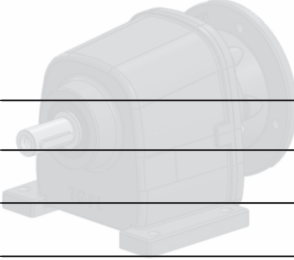
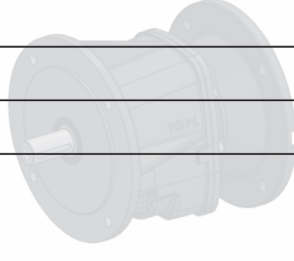
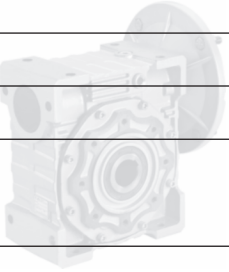


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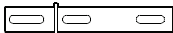
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TH SERIES

1. SUMMARIZE

TH Helical Gear Box / Geared Motor series is a range of inline gear units which is a next generation mechano-electrical integrated product, designed based on the compact modular system. The TH series Helical Gear units are well known to be the unmatched range of helical geared motors and speed reducers as it is capable of exhibiting optimum torque density, product range, price effectiveness and gear compactness.

TH series Helical Gear units can be connected with wide variety of motors such as normal motor, brake motor, IEC motor and etc., This kind of product is widely used in drive fields such as textile, food processing units, beverage, chemical industry, material handling equipments, automobile, metallurgy, Pharma, environment-protection, logistics and many more.

Product development is assured by qualified professionals using latest design software/systems/tools.

Significant production flexibility guarantees a rapid flow of components with high level quality with the usage of state of art machineries and equipments.

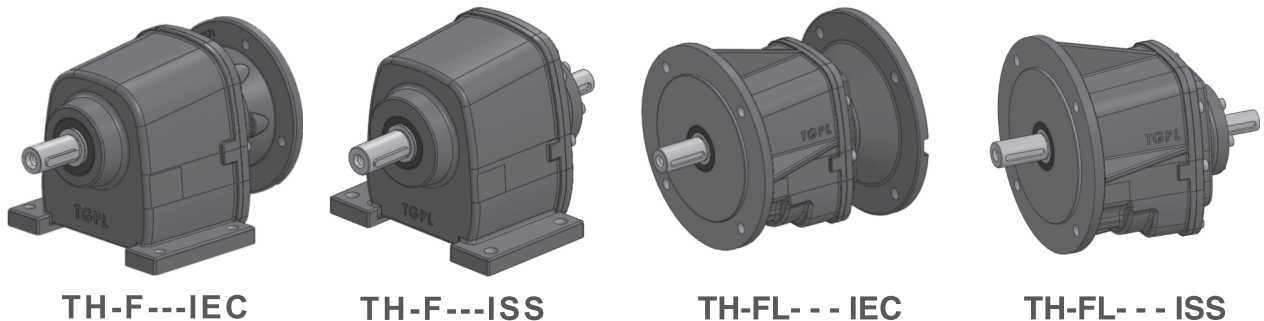
We have In-house well equipped testing facilities for quality check & development aimed to ensure effective performances.

The gears and pinions are made from 20MnCr5 grade steel, hardened and case hardened with Quench heat treatment furnace maintaining the hardness of surface from 58 to 62 HRC. The gear box housings are made with FG260 grade casting in accordance to IS-210 standard. Our Gearboxes offer silent running with a maximum noise level of 80 dBA at 1 meter distance.

1.1 Product Features:

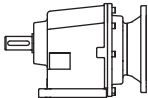
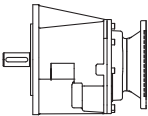
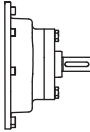
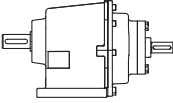
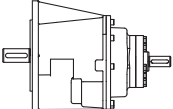
- High durability and reliability
- Effective space utility, refined design
- High torque
- Quite and noiseless operation
- Accepts standard IEC motors
- Very easy to dismantle motor from geared motor
- Wide range of ratios & Versatile mounting
- Gears from hardened and case-hardened steel
- Mechanical rating - 0.12KW to 45KW
- Powder coated blue colour grade of RAL 5015

2. PRODUCT STRUCTURE PICTURE



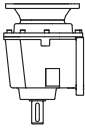
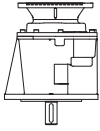
3. MODEL DESIGNATION

3.1 GEARBOX MODEL DESIGNATION

TH	25	2	F	14	F80	B5	B3
GEAR BOX TYPE	GEAR BOX FRAME	NO.OF REDUCTION	MOUNTING	RATIO	GEARBOX INPUT FRAME SIZE	GEAR BOX INPUT FLANGE CONFIGURATION	GEAR BOX MOUNTING POSITION
	16		F- FOOT		F63		B3
	(or)	2			(or)		(or)
	20	(or)			F71	B5	B6
	(or)	3	(or)		(or)		(or)
	25		FL-FLANGE		F80		B7
	(or)				(or)		(or)
	30				F90	(or)	B8
	(or)				(or)		(or)
	35				F100		V5
	(or)				(or)		(or)
	40				F112		V6
	(or)				(or)		(or)
	50				F132		B5
	(or)				(or)		(or)
	60				F160		V1
	(or)				(or)		(or)
	80				F180		V3
	(or)				(or)		
	90				F200		
					(or)		
					F225		
					(or)		
					ISS		
					(INPUT SOLID SHAFT)		
							
							

REFER
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3.2 GEARED MOTOR MODEL DESIGNATION

TH	25	2	F	14	F80	B5	B3	TM63A	4	B5	BRAKE DCB415	SPL. OPTIONS
GEAR BOX TYPE	GEAR BOX FRAME	NO.OF REDUCTION	MOUNTING F- FOOT  (or) FL-FLANGE 	RATIO	GEARBOX INPUT FRAME	GEAR BOX INPUT FLANGE CONFIGURATION ONLY B5	GEAR BOX MOUNTING POSITION	MOTOR SIZE	NUMBER OF POLES	MOUNTING	DC BRAKE	SPL. OPTIONS
	16 (or)	2 (or)			SIZE F63 (or)		B3 (or)	TM63A (or) TM63B (or)	2 (or)	B5- FLANGE (or) B3/B5	DC BRAKE DCB 415 or DCB 230	OPTION - 1 TB1 (or) TB2 (or) TB3 (or) TB4
	20 (or)	3			F71 (or)		B6 (or)	TM71A (or) TM71B (or)	4 (or)	FOOT WITH B5 FLANGE		OPTION - 3 N-ES OPTION - 4 FC
	25 (or)				F80 (or)		B7 (or)	TM80A (or) TM80B (or)				
	30 (or)				F90 (or)		B8 (or)	TM90S (or)				
	35 (or)				F100 (or)		V5 (or)	TM90L (or)				
	40 (or)				F112 (or)		V6 (or)	TM100L (or) TM112M (or)				
	50 (or)				F132 (or)		B5 (or)	TM132S (or)				
	60 (or)				F160 (or)		V1 (or)	TM132M (or) TM160M (or)				
	80 (or)				F180 (or)		V3	TM160L (or) TM180M (or)				
	90				F200 (or) F225			TM180L (or) TM200L (or) TM225M (or)				

FOR FULL
DETAILS
REFER
PAGE
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4. RELEVANT PARAMETER

4.1 Power P

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

$$P_{1n} \geq P_1 \cdot f_s \text{ [kW]}$$

P_1 Input power

P_2 Output power

P_{1n} Rated input motor power

f_s Service factor

η Transmission efficiency

The parameter can be found in the TH/ISS gearbox rating charts and represents the KW that can be safely transmitted to the gearbox, based on input speed n_1 and service factor $f_s=1$.

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.

4.3 Transmission ratio i

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

4.4 Torque M

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

$$M_{2n} \geq M_2 \times f_s \text{ [Nm]}$$

M_2 Output torque

M_{2n} Rated output torque

P_1 Input power

η Transmission efficiency

f_s Service factor

5. SERVICE FACTOR f_s

For deciding the proper size of gear unit portion of the geared motor, a suitable service factor is to be considered over the motor power. For finding out the service factor, mechanical service factor f_1 and frequency starts factor f_2 , as given in table 5.1 and 5.2 respectively are taken into consideration. For deciding mechanical service factor, the type of load of driven machine as given in table 7 is considered.

5.1 MECHANICAL SERVICE FACTOR - f_1

Duration of service (hours per day)	Load Classifications of Driven Machine		
	Uniform load U	Moderate shock load M	Heavy shock load H
up to 3	0.80	1.00	1.50
over 3 up to 10	1.00	1.25	1.75
over 10	1.25	1.50	2.00

5.2 FREQUENCY STARTS FACTOR - f_2

Starts Per Hour	Mechanical Service Factor - f_1					
	0.8	1.0	1.25	1.5	1.75	2.0
1	1.00	1.00	1.00	1.00	1.00	1.00
2 to 20	1.20	1.10	1.08	1.07	1.07	1.06
21 to 40	1.30	1.20	1.17	1.16	1.15	1.08
41 to 80	1.50	1.40	1.25	1.23	1.18	1.10
81 to 160	1.60	1.50	1.35	1.30	1.20	1.10
161 to 320	2.00	1.80	1.70	1.60	1.50	1.40

6. 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.

Service factor fs should be adjusted as followings:

- 1) Ambient temperature is 30 ~ 40°C: $fs \times (1.1 \sim 1.2)$
- 2) Ambient temperature is 40 ~ 50°C: $fs \times (1.3 \sim 1.4)$
- 3) Ambient temperature is 50 ~ 60°C: $fs \times (1.5 \sim 1.6)$
- 4) Ambient temperature > 60°C, Please call our Technical Service.

7. LOAD CLASSIFICATION

U = Uniform load M = Medium shock load H = Heavy shock load

* = Only on the basis of 24 hrs service

** = Load can be exactly classified, for instance,

Load classification symbols listed acc. to applications and industries		
Building machinery	Cranes **	Rolls
M Hoists	M Derricking jib gears	M Chain transfers *
M Road construction machinery	H Hoisting gears	H Cold rolling mills *
	M Slewing gears	H Continuous casting plants *
Cement industry	H Travelling gears	M Cooling beds *
H Ball mills *		M Cross transfers *
H Beater mills *	Dredgers	H Descaling machines *
H Breakers	H Bucket conveyors	H Ingot handling machinery *
H Brick presses	H Bucket wheels	H Manipulators *
M Concrete mixers	H Cutter heads	H Reversing plate mills *
H Hammer mills *	M Manoeuvring winches	H Reversing sheet mills *
H Rotary kilns *	M Slewing gears	H Reversing slabbing mills *
	H Travelling gears (caterpillar)	
H Tube mills *	M Travelling gears (rails)	M Roll adjustment drives
		H Tube welding machines *
Centrifugal compressors		M Winding machines (strip and wire) *
M Centrifugal compressors	Food industry machinery	M Wire drawing benches
	U Bottling and container filling machines	Shears
Chemical industry	M Kneading machines	H Billet shears *
U Agitators (liquid material)	M Mash tubs, crystallizers	H Cropping shears *
M Agitators (semi-liquid material)	U Packaging machines	H Plate shears *
M Calenders *	Beet sugar production	M Trimming shears *
M Centrifuges (heavy)	M Sugar beet cutters	
	M Sugar beet washing machines	Oil industry
U Centrifuges (light)	Cane sugar production	M Pipeline pumps *
M Cooling drums *	M Cane crushers *	H Rotary drilling equipment
M Crushers	M Cane knives *	
H Dough mills *	M Cane mills *	Paper machines
M Drying drums *		H Paper machines of all kind *
H Extruders *	Frequency converters	
M Mixers	H Frequency converters	Piston compressors
H Rolling mills *	H Generators	H Piston compressors
Conveyors	H Welding generators	
M Apron conveyors		Textile machines
M Ballast elevators	Laundries	M Batchers
M Band pocket conveyors	M Tumblers	M Looms
M Belt conveyors (bulk material)	M Washing machines	M Printing and dyeing machines
H Belt conveyors (piece goods)		M Tanning vats
U Bucket conveyors for flour	Metal working machines	M Willows
M Chain conveyors	U Countershafts, line shafts	
M Circular conveyors	H Forging presses	Waste water treatment
M Goods lifts	H Hammers *	M Aerators *
	U Machine tools, auxiliary drives	Pumps
M Hauling winches	M Machine tools, main drives	U Centrifugal pumps (light liquids)
H Hoists *		M Centrifugal pumps (viscous liquids)
H Inclined hoists *	H Metal planing machines	
	H Plate straightening machines	H Piston pumps
M Link conveyors	H Presses	H Plunger pumps *
M Passenger lifts	H Punch presses	H Pressure pumps *
M Screw conveyors	M Shears	M Suction pumps
M Steel belt conveyors	M Sheet metal bending machines	
M Trough chain conveyors		Wood working machines
Cooling towers	Metal working mills	M Planing machines
U Blowers (axial and radial)	H Ingot pushers *	H Saw frames *
M Cooling tower fans	M Plate tilters *	U Wood working machines
	M Roller straighteners *	
	H Roller tables (heavy) *	
	M Roller tables (light) *	

8. RADIAL LOADS F_r

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 f_z	Comments
Gears	1.00	≥ 17 / teeth
	1.15	< 17 / teeth
Chain sprockets	1.00	≥ 20 / teeth
	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:

$$F_r = \frac{M \cdot 2000 \cdot f_z}{d_0} \quad [\text{N}]$$

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

The allowed radial load force on the shaft is calculated with the following formula:

$$F_{xL} \leq \frac{F_{r2} \cdot a}{(b+x)} \quad [\text{N}]$$

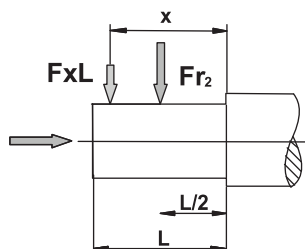
F_{r2} Permitted overhung load ($x = L/2$) for foot-mounted gear units according to the selection tables in [N]

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

x Distance from the shaft shoulder to the force application point in (mm)

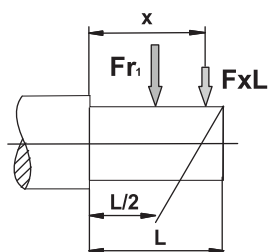
The values of a , b , F_{r2} are given in the following tables:

Output shafts radial loads



TH	16	20	25	30	35	40	50	60	80	90
a	70.5	99.5	116.5	132	147.5	163	204	240.5	258	310
b	54.5	79.5	91.5	102	112.5	123	154	180.5	178	220
Fr₂ max	1360	2300	5000	5500	7000	10000	16000	25000	31000	44000

Input shafts radial loads



TH	16	20	25	30	35	40	50	60	80	90
a	59.5	78.5	78.5	82	89	117.5	134	163	214.5	225.5
b	43.5	58.5	58.5	57	64	87.5	94	108	159.5	155.5
Fr₁ max	710	1300	1300	2200	3500	3500	4700	7000	7000	12800

9. POSSIBLE ASSEMBLING

TH16

	i (RATIO)	IEC63	IEC71	IEC80	IEC90	IEC100	IEC112
TWO S T A G E	(4.5) (5.4) (6.5) (7.6) (9.6) (11.6)						
	(13.3) (15.5) (18.3) (20.5)						
	(27.4) (32.5) (35.7) (39.4) (43.9)						

TH20

	i (RATIO)	IEC63	IEC71	IEC80	IEC90	
TWO S T A G E	(3.6) (4.6) (5.5) (7.7) (8.9) (11.3) (12.3) (14.4)					
	(16.7) (21.2) (23.1) (25.4) (28.0) (31.1) (34.8) (39.3) (45.0)					
THREE S T A G E	(50.2) (57.7) (67.2) (79.5) (87.3) (96.4) (108.2) (125.9)					
	(149.1) (163.6) (180.8) (201.3)					

TH25

	i (RATIO)	IEC63	IEC71	IEC80	IEC90	
TWO S T A G E	(3.8) (5.0) (6.6) (7.9) (9.0) (10.3) (12.0) (14.9)					
	(17.0) (19.5) (22.6) (26.7)					
	(32.1) (35.5) (39.7) (44.7) (51.03)					
THREE S T A G E	(53.1) (58.6) (65.1) (72.8) (82.3) (91.3) (100.2) (110.5)					
	(122.7) (137.3) (155.2) (177.6)					

TH30

	i (RATIO)	IEC63	IEC71	IEC80	IEC90	IEC100	IEC112
TWO S T A G E	(3.6) (5.1) (6.1) (7.9) (9.2)						
	(10.7) (12.6) (15.0) (17.3) (20.1) (23.8)						
	(28.8) (31.9) (35.7) (40.3)						
THREE S T A G E	(41.8) (48.0)						
	(55.8) (65.7) (78.8) (90.5) (105.1)						
	(123.9) (149.1) (165.0) (184.2) (207.6)						

TH35

	i (RATIO)	IEC63	IEC71	IEC80	IEC90	IEC100	IEC112
TWO S T A G E	(3.7) (5.0) (6.1) (7.0) (8.1) (8.8)						
	(10.4) (12.4) (14.4) (18.4)						
	(22.1) (24.4) (27.1) (30.3) (34.3) (39.3)						
THREE S T A G E	(42.3) (49.3) (58.4) (70.4)						
	(87.5) (103.6) (125.0) (138.6) (155.0) (175.0)						

TH40

	i (RATIO)	IEC71	IEC80	IEC90	IEC100	IEC112	IEC132
TWO S T A G E	(4.4) (5.6) (6.9) (7.4) (8.6) (10.0) (11.9) (13.4)						
	(15.7) (18.7) (20.5) (22.6) (24.6) (27.1)						
	(30.0) (33.5) (37.8)						
THREE S T A G E	(39.4) (42.6) (50.3) (60.3) (66.5)						
	(78.6) (94.3) (104.1)						
	(115.6) (129.5) (146.5) (167.7)						

TH50

	i (RATIO)	IEC80	IEC90	IEC100	IEC112	IEC132	IEC160
TWO S T A G E	(4.3) (5.6) (6.9) (8.0) (8.7) (10.2)						*
	(12.9) (15.0) (18.9) (21.9)						*
	(23.7) (25.7) (28.1) (30.9) (34.1) (38.0) (42.8)						*
THREE S T A G E	(48.2)						
	(57.3) (69.3)						
	(83.7) (91.8) (101.3) (110.5)						
	(121.5) (134.6) (150.3) (169.4)						

TH60

	i (RATIO)	IEC90	IEC100	IEC112	IEC132	IEC160	IEC180	
TWO S T A G E	(4.6) (5.8) (7.1) (8.7) (10.1) (11.9) (14.6)						*	
	(17.2)						*	
	(19.8) (21.5) (23.6) (25.9) (28.7) (32.1) (36.2)						*	
THREE S T A G E	(39.5)							
	(46.4) (58.8) (68.1) (80.1)							
	(87.5) (96.1) (106.5) (115.8)							
	(126.4) (138.8) (153.5) (171.2) (192.7)							

TH80

	i (RATIO)	IEC100	IEC112	IEC132	IEC160	IEC180	IEC200	
TWO STAGE	(4.6) (5.8) (7.0) (8.7) (10.1) (11.9) (13.2) (15.3)						*	
	(18.0) (20.3)						*	
	(22.1)(24.2) (26.7) (29.6) (33.0) (37.2)						*	
THREE STAGE								
	(44.0) (51.2)							
	(60.2) (66.8)							
	(77.7) (91.4) (104.9) (114.2) (125.0) (137.5)							
	(152.3) (170.1) (191.8)							

TH90

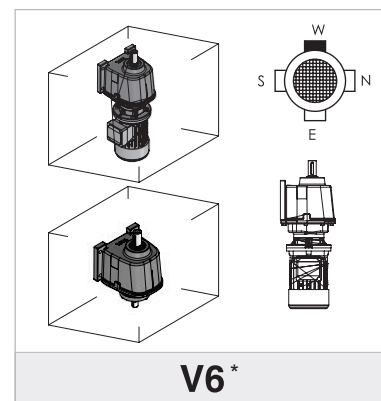
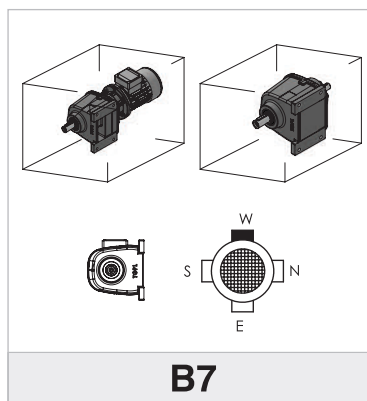
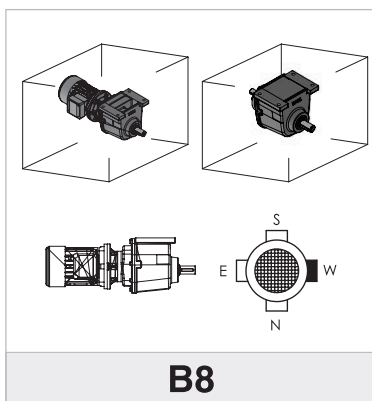
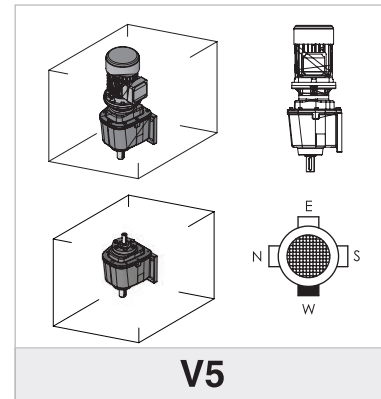
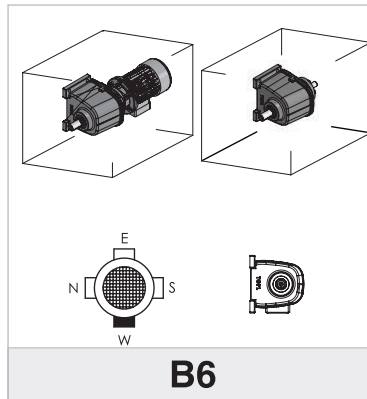
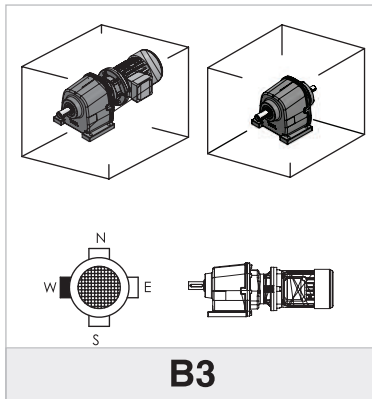
	i (RATIO)	IEC100	IEC112	IEC132	IEC160	IEC180	IEC200	IEC225
TWO STAGE	(4.6) (5.8) (7.3) (8.9) (10.2) (11.9)						*	*
	(12.9) (14.9) (17.1) (19.9) (21.6)						*	*
	(24.3) (26.4) (31.7) (35.1)						*	*
THREE STAGE								
	(37.4)						*	
	(43.5) (51.2)						*	
	(57.9) (62.1) (68.9) (72.8) (85.6)						*	
	(96.8) (105.4) (115.3) (126.9)						*	
	(140.6) (157.1) (177.1)						*	

*Motor mounting should be B3/B5 (Foot Cum Flange) for Gear Box Mounting position B3, B5, B6, B7 & B8

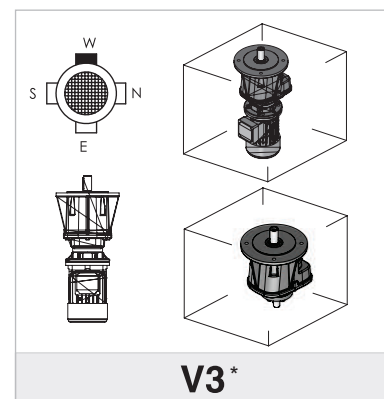
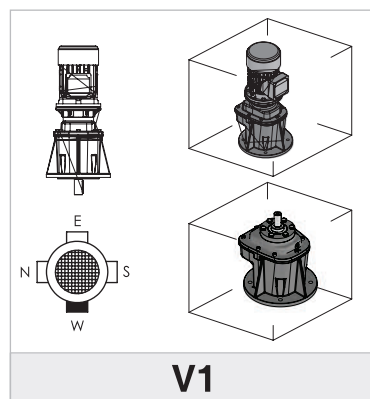
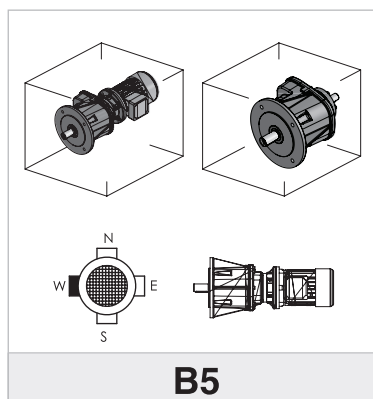
10. MOUNTING POSITIONS

MOUNTING POSITION FOR GEAR BOX & GEARED MOTOR

F - FOOT MOUNTING



FL - FLANGE MOUNTING



*Note : Breather Plug & Oil Level Indicator Mandatory for TH80 & TH90 - V6 & V3 Mounting.

