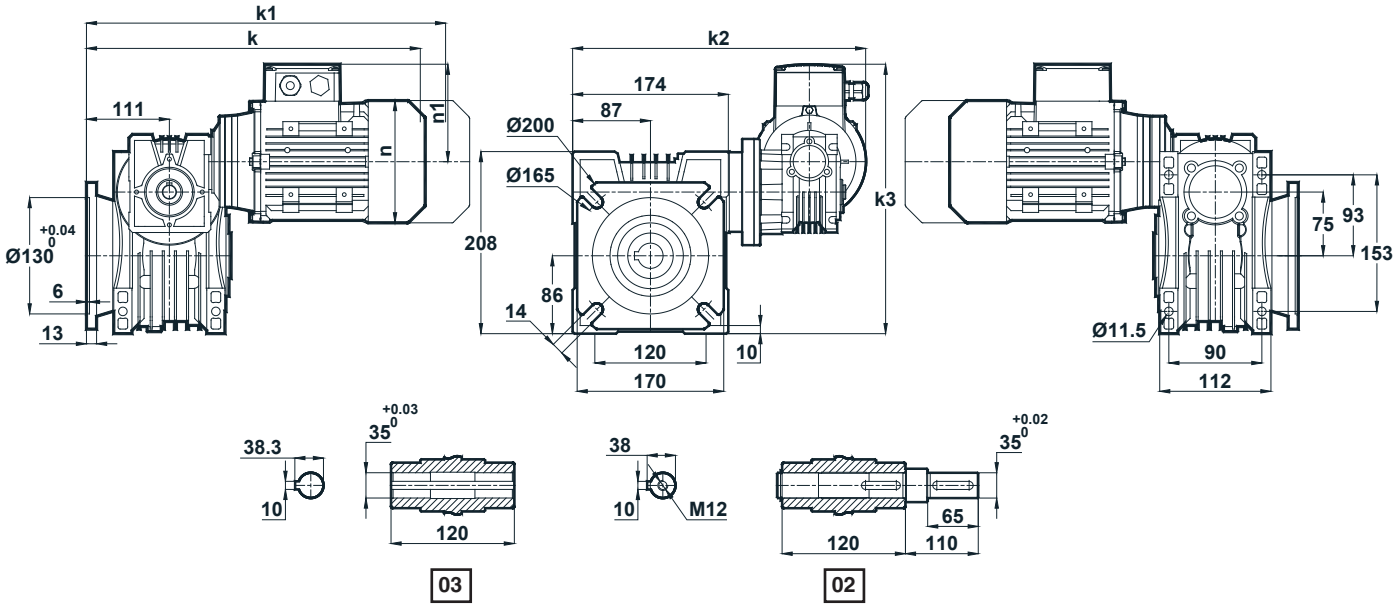
Tapped center hole to DIN 332, sheet 2

EV075.☐ - 040



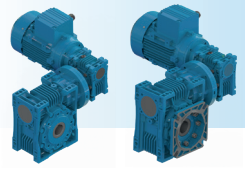
IEC B14	k	k1	k2	k3	n	n1
63	339.5	392.5	333.5	298	121	97
71	347.5	438.5	341.5	313	137	112

EV075.☐ - 040



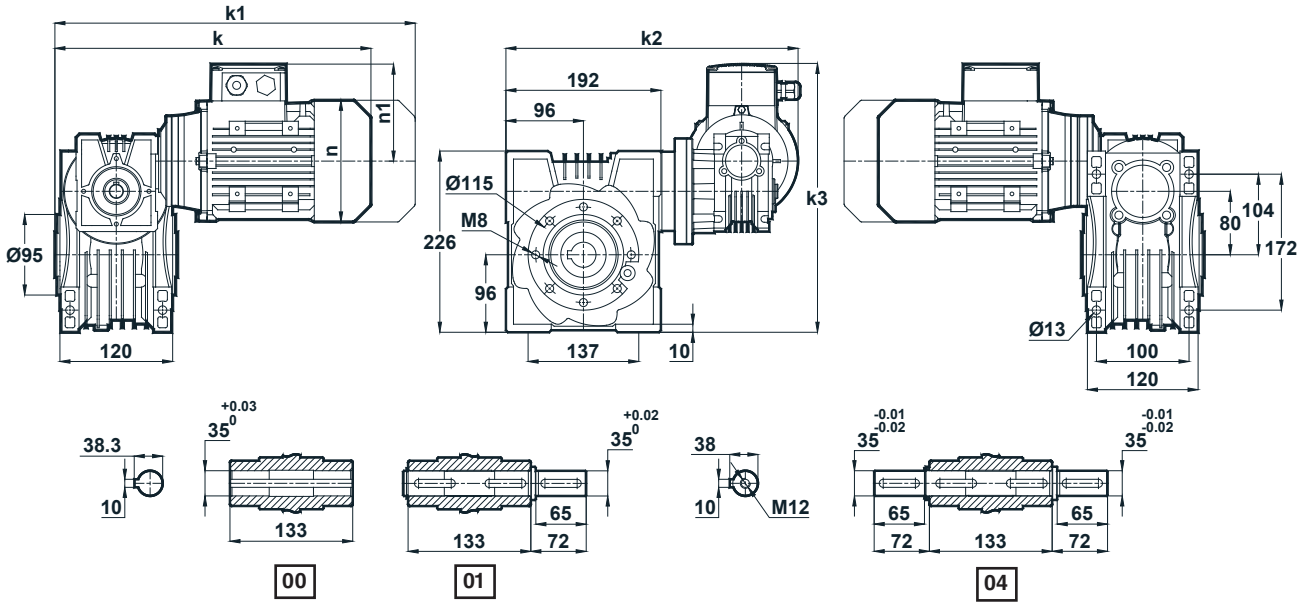
IEC B14	k	k1	k2	k3	n	n1
63	380.5	433.5	333.5	298	121	97
71	398.5	489.5	341.5	313	137	112

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



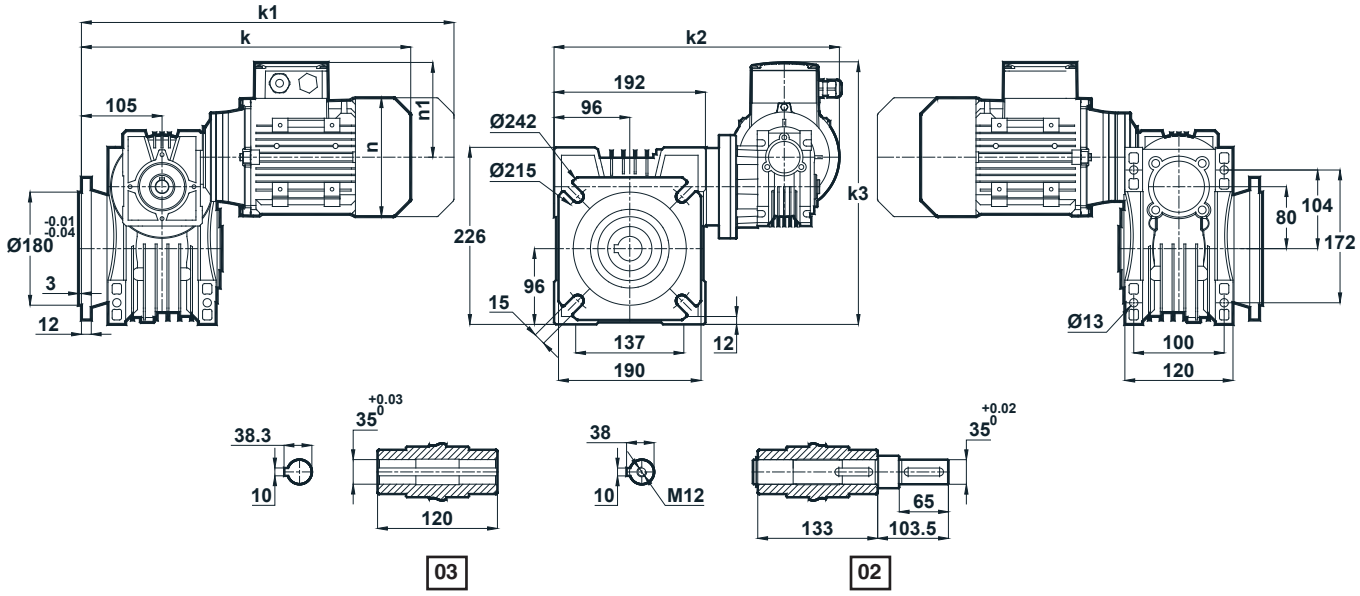
Tapped center hole to DIN 332, sheet 2

EV080.□ - 040



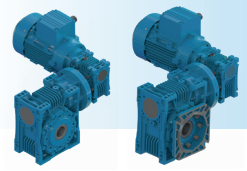
IEC B14	k	k1	k2	k3	n	n1
63	339.5	392.5	333.5	298	121	97
71	354	445	341.5	313	137	112

EV080.□ - 040



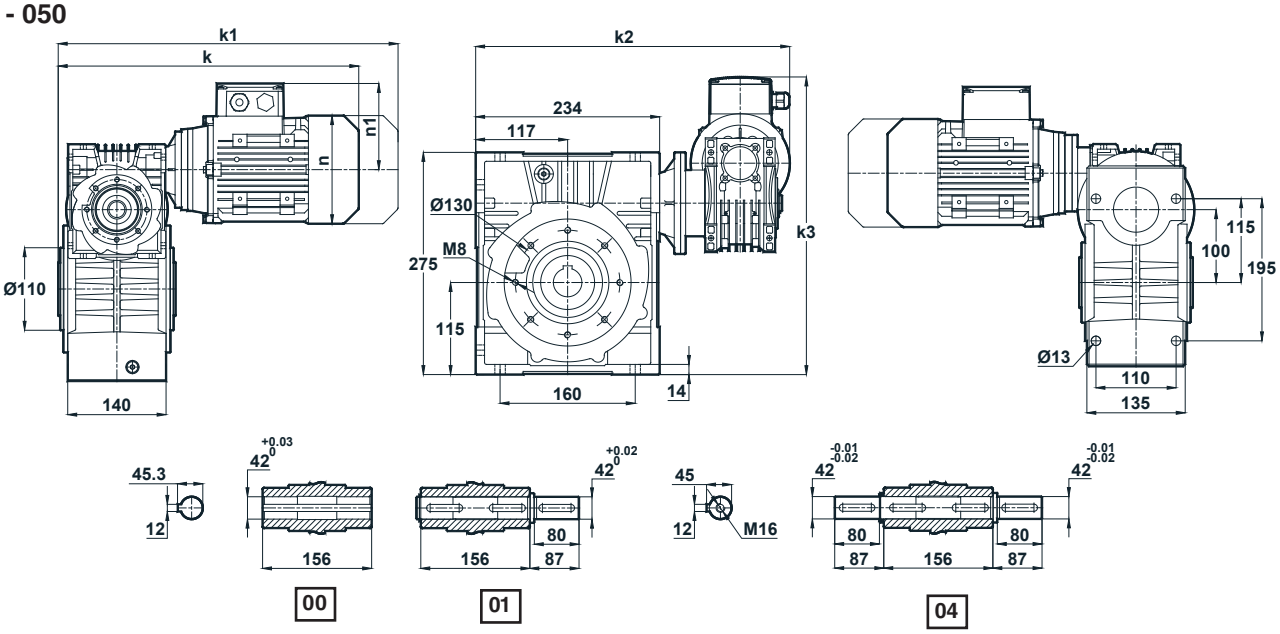
IEC B14	k	k1	k2	k3	n	n1
63	374.5	427.5	351.5	313	121	97
71	392.5	483.5	341.5	313	137	112

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



Tapped center hole to DIN 332, sheet 2

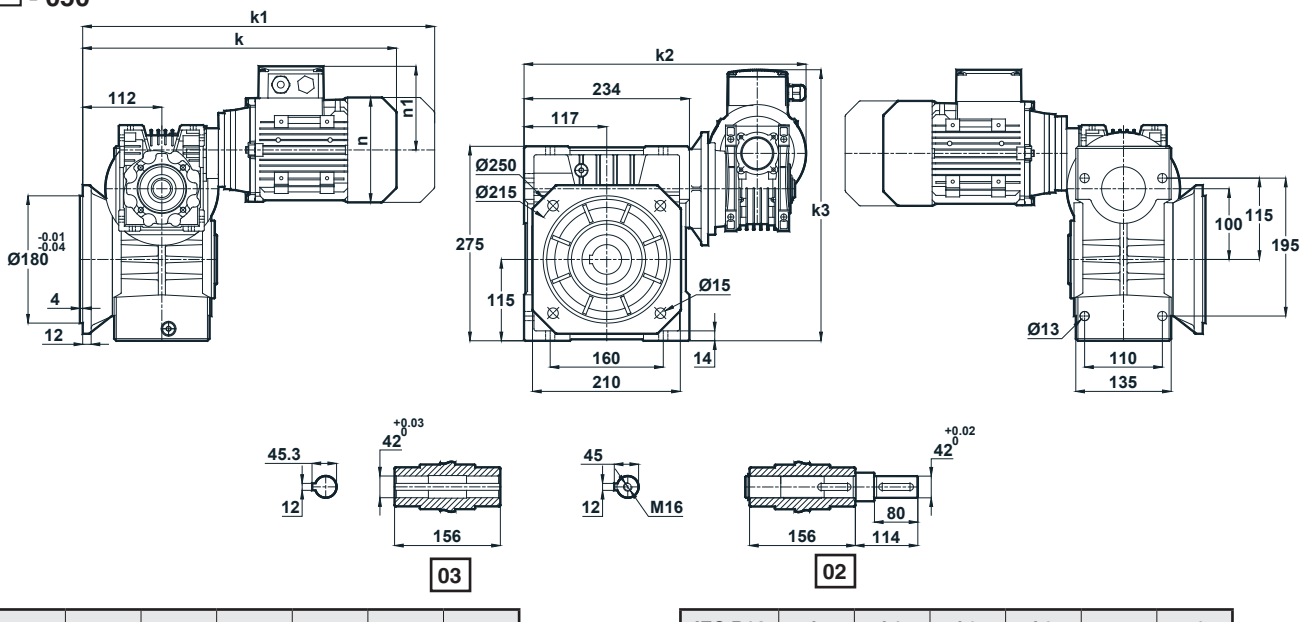
EV100.☐ - 050



IEC B14	k	k1	k2	k3	n	n1
63	361	414	390.5	362	121	97
71	375.7	466.7	398.5	377	137	112
80	398.7	491.7	407.5	386	155	121

IEC B14	k	k1	k2	k3	n	n1
90S	439.7	544.2	418	397	176	132
90L	439.7	544.2	418	397	176	132

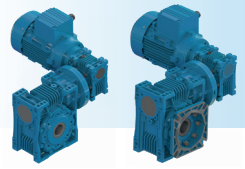
EV100.☐ - 050



IEC B14	k	k1	k2	k3	n	n1
63	393	446	390.5	362	121	97
71	409.7	500.7	398.5	377	137	112
80	432.7	525.7	407.5	386	155	121

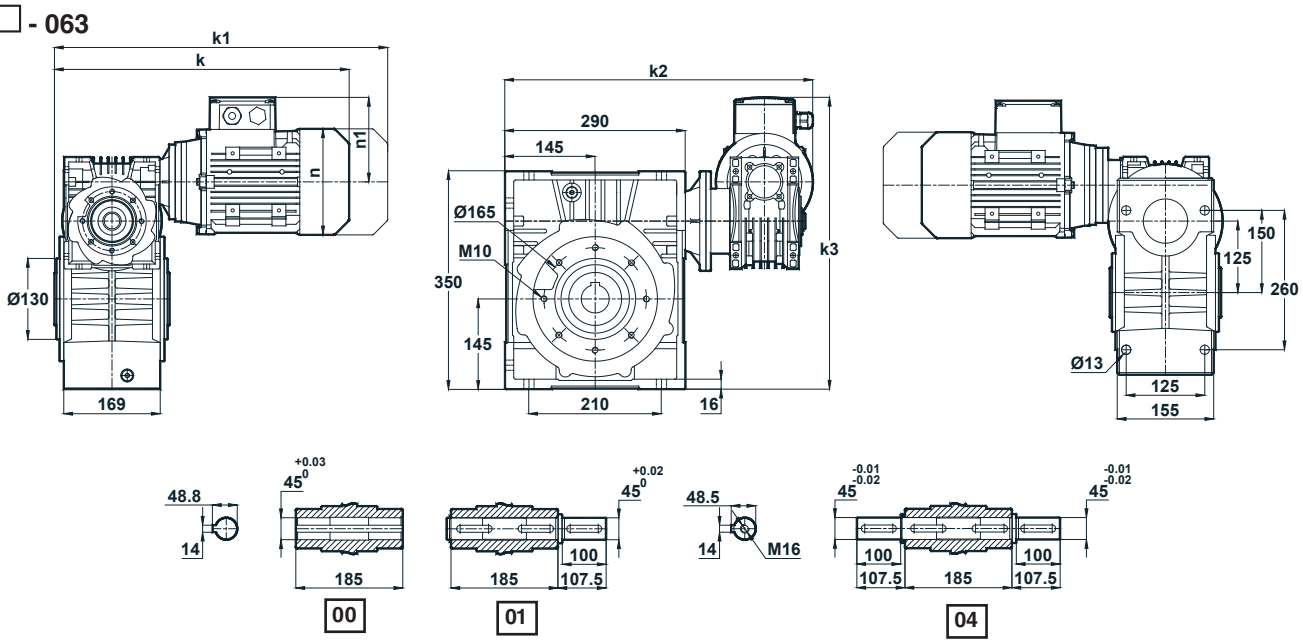
IEC B14	k	k1	k2	k3	n	n1
90S	473.7	578.2	418	397	176	133
90L	473.7	578.2	418	397	176	133

Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



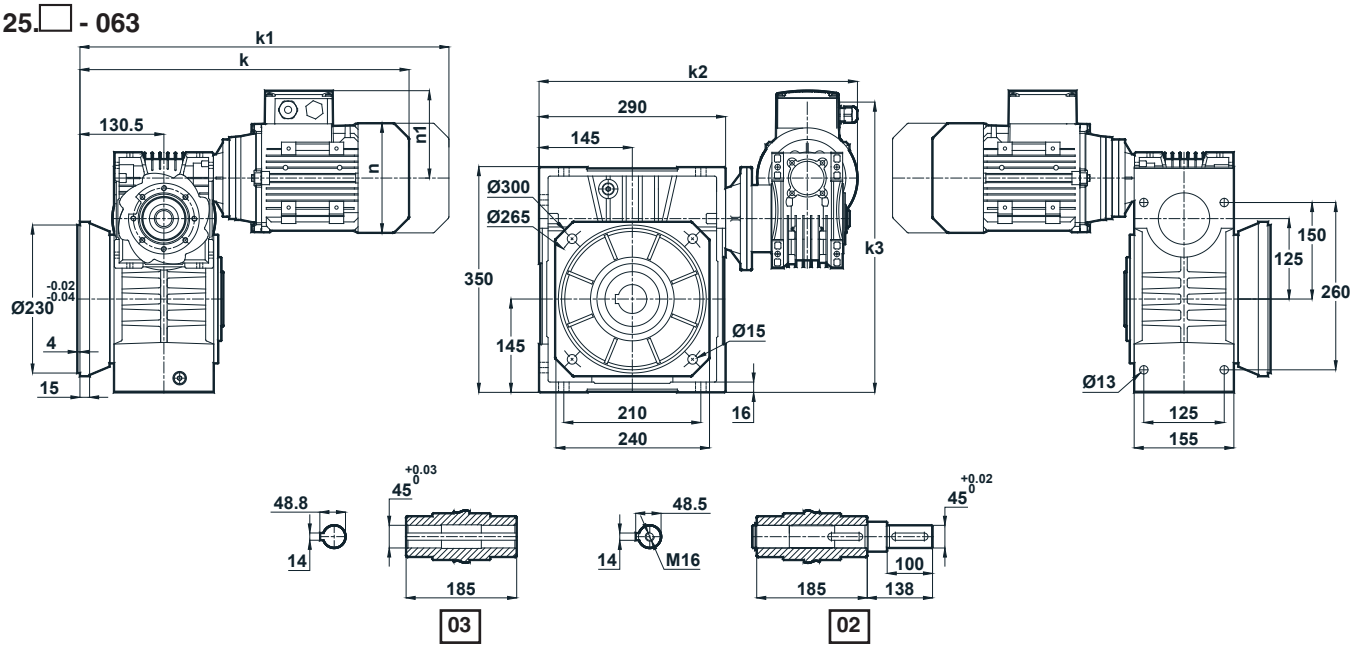
Tapped center hole to DIN 332, sheet 2

EV125.☐ - 063



IEC B14	k	k1	k2	k3	n	n1
71	405.2	496.2	485.5	445	137	112
80	428.2	521.2	494.5	454	155	121
90S	469.2	573.7	505	465	176	133
90L	469.2	573.7	505	465	176	133

EV125.☐ - 063

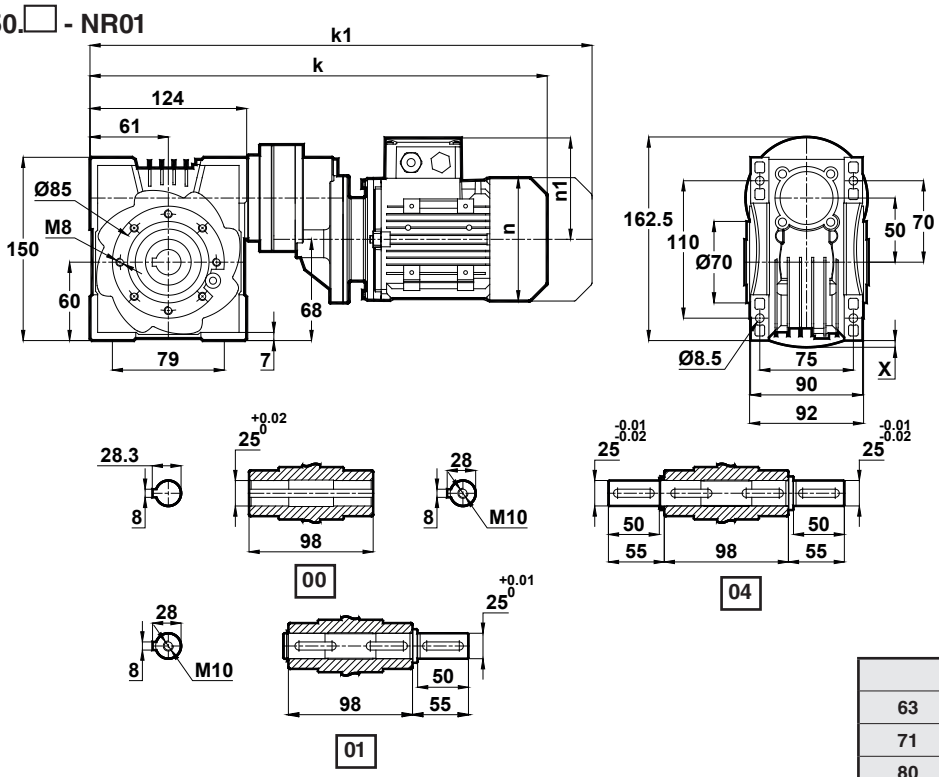


IEC B14	k	k1	k2	k3	n	n1
71	443.2	534.2	485.5	445	137	112
80	466.2	559.2	494.5	454	155	121
90S	507.2	611.7	505	465	176	133
90L	507.2	611.7	505	465	176	133

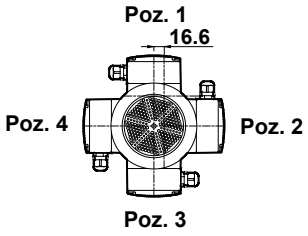
Motor connections are with IEC B14 Flange
Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

Tapped center hole to DIN 332, sheet 2

EV050.☐ - NR01



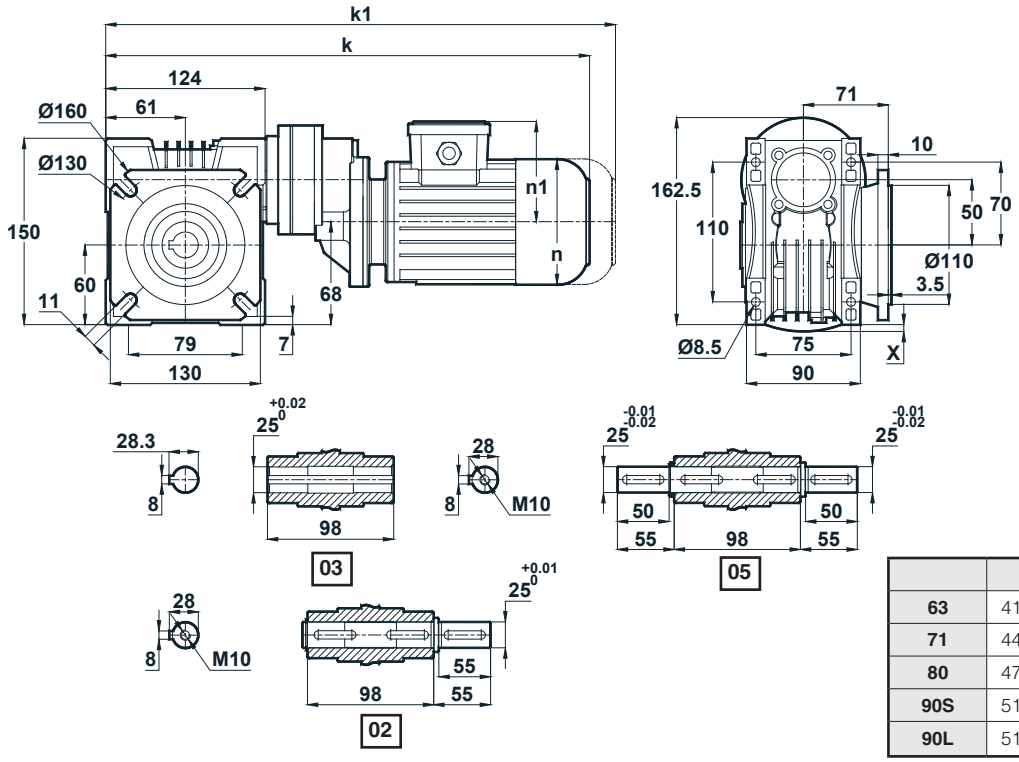
Terminal Box Positions



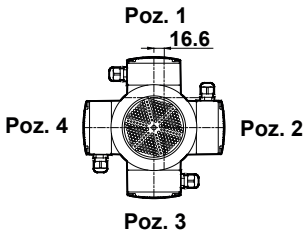
63-71-80-90
Type

	k	k1	n	n1	x
63	416.2	477.2	121	97	-
71	444.7	535.7	137	112	0.5
80	478.7	571.7	155	121	9.5
90S	517.7	621.2	176	133	20
90L	517.7	621.2	176	133	20

EV050.☐ - NR01



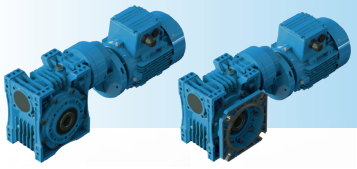
Terminal Box Positions



63-71-80-90
Type

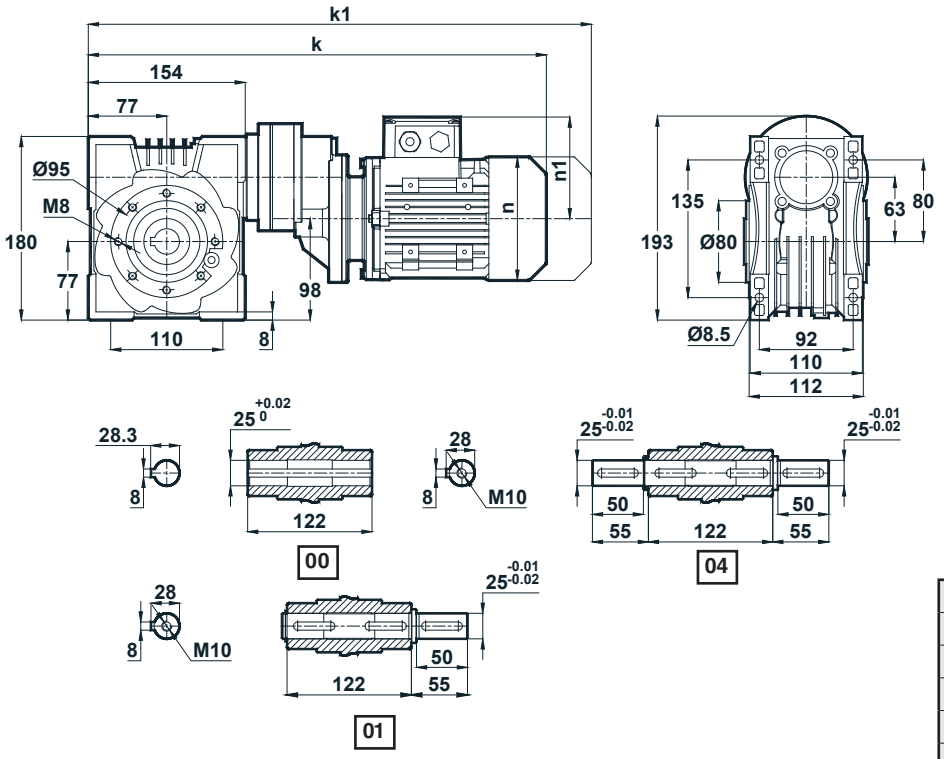
	k	k1	n	n1	x
63	416.2	477.2	121	97	-
71	444.7	535.7	137	112	0.5
80	478.7	571.7	155	121	9.5
90S	517.7	621.2	176	133	20
90L	517.7	621.2	176	133	20

Dimensions “k1” is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

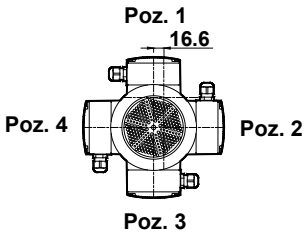


Tapped center hole to DIN 332, sheet 2

EV063.□ - NR01



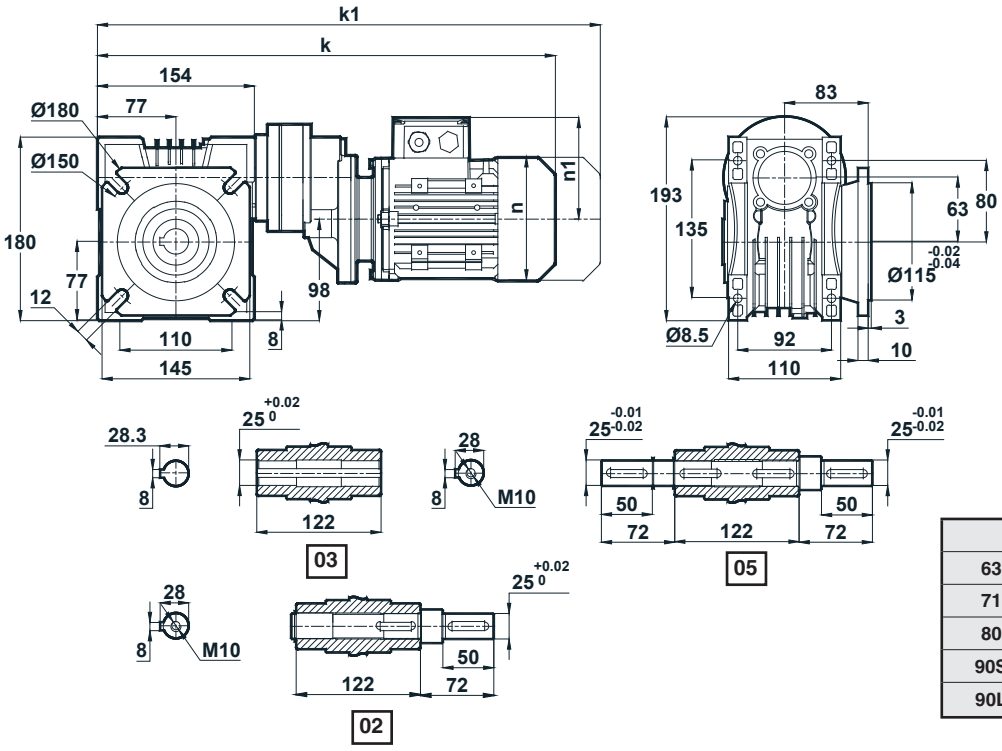
Terminal Box Positions



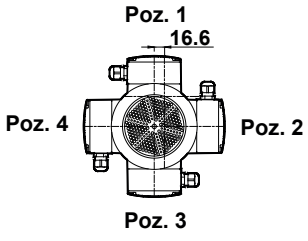
63-71-80-90
Type

	k	k1	n	n1
63	446.2	507.2	121	97
71	474.7	565.7	137	112
80	508.7	601.7	155	121
90S	547.7	651.2	176	133
90L	547.7	651.2	176	133

EV063.□ - NR01



Terminal Box Positions



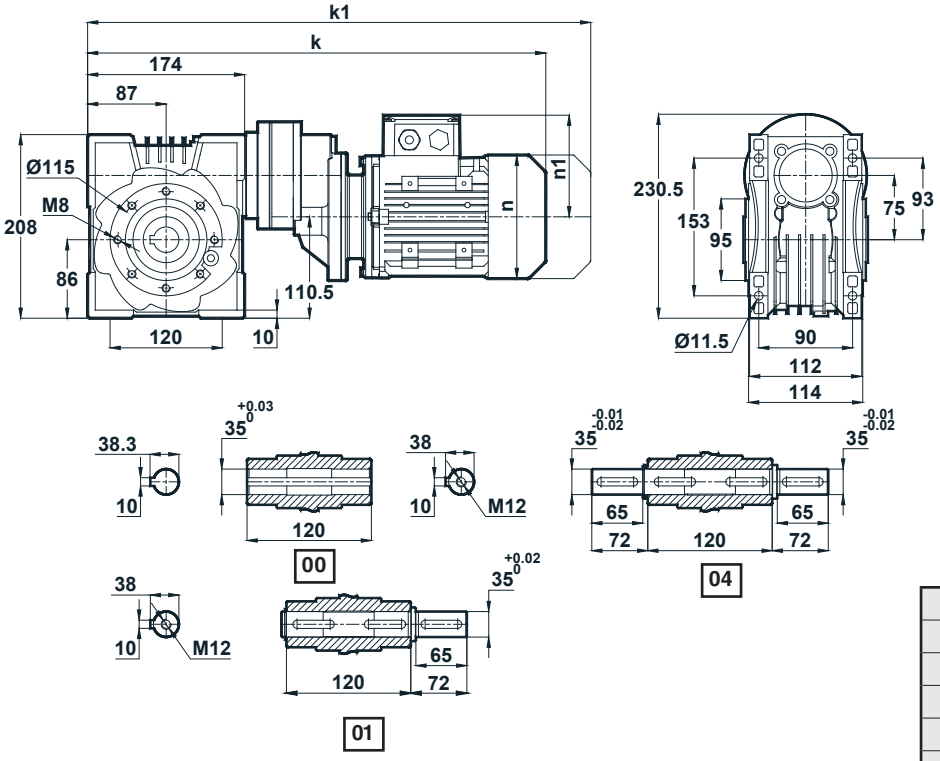
63-71-80-90
Type

	k	k1	n	n1
63	446.2	507.2	121	97
71	474.7	565.7	137	112
80	508.7	601.7	155	121
90S	547.7	651.2	176	133
90L	547.7	651.2	176	133

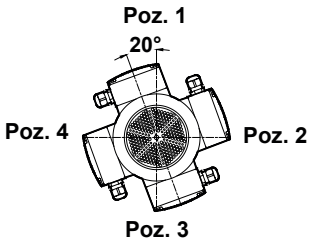
Dimensions “k1” is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

Tapped center hole to DIN 332, sheet 2

EV075.□ - NR11



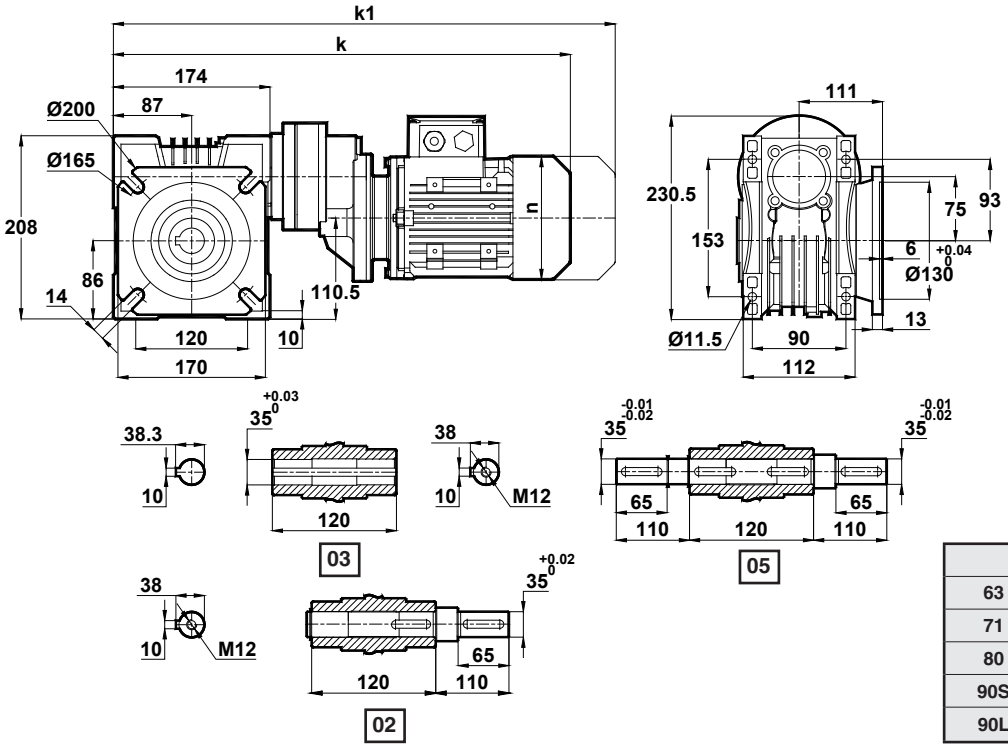
Terminal Box Positions



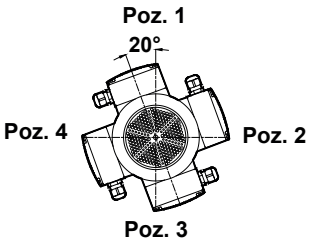
63-71-80-90
Type

	k	k1	n	n1
63	464	525	121	97
71	492.5	583.5	137	112
80	526.5	619.5	155	121
90S	565.5	669	176	133
90L	565.5	669	176	133

EV075.□ - NR11



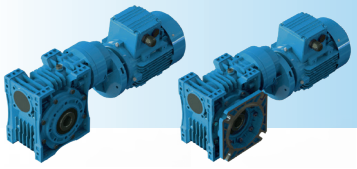
Terminal Box Positions



63-71-80-90
Type

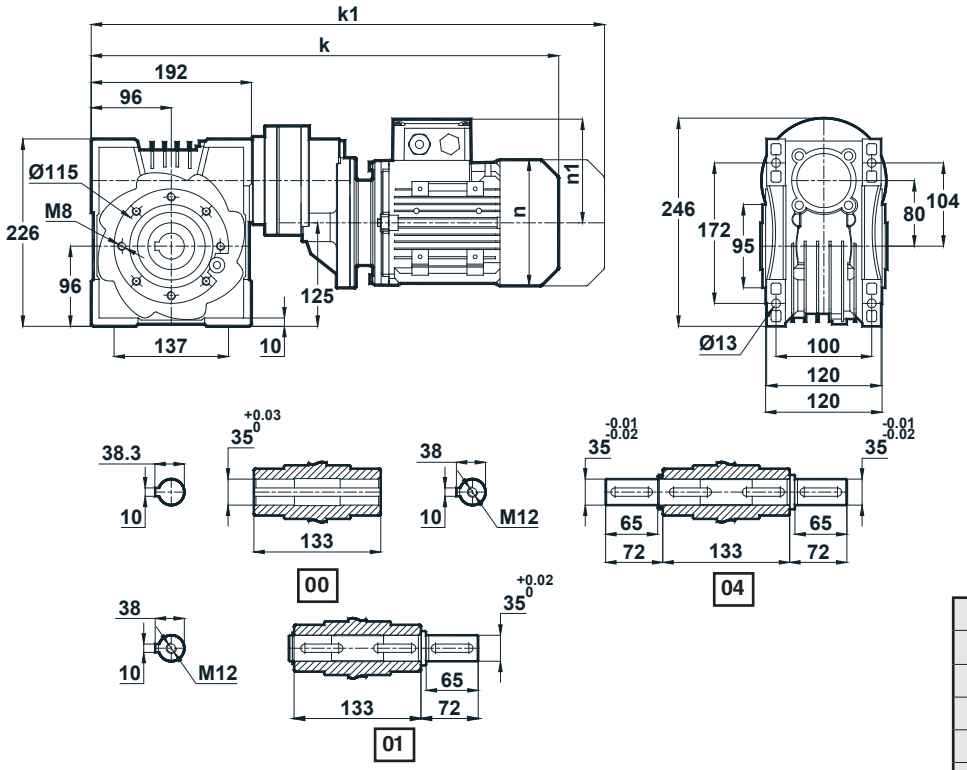
	k	k1	n	n1
63	464	525	121	97
71	492.5	583.5	137	112
80	526.5	619.5	155	121
90S	565.5	669	176	133
90L	565.5	669	176	133

Dimensions “k1” is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

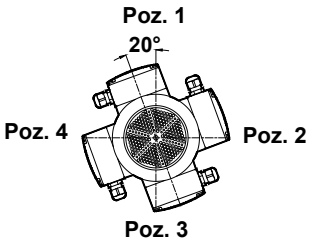


Tapped center hole to DIN 332, sheet 2

EV080.□ - NR11



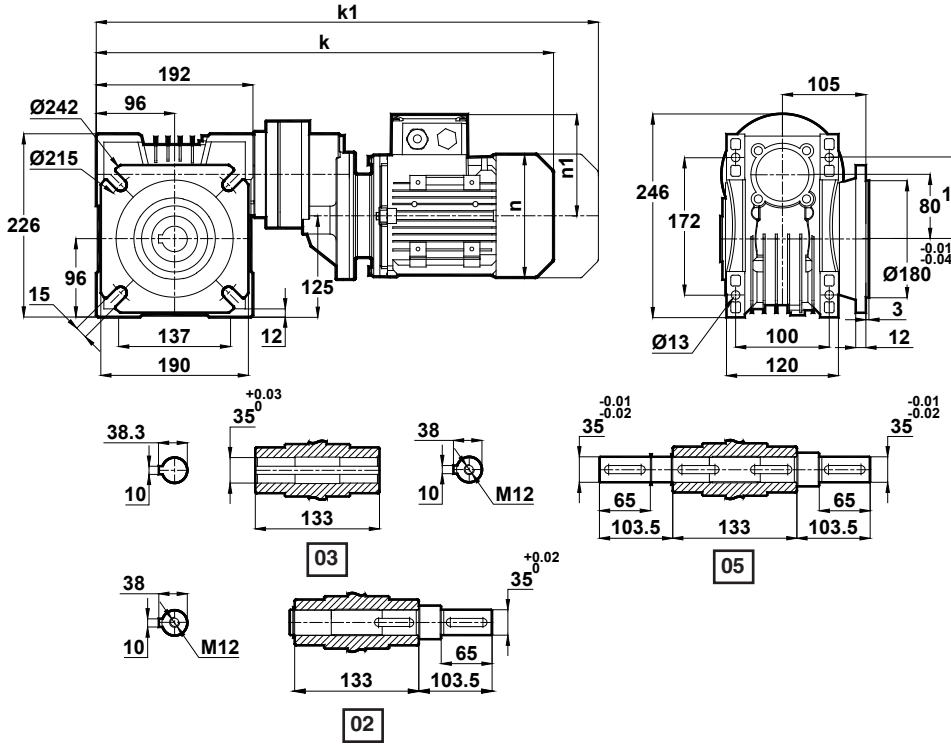
Terminal Box Positions



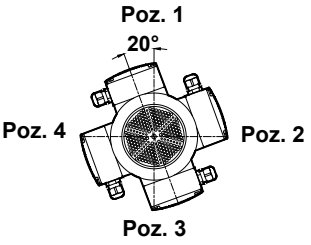
63-71-80-90
Type

	k	k1	n	n1
63	482	543	121	97
71	510.5	601.5	137	112
80	544.5	637.5	155	121
90S	583.5	687	176	133
90L	583.5	687	176	133

EV080.□ - NR11



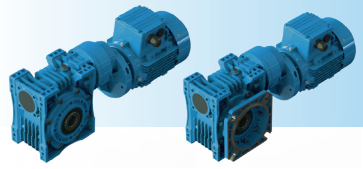
Terminal Box Positions



63-71-80-90
Type

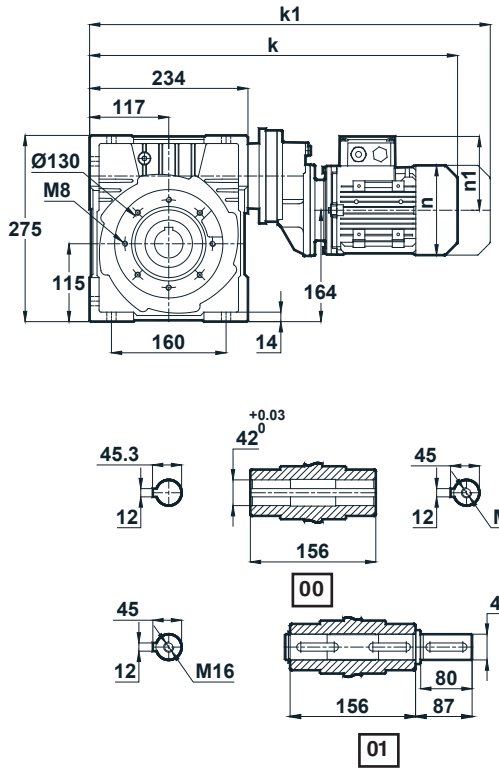
	k	k1	n	n1
63	482	543	121	97
71	510.5	601.5	137	112
80	544.5	637.5	155	121
90S	583.5	687	176	133
90L	583.5	687	176	133

Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.

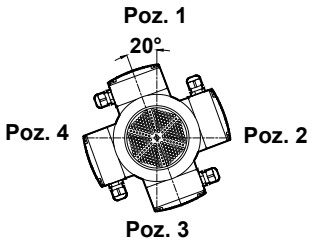


Tapped center hole to DIN 332, sheet 2

EV100.☐ - NR11



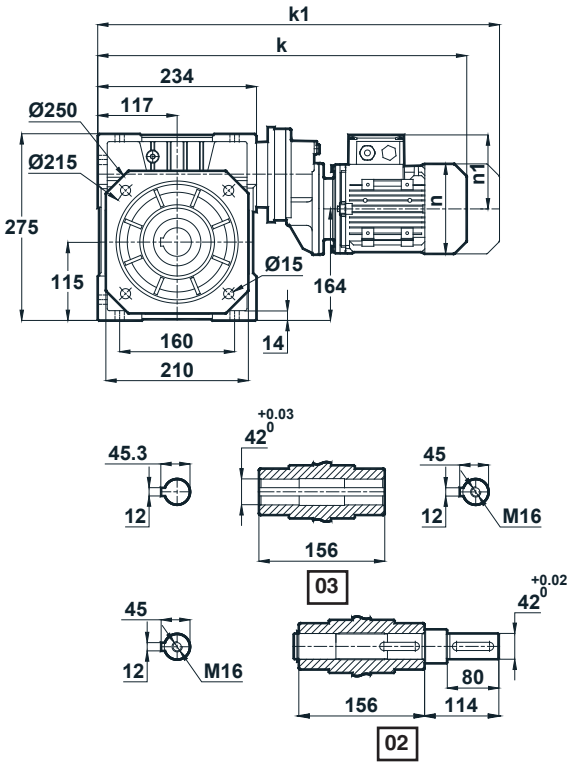
Terminal Box Positions



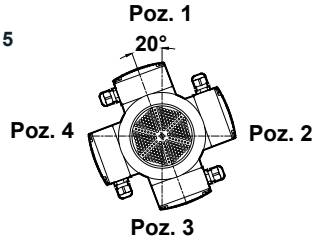
63-71-80-90
Type

	k	k1	n	n1
63	524	585	121	97
71	552.5	643.5	137	112
80	586.5	679.5	155	121
90S	625.5	729	176	133
90L	625.5	729	176	133

EV100.☐ - NR11



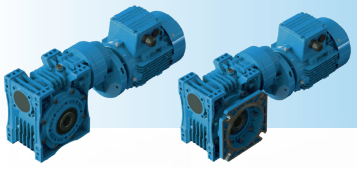
Terminal Box Positions



63-71-80-90
Type

	k	k1	n	n1
63	524	585	121	97
71	552.5	643.5	137	112
80	586.5	679.5	155	121
90S	625.5	729	176	133
90L	625.5	729	176	133

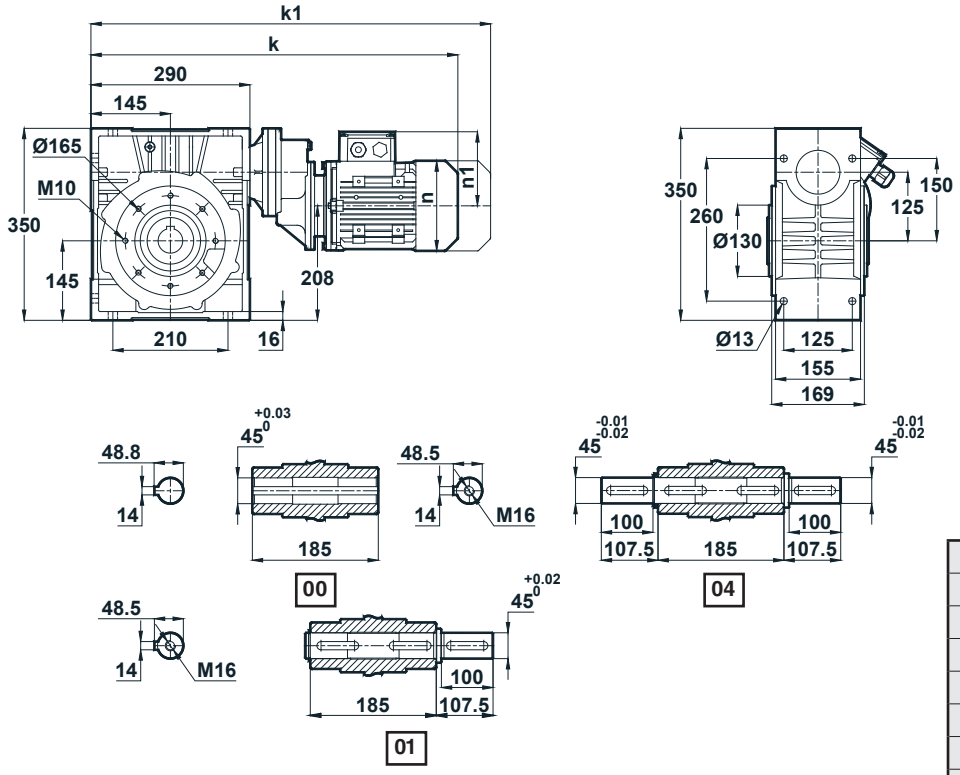
Dimensions “k1” is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



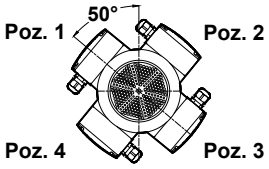
EV - DIMENSION PAGES

Tapped center hole to DIN 332, sheet 2

EV125.□ - NR21



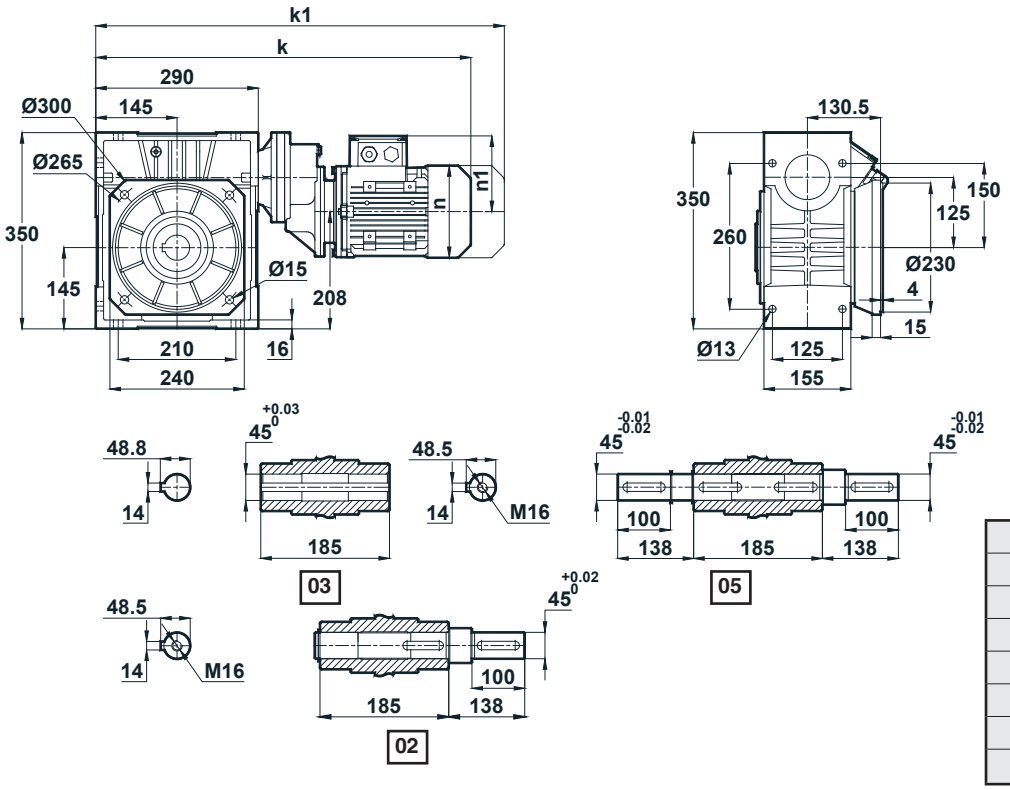
Terminal Box Positions



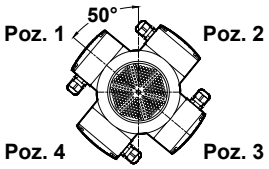
63-71-80-90-100-112
Type

	k	k1	n	n1
63	595	656	121	97
71	622	713	137	112
80	656	749	155	121
90S	695	798.5	176	133
90L	695	798.5	176	133
100L	743	851.5	193	147
112M	767	871.5	215	158

EV125.□ - NR21



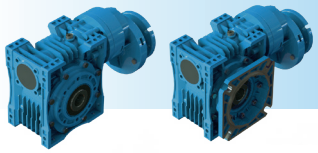
Terminal Box Positions



63-71-80-90-100-112
Type

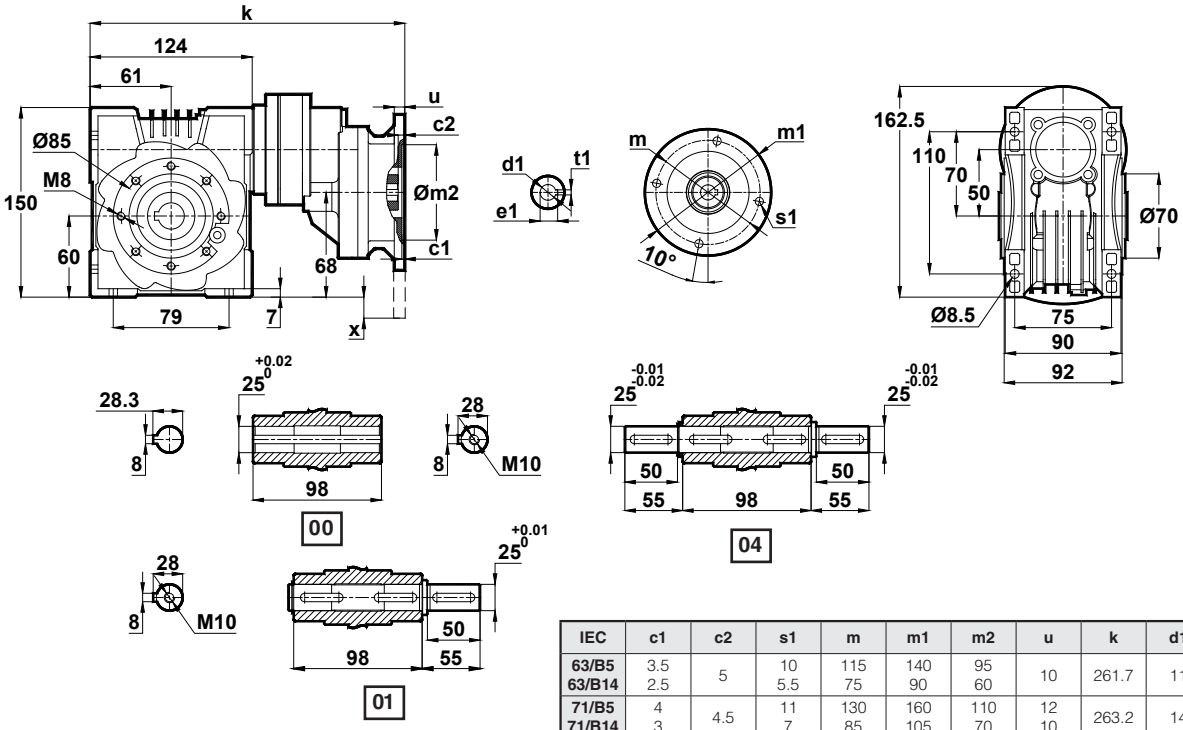
	k	k1	n	n1
63	595	656	121	97
71	622	713	138	112
80	656	749	156	121
90S	695	798.5	176	133
90L	695	798.5	176	133
100L	743	851.5	193	147
112M	767	871.5	215	158

Dimensions "k1" is for motors with brake. Gearboxes with 56 type electrical motors are not fan cooled, other types are fan cooled.



