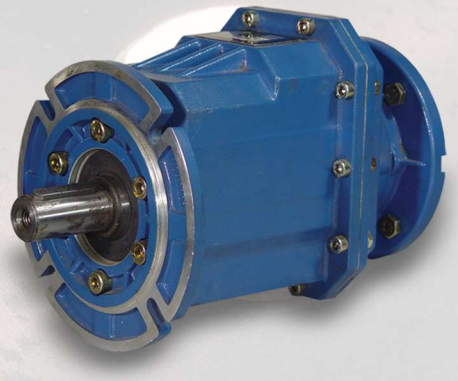
YUEMA

Helical Bevel Gear

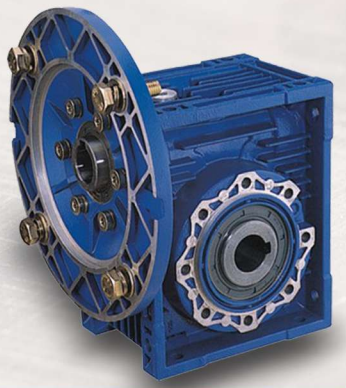
HELICAL - HYPOID GEAR UNITS

SHOW THE OTHER PRODUCTS

G3 Series mini Helical Geared Motors



CHC Series mini Helical Gear units



MRV Series Worm Gear units

UDLSeries Stepless Speed Variator

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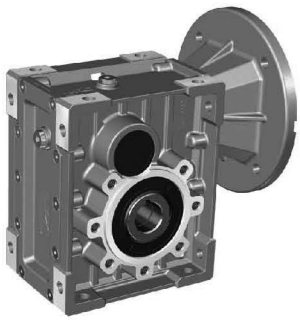
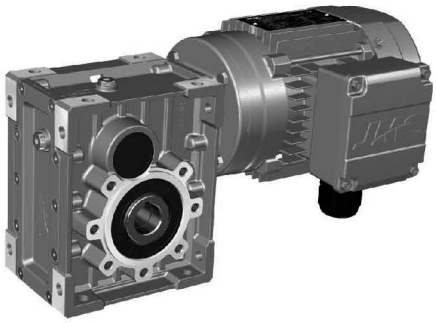
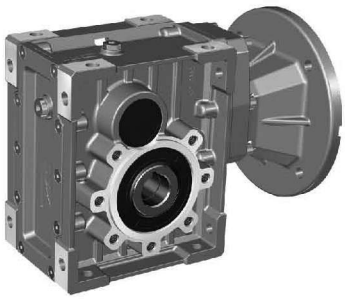
1. PRODUCT PICTURE



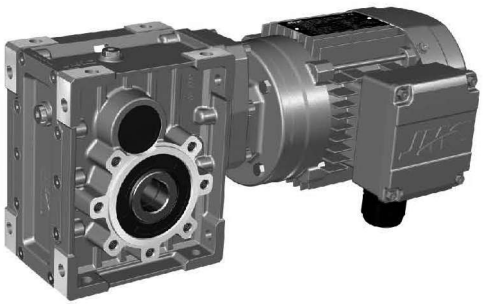
TKM27B~67B(IEC)



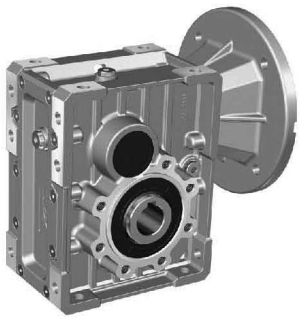
TKM27B~67B(MV)



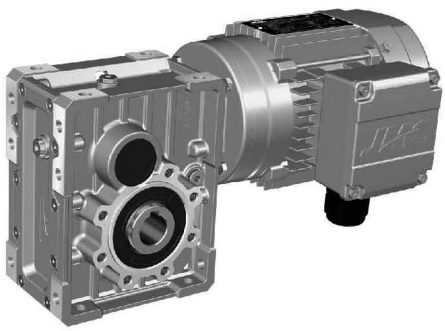
TKM27C~67C(IEC)



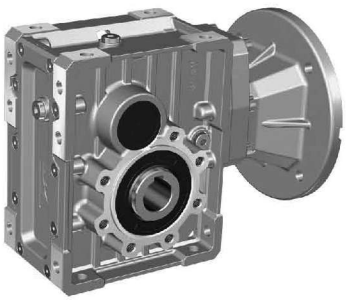
TKM27C~67C(MV)



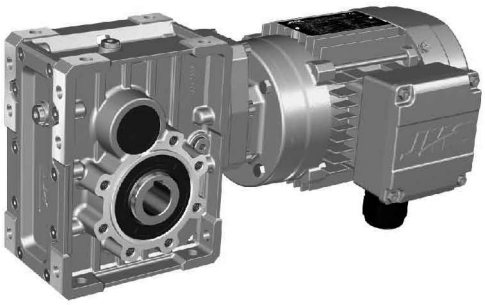
TKB37B~67B(IEC)



TKB37B~67B(MV)

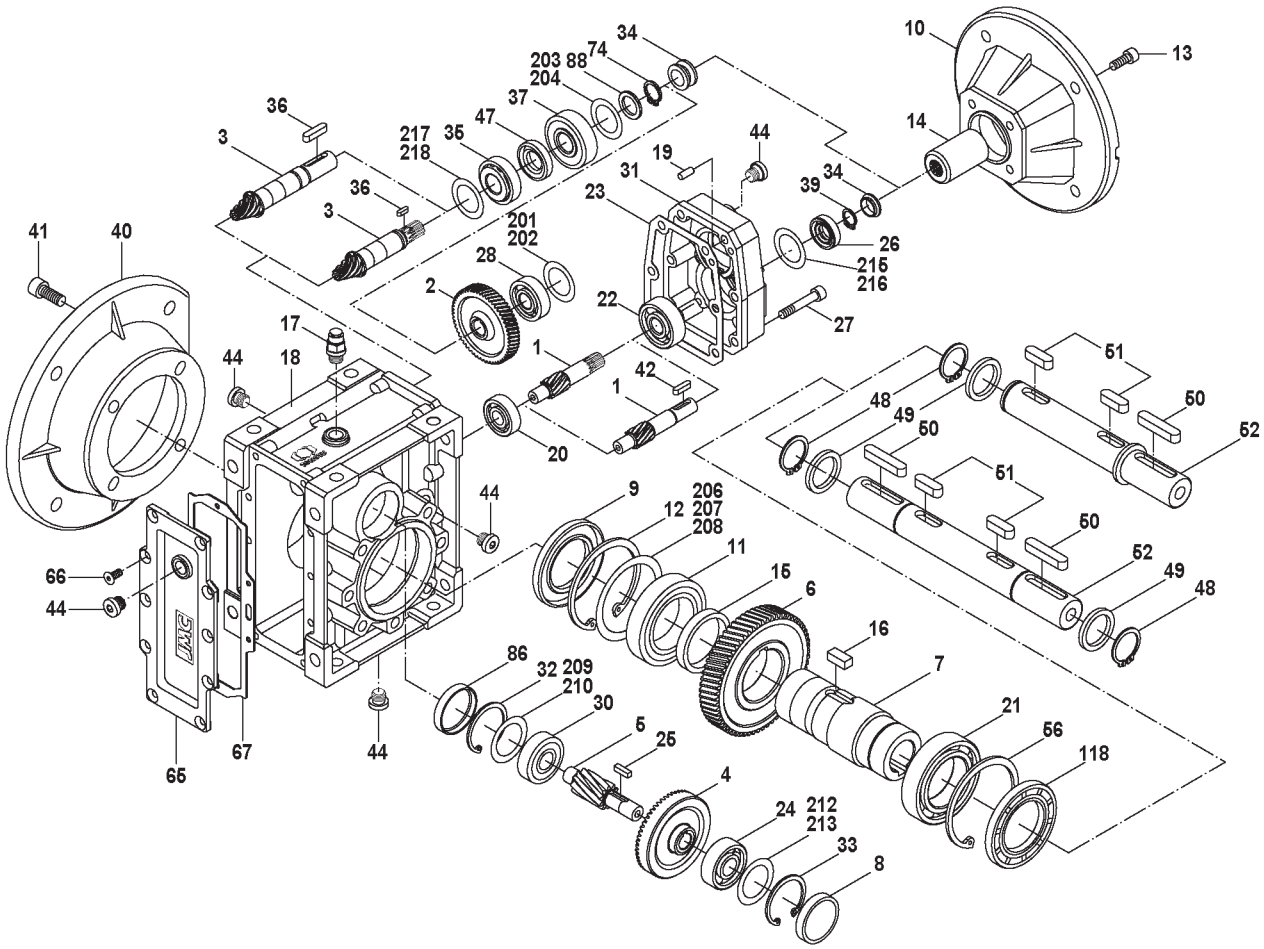


TKB37C~67C(IEC)



TKB37C~67C(MV)

1.1 Basic Structure



1. Pinion	25. Key	56. Hole-circlip
2. Gear	26. Oil seal	65. Gearcase cover
3. Pinion shaft	27. Inner hex screw	66. Hexagon sunk screw
4. Gear	28. Bearing	67. Rubber gasket
5. Pinion shaft	30. Bearing	74. Shaft-circlip
6. Gear	31. 3 stage gearcase	86. Closing cap
7. Hollow shaft	32. Hole-circlip	88. Washer
8. Closing cap	33. Hole-circlip	118. Oil seal
9. Oil Seal	34. Rubber boot	201. Shim ring
10. Input flange	35. Bearing	202. Shim ring
11. Bearing	36. Key	203. Shim ring
12. Hole-circlip	37. Bearing	204. Shim ring
13. Inner hex screw	39. Shaft-circlip	206. Shim ring
14. Input shaft	40. Output flage	207. Shim ring
15. Spacer	41. Inner hex screw	208. Shim ring
16. Key	42. Key	209. Shim ring
17. Breather valve	44. Oil plug	210. Shim ring
18. Gearcase	47. Oil seal	212. Shim ring
19. Stifte	48. Shaft-circlip	213. Shim ring
20. Bearing	49. Gasket	215. Shim ring
21. Bearing	50. Key	216. Shim ring
22. Bearing	51. Key	217. Shim ring
23. Housing gasket	52. Double output shaft	218. Shim ring
24. Bearing	53. Single output shaft	

2. SUMMARIZE

2.1 Products characteristics

TKM, TKB series helical-hypoid gear units is a new-generation of product developed by our company . with a compromise of advanced technology both at home and abroad, its main eatures are as follows:

1. Driven by hypois gear,has big ratios.
2. Large in output torque,high efficiency,energy saving and environmental protection.
3. Made of high-quqlity aluminum alloy, light inweight and nonrusting.
4. Smooth in running and low in noise, can work long time in dreadful conditions.
5. Good-looking in appearance, durable insenvice life and small in volume.
6. Suitable for all round insta||ation,wide application and easy of use.
7. The mounting dimension of TKM series are compatible with YNRV series worm gear unit(A part of YNRV050 dimensions are different from TKM27).
8. The mounting dimension of TKB series are compatible with W series worm gear unit.
9. Modulaw and multistructure can meet the demands of various conditions .

2.2 Main materials

1. Housing: die-cast aluminum alloy (frame size: 27 to 57); .
2. gear wheel: 20CrMnTiH1, carbonize & quencher heat treatment make the hardness of gear’s surface up to 56~62 HRC, retain carburization |ayer’s thickness between 0.3 and 0.5mm after precise grinding.

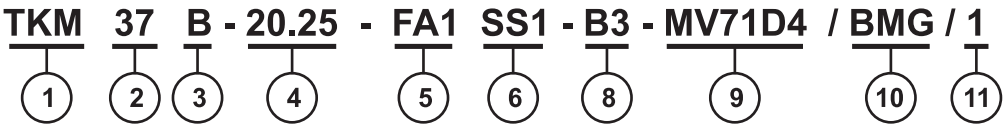
2.3 Surface painting

Aluminum alloy housing;

1. Shot blasting and special antiseptic treatment on the aluminum alloy surface.
2. After phosphating,spray the paint RAL9022 in silver white.

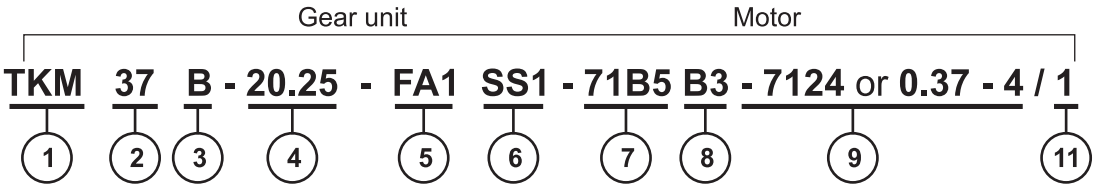
3. MODEL ILLUMINATE

3.1 Geared motor



No	Comments
1	Code for gear units series, **TKM**, **TKB**
2	Specification code of gear units 27, 37, 47, 57, 67
3	1). **B** : Means 2 stages 2). **C** : Means 3 stages
4	Speed ratio of reducer i
5	1). No mark means without output flange 2). **FA, FB, FC, FD, FE (1/2)** : output Flange and position
6	1). No mark means hole output 2). **SS (1/2)** : Single Output shaft and position 3). **DS** : Double output shaft
8	Installation position code
9	Motor type
10	1). no code means no brake 2). **BMG** : brake
11	Position diagram for motor terminal box default position 1 not to write out is ok

3.2 Gear unit or gear unit + IEC motor



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6	1). No mark means hole output 2). **SS (1/2)** : Single Output shaft and position 3). **DS** : Double output shaft
7	1). Input flange code (63B5, 71B5, 71B14.....) 2). **HS** : means shaft input
8	Installation position code
9	1). No mark means without motor 2). Model motor (poles of power)
11	Position diagram for motor terminal box default position 1 not to write out is ok

When ordering, you should show whether the reducers are equipped with motors, otherwise reducers aren't supplied with motors.

Examples: TKM57 - 200.66 - B3 - MV71D4
TKB67B - 59.22 - FA1 - 90B5

4. RELEVANT PARAMETER

4.1 Power P

$$P_1 = \frac{P_2}{\eta} \quad [kW]$$

$$P_{1n} \geqslant P_1 \bullet fs \ [kW]$$

P_1 Input power
P_2 Output power
P_{1n} Rated power driving motor
f_s Service factor
η Transmission efficiency

The efficiency of **TKM**, **TKB** gear units varies with the number of gear stages, between 92% (2 - stage), 90% (3-stage).

4.2 Rotation speed n

n_1 Gear units input speed

n_2 Gear units output speed

If driven by the external gearing,1400r/min or lower rotation speed is suggested so as to optimize the working conditions and prolong the service life. Higher input rotation speed is permitted, but in this situation, the rated torque **M2** will be reduced.

4.3 Transmission ratio i

$$i = \frac{n_1}{n_2}$$

Usually transmission ratio is decimal fraction with 2 radix point tagged in selection tables.

4.4 Torque M

$$M_2 = \frac{9550 \bullet P_1 \bullet \eta}{n_2} \ [Nm]$$

$$M_{2n} \geqslant M_2 \bullet f_s \ [Nm]$$

M_2 Output torque
M_{2n} Selected output torque
P_1 Input power
η Transmission efficiency
f_s Service factor

4.5 Service factor f_S

The effect of the driven machine on the gear unit is taken into account to a sufficient level of accuracy using the service factor f_S. The service factor is determined according to the daily operating time and the starting frequency **Z**.

Three load classifications are considered depending on the mass acceleration factor. You can read off the service factor applicable to your application in following Figure. The service factor selected using this diagram must be less than or equal to the service factor as given in the performance parameter table.

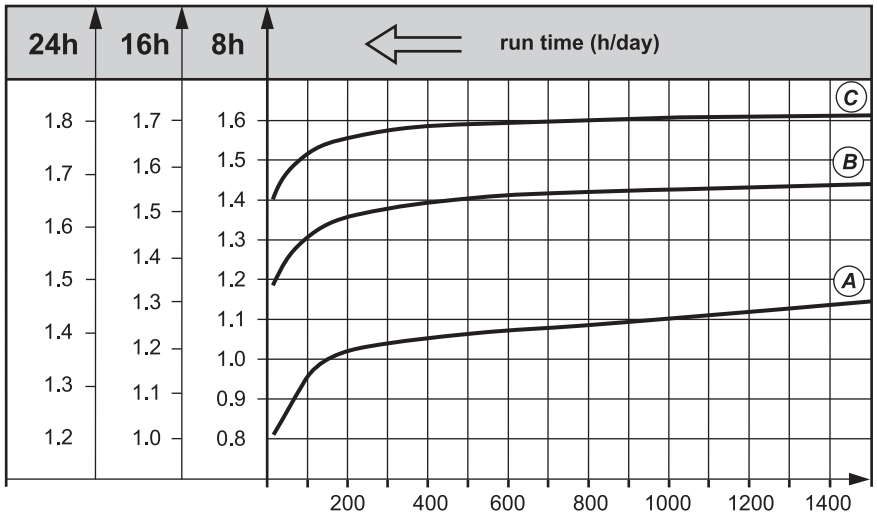


Fig : Service factor (f_S)

starting frequency **Z**: The cycles include all starting and braking procedures as well as change overs from low to high speed.

4.5.1 load classifications

(A) Uniform, permitted mass acceleration factor **fa**≤0.2

(B) Moderate shock load, permitted mass acceleration factor **fa**≤3

(C) Heavy shock load, permitted mass accelerationfactor **fa**≤10

oad classifications;

Screw feeders for light materials, fans, assembly lines, conveyor belts for light materials, small mixers, lifts, cleaning machines, fillers, control machines.

Winding devices, woodworking machine feeders, goods lifts, balancers,threading machines, medium mixers, conveyor belts for heavy materials, winches,
sliding doors, fertilizer scrapers, packing machines, concrete mixers, crane mechanisms, milling cutters, folding machines, gear pumps.

Mixers for heavy materials, shears, presses,centrifuges, rotating supports, winches and lifts for heavy materials, grinding lathes, stone mills, bucket elevators, drilling machines, hammer mills, campresses, folding machines, turntables, tumbling barrels, vibrators, shredders.

4.5.2 Mass acceleration factor

The mass acceleration factor is calculated as follows :

$$fa = \frac{Jc}{Jm}$$

fa Mass acceleration factor
Jc All external mass moments of inertia [kgm^2]
Jm Mass moment of inertia on the motor end [kgm^2]
if mass acceleration factors fa>10, please call
our Technical Service

To keep the service-life of gear units, the use factor f_S selected from the catalogue must be equal or slightly higher than the calculated use factor f_S.

Example :

Mass acceleration factors 2.5 (load classification Ⓑ), 14 hours/day operating time (read off at 16h/d) and 200 cycles/hour result in a service factor f_S = 1.48.
choose the service factor f_S = 1.48 according to the parameter sheet.

4.6 Overhung loads and axial forces

When determining the resulting radial loads, the type of transmission elements, mounted on the shaft end must be considered. Various transmission elements are corresponding with following transmission element factors f_z :

Transmission element	Transmission element factor Fz	Comments
Gears	1.15	< 17 teeth
Chain sprockets	1.25	< 20 teeth
	1.40	< 13 teeth
Narrow V-belt pulleys	1.75	Influence of the tensile force
Flat belt pulleys	2.50	Influence of the tensile force
Toothed belt pulleys	2.50	Influence of the tensile force

The overhung loads exerted on the motor or gear shaft is then calculated as follows:

$$Fr = \frac{M \cdot 2000 \cdot fz}{d_0} \text{ [N]}$$

F_r Resulting radial load [N]
M Torque on the shaft [Nm]
d_0 Mean diameter of the mounted transmission element in [mm]
fz Transmission element factor

The basis for determining the permitted radial loads is the computation of the rated service life **L10h** of the bearings (according to **ISO281**). For special operating conditions, the permitted radial loads can be determined with regard to the modified service life **Lna.**

The permitted radial loads given in the selection tables must be calculated using the following formula in the event of force application not in the center of the shaft end. The smaller of the two values **F_{xL}** (according to bearing service life)

F_{xL} according to bearing service life :

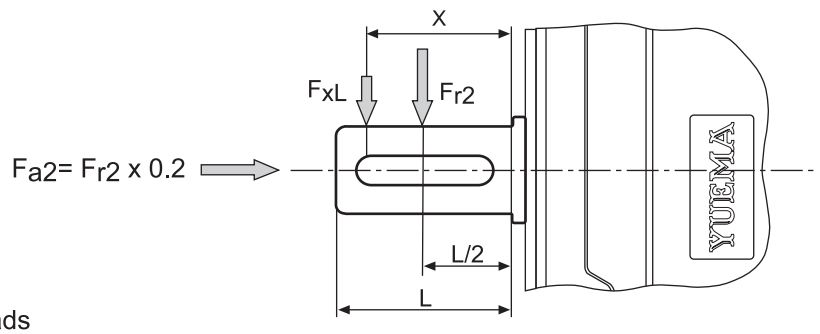
$$F_{xL} = F_{r(1,2)} \cdot \frac{a}{b + x} \text{ [N]}$$

Fr1, Fr2 = Permitted overhung load (x = L/2) for foot-mounted gear units according to the selection tables in [N]

x = Distance from the shaft shoulder to the force application points in [mm]

a, b = Gear units constant for overhung load conversion [mm]

Output shafts radial loads



F_{a2}= Output axial loads

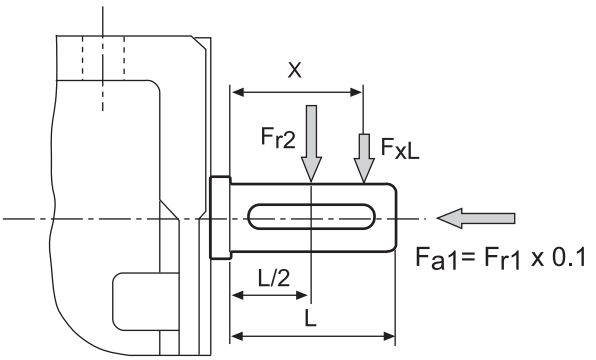
***TKM* Gear unit constantsfor overhung load conversion :**

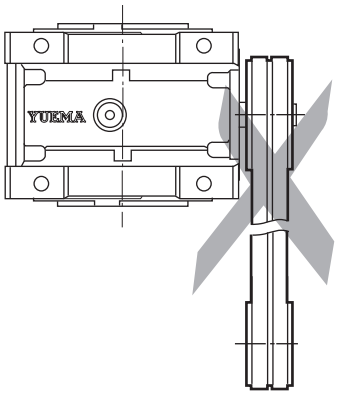
	TKM27B	TKM27C	TKM37B	TKM37C	TKM47B	TKM47C	TKM57B	TKM57C	TKM67B	TKM67C
a	104	104	118	118	131	131	159	159	174	174
b	78	78	93	93	101	101	119	119	134	134

***TKB* Gear unit constantsfor overhung load conversion :**

			TKB37B	TKB37C	TKB47B	TKB47C	TKB57B	TKB57C	TKB67B	TKB67C
a			128	128	135	135	148.5	148.5	171	171
b			98	98	105	105	118.5	118.5	134	134

INPUT SHAFTS RADIAL LOADS





Narrow V-belt pulleys
Flat belt pulleys
Toothed belt pulleya

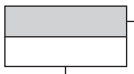
F_{a1}= Input axial loads

It is forbidden to use th input on the right chart (including 3 stage input).

***TKM* Gear unit constantsfor overhung load conversion :**

	TKM27B	TKM27C	TKM37B TKB37B	TKM37C TKB 37C	TKM47B TKB47B	TKM47C TKB 47C	TKM57B TKB57B	TKM57C TKB57C	TKM67B TKB67B	TKM67C TKB67C
a	51.5	56	58	56	73	70	81	70	101	87
b	40	44.5	43	44.5	53	55	61	55	76	67

4.7 Selection tables comments



Combination with the motor in the header row **is possible**

Combination with the motor in the header row **is not possible**

* Finite gear unit reduction ratio;

P_{1n} Rated power driving motor **[kW]**;

n_2 Output speed **[r/min]**;

M_{2n} Output torque **[Nm]**;

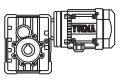
M_{2max} Max. permissible output torque **[Nm]**

F_{r2} Permissible overhung load output side **[N]**

i Gear unit nominal ratio;

i_a Gear unit actual ratio;

f_s Service factor;



Geared motor type

Gear unit type;

Motor type;

Page Dimension sheet page no;

5 SELECTION EXAMPLE

5.1 Gear motor

Example: Required power 0.25kW on driven machine, work for 8h/day, moderate shock load, start up frequency 100(1/h), n_2 = 35r/min, **B3** mounted, So :

Check the service factor table at page 7, choose f_S=1.3

$$i = \frac{n_1}{n_2} = \frac{1400}{35} = 40$$

$$P_{1n} \geqslant P_1 \bullet f_S = \frac{P2}{\eta} \bullet f_S = \frac{0.25}{0.94} \times 1.3 = 0.345 \text{ [kW]}$$

Choose type :

TKM27B - 40.09 - MV71D4 - B3

5.2 Gear units

Examples: Recluired torque 200Nm on driven machine, work 8h/day uniform load, start up frequency 400(1/h), **FA1** mounted, n_1 = 900r/min, n_2 = 2.5r/min, so the only selection is 3 stage after checked the table :

check the service factor table at page 7, choose : f_S=1.05

$$i = \frac{n_1}{n_2} = \frac{900}{6} = 150$$

$$M_{2N} \geq M_2 \bullet f_S = 200 \times 1.05 = 210 \text{ [Nm]}$$

$$P_{1n} \geqslant P_1 \bullet f_S = \frac{M_2 \bullet n_1}{9550 \bullet \eta \bullet i} \bullet f_S = \frac{210 \times 900}{9550 \times 0.92 \times 150} \times 1.05 = 0.151 \text{ [kW]}$$

Choose type:

TKM47C-151.20-FA1

6. GEAR UNIT SELECTION TABLES

6.1 Possible geometrical combinations

TKM27.. n_1=1400r/min **130Nm**

Gear units		i Nominal	i Actual	n_2 [r/min]	M_2max [Nm]	Fr_2 [N]	MV63	MV71	MV80	MV90
3 Stage										
TKM27C		300	291.79	4.8	130	4100				
TKM27C		250	244.29	5.7	130	4100				
TKM27C		200	200.44	7.0	130	4100				
TKM27C		150	146.67	9.5	130	4000				
TKM27C		125	120.34	11.6	100	3770				
TKM27C		100	101.04	13.9	80	3560				
TKM27C		75	74.62	18.8	130	3220				
TKM27C		60	62.36	22	100	3030				
TKM27C		50	52.36	27	110	2860				
2 Stage										
TKM27B		60	58.36	24	130	2960				
TKM27B		50	48.86	29	130	2790				
TKM27B		40	40.09	35	130	2610				
TKM27B		30	29.33	48	130	2350				
TKM27B		25	24.07	58	130	2200				
TKM27B		20	20.21	69	100	2080				
TKM27B		15	14.92	94	80	1880				
TKM27B		12.5	12.47	112	130	1770				
TKM27B		10	10.47	134	100	1670				
TKM27B		7.5	7.73	181	80	1510				

TKM37.., TKB37.. n_1=1400r/min **200Nm**

Gear units		i Nominal	i Actual	n_2 [r/min]	M_2max [Nm]	Fr_2 [N]	MV63	MV71	MV80	MV90
3 Stage										
TKM37C	TKB37C	300	302.50	4.6	200	4800				
TKM37C	TKB37C	250	243.57	5.7	200	4800				
TKM37C	TKB37C	200	196.43	7.1	180	4800				
TKM37C	TKB37C	150	151.56	9.2	200	4650				
TKM37C	TKB37C	125	122.22	11.5	180	4330				
TKM37C	TKB37C	100	101.27	13.8	150	4070				
TKM37C	TKB37C	75	73.33	19.1	110	3650				
TKM37C	TKB37C	60	63.33	22	180	3480				
TKM37C	TKB37C	50	52.48	77	150	3270				
2 Stage										
TKM37B	TKB37B	60	60.50	23	200	3430				
TKM37B	TKB37B	50	48.71	29	200	3190				
TKM37B	TKB37B	40	39.29	36	180	2970				
TKM37B	TKB37B	30	30.31	46	200	2720				
TKM37B	TKB37B	25	24.44	57	180	2530				
TKM37B	TKB37B	20	20.25	69	150	2380				
TKM37B	TKB37B	15	14.67	95	110	2130				
TKM37B	TKB37B	12.5	12.67	110	180	2030				
TKM37B	TKB37B	10	10.50	133	150	1910				
TKM37B	TKB37B	7.5	7.60	184	110	1710				

TKM47.., TKB47.. n_1=1400r/min **350Nm**

Gear units		i Nominal	i Actual	n_2 [r/min]	M_2max [Nm]	Fr_2 [N]	MV63	MV71	MV80	MV90	MV100	MV112
3 Stage												
TKM47C	TKB47C	300	291.21	4.7	350	6500						
TKM47C	TKB47C	250	240.89	5.8	350	6500						
TKM47C	TKB47C	200	200.66	7.0	300	6500						
TKM47C	TKB47C	150	151.20	9.3	350	6500						
TKM47C	TKB47C	125	125.95	11.1	300	5980						
TKM47C	TKB47C	100	99.22	14.1	240	5520						
TKM47C	TKB47C	75	75.45	18.6	200	5040						
TKM47C	TKB47C	60	62.43	22	300	4730						
TKM47C	TKB47C	50	49.18	28	240	4370						
2 Stage												
TKM47B	TKB47B	60	59.44	24	350	4660						
TKM47B	TKB47B	50	48.18	29	350	4340						
TKM47B	TKB47B	40	40.13	35	300	4080						
TKM47B	TKB47B	30	30.24	46	350	3720						
TKM47B	TKB47B	25	25.19	56	300	3500						
TKM47B	TKB47B	20	19.84	71	240	3230						
TKM47B	TKB47B	15	15.09	93	200	2950						
TKM47B	TKB47B	12.5	12.49	112	300	2770						
TKM47B	TKB47B	10	9.84	142	240	2550						
TKM47B	TKB47B	7.5	7.48	187	200	2330						

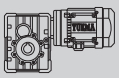
TKM57.., TKB57.. n_1=1400r/min **500Nm**

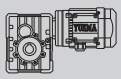
Gear units		i Nominal	i Actual	n_2 [r/min]	M_2max [Nm]	Fr_2 [N]	MV63	MV71	MV80	MV90	MV100	MV112
3 Stage												
TKM57C	TKB57C	300	295.18	4.7	500	8300						
TKM57C	TKB57C	250	240.89	5.8	500	8300						
TKM57C	TKB57C	200	200.66	7.0	480	8300						
TKM57C	TKB57C	150	151.20	9.3	500	8050						
TKM57C	TKB57C	125	125.95	11.1	480	7580						
TKM57C	TKB57C	100	99.22	14.1	380	7000						
TKM57C	TKB57C	75	75.45	18.6	300	6390						
TKM57C	TKB57C	60	62.43	22	480	6000						
TKM57C	TKB57C	50	49.18	28	380	5540						
2 Stage												
TKM57B	TKB57B	60	59.04	24	500	5890						
TKM57B	TKB57B	50	48.18	29	500	5500						
TKM57B	TKB57B	40	40.13	35	480	5170						
TKM57B	TKB57B	30	30.24	46	500	4710						
TKM57B	TKB57B	25	25.19	56	480	4430						
TKM57B	TKB57B	20	19.84	71	380	4090						
TKM57B	TKB57B	15	15.09	93	300	3730						
TKM57B	TKB57B	12.5	12.49	112	480	3510						
TKM57B	TKB57B	10	9.84	142	380	3240						
TKM57B	TKB57B	7.5	7.48	187	300	2950						

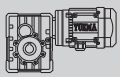
TKM67.., TKB67.. n_1=1400r/min **750Nm**

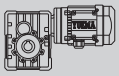
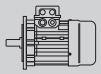
Gear units		i Nominal	i Actual	n_2 [r/min]	M_2max [Nm]	Fr_2 [N]	MV71	MV80	MV90	MV100	MV112	MV132
3 Stage												
TKM67C	TKB67C	300	296.10	4.7	750	10000						
TKM67C	TKB67C	250	244.29	5.7	750	10000						
TKM67C	TKB67C	200	206.29	6.8	750	9920						
TKM67C	TKB67C	150	153.33	9.1	750	8980						
TKM67C	TKB67C	125	129.48	10.8	750	8490						
TKM67C	TKB67C	100	103.64	13.5	650	7880						
TKM67C	TKB67C	75	75.55	18.5	520	7090						
TKM67C	TKB67C	60	64.18	22	750	6720						
TKM67C	TKB67C	50	51.37	27	650	6240						
2 Stage												
TKM67B	TKB67B	60	59.22	24	750	6540						
TKM67B	TKB67B	50	48.86	29	750	6130						
TKM67B	TKB67B	40	41.26	34	750	5800						
TKM67B	TKB67B	30	30.67	46	750	5250						
TKM67B	TKB67B	25	25.90	54	750	4960						
TKM67B	TKB67B	20	20.73	68	650	4610						
TKM67B	TKB67B	15	15.11	93	520	4150						
TKM67B	TKB67B	12.5	12.84	109	750	3930						
TKM67B	TKB67B	10	10.27	136	650	3650						
TKM67B	TKB67B	7.5	7.49	187	520	3280						

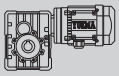
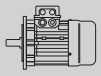
6.2 TKM.. / TKB.. / Performance parameter

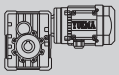
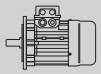
P_{1n} (kW)	N_2 (r/min)	M_{2n} (Nm)	i Nominal	i Actual	Fr_2 (N)	fs		Page	 	Page
0.12	4.8	215	**300**	291.79	4100	0.60	**TKM27C MV63S4**	33	**TKM27C 63B5 6314**	51
	5.7	180	**250**	244.29	4100	0.72				
	7.0	148	**200**	200.44	4100	0.88				
	9.5	108	**150**	146.67	4000	1.2				
	11.6	89	**125**	120.34	3770	1.5				
	13.9	74	**100**	101.04	3560	1.3				
	18.8	55	**75**	74.62	3220	1.5				
	22	46	**60**	62.36	3030	2.8				
	27	39	**50**	52.36	2860	2.6				
	24	44	**60**	58.36	2960	3.0	**TKM27B MV63S4**	32	**TKM27B 63B5 6314**	50
	29	37	**50**	48.86	2790	3.5				
	35	30	**40**	40.09	2610	4.3				
	48	22	**30**	29.33	2350	5.9				
	58	18.1	**25**	24.07	2200	7.2				
	69	15.2	**20**	20.21	2080	6.6				
	94	11.2	**15**	14.92	1880	7.1				
	112	9.4	**12.5**	12.47	1770	13.8				
	134	7.9	**10**	10.47	1670	12.7				
	181	5.8	**7.5**	7.73	1510	13.7				
	4.6	223	**300**	302.50	4800	0.90	**TKM37C MV63S4**	35	**TKM37C 63B5 6314**	53
	5.7	179	**250**	243.57	4800	1.1	**TKB37C MV63S4**	43	**TKB37C 63B5 6314**	61
	7.1	145	**200**	196.43	4800	1.2				
	9.2	112	**150**	151.56	4650	1.8				
	11.5	90	**125**	122.22	4330	2.0				
	13.8	75	**100**	101.27	4070	2.0				
	19.1	54	**75**	73.33	3650	2.0				
	22	47	**60**	63.33	3480	3.9				
	27	39	**50**	52.48	3270	3.9				
	23	46	**60**	60.50	3430	4.4	**TKM37B MV63S4**	34	**TKM37B 63B5 6314**	52
	29	37	**50**	48.71	3190	5.5	**TKB37B MV63S4**	42	**TKB37B 63B5 6314**	60
	36	30	**40**	39.29	2970	6.1				
	46	23	**30**	30.31	2720	8.8				
	4.7	219	**300**	297.21	6500	1.6	**TKM47C MV63S4**	37	**TKM47C 63B5 6314**	55
	5.8	177	**250**	240.89	6500	2.0	**TKB47C MV63S4**	45	**TKB47C 63B5 6314**	63
	7.0	148	**200**	200.66	6500	2.0				
	9.3	111	**150**	151.20	6500	3.1				
	11.1	93	**125**	125.95	5980	3.2				
	14.1	73	**100**	99.22	5520	3.3				
	18.6	56	**75**	75.45	5040	3.6				
	4.7	217	**300**	295.18	8300	2.3	**TKM57C MV63S4**	39	**TKM57C 63B5 6314**	57
	5.8	177	**250**	240.89	8300	2.8	**TKB57C MV63S4**	47	**TKB57C 63B5 6314**	65
	7.0	148	**200**	200.66	8300	3.2				
	9.3	111	**150**	151.20	8050	4.5				
0.18	9.6	161	**300**	291.79	4000	0.81	**TKM27C MV63S2**	33	**TKM27C 63B5 6312**	51
	11.5	135	**250**	244.29	3790	0.96				
	14.0	111	**200**	200.44	3550	1.2				
	19.1	81	**150**	146.67	3200	1.6				
	23	66	**125**	120.34	2990	2.0				
	28	56	**100**	101.04	2820	1.8				
	38	41	**75**	74.62	2550	1.9				
	45	34	**60**	62.36	2400	3.8				
	53	29	**50**	52.36	2270	3.5				
	11.6	133	**125**	120.34	3770	0.98	**TKM27C MV63M4**	33	**TKM27C 63B5 6324**	51
	13.9	112	**100**	101.04	3560	0.90				
	18.8	82	**75**	74.62	3220	0.97				
	22	69	**60**	62.36	3030	1.9				
	27	58	**50**	52.36	2860	1.7				