11. LUBRICATION

TGPL – TH Series gearbox inner parts are flash lubricated and models TH16, 20, 25, 30 & 35 are filled with long life Synthetic oil and the other models TH40, 50, 60, 80 & 90 are filled with mineral oil. In case of ambient temperatures under -15°C or over 50°C, please consult our technical team.

11.1 LUBRICANT DETAILS

MODEL	GRADE			OIL TYPE	AMBIENT TEMPERATURE	
	LIGHT DUTY	NORMAL DUTY	HEAVY DUTY			
TH16 TO TH35	150	220	320	SYNTHETIC OIL	-15°C	+50°C
TH40 TO TH90	220	220	320	MINERAL OIL		

11.2 Quantity of Lubricant (Ltrs)

Model	MOUNTING POSITIONS								
	FOOT						FLANGE		
	B3	B6	B7	B8	V5	V6	B5	V1	V3
TH16-2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
TH20-2	0.4	0.37	0.37	0.37	0.45	0.55	0.4	0.45	0.55
TH20-3	0.4	0.37	0.37	0.37	0.6	0.5	0.4	0.65	0.55
TH25-2	0.7	0.65	0.65	0.65	0.75	0.85	0.55	0.6	0.83
TH25-3	0.75	0.7	0.7	0.7	1.0	0.85	0.6	0.88	0.85
TH30-2	0.9	0.85	0.85	0.85	1.0	1.3	0.9	1.0	1.3
TH30-3	0.9	0.85	0.85	0.85	1.35	1.1	0.9	1.35	1.15
TH35-2	1.2	1.1	1.1	1.0	1.3	1.7	1.2	1.3	1.7
TH35-3	1.2	1.1	1.1	1.0	1.8	1.75	1.2	1.8	1.75
TH40-2	2.2	2.2	2.2	2.5	2.8	2.6	2.2	2.8	2.6
TH40-3	2.2	2.2	2.2	2.5	3.0	2.8	2.2	3.0	2.8
TH50-2	3.5	3.4	3.4	4.0	4.5	4.3	3.5	4.5	4.3
TH50-3	3.5	3.4	3.4	4.0	4.9	5.0	3.5	4.9	5.0
TH60-2	6.0	5.8	5.8	6.3	8.0	7.6	6.0	8.0	7.6
TH60-3	6.0	5.8	5.8	6.3	11.0	10.5	6.0	11.0	10.5
TH80-2	12.0	11.5	11.8	11.5	13.7	16.8	10.0	11.6	15.0
TH80-3	12.0	11.5	11.8	11.5	18.0	19.7	10.0	15.8	18.8
TH90-2	16.0	18.0	18.0	18.0	30.0	28.0	16.0	27.0	28.0
TH90-3	16.0	18.0	18.0	18.0	32.0	29.0	16.0	27.0	28.0

12. SYMBOLS AND UNITS OF MEASURE

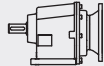
P _{1n} [kW]	n ₂ [r/min]	M _{2n} [Nm]	i	f _s	F _{r2} [N]			
Rated power driving motor	Output speed	Rated output torque	Gear unit ratio	Service factor	Output Shaft radial load	Gear unit Size	Motor Size	Page number - Dimension details

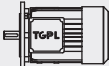
13. HELICAL GEAR UNIT SELECTION TABLES

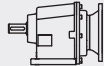
13.1 TH..(IEC).. Performance Parameter

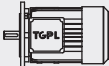
P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
0.12	5.9	188.1	236.9	1.9	5500	TH30 3 63B5	TM 63 A4	81 - 82
	6.7	164.9	207.6	1.9	5500	TH30 3 63B5	TM 63 A4	81 - 82
	7.0	159.9	201.3	0.8	2300	TH20 3 63B5	TM 63 A4	75 - 76
	7.7	143.5	180.8	0.9	2300	TH20 3 63B5	TM 63 A4	75 - 76
	7.9	141.0	177.6	1.4	5000	TH25 3 63B5	TM 63 A4	78 - 79
	8.6	129.9	163.6	0.9	2300	TH20 3 63B5	TM 63 A4	75 - 76
	9.0	123.2	155.2	1.7	5000	TH25 3 63B5	TM 63 A4	78 - 79
	9.4	118.4	149.1	1.0	2300	TH20 3 63B5	TM 63 A4	75 - 76
	10.2	109.0	137.3	1.9	5000	TH25 3 63B5	TM 63 A4	78 - 79
	11.1	100.0	125.9	1.2	2300	TH20 3 63B5	TM 63 A4	75 - 76
	11.4	97.4	122.7	2.1	5000	TH25 3 63B5	TM 63 A4	78 - 79
	12.7	87.7	110.5	2.3	5000	TH25 3 63B5	TM 63 A4	78 - 79
	12.9	85.9	108.2	1.4	2300	TH20 3 63B5	TM 63 A4	75 - 76
	14.0	79.5	100.2	2.6	5000	TH25 3 63B5	TM 63 A4	78 - 79
	14.5	76.5	96.4	1.6	2300	TH20 3 63B5	TM 63 A4	75 - 76
	15.3	72.5	91.3	2.8	5000	TH25 3 63B5	TM 63 A4	78 - 79
	16.0	69.3	87.3	1.8	2300	TH20 3 63B5	TM 63 A4	75 - 76
	17.0	65.4	82.3	3.1	5000	TH25 3 63B5	TM 63 A4	78 - 79
	17.6	63.2	79.5	1.9	2300	TH20 3 63B5	TM 63 A4	75 - 76
	19.2	57.8	72.8	3.5	4920	TH25 3 63B5	TM 63 A4	78 - 79
	20.8	53.3	67.2	2.3	2300	TH20 3 63B5	TM 63 A4	75 - 76
	24.3	45.8	57.7	2.7	2300	TH20 3 63B5	TM 63 A4	75 - 76
	27.9	39.9	50.2	3.1	2300	TH20 3 63B5	TM 63 A4	75 - 76
	31.1	36.1	45.0	3.3	2100	TH20 2 63B5	TM 63 A4	75 - 76
	31.9	35.2	43.9	2.0	810	TH16 2 63B5	TM 63 A4	72 - 73
	35.5	31.6	39.4	2.3	780	TH16 2 63B5	TM 63 A4	72 - 73
	35.6	31.6	39.3	3.8	2100	TH20 2 63B5	TM 63 A4	75 - 76
	39.3	28.6	35.7	2.5	740	TH16 2 63B5	TM 63 A4	72 - 73
	43.1	26.1	32.5	2.7	680	TH16 2 63B5	TM 63 A4	72 - 73
	51.0	22.0	27.4	3.2	640	TH16 2 63B5	TM 63 A4	72 - 73
	68.2	16.5	20.5	4.3	600	TH16 2 63B5	TM 63 A4	72 - 73
	76.4	14.7	18.3	4.9	580	TH16 2 63B5	TM 63 A4	72 - 73
	90.5	12.4	15.5	5.8	530	TH16 2 63B5	TM 63 A4	72 - 73
	105.4	10.7	13.3	6.1	520	TH16 2 63B5	TM 63 A4	72 - 73
	121.0	9.3	11.6	6.5	500	TH16 2 63B5	TM 63 A4	72 - 73
	146.2	7.7	9.6	6.9	480	TH16 2 63B5	TM 63 A4	72 - 73
	183.4	6.1	7.6	7.3	470	TH16 2 63B5	TM 63 A4	72 - 73
	214.5	5.2	6.5	7.8	440	TH16 2 63B5	TM 63 A4	72 - 73
	260.9	4.3	5.4	8.6	420	TH16 2 63B5	TM 63 A4	72 - 73
	314.2	3.6	4.5	9.8	370	TH16 2 63B5	TM 63 A4	72 - 73

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
0.18	3.8	438.9	236.9	0.7	5500	TH30 3 71B5	TM 71 A6	81 - 82
	4.3	384.7	207.6	0.8	5500	TH30 3 71B5	TM 71 A6	81 - 82
	4.9	341.3	184.2	0.9	5500	TH30 3 71B5	TM 71 A6	81 - 82
	5.1	324.2	175.0	1.5	7000	TH35 3 71B5	TM 71 A6	84 - 85
	5.5	305.7	165.0	1.0	5500	TH30 3 71B5	TM 71 A6	81 - 82
	5.8	287.1	155.0	1.8	7000	TH35 3 71B5	TM 71 A6	84 - 85
	5.9	282.2	236.9	1.2	5500	TH30 3 63B5	TM 63 B4	81 - 82
	6.7	247.3	207.6	1.2	5500	TH30 3 63B5	TM 63 B4	81 - 82
	7.6	219.4	184.2	1.4	5500	TH30 3 63B5	TM 63 B4	81 - 82
	7.9	211.5	177.6	1.0	5000	TH25 3 63B5	TM 63 B4	78 - 79
	8.5	196.5	165.0	1.6	5500	TH30 3 63B5	TM 63 B4	81 - 82
	9.0	184.8	155.2	1.1	5000	TH25 3 63B5	TM 63 B4	78 - 79
	9.4	177.6	149.1	0.7	2300	TH20 3 63B5	TM 63 B4	75 - 76
	9.4	177.5	149.1	1.7	5500	TH30 3 63B5	TM 63 B4	81 - 82
	10.2	163.5	137.3	1.2	5000	TH25 3 63B5	TM 63 B4	78 - 79
	11.1	150.0	125.9	0.8	2300	TH20 3 63B5	TM 63 B4	75 - 76
	11.3	147.6	123.9	2.1	5500	TH30 3 63B5	TM 63 B4	81 - 82
	11.4	146.1	122.7	1.4	5000	TH25 3 63B5	TM 63 B4	78 - 79
	12.7	131.6	110.5	1.6	5000	TH25 3 63B5	TM 63 B4	78 - 79
	12.9	128.9	108.2	0.9	2300	TH20 3 63B5	TM 63 B4	75 - 76
	14.0	119.3	100.2	1.7	5000	TH25 3 63B5	TM 63 B4	78 - 79
	14.5	114.8	96.4	1.1	2300	TH20 3 63B5	TM 63 B4	75 - 76
	15.3	108.8	91.3	1.9	5000	TH25 3 63B5	TM 63 B4	78 - 79
	16.0	103.9	87.3	1.2	2300	TH20 3 63B5	TM 63 B4	75 - 76
	17.0	98.0	82.3	2.1	5000	TH25 3 63B5	TM 63 B4	78 - 79
	17.6	94.7	79.5	1.3	2300	TH20 3 63B5	TM 63 B4	75 - 76
	19.2	86.7	72.8	2.4	4920	TH25 3 63B5	TM 63 B4	78 - 79
	20.8	80.0	67.2	1.5	2300	TH20 3 63B5	TM 63 B4	75 - 76
	21.5	77.5	65.1	2.6	4760	TH25 3 63B5	TM 63 B4	78 - 79
	23.9	69.8	58.6	2.9	4400	TH25 3 63B5	TM 63 B4	78 - 79
	24.3	68.7	57.7	1.8	2300	TH20 3 63B5	TM 63 B4	75 - 76
	26.3	63.3	53.1	3.2	4320	TH25 3 63B5	TM 63 B4	78 - 79
	27.4	61.4	51.0	3.3	3940	TH25 2 63B5	TM 63 B4	78 - 79
	27.9	59.8	50.2	2.0	2300	TH20 3 63B5	TM 63 B4	75 - 76
	31.1	54.1	45.0	2.2	2100	TH20 2 63B5	TM 63 B4	75 - 76
	31.3	53.8	44.7	3.8	3940	TH25 2 63B5	TM 63 B4	78 - 79
	31.9	52.8	43.9	1.4	810	TH16 2 63B5	TM 63 B4	72 - 73
	35.5	47.4	39.4	1.5	780	TH16 2 63B5	TM 63 B4	72 - 73
	35.6	47.3	39.3	2.5	2100	TH20 2 63B5	TM 63 B4	75 - 76
	39.3	42.9	35.7	1.7	740	TH16 2 63B5	TM 63 B4	72 - 73
	40.2	41.9	34.8	2.8	2100	TH20 2 63B5	TM 63 B4	75 - 76

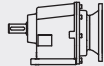
P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
0.18	43.1	39.1	32.5	1.8	680	TH16 2 63B5	TM 63 B4	72 - 73
	45.0	37.4	31.1	3.1	2100	TH20 2 63B5	TM 63 B4	75 - 76
	50.0	33.7	28.0	3.4	2050	TH20 2 63B5	TM 63 B4	75 - 76
	51.0	33.0	27.4	2.2	640	TH16 2 63B5	TM 63 B4	72 - 73
	55.2	30.5	25.4	3.8	1900	TH20 2 63B5	TM 63 B4	75 - 76
	60.5	27.8	23.1	4.1	1810	TH20 2 63B5	TM 63 B4	75 - 76
	66.0	25.5	21.2	4.5	1750	TH20 2 63B5	TM 63 B4	75 - 76
	68.2	24.7	20.5	2.9	600	TH16 2 63B5	TM 63 B4	72 - 73
	76.4	22.0	18.3	3.2	580	TH16 2 63B5	TM 63 B4	72 - 73
	84.0	20.1	16.7	5.3	1650	TH20 2 63B5	TM 63 B4	75 - 76
	90.5	18.6	15.5	3.8	530	TH16 2 63B5	TM 63 B4	72 - 73
	97.2	17.3	14.4	5.7	1600	TH20 2 63B5	TM 63 B4	75 - 76
	105.4	16.0	13.3	4.1	520	TH16 2 63B5	TM 63 B4	72 - 73
	113.4	14.9	12.3	6.1	1550	TH20 2 63B5	TM 63 B4	75 - 76
	121.0	13.9	11.6	4.4	500	TH16 2 63B5	TM 63 B4	72 - 73
	123.8	13.6	11.3	7.0	1480	TH20 2 63B5	TM 63 B4	75 - 76
	146.2	11.5	9.6	4.6	480	TH16 2 63B5	TM 63 B4	72 - 73
	157.5	10.7	8.9	7.3	1450	TH20 2 63B5	TM 63 B4	75 - 76
	182.3	9.2	7.7	7.9	1450	TH20 2 63B5	TM 63 B4	75 - 76
	183.4	9.2	7.6	4.9	470	TH16 2 63B5	TM 63 B4	72 - 73
	214.5	7.9	6.5	5.2	440	TH16 2 63B5	TM 63 B4	72 - 73
	254.4	6.6	5.5	8.7	1400	TH20 2 63B5	TM 63 B4	75 - 76
	260.9	6.5	5.4	5.7	420	TH16 2 63B5	TM 63 B4	72 - 73
	306.3	5.5	4.6	9.2	1400	TH20 2 63B5	TM 63 B4	75 - 76
	314.2	5.4	4.5	6.5	370	TH16 2 63B5	TM 63 B4	72 - 73
	366.9	4.6	7.6	8.5	370	TH16 2 63B5	TM 63 A2	72 - 73
	388.9	4.3	3.6	9.8	1400	TH20 2 63B5	TM 63 B4	75 - 76
	429.0	3.9	6.5	9.2	350	TH16 2 63B5	TM 63 A2	72 - 73
	508.7	3.3	5.5	12.0	1150	TH20 2 63B5	TM 63 A2	75 - 76
	521.9	3.2	5.4	10.3	330	TH16 2 63B5	TM 63 A2	72 - 73
	612.5	2.8	4.6	13.1	1150	TH20 2 63B5	TM 63 A2	75 - 76
	628.5	2.7	4.5	11.4	300	TH16 2 63B5	TM 63 A2	72 - 73
	777.8	2.2	3.6	16.9	1100	TH20 2 63B5	TM 63 A2	75 - 76
0.25	5.1	450.3	175.0	1.1	7000	TH35 3 71B5	TM 71 B6	84 - 85
	5.4	431.4	167.7	1.9	10000	TH40 3 71B5	TM 71 B6	87 - 88
	5.5	424.6	165.0	0.7	5500	TH30 3 71B5	TM 71 B6	81 - 82
	5.8	398.8	155.0	1.3	7000	TH35 3 71B5	TM 71 B6	84 - 85
	5.9	391.9	236.9	0.9	5500	TH30 3 71B5	TM 71 A4	81 - 82
	6.7	343.5	207.6	0.9	5500	TH30 3 71B5	TM 71 A4	81 - 82
	7.6	304.7	184.2	1.0	5500	TH30 3 71B5	TM 71 A4	81 - 82

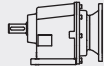
P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
0.25	7.9	293.7	177.6	0.7	5000	TH25 3 71B5	TM 71 A4	78 - 79
	8.0	289.5	175.0	1.6	7000	TH35 3 71B5	TM 71 A4	84 - 85
	8.3	277.3	167.7	3.1	10000	TH40 3 71B5	TM 71 A4	87 - 88
	8.5	273.0	165.0	1.1	5500	TH30 3 71B5	TM 71 A4	81 - 82
	9.0	256.7	155.2	0.8	5000	TH25 3 71B5	TM 71 A4	78 - 79
	9.0	256.4	155.0	2.0	7000	TH35 3 71B5	TM 71 A4	84 - 85
	9.4	246.5	149.1	1.2	5500	TH30 3 71B5	TM 71 A4	81 - 82
	9.6	242.3	146.5	3.7	10000	TH40 3 71B5	TM 71 A4	87 - 88
	10.1	229.3	138.6	2.2	7000	TH35 3 71B5	TM 71 A4	84 - 85
	10.2	227.1	137.3	0.9	5000	TH25 3 71B5	TM 71 A4	78 - 79
	11.2	206.8	125.0	2.4	7000	TH35 3 71B5	TM 71 A4	84 - 85
	11.3	205.0	123.9	1.5	5500	TH30 3 71B5	TM 71 A4	81 - 82
	11.4	202.9	122.7	1.0	5000	TH25 3 71B5	TM 71 A4	78 - 79
	12.7	182.8	110.5	1.1	5000	TH25 3 71B5	TM 71 A4	78 - 79
	12.9	179.0	108.2	0.7	2300	TH20 3 71B5	TM 71 A4	75 - 76
	13.3	173.9	105.1	1.8	5500	TH30 3 71B5	TM 71 A4	81 - 82
	13.5	171.3	103.6	2.9	7000	TH35 3 71B5	TM 71 A4	84 - 85
	14.0	165.7	100.2	1.2	5000	TH25 3 71B5	TM 71 A4	78 - 79
	14.5	159.5	96.4	0.8	2300	TH20 3 71B5	TM 71 A4	75 - 76
	15.3	151.1	91.3	1.4	5000	TH25 3 71B5	TM 71 A4	78 - 79
	15.5	149.6	90.5	2.0	5500	TH30 3 71B5	TM 71 A4	81 - 82
	16.0	144.7	87.5	3.4	7000	TH35 3 71B5	TM 71 A4	84 - 85
	16.0	144.4	87.3	0.8	2300	TH20 3 71B5	TM 71 A4	75 - 76
	17.0	136.2	82.3	1.5	5000	TH25 3 71B5	TM 71 A4	78 - 79
	17.6	131.6	79.5	0.9	2300	TH20 3 71B5	TM 71 A4	75 - 76
	17.8	130.3	78.8	2.3	5500	TH30 3 71B5	TM 71 A4	81 - 82
	19.2	120.5	72.8	1.7	4920	TH25 3 71B5	TM 71 A4	78 - 79
	20.8	111.1	67.2	1.1	2300	TH20 3 71B5	TM 71 A4	75 - 76
	21.3	108.7	65.7	2.8	5500	TH30 3 71B5	TM 71 A4	81 - 82
	21.5	107.6	65.1	1.9	4760	TH25 3 71B5	TM 71 A4	78 - 79
	23.9	96.9	58.6	2.1	4400	TH25 3 71B5	TM 71 A4	78 - 79
	24.3	95.5	57.7	1.3	2300	TH20 3 71B5	TM 71 A4	75 - 76
	25.1	92.2	55.8	3.3	5500	TH30 3 71B5	TM 71 A4	81 - 82
	26.3	87.9	53.1	2.3	4320	TH25 3 71B5	TM 71 A4	78 - 79
	27.4	85.3	51.0	2.4	3940	TH25 2 71B5	TM 71 A4	78 - 79
	27.9	83.1	50.2	1.5	2300	TH20 3 71B5	TM 71 A4	75 - 76
	29.2	79.4	48.0	3.9	5500	TH30 3 71B5	TM 71 A4	81 - 82
	31.1	75.2	45.0	1.6	2100	TH20 2 71B5	TM 71 A4	75 - 76
	31.3	74.7	44.7	2.7	3940	TH25 2 71B5	TM 71 A4	78 - 79
	31.9	73.3	43.9	1.0	810	TH16 2 71B5	TM 71 A4	72 - 73
	35.3	66.3	39.7	3.1	3720	TH25 2 71B5	TM 71 A4	78 - 79

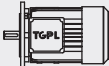
P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
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	35.6	65.7	39.3	1.8	2100	TH20 2 71B5	TM 71 A4	75 - 76
	39.3	59.6	35.7	1.2	740	TH16 2 71B5	TM 71 A4	72 - 73
	39.4	59.4	35.5	3.4	3550	TH25 2 71B5	TM 71 A4	78 - 79
	40.2	58.2	34.8	2.0	2100	TH20 2 71B5	TM 71 A4	75 - 76
	43.1	54.3	32.5	1.3	680	TH16 2 71B5	TM 71 A4	72 - 73
	43.6	53.7	32.1	3.8	3250	TH25 2 71B5	TM 71 A4	78 - 79
	45.0	52.0	31.1	2.2	2100	TH20 2 71B5	TM 71 A4	75 - 76
	50.0	46.8	28.0	2.5	2050	TH20 2 71B5	TM 71 A4	75 - 76
	51.0	45.9	27.4	1.6	640	TH16 2 71B5	TM 71 A4	72 - 73
	55.2	42.4	25.4	2.7	1900	TH20 2 71B5	TM 71 A4	75 - 76
	60.5	38.7	23.1	2.9	1810	TH20 2 71B5	TM 71 A4	75 - 76
	66.0	35.4	21.2	3.2	1750	TH20 2 71B5	TM 71 A4	75 - 76
	68.2	34.3	20.5	2.1	600	TH16 2 71B5	TM 71 A4	72 - 73
	76.4	30.6	18.3	2.3	580	TH16 2 71B5	TM 71 A4	72 - 73
	84.0	27.9	16.7	3.8	1650	TH20 2 71B5	TM 71 A4	75 - 76
	90.5	25.8	15.5	2.8	530	TH16 2 71B5	TM 71 A4	72 - 73
	97.2	24.1	14.4	4.1	1600	TH20 2 71B5	TM 71 A4	75 - 76
	105.4	22.2	13.3	2.9	520	TH16 2 71B5	TM 71 A4	72 - 73
	113.4	20.6	12.3	4.4	1550	TH20 2 71B5	TM 71 A4	75 - 76
	121.0	19.3	11.6	3.1	500	TH16 2 71B5	TM 71 A4	72 - 73
	123.8	18.9	11.3	5.0	1480	TH20 2 71B5	TM 71 A4	75 - 76
	146.2	16.0	9.6	3.3	480	TH16 2 71B5	TM 71 A4	72 - 73
	157.5	14.9	8.9	5.3	1450	TH20 2 71B5	TM 71 A4	75 - 76
	182.3	12.8	7.7	5.7	1450	TH20 2 71B5	TM 71 A4	75 - 76
	183.4	12.8	7.6	3.5	470	TH16 2 71B5	TM 71 A4	72 - 73
	214.5	10.9	6.5	3.7	440	TH16 2 71B5	TM 71 A4	72 - 73
	254.4	9.2	5.5	6.3	1400	TH20 2 71B5	TM 71 A4	75 - 76
	260.9	9.0	5.4	4.1	420	TH16 2 71B5	TM 71 A4	72 - 73
	306.3	7.6	4.6	6.7	1400	TH20 2 71B5	TM 71 A4	75 - 76
	314.2	7.4	4.5	4.7	370	TH16 2 71B5	TM 71 A4	72 - 73
	366.9	6.4	7.6	6.1	370	TH16 2 63B5	TM 63 B2	72 - 73
	388.9	6.0	3.6	7.1	1400	TH20 2 71B5	TM 71 A4	75 - 76
	429.0	5.5	6.5	6.7	350	TH16 2 63B5	TM 63 B2	72 - 73
	508.7	4.6	5.5	8.6	1150	TH20 2 63B5	TM 63 B2	75 - 76
	521.9	4.5	5.4	7.4	330	TH16 2 63B5	TM 63 B2	72 - 73
	612.5	3.8	4.6	9.4	1150	TH20 2 63B5	TM 63 B2	75 - 76
	628.5	3.7	4.5	8.2	300	TH16 2 63B5	TM 63 B2	72 - 73
	731.1	3.2	3.8	20.0	1250	TH25 2 63B5	TM 63 B2	78 - 79
	777.8	3.0	3.6	12.1	1100	TH20 2 63B5	TM 63 B2	75 - 76