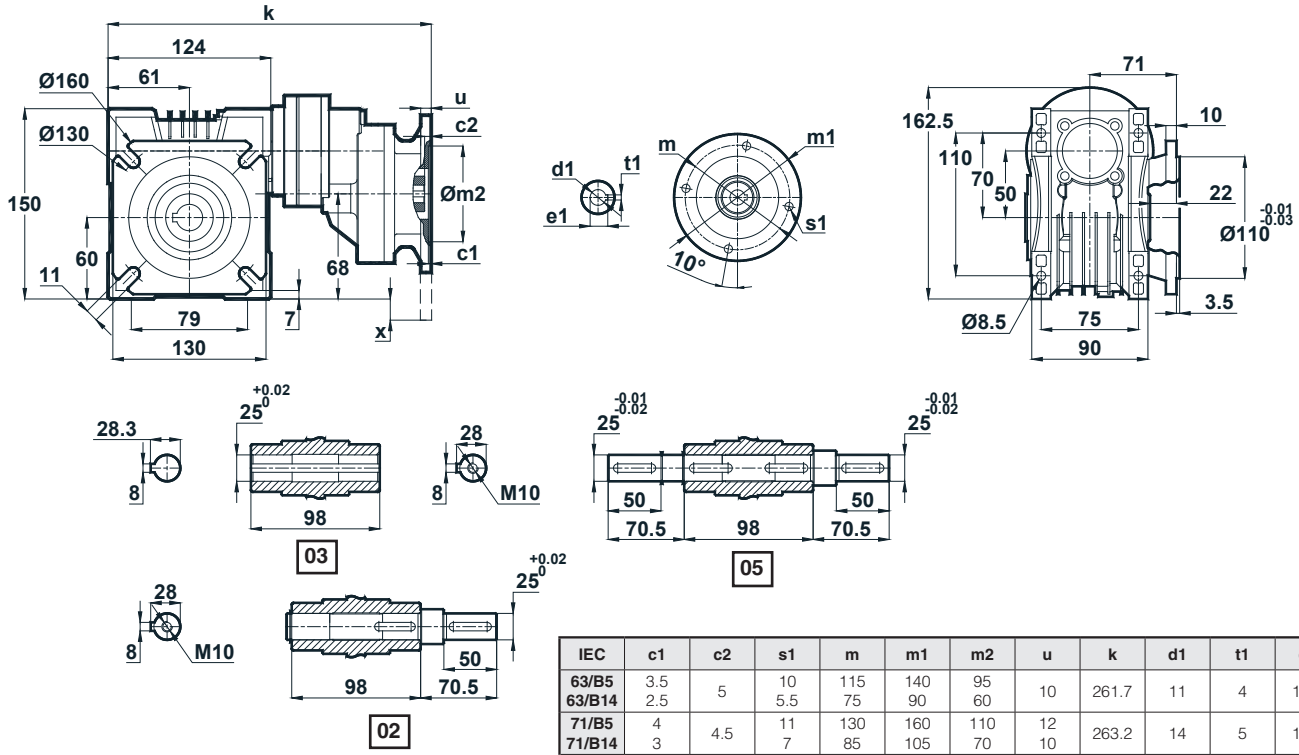
Tapped center hole to DIN 332, sheet 2

EV050.□ - NN01

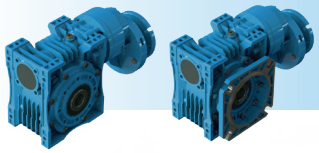


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
63/B5 63/B14	3.5 2.5	5	10 5.5	115 75	140 90	95 60	10	261.7	11	4	12.8	2 -
71/B5 71/B14	4 3	4.5	11 7	130 85	160 105	110 70	12 10	263.2	14	5	16.3	12 -
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	12	278.2	19	6	21.8	32 -
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	12	278.2	24	8	27.3	32 -

EV050.□ - NN01

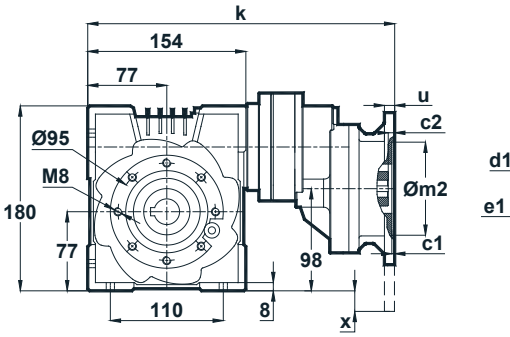


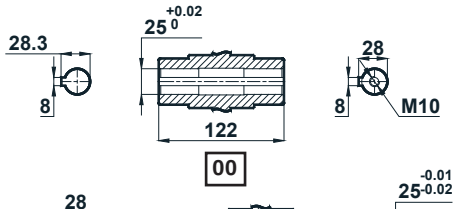
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
63/B5 63/B14	3.5 2.5	5	10 5.5	115 75	140 90	95 60	10	261.7	11	4	12.8	2 -
71/B5 71/B14	4 3	4.5	11 7	130 85	160 105	110 70	12 10	263.2	14	5	16.3	12 -
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	12	278.2	19	6	21.8	32 -
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	12	278.2	24	8	27.3	32 -

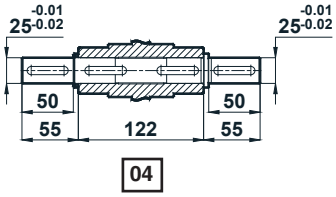


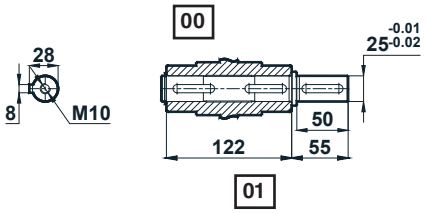
Tapped center hole to DIN 332, sheet 2

EV063.□ - NN01



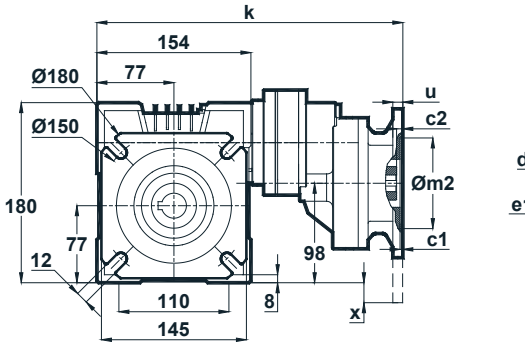


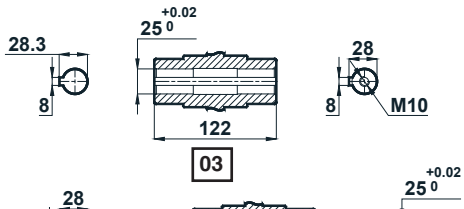


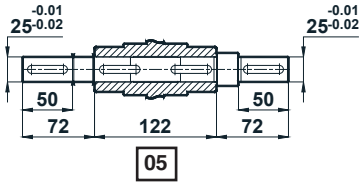


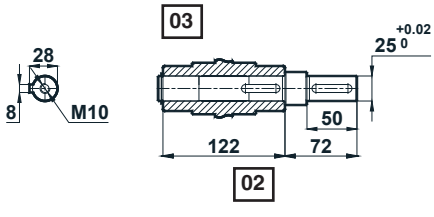
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
63/B5 63/B14	3.5 2.5	5	10 5.5	115 75	140 90	95 60	10	291.7	11	4	12.8	-
71/B5 71/B14	4 3	4.5	11 7	130 85	160 105	110 70	12 10	293.2	14	5	16.3	-
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	12	308.2	19	6	21.8	2 -
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	12	308.2	24	8	27.3	2 -

EV063.□ - NN01

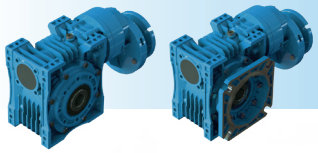






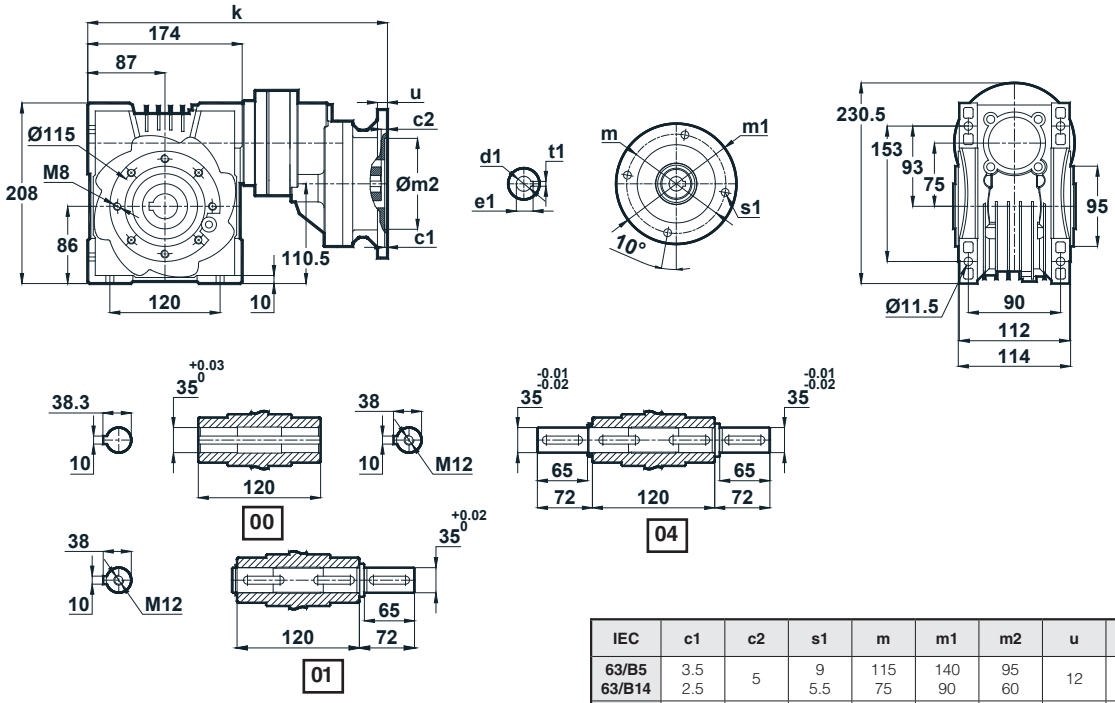


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
63/B5 63/B14	3.5 2.5	5	10 5.5	115 75	140 90	95 60	10	291.7	11	4	12.8	-
71/B5 71/B14	4 3	4.5	11 7	130 85	160 105	110 70	12 10	293.2	14	5	16.3	-
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	12	308.2	19	6	21.8	2 -
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	12	308.2	24	8	27.3	2 -



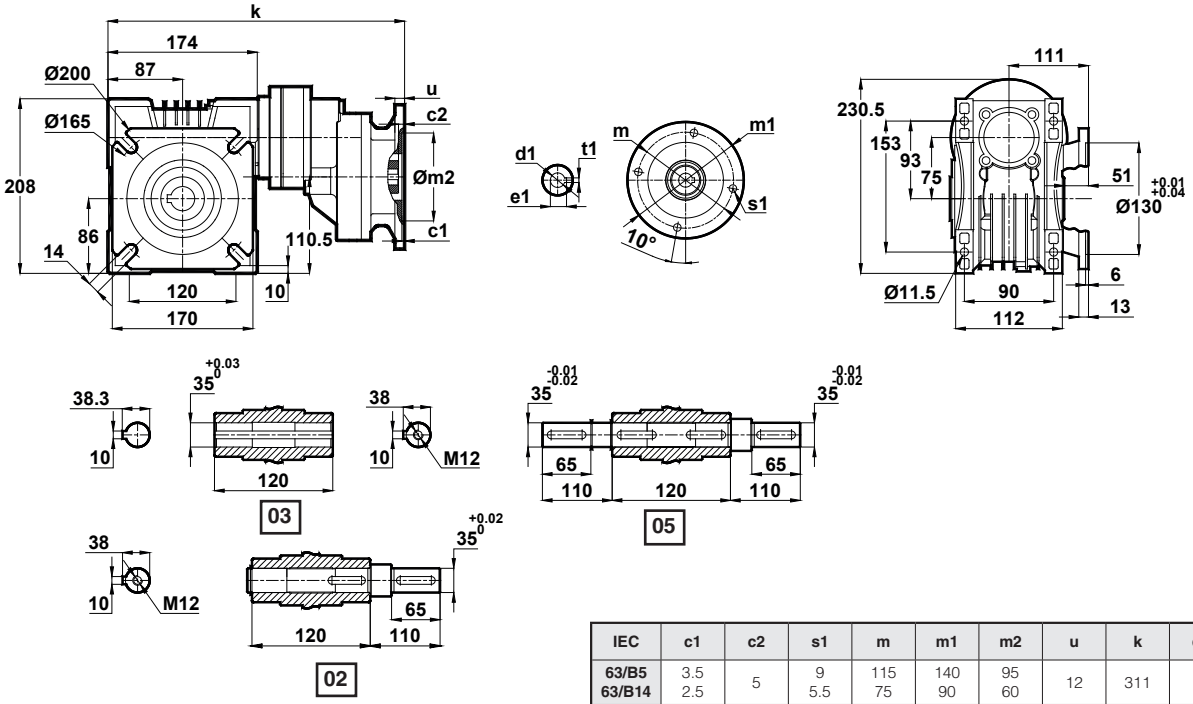
Tapped center hole to DIN 332, sheet 2

EV075.☐ - NN11

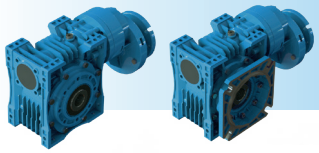


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5 63/B14	3.5 2.5	5	9 5.5	115 75	140 90	95 60	12	311	11	4	12.8
71/B5 71/B14	4 3	8.5	11 7	130 85	160 105	110 70	12 10	311	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	12	326	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	12	326	24	8	27.3

EV075.☐ - NN11

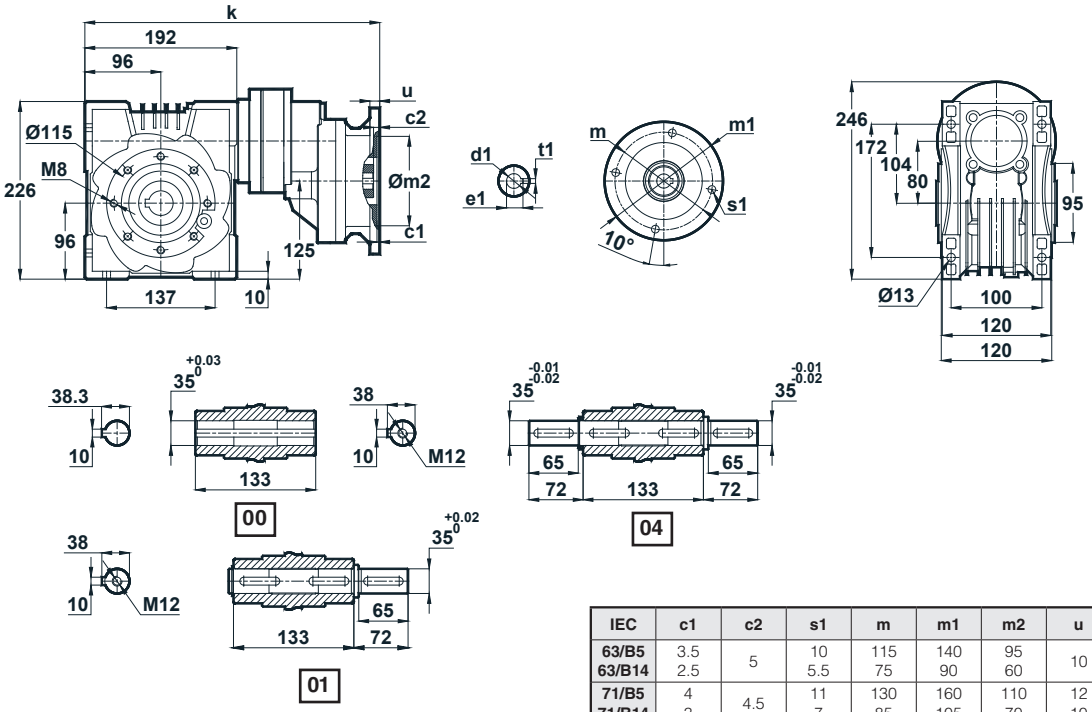


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5 63/B14	3.5 2.5	5	9 5.5	115 75	140 90	95 60	12	311	11	4	12.8
71/B5 71/B14	4 3	8.5	11 7	130 85	160 105	110 70	12 10	311	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	12	326	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	12	326	24	8	27.3



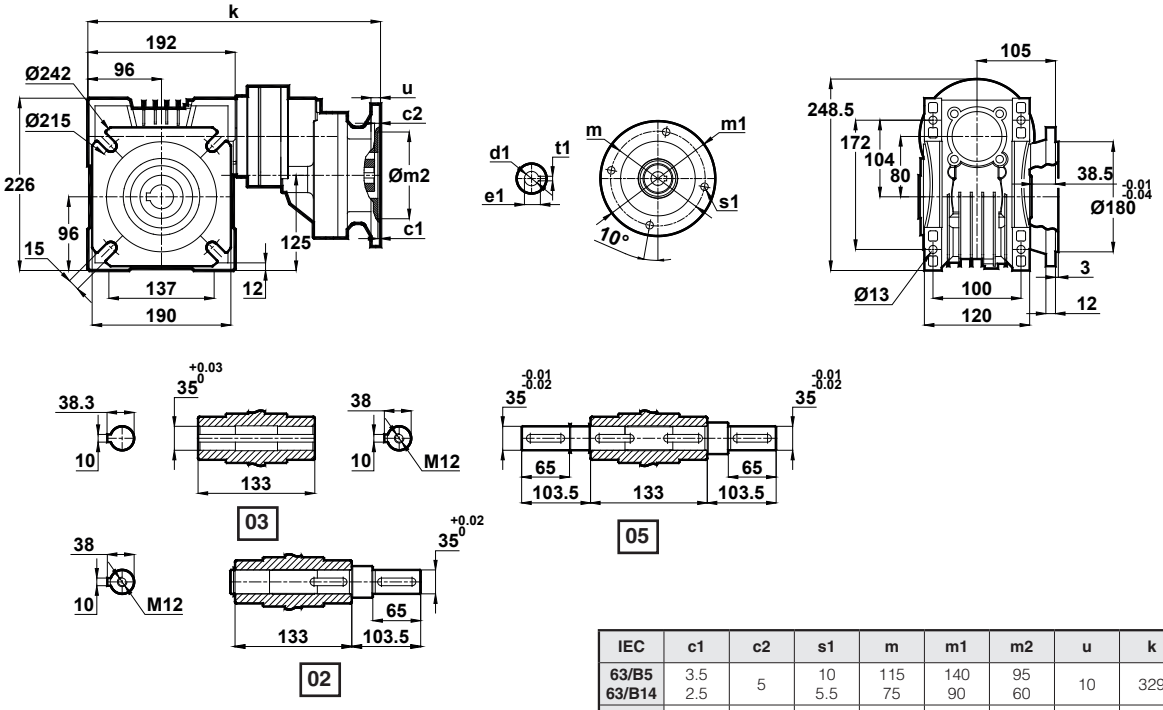
Tapped center hole to DIN 332, sheet 2

EV080.□ - NN11

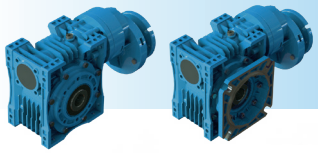


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5 63/B14	3.5 2.5	5	10 5.5	115 75	140 90	95 60	10	329	11	4	12.8
71/B5 71/B14	4 3	4.5	11 7	130 85	160 105	110 70	12 10	329	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	12	344	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	12	344	24	8	27.3

EV080.□ - NN11

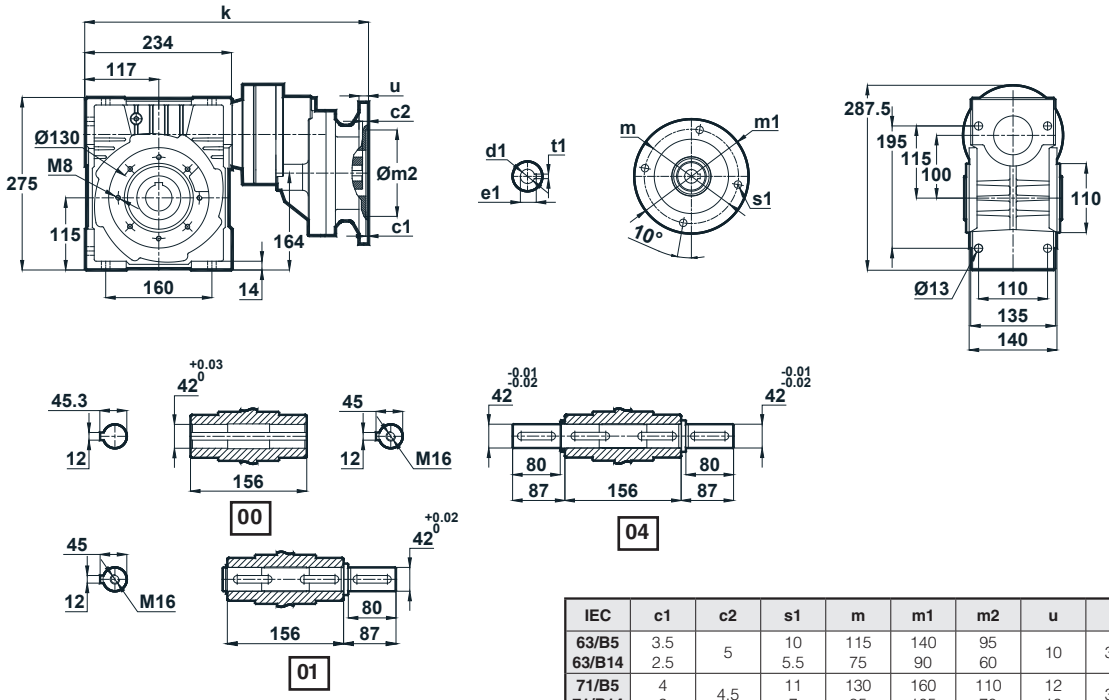


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5 63/B14	3.5 2.5	5	10 5.5	115 75	140 90	95 60	10	329	11	4	12.8
71/B5 71/B14	4 3	4.5	11 7	130 85	160 105	110 70	12 10	329	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	12	344	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	12	344	24	8	27.3



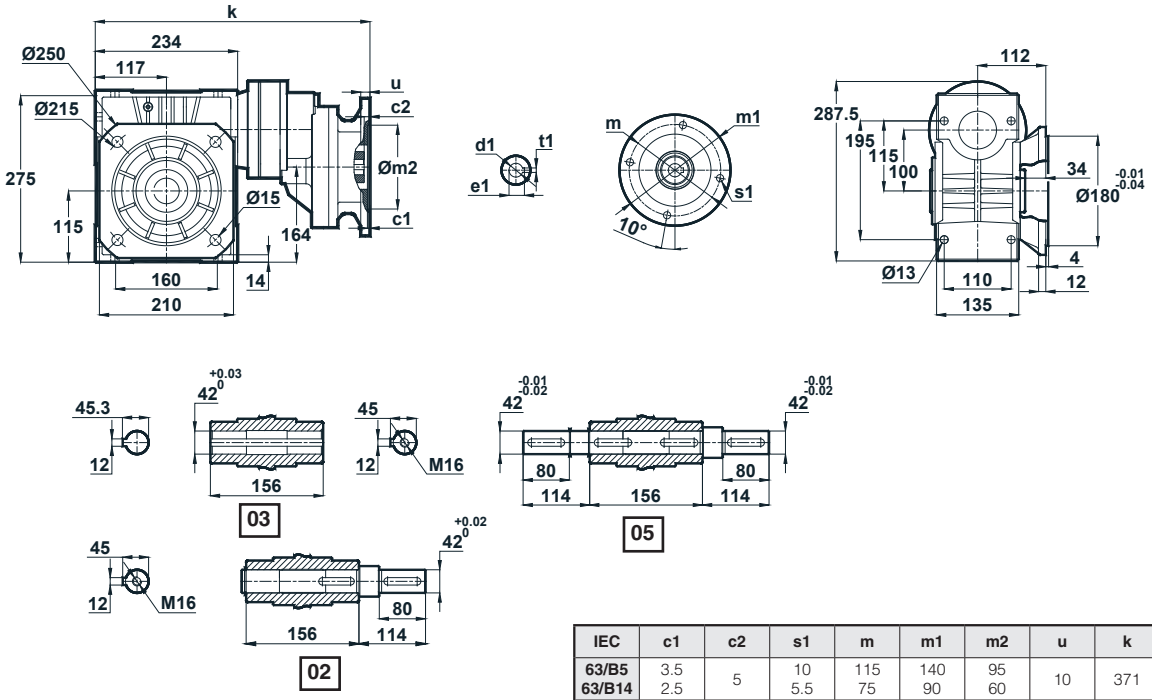
Tapped center hole to DIN 332, sheet 2

EV100.☐ - NN11

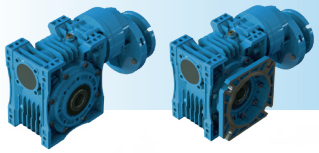


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5 63/B14	3.5 2.5	5	10 5.5	115 75	140 90	95 60	10	371	11	4	12.8
71/B5 71/B14	4 3	4.5	11 7	130 85	160 105	110 70	12 10	371	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	12	386	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	12	386	24	8	27.3

EV100.☐ - NN11

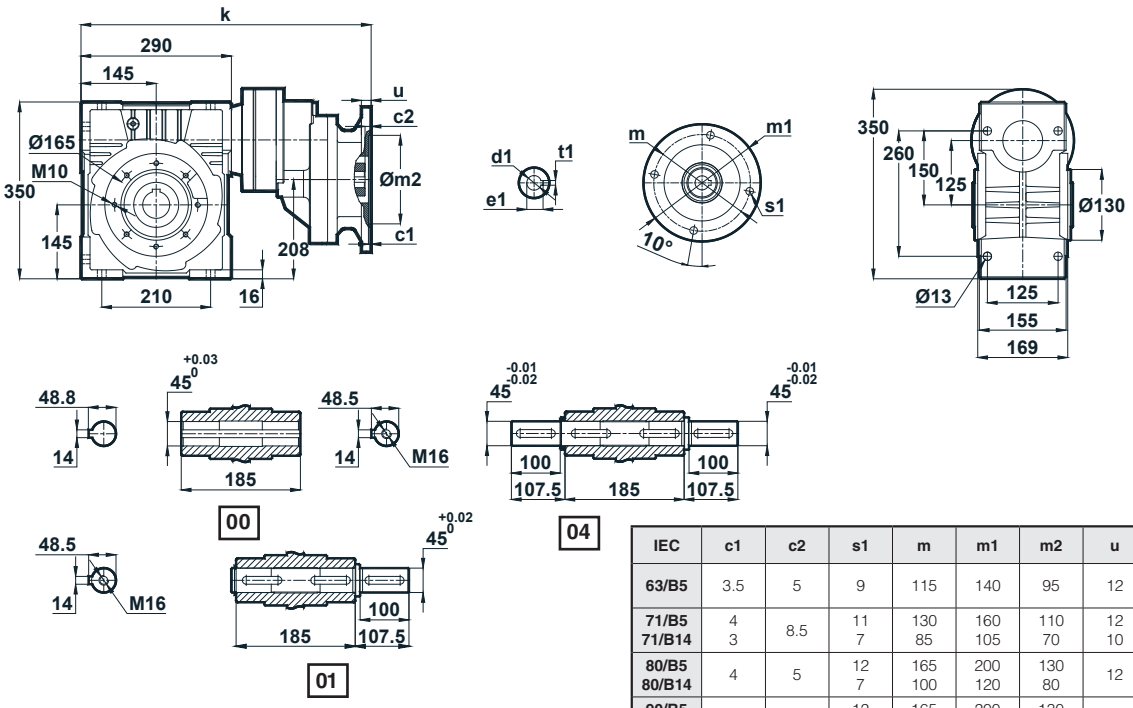


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5 63/B14	3.5 2.5	5	10 5.5	115 75	140 90	95 60	10	371	11	4	12.8
71/B5 71/B14	4 3	4.5	11 7	130 85	160 105	110 70	12 10	371	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	12	386	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	12	386	24	8	27.3



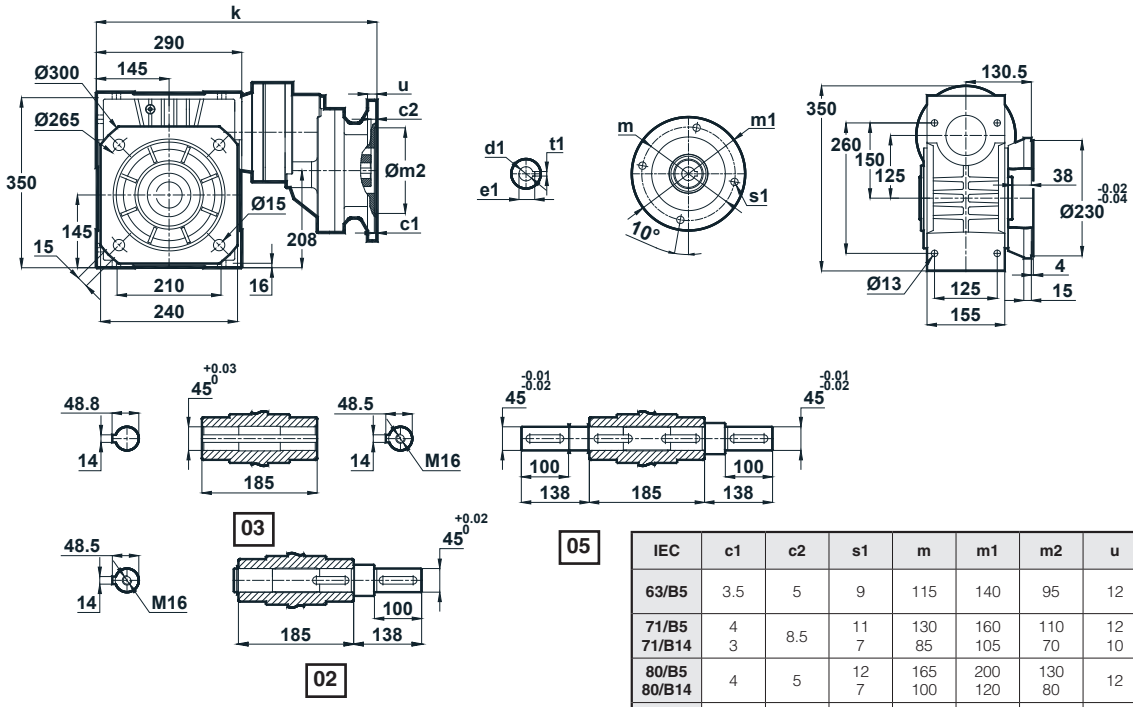
Tapped center hole to DIN 332, sheet 2

EV125.□ - NN21

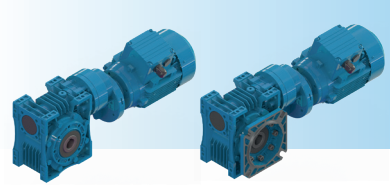


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5	3.5	5	9	115	140	95	12	474.5	11	4	12.8
71/B5 71/B14	4 3	8.5	11 7	130 85	160 105	110 70	12 10	445.5	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	12	474.5	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	12	474.5	24	8	27.3
100/B5 100/B14	4.5 3.5	5.5	15 9	215 130	250 160	180 110	12	467.5	28	8	31.3
112/B5 112/B14	4.5 3.5	5.5	15 9	215 130	250 160	180 110	12	467.5	28	8	31.3

EV125.□ - NN21

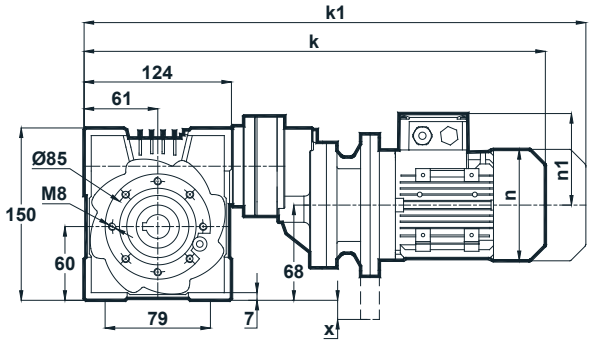


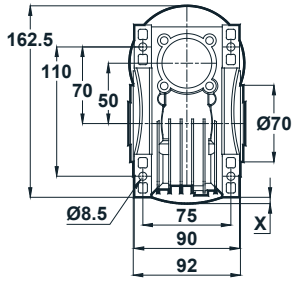
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5	3.5	5	9	115	140	95	12	474.5	11	4	12.8
71/B5 71/B14	4 3	8.5	11 7	130 85	160 105	110 70	12 10	445.5	14	5	16.3
80/B5 80/B14	4	5	12 7	165 100	200 120	130 80	12	474.5	19	6	21.8
90/B5 90/B14	4	5	12 9	165 115	200 140	130 95	12	474.5	24	8	27.3
100/B5 100/B14	4.5 3.5	5.5	15 9	215 130	250 160	180 110	12	467.5	28	8	31.3
112/B5 112/B14	4.5 3.5	5.5	15 9	215 130	250 160	180 110	12	467.5	28	8	31.3



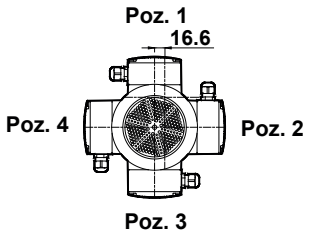
Tapped center hole to DIN 332, sheet 2

EV050.□ - NV01

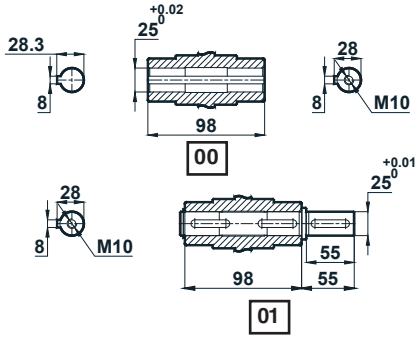


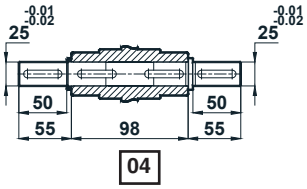


Terminal Box Positions



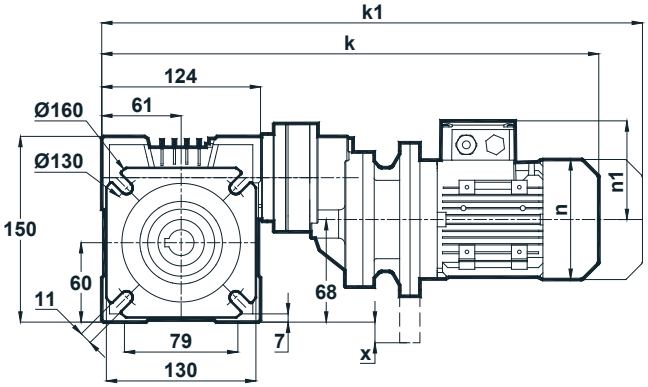
63-71-80-90
Type

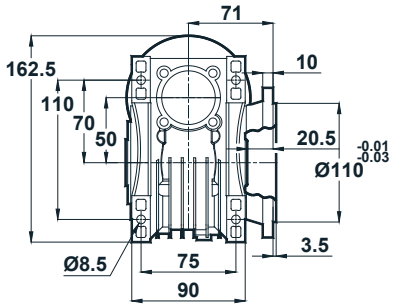




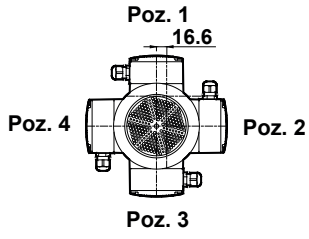
	k	k1	n	n1	x
63	416.2	477.2	121	97	-
71	444.7	535.7	137	112	0.5
80	478.7	571.7	155	121	9.5
90S	517.7	621.2	176	133	20
90L	517.7	621.2	176	133	20

EV050.□ - NV01

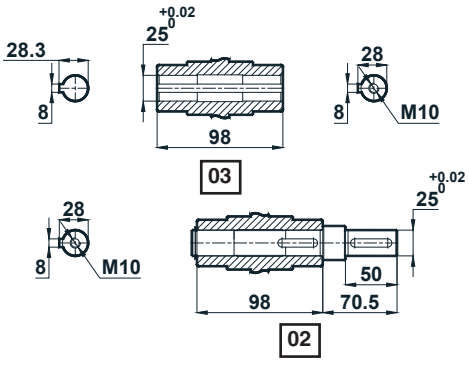


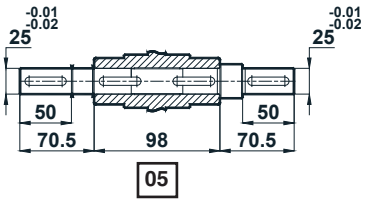


Terminal Box Positions

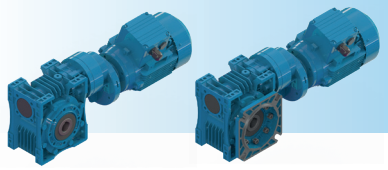


63-71-80-90
Type



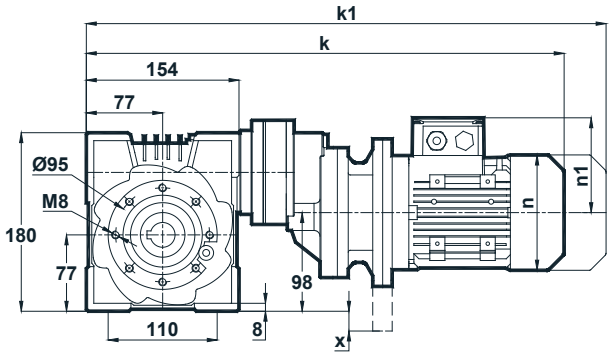


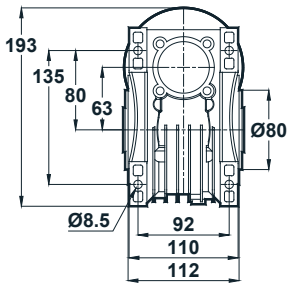
	k	k1	n	n1	x
63	416.2	477.2	121	97	-
71	444.7	535.7	137	112	0.5
80	478.7	571.7	155	121	9.5
90S	517.7	621.2	176	133	20
90L	517.7	621.2	176	133	20



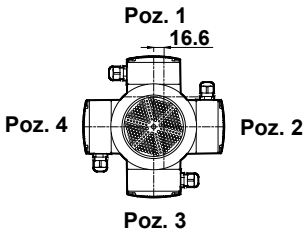
Tapped center hole to DIN 332, sheet 2

EV063.□ - NV01

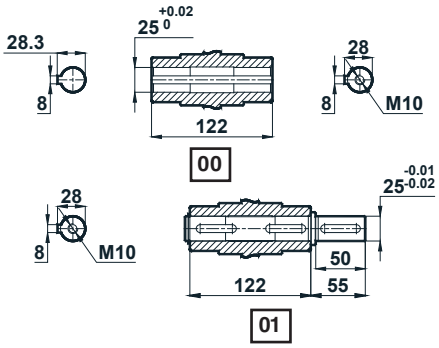




Terminal Box Positions

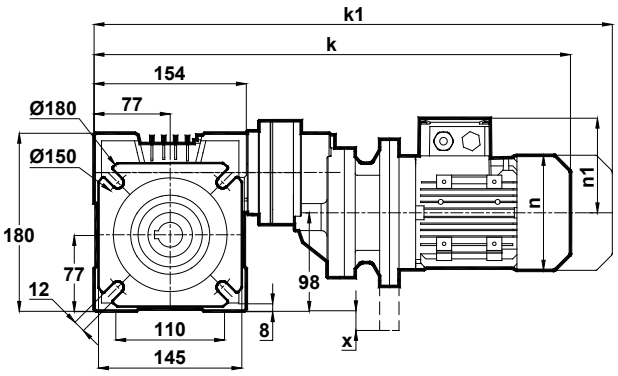


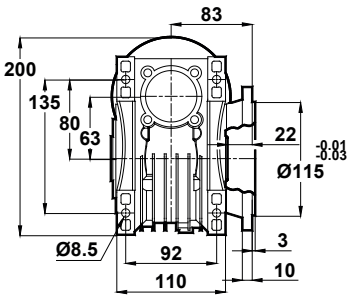
63-71-80-90
Type



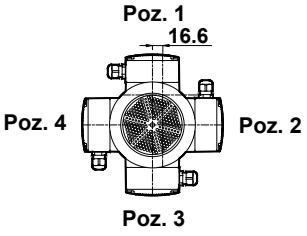
	k	k1	n	n1
63	446.2	507.2	121	97
71	474.7	565.7	137	112
80	508.7	601.7	155	121
90S	547.7	651.2	176	133
90L	547.7	651.2	176	133

EV063.□ - NV01

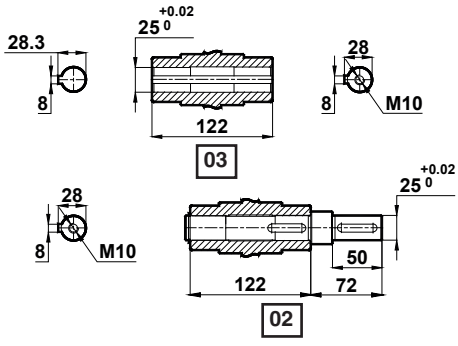




Terminal Box Positions



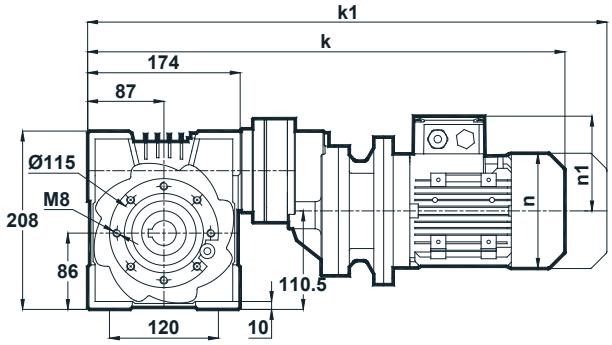
63-71-80-90
Type

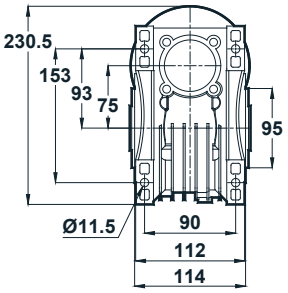


	k	k1	n	n1
63	446.2	507.2	121	97
71	474.7	565.7	137	112
80	508.7	601.7	155	121
90S	547.7	651.2	176	133
90L	547.7	651.2	176	133

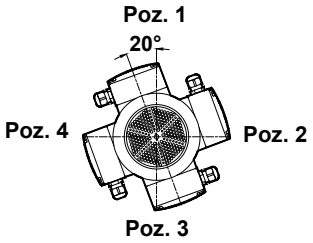
Tapped center hole to DIN 332, sheet 2

EV075.☐ - NV11

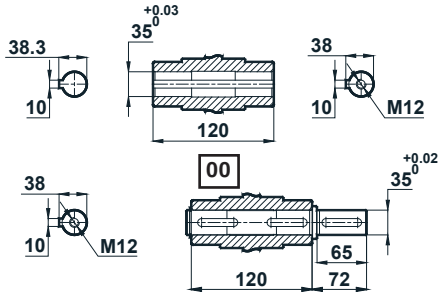


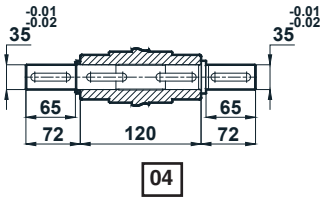


Terminal Box Positions



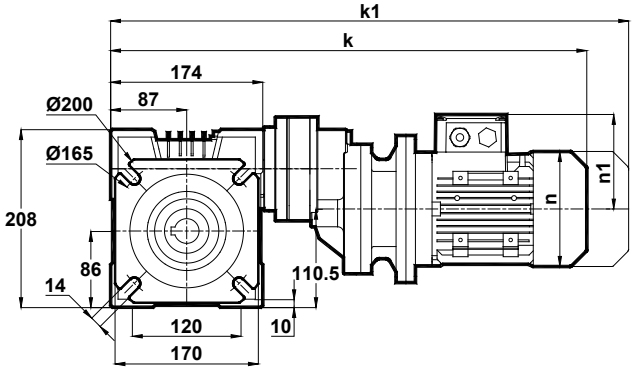
63-71-80-90
Type

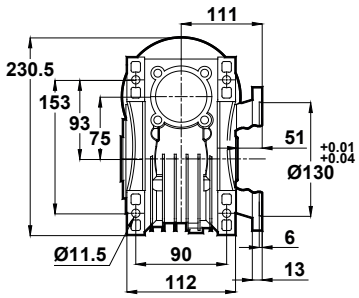




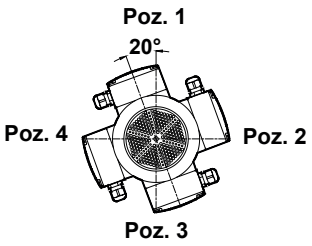
	k	k1	n	n1
63	464	525	121	97
71	492.5	583.5	137	112
80	526.5	619.5	155	121
90S	565.5	669	176	133
90L	565.5	669	176	133

EV075.☐ - NV11

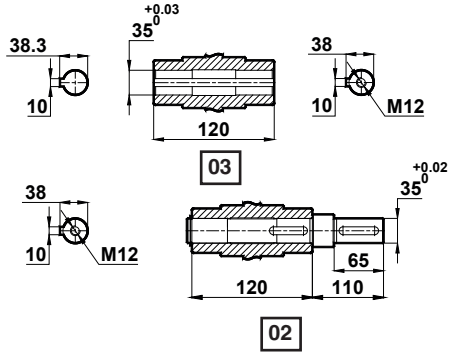


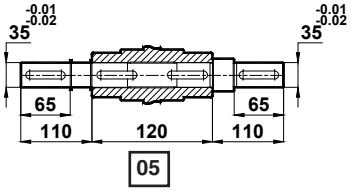


Terminal Box Positions

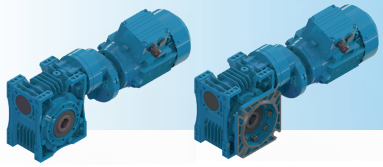


63-71-80-90
Type



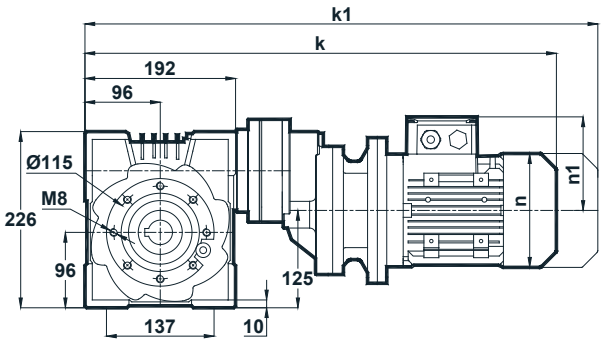


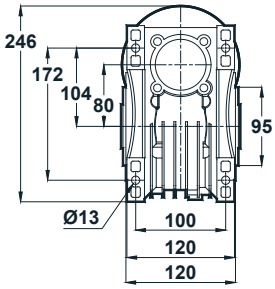
	k	k1	n	n1
63	464	525	121	97
71	492.5	583.5	137	112
80	526.5	619.5	155	121
90S	565.5	669	176	133
90L	565.5	669	176	133



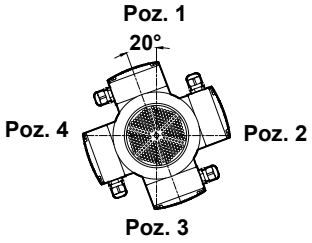
Tapped center hole to DIN 332, sheet 2

EV080.□ - NV11

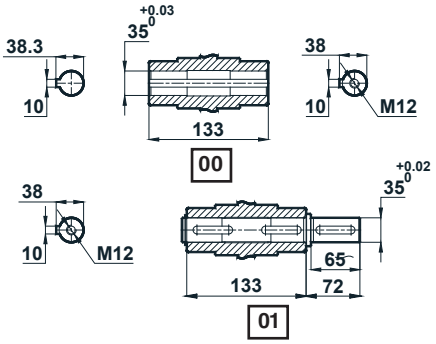


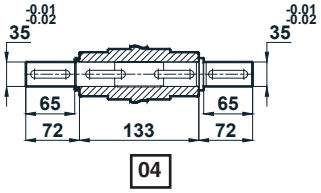


Terminal Box Positions



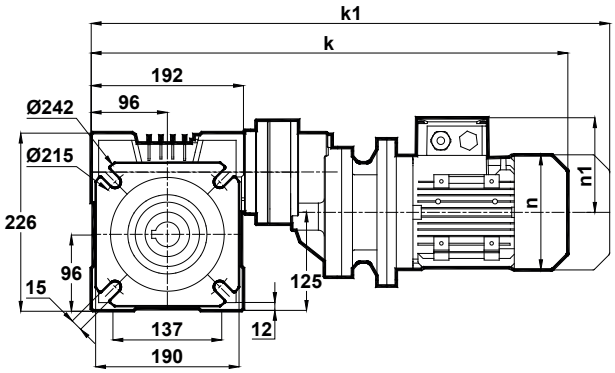
63-71-80-90
Type

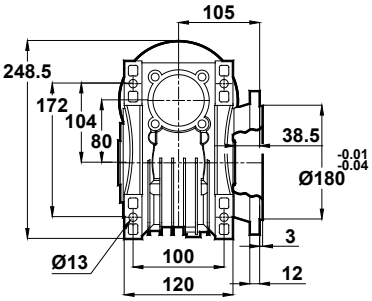




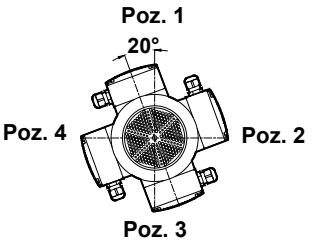
	k	k1	n	n1
63	482	543	121	97
71	510.5	601.5	137	112
80	544.5	637.5	155	121
90S	583.5	687	176	133
90L	583.5	687	176	133

EV080.□ - NV11

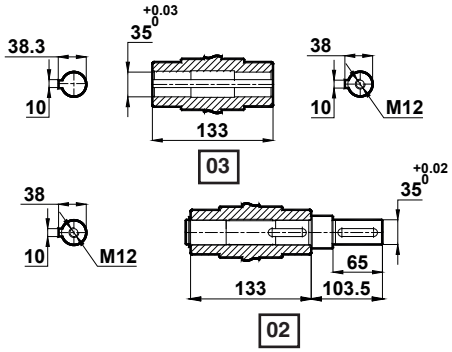


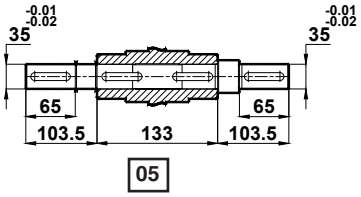


Terminal Box Positions



63-71-80-90
Type

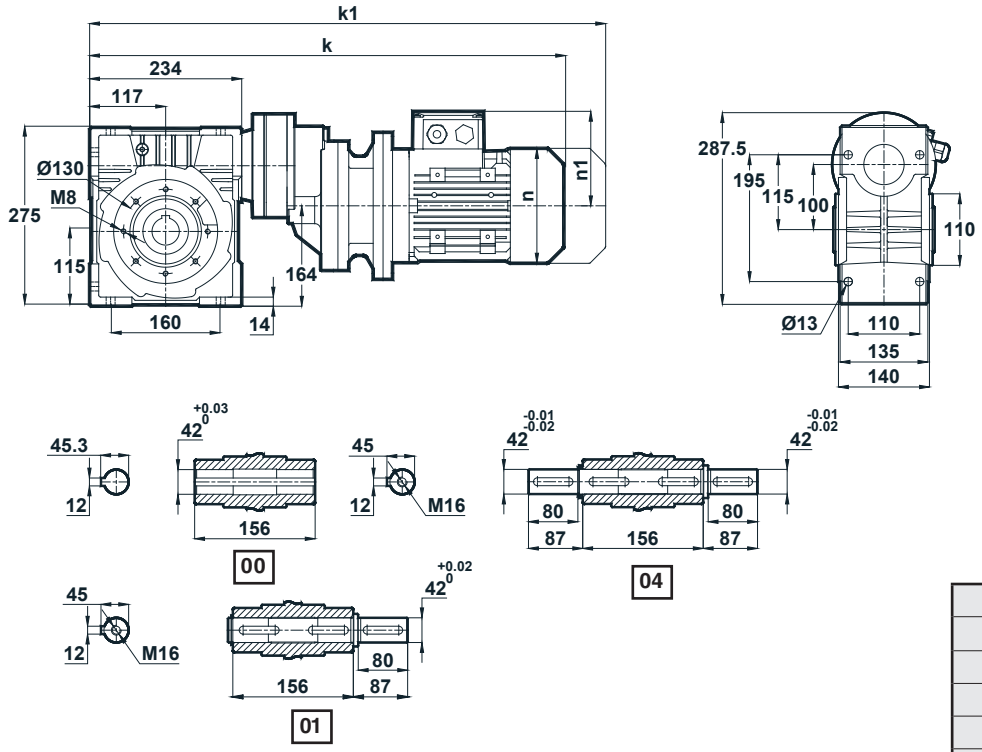




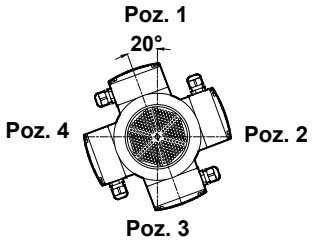
	k	k1	n	n1
63	482	543	121	97
71	510.5	601.5	137	112
80	544.5	637.5	155	121
90S	583.5	687	176	133
90L	583.5	687	176	133

Tapped center hole to DIN 332, sheet 2

EV100.☐ - NV11



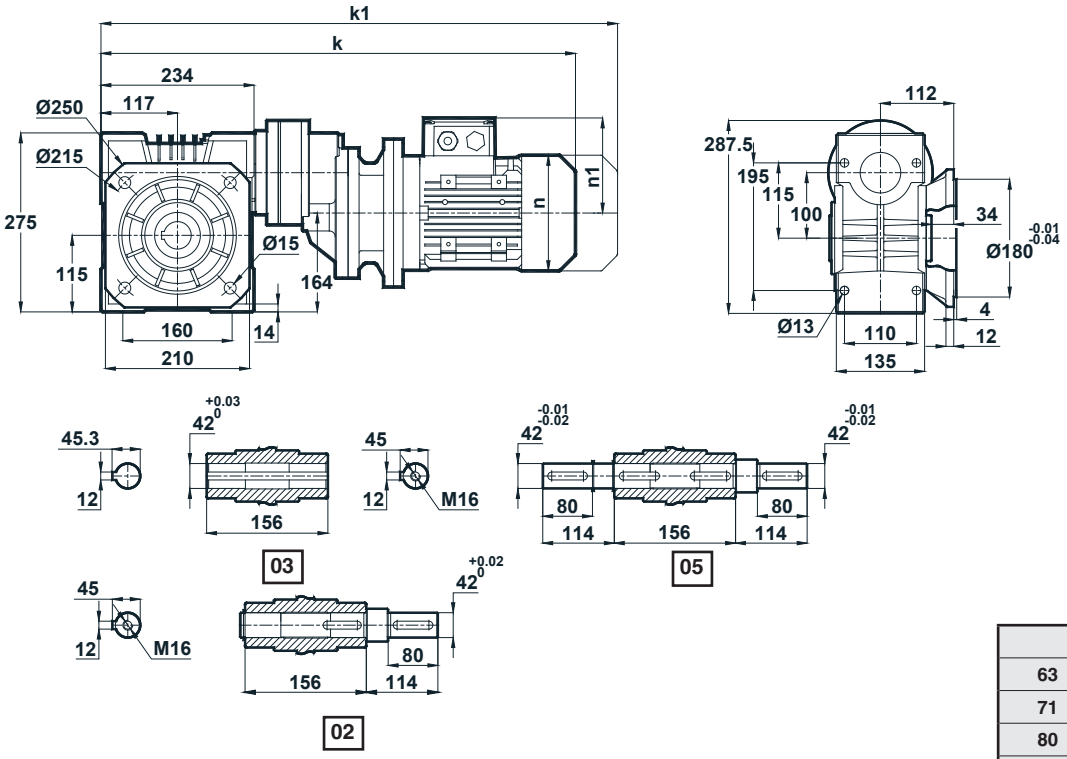
Terminal Box Positions



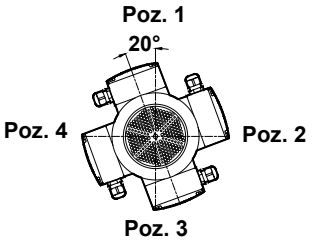
63-71-80-90
Type

	k	k1	n	n1
63	524	585	121	97
71	552.5	643.5	137	112
80	586.5	679.5	155	121
90S	625.5	729	176	133
90L	625.5	729	176	133

EV100.☐ - NV11

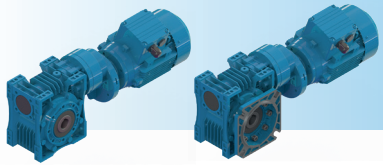


Terminal Box Positions



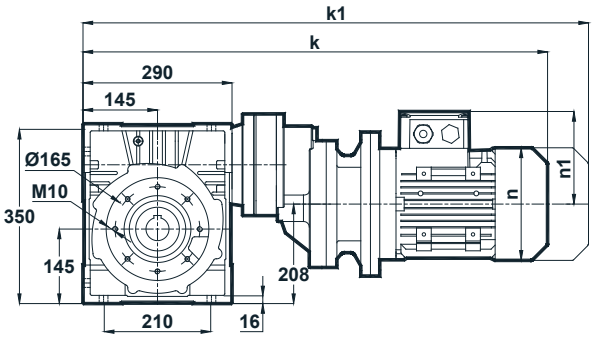
63-71-80-90
Type

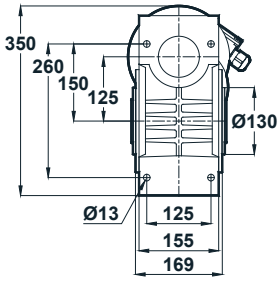
	k	k1	n	n1
63	524	585	121	97
71	552.5	643.5	137	112
80	586.5	679.5	155	121
90S	625.5	729	176	133
90L	625.5	729	176	133



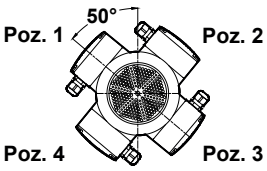
Tapped center hole to DIN 332, sheet 2

EV125.□ - NV21

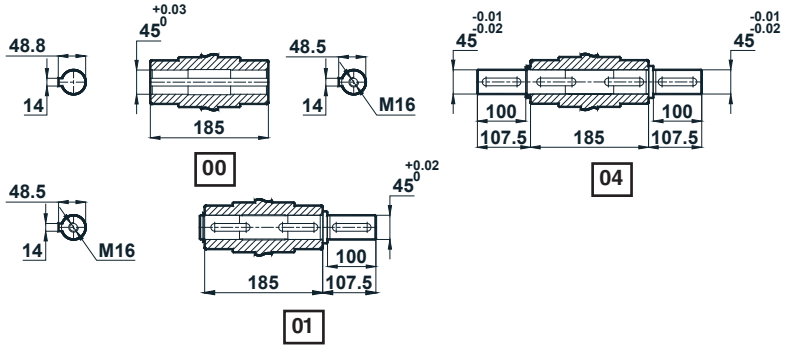




Terminal Box Positions

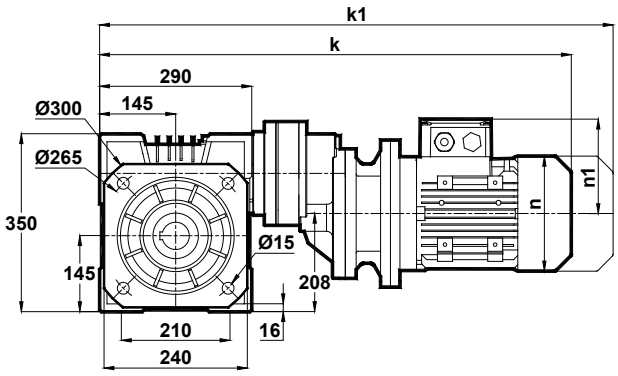


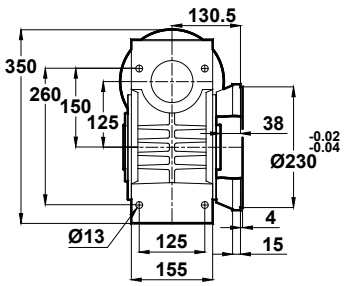
63-71-80-90-100-112
Type



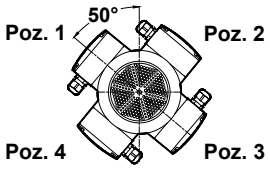
	k	k1	n	n1
63	595	656	121	97
71	622	713	137	112
80	656	749	155	121
90S	695	798.5	176	133
90L	695	798.5	176	133
100L	743	851.5	193	147
112M	767	871.5	215	158

EV125.□ - NV21

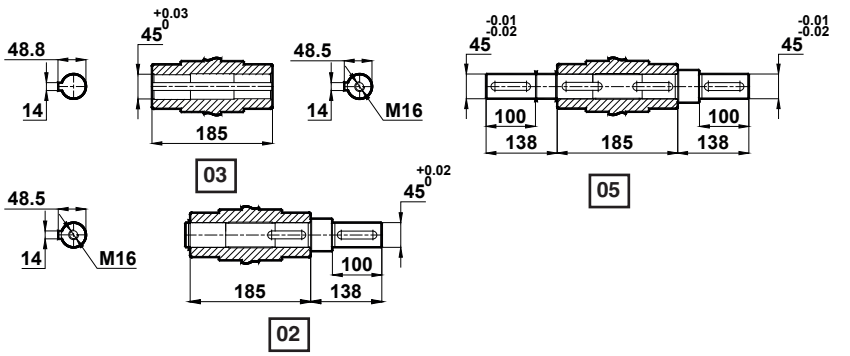




Terminal Box Positions

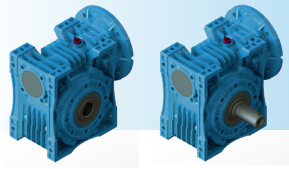


63-71-80-90-100-112
Type



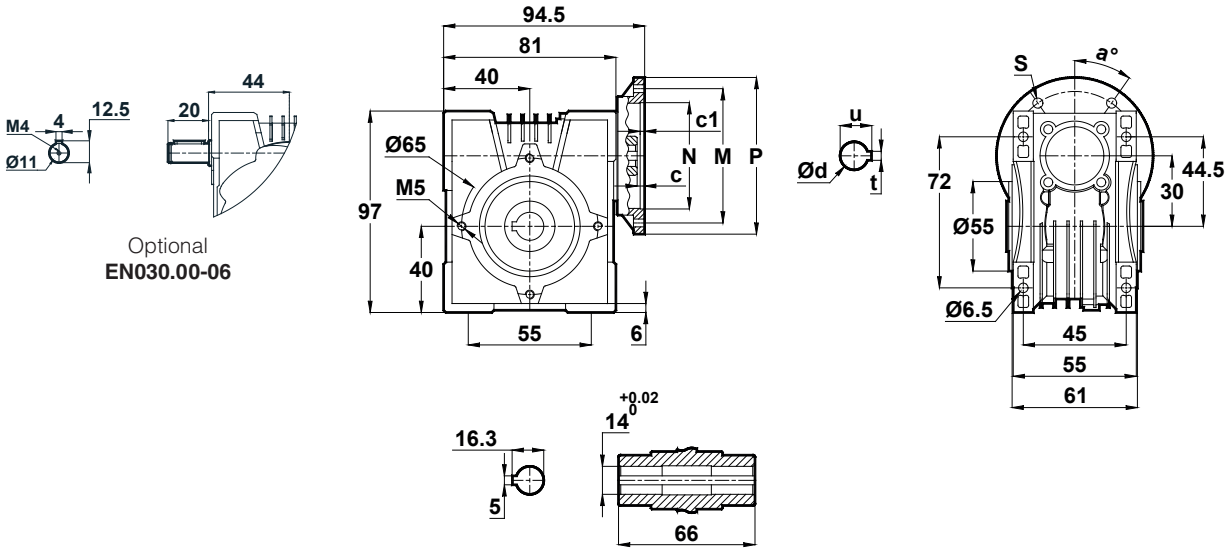
	k	k1	n	n1
63	595	656	121	97
71	622	713	138	112
80	656	749	156	121
90S	695	798.5	176	133
90L	695	798.5	176	133
100L	743	851.5	194	147
112M	767	871.5	218	158

DANA BREVINI® Motion Systems

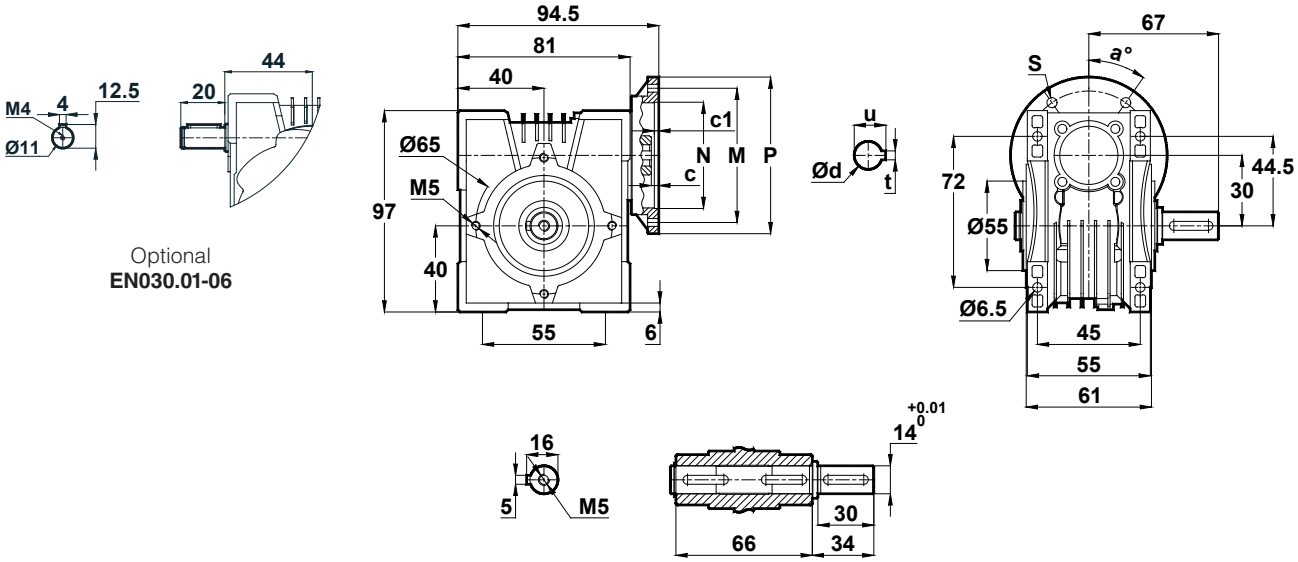


Tapped center hole to DIN 332, sheet 2

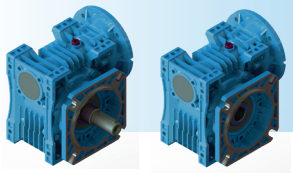
EN030.00



EN030.01

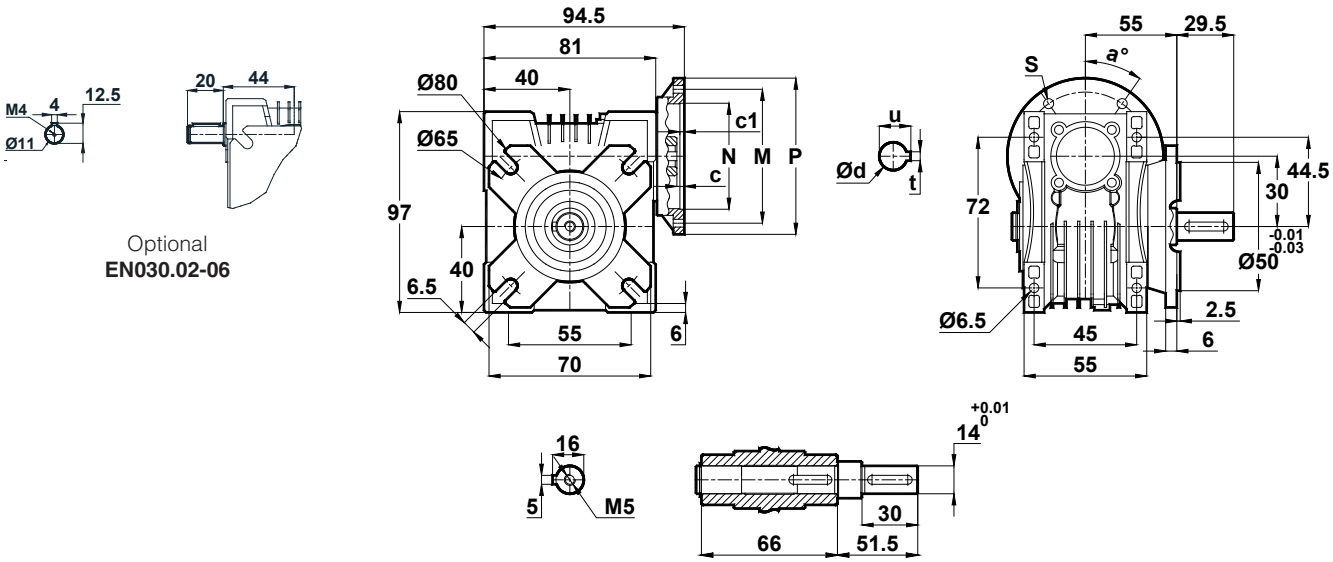


EN030	c	c1	N	M	P	d	u	t	a	s
56/B14	4.2	3	50	65	80	9	10.4	3	45°	5.5
63/B14	4.2	2.5	60	75	90	11	12.8	4	45°	5.5
63/B5	4.2	3.5	95	115	140	11	12.8	4	45°	10

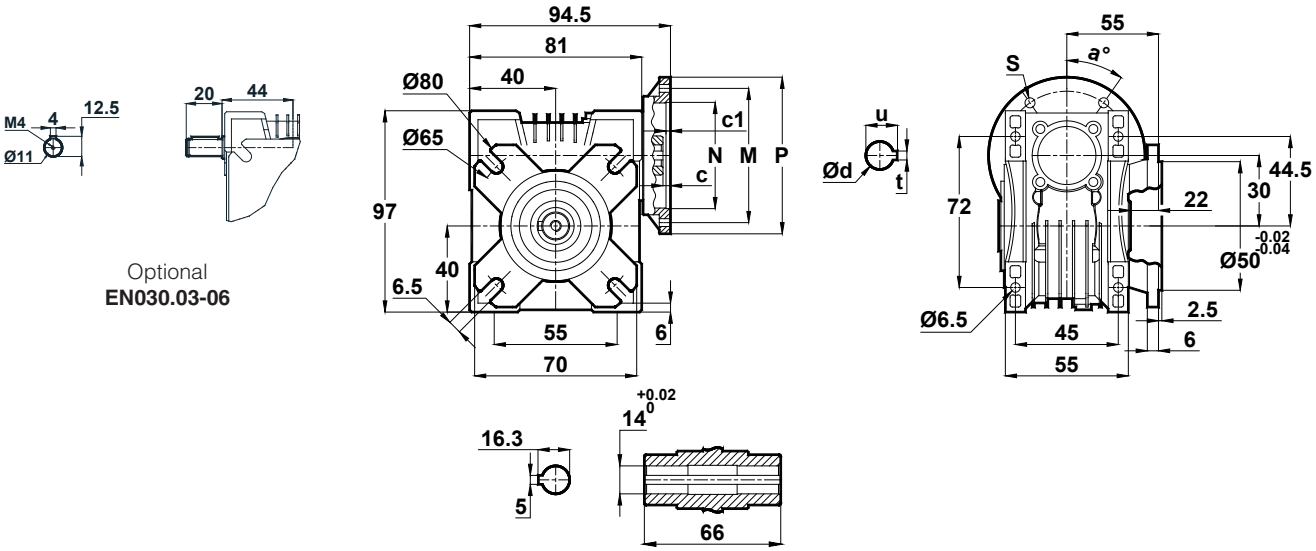


Tapped center hole to DIN 332, sheet 2

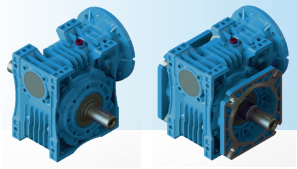
EN030.02



EN030.03

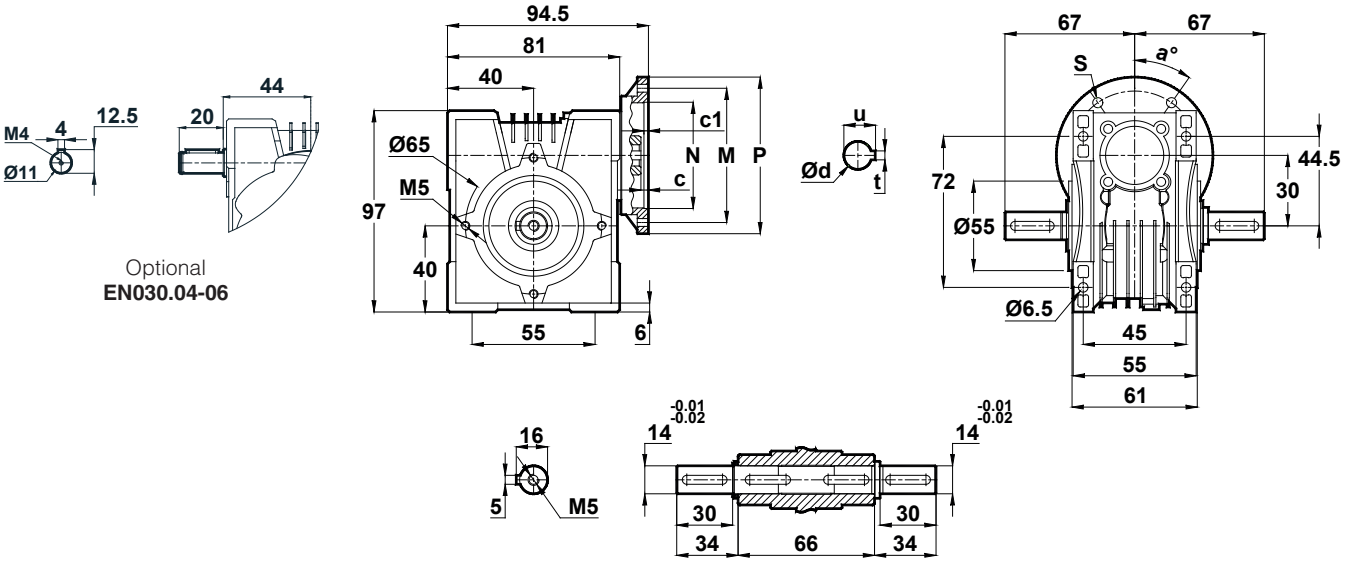


EN030	c	c1	N	M	P	d	u	t	a	s
56/B14	4.2	3	50	65	80	9	10.4	3	45°	5.5
63/B14	4.2	2.5	60	75	90	11	12.8	4	45°	5.5
63/B5	4.2	3.5	95	115	140	11	12.8	4	45°	10