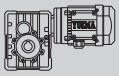
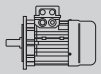
P_{1n} (kW)	N_2 (r/min)	M_{2n} (Nm)	i Nominal	i Actual	Fr_2 (N)	fs		Page			Page
0.18	24	66	**60**	58.36	2960	2.0	**TKM27B MV63M4**	32	**TKM27B 63B5**	**6324**	50
	29	55	**50**	48.86	2790	2.4					
	35	45	**40**	40.09	2610	2.9					
	48	33	**30**	29.33	2350	3.9					
	58	27	**25**	24.07	2200	4.8					
	69	23	**20**	20.21	2080	4.4					
	94	16.9	**15**	14.92	1880	4.7					
	14.4	107	**60**	62.36	3510	1.2	**TKM27C MV63L6**	33	**TKM27C 71B5/B14**	**7116**	51
	17.2	90	**50**	52.36	3310	1.1					
	15.4	103	**60**	58.36	3430	1.3	**TKM27B MV63L6**	32	**TKM27B 71B5/B14**	**7116**	50
	18.4	86	**50**	48.86	3240	1.5					
	22	70	**40**	40.09	3030	1.8					
	31	52	**30**	29.33	2730	2.5					
	37	42	**25**	24.07	2550	3.1					
	45	36	**20**	20.21	2410	2.8					
	60	26	**15**	14.92	2180	3.1					
	72	22	**12.5**	12.47	2050	5.9					
	86	18.4	**10**	10.47	1930	5.4					
	116	13.6	**7.5**	7.73	1750	5.9					
	9.3	167	**300**	302.50	4650	1.2	**TKM37C MV63S2**	35	**TKM37C 63B5**	**6312**	53
	11.5	135	**250**	243.57	4330	1.5	**TKB37C MV63S2**	43	**TKB37C 63B5**	**6312**	61
	14.3	109	**200**	196.43	4030	1.7					
	18.5	84	**150**	151.56	3690	2.4					
	23	68	**125**	122.22	3440	2.7					
	28	56	**100**	101.27	3230	2.7					
	38	41	**75**	73.33	2900	2.7					
	44	35	**60**	63.33	2760	5.1					
	53	29	**50**	52.48	2590	5.2					
	7.1	217	**200**	196.43	4800	0.83	**TKM37C MV63M4**	35	**TKM37C 63B5**	**6324**	53
	9.2	167	**150**	151.56	4650	1.2	**TKB37C MV63M4**	43	**TKB37C 63B5**	**6324**	61
	11.5	135	**125**	122.22	4330	1.3					
	13.8	112	**100**	101.27	4070	1.3					
	19.1	81	**75**	73.33	3650	1.4					
	22	70	**60**	63.33	3480	2.6					
	27	58	**50**	52.48	3270	2.6					
	23	68	**60**	60.50	3430	2.9	**TKM37B MV63M4**	34	**TKM37B 63B5**	**6324**	52
	29	55	**50**	48.71	3190	3.6	**TKB37B MV63M4**	42	**TKB37B 63B5**	**6324**	60
	36	44	**40**	39.29	2970	4.1					
	7.4	210	**125**	122.22	4800	0.86	**TKM37C MV63L6**	35	**TKM37C 71B5/B14**	**7116**	53
	8.9	174	**100**	101.27	4720	0.86	**TKB37C MV63L6**	43	**TKB37C 71B5/B14**	**7116**	61
	12.3	126	**75**	73.33	4230	0.87					
	14.2	109	**60**	63.33	4030	1.7					
	17.1	90	**50**	52.48	3790	1.7					
	14.9	106	**60**	60.50	3970	1.9	**TKM37B MV63L6**	34	**TKM37B 71B5/B14**	**7116**	52
	18.5	86	**50**	48.71	3690	2.3	**TKB37B MV63L6**	42	**TKB37B 71B5/B14**	**7116**	60
	23	69	**40**	39.29	3440	2.6					
	30	53	**30**	30.31	3150	3.8					
	37	43	**25**	24.44	2930	4.2					
	44	36	**20**	20.25	2760	4.2					
	61	26	**15**	14.67	2470	4.3					
	9.4	164	**300**	297.21	6320	2.1	**TKM47C MV63S2**	37	**TKM47C 63B5**	**6312**	55
	11.6	133	**250**	240.89	5890	2.6	**TKB47C MV63S2**	45	**TKB47C 63B5**	**6312**	63
	14.0	111	**200**	200.66	5540	2.7					
	18.5	84	**150**	151.20	5040	4.2					
	4.7	328	**300**	297.21	6500	1.1	**TKM47C MV63M4**	37	**TKM47C 63B5**	**6324**	55
	5.8	266	**250**	240.89	6500	1.3	**TKB47C MV63M4**	45	**TKB47C 63B5**	**6324**	63
	7.0	222	**200**	200.66	6500	1.4					
	9.3	167	**150**	151.20	6500	2.1					
	11.1	139	**125**	125.95	5980	2.2					
	14.1	110	**100**	99.22	5520	2.2					
	18.6	83	**75**	75.45	5040	2.4					

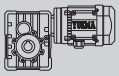
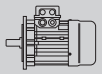
P_{1n} (kW)	N_2 (r/min)	M_{2n} (Nm)	i Nominal	i Actual	Fr_2 (N)	fs		Page	 	Page
0.18	3.7	414	**250**	240.89	6500	0.85	**TKM47C MV63L6**	37	**TKM47C 71B5/B14 7116**	55
	4.5	345	**200**	200.66	6500	0.87	**TKB47C MV63L6**	45	**TKB47C 71B5/B14 7116**	63
	6.0	260	**150**	151.20	6500	1.3				
	7.1	217	**125**	125.95	6500	1.4				
	9.1	171	**100**	99.22	6400	1.4				
	11.9	130	**75**	75.45	5840	1.5				
	14.4	107	**60**	62.43	5480	2.8				
	18.3	85	**50**	49.18	5060	2.8				
	15.1	104	**60**	59.44	5390	3.4	**TKM47B MV63L6**	36	**TKM47B 71B5/B14 7116**	54
	18.7	85	**50**	48.18	5030	4.1	**TKB47B MV63L6**	44	**TKB47B 71B5/B14 7116**	62
	22	71	**40**	40.13	4730	4.3				
	9.5	163	**300**	295.18	7990	3.1	**TKM57C MV63S2**	39	**TKM57C 63B5 6312**	57
	11.6	133	**250**	240.89	7470	3.8	**TKB57C MV63S2**	47	**TKB57C 63B5 6312**	65
	14.0	111	**200**	200.66	7030	4.3				
	4.7	326	**300**	295.18	8300	1.5	**TKM57C MV63M4**	39	**TKM57C 63B5 6324**	57
	5.8	266	**250**	240.89	8300	1.9	**TKB57C MV63M4**	47	**TKB57C 63B5 6324**	65
	7.0	222	**200**	200.66	8300	2.2				
	9.3	167	**150**	151.20	8050	3.0				
	11.1	139	**125**	125.95	7580	3.4				
	14.1	110	**100**	99.22	7000	3.5				
	18.6	83	**75**	75.45	6390	3.6				
	3.0	507	**300**	295.18	8300	0.99	**TKM57C MV63L6**	39	**TKM57C 71B5/B14 7116**	57
	3.7	414	**250**	240.89	8300	1.2	**TKB57C MV63L6**	47	**TKB57C 71B5/B14 7116**	65
	4.5	345	**200**	200.66	8300	1.4				
	6.0	260	**150**	151.20	8300	1.9				
	7.1	217	**125**	125.95	8300	2.2				
	9.1	171	**100**	99.22	8110	2.2				
	11.9	130	**75**	75.45	7400	2.3				
	14.4	107	**60**	62.43	6950	4.5				
	18.3	85	**50**	49.18	6420	4.5				
	3.0	509	**300**	296.10	10000	1.5	**TKM67C MV63L6**	41	**TKM67C 71B5/B14 7116**	59
	3.7	420	**250**	244.29	10000	1.8	**TKB67C MV63L6**	49	**TKB67C 71B5/B14 7116**	67
	4.4	355	**200**	206.29	10000	2.1				
	5.9	264	**150**	153.33	10000	2.8				
	7.0	223	**125**	129.48	9840	3.4				
	8.7	178	**100**	103.64	9130	3.6				
	11.9	130	**75**	75.55	8220	4.0				
0.25	19.1	113	**150**	146.67	3200	1.2	**TKM27C MV63M2**	33	**TKM27C 63B5 6322**	51
	23	92	**125**	120.34	2990	1.4				
	28	78	**100**	101.04	2820	1.3				
	38	57	**75**	74.62	2550	1.4				
	45	48	**60**	62.36	2400	2.7				
	53	40	**50**	52.36	2270	2.5				
	22	96	**60**	62.36	3030	1.4	**TKM27C MV63L4**	33	**TKM27C 71B5/B14 7114**	51
	27	80	**50**	52.36	2860	1.2				
	24	92	**60**	58.36	2960	1.4	**TKM27B MV63L4**	32	**TKM27B 71B5/B14 7114**	50
	29	77	**50**	48.86	2790	1.7				
	35	63	**40**	40.09	2610	2.1				
	48	46	**30**	29.33	2350	2.8				
	58	38	**25**	24.07	2200	3.4				
	69	32	**20**	20.21	2080	3.2				
	94	23	**15**	14.92	1880	3.4				
	15.4	142	**60**	58.36	3430	0.91	**TKM27B MV71D6**	32	**TKM27B 71B5/B14 7126**	50
	18.4	119	**50**	48.86	3240	1.1				
	22	98	**40**	40.09	3030	1.3				
	31	72	**30**	29.33	2730	1.8				
	37	59	**25**	24.07	2550	2.2				
	45	49	**20**	20.21	2410	2.0				
	60	36	**15**	14.92	2180	2.2				
	72	30	**12.5**	12.47	2050	4.3				
	86	26	**10**	10.47	1930	3.9				
	116	18.9	**7.5**	7.73	1750	4.2				

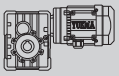
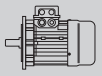
P_{1n} (kW)	N_2 (r/min)	M_{2n} (Nm)	i Nominal	i Actual	Fr_2 (N)	fs		Page	 	Page
0.25	9.3	232	**300**	302.50	4650	0.86	**TKM37C MV63M2**	35	**TKM37C 63B5 6322**	53
	11.5	187	**250**	243.57	4330	1.1	**TKB37C MV63M2**	43	**TKB37C 63B5 6322**	61
	14.3	151	**200**	196.43	4030	1.2				
	18.5	116	**150**	151.56	3690	1.7				
	23	94	**125**	122.22	3440	1.9				
	28	78	**100**	101.27	3230	1.9				
	38	56	**75**	73.33	2900	2.0				
	44	49	**60**	63.33	2760	3.7				
	53	40	**50**	52.48	2590	3.7				
	9.2	233	**150**	151.56	4650	0.86	**TKM37C MV63L4**	35	**TKM37C 71B5/B14 7114**	53
	11.5	188	**125**	122.22	4330	0.96	**TKB37C MV63L4**	43	**TKB37C 71B5/B14 7114**	61
	13.8	155	**100**	101.27	4070	0.97				
	19.1	113	**75**	73.33	3650	0.98				
	22	97	**60**	63.33	3480	1.9				
	27	81	**50**	52.48	3270	1.9				
	23	95	**60**	60.50	3430	2.1	**TKM37B MV63L4**	34	**TKM37B 71B5/B14 7114**	52
	29	76	**50**	48.71	3190	2.6	**TKB37B MV63L4**	42	**TKB37B 71B5/B14 7114**	60
	36	62	**40**	39.29	2970	2.9				
	46	48	**30**	30.31	2720	4.2				
	14.2	151	**60**	63.33	4030	1.2	**TKM37C MV71D6**	35	**TKM37C 71B5/B14 7126**	53
	17.1	125	**50**	52.48	3790	1.2	**TKB37C MV71D6**	43	**TKB37C 71B5/B14 7126**	61
	14.9	148	**60**	60.50	3970	1.4	**TKM37B MV71D6**	34	**TKM37B 71B5/B14 7126**	52
	18.5	119	**50**	48.71	3690	1.7	**TKB37B MV71D6**	42	**TKB37B 71B5/B14 7126**	60
	23	96	**40**	39.29	3440	1.9				
	30	74	**30**	30.31	3150	2.7				
	37	60	**25**	24.44	2930	3.0				
	44	49	**20**	20.25	2760	3.0				
	61	36	**15**	14.67	2470	3.1				
	9.4	228	**300**	297.21	6320	1.5	**TKM47C MV63M2**	37	**TKM47C 63B5 6322**	55
	11.6	185	**250**	240.89	5890	1.9	**TKB47C MV63M2**	45	**TKB47C 63B5 6322**	63
	14.0	154	**200**	200.66	5540	1.9				
	18.5	116	**150**	151.20	5040	3.0				
	22	97	**125**	125.95	4750	3.1				
	28	76	**100**	99.22	4380	3.2				
	37	58	**75**	75.45	4000	3.5				
	5.8	370	**250**	240.89	6500	0.95	**TKM47C MV63L4**	37	**TKM47C 71B5/B14 7114**	55
	7.0	308	**200**	200.66	6500	0.97	**TKB47C MV63L4**	45	**TKB47C 71B5/B14 7114**	63
	9.3	232	**150**	151.20	6500	1.5				
	11.1	193	**125**	125.95	5980	1.6				
	14.1	152	**100**	99.22	5520	1.6				
	18.6	116	**75**	75.45	5040	1.7				
	22	96	**60**	62.43	4730	3.1				
	28	75	**50**	49.18	4370	3.2				
	24	93	**60**	59.44	4660	3.8	**TKM47B MV63L4**	36	**TKM47B 71B5/B14 7114**	54
	29	76	**50**	48.18	4340	4.6	**TKB47B MV63L4**	44	**TKB47B 71B5/B14 7114**	62
	6.0	361	**150**	151.20	6500	0.97	**TKM47C MV71D6**	37	**TKM47C 71B5/B14 7126**	55
	7.1	301	**125**	125.95	6500	1.00	**TKB47C MV71D6**	45	**TKB47C 71B5/B14 7126**	63
	9.1	237	**100**	99.22	6400	1.0				
	11.9	180	**75**	75.45	5840	1.1				
	14.4	149	**60**	62.43	5480	2.0				
	18.3	117	**50**	49.18	5060	2.0				
	15.1	145	**60**	59.44	5390	2.4	**TKM47B MV71D6**	36	**TKM47B 71B5/B14 7126**	54
	18.7	118	**50**	48.18	5030	3.0	**TKB47B MV71D6**	44	**TKB47B 71B5/B14 7126**	62
	22	98	**40**	40.13	4730	3.1				
	9.5	227	**300**	295.18	7990	2.2	**TKM57C MV63M2**	39	**TKM47C 63B5 6322**	57
	11.6	185	**250**	240.89	7470	2.7	**TKB57C MV63M2**	47	**TKB47C 63B5 6322**	65
	14.0	154	**200**	200.66	7030	3.1				
	18.5	116	**150**	151.20	6390	4.3				
	4.7	453	**300**	295.18	8300	1.1	**TKM57C MV63L4**	39	**TKM57C 71B5/B14 7114**	57
	5.8	370	**250**	240.89	8300	1.4	**TKB57C MV63L4**	47	**TKB57C 71B5/B14 7114**	65

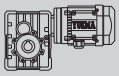
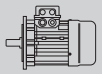
P_{1n} (kW)	N_2 (r/min)	M_{2n} (Nm)	i Nominal	i Actual	Fr_2 (N)	fs		Page	 	Page
0.25	7.0	308	**200**	200.66	8300	1.6	**TKM57C MV63L4**	39	**TKM57C 71B5/B14 7114**	57
	9.3	232	**150**	151.20	8050	2.2	**TKB57C MV63L4**	47	**TKB57C 71B5/B14 7114**	65
	11.1	193	**125**	125.95	7580	2.5				
	14.1	152	**100**	99.22	7000	2.5				
	18.6	116	**75**	75.45	6390	2.6				
	22	96	**60**	62.43	6000	5.0				
	28	75	**50**	49.18	5540	5.0				
	3.0	705	**300**	295.18	8300	0.71	**TKM57C MV71D6**	39	**TKM57C 71B5/B14 7126**	57
	3.7	575	**250**	240.89	8300	0.87	**TKB57C MV71D6**	47	**TKB57C 71B5/B14 7126**	65
	4.5	479	**200**	200.66	8300	1.0				
	6.0	361	**150**	151.20	8300	1.4				
	7.1	301	**125**	125.95	8300	1.6				
	9.1	237	**100**	99.22	8110	1.6				
	11.9	180	**75**	75.45	7400	1.7				
	14.4	149	**60**	62.43	6950	3.2				
	18.3	117	**50**	49.18	6420	3.2				
	15.2	144	**60**	59.04	6820	3.5	**TKM57B MV71D6**	38	**TKM57B 71B5/B14 7126**	56
	18.7	118	**50**	48.18	6370	4.3	**TKB57B MV71D6**	46	**TKB57B 71B5B14 7126**	64
	4.7	454	**300**	296.10	10000	1.7	**TKM67C MV63L4**	41	**TKM67C 71B5/B14 7114**	59
	5.7	375	**250**	244.29	10000	2.0	**TKB67C MV63L4**	49	**TKB67C 71B5/B14 7114**	67
	6.8	317	**200**	206.29	9920	2.4				
	9.1	235	**150**	153.33	8980	3.2				
	10.8	199	**125**	129.48	8490	3.8				
	13.5	159	**100**	103.64	7880	4.1				
	3.0	707	**300**	296.10	10000	1.1	**TKM67C MV71D6**	41	**TKM67C 71B5/B14 7126**	59
	3.7	583	**250**	244.29	10000	1.3	**TKB67C MV71D6**	49	**TKB67C 71B5/B14 7126**	67
	4.4	493	**200**	206.29	10000	1.5				
	5.9	366	**150**	153.33	10000	2.0				
	7.0	309	**125**	129.48	9840	2.4				
	8.7	247	**100**	103.64	9130	2.6				
	11.9	180	**75**	75.55	8220	2.9				
0.37	23	137	**125**	120.34	2990	0.95	**TKM27C MV63L2**	33	**TKM27C 71B5/B14 7112**	51
	28	115	**100**	101.04	2820	0.87				
	38	85	**75**	74.62	2550	0.94				
	45	71	**60**	62.36	2400	1.8				
	53	59	**50**	52.36	2270	1.7				
	24	136	**60**	58.36	2960	0.96	**TKM27B MV71D4**	32	**TKM27B 71B5/B14 7124**	50
	29	113	**50**	48.86	2790	1.1				
	35	93	**40**	40.09	2610	1.4				
	48	68	**30**	29.33	2350	1.9				
	58	56	**25**	24.07	2200	2.3				
	69	47	**20**	20.21	2080	2.1				
	94	35	**15**	14.92	1880	2.3				
	112	29	**12.5**	12.47	1770	4.5				
	134	24	**10**	10.47	1670	4.1				
	181	17.9	**7.5**	7.73	1510	4.5				
	22	145	**40**	40.09	3030	0.90	**TKM27B MV80K6**	32	**TKM27B 80B5/B14 8016**	50
	31	106	**30**	29.33	2730	1.2				
	37	87	**25**	24.07	2550	1.5				
	45	73	**20**	20.21	2410	1.4				
	60	54	**15**	14.92	2180	1.5				
	72	45	**12.5**	12.47	2050	2.9				
	86	38	**10**	10.47	1930	2.6				
	116	28	**7.5**	7.73	1750	2.9				
	18.5	172	**150**	151.56	3690	1.2	**TKM37C MV63L2**	35	**TKM37C 71B5/B14 7112**	53
	23	139	**125**	122.22	3440	1.3	**TKB37C MV63L2**	43	**TKB37C 71B5/B14 7112**	61
	28	115	**100**	101.27	3230	1.3				
	38	83	**75**	73.33	2900	1.3				
	44	72	**60**	63.33	2760	2.5				
	53	60	**50**	52.48	2590	2.5				

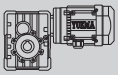
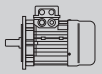
P_{1n} (kW)	N_2 (r/min)	M_{2n} (Nm)	i Nominal	i Actual	Fr_2 (N)	fs		Page	 	Page
0.37	22	144	**60**	63.33	3480	1.3	**TKM37C MV71D4**	35	TKM37C 71B5/B14 7124	53
	27	119	**50**	52.48	3270	1.3	**TKB37C MV71D4**	43	TKB37C 71B5/B14 7124	61
	23	140	**60**	60.50	3430	1.4	**TKM37B MV71D4**	34	TKM37B 71B5/B14 7124	52
	29	113	**50**	48.71	3190	1.8	**TKB37B MV71D4**	42	TKB37B 71B5/B14 7124	60
	36	91	**40**	39.29	2970	2.0				
	46	70	**30**	30.31	2720	2.8				
	57	57	**25**	24.44	2530	3.2				
	69	47	**20**	20.25	2380	3.2				
	95	34	**15**	14.67	2130	3.2				
	14.9	219	**60**	60.50	3970	0.92	**TKM37B MV80K6**	34	TKM37B 80B5/B14 8016	52
	18.5	176	**50**	48.71	3690	1.1	**TKB37B MV80K6**	42	TKB37B 80B5/B14 8016	60
	23	142	**40**	39.29	3440	1.3				
	30	109	**30**	30.31	3150	1.8				
	37	88	**25**	24.44	2930	2.0				
	44	73	**20**	20.25	2760	2.1				
	61	53	**15**	14.67	2470	2.1				
	71	46	**12.5**	12.67	2360	3.9				
	86	38	**10**	10.50	2210	4.0				
	118	27	**7.5**	7.60	1990	4.0				
	9.4	338	**300**	297.21	6320	1.0	**TKM47C MV63L2**	37	**TKM47C 71B5/B14 7112**	55
	11.6	274	**250**	240.89	5890	1.3	**TKB47C MV63L2**	45	**TKB47C 71B5/B14 7112**	63
	14.0	228	**200**	200.66	5540	1.3				
	18.5	172	**150**	151.20	5040	2.0				
	22	143	**125**	125.95	4750	2.1				
	28	113	**100**	99.22	4380	2.1				
	37	86	**75**	75.45	4000	2.3				
	45	71	**60**	62.43	3750	4.2				
	57	56	**50**	49.18	3470	4.3				
	9.3	343	**150**	151.20	6500	1.0	**TKM47C MV71D4**	37	**TKM47C 71B5/B14 7124**	55
	11.1	286	**125**	125.95	5980	1.0	**TKB47C MV71D4**	45	**TKB47C 71B5/B14 7124**	63
	14.1	225	**100**	99.22	5520	1.1				
	18.6	171	**75**	75.45	5040	1.2				
	22	142	**60**	62.43	4730	2.1				
	28	112	**50**	49.18	4370	2.1				
	24	138	**60**	59.44	4660	2.5	**TKM47B MV71D4**	36	**TKM47B 71B5/B14 7124**	54
	29	112	**50**	48.18	4340	3.1	**TKB47B MV71D4**	44	**TKB47B 71B5/B14 7124**	62
	35	93	**40**	40.13	4080	3.2				
	14.4	221	**60**	62.43	5480	1.4	**TKM47C MV80K6**	37	**TKM47C 80B5/B14 8016**	55
	18.3	174	**50**	49.18	5060	1.4	**TKB47C MV80K6**	45	**TKB47C 80B5/B14 8016**	63
	15.1	215	**60**	59.44	5390	1.6	**TKM47B MV80K6**	36	**TKM47B 80B5/B14 8016**	54
	18.7	174	**50**	48.18	5030	2.0	**TKB47B MV80K6**	44	**TKB47B 80B5/B14 8016**	62
	22	145	**40**	40.13	4730	2.1				
	30	109	**30**	30.24	4310	3.2				
	36	91	**25**	25.19	4050	3.3				
	45	72	**20**	19.84	3740	3.3				
	60	55	**15**	15.09	3410	3.7				
	9.5	335	**300**	295.18	7990	1.5	**TKM57C MV63L2**	39	**TKM57C 71B5/B14 7112**	57
	11.6	274	**250**	240.89	7470	1.8	**TKB57C MV63L2**	47	**TKB57C 71B5/B14 7112**	65
	14.0	228	**200**	200.66	7030	2.1				
	18.5	172	**150**	151.20	6390	2.9				
	22	143	**125**	125.95	6010	3.4				
	28	113	**100**	99.22	5550	3.4				
	37	86	**75**	75.45	5070	3.5				
	4.7	671	**300**	295.18	8300	0.75	**TKM57C MV71D4**	39	**TKM57C 71B5/B14 7124**	57
	5.8	547	**250**	240.89	8300	0.91	**TKB57C MV71D4**	47	**TKB57C 71B5/B14 7124**	65
	7.0	456	**200**	200.66	8300	1.1				
	9.3	343	**150**	151.20	8050	1.5				
	11.1	286	**125**	125.95	7580	1.7				
	14.1	225	**100**	99.22	7000	1.7				
	18.6	171	**75**	75.45	6390	1.8				
	22	142	**60**	62.43	6000	3.4				
	28	112	**50**	49.18	5540	3.4				

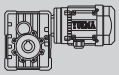
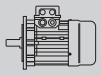
P_{1n} (kW)	N_2 (r/min)	M_{2n} (Nm)	i Nominal	i Actual	Fr_2 (N)	fs		Page	 	Page
0.37	24	137	**60**	59.04	5890	3.6	**TKM57B MV71D4**	38	**TKM57B 71B5/B14 7124**	56
	29	112	**50**	48.18	5500	4.5	**TKB57B MV71D4**	46	**TKB57B 71B5/B14 7124**	64
	6.0	534	**150**	151.20	8300	0.94	**TKM57C MV80K6**	39	**TKM57C 80B5/B14 8016**	57
	7.1	445	**125**	125.95	8300	1.1	**TKB57C MV80K6**	47	**TKB57C 80B5/B14 8016**	65
	9.1	351	**100**	99.22	8110	1.1				
	11.9	267	**75**	75.45	7400	1.1				
	14.4	221	**60**	62.43	6950	2.2				
	18.3	174	**50**	49.18	6420	2.2				
	15.2	213	**60**	59.04	6820	2.3	**TKM57B MV80K6**	38	**TKM57B 80B5/B14 8016**	56
	18.7	174	**50**	48.18	6370	2.9	**TKB57B MV80K6**	46	**TKB57B 80B5/B14 8016**	64
	22	145	**40**	40.13	6000	3.3				
	9.5	336	**300**	296.10	8880	2.2	**TKM67C MV63L2**	41	**TKM67C 71B5/14 7112**	59
	11.5	277	**250**	244.29	8330	2.7	**TKB67C MV63L2**	49	**TKB67C 71B5/14 7112**	67
	13.6	234	**200**	206.29	7870	3.2				
	18.3	174	**150**	153.33	7130	4.3				
	4.7	673	**300**	296.10	10000	1.1	**TKM67C MV71D4**	41	**TKM67C 71B5/14 7124**	59
	5.7	555	**250**	244.29	10000	1.4	**TKB67C MV71D4**	49	**TKB67C 71B5/14 7124**	67
	6.8	469	**200**	206.29	9920	1.6				
	9.1	348	**150**	153.33	8980	2.2				
	10.8	294	**125**	129.48	8490	2.5				
	13.5	235	**100**	103.64	7880	2.8				
	18.5	172	**75**	75.55	7090	3.0				
	4.4	729	**200**	206.29	10000	1.0	**TKM67C MV80K6**	41	**TKM67C 80B5/B14 8016**	59
	5.9	542	**150**	153.33	10000	1.4	**TKB67C MV80K6**	49	**TKB67C 80B5/B14 8016**	67
	7.0	458	**125**	129.48	9840	1.6				
	8.7	366	**100**	103.64	9130	1.8				
	11.9	267	**75**	75.55	8220	1.9				
	14.0	227	**60**	64.18	7780	3.3				
	17.5	182	**50**	51.37	7230	3.6				
	15.2	214	**60**	59.22	7580	3.5	**TKM67B MV80K6**	40	**TKM67B 80B5/B14 8016**	58
	18.4	176	**50**	48.86	7110	4.2	**TKB67B MV80K6**	48	**TKB67B 80B5/B14 8016**	66
0.55	45	105	**60**	62.36	2400	1.2	**TKM27C MV71D2**	33	**TKM27C 71B5/B14 7122**	51
	53	88	**50**	52.36	2270	1.1				
	35	138	**40**	40.09	2610	0.94	**TKM27B MV80K4**	32	**TKM27B 80B5/B14 8014**	50
	48	101	**30**	29.33	2350	1.3				
	58	83	**25**	24.07	2200	1.6				
	69	70	**20**	20.21	2080	1.4				
	94	51	**15**	14.92	1880	1.6				
	112	43	**12.5**	12.47	1770	3.0				
	134	36	**10**	10.47	1670	2.8				
	181	27	**7.5**	7.73	1510	3.0				
	37	129	**25**	24.07	2550	1.0	**TKM27B MV80N6**	32	**TKM27B 80B5/B14 8026**	50
	45	109	**20**	20.21	2410	0.92				
	60	80	**15**	14.92	2180	1.00				
	72	67	**12.5**	12.47	2050	1.9				
	86	56	**10**	10.47	1930	1.8				
	116	42	**7.5**	7.73	1750	1.9				
	23	206	**125**	122.22	3440	0.87	**TKM37C MV71D2**	35	**TKM37C 71B5/B14 7122**	53
	28	171	**100**	101.27	3230	0.88	**TKB37C MV71D2**	43	**TKB37C 71B5/B14 7122**	61
	38	124	**75**	73.33	2900	0.89				
	44	107	**60**	63.33	2760	1.7				
	53	89	**50**	52.48	2590	1.7				
	23	209	**60**	60.50	3430	0.96	**TKM37B MV80K4**	34	**TKM37B 80B5/B14 8014**	52
	29	168	**50**	48.71	3190	1.2	**TKB37B MV80K4**	42	**TKB37B 80B5/B14 8014**	60
	36	136	**40**	39.29	2970	1.3				
	46	105	**30**	30.31	2720	1.9				
	57	84	**25**	24.44	2530	2.1				
	69	70	**20**	20.25	2380	2.1				
	95	51	**15**	14.67	2130	2.2				
	110	44	**12.5**	12.67	2030	4.1				
	133	36	**10**	10.50	1910	4.1				
	184	26	**7.5**	7.60	1710	4.2				

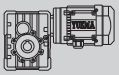
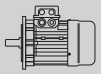
P_{1n} (kW)	N_2 (r/min)	M_{2n} (Nm)	i Nominal	i Actual	Fr_2 (N)	fs		Page	 	Page
0.55	23	211	**40**	39.29	3440	0.85	**TKM37B MV80N6**	34	**TKM37B 80B5/B14 8026**	52
	30	163	**30**	30.31	3150	1.2	**TKB37B MV80N6**	42	**TKB37B 80B5/B14 8026**	60
	37	131	**25**	24.44	2930	1.4				
	44	109	**20**	20.25	2760	1.4				
	61	79	**15**	14.67	2470	1.4				
	71	68	**12.5**	12.67	2360	2.6				
	86	56	**10**	10.50	2210	2.7				
	118	41	**7.5**	7.60	1990	2.7				
	11.6	407	**250**	240.89	5890	0.86	**TKM47C MV71D2**	37	**TKM47C 71B5/B14 7122**	55
	14.0	339	**200**	200.66	5540	0.89	**TKB47C MV71D2**	45	**TKB47C 71B5/B14 7122**	63
	18.5	255	**150**	151.20	5040	1.4				
	22	213	**125**	125.95	4750	1.4				
	28	168	**100**	99.22	4380	1.4				
	37	127	**75**	75.45	4000	1.6				
	45	105	**60**	62.43	3750	2.8				
	57	83	**50**	49.18	3470	2.9				
	18.6	255	**75**	75.45	5040	0.79	**TKM47C MV80K4**	37	**TKM47C 80B5/B14 8014**	55
	22	211	**60**	62.43	4730	1.4	**TKB47C MV80K4**	45	**TKB47C 80B5/B14 8014**	63
	28	166	**50**	49.18	4370	1.4				
	24	205	**60**	59.44	4660	1.7	**TKM47B MV80K4**	36	**TKM47B 80B5/B14 8014**	54
	29	166	**50**	48.18	4340	2.1	**TKB47B MV80K4**	44	**TKB47B 80B5/B14 8014**	62
	35	139	**40**	40.13	4080	2.2				
	46	104	**30**	30.24	3720	3.4				
	56	87	**25**	25.19	3500	3.5				
	71	68	**20**	19.84	3230	3.5				
	93	52	**15**	15.09	2950	3.8				
	14.4	328	**60**	62.43	5480	0.91	**TKM47C MV80N6**	37	**TKM47C 80B5/B14 8026**	55
	18.3	258	**50**	49.18	5060	0.93	**TKB47C MV80N6**	45	**TKB47C 80B5/B14 8026**	63
	15.1	319	**60**	59.44	5390	1.1	**TKM47B MV80N6**	36	**TKM47B 80B5/B14 8026**	54
	18.7	259	**50**	48.18	5030	1.4	**TKB47B MV80N6**	44	**TKB47B 80B5/B14 8026**	62
	22	215	**40**	40.13	4730	1.4				
	30	162	**30**	30.24	4310	2.2				
	36	135	**25**	25.19	4050	2.2				
	45	107	**20**	19.84	3740	2.3				
	60	81	**15**	15.09	3410	2.5				
	9.5	498	**300**	295.18	7990	1.0	**TKM57C MV71D2**	39	**TKM57C 71B5/B14 7122**	57
	11.6	407	**250**	240.89	7470	1.2	**TKB57C MV71D2**	47	**TKB57C 71B5/B14 7122**	65
	14.0	339	**200**	200.66	7030	1.4				
	18.5	255	**150**	151.20	6390	2.0				
	22	213	**125**	125.95	6010	2.3				
	28	168	**100**	99.22	5550	2.3				
	37	127	**75**	75.45	5070	2.4				
	45	105	**60**	62.43	4760	4.6				
	57	83	**50**	49.18	4390	4.6				
	9.3	511	**150**	151.20	8050	0.98	**TKM57C MV80K4**	39	**TKM57C 80B5/B14 8014**	57
	11.1	425	**125**	125.95	7580	1.1	**TKB57C MV80K4**	47	**TKB57C 80B5/B14 8014**	65
	14.1	335	**100**	99.22	7000	1.1				
	18.6	255	**75**	75.45	6390	1.2				
	22	211	**60**	62.43	6000	2.3				
	28	166	**50**	49.18	5540	2.3				
	24	204	**60**	59.04	5890	2.5	**TKM57B MV80K4**	38	**TKM57B 80B5/B14 8014**	56
	29	166	**50**	48.18	5500	3.0	**TKB57B MV80K4**	46	**TKB57B 80B5/B14 8014**	64
	35	139	**40**	40.13	5170	3.5				
	46	104	**30**	30.24	4710	4.8				
	14.4	328	**60**	62.43	6950	1.5	**TKM57C MV80N6**	39	**TKM57C 80B5/B14 8026**	57
	18.3	258	**50**	49.18	6420	1.5	**TKB57C MV80N6**	47	**TKB57C 80B5/B14 8026**	65
	15.2	317	**60**	59.04	6820	1.6	**TKM57B MV80N6**	38	**TKM57B 80B5/B14 8026**	56
	18.7	259	**50**	48.18	6370	1.9	**TKB57B MV80N6**	46	**TKB57B 80B5/B14 8026**	64
	22	215	**40**	40.13	6000	2.2				
	30	162	**30**	30.24	5460	3.1				
	36	135	**25**	25.19	5130	3.5				
	45	107	**20**	19.84	4740	3.6				
	60	81	**15**	15.09	4330	3.7				

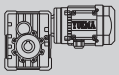
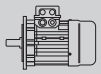
P_{1n} (kW)	N_2 (r/min)	M_{2n} (Nm)	i Nominal	i Actual	Fr_2 (N)	fs		Page	 	Page
0.55	9.5	500	**300**	296.10	8880	1.5	**TKM67C MV71D2**	41	**TKM67C 71B5/B14 7122**	59
	11.5	412	**250**	244.29	8330	1.8	**TKB67C MV71D2**	49	**TKB67C 71B5/B14 7122**	67
	13.6	348	**200**	206.29	7870	2.2				
	18.3	259	**150**	153.33	7130	2.9				
	22	219	**125**	129.48	6740	3.4				
	27	175	**100**	103.64	6260	3.7				
	37	128	**75**	75.55	5630	4.1				
	5.7	825	**250**	244.29	10000	0.91	**TKM67C MV80K4**	41	**TKM67C 80B5/B14 8014**	59
	6.8	697	**200**	206.29	9920	1.1	**TKB67C MV80K4**	49	**TKB67C 80B5/B14 8014**	67
	9.1	518	**150**	153.33	8980	1.4				
	10.8	437	**125**	129.48	8490	1.7				
	13.5	350	**100**	103.64	7880	1.9				
	18.5	255	**75**	75.55	7090	2.0				
	22	217	**60**	64.18	6720	3.5				
	27	173	**50**	51.37	6240	3.7				
	24	204	**60**	59.22	6540	3.7	**TKM67B MV80K4**	40	**TKM67B 80B5/B14 8014**	58
	29	169	**50**	48.86	6130	4.4	**TKB67B MV80K4**	48	**TKB67B 80B5/B14 8014**	66
	5.9	805	**150**	153.33	10000	0.93	**TKM67C MV80N6**	41	**TKM67C 80B5/B14 8026**	59
	7.0	680	**125**	129.48	9840	1.1	**TKB67C MV80N6**	49	**TKB67C 80B5/B14 8026**	67
	8.7	544	**100**	103.64	9130	1.2				
	11.9	397	**75**	75.55	8220	1.3				
	14.0	337	**60**	64.18	7780	2.2				
	17.5	270	**50**	51.37	7230	2.4				
	15.2	318	**60**	59.22	7580	2.4	**TKM67B MV80N6**	40	**TKM67B 80B5/B14 8026**	58
	18.4	262	**50**	48.86	7110	2.9	**TKB67B MV80N6**	48	**TKB67B 80B5/B14 8026**	66
	22	222	**40**	41.26	6720	3.4				
	29	165	**30**	30.67	6090	4.6				
0.75	48	138	**30**	29.33	2350	0.94	**TKM27B MV80N4**	32	**TKM27B 80B5/B14 8024**	50
	58	113	**25**	24.07	2200	1.1				
	69	95	**20**	20.21	2080	1.1				
	94	70	**15**	14.92	1880	1.1				
	112	59	**12.5**	12.47	1770	2.2				
	134	49	**10**	10.47	1670	2.0				
	181	36	**7.5**	7.73	1510	2.2				
	72	91	**12.5**	12.47	2050	1.4	**TKM27B MV90S6**	32	**TKM27B 90B5/B14 90S6**	50
	86	77	**10**	10.47	1930	1.3				
	116	57	**7.5**	7.73	1750	1.4				
	44	146	**60**	63.33	2760	1.2	**TKM37C MV80K2**	35	**TKM37C 80B5/B14 8012**	53
	53	121	**50**	52.48	2590	1.2	**TKB37C MV80K2**	43	**TKB37C 80B5/B14 8012**	61
	29	229	**50**	48.71	3190	0.87	**TKM37B MV80N4**	34	**TKM37B 80B5/B14 8024**	52
	36	185	**40**	39.29	2970	0.97	**TKB37B MV80N4**	42	**TKB37B 80B5/B14 8024**	60
	46	143	**30**	30.31	2720	1.4				
	57	115	**25**	24.44	2530	1.6				
	69	95	**20**	20.25	2380	1.6				
	95	69	**15**	14.67	2130	1.6				
	110	60	**12.5**	12.67	2030	3.0				
	133	49	**10**	10.50	1910	3.0				
	184	36	**7.5**	7.60	1710	3.1				
	30	222	**30**	30.31	3150	0.90	**TKM37B MV90S6**	34	**TKM37B 90B5/B14 90S6**	52
	37	179	**25**	24.44	2930	1.0	**TKB37B MV90S6**	42	**TKB37B 90B5/B14 90S6**	60
	44	148	**20**	20.25	2760	1.0				
	61	107	**15**	14.67	2470	1.0				
	71	93	**12.5**	12.67	2360	1.9				
	86	77	**10**	10.50	2210	2.0				
	118	56	**7.5**	7.60	1990	2.0				
	18.5	348	**150**	151.20	5040	1.0	**TKM47C MV80K2**	37	**TKM47C 80B5/B14 8012**	55
	22	290	**125**	125.95	4750	1.0	**TKB47C MV80K2**	45	**TKB47C 80B5/B14 8012**	63
	28	228	**100**	99.22	4380	1.1				
	37	174	**75**	75.45	4000	1.2				
	45	144	**60**	62.43	3750	2.1				
	57	113	**50**	49.18	3470	2.1				