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
0.37	5.1	666.4	175.0	0.7	7000	TH35 3 80B5	TM 80 A6	84 - 85
	5.3	645.1	169.4	2.3	16000	TH50 3 80B5	TM 80 A6	90 - 91
	5.4	638.5	167.7	1.3	10000	TH40 3 80B5	TM 80 A6	87 - 88
	5.8	590.2	155.0	0.9	7000	TH35 3 80B5	TM 80 A6	84 - 85
	6.0	572.2	150.3	2.5	16000	TH50 3 80B5	TM 80 A6	90 - 91
	6.1	557.8	146.5	1.6	10000	TH40 3 80B5	TM 80 A6	87 - 88
	6.5	527.9	138.6	1.0	7000	TH35 3 80B5	TM 80 A6	84 - 85
	6.7	512.5	134.6	2.8	16000	TH50 3 80B5	TM 80 A6	90 - 91
	6.9	493.2	129.5	1.8	10000	TH40 3 80B5	TM 80 A6	87 - 88
	7.2	476.0	125.0	1.1	7000	TH35 3 80B5	TM 80 A6	84 - 85
	7.6	450.9	184.2	0.7	5500	TH30 3 71B5	TM 71 B4	81 - 82
	8.0	428.4	175.0	1.1	7000	TH35 3 71B5	TM 71 B4	84 - 85
	8.3	410.5	167.7	2.1	10000	TH40 3 71B5	TM 71 B4	87 - 88
	8.5	404.0	165.0	0.8	5500	TH30 3 71B5	TM 71 B4	81 - 82
	9.0	379.4	155.0	1.3	7000	TH35 3 71B5	TM 71 B4	84 - 85
	9.4	364.9	149.1	0.8	5500	TH30 3 71B5	TM 71 B4	81 - 82
	9.6	358.6	146.5	2.5	10000	TH40 3 71B5	TM 71 B4	87 - 88
	10.1	339.4	138.6	1.5	7000	TH35 3 71B5	TM 71 B4	84 - 85
	10.8	317.0	129.5	2.8	10000	TH40 3 71B5	TM 71 B4	87 - 88
	11.2	306.0	125.0	1.6	7000	TH35 3 71B5	TM 71 B4	84 - 85
	11.3	303.4	123.9	1.0	5500	TH30 3 71B5	TM 71 B4	81 - 82
	11.4	300.3	122.7	0.7	5000	TH25 3 71B5	TM 71 B4	78 - 79
	12.1	283.1	115.6	3.1	10000	TH40 3 71B5	TM 71 B4	87 - 88
	12.7	270.5	110.5	0.8	5000	TH25 3 71B5	TM 71 B4	78 - 79
	13.3	257.3	105.1	1.2	5500	TH30 3 71B5	TM 71 B4	81 - 82
	13.5	254.8	104.1	3.4	10000	TH40 3 71B5	TM 71 B4	87 - 88
	13.5	253.5	103.6	1.9	7000	TH35 3 71B5	TM 71 B4	84 - 85
	14.0	245.2	100.2	0.8	5000	TH25 3 71B5	TM 71 B4	78 - 79
	14.8	230.8	94.3	3.8	10000	TH40 3 71B5	TM 71 B4	87 - 88
	15.3	223.6	91.3	0.9	5000	TH25 3 71B5	TM 71 B4	78 - 79
	15.5	221.5	90.5	1.4	5500	TH30 3 71B5	TM 71 B4	81 - 82
	16.0	214.2	87.5	2.3	7000	TH35 3 71B5	TM 71 B4	84 - 85
	17.0	201.5	82.3	1.0	5000	TH25 3 71B5	TM 71 B4	78 - 79
	17.8	192.8	78.8	1.6	5500	TH30 3 71B5	TM 71 B4	81 - 82
	19.2	178.3	72.8	1.1	4920	TH25 3 71B5	TM 71 B4	78 - 79
	19.9	172.5	70.4	3.0	7000	TH35 3 71B5	TM 71 B4	84 - 85
	20.8	164.4	67.2	0.7	2300	TH20 3 71B5	TM 71 B4	75 - 76
	21.3	160.9	65.7	1.9	5500	TH30 3 71B5	TM 71 B4	81 - 82
	21.5	159.3	65.1	1.3	4760	TH25 3 71B5	TM 71 B4	78 - 79
	23.9	143.5	58.6	1.4	4400	TH25 3 71B5	TM 71 B4	78 - 79
	24.0	142.9	58.4	3.8	7000	TH35 3 71B5	TM 71 B4	84 - 85

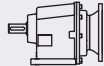
P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
0.37	24.3	141.3	57.7	0.9	2300	TH20 3 71B5	TM 71 B4	75 - 76
	25.1	136.5	55.8	2.2	5500	TH30 3 71B5	TM 71 B4	81 - 82
	26.3	130.1	53.1	1.6	4320	TH25 3 71B5	TM 71 B4	78 - 79
	27.4	126.2	51.0	1.6	3940	TH25 2 71B5	TM 71 B4	78 - 79
	27.9	123.0	50.2	1.0	2300	TH20 3 71B5	TM 71 B4	75 - 76
	29.2	117.5	48.0	2.6	5500	TH30 3 71B5	TM 71 B4	81 - 82
	31.1	111.3	45.0	1.1	2100	TH20 2 71B5	TM 71 B4	75 - 76
	31.3	110.6	44.7	1.8	3940	TH25 2 71B5	TM 71 B4	78 - 79
	33.5	102.3	41.8	3.0	5500	TH30 3 71B5	TM 71 B4	81 - 82
	35.3	98.1	39.7	2.1	3720	TH25 2 71B5	TM 71 B4	78 - 79
	35.5	97.4	39.4	0.7	780	TH16 2 71B5	TM 71 B4	72 - 73
	35.6	97.3	39.3	1.2	2100	TH20 2 71B5	TM 71 B4	75 - 76
	39.3	88.2	35.7	0.8	740	TH16 2 71B5	TM 71 B4	72 - 73
	39.4	87.9	35.5	2.3	3550	TH25 2 71B5	TM 71 B4	78 - 79
	40.2	86.1	34.8	1.3	2100	TH20 2 71B5	TM 71 B4	75 - 76
	43.1	80.4	32.5	0.9	680	TH16 2 71B5	TM 71 B4	72 - 73
	43.6	79.4	32.1	2.6	3250	TH25 2 71B5	TM 71 B4	78 - 79
	45.0	76.9	31.1	1.5	2100	TH20 2 71B5	TM 71 B4	75 - 76
	50.0	69.3	28.0	1.7	2050	TH20 2 71B5	TM 71 B4	75 - 76
	51.0	67.9	27.4	1.1	640	TH16 2 71B5	TM 71 B4	72 - 73
	52.4	66.0	26.7	3.1	3090	TH25 2 71B5	TM 71 B4	78 - 79
	55.2	62.8	25.4	1.8	1900	TH20 2 71B5	TM 71 B4	75 - 76
	60.5	57.2	23.1	2.0	1810	TH20 2 71B5	TM 71 B4	75 - 76
	61.8	56.0	22.6	3.6	2810	TH25 2 71B5	TM 71 B4	78 - 79
	66.0	52.4	21.2	2.2	1750	TH20 2 71B5	TM 71 B4	75 - 76
	68.2	50.8	20.5	1.4	600	TH16 2 71B5	TM 71 B4	72 - 73
	71.8	48.2	19.5	4.2	2760	TH25 2 71B5	TM 71 B4	78 - 79
	76.4	45.3	18.3	1.6	580	TH16 2 71B5	TM 71 B4	72 - 73
	82.5	42.0	17.0	4.6	2560	TH25 2 71B5	TM 71 B4	78 - 79
	84.0	41.2	16.7	2.6	1650	TH20 2 71B5	TM 71 B4	75 - 76
	90.5	38.3	15.5	1.9	530	TH16 2 71B5	TM 71 B4	72 - 73
	94.0	36.8	14.9	5.0	2450	TH25 2 71B5	TM 71 B4	78 - 79
	97.2	35.6	14.4	2.8	1600	TH20 2 71B5	TM 71 B4	75 - 76
	105.4	32.9	13.3	2.0	520	TH16 2 71B5	TM 71 B4	72 - 73
	113.4	30.5	12.3	3.0	1550	TH20 2 71B5	TM 71 B4	75 - 76
	116.6	29.7	12.0	5.7	2350	TH25 2 71B5	TM 71 B4	78 - 79
	121.0	28.6	11.6	2.1	500	TH16 2 71B5	TM 71 B4	72 - 73
	123.8	28.0	11.3	3.4	1480	TH20 2 71B5	TM 71 B4	75 - 76
	135.4	25.6	10.3	6.1	2230	TH25 2 71B5	TM 71 B4	78 - 79
	146.2	23.7	9.6	2.2	480	TH16 2 71B5	TM 71 B4	72 - 73
	155.6	22.3	9.0	6.9	2100	TH25 2 71B5	TM 71 B4	78 - 79

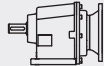
P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
0.37	157.5	22.0	8.9	3.6	1450	TH20 2 71B5	TM 71 B4	75 - 76
	177.2	19.5	7.9	8.0	1980	TH25 2 71B5	TM 71 B4	78 - 79
	182.3	19.0	7.7	3.8	1450	TH20 2 71B5	TM 71 B4	75 - 76
	183.4	18.9	7.6	2.4	470	TH16 2 71B5	TM 71 B4	72 - 73
	212.4	16.3	6.6	8.7	1890	TH25 2 71B5	TM 71 B4	78 - 79
	214.5	16.1	6.5	2.5	440	TH16 2 71B5	TM 71 B4	72 - 73
	254.4	13.6	5.5	4.2	1400	TH20 2 71B5	TM 71 B4	75 - 76
	260.9	13.3	5.4	2.8	420	TH16 2 71B5	TM 71 B4	72 - 73
	281.1	12.3	5.0	8.7	1710	TH25 2 71B5	TM 71 B4	78 - 79
	306.3	11.3	4.6	4.5	1400	TH20 2 71B5	TM 71 B4	75 - 76
	314.2	11.0	4.5	3.2	370	TH16 2 71B5	TM 71 B4	72 - 73
	366.9	9.4	7.6	4.2	370	TH16 2 71B5	TM 71 A2	72 - 73
	388.9	8.9	3.6	4.8	1400	TH20 2 71B5	TM 71 B4	75 - 76
	429.0	8.1	6.5	4.5	350	TH16 2 71B5	TM 71 A2	72 - 73
	508.7	6.8	5.5	5.8	1150	TH20 2 71B5	TM 71 A2	75 - 76
	521.9	6.6	5.4	5.0	330	TH16 2 71B5	TM 71 A2	72 - 73
	562.2	6.2	5.0	12.1	1360	TH25 2 71B5	TM 71 A2	78 - 79
	612.5	5.7	4.6	6.4	1150	TH20 2 71B5	TM 71 A2	75 - 76
	628.5	5.5	4.5	5.6	300	TH16 2 71B5	TM 71 A2	72 - 73
	731.1	4.7	3.8	13.5	1250	TH25 2 71B5	TM 71 A2	78 - 79
	777.8	4.5	3.6	8.2	1100	TH20 2 71B5	TM 71 A2	75 - 76
0.55	5.3	959.0	169.4	1.5	16000	TH50 3 80B5	TM 80 B6	90 - 91
	5.4	949.1	167.7	0.9	10000	TH40 3 80B5	TM 80 B6	87 - 88
	6.0	850.6	150.3	1.7	16000	TH50 3 80B5	TM 80 B6	90 - 91
	6.1	829.1	146.5	1.1	10000	TH40 3 80B5	TM 80 B6	87 - 88
	6.7	761.9	134.6	1.9	16000	TH50 3 80B5	TM 80 B6	90 - 91
	6.9	733.1	129.5	1.2	10000	TH40 3 80B5	TM 80 B6	87 - 88
	7.4	688.0	121.5	2.1	16000	TH50 3 80B5	TM 80 B6	90 - 91
	8.0	636.8	175.0	0.7	7000	TH35 3 80B5	TM 80 A4	84 - 85
	8.3	616.5	169.4	2.3	16000	TH50 3 80B5	TM 80 A4	90 - 91
	8.3	610.1	167.7	1.4	10000	TH40 3 80B5	TM 80 A4	87 - 88
	9.0	564.0	155.0	0.9	7000	TH35 3 80B5	TM 80 A4	84 - 85
	9.3	546.8	150.3	2.6	16000	TH50 3 80B5	TM 80 A4	90 - 91
	9.6	533.0	146.5	1.7	10000	TH40 3 80B5	TM 80 A4	87 - 88
	10.1	504.5	138.6	1.0	7000	TH35 3 80B5	TM 80 A4	84 - 85
	10.4	489.8	134.6	2.9	16000	TH50 3 80B5	TM 80 A4	90 - 91
	10.8	471.3	129.5	1.9	10000	TH40 3 80B5	TM 80 A4	87 - 88
	11.2	454.9	125.0	1.1	7000	TH35 3 80B5	TM 80 A4	84 - 85
	11.3	451.0	123.9	0.7	5500	TH30 3 80B5	TM 80 A4	81 - 82
	11.5	442.3	121.5	3.2	16000	TH50 3 80B5	TM 80 A4	90 - 91

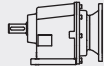
P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
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	12.7	402.1	110.5	3.5	16000	TH50 3 80B5	TM 80 A4	90 - 91
	13.3	382.5	105.1	0.8	5500	TH30 3 80B5	TM 80 A4	81 - 82
	13.5	378.7	104.1	2.3	10000	TH40 3 80B5	TM 80 A4	87 - 88
	13.5	376.9	103.6	1.3	7000	TH35 3 80B5	TM 80 A4	84 - 85
	13.8	368.5	101.3	3.8	16000	TH50 3 80B5	TM 80 A4	90 - 91
	14.8	343.1	94.3	2.5	10000	TH40 3 80B5	TM 80 A4	87 - 88
	15.5	329.2	90.5	0.9	5500	TH30 3 80B5	TM 80 A4	81 - 82
	16.0	318.4	87.5	1.5	7000	TH35 3 80B5	TM 80 A4	84 - 85
	17.0	299.6	82.3	0.7	5000	TH25 3 80B5	TM 80 A4	78 - 79
	17.8	286.6	78.8	1.1	5500	TH30 3 80B5	TM 80 A4	81 - 82
	17.8	286.1	78.6	3.0	10000	TH40 3 80B5	TM 80 A4	87 - 88
	19.2	265.1	72.8	0.8	4920	TH25 3 80B5	TM 80 A4	78 - 79
	19.9	256.3	70.4	2.0	7000	TH35 3 80B5	TM 80 A4	84 - 85
	21.0	242.0	66.5	3.8	10000	TH40 3 80B5	TM 80 A4	87 - 88
	21.3	239.2	65.7	1.3	5500	TH30 3 80B5	TM 80 A4	81 - 82
	21.5	236.8	65.1	0.9	4760	TH25 3 80B5	TM 80 A4	78 - 79
	23.9	213.3	58.6	1.0	4400	TH25 3 80B5	TM 80 A4	78 - 79
	24.0	212.4	58.4	2.5	7000	TH35 3 80B5	TM 80 A4	84 - 85
	25.1	202.9	55.8	1.5	5500	TH30 3 80B5	TM 80 A4	81 - 82
	26.3	193.4	53.1	1.1	4320	TH25 3 80B5	TM 80 A4	78 - 79
	27.4	187.6	51.0	1.1	3940	TH25 2 80B5	TM 80 A4	78 - 79
	27.9	182.8	50.2	0.7	2300	TH20 3 80B5	TM 80 A4	75 - 76
	28.4	179.4	49.3	3.0	6650	TH35 3 80B5	TM 80 A4	84 - 85
	29.2	174.6	48.0	1.8	5500	TH30 3 80B5	TM 80 A4	81 - 82
	31.1	165.4	45.0	0.7	2100	TH20 2 80B5	TM 80 A4	75 - 76
	31.3	164.4	44.7	1.2	3940	TH25 2 80B5	TM 80 A4	78 - 79
	33.1	153.8	42.3	3.5	6450	TH35 3 80B5	TM 80 A4	84 - 85
	33.5	152.0	41.8	2.0	5500	TH30 3 80B5	TM 80 A4	81 - 82
	34.8	148.0	40.3	2.1	5200	TH30 2 80B5	TM 80 A4	81 - 82
	35.3	145.9	39.7	1.4	3720	TH25 2 80B5	TM 80 A4	78 - 79
	35.6	144.6	39.3	0.8	2100	TH20 2 80B5	TM 80 A4	75 - 76
	39.3	131.1	35.7	2.3	5200	TH30 2 80B5	TM 80 A4	81 - 82
	39.4	130.7	35.5	1.6	3550	TH25 2 80B5	TM 80 A4	78 - 79
	40.2	127.9	34.8	0.9	2100	TH20 2 80B5	TM 80 A4	75 - 76
	43.6	118.0	32.1	1.7	3250	TH25 2 80B5	TM 80 A4	78 - 79
	43.9	117.2	31.9	2.6	5200	TH30 2 80B5	TM 80 A4	81 - 82
	45.0	114.3	31.1	1.0	2100	TH20 2 80B5	TM 80 A4	75 - 76
	48.7	105.7	28.8	2.9	5000	TH30 2 80B5	TM 80 A4	81 - 82
	50.0	102.9	28.0	1.1	2050	TH20 2 80B5	TM 80 A4	75 - 76
	51.0	100.9	27.4	0.7	640	TH16 2 80B5	TM 80 A4	72 - 73

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
0.55	52.4	98.1	26.7	2.1	3090	TH25 2 80B5	TM 80 A4	78 - 79
	55.2	93.3	25.4	1.2	1900	TH20 2 80B5	TM 80 A4	75 - 76
	58.8	87.6	23.8	3.5	4700	TH30 2 80B5	TM 80 A4	81 - 82
	60.5	85.1	23.1	1.3	1810	TH20 2 80B5	TM 80 A4	75 - 76
	61.8	83.2	22.6	2.5	2810	TH25 2 80B5	TM 80 A4	78 - 79
	66.0	77.9	21.2	1.5	1750	TH20 2 80B5	TM 80 A4	75 - 76
	68.2	75.5	20.5	0.9	600	TH16 2 80B5	TM 80 A4	72 - 73
	71.8	71.6	19.5	2.8	2760	TH25 2 80B5	TM 80 A4	78 - 79
	76.4	67.3	18.3	1.1	580	TH16 2 80B5	TM 80 A4	72 - 73
	82.5	62.4	17.0	3.1	2560	TH25 2 80B5	TM 80 A4	78 - 79
	84.0	61.3	16.7	1.7	1650	TH20 2 80B5	TM 80 A4	75 - 76
	90.5	56.9	15.5	1.3	530	TH16 2 80B5	TM 80 A4	72 - 73
	94.0	54.8	14.9	3.4	2450	TH25 2 80B5	TM 80 A4	78 - 79
	97.2	52.9	14.4	1.9	1600	TH20 2 80B5	TM 80 A4	75 - 76
	105.4	48.9	13.3	1.3	520	TH16 2 80B5	TM 80 A4	72 - 73
	113.4	45.4	12.3	2.0	1550	TH20 2 80B5	TM 80 A4	75 - 76
	116.6	44.2	12.0	3.8	2350	TH25 2 80B5	TM 80 A4	78 - 79
	121.0	42.5	11.6	1.4	500	TH16 2 80B5	TM 80 A4	72 - 73
	123.8	41.6	11.3	2.3	1480	TH20 2 80B5	TM 80 A4	75 - 76
	135.4	38.0	10.3	4.1	2230	TH25 2 80B5	TM 80 A4	78 - 79
	146.2	35.2	9.6	1.5	480	TH16 2 80B5	TM 80 A4	72 - 73
	157.5	32.7	8.9	2.4	1450	TH20 2 80B5	TM 80 A4	75 - 76
	182.3	28.2	7.7	2.6	1450	TH20 2 80B5	TM 80 A4	75 - 76
	183.4	28.1	7.6	1.6	470	TH16 2 80B5	TM 80 A4	72 - 73
	214.5	24.0	6.5	1.7	440	TH16 2 80B5	TM 80 A4	72 - 73
	254.4	20.2	5.5	2.8	1400	TH20 2 80B5	TM 80 A4	75 - 76
	260.9	19.7	5.4	1.9	420	TH16 2 80B5	TM 80 A4	72 - 73
	306.3	16.8	4.6	3.0	1400	TH20 2 80B5	TM 80 A4	75 - 76
	314.2	16.4	4.5	2.1	370	TH16 2 80B5	TM 80 A4	72 - 73
	366.9	14.0	7.6	2.8	370	TH16 2 71B5	TM 71 B2	72 - 73
	388.9	13.2	3.6	3.2	1400	TH20 2 80B5	TM 80 A4	75 - 76
	424.9	12.1	6.6	7.8	1520	TH25 2 71B5	TM 71 B2	78 - 79
	429.0	12.0	6.5	3.0	350	TH16 2 71B5	TM 71 B2	72 - 73
	508.7	10.1	5.5	3.9	1150	TH20 2 71B5	TM 71 B2	75 - 76
	521.9	9.9	5.4	3.4	330	TH16 2 71B5	TM 71 B2	72 - 73
	562.2	9.2	5.0	8.2	1360	TH25 2 71B5	TM 71 B2	78 - 79
	612.5	8.4	4.6	4.3	1150	TH20 2 71B5	TM 71 B2	75 - 76
	628.5	8.2	4.5	3.7	300	TH16 2 71B5	TM 71 B2	72 - 73
	731.1	7.0	3.8	9.1	1250	TH25 2 71B5	TM 71 B2	78 - 79
	777.8	6.6	3.6	5.5	1100	TH20 2 71B5	TM 71 B2	75 - 76

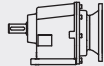
P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
0.75	4.7	1487.8	192.7	1.6	25000	TH60 3 90B5	TM 90 S6	93 - 94
	5.3	1321.4	171.2	1.8	25000	TH60 3 90B5	TM 90 S6	93 - 94
	5.3	1307.7	169.4	1.1	16000	TH50 3 90B5	TM 90 S6	90 - 91
	5.9	1185.2	153.5	2.0	25000	TH60 3 90B5	TM 90 S6	93 - 94
	6.0	1159.9	150.3	1.2	16000	TH50 3 90B5	TM 90 S6	90 - 91
	6.1	1130.6	146.5	0.8	10000	TH40 3 90B5	TM 90 S6	87 - 88
	6.5	1071.8	138.8	2.2	25000	TH60 3 90B5	TM 90 S6	93 - 94
	6.7	1038.9	134.6	1.4	16000	TH50 3 90B5	TM 90 S6	90 - 91
	6.9	999.7	129.5	0.9	10000	TH40 3 90B5	TM 90 S6	87 - 88
	7.1	975.8	126.4	2.4	25000	TH60 3 90B5	TM 90 S6	93 - 94
	7.3	956.4	192.7	2.5	25000	TH60 3 80B5	TM 80 B4	93 - 94
	7.4	938.1	121.5	1.6	16000	TH50 3 90B5	TM 90 S6	90 - 91
	7.8	892.6	115.6	1.0	10000	TH40 3 90B5	TM 60 S6	87 - 88
	8.2	849.4	171.2	2.8	25000	TH60 3 80B5	TM 80 B4	93 - 94
	8.3	840.7	169.4	1.7	16000	TH50 3 80B5	TM 80 B4	90 - 91
	8.3	832.0	167.7	1.0	10000	TH40 3 80B5	TM 80 B4	87 - 88
	9.1	761.9	153.5	3.1	25000	TH60 3 80B5	TM 80 B4	93 - 94
	9.3	745.6	150.3	1.9	16000	TH50 3 80B5	TM 80 B4	90 - 91
	9.6	726.8	146.5	1.2	10000	TH40 3 80B5	TM 80 B4	87 - 88
	10.1	689.0	138.8	3.4	25000	TH60 3 80B5	TM 80 B4	93 - 94
	10.1	687.9	138.6	0.7	7000	TH35 3 80B5	TM 80 B4	84 - 85
	10.4	667.9	134.6	2.1	16000	TH50 3 80B5	TM 80 B4	90 - 91
	10.8	642.6	129.5	1.4	10000	TH40 3 80B5	TM 80 B4	87 - 88
	11.1	627.3	126.4	3.7	25000	TH60 3 80B5	TM 80 B4	93 - 94
	11.2	620.3	125.0	0.8	7000	TH35 3 80B5	TM 80 B4	84 - 85
	11.5	603.1	121.5	2.3	16000	TH50 3 80B5	TM 80 B4	90 - 91
	12.1	573.8	115.6	1.5	10000	TH40 3 80B5	TM 80 B4	87 - 88
	12.7	548.3	110.5	2.6	16000	TH50 3 80B5	TM 80 B4	90 - 91
	13.5	516.4	104.1	1.7	10000	TH40 3 80B5	TM 80 B4	87 - 88
	13.5	513.9	103.6	1.0	7000	TH35 3 80B5	TM 80 B4	84 - 85
	13.8	502.6	101.3	2.8	16000	TH50 3 80B5	TM 80 B4	90 - 91
	14.8	467.9	94.3	1.9	10000	TH40 3 80B5	TM 80 B4	87 - 88
	15.3	455.5	91.8	3.1	16000	TH50 3 80B5	TM 80 B4	90 - 91
	15.5	448.9	90.5	0.7	5500	TH30 3 80B5	TM 80 B4	81 - 82
	16.0	434.2	87.5	1.1	7000	TH35 3 80B5	TM 80 B4	84 - 85
	16.7	415.1	83.7	3.3	16000	TH50 3 80B5	TM 80 B4	90 - 91
	17.8	390.8	78.8	0.8	5500	TH30 3 80B5	TM 80 B4	81 - 82
	17.8	390.2	78.6	2.2	10000	TH40 3 80B5	TM 80 B4	87 - 88
	19.9	349.6	70.4	1.5	7000	TH35 3 80B5	TM 80 B4	84 - 85
	21.0	330.1	66.5	2.8	10000	TH40 3 80B5	TM 80 B4	87 - 88
	21.3	326.2	65.7	0.9	5500	TH30 3 80B5	TM 80 B4	81 - 82