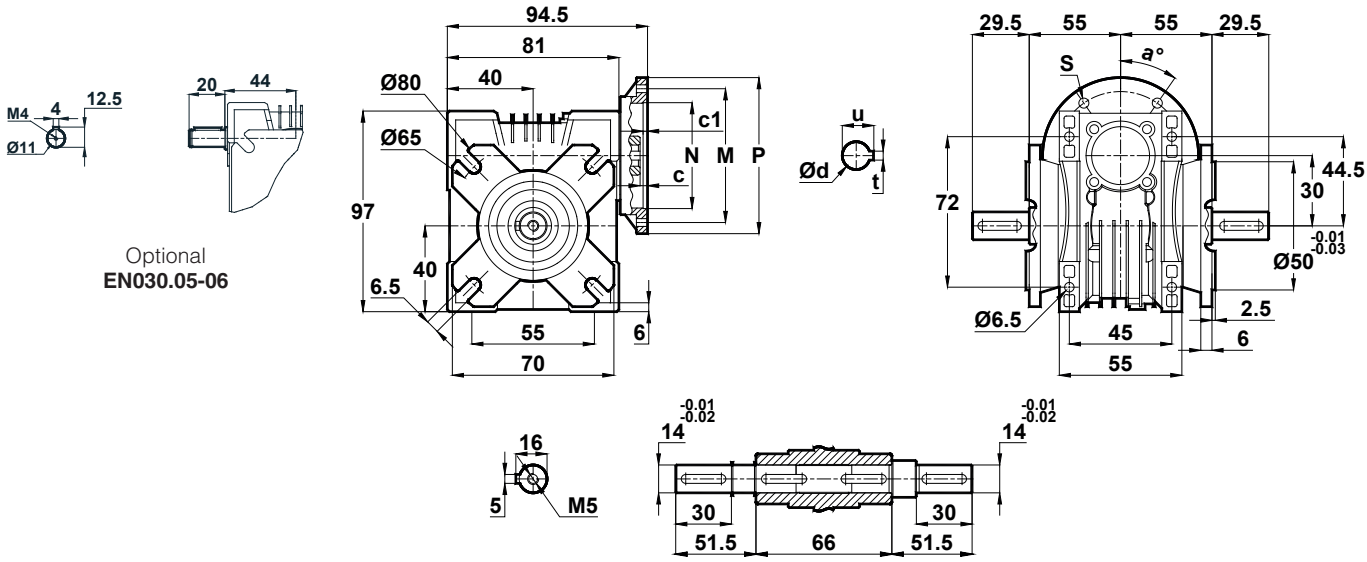
Tapped center hole to DIN 332, sheet 2

EN030.04



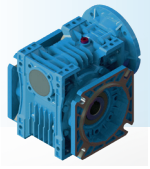
Optional
EN030.04-06

EN030.05



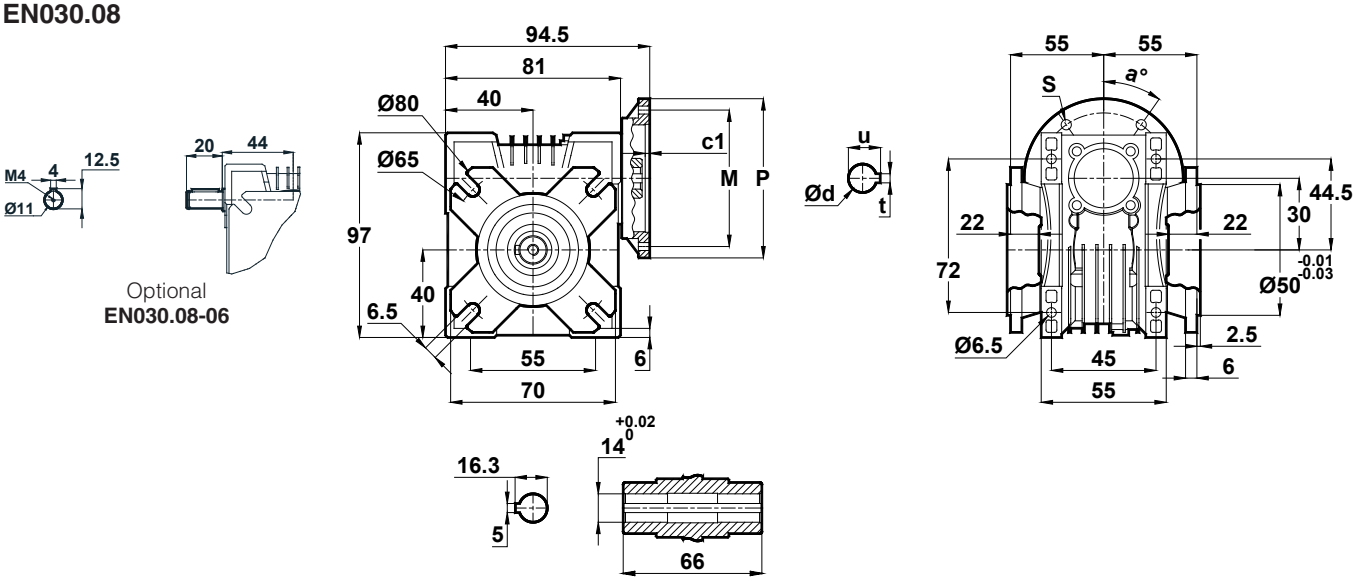
Optional
EN030.05-06

EN030	c	c1	N	M	P	d	u	t	a	s
56/B14	4.2	3	50	65	80	9	10.4	3	45°	5.5
63/B14	4.2	2.5	60	75	90	11	12.8	4	45°	5.5
63/B5	4.2	3.5	95	115	140	11	12.8	4	45°	10

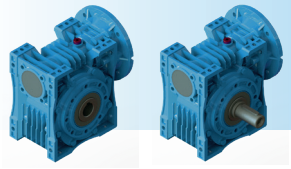


Tapped center hole to DIN 332, sheet 2

EN030.08

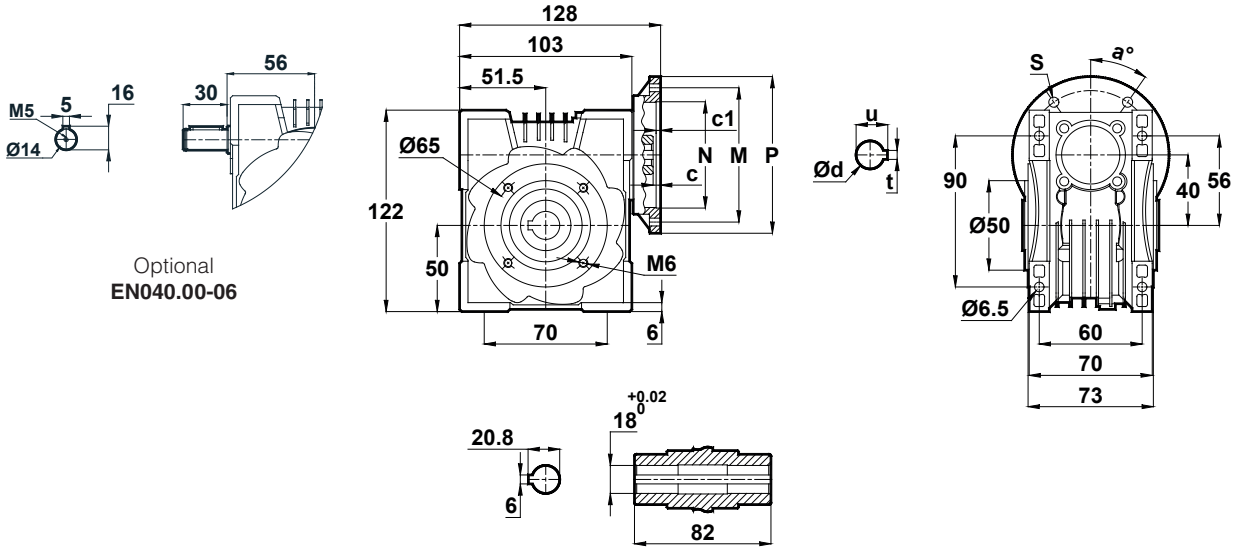


EN030	c	c1	N	M	P	d	u	t	a	s
56/B14	4.2	3	50	65	80	9	10.4	3	45°	5.5
63/B14	4.2	2.5	60	75	90	11	12.8	4	45°	5.5
63/B5	4.2	3.5	95	115	140	11	12.8	4	45°	10

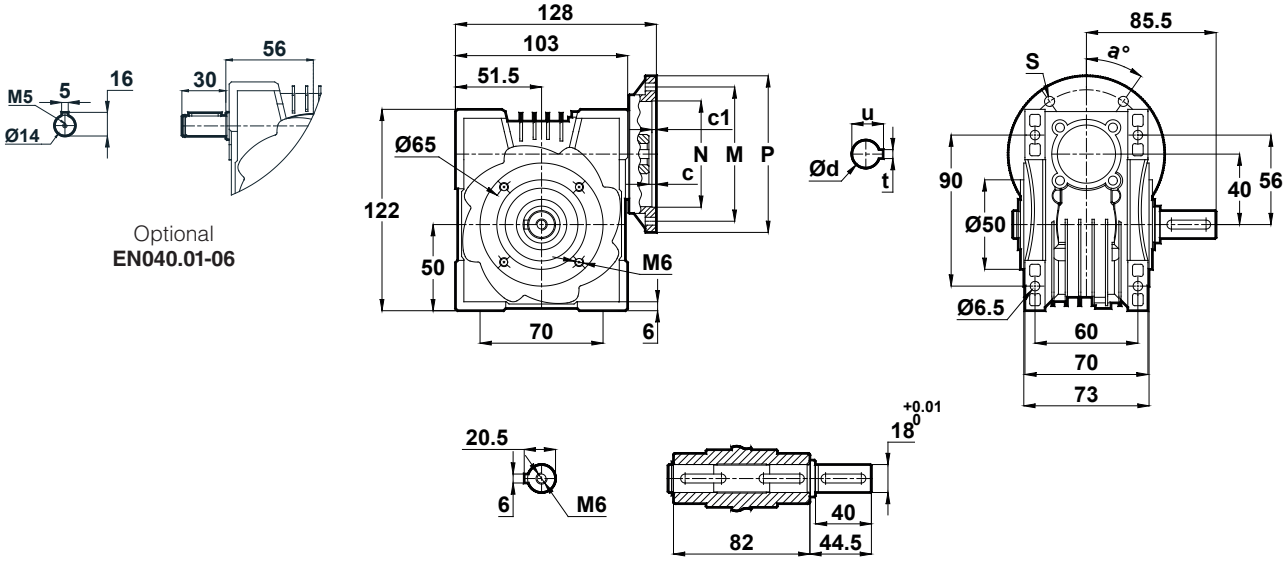


Tapped center hole to DIN 332, sheet 2

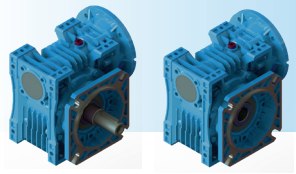
EN040.00



EN040.01

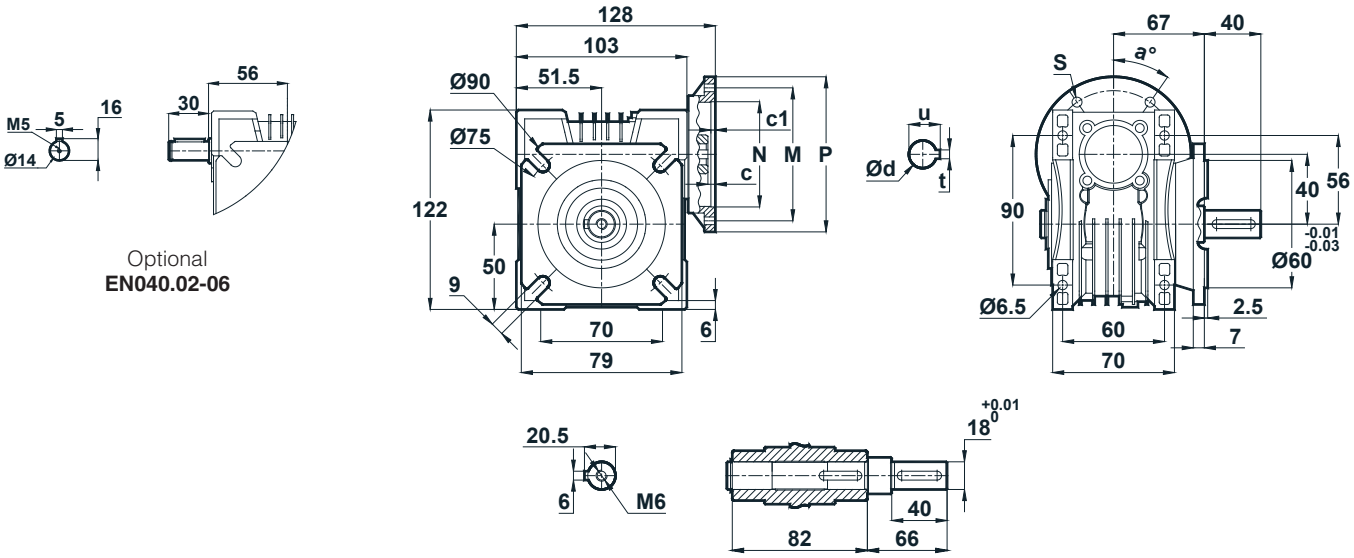


EN040	c	c1	N	M	P	d	u	t	a	s
63/B14	4	2.5	60	75	90	11	12.8	4	45°	5.5
71/B14	4	3	70	85	105	14	16.3	5	45°	10
63/B5	4	3.5	95	115	140	11	12.8	4	45°	10
71/B5	4	4	110	130	160	14	16.3	5	45°	10

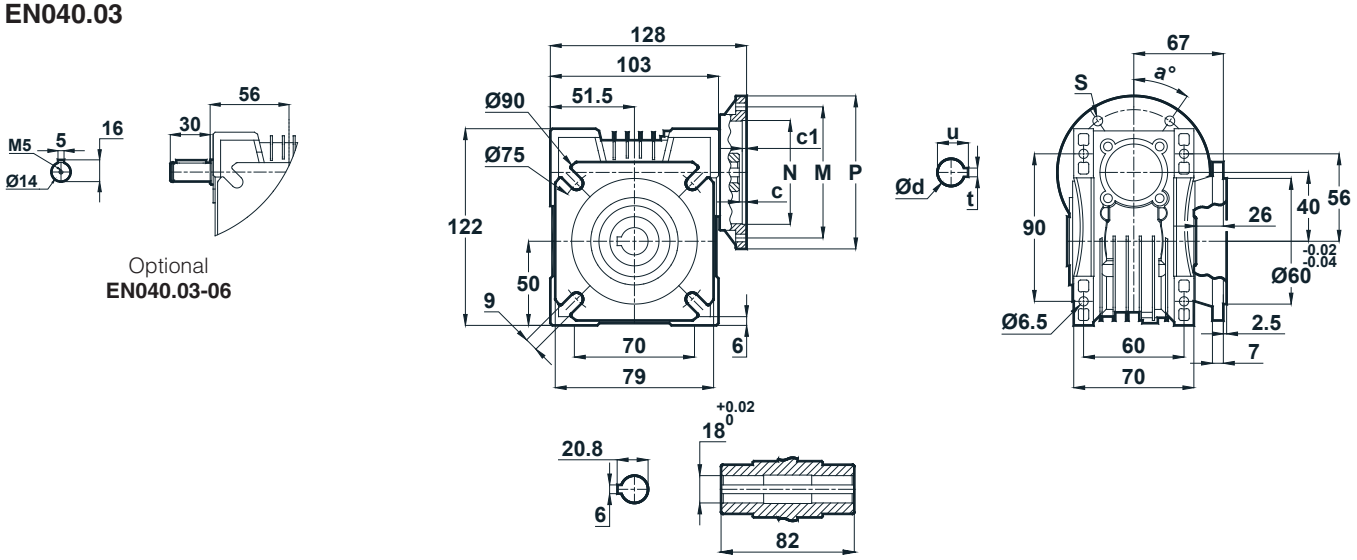


Tapped center hole to DIN 332, sheet 2

EN040.02



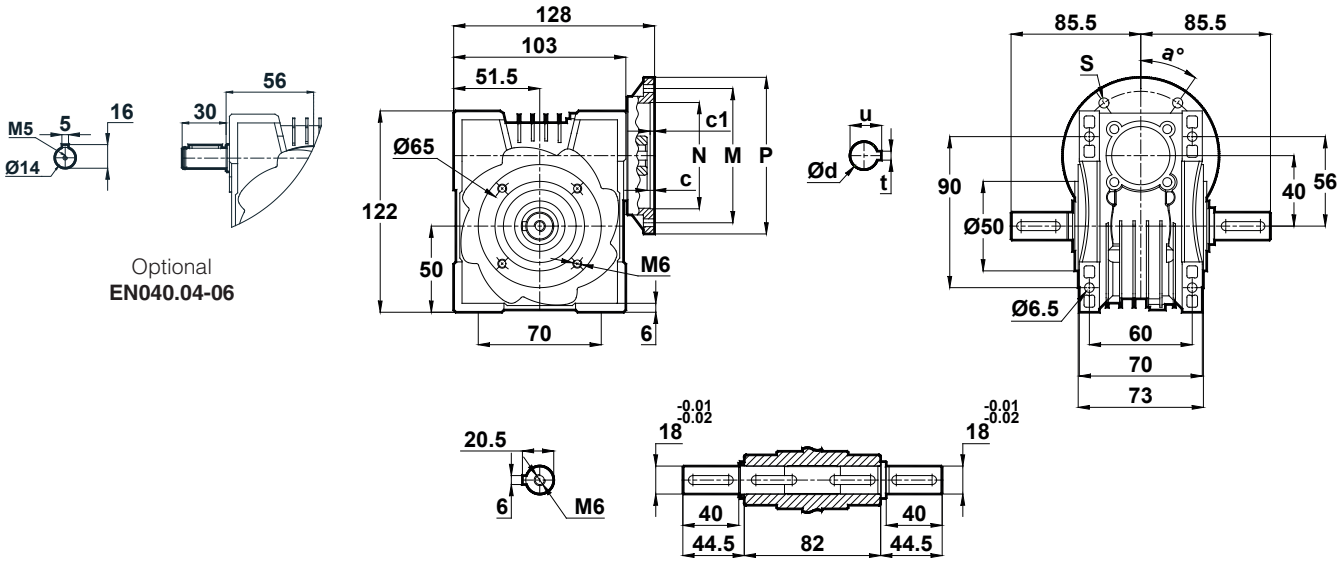
EN040.03



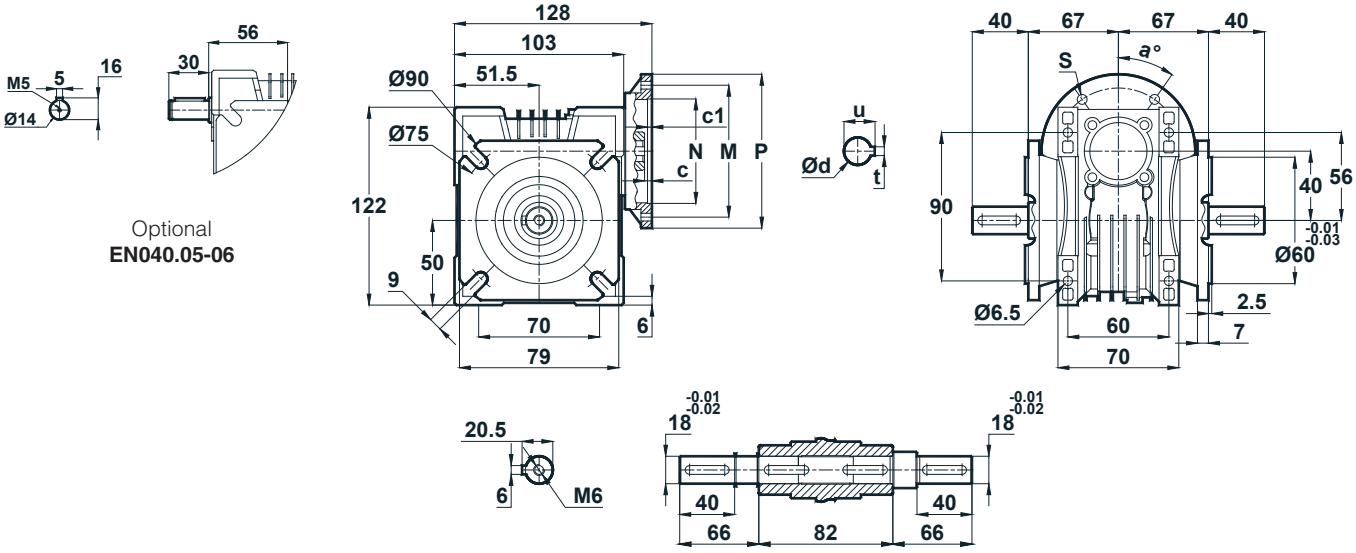
EN040	c	c1	N	M	P	d	u	t	a	s
63/B14	4	2.5	60	75	90	11	12.8	4	45°	5.5
71/B14	4	3	70	85	105	14	16.3	5	45°	10
63/B5	4	3.5	95	115	140	11	12.8	4	45°	10
71/B5	4	4	110	130	160	14	16.3	5	45°	10

Tapped center hole to DIN 332, sheet 2

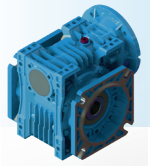
EN040.04



EN040.05

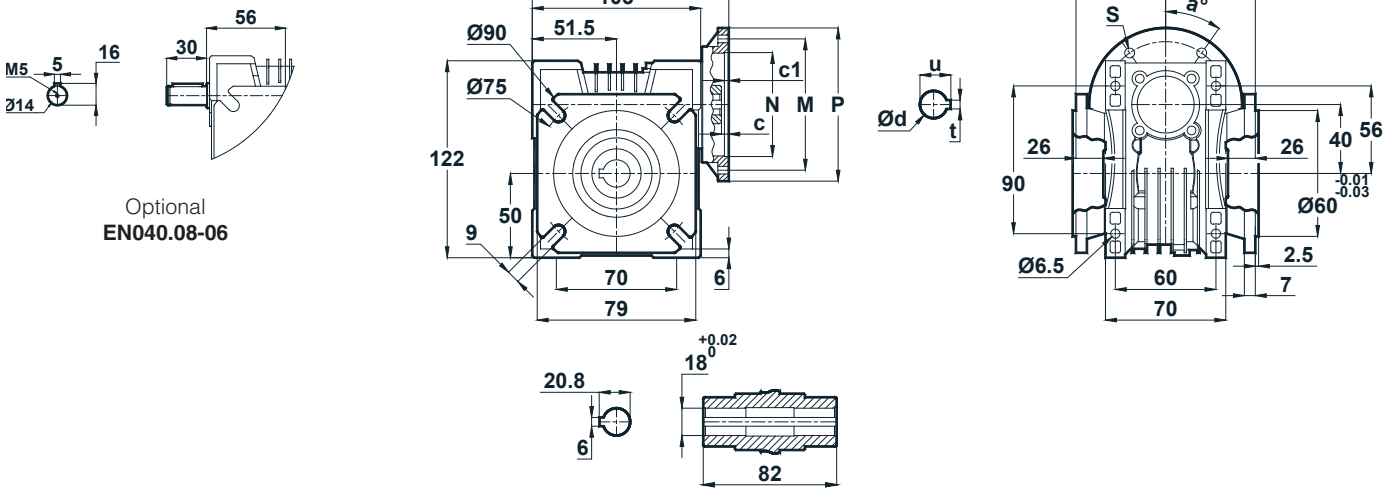


EN040	c	c1	N	M	P	d	u	t	a	s
63/B14	4	2.5	60	75	90	11	12.8	4	45°	5.5
71/B14	4	3	70	85	105	14	16.3	5	45°	10
63/B5	4	3.5	95	115	140	11	12.8	4	45°	10
71/B5	4	4	110	130	160	14	16.3	5	45°	10

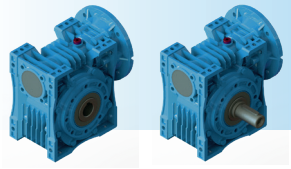


Tapped center hole to DIN 332, sheet 2

EN040.08

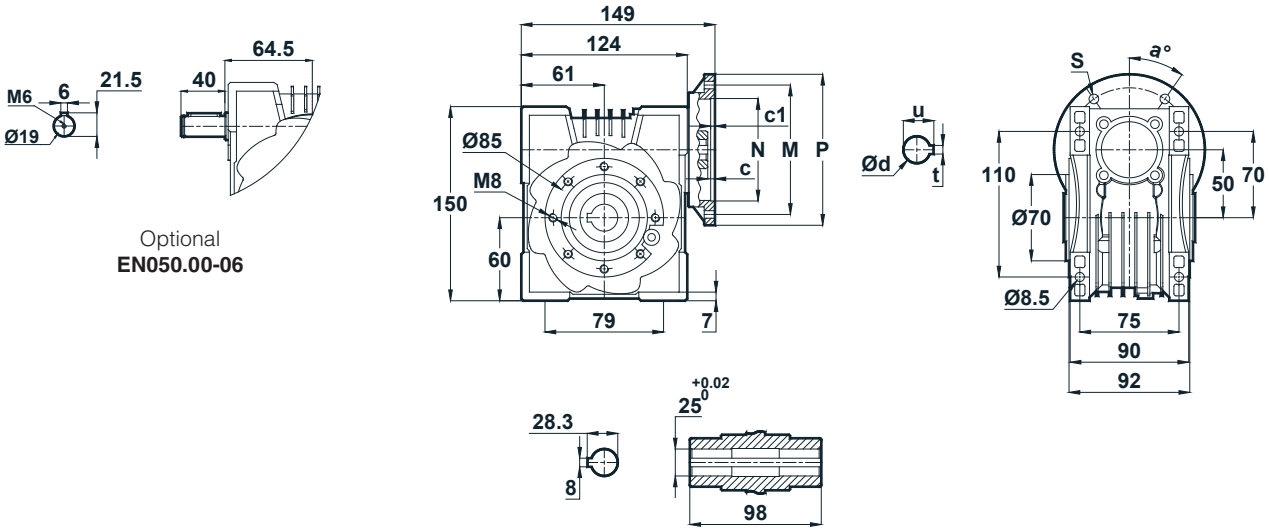


EN040	c	c1	N	M	P	d	u	t	a	s
63/B14	4	2.5	60	75	90	11	12.8	4	45°	5.5
71/B14	4	3	70	85	105	14	16.3	5	45°	10
63/B5	4	3.5	95	115	140	11	12.8	4	45°	10
71/B5	4	4	110	130	160	14	16.3	5	45°	10

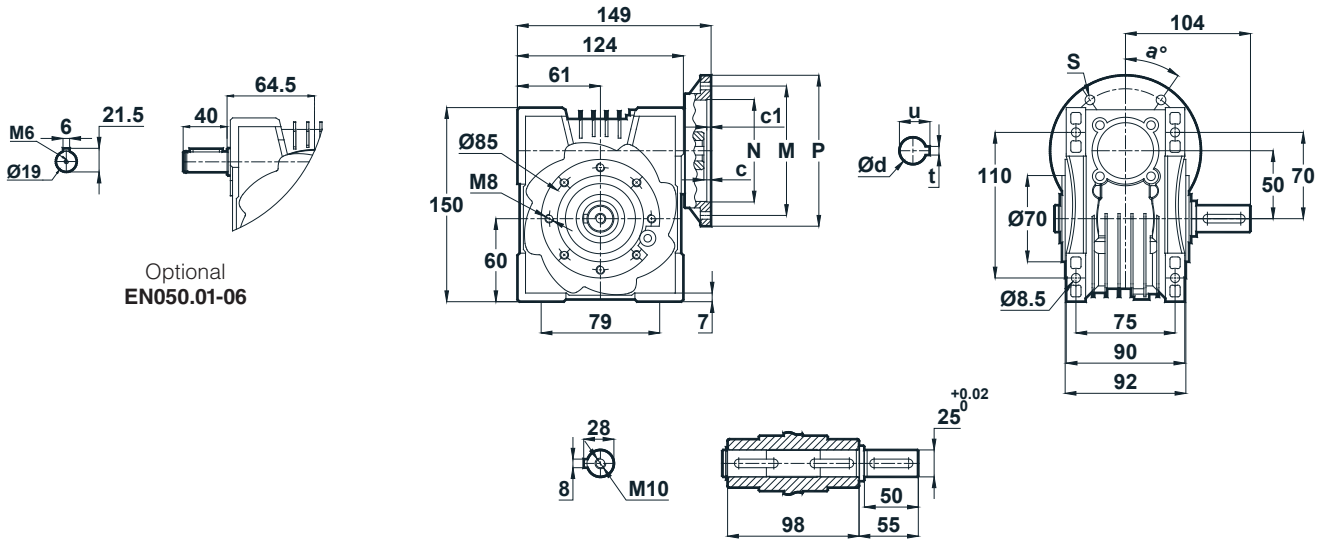


Tapped center hole to DIN 332, sheet 2

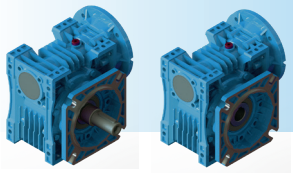
EN050.00



EN050.01

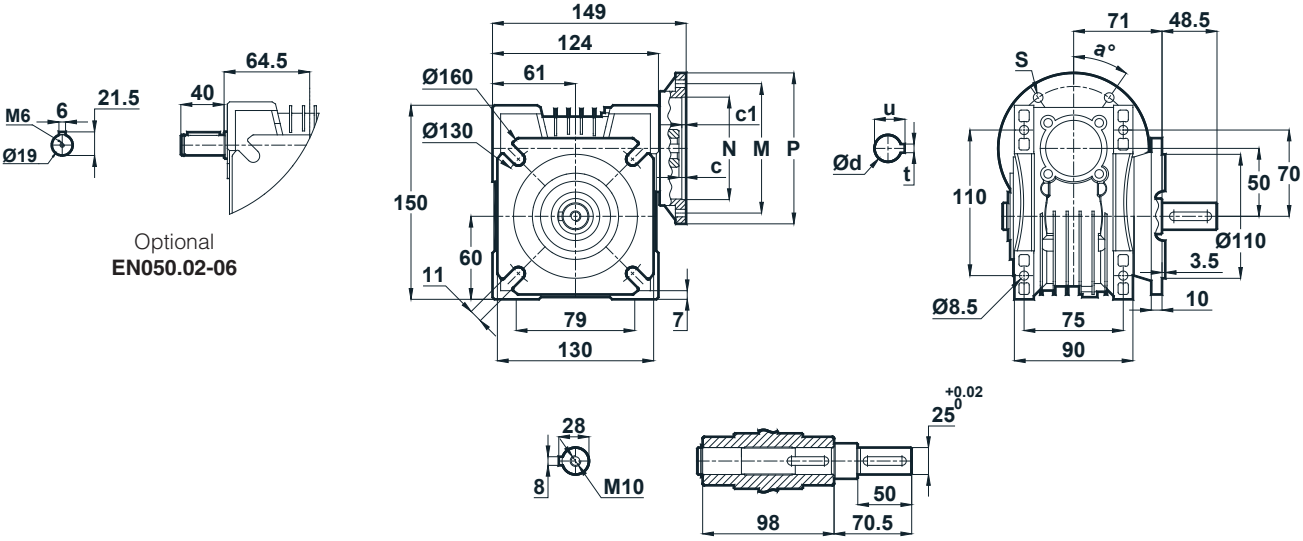


EN050	c	c1	N	M	P	d	u	t	a	s
71/B14	10.7	3	70	85	105	14	16.3	5	45°	7
80/B14	10.7	4	80	100	120	19	21.8	6	45°	7
90/B14	10.7	4	95	115	140	24	27.3	8	45°	9
63/B5	10.7	3.5	95	115	140	11	12.8	4	45°	10
71/B5	10.7	4	110	130	160	14	16.3	5	45°	10
80/B5	10.7	4	130	165	200	19	21.8	6	45°	12
90/B5	10.7	4	130	165	200	24	27.3	8	45°	12

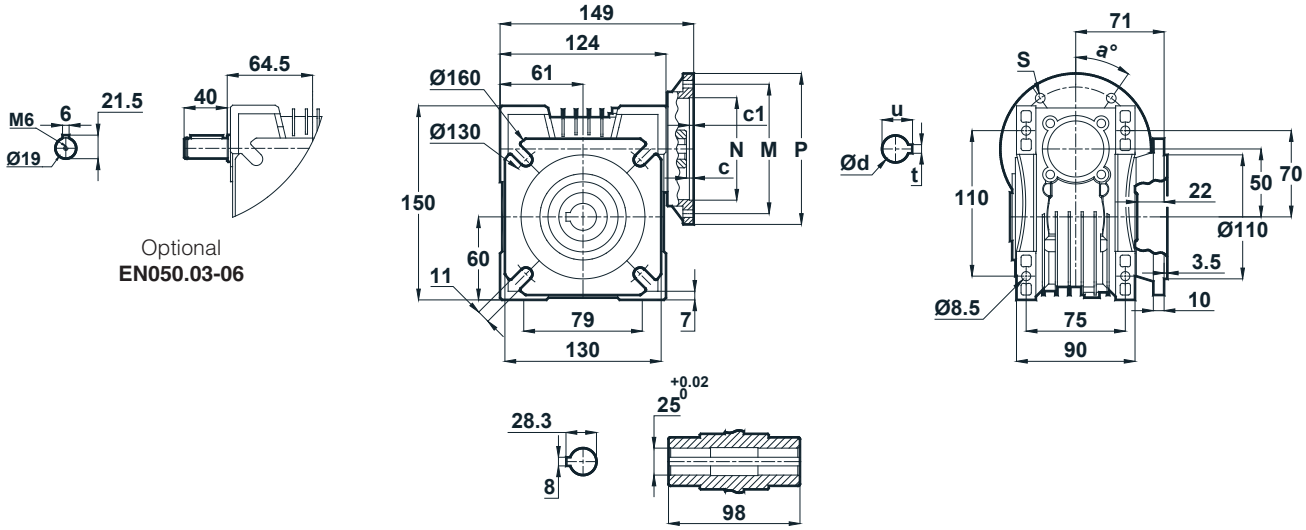


Tapped center hole to DIN 332, sheet 2

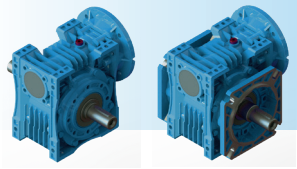
EN050.02



EN050.03

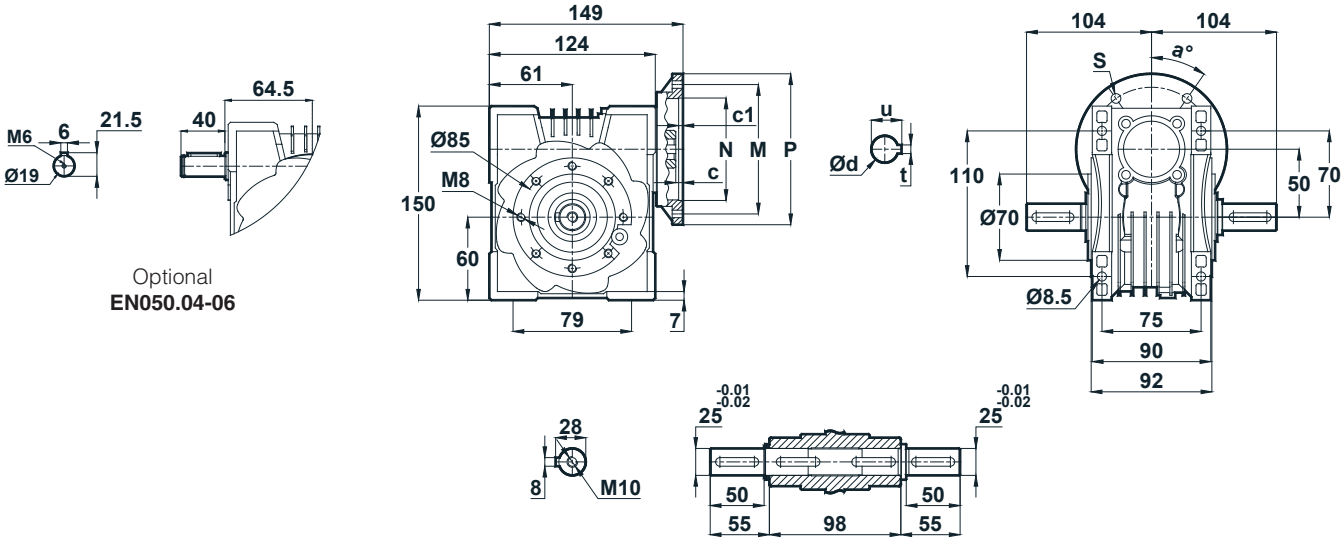


EN050	c	c1	N	M	P	d	u	t	a	s
71/B14	10.7	3	70	85	105	14	16.3	5	45°	7
80/B14	10.7	4	80	100	120	19	21.8	6	45°	7
90/B14	10.7	4	95	115	140	24	27.3	8	45°	9
63/B5	10.7	3.5	95	115	140	11	12.8	4	45°	10
71/B5	10.7	4	110	130	160	14	16.3	5	45°	10
80/B5	10.7	4	130	165	200	19	21.8	6	45°	12
90/B5	10.7	4	130	165	200	24	27.3	8	45°	12

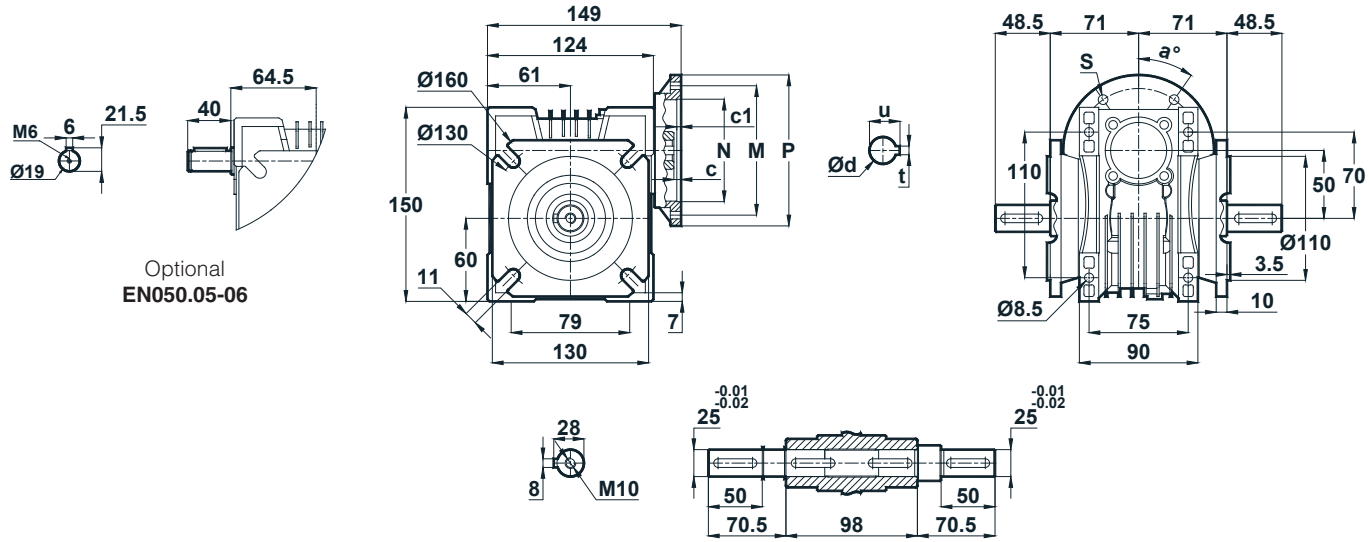


Tapped center hole to DIN 332, sheet 2

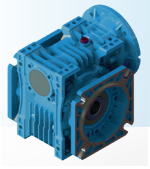
EN050.04



EN050.05

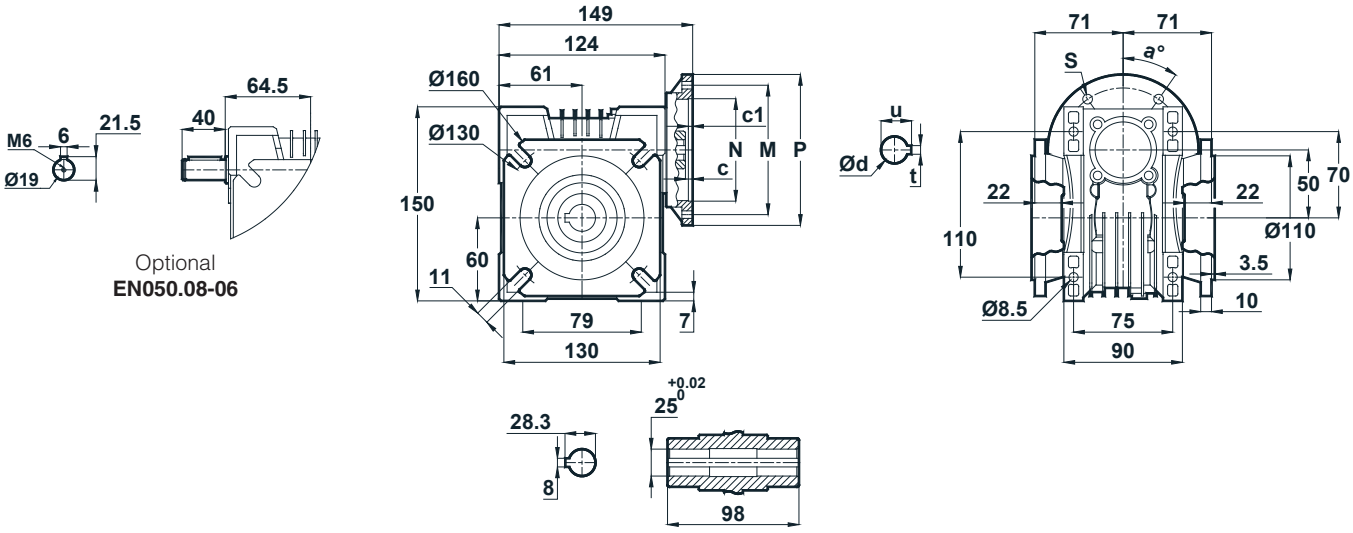


EN050	c	c1	N	M	P	d	u	t	a	s
71/B14	10.7	3	70	85	105	14	16.3	5	45°	7
80/B14	10.7	4	80	100	120	19	21.8	6	45°	7
90/B14	10.7	4	95	115	140	24	27.3	8	45°	9
63/B5	10.7	3.5	95	115	140	11	12.8	4	45°	10
71/B5	10.7	4	110	130	160	14	16.3	5	45°	10
80/B5	10.7	4	130	165	200	19	21.8	6	45°	12
90/B5	10.7	4	130	165	200	24	27.3	8	45°	12

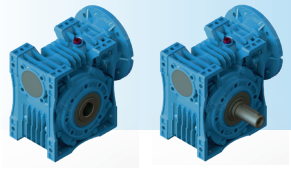


Tapped center hole to DIN 332, sheet 2

EN050.08

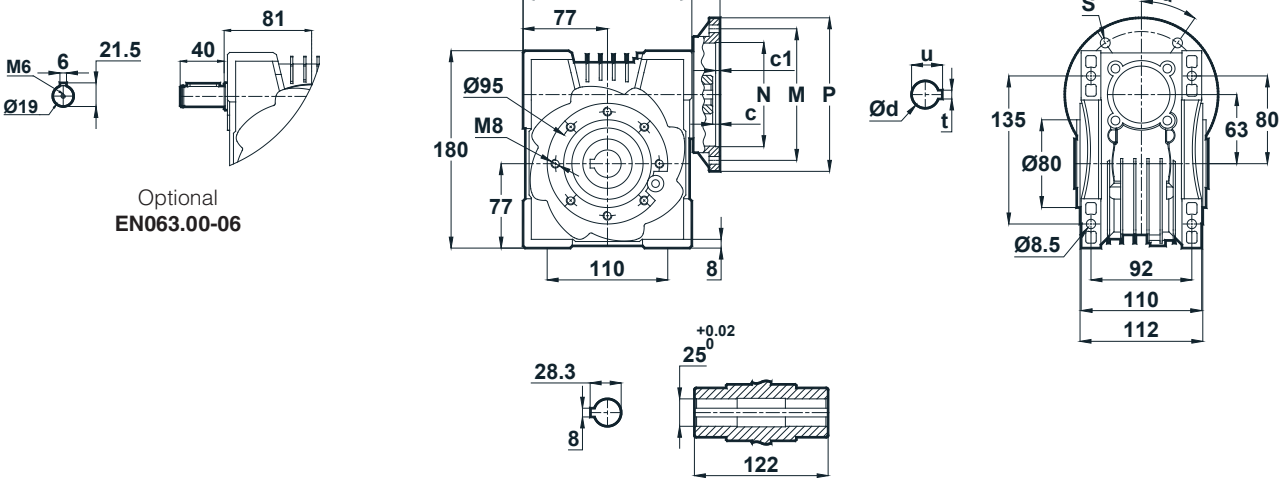


EN050	c	c1	N	M	P	d	u	t	a	s
71/B14	10.7	3	70	85	105	14	16.3	5	45°	7
80/B14	10.7	4	80	100	120	19	21.8	6	45°	7
90/B14	10.7	4	95	115	140	24	27.3	8	45°	9
63/B5	10.7	3.5	95	115	140	11	12.8	4	45°	10
71/B5	10.7	4	110	130	160	14	16.3	5	45°	10
80/B5	10.7	4	130	165	200	19	21.8	6	45°	12
90/B5	10.7	4	130	165	200	24	27.3	8	45°	12

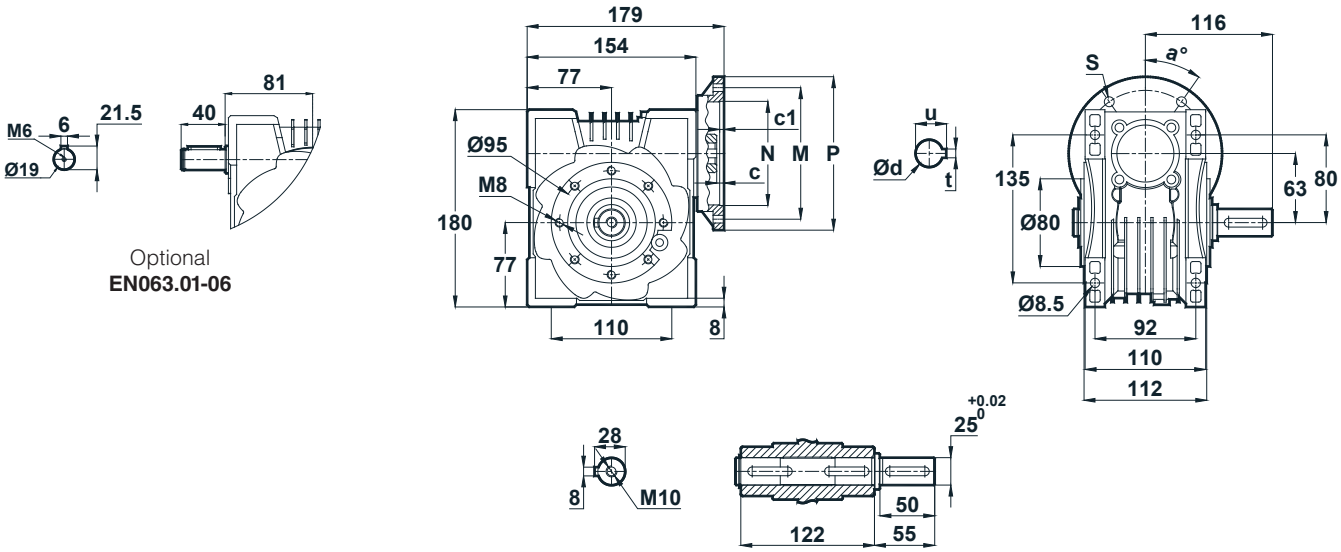


Tapped center hole to DIN 332, sheet 2

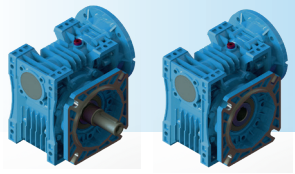
EN063.00



EN063.01

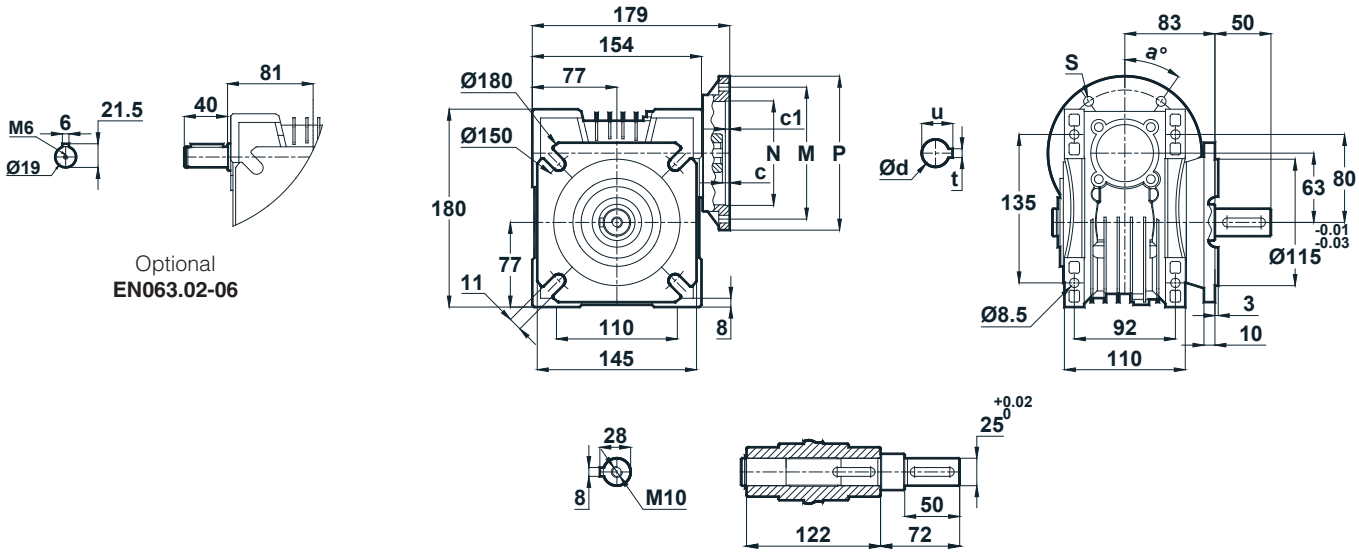


EN063	c	c1	N	M	P	d	u	t	a	s
71/B14	5.7	3	70	85	105	14	16.3	5	45°	7
80/B14	5.7	4	80	100	120	19	21.8	6	45°	7
90/B14	5.7	4	95	115	140	24	27.3	8	45°	9
71/B5	5.7	4	110	130	160	14	16.3	5	45°	10
80/B5	5.7	4	130	165	200	19	21.8	6	45°	12
90/B5	5.7	4	130	165	200	24	27.3	8	45°	12

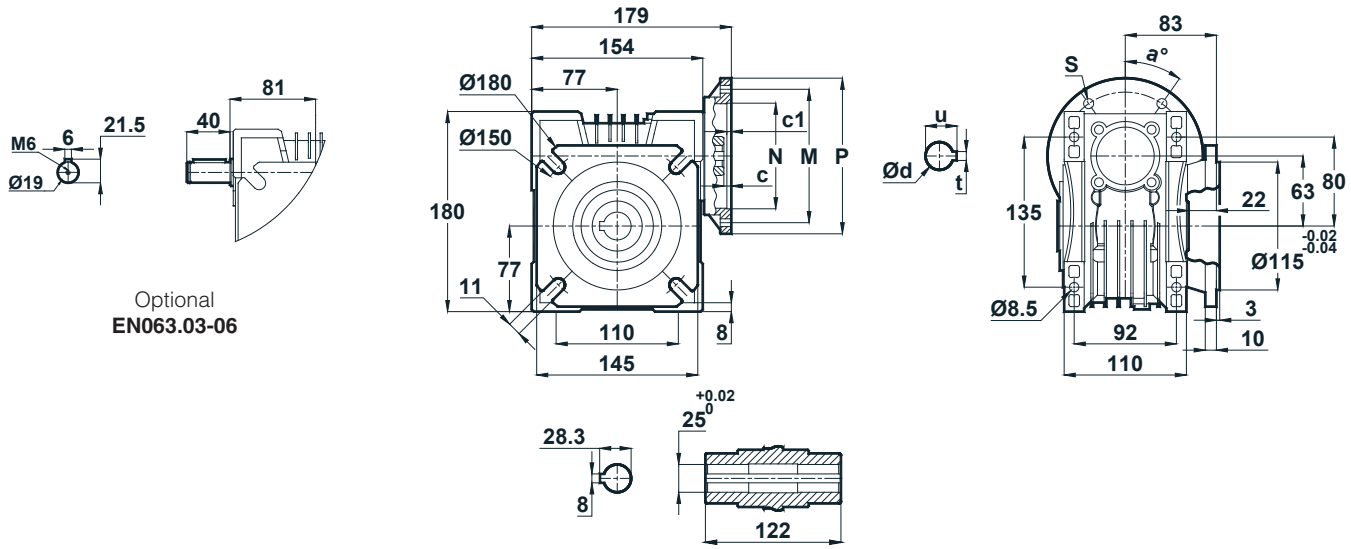


Tapped center hole to DIN 332, sheet 2

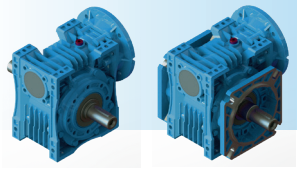
EN063.02



EN063.03

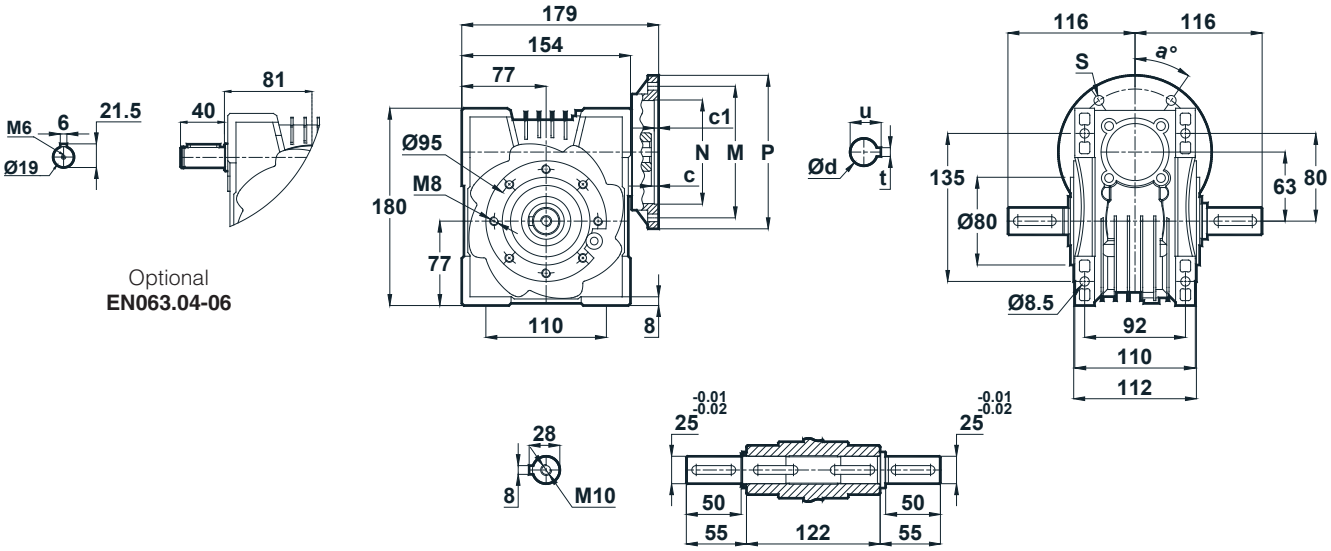


EN063	c	c1	N	M	P	d	u	t	a	s
71/B14	5.7	3	70	85	105	14	16.3	5	45°	7
80/B14	5.7	4	80	100	120	19	21.8	6	45°	7
90/B14	5.7	4	95	115	140	24	27.3	8	45°	9
71/B5	5.7	4	110	130	160	14	16.3	5	45°	10
80/B5	5.7	4	130	165	200	19	21.8	6	45°	12
90/B5	5.7	4	130	165	200	24	27.3	8	45°	12

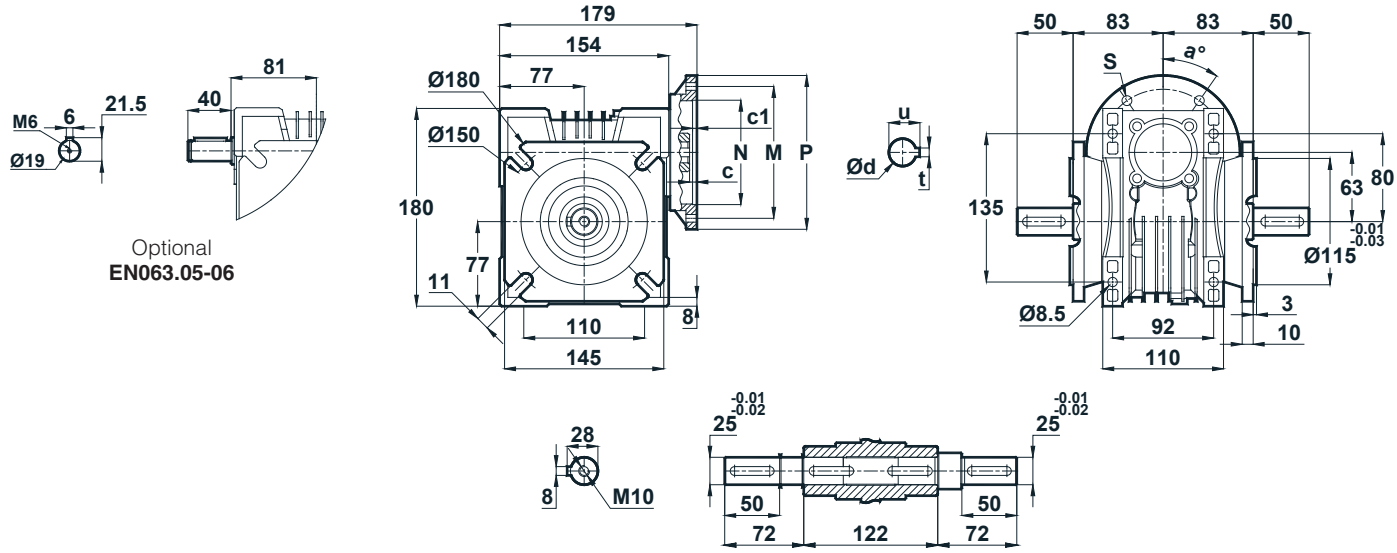


Tapped center hole to DIN 332, sheet 2

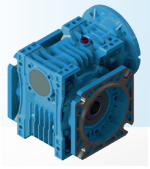
EN063.04



EN063.05

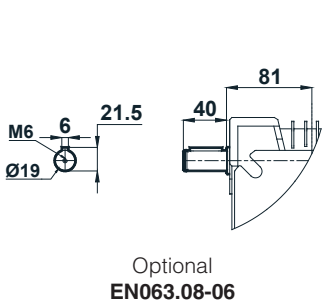


EN063	c	c1	N	M	P	d	u	t	a	s
71/B14	5.7	3	70	85	105	14	16.3	5	45°	7
80/B14	5.7	4	80	100	120	19	21.8	6	45°	7
90/B14	5.7	4	95	115	140	24	27.3	8	45°	9
71/B5	5.7	4	110	130	160	14	16.3	5	45°	10
80/B5	5.7	4	130	165	200	19	21.8	6	45°	12
90/B5	5.7	4	130	165	200	24	27.3	8	45°	12

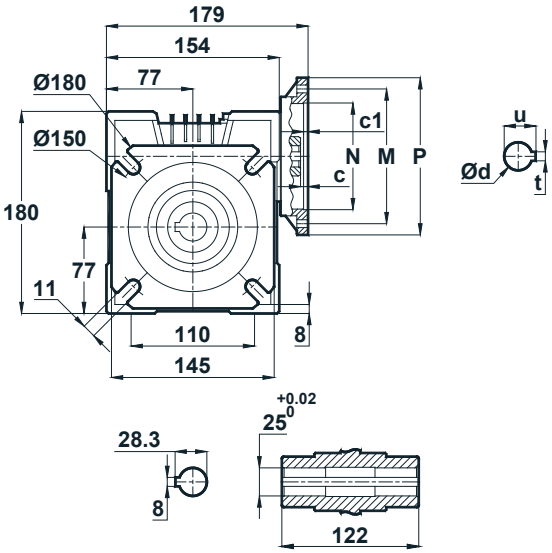


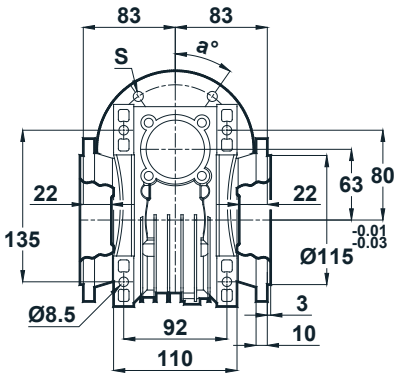
Tapped center hole to DIN 332, sheet 2

EN063.08

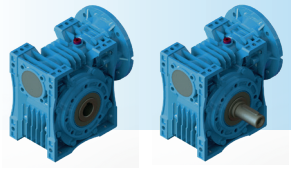


Optional
EN063.08-06



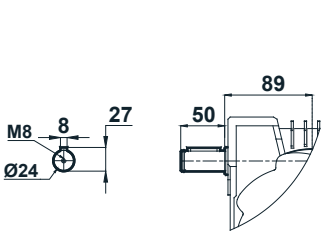


EN063	c	c1	N	M	P	d	u	t	a	s
71/B14	5.7	3	70	85	105	14	16.3	5	45°	7
80/B14	5.7	4	80	100	120	19	21.8	6	45°	7
90/B14	5.7	4	95	115	140	24	27.3	8	45°	9
71/B5	5.7	4	110	130	160	14	16.3	5	45°	10
80/B5	5.7	4	130	165	200	19	21.8	6	45°	12
90/B5	5.7	4	130	165	200	24	27.3	8	45°	12