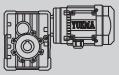
P_{1n} (kW)	N_2 (r/min)	M_{2n} (Nm)	i Nominal	i Actual	Fr_2 (N)	fs		Page	 	Page
0.75	22	287	**60**	62.43	4730	1.0	**TKM47C MV80N4**	37	**TKM47C 80B5/B14 8024**	55
	28	226	**50**	49.18	4370	1.1	**TKB47C MV80N4**	45	**TKB47C 80B5/B14 8024**	63
	24	280	**60**	59.44	4660	1.3	**TKM47B MV80N4**	36	**TKM47B 80B5/B14 8024**	54
	29	227	**50**	48.18	4340	1.5	**TKB47B MV80N4**	44	**TKB47B 80B5/B14 8024**	62
	35	189	**40**	40.13	4080	1.6				
	46	142	**30**	30.24	3720	2.5				
	56	119	**25**	25.19	3500	2.5				
	71	93	**20**	19.84	3230	2.6				
	93	71	**15**	15.09	2950	2.8				
	18.7	353	**50**	48.18	5030	0.99	**TKM47B MV90S6**	36	**TKM47B 90B5/B14 90S6**	54
	22	294	**40**	40.13	4730	1.0	**TKB47B MV90S6**	44	**TKB47B 90B5/B14 90S6**	62
	30	221	**30**	30.24	4310	1.6				
	36	184	**25**	25.19	4050	1.6				
	45	145	**20**	19.84	3740	1.7				
	60	110	**15**	15.09	3410	1.8				
	72	91	**12.5**	12.49	3210	3.3				
	91	72	**10**	9.84	2960	3.3				
	120	55	**7.5**	7.48	2700	3.7				
	11.6	555	**250**	240.89	7470	0.90	**TKM57C MV80K2**	39	**TKM57C 80B5/B14 8012**	57
	14.0	462	**200**	200.66	7030	1.0	**TKB57C MV80K2**	47	**TKB57C 80B5/B14 8012**	65
	18.5	348	**150**	151.20	6390	1.4				
	22	290	**125**	125.95	6010	1.7				
	28	228	**100**	99.22	5550	1.7				
	37	174	**75**	75.45	5070	1.7				
	45	144	**60**	62.43	4760	3.3				
	57	113	**50**	49.18	4390	3.4				
	11.1	580	**125**	125.95	7580	0.83	**TKM57C MV80N4**	39	**TKM57C 80B5/B14 8024**	57
	14.1	457	**100**	99.22	7000	0.83	**TKB57C MV80N4**	47	**TKB57C 80B5/B14 8024**	65
	18.6	347	**75**	75.45	6390	0.86				
	22	287	**60**	62.43	6000	1.7				
	28	226	**50**	49.18	5540	1.7				
	24	278	**60**	59.04	5890	1.8	**TKM57B MV80N4**	38	**TKM57B 80B5/B14 8024**	56
	29	227	**50**	48.18	5500	2.2	**TKB57B MV80N4**	46	**TKB57B 80B5/B14 8024**	64
	35	189	**40**	40.13	5170	2.5				
	46	142	**30**	30.24	4710	3.5				
	56	119	**25**	25.19	4430	4.0				
	71	93	**20**	19.84	4090	4.1				
	93	71	**15**	15.09	3730	4.2				
	14.4	447	**60**	62.43	6950	1.1	**TKM57C MV90S6**	39	**TKM57C 90B5/B14 90S6**	57
	18.3	352	**50**	49.18	6420	1.1	**TKB57C MV90S6**	47	**TKB57C 90B5/B14 90S6**	65
	15.2	432	**60**	59.04	6820	1.2	**TKM57B MV90S6**	38	**TKM57B 90B5/B14 90S6**	56
	18.7	353	**50**	48.18	6370	1.4	**TKB57B MV90S6**	46	**TKB57B 90B5/B14 90S6**	64
	22	294	**40**	40.13	6000	1.6				
	30	221	**30**	30.24	5460	2.3				
	36	184	**25**	25.19	5130	2.6				
	45	145	**20**	19.84	4740	2.6				
	60	110	**15**	15.09	4330	2.7				
	9.5	682	**300**	296.10	8880	1.1	**TKM67C MV80K2**	41	**TKM67C 80B5/B14 8012**	59
	11.5	562	**250**	244.29	8330	1.3	**TKB67C MV80K2**	49	**TKB67C 80B5/B14 8012**	67
	13.6	475	**200**	206.29	7870	1.6				
	18.3	353	**150**	153.33	7130	2.1				
	22	298	**125**	129.48	6740	2.5				
	27	239	**100**	103.64	6260	2.7				
	37	174	**75**	75.55	5630	3.0				
	9.1	706	**150**	153.33	8980	1.1	**TKM67C MV80N4**	41	**TKM67C 80B5/B14 8024**	59
	10.8	596	**125**	129.48	8490	1.3	**TKB67C MV80N4**	49	**TKB67C 80B5/B14 8024**	67
	13.5	477	**100**	103.64	7880	1.4				
	18.5	348	**75**	75.55	7090	1.5				
	22	296	**60**	64.18	6720	2.5				
	27	237	**50**	51.37	6240	2.7				

P_{1n} (kW)	N_2 (r/min)	M_{2n} (Nm)	i Nominal	i Actual	Fr_2 (N)	fs		Page	 	Page
0.75	24	279	**60**	59.22	6540	2.7	**TKM67B MV80N4**	40	**TKM67B 80B5/B14 8024**	58
	29	230	**50**	48.86	6130	3.3	**TKB67B MV80N4**	48	**TKB67B 80B5/B14 8024**	66
	34	194	**40**	41.26	5800	3.9				
	8.7	742	**100**	103.64	9130	0.88	**TKM67C MV90S6**	41	**TKM67C 90B5/B14 90S6**	59
	11.9	541	**75**	75.55	8220	0.96	**TKB67C MV90S6**	49	**TKB67C 90B5/B14 90S6**	67
	14.0	460	**60**	64.18	7780	1.6				
	17.5	368	**50**	51.37	7230	1.8				
	15.2	434	**60**	59.22	7580	1.7	**TKM67B MV90S6**	40	**TKM67B 90B5/B14 90S6**	58
	18.4	358	**50**	48.86	7110	2.1	**TKB67B MV90S6**	48	**TKB67B 90B5/B14 90S6**	66
	22	302	**40**	41.26	6720	2.5				
	29	225	**30**	30.67	6090	3.3				
	35	190	**25**	25.90	5750	4.0				
	43	152	**20**	20.73	5340	4.3				
1.1	112	86	**12.5**	12.47	1770	1.5	**TKM27B MV90S4**	32	**TKM27B 90B5/B14 90S4**	50
	134	72	**10**	10.47	1670	1.4				
	181	53	**7.5**	7.73	1510	1.5				
	72	134	**12.5**	12.47	2050	0.97	**TKM27B MV90L6**	32	**TKM27B 90B5/B14 90L6**	50
	86	112	**10**	10.47	1930	0.89				
	116	83	**7.5**	7.73	1750	0.96				
	46	209	**30**	30.31	2720	0.96	**TKM37B MV90S4**	34	**TKM37B 90B5/B14 90S4**	52
	57	169	**25**	24.44	2530	1.1	**TKB37B MV90S4**	42	**TKB37B 90B5/B14 90S4**	60
	69	140	**20**	20.25	2380	1.1				
	95	101	**15**	14.67	2130	1.1				
	110	87	**12.5**	12.67	2030	2.1				
	133	72	**10**	10.50	1910	2.1				
	184	52	**7.5**	7.60	1710	2.1				
	71	136	**12.5**	12.67	2360	1.3	**TKM37B MV90L6**	34	**TKM37B 90B5/B14 90L6**	52
	86	113	**10**	10.50	2210	1.3	**TKB37B MV90L6**	42	**TKB37B 90B5/B14 90L6**	60
	118	82	**7.5**	7.60	1990	1.3				
	45	211	**60**	62.43	3750	1.4	**TKM47C MV80N2**	37	**TKM47C 80B5/B14 8022**	55
	57	166	**50**	49.18	3470	1.4	**TKB47C MV80N2**	45	**TKB47C 80B5/B14 8022**	63
	24	410	**60**	59.44	4660	0.85	**TKM47B MV90S4**	36	**TKM47B 90B5/B14 90S4**	54
	29	333	**50**	48.18	4340	1.1	**TKB47B MV90S4**	44	**TKB47B 90B5/B14 90S4**	62
	35	277	**40**	40.13	4080	1.1				
	46	209	**30**	30.24	3720	1.7				
	56	174	**25**	25.19	3500	1.7				
	71	137	**20**	19.84	3230	1.8				
	93	104	**15**	15.09	2950	1.9				
	112	86	**12.5**	12.49	2770	3.5				
	142	68	**10**	9.84	2550	3.5				
	187	52	**7.5**	7.48	2330	3.9				
	30	325	**30**	30.24	4310	1.1	**TKM47B MV90L6**	36	**TKM47B 90B5/B14 90L6**	54
	36	271	**25**	25.19	4050	1.1	**TKB47B MV90L6**	44	**TKB47B 90B5/B14 90L6**	62
	45	213	**20**	19.84	3740	1.1				
	60	162	**15**	15.09	3410	1.2				
	72	134	**12.5**	12.49	3210	2.2				
	91	106	**10**	9.84	2960	2.3				
	120	80	**7.5**	7.48	2700	2.5				
	18.5	511	**150**	151.20	6390	0.98	**TKM57C MV80N2**	39	**TKM57C 80B5/B14 8022**	57
	22	425	**125**	125.95	6010	1.1	**TKB57C MV80N2**	47	**TKB57C 80B5/B14 8022**	65
	28	335	**100**	99.22	5550	1.1				
	37	255	**75**	75.45	5070	1.2				
	45	211	**60**	62.43	4760	2.3				
	57	166	**50**	49.18	4390	2.3				
	22	422	**60**	62.43	6000	1.1	**TKM57C MV90S4**	39	**TKM57C 90B5/B14 90S4**	57
	28	332	**50**	49.18	5540	1.1	**TKB57C MV90S4**	47	**TKB57C 90B5/B14 90S4**	65
	24	408	**60**	59.04	5890	1.2	**TKM57B MV90S4**	38	**TKM57B 90B5/B14 90S4**	56
	29	333	**50**	48.18	5500	1.5	**TKB57B MV90S4**	46	**TKB57B 90B5/B14 90S4**	64
	35	277	**40**	40.13	5170	1.7				
	46	209	**30**	30.24	4710	2.4				

P_{1n} (kW)	N_2 (r/min)	M_{2n} (Nm)	i Nominal	i Actual	Fr_2 (N)	fs		Page	 	Page
1.1	56	174	25	25.19	4430	2.8	TKM57B MV90S4	38	TKM57B 90B5/B14 90S4	56
	71	137	20	19.84	4090	2.8	TKB57B MV90S4	46	TKB57B 90B5/B14 90S4	64
	93	104	15	15.09	3730	2.9				
	15.2	634	60	59.04	6820	0.79	TKM57B MV90L6	38	TKM57B 90B5/B14 90L6	56
	18.7	517	50	48.18	6370	0.97	TKB57B MV90L6	46	TKB57B 90B5/B14 90L6	64
	22	431	40	40.13	6000	1.1				
	30	325	30	30.24	5460	1.5				
	36	271	25	25.19	5130	1.8				
	45	213	20	19.84	4740	1.8				
	60	162	15	15.09	4330	1.9				
	72	134	12.5	12.49	4060	3.6				
	91	106	10	9.84	3750	3.6				
	120	80	7.5	7.48	3420	3.7				
	11.5	825	250	244.29	8330	0.91	TKM67C MV80N2	41	TKM67C 80B5/B14 8022	59
	13.6	697	200	206.29	7870	1.1	TKB67C MV80N2	49	TKB67C 80B5/B14 8022	67
	18.3	518	150	153.33	7130	1.4				
	22	437	125	129.48	6740	1.7				
	27	350	100	103.64	6260	1.9				
	37	255	75	75.55	5630	2.0				
	44	217	60	64.18	5330	3.5				
	55	173	50	51.37	4950	3.7				
	10.8	874	125	129.48	8490	0.86	TKM67C MV90S4	41	TKM67C 90B5/B14 90S4	59
	13.5	700	100	103.64	7880	0.93	TKB67C MV90S4	49	TKB67C 90B5/B14 90S4	67
	18.5	510	75	75.55	7090	1.0				
	22	433	60	64.18	6720	1.7				
	27	347	50	51.37	6240	1.9				
	24	409	60	59.22	6540	1.8	TKM67B MV90S4	40	TKM67B 90B5/B14 90S4	58
	29	337	50	48.86	6130	2.2	TKB67B MV90S4	48	TKB67B 90B5/B14 90S4	66
	34	285	40	41.26	5800	2.6				
	46	212	30	30.67	5250	3.5				
	54	179	25	25.90	4960	4.2				
	68	143	20	20.73	4610	4.5				
	14.0	674	60	64.18	7780	1.1	TKM67C MV90L6	41	TKM67C 90B5/B14 90L6	59
	17.5	540	50	51.37	7230	1.2	TKB67C MV90L6	49	TKB67C 90B5/B14 90L6	67
	15.2	636	60	59.22	7580	1.2	TKM67B MV90L6	40	TKM67B 90B5/B14 90L6	58
	18.4	525	50	48.86	7110	1.4	TKB67B MV90L6	48	TKB67B 90B5/B14 90L6	66
	22	443	40	41.26	6720	1.7				
	29	329	30	30.67	6090	2.3				
	35	278	25	25.90	5750	2.7				
	43	223	20	20.73	5340	2.9				
	60	162	15	15.11	4810	3.2				
1.5	112	117	12.5	12.47	1770	1.1	TKM27B MV90L4	32	TKM27B 90B5/B14 90L4	50
	134	99	10	10.47	1670	1.0				
	181	73	7.5	7.73	1510	1.1				
	57	230	25	24.44	2530	0.8	TKM37B MV90L4	34	TKM37B 90B5/B14 90L4	52
	69	191	20	20.25	2380	0.79	TKB37B MV90L4	42	TKB37B 90B5/B14 90L4	60
	95	138	15	14.67	2130	0.80				
	110	119	12.5	12.67	2030	1.5				
	133	99	10	10.50	1910	1.5				
	184	72	7.5	7.60	1710	1.5				
	45	287	60	62.43	3750	1.0	TKM47C MV90S2	37	TKM47C 90B5/B14 90S2	55
	57	226	50	49.18	3470	1.1	TKB47C MV90S2	45	TKB47C 90B5/B14 90S2	63
	29	454	50	48.18	4340	0.77	TKM47B MV90L4	36	TKM47B 90B5/B14 90L4	54
	35	378	40	40.13	4080	0.79	TKB47B MV90L4	44	TKB47B 90B5/B14 90L4	62
	46	285	30	30.24	3720	1.2				
	56	237	25	25.19	3500	1.3				
	71	187	20	19.84	3230	1.3				
	93	142	15	15.09	2950	1.4				
	112	118	12.5	12.49	2770	2.6				
	142	93	10	9.84	2550	2.6				
	187	70	7.5	7.48	2330	2.8				

P_{1n} (kW)	N_2 (r/min)	M_{2n} (Nm)	i Nominal	i Actual	Fr_2 (N)	fs		Page	 	Page
1.5	45	291	**20**	19.84	3740	0.83	**TKM47B MV100M6**	36	**TKM47B 100B5/B14 100L6**	54
	60	221	**15**	15.09	3410	0.91	**TKB47B MV100M6**	44	**TKB47B 100B5/B14 100L6**	62
	72	183	**12.5**	12.49	3210	1.6				
	91	144	**10**	9.84	2960	1.7				
	120	110	**7.5**	7.48	2700	1.8				
	22	580	**125**	125.95	6010	0.83	**TKM57C MV90S2**	39	**TKM57C 90B5/B14 90S2**	57
	28	457	**100**	99.22	5550	0.83	**TKB57C MV90S2**	47	**TKB57C 90B5/B14 90S2**	65
	37	347	**75**	75.45	5070	0.86				
	45	287	**60**	62.43	4760	1.7				
	57	226	**50**	49.18	4390	1.7				
	24	556	**60**	59.04	5890	0.90	**TKM57B MV90L4**	38	**TKM57B 90B5/B14 90L4**	56
	29	454	**50**	48.18	5500	1.1	**TKB57B MV90L4**	46	**TKB57B 90B5/B14 90L4**	64
	35	378	**40**	40.13	5170	1.3				
	46	285	**30**	30.24	4710	1.8				
	56	237	**25**	25.19	4430	2.0				
	71	187	**20**	19.84	4090	2.0				
	93	142	**15**	15.09	3730	2.1				
	112	118	**12.5**	12.49	3510	4.1				
	142	93	**10**	9.84	3240	4.1				
	187	70	**7.5**	7.48	2950	4.3				
	30	443	**30**	30.24	5460	1.1	**TKM57B MV100M6**	38	**TKM57B 100B5/B14 100L6**	56
	36	369	**25**	25.19	5130	1.3	**TKB57B MV100M6**	46	**TKB57B 100B5/B14 100L6**	64
	45	291	**20**	19.84	4740	1.3				
	60	221	**15**	15.09	4330	1.4				
	72	183	**12.5**	12.49	4060	2.6				
	91	144	**10**	9.84	3750	2.6				
	120	110	**7.5**	7.48	3420	2.7				
	18.3	706	**150**	153.33	7130	1.1	**TKM67C MV90S2**	41	**TKM67C 90B5/B14 90S2**	59
	22	596	**125**	129.48	6740	1.3	**TKB67C MV90S2**	49	**TKB67C 90B5/B14 90S2**	67
	27	477	**100**	103.64	6260	1.4				
	37	348	**75**	75.55	5630	1.5				
	44	296	**60**	64.18	5330	2.5				
	55	237	**50**	51.37	4950	2.7				
	22	591	**60**	64.18	6720	1.3	**TKM67C MV90L4**	41	**TKM67C 90B5/B14 90L4**	59
	27	473	**50**	51.37	6240	1.4	**TKB67C MV90L4**	49	**TKB67C 90B5/B14 90L4**	67
	24	557	**60**	59.22	6540	1.3	**TKM67B MV90L4**	40	**TKM67B 90B5/B14 90L4**	59
	29	460	**50**	48.86	6130	1.6	**TKB67B MV90L4**	48	**TKB67B 90B5/B14 90L4**	67
	34	388	**40**	41.26	5800	1.9				
	46	289	**30**	30.67	5250	2.6				
	54	244	**25**	25.90	4960	3.1				
	68	195	**20**	20.73	4610	3.3				
	93	142	**15**	15.11	4150	3.7				
	15.2	867	**60**	59.22	7580	0.86	**TKM67B MV100M6**	40	**TKM67B 100B5/B14 100L6**	58
	18.4	715	**50**	48.86	7110	1.0	**TKB67B MV100M6**	48	**TKB67B 100B5/B14 100L6**	66
	22	604	**40**	41.26	6720	1.2				
	29	449	**30**	30.67	6090	1.7				
	35	379	**25**	25.90	5750	2.0				
	43	304	**20**	20.73	5340	2.1				
	60	221	**15**	15.11	4810	2.4				
	70	188	**12.5**	12.84	4550	4.0				
	88	150	**10**	10.27	4220	4.3				
	120	110	**7.5**	7.49	3800	4.7				
2.2	46	418	**30**	30.24	3720	0.84	**TKM47B MV100M4**	36	**TKM47B 100B5/B14 100LA4**	54
	56	348	**25**	25.19	3500	0.86	**TKB47B MV100M4**	44	**TKB47B 100B5/B14 100LA4**	62
	71	274	**20**	19.84	3230	0.88				
	93	208	**15**	15.09	2950	0.96				
	112	172	**12.5**	12.49	2770	1.7				
	142	136	**10**	9.84	2550	1.8				
	187	103	**7.5**	7.48	2330	1.9				

P_{1n} (kW)	N_2 (r/min)	M_{2n} (Nm)	i Nominal	i Actual	Fr_2 (N)	fs		Page	 	Page
2.2	72	268	12.5	12.49	3210	1.1	TKM47B MV112M6	36	TKM47B 112B5/B14 112M6	54
	91	211	10	9.84	2960	1.1	TKB47B MV112M6	44	TKB47B 112B5/B14 112M6	62
	120	161	7.5	7.48	2700	1.2				
	45	422	60	62.43	4760	1.1	TKM57C MV90L2	39	TKM57C 90B5/B14 90L2	57
	57	332	50	49.18	4390	1.1	TKB57C MV90L2	47	TKB57C 90B5/B14 90L2	65
	35	554	40	40.13	5170	0.87	TKM57B MV100M4	38	TKM57B 100B5/B14 100LA4	56
	46	418	30	30.24	4710	1.2	TKB57B MV100M4	46	TKB57B 100B5/B14 100LA4	64
	56	348	25	25.19	4430	1.4				
	71	274	20	19.84	4090	1.4				
	93	208	15	15.09	3730	1.4				
	112	172	12.5	12.49	3510	2.8				
	142	136	10	9.84	3240	2.8				
	187	103	7.5	7.48	2950	2.9				
	36	541	25	25.19	5130	0.89	TKM57B MV112M6	38	TKM57B 112B5/B14 112M6	56
	45	426	20	19.84	4740	0.89	TKB57B MV112M6	46	TKB57B 112B5/B14 112M6	64
	60	324	15	15.09	4330	0.93				
	72	268	12.5	12.49	4060	1.8				
	91	211	10	9.84	3750	1.8				
	120	161	7.5	7.48	3420	1.9				
	22	874	125	129.48	6740	0.86	TKM67C MV90L2	41	TKM67C 90B5/B14 90L2	59
	27	700	100	103.64	6260	0.93	TKB67C MV90L2	49	TKB67C 90B5/B14 90L2	67
	37	510	75	75.55	5630	1.0				
	44	433	60	64.18	5330	1.7				
	55	347	50	51.37	4950	1.9				
	24	818	60	59.22	6540	0.92	TKM67B MV100M4	40	TKM67B 100B5/B14 100LA4	58
	29	675	50	48.86	6130	1.1	TKB67B MV100M4	48	TKB67B 100B5/B14 100LA4	66
	34	570	40	41.26	5800	1.3				
	46	423	30	30.67	5250	1.8				
	54	358	25	25.90	4960	2.1				
	68	286	20	20.73	4610	2.3				
	93	209	15	15.11	4150	2.5				
	109	177	12.5	12.84	3930	4.2				
	136	142	10	10.27	3650	4.6				
	187	103	7.5	7.49	3280	5.0				
	29	659	30	30.67	6090	1.1	TKM67B MV112M6	40	TKM67B 112B5/B14 112M6	58
	35	556	25	25.90	5750	1.3	TKB67B MV112M6	48	TKB67B 112B5/B14 112M6	66
	43	445	20	20.73	5340	1.5				
	60	325	15	15.11	4810	1.6				
	70	276	12.5	12.84	4550	2.7				
	88	221	10	10.27	4220	2.9				
	120	161	7.5	7.49	3800	3.2				
3	112	235	12.5	12.49	2770	1.3	TKM47B MV100L4	36	TKM47B 100B5/B14 100LB4	54
	142	185	10	9.84	2550	1.3	TKB47B MV100L4	44	TKB47B 100B5/B14 100LB4	62
	187	141	7.5	7.48	2330	1.4				
	46	569	30	30.24	4710	0.88	TKM57B MV100L4	38	TKM57B 100B5/B14 100LB4	56
	56	474	25	25.19	4430	1.0	TKB57B MV100L4	46	TKB57B 100B5/B14 100LB4	64
	71	374	20	19.84	4090	1.0				
	93	284	15	15.09	3730	1.1				
	112	235	12.5	12.49	3510	2.0				
	142	185	10	9.84	3240	2.1				
	187	141	7.5	7.48	2950	2.1				
	44	591	60	64.18	5330	1.3	TKM67C MV100M2	41	TKM67C 100B5/B14 100L2	59
	55	473	50	51.37	4950	1.4	TKB67C MV100M2	49	TKB67C 100B5/B14 100L2	67
	34	777	40	41.26	5800	0.97	TKM67B MV100L4	40	TKM67B 100B5/B14 100LB4	58
	46	577	30	30.67	5250	1.3	TKB67B MV100L4	48	TKB67B 100B5/B14 100LB4	66
	54	488	25	25.90	4960	1.5				
	68	390	20	20.73	4610	1.7				
	93	284	15	15.11	4150	1.8				
	109	242	12.5	12.84	3930	3.1				
	136	193	10	10.27	3650	3.4				
	187	141	7.5	7.49	3280	3.7				

P_{1n} (kW)	N_2 (r/min)	M_{2n} (Nm)	i Nominal	i Actual	Fr_2 (N)	fs		Page	 	Page
3	35	759	**25**	25.90	5750	0.99	**TKM67B MV132S6**	40		
	43	607	**20**	20.73	5340	1.1	**TKB67B MV132S6**	48		
	60	443	**15**	15.11	4810	1.2				
	70	376	**12.5**	12.84	4550	2.0				
	88	301	**10**	10.27	4220	2.2				
	120	219	**7.5**	7.49	3800	2.4				
4	112	314	**12.5**	12.49	2770	0.96	**TKM47B MV112M4**	36	**TKM47B 112B5/B14 112M4**	54
	142	247	**10**	9.84	2550	0.97	**TKB47B MV112M4**	44	**TKB47B 112B5/B14 112M4**	62
	187	188	**7.5**	7.48	2330	1.1				
	112	314	**12.5**	12.49	3510	1.5	**TKM57B MV112M4**	38	**TKM57B 112B5/B14 112M4**	56
	142	247	**10**	9.84	3240	1.5	**TKB57B MV112M4**	46	**TKB57B 112B5/B14 112M4**	64
	187	188	**7.5**	7.48	2950	1.6				
	46	770	**30**	30.67	5250	0.97	**TKM67B MV112M4**	40	**TKM67B 112B5/B14 112M4**	58
	54	650	**25**	25.90	4960	1.2	**TKB67B MV112M4**	48	**TKB67B 112B5/B14 112M4**	66
	68	520	**20**	20.73	4610	1.2				
	93	379	**15**	15.11	4150	1.4				
	109	322	**12.5**	12.84	3930	2.3				
	136	258	**10**	10.27	3650	2.5				
	187	188	**7.5**	7.49	3280	2.8				
5.5	68	716	**20**	20.73	4610	0.91	**TKM67B MV132S4**	40		
	93	522	**15**	15.11	4150	1.00	**TKB67B MV132S4**	48		
	109	443	**12.5**	12.84	3930	1.7				
	136	354	**10**	10.27	3650	1.8				
	187	259	**7.5**	7.49	3280	2.0				

6.3 TKM / TKB.. HS / Performance parameter

n_1=1400r/min

$M_{2\,max}$ [Nm]	n_2 [r/min]	i Nominal	i Actual	P_{1n} [KW]	Fr_2 [N]	Fr_1 [N]		Page
130	4.8	300	291.79	0.07	4100	400	**TKM27C..HS**	68
130	5.7	250	244.29	0.09	4100	400		
130	7.0	200	200.44	0.11	4100	400		
130	9.5	150	146.67	0.14	4000	400		
130	11.6	125	120.34	0.18	3770	400		
100	13.9	100	101.04	0.16	3560	400		
80	18.8	75	74.62	0.17	3220	400		
130	22	60	62.36	0.34	3030	400		
100	27	50	52.36	0.31	2860	400		
130	24	60	58.36	0.35	2960	400	**TKM27B..HS**	68
130	29	50	48.86	0.42	2790	400		
130	35	40	40.09	0.52	2610	400		
130	48	30	29.33	0.71	2350	400		
130	58	25	24.07	0.86	2200	400		
100	69	20	20.21	0.79	2080	400		
80	94	15	14.92	0.85	1880	400		
130	112	12.5	12.47	1.7	1770	400		
100	134	10	10.47	1.5	1670	400		
80	181	7.5	7.73	1.6	1510	400		
200	4.6	300	302.50	0.11	4800	400	**TKM37C..HS**	68
200	5.7	250	243.57	0.13	4800	400	**TKB37C..HS**	68
180	7.1	200	196.43	0.15	4800	400		
200	9.2	150	151.56	0.21	4650	400		
180	11.5	125	122.22	0.24	4330	400		
150	13.8	100	101.27	0.24	4070	400		
110	19.1	75	73.33	0.24	3650	400		
180	22	60	63.33	0.46	3480	400		
150	27	50	52.48	0.47	3270	400		
200	23	60	60.50	0.53	3430	530	**TKM37B..HS**	68
200	29	50	48.71	0.65	3190	530	**TKB37B..HS**	68
180	36	40	39.29	0.73	2970	530		
200	46	30	30.31	1.1	2720	530		
180	57	25	24.44	1.2	2530	530		
150	69	20	20.25	1.2	2380	530		
110	95	15	14.67	1.2	2130	530		
180	110	12.5	12.67	2.3	2030	530		
150	133	10	10.50	2.3	1910	530		
110	184	7.5	7.60	2.3	1710	530		
350	4.7	300	297.21	0.19	6500	560	**TKM47C..HS**	68
350	5.8	250	240.89	0.24	6500	560	**TKB47C..HS**	68
300	7.0	200	200.66	0.24	6500	560		
350	9.3	150	151.20	0.38	6500	560		
300	11.1	125	125.95	0.39	5980	560		
240	14.1	100	99.22	0.39	5520	560		
200	18.6	75	75.45	0.43	5040	560		
300	22	60	62.43	0.78	4730	560		
240	28	50	49.18	0.79	4370	560		
350	24	60	59.44	0.94	4660	860	**TKM47B..HS**	68
350	29	50	48.18	1.2	4340	860	**TKB47B..HS**	68
300	35	40	40.13	1.2	4080	860		
350	46	30	30.24	1.8	3720	860		
300	56	25	25.19	1.9	3500	860		

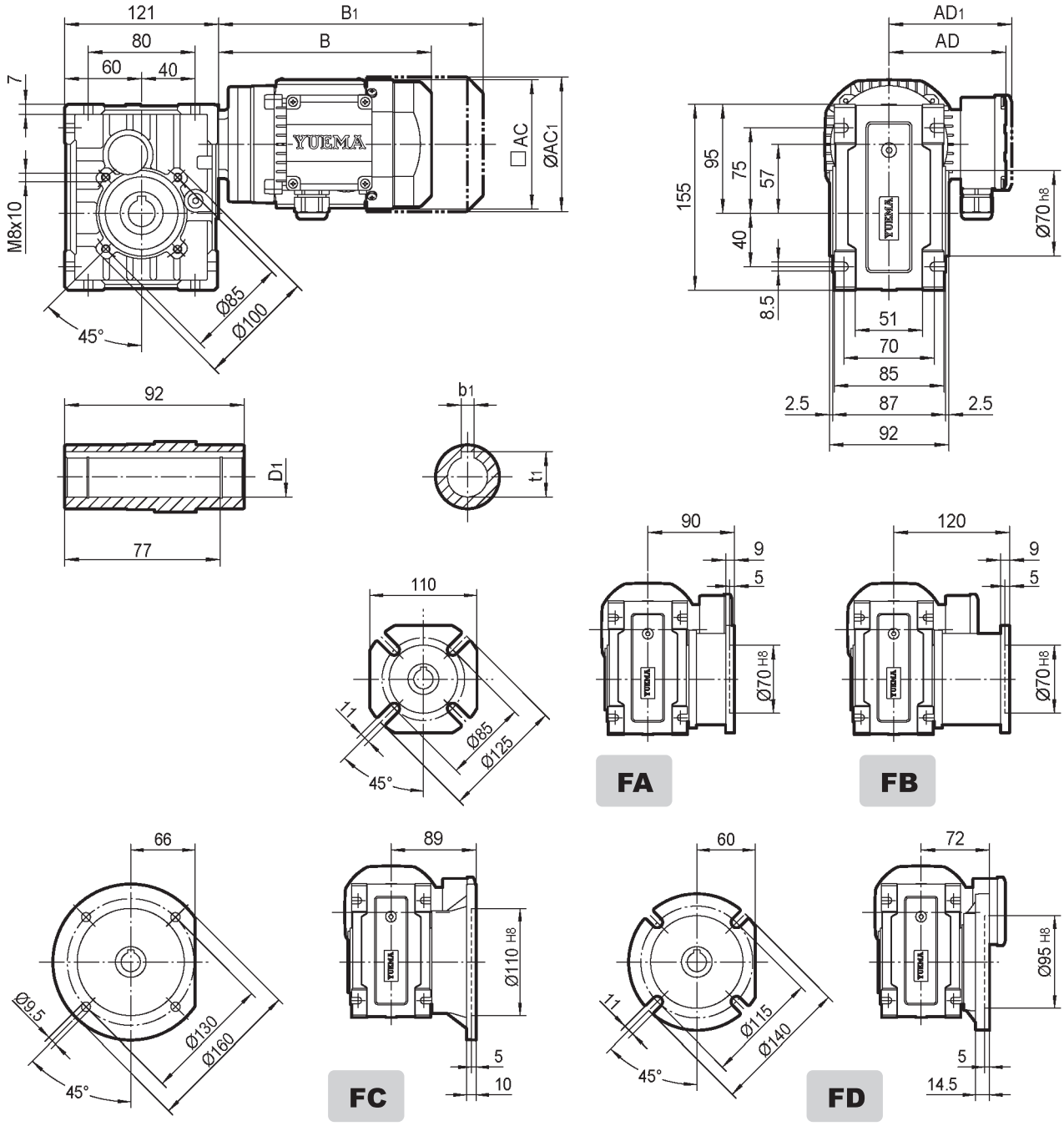
n_1=1400r/min

$M_{2\,max}$ [Nm]	n_2 [r/min]	i Nominal	i Actual	P_{1n} [KW]	Fr_2 [N]	Fr_1 [N]		Page
240	71	20	19.84	1.9	3230	860	**TKM47B..HS**	68
200	93	15	15.09	2.1	2950	860	**TKB47B..HS**	68
300	112	12.5	12.49	3.8	2770	860		
240	142	0	9.84	3.9	2550	860		
200	187	7.5	7.48	4.3	2330	860		
500	4.7	300	295.18	0.27	8300	560	**TKM57C..HS**	68
500	5.8	250	240.89	0.34	8300	560	**TKB57C..HS**	68
480	7.0	200	200.66	0.39	8300	560		
500	9.3	150	151.20	0.54	8050	560		
480	11.1	125	125.95	0.62	7580	560		
380	14.1	100	99.22	0.62	7000	560		
300	18.6	75	75.45	0.65	6390	560		
480	22	60	62.43	1.3	6000	560		
380	28	50	49.18	1.3	5540	560		
500	24	60	59.04	1.3	5890	1260	**TKM57B..HS**	68
500	29	50	48.18	1.7	5500	1260	**TKB57B..HS**	68
480	35	40	40.13	1.9	5170	1260		
500	46	30	30.24	2.6	4710	1260		
480	56	25	25.19	3.0	4430	1260		
380	71	20	19.84	3.1	4090	1260		
300	93	15	15.09	3.2	3730	1260		
480	112	12.5	12.49	6.1	3510	1260		
380	142	10	9.84	6.2	3240	1260		
300	187	7.5	7.48	6.4	2950	1260		
750	4.7	300	296.10	0.40	10000	740	**TKM67C..HS**	68
750	5.7	250	244.29	0.50	10000	740	**TKB67C..HS**	68
750	6.8	200	206.29	0.59	9920	740		
750	9.1	150	153.33	0.80	8980	740		
750	10.8	125	129.48	0.94	8490	740		
650	13.5	100	103.64	1.0	7880	740		
520	18.5	75	75.55	1.1	7090	740		
750	22	60	64.18	1.9	6720	740		
650	27	50	51.37	2.1	6240	740		
750	24	60	59.22	2.0	6540	1490	**TKM67B..HS**	68
750	29	50	48.86	2.4	6130	1490	**TKB67B..HS**	68
750	34	40	41.26	2.9	5800	1490		
750	46	30	30.67	3.9	5250	1490		
750	54	25	25.90	4.6	4960	1490		
650	68	20	20.73	5.0	4610	1490		
520	93	15	15.11	5.5	4150	1490		
750	109	12.5	12.84	9.3	3930	1490		
650	136	10	10.27	10.1	3650	1490		
520	187	7.5	7.49	11.1	3280	1490		

7. OUTLINE DIMENSION SHEET

7.1 TKM.. MV / Outline Dimension

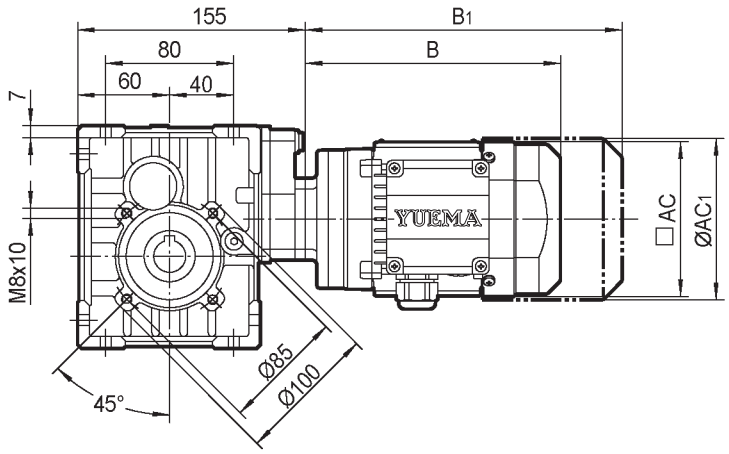
TKM27B..MV..

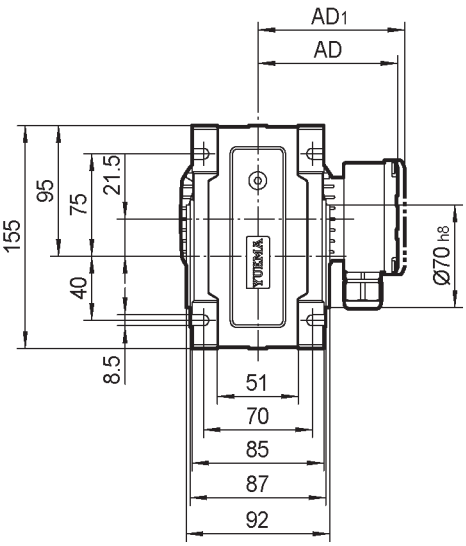


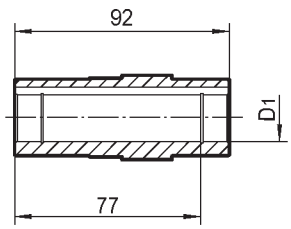
MV..	B	B1	AC	AC1	AD	AD1
MV63..	207	262	132	132	105	105
MV71..	222	286	134	148	122	127
MV80..	257	350	134	148	122	127
MV90..	281	366	182	203	154	161

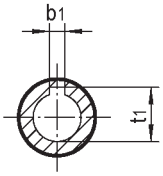
D1 H8	b1	t1
20*	6	22.8
24	8	27.3
*Only on request		

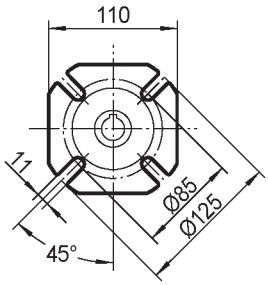
TKM27C..MV..