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
0.75	23.2	299.0	60.3	3.1	10000	TH40 3 80B5	TM 80 B4	87 - 88
	23.9	290.8	58.6	0.7	4400	TH25 3 80B5	TM 80 B4	78 - 79
	24.0	289.6	58.4	1.9	7000	TH35 3 80B5	TM 80 B4	84 - 85
	25.1	276.7	55.8	1.1	5500	TH30 3 80B5	TM 80 B4	81 - 82
	26.3	263.7	53.1	0.8	4320	TH25 3 80B5	TM 80 B4	78 - 79
	27.4	255.8	51.0	0.8	3940	TH25 2 80B5	TM 80 B4	78 - 79
	27.9	249.4	50.3	3.6	10000	TH40 3 80B5	TM 80 B4	87 - 88
	28.4	244.7	49.3	2.2	6650	TH35 3 80B5	TM 80 B4	84 - 85
	29.2	238.1	48.0	1.3	5500	TH30 3 80B5	TM 80 B4	81 - 82
	31.3	224.2	44.7	0.9	3940	TH25 2 80B5	TM 80 B4	78 - 79
	33.1	209.7	42.3	2.5	6450	TH35 3 80B5	TM 80 B4	84 - 85
	33.5	207.3	41.8	1.5	5500	TH30 3 80B5	TM 80 B4	81 - 82
	34.8	201.8	40.3	1.5	5200	TH30 2 80B5	TM 80 B4	81 - 82
	35.3	198.9	39.7	1.0	3720	TH25 2 80B5	TM 80 B4	78 - 79
	35.7	196.9	39.3	2.6	6200	TH35 2 80B5	TM 80 B4	84 - 85
	39.3	178.7	35.7	1.7	5200	TH30 2 80B5	TM 80 B4	81 - 82
	39.4	178.2	35.5	1.1	3550	TH25 2 80B5	TM 80 B4	78 - 79
	40.2	174.5	34.8	0.7	2100	TH20 2 80B5	TM 80 B4	75 - 76
	40.8	172.0	34.3	2.8	6170	TH35 2 80B5	TM 80 B4	84 - 85
	43.6	161.0	32.1	1.3	3250	TH25 2 80B5	TM 80 B4	78 - 79
	43.9	159.9	31.9	1.9	5200	TH30 2 80B5	TM 80 B4	81 - 82
	45.0	155.9	31.1	0.7	2100	TH20 2 80B5	TM 80 B4	75 - 76
	46.2	152.1	30.3	3.1	5750	TH35 2 80B5	TM 80 B4	84 - 85
	48.7	144.1	28.8	2.1	5000	TH30 2 80B5	TM 80 B4	81 - 82
	50.0	140.4	28.0	0.8	2050	TH20 2 80B5	TM 80 B4	75 - 76
	51.7	135.8	27.1	3.5	5660	TH35 2 80B5	TM 80 B4	84 - 85
	52.4	133.8	26.7	1.5	3090	TH25 2 80B5	TM 80 B4	78 - 79
	55.2	127.3	25.4	0.9	1900	TH20 2 80B5	TM 80 B4	75 - 76
	58.8	119.4	23.8	2.6	4700	TH30 2 80B5	TM 80 B4	81 - 82
	60.5	116.0	23.1	1.0	1810	TH20 2 80B5	TM 80 B4	75 - 76
	61.8	113.5	22.6	1.8	2810	TH25 2 80B5	TM 80 B4	78 - 79
	66.0	106.3	21.2	1.1	1750	TH20 2 80B5	TM 80 B4	75 - 76
	68.2	102.9	20.5	0.7	600	TH16 2 80B5	TM 80 B4	72 - 73
	69.6	100.9	20.1	3.0	4500	TH30 2 80B5	TM 80 B4	81 - 82
	71.8	97.7	19.5	2.1	2760	TH25 2 80B5	TM 80 B4	78 - 79
	76.4	91.8	18.3	0.8	580	TH16 2 80B5	TM 80 B4	72 - 73
	81.2	86.5	17.3	3.5	4200	TH30 2 80B5	TM 80 B4	81 - 82
	82.5	85.0	17.0	2.3	2560	TH25 2 80B5	TM 80 B4	78 - 79
	84.0	83.6	16.7	1.3	1650	TH20 2 80B5	TM 80 B4	75 - 76
	90.5	77.5	15.5	0.9	530	TH16 2 80B5	TM 80 B4	72 - 73
	94.0	74.7	14.9	2.5	2450	TH25 2 80B5	TM 80 B4	78 - 79

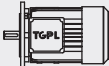
P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
0.75	97.2	72.2	14.4	1.4	1600	TH20 2 80B5	TM 80 B4	75 - 76
	105.4	66.6	13.3	1.0	520	TH16 2 80B5	TM 80 B4	72 - 73
	113.4	61.9	12.3	1.5	1550	TH20 2 80B5	TM 80 B4	75 - 76
	116.6	60.2	12.0	2.8	2350	TH25 2 80B5	TM 80 B4	78 - 79
	121.0	58.0	11.6	1.0	500	TH16 2 80B5	TM 80 B4	72 - 73
	123.8	56.7	11.3	1.7	1480	TH20 2 80B5	TM 80 B4	75 - 76
	135.4	51.8	10.3	3.0	2230	TH25 2 80B5	TM 80 B4	78 - 79
	146.2	48.0	9.6	1.1	480	TH16 2 80B5	TM 80 B4	72 - 73
	155.6	45.1	9.0	3.4	2100	TH25 2 80B5	TM 80 B4	78 - 79
	157.5	44.6	8.9	1.8	1450	TH20 2 80B5	TM 80 B4	75 - 76
	177.2	39.6	7.9	3.9	1980	TH25 2 80B5	TM 80 B4	78 - 79
	182.3	38.5	7.7	1.9	1450	TH20 2 80B5	TM 80 B4	75 - 76
	183.4	38.3	7.6	1.2	470	TH16 2 80B5	TM 80 B4	72 - 73
	212.4	33.0	6.6	4.3	1890	TH25 2 80B5	TM 80 B4	78 - 79
	214.5	32.7	6.5	1.2	440	TH16 2 80B5	TM 80 B4	72 - 73
	254.4	27.6	5.5	2.1	1400	TH20 2 80B5	TM 80 B4	75 - 76
	260.9	26.9	5.4	1.4	420	TH16 2 80B5	TM 80 B4	72 - 73
	281.1	25.0	5.0	4.3	1710	TH25 2 80B5	TM 80 B4	78 - 79
	306.3	22.9	4.6	2.2	1400	TH20 2 80B5	TM 80 B4	75 - 76
	314.2	22.3	4.5	1.6	370	TH16 2 80B5	TM 80 B4	72 - 73
	365.5	19.2	3.8	4.6	1650	TH25 2 80B5	TM 80 B4	78 - 79
	366.9	19.1	7.6	2.0	370	TH16 2 80B5	TM 80 A2	72 - 73
	388.9	18.0	3.6	2.4	1400	TH20 2 80B5	TM 80 B4	75 - 76
	424.9	16.5	6.6	5.7	1520	TH25 2 80B5	TM 80 A2	78 - 79
	429.0	16.4	6.5	2.2	350	TH16 2 80B5	TM 80 A2	72 - 73
	508.7	13.8	5.5	2.9	1150	TH20 2 80B5	TM 80 A2	75 - 76
	521.9	13.4	5.4	2.5	330	TH16 2 80B5	TM 80 A2	72 - 73
	562.2	12.5	5.0	6.0	1360	TH25 2 80B5	TM 80 A2	78 - 79
	612.5	11.5	4.6	3.1	1150	TH20 2 80B5	TM 80 A2	75 - 76
	628.5	11.2	4.5	2.7	300	TH16 2 80B5	TM 80 A2	72 - 73
	731.1	9.6	3.8	6.7	1250	TH25 2 80B5	TM 80 A2	78 - 79
	777.8	9.0	3.6	4.0	1100	TH20 2 80B5	TM 80 A2	75 - 76
1.1	4.7	2182.1	192.7	1.1	25000	TH60 3 90B5	TM 90 L6	93 - 94
	5.3	1938.0	171.2	1.2	25000	TH60 3 90B5	TM 90 L6	93 - 94
	5.3	1917.9	169.4	0.8	16000	TH50 3 90B5	TM 90 L6	90 - 91
	5.9	1738.3	153.5	1.3	25000	TH60 3 90B5	TM 90 L6	93 - 94
	6.0	1701.1	150.3	0.8	16000	TH50 3 90B5	TM 90 L6	90 - 91
	6.5	1571.9	138.8	1.5	25000	TH60 3 90B5	TM 90 L6	93 - 94
	6.7	1523.7	134.6	1.0	16000	TH50 3 90B5	TM 90 L6	90 - 91
	7.1	1431.1	126.4	1.6	25000	TH60 3 90B5	TM 90 L6	93 - 94

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
1.1	7.3	1402.7	192.7	1.7	25000	TH60 3 90B5	TM 90 S4	93 - 94
	7.4	1375.9	121.5	1.1	16000	TH50 3 90B5	TM 90 L6	90 - 91
	7.8	1310.4	115.8	1.8	25000	TH60 3 90B5	TM 90 L6	93 - 94
	8.2	1245.8	171.2	1.9	25000	TH60 3 90B5	TM 90 S4	93 - 94
	8.3	1233.0	169.4	1.2	16000	TH50 3 90B5	TM 90 S4	90 - 91
	8.3	1220.3	167.7	0.7	10000	TH40 3 90B5	TM 90 S4	87 - 88
	9.1	1117.5	153.5	2.1	25000	TH60 3 90B5	TM 90 S4	93 - 94
	9.3	1093.6	150.3	1.3	16000	TH50 3 90B5	TM 90 S4	90 - 91
	9.6	1066.0	146.5	0.8	10000	TH40 3 90B5	TM 90 S4	87 - 88
	10.1	1010.5	138.8	2.3	25000	TH60 3 90B5	TM 90 S4	93 - 94
	10.4	979.5	134.6	1.5	16000	TH50 3 90B5	TM 90 S4	90 - 91
	10.8	942.5	129.5	0.9	10000	TH40 3 90B5	TM 90 S4	87 - 88
	11.1	920.0	126.4	2.5	25000	TH60 3 90B5	TM 90 S4	93 - 94
	11.5	884.5	121.5	1.6	16000	TH50 3 90B5	TM 90 S4	90 - 91
	12.1	842.4	115.8	2.8	25000	TH60 3 90B5	TM 90 S4	93 - 94
	12.1	841.6	115.6	1.0	10000	TH40 3 90B5	TM 90 S4	87 - 88
	12.7	804.1	110.5	1.7	16000	TH50 3 90B5	TM 90 S4	90 - 91
	13.1	775.2	106.5	3.0	25000	TH60 3 90B5	TM 90 S4	93 - 94
	13.5	757.4	104.1	1.1	10000	TH40 3 90B5	TM 90 S4	87 - 88
	13.8	737.1	101.3	1.9	16000	TH50 3 90B5	TM 90 S4	90 - 91
	14.6	699.4	96.1	3.4	25000	TH60 3 90B5	TM 90 S4	93 - 94
	14.8	686.2	94.3	1.3	10000	TH40 3 90B5	TM 90 S4	87 - 88
	15.3	668.0	91.8	2.1	16000	TH50 3 90B5	TM 90 S4	90 - 91
	16.0	636.8	87.5	0.8	7000	TH35 3 90B5	TM 90 S4	84 - 85
	16.0	636.8	87.5	3.7	25000	TH60 3 90B5	TM 90 S4	93 - 94
	16.7	608.8	83.7	2.3	16000	TH50 3 90B5	TM 90 S4	90 - 91
	17.8	572.3	78.6	1.5	10000	TH40 3 90B5	TM 90 S4	87 - 88
	19.9	512.7	70.4	1.0	7000	TH35 3 90B5	TM 90 S4	84 - 85
	20.2	504.4	69.3	3.2	16000	TH50 3 90B5	TM 90 S4	90 - 91
	21.0	484.1	66.5	1.9	10000	TH40 3 90B5	TM 90 S4	87 - 88
	23.2	438.6	60.3	2.1	10000	TH40 3 90B5	TM 90 S4	87 - 88
	24.0	424.8	58.4	1.3	7000	TH35 3 90B5	TM 90 S4	84 - 85
	24.5	416.6	57.2	3.9	16000	TH50 3 90B5	TM 90 S4	90 - 91
	25.1	405.8	55.8	0.8	5500	TH30 3 90B5	TM 90 S4	81 - 82
	27.9	365.7	50.3	2.5	10000	TH40 3 90B5	TM 90 S4	87 - 88
	28.4	358.9	49.3	1.5	6650	TH35 3 90B5	TM 90 S4	84 - 85
	29.2	349.3	48.0	0.9	5500	TH30 3 90B5	TM 90 S4	81 - 82
	32.9	310.1	42.6	2.8	10000	TH40 3 90B5	TM 90 S4	87 - 88
	33.1	307.6	42.3	1.7	6450	TH35 3 90B5	TM 90 S4	84 - 85
	33.5	304.0	41.8	1.0	5500	TH30 3 90B5	TM 90 S4	81 - 82
	34.8	296.0	40.3	1.0	5200	TH30 2 90B5	TM 90 S4	81 - 82

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
1.1	35.3	291.7	39.7	0.7	3720	TH25 2 90B5	TM 90 S4	78 - 79
	35.5	286.9	39.4	2.9	10000	TH40 3 90B5	TM 90 S4	87 - 88
	35.7	288.8	39.3	1.8	6200	TH35 2 90B5	TM 90 S4	84 - 85
	37.1	277.8	37.8	3.0	10000	TH40 2 90B5	TM 90 S4	87 - 88
	39.3	262.1	35.7	1.2	5200	TH30 2 90B5	TM 90 S4	81 - 82
	39.4	261.4	35.5	0.8	3550	TH25 2 90B5	TM 90 S4	78 - 79
	40.8	252.2	34.3	1.9	6170	TH35 2 90B5	TM 90 S4	84 - 85
	41.8	246.4	33.5	3.4	10000	TH40 2 90B5	TM 90 S4	87 - 88
	43.6	236.1	32.1	0.9	3250	TH25 2 90B5	TM 90 S4	78 - 79
	43.9	234.5	31.9	1.3	5200	TH30 2 90B5	TM 90 S4	81 - 82
	46.2	223.0	30.3	2.1	5750	TH35 2 90B5	TM 90 S4	84 - 85
	46.6	220.7	30.0	3.7	10000	TH40 2 90B5	TM 90 S4	87 - 88
	48.7	211.4	28.8	1.4	5000	TH30 2 90B5	TM 90 S4	81 - 82
	51.7	199.1	27.1	2.4	5660	TH35 2 90B5	TM 90 S4	84 - 85
	52.4	196.3	26.7	1.0	3090	TH25 2 90B5	TM 90 S4	78 - 79
	57.4	179.2	24.4	2.7	5420	TH35 2 90B5	TM 90 S4	84 - 85
	58.8	175.2	23.8	1.7	4700	TH30 2 90B5	TM 90 S4	81 - 82
	60.5	170.2	23.1	0.7	1810	TH20 2 90B5	TM 90 S4	75 - 76
	61.8	166.5	22.6	1.2	2810	TH25 2 90B5	TM 90 S4	78 - 79
	63.4	162.4	22.1	2.8	5100	TH35 2 90B5	TM 90 S4	84 - 85
	66.0	155.9	21.2	0.7	1750	TH20 2 90B5	TM 90 S4	75 - 76
	69.6	148.0	20.1	2.1	4500	TH30 2 90B5	TM 90 S4	81 - 82
	71.8	143.3	19.5	1.4	2760	TH25 2 90B5	TM 90 S4	78 - 79
	76.0	135.4	18.4	3.3	4760	TH35 2 90B5	TM 90 S4	84 - 85
	81.2	126.8	17.3	2.4	4200	TH30 2 90B5	TM 90 S4	81 - 82
	82.5	124.7	17.0	1.5	2560	TH25 2 90B5	TM 90 S4	78 - 79
	84.0	122.5	16.7	0.9	1650	TH20 2 90B5	TM 90 S4	75 - 76
	93.6	109.9	15.0	2.8	3850	TH30 2 90B5	TM 90 S4	81 - 82
	94.0	109.5	14.9	1.7	2450	TH25 2 90B5	TM 90 S4	78 - 79
	97.2	105.9	14.4	0.9	1600	TH20 2 90B5	TM 90 S4	75 - 76
	110.8	92.9	12.6	2.9	3750	TH30 2 90B5	TM 90 S4	81 - 82
	113.4	90.8	12.3	1.0	1550	TH20 2 90B5	TM 90 S4	75 - 76
	116.6	88.3	12.0	1.9	2350	TH25 2 90B5	TM 90 S4	78 - 79
	123.8	83.1	11.3	1.1	1480	TH20 2 90B5	TM 90 S4	75 - 76
	131.1	78.5	10.7	3.2	3600	TH30 2 90B5	TM 90 S4	81 - 82
	135.4	76.0	10.3	2.0	2230	TH25 2 90B5	TM 90 S4	78 - 79
	153.0	67.3	9.2	3.5	3500	TH30 2 90B5	TM 90 S4	81 - 82
	155.6	66.2	9.0	2.3	2100	TH25 2 90B5	TM 90 S4	78 - 79
	157.5	65.4	8.9	1.2	1450	TH20 2 90B5	TM 90 S4	75 - 76
	177.2	58.1	7.9	2.7	1980	TH25 2 90B5	TM 90 S4	78 - 79
	182.3	56.5	7.7	1.3	1450	TH20 2 90B5	TM 90 S4	75 - 76

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
1.1	212.4	48.5	6.6	2.9	1890	TH25 2 90B5	TM 90 S4	78 - 79
	254.4	40.5	5.5	1.4	1400	TH20 2 90B5	TM 90 S4	75 - 76
	281.1	36.6	5.0	2.9	1710	TH25 2 90B5	TM 90 S4	78 - 79
	306.3	33.6	4.6	1.5	1400	TH20 2 90B5	TM 90 S4	75 - 76
	365.5	28.2	3.8	3.2	1650	TH25 2 90B5	TM 90 S4	78 - 79
	388.9	26.5	3.6	1.6	1400	TH20 2 90B5	TM 90 S4	75 - 76
	424.9	24.2	6.6	3.9	1520	TH25 2 80B5	TM 80 B2	78 - 79
	508.7	20.2	5.5	2.0	1150	TH20 2 80B5	TM 80 B2	75 - 76
	562.2	18.3	5.0	4.1	1360	TH25 2 80B5	TM 80 B2	78 - 79
	612.5	16.8	4.6	2.1	1150	TH20 2 80B5	TM 80 B2	75 - 76
	731.1	14.1	3.8	4.5	1250	TH25 2 80B5	TM 80 B2	78 - 79
	777.8	13.2	3.6	2.8	1100	TH20 2 80B5	TM 80 B2	75 - 76
1.5	4.7	2960.9	191.8	1.4	31000	TH80 3 100B5	TM 100 L6	96 - 97
	5.3	2642.7	171.2	0.9	25000	TH60 3 100B5	TM 100 L6	93 - 94
	5.3	2625.7	170.1	1.6	31000	TH80 3 100B5	TM 100 L6	96 - 97
	5.9	2370.4	153.5	1.0	25000	TH60 3 100B5	TM 100 L6	93 - 94
	5.9	2351.3	152.3	1.8	31000	TH80 3 100B5	TM 100 L6	96 - 97
	6.5	2143.5	138.8	1.1	25000	TH60 3 100B5	TM 100 L6	93 - 94
	6.5	2122.7	137.5	2.0	31000	TH80 3 100B5	TM 100 L6	96 - 97
	7.1	1951.5	126.4	1.2	25000	TH60 3 100B5	TM 100 L6	93 - 94
	7.2	1929.3	125.0	2.2	31000	TH80 3 100B5	TM 100 L6	96 - 97
	7.3	1912.8	192.7	1.2	25000	TH60 3 90B5	TM 90 L4	93 - 94
	7.8	1787.0	115.8	1.3	25000	TH60 3 100B5	TM 100 L6	93 - 94
	7.9	1763.5	114.2	2.4	31000	TH80 3 100B5	TM 100 L6	96 - 97
	8.2	1698.9	171.2	1.4	25000	TH60 3 90B5	TM 90 L4	93 - 94
	8.3	1681.3	169.4	0.9	16000	TH50 3 90B5	TM 90 L4	90 - 91
	9.1	1523.8	153.5	1.5	25000	TH60 3 90B5	TM 90 L4	93 - 94
	9.3	1491.2	150.3	1.0	16000	TH50 3 90B5	TM 90 L4	90 - 91
	10.1	1378.0	138.8	1.7	25000	TH60 3 90B5	TM 90 L4	93 - 94
	10.4	1335.7	134.6	1.1	16000	TH50 3 90B5	TM 90 L4	90 - 91
	10.8	1285.3	129.5	0.7	10000	TH40 3 90B5	TM 90 L4	87 - 88
	11.1	1254.6	126.4	1.9	25000	TH60 3 90B5	TM 90 L4	93 - 94
	11.5	1206.2	121.5	1.2	16000	TH50 3 90B5	TM 90 L4	90 - 91
	12.1	1148.8	115.8	2.0	25000	TH60 3 90B5	TM 90 L4	93 - 94
	12.1	1147.6	115.6	0.8	10000	TH40 3 90B5	TM 90 L4	87 - 88
	12.7	1096.5	110.5	1.3	16000	TH50 3 90B5	TM 90 L4	90 - 91
	13.1	1057.1	106.5	2.2	25000	TH60 3 90B5	TM 90 L4	93 - 94
	13.5	1032.8	104.1	0.8	10000	TH40 3 90B5	TM 90 L4	87 - 88
	13.8	1005.1	101.3	1.4	16000	TH50 3 90B5	TM 90 L4	90 - 91
	14.6	953.8	96.1	2.5	25000	TH60 3 90B5	TM 90 L4	93 - 94

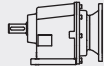
P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
1.5	14.8	935.7	94.3	0.9	10000	TH40 3 90B5	TM 90 L4	87 - 88
	15.3	910.9	91.8	1.5	16000	TH50 3 90B5	TM 90 L4	90 - 91
	16.0	868.4	87.5	2.7	25000	TH60 3 90B5	TM 90 L4	93 - 94
	16.7	830.2	83.7	1.7	16000	TH50 3 90B5	TM 90 L4	90 - 91
	17.5	795.1	80.1	3.0	25000	TH60 3 90B5	TM 90 L4	93 - 94
	17.8	780.4	78.6	1.1	10000	TH40 3 90B5	TM 90 L4	87 - 88
	19.9	699.1	70.4	0.7	7000	TH35 3 90B5	TM 90 L4	84 - 85
	20.2	687.8	69.3	2.4	16000	TH50 3 90B5	TM 90 L4	90 - 91
	20.5	676.1	68.1	3.5	25000	TH60 3 90B5	TM 90 L4	93 - 94
	21.0	660.1	66.5	1.4	10000	TH40 3 90B5	TM 90 L4	87 - 88
	23.2	598.0	60.3	1.5	10000	TH40 3 90B5	TM 90 L4	87 - 88
	24.0	579.3	58.4	0.9	7000	TH35 3 90B5	TM 90 L4	84 - 85
	24.5	568.1	57.2	2.8	16000	TH50 3 90B5	TM 90 L4	90 - 91
	27.9	498.7	50.3	1.8	10000	TH40 3 90B5	TM 90 L4	87 - 88
	28.4	489.4	49.3	1.1	6650	TH35 3 90B5	TM 90 L4	84 - 85
	29.0	478.4	48.2	3.3	15500	TH50 3 90B5	TM 90 L4	90 - 91
	32.9	422.8	42.6	2.1	10000	TH40 3 90B5	TM 90 L4	87 - 88
	33.1	419.5	42.3	1.3	6450	TH35 3 90B5	TM 90 L4	84 - 85
	33.5	414.6	41.8	0.7	5500	TH30 3 90B5	TM 90 L4	81 - 82
	34.8	403.6	40.3	0.8	5200	TH30 2 90B5	TM 90 L4	81 - 82
	35.5	391.2	39.4	2.1	10000	TH40 3 90B5	TM 90 L4	87 - 88
	35.7	393.8	39.3	1.3	6200	TH35 2 90B5	TM 90 L4	84 - 85
	37.1	378.9	37.8	2.2	10000	TH40 2 90B5	TM 90 L4	87 - 88
	39.3	357.5	35.7	0.9	5200	TH30 2 90B5	TM 90 L4	81 - 82
	40.8	344.0	34.3	1.4	6170	TH35 2 90B5	TM 90 L4	84 - 85
	41.8	336.0	33.5	2.5	10000	TH40 2 90B5	TM 90 L4	87 - 88
	43.9	319.7	31.9	1.0	5200	TH30 2 90B5	TM 90 L4	81 - 82
	46.2	304.1	30.3	1.5	5750	TH35 2 90B5	TM 90 L4	84 - 85
	46.6	301.0	30.0	2.7	10000	TH40 2 90B5	TM 90 L4	87 - 88
	48.7	288.3	28.8	1.1	5000	TH30 2 90B5	TM 90 L4	81 - 82
	51.6	271.8	27.1	3.0	10000	TH40 2 90B5	TM 90 L4	87 - 88
	51.7	271.6	27.1	1.7	5660	TH35 2 90B5	TM 90 L4	84 - 85
	52.4	267.7	26.7	0.8	3090	TH25 2 90B5	TM 90 L4	78 - 79
	56.8	247.1	24.6	3.3	10000	TH40 2 90B5	TM 90 L4	87 - 88
	57.4	244.4	24.4	2.0	5420	TH35 2 90B5	TM 90 L4	84 - 85
	58.8	238.9	23.8	1.3	4700	TH30 2 90B5	TM 90 L4	81 - 82
	61.8	227.0	22.6	0.9	2810	TH25 2 90B5	TM 90 L4	78 - 79
	62.0	226.5	22.6	3.6	10000	TH40 2 90B5	TM 90 L4	87 - 88
	63.4	221.4	22.1	2.1	5100	TH35 2 90B5	TM 90 L4	84 - 85
	69.6	201.8	20.1	1.5	4500	TH30 2 90B5	TM 90 L4	81 - 82
	71.8	195.4	19.5	1.0	2760	TH25 2 90B5	TM 90 L4	78 - 79