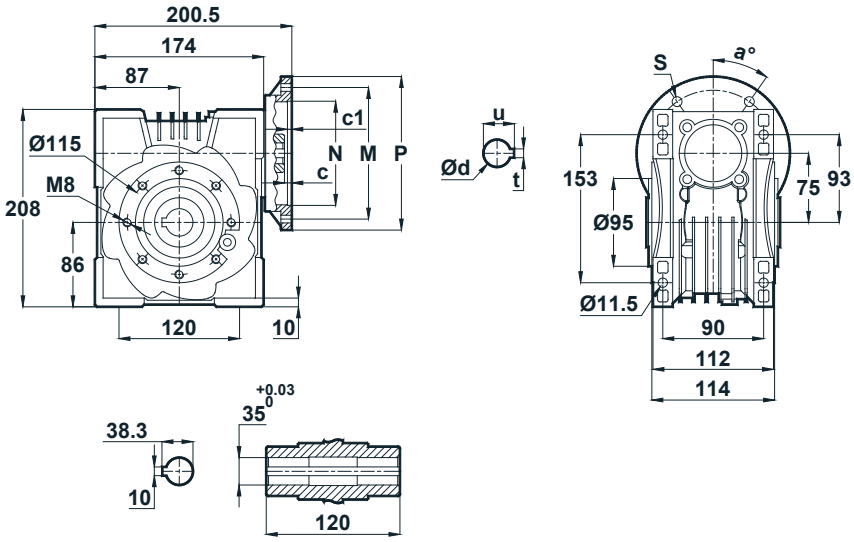


Tapped center hole to DIN 332, sheet 2

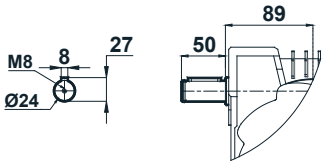
EN075.00



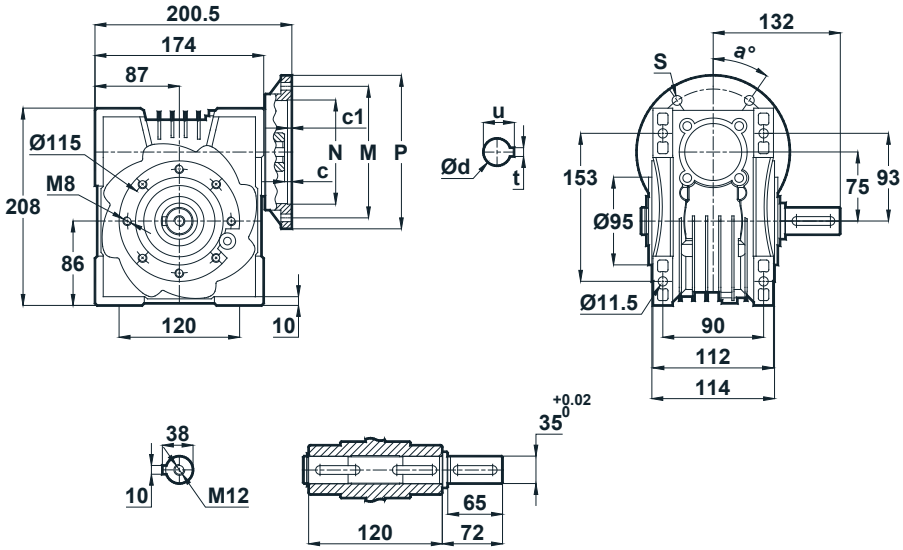
Optional
EN075.00-06



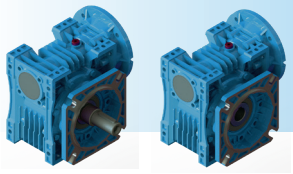
EN075.01



Optional
EN075.01-06

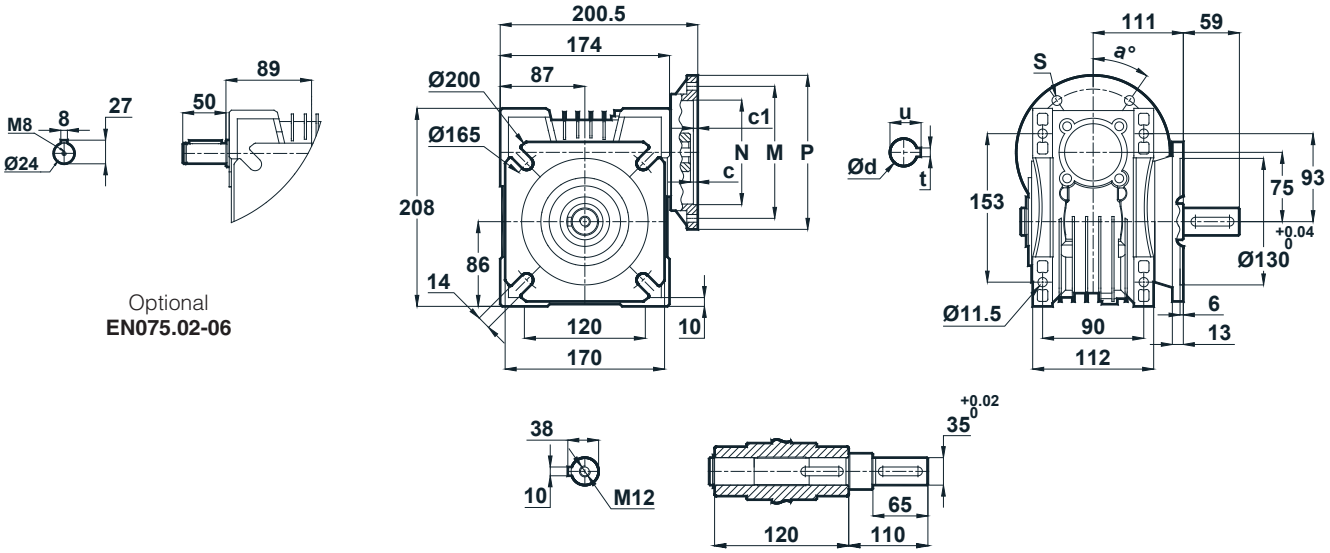


EN075	c	c1	N	M	P	d	u	t	a	s
80/B14	10.5	4	80	100	120	19	21.8	6	45°	7
90/B14	10.5	4	95	115	140	24	27.3	8	45°	9
100-112/B14	10.5	3.5	110	130	160	28	31.3	8	45°	9
80/B5	10.5	4	130	165	200	19	21.8	6	45°	12
90/B5	10.5	4	130	165	200	24	27.3	8	45°	12
100-112/B5	10.5	4.5	180	215	250	28	31.3	8	45°	13

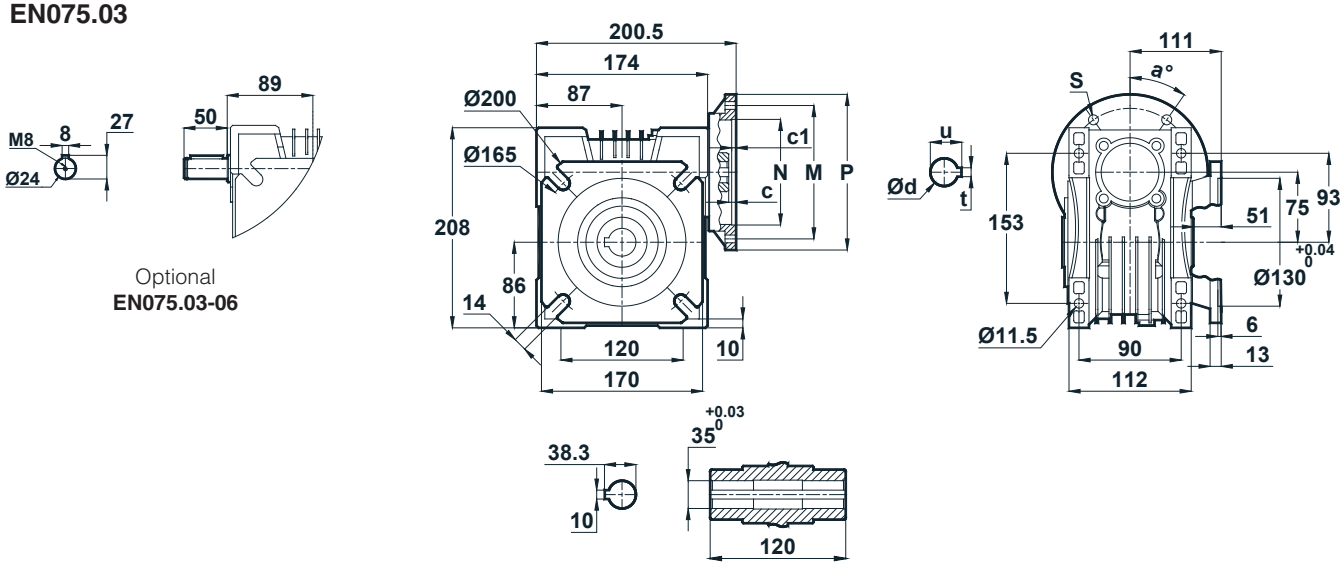


Tapped center hole to DIN 332, sheet 2

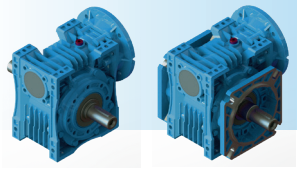
EN075.02



EN075.03

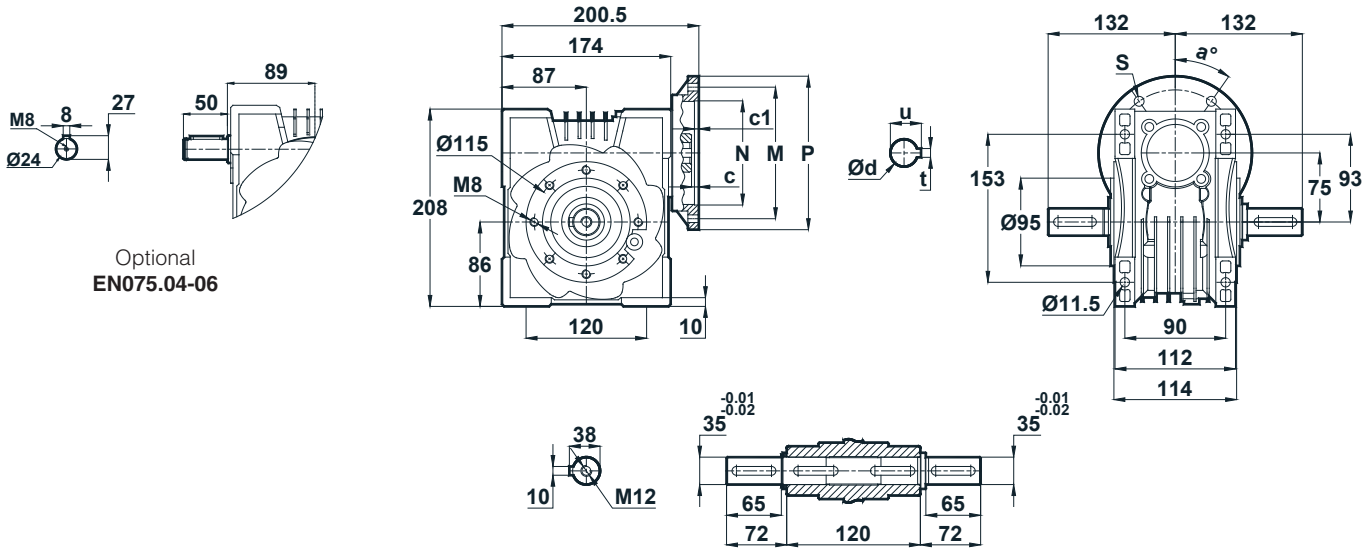


EN075	c	c1	N	M	P	d	u	t	a	s
80/B14	10.5	4	80	100	120	19	21.8	6	45°	7
90/B14	10.5	4	95	115	140	24	27.3	8	45°	9
100-112/B14	10.5	3.5	110	130	160	28	31.3	8	45°	9
80/B5	10.5	4	130	165	200	19	21.8	6	45°	12
90/B5	10.5	4	130	165	200	24	27.3	8	45°	12
100-112/B5	10.5	4.5	180	215	250	28	31.3	8	45°	13

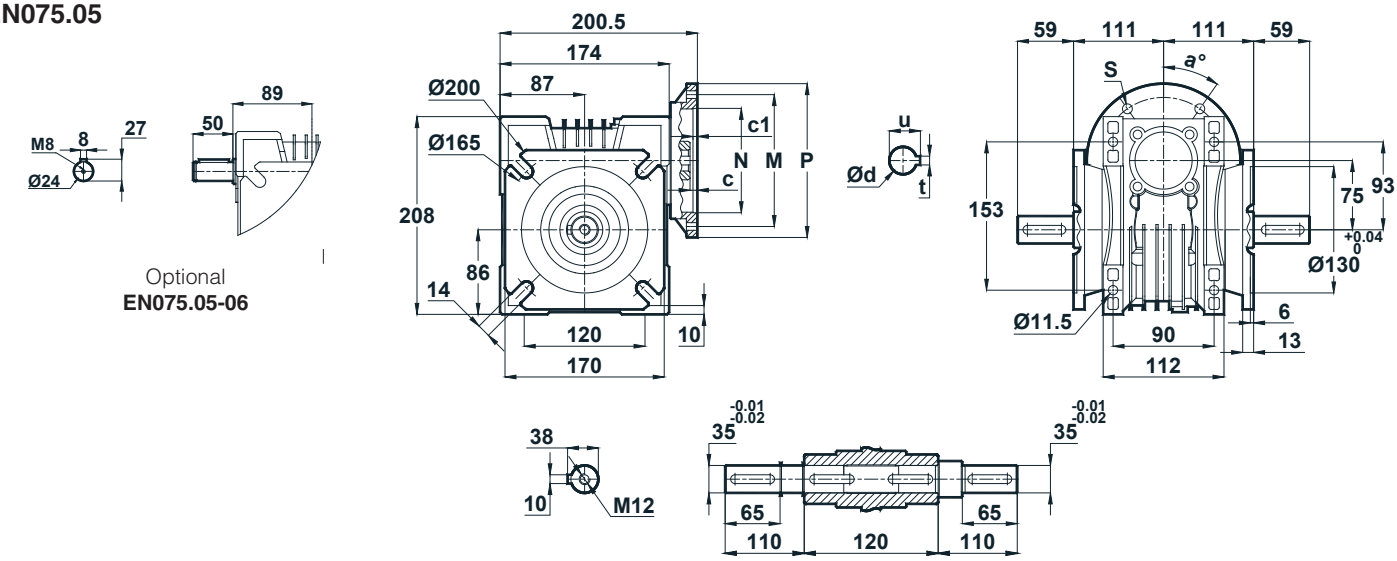


Tapped center hole to DIN 332, sheet 2

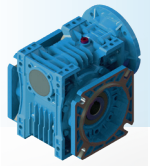
EN075.04



EN075.05

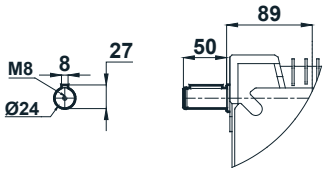


EN075	c	c1	N	M	P	d	u	t	a	s
80/B14	10.5	4	80	100	120	19	21.8	6	45°	7
90/B14	10.5	4	95	115	140	24	27.3	8	45°	9
100-112/B14	10.5	3.5	110	130	160	28	31.3	8	45°	9
80/B5	10.5	4	130	165	200	19	21.8	6	45°	12
90/B5	10.5	4	130	165	200	24	27.3	8	45°	12
100-112/B5	10.5	4.5	180	215	250	28	31.3	8	45°	13

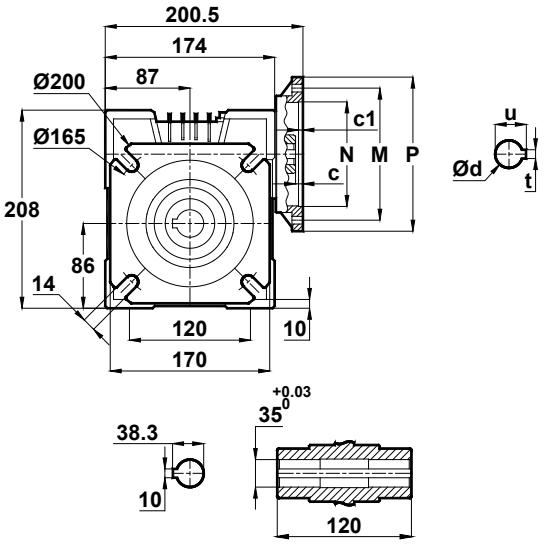


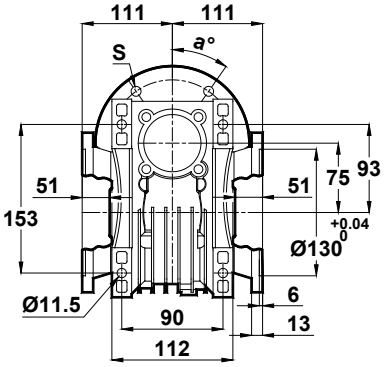
Tapped center hole to DIN 332, sheet 2

EN075.08

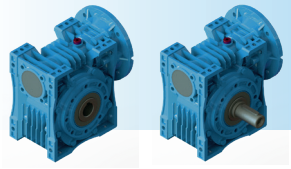


Optional
EN075.08-06



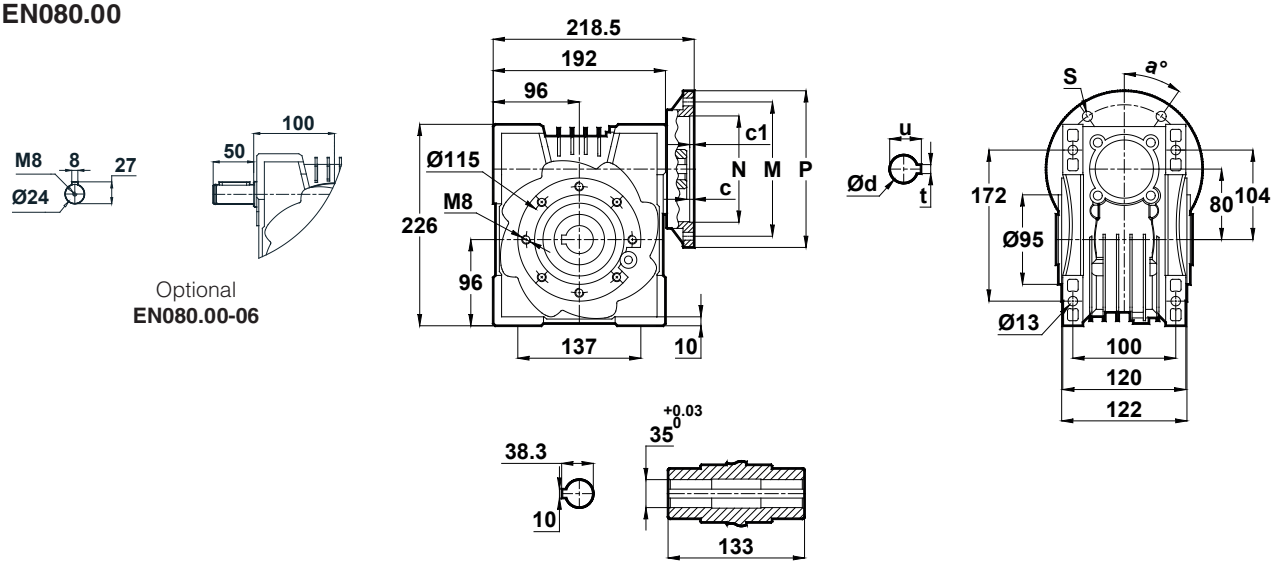


EN075	c	c1	N	M	P	d	u	t	a	s
80/B14	10.5	4	80	100	120	19	21.8	6	45°	7
90/B14	10.5	4	95	115	140	24	27.3	8	45°	9
100-112/B14	10.5	3.5	110	130	160	28	31.3	8	45°	9
80/B5	10.5	4	130	165	200	19	21.8	6	45°	12
90/B5	10.5	4	130	165	200	24	27.3	8	45°	12
100-112/B5	10.5	4.5	180	215	250	28	31.3	8	45°	13

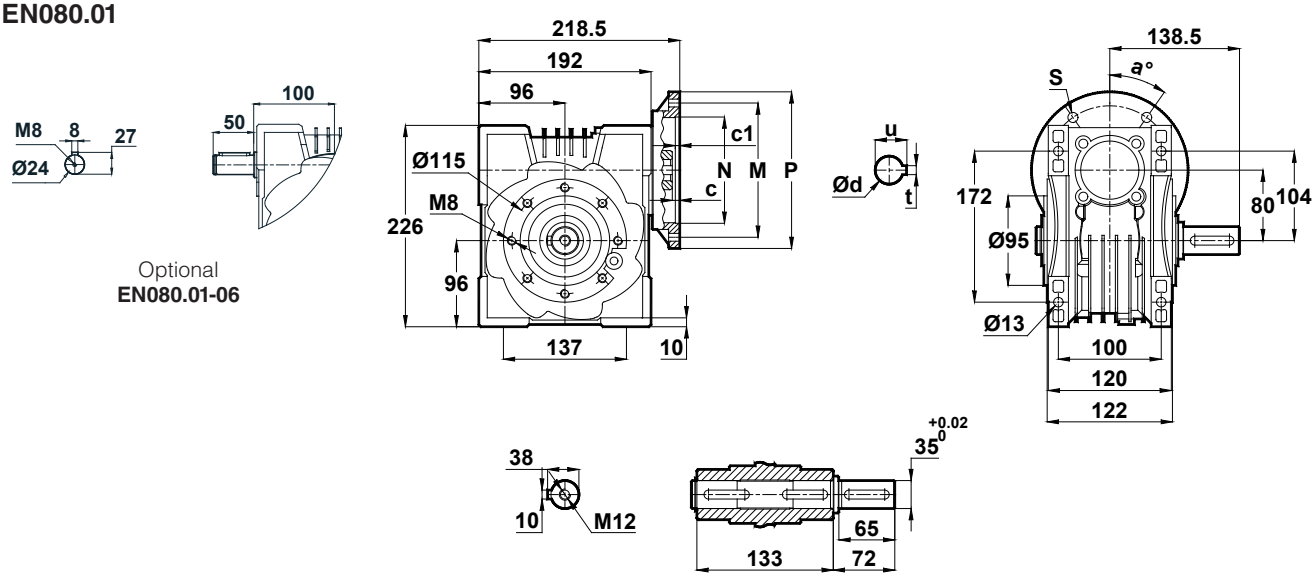


Tapped center hole to DIN 332, sheet 2

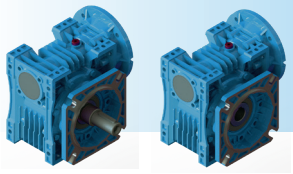
EN080.00



EN080.01

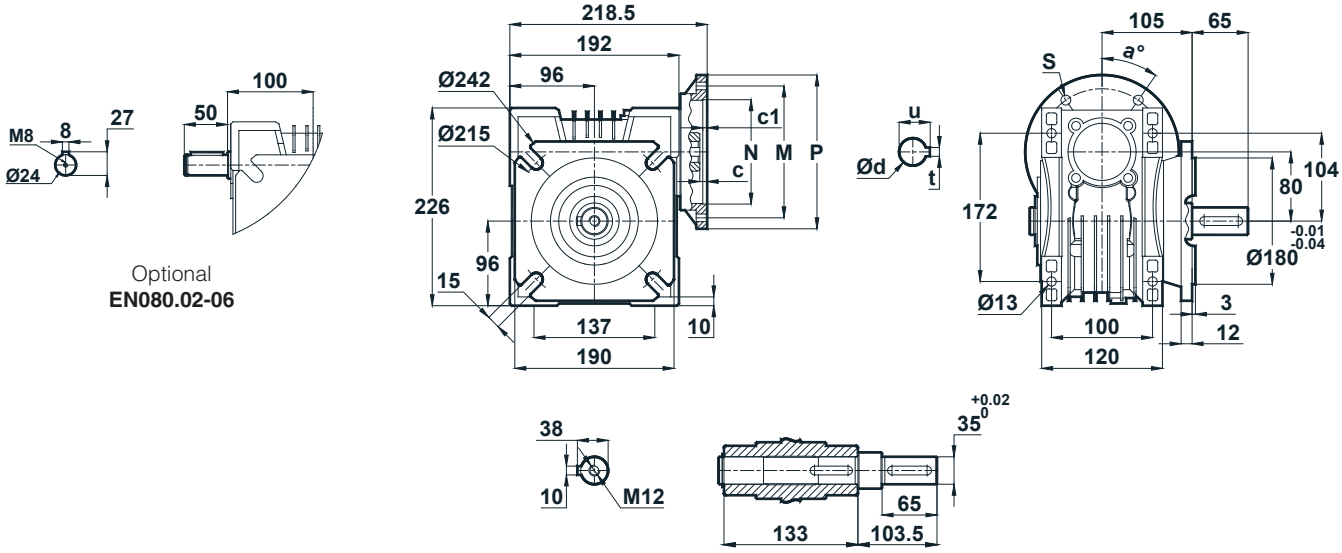


EN080	c	c1	N	M	P	d	u	t	a	s
80/B14	5.5	4	80	100	120	19	21.8	6	45°	7
90/B14	5.5	4	95	115	140	24	27.3	8	45°	9
100-112/B14	5.5	3.5	110	130	160	28	31.3	8	45°	9
80/B5	5.5	4	130	165	200	19	21.8	6	45°	13
90/B5	5.5	4	130	165	200	24	27.3	8	45°	13
100-112/B5	5.5	4.5	180	215	250	28	31.3	8	45°	13

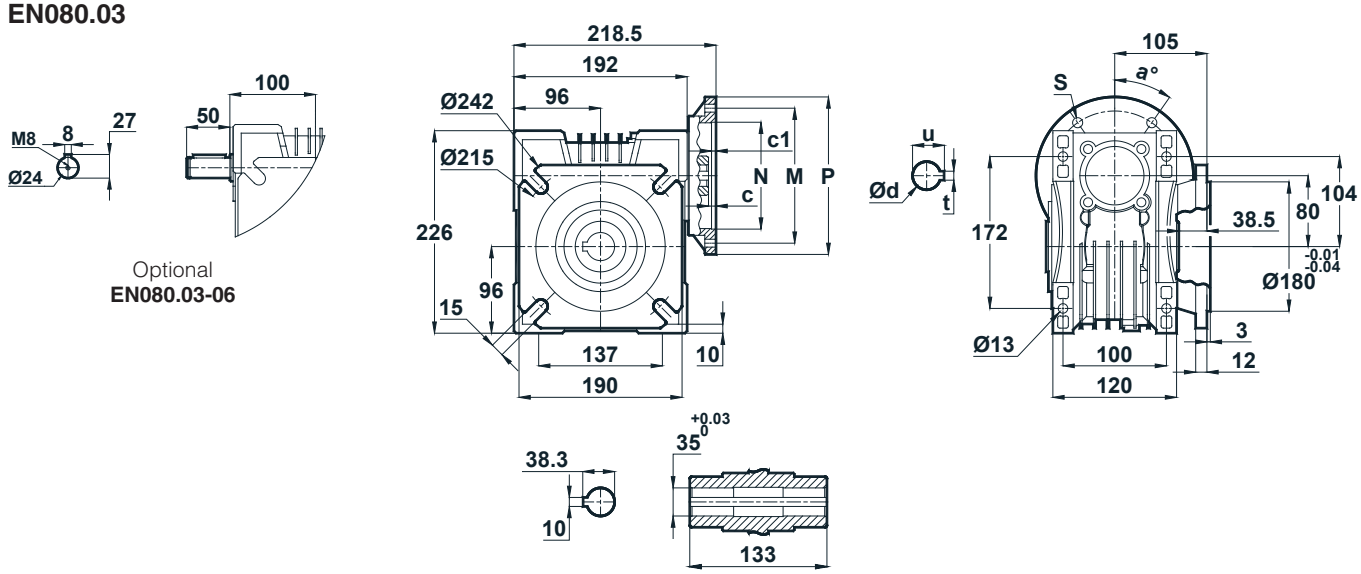


Tapped center hole to DIN 332, sheet 2

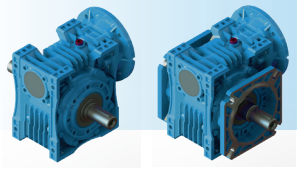
EN080.02



EN080.03

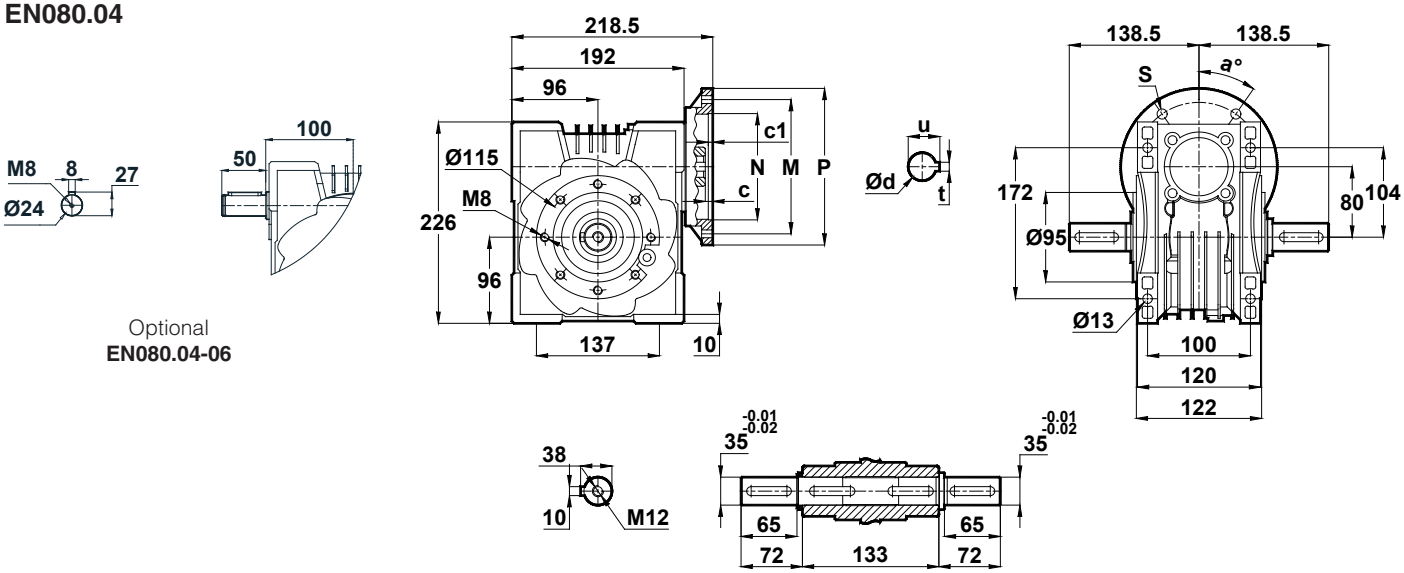


EN080	c	c1	N	M	P	d	u	t	a	s
80/B14	5.5	4	80	100	120	19	21.8	6	45°	7
90/B14	5.5	4	95	115	140	24	27.3	8	45°	9
100-112/B14	5.5	3.5	110	130	160	28	31.3	8	45°	9
80/B5	5.5	4	130	165	200	19	21.8	6	45°	13
90/B5	5.5	4	130	165	200	24	27.3	8	45°	13
100-112/B5	5.5	4.5	180	215	250	28	31.3	8	45°	13

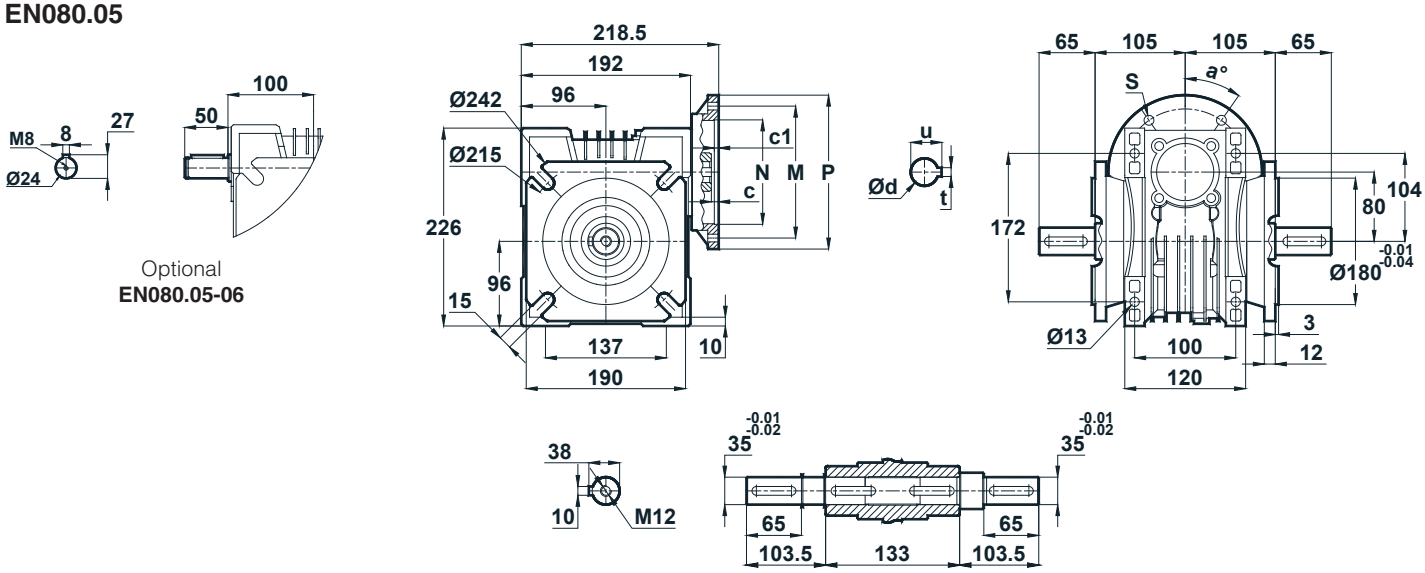


Tapped center hole to DIN 332, sheet 2

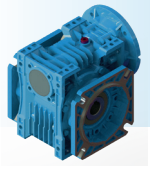
EN080.04



EN080.05

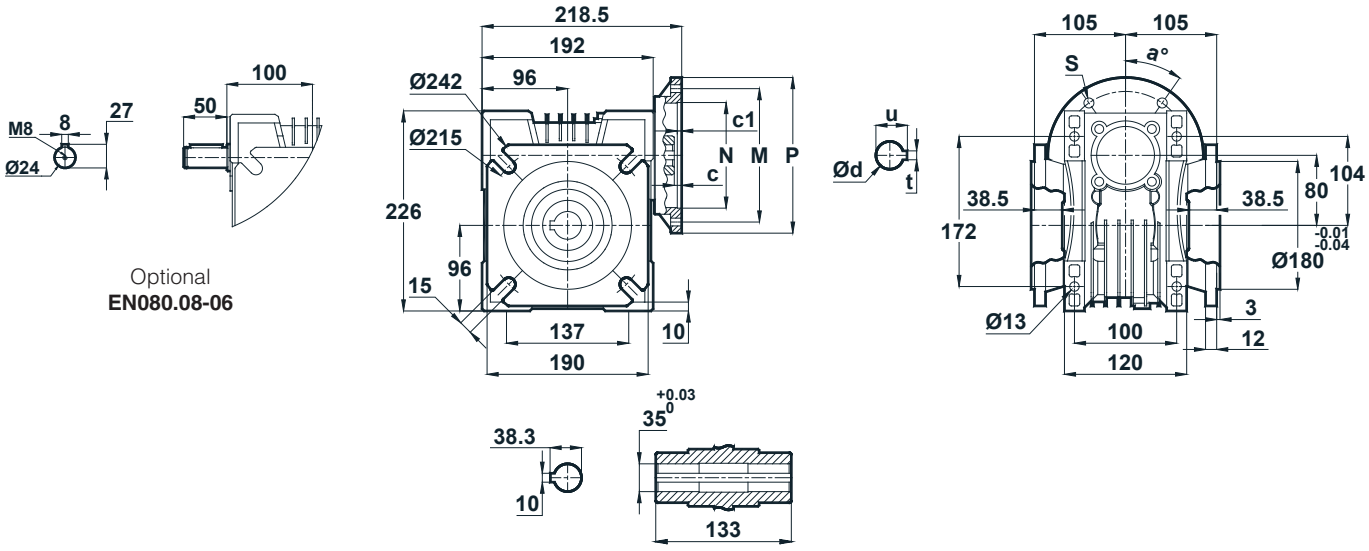


EN080	c	c1	N	M	P	d	u	t	a	s
80/B14	5.5	4	80	100	120	19	21.8	6	45°	7
90/B14	5.5	4	95	115	140	24	27.3	8	45°	9
100-112/B14	5.5	3.5	110	130	160	28	31.3	8	45°	9
80/B5	5.5	4	130	165	200	19	21.8	6	45°	12
90/B5	5.5	4	130	165	200	24	27.3	8	45°	12
100-112/B5	5.5	4.5	180	215	250	28	31.3	8	45°	13



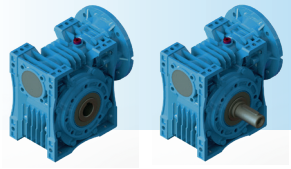
Tapped center hole to DIN 332, sheet 2

EN080.08



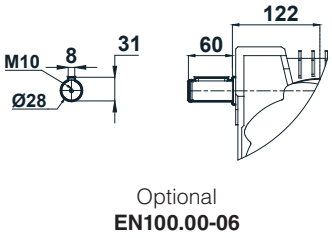
Optional
EN080.08-06

EN080	c	c1	N	M	P	d	u	t	a	s
80/B14	5.5	4	80	100	120	19	21.8	6	45°	7
90/B14	5.5	4	95	115	140	24	27.3	8	45°	9
100-112/B14	5.5	3.5	110	130	160	28	31.3	8	45°	9
80/B5	5.5	4	130	165	200	19	21.8	6	45°	12
90/B5	5.5	4	130	165	200	24	27.3	8	45°	12
100-112/B5	5.5	4.5	180	215	250	28	31.3	8	45°	13

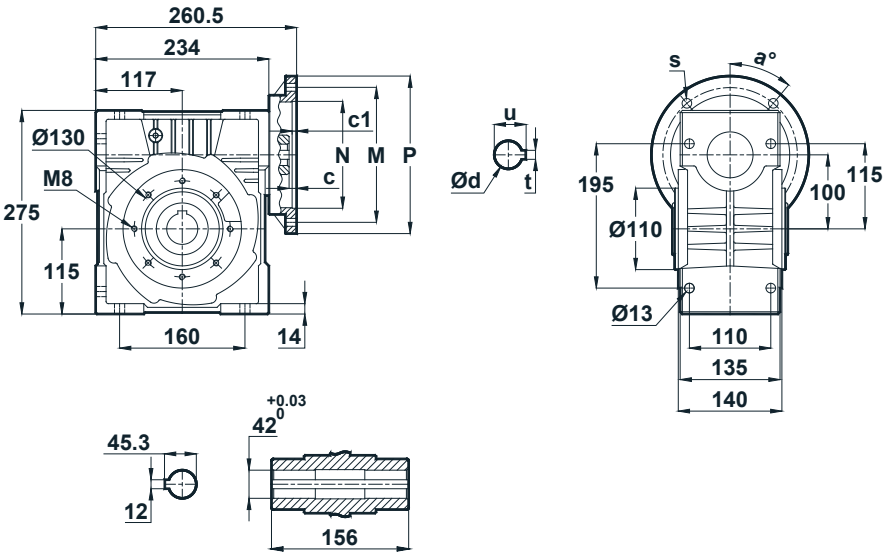


Tapped center hole to DIN 332, sheet 2

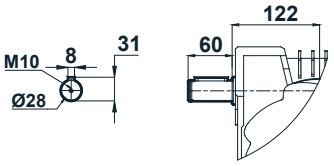
EN100.00



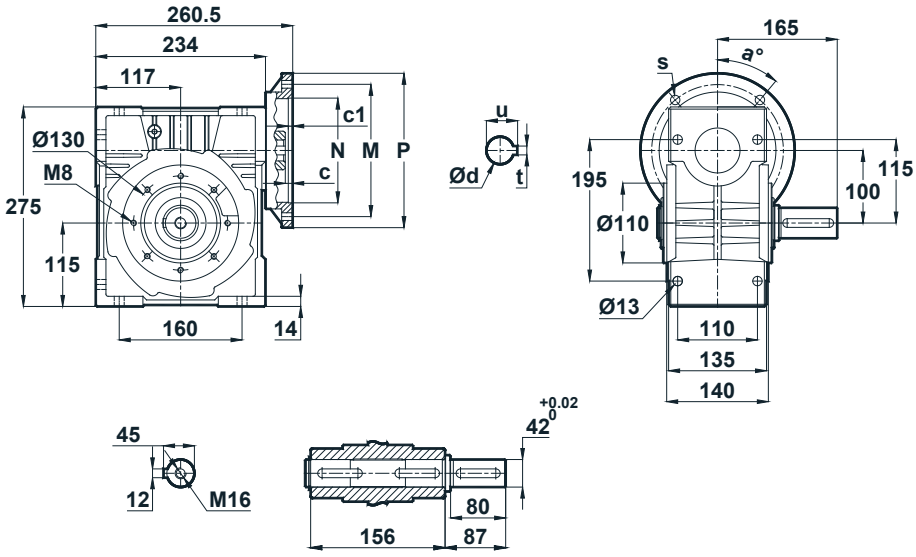
Optional
EN100.00-06



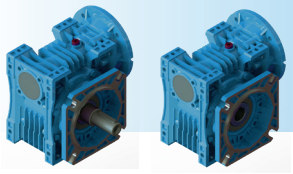
EN100.01



Optional
EN100.01-06

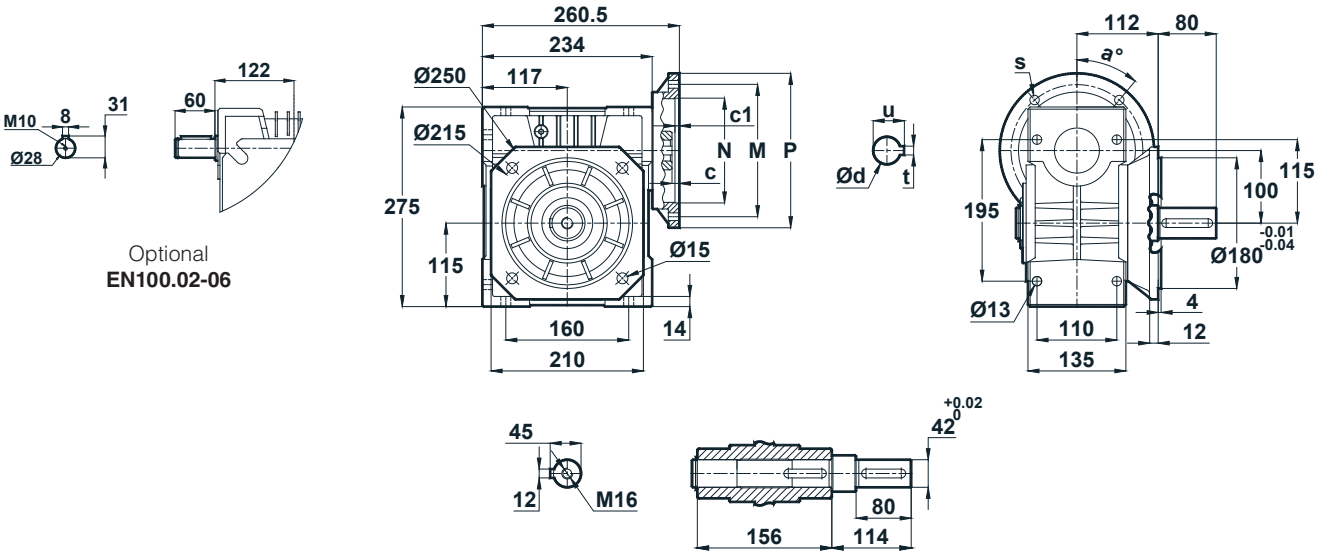


EN100	c	c1	N	M	P	d	u	t	a	s
80/B14	5.5	4	80	100	120	19	21.8	6	45°	7
90/B14	5.5	4	95	115	140	24	27.3	8	45°	9
100-112/B14	5.5	3.5	110	130	160	28	31.3	8	45°	9
80/B5	5.5	4	130	165	200	19	21.8	6	45°	12
90/B5	5.5	4	130	165	200	24	27.3	8	45°	12
100-112/B5	5.5	4.5	180	215	250	28	31.3	8	45°	13

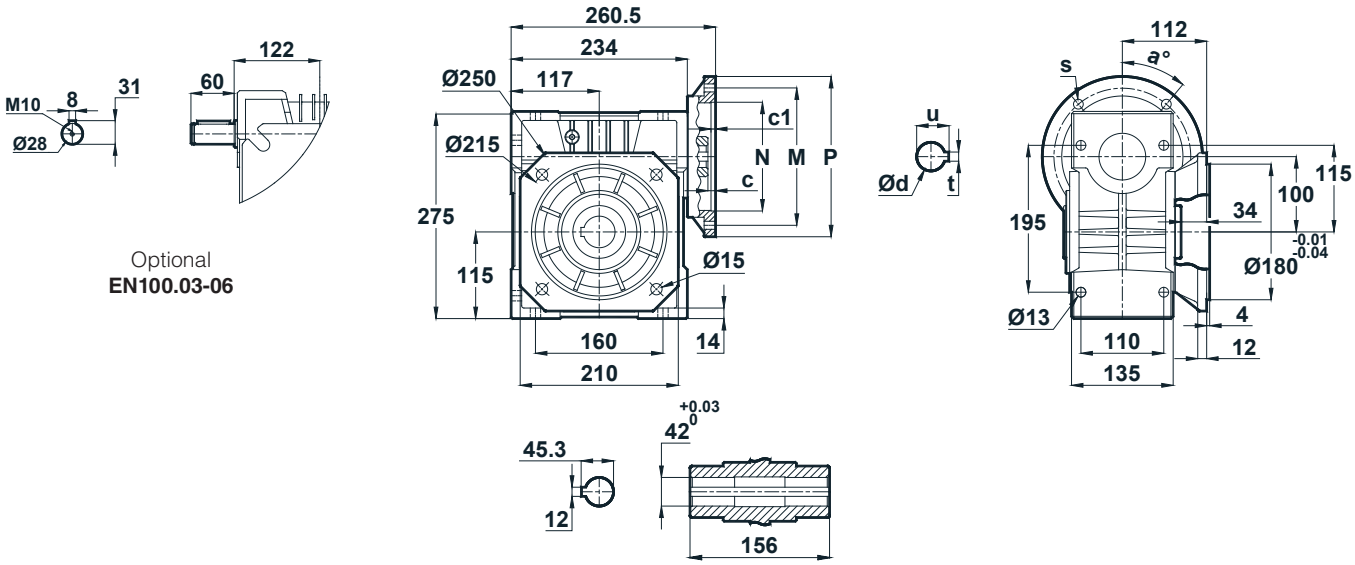


Tapped center hole to DIN 332, sheet 2

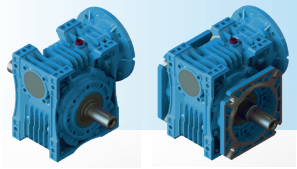
EN100.02



EN100.03

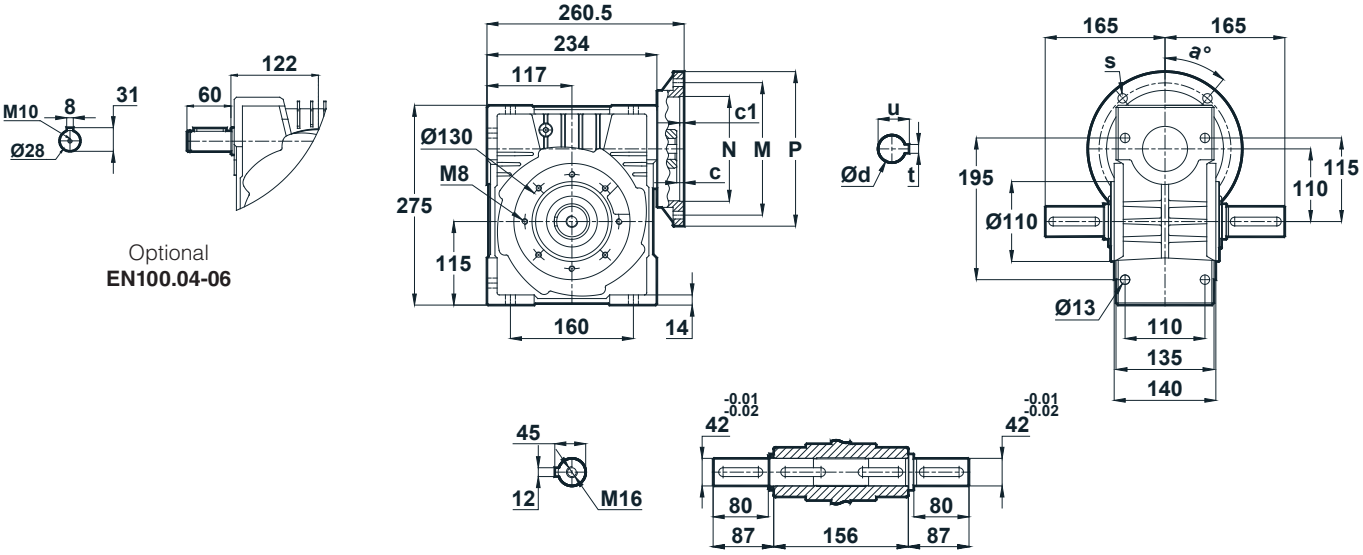


EN100	c	c1	N	M	P	d	u	t	a	s
80/B14	5.5	4	80	100	120	19	21.8	6	45°	7
90/B14	5.5	4	95	115	140	24	27.3	8	45°	9
100-112/B14	5.5	3.5	110	130	160	28	31.3	8	45°	9
80/B5	5.5	4	130	165	200	19	21.8	6	45°	12
90/B5	5.5	4	130	165	200	24	27.3	8	45°	12
100-112/B5	5.5	4.5	180	215	250	28	31.3	8	45°	13

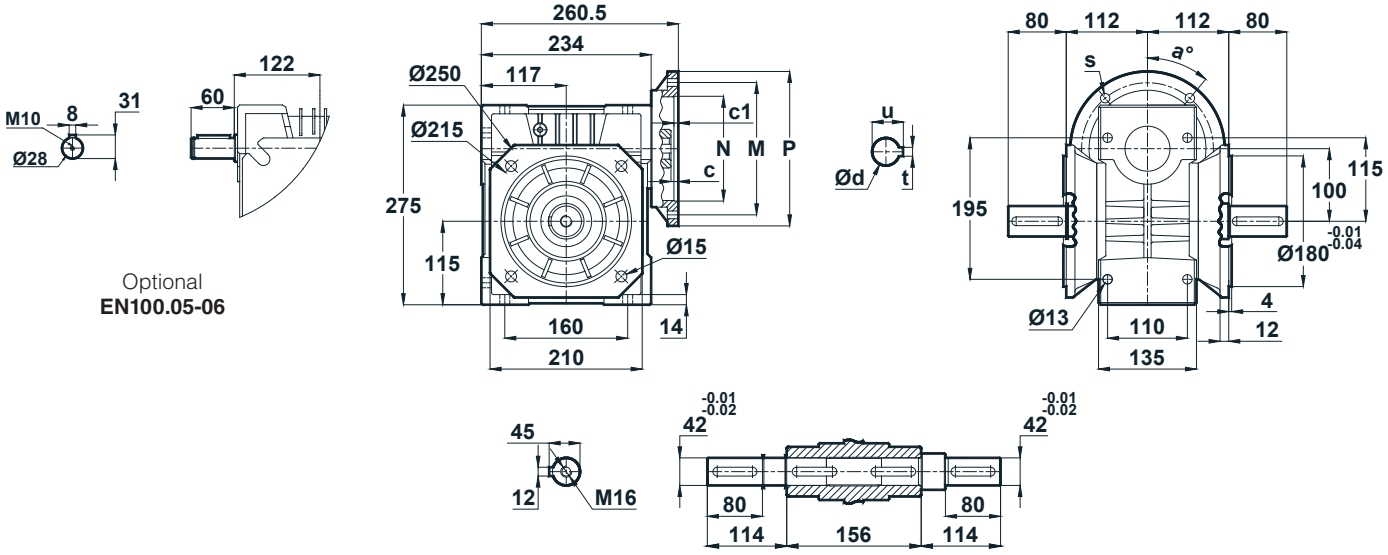


Tapped center hole to DIN 332, sheet 2

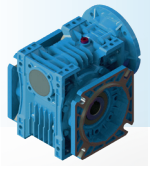
EN100.04



EN100.05

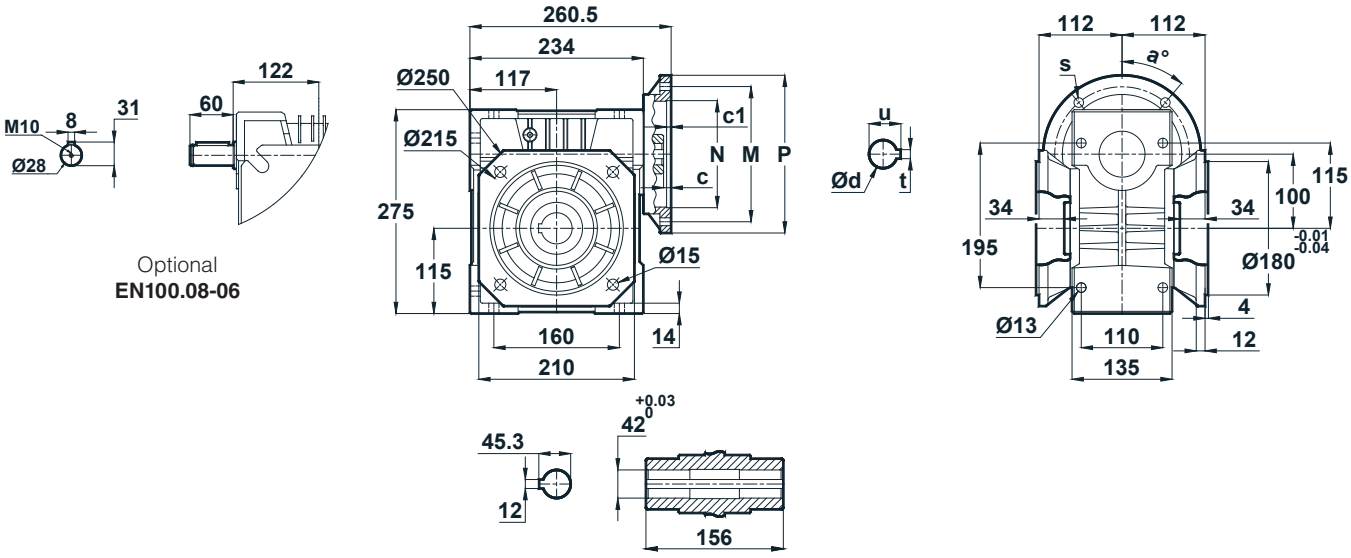


EN100	c	c1	N	M	P	d	u	t	a	s
80/B14	5.5	4	80	100	120	19	21.8	6	45°	7
90/B14	5.5	4	95	115	140	24	27.3	8	45°	9
100-112/B14	5.5	3.5	110	130	160	28	31.3	8	45°	9
80/B5	5.5	4	130	165	200	19	21.8	6	45°	12
90/B5	5.5	4	130	165	200	24	27.3	8	45°	12
100-112/B5	5.5	4.5	180	215	250	28	31.3	8	45°	13

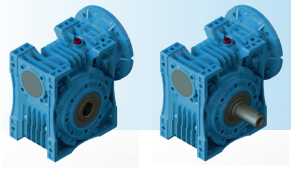


Tapped center hole to DIN 332, sheet 2

EN100.08

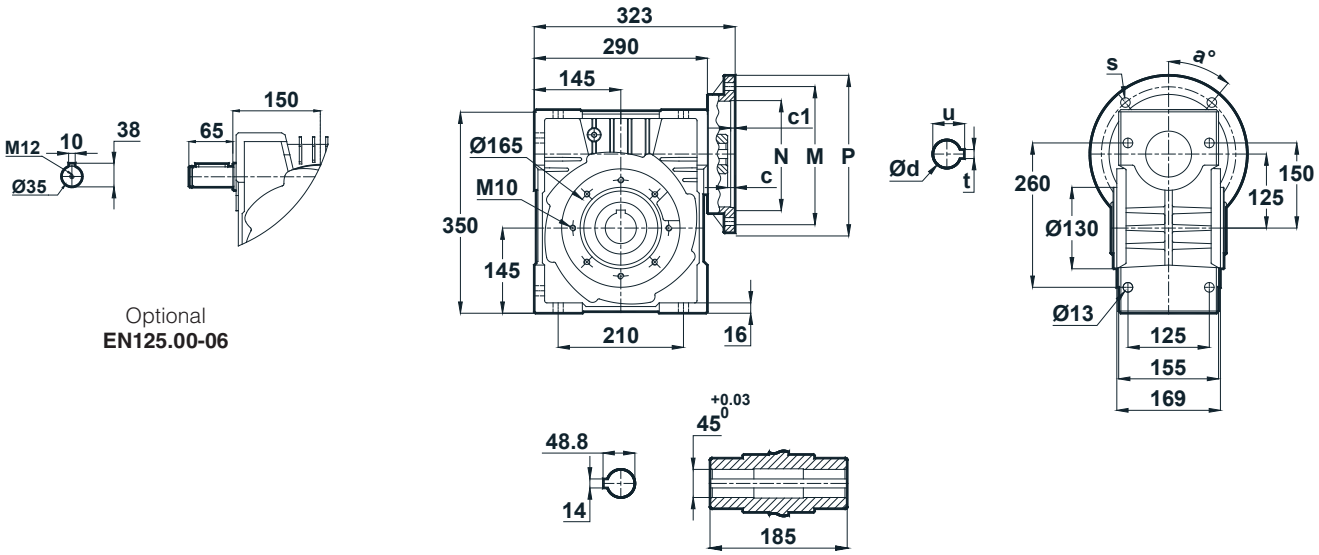


EN100	c	c1	N	M	P	d	u	t	a	s
80/B14	5.5	4	80	100	120	19	21.8	6	45°	7
90/B14	5.5	4	95	115	140	24	27.3	8	45°	9
100-112/B14	5.5	3.5	110	130	160	28	31.3	8	45°	9
80/B5	5.5	4	130	165	200	19	21.8	6	45°	12
90/B5	5.5	4	130	165	200	24	27.3	8	45°	12
100-112/B5	5.5	4.5	180	215	250	28	31.3	8	45°	13

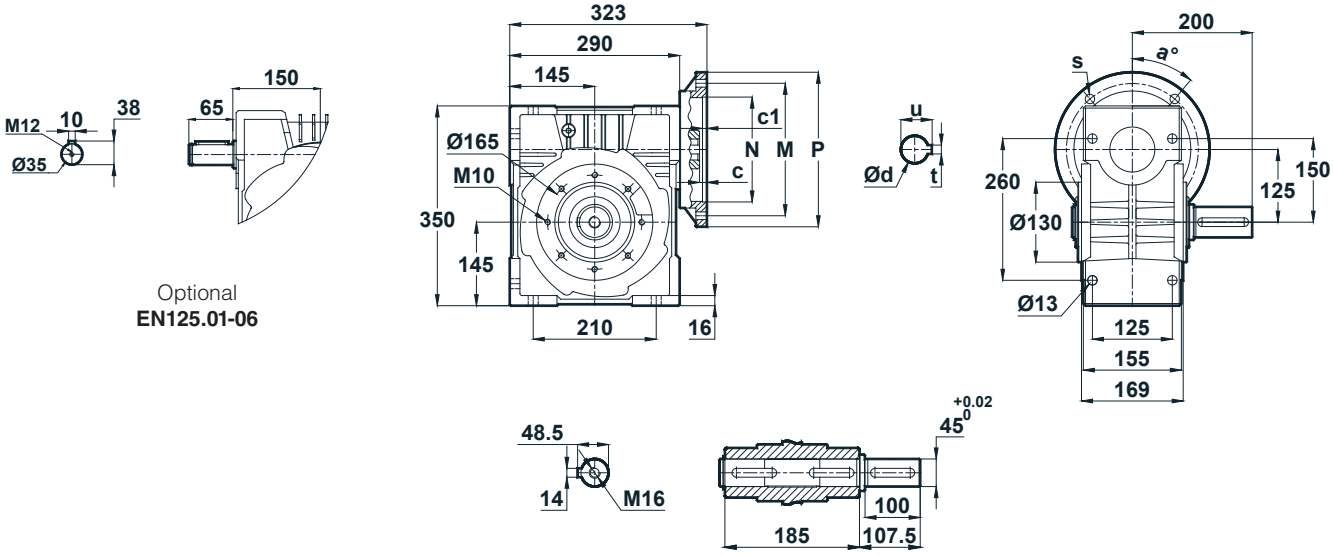


Tapped center hole to DIN 332, sheet 2

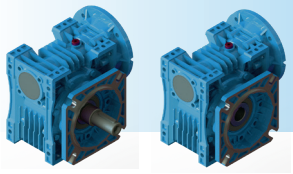
EN125.00



EN125.01

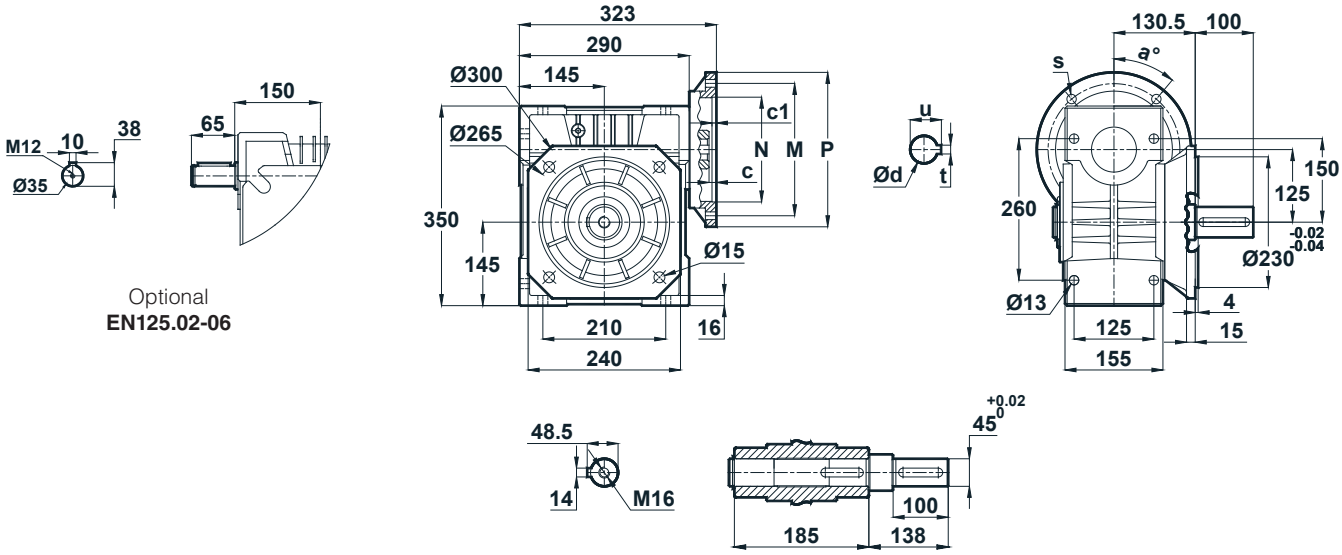


EN125	c	c1	N	M	P	d	u	t	a	s
100-112/B14	12.8	3.5	110	130	160	28	31.3	8	45°	9
132/B14	12.8	4.5	130	165	200	38	41.3	10	45°	11
90/B5	13.5	4	130	165	200	24	27.3	8	45°	12
100-112/B5	15.8	4.5	180	215	250	28	31.3	8	45°	15
132/B5	15.8	4.5	230	265	300	38	41.3	10	45°	15

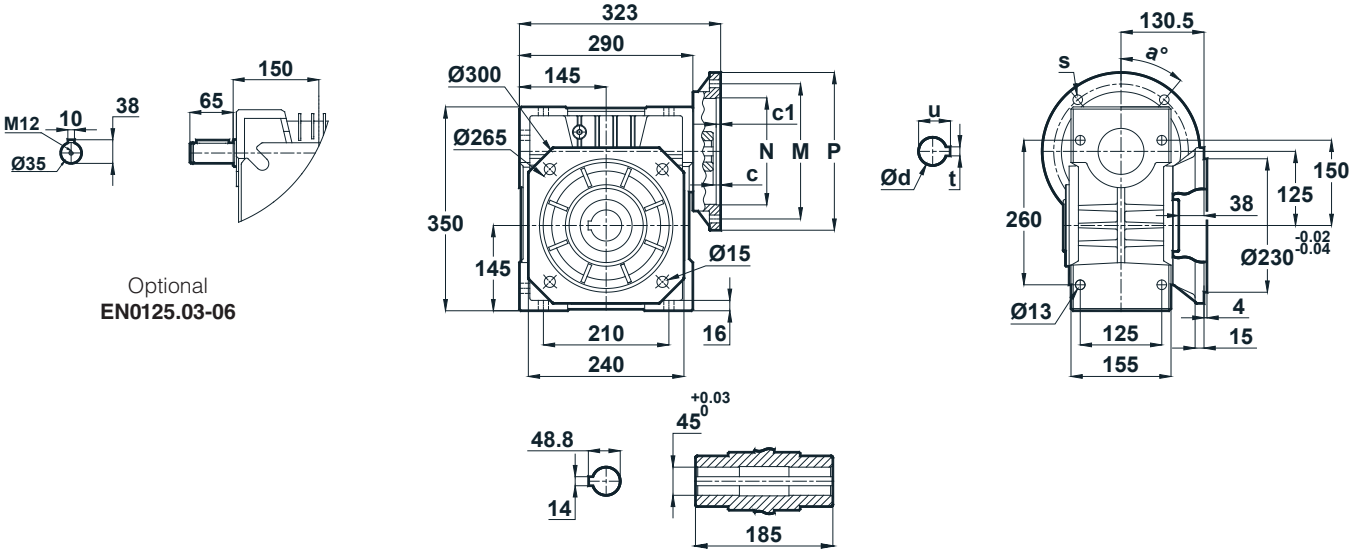


Tapped center hole to DIN 332, sheet 2

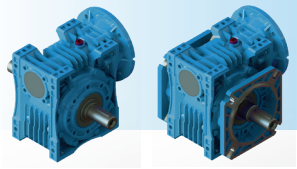
EN125.02



EN125.03

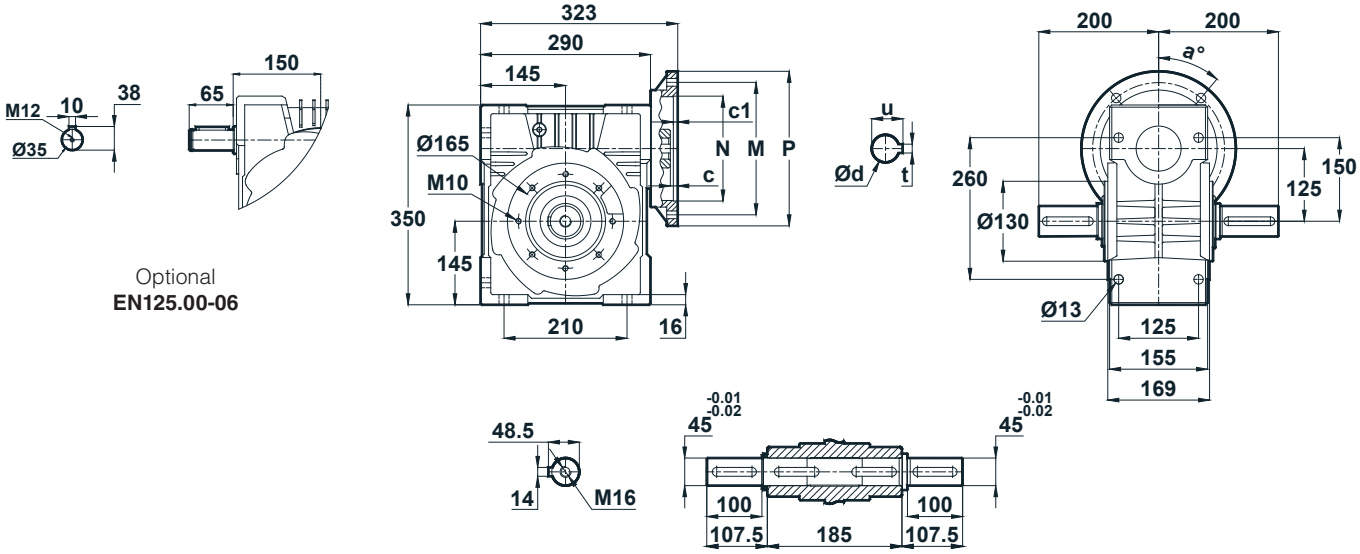


EN125	c	c1	N	M	P	d	u	t	a	s
100-112/B14	12.8	3.5	110	130	160	28	31.3	8	45°	9
132/B14	12.8	4.5	130	165	200	38	41.3	10	45°	11
90/B5	13.5	4	130	165	200	24	27.3	8	45°	12
100-112/B5	15.8	4.5	180	215	250	28	31.3	8	45°	15
132/B5	15.8	4.5	230	265	300	38	41.3	10	45°	15