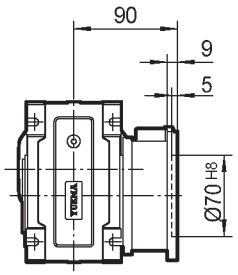




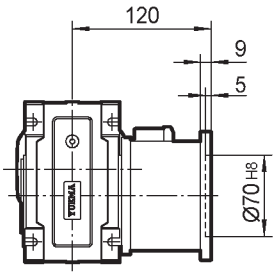








FA



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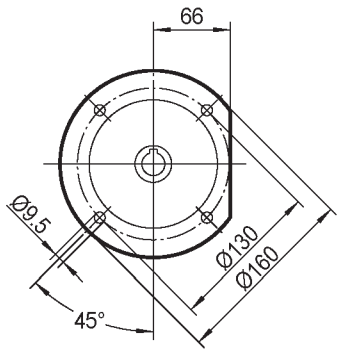

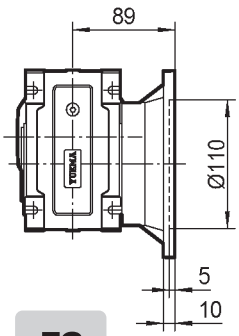

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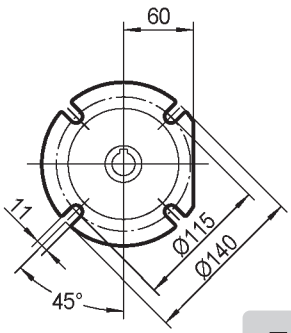
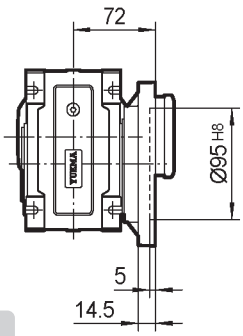


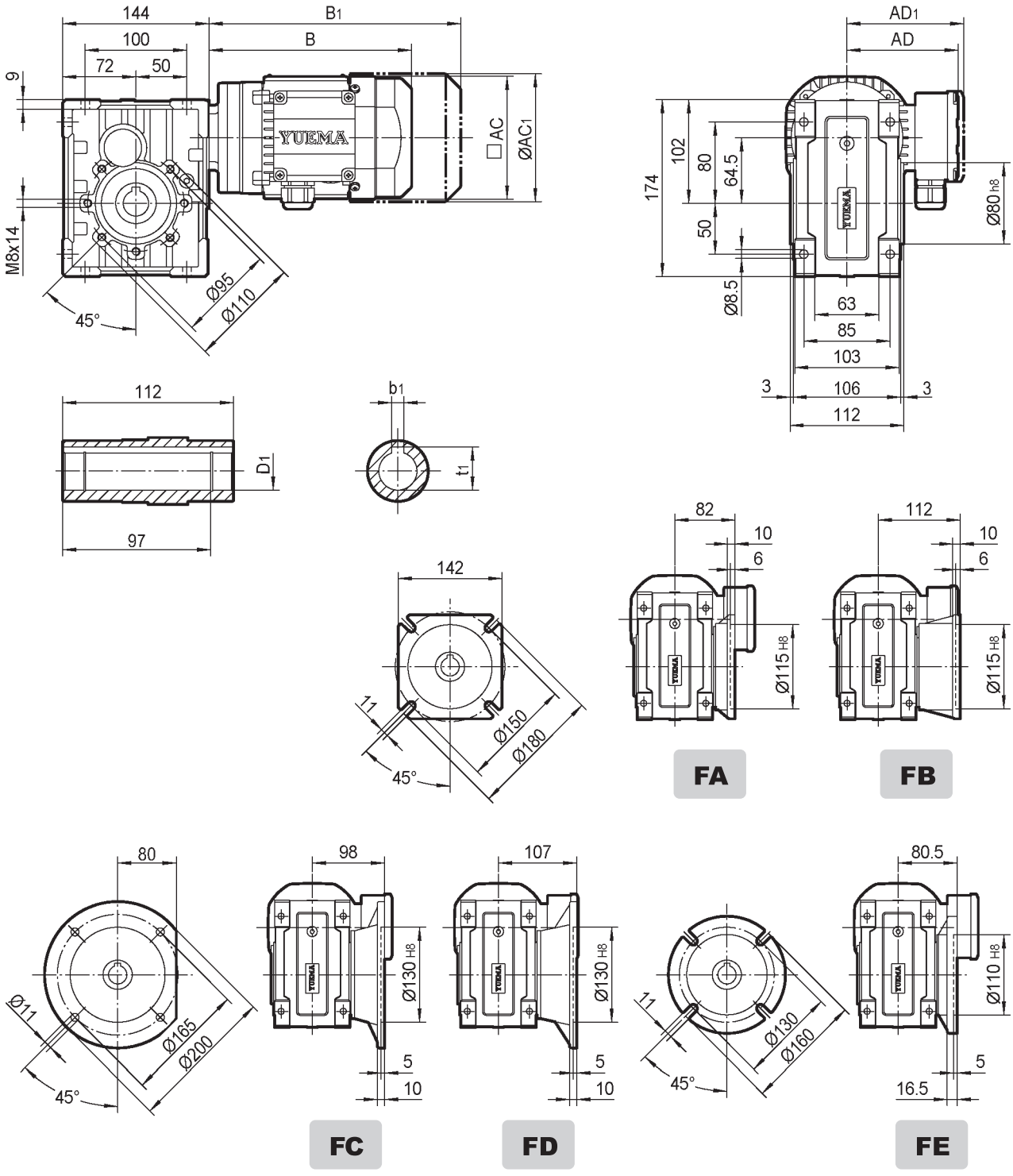


FD

MV..	B	B1	AC	AC1	AD	AD1
MV63..	207	262	132	132	105	105
MV71..	222	286	134	148	122	127

D1 H8	b1	t1
20*	6	22.8
24	8	27.3
*Only on request		

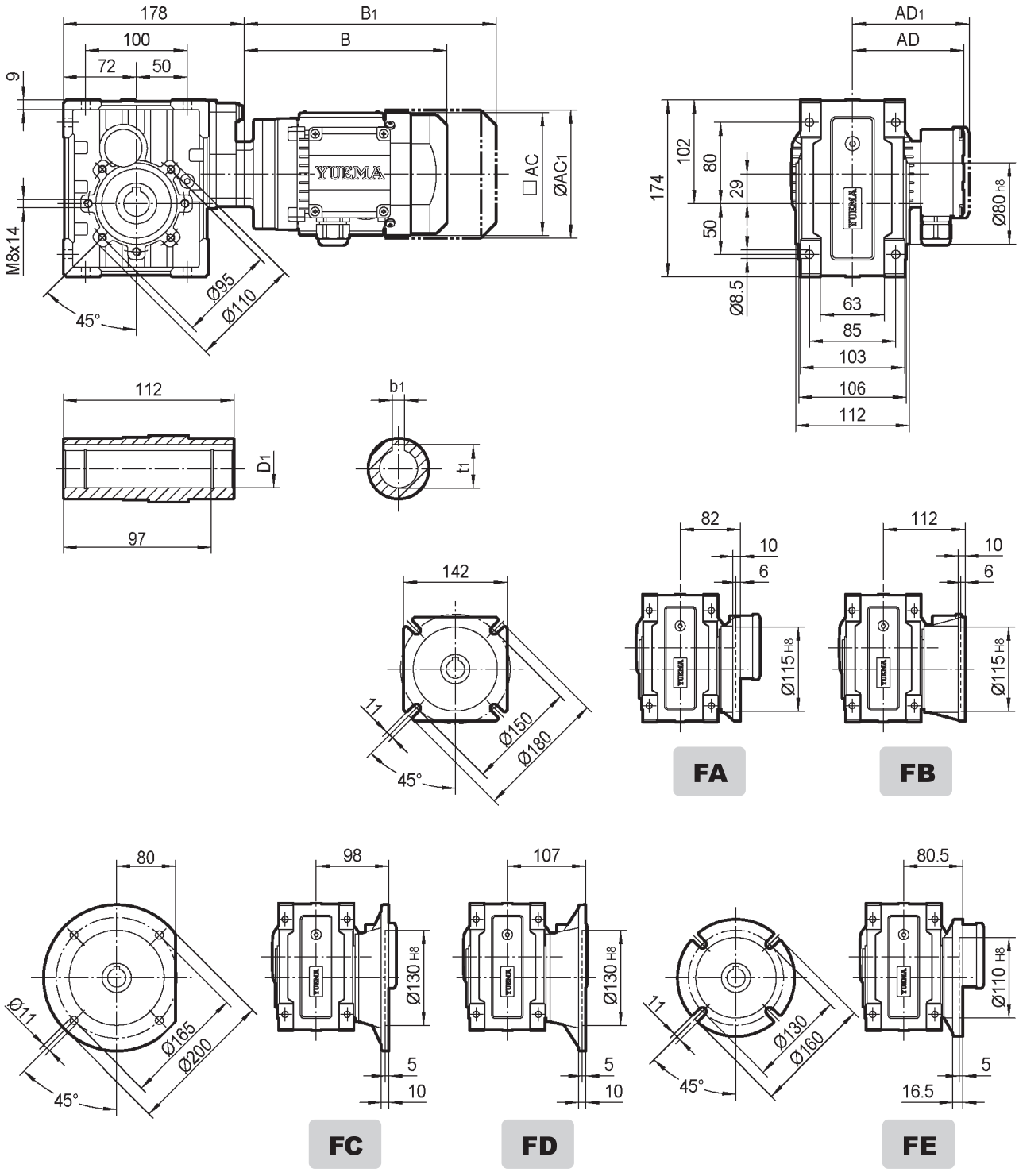
TKM37B..MV..



MV..	B	B1	AC	AC1	AD	AD1
MV63..	207	262	132	132	105	105
MV71..	222	286	134	148	122	127
MV80..	257	350	134	148	122	127
MV90..	281	366	182	203	154	161

D1 H8	b1	t1
25	8	28.3
28*	8	31.3
*Only on request		

TKM37C..MV..

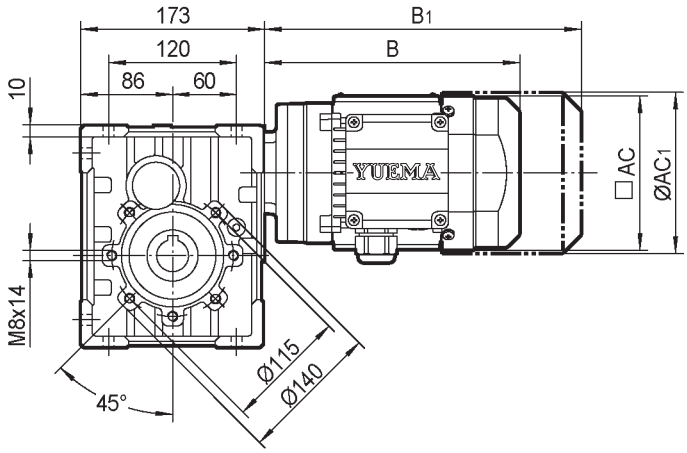


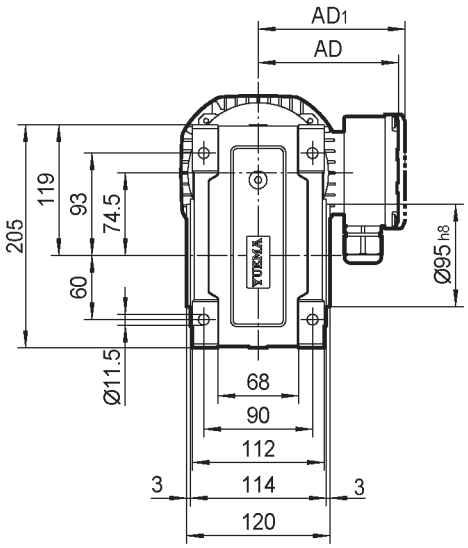
MV..	B	B1	AC	AC1	AD	AD1
MV63..	207	262	132	132	105	105
MV71..	222	286	134	148	122	127
MV80..	257	350	134	148	122	127

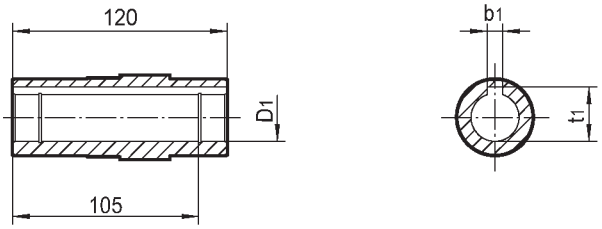
D1 H8	b1	t1
25	8	28.3
28*	8	31.3

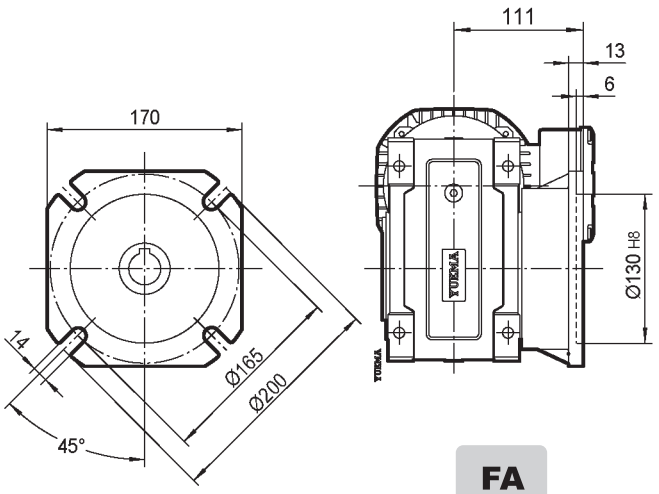
*Only on request

TKM47B..MV..









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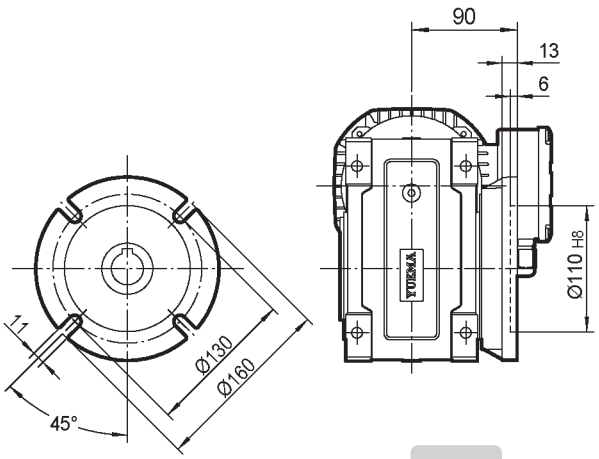


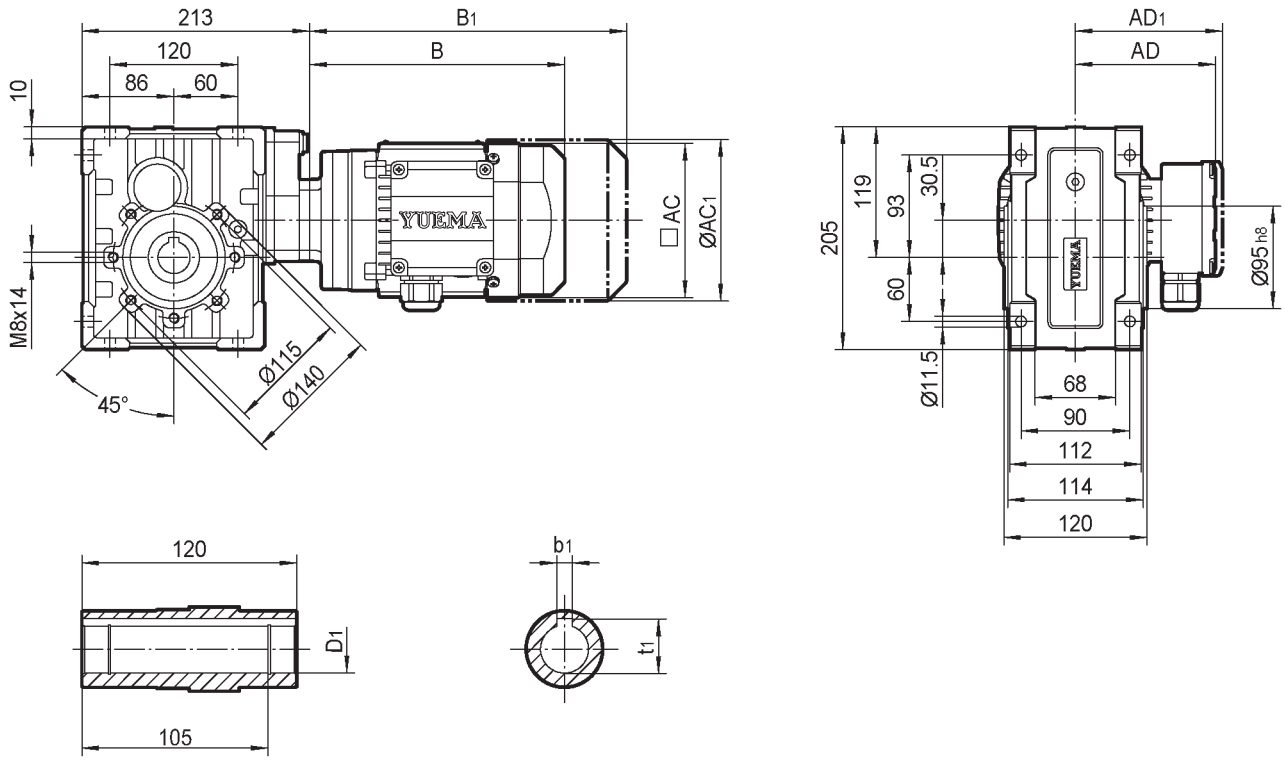
FB

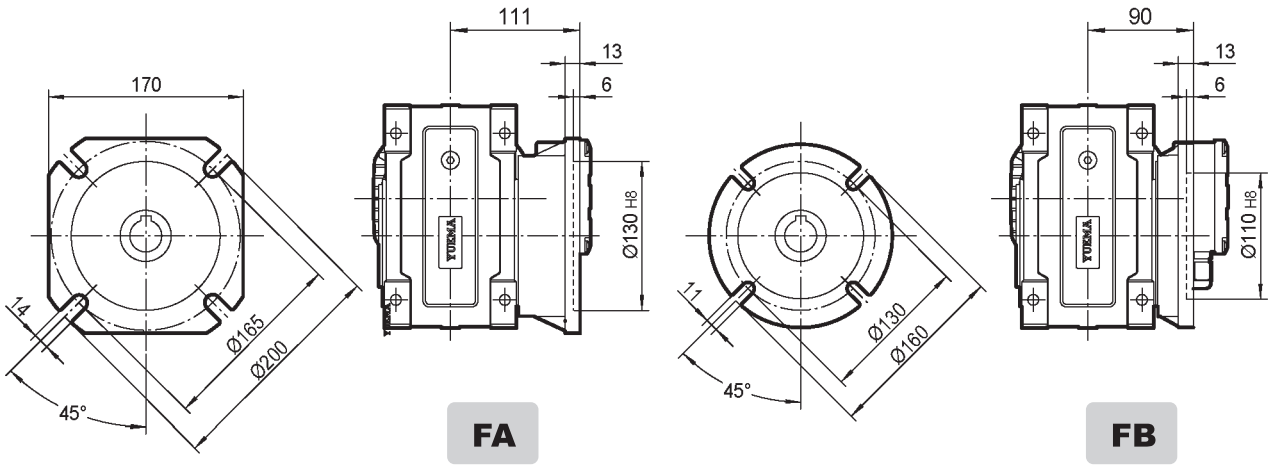
MV..	B	B1	AC	AC1	AD	AD1
MV71..	226	290	134	148	122	127
MV80..	261	354	134	148	122	127
MV90..	285	370	182	203	154	161
MV100M..	325	410	182	203	154	161
MV100L..	355	440	182	203	154	161
MV112..	373	453	206	221	179	182

D1 H8	b1	t1
28	8	31.3
30*	8	33.3
35*	10	38.3

*Only on request

TKM47C..MV..



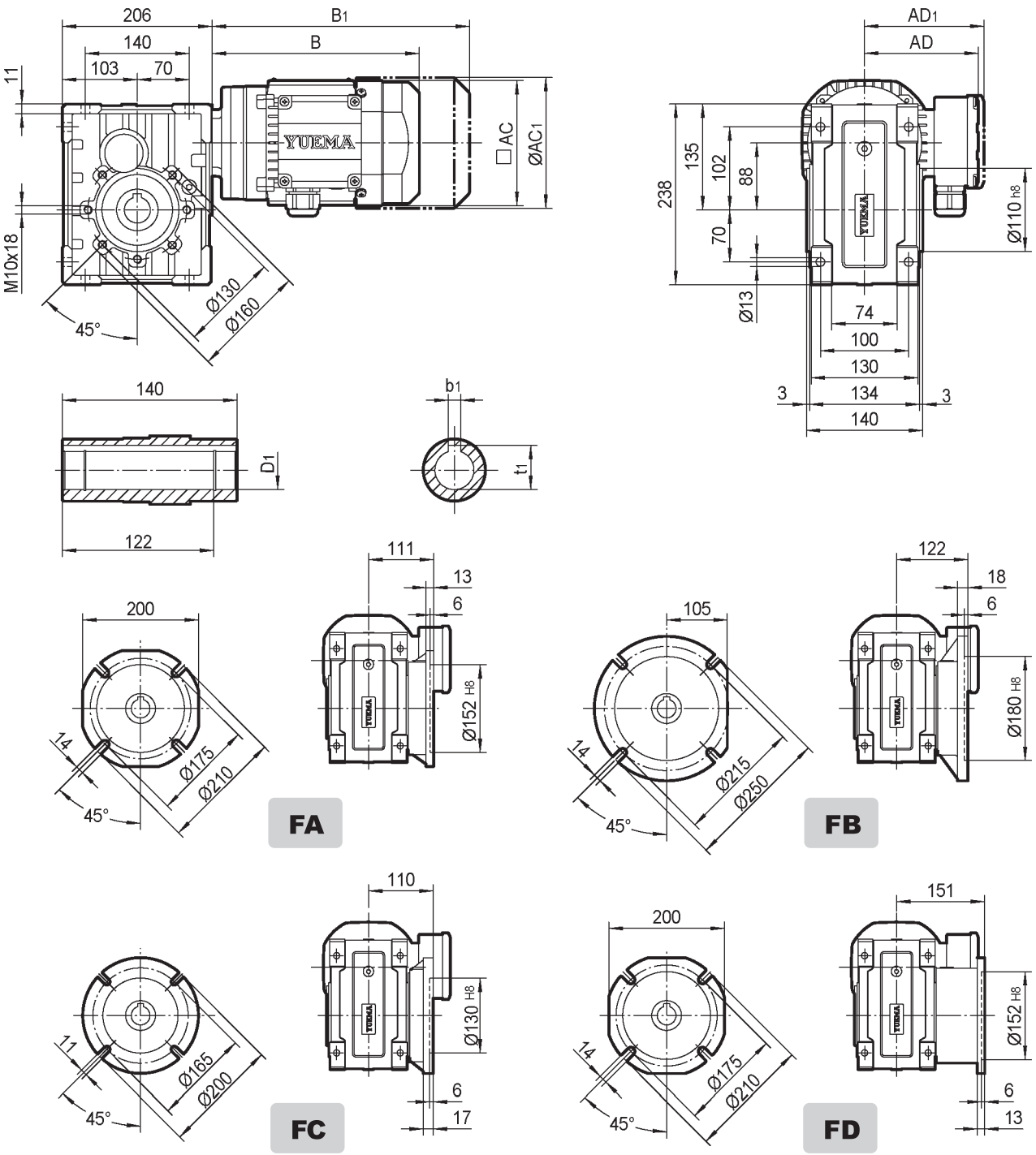


MV..	B	B1	AC	AC1	AD	AD1
MV63..	211	266	132	132	105	105
MV71..	226	290	134	148	122	127
MV80..	261	354	134	148	122	127
MV90..	285	370	182	203	154	161

D1 H8	b1	t1
28	8	31.3
30*	8	33.3
35*	10	38.3

*Only on request

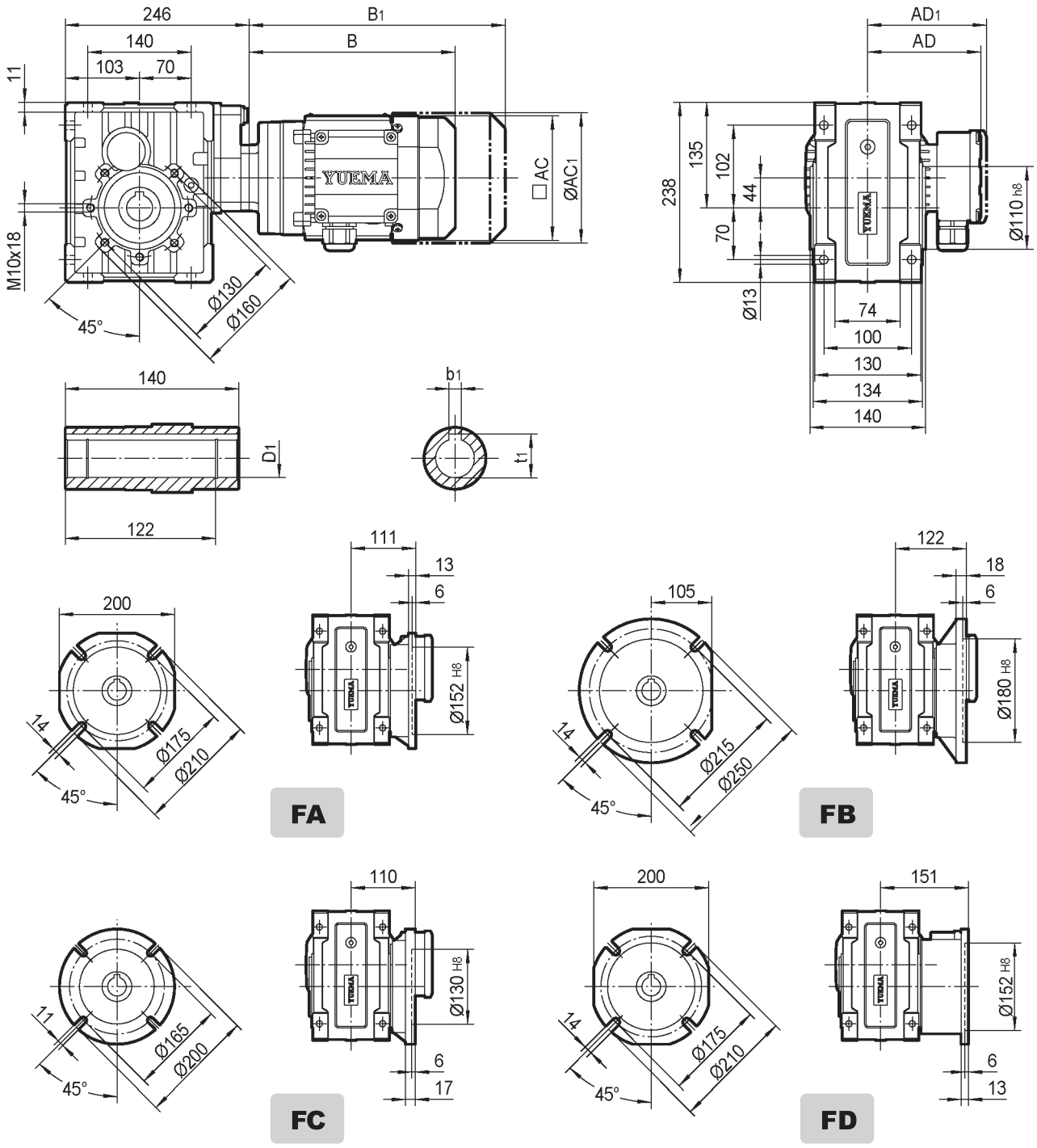
TKM57B..MV..



MV..	B	B1	AC	AC1	AD	AD1
MV63..	211	266	132	132	105	105
MV71..	226	290	134	148	122	127
MV80..	261	354	134	148	122	127
MV90..	285	370	182	203	154	161

D1 H8	b1	t1
35	10	38.3
38*	10	41.3
*Only on request		

TKM57C..MV..

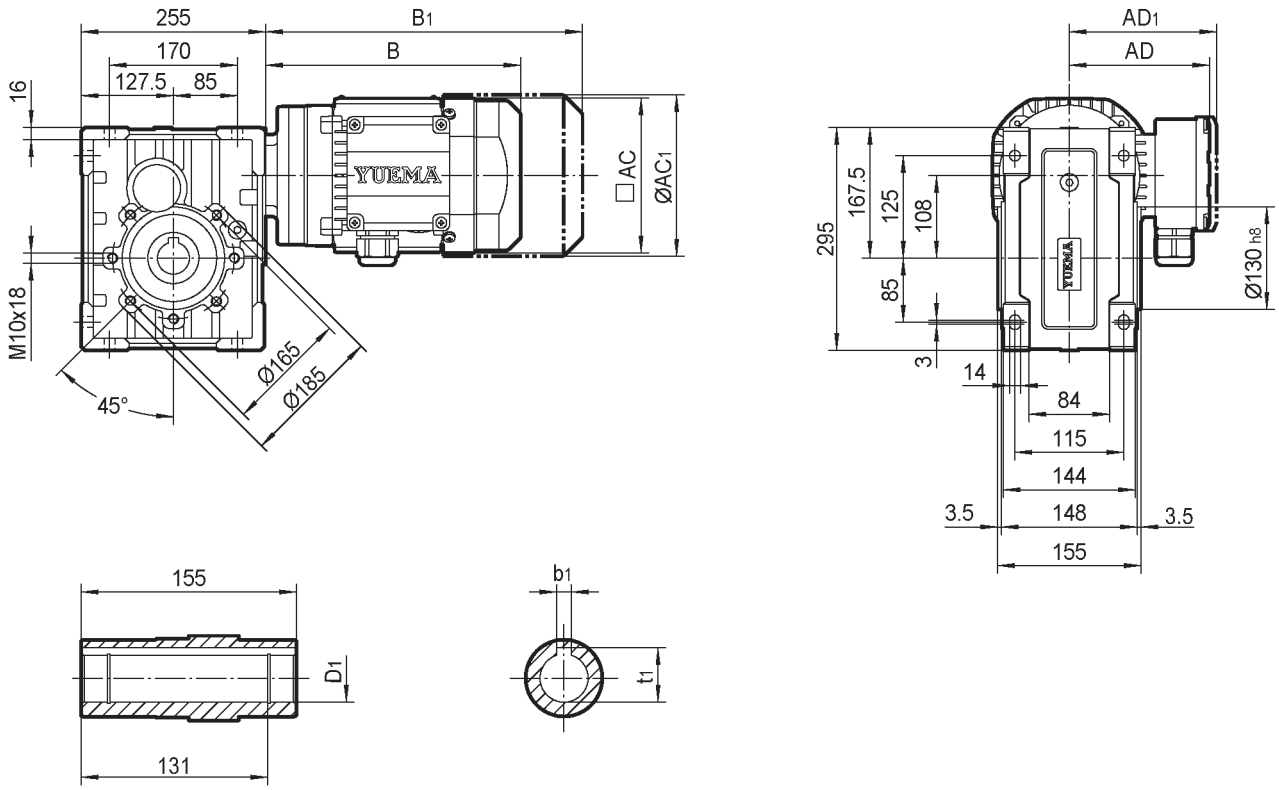


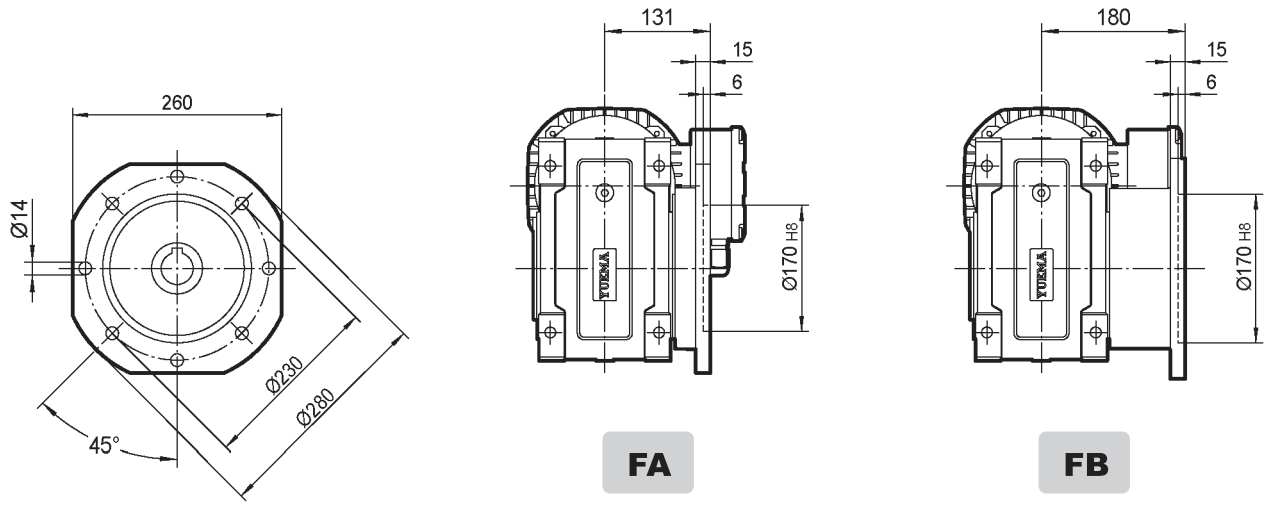
MV..	B	B1	AC	AC1	AD	AD1
MV71..	226	290	134	148	122	127
MV80..	261	354	134	148	122	127
MV90..	285	370	182	203	154	161
MV100M..	325	410	182	203	154	161
MV100L..	355	440	182	203	154	161
MV112..	373	453	206	221	179	182

D1 H8	b1	t1
35	10	38.3
38*	10	41.3

*Only on request

TKM67B..MV..

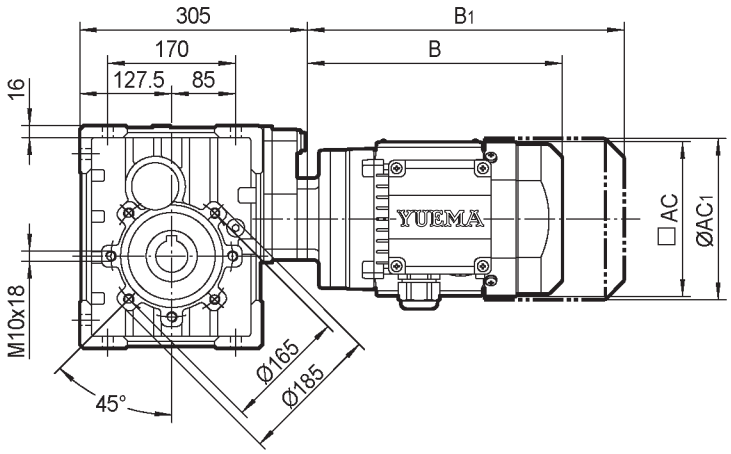


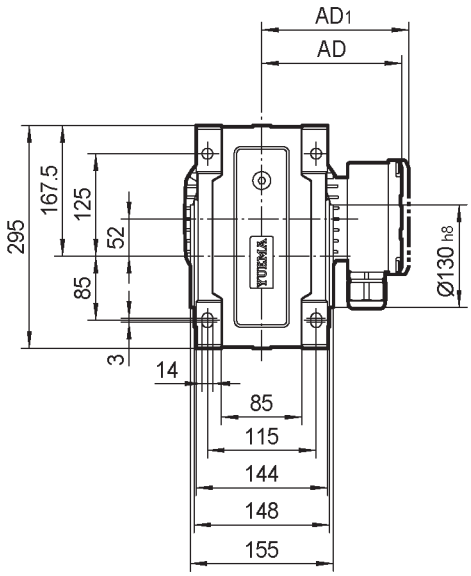


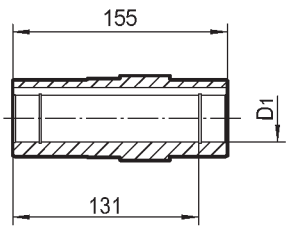
MV..	B	B1	AC	AC1	AD	AD1
MV80..	267	360	134	148	122	127
MV90..	291	376	182	203	154	161
MV100M..	331	416	182	203	154	161
MV100L..	361	446	182	203	154	161
MV112..	379	459	206	221	179	182
MV132..	424	504	206	221	179	182

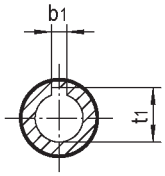
D1 H8	b1	t1
40*	12	43.3
42	12	45.3
*Only on request		

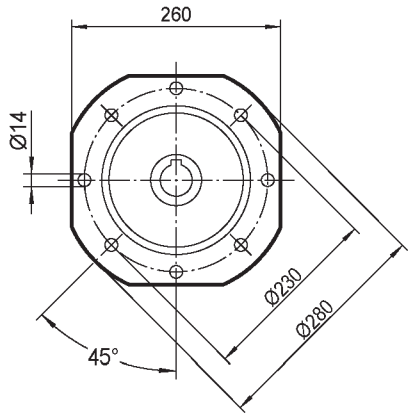
TKM67C..MV..

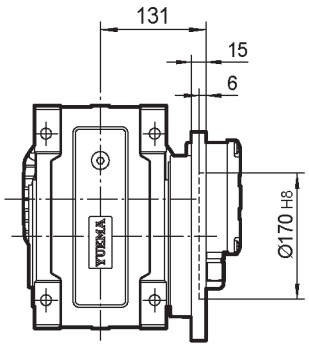




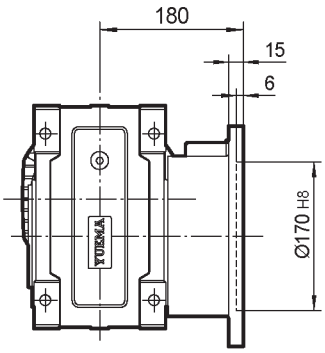








FA



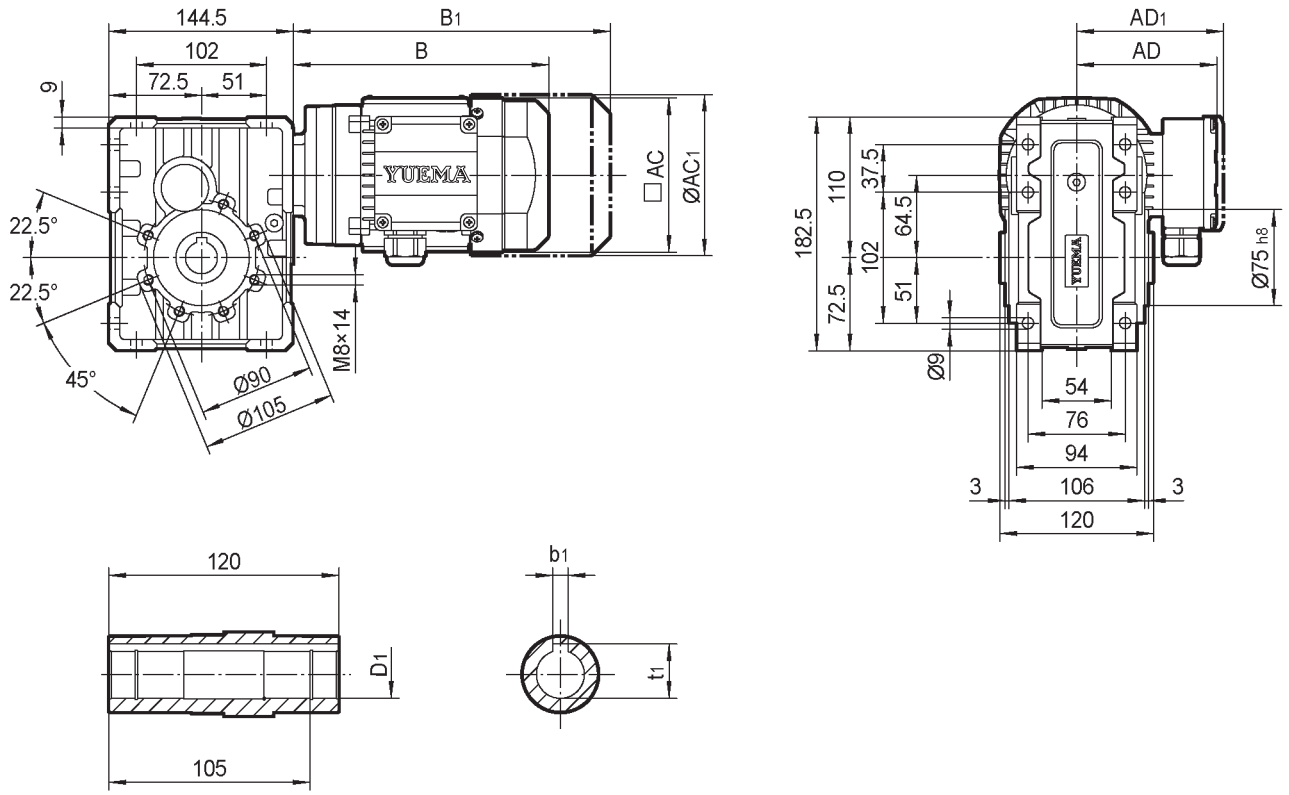
FB

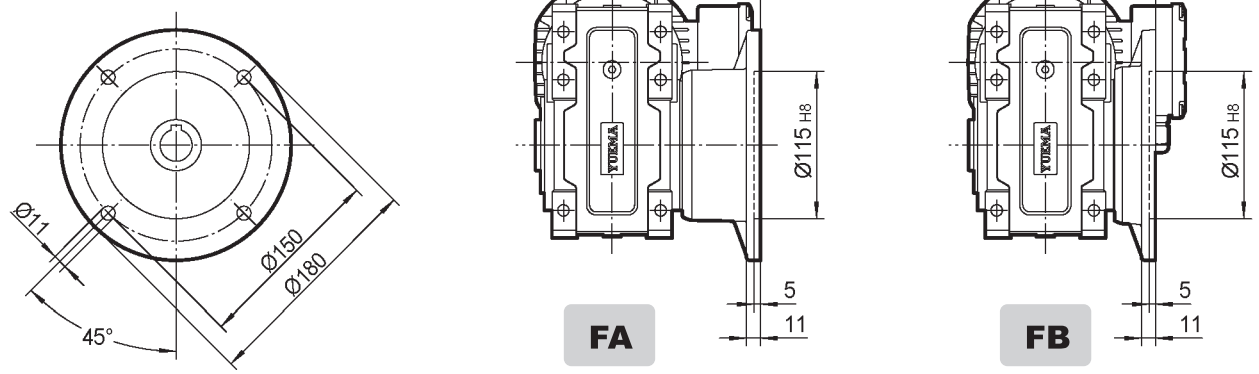
MV..	B	B1	AC	AC1	AD	AD1
MV71..	232	325	134	148	122	127
MV80..	267	360	134	148	122	127
MV90..	291	376	182	203	154	161
MV100M..	331	416	182	203	154	161
MV100L..	361	446	182	203	154	161

D1 H8	b1	t1
40*	12	43.3
42	12	45.3
*Only on request		

7.2 TKB..MV / Outline Dimension

TKB37B..MV..