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
1.5	76.0	184.7	18.4	2.4	4760	TH35 2 90B5	TM 90 L4	84 - 85
	81.2	173.0	17.3	1.8	4200	TH30 2 90B5	TM 90 L4	81 - 82
	82.5	170.1	17.0	1.1	2560	TH25 2 90B5	TM 90 L4	78 - 79
	93.6	149.9	15.0	2.0	3850	TH30 2 90B5	TM 90 L4	81 - 82
	94.0	149.4	14.9	1.2	2450	TH25 2 90B5	TM 90 L4	78 - 79
	96.9	144.8	14.4	2.8	4300	TH35 2 90B5	TM 90 L4	84 - 85
	97.2	144.4	14.4	0.7	1600	TH20 2 90B5	TM 90 L4	75 - 76
	110.8	126.7	12.6	2.2	3750	TH30 2 90B5	TM 90 L4	81 - 82
	112.5	124.8	12.4	3.5	4120	TH35 2 90B5	TM 90 L4	84 - 85
	113.4	123.8	12.3	0.7	1550	TH20 2 90B5	TM 90 L4	75 - 76
	116.6	120.4	12.0	1.4	2350	TH25 2 90B5	TM 90 L4	78 - 79
	123.8	113.4	11.3	0.8	1480	TH20 2 90B5	TM 90 L4	75 - 76
	131.1	107.0	10.7	2.4	3600	TH30 2 90B5	TM 90 L4	81 - 82
	135.4	103.6	10.3	1.5	2230	TH25 2 90B5	TM 90 L4	78 - 79
	153.0	91.7	9.2	2.6	3500	TH30 2 90B5	TM 90 L4	81 - 82
	155.6	90.2	9.0	1.7	2100	TH25 2 90B5	TM 90 L4	78 - 79
	157.5	89.1	8.9	0.9	1450	TH20 2 90B5	TM 90 L4	75 - 76
	176.5	79.5	7.9	3.2	2950	TH30 2 90B5	TM 90 L4	81 - 82
	177.2	79.2	7.9	2.0	1980	TH25 2 90B5	TM 90 L4	78 - 79
	182.3	77.0	7.7	0.9	1450	TH20 2 90B5	TM 90 L4	75 - 76
	212.4	66.1	6.6	2.1	1890	TH25 2 90B5	TM 90 L4	78 - 79
	229.5	61.2	6.1	3.5	2900	TH30 2 90B5	TM 90 L4	81 - 82
	254.4	55.2	5.5	1.0	1400	TH20 2 90B5	TM 90 L4	75 - 76
	275.4	51.0	5.1	4.0	2850	TH30 2 90B5	TM 90 L4	81 - 82
	281.1	49.9	5.0	2.2	1710	TH25 2 90B5	TM 90 L4	78 - 79
	306.3	45.8	4.6	1.1	1400	TH20 2 90B5	TM 90 L4	75 - 76
	365.5	38.4	3.8	2.3	1650	TH25 2 90B5	TM 90 L4	78 - 79
	388.9	36.1	3.6	1.2	1400	TH20 2 90B5	TM 90 L4	75 - 76
	424.9	33.0	6.6	2.9	1520	TH25 2 90B5	TM 90 S2	78 - 79
	508.7	27.6	5.5	1.4	1150	TH20 2 90B5	TM 90 S2	75 - 76
	562.2	25.0	5.0	3.0	1360	TH25 2 90B5	TM 90 S2	78 - 79
	612.5	22.9	4.6	1.6	1150	TH20 2 90B5	TM 90 S2	75 - 76
	731.1	19.2	3.8	3.3	1250	TH25 2 90B5	TM 90 S2	78 - 79
	777.8	18.0	3.6	2.0	1100	TH20 2 90B5	TM 90 S2	75 - 76
2.2	4.7	4342.6	191.8	1.0	31000	TH80 3 112B5	TM 112 M6	96 - 97
	5.1	4010.1	177.1	1.9	44000	TH90 3 112B5	TM 112 M6	99 - 100
	5.3	3851.0	170.1	1.1	31000	TH80 3 112B5	TM 112 M6	96 - 97
	5.7	3555.2	157.0	2.2	44000	TH90 3 112B5	TM 112 M6	99 - 100
	5.9	3476.6	153.5	0.7	25000	TH60 3 112B5	TM 112 M6	93 - 94
	5.9	3448.6	152.3	1.2	31000	TH80 3 112B5	TM 112 M6	96 - 97

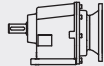
P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
2.2	6.4	3183.0	140.6	2.4	44000	TH90 3 112B5	TM 112 M6	99 - 100
	6.5	3143.8	138.8	0.7	25000	TH60 3 112B5	TM 112 M6	93 - 94
	6.5	3113.3	137.5	1.4	31000	TH80 3 112B5	TM 112 M6	96 - 97
	7.1	2872.9	126.9	2.7	44000	TH90 3 112B5	TM 112 M6	99 - 100
	7.1	2862.3	126.4	0.8	25000	TH60 3 112B5	TM 112 M6	93 - 94
	7.2	2829.6	125.0	1.5	31000	TH80 3 112B5	TM 112 M6	96 - 97
	7.3	2805.5	192.7	0.8	25000	TH60 3 100B5	TM 100 L4	93 - 94
	7.3	2791.7	191.8	1.5	31000	TH80 3 100B5	TM 100 L4	96 - 97
	7.9	2577.9	177.1	3.0	44000	TH90 3 100B5	TM 100 L4	99 - 100
	8.2	2491.7	171.2	0.9	25000	TH60 3 100B5	TM 100 L4	93 - 94
	8.2	2475.6	170.1	1.7	31000	TH80 3 100B5	TM 100 L4	96 - 97
	8.9	2285.5	157.0	3.3	44000	TH90 3 100B5	TM 100 L4	99 - 100
	9.1	2235.0	153.5	1.0	25000	TH60 3 100B5	TM 100 L4	93 - 94
	9.2	2217.0	152.3	1.9	31000	TH80 3 100B5	TM 100 L4	96 - 97
	10.0	2046.2	140.6	3.7	44000	TH90 3 100B5	TM 100 L4	99 - 100
	10.1	2021.0	138.8	1.2	25000	TH60 3 100B5	TM 100 L4	93 - 94
	10.2	2001.4	137.5	2.1	31000	TH80 3 100B5	TM 100 L4	96 - 97
	10.4	1959.1	134.6	0.7	16000	TH50 3 100B5	TM 100 L4	90 - 91
	11.1	1840.0	126.4	1.3	25000	TH60 3 100B5	TM 100 L4	93 - 94
	11.2	1819.1	125.0	2.4	31000	TH80 3 100B5	TM 100 L4	96 - 97
	11.5	1769.0	121.5	0.8	16000	TH50 3 100B5	TM 100 L4	90 - 91
	12.1	1684.9	115.8	1.4	25000	TH60 3 100B5	TM 100 L4	93 - 94
	12.3	1662.7	114.2	2.6	31000	TH80 3 100B5	TM 100 L4	96 - 97
	12.7	1608.2	110.5	0.9	16000	TH50 3 100B5	TM 100 L4	90 - 91
	13.1	1550.4	106.5	1.5	25000	TH60 3 100B5	TM 100 L4	93 - 94
	13.3	1527.2	104.9	2.8	31000	TH80 3 100B5	TM 100 L4	96 - 97
	13.8	1474.2	101.3	0.9	16000	TH50 3 100B5	TM 100 L4	90 - 91
	14.6	1398.9	96.1	1.7	25000	TH60 3 100B5	TM 100 L4	93 - 94
	15.3	1336.0	91.8	1.0	16000	TH50 3 100B5	TM 100 L4	90 - 91
	15.3	1330.2	91.4	3.2	31000	TH80 3 100B5	TM 100 L4	96 - 97
	16.0	1273.6	87.5	1.8	25000	TH60 3 100B5	TM 100 L4	93 - 94
	16.7	1217.6	83.7	1.1	16000	TH50 3 100B5	TM 100 L4	90 - 91
	17.5	1166.2	80.1	2.0	25000	TH60 3 100B5	TM 100 L4	93 - 94
	17.8	1144.5	78.6	0.7	10000	TH40 3 100B5	TM 100 L4	87 - 88
	18.0	1130.2	77.6	3.8	31000	TH80 3 100B5	TM 100 L4	96 - 97
	20.2	1008.8	69.3	1.6	16000	TH50 3 100B5	TM 100 L4	90 - 91
	20.5	991.7	68.1	2.4	25000	TH60 3 100B5	TM 100 L4	93 - 94
	21.0	968.2	66.5	1.0	10000	TH40 3 100B5	TM 100 L4	87 - 88
	23.2	877.1	60.3	1.1	10000	TH40 3 100B5	TM 100 L4	87 - 88
	23.8	855.9	58.8	2.7	25000	TH60 3 100B5	TM 100 L4	93 - 94
	24.5	833.3	57.2	1.9	16000	TH50 3 100B5	TM 100 L4	90 - 91

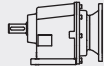
P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
2.2	27.9	731.5	50.3	1.2	10000	TH40 3 100B5	TM 100 L4	87 - 88
	28.4	717.8	49.3	0.8	6650	TH35 3 100B5	TM 100 L4	84 - 85
	29.0	701.6	48.2	2.3	15500	TH50 3 100B5	TM 100 L4	90 - 91
	30.2	675.5	46.4	3.5	23800	TH60 3 100B5	TM 100 L4	93 - 94
	32.7	629.9	42.8	2.2	14000	TH50 2 100B5	TM 100 L4	90 - 91
	32.9	620.1	42.6	1.4	10000	TH40 3 100B5	TM 100 L4	87 - 88
	33.1	615.2	42.3	0.9	6450	TH35 3 100B5	TM 100 L4	84 - 85
	35.5	573.7	39.4	1.5	10000	TH40 3 100B5	TM 100 L4	87 - 88
	35.7	577.5	39.3	0.9	6200	TH35 2 100B5	TM 100 L4	84 - 85
	36.8	559.4	38.0	2.4	13800	TH50 2 100B5	TM 100 L4	90 - 91
	37.1	555.7	37.8	1.5	10000	TH40 2 100B5	TM 100 L4	87 - 88
	40.8	504.5	34.3	1.0	6170	TH35 2 100B5	TM 100 L4	84 - 85
	41.0	501.7	34.1	2.7	13700	TH50 2 100B5	TM 100 L4	90 - 91
	41.8	492.9	33.5	1.7	10000	TH40 2 100B5	TM 100 L4	87 - 88
	45.4	453.7	30.9	2.9	13600	TH50 2 100B5	TM 100 L4	90 - 91
	46.2	446.1	30.3	1.1	5750	TH35 2 100B5	TM 100 L4	84 - 85
	46.6	441.5	30.0	1.9	10000	TH40 2 100B5	TM 100 L4	87 - 88
	48.7	422.8	28.8	0.7	5000	TH30 2 100B5	TM 100 L4	81 - 82
	49.8	413.1	28.1	3.2	13400	TH50 2 100B5	TM 100 L4	90 - 91
	51.6	398.6	27.1	2.1	10000	TH40 2 100B5	TM 100 L4	87 - 88
	51.7	398.3	27.1	1.2	5660	TH35 2 100B5	TM 100 L4	84 - 85
	54.4	378.2	25.7	3.5	12600	TH50 2 100B5	TM 100 L4	90 - 91
	56.8	362.4	24.6	2.2	10000	TH40 2 100B5	TM 100 L4	87 - 88
	57.4	358.5	24.4	1.3	5420	TH35 2 100B5	TM 100 L4	84 - 85
	58.8	350.3	23.8	0.9	4700	TH30 2 100B5	TM 100 L4	81 - 82
	59.2	348.0	23.7	3.8	11900	TH50 2 100B5	TM 100 L4	90 - 91
	62.0	332.2	22.6	2.4	10000	TH40 2 100B5	TM 100 L4	87 - 88
	63.4	324.8	22.1	1.4	5100	TH35 2 100B5	TM 100 L4	84 - 85
	68.4	301.1	20.5	2.7	10000	TH40 2 100B5	TM 100 L4	87 - 88
	69.6	296.0	20.1	1.0	4500	TH30 2 100B5	TM 100 L4	81 - 82
	71.8	286.6	19.5	0.7	2760	TH25 2 100B5	TM 100 L4	78 - 79
	75.0	274.4	18.7	2.9	10000	TH40 2 100B5	TM 100 L4	87 - 88
	76.0	270.8	18.4	1.7	4760	TH35 2 100B5	TM 100 L4	84 - 85
	81.2	253.7	17.3	1.2	4200	TH30 2 100B5	TM 100 L4	81 - 82
	82.5	249.4	17.0	0.8	2560	TH25 2 100B5	TM 100 L4	78 - 79
	89.1	231.0	15.7	3.4	9560	TH40 2 100B5	TM 100 L4	87 - 88
	93.6	219.9	15.0	1.4	3850	TH30 2 100B5	TM 100 L4	81 - 82
	94.0	219.1	14.9	0.8	2450	TH25 2 100B5	TM 100 L4	78 - 79
	96.9	212.4	14.4	1.9	4300	TH35 2 100B5	TM 100 L4	84 - 85
	110.8	185.8	12.6	1.5	3750	TH30 2 100B5	TM 100 L4	81 - 82
	112.5	183.0	12.4	2.4	4120	TH35 2 100B5	TM 100 L4	84 - 85

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
2.2	116.6	176.6	12.0	1.0	2350	TH25 2 100B5	TM 100 L4	78 - 79
	131.1	157.0	10.7	1.6	3600	TH30 2 100B5	TM 100 L4	81 - 82
	134.9	152.6	10.4	2.9	3800	TH35 2 100B5	TM 100 L4	84 - 85
	135.4	152.0	10.3	1.0	2230	TH25 2 100B5	TM 100 L4	78 - 79
	153.0	134.6	9.2	1.7	3500	TH30 2 100B5	TM 100 L4	81 - 82
	155.6	132.3	9.0	1.2	2100	TH25 2 100B5	TM 100 L4	78 - 79
	159.1	129.4	8.8	3.1	3750	TH35 2 100B5	TM 100 L4	84 - 85
	172.0	119.7	8.1	3.3	3550	TH35 2 100B5	TM 100 L4	84 - 85
	176.5	116.6	7.9	2.2	2950	TH30 2 100B5	TM 100 L4	81 - 82
	177.2	116.2	7.9	1.3	1980	TH25 2 100B5	TM 100 L4	78 - 79
	199.4	103.3	7.0	3.6	3380	TH35 2 100B5	TM 100 L4	84 - 85
	212.4	96.9	6.6	1.5	1890	TH25 2 100B5	TM 100 L4	78 - 79
	229.3	89.8	6.1	3.7	3100	TH35 2 100B5	TM 100 L4	84 - 85
	229.5	89.7	6.1	2.4	2900	TH30 2 100B5	TM 100 L4	81 - 82
	254.4	80.9	5.5	0.7	1400	TH20 2 100B5	TM 100 L4	75 - 76
	275.4	74.8	5.1	2.8	2850	TH30 2 100B5	TM 100 L4	81 - 82
	279.6	73.6	5.0	4.0	2650	TH35 2 100B5	TM 100 L4	84 - 85
	281.1	73.2	5.0	1.5	1710	TH25 2 100B5	TM 100 L4	78 - 79
	306.3	67.2	4.6	0.8	1400	TH20 2 100B5	TM 100 L4	75 - 76
	365.5	56.3	3.8	1.6	1650	TH25 2 100B5	TM 100 L4	78 - 79
	382.2	53.9	3.7	5.1	2210	TH35 2 100B5	TM 100 L4	84 - 85
	388.4	53.0	3.6	2.8	2850	TH30 2 100B5	TM 100 L4	81 - 82
	388.9	52.9	3.6	0.8	1400	TH20 2 100B5	TM 100 L4	75 - 76
	424.9	48.5	6.6	1.9	1520	TH25 2 90B5	TM 90 L2	78 - 79
	459.0	44.9	6.1	3.5	2130	TH30 2 90B5	TM 90 L2	81 - 82
	508.7	40.5	5.5	1.0	1150	TH20 2 90B5	TM 90 L2	75 - 76
	550.8	37.4	5.1	3.9	1990	TH30 2 90B5	TM 90 L2	81 - 82
	562.2	36.6	5.0	2.0	1360	TH25 2 90B5	TM 90 L2	78 - 79
	612.5	33.6	4.6	1.1	1150	TH20 2 90B5	TM 90 L2	75 - 76
	731.1	28.2	3.8	2.3	1250	TH25 2 90B5	TM 90 L2	78 - 79
	776.8	26.5	3.6	4.6	1830	TH30 2 90B5	TM 90 L2	81 - 82
	777.8	26.5	3.6	1.4	1100	TH20 2 90B5	TM 90 L2	75 - 76
3.7	4.7	7303.5	191.8	0.6	31000	TH80 3 132B5	TM 132 S6	96 - 97
	5.1	6744.2	177.1	1.1	44000	TH90 3 132B5	TM 132 S6	99 - 100
	5.3	6476.6	170.1	0.7	31000	TH80 3 132B5	TM 132 S6	96 - 97
	5.7	5979.2	157.0	1.3	44000	TH90 3 132B5	TM 132 S6	99 - 100
	5.9	5800.0	152.3	0.7	31000	TH80 3 132B5	TM 132 S6	96 - 97
	6.4	5353.3	140.6	1.4	44000	TH90 3 132B5	TM 132 S6	99 - 100
	6.5	5236.1	137.5	0.8	31000	TH80 3 132B5	TM 132 S6	96 - 97
	7.1	4831.7	126.9	1.6	44000	TH90 3 132B5	TM 132 S6	99 - 100

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
3.7	7.2	4758.9	125.0	0.9	31000	TH80 3 132B5	TM 132 S6	96 - 97
	7.3	4695.1	191.8	0.9	31000	TH80 3 112B5	TM 112 M4	96 - 97
	7.9	4350.0	114.2	1.0	31000	TH80 3 132B5	TM 132 S6	96 - 97
	7.9	4335.6	177.1	1.8	44000	TH90 3 112B5	TM 112 M4	99 - 100
	8.2	4163.5	170.1	1.0	31000	TH80 3 112B5	TM 112 M4	96 - 97
	8.9	3843.8	157.0	2.0	44000	TH90 3 112B5	TM 112 M4	99 - 100
	9.2	3728.5	152.3	1.1	31000	TH80 3 112B5	TM 112 M4	96 - 97
	10.0	3441.4	140.6	2.2	44000	TH90 3 112B5	TM 112 M4	99 - 100
	10.1	3399.0	138.8	0.7	25000	TH60 3 112B5	TM 112 M4	93 - 94
	10.2	3366.0	137.5	1.3	31000	TH80 3 112B5	TM 112 M4	96 - 97
	11.0	3106.1	126.9	2.4	44000	TH90 3 112B5	TM 112 M4	99 - 100
	11.1	3094.6	126.4	0.8	25000	TH60 3 112B5	TM 112 M4	93 - 94
	11.2	3059.3	125.0	1.4	31000	TH80 3 112B5	TM 112 M4	96 - 97
	12.1	2833.6	115.8	0.8	25000	TH60 3 112B5	TM 112 M4	93 - 94
	12.1	2822.4	115.3	2.7	44000	TH90 3 112B5	TM 112 M4	99 - 100
	12.3	2796.4	114.2	1.5	31000	TH80 3 112B5	TM 112 M4	96 - 97
	13.1	2607.5	106.5	0.9	25000	TH60 3 112B5	TM 112 M4	93 - 94
	13.3	2579.2	105.4	2.9	44000	TH90 3 112B5	TM 112 M4	99 - 100
	13.3	2568.6	104.9	1.7	31000	TH80 3 112B5	TM 112 M4	96 - 97
	14.5	2368.4	96.7	3.1	44000	TH90 3 112B5	TM 112 M4	99 - 100
	14.6	2352.7	96.1	1.0	25000	TH60 3 112B5	TM 112 M4	93 - 94
	15.3	2237.1	91.4	1.9	31000	TH80 3 112B5	TM 112 M4	96 - 97
	16.0	2142.0	87.5	1.1	25000	TH60 3 112B5	TM 112 M4	93 - 94
	16.3	2096.6	85.6	3.5	44000	TH90 3 112B5	TM 112 M4	99 - 100
	16.7	2047.8	83.7	0.7	16000	TH50 3 112B5	TM 112 M4	90 - 91
	17.5	1961.3	80.1	1.2	25000	TH60 3 112B5	TM 112 M4	93 - 94
	18.0	1900.8	77.6	2.3	31000	TH80 3 112B5	TM 112 M4	96 - 97
	20.2	1696.7	69.3	1.0	16000	TH50 3 112B5	TM 112 M4	90 - 91
	20.5	1667.8	68.1	1.4	25000	TH60 3 112B5	TM 112 M4	93 - 94
	21.0	1635.3	66.8	2.6	31000	TH80 3 112B5	TM 112 M4	96 - 97
	23.3	1473.9	60.2	2.9	31000	TH80 3 112B5	TM 112 M4	96 - 97
	23.8	1439.5	58.8	1.6	25000	TH60 3 112B5	TM 112 M4	93 - 94
	24.5	1401.4	57.2	1.2	16000	TH50 3 112B5	TM 112 M4	90 - 91
	27.4	1252.3	51.2	3.4	31000	TH80 3 112B5	TM 112 M4	96 - 97
	27.9	1230.2	50.3	0.7	10000	TH40 3 112B5	TM 112 M4	87 - 88
	29.0	1180.0	48.2	1.4	15500	TH50 3 112B5	TM 112 M4	90 - 91
	30.2	1136.1	46.4	2.1	23800	TH60 3 112B5	TM 112 M4	93 - 94
	32.7	1059.3	42.8	1.3	14000	TH50 2 112B5	TM 112 M4	90 - 91
	32.9	1042.9	42.6	0.8	10000	TH40 3 112B5	TM 112 M4	87 - 88
	35.4	966.9	39.5	2.4	22800	TH60 3 112B5	TM 112 M4	93 - 94
	35.5	964.9	39.4	0.9	10000	TH40 3 112B5	TM 112 M4	87 - 88