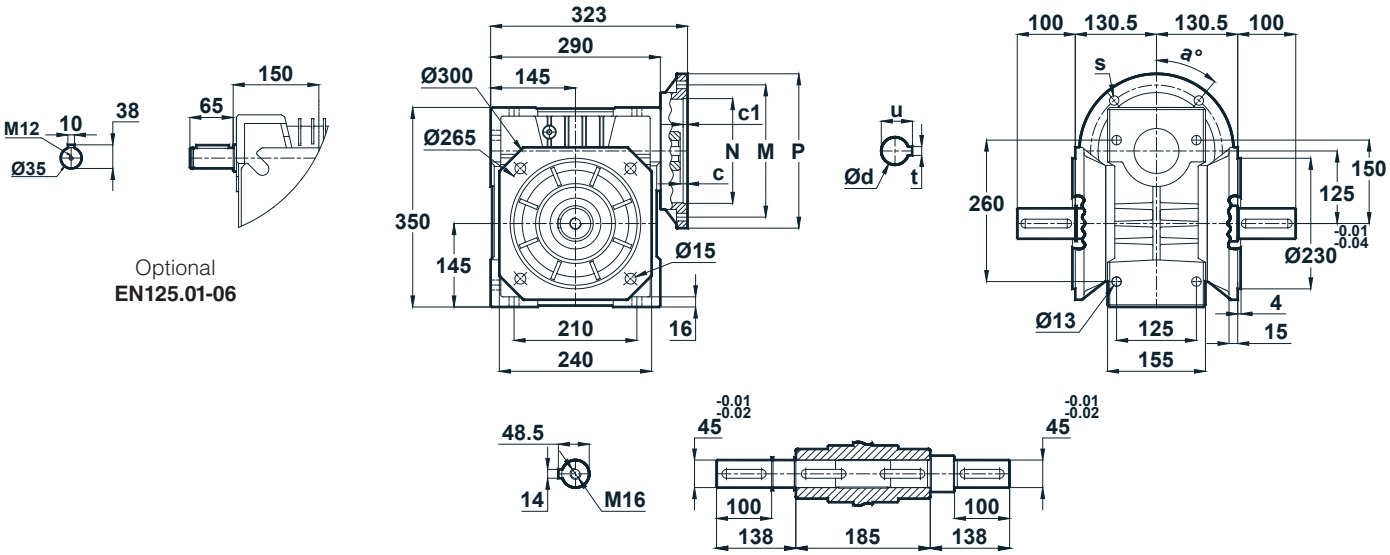


Tapped center hole to DIN 332, sheet 2

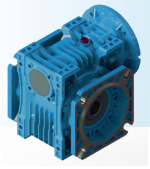
EN125.04



EN125.05

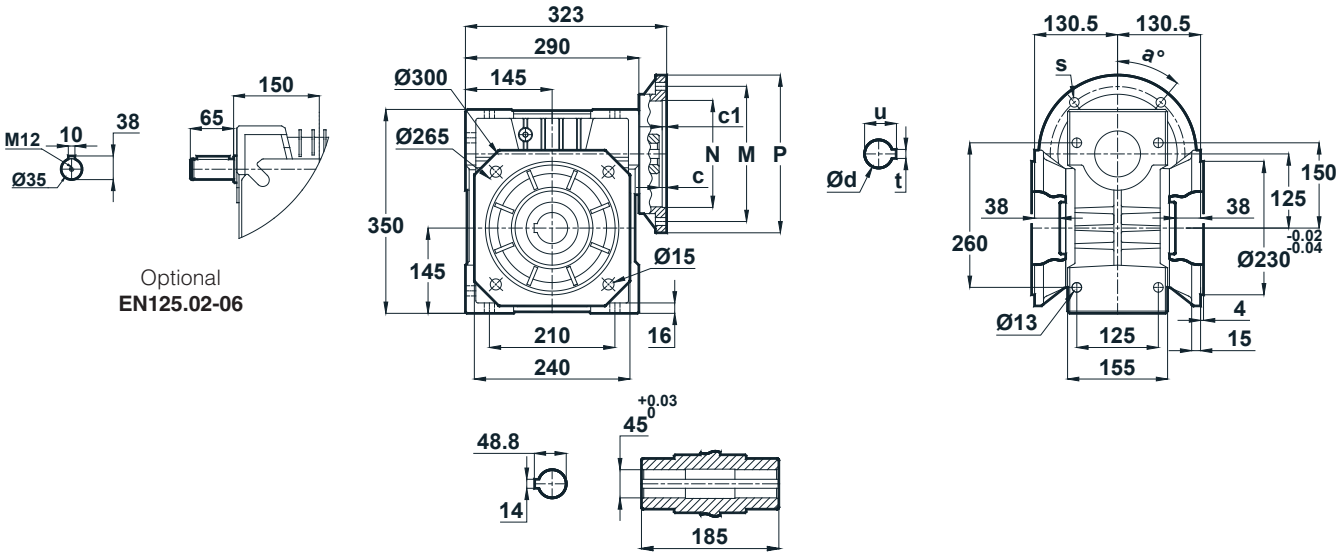


EN125	c	c1	N	M	P	d	u	t	a	s
100-112/B14	12.8	3.5	110	130	160	28	31.3	8	45°	9
132/B14	12.8	4.5	130	165	200	38	41.3	10	45°	11
90/B5	13.5	4	130	165	200	24	27.3	8	45°	12
100-112/B5	15.8	4.5	180	215	250	28	31.3	8	45°	15
132/B5	15.8	4.5	230	265	300	38	41.3	10	45°	15

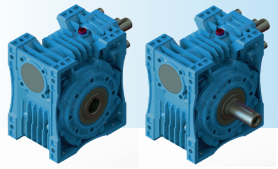


Tapped center hole to DIN 332, sheet 2

EN125.08

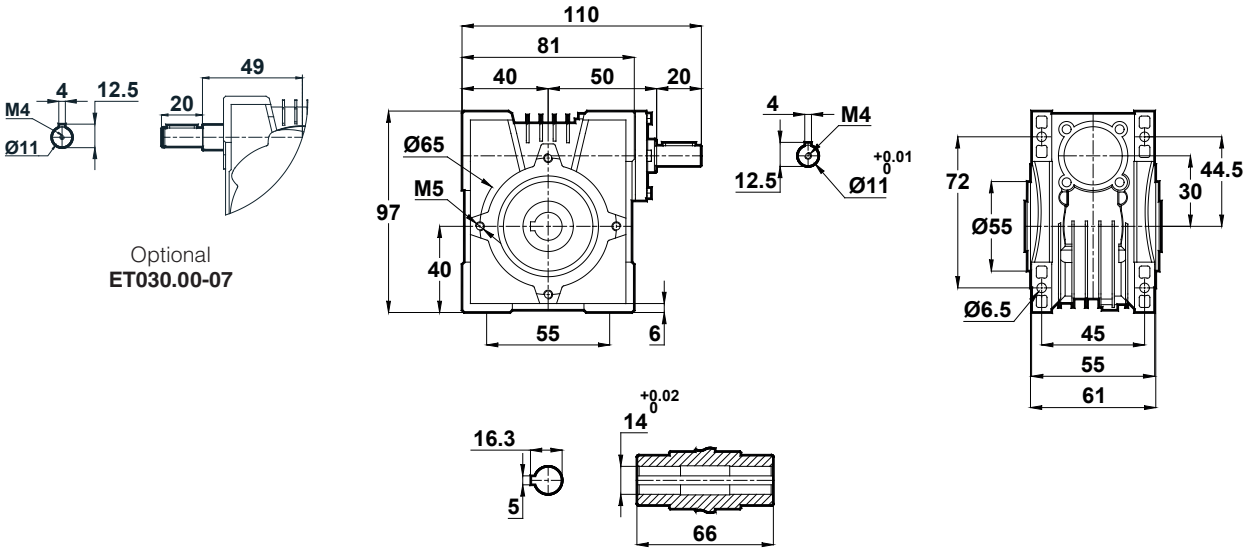


EN125	c	c1	N	M	P	d	u	t	a	s
100-112/B14	12.8	3.5	110	130	160	28	31.3	8	45°	9
132/B14	12.8	4.5	130	165	200	38	41.3	10	45°	11
90/B5	13.5	4	130	165	200	24	27.3	8	45°	12
100-112/B5	15.8	4.5	180	215	250	28	31.3	8	45°	15
132/B5	15.8	4.5	230	265	300	38	41.3	10	45°	15

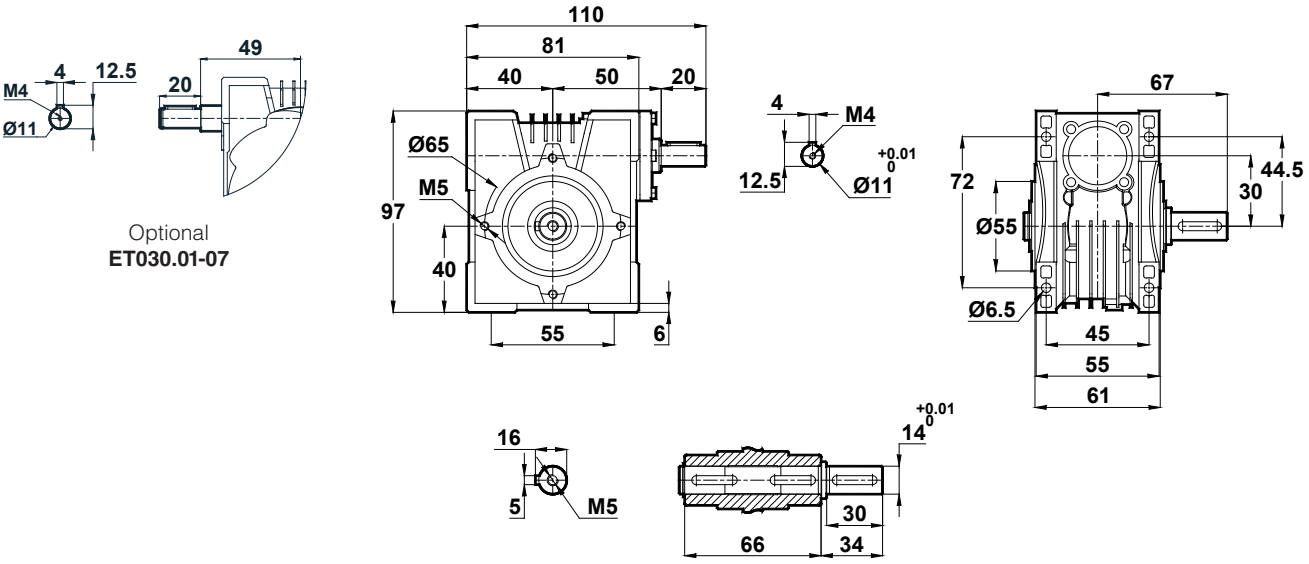


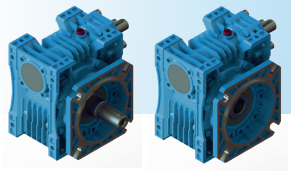
Tapped center hole to DIN 332, sheet 2

ET030.00



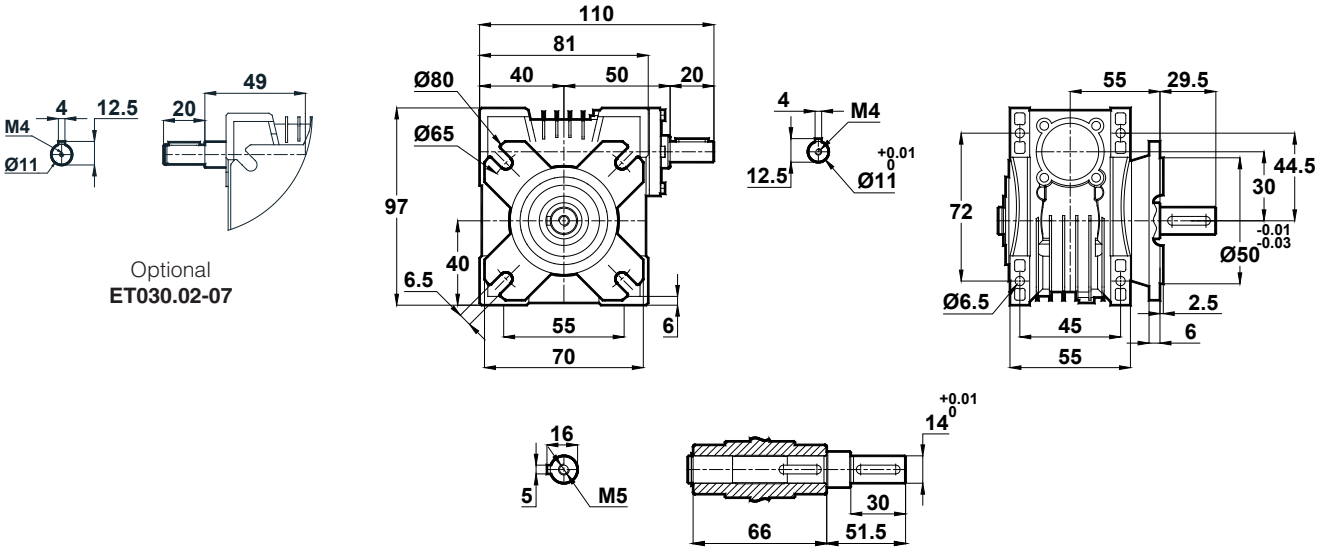
ET030.01



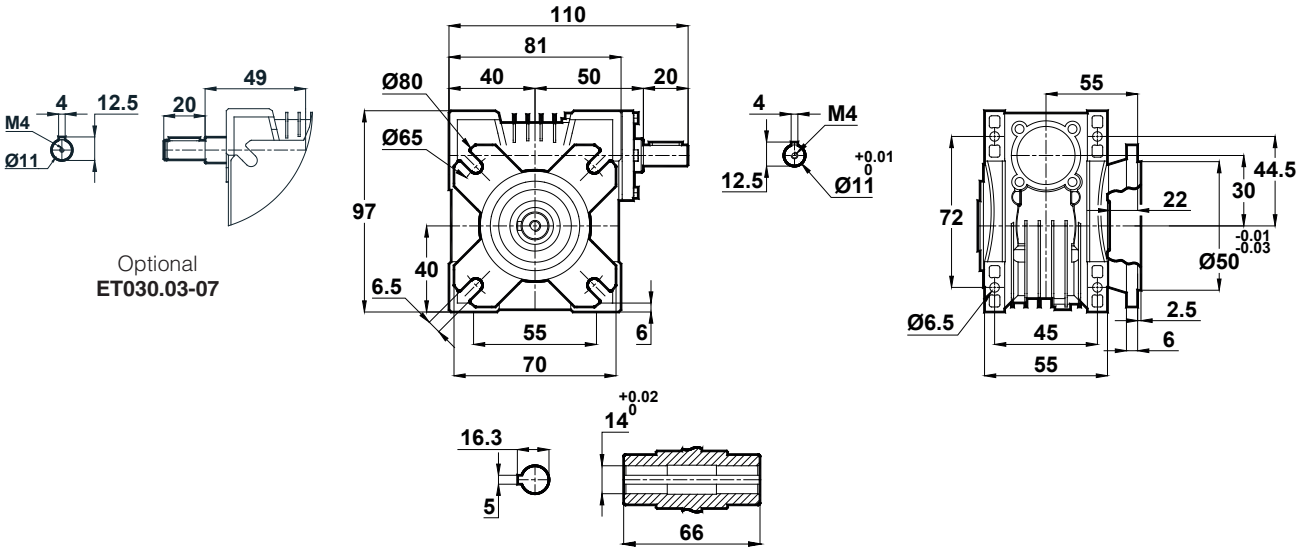


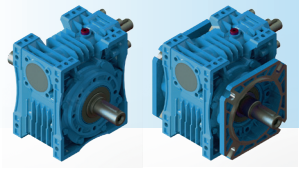
Tapped center hole to DIN 332, sheet 2

ET030.02



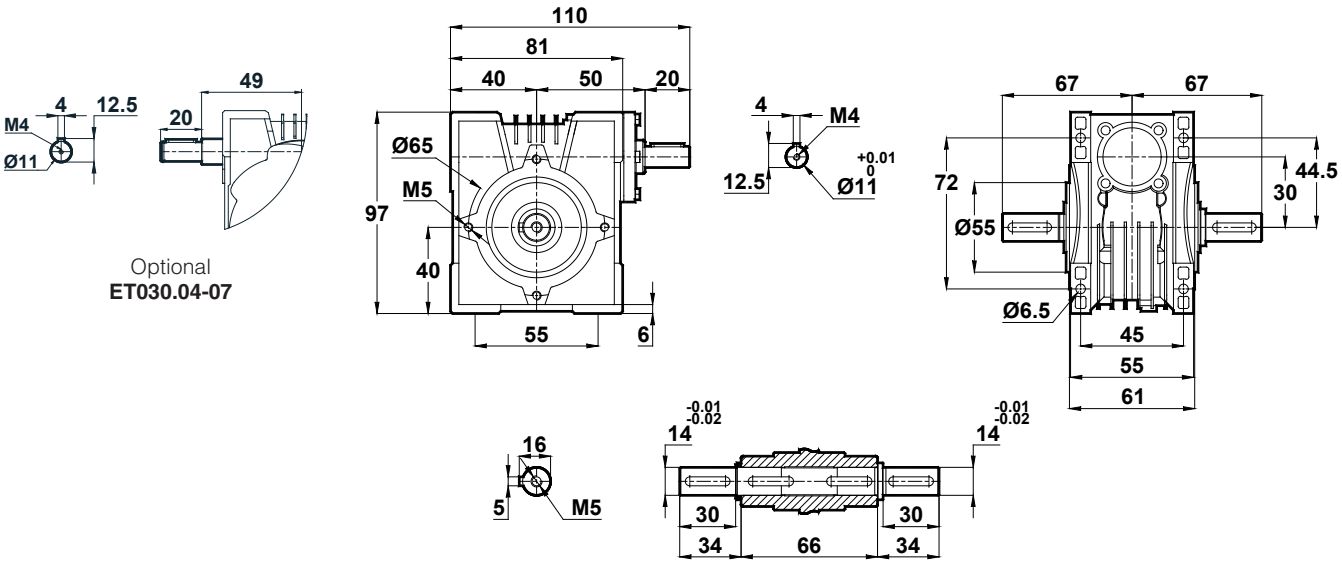
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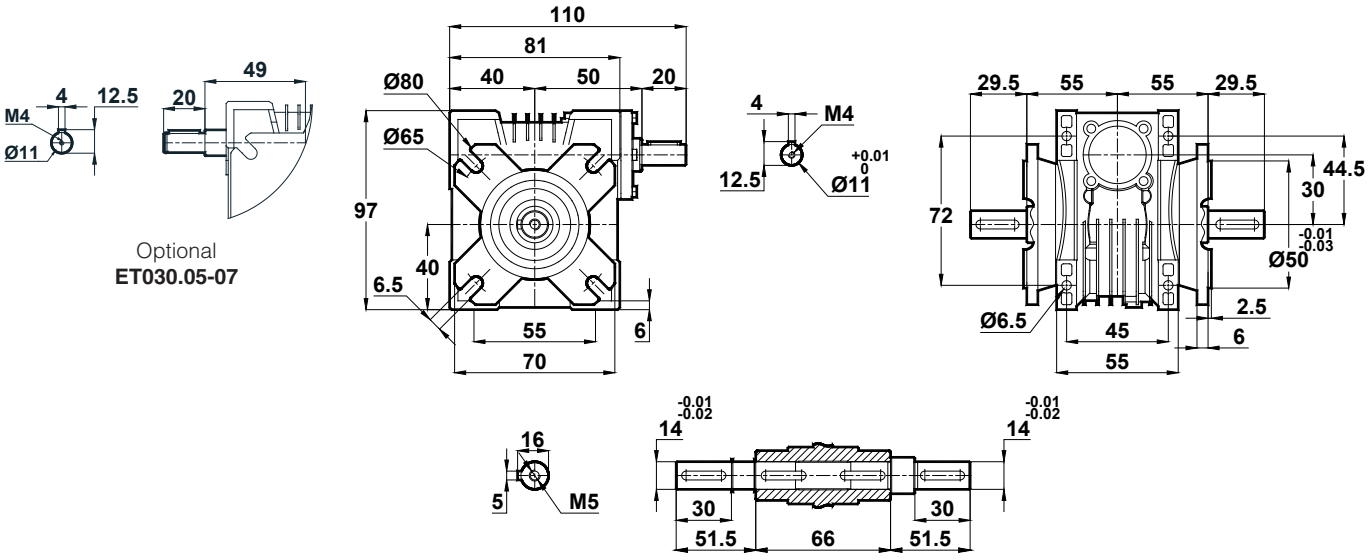


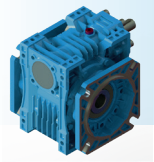
Tapped center hole to DIN 332, sheet 2

ET030.04



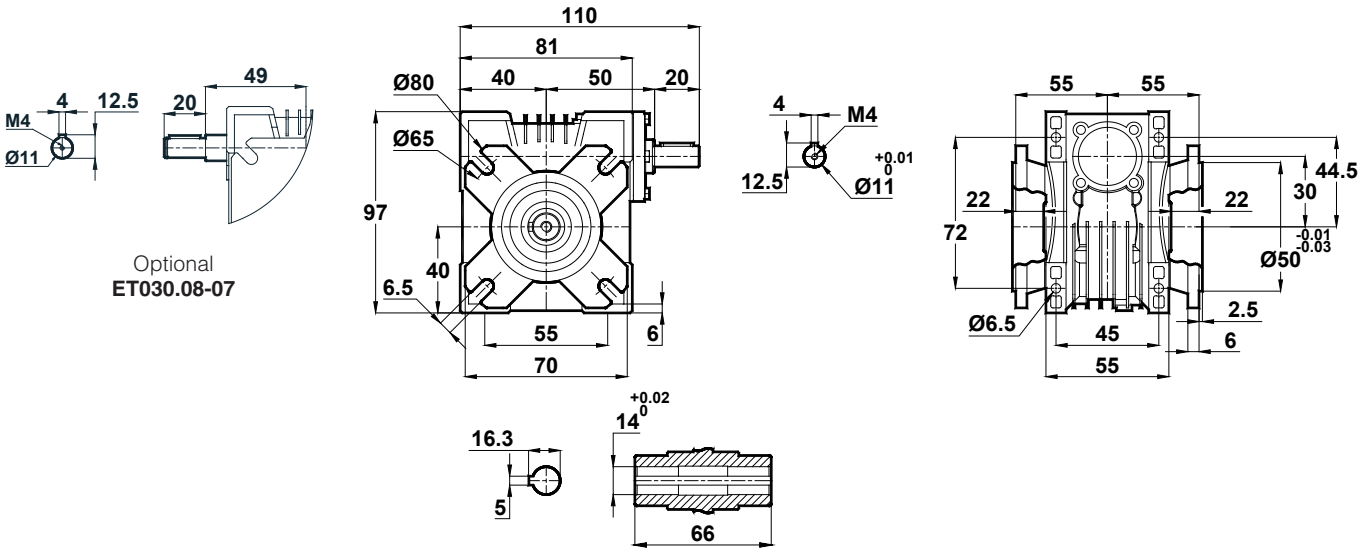
ET030.05

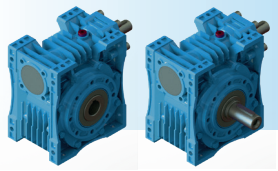




Tapped center hole to DIN 332, sheet 2

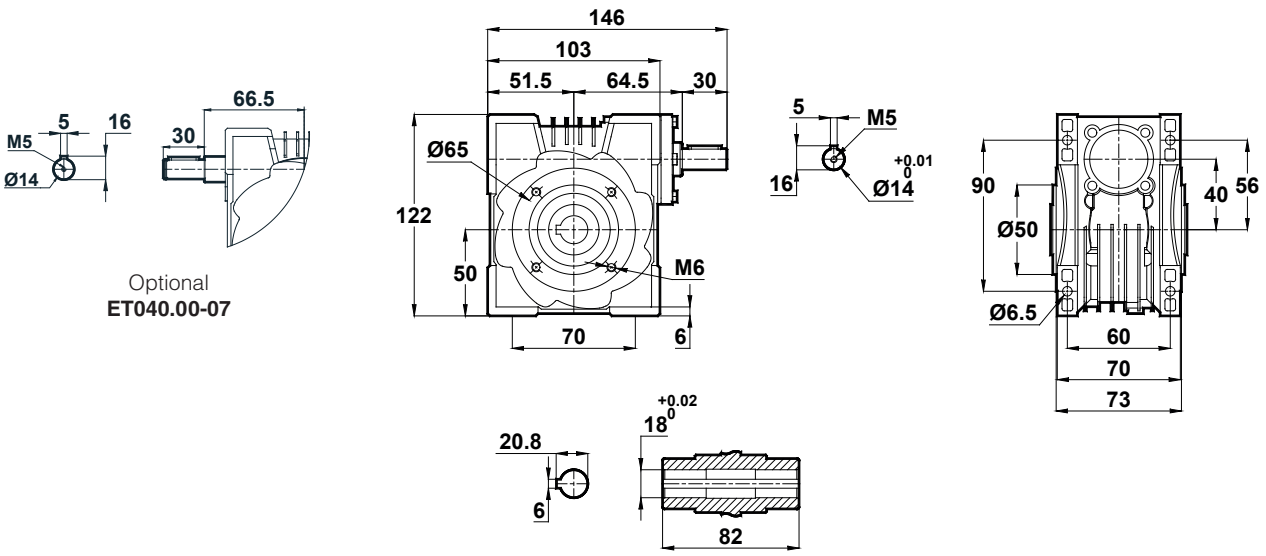
ET030.08



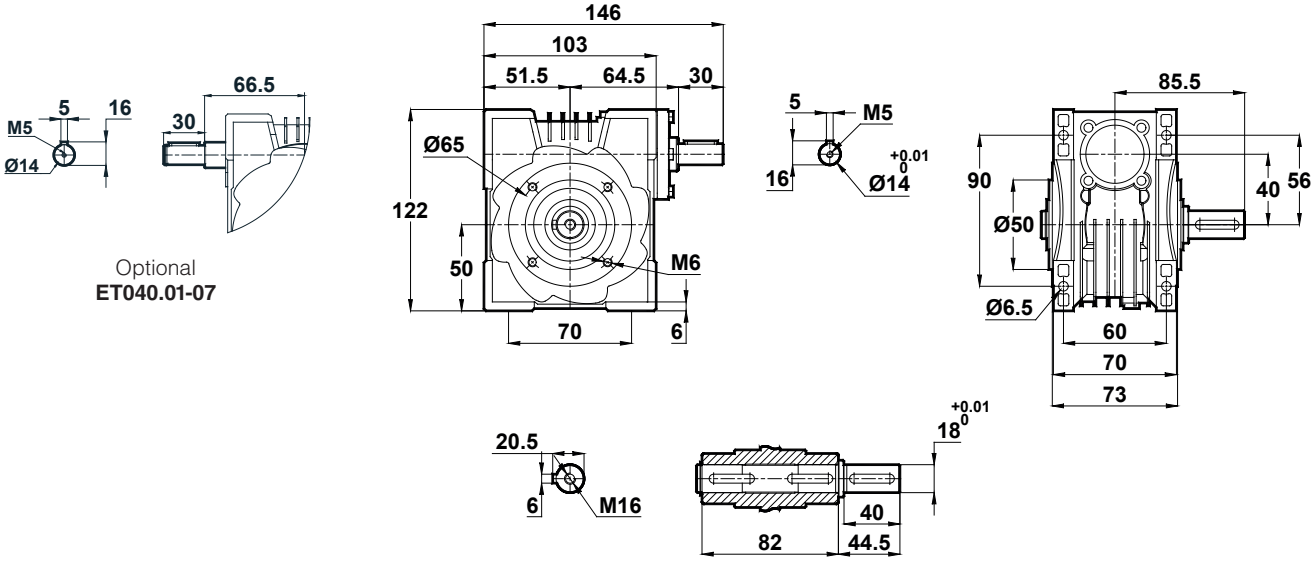


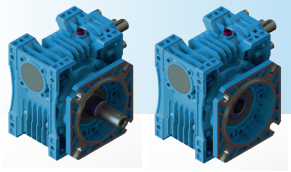
Tapped center hole to DIN 332, sheet 2

ET040.00



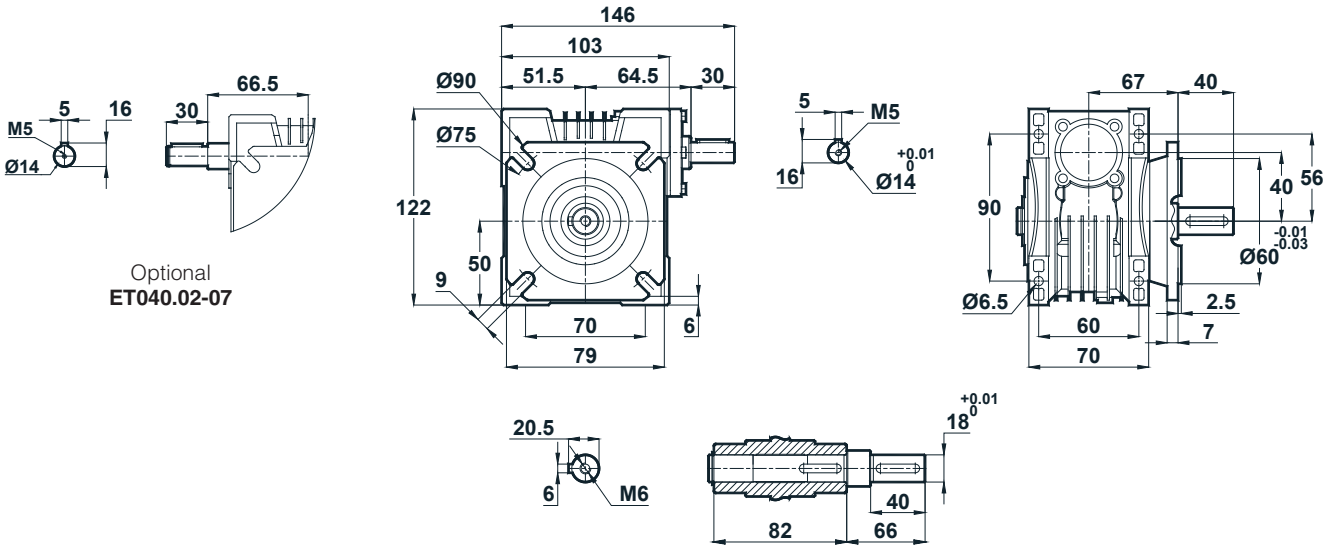
ET040.01



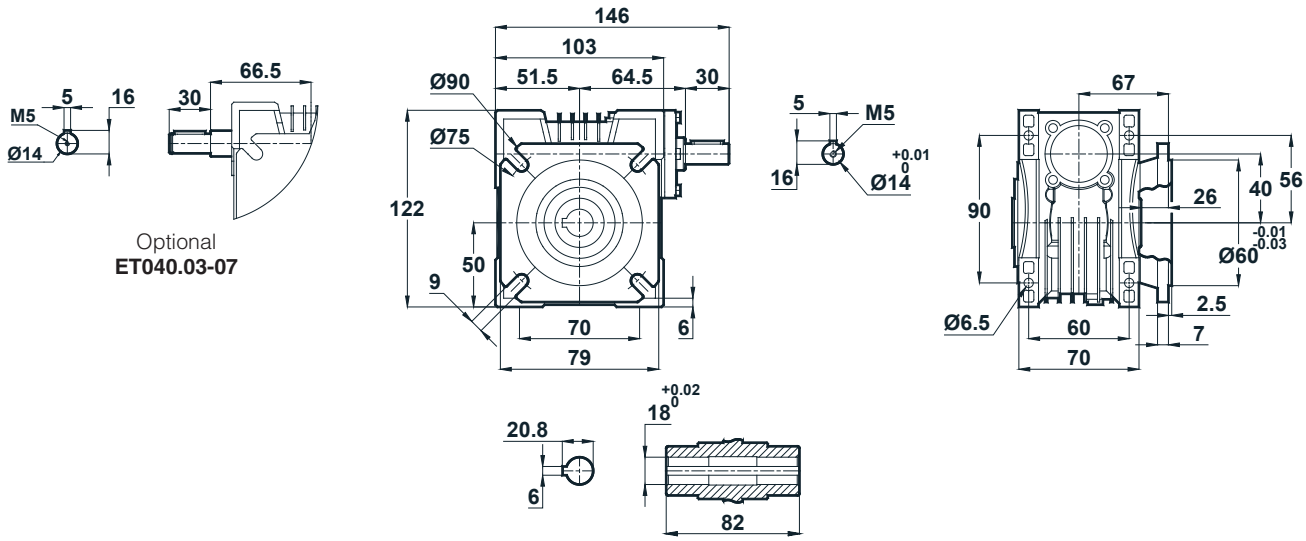


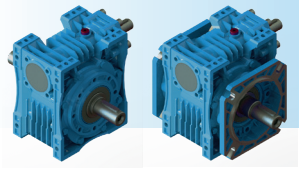
Tapped center hole to DIN 332, sheet 2

ET040.02



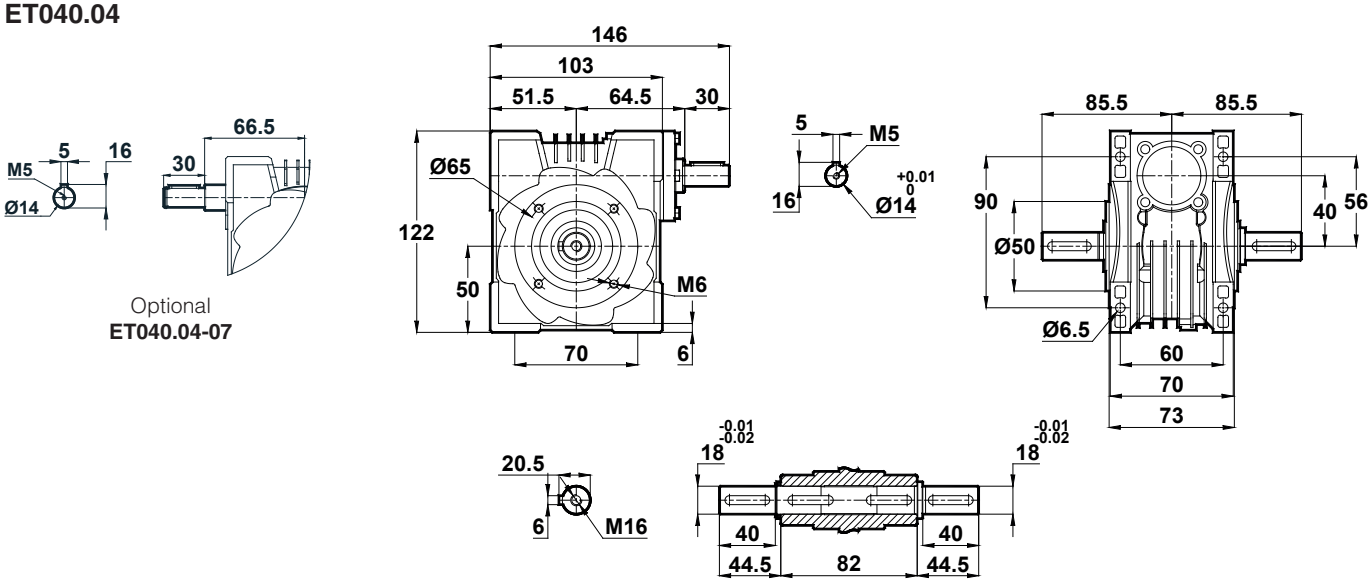
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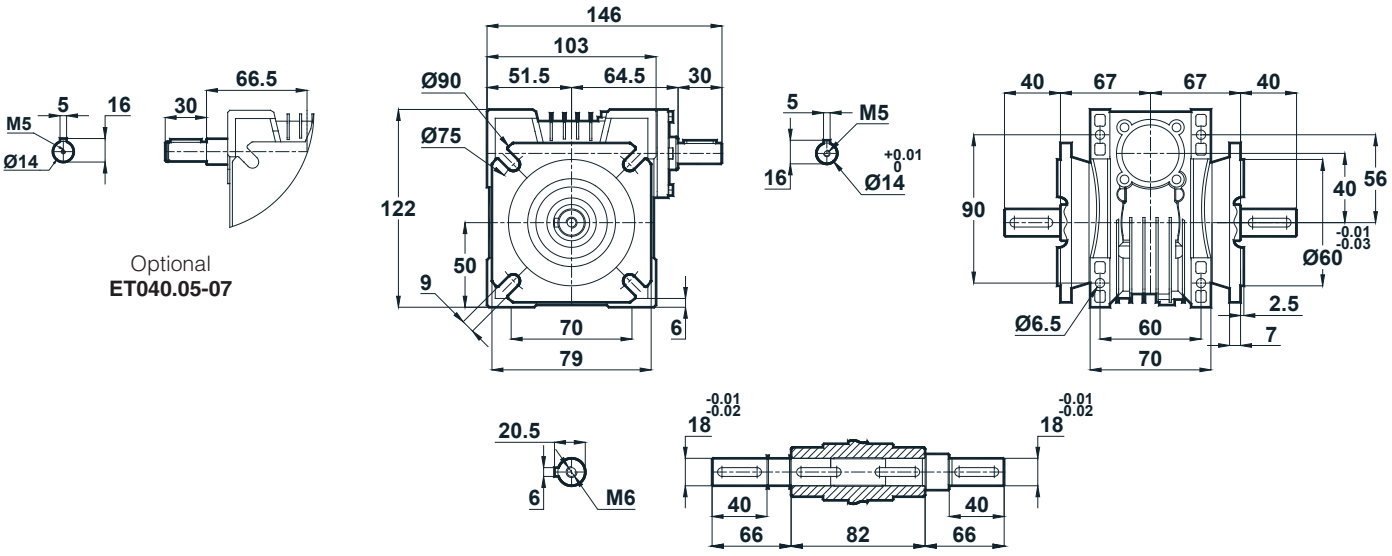


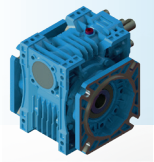
Tapped center hole to DIN 332, sheet 2

ET040.04



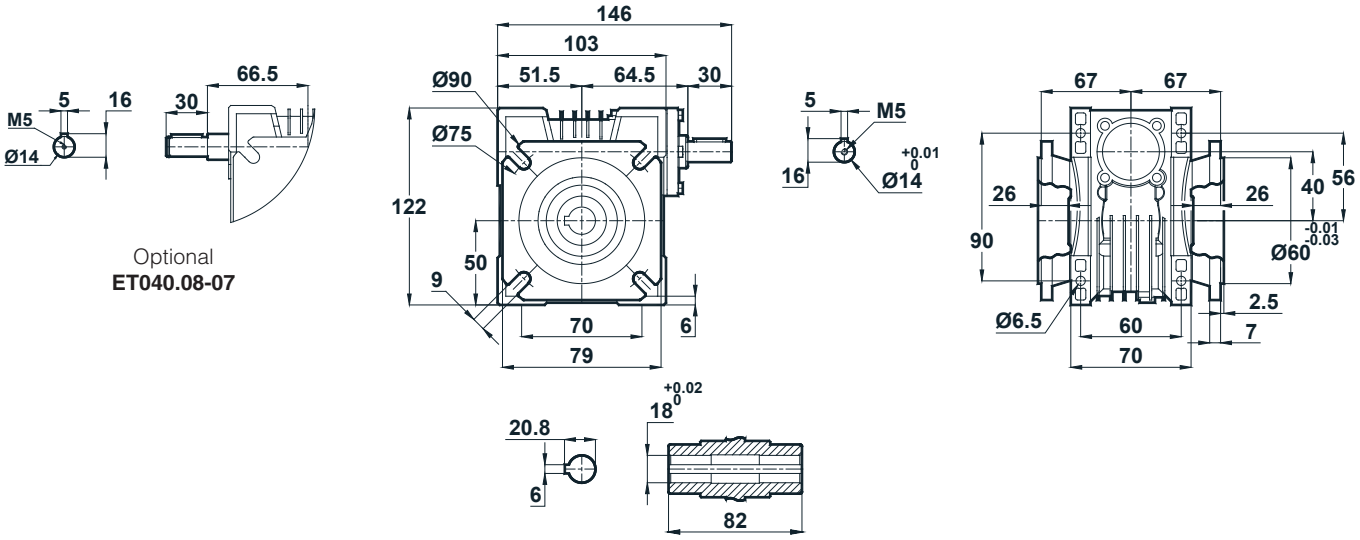
ET040.05

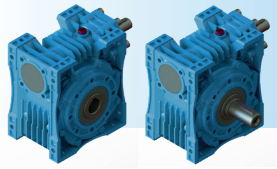




Tapped center hole to DIN 332, sheet 2

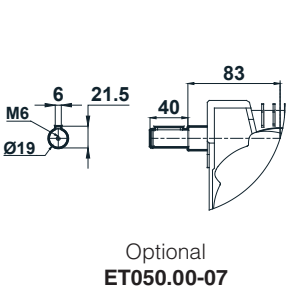
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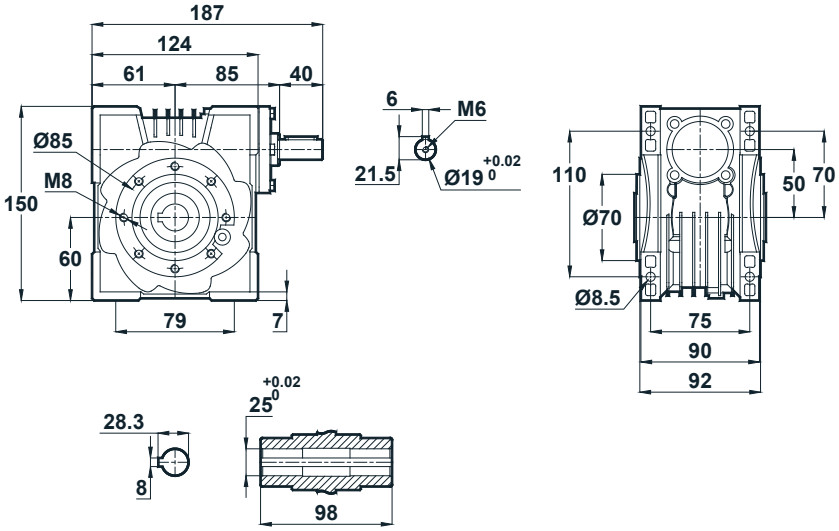