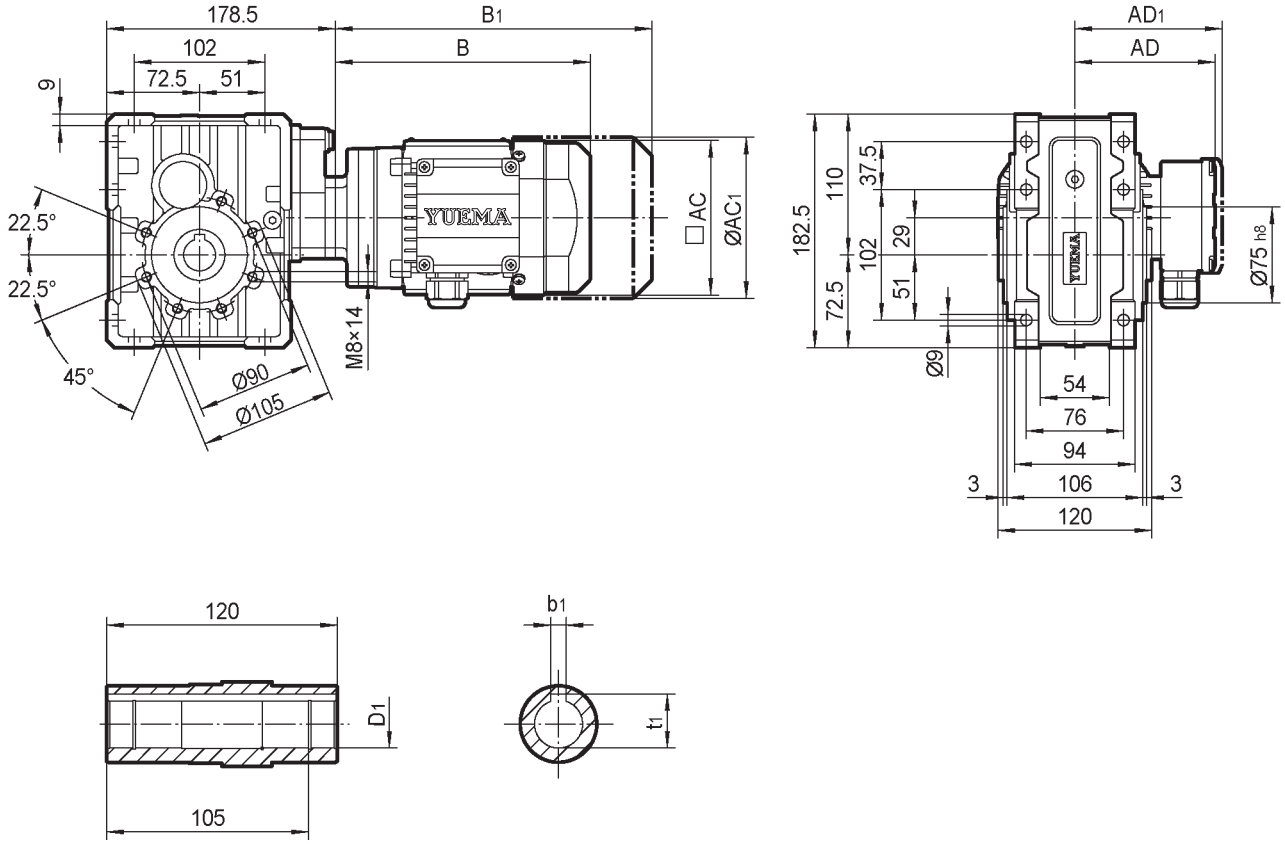


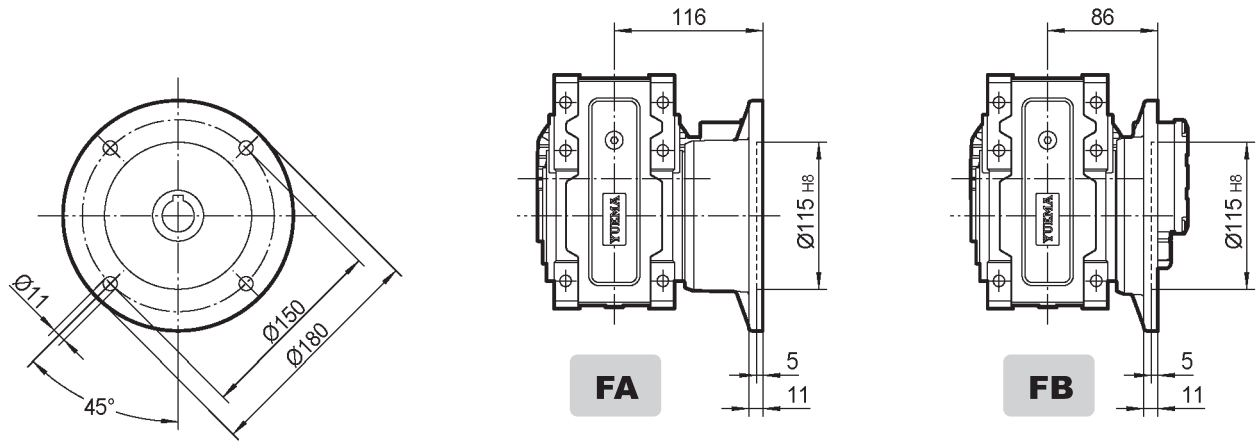


MV..	B	B1	AC	AC1	AD	AD1
MV63..	207	262	132	132	105	105
MV71..	222	286	134	148	122	127
MV80..	257	350	134	148	122	127
MV90..	281	366	182	203	154	161

D1 H8	b1	t1
25	8	28.3
28*	8	31.3
*Only on request		

TKB37C..MV..

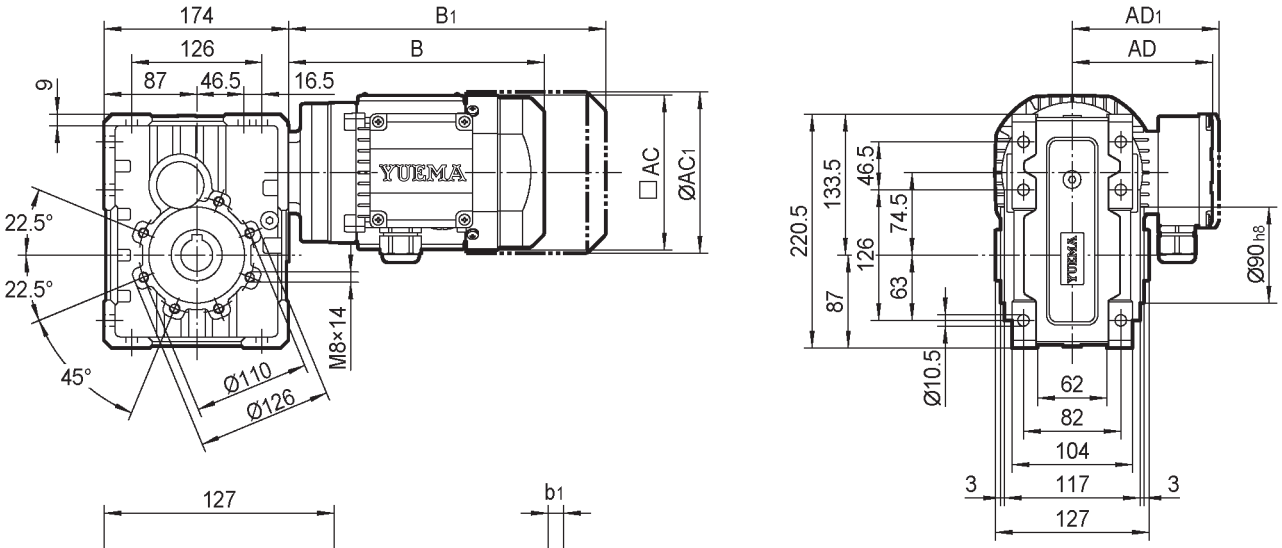


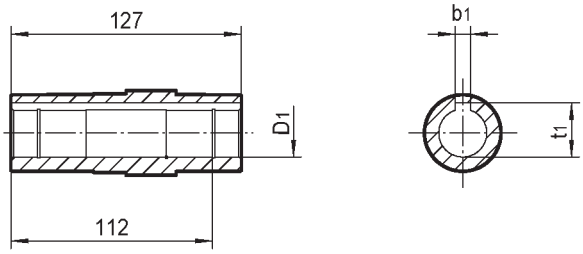


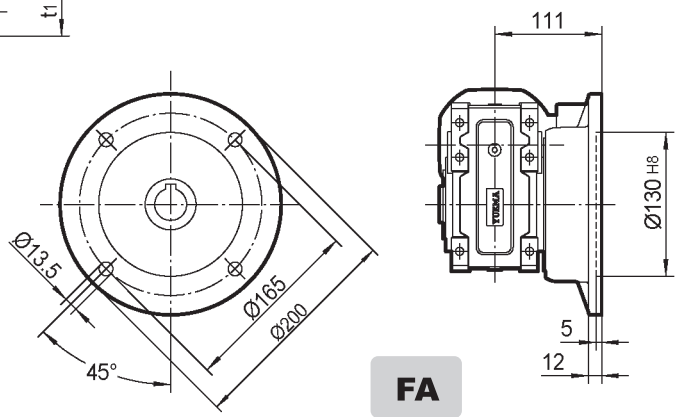
MV..	B	B1	AC	AC1	AD	AD1
MV63..	207	262	132	132	105	105
MV71..	222	286	134	148	122	127
MV80..	257	350	134	148	122	127

D1 H8	b1	t1
25	8	28.3
28*	8	31.3
*Only on request		

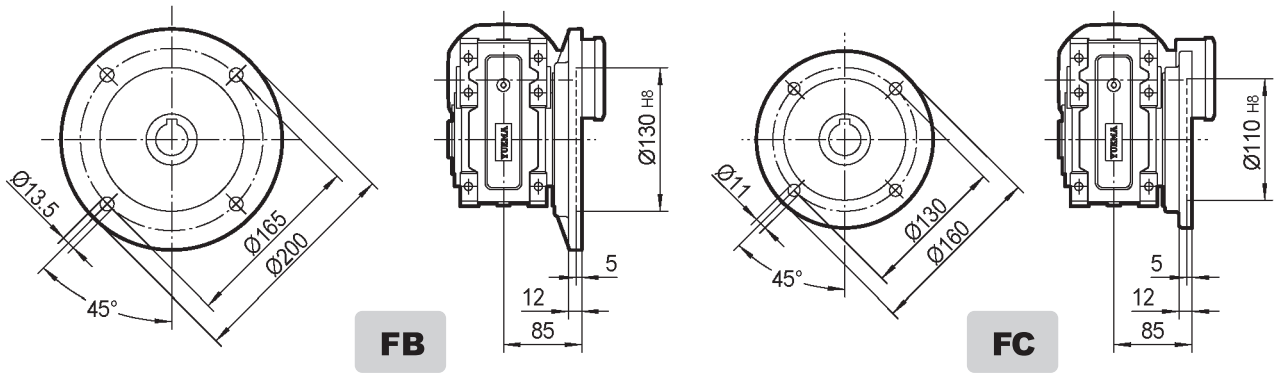
TKB47B..MV..







FA

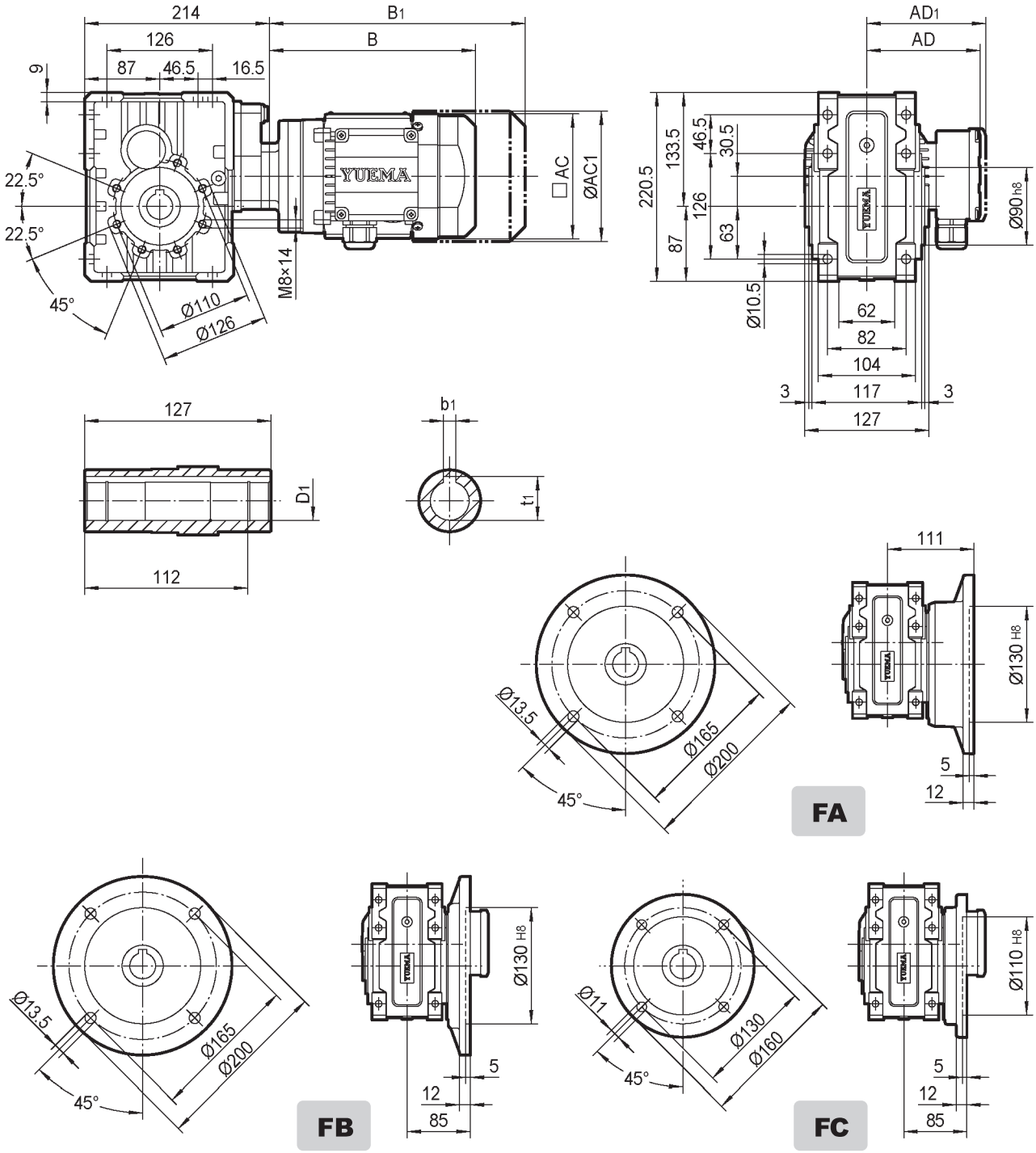


FB **FC**

MV..	B	B1	AC	AC1	AD	AD1
MV71..	226	290	134	148	122	127
MV80..	261	354	134	148	122	127
MV90..	285	370	182	203	154	161
MV100M..	325	410	182	203	154	161
MV100L..	355	440	182	203	154	161
MV112..	373	453	206	221	179	182

D1 H8	b1	t1
28*	8	31.3
30	8	33.3
35*	10	38.3
*Only on request		

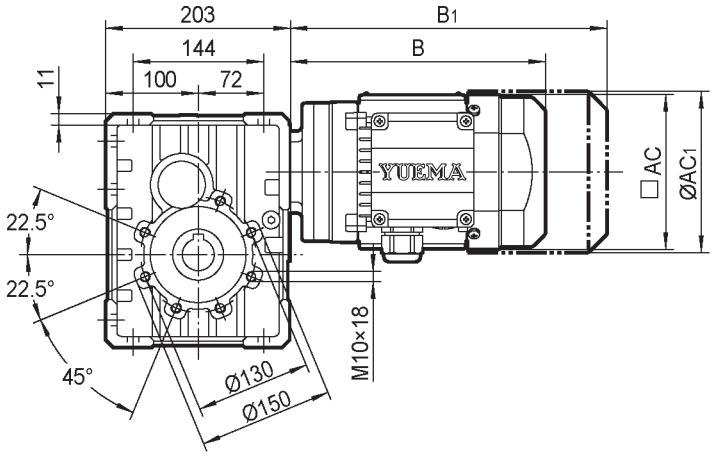
TKB47C..MV..

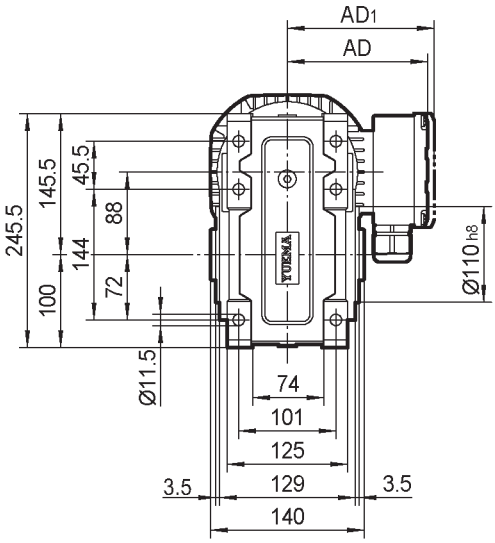


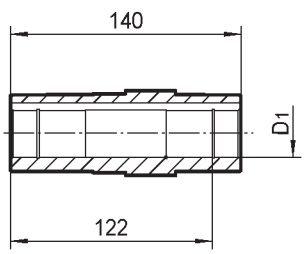
MV..	B	B1	AC	AC1	AD	AD1
MV63..	211	266	132	132	105	105
MV71..	226	290	134	148	122	127
MV80..	261	354	134	148	122	127
MV90..	285	370	182	203	154	161

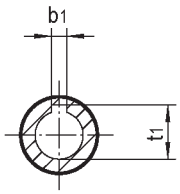
D1 H8	b1	t1
28*	8	31.3
30	8	33.3
35*	10	38.3
*Only on request		

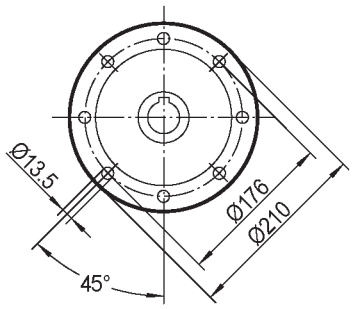
TKB57B..MV..

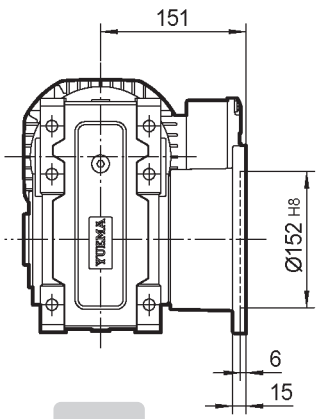




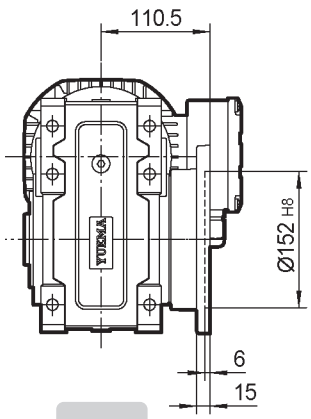








FA



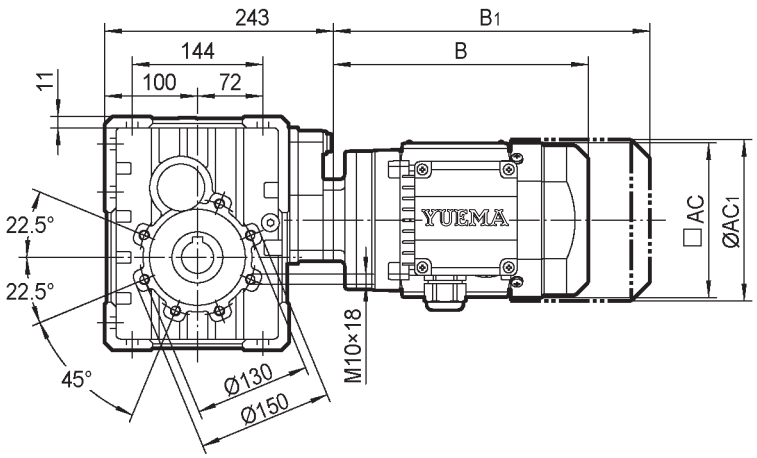
FB

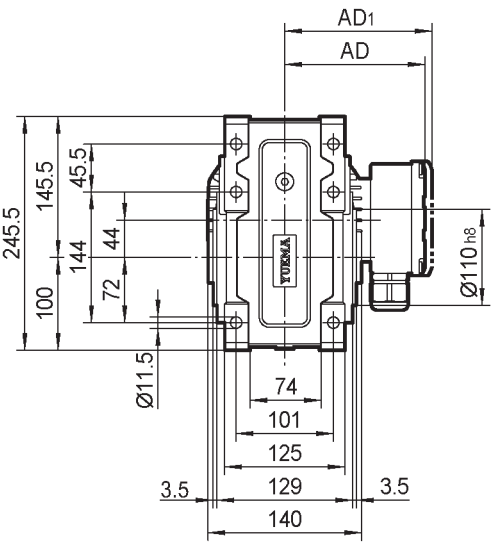
MV..	B	B1	AC	AC1	AD	AD1
MV71..	226	290	134	148	122	127
MV80..	261	354	134	148	122	127
MV90..	285	370	182	203	154	161
MV100M..	325	410	182	203	154	161
MV100L..	355	440	182	203	154	161
MV112..	373	453	206	221	179	182

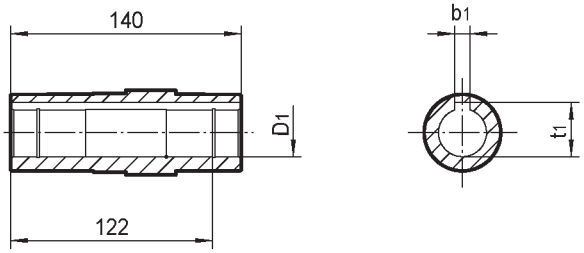
D1 H8	b1	t1
35	10	38.3
38*	10	41.3

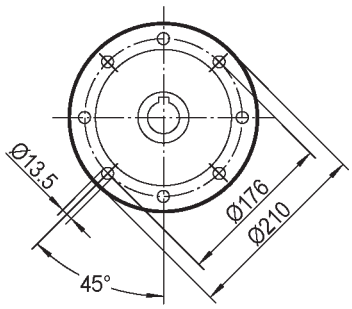
*Only on request

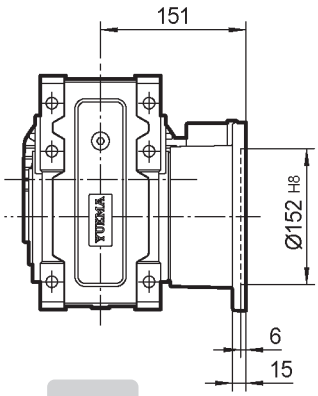
TKB57C..MV..



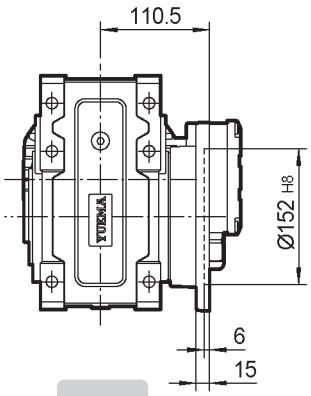








FA



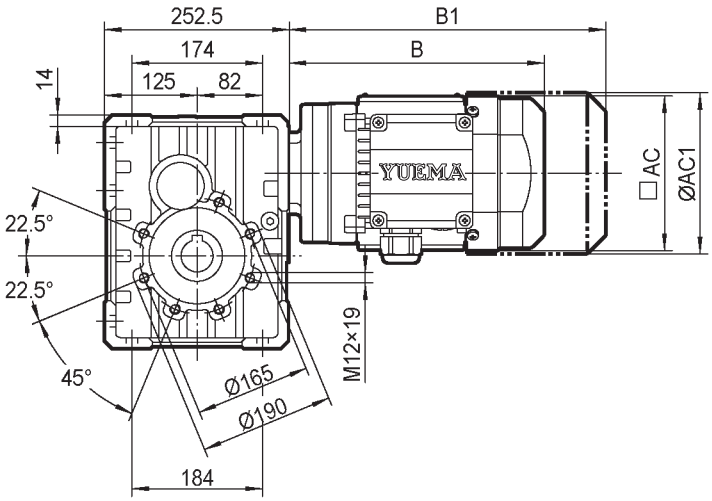
FB

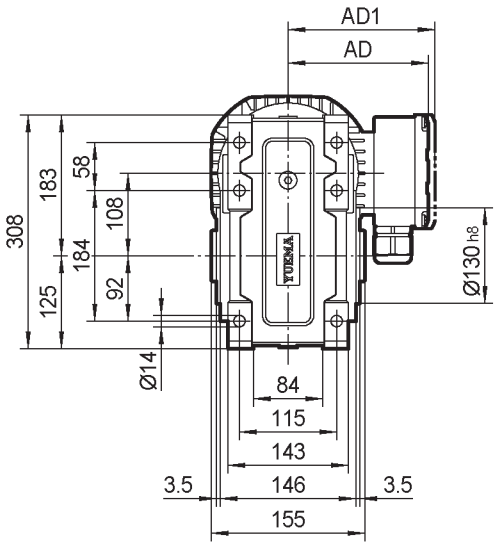
MV..	B	B1	AC	AC1	AD	AD1
MV63..	211	266	132	132	105	105
MV71..	226	290	134	148	122	127
MV80..	261	354	134	148	122	127
MV90..	285	370	182	203	154	161

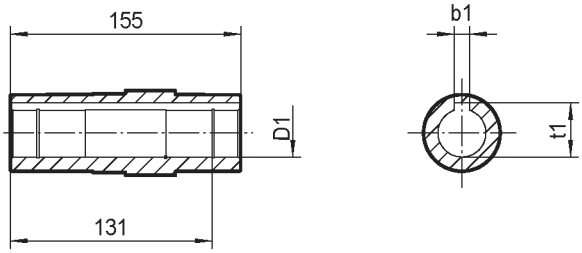
D1 H8	b1	t1
35	10	38.3
38*	10	41.3

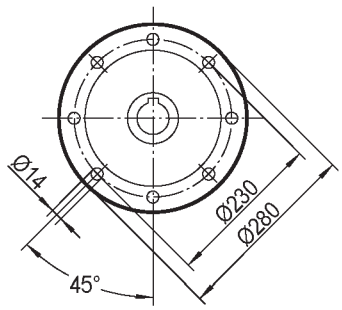
*Only on request

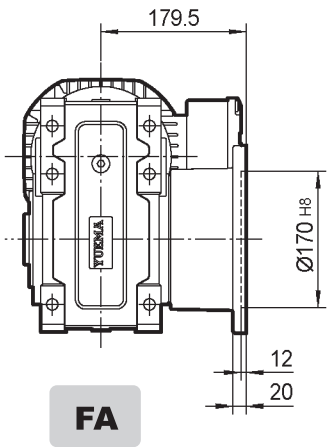
TKB67B..MV..

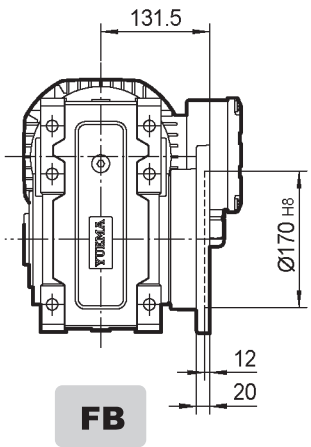








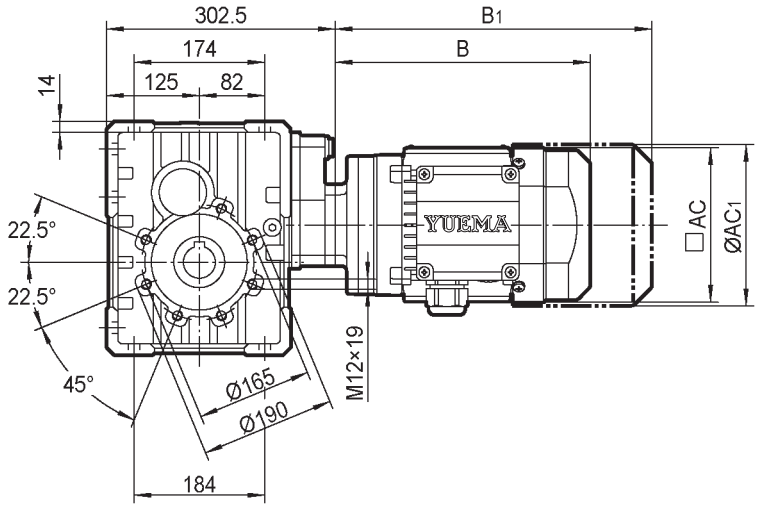


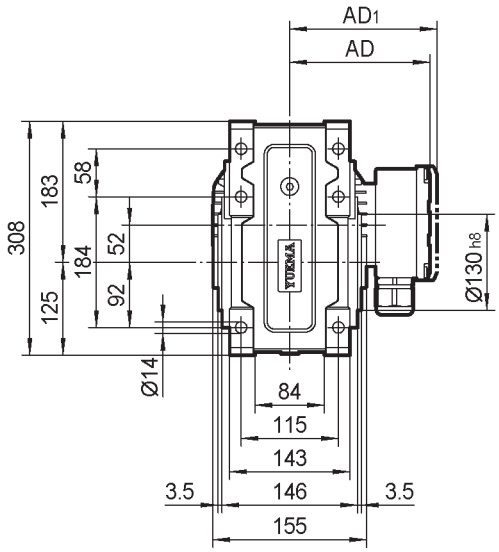


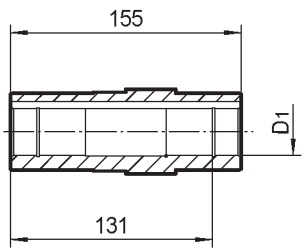
MV..	B	B1	AC	AC1	AD	AD1
MV80..	267	360	134	148	122	127
MV90..	291	376	182	203	154	161
MV100M..	331	416	182	203	154	161
MV100L..	361	446	182	203	154	161
MV112..	379	459	206	221	179	182
MV132..	424	504	206	221	179	182

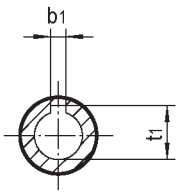
D1 H8	b1	t1
40*	12	43.3
42	12	45.3
*Only on request		

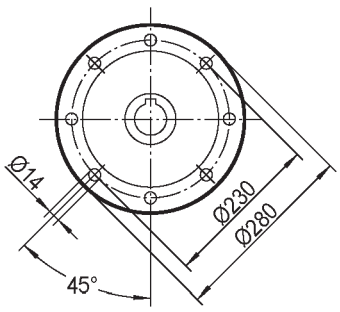
TKB67C..MV..

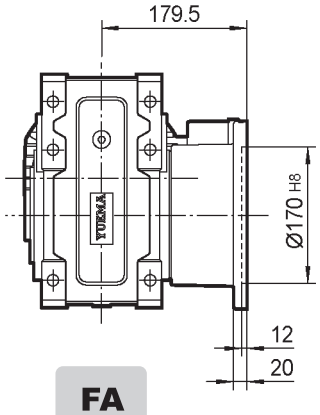


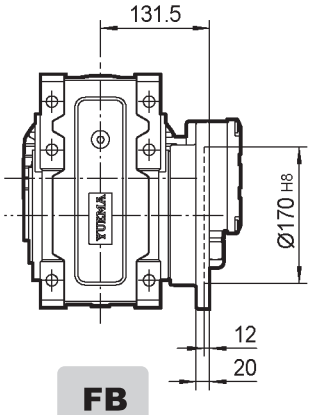










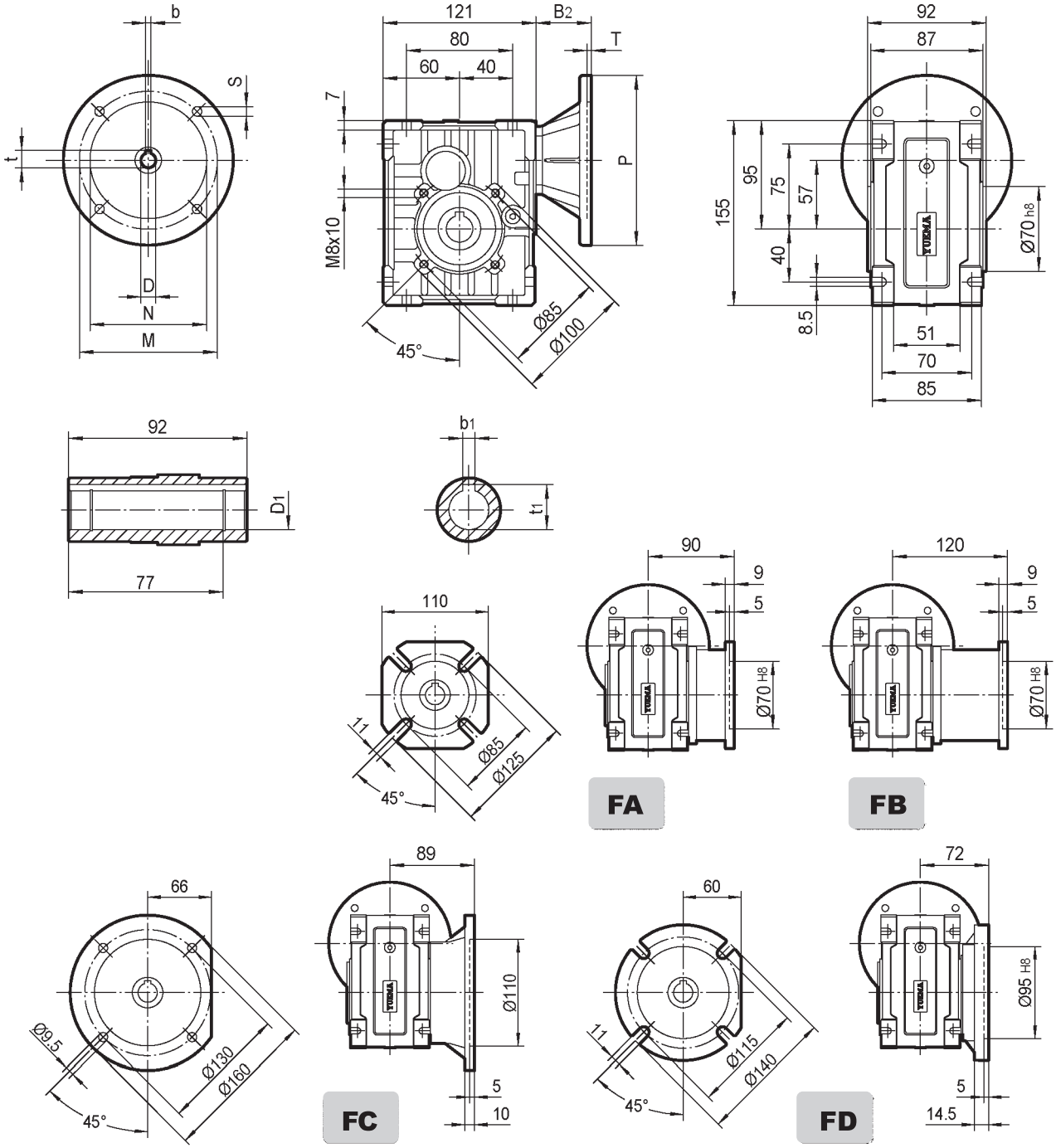


MV..	B	B1	AC	AC1	AD	AD1
MV71..	232	325	134	148	122	127
MV80..	267	360	134	148	122	127
MV90..	291	376	182	203	154	161
MV100M..	331	416	182	203	154	161
MV100L..	361	446	182	203	154	161

D1 H8	b1	t1
40*	12	43.3
42	12	45.3
*Only on request		

7.3 TKM..(IEC) / Outline Dimension

TKM27B..(IEC)



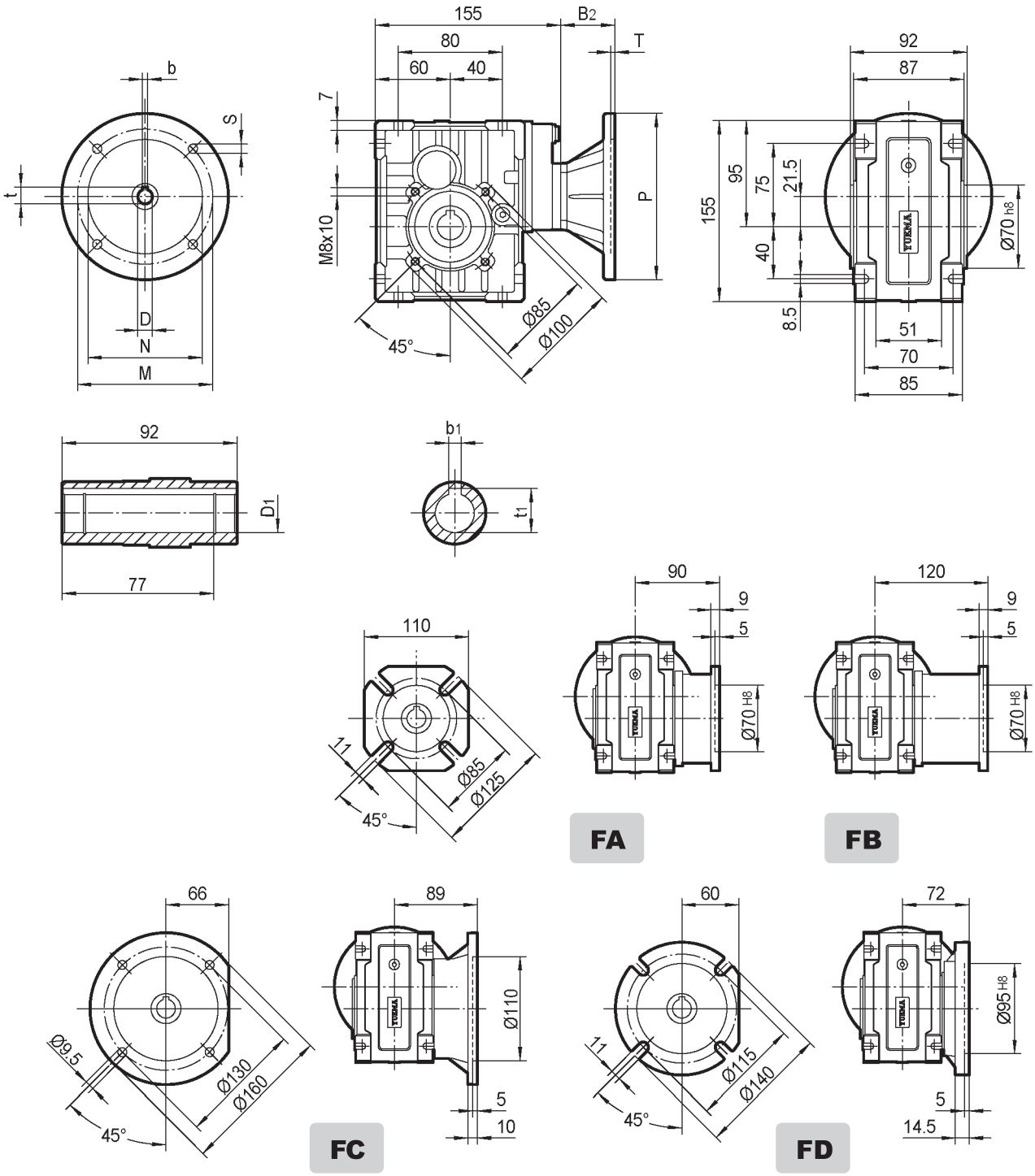
IEC	D_{E8}	b	t	P	M	N	S	T	B_2
63B5	11	4	12.8	140	115	95	9	4	45
71B5	14	5	16.3	160	130	110	9	4	52
71B14	14	5	16.3	105	85	70	7	4	52
80B5	19	6	21.8	200	165	130	11	4	72
80B14	19	6	21.8	120	100	80	7	4	72
90B5	24	8	27.3	200	165	130	11	4	72
90B14	24	8	27.3	140	115	95	9	4	72