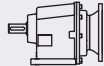
P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
3.7	36.8	940.7	38.0	1.4	13800	TH50 2 112B5	TM 112 M4	90 - 91
	37.1	934.5	37.8	0.9	10000	TH40 2 112B5	TM 112 M4	87 - 88
	38.7	894.3	36.2	2.2	21500	TH60 2 112B5	TM 112 M4	93 - 94
	41.0	843.8	34.1	1.6	13700	TH50 2 112B5	TM 112 M4	90 - 91
	41.8	828.9	33.5	1.0	10000	TH40 2 112B5	TM 112 M4	87 - 88
	43.7	793.0	32.1	2.5	21000	TH60 2 112B5	TM 112 M4	93 - 94
	45.4	763.0	30.9	1.7	13600	TH50 2 112B5	TM 112 M4	90 - 91
	46.6	742.5	30.0	1.1	10000	TH40 2 112B5	TM 112 M4	87 - 88
	48.8	710.2	28.7	2.8	19200	TH60 2 112B5	TM 112 M4	93 - 94
	49.8	694.7	28.1	1.9	13400	TH50 2 112B5	TM 112 M4	90 - 91
	51.6	670.4	27.1	1.2	10000	TH40 2 112B5	TM 112 M4	87 - 88
	51.7	669.8	27.1	0.7	5660	TH35 2 112B5	TM 112 M4	84 - 85
	54.0	641.1	25.9	3.3	18500	TH60 2 112B5	TM 112 M4	93 - 94
	54.4	636.1	25.7	2.1	12600	TH50 2 112B5	TM 112 M4	90 - 91
	56.8	609.5	24.6	1.3	10000	TH40 2 112B5	TM 112 M4	87 - 88
	57.4	602.9	24.4	0.8	5420	TH35 2 112B5	TM 112 M4	84 - 85
	59.2	585.3	23.7	2.2	11900	TH50 2 112B5	TM 112 M4	90 - 91
	59.4	582.7	23.6	3.6	17900	TH60 2 112B5	TM 112 M4	93 - 94
	62.0	558.7	22.6	1.4	10000	TH40 2 112B5	TM 112 M4	87 - 88
	63.4	546.2	22.1	0.8	5100	TH35 2 112B5	TM 112 M4	84 - 85
	64.0	540.9	21.9	2.4	11500	TH50 2 112B5	TM 112 M4	90 - 91
	68.4	506.3	20.5	1.6	10000	TH40 2 112B5	TM 112 M4	87 - 88
	74.2	467.0	18.9	2.8	10300	TH50 2 112B5	TM 112 M4	90 - 91
	75.0	461.5	18.7	1.7	10000	TH40 2 112B5	TM 112 M4	87 - 88
	76.0	455.5	18.4	1.0	4760	TH35 2 112B5	TM 112 M4	84 - 85
	81.2	426.6	17.3	0.7	4200	TH30 2 112B5	TM 112 M4	81 - 82
	89.1	388.5	15.7	2.0	9560	TH40 2 112B5	TM 112 M4	87 - 88
	93.5	370.2	15.0	3.8	9430	TH50 2 112B5	TM 112 M4	90 - 91
	93.6	369.8	15.0	0.8	3850	TH30 2 112B5	TM 112 M4	81 - 82
	96.9	357.3	14.4	1.1	4300	TH35 2 112B5	TM 112 M4	84 - 85
	104.5	331.4	13.4	2.3	8550	TH40 2 112B5	TM 112 M4	87 - 88
	110.8	312.5	12.6	0.9	3750	TH30 2 112B5	TM 112 M4	81 - 82
	112.5	307.8	12.4	1.4	4120	TH35 2 112B5	TM 112 M4	84 - 85
	117.4	294.9	11.9	2.6	8150	TH40 2 112B5	TM 112 M4	87 - 88
	131.1	264.0	10.7	1.0	3600	TH30 2 112B5	TM 112 M4	81 - 82
	134.9	256.7	10.4	1.7	3800	TH35 2 112B5	TM 112 M4	84 - 85
	139.4	248.3	10.0	2.8	7560	TH40 2 112B5	TM 112 M4	87 - 88
	153.0	226.3	9.2	1.0	3500	TH30 2 112B5	TM 112 M4	81 - 82
	159.1	217.6	8.8	1.9	3750	TH35 2 112B5	TM 112 M4	84 - 85
	163.3	212.1	8.6	3.2	6680	TH40 2 112B5	TM 112 M4	87 - 88
	172.0	201.3	8.1	1.9	3550	TH35 2 112B5	TM 112 M4	84 - 85

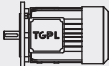
P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
3.7	176.5	196.1	7.9	1.3	2950	TH30 2 112B5	TM 112 M4	81 - 82
	189.1	183.1	7.4	3.5	6050	TH40 2 112B5	TM 112 M4	87 - 88
	199.4	173.6	7.0	2.2	3380	TH35 2 112B5	TM 112 M4	84 - 85
	202.9	170.7	6.9	3.7	5980	TH40 2 112B5	TM 112 M4	87 - 88
	229.3	151.0	6.1	2.2	3100	TH35 2 112B5	TM 112 M4	84 - 85
	229.5	150.9	6.1	1.4	2900	TH30 2 112B5	TM 112 M4	81 - 82
	248.1	139.6	5.6	4.0	5650	TH40 2 112B5	TM 112 M4	87 - 88
	275.4	125.7	5.1	1.6	2850	TH30 2 112B5	TM 112 M4	81 - 82
	279.6	123.8	5.0	2.4	2650	TH35 2 112B5	TM 112 M4	84 - 85
	319.1	108.5	4.4	4.6	5360	TH40 2 112B5	TM 112 M4	87 - 88
	382.2	90.6	3.7	3.0	2210	TH35 2 112B5	TM 112 M4	84 - 85
	388.4	89.2	3.6	1.7	2850	TH30 2 112B5	TM 112 M4	81 - 82
	398.8	86.8	7.0	3.5	2650	TH35 2 100B5	TM 100 L2	84 - 85
	458.6	75.5	6.1	4.1	2050	TH35 2 100B5	TM 100 L2	84 - 85
	459.0	75.4	6.1	2.1	2130	TH30 2 100B5	TM 100 L2	81 - 82
	550.8	62.9	5.1	2.3	1990	TH30 2 100B5	TM 100 L2	81 - 82
	559.3	61.9	5.0	5.0	1850	TH35 2 100B5	TM 100 L2	84 - 85
	764.4	45.3	3.7	6.0	1450	TH35 2 100B5	TM 100 L2	84 - 85
	776.8	44.6	3.6	2.7	1830	TH30 2 100B5	TM 100 L2	81 - 82
5.5	5.1	10025.2	177.1	0.8	44000	TH90 3 132B5	TM 132 M6	99 - 100
	5.7	8888.0	157.0	0.9	44000	TH90 3 132B5	TM 132 M6	99 - 100
	6.4	7957.6	140.6	1.0	44000	TH90 3 132B5	TM 132 M6	99 - 100
	7.1	7182.2	126.9	1.1	44000	TH90 3 132B5	TM 132 M6	99 - 100
	7.3	6979.2	191.8	0.6	31000	TH80 3 132B5	TM 132 S4	96 - 97
	7.9	6444.8	177.1	1.2	44000	TH90 3 132B5	TM 132 S4	99 - 100
	8.2	6189.0	170.1	0.7	31000	TH80 3 132B5	TM 132 S4	96 - 97
	8.9	5713.7	157.0	1.3	44000	TH90 3 132B5	TM 132 S4	99 - 100
	9.2	5542.4	152.3	0.8	31000	TH80 3 132B5	TM 132 S4	96 - 97
	10.0	5115.6	140.6	1.5	44000	TH90 3 132B5	TM 132 S4	99 - 100
	10.2	5003.6	137.5	0.9	31000	TH80 3 132B5	TM 132 S4	96 - 97
	11.0	4617.2	126.9	1.6	44000	TH90 3 132B5	TM 132 S4	99 - 100
	11.2	4547.6	125.0	0.9	31000	TH80 3 132B5	TM 132 S4	96 - 97
	12.1	4195.4	115.3	1.8	44000	TH90 3 132B5	TM 132 S4	99 - 100
	12.3	4156.8	114.2	1.0	31000	TH80 3 132B5	TM 132 S4	96 - 97
	13.3	3833.9	105.4	1.9	44000	TH90 3 132B5	TM 132 S4	99 - 100
	13.3	3818.1	104.9	1.1	31000	TH80 3 132B5	TM 132 S4	96 - 97
	14.5	3520.6	96.7	2.1	44000	TH90 3 132B5	TM 132 S4	99 - 100
	14.6	3497.2	96.1	0.7	25000	TH60 3 132B5	TM 132 S4	93 - 94
	15.3	3325.5	91.4	1.3	31000	TH80 3 132B5	TM 132 S4	96 - 97
	16.0	3184.0	87.5	0.7	25000	TH60 3 132B5	TM 132 S4	93 - 94

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
5.5	16.3	3116.6	85.6	2.4	44000	TH90 3 132B5	TM 132 S4	99 - 100
	17.5	2915.5	80.1	0.8	25000	TH60 3 132B5	TM 132 S4	93 - 94
	18.0	2825.6	77.6	1.5	31000	TH80 3 132B5	TM 132 S4	96 - 97
	19.2	2648.1	72.8	2.9	44000	TH90 3 132B5	TM 132 S4	99 - 100
	20.3	2508.4	68.9	3.0	44000	TH90 3 132B5	TM 132 S4	99 - 100
	20.5	2479.2	68.1	0.9	25000	TH60 3 132B5	TM 132 S4	93 - 94
	21.0	2430.9	66.8	1.8	31000	TH80 3 132B5	TM 132 S4	96 - 97
	22.2	2292.3	63.0	3.3	44000	TH90 3 132B5	TM 132 S4	99 - 100
	23.3	2190.9	60.2	2.0	31000	TH80 3 132B5	TM 132 S4	96 - 97
	23.8	2139.9	58.8	1.1	25000	TH60 3 132B5	TM 132 S4	93 - 94
	24.2	2105.0	57.8	3.6	44000	TH90 3 132B5	TM 132 S4	99 - 100
	24.5	2083.2	57.2	0.8	16000	TH50 3 132B5	TM 132 S4	90 - 91
	27.4	1861.5	51.2	2.3	31000	TH80 3 132B5	TM 132 S4	96 - 97
	29.0	1754.0	48.2	0.9	15500	TH50 3 132B5	TM 132 S4	90 - 91
	30.2	1688.7	46.4	1.4	23800	TH60 3 132B5	TM 132 S4	93 - 94
	31.8	1601.5	44.0	2.7	31000	TH80 3 132B5	TM 132 S4	96 - 97
	32.7	1574.6	42.8	0.9	14000	TH50 2 132B5	TM 132 S4	90 - 91
	35.4	1437.2	39.5	1.6	22800	TH60 3 132B5	TM 132 S4	93 - 94
	36.8	1398.4	38.0	1.0	13800	TH50 2 132B5	TM 132 S4	90 - 91
	37.6	1368.4	37.2	3.1	30500	TH80 2 132B5	TM 132 S4	96 - 97
	38.7	1329.4	36.2	1.5	21500	TH60 2 132B5	TM 132 S4	93 - 94
	41.0	1254.3	34.1	1.1	13700	TH50 2 132B5	TM 132 S4	90 - 91
	41.8	1232.1	33.5	0.7	10000	TH40 2 132B5	TM 132 S4	87 - 88
	42.4	1213.2	33.0	3.5	30000	TH80 2 132B5	TM 132 S4	96 - 97
	43.7	1178.8	32.1	1.7	21000	TH60 2 132B5	TM 132 S4	93 - 94
	45.4	1134.2	30.9	1.2	13600	TH50 2 132B5	TM 132 S4	90 - 91
	46.6	1103.7	30.0	0.7	10000	TH40 2 132B5	TM 132 S4	87 - 88
	47.4	1086.2	29.5	3.9	29000	TH80 2 132B5	TM 132 S4	96 - 97
	48.8	1055.7	28.7	1.9	19200	TH60 2 132B5	TM 132 S4	93 - 94
	49.8	1032.6	28.1	1.3	13400	TH50 2 132B5	TM 132 S4	90 - 91
	51.6	996.6	27.1	0.8	10000	TH40 2 132B5	TM 132 S4	87 - 88
	54.0	953.0	25.9	2.2	18500	TH60 2 132B5	TM 132 S4	93 - 94
	54.4	945.6	25.7	1.4	12600	TH50 2 132B5	TM 132 S4	90 - 91
	56.8	906.0	24.6	0.9	10000	TH40 2 132B5	TM 132 S4	87 - 88
	59.2	870.1	23.7	1.5	11900	TH50 2 132B5	TM 132 S4	90 - 91
	59.4	866.2	23.6	2.4	17900	TH60 2 132B5	TM 132 S4	93 - 94
	62.0	830.5	22.6	1.0	10000	TH40 2 132B5	TM 132 S4	87 - 88
	64.0	804.1	21.9	1.6	11500	TH50 2 132B5	TM 132 S4	90 - 91
	65.0	791.8	21.5	2.7	17200	TH60 2 132B5	TM 132 S4	93 - 94
	68.4	752.7	20.5	1.1	10000	TH40 2 132B5	TM 132 S4	87 - 88
	70.8	727.2	19.8	2.9	15600	TH60 2 132B5	TM 132 S4	93 - 94

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
5.5	74.2	694.1	18.9	1.9	10300	TH50 2 132B5	TM 132 S4	90 - 91
	75.0	686.0	18.7	1.2	10000	TH40 2 132B5	TM 132 S4	87 - 88
	81.3	633.4	17.2	3.3	13800	TH60 2 132B5	TM 132 S4	93 - 94
	89.1	577.6	15.7	1.4	9560	TH40 2 132B5	TM 132 S4	87 - 88
	93.5	550.3	15.0	2.5	9430	TH50 2 132B5	TM 132 S4	90 - 91
	104.5	492.6	13.4	1.6	8550	TH40 2 132B5	TM 132 S4	87 - 88
	108.4	474.9	12.9	3.0	8530	TH50 2 132B5	TM 132 S4	90 - 91
	117.4	438.4	11.9	1.7	8150	TH40 2 132B5	TM 132 S4	87 - 88
	137.3	374.8	10.2	3.6	7710	TH50 2 132B5	TM 132 S4	90 - 91
	139.4	369.1	10.0	1.9	7560	TH40 2 132B5	TM 132 S4	87 - 88
	163.3	315.3	8.6	2.2	6680	TH40 2 132B5	TM 132 S4	87 - 88
	189.1	272.2	7.4	2.3	6050	TH40 2 132B5	TM 132 S4	87 - 88
	202.9	253.7	6.9	2.5	5980	TH40 2 132B5	TM 132 S4	87 - 88
	248.1	207.5	5.6	2.7	5650	TH40 2 132B5	TM 132 S4	87 - 88
	319.1	161.3	4.4	3.1	5360	TH40 2 132B5	TM 132 S4	87 - 88
	326.5	157.6	8.6	3.7	5100	TH40 2 132B5	TM 132 S2	87 - 88
	378.3	136.1	7.4	3.9	4900	TH40 2 132B5	TM 132 S2	87 - 88
	405.8	126.8	6.9	4.0	4750	TH40 2 132B5	TM 132 S2	87 - 88
	496.1	103.7	5.6	4.4	4360	TH40 2 132B5	TM 132 S2	87 - 88
	638.2	80.7	4.4	5.0	4010	TH40 2 132B5	TM 132 S2	87 - 88
7.5	6.4	10851.3	140.6	0.7	44000	TH90 3 160B5	TM 160 M6	99 - 100
	7.1	9794.0	126.9	0.8	44000	TH90 3 160B5	TM 160 M6	99 - 100
	7.8	8899.3	115.3	0.9	44000	TH90 3 160B5	TM 160 M6	99 - 100
	7.9	8788.3	177.1	0.9	44000	TH90 3 132B5	TM 132 M4	99 - 100
	8.9	7791.5	157.0	1.0	44000	TH90 3 132B5	TM 132 M4	99 - 100
	10.0	6975.8	140.6	1.1	44000	TH90 3 132B5	TM 132 M4	99 - 100
	11.0	6296.1	126.9	1.2	44000	TH90 3 132B5	TM 132 M4	99 - 100
	11.2	6201.3	125.0	0.7	31000	TH80 3 132B5	TM 132 M4	96 - 97
	12.1	5721.0	115.3	1.3	44000	TH90 3 132B5	TM 132 M4	99 - 100
	12.3	5668.4	114.2	0.8	31000	TH80 3 132B5	TM 132 M4	96 - 97
	13.3	5228.0	105.4	1.4	44000	TH90 3 132B5	TM 132 M4	99 - 100
	13.3	5206.5	104.9	0.8	31000	TH80 3 132B5	TM 132 M4	96 - 97
	14.5	4800.8	96.7	1.6	44000	TH90 3 132B5	TM 132 M4	99 - 100
	15.3	4534.7	91.4	0.9	31000	TH80 3 132B5	TM 132 M4	96 - 97
	16.3	4249.9	85.6	1.7	44000	TH90 3 132B5	TM 132 M4	99 - 100
	18.0	3853.0	77.6	1.1	31000	TH80 3 132B5	TM 132 M4	96 - 97
	19.2	3611.0	72.8	2.1	44000	TH90 3 132B5	TM 132 M4	99 - 100
	20.3	3420.6	68.9	2.2	44000	TH90 3 132B5	TM 132 M4	99 - 100
	20.5	3380.7	68.1	0.7	25000	TH60 3 132B5	TM 132 M4	93 - 94
	21.0	3314.8	66.8	1.3	31000	TH80 3 132B5	TM 132 M4	96 - 97

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
7.5	22.2	3125.9	63.0	2.4	44000	TH90 3 132B5	TM 132 M4	99 - 100
	23.3	2987.6	60.2	1.4	31000	TH80 3 132B5	TM 132 M4	96 - 97
	23.8	2918.0	58.8	0.8	25000	TH60 3 132B5	TM 132 M4	93 - 94
	24.2	2870.4	57.8	2.7	44000	TH90 3 132B5	TM 132 M4	99 - 100
	27.3	2541.0	51.2	3.0	42500	TH90 3 132B5	TM 132 M4	99 - 100
	27.4	2538.5	51.2	1.7	31000	TH80 3 132B5	TM 132 M4	96 - 97
	29.0	2391.8	48.2	0.7	15500	TH50 3 132B5	TM 132 M4	90 - 91
	30.2	2302.8	46.4	1.0	23800	TH60 3 132B5	TM 132 M4	93 - 94
	31.8	2183.9	44.0	2.0	31000	TH80 3 132B5	TM 132 M4	96 - 97
	32.2	2159.0	43.5	3.5	39200	TH90 3 132B5	TM 132 M4	99 - 100
	35.4	1959.8	39.5	1.2	22800	TH60 3 132B5	TM 132 M4	93 - 94
	36.8	1906.9	38.0	0.7	13800	TH50 2 132B5	TM 132 M4	90 - 91
	37.6	1866.0	37.2	2.3	30500	TH80 2 132B5	TM 132 M4	96 - 97
	38.7	1812.8	36.2	1.1	21500	TH60 2 132B5	TM 132 M4	93 - 94
	41.0	1710.4	34.1	0.8	13700	TH50 2 132B5	TM 132 M4	90 - 91
	42.4	1654.4	33.0	2.6	30000	TH80 2 132B5	TM 132 M4	96 - 97
	43.7	1607.5	32.1	1.2	21000	TH60 2 132B5	TM 132 M4	93 - 94
	45.4	1546.7	30.9	0.9	13600	TH50 2 132B5	TM 132 M4	90 - 91
	47.4	1481.2	29.5	2.8	29000	TH80 2 132B5	TM 132 M4	96 - 97
	48.8	1439.6	28.7	1.4	19200	TH60 2 132B5	TM 132 M4	93 - 94
	49.8	1408.2	28.1	0.9	13400	TH50 2 132B5	TM 132 M4	90 - 91
	52.5	1336.9	26.7	3.1	28200	TH80 2 132B5	TM 132 M4	96 - 97
	54.0	1299.6	25.9	1.6	18500	TH60 2 132B5	TM 132 M4	93 - 94
	54.4	1289.4	25.7	1.0	12600	TH50 2 132B5	TM 132 M4	90 - 91
	57.8	1214.8	24.2	3.4	27500	TH80 2 132B5	TM 132 M4	96 - 97
	59.2	1186.5	23.7	1.1	11900	TH50 2 132B5	TM 132 M4	90 - 91
	59.4	1181.2	23.6	1.8	17900	TH60 2 132B5	TM 132 M4	93 - 94
	62.0	1132.5	22.6	0.7	10000	TH40 2 132B5	TM 132 M4	87 - 88
	63.2	1110.1	22.1	3.6	25500	TH80 2 132B5	TM 132 M4	96 - 97
	64.0	1096.5	21.9	1.2	11500	TH50 2 132B5	TM 132 M4	90 - 91
	65.0	1079.7	21.5	2.0	17200	TH60 2 132B5	TM 132 M4	93 - 94
	68.4	1026.4	20.5	0.8	10000	TH40 2 132B5	TM 132 M4	87 - 88
	68.9	1019.4	20.3	4.0	24100	TH80 2 132B5	TM 132 M4	96 - 97
	70.8	991.7	19.8	2.1	15600	TH60 2 132B5	TM 132 M4	93 - 94
	74.2	946.5	18.9	1.4	10300	TH50 2 132B5	TM 132 M4	90 - 91
	75.0	935.4	18.7	0.8	10000	TH40 2 132B5	TM 132 M4	87 - 88
	81.3	863.7	17.2	2.4	13800	TH60 2 132B5	TM 132 M4	93 - 94
	89.1	787.6	15.7	1.0	9560	TH40 2 132B5	TM 132 M4	87 - 88
	93.5	750.3	15.0	1.9	9430	TH50 2 132B5	TM 132 M4	90 - 91
	95.6	733.9	14.6	2.8	12100	TH60 2 132B5	TM 132 M4	93 - 94
	104.5	671.8	13.4	1.2	8550	TH40 2 132B5	TM 132 M4	87 - 88

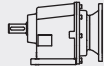
P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
7.5	108.4	647.6	12.9	2.2	8530	TH50 2 132B5	TM 132 M4	90 - 91
	117.4	597.8	11.9	3.7	9350	TH60 2 132B5	TM 132 M4	93 - 94
	117.4	597.8	11.9	1.3	8150	TH40 2 132B5	TM 132 M4	87 - 88
	137.3	511.1	10.2	2.6	7710	TH50 2 132B5	TM 132 M4	90 - 91
	139.4	503.4	10.0	1.4	7560	TH40 2 132B5	TM 132 M4	87 - 88
	161.4	435.0	8.7	2.9	7540	TH50 2 132B5	TM 132 M4	90 - 91
	163.3	429.9	8.6	1.6	6680	TH40 2 132B5	TM 132 M4	87 - 88
	174.2	402.9	8.0	3.1	7060	TH50 2 132B5	TM 132 M4	90 - 91
	189.1	371.1	7.4	1.7	6050	TH40 2 132B5	TM 132 M4	87 - 88
	201.7	348.0	6.9	3.2	6850	TH50 2 132B5	TM 132 M4	90 - 91
	202.9	345.9	6.9	1.8	5980	TH40 2 132B5	TM 132 M4	87 - 88
	248.1	282.9	5.6	2.0	5650	TH40 2 132B5	TM 132 M4	87 - 88
	248.2	282.7	5.6	3.4	6550	TH50 2 132B5	TM 132 M4	90 - 91
	319.1	220.0	4.4	2.2	5360	TH40 2 132B5	TM 132 M4	87 - 88
	322.7	217.5	4.3	3.5	6100	TH50 2 132B5	TM 132 M4	90 - 91
	378.3	185.6	7.4	2.8	4900	TH40 2 132B5	TM 132 S2	87 - 88
	405.8	173.0	6.9	3.0	4750	TH40 2 132B5	TM 132 S2	87 - 88
	496.1	141.5	5.6	3.2	4360	TH40 2 132B5	TM 132 S2	87 - 88
	638.2	110.0	4.4	3.6	4010	TH40 2 132B5	TM 132 S2	87 - 88
9.3	7.9	10897.5	177.1	0.7	44000	TH90 3 160B5	TM 160 M4	99 - 100
	8.9	9661.4	157.0	0.8	44000	TH90 3 160B5	TM 160 M4	99 - 100
	10.0	8650.0	140.6	0.9	44000	TH90 3 160B5	TM 160 M4	99 - 100
	11.0	7807.2	126.9	1.0	44000	TH90 3 160B5	TM 160 M4	99 - 100
	12.1	7094.0	115.3	1.1	44000	TH90 3 160B5	TM 160 M4	99 - 100
	13.3	6482.8	105.4	1.1	44000	TH90 3 160B5	TM 160 M4	99 - 100
	13.3	6456.1	104.9	0.7	31000	TH80 3 160B5	TM 160 M4	96 - 97
	14.5	5953.0	96.7	1.3	44000	TH90 3 160B5	TM 160 M4	99 - 100
	15.3	5623.0	91.4	0.8	31000	TH80 3 160B5	TM 160 M4	96 - 97
	16.3	5269.9	85.6	1.4	44000	TH90 3 160B5	TM 160 M4	99 - 100
	18.0	4777.7	77.6	0.9	31000	TH80 3 160B5	TM 160 M4	96 - 97
	19.2	4477.7	72.8	1.7	44000	TH90 3 160B5	TM 160 M4	99 - 100
	20.3	4241.6	68.9	1.8	44000	TH90 3 160B5	TM 160 M4	99 - 100
	21.0	4110.4	66.8	1.0	31000	TH80 3 160B5	TM 160 M4	96 - 97
	22.2	3876.1	63.0	2.0	44000	TH90 3 160B5	TM 160 M4	99 - 100
	23.3	3704.6	60.2	1.2	31000	TH80 3 160B5	TM 160 M4	96 - 97
	24.2	3559.3	57.8	2.1	44000	TH90 3 160B5	TM 160 M4	99 - 100
	27.3	3150.9	51.2	2.4	42500	TH90 3 160B5	TM 160 M4	99 - 100
	27.4	3147.7	51.2	1.4	31000	TH80 3 160B5	TM 160 M4	96 - 97
	30.2	2855.5	46.4	0.8	23800	TH60 3 160B5	TM 160 M4	93 - 94
	31.8	2708.0	44.0	1.6	31000	TH80 3 160B5	TM 160 M4	96 - 97