Tapped center hole to DIN 332, sheet 2

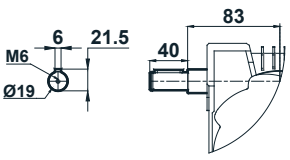
ET050.00



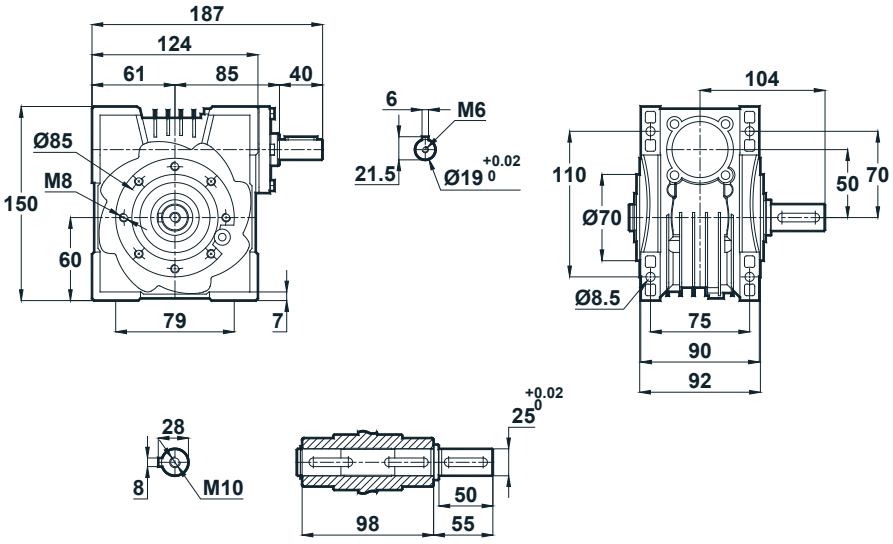
Optional
ET050.00-07

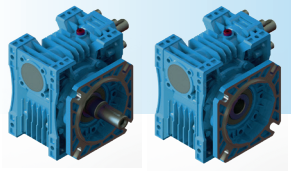


ET050.01



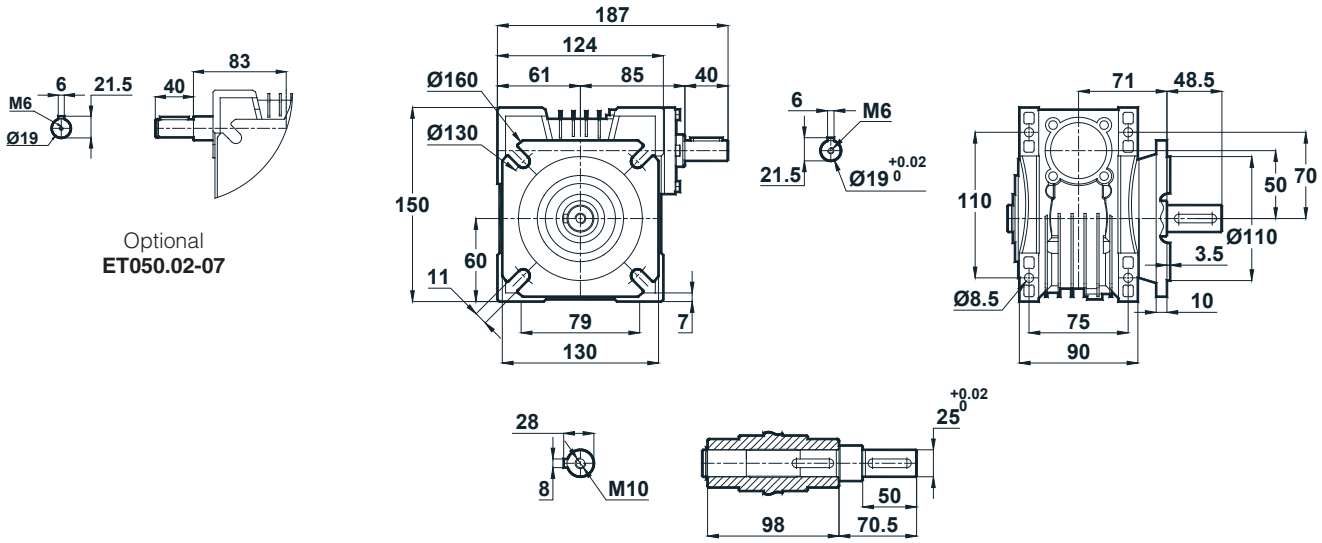
Optional
ET050.01-07



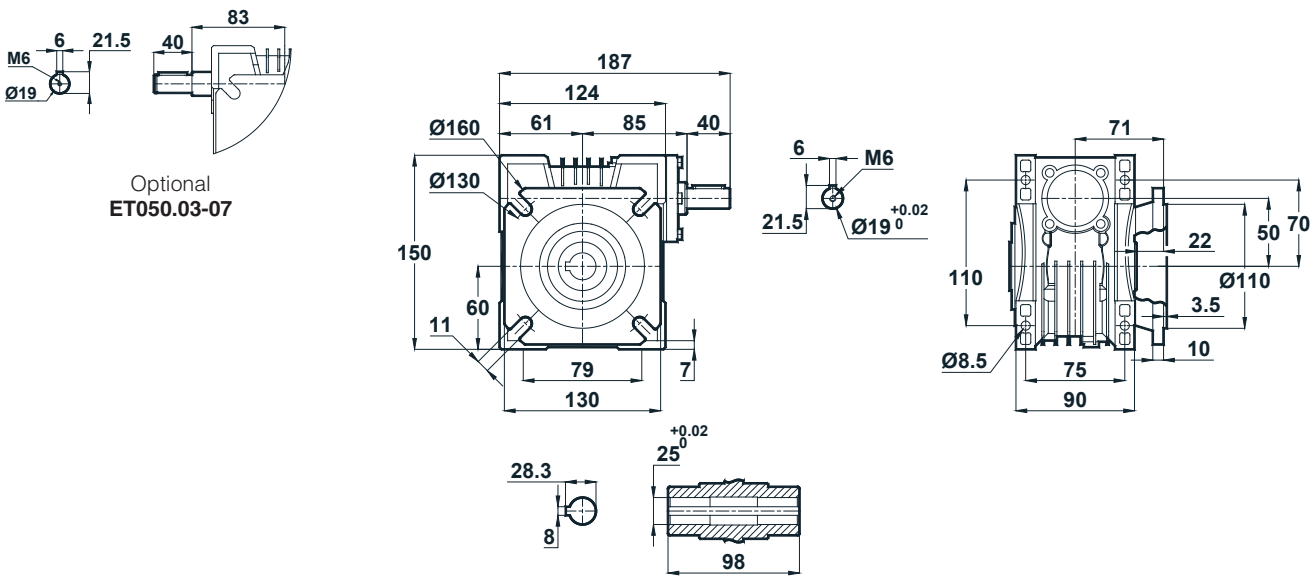


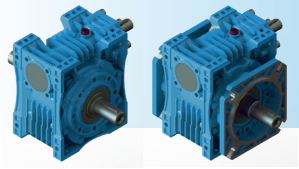
Tapped center hole to DIN 332, sheet 2

ET050.02



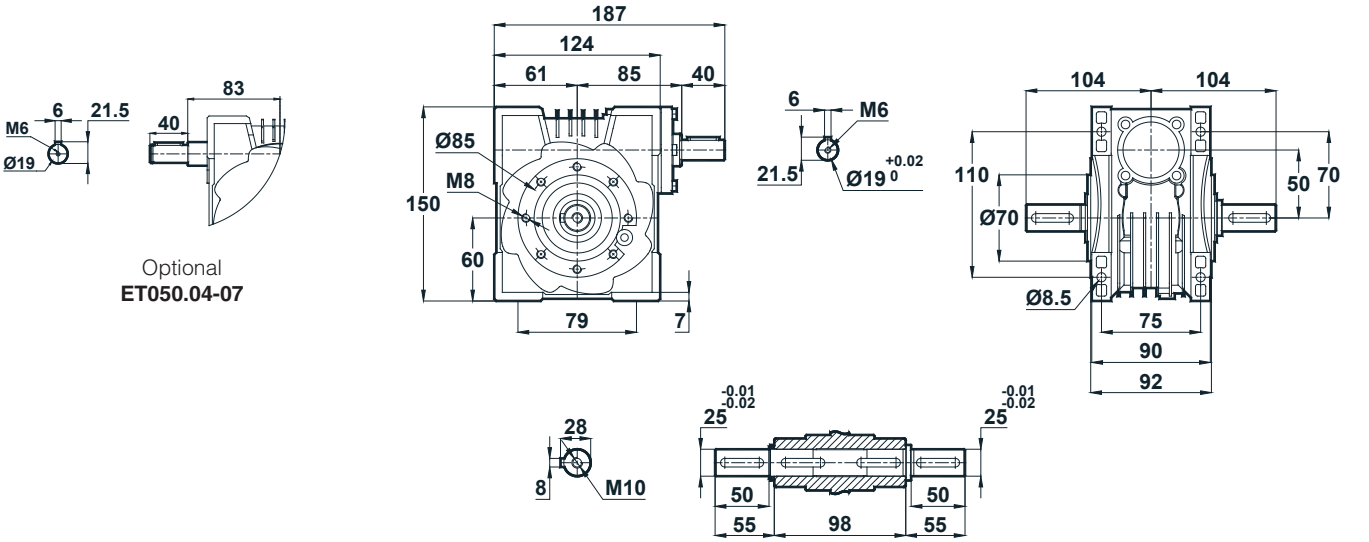
ET050.03





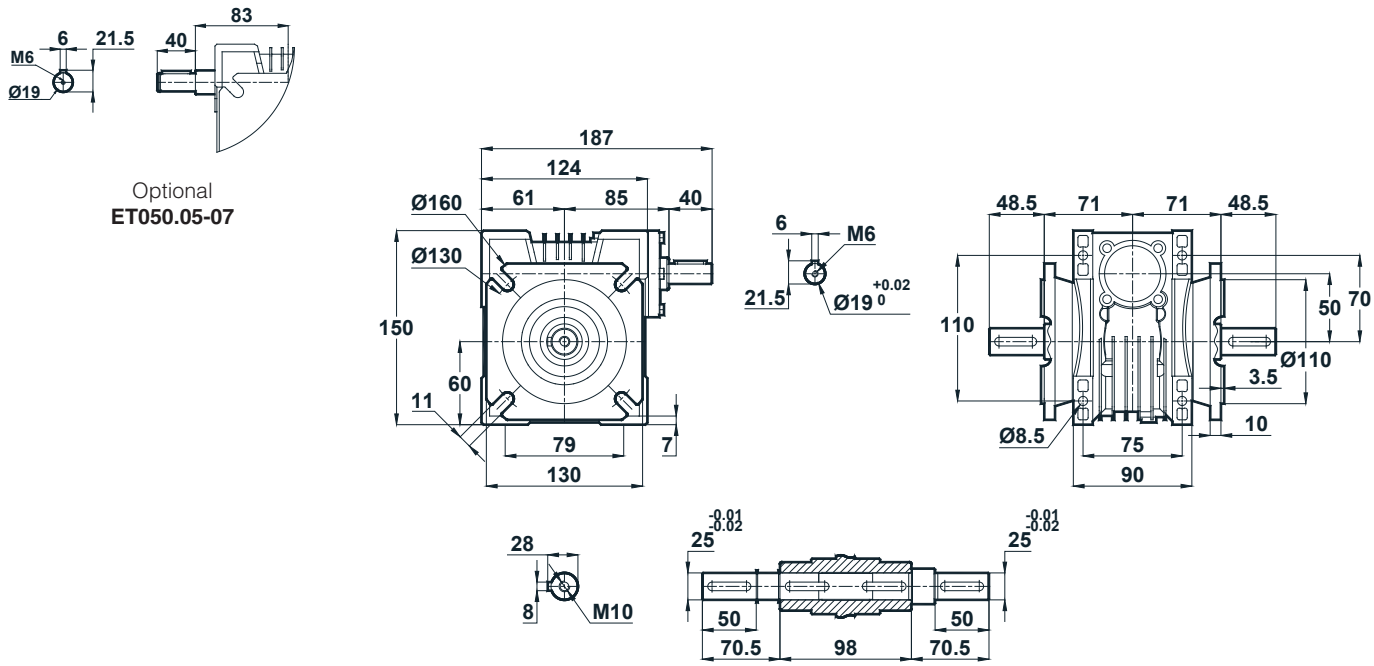
Tapped center hole to DIN 332, sheet 2

ET050.04

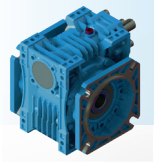


Optional
ET050.04-07

ET050.05

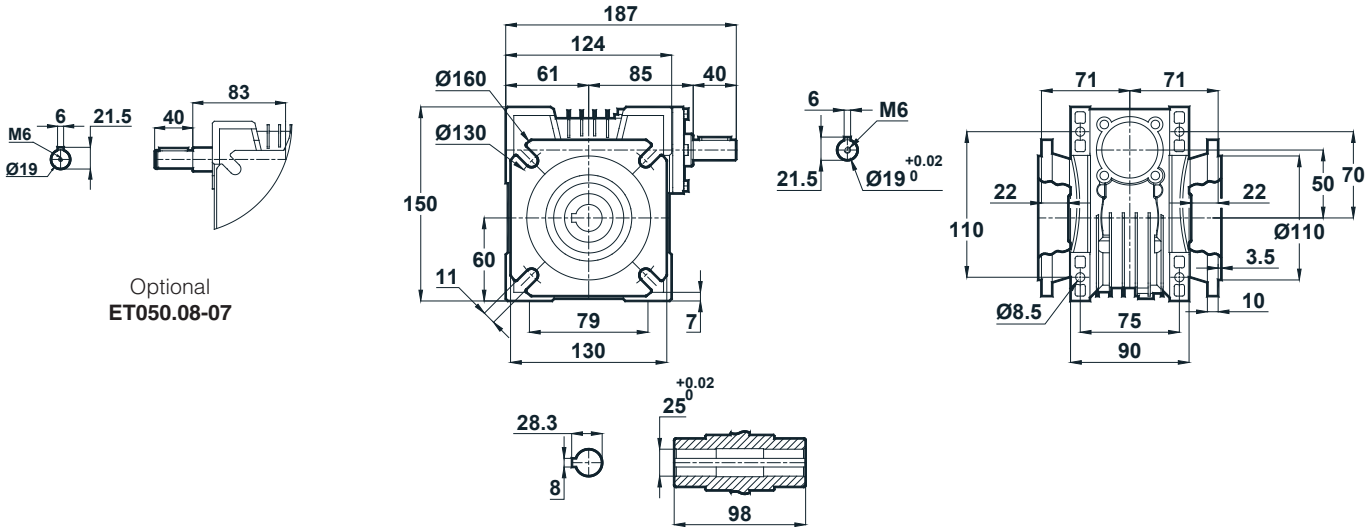


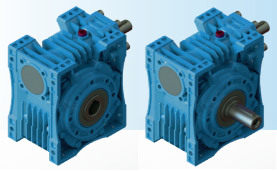
Optional
ET050.05-07



Tapped center hole to DIN 332, sheet 2

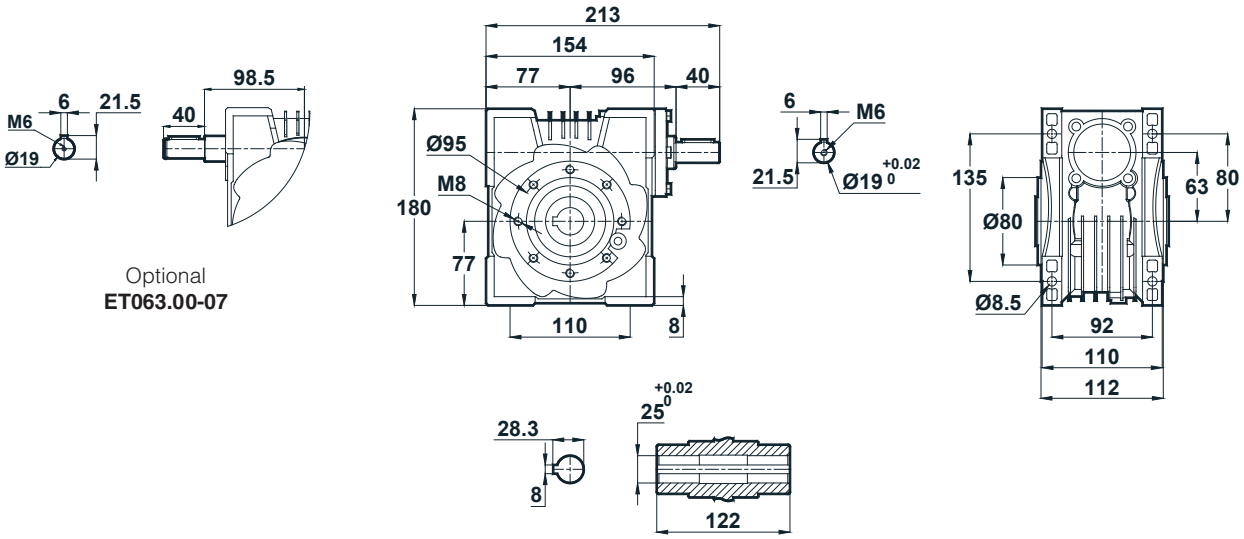
ET050.08





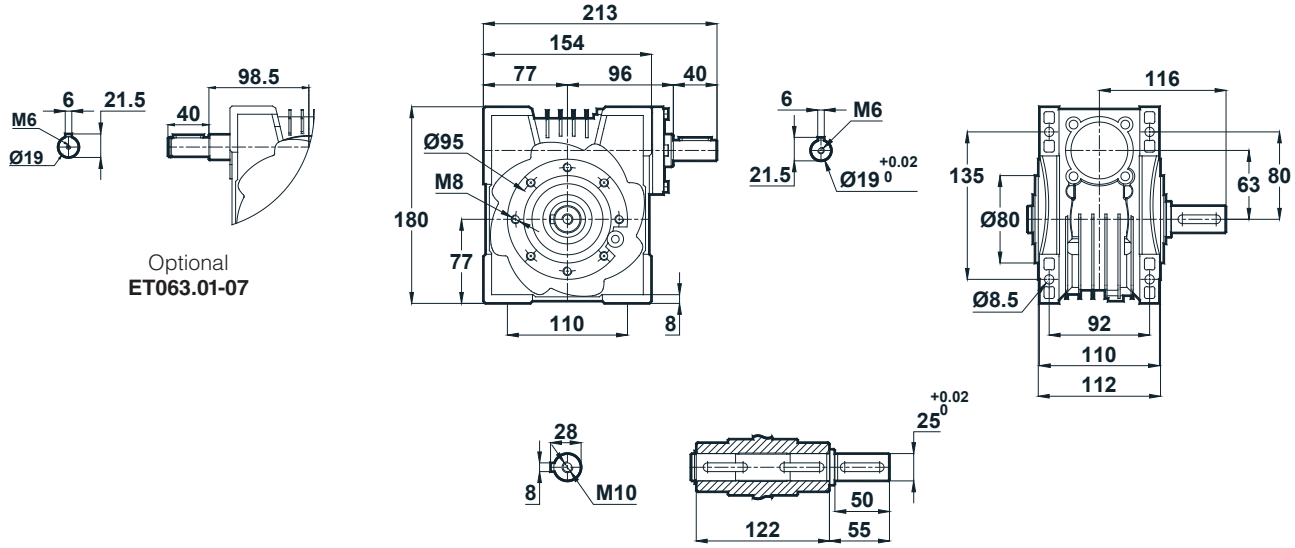
Tapped center hole to DIN 332, sheet 2

ET063.00

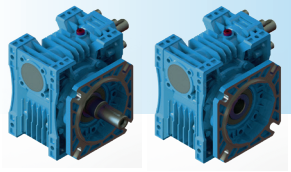


Optional
ET063.00-07

ET063.01

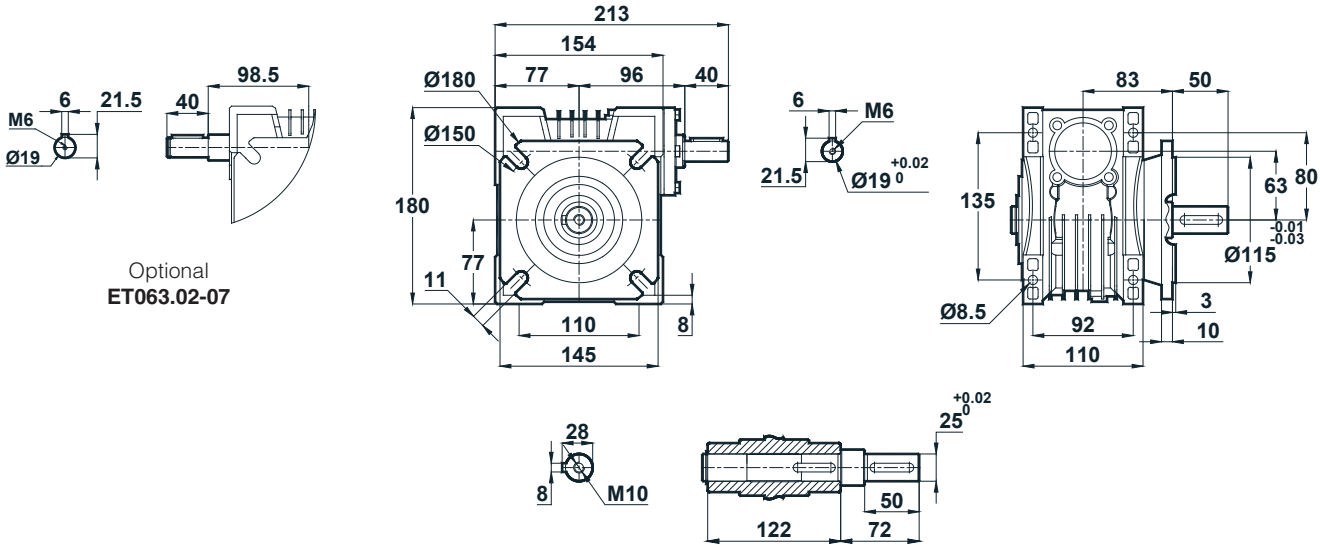


Optional
ET063.01-07

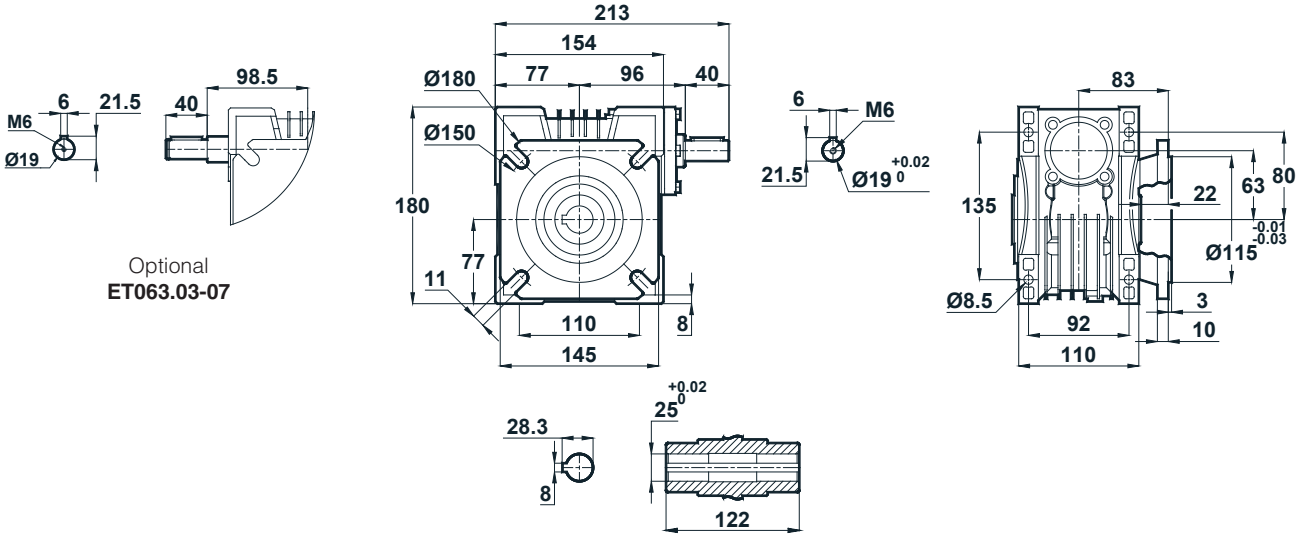


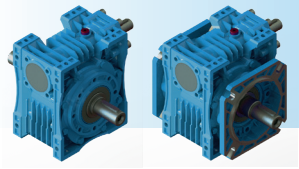
Tapped center hole to DIN 332, sheet 2

ET063.02



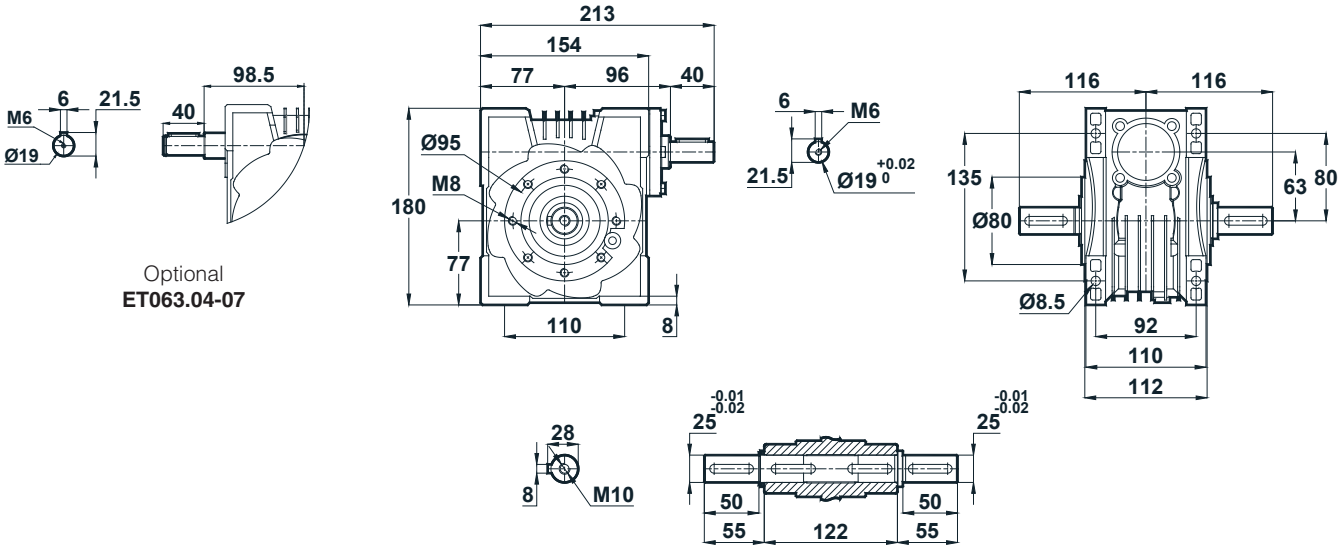
ET063.03



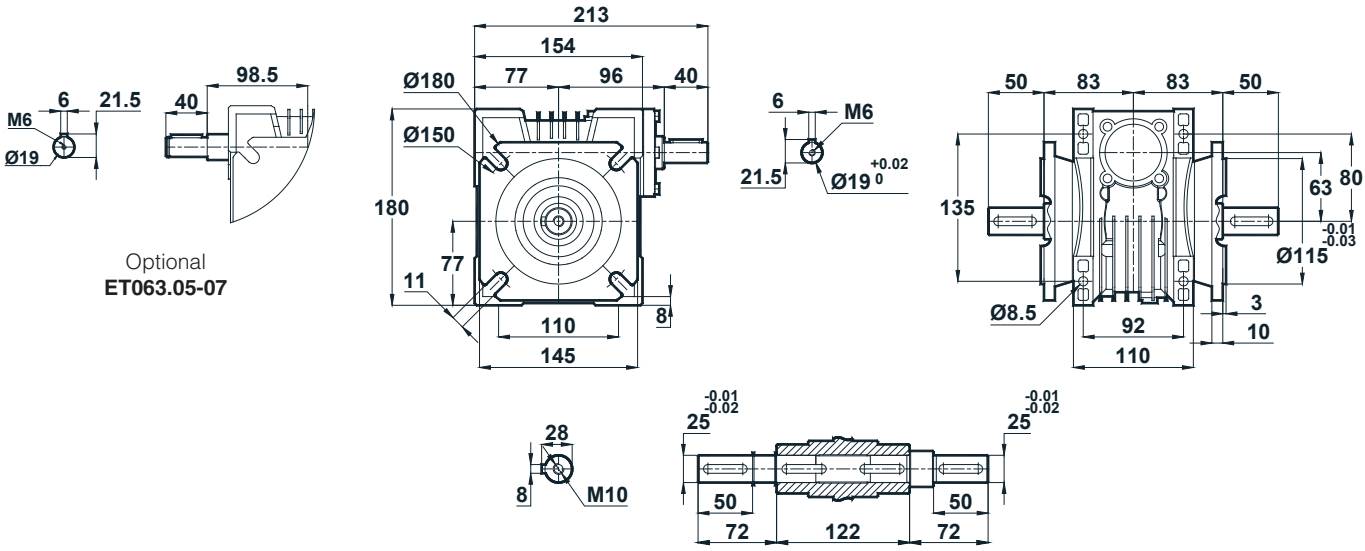


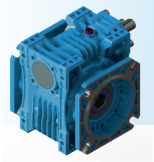
Tapped center hole to DIN 332, sheet 2

ET063.04



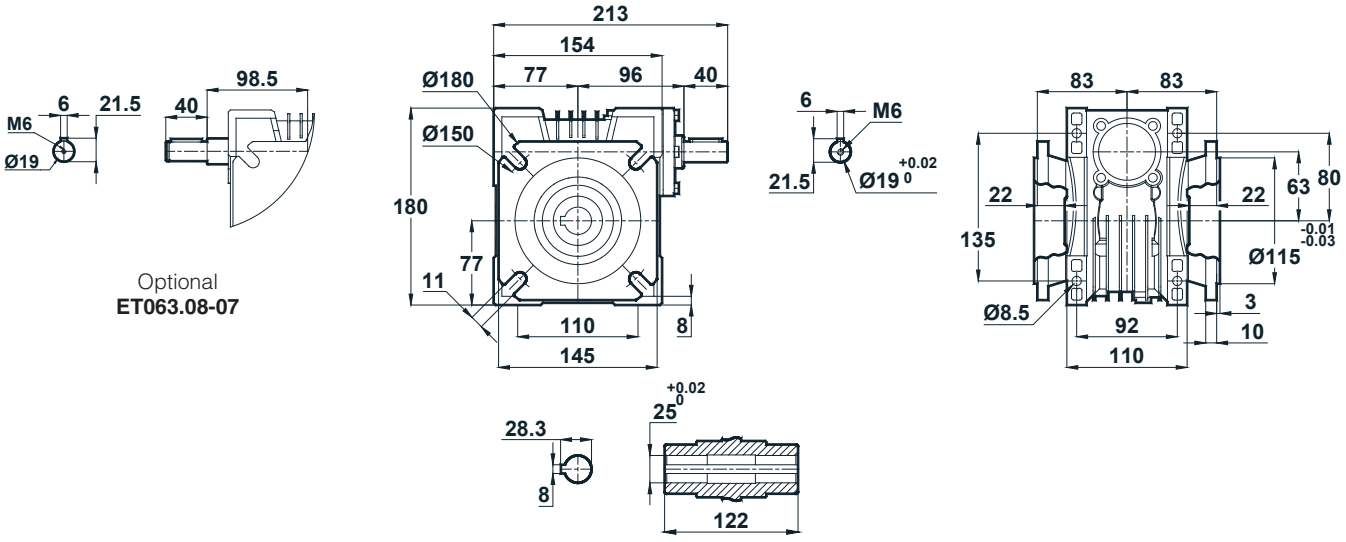
ET063.05



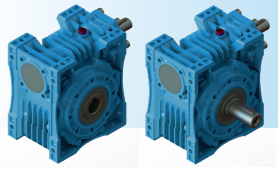


Tapped center hole to DIN 332, sheet 2

ET063.08

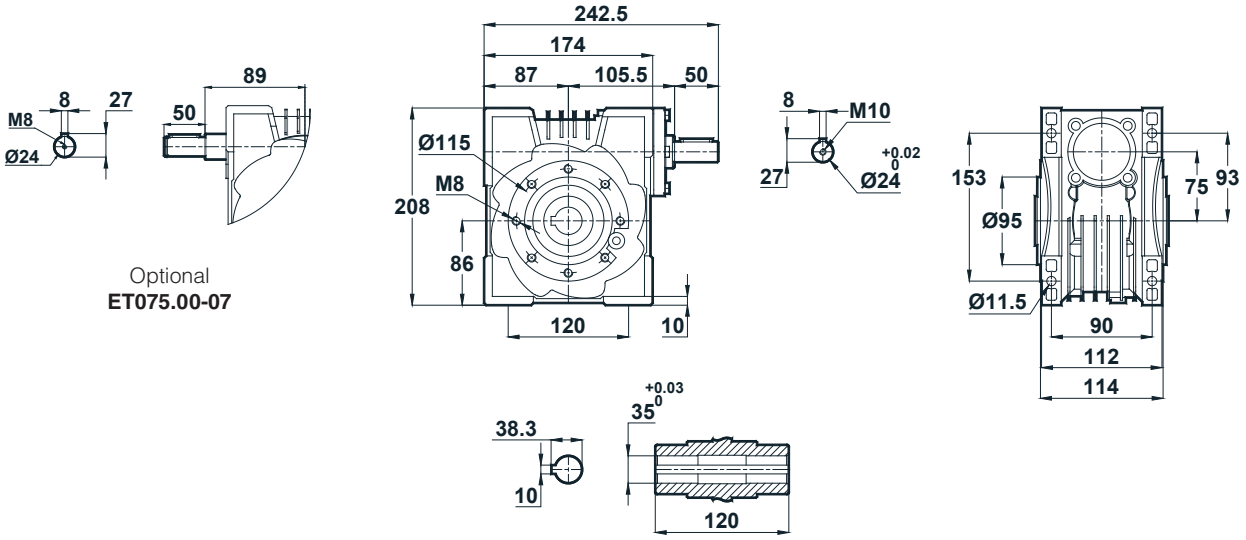


Optional
ET063.08-07



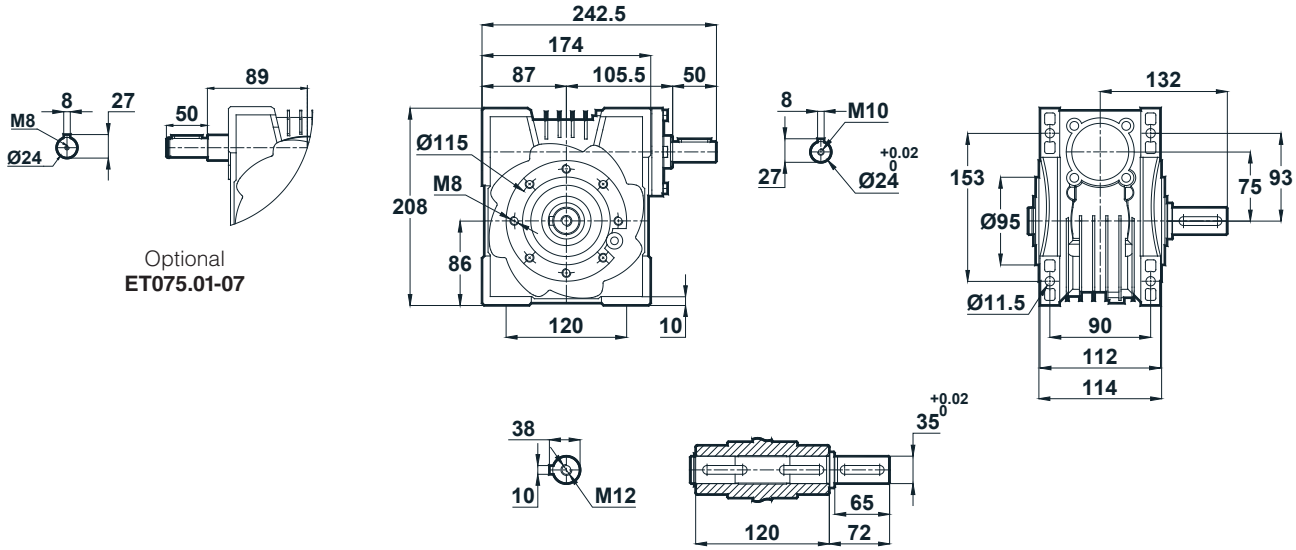
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ET075.00

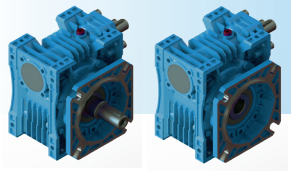


Optional
ET075.00-07

ET075.01

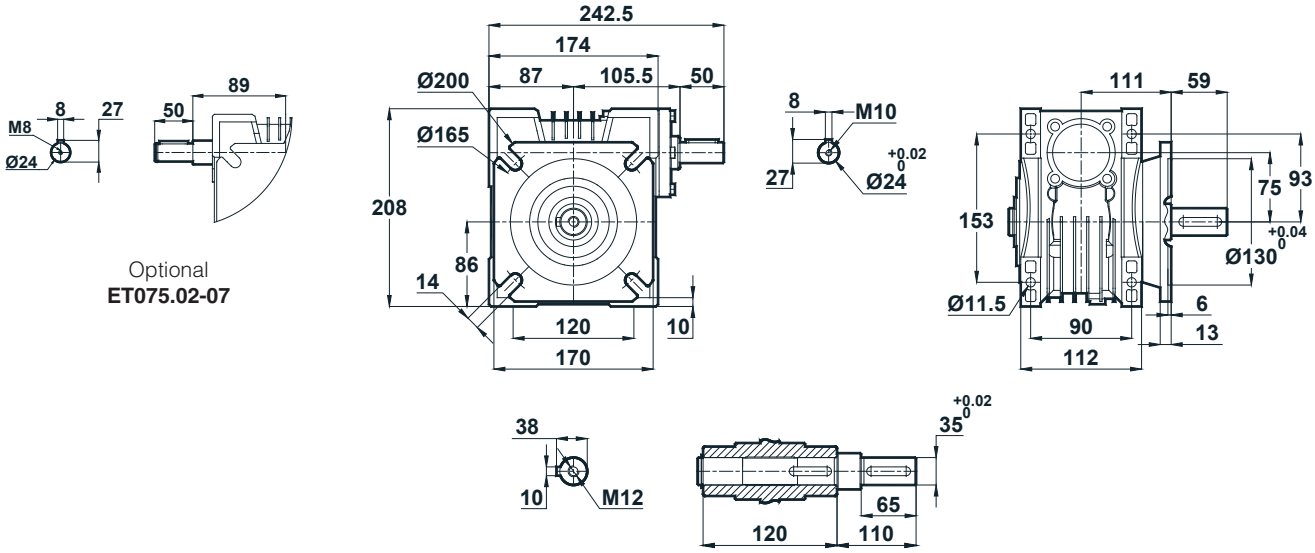


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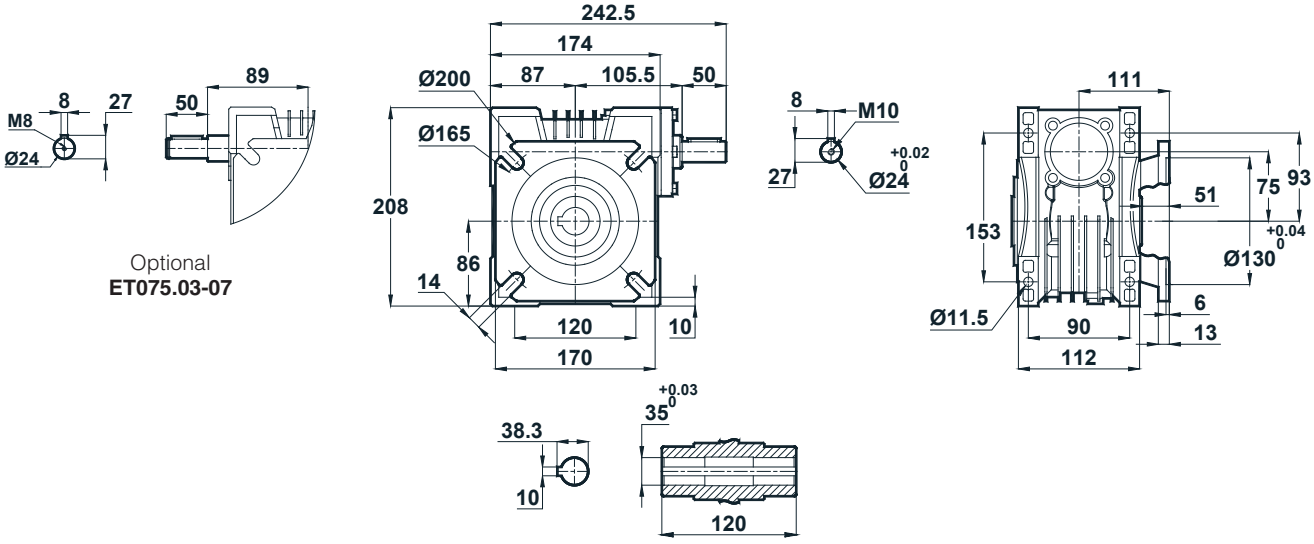


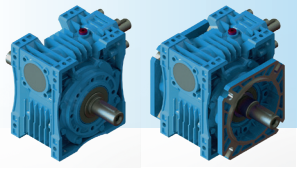
Tapped center hole to DIN 332, sheet 2

ET075.02



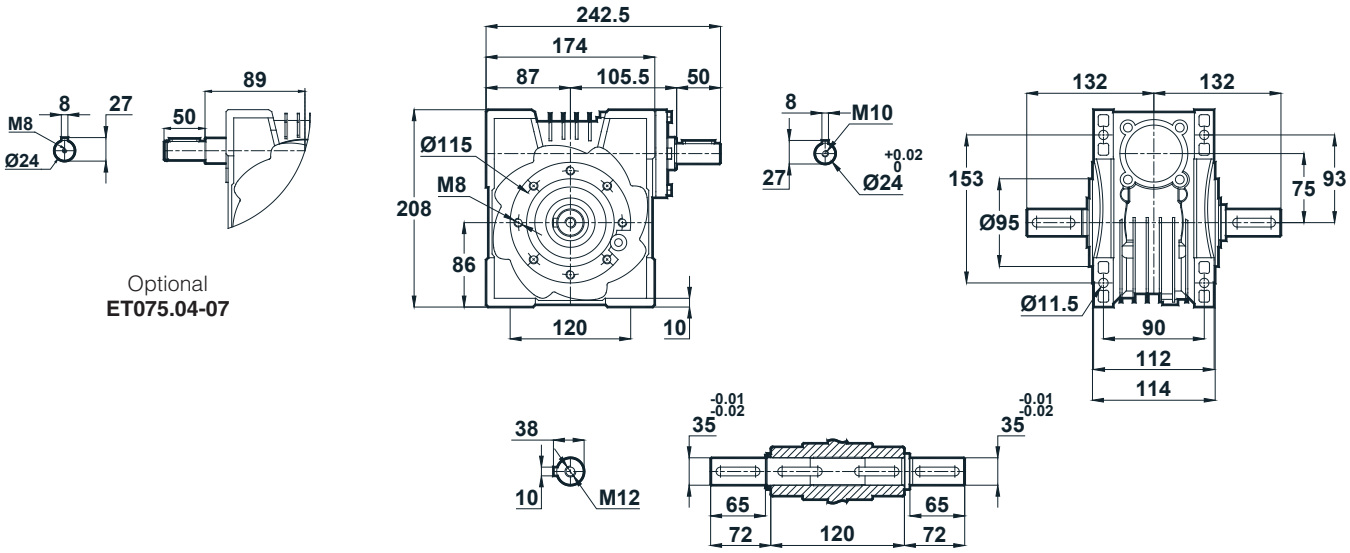
ET075.03





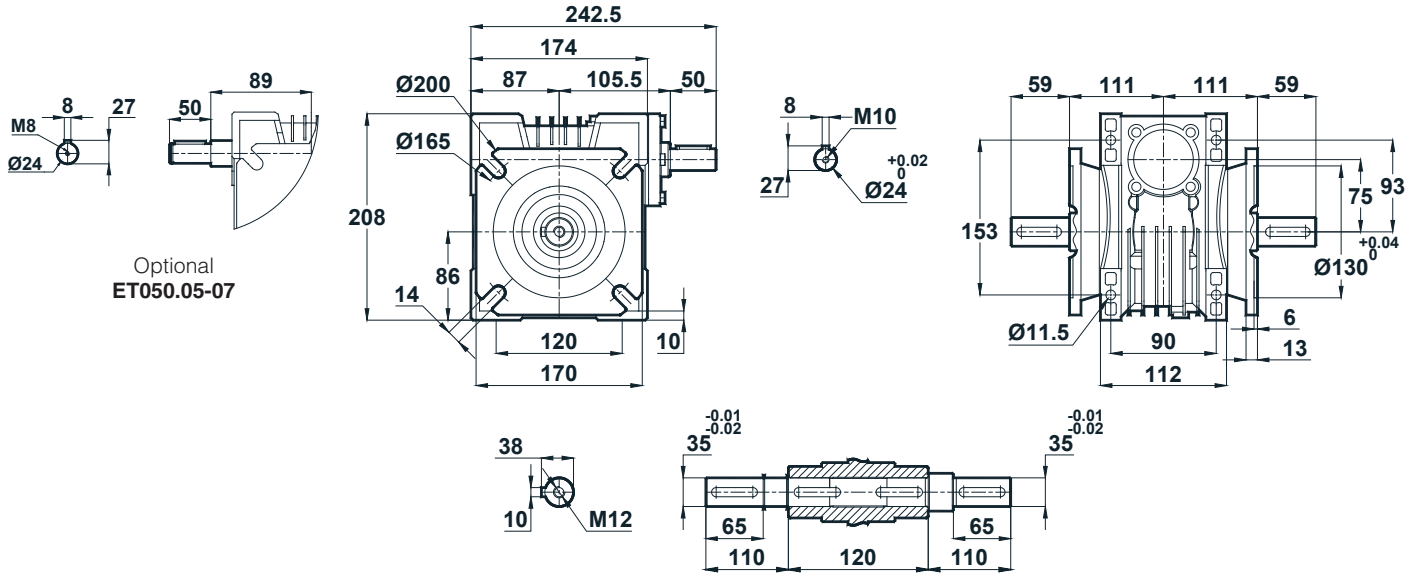
Tapped center hole to DIN 332, sheet 2

ET075.04

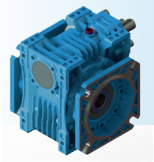


Optional
ET075.04-07

ET075.05

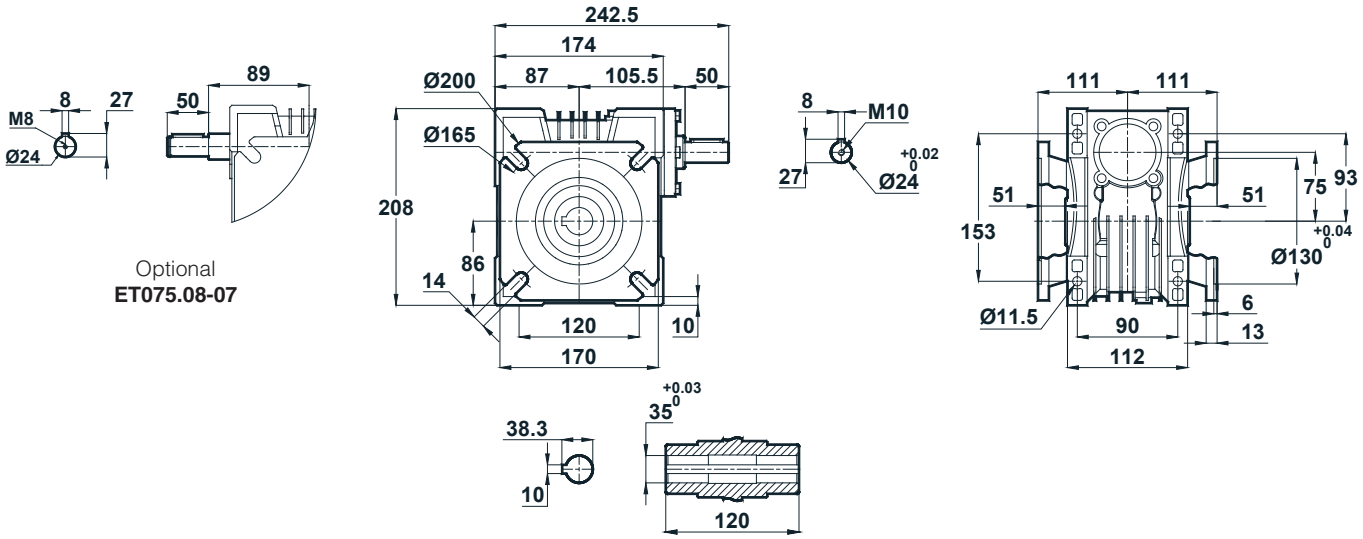


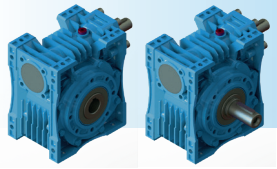
Optional
ET050.05-07



Tapped center hole to DIN 332, sheet 2

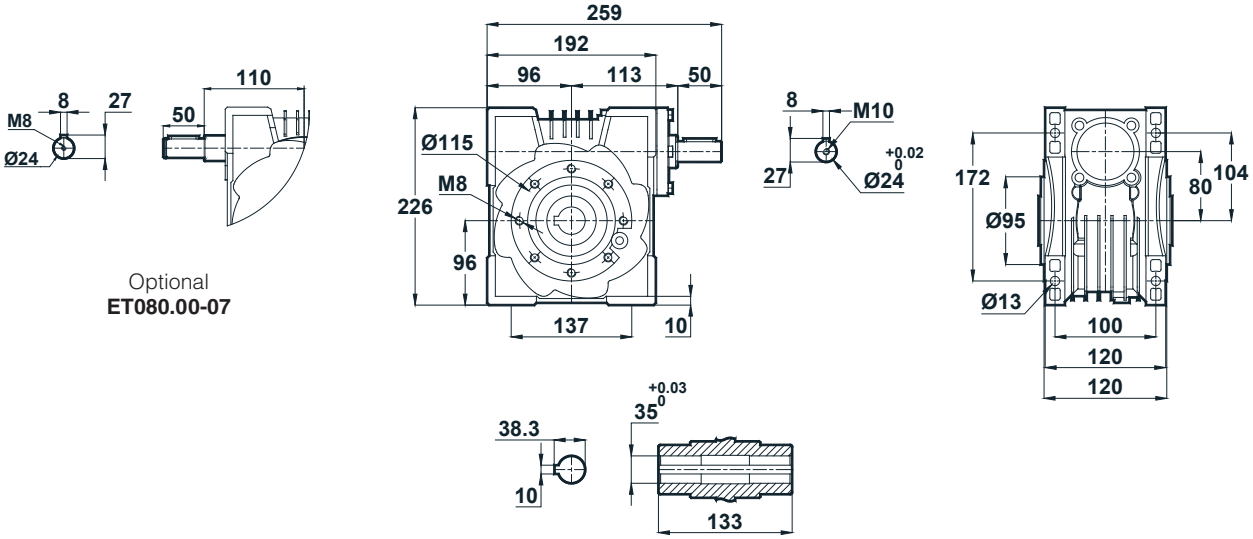
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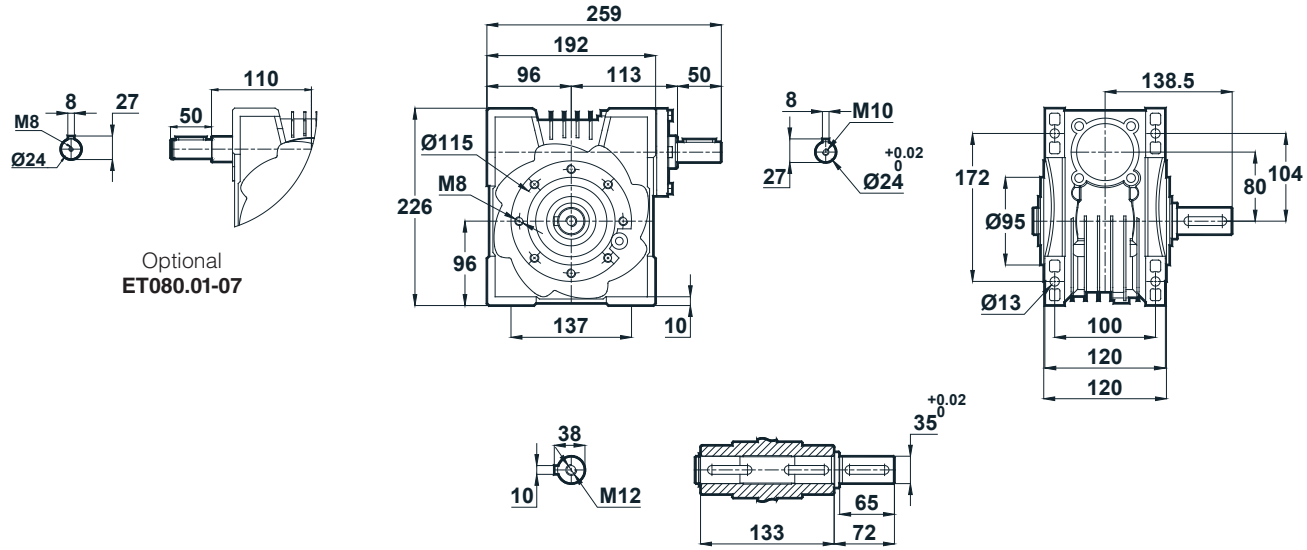


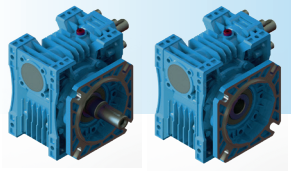
Tapped center hole to DIN 332, sheet 2

ET080.00



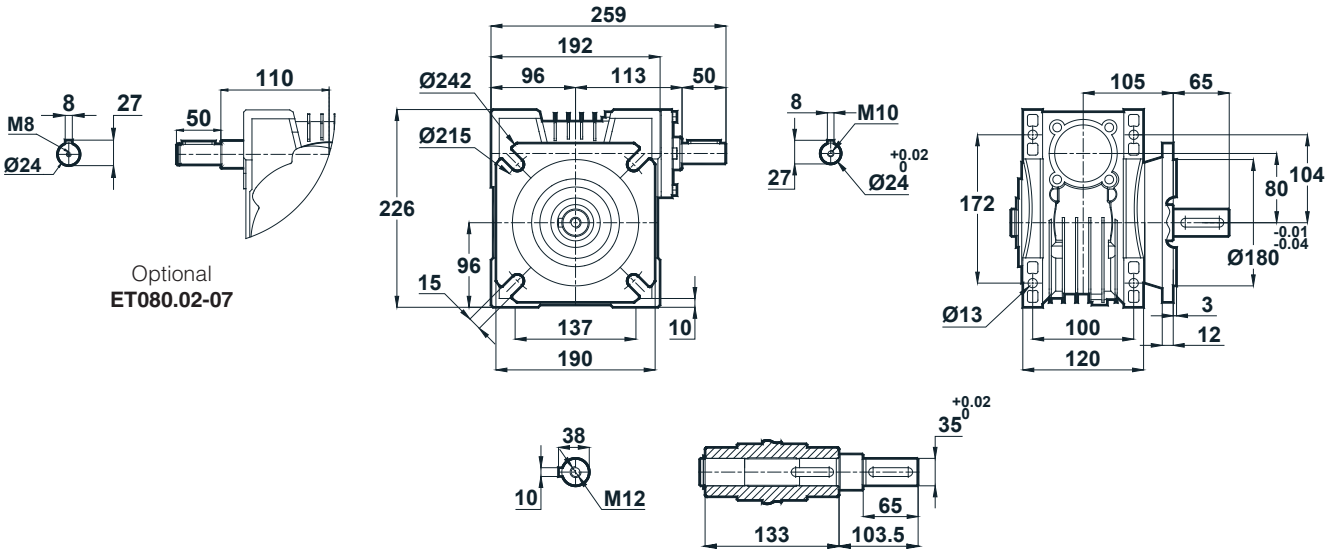
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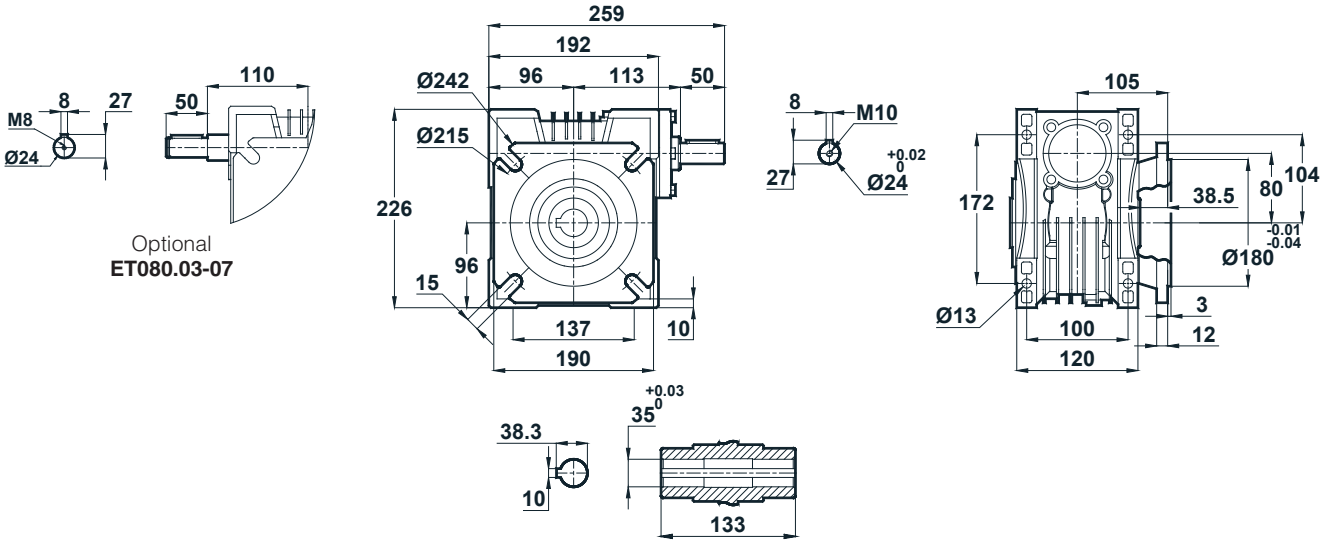


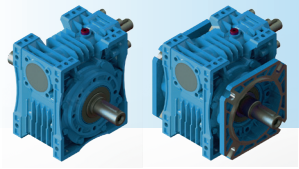
Tapped center hole to DIN 332, sheet 2

ET080.02



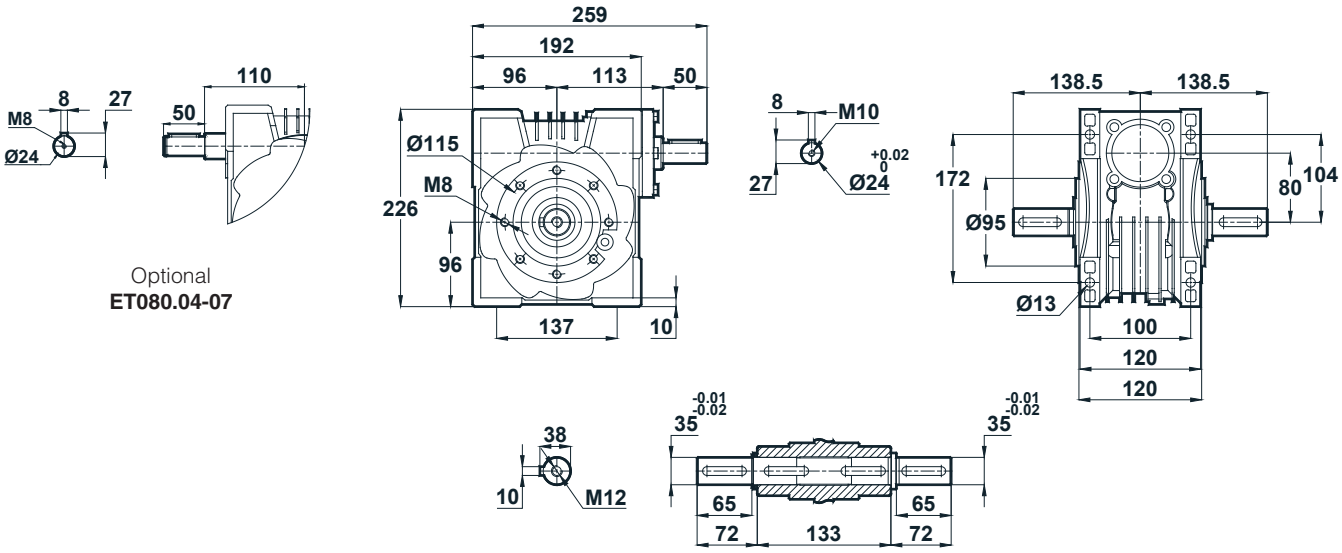
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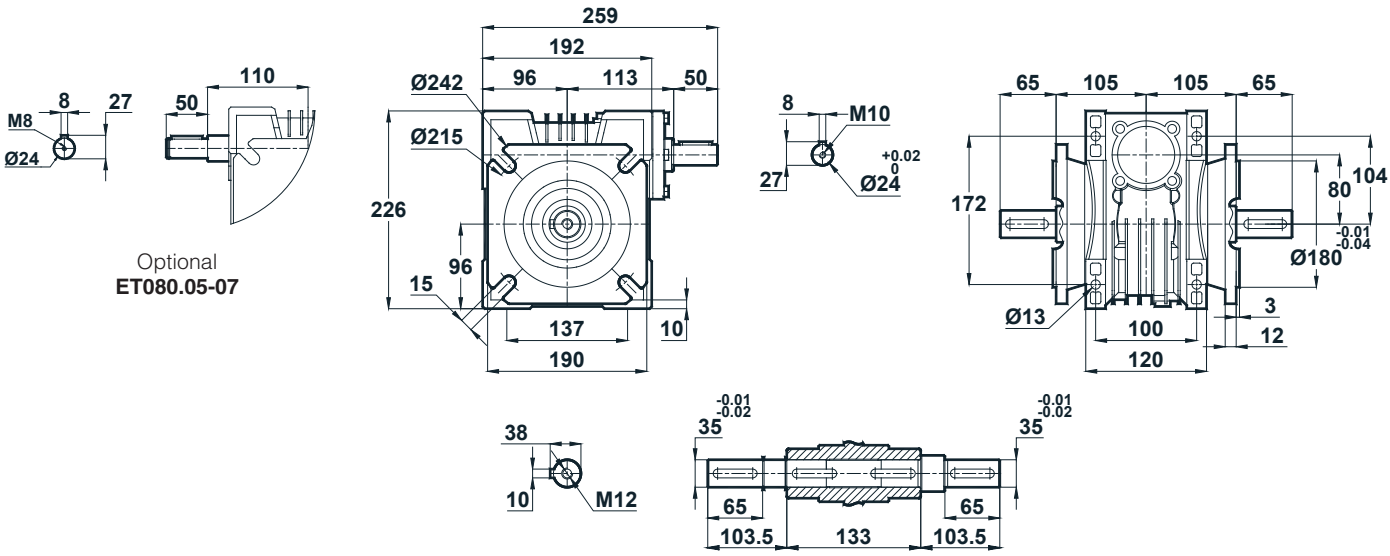


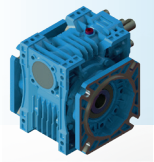
Tapped center hole to DIN 332, sheet 2

ET080.04



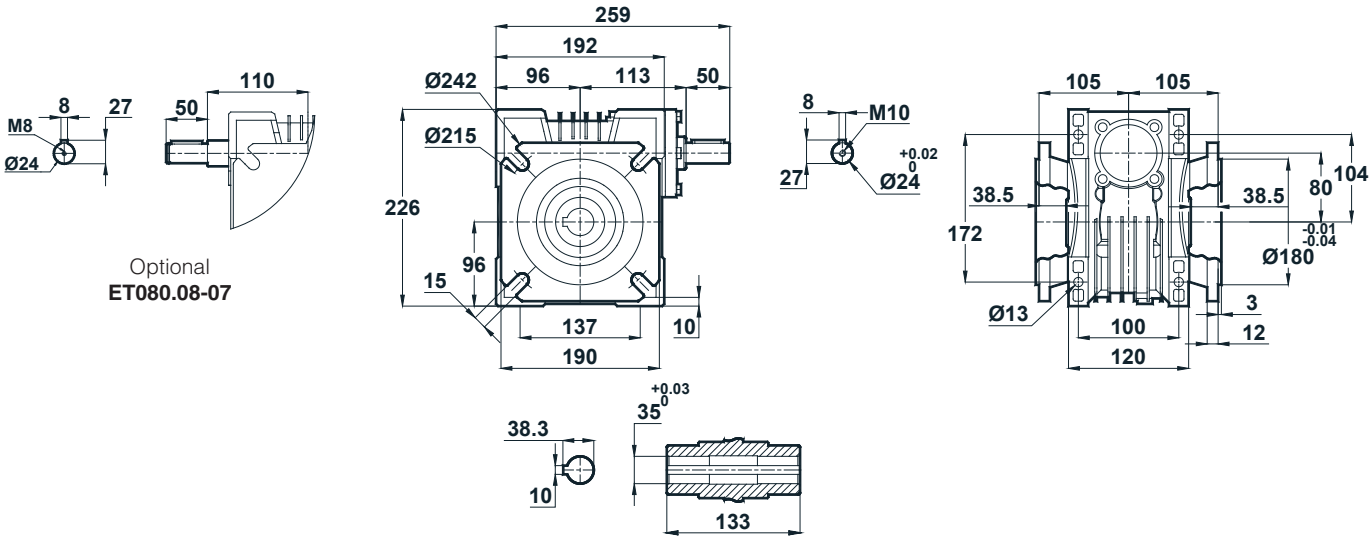
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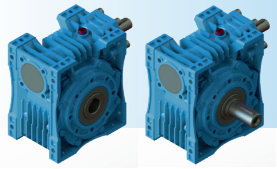




Tapped center hole to DIN 332, sheet 2

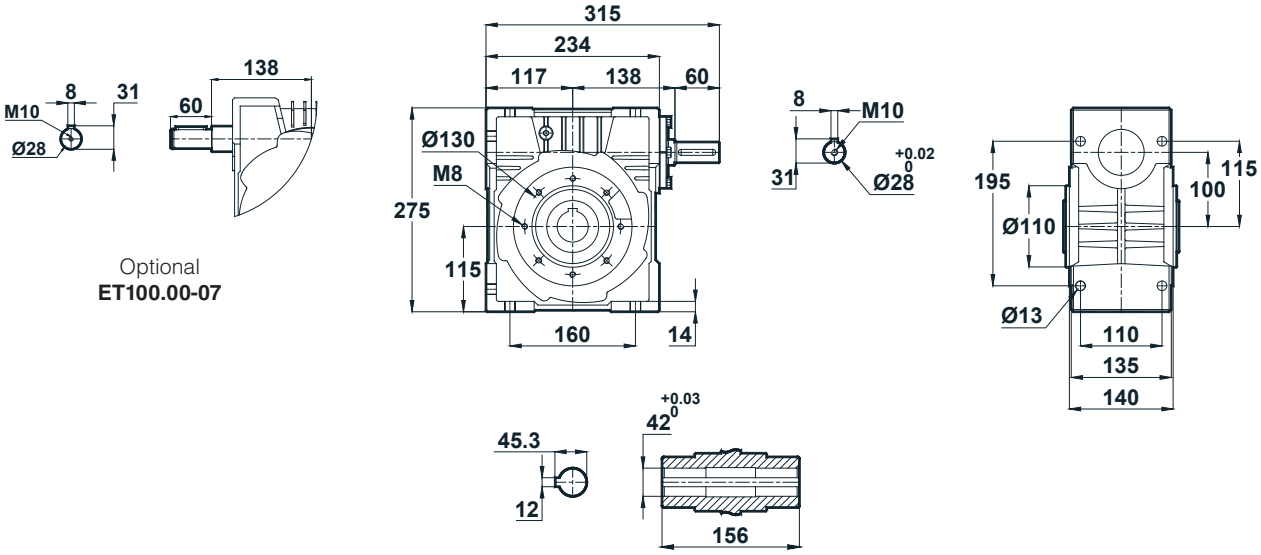
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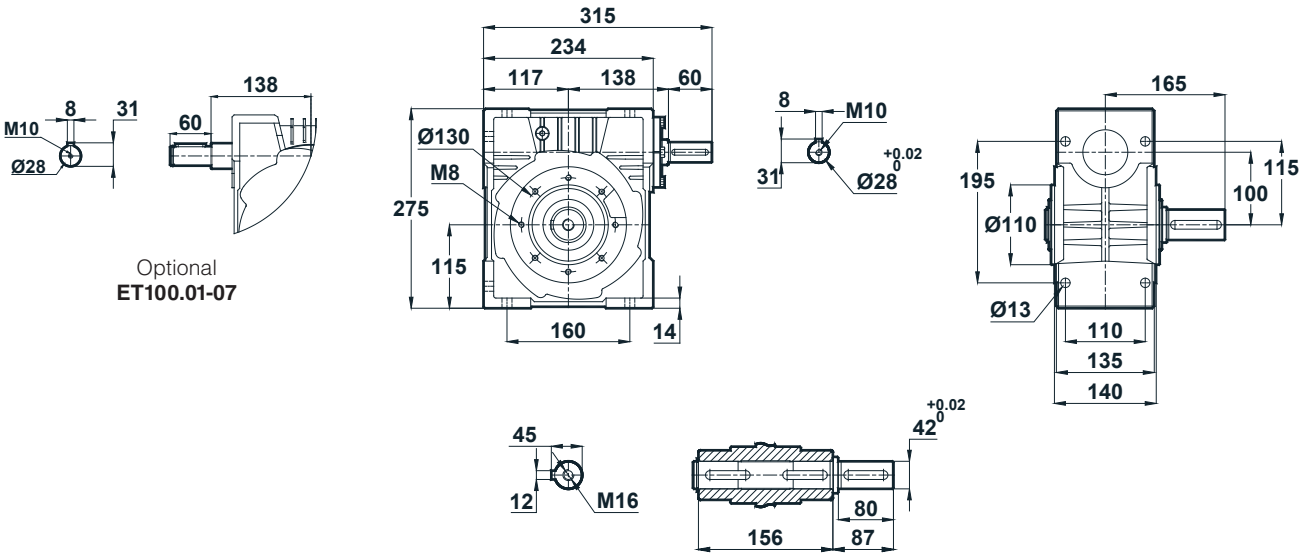


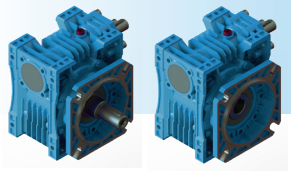
Tapped center hole to DIN 332, sheet 2

ET100.00



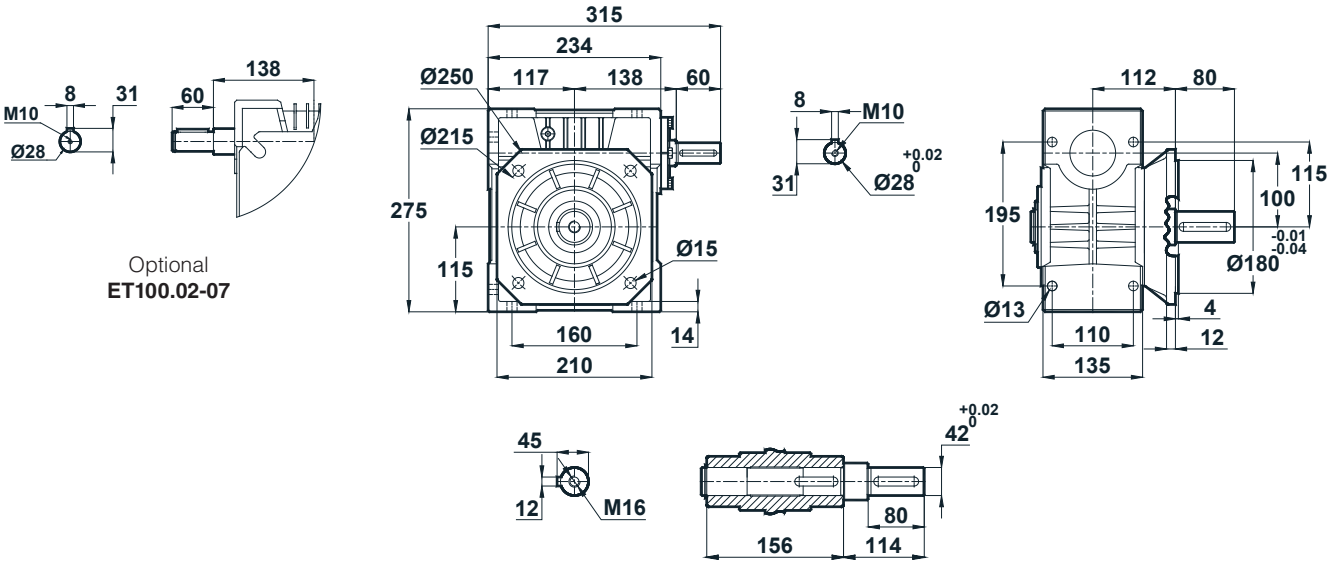
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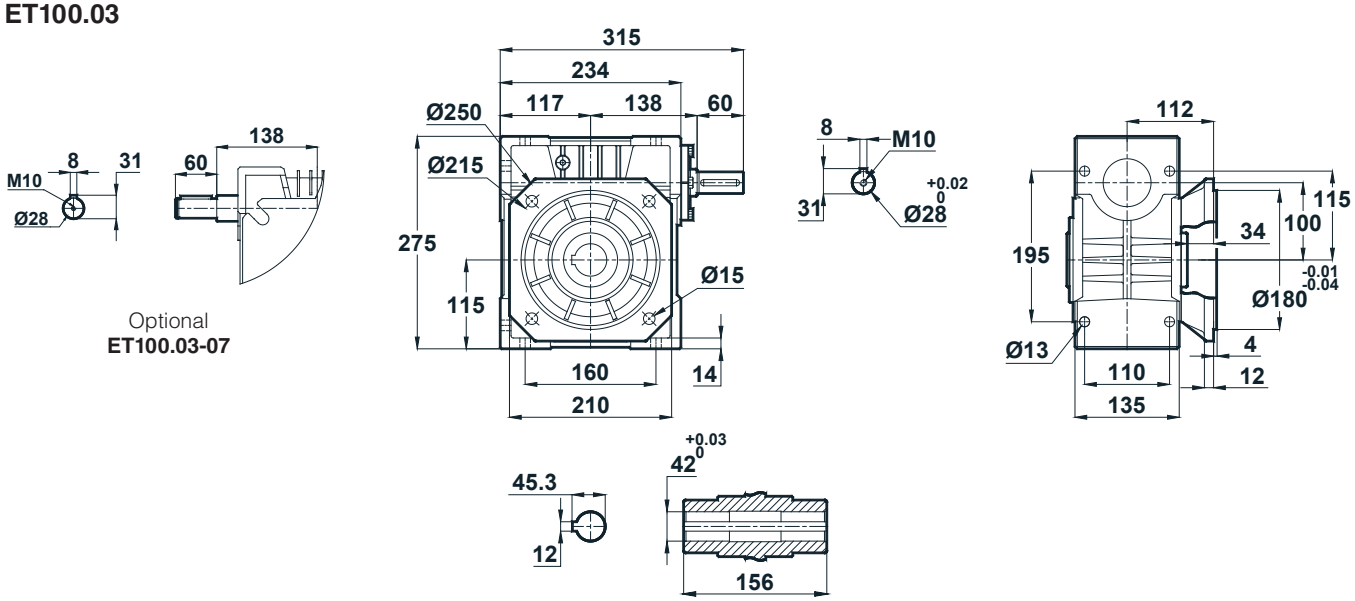


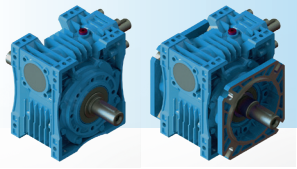
Tapped center hole to DIN 332, sheet 2

ET100.02



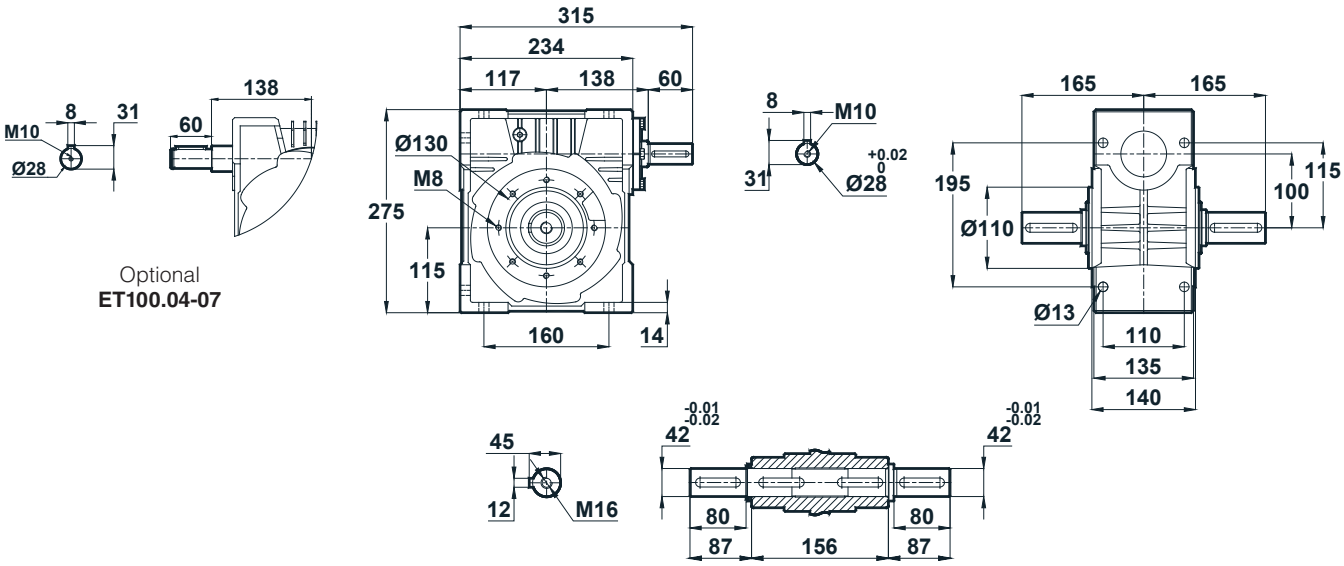
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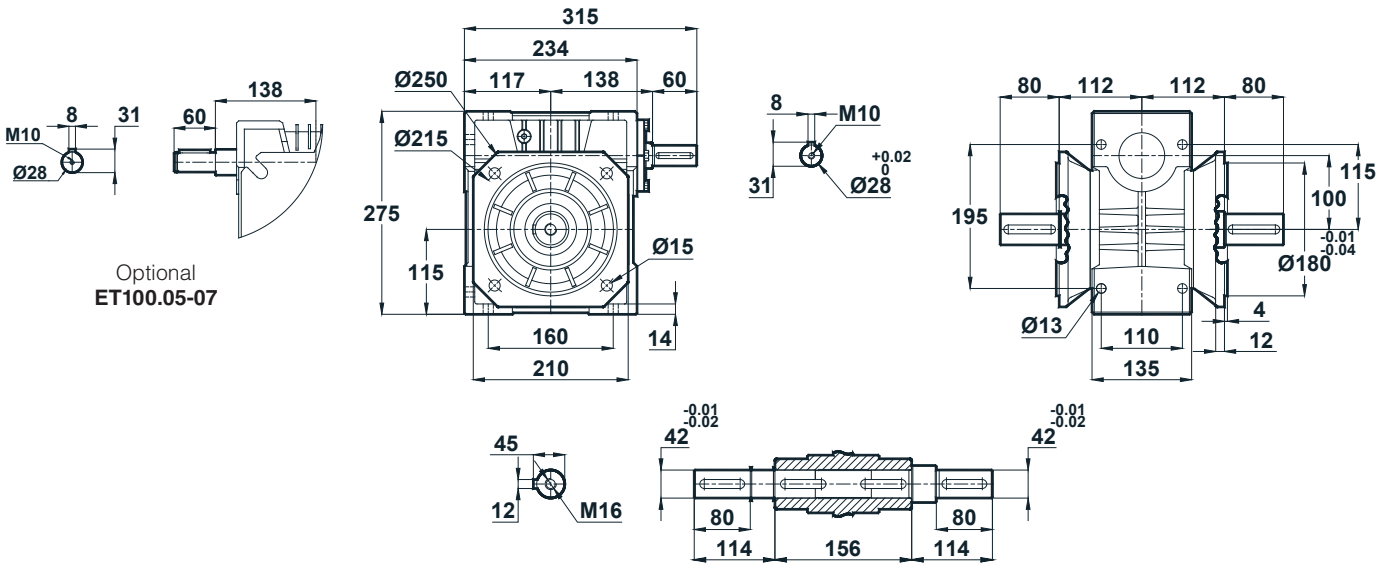


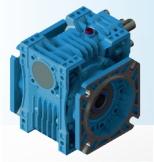
Tapped center hole to DIN 332, sheet 2

ET100.04



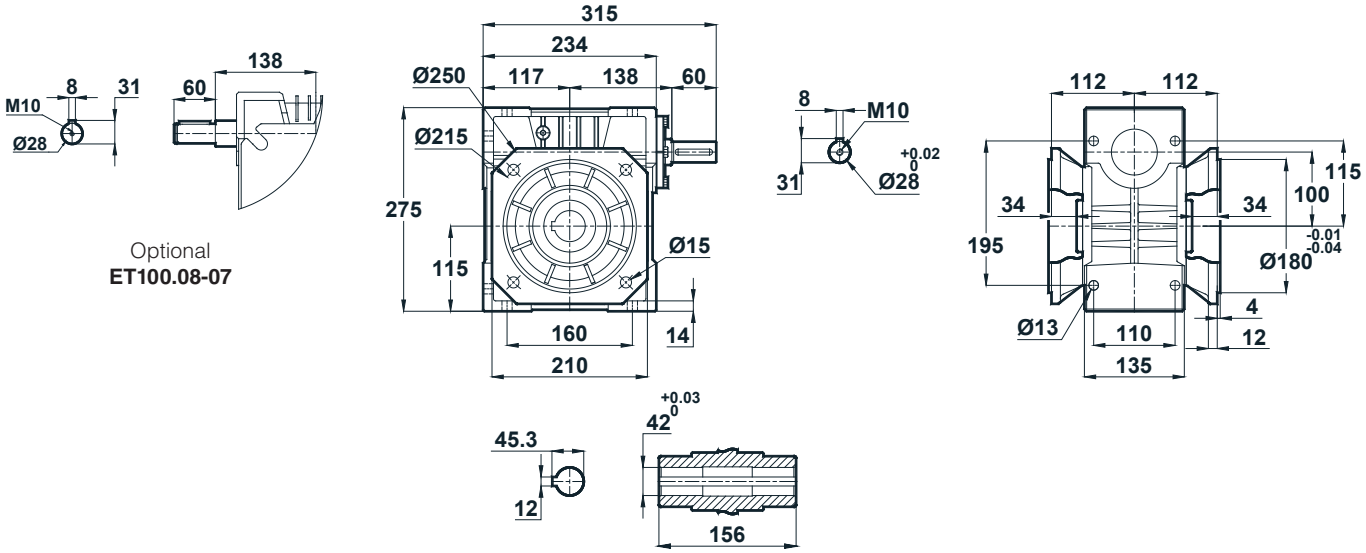
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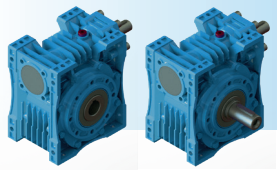


Tapped center hole to DIN 332, sheet 2

ET100.08

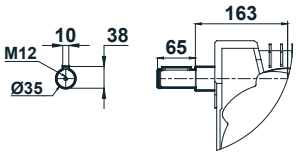


Optional
ET100.08-07

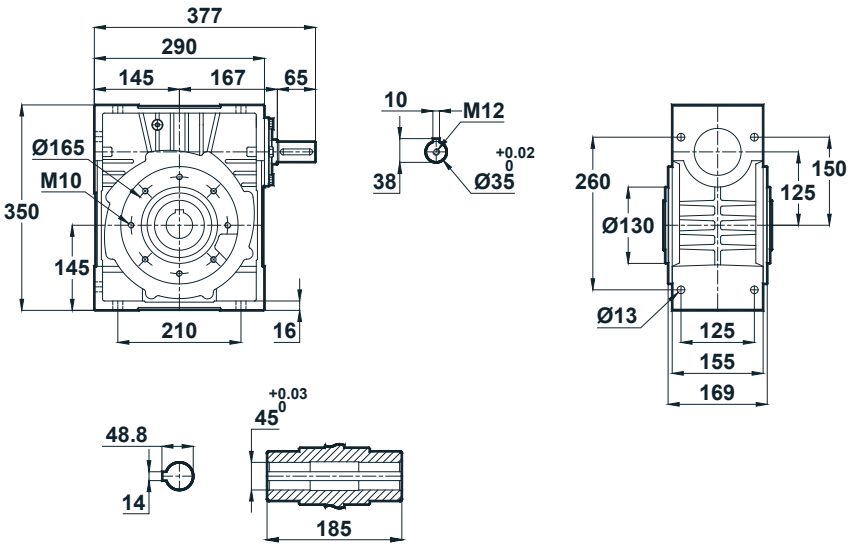


Tapped center hole to DIN 332, sheet 2

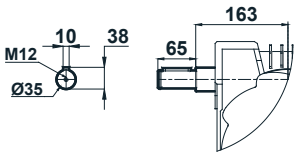
ET125.00



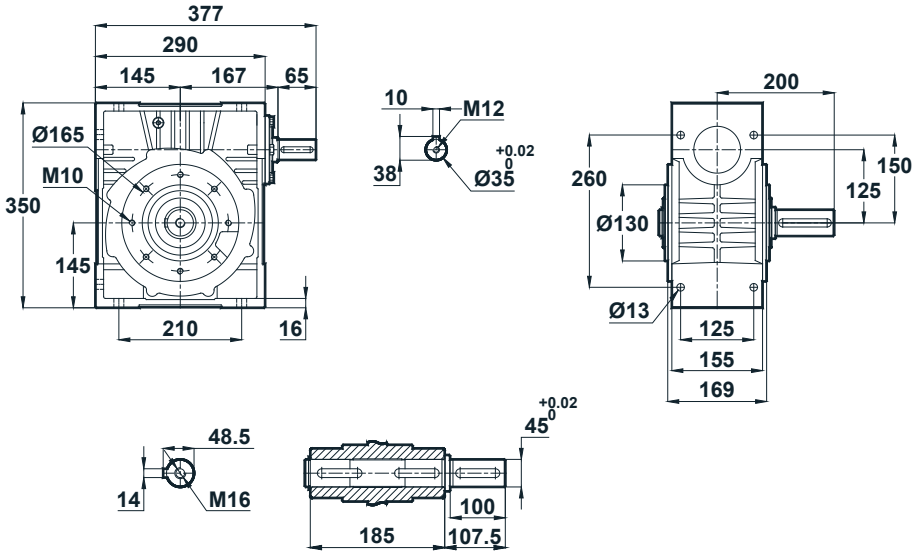
Optional
ET125.00-07

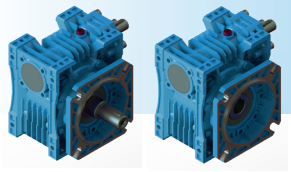


ET125.01



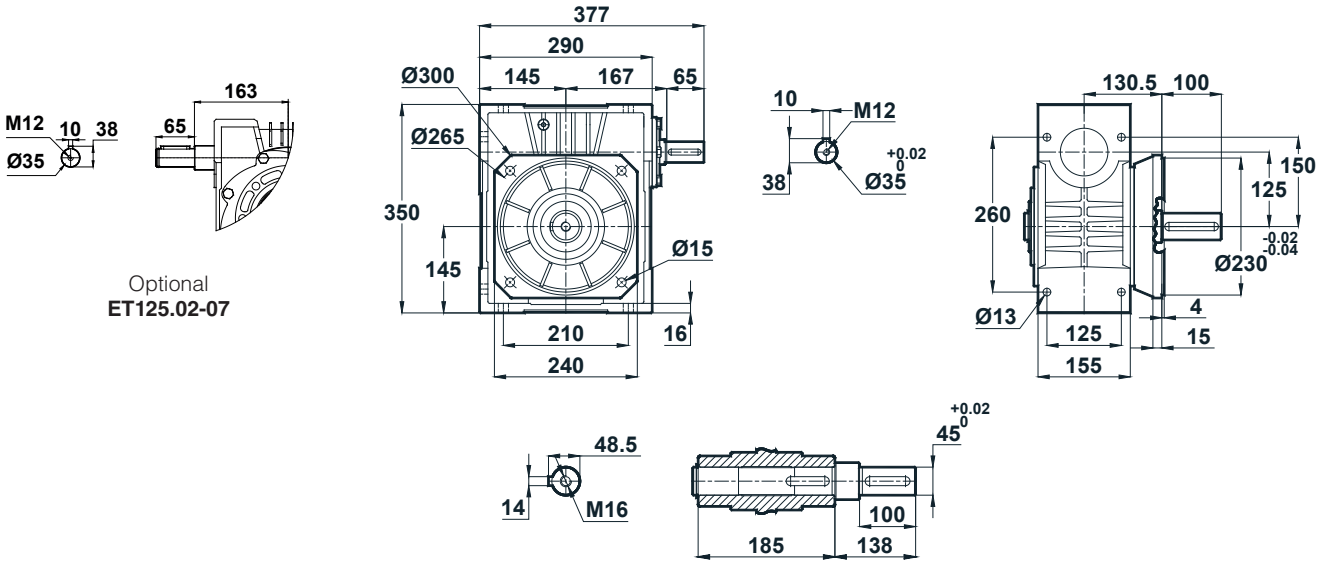
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ET125.01-07