$D1_{H8}$	b_1	t_1
20*	6	22.8
24	8	27.3

*Only on request

Weight without motor ≈ 4.2 kg

TKM27C..(IEC)

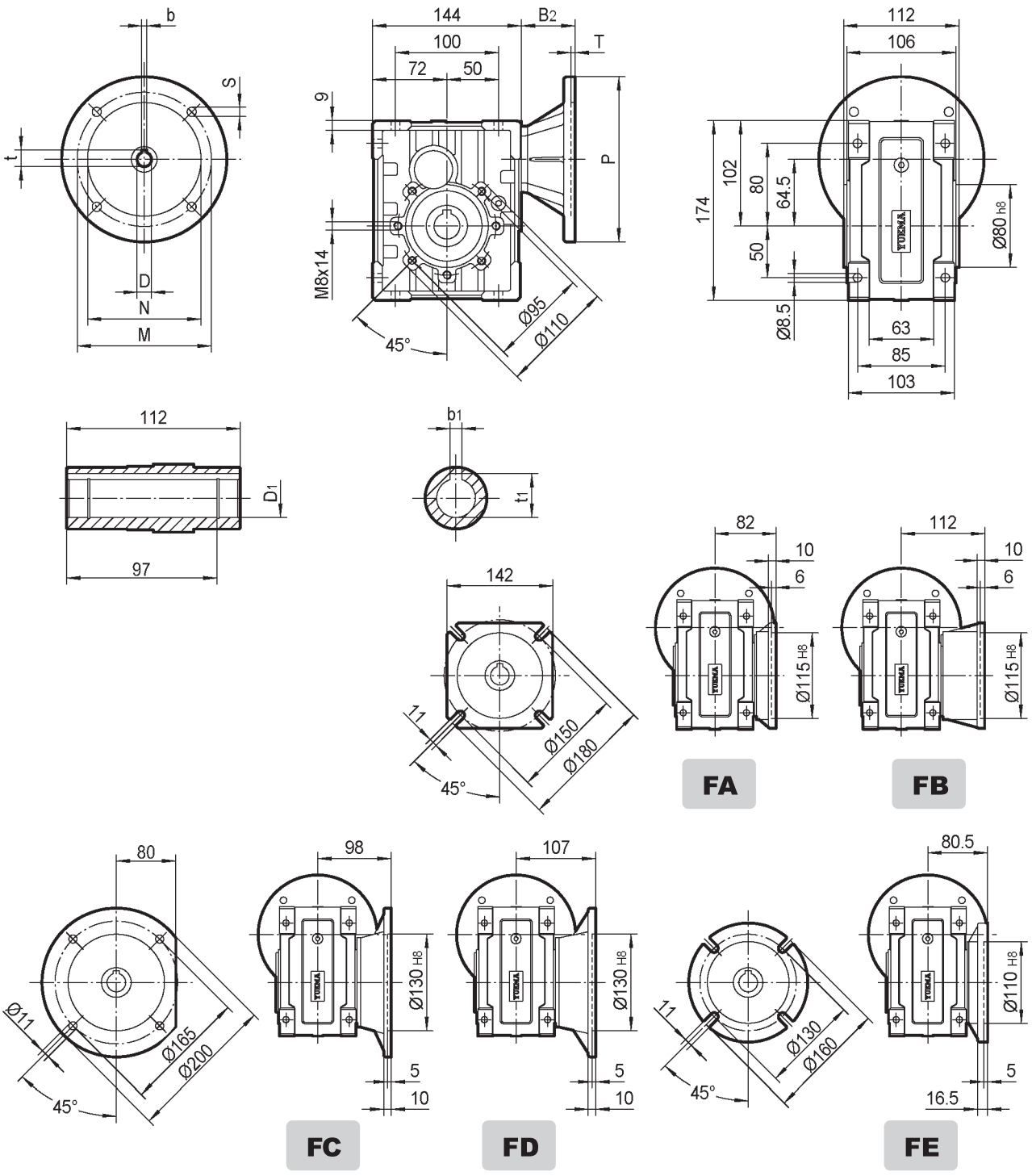


IEC	DE8	b	t	P	M	N	S	T	B2
63B5	11	4	12.8	140	115	95	9	4	45
71B5	14	5	16.3	160	130	110	9	4	52
71B14	14	5	16.3	105	85	70	7	4	52

D1 H8	b1	t1
20*	6	22.8
24	8	27.3
*Only on request		

Weight without motor ≈ 5 kg

TKM37B..(IEC)



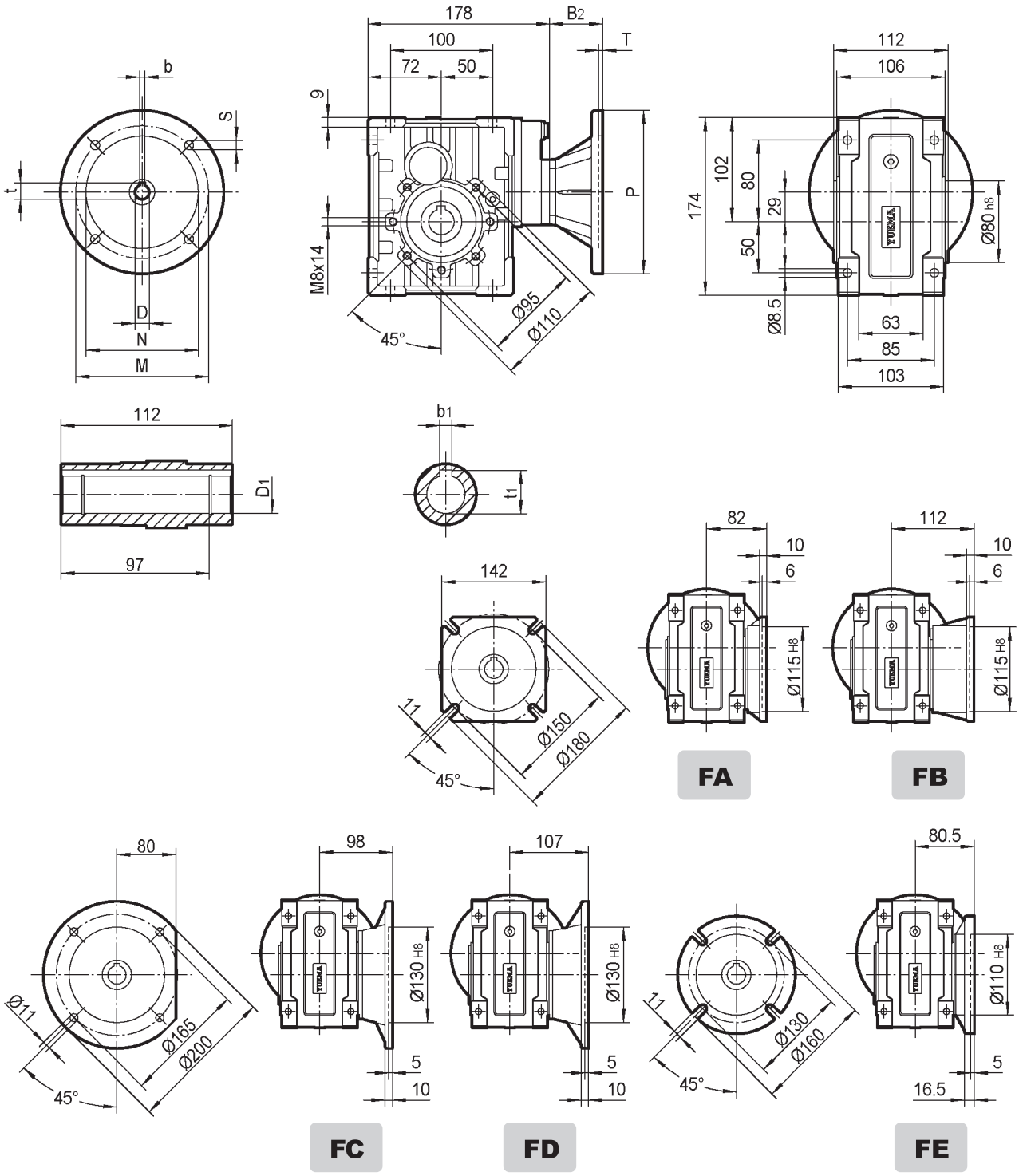
IEC	DE8	b	t	P	M	N	S	T	B2
63B5	11	4	12.8	140	115	95	9	4	45
71B5	14	5	16.3	160	130	110	9	4	52
71B14	14	5	16.3	105	85	70	7	4	52
80B5	19	6	21.8	200	165	130	11	4	72
80B14	19	6	21.8	120	100	80	7	4	72
90B5	24	8	27.3	200	165	130	11	4	72
90B14	24	8	27.3	140	115	95	9	4	72

D1 H8	b1	t1
25	8	28.3
28*	8	31.3

*Only on request

Weight without motor ≈ 6.0 kg

TKM37C..(IEC)

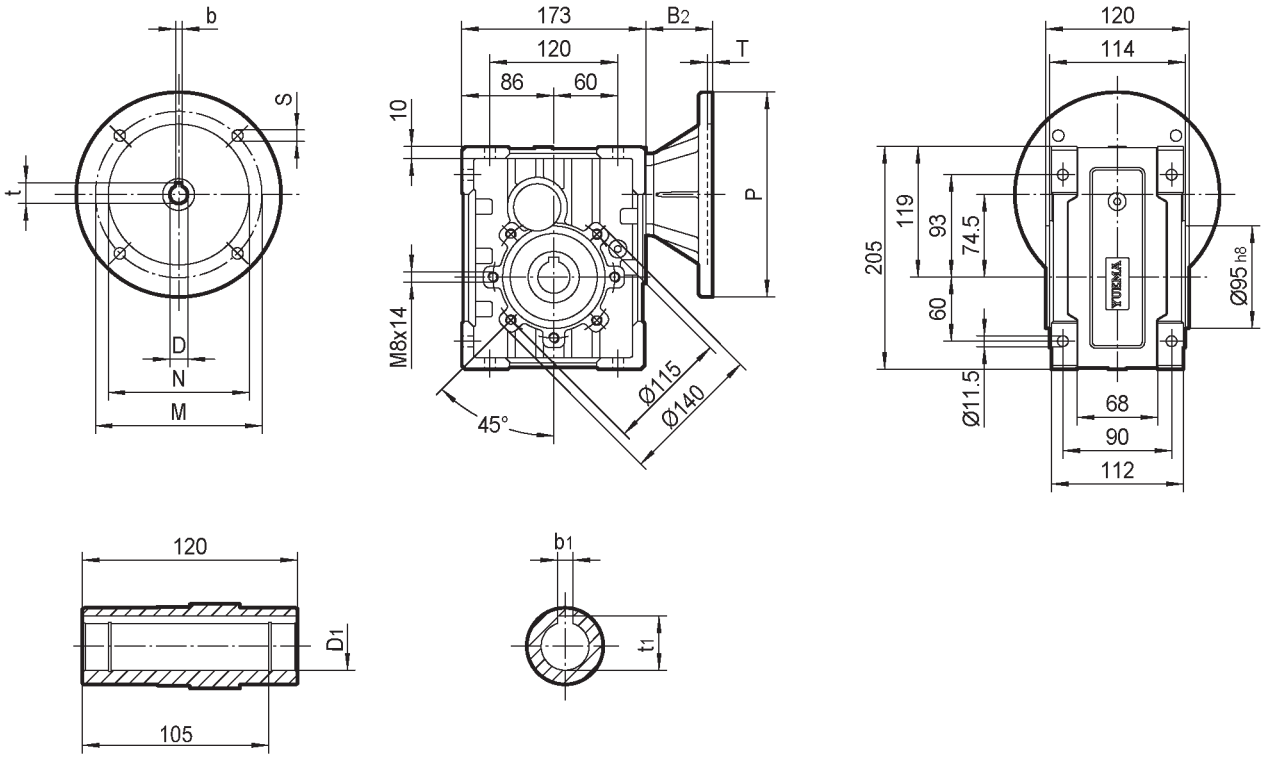


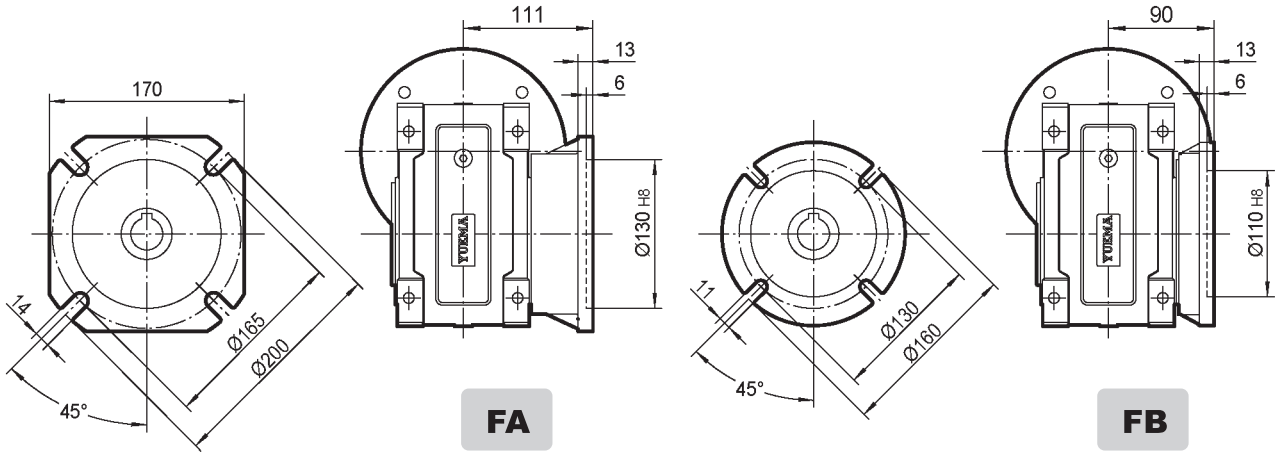
IEC	D_{E8}	b	t	P	M	N	S	T	B_2
63B5	11	4	12.8	140	115	95	9	4	45
71B5	14	5	16.3	160	130	110	9	4	52
71B14	14	5	16.3	105	85	70	7	4	52
80B5	19	6	21.8	200	165	130	11	4	72
80B14	19	6	21.8	120	100	80	7	4	72

$D1_{H8}$	b_1	t_1
25	8	28.3
28*	8	31.3
*Only on request		

Weight without motor ≈ 6.8 kg

TKM47B..(IEC)





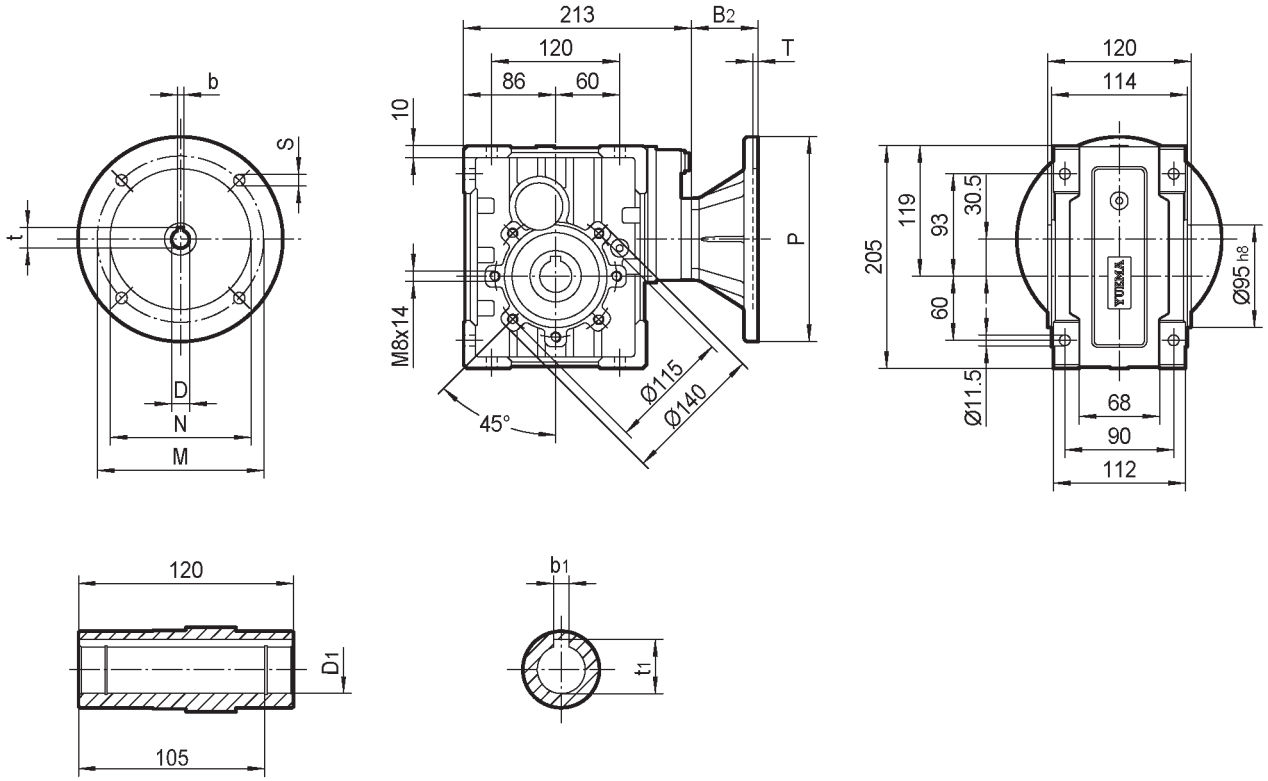
IEC	DE8	b	t	P	M	N	S	T	B2
71B5	14	5	16.3	160	130	110	9	4	59
80B5	19	6	21.8	200	165	130	11	4	79
80B14	19	6	21.8	120	100	80	7	4	79
90B5	24	8	27.3	200	165	130	11	4	79
90B14	24	8	27.3	140	115	95	9	4	79
100/112B5	28	8	31.3	250	215	180	13.5	4.5	89
100/112B14	28	8	31.3	160	130	110	9	4.5	89

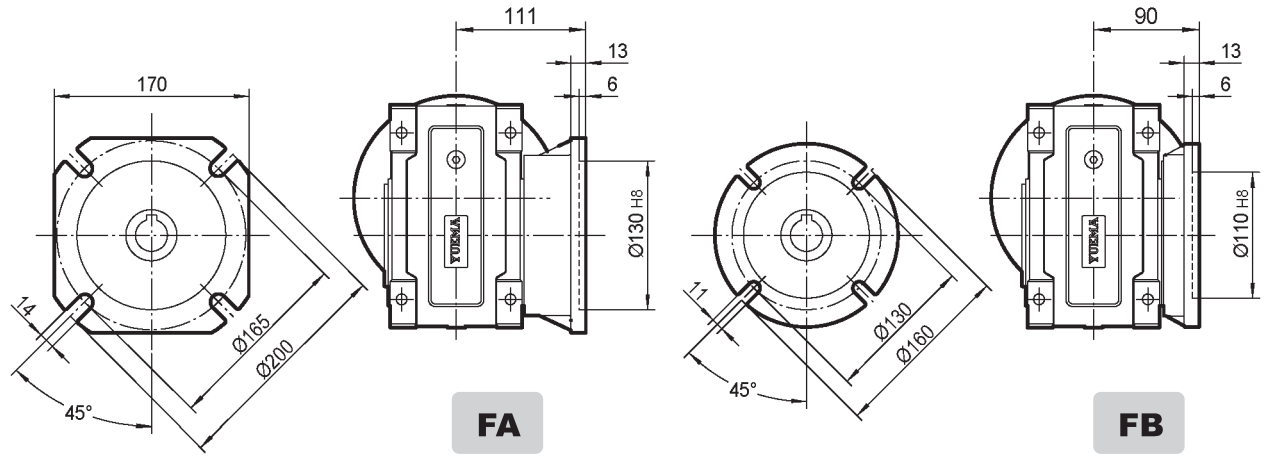
D1 H8	b1	t1
28	8	31.3
30*	8	33.3
35*	10	38.3

*Only on request

Weight without motor ≈ 9.2 kg

TKM47C..(IEC)



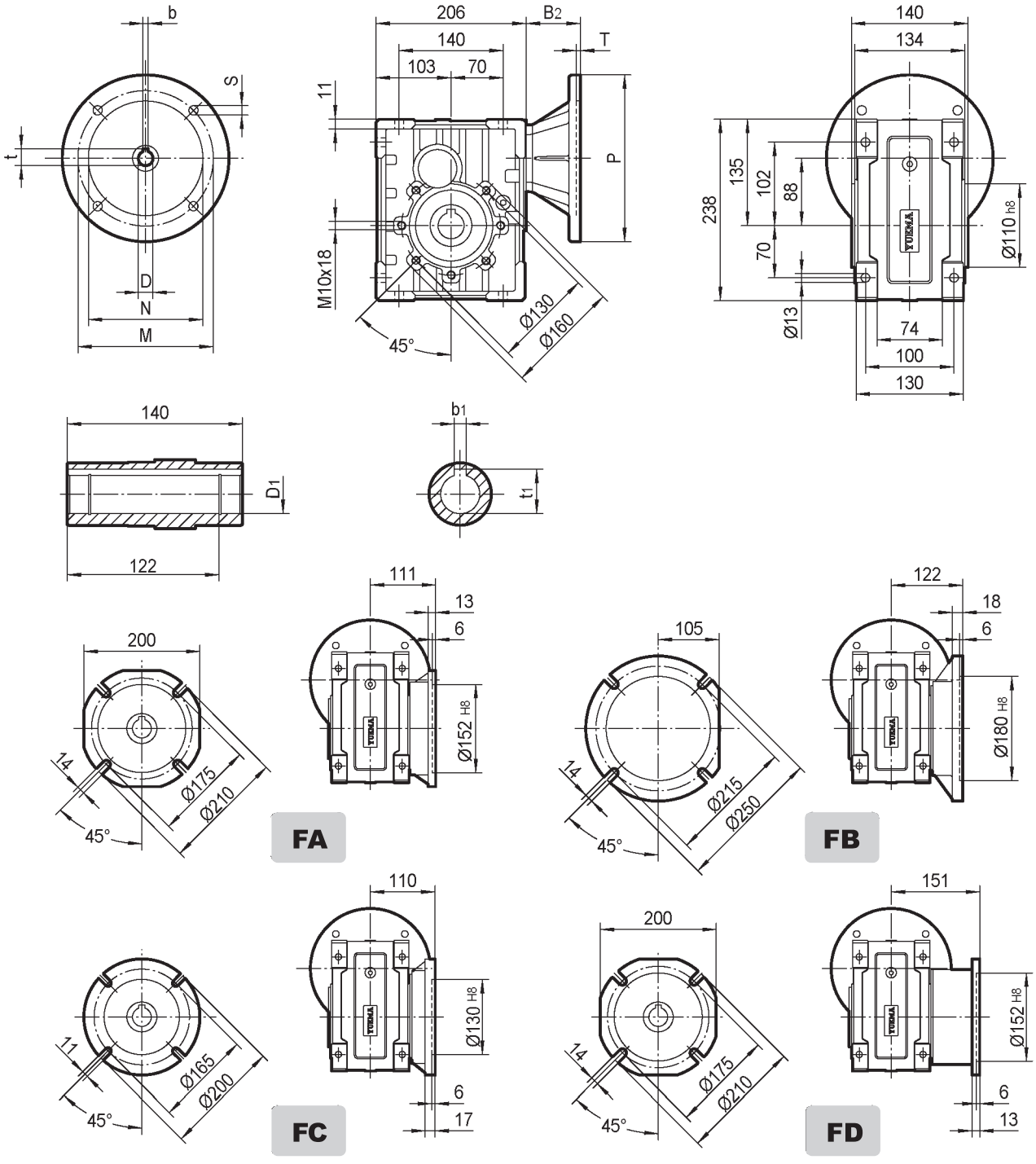


IEC	DE8	b	t	P	M	N	S	T	B2
63B5	11	4	12.8	140	115	95	9	4	52
71B5	14	5	16.3	160	130	110	9	4	59
80B5	19	6	21.8	200	165	130	11	4	79
80B14	19	6	21.8	120	100	80	7	4	79
90B5	24	8	27.3	200	165	130	11	4	79
90B14	24	8	27.3	140	115	95	9	4	79

D1 H8	b1	t1
28	8	31.3
30*	8	33.3
35*	10	38.3
*Only on request		

Weight without motor ≈ 10.8 kg

TKM57B..(IEC)



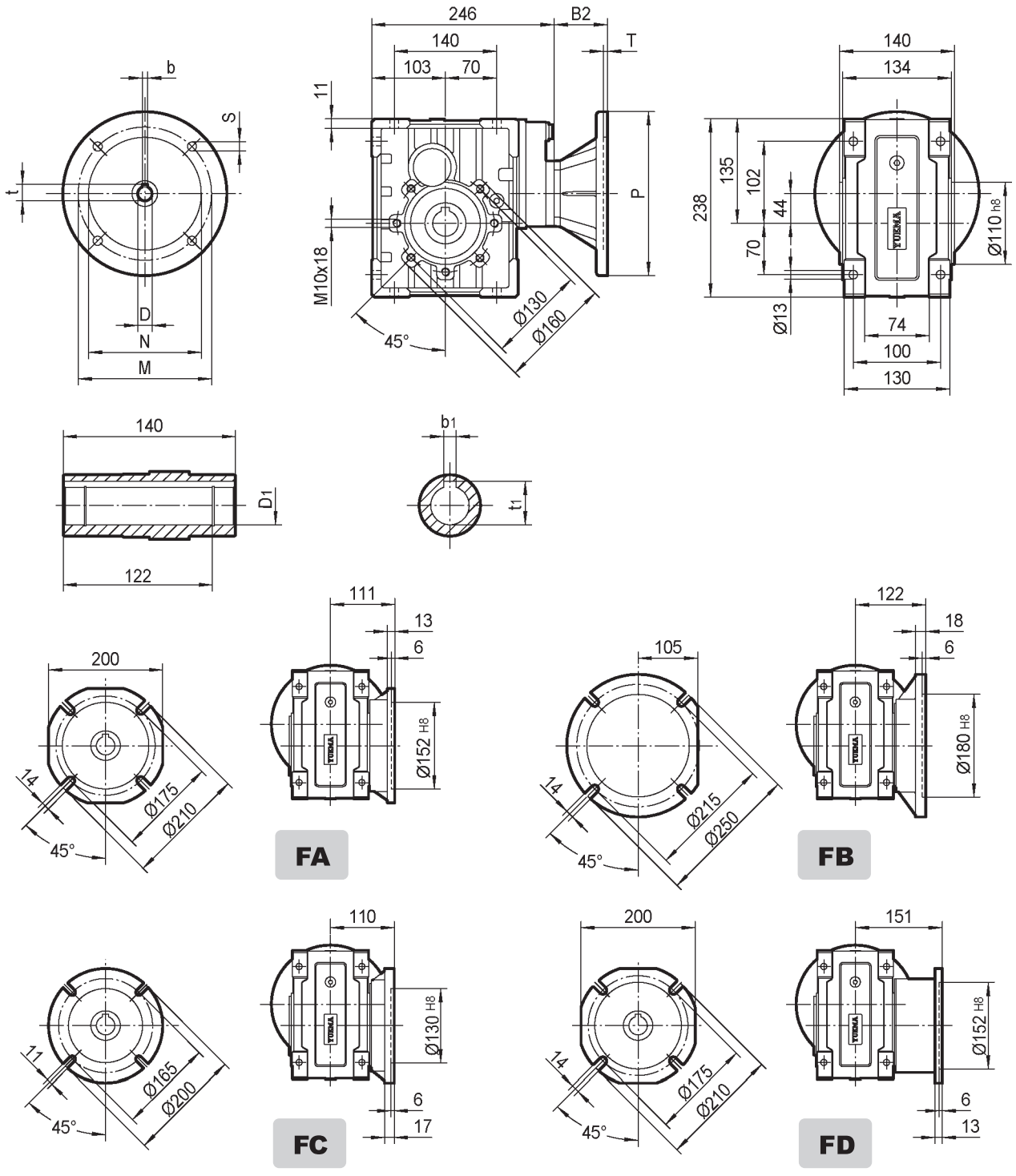
IEC	D_{E8}	b	t	P	M	N	S	T	B_2
71B5	14	5	16.3	160	130	110	9	4	59
80B5	19	6	21.8	200	165	130	11	4	79
80B14	19	6	21.8	120	100	80	7	4	79
90B5	24	8	27.3	200	165	130	11	4	79
90B14	24	8	27.3	140	115	95	9	4	79
100/112B5	28	8	31.3	250	215	180	13.5	4.5	89
100/112B14	28	8	31.3	160	130	110	9	4.5	89

$D1_{H8}$	b_1	t_1
35	10	38.3
38*	10	41.3

*Only on request

Weight without motor
≈13.3 kg

TKM57C..(IEC)



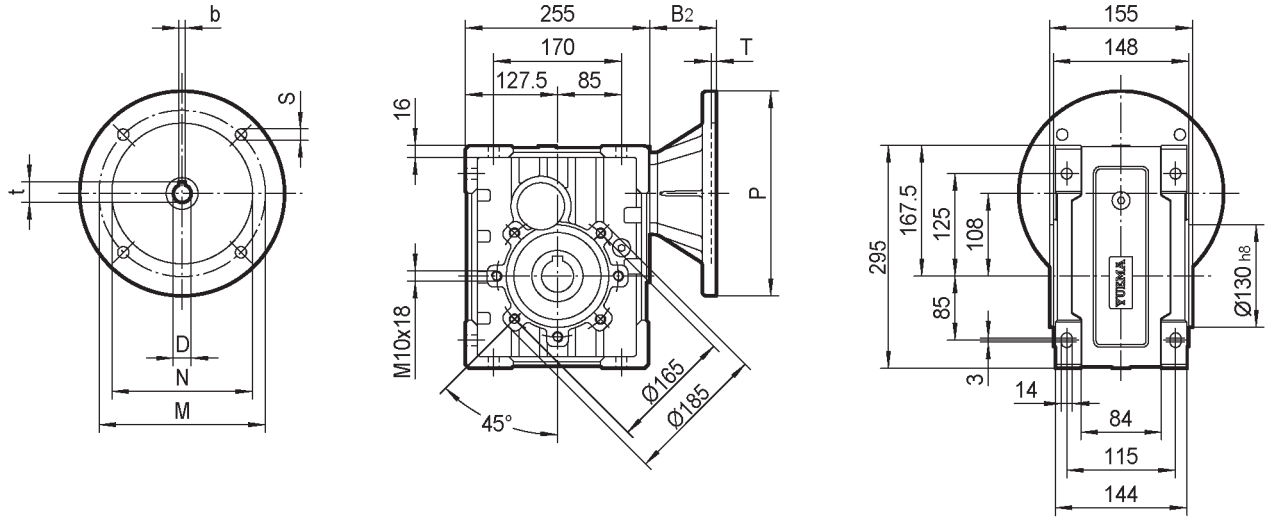
IEC	DE8	b	t	P	M	N	S	T	B2
63B5	11	4	12.8	140	115	95	9	4	52
71B5	14	5	16.3	160	130	110	9	4	59
80B5	19	6	21.8	200	165	130	11	4	79
80B14	19	6	21.8	120	100	80	7	4	79
90B5	24	8	27.3	200	165	130	11	2	79
90B14	24	8	27.3	140	115	95	9	4	79

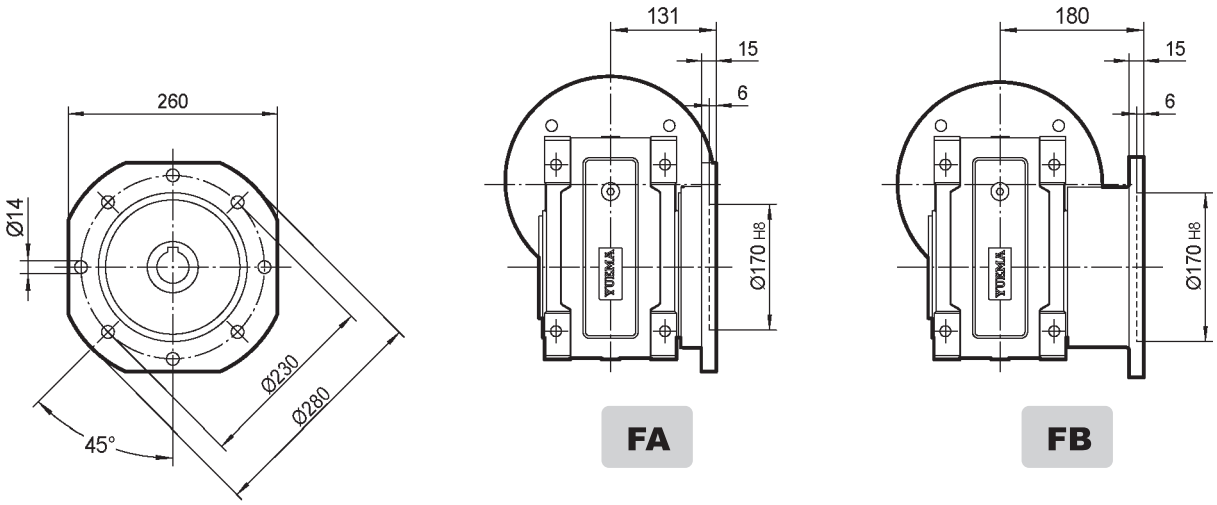
D1 H8	b1	t1
35	10	38.3
38*	10	41.3

*Only on request

Weight without motor
≈14.8 kg

TKM67B..(IEC)





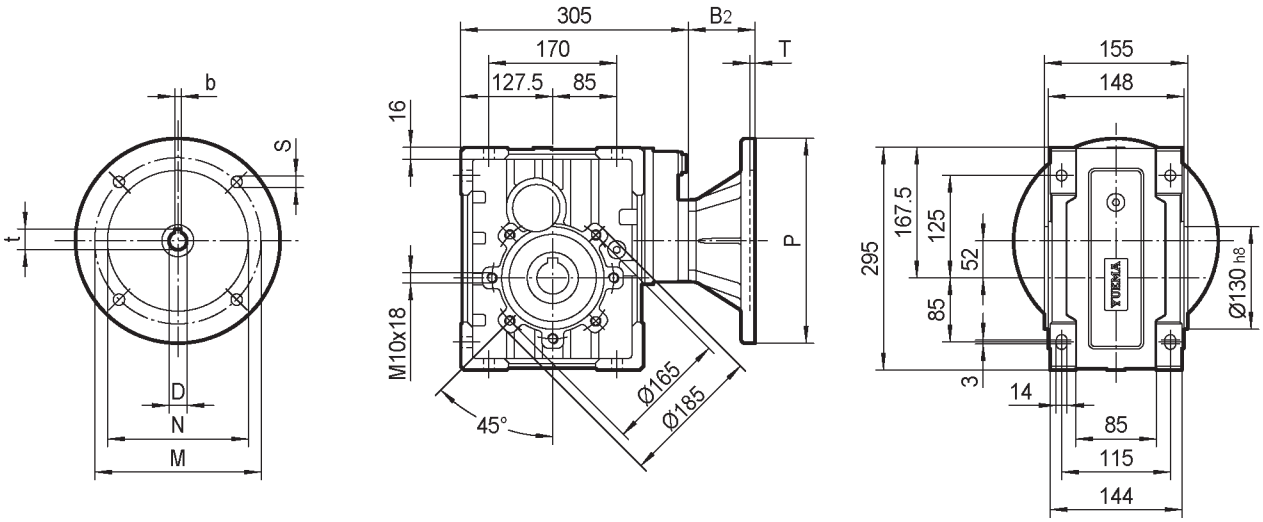
IEC	DE8	b	t	P	M	N	S	T	B2
71B5	14	5	16.3	160	130	110	9	4	64
80B5	19	6	21.8	200	165	130	11	4	84
90B5	24	8	27.3	200	165	130	11	4	84
100/112B5	28	8	31.3	250	215	180	13.5	4.5	94
100/112B14	28	8	31.3	160	130	110	9	4.5	94
132B5	38	10	41.3	300	265	230	14	4.5	114

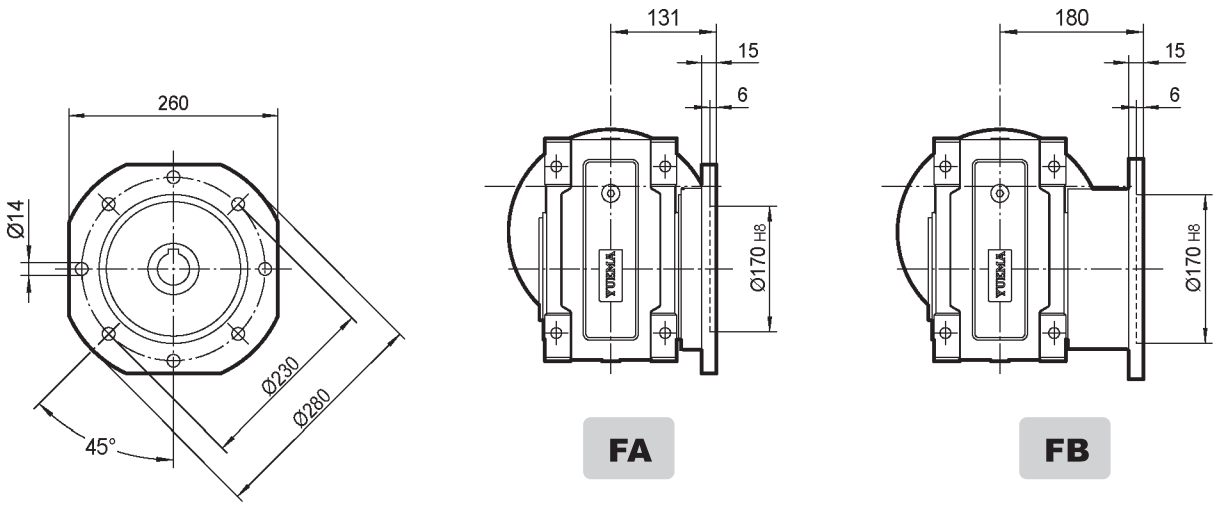
D1 H8	b1	t1
40*	12	43.3
42	12	45.3

*Only on request

Weight without motor
≈ 21.5 kg

TKM67C..(IEC)