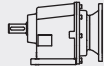
P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
9.3	32.2	2677.2	43.5	2.9	39200	TH90 3 160B5	TM 160 M4	99 - 100
	35.4	2430.2	39.5	1.0	22800	TH60 3 160B5	TM 160 M4	93 - 94
	37.4	2303.3	37.4	3.3	34500	TH90 3 160B5	TM 160 M4	99 - 100
	37.6	2313.8	37.2	1.9	30500	TH80 2 160B5	TM 160 M4	96 - 97
	38.7	2247.9	36.2	0.9	21500	TH60 2 160B5	TM 160 M4	93 - 94
	39.9	2180.7	35.1	3.2	34000	TH90 2 160B5	TM 160 M4	99 - 100
	42.4	2051.5	33.0	2.1	30000	TH80 2 160B5	TM 160 M4	96 - 97
	43.7	1993.3	32.1	1.0	21000	TH60 2 160B5	TM 160 M4	93 - 94
	44.1	1971.9	31.7	3.5	32350	TH90 2 160B5	TM 160 M4	99 - 100
	45.4	1917.9	30.9	0.7	13600	TH50 2 160B5	TM 160 M4	90 - 91
	47.4	1836.7	29.5	2.3	29000	TH80 2 160B5	TM 160 M4	96 - 97
	48.8	1785.1	28.7	1.1	19200	TH60 2 160B5	TM 160 M4	93 - 94
	49.8	1746.1	28.1	0.7	13400	TH50 2 160B5	TM 160 M4	90 - 91
	52.5	1657.8	26.7	2.5	28200	TH80 2 160B5	TM 160 M4	96 - 97
	54.0	1611.5	25.9	1.3	18500	TH60 2 160B5	TM 160 M4	93 - 94
	54.4	1598.9	25.7	0.8	12600	TH50 2 160B5	TM 160 M4	90 - 91
	57.8	1506.3	24.2	2.7	27500	TH80 2 160B5	TM 160 M4	96 - 97
	59.2	1471.3	23.7	0.9	11900	TH50 2 160B5	TM 160 M4	90 - 91
	59.4	1464.7	23.6	1.4	17900	TH60 2 160B5	TM 160 M4	93 - 94
	63.2	1376.5	22.1	2.9	25500	TH80 2 160B5	TM 160 M4	96 - 97
	64.0	1359.6	21.9	1.0	11500	TH50 2 160B5	TM 160 M4	90 - 91
	65.0	1338.8	21.5	1.6	17200	TH60 2 160B5	TM 160 M4	93 - 94
	68.9	1264.0	20.3	3.2	24100	TH80 2 160B5	TM 160 M4	96 - 97
	70.8	1229.7	19.8	1.7	15600	TH60 2 160B5	TM 160 M4	93 - 94
	74.2	1173.7	18.9	1.1	10300	TH50 2 160B5	TM 160 M4	90 - 91
	77.8	1119.0	18.0	3.5	22800	TH80 2 160B5	TM 160 M4	96 - 97
	81.3	1071.0	17.2	2.0	13800	TH60 2 160B5	TM 160 M4	93 - 94
	93.5	930.4	15.0	1.5	9430	TH50 2 160B5	TM 160 M4	90 - 91
	95.6	910.0	14.6	2.3	12100	TH60 2 160B5	TM 160 M4	93 - 94
	108.4	803.1	12.9	1.8	8530	TH50 2 160B5	TM 160 M4	90 - 91
	117.4	741.3	11.9	3.0	9350	TH60 2 160B5	TM 160 M4	93 - 94
	137.3	633.8	10.2	2.1	7710	TH50 2 160B5	TM 160 M4	90 - 91
	138.2	629.9	10.1	3.4	8750	TH60 2 160B5	TM 160 M4	93 - 94
	160.6	541.9	8.7	3.9	7680	TH60 2 160B5	TM 160 M4	93 - 94
	161.4	539.4	8.7	2.4	7540	TH50 2 160B5	TM 160 M4	90 - 91
	174.2	499.6	8.0	2.5	7060	TH50 2 160B5	TM 160 M4	90 - 91
	201.7	431.5	6.9	2.6	6850	TH50 2 160B5	TM 160 M4	90 - 91
	248.2	350.6	5.6	2.7	6550	TH50 2 160B5	TM 160 M4	90 - 91
	322.7	269.7	4.3	2.8	6100	TH50 2 160B5	TM 160 M4	90 - 91
	326.5	266.5	8.6	2.2	5100	TH40 2 132B5	TM 132 M2	87 - 88
	348.4	249.8	8.0	4.0	6000	TH50 2 132B5	TM 132 M2	90 - 91

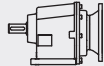
P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
9.3	378.3	230.1	7.4	2.3	4900	TH40 2 132B5	TM 132 M2	87 - 88
	405.8	214.5	6.9	2.4	4750	TH40 2 132B5	TM 132 M2	87 - 88
	496.1	175.4	5.6	2.6	4360	TH40 2 132B5	TM 132 M2	87 - 88
	638.2	136.4	4.4	2.9	4010	TH40 2 132B5	TM 132 M2	87 - 88
11	8.9	11427.5	157.0	0.7	44000	TH90 3 160B5	TM 160M4	99 - 100
	10.0	10231.2	140.6	0.7	44000	TH90 3 160B5	TM 160M4	99 - 100
	11.0	9234.3	126.9	0.8	44000	TH90 3 160B5	TM 160M4	99 - 100
	12.1	8390.8	115.3	0.9	44000	TH90 3 160B5	TM 160M4	99 - 100
	13.3	7667.8	105.4	1.0	44000	TH90 3 160B5	TM 160M4	99 - 100
	14.5	7041.2	96.7	1.1	44000	TH90 3 160B5	TM 160M4	99 - 100
	16.3	6233.2	85.6	1.2	44000	TH90 3 160B5	TM 160M4	99 - 100
	18.0	5651.1	77.6	0.8	31000	TH80 3 160B5	TM 160M4	96 - 97
	19.2	5296.1	72.8	1.4	44000	TH90 3 160B5	TM 160M4	99 - 100
	20.3	5016.9	68.9	1.5	44000	TH90 3 160B5	TM 160M4	99 - 100
	21.0	4861.8	66.8	0.9	31000	TH80 3 160B5	TM 160M4	96 - 97
	22.2	4584.6	63.0	1.7	44000	TH90 3 160B5	TM 160M4	99 - 100
	23.3	4381.8	60.2	1.0	31000	TH80 3 160B5	TM 160M4	96 - 97
	24.2	4209.9	57.8	1.8	44000	TH90 3 160B5	TM 160M4	99 - 100
	27.3	3726.8	51.2	2.1	42500	TH90 3 160B5	TM 160M4	99 - 100
	27.4	3723.1	51.2	1.2	31000	TH80 3 160B5	TM 160M4	96 - 97
	30.2	3377.5	46.4	0.7	23800	TH60 3 160B5	TM 160M4	93 - 94
	31.8	3203.1	44.0	1.3	31000	TH80 3 160B5	TM 160M4	96 - 97
	32.2	3166.6	43.5	2.4	39200	TH90 3 160B5	TM 160M4	99 - 100
	35.4	2874.4	39.5	0.8	22800	TH60 3 160B5	TM 160M4	93 - 94
	37.4	2724.3	37.4	2.8	34500	TH90 3 160B5	TM 160M4	99 - 100
	37.6	2736.8	37.2	1.6	30500	TH80 2 160B5	TM 160M4	96 - 97
	38.7	2658.8	36.2	0.7	21500	TH60 2 160B5	TM 160M4	93 - 94
	39.9	2579.3	35.1	2.7	34000	TH90 2 160B5	TM 160M4	99 - 100
	42.4	2426.5	33.0	1.8	30000	TH80 2 160B5	TM 160M4	96 - 97
	43.7	2357.7	32.1	0.8	21000	TH60 2 160B5	TM 160M4	93 - 94
	44.1	2332.4	31.7	3.0	32350	TH90 2 160B5	TM 160M4	99 - 100
	47.4	2172.5	29.5	1.9	29000	TH80 2 160B5	TM 160M4	96 - 97
	48.8	2111.4	28.7	0.9	19200	TH60 2 160B5	TM 160M4	93 - 94
	52.5	1960.8	26.7	2.1	28200	TH80 2 160B5	TM 160M4	96 - 97
	52.9	1944.4	26.4	3.5	31250	TH90 2 160B5	TM 160M4	99 - 100
	54.0	1906.1	25.9	1.1	18500	TH60 2 160B5	TM 160M4	93 - 94
	54.4	1891.1	25.7	0.7	12600	TH50 2 160B5	TM 160M4	90 - 91
	57.5	1789.2	24.3	3.8	30100	TH90 2 160B5	TM 160M4	99 - 100
	57.8	1781.7	24.2	2.3	27500	TH80 2 160B5	TM 160M4	96 - 97
	59.2	1740.2	23.7	0.8	11900	TH50 2 160B5	TM 160M4	90 - 91

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
11	59.4	1732.4	23.6	1.2	17900	TH60 2 160B5	TM 160M4	93 - 94
	63.2	1628.2	22.1	2.5	25500	TH80 2 160B5	TM 160M4	96 - 97
	64.0	1608.1	21.9	0.8	11500	TH50 2 160B5	TM 160M4	90 - 91
	65.0	1583.5	21.5	1.3	17200	TH60 2 160B5	TM 160M4	93 - 94
	68.9	1495.1	20.3	2.7	24100	TH80 2 160B5	TM 160M4	96 - 97
	70.8	1454.5	19.8	1.5	15600	TH60 2 160B5	TM 160M4	93 - 94
	74.2	1388.2	18.9	0.9	10300	TH50 2 160B5	TM 160M4	90 - 91
	77.8	1323.5	18.0	3.0	22800	TH80 2 160B5	TM 160M4	96 - 97
	81.3	1266.8	17.2	1.7	13800	TH60 2 160B5	TM 160M4	93 - 94
	91.5	1124.6	15.3	3.4	23600	TH80 2 160B5	TM 160M4	96 - 97
	93.5	1100.5	15.0	1.3	9430	TH50 2 160B5	TM 160M4	90 - 91
	95.6	1076.4	14.6	1.9	12100	TH60 2 160B5	TM 160M4	93 - 94
	106.4	967.5	13.2	3.7	22100	TH80 2 160B5	TM 160M4	96 - 97
	108.4	949.9	12.9	1.5	8530	TH50 2 160B5	TM 160M4	90 - 91
	117.4	876.8	11.9	2.5	9350	TH60 2 160B5	TM 160M4	93 - 94
	137.3	749.6	10.2	1.8	7710	TH50 2 160B5	TM 160M4	90 - 91
	138.2	745.0	10.1	2.9	8750	TH60 2 160B5	TM 160M4	93 - 94
	160.6	641.0	8.7	3.3	7680	TH60 2 160B5	TM 160M4	93 - 94
	161.4	638.0	8.7	2.0	7540	TH50 2 160B5	TM 160M4	90 - 91
	174.2	591.0	8.0	2.1	7060	TH50 2 160B5	TM 160M4	90 - 91
	197.8	520.3	7.1	3.6	7400	TH60 2 160B5	TM 160M4	93 - 94
	201.7	510.4	6.9	2.2	6850	TH50 2 160B5	TM 160M4	90 - 91
	240.1	428.7	5.8	4.0	7350	TH60 2 160B5	TM 160M4	93 - 94
	248.2	414.7	5.6	2.3	6550	TH50 2 160B5	TM 160M4	90 - 91
	306.4	336.0	4.6	4.8	7100	TH60 2 160B5	TM 160M4	93 - 94
	322.7	319.0	4.3	2.4	6100	TH50 2 160B5	TM 160M4	90 - 91
	348.4	295.5	8.0	3.4	6000	TH50 2 160B5	TM 160 M2	90 - 91
	403.4	255.2	6.9	3.6	5620	TH50 2 160B5	TM 160 M2	90 - 91
	496.5	207.3	5.6	3.8	5420	TH50 2 160B5	TM 160 M2	90 - 91
	645.4	159.5	4.3	4.1	5250	TH50 2 160B5	TM 160 M2	90 - 91
15	12.4	11234.3	72.8	0.7	44000	TH90 3 180B5	TM 180 L6	99 - 100
	13.1	10641.9	68.9	0.7	44000	TH90 3 180B5	TM 180 L6	99 - 100
	13.3	10456.1	105.4	0.7	44000	TH90 3 160B5	TM 160 L4	99 - 100
	14.5	9601.6	96.7	0.8	44000	TH90 3 160B5	TM 160 L4	99 - 100
	16.3	8499.8	85.6	0.9	44000	TH90 3 160B5	TM 160 L4	99 - 100
	19.2	7222.0	72.8	1.1	44000	TH90 3 160B5	TM 160 L4	99 - 100
	20.3	6841.2	68.9	1.1	44000	TH90 3 160B5	TM 160 L4	99 - 100
	22.2	6251.7	63.0	1.2	44000	TH90 3 160B5	TM 160 L4	99 - 100
	23.3	5975.2	60.2	0.7	31000	TH80 3 160B5	TM 160 L4	96 - 97
	24.2	5740.8	57.8	1.3	44000	TH90 3 160B5	TM 160 L4	99 - 100

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
15	27.3	5082.1	51.2	1.5	42500	TH90 3 160B5	TM 160 L4	99 - 100
	27.4	5076.9	51.2	0.8	31000	TH80 3 160B5	TM 160 L4	96 - 97
	31.8	4367.8	44.0	1.0	31000	TH80 3 160B5	TM 160 L4	96 - 97
	32.2	4318.1	43.5	1.8	39200	TH90 3 160B5	TM 160 L4	99 - 100
	37.4	3714.9	37.4	2.1	34500	TH90 3 160B5	TM 160 L4	99 - 100
	37.6	3732.0	37.2	1.1	30500	TH80 2 160B5	TM 160 L4	96 - 97
	39.9	3517.2	35.1	2.0	34000	TH90 2 160B5	TM 160 L4	99 - 100
	42.4	3308.8	33.0	1.3	30000	TH80 2 160B5	TM 160 L4	96 - 97
	44.1	3180.5	31.7	2.2	32350	TH90 2 160B5	TM 160 L4	99 - 100
	47.4	2962.5	29.5	1.4	29000	TH80 2 160B5	TM 160 L4	96 - 97
	48.8	2879.1	28.7	0.7	19200	TH60 2 160B5	TM 160 L4	93 - 94
	52.5	2673.8	26.7	1.6	28200	TH80 2 160B5	TM 160 L4	96 - 97
	52.9	2651.5	26.4	2.6	31250	TH90 2 160B5	TM 160 L4	99 - 100
	54.0	2599.2	25.9	0.8	18500	TH60 2 160B5	TM 160 L4	93 - 94
	57.5	2439.8	24.3	2.8	30100	TH90 2 160B5	TM 160 L4	99 - 100
	57.8	2429.6	24.2	1.7	27500	TH80 2 160B5	TM 160 L4	96 - 97
	59.4	2362.4	23.6	0.9	17900	TH60 2 160B5	TM 160 L4	93 - 94
	63.2	2220.2	22.1	1.8	25500	TH80 2 160B5	TM 160 L4	96 - 97
	65.0	2161.0	21.6	3.1	29200	TH90 2 160B5	TM 160 L4	99 - 100
	65.0	2159.3	21.5	1.0	17200	TH60 2 160B5	TM 160 L4	93 - 94
	68.9	2038.8	20.3	2.0	24100	TH80 2 160B5	TM 160 L4	96 - 97
	70.4	1993.3	19.9	3.4	27500	TH90 2 160B5	TM 160 L4	99 - 100
	70.8	1983.4	19.8	1.1	15600	TH60 2 160B5	TM 160 L4	93 - 94
	74.2	1893.1	18.9	0.7	10300	TH50 2 160B5	TM 160 L4	90 - 91
	77.8	1804.8	18.0	2.2	22800	TH80 2 160B5	TM 160 L4	96 - 97
	81.3	1727.5	17.2	1.2	13800	TH60 2 160B5	TM 160 L4	93 - 94
	81.9	1713.7	17.1	3.9	26300	TH90 2 160B5	TM 160 L4	99 - 100
	91.5	1533.5	15.3	2.5	23600	TH80 2 160B5	TM 160 L4	96 - 97
	93.5	1500.7	15.0	0.9	9430	TH50 2 160B5	TM 160 L4	90 - 91
	95.6	1467.8	14.6	1.4	12100	TH60 2 160B5	TM 160 L4	93 - 94
	106.4	1319.3	13.2	2.7	22100	TH80 2 160B5	TM 160 L4	96 - 97
	108.4	1295.3	12.9	1.1	8530	TH50 2 160B5	TM 160 L4	90 - 91
	117.4	1195.7	11.9	1.8	9350	TH60 2 160B5	TM 160 L4	93 - 94
	118.1	1189.1	11.9	3.2	20400	TH80 2 160B5	TM 160 L4	96 - 97
	137.3	1022.2	10.2	1.3	7710	TH50 2 160B5	TM 160 L4	90 - 91
	138.2	1015.9	10.1	2.1	8750	TH60 2 160B5	TM 160 L4	93 - 94
	138.9	1010.3	10.1	3.6	19200	TH80 2 160B5	TM 160 L4	96 - 97
	160.6	874.0	8.7	2.4	7680	TH60 2 160B5	TM 160 L4	93 - 94
	161.4	870.0	8.7	1.5	7540	TH50 2 160B5	TM 160 L4	90 - 91
	174.2	805.9	8.0	1.5	7060	TH50 2 160B5	TM 160 L4	90 - 91
	197.8	709.6	7.1	2.7	7400	TH60 2 160B5	TM 160 L4	93 - 94

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
15	201.7	696.0	6.9	1.6	6850	TH50 2 160B5	TM 160 L4	90 - 91
	240.1	584.6	5.8	2.9	7350	TH60 2 160B5	TM 160 L4	93 - 94
	248.2	565.5	5.6	1.7	6550	TH50 2 160B5	TM 160 L4	90 - 91
	306.4	458.1	4.6	3.5	7100	TH60 2 160B5	TM 160 L4	93 - 94
	322.7	435.0	4.3	1.8	6100	TH50 2 160B5	TM 160 L4	90 - 91
	348.4	402.9	8.0	2.5	6000	TH50 2 160B5	TM 160 M2	90 - 91
	403.4	348.0	6.9	2.6	5620	TH50 2 160B5	TM 160 M2	90 - 91
	496.5	282.7	5.6	2.8	5420	TH50 2 160B5	TM 160 M2	90 - 91
	645.4	217.5	4.3	3.0	5250	TH50 2 160B5	TM 160 M2	90 - 91
18.5	16.3	10483.0	85.6	0.7	44000	TH90 3 180B5	TM 180 M4	99 - 100
	19.2	8907.2	72.8	0.9	44000	TH90 3 180B5	TM 180 M4	99 - 100
	20.3	8437.5	68.9	0.9	44000	TH90 3 180B5	TM 180 M4	99 - 100
	22.2	7710.5	63.0	1.0	44000	TH90 3 180B5	TM 180 M4	99 - 100
	24.2	7080.4	57.8	1.1	44000	TH90 3 180B5	TM 180 M4	99 - 100
	27.3	6267.9	51.2	1.2	42500	TH90 3 180B5	TM 180 M4	99 - 100
	27.4	6261.5	51.2	0.7	31000	TH80 3 180B5	TM 180 M4	96 - 97
	31.8	5387.0	44.0	0.8	31000	TH80 3 180B5	TM 180 M4	96 - 97
	32.2	5325.6	43.5	1.4	39200	TH90 3 180B5	TM 180 M4	99 - 100
	37.4	4581.8	37.4	1.7	34500	TH90 3 180B5	TM 180 M4	99 - 100
	37.6	4602.8	37.2	0.9	30500	TH80 2 180B5	TM 180 M4	96 - 97
	39.9	4337.9	35.1	1.6	34000	TH90 2 180B5	TM 180 M4	99 - 100
	42.4	4080.9	33.0	1.0	30000	TH80 2 180B5	TM 180 M4	96 - 97
	44.1	3922.6	31.7	1.8	32350	TH90 2 180B5	TM 180 M4	99 - 100
	47.4	3653.7	29.5	1.2	29000	TH80 2 180B5	TM 180 M4	96 - 97
	52.5	3297.7	26.7	1.3	28200	TH80 2 180B5	TM 180 M4	96 - 97
	52.9	3270.1	26.4	2.1	31250	TH90 2 180B5	TM 180 M4	99 - 100
	57.5	3009.1	24.3	2.3	30100	TH90 2 180B5	TM 180 M4	99 - 100
	57.8	2996.5	24.2	1.4	27500	TH80 2 180B5	TM 180 M4	96 - 97
	59.4	2913.6	23.6	0.7	17900	TH60 2 180B5	TM 180 M4	93 - 94
	63.2	2738.3	22.1	1.5	25500	TH80 2 180B5	TM 180 M4	96 - 97
	65.0	2665.2	21.6	2.5	29200	TH90 2 180B5	TM 180 M4	99 - 100
	65.0	2663.2	21.5	0.8	17200	TH60 2 180B5	TM 180 M4	93 - 94
	68.9	2514.5	20.3	1.6	24100	TH80 2 180B5	TM 180 M4	96 - 97
	70.4	2458.4	19.9	2.7	27500	TH90 2 180B5	TM 180 M4	99 - 100
	70.8	2446.2	19.8	0.9	15600	TH60 2 180B5	TM 180 M4	93 - 94
	77.8	2225.9	18.0	1.8	22800	TH80 2 180B5	TM 180 M4	96 - 97
	81.3	2130.5	17.2	1.0	13800	TH60 2 180B5	TM 180 M4	93 - 94
	81.9	2113.6	17.1	3.2	26300	TH90 2 180B5	TM 180 M4	99 - 100
	91.5	1891.3	15.3	2.0	23600	TH80 2 180B5	TM 180 M4	96 - 97
	93.5	1850.9	15.0	0.8	9430	TH50 2 180B5	TM 180 M4	90 - 91

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
18.5	94.2	1837.7	14.9	3.6	24200	TH90 2 180B5	TM 180 M4	99 - 100
	95.6	1810.3	14.6	1.2	12100	TH60 2 180B5	TM 180 M4	93 - 94
	106.4	1627.2	13.2	2.2	22100	TH80 2 180B5	TM 180 M4	96 - 97
	108.4	1597.5	12.9	0.9	8530	TH50 2 180B5	TM 180 M4	90 - 91
	117.4	1474.7	11.9	1.5	9350	TH60 2 180B5	TM 180 M4	93 - 94
	118.1	1466.5	11.9	2.6	20400	TH80 2 180B5	TM 180 M4	96 - 97
	137.3	1260.7	10.2	1.1	7710	TH50 2 180B5	TM 180 M4	90 - 91
	138.2	1253.0	10.1	1.7	8750	TH60 2 180B5	TM 180 M4	93 - 94
	138.9	1246.0	10.1	2.9	19200	TH80 2 180B5	TM 180 M4	96 - 97
	160.6	1078.0	8.7	1.9	7680	TH60 2 180B5	TM 180 M4	93 - 94
	161.4	1073.0	8.7	1.2	7540	TH50 2 180B5	TM 180 M4	90 - 91
	161.5	1072.0	8.7	3.5	17600	TH80 2 180B5	TM 180 M4	96 - 97
	174.2	993.9	8.0	1.2	7060	TH50 2 180B5	TM 180 M4	90 - 91
	197.8	875.1	7.1	2.2	7400	TH60 2 180B5	TM 180 M4	93 - 94
	201.7	858.4	6.9	1.3	6850	TH50 2 180B5	TM 180 M4	90 - 91
	240.1	721.0	5.8	2.4	7350	TH60 2 180B5	TM 180 M4	93 - 94
	248.2	697.4	5.6	1.4	6550	TH50 2 180B5	TM 180 M4	90 - 91
	306.4	565.0	4.6	2.8	7100	TH60 2 180B5	TM 180 M4	93 - 94
	322.7	536.5	4.3	1.4	6100	TH50 2 180B5	TM 180 M4	90 - 91
	323.0	536.0	8.7	5.8	13500	TH80 2 160B5	TM 160 L2	96 - 97
	348.4	497.0	8.0	2.0	6000	TH50 2 160B5	TM 160 L2	90 - 91
	395.7	437.6	7.1	3.7	6750	TH60 2 160B5	TM 160 L2	93 - 94
	397.9	435.1	7.0	6.1	13200	TH80 2 160B5	TM 160 L2	96 - 97
	403.4	429.2	6.9	2.1	5620	TH50 2 160B5	TM 160 L2	90 - 91
	480.3	360.5	5.8	4.0	5600	TH60 2 160B5	TM 160 L2	93 - 94
	483.0	358.5	5.8	6.7	12600	TH80 2 160B5	TM 160 L2	96 - 97
	496.5	348.7	5.6	2.2	5420	TH50 2 160B5	TM 160 L2	90 - 91
	612.8	282.5	4.6	4.3	5590	TH60 2 160B5	TM 160 L2	93 - 94
	616.3	280.9	4.5	7.6	12400	TH80 2 160B5	TM 160 L2	96 - 97
	645.4	268.2	4.3	2.5	5250	TH50 2 160B5	TM 160 L2	90 - 91
22	19.2	10592.3	72.8	0.7	44000	TH90 3 180B5	TM 180 L4	99 - 100
	20.3	10033.8	68.9	0.8	44000	TH90 3 180B5	TM 180 L4	99 - 100
	22.2	9169.2	63.0	0.8	44000	TH90 3 180B5	TM 180 L4	99 - 100
	24.2	8419.9	57.8	0.9	44000	TH90 3 180B5	TM 180 L4	99 - 100
	27.3	7453.7	51.2	1.0	42500	TH90 3 180B5	TM 180 L4	99 - 100
	31.8	6406.1	44.0	0.7	31000	TH80 3 180B5	TM 180 L4	96 - 97
	32.2	6333.2	43.5	1.2	39200	TH90 3 180B5	TM 180 L4	99 - 100
	37.4	5448.6	37.4	1.4	34500	TH90 3 180B5	TM 180 L4	99 - 100
	37.6	5473.5	37.2	0.8	30500	TH80 2 180B5	TM 180 L4	96 - 97
	39.9	5158.5	35.1	1.4	34000	TH90 2 180B5	TM 180 L4	99 - 100