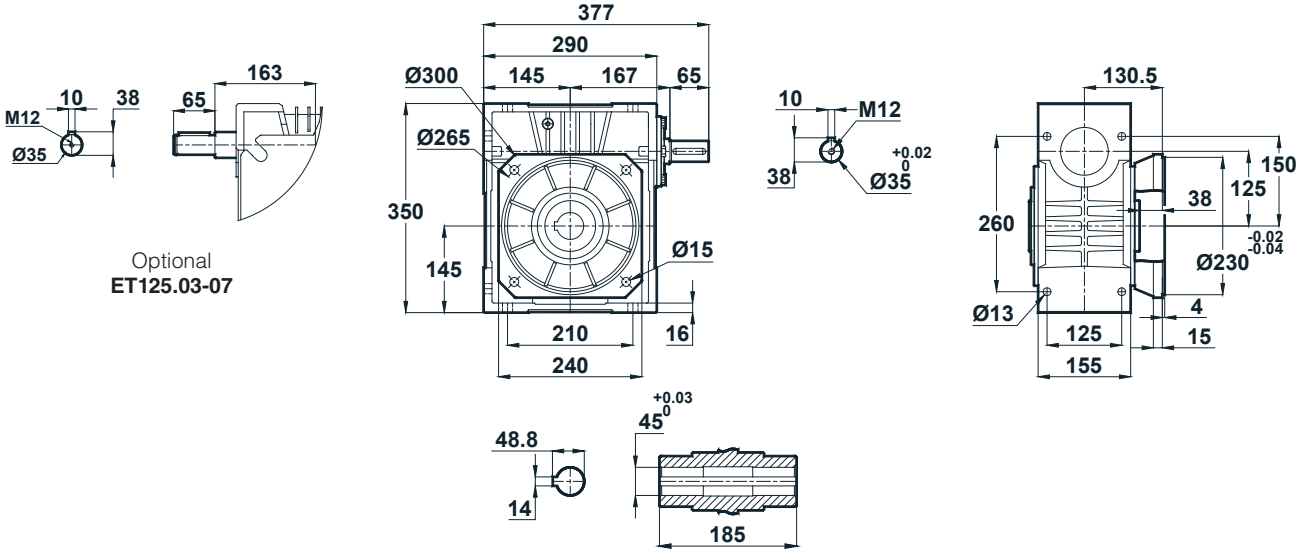


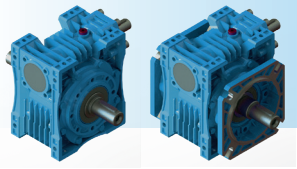
Tapped center hole to DIN 332, sheet 2

ET125.02



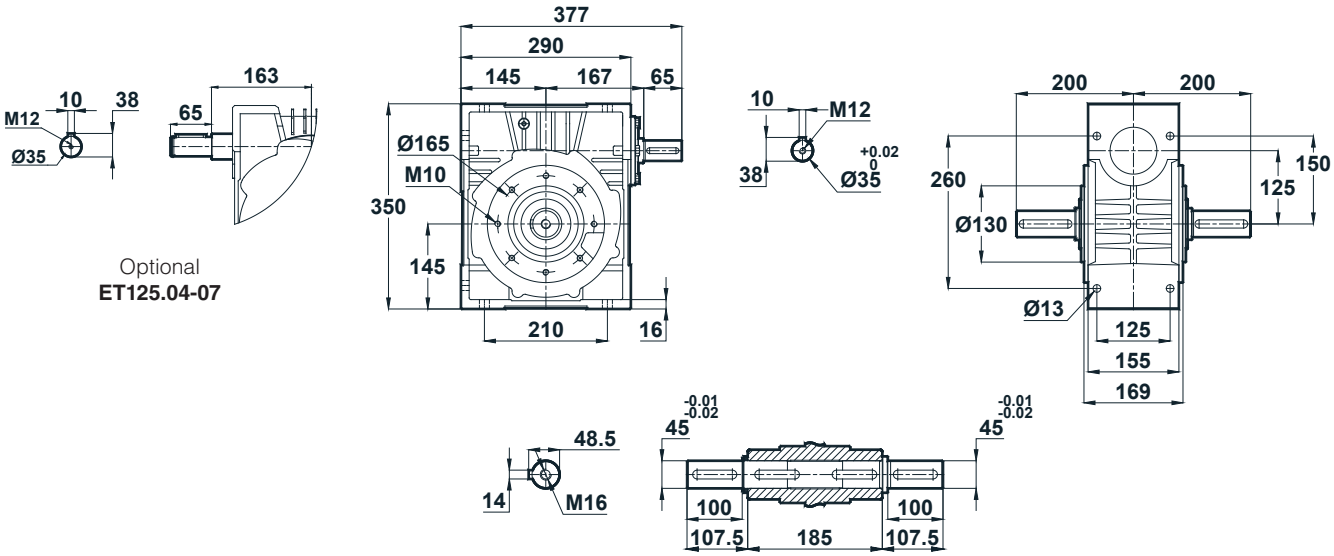
ET125.03



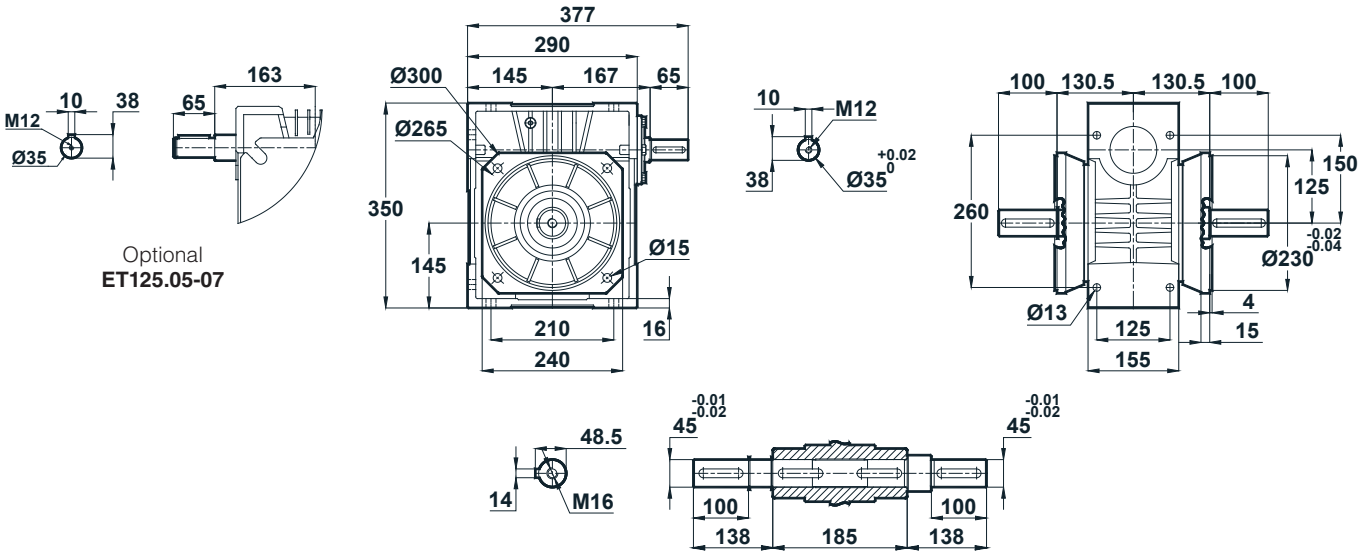


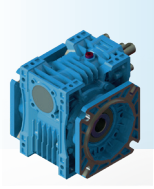
Tapped center hole to DIN 332, sheet 2

ET125.04



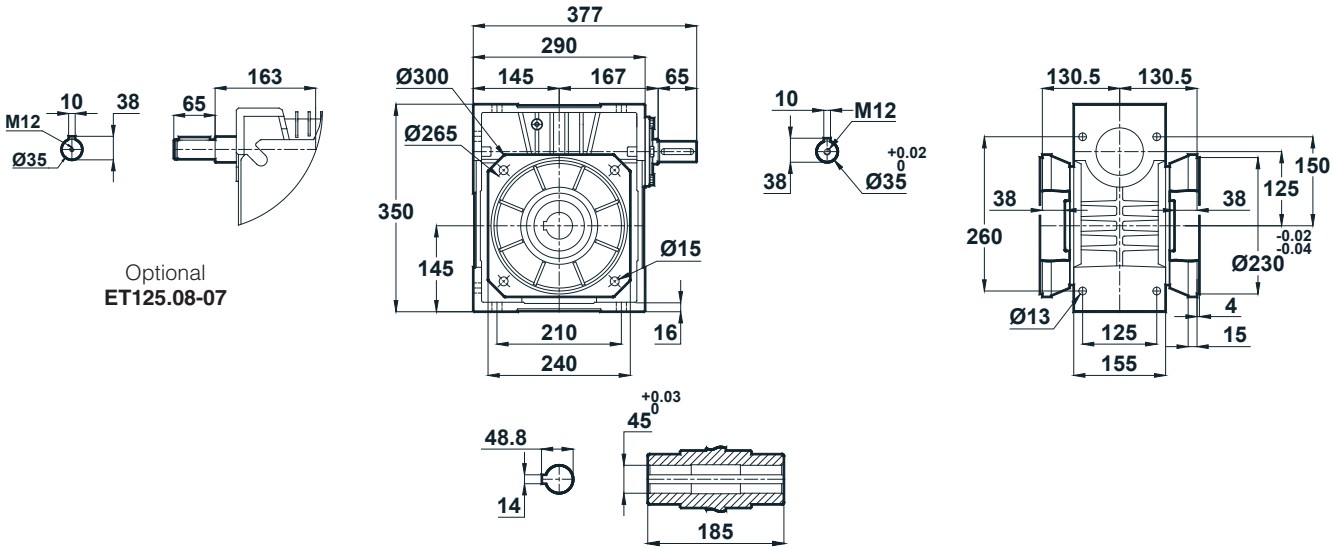
ET125.05

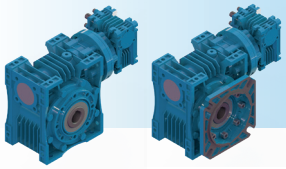




Tapped center hole to DIN 332, sheet 2

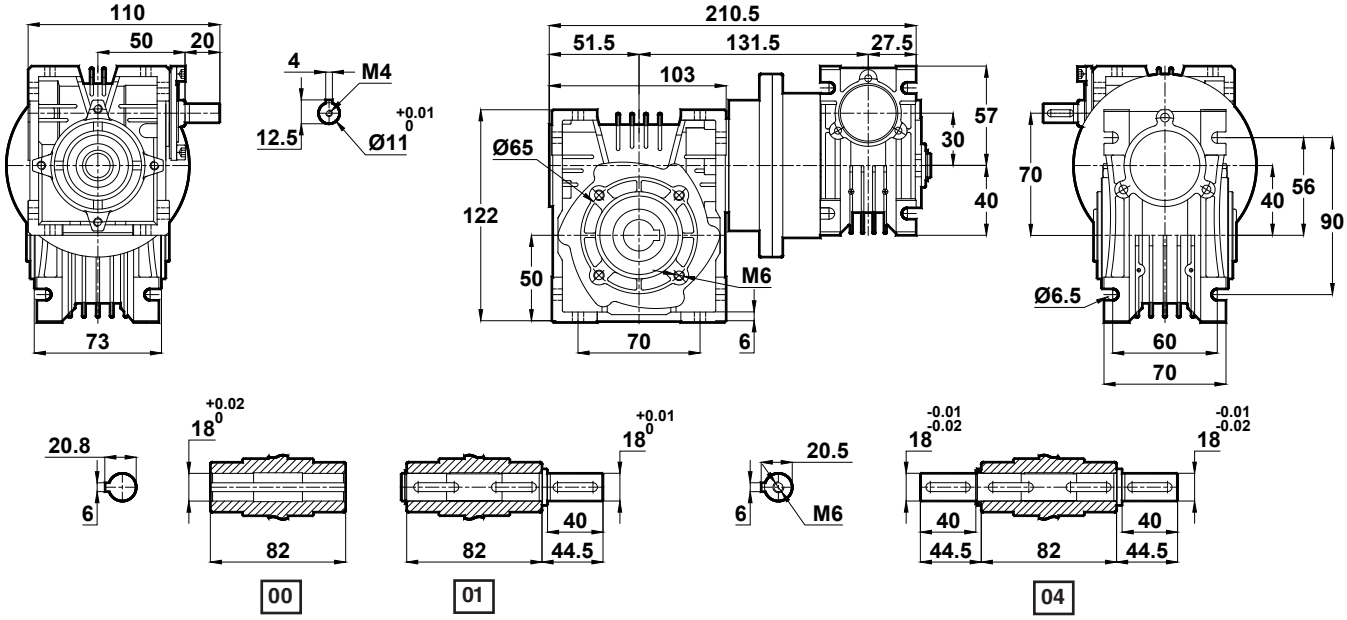
ET125.08



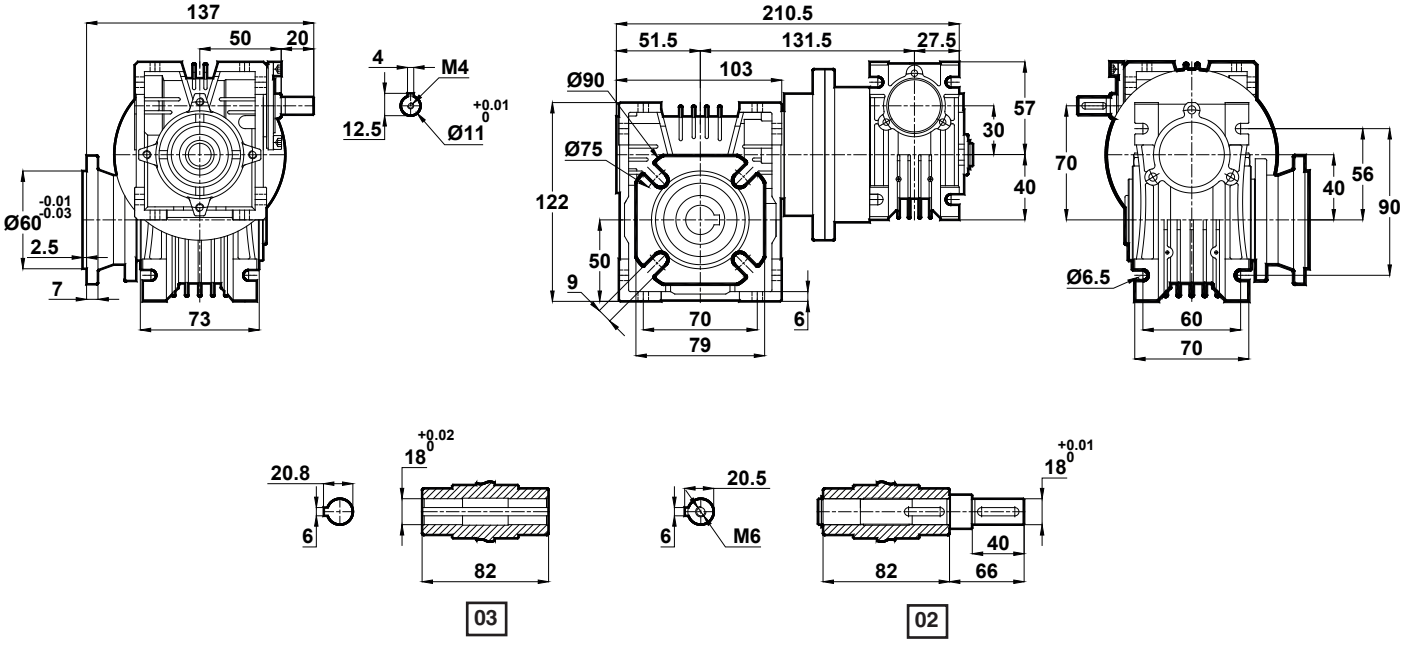


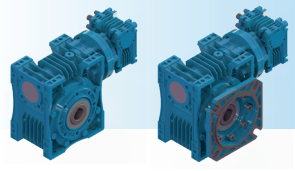
Tapped center hole to DIN 332, sheet 2

ET040.□- 030



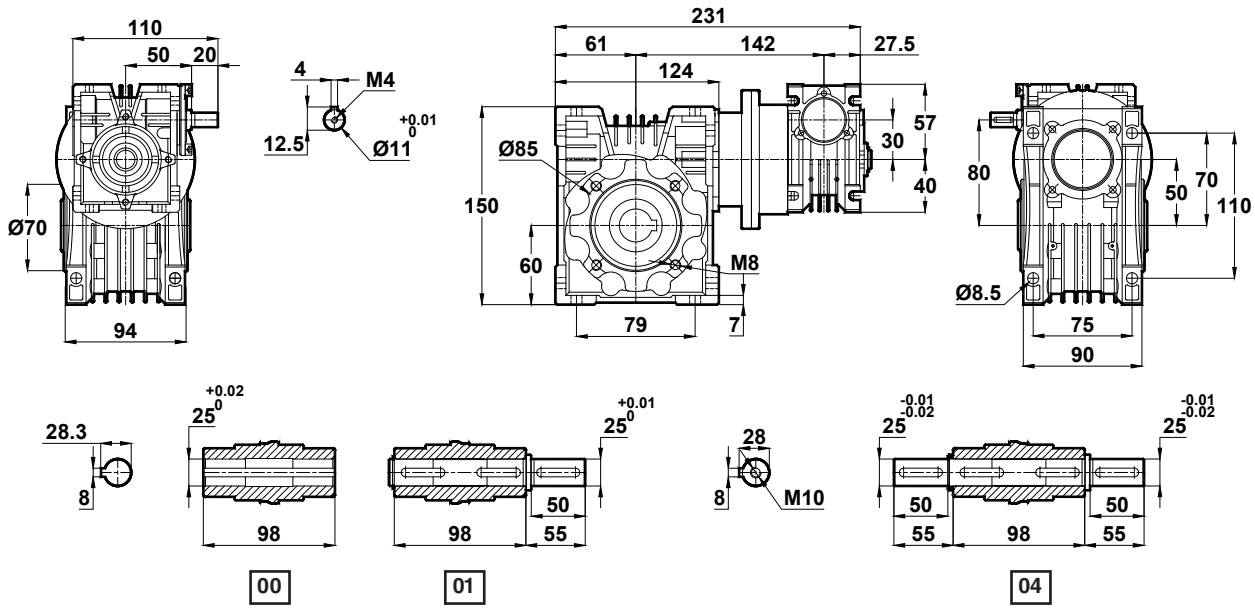
ET040.□- 030



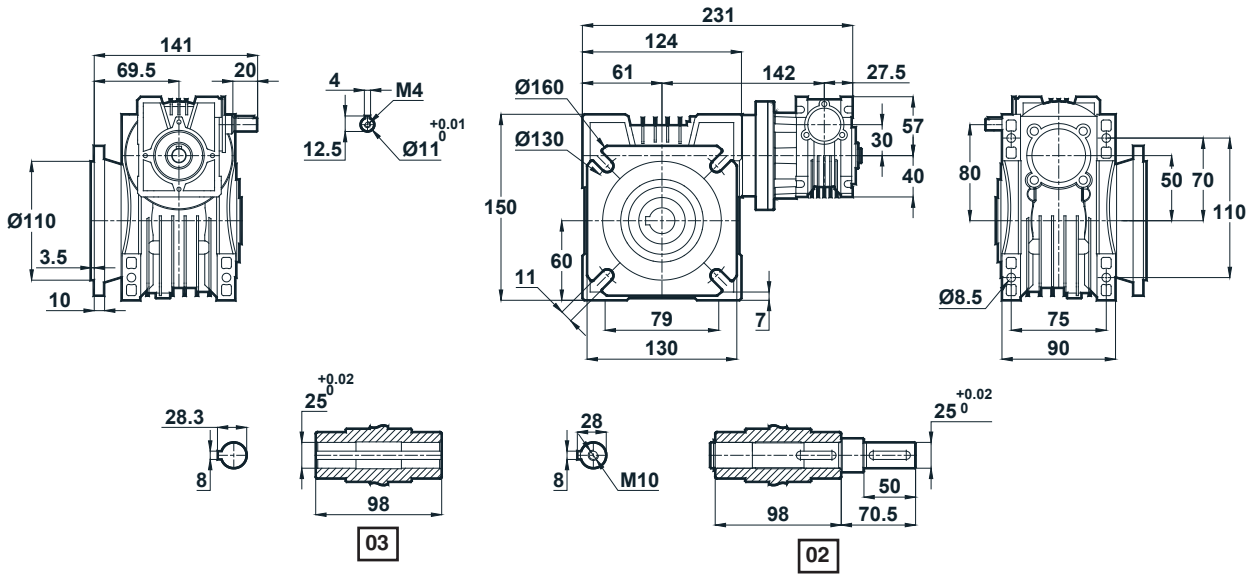


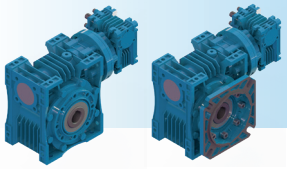
Tapped center hole to DIN 332, sheet 2

ET050.□ - 030



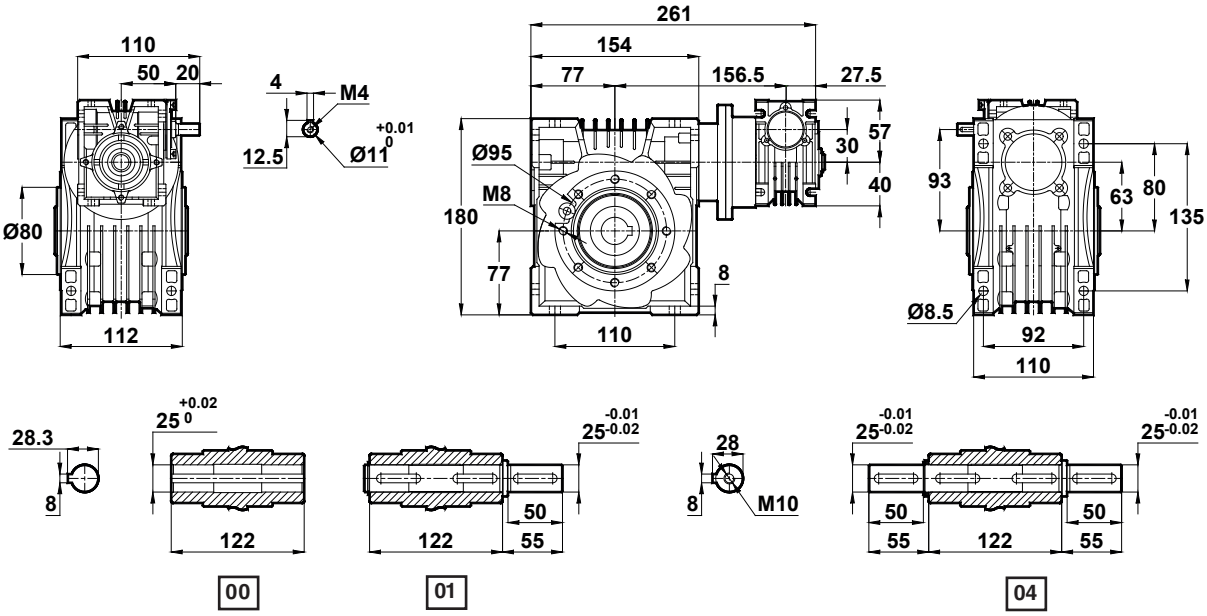
ET050.□ - 030



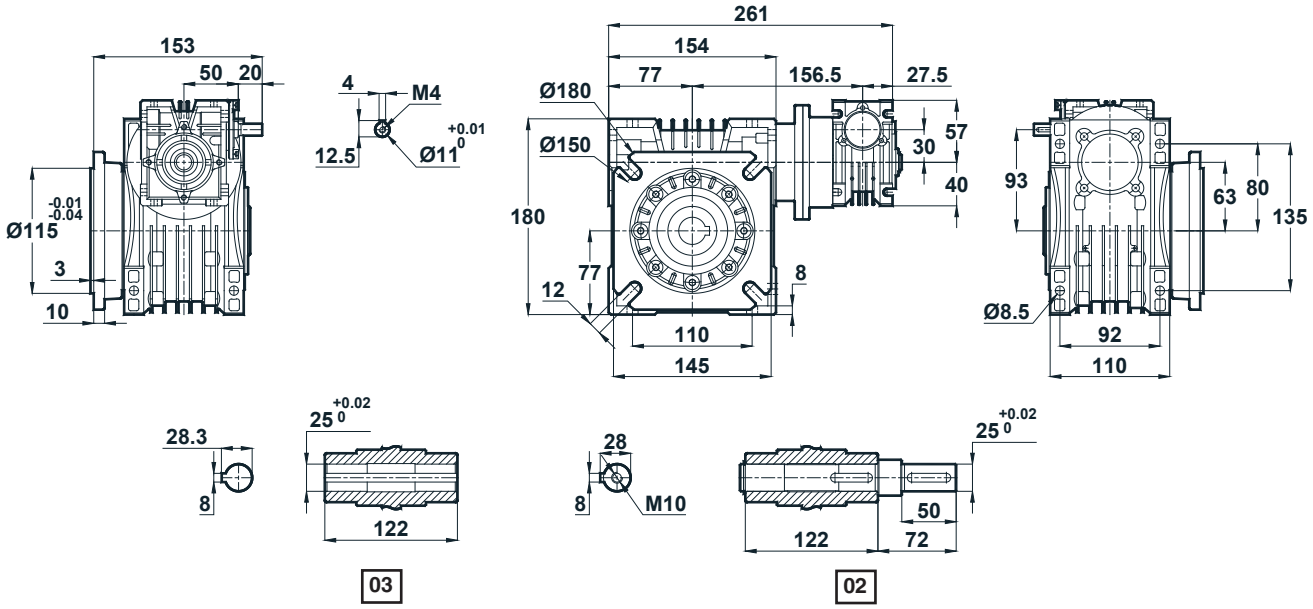


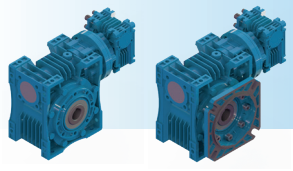
Tapped center hole to DIN 332, sheet 2

ET063.□- 030



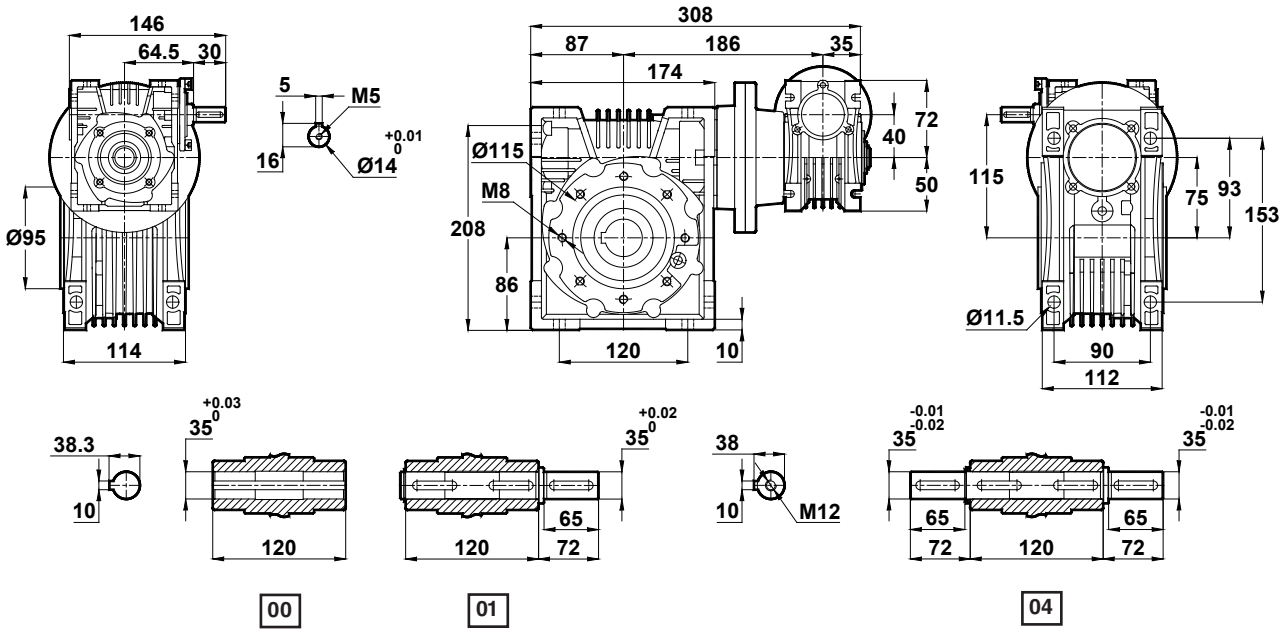
ET063.□- 030



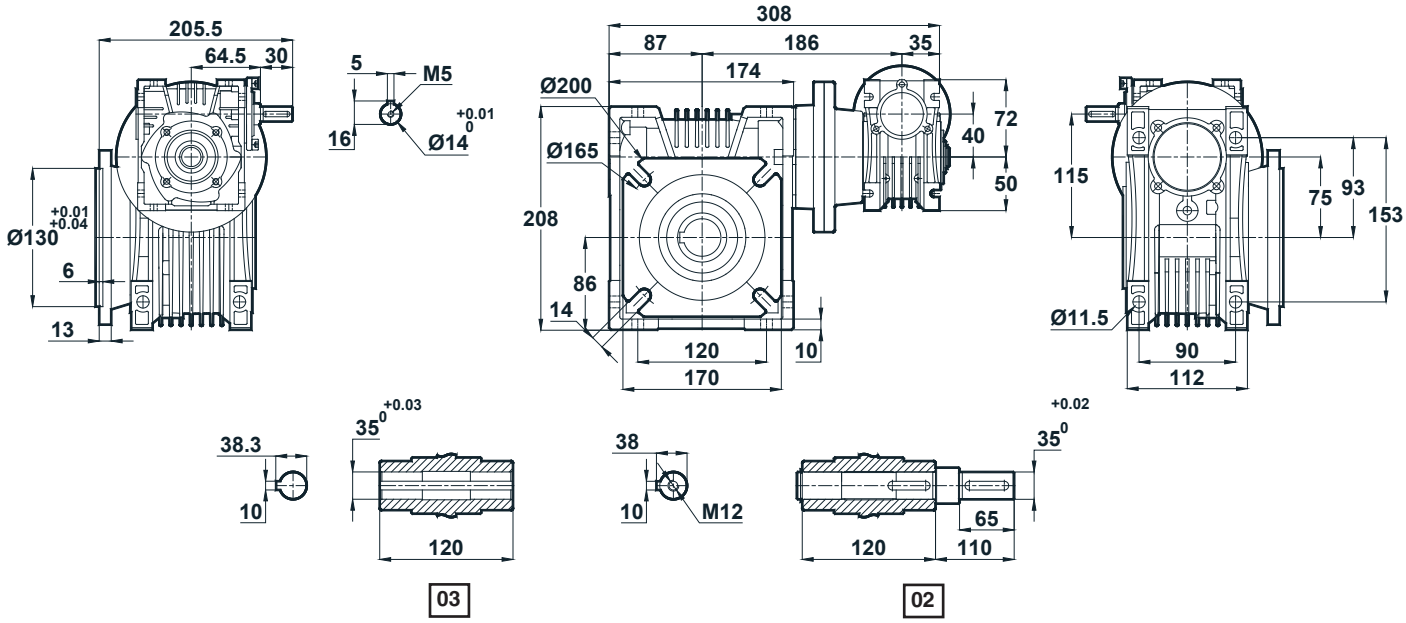


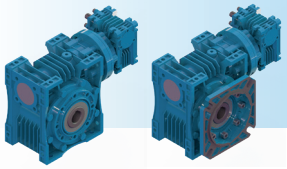
Tapped center hole to DIN 332, sheet 2

ET075.□ - 040



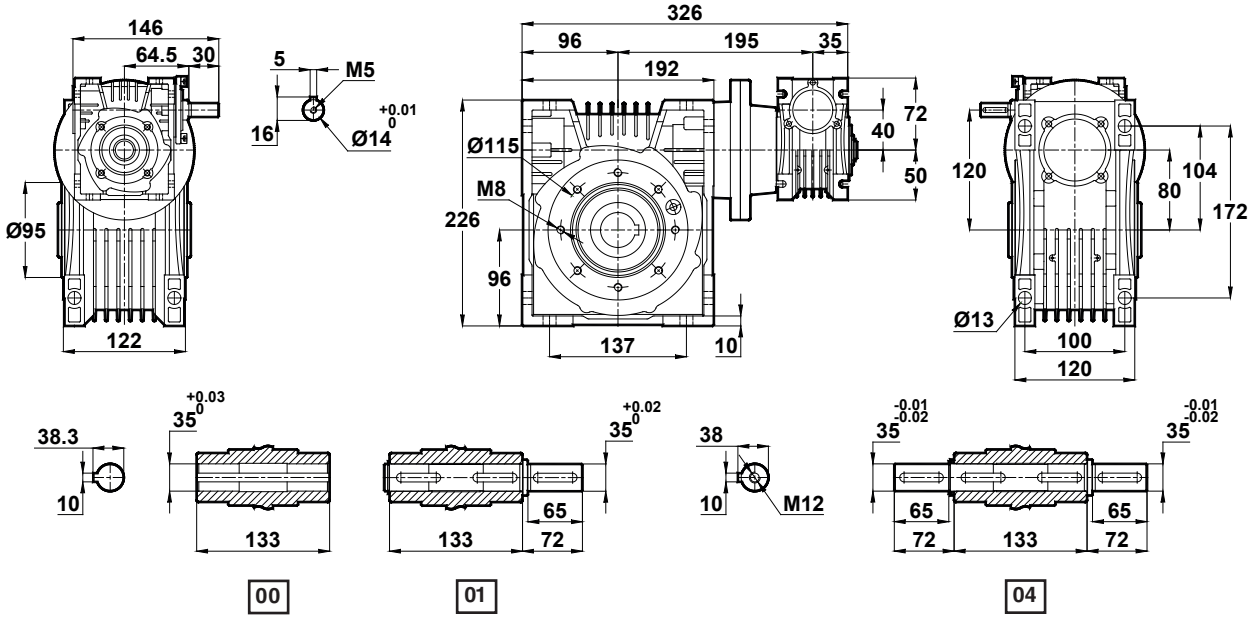
ET075.□- 040



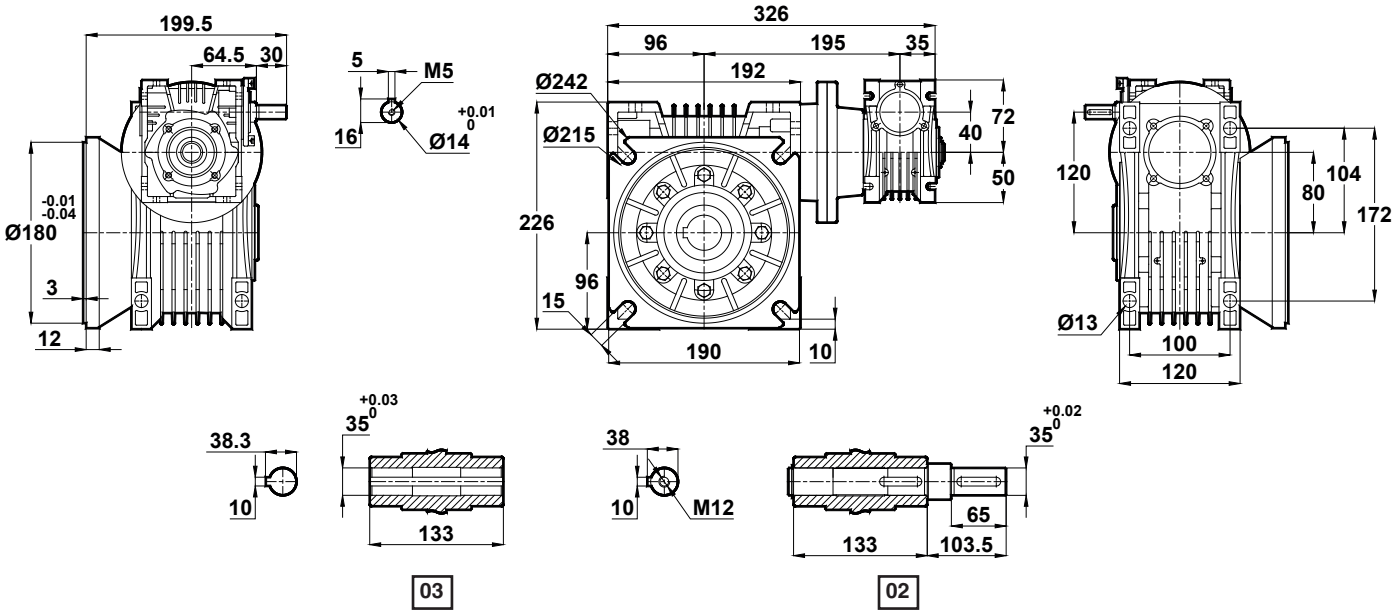


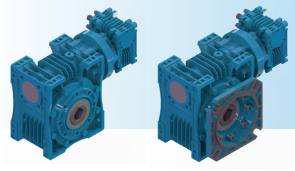
Tapped center hole to DIN 332, sheet 2

ET080.□- 040



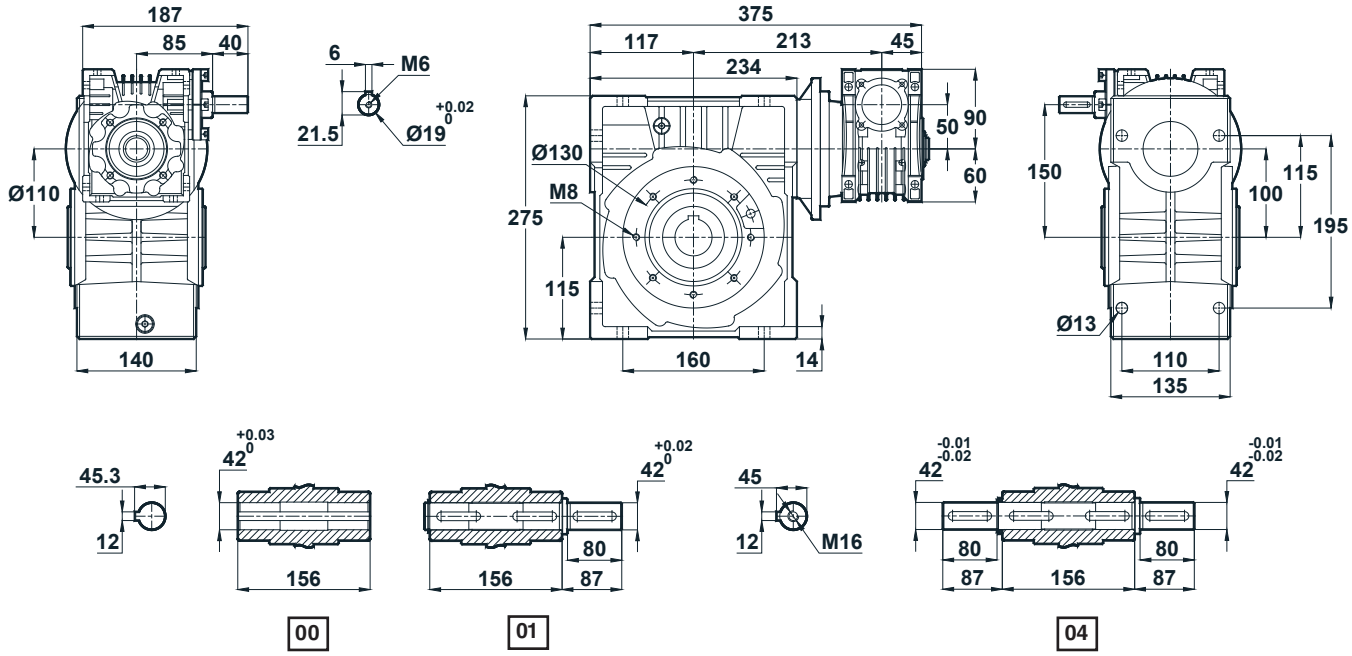
ET080.□- 040



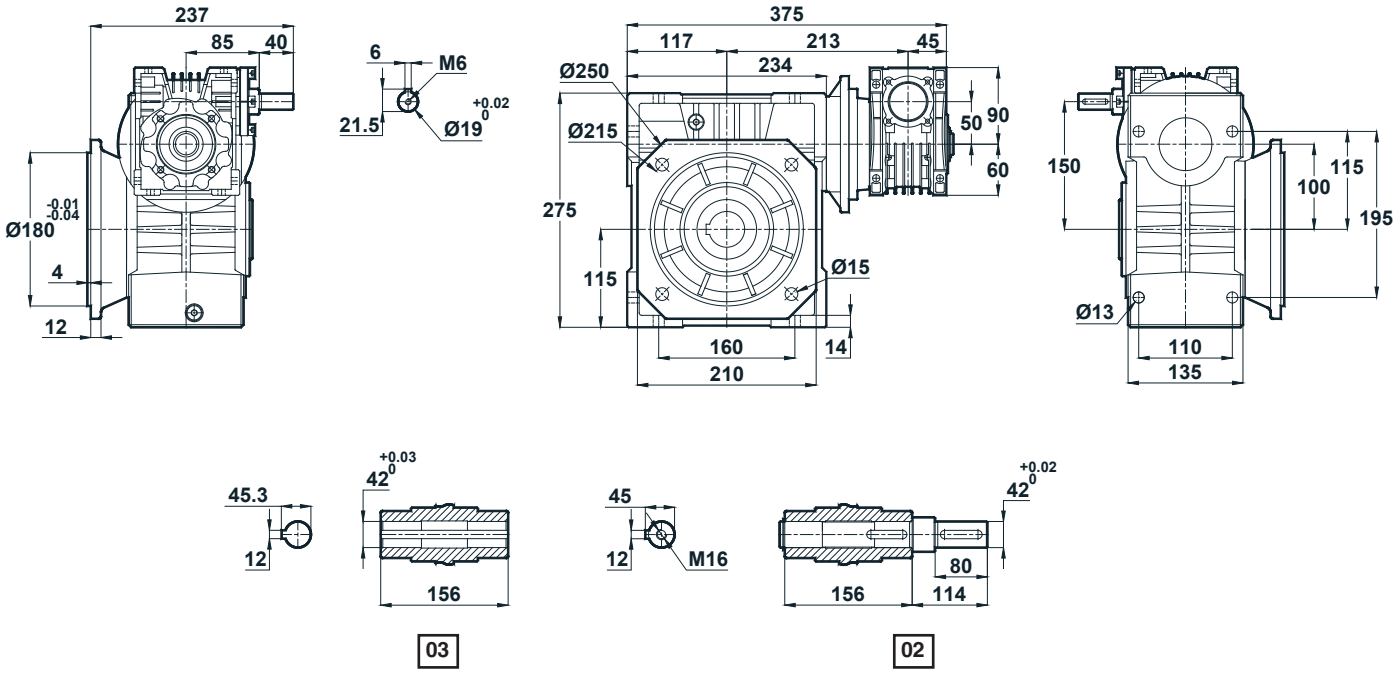


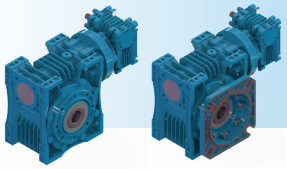
Tapped center hole to DIN 332, sheet 2

ET100.□ - 050



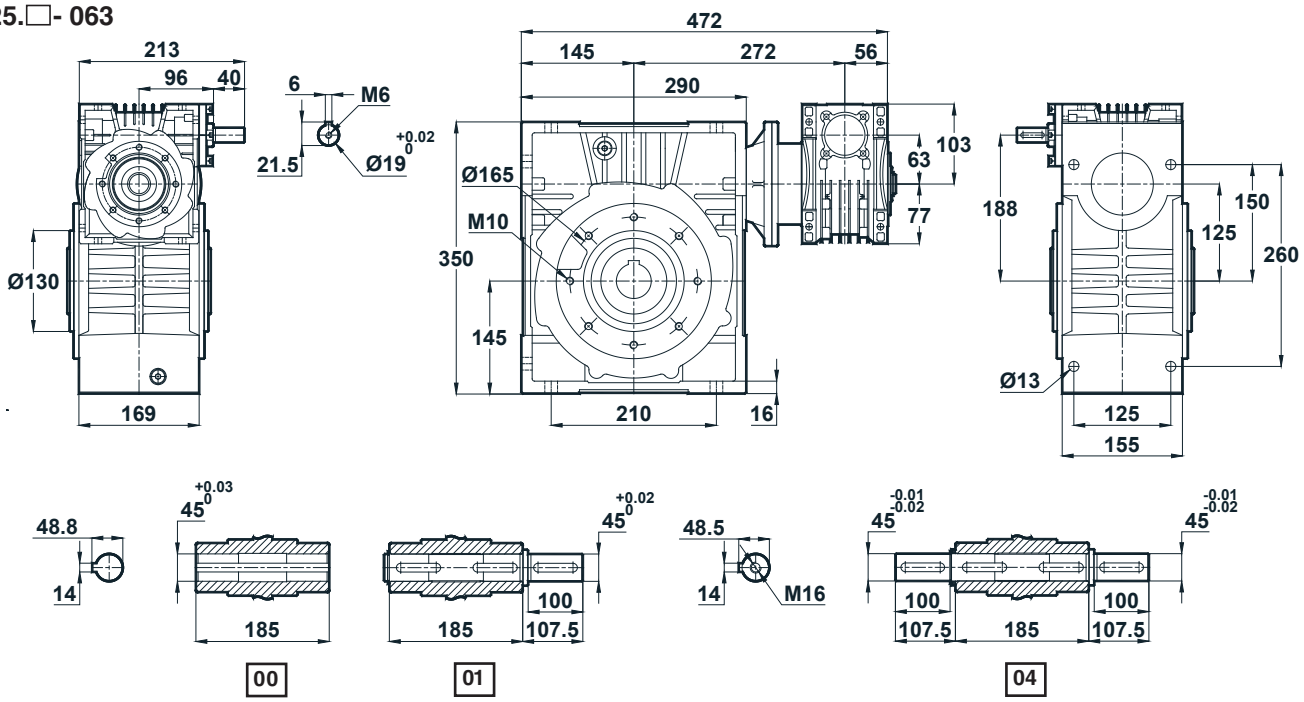
ET100.□- 050



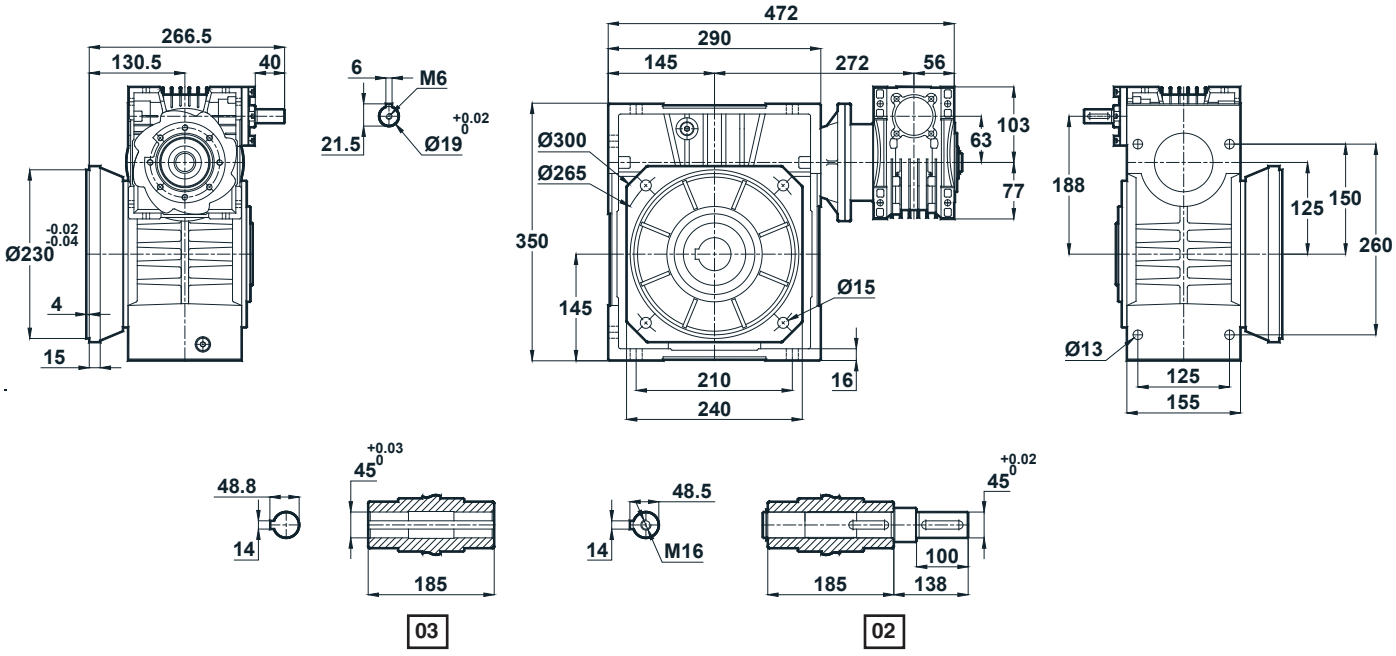


Tapped center hole to DIN 332, sheet 2

ET125.□- 063

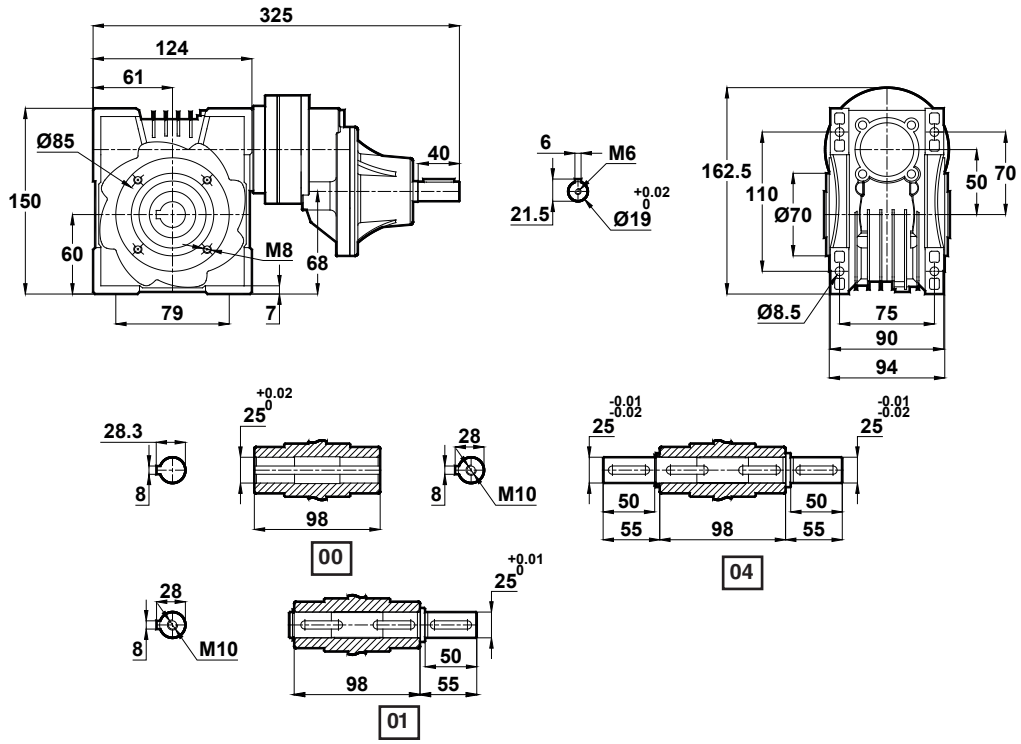


ET125.□- 063

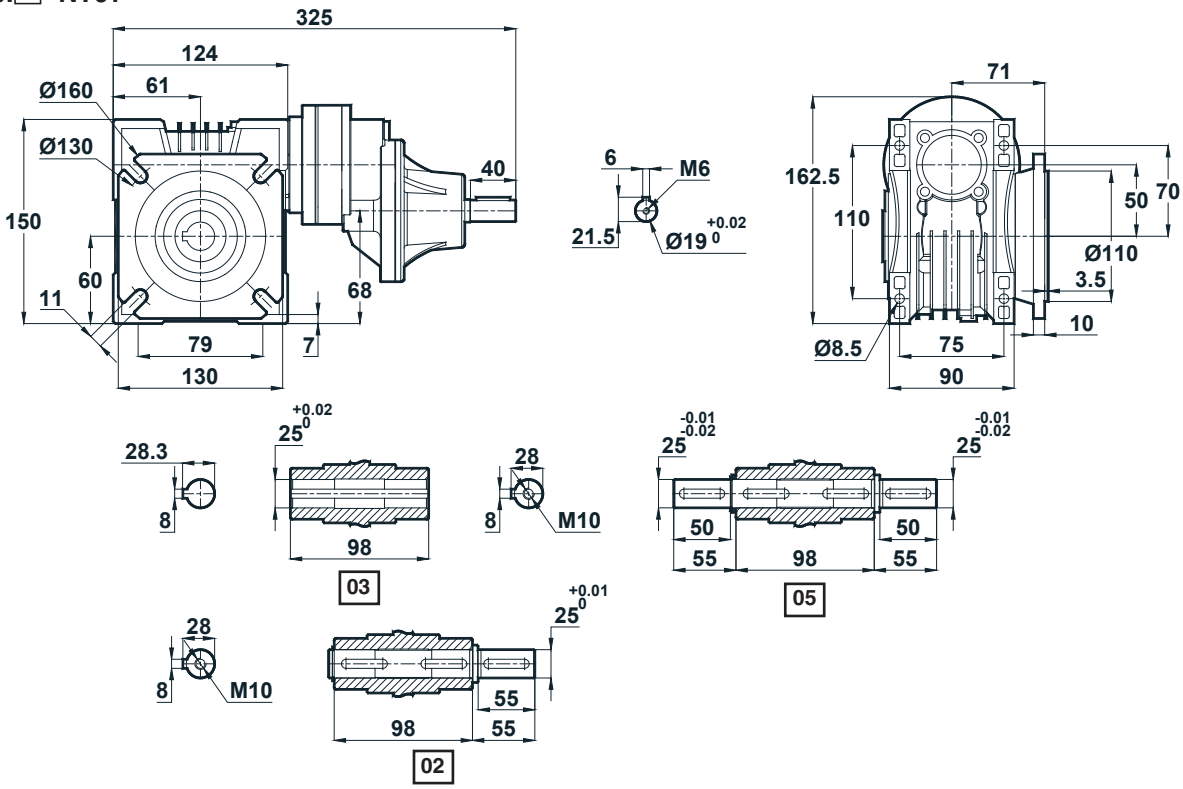


Tapped center hole to DIN 332, sheet 2

EN050.□ - NT01

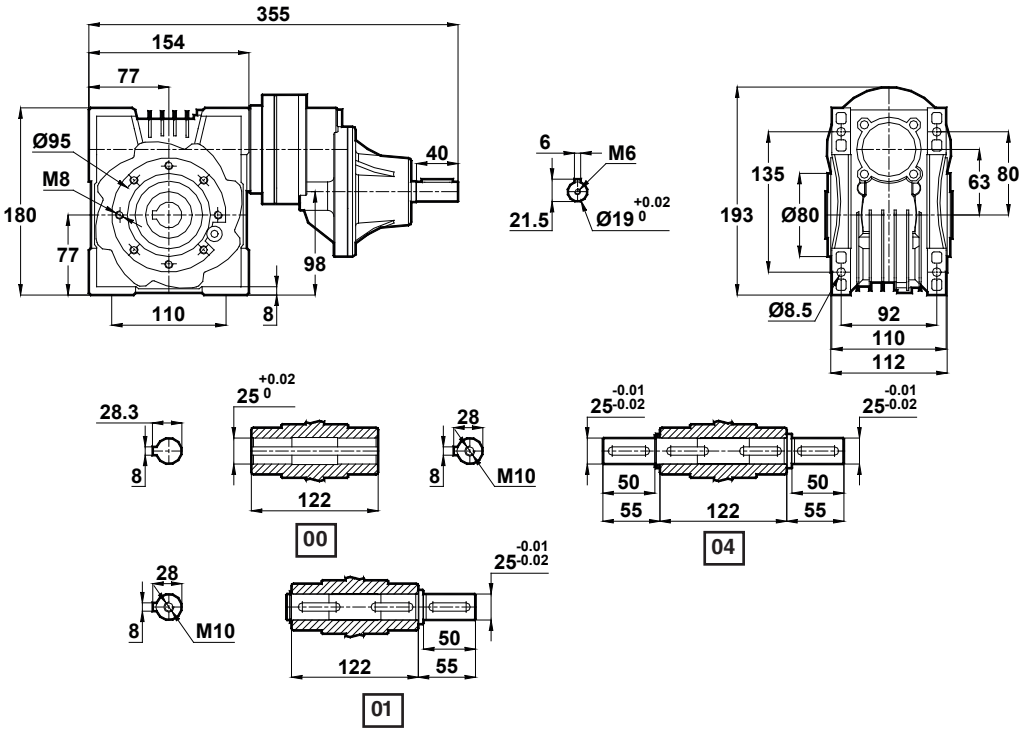


EN050.□- NT01

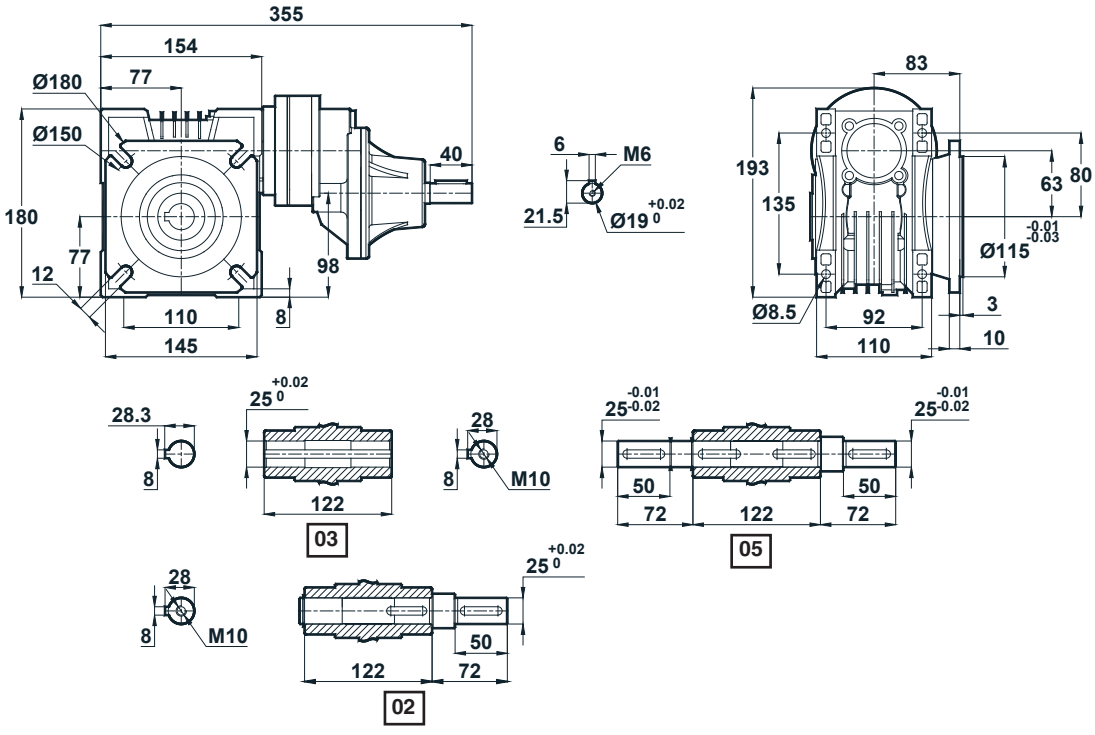


Tapped center hole to DIN 332, sheet 2

EN063.□ - NT01

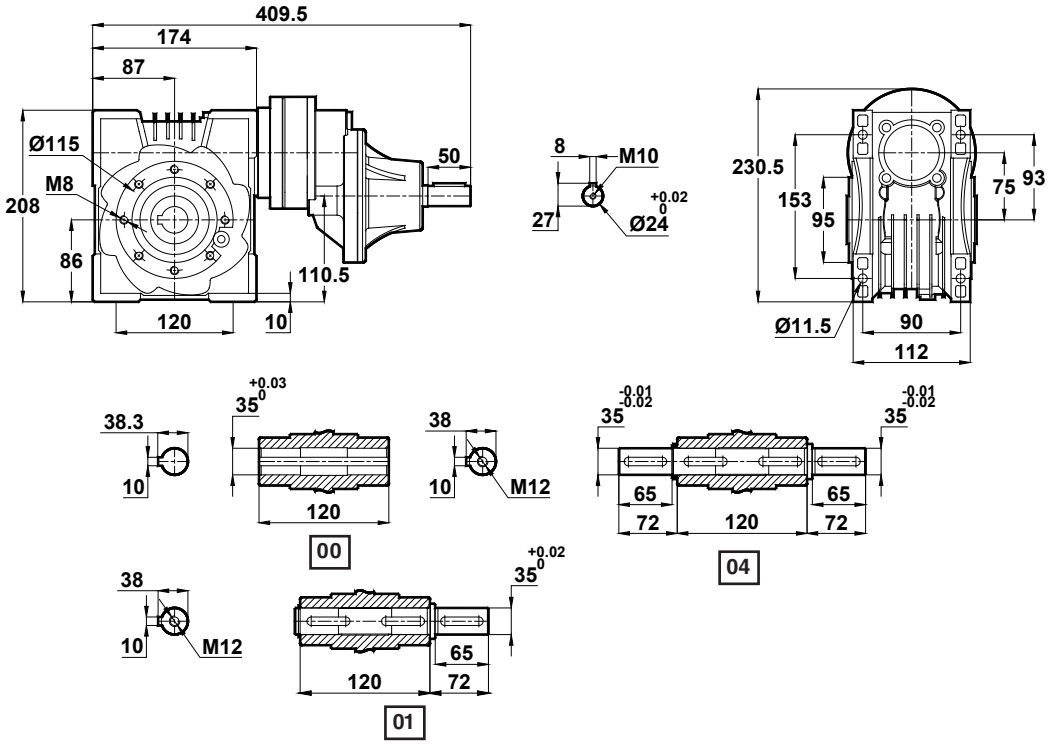


EN063.□- NT01

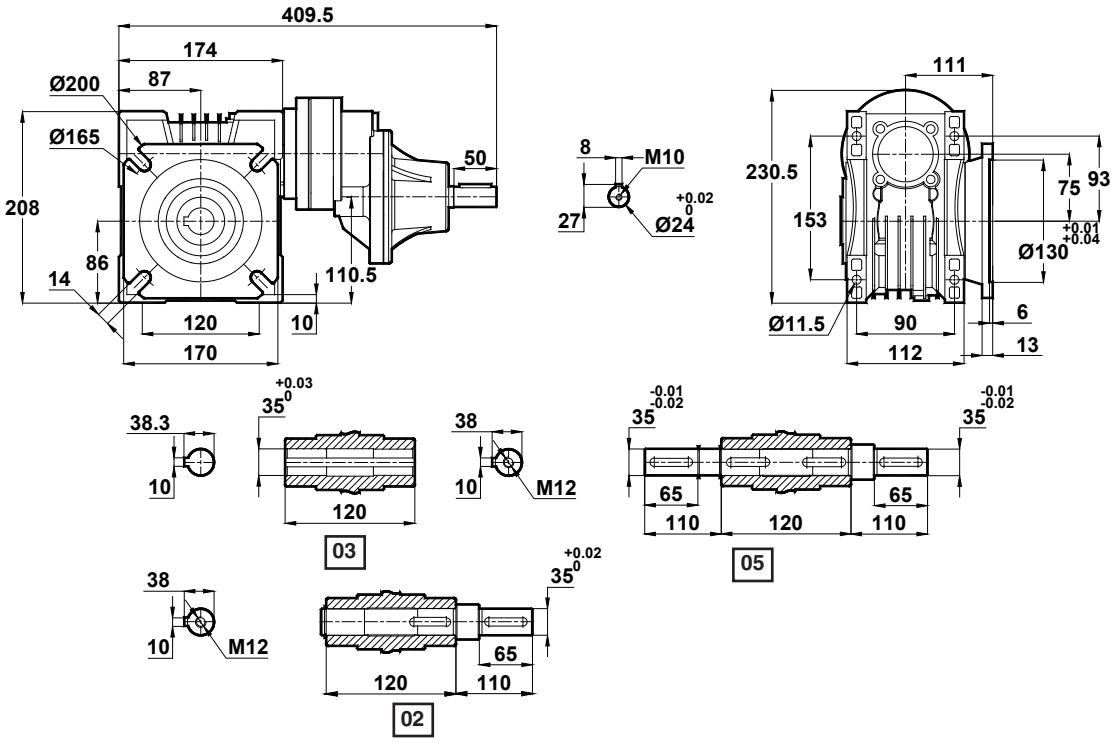


Tapped center hole to DIN 332, sheet 2

EN075.□ - NT11

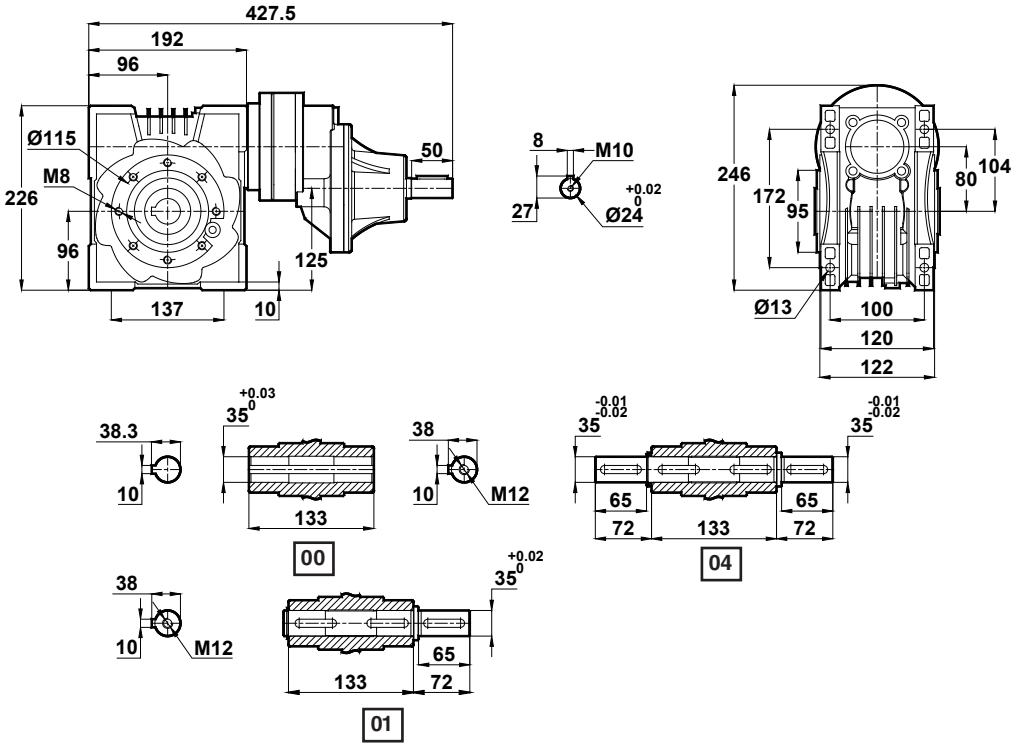


EN075.□- NT11

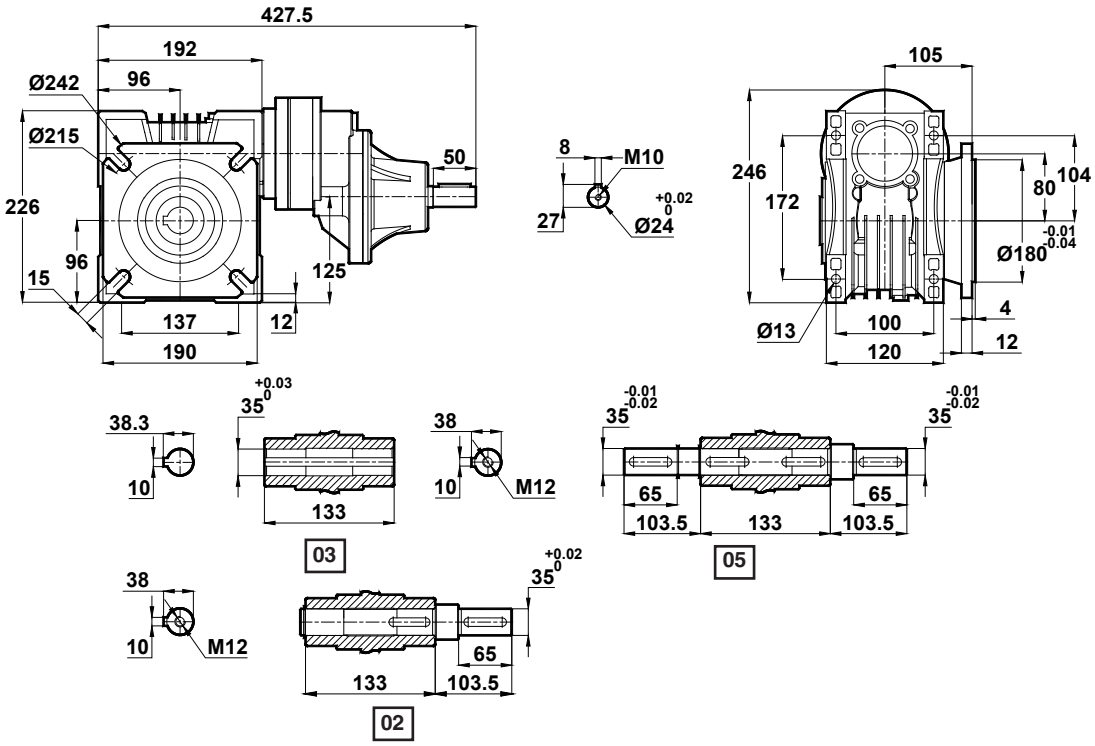


Tapped center hole to DIN 332, sheet 2

EN080.□ - NT11

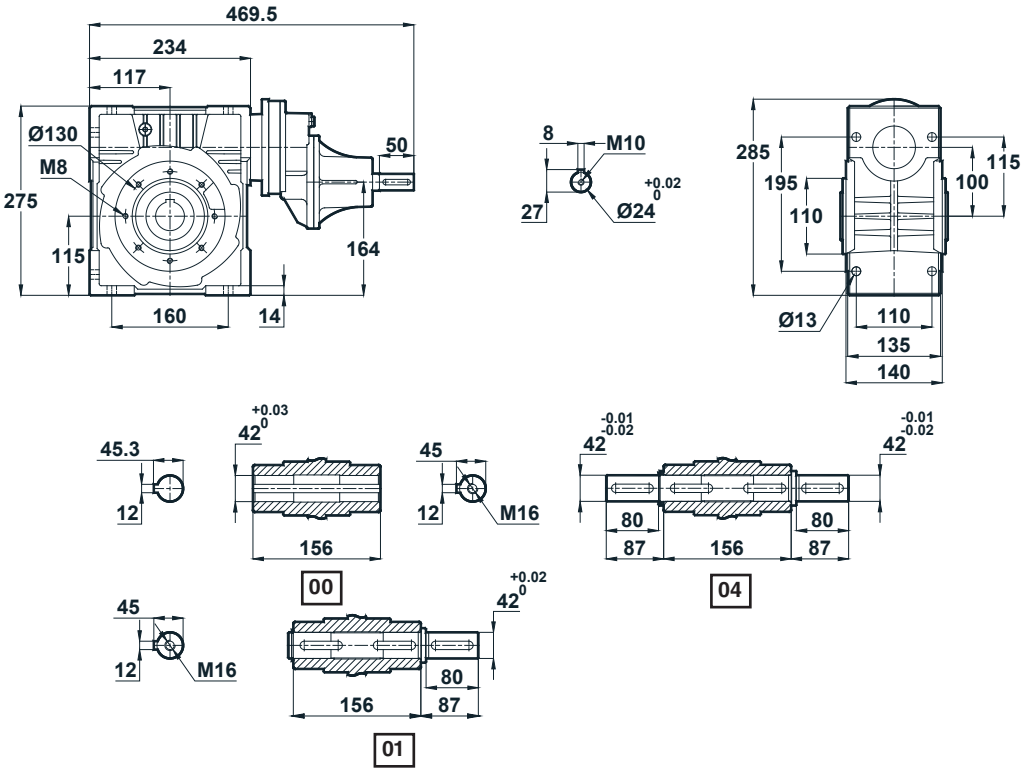


EN080.□- NT11

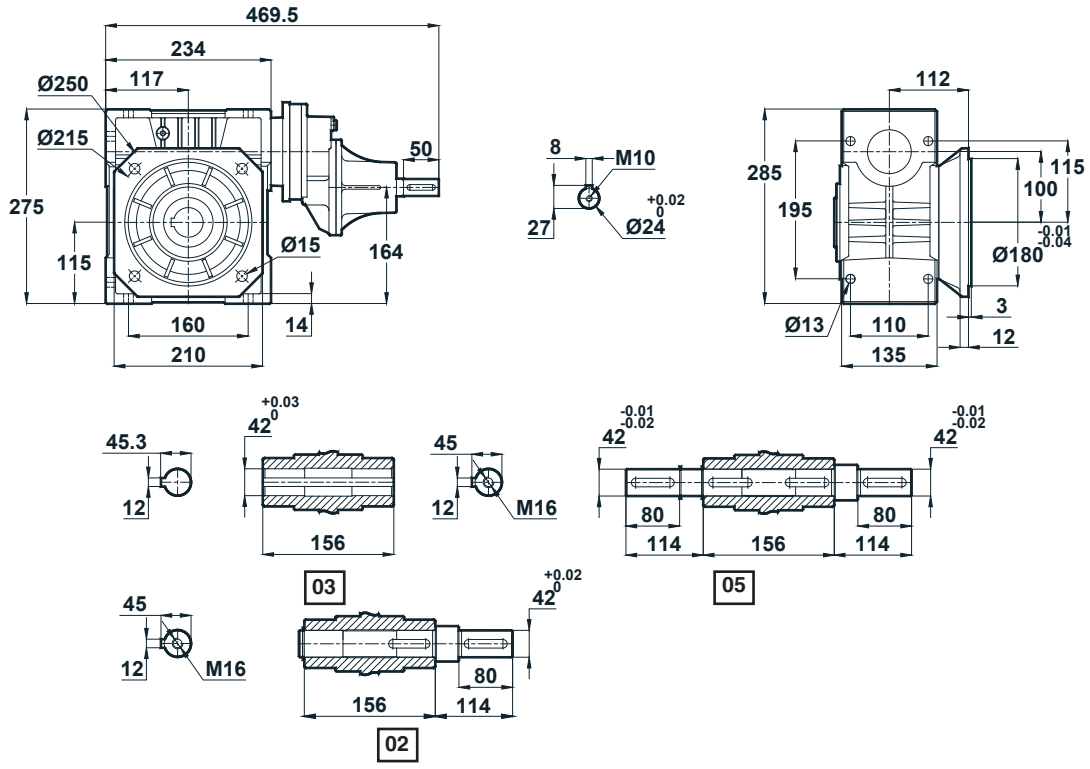


Tapped center hole to DIN 332, sheet 2

EN100.□ - NT11

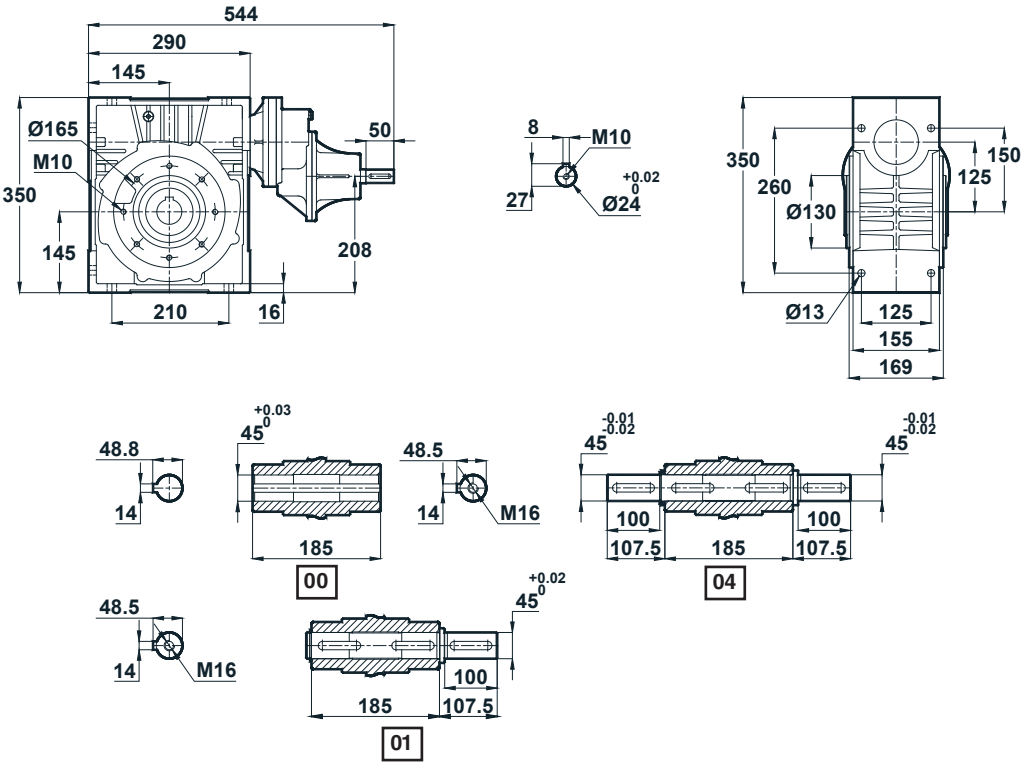


EN100.□- NT11

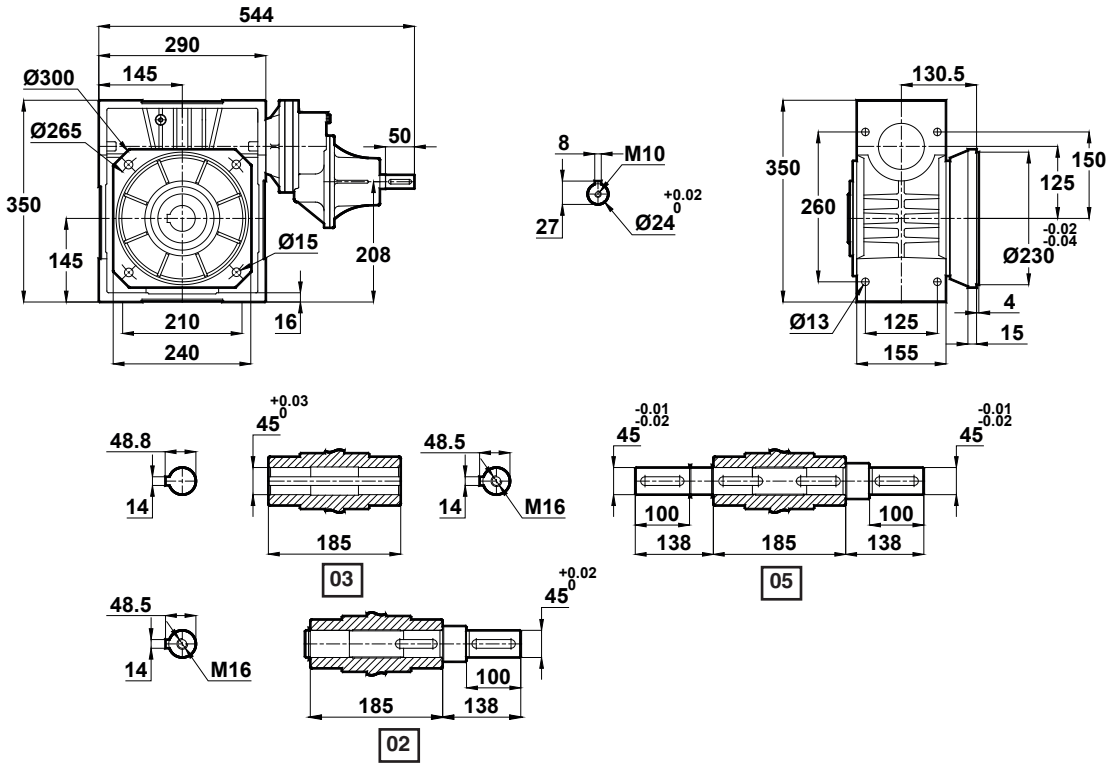


Tapped center hole to DIN 332, sheet 2

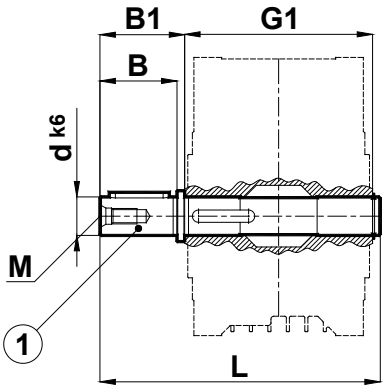
EN125.□ - NT21



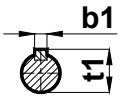
EN125.□- NT21

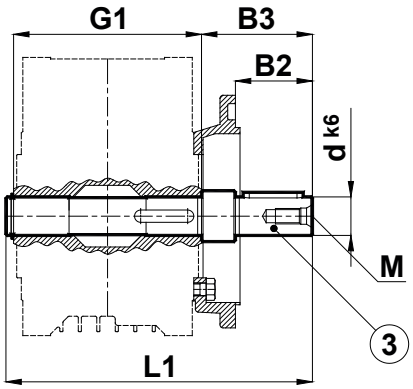


Shaft and Flange Weights

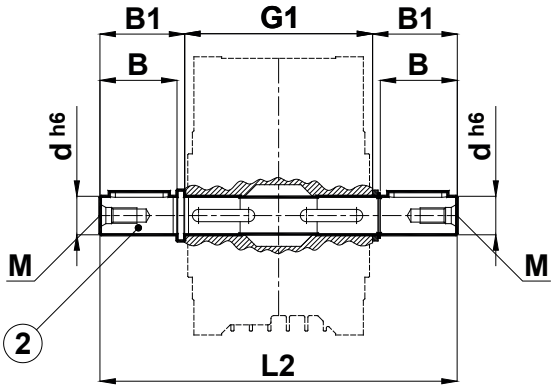


Ex.xxx.04

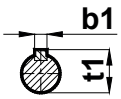


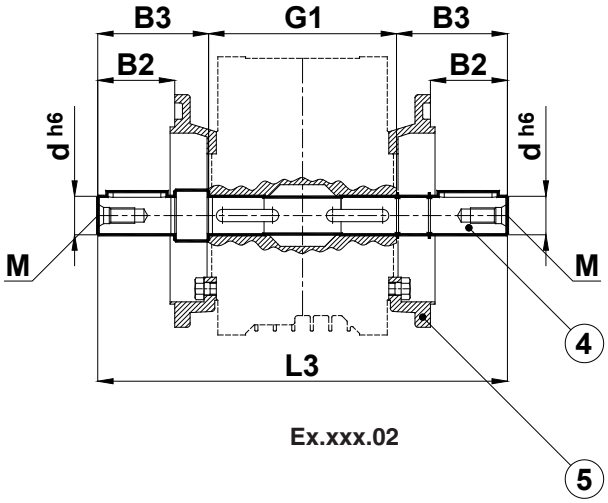


Ex.xxx.05



Ex.xxx.01

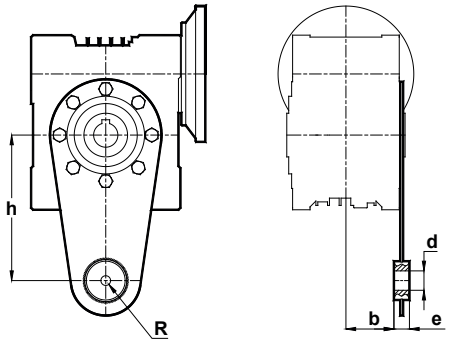




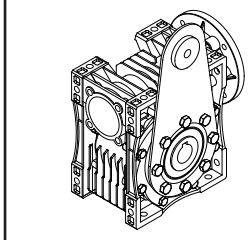
Ex.xxx.02

Type	Mounting Dimensions													Weight				
	d	B	B1	B2	B3	G1	L	L1	L2	L3	M	b1	t1	1	2	3	4	5
E.030..	14	30	34	30	51.5	66	103	134	169	120.5	M5	5	16	0.18	0.20	0.35	0.27	0.15
E.040..	18	40	44.5	40	66	82	130	171	214	151.5	M6	6	20.5	0.35	0.30	0.55	0.40	0.20
E.050..	25	50	55	50	70.5	98	158	208	239	173	M10	8	28	0.70	0.50	0.90	0.60	0.30
E.063..	25	50	55	50	72	122	182	232	266	199	M10	8	28	1.10	0.90	1.40	1.00	0.40
E.075..	35	65	72	65	116	120	197	264	352	235	M12	10	38	2.10	1.50	3.15	1.90	0.70
E.080..	35	65	72	65	103.5	133	210	277	340	241.5	M12	10	38	2.25	1.60	3.0	2.00	0.90
E.100..	42	80	87	80	114	156	249	330	384	276	M16	12	43	5.10	3.90	6.50	4.50	3.65
E.125..	45	100	107.5	100	142	185	300	400	469	335	M16	14	48.5	8.70	6.50	10.60	7.40	6.80

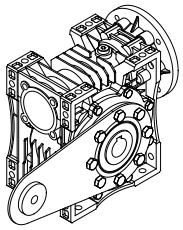
Torque Arm



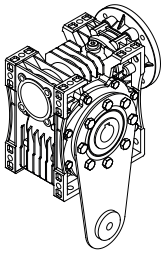
Type	b	e	d	h	R	Part No
E.030..	22	14	10	85	25	**9E030**
E.040..	31	14	10	100	25	**9E040**
E.050..	38	16	10	100	32	**9E050**
E.063..	49.5	16	10	150	36	**9E063**
E.075..	49.5	25	20	200	45	**9E075**
E.080..	49.5	25	20	200	45	**9E080**
E.100..	57.5	30	25	250	50	**9E100**
E.125..	72	30	25	300	55	**9E125**



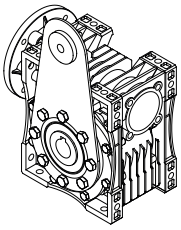
L1



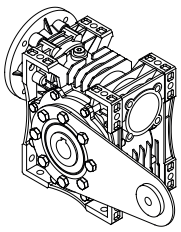
L2



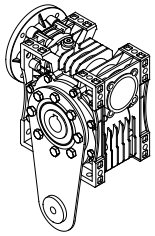
L3



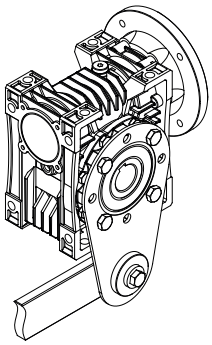
R1

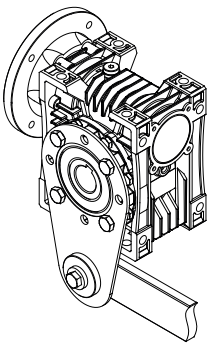


R2



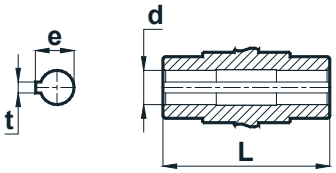
R3





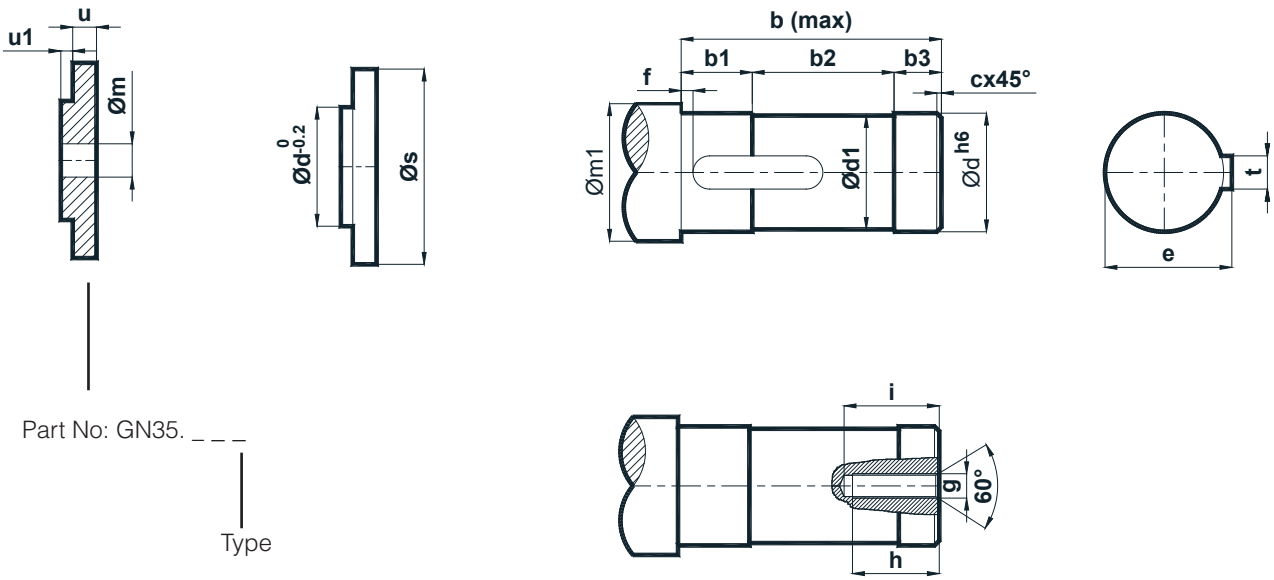


Optional Hollow Shaft Dimenions



Type	Shaft Dimensions			
	d (H7)	e	t	L
EN030.X0	14	16.3	5	66
EN040.X0	14	16.3	5	82
	18(Std)	20.8	6	
	19	21.8	6	
	20	22.8	6	
EN050.X0	18	20.8	6	98
	19	21.8	6	
	20	22.8	6	
	24	27.3	8	
	25(Std)	28.3	8	
EN063.X0	20	22.8	6	122
	24	27.3	8	
	25(Std)	28.3	8	
	28	31.3	8	
	30	33.3	8	
EN075.X0	25	28.3	8	120
	28	31.3	8	
	30	33.3	8	
	32	35.3	10	
	35(Std)	38.3	10	
EN080.X0	25	28.3	8	133
	28	31.3	8	
	30	33.3	8	
	32	35.3	10	
	35(Std)	38.3	10	
EN100.X0	28	31.3	8	156
	35	38.3	10	
	38	41.3	10	
	40	43.3	12	
	42(Std)	45.3	12	
	45	48.8	14	
	50	53.8	14	
EN125.X0	30	33.3	8	185
	35	38.3	10	
	40	43.3	12	
	45(Std)	48.8	14	
	50	53.8	14	
	60	64.4	18	

Advised Shaft Dimensions and Accesories Used by Assembling Worm Gear Type Gearboxes



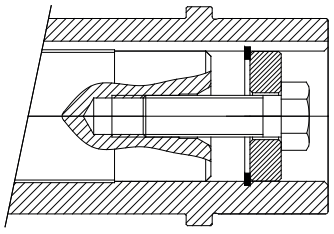
Part No: GN35. _ _ _

Type

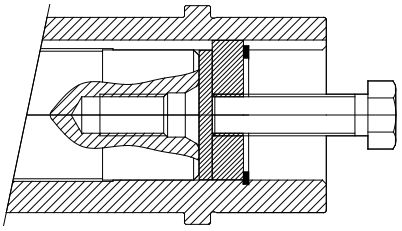
Sample: GN35.E040

Type	s	m	u	u1	t	e	d	d1	b	b1	b2	b3	c	m1	f	h	i	g	y
E..030	18	6	3	2.5	5	16	14	13	63	24.5	17	21.5	0.5	19.5	5	14.5	17	M5	M5x20
E..040	24	6	3	2.5	6	20.5	18	17	79	20	42	17	1	24.5		14.5	17	M5	M6x25
E..050	34	11	5	3.5	8	28	25	24	93.5	28	42	23.5	1	33		24	30	M10	M10x30
E..063	34	11	5	3.5	8	28	25	24	117.5	36	50	31.5	1	33		24	30	M10	M10x30
E..075	44	13	6	3.5	10	38	35	34	115.5	43	34	38.5	1	42		30	37	M12	M12x40
E..080	44	13	6	3.5	10	38	35	34	128.5	46	41	41.5	1	42		30	37	M12	M12x40
E..100	54	17	6	3.5	12	45	42	41	151.5	52	52	47.5	1.5	49		38	45	M16	M16x45
E..125	54	17	8	3.5	14	48.5	45	44	180.5	66	53	61.5	2	54		38	45	M16	M16x45

Mounting

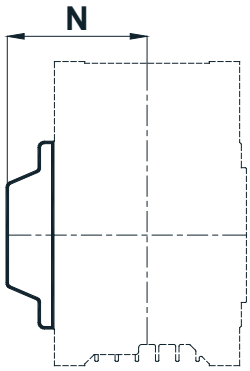


Demounting



6 Contour Bolt
(DIN ISO 4014 . DIN ISO 4017)
(DIN ISO 8765)

Shaft Protection Cover

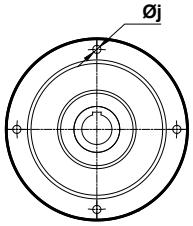


Type	N
E.030	46.5
E.040	57.5
E.050	65.5
E.063	83
E.075	90
E.080	93
E.100	108
E.125	128.5

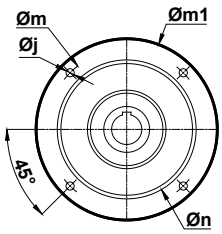


Alternative Flange Dimensions

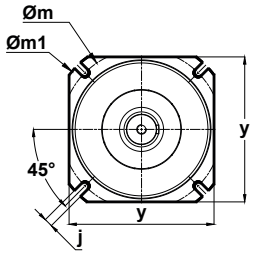
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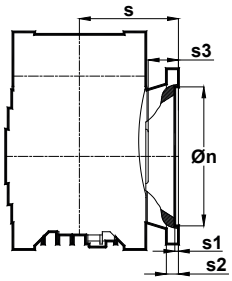
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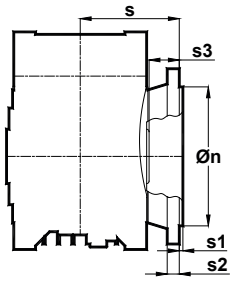
A



2

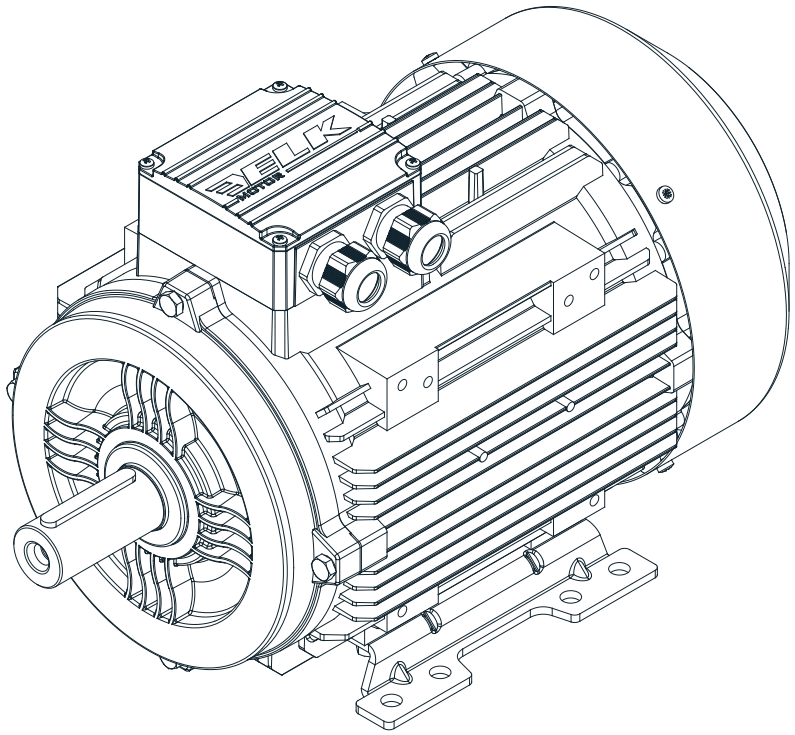


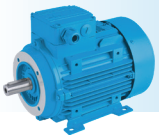
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Type	Stock Code	Flangetype	Mounting Dimensions								
			n	m	m1	j	s	s1	s2	s3	y
EX030	5E030X05	A2	50	68	80	6.5	54.5	4	8	21.5	70
	5E030X01	B1	70	85	105	7	55	2.5	6	22	-
	5E030X06	B1	70	85	105	7	81	2.5	6	48	-
	5E030X02	B1	80	100	120	7	55	2.5	6	22	-
EX040	5E040X11	A2	60	75	110	10	69.5	4	9.5	28.5	95
	5E040X12	A1	60	75	110	10	97	3.5	9.5	56	95
	5E040X10	B2	80	100	120	10	58.5	3	8	17.5	-
	5E040X04	C1	80	100	120	7	72.5	4	10	31.5	-
	5E040X05	C2	80	100	120	7	72.5	4	12	31.5	-
	5E040X02	B1	95	115	140	9	72.5	4	10	31.5	-
	5E040X06	B1	110	130	160	9	76	3.5	10	31.5	-
EX050	5E050X12	A2	70	85	125	10	91	5	9	42	110
	5E050X02	C1	95	115	140	9	74	3.5	10	25	-
	5E050X01	C1	95	115	140	9	91	3.5	10	42	-
	5E050X05	C2	95	115	140	9	90.5	3.5	10	41.5	-
	5E050X06	C2	95	115	140	9	74.5	3.5	10	25.5	-
	5E050X04	B1	95	130	160	9	74	3.5	10	25	-
	5E050X07	B2	95	130	160	9	90.5	3.5	10	41.5	-
	5E050X03	B1	95	130	160	9	91	3.5	10	42	-
	5E050X09	B1	110	130	160	9	93	3.5	15	44	-
	5E050X10	B2	110	130	160	9	93	5.5	15	44	-
	5E050X19	B1	110	130	160	11	105	3.5	12	56	-
	5E050X16	B1	110	130	160	9	119.5	3.5	15	70.5	-
	5E050X17	C1	130	165	200	11	119.5	3.5	15	70.5	-
EX063	5E063X13	B1	100	130	160	11	136	3.5	10	75	-
	5E063X07	B2	100	130	160	11	136	6	10	75	-
	5E063X02	B2	110	130	160	11	96	4	10	35	-
	5E063X06	B1	110	130	160	11	94	2	8	33	-
	5E063X12	A2	115	150	180	12	83	6	10	22	145
	5E063X11	B2	130	165	200	11	96	4	10	35	-
	5E063X10	B1	130	165	200	11	94.5	3.5	10	28.5	-
EX075	5E075-160	B2	110	130	160	11	90	6	13	30	-
	5E075X01	B1	110	130	160	12	111	3.5	13	51	-
EX080	5E080X07	B1	130	165	200	11	107	3	12	40	-
	5E080X05	A2	130	165	200	14	118	6	13	51.5	170
EX100	5E100X04	A2	152	175	210	14	119	6	13	41	200
	5E100X05	A2	170	230	280	14	131	6	15	53	260
EX125	5E125X05	A2	170	230	280	14	146	6	15	53.5	260

ELECTRIC MOTORS RATINGS AND PERFOMANCE



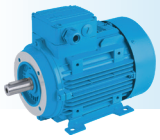


ELECTRIC MOTORS RATINGS AND PERFOMANCE

400V 50Hz 3000 rpm

IE3

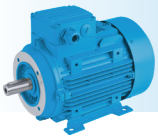
Type	Full-load Data								Starting Data		Breakdown Torque	Moment of Inertia	B3 Motor Weight	Noise Level
	Power	Speed	Current	Torque	Power Factor	Efficiency % η			Current	Torque				
	kW	rpm	A	Nm	Cosφ	4 / 4	3 / 4	1 / 2	I_A/I_N	M_A/M_N	M_K/M_N	kgm^2	kg	dB(A)
3E71M/2B	0.37	2830	0.86	1.25	0.81	76.6	77.0	75.0	6.0	2.8	3.0	0.00037	6.2	53
3E71M/2C	0.55	2830	1.19	1.86	0.84	79.4	80.2	78.8	6.1	2.9	3.3	0.00046	7.2	53
3E80M/2B	0.75	2880	1.59	2.49	0.84	80.7	82.0	81.5	6.7	3.0	3.6	0.00103	9.6	54
3E80M/2C	1.1	2880	2.26	3.64	0.85	82.7	83.0	82.4	6.8	3.1	3.8	0.00124	10.9	54
3E90S/2B	1.5	2900	2.97	4.94	0.86	84.8	85.4	84.2	7.6	3.1	3.9	0.00178	15.6	59
3E90L/2C	2.2	2900	4.25	7.24	0.87	85.9	86.8	86.1	7.2	3.0	3.8	0.00221	17.0	59
3E100L/2C	3	2910	5.58	9.85	0.89	87.1	87.6	86.9	7.9	3.0	4.1	0.00450	23.3	62
3E112M/2C	4	2915	7.28	13.1	0.90	88.1	88.8	88.2	7.5	2.6	3.9	0.00620	29.1	65
3E132S/2B	5.5	2945	9.9	17.83	0.90	89.2	89.0	88.6	8.9	2.9	3.9	0.01730	44.4	67
3E132S/2C	7.5	2945	13.2	24.32	0.91	90.1	90.5	89.7	8.4	2.6	4.0	0.02100	51.5	67
3E160M/2B	11	2950	19.7	35.6	0.88	91.2	91.0	90.5	8.0	2.6	3.9	0.03320	79.7	69
3E160M/2C	15	2950	25.9	48.55	0.91	91.9	92.1	91.6	8.9	3.1	4.2	0.03910	86.0	69
3E160L/2D	18.5	2945	31.7	60	0.91	92.4	92.7	92.3	8.9	3.1	4.2	0.04410	96.7	69
3E180M/2B	22	2957	38.1	71.05	0.90	92.7	92.9	92.0	8.6	2.6	3.9	0.06300	178	70
3E200L/2B	30	2970	52	96.46	0.89	93.6	93.8	93.6	8.9	3.2	3.5	0.16200	245	72
3E200L/2C	37	2970	62.6	119	0.91	93.7	93.8	93.4	9.3	3.2	3.4	0.17500	270	72
3E225M/2C	45	2975	75.6	144.4	0.91	94.3	94.6	94.0	9.8	3.5	3.9	0.25400	335	74
3E250M/2C	55	2970	93.3	176.9	0.90	94.4	94.8	94.5	8.9	3.3	3.4	0.38000	422	75
3E280S/2B	75	2980	127	240.35	0.90	94.7	94.7	94.0	7.5	2.7	3.2	0.79000	560	76
3E280M/2C	90	2985	150	287.94	0.91	95.0	95.1	94.5	7.6	2.7	3.1	0.90000	630	76
3G315S/2	110	2985	186	352	0.90	95.2	95.2	94.0	8.0	2.5	3.0	1.20000	742	76
3G315M/2	132	2985	223	422	0.90	95.4	95.4	94.1	8.0	2.4	3.5	1.40000	812	79
3G315L/2a	160	2985	265	512	0.91	95.6	95.6	94.2	8.0	2.5	3.0	1.50000	912	79



400V 50Hz 1500 rpm

IE3

Type	Full-load Data								Starting Data		Breakdown Torque	Moment of Inertia	B3 Motor Weight	Noise Level
	Power	Speed	Current	Torque	Power Factor	Efficiency % η			Current	Torque				
	kW	rpm	A	Nm	Cosφ	4 / 4	3 / 4	1 / 2	I_A/I_N	M_A/M_N	M_K/M_N	kgm^2	kg	dB(A)