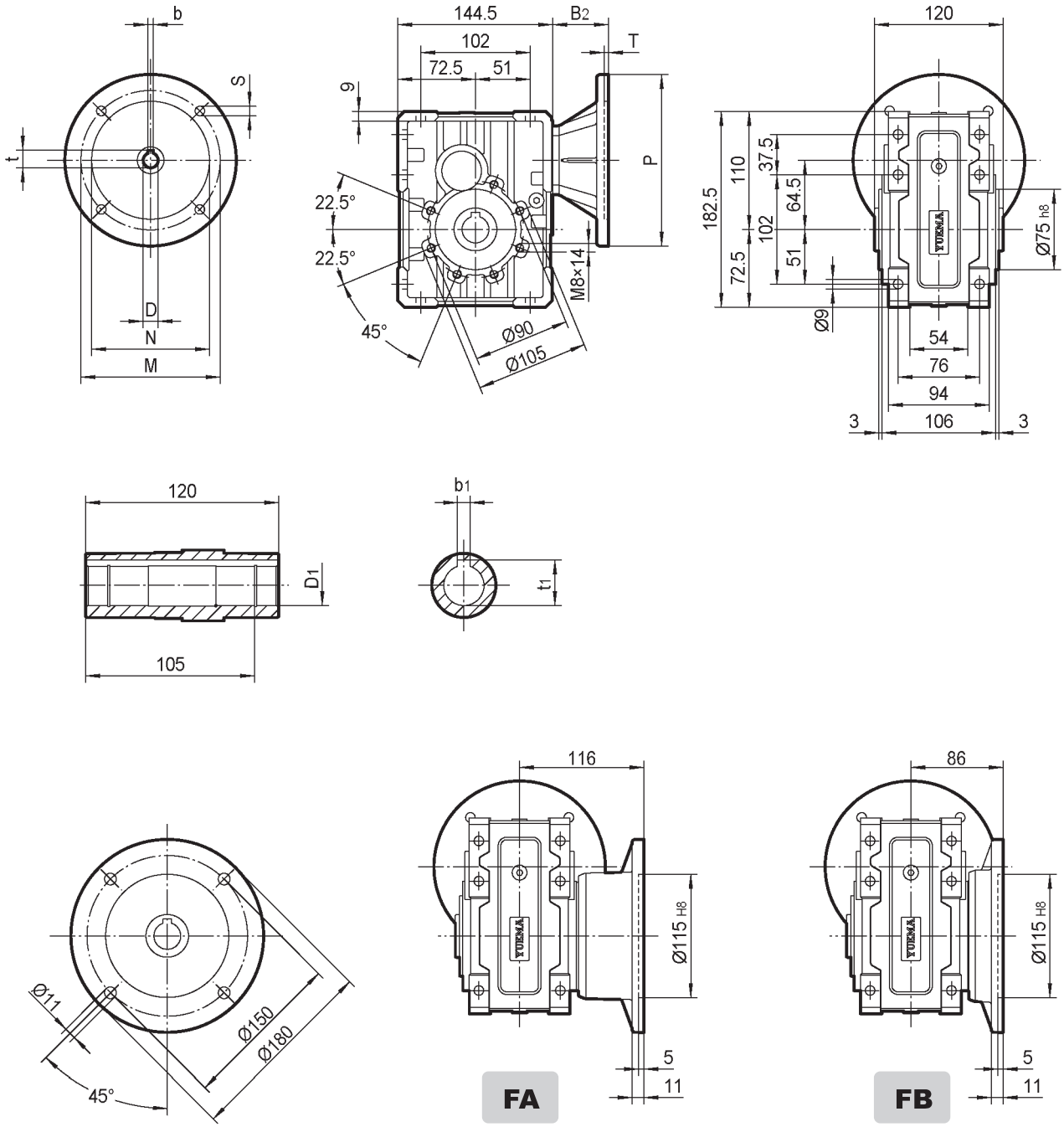


IEC	DE8	b	t	P	M	N	S	T	B2	D1 H8	b1	t1
71B5	14	5	16.3	160	130	110	9	4	64	40*	12	43.3
80B5	19	6	21.8	200	165	130	11	4	84	42	12	45.3
90B5	24	8	27.3	200	165	130	11	4	84	*Only on request		
100B5	28	8	31.3	250	215	180	13.5	4.5	94			
100B14	28	8	31.3	160	130	110	9	4.5	94			

Weight without motor
≈ 23.5 kg

7.4 TKB..(IEC) / Outline Dimension

TKB37B..(IEC)



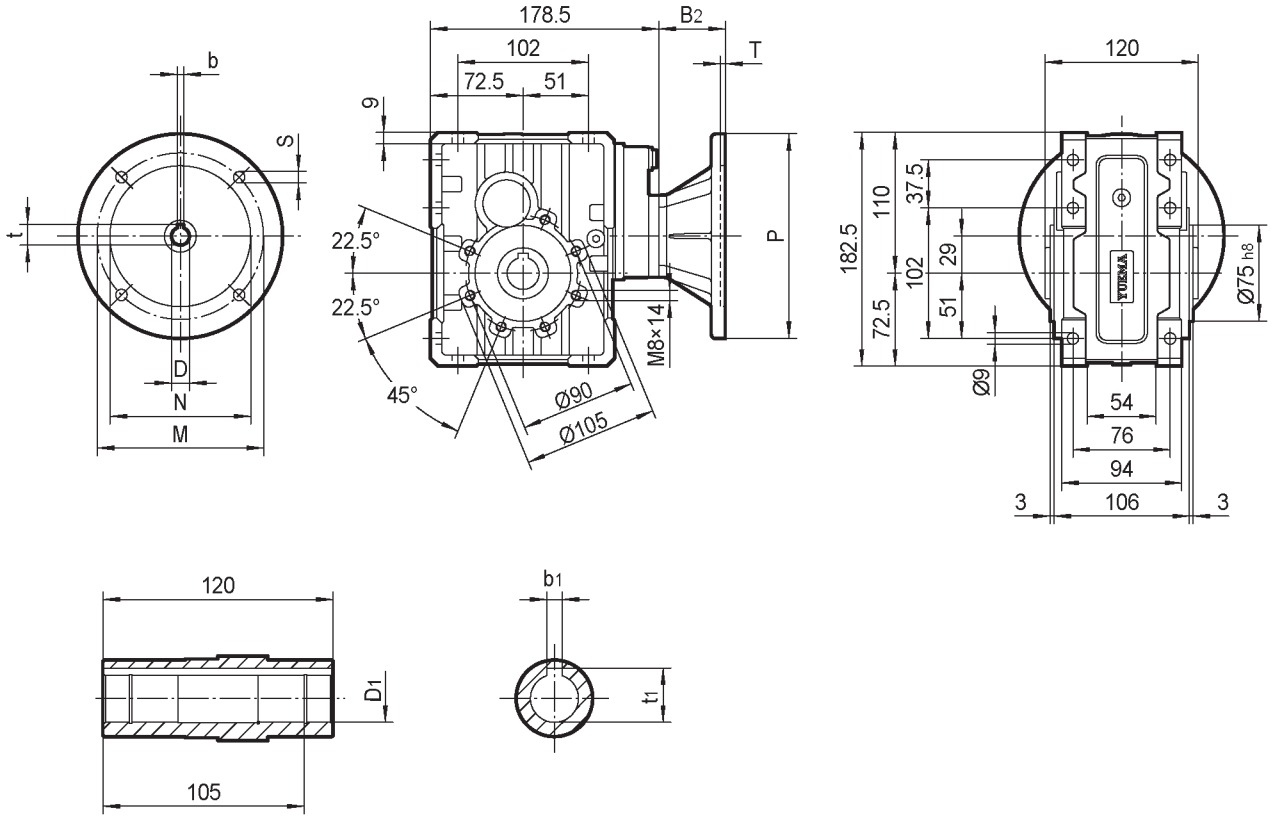
IEC	DE8	b	t	P	M	N	S	T	B2
63B5	11	4	12.8	140	115	95	9	4	45
71B5	14	5	16.3	160	130	110	9	4	52
71B14	14	5	16.3	105	85	70	7	4	52
80B5	19	6	21.8	200	165	130	11	4	72
80B14	19	6	21.8	120	100	80	7	4	72
90B5	24	8	27.3	200	165	130	11	4	72
90B14	24	8	27.3	140	115	95	9	4	72

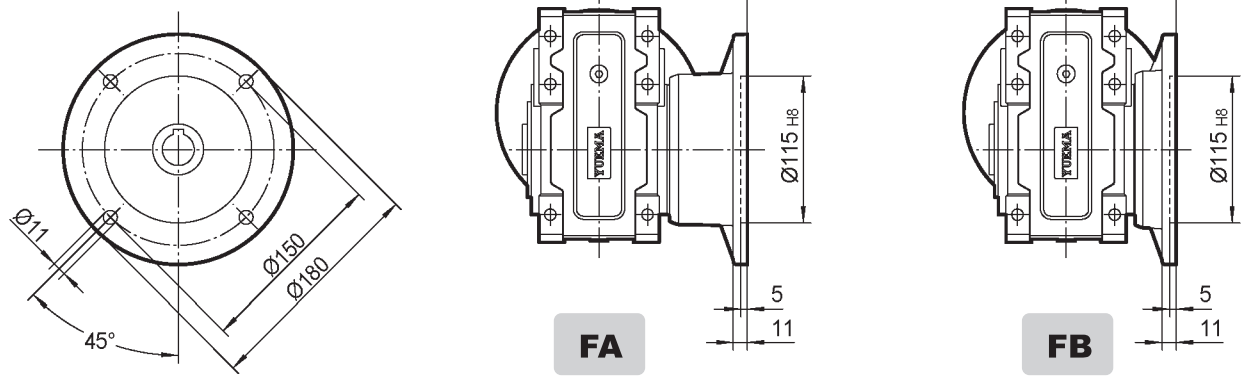
D1 H8	b1	t1
25	8	28.3
28*	8	31.3

*Only on request

Weight without motor
≈ 6.0 kg

TKB37C..(IEC)





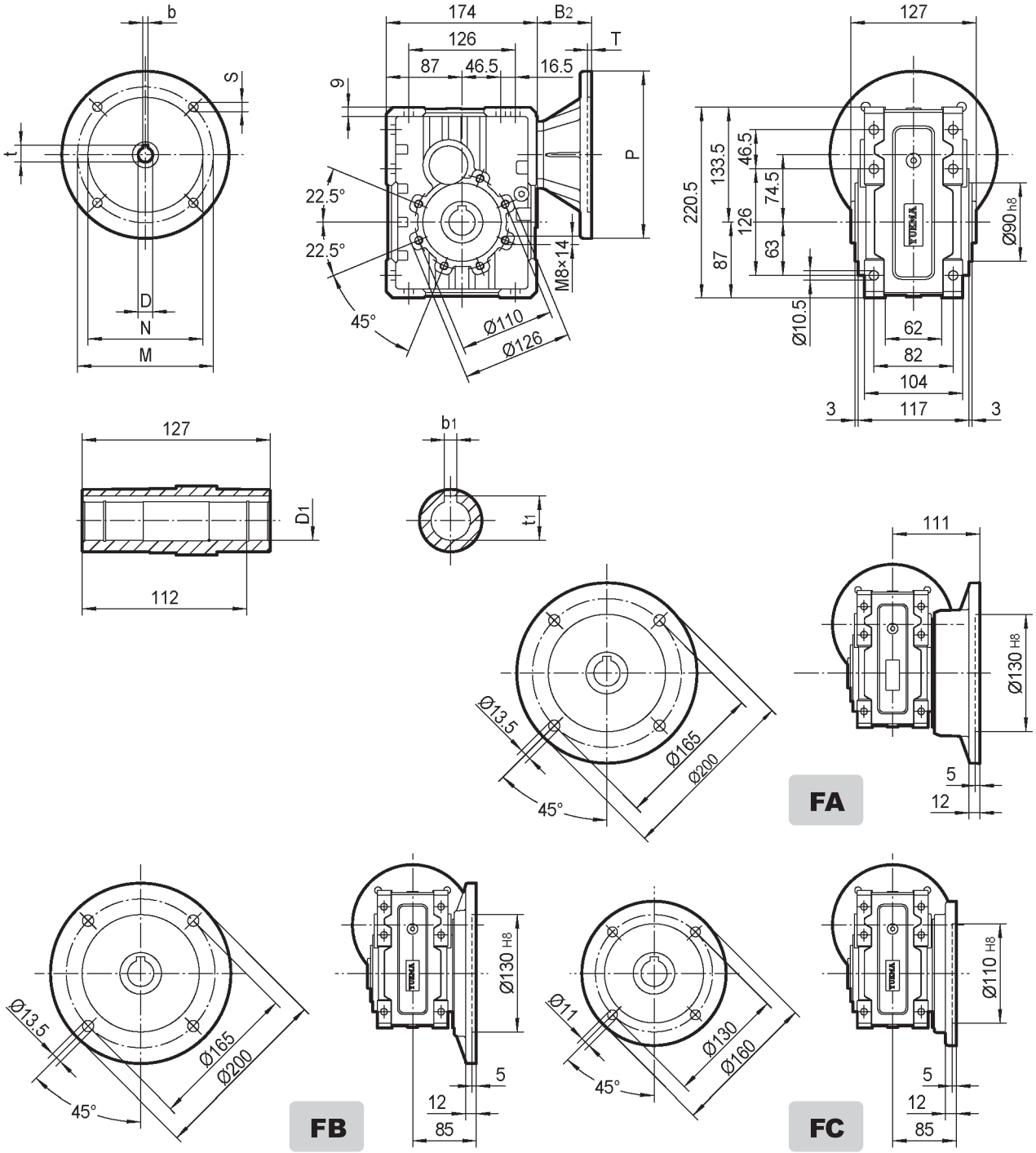
IEC	D_{E8}	b	t	P	M	N	S	T	B_2
63B5	11	4	12.8	140	115	95	9	4	45
71B5	14	5	16.3	160	130	110	9	4	52
71B14	14	5	16.3	105	85	70	7	4	52
80B5	19	6	21.8	200	165	130	11	4	72
80B14	19	6	21.8	120	100	80	7	4	72

$D1_{H8}$	b_1	t_1
25	8	28.3
28*	8	31.3

*Only on request

Weight without motor
≈ 6.8 kg

TKB47B..(IEC)



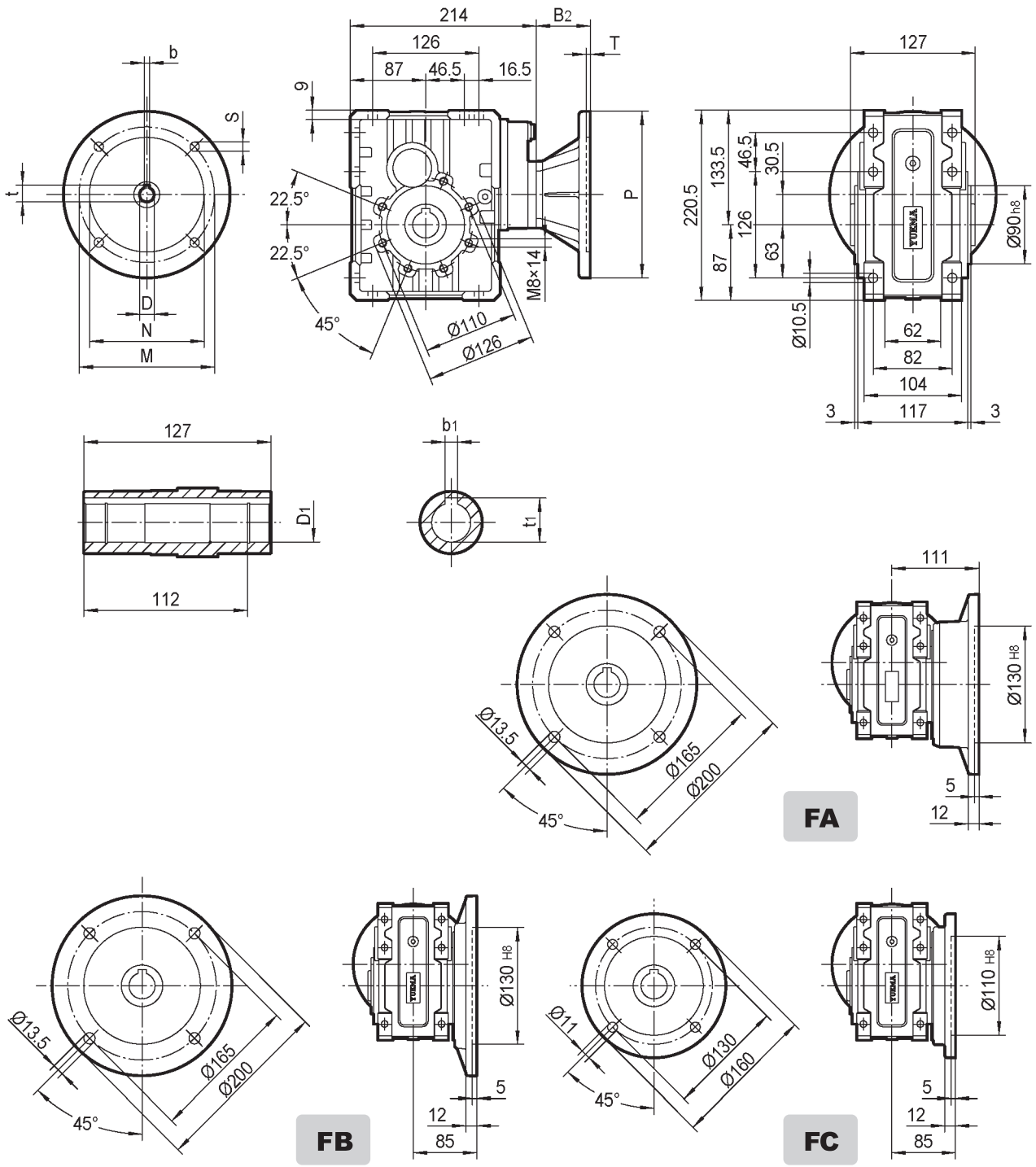
IEC	D_{E8}	b	t	P	M	N	S	T	B_2
71B5	14	5	16.3	160	130	110	9	4	59
80B5	19	6	21.8	200	165	130	11	4	79
80B14	19	6	21.8	120	100	80	7	4	79
90B5	24	8	27.3	200	165	130	11	4	79
90B14	24	8	27.3	140	115	95	9	4	79
100/112B5	28	8	31.3	250	215	180	13.5	4.5	89
100/112B14	28	8	31.3	160	130	110	9	4.5	89

$D1_{H8}$	b_1	t_1
28*	8	31.3
30	8	33.3
35*	10	38.3

*Only on request

Weight without motor
≈ 9.5 kg

TKB47C..(IEC)



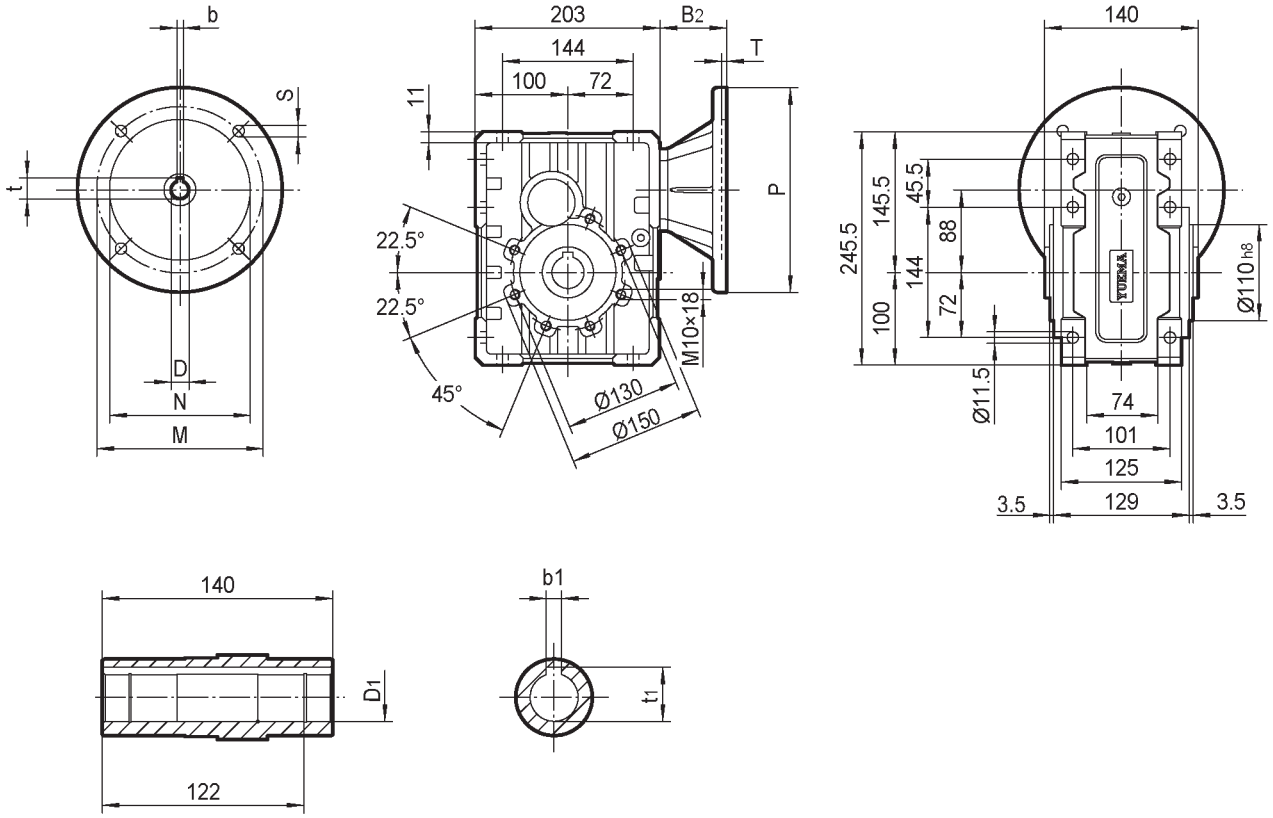
IEC	DE8	b	t	P	M	N	S	T	B2
63B5	11	4	12.8	140	115	95	9	4	52
71B5	14	5	16.3	160	130	110	9	4	59
80B5	19	6	21.8	200	165	130	11	4	79
80B14	19	6	21.8	120	100	80	7	4	79
90B5	24	8	27.3	200	165	130	11	4	79
90B14	24	8	27.3	140	115	95	9	4	79

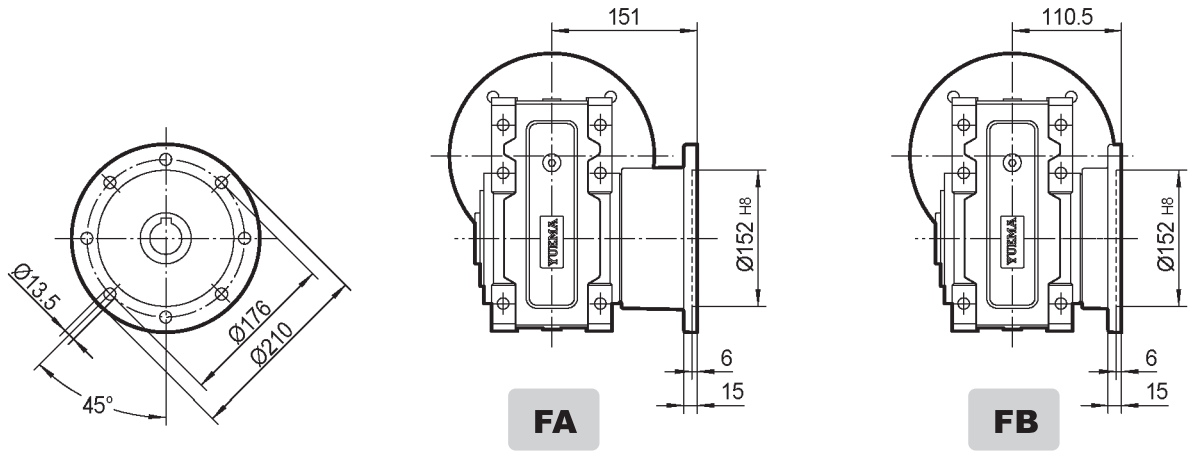
D1 H8	b1	t1
28*	8	31.3
30	8	33.3
35*	10	38.3

*Only on request

Weight without motor
≈ 10.8 kg

TKB57B..(IEC)





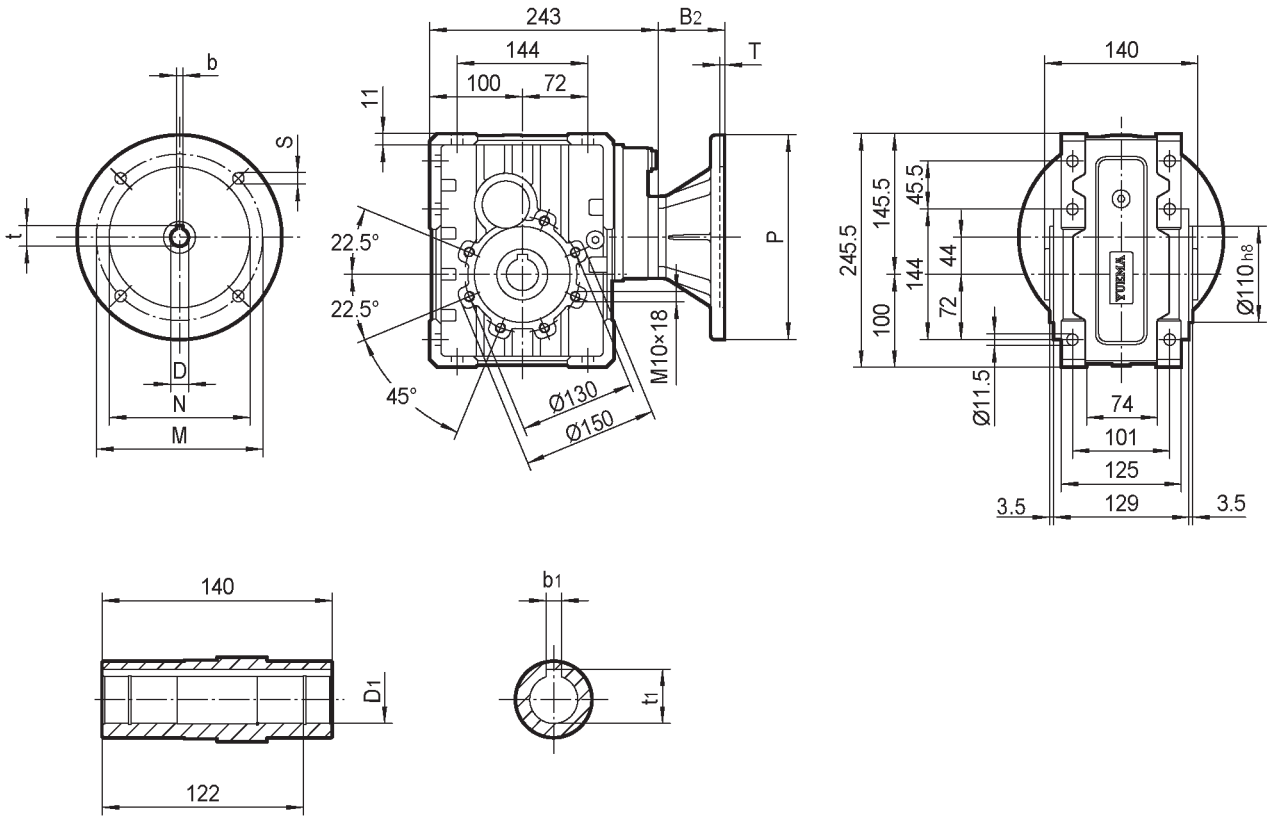
IEC	D_{E8}	b	t	P	M	N	S	T	B_2
71B5	14	5	16.3	160	130	110	9	4	59
80B5	19	6	21.8	200	165	130	11	4	79
80B14	19	6	21.8	120	100	80	7	4	79
90B5	24	8	27.3	200	165	130	11	4	79
90B14	24	8	27.3	140	115	95	9	4	79
100/112B5	28	8	31.3	250	215	180	13.5	4.5	89
100/112B14	28	8	31.3	160	130	110	9	4.5	89

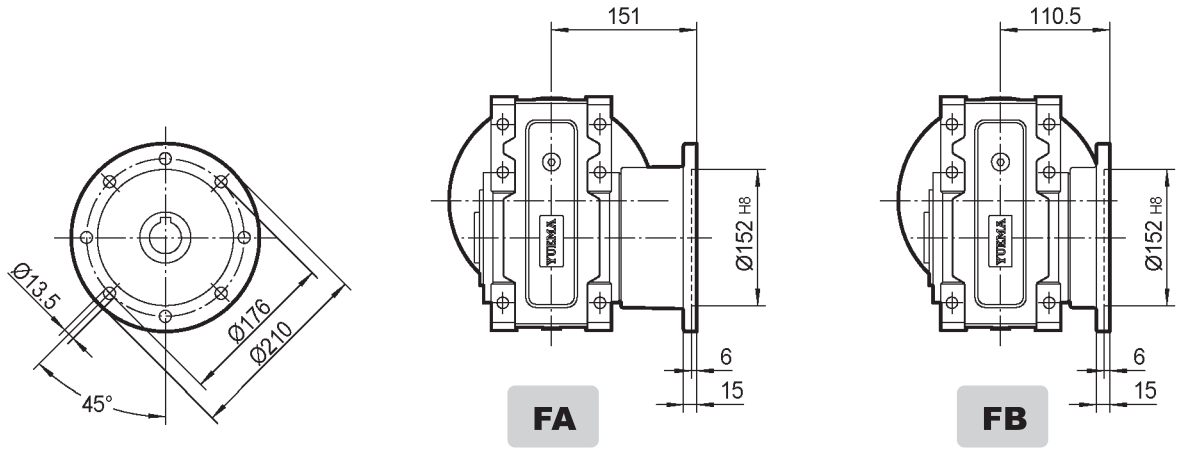
$D1_{H8}$	b_1	t_1
35	10	38.3
38*	10	41.3

*Only on request

Weight without motor
≈13.5 kg

TKB57C..(IEC)





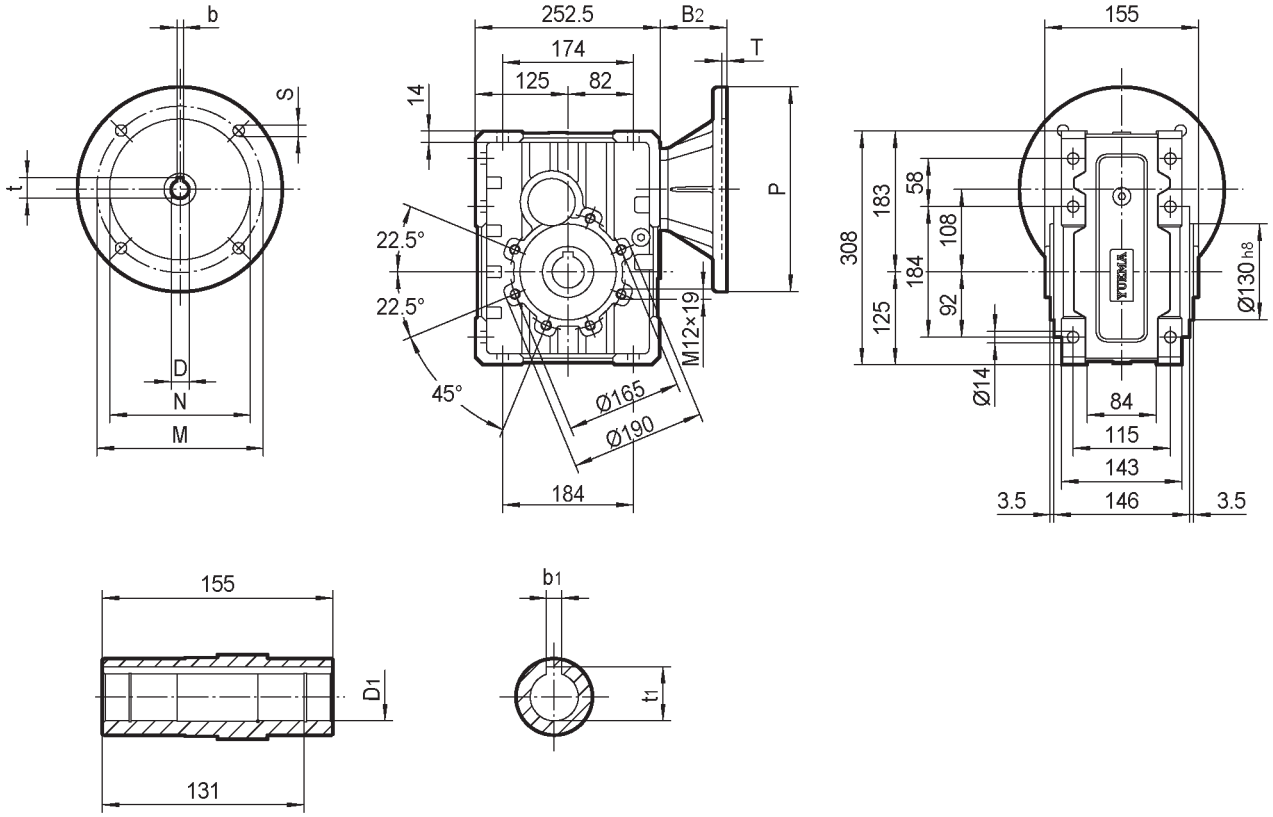
IEC	D_{E8}	b	t	P	M	N	S	T	B_2
63B5	11	4	12.8	140	115	95	9	4	52
71B5	14	5	16.3	160	130	110	9	4	59
80B5	19	6	21.8	200	165	130	11	4	79
80B14	19	6	21.8	120	100	80	7	4	79
90B5	24	8	27.3	200	165	130	11	4	79
90B14	24	8	27.3	140	115	95	9	4	79

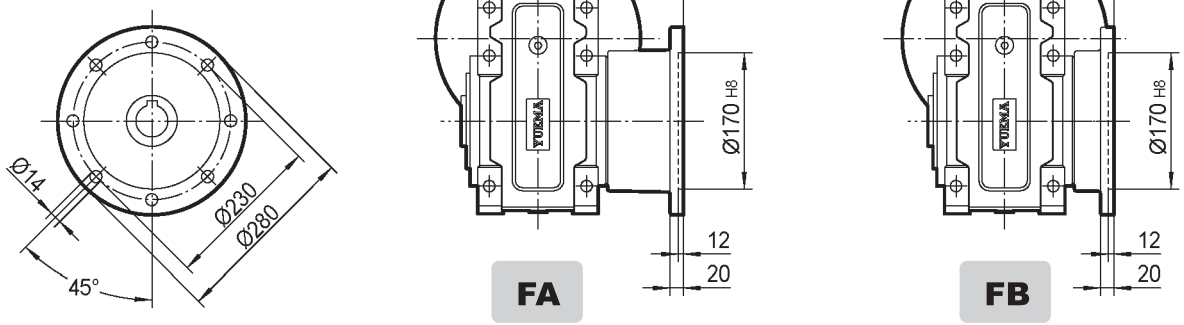
$D1_{H8}$	b_1	t_1
35	10	38.3
38*	10	41.3

*Only on request

Weight without motor
≈14.8 kg

TKB67B..(IEC)





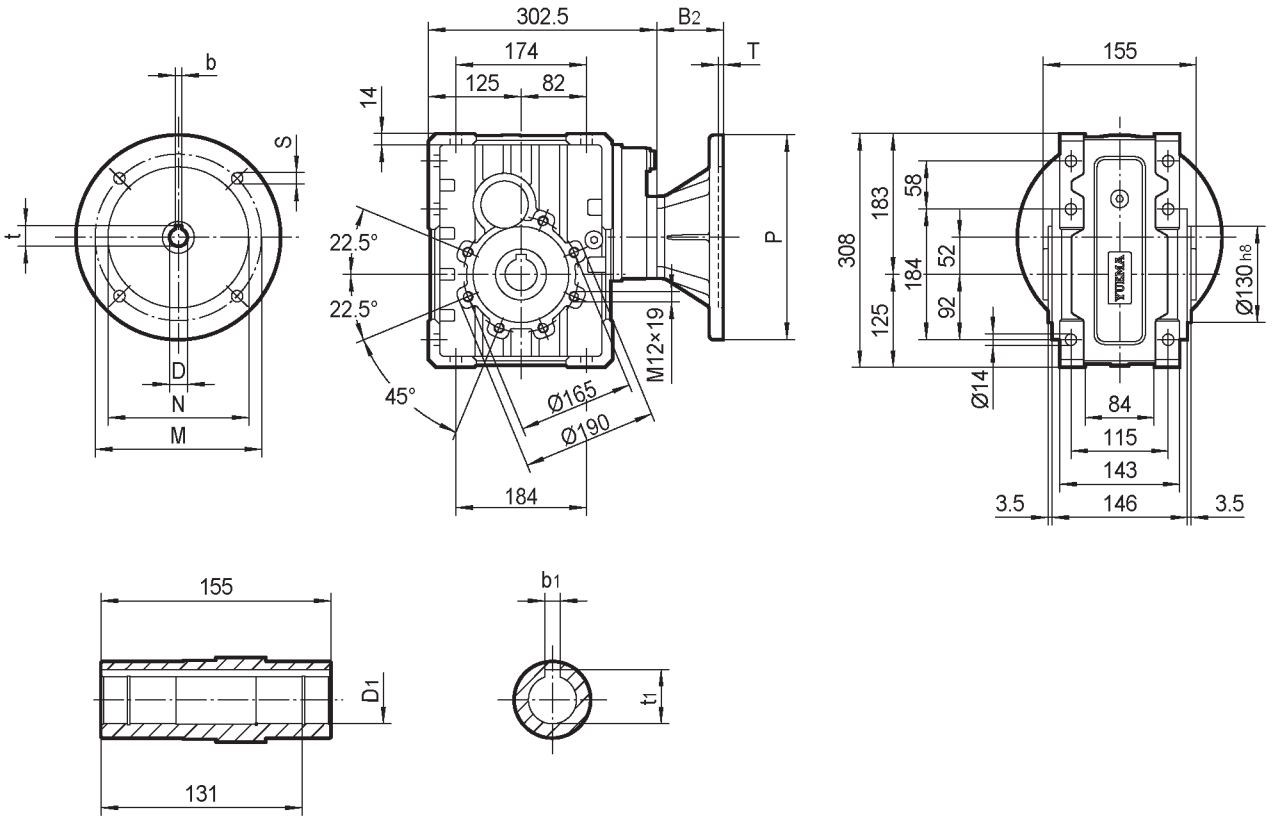
IEC	D_{E8}	b	t	P	M	N	S	T	B_2
80B5	19	6	21.8	200	165	130	11	4	84
90B5	24	8	27.3	200	165	130	11	4	84
100/112B5	28	8	31.3	250	215	180	13.5	4.5	94
100/112B14	28	8	31.3	160	130	110	9	4.5	94
132B5	38	10	41.3	300	265	230	14	4.5	114

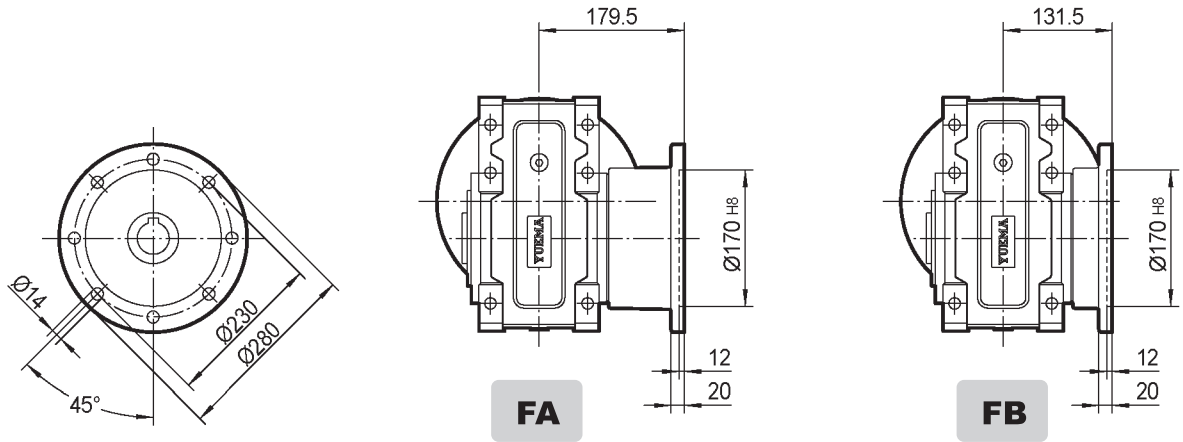
$D1_{H8}$	b_1	t_1
40*	12	43.3
42	12	45.3

*Only on request

Weight without motor
≈ 21.5 kg

TKB67C..(IEC)





IEC	D_{E8}	b	t	P	M	N	S	T	B_2
71B5	14	5	16.3	160	130	110	9	4	64
80B5	19	6	21.8	200	165	130	11	4	84
90B5	24	8	27.3	200	165	130	11	4	84
100/112B5	28	8	31.3	250	215	180	13.5	4.5	94
100/112B14	28	8	31.3	160	130	110	9	4.5	94

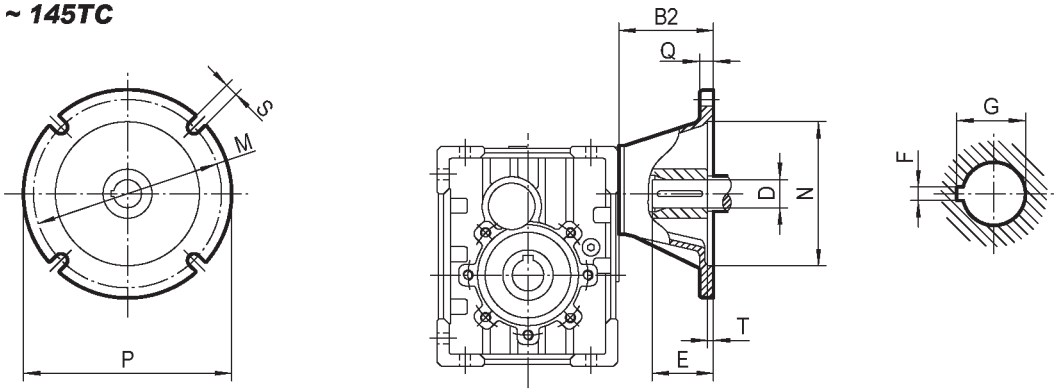
$D1_{H8}$	b_1	t_1
40*	12	43.3
42	12	45.3

*Only on request

Weight without motor
≈ 23.5 kg

7.5 TKM / TKB..NEMA / Outline Dimension

56C ~ 145TC



182TC ~ 215TC

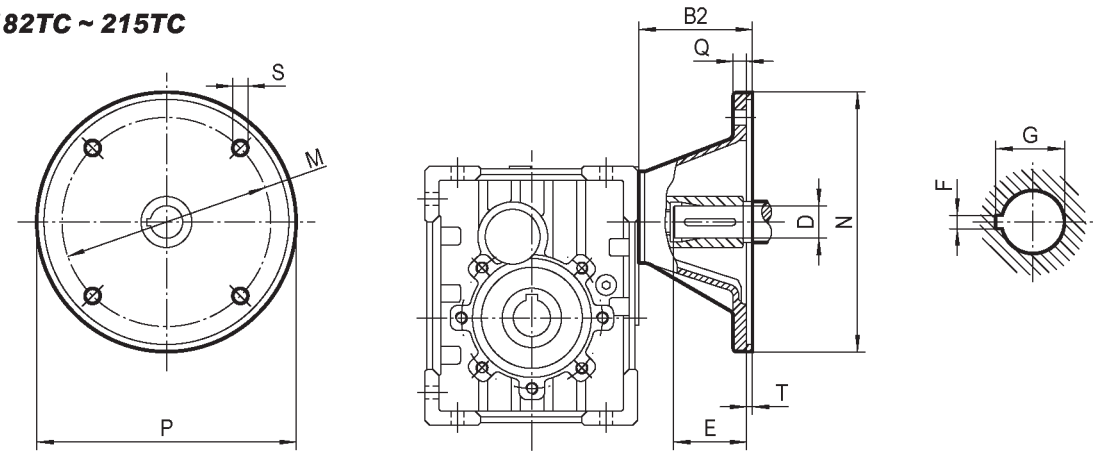
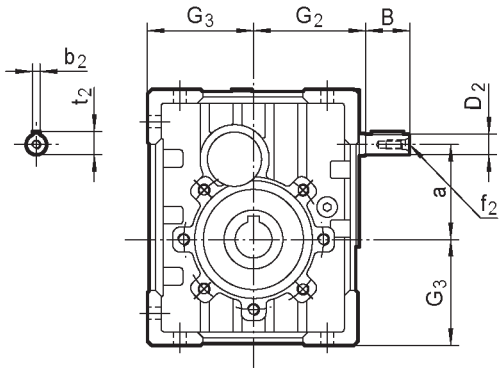


Table data unit is inch.