3E71M/4C	0.25	1435	0.67	1.66	0.71	76.0	75.4	71.5	5.4	2.2	3.0	0.00082	6.8	45
3E71M/4D	0.37	1435	0.97	2.46	0.70	78.5	78.2	75.0	5.5	2.2	3.1	0.00093	7.5	45
3E80M/4C	0.55	1450	1.34	3.62	0.73	80.8	80.4	77.0	5.9	2.1	3.1	0.00200	10.5	50
3E80M/4D	0.75	1450	1.77	4.94	0.74	82.5	82.3	80.0	6.2	2.5	3.4	0.00227	11.6	50
3E90S/4C	1.1	1450	2.46	7.25	0.76	84.5	84.3	82.0	7.0	2.6	3.6	0.00355	16.3	51
3E90L/4D	1.5	1450	3.3	9.88	0.77	85.3	85.2	83.0	7.2	2.8	3.8	0.00410	18.0	51
3E100L/4C	2.2	1450	4.65	14.49	0.79	86.7	87.2	86.0	7.2	2.8	3.6	0.00780	24.4	53
3E100L/4D	3	1450	6.26	19.76	0.79	87.7	88.0	87.0	7.2	2.8	3.6	0.00890	26.7	53
3E112M/4D	4	1460	8.05	26.16	0.81	88.6	88.4	87.5	7.4	2.8	3.8	0.01430	33.9	58
3E132S/4C	5.5	1460	10.65	36	0.83	89.6	90.2	90.0	7.4	2.8	3.4	0.03060	53.4	61
3E132M/4D	7.5	1465	14.4	48.9	0.83	90.4	90.4	89.4	7.9	3.0	3.8	0.03420	59.5	61
3E160M/4C	11	1470	21	71.46	0.83	91.5	92.1	91.7	7.6	2.8	3.3	0.07010	89.2	63
3E160L/4D	15	1470	28.7	97.45	0.82	92.1	92.4	91.9	7.8	2.8	3.6	0.08600	97.5	63
3E180M/4C	18.5	1475	35	119.8	0.82	92.6	93.2	92.9	7.7	3.0	3.3	0.12900	173	64
3E180L/4D	22	1470	41.4	142.92	0.82	93.0	93.7	93.7	8.0	3.0	3.4	0.14700	187	64
3E200L/4D	30	1475	54.5	194.2	0.85	93.6	94.1	94.0	8.0	3.0	3.4	0.28400	258	65
3E225S/4C	37	1478	65.7	239	0.87	93.9	94.5	94.5	8.3	3.2	3.3	0.38200	320	66
3E225M/4D	45	1477	80	290.9	0.86	94.2	94.7	94.7	8.6	3.3	3.2	0.44100	352	67
3E250M/4D	55	1482	95.3	354.4	0.88	94.6	95.1	95.2	8.7	3.3	3.2	0.73400	470	68
3E280S/4C	75	1485	129.5	482.3	0.86	95.0	95.3	95.1	7.9	3.0	3.2	1.40000	646	69
3E280M/4D	90	1485	155.5	578.8	0.86	95.2	95.7	95.7	7.9	3.1	3.2	1.50000	670	70
3G315S/4	110	1487	194	706	0.86	95.4	95.2	95.0	7.4	2.4	3.0	2.5000	861	74
3G315M/4a	132	1488	226	847	0.88	95.6	95.4	95.3	7.4	2.4	3.0	2.8000	882	74
3G315L/4b	160	1488	275	1027	0.88	95.8	95.6	95.6	6.9	2.2	2.9	3.0000	930	74

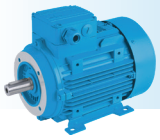


ELECTRIC MOTORS RATINGS AND PERFOMANCE

400V 50Hz 1000 rpm

IE3

Type	Full-load Data								Starting Data		Breakdown Torque	Moment of Inertia	B3 Motor Weight	Noise Level
	Power	Speed	Current	Torque	Power Factor	Efficiency % η			Current	Torque				
	kW	rpm	A	Nm	Cosφ	4 / 4	3 / 4	1 / 2	I_A/I_N	M_A/M_N	M_K/M_N	kgm^2	kg	dB(A)
3E71M/6C	0.18	930	0.55	1.85	0.69	68.0	67.4	62.6	3.6	2.0	2.4	0.00096	6.7	41
3E71M/6D	0.25	930	0.77	2.57	0.67	70.0	69.7	66.0	3.6	2.2	2.5	0.00116	7.5	41
3E80M/6B	0.37	930	1.03	3.8	0.70	74.0	73.8	70.0	4.4	2.1	2.6	0.00202	9.8	43
3E80M/6C	0.55	935	1.47	5.62	0.70	77.2	77.3	74.4	4.3	2.2	2.7	0.00228	10.6	43
3E90S/6B	0.75	945	1.96	7.58	0.70	78.9	79.2	77.6	4.7	2.2	2.7	0.00354	14.6	46
3E90L/6C	1.1	940	2.75	11.2	0.71	81.0	80.8	79.4	5.0	2.2	2.7	0.00428	17.0	46
3E100L/6B	1.5	955	3.5	15	0.75	82.5	82.7	81.4	5.3	2.1	2.8	0.00820	22.5	50
3E112M/6B	2.2	960	4.95	21.9	0.76	84.3	84.5	83.5	5.5	2.2	3.0	0.01320	27.2	56
3E132S/6B	3	970	6.55	29.4	0.77	85.6	85.5	84.5	6.2	2.1	3.0	0.03050	46.5	58
3E132M/6C	4	970	8.52	39.4	0.78	86.8	87.0	85.5	6.2	2.2	3.0	0.03500	51.0	58
3E132M/6D	5.5	965	11.55	54.4	0.78	88.0	88.9	88.5	6.2	2.2	3.0	0.03940	56.0	58
3E160M/6D	7.5	972	15.55	73.8	0.78	89.1	89.4	88.4	6.3	2.6	3.0	0.07870	96.0	61
3E160L/6E	11	972	22.9	108.07	0.77	90.3	90.9	90.5	6.6	2.9	3.3	0.08580	104	62
3E180L/6E	15	975	30.80	147.92	0.77	91.2	91.6	91.0	6.7	2.9	3.1	0.15300	187	63
3E200L/6C	18.5	977	36.4	180.8	0.80	91.7	91.8	91.8	6.1	2.6	2.6	0.36100	225	64
3E200L/6D	22	978	42.5	214.8	0.81	92.2	92.9	93.0	6.2	2.6	2.7	0.39400	245	64
3E225M/6C	30	985	57.6	290.8	0.81	92.9	92.9	92.6	6.6	2.6	2.7	0.60000	326	65
3E250M/6C	37	988	68.8	357.6	0.83	93.4	93.6	93.5	6.8	2.7	2.68	0.82000	432	65
3E280S/6B	45	989	82.5	434.5	0.84	93.7	93.9	93.2	6.8	2.9	2.8	1.45000	540	65
3E280M/6C	55	989	100.4	531	0.84	94.1	94.4	93.5	6.9	2.9	2.9	1.6500	575	65
3G315S/6	75	992	140	722	0.82	94.6	94.6	94.4	7.2	2.7	3.0	2.9000	805	72
3G315M/6a	90	992	166	866	0.82	94.9	94.9	94.5	7.2	2.7	3.0	3.5000	860	72
3G315M/6b	110	992	198	1059	0.84	95.1	95.1	94.9	7.2	2.7	3.0	4.2000	980	72
3G315L/6	132	992	235	1271	0.85	95.4	95.4	95.2	7.2	2.7	3.0	4.3000	1150	72
3G355M/6a	160	993	197	1539	0.82	95.6	95.6	95.0	7.0	2.4	3.2	6.8000	1185	72

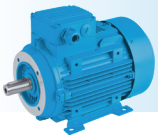


400V 50Hz 3000 rpm

IE2

Type	Full-load Data								Starting Data		Breakdown Torque	Moment of Inertia	B3 Motor Weight	Noise Level
	Power	Speed	Current	Torque	Power Factor	Efficiency % η			Current	Torque				
	kW	rpm	A	Nm	Cosφ	4 / 4	3 / 4	1 / 2	I_A/I_N	M_A/M_N	M_K/M_N	kgm^2	kg	dB(A)
G56/2b*	0.12	2800	0.35	0.41	0.74	64.5	64.1	56.9	4.2	2.5	2.8	0.00012	2.8	42
G63/2a*	0.18	2820	0.5	0.61	0.73	64.4	64.2	57.7	4.6	2.9	2.9	0.00011	3.6	52
G63/2b*	0.25	2840	0.67	0.84	0.63	67.3	67.1	60.9	4.5	2.5	2.9	0.00013	4.0	52
2E71M/2A	0.37	2790	0.9	1.26	0.80	74.2	74.5	72.5	5.0	2.5	2.8	0.00031	5.5	54
2E71M/2B	0.55	2790	1.27	1.88	0.82	75.8	77.0	76.0	5.0	2.8	2.9	0.00037	6.3	54
2E80M/2A	0.75	2850	1.67	2.51	0.83	78.0	79.0	77.5	5.7	2.5	3.0	0.00089	8.7	56
2E80M/2B	1.1	2850	2.36	3.69	0.84	80.1	81.3	80.7	5.8	2.7	3.1	0.00103	9.7	56
2E90S/2A	1.5	2880	3.17	4.98	0.83	82.5	82.6	82.0	6.0	2.6	3.3	0.00152	14.1	60
2E90L/2B	2.2	2860	4.48	7.35	0.85	83.2	85.0	85.0	6.0	2.6	3.1	0.00178	15.5	60
2E100L/2B	3	2890	5.8	9.91	0.88	84.8	85.2	84.7	7.0	2.6	3.4	0.00380	20.8	63
2E112M/2A	4	2910	7.6	13.13	0.88	86.5	87.1	86.8	7.0	2.4	3.6	0.00530	25.7	66
2E132S/2A	5.5	2935	10.2	17.9	0.88	88.2	88.4	87.6	7.9	2.8	3.9	0.01550	41	68
2E132S/2B	7.5	2925	13.6	24.5	0.90	88.5	88.8	88.6	7.6	2.6	3.9	0.01730	45.2	68
2E160M/2A	11	2940	19.6	35.73	0.90	89.8	90.0	89.0	7.4	2.7	3.6	0.02920	71.4	70
2E160M/2B	15	2935	26.9	48.8	0.89	90.3	91.0	90.7	7.0	2.6	3.5	0.03320	77.0	70
2E160L/2C	18.5	2935	32.2	60.19	0.91	91.1	91.5	91.0	8.2	2.9	3.8	0.03910	89.0	70
2E180M/2A	22	2955	39.0	71.1	0.89	91.4	91.6	90.6	7.9	2.6	3.6	0.06300	163	71
2E200L/2A	30	2965	52	96.63	0.90	92.4	92.7	92.2	8.0	2.9	3.1	0.14600	230	74
2E200L/2B	37	2965	64	119.2	0.90	92.7	93.2	93.0	8.4	3.1	3.3	0.16200	240	75
2E225M/2B	45	2970	77.4	144.7	0.90	93.2	93.5	93.0	8.6	2.7	3.7	0.22000	310	75
2E250M/2B	55	2970	94.5	176.8	0.90	93.3	93.6	93.1	7.9	2.7	3.6	0.32800	388	77
2E280S/2A	75	2978	128	240.5	0.90	93.8	94.0	93.0	7.9	2.7	3.0	0.70000	510	77
2E280M/2B	90	2980	153	288.4	0.90	94.1	94.2	93.1	7.5	2.8	3.2	0.79000	570	77
2G315S/2	110	2980	192	352	0.88	94.3	94.3	92.8	7.0	2.5	3.0	1.00000	742	79
2G315M/2a	132	2980	224	423	0.90	94.6	94.5	93.3	8.0	2.5	3.0	1.20000	812	79
2G315M/2b	160	2980	266	513	0.92	94.8	94.8	93.4	7.8	2.5	3.2	1.40000	912	79

*: IE1 Data



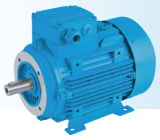
ELECTRIC MOTORS RATINGS AND PERFOMANCE

400V 50Hz 1500 rpm

IE2

Type	Full-load Data								Starting Data		Breakdown Torque	Moment of Inertia	B3 Motor Weight	Noise Level
	Power	Speed	Current	Torque	Power Factor	Efficiency % η			Current	Torque				
	kW	rpm	A	Nm	Cosφ	4 / 4	3 / 4	1 / 2	I_A/I_N	M_A/M_N	M_K/M_N	kgm^2	kg	dB(A)
G63/4a*	0.12	1365	0.41	0.84	0.74	57.1	57.1	53.3	3.1	2.0	2.2	0.00017	3.4	43
G63/4b*	0.18	1340	0.6	1.28	0.73	59.7	59.7	55.8	2.9	2.0	2.0	0.00021	3.9	43
2E71M/4B	0.25	1425	0.71	1.68	0.69	74.0	73.5	70.5	4.4	2.0	3.0	0.00067	5.9	46
2E71M/4C	0.37	1425	1.0	2.47	0.70	76.1	75.5	71.5	4.6	2.0	3.0	0.00082	6.7	46
2E80M/4B	0.55	1440	1.45	3.65	0.71	77.1	76.7	75.0	5.2	2.0	3.0	0.00175	9.7	50
2E80M/4C	0.75	1440	1.95	4.97	0.70	79.6	79.2	77.0	5.2	2.0	3.0	0.00200	10.5	50
2E90S/4B	1.1	1440	2.6	7.3	0.75	81.4	81.4	80.5	5.6	2.2	3.1	0.00281	14.4	52
2E90L/4C	1.5	1440	3.4	9.95	0.77	82.8	83.0	82.0	6.0	2.3	3.2	0.00356	17.2	52
2E100L/4B	2.2	1445	4.85	14.6	0.78	84.3	85.3	84.2	6.0	2.4	3.2	0.00634	22.7	54
2E100L/4C	3	1440	6.42	19.89	0.79	85.5	85.7	84.6	6.3	2.4	3.3	0.00775	24.2	54
2E112M/4C	4	1450	8.2	26.35	0.81	86.8	87.4	86.5	6.6	2.5	3.4	0.01220	32	58
2E132S/4B	5.5	1455	11.2	36.1	0.81	87.7	88.6	88.0	6.7	2.6	3.2	0.02520	47.8	62
2E132M/4C	7.5	1460	15.1	49	0.81	88.7	89.0	89.0	7.0	2.7	3.3	0.03060	54.8	62
2E160M/4B	11	1465	21.3	71.7	0.83	89.8	90.3	89.5	6.9	2.4	3.0	0.05800	76.8	65
2E160L/4C	15	1460	28.8	98.12	0.83	90.6	91.3	90.9	6.9	2.6	3.0	0.07000	88.6	65
2E180M/4B	18.5	1465	34.9	120.6	0.84	91.2	91.4	91.4	6.9	2.5	3.0	0.11100	158	65
2E180L/4C	22	1465	41.4	143.40	0.84	91.6	91.7	91.5	7.1	2.6	3.2	0.12900	174	65
2E200L/4C	30	1475	55.5	194.24	0.85	92.3	93.0	93.2	7.6	3.0	3.1	0.23300	241	65
2E225S/4B	37	1475	66	239.5	0.87	93.0	93.8	93.8	7.8	3.0	3.1	0.33900	297	66
2E225M/4C	45	1475	80	291.4	0.87	93.1	94.0	94.3	7.8	3.0	3.0	0.38200	333	66
2E250M/4C	55	1478	95.5	355.4	0.89	93.5	94.3	94.4	7.9	3.2	3.0	0.62400	430	68
2E280S/4B	75	1483	130.8	482.97	0.88	94.0	94.5	94.4	7.9	3.0	3.0	1.25000	618	69
2E280M/4C	90	1484	156	579.2	0.88	94.2	94.6	94.5	7.9	3.2	3.1	1.40000	648	70
2G315S/4	110	1485	195	707	0.86	94.5	94.5	93.8	7.4	2.0	3.0	2.10000	784	74
2G315M/4a	132	1485	230	849	0.87	94.7	94.5	93.8	7.4	2.1	3.0	2.50000	861	74
2G315M/4b	160	1485	280	1029	0.87	94.9	94.9	94.0	7.0	2.0	2.9	2.80000	882	74

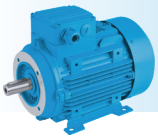
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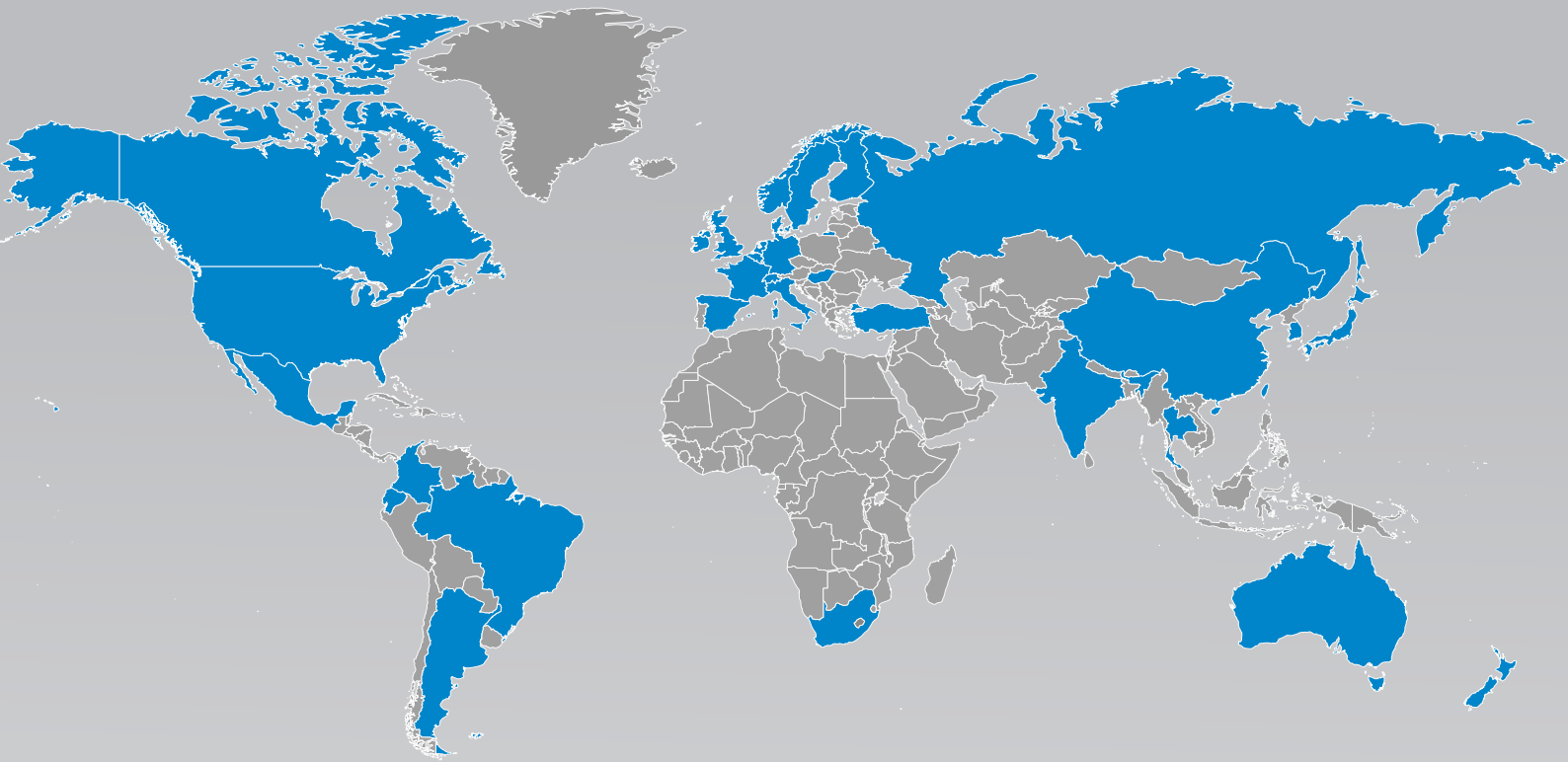
400V 50Hz 1000 rpm

IE2

Type	Full-load Data								Starting Data		Breakdown Torque	Moment of Inertia	B3 Motor Weight	Noise Level
	Power	Speed	Current	Torque	Power Factor	Efficiency % η			Current	Torque				
	kW	rpm	A	Nm	Cosφ	4 / 4	3 / 4	1 / 2	I_A/I_N	M_A/M_N	M_K/M_N	kgm^2	kg	dB(A)
2E71M/6B	0.18	920	0.6	1.87	0.67	64.5	63.0	57.0	3.2	1.9	2.3	0.00076	5.9	42
2E71M/6C	0.25	920	0.78	2.59	0.69	66.5	66.0	61.0	3.3	1.9	2.3	0.00096	6.6	42
2E80M/6A	0.37	925	1.08	3.82	0.69	71.4	71.5	70.0	4.0	2.0	2.6	0.00176	9.1	45
2E80M/6B	0.55	932	1.5	5.64	0.72	73.5	74.0	71.0	4.2	2.1	2.6	0.00202	9.9	45
2E90S/6A	0.75	940	2.0	7.62	0.71	75.9	76.1	73.1	4.1	2.0	2.6	0.00229	13.3	48
2E90L/6B	1.1	940	2.9	11.18	0.70	78.1	78.3	75.0	4.3	2.1	2.6	0.00354	14.8	48
2E100L/6A	1.5	950	3.72	15	0.73	79.8	80.2	79.5	4.5	2.1	2.6	0.00680	20.2	52
2E112M/6A	2.2	960	5.32	21.9	0.73	81.8	82.0	81.5	5.3	2.1	2.7	0.01170	25	56
2E132S/6A	3	970	6.85	29.6	0.76	83.3	84.0	83.0	5.6	2.0	2.8	0.02610	42	60
2E132M/6B	4	970	8.8	39.38	0.77	85.2	85.7	85.3	5.2	2.1	2.6	0.03050	46	60
2E132M/6C	5.5	965	12	54.4	0.77	86.0	87.2	87.0	5.7	2.1	2.7	0.03500	51	60
2E160M/6B	7.5	972	16.3	73.68	0.76	87.2	88.1	87.7	5.6	2.4	2.7	0.05700	77.8	63
2E160L/6D	11	970	22.95	108.3	0.78	88.7	90.0	89.9	6.0	2.5	2.9	0.07870	97.8	63
2E180L/6D	15	972	31	147.4	0.78	89.7	90.5	90.2	6.2	2.5	2.9	0.13500	175	64
2E200L/6B	18.5	977	36.5	180.8	0.81	90.4	90.5	90.7	6.3	2.5	2.6	0.30100	205	64
2E200L/6C	22	978	43	214.8	0.81	91.1	91.3	91.2	6.2	2.5	2.6	0.33400	215	64
2E225M/6B	30	980	57.6	292.2	0.82	91.7	91.8	90.8	6.6	2.6	2.7	0.52000	314	65
2E250M/6B	37	982	69.6	359.80	0.83	92.3	92.6	92.5	6.8	2.7	2.8	0.68000	395	66
2E280S/6A	45	985	84.5	436	0.83	92.7	93.1	92.2	6.8	2.8	2.8	1.15000	490	66
2E280M/6B	55	985	101.5	533.2	0.84	93.1	93.2	93.5	6.9	2.9	2.8	1.45000	545	66
2G315S/6	75	990	139	723	0.83	93.7	93.7	92.4	7.0	2.0	2.5	2.40000	727	72
2G315M/6a	90	990	166	868	0.83	94.0	94.0	92.6	7.0	2.0	2.5	2.90000	805	72
2G315M/6b	110	990	198	1061	0.85	94.3	94.3	92.7	7.0	2.0	2.6	3.50000	860	72
2G315L/6a	132	990	240	1273	0.84	94.6	94.6	93.0	7.0	2.3	3.0	3.60000	1020	72
2G315L/6b	160	990	290	1543	0.84	94.8	94.8	93.2	7.0	2.3	2.7	4.20000	1120	72



Notes

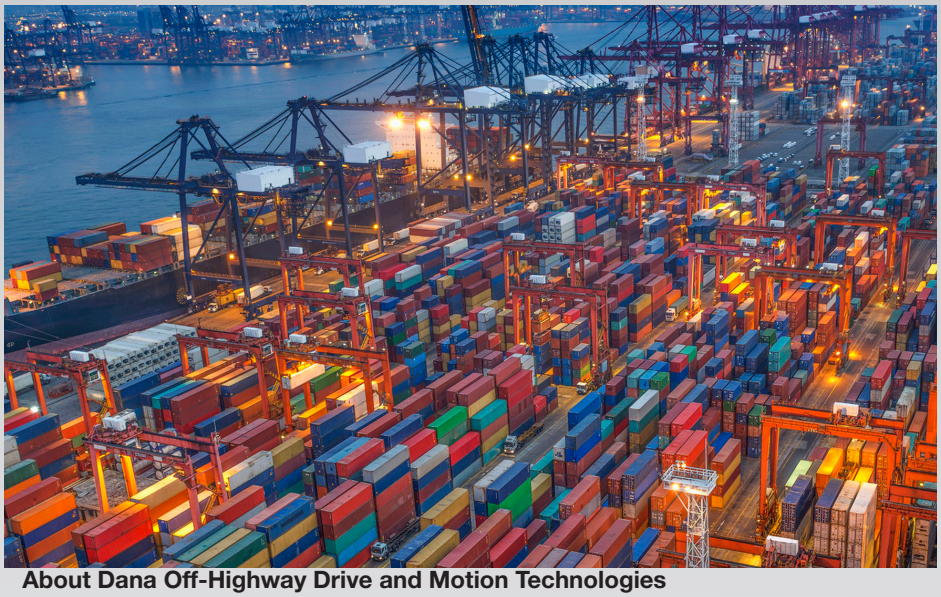


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