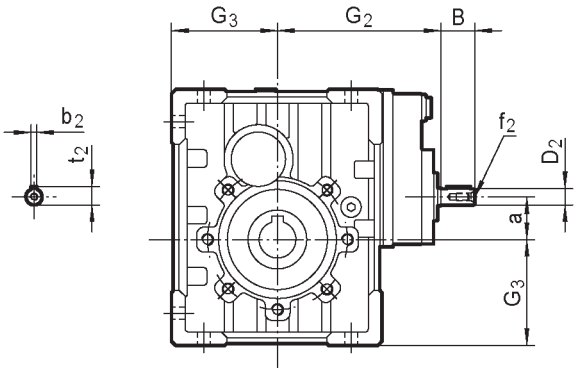
TYPE	NEMA Flange	B_2	D	E	F	G	M	N	P	Q	S	T
TKM27	56C	2.953	0.625	2.06	0.188	0.713	5.875	4.50	6.50	0.433	0.413	0.177
TKM37 TKB37	56C	2.953	0.625	2.06	0.188	0.713	5.875	4.50	6.50	0.433	0.413	0.177
	143TC 145TC	2.953	0.875	2.12	0.188	0.963	5.875	4.50	6.50	0.433	0.413	0.177
TKM47 TKM57 TKB47 TKB57	56C	3.228	0.625	2.06	0.188	0.713	5.875	4.50	6.50	0.433	0.413	0.177
	143TC 145TC	3.228	0.875	2.12	0.188	0.963	5.875	4.50	6.50	0.433	0.413	0.177
	182TC 184TC	3.937	1.125	2.62	0.250	1.240	7.250	8.50	9.00	0.472	0.551	0.197
TKM67 TKB67	143TC 145TC	3.425	0.875	2.12	0.188	0.963	5.875	4.50	6.50	0.433	0.413	0.177
	182TC 184TC	4.134	1.125	2.62	0.250	1.240	7.250	8.50	9.00	0.472	0.551	0.197
	213TC 215TC	4.646	1.375	3.12	0.312	1.517	7.250	8.50	9.00	0.472	0.551	0.197

7.6 TKM..HS / Outline Dimension

TKM..B..HS



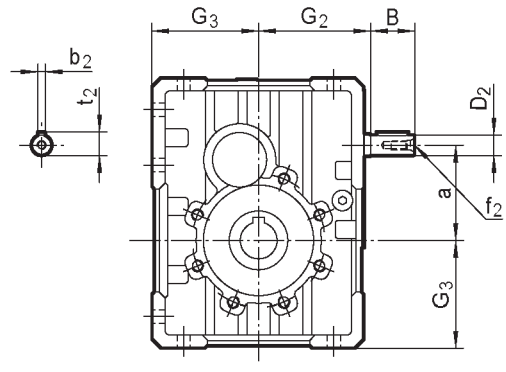
TKM..C..HS



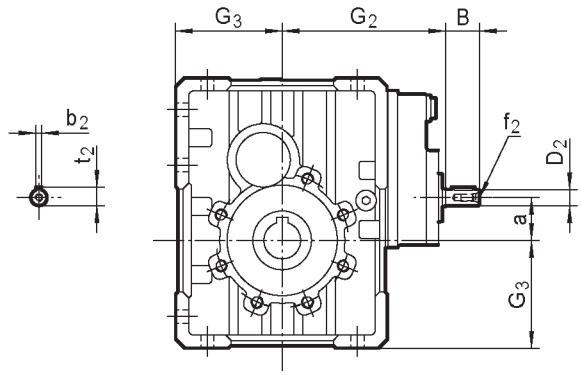
	B	D 2 j6	G_2	G_3	a	b_2	f_2	t_2
TKM27B	23	11	65	60	57	4	-	12.5
TKM27C	23	11	100	60	21.5	4	-	12.5
TKM37B	30	14	76	72	64.5	5	M6	16
TKM37C	23	11	111	72	29	4	-	12.5
TKM47B	40	16	91	86	74.5	5	M6	18
TKM47C	30	14	132	86	30.5	5	M6	16
TKM57B	40	19	107	103	88	6	M6	21.5
TKM57C	30	14	148	103	44	5	M6	16
TKM67B	50	24	132	127.5	108	8	M8	27
TKM67C	40	19	181	127.5	52	6	M6	21.5

7.7 TKB..HS / Outline Dimension

TKM..B..HS



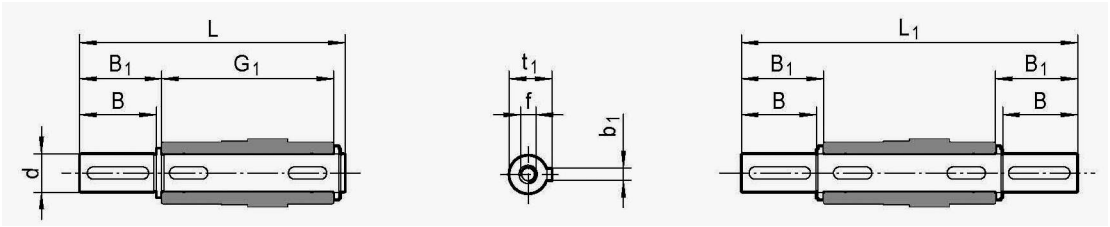
TKM..C..HS



	B	D 2 j6	G_2	G_3	a	b_2	f_2	t_2
TKB37B	30	14	76	72.5	64.5	5	M6	16
TKB37C	23	11	111	72.5	29	4	-	12.5
TKB47B	40	16	91	87	74.5	5	M6	18
TKB47C	30	14	132	87	30.5	5	M6	16
TKB57B	40	19	107	100	88	6	M6	21.5
TKB57C	30	14	148	100	44	5	M6	16
TKB67B	50	24	132	125	108	8	M8	27
TKB67C	40	19	181	125	52	6	M6	21.5

8. ACCESSORIES OUTLINE DIMENSION SHEET

8.1 Output Shafts



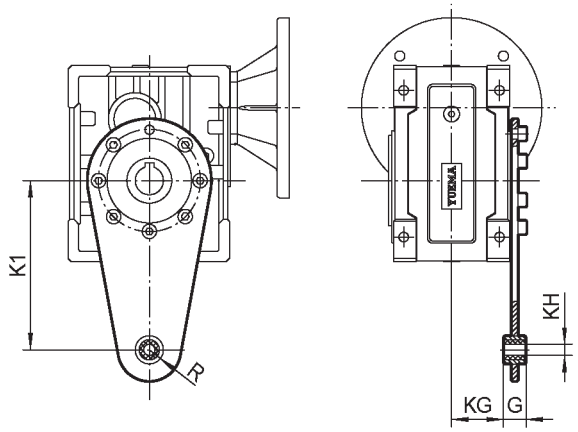
SS DS

	d h6	B	B_1	G_1	L	L_1	f	b_1	t_1
TKM27	25	50	53.5	92	153	199	M10x22	8	28
TKM37	25	50	53.5	112	173	219	M10x22	8	28
TKM47	28	60	63.5	120	192	247	M10x22	8	31
TKM57	35	80	84.5	140	234	309	M12x28	10	38
TKM67	42	80	84.5	155	249	324	M16x36	12	45
TKB37	25	60	65	120	192	246.4	M8x19	8	28
TKB47_d 28	28	60	65	127	199	255	M8x20	8	31
TKB47_d 30	30	60	65	127	199	255	M10x22	8	33
TKB57	35	60	65	140	214	268	M12x22	10	38
TKB67	42	75	80	155	244	313.5	M12x28	12	45

*Only on request

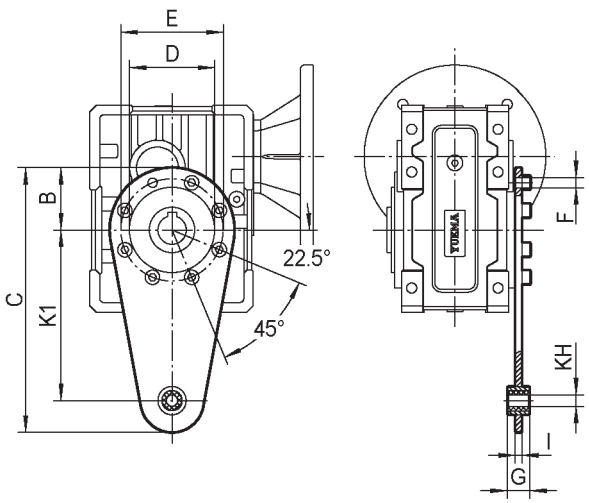
8.2 Torque Arm

8.2.1 TKM.. / Torque Arm



	K1	G	KG	KH	R
TKM27	100	14	38.5	10	18
TKM37	150	14	49	10	18
TKM47	200	25	47.5	20	30
TKM57	200	25	57.5	20	30
TKM67	250	30	62	25	35

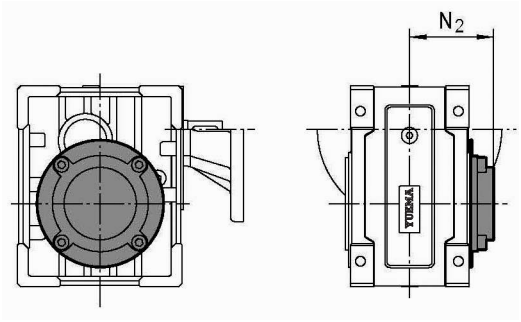
8.2.2 TKB.. / Torque Arm



	K1	B	C	D	E	F	G	kH	I
TKM37	150	55	233	75	90	9	20	10	6
TKM47	200	60	300	90	110	9	25	20	6
TKM57	200	80	318	110	130	11	25	20	6
TKM67	250	100	388	130	165	13	25	20	6

8.3 Cover

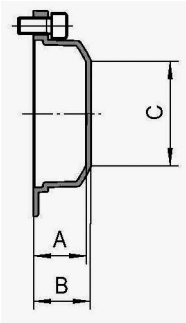
8.3.1 TKM.. / Cover



	N_2
TKM27	63
TKM37	73
TKM47	79
TKM57	94
TKM67	102

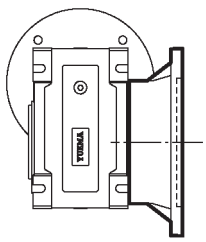
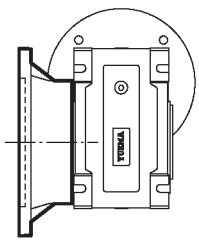
8.3.2 TKB.. / Cover

	A	B	C
TKB37	26.5	29	Φ35
TKB47	24.5	27	Φ54
TKB57	26.5	29	Φ71
TKB67	27.5	30	Φ89



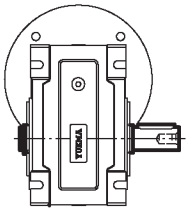
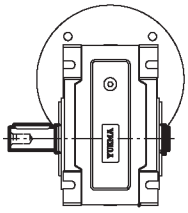
9. INSTALLATION POSITIONS DIAGRAM

9.1 Position diagram for output flange

FA1,FB1,FC1,FD1,FE1	FA2,FB2,FC2,FD2,FE2
	

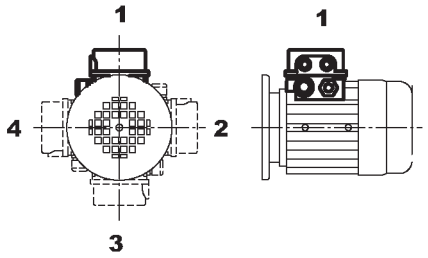
Unless specified otherwise, the gear units is supplied with the flange in pos. F..1 referred to position B3.

9.2 Position diagram for single output shaft

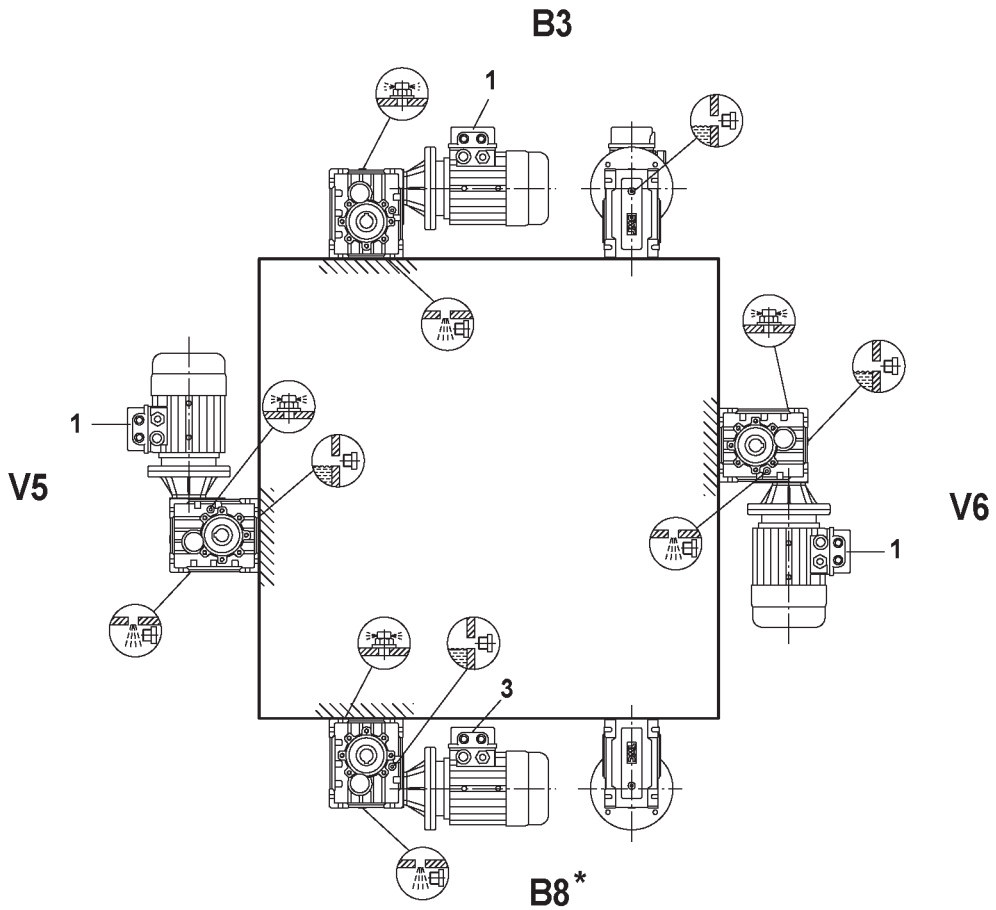
SS1	SS2
	

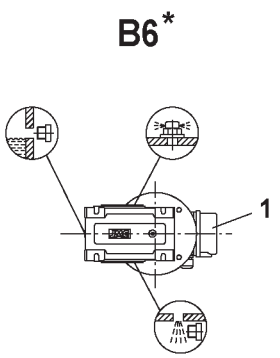
9.3 TKM.. / OR TKB.. / Mounting Positions

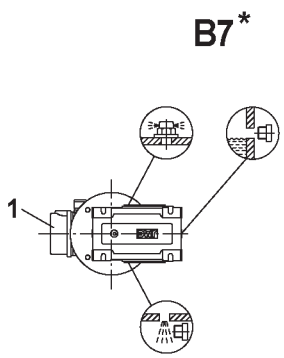
Symbol	Meaning
	Breather valve
	Oil level plug
	Oil drain plug



In the case of specific requirements, when ordering, specify the position of the terminal box as shown in the diagram.

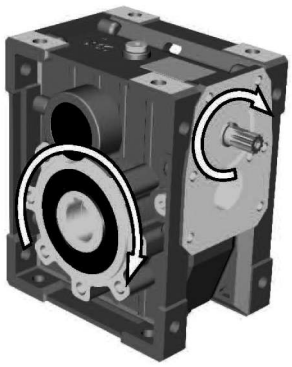




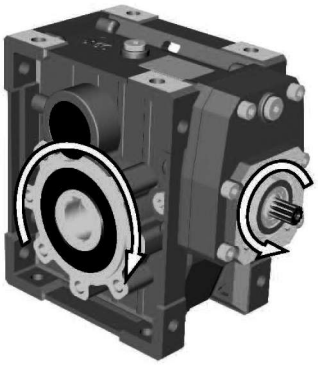


* : It means the lubricant can't be added according to the oil level line plug, but also higher the plug the fill quantity sa shown in the table

9.4 Direction of rotation



TKM..B / TKB..B



TKM..C / TKB..C

The motor can be run either **CW** or **CCW** while using with gearbox, the left chart is recommended

10. INSTALLATION

10.1 Note recommendations

To install the gear units it is necessary to note the following recommendations:

1. Check the correct direction of rotation of the gear units output shaft before fitting the unit to the machine.

2. Before mount with the prime mover and device, please check the reducer's every axial diameter, aperture, key and key slot, to be sure their dimensions are not deviation, and avoid assembling too tight or too loose, unless it will influence the reducer's performance.

3. The mounting on the machine must be stable to avoid any vibration.

4. Whenever possible, protect the gear units against solar radiation and bad weather.

5. In the case of particularly lengthy periods of storage (4-6 months), if the oil seal is not immersed in the lubricant inside the unit, it is recommended to change it since the rubber could stick to the shaft or may even have lost the elasticity it needs to function properly.

6. Painting must definitely not go over rubber parts and the holes on the breather plugs, if any.

7. When connect with hollow or solid shaft, please grease the joint to avoid lock or oxidation.

10.1 Note recommendations

8.Check the correct level of the lubricant through the indicator, if there is one.
9.Starting must take place gradually, without immediately applying the maximum load.
10.Supporting unit is required when using various of reducer matched with motor directiy and the weight of motor is a little bigger than common.
11.Ensure the motor cools correctly by assuring good passage of air from the fan side.
12.In the case of ambient temperatures < -5°C or > +40°C call the Technical Service.

10.2 Critical applications

The performance given in the catalogue correspond to mounting position B3 or similar, when the first stage is not entirely immersed in oil. For other mounting positions and/or particular input speeds,refer to the tables that highlight different critical situations for each size of gear units. It is also necessary to take due consideration of and carefully assess the following applications by calling our Technical Service:

1. As a speed increasing.
2. Applications with especially high inertia.
3. Use in services that could be hazardous for people if the gear units fails.
4. Applications with high dynamic strain on the case of the gear units.
5. In places with T° under -5°C or over 40°C.
6. Use in chemically aggressive environments.
7. Use in a salty environment.
8. Use in radioactive environments.
9. Use in environments pressures other than atmospheric pressure.
10. Mounting positions not envisaged in the catalogue.

Avoid applications where even partial immersion of the gear units is required.The maximum torque that the gear units can support must not exceed two times the nominal torque (fs =1) stated in the performance tables. Intended for momentary overloads due to starting at full load, braking, shocks or other causes, particularly those that are dynamic.

11. LUBRICATION

11.1 Types of lubrication

	℃ -50 0 +50 +100	ISO	SHELL	MOBIL	BP	lubrication type
TKM.. **TKB..**	Standard -10 +40	VG 220	Shell Omala 220	Mobilgear 630	BP Energol GR-XP 220	Mineral oil
	-20 +25	VG 150 VG 100	Shell Omala 100	Mobilgear 627	BP Energol GR-XP 100	
	-30 +10	VG 68-46 VG 32	Shell Tellus T 32	Mobil D.T.E. 13M		
	-40 -20	VG 22 VG 15	Shell Tellus T 15	Mobil D.T.E. 11M	BP Energol HLP-HM 15	
	-40 +80	VG 220	Shell Omala HD 220	Mobil SHC 630		Synthetic oil
	-40 +40	VG 150		Mobil SHC 629		
	-40 +10	VG 32		Mobil SHC 624		

11.2 Lubricant fill quantity

The specified fill quantities are recommended values. The precise values vary depending on the number of stages and gear ratio. When filling, it is essential to check the oil level plug since it indicates the precise oil capacity. The following tables show guide values for lubricant fill quantities in relation to the mounting position (B3. B6. B7 .....)

TKM.. / lubrication fill quantity

Gear units	Fill quantity in liters (L)					
	B3	**B6**	**B7**	**B8**	**V5**	**V6**
TKM27B	0.22	0.20*	0.13*	0.15	0.25	0.14
TKM27C#	0.07	0.04	0.04	0.05	0.08	0.09
TKM37B	0.42	0.35*	0.24*	0.22	0.46	0.25
TKM37C#	0.07	0.04	0.04	0.05	0.08	0.09
TKM47B	0.70	0.58*	0.42*	0.42	0.75	0.45
TKM47C#	0.13	0.09	0.09	0.09	0.15	0.17
TKM57B	1.21	0.95*	0.72*	0.67	1.30	0.74
TKM57C#	0.13	0.09	0.09	0.09	0.15	0.17
TKM67B	2.15	1.70*	1.10*	1.25	2.20	1.20
TKM67C#	0.25	0.17	0.17	0.20	0.32	0.36

TKB.. / Lubricant fill quantity

Gear units	Fill quantity in liters (L)					
	B3	**B6**	**B7**	**B8**	**V5**	**V6**
TKB37B	0.38	0.35*	0.25*	0.26*	0.44	0.25
TKB37C#	0.07	0.04	0.04	0.05	0.08	0.09
TKB47B	0.66	0.60*	0.45*	0.48	0.78	0.48
TKB47C#	0.13	0.09	0.09	0.09	0.15	0.17
TKB57B	1.15	0.95*	0.70*	0.75*	1.25	0.75
TKB57C#	0.13	0.09	0.09	0.09	0.15	0.17
TKB67B	2.00	1.70*	1.10*	1.40*	2.20	1.20
TKB67C#	0.25	0.17	0.17	0.20	0.32	0.36

#: Means the oil quantity in the 3rd stage housing, as this one is separated from the 2nd housing, please till them separately while in 3 stages.

*: It means the lubricant can't be added according to the oil level line plug,but also higher the plug the Till quantity sa shown in the table

12. MAINTENANCE

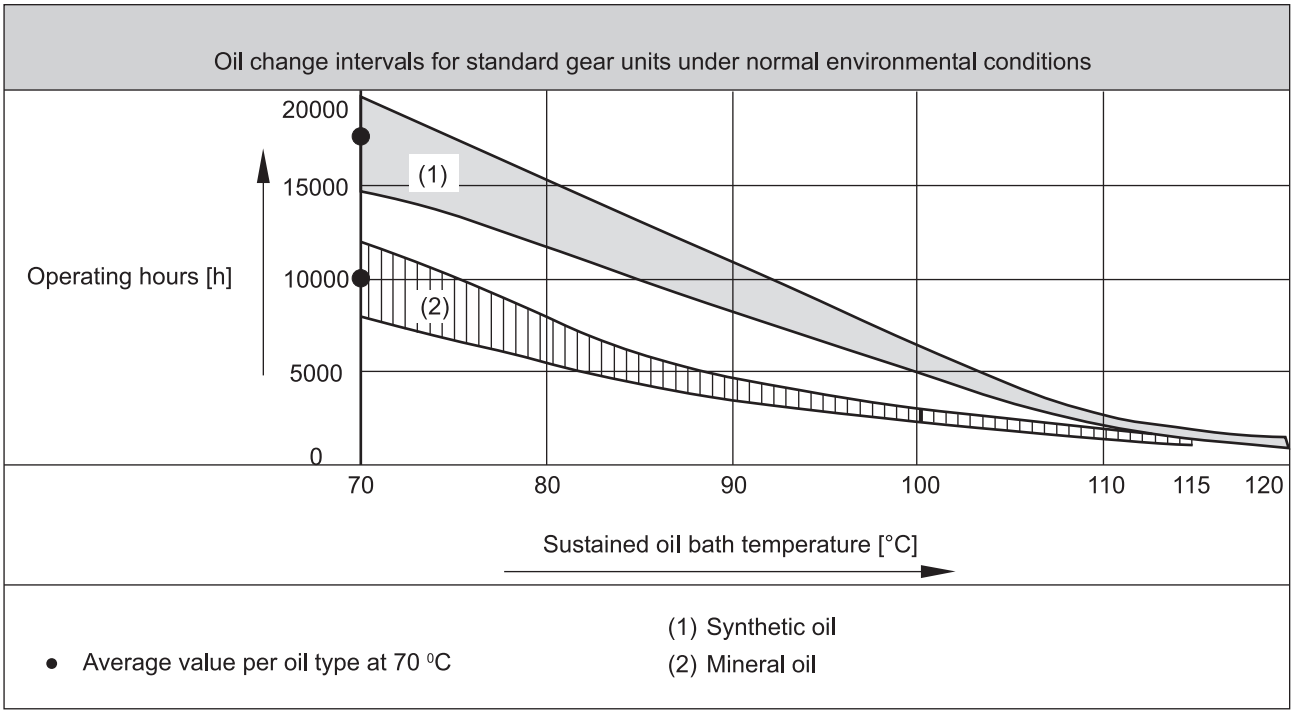
1). For gear units, first oil change should be after about 300 hours (run-in period). The right lotion is required to clean the gear units with care. Never mix the synthetic oil and mineral oil together.

2). Every 3000 working time, at least every 6 months, you have to check the oil and oil level, the seals visually for leakage. For IEC input gear units, the elastomer should be tested or replaced if necessary.

3). Depending on the operating conditions (see chart below), every 3 years at the latest for inspection is needed. Then change the mineral oil and replace the bearing grease.

4). Depending on the operating conditions, change the oil seals on output shaft.

5). Once the malfunctions appear, stop disassembling the parts, and firstly please contact the customer service (the information about specification, delivery date, series number, time used, name of machine, machine manufacturer, malfunction problems is required) , then take the reasonable measures.



13. STORAGE

1). Under roof, protected against rain and snow, no shock loads.

2). Underlay the block and other material between the ground and equipment
.

3). The opened but not used gear units should be added with the anti-corrosive oil on its surface, and then return to the packing containers timely.

4). Two years or more given regular inspections. Check for cleanliness and mechanical damage as part of the inspection,Check corrosion protection.

14. NOTICE FOR ORDER

Please offer the following information when place the orders:

1). the model mark of the gear units (type, ratio, power and mounting position).

2). generally the gear units paint in silver.

3). quantity ordered.

4). other special requirements.

5). company, contact and telephone.

15. GEAR UNIT MALFUNCTIONS

Problem	Possible cause	Remedy
Unusual, regular running noise	A. Meshing/grinding noise: Bearing damage. B. Knocking noise: irregularity in the gearing	A. Check the oil, change bearings B. Contact customer service
Unusual, irregular running noise	Foreign bodies in the oil	• Check the oil • Stop the drive, contact customer service
Oil leaking1) • From the gear cover plate • From the motor flange • From the motor oil seal • From the gear unit flange • From the output end oil sea	A. Rubber seal on the gear cover plate leaking B. Seal defective C. Gear unit not vented	A. Tighten the bolts on the gear cover plate and observe the gear unit. Oil still leaking:Contact customer service B. Contact customer service C. Vent the gear unit (see "Mounting Positions")
Oil leaking from breaking valve	A. Too much oil B. Drive operated in incorrect mounting position C. Frequent cold starts(oil foams) and/or high oil level	A. Correct the oil level (see Sec. "Inspection and Maintenance") B. Mount the breather valve correctly (see Sec."Mounting Positions") and correct the oil level(see"Lubricants")
Output shaft does not turn although the motor is running or the input shaft is rotated	Connection between shaft and hub in gear unit interrupted	Send in the gear unit/gearmotor for repair

1) Short-term oil/grease leakage at the oil seal is possible in the run-in phase (24 hours running time).

16. Charge Characteristic Chart (for reference)

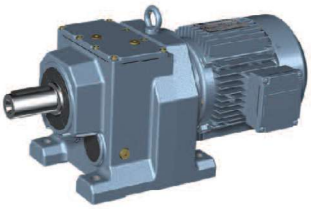
AIR BLOWERS		Hoist gear assembly	A
Air blower (axial or radial)	A	Derrick gear assembly	B
Fan of cooling tower	B	Steering gear assembly	B
Induced draught fan	B	Moving gear assembly	C
Rotary piston type fan	B	LAND DREDGER	
Turbo-fan	A	Drum-type conveyer	C
CONSTRUCTION MACHINERY		Drum-type rotation wheel	C
Concrete mixer	B	Dredger head	C
Hoist	B	Powered crab	B
Road building machinery	B	Pump	B
Boring mill	B	Pump turning gear assembly	B
CHEMICAL MACHINERY		Moving gear assemhly (apron wheel)	C
Mixer (liquid)	A	Moving gear assembly (track)	B
Mixer (half liquid)	B	FOODSTUFF PROCESSING MACHINERY	
Centrifuge (heavy)	B	Placer or box filler	A
Centrifuge(light)	A	Cane crusher	A
** Cooling rolling drum	B	** Cane cutter	B
** Dry rolling drum	B	** Cane crasher	C
Mixer	B	Mixer	B
COMPRESSOR		Paste bucket	B
Piston type compressor	C	Packager	A
Turbo-compressor	B	Beet slicer	B
TRANSMISSION FREIGHTER		Beet washing machine	B
Pan conveyer	B	MOTOR AND CONVERSION EQUIPMENTS	
Balance lifter	B	Frequency converter	C
Trough conveyer	B	Motor	C
Ribbon conveyer (large piece)	C	Welding motor	C
Ribbon coveyer (small piece)	B	WASHING MACHINE	
Drum-type flour conveyer	A	Rolling drum	B
Chain conveyer	B	Washing machine	B
Ring type conveyer	B	METAL ROLLER MACHINE	
Lifter	B	** Steel cutter	C
Hoist	B	** Chain conveyer	B
Crank-connecting conveyer	B	** Cold mill	C
Lifter	B	Continuous casting equipments	B
Worm conveyer	B	** Cold bed	B
Steel-band conveyer	B	** Cropper	C
Chain reed-type conveyer	B	** Cross steering transmitter	B
Crab freighter	B	** Deruster	C
HOIST		** Heavy and medium steel mill	C
Bracket swing gear assembly	B	** Bar mill	C

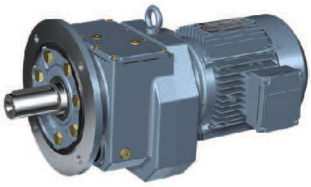
BAR TRANSMISSION EQUIPMENT	B	**PUMPS**	
Bar pusher	B	Centrifugal pump (thin liquid)	A
Push bed	B	Centrifugal pump (half liquid)	B
** Shears	C	Displacement pump	C
** Lumber elevator platform	B	Plunger pump	C
ROLL ADJUSTING EQUIPMENTS	B	Force pump	C
Roller leveling machine	B	**PLASTIC EQUIPMENTS**	
** Mill rolling way (heavy)	C	** Glazing press	B
** Mill rolling way (light)	B	** Ejecting press	B
** Sheet rolling mill	C	** Spiral extruding machine	B
** Trimming shears	B	** Mixing machine	B
Pipe welder	C	**RUBBER EQUIPMENT**	
Soldering machine (belt material and wire rod)	B	** Glazing press	B
Wire drawbench	B	** Ejecting press	C
METAL PROCESSING MACHINE TOOLS		** Mixing stir machine	B
Power shaft	A	Kneading machine	B
** Forging machine	C	** Roller machine	C
Drop hammer	C	**STONE PORCELAIN CLAY PROSSEING EQUIPMENT**	
Machine tool and necessary	A		
Machine tool and main driving equipment	B	Ball crusher	B
Metal facing mahcine	C	** Ejecting press and breaker	C
Plate-leveling machine tool	C	Breaker	C
Backing-out punch	C	Brick press	C
Press machine tool	C	** Beating crusher	C
Cutting machine	B	** Converter	C
Sheet bending machine tool	B	** Cylinder mill	C
PETROLEUM PROCESSING MACHINERY		**TEXTILE MACHINERY**	
** Pump of oil pipe line	B	Feeding machine	B
Rotary drilling equipment	C	Loom machine	B
PAPERING MACHINE		Dyeing machine	B
** Glazing press	C	Purified drum	B
** Multilayer paper board machine	C	Welon Machine	B
** Drying cylinder	C	**WASTER TREATMENT EQUIPMENT**	
** Glazing cylinder	C	Air blast	B
** Masher	C	Screw pump	B
** Mashing and breaking machine	C	**WOOD PROCESSING MACHINE TOOL**	
** Suction roll	C	Barker	C
** Wet paper roller machine	C	Facing machine	B
** Water absorbing roller machine	C	Saw bench	C
Welon machine	C	Wood processing machine tool	A

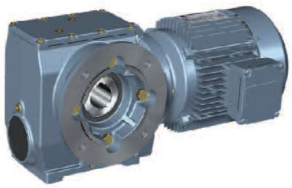
Note: A - Uniform load; B - Moderate shock load; C - Heavy shock load; ** - for 24hour system.

SHOW THE SERIES PRODUCTS

TR Series helical geared motors





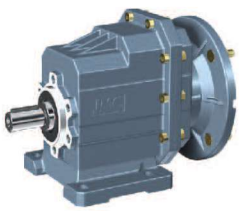


TS Series helical-worm geared motors

TK Series helical-bevel geared motors

TF Series parallel shaft helical geared motors

G3 Series mini helical geared motors



CHC Series mini helical gear units

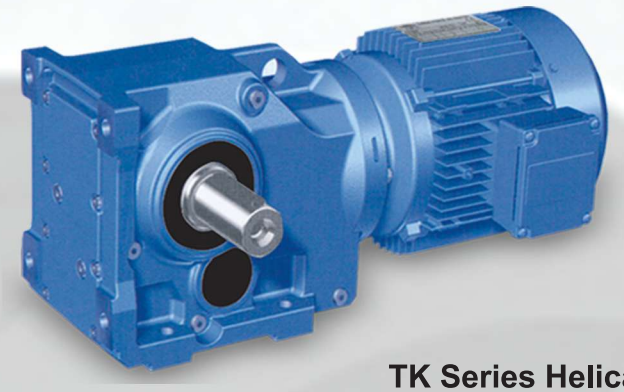
MRV Series worm gear units

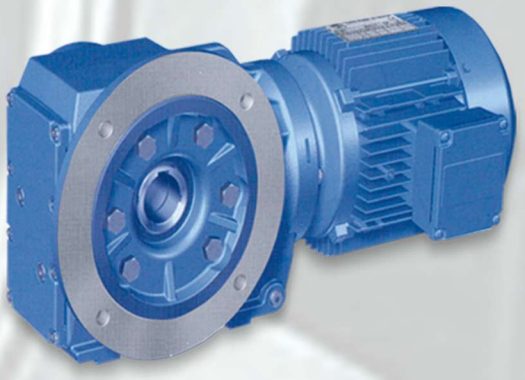
UDL Series stepless speed variator

YUEMA

Helical Geared Motor

TR Series Helical Geared Motor





TK Series Helical-Bevel Geared Motor

TF Series parallel Shaft Helical Geared Motor