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
22	42.4	4853.0	33.0	0.9	30000	TH80 2 180B5	TM 180 L4	96 - 97
	44.1	4664.8	31.7	1.5	32350	TH90 2 180B5	TM 180 L4	99 - 100
	47.4	4344.9	29.5	1.0	29000	TH80 2 180B5	TM 180 L4	96 - 97
	52.5	3921.6	26.7	1.1	28200	TH80 2 180B5	TM 180 L4	96 - 97
	52.9	3888.8	26.4	1.8	31250	TH90 2 180B5	TM 180 L4	99 - 100
	57.5	3578.4	24.3	1.9	30100	TH90 2 180B5	TM 180 L4	99 - 100
	57.8	3563.4	24.2	1.1	27500	TH80 2 180B5	TM 180 L4	96 - 97
	63.2	3256.3	22.1	1.2	25500	TH80 2 180B5	TM 180 L4	96 - 97
	65.0	3169.5	21.6	2.1	29200	TH90 2 180B5	TM 180 L4	99 - 100
	65.0	3167.0	21.5	0.7	17200	TH60 2 180B5	TM 180 L4	93 - 94
	68.9	2990.2	20.3	1.4	24100	TH80 2 180B5	TM 180 L4	96 - 97
	70.4	2923.5	19.9	2.3	27500	TH90 2 180B5	TM 180 L4	99 - 100
	70.8	2909.0	19.8	0.7	15600	TH60 2 180B5	TM 180 L4	93 - 94
	77.8	2647.1	18.0	1.5	22800	TH80 2 180B5	TM 180 L4	96 - 97
	81.3	2533.6	17.2	0.8	13800	TH60 2 180B5	TM 180 L4	93 - 94
	81.9	2513.4	17.1	2.7	26300	TH90 2 180B5	TM 180 L4	99 - 100
	91.5	2249.1	15.3	1.7	23600	TH80 2 180B5	TM 180 L4	96 - 97
	94.2	2185.4	14.9	3.0	24200	TH90 2 180B5	TM 180 L4	99 - 100
	95.6	2152.8	14.6	1.0	12100	TH60 2 180B5	TM 180 L4	93 - 94
	106.4	1935.0	13.2	1.8	22100	TH80 2 180B5	TM 180 L4	96 - 97
	108.6	1895.0	12.9	4.0	23800	TH90 2 180B5	TM 180 L4	99 - 100
	117.4	1753.7	11.9	1.2	9350	TH60 2 180B5	TM 180 L4	93 - 94
	118.1	1744.0	11.9	2.2	20400	TH80 2 180B5	TM 180 L4	96 - 97
	138.2	1490.1	10.1	1.4	8750	TH60 2 180B5	TM 180 L4	93 - 94
	138.9	1481.8	10.1	2.4	19200	TH80 2 180B5	TM 180 L4	96 - 97
	160.6	1281.9	8.7	1.6	7680	TH60 2 180B5	TM 180 L4	93 - 94
	161.5	1274.8	8.7	2.9	17600	TH80 2 180B5	TM 180 L4	96 - 97
	197.8	1040.7	7.1	1.8	7400	TH60 2 180B5	TM 180 L4	93 - 94
	198.9	1034.9	7.0	3.5	16800	TH80 2 180B5	TM 180 L4	96 - 97
	240.1	857.4	5.8	2.0	7350	TH60 2 180B5	TM 180 L4	93 - 94
	241.5	852.6	5.8	3.7	16300	TH80 2 180B5	TM 180 L4	96 - 97
	306.4	671.9	4.6	2.4	7100	TH60 2 180B5	TM 180 L4	93 - 94
	308.1	668.2	4.5	4.2	14200	TH80 2 180B5	TM 180 L4	96 - 97
	321.2	641.0	8.7	2.8	6850	TH60 2 180B5	TM 180 M2	93 - 94
	395.7	520.3	7.1	3.1	6750	TH60 2 180B5	TM 180 M2	93 - 94
	480.3	428.7	5.8	3.4	5600	TH60 2 180B5	TM 180 M2	93 - 94
	612.8	336.0	4.6	3.6	5590	TH60 2 180B5	TM 180 M2	93 - 94

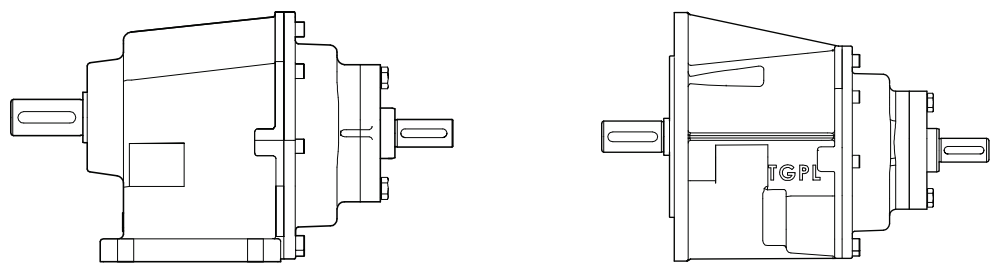
P1n [kW]	n2 [RPM]	M2n [Nm]	i	fs	Fr ₂ [N]			
30	24.2	11481.7	57.8	0.7	44000	TH90 3 200B5	TM 200 L4	99 - 100
	27.3	10164.1	51.2	0.8	42500	TH90 3 200B5	TM 200 L4	99 - 100
	32.2	8636.2	43.5	0.9	39200	TH90 3 200B5	TM 200 L4	99 - 100
	37.4	7429.9	37.4	1.0	34500	TH90 3 200B5	TM 200 L4	99 - 100
	39.9	7034.4	35.1	1.0	34000	TH90 2 200B5	TM 200 L4	99 - 100
	44.1	6361.0	31.7	1.1	32350	TH90 2 200B5	TM 200 L4	99 - 100
	47.4	5924.9	29.5	0.7	29000	TH80 2 200B5	TM 200 L4	96 - 97
	52.5	5347.6	26.7	0.8	28200	TH80 2 200B5	TM 200 L4	96 - 97
	52.9	5302.9	26.4	1.3	31250	TH90 2 200B5	TM 200 L4	99 - 100
	57.5	4879.7	24.3	1.4	30100	TH90 2 200B5	TM 200 L4	99 - 100
	57.8	4859.1	24.2	0.8	27500	TH80 2 200B5	TM 200 L4	96 - 97
	63.2	4440.4	22.1	0.9	25500	TH80 2 200B5	TM 200 L4	96 - 97
	65.0	4322.0	21.6	1.6	29200	TH90 2 200B5	TM 200 L4	99 - 100
	68.9	4077.6	20.3	1.0	24100	TH80 2 200B5	TM 200 L4	96 - 97
	70.4	3986.5	19.9	1.7	27500	TH90 2 200B5	TM 200 L4	99 - 100
	77.8	3609.6	18.0	1.1	22800	TH80 2 200B5	TM 200 L4	96 - 97
	81.9	3427.4	17.1	1.9	26300	TH90 2 200B5	TM 200 L4	99 - 100
	91.5	3067.0	15.3	1.3	23600	TH80 2 200B5	TM 200 L4	96 - 97
	94.2	2980.1	14.9	2.2	24200	TH90 2 200B5	TM 200 L4	99 - 100
	106.4	2638.6	13.2	1.4	22100	TH80 2 200B5	TM 200 L4	96 - 97
	108.6	2584.2	12.9	3.0	23800	TH90 2 200B5	TM 200 L4	99 - 100
	117.8	2383.6	11.9	3.2	23200	TH90 2 200B5	TM 200 L4	99 - 100
	118.1	2378.1	11.9	1.6	20400	TH80 2 200B5	TM 200 L4	96 - 97
	137.0	2049.3	10.2	3.6	22000	TH90 2 200B5	TM 200 L4	99 - 100
	138.9	2020.6	10.1	1.8	19200	TH80 2 200B5	TM 200 L4	96 - 97
	157.6	1781.8	8.9	3.7	21000	TH90 2 200B5	TM 200 L4	99 - 100
	161.5	1738.4	8.7	2.1	17600	TH80 2 200B5	TM 200 L4	96 - 97
	191.3	1467.9	7.3	3.9	19200	TH90 2 200B5	TM 200 L4	99 - 100
	198.9	1411.3	7.0	2.6	16800	TH80 2 200B5	TM 200 L4	96 - 97
	241.5	1162.6	5.8	2.7	16300	TH80 2 200B5	TM 200 L4	96 - 97
	242.5	1157.8	5.8	4.1	17300	TH90 2 200B5	TM 200 L4	99 - 100
	308.1	911.2	4.5	3.1	14200	TH80 2 200B5	TM 200 L4	96 - 97
	323.0	869.2	8.7	3.6	13500	TH80 2 200B5	TM 200 L2	96 - 97
	397.9	705.6	7.0	3.7	13200	TH80 2 200B5	TM 200 L2	96 - 97
	483.0	581.3	5.8	4.1	12600	TH80 2 200B5	TM 200 L2	96 - 97
	616.3	455.6	4.5	4.7	12400	TH80 2 200B5	TM 200 L2	96 - 97

P _{1n} [kW]	n ₂ [RPM]	M _{2n} [Nm]	i	f _s	Fr ₂ [N]			
37	32.2	10651.3	43.5	0.7	39200	TH90 3 225B5	TM 225 S4	99 - 100
	37.4	9163.5	37.4	0.8	34500	TH90 3 225B5	TM 225 S4	99 - 100
	39.9	8675.7	35.1	0.8	34000	TH90 2 225B5	TM 225 S4	99 - 100
	44.1	7845.3	31.7	0.9	32350	TH90 2 225B5	TM 225 S4	99 - 100
	52.9	6540.3	26.4	1.1	31250	TH90 2 225B5	TM 225 S4	99 - 100
	57.5	6018.3	24.3	1.1	30100	TH90 2 225B5	TM 225 S4	99 - 100
	65.0	5330.5	21.6	1.3	29200	TH90 2 225B5	TM 225 S4	99 - 100
	70.4	4916.7	19.9	1.4	27500	TH90 2 225B5	TM 225 S4	99 - 100
	81.9	4227.1	17.1	1.6	26300	TH90 2 225B5	TM 225 S4	99 - 100
	94.2	3675.5	14.9	1.8	24200	TH90 2 225B5	TM 225 S4	99 - 100
	108.6	3187.1	12.9	2.4	23800	TH90 2 225B5	TM 225 S4	99 - 100
	117.8	2939.7	11.9	2.6	23200	TH90 2 225B5	TM 225 S4	99 - 100
	137.0	2527.4	10.2	2.9	22000	TH90 2 225B5	TM 225 S4	99 - 100
	157.6	2197.6	8.9	3.0	21000	TH90 2 225B5	TM 225 S4	99 - 100
	191.3	1810.4	7.3	3.2	19200	TH90 2 225B5	TM 225 S4	99 - 100
	242.5	1427.9	5.8	3.4	17300	TH90 2 225B5	TM 225 S4	99 - 100
	302.6	1144.2	4.6	3.5	15200	TH90 2 225B5	TM 225 S4	99 - 100
	315.1	1098.8	8.9	4.2	17200	TH90 2 200B5	TM 200 L2	99 - 100
	382.5	905.2	7.3	4.7	16500	TH90 2 200B5	TM 200 L2	99 - 100
	485.0	714.0	5.8	5.5	15700	TH90 2 200B5	TM 200 L2	99 - 100
	605.3	572.1	4.6	5.9	14200	TH90 2 200B5	TM 200 L2	99 - 100
45	37.4	11144.8	37.4	0.7	34500	TH90 3 225B5	TM 225 M4	99 - 100
	39.9	10551.5	35.1	0.7	34000	TH90 2 225B5	TM 225 M4	99 - 100
	44.1	9541.5	31.7	0.7	32350	TH90 2 225B5	TM 225 M4	99 - 100
	52.9	7954.4	26.4	0.9	31250	TH90 2 225B5	TM 225 M4	99 - 100
	57.5	7319.5	24.3	0.9	30100	TH90 2 225B5	TM 225 M4	99 - 100
	65.0	6483.0	21.6	1.0	29200	TH90 2 225B5	TM 225 M4	99 - 100
	70.4	5979.8	19.9	1.1	27500	TH90 2 225B5	TM 225 M4	99 - 100
	81.9	5141.1	17.1	1.3	26300	TH90 2 225B5	TM 225 M4	99 - 100
	94.2	4470.1	14.9	1.5	24200	TH90 2 225B5	TM 225 M4	99 - 100
	108.6	3876.2	12.9	2.0	23800	TH90 2 225B5	TM 225 M4	99 - 100
	117.8	3575.4	11.9	2.1	23200	TH90 2 225B5	TM 225 M4	99 - 100
	137.0	3073.9	10.2	2.4	22000	TH90 2 225B5	TM 225 M4	99 - 100
	157.6	2672.7	8.9	2.5	21000	TH90 2 225B5	TM 225 M4	99 - 100
	191.3	2201.8	7.3	2.6	19200	TH90 2 225B5	TM 225 M4	99 - 100
	242.5	1736.7	5.8	2.8	17300	TH90 2 225B5	TM 225 M4	99 - 100
	302.6	1391.6	4.6	2.9	15200	TH90 2 225B5	TM 225 M4	99 - 100
	315.1	1336.4	8.9	3.5	17200	TH90 2 225B5	TM 225 M2	99 - 100
	382.5	1100.9	7.3	3.9	16500	TH90 2 225B5	TM 225 M2	99 - 100
	485.0	868.3	5.8	4.5	15700	TH90 2 225B5	TM 225 M2	99 - 100
	605.3	695.8	4.6	4.8	14200	TH90 2 225B5	TM 225 M2	99 - 100

[illegible]

TH - [ISS]

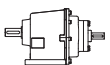
Performance Parameter



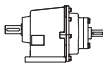
SYMBOLS AND UNITS OF MEASURE

	i	n_2 [r/min]	M_{2n} [Nm]	P_{1n} [kW]	F_{r1} [N]	F_{r2} [N]	
Gear Unit Size	Gear unit ratio	Output speed	Rated output torque	Rated power driving motor	Input Shaft radial load	Output Shaft radial load	Page number - Dimension details

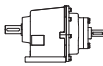
13.2 TH..ISS.. Performance Parameter

TH16												70Nm
	i	n ₁ =2800[r/min]					n ₁ =1400[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH16 2	4.5	628	30	2.0	350	300	314	34	1.2	350	370	74
TH16 2	5.4	522	33	1.8	360	330	261	36	1.0	380	420	74
TH16 2	6.5	429	36	1.6	370	350	215	40	0.9	400	440	74
TH16 2	7.6	367	39	1.5	400	370	183	44	0.9	400	470	74
TH16 2	9.6	292	40	1.2	420	380	146	52	0.8	425	480	74
TH16 2	11.6	242	46	1.2	420	400	121	59	0.8	470	500	74
TH16 2	13.3	211	47	1.1	450	430	105	64	0.7	525	520	74
TH16 2	15.5	181	50	1.0	470	450	91	70	0.7	600	530	74
TH16 2	18.3	153	53	0.9	510	480	76	70	0.6	630	580	74
TH16 2	20.5	136	53	0.8	530	510	68	70	0.5	700	600	74
TH16 2	27.4	102	66	0.7	560	540	51	70	0.4	710	640	74
TH16 2	32.5	86	68	0.6	570	570	43	70	0.3	710	680	74
TH16 2	35.7	79	69	0.6	570	610	39	70	0.3	710	740	74
TH16 2	39.4	71	70	0.5	580	630	36	70	0.3	710	780	74
TH16 2	43.9	64	70	0.5	580	650	32	70	0.2	710	810	74
	i	n ₁ =900[r/min]					n ₁ =500[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH16 2	4.5	202	44	1.0	530	400	112	64	0.8	710	430	74
TH16 2	5.4	168	48	0.9	600	430	93	67	0.7	710	480	74
TH16 2	6.5	138	55	0.8	630	460	77	67	0.6	710	520	74
TH16 2	7.6	118	57	0.7	700	500	66	62	0.4	710	580	74
TH16 2	9.6	94	70	0.7	700	520	52	70	0.4	710	650	74
TH16 2	11.6	78	70	0.6	710	540	43	70	0.3	710	720	74
TH16 2	13.3	68	70	0.5	710	580	38	70	0.3	710	800	74
TH16 2	15.5	58	70	0.4	710	630	32	70	0.2	710	850	74
TH16 2	18.3	49	70	0.4	710	680	27	70	0.2	710	920	74
TH16 2	20.5	44	70	0.3	710	720	24	70	0.2	710	1000	74
TH16 2	27.4	33	70	0.2	710	780	18	70	0.1	710	1050	74
TH16 2	32.5	28	70	0.2	710	830	15	70	0.1	710	1150	74
TH16 2	35.7	25	70	0.2	710	880	14	70	0.1	710	1220	74
TH16 2	39.4	23	70	0.2	710	920	13	70	0.1	710	1300	74
TH16 2	43.9	21	70	0.2	710	980	11	70	0.1	710	1360	74

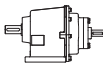
13.2 TH..ISS.. Performance Parameter

TH20												120Nm
	i	n ₁ =2800[r/min]					n ₁ =1400[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH20 2	3.6	778	36	3.0	700	1100	389	42	1.7	910	1400	77
TH20 2	4.6	613	35	2.3	720	1150	306	50	1.6	940	1400	77
TH20 2	5.5	509	39	2.1	750	1150	254	57	1.5	980	1400	77
TH20 2	7.7	365	47	1.8	780	1200	182	71	1.4	1010	1450	77
TH20 2	8.9	315	50	1.7	810	1200	158	77	1.3	1260	1450	77
TH20 2	11.3	248	58	1.5	830	1250	124	93	1.2	1300	1480	77
TH20 2	12.3	227	59	1.4	870	1280	113	89	1.1	1300	1550	77
TH20 2	14.4	194	65	1.3	940	1320	97	97	1.0	1300	1600	77
TH20 2	16.7	168	67	1.2	1010	1340	84	105	0.9	1300	1650	77
TH20 2	21.2	132	75	1.1	1060	1380	66	112	0.8	1300	1750	77
TH20 2	23.1	121	74	1.0	1090	1400	60	111	0.7	1300	1810	77
TH20 2	25.4	110	77	0.9	1120	1430	55	112	0.7	1300	1900	77
TH20 2	28.0	100	81	0.9	1160	1480	50	113	0.6	1300	2050	77
TH20 2	31.1	90	85	0.8	1170	1550	45	114	0.5	1300	2100	77
TH20 2	34.8	80	89	0.8	1190	1760	40	114	0.5	1300	2100	77
TH20 2	39.3	71	95	0.7	1190	1790	36	116	0.4	1300	2100	77
TH20 2	45.0	62	99	0.7	1190	1810	31	118	0.4	1300	2100	77
TH20 3	50.2	56	116	0.7	1200	2150	27	120	0.4	1300	2300	77
TH20 3	57.7	49	117	0.6	1200	2250	24	120	0.3	1300	2300	77
TH20 3	67.2	42	117	0.5	1200	2300	20	120	0.3	1300	2300	77
TH20 3	79.5	35	116	0.4	1200	2300	17	120	0.2	1300	2300	77
TH20 3	87.3	32	117	0.4	1200	2300	16	120	0.2	1300	2300	77
TH20 3	96.4	29	117	0.4	1200	2300	14	120	0.2	1300	2300	77
TH20 3	108.2	26	118	0.3	1200	2300	12	120	0.2	1300	2300	77
TH20 3	125.9	22	117	0.3	1200	2300	11	120	0.1	1300	2300	77
TH20 3	149.1	19	118	0.2	1200	2300	9	120	0.1	1300	2300	77
TH20 3	163.6	17	120	0.2	1200	2300	8	120	0.1	1300	2300	77
TH20 3	180.8	15	118	0.2	1200	2300	7	120	0.1	1300	2300	77
TH20 3	201.3	14	119	0.2	1200	2300	7	120	0.1	1300	2300	77

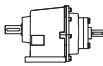
13.2 TH..ISS.. Performance Parameter

TH20												120Nm
	i	n ₁ =900[r/min]					n ₁ =500[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH20 2	3.6	250	50	1.3	980	1650	139	78	1.2	1300	1750	77
TH20 2	4.6	197	59	1.2	1010	1850	109	82	1.0	1300	1780	77
TH20 2	5.5	164	60	1.1	1040	1850	91	89	0.9	1300	1780	77
TH20 2	7.7	117	73	0.9	1250	1900	65	117	0.8	1300	1950	77
TH20 2	8.9	101	75	0.8	1300	1920	56	120	0.7	1300	1980	77
TH20 2	11.3	80	85	0.7	1300	1980	44	120	0.6	1300	2040	77
TH20 2	12.3	73	86	0.7	1300	2000	41	120	0.5	1300	2080	77
TH20 2	14.4	63	93	0.6	1300	2050	35	120	0.4	1300	2150	77
TH20 2	16.7	54	100	0.6	1300	2300	30	120	0.4	1300	2300	77
TH20 2	21.2	42	114	0.5	1300	2300	24	120	0.3	1300	2300	77
TH20 2	23.1	39	116	0.5	1300	2300	22	120	0.3	1300	2300	77
TH20 2	25.4	35	117	0.4	1300	2300	20	120	0.3	1300	2300	77
TH20 2	28.0	32	117	0.4	1300	2300	18	120	0.2	1300	2300	77
TH20 2	31.1	29	118	0.4	1300	2300	16	120	0.2	1300	2300	77
TH20 2	34.8	26	118	0.3	1300	2300	14	120	0.2	1300	2300	77
TH20 2	39.3	23	118	0.3	1300	2300	13	120	0.2	1300	2300	77
TH20 2	45.0	20	117	0.3	1300	2300	11	120	0.1	1300	2300	77
TH20 3	50.2	18	117	0.2	1300	2300	10	120	0.1	1300	2300	77
TH20 3	57.7	16	119	0.2	1300	2300	9	120	0.1	1300	2300	77
TH20 3	67.2	13	118	0.2	1300	2300	7	120	0.1	1300	2300	77
TH20 3	79.5	11	120	0.1	1300	2300	6	120	0.1	1300	2300	77
TH20 3	87.3	10	120	0.1	1300	2300	6	120	0.1	1300	2300	77
TH20 3	96.4	9	120	0.1	1300	2300	5	120	0.1	1300	2300	77
TH20 3	108.2	8	120	0.1	1300	2300	5	120	0.1	1300	2300	77
TH20 3	125.9	7	120	0.1	1300	2300	4	120	0.1	1300	2300	77
TH20 3	149.1	6	120	0.1	1300	2300	3	120	0.1	1300	2300	77
TH20 3	163.6	5	120	0.1	1300	2300	3	120	0.1	1300	2300	77
TH20 3	180.8	5	120	0.1	1300	2300	3	120	0.1	1300	2300	77
TH20 3	201.3	4	120	0.1	1300	2300	2	120	0.1	1300	2300	77

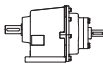
13.2 TH..ISS.. Performance Parameter

TH25												200Nm
	i	n ₁ =2800[r/min]					n ₁ =1400[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH25 2	3.8	731	63	4.9	850	1250	366	87	3.4	850	1650	80
TH25 2	5.0	562	73	4.4	850	1360	281	105	3.2	850	1710	80
TH25 2	6.6	425	93	4.2	900	1520	212	139	3.2	900	1890	80
TH25 2	7.9	354	100	3.8	950	1550	177	153	2.9	950	1980	80
TH25 2	9.0	311	108	3.6	1100	1620	156	150	2.5	1100	2100	80
TH25 2	10.3	271	114	3.3	1150	1720	135	152	2.2	1150	2230	80
TH25 2	12.0	233	120	3.0	1150	1860	117	165	2.1	1150	2350	80
TH25 2	14.9	188	134	2.7	1200	1920	94	182	1.8	1200	2450	80
TH25 2	17.0	165	136	2.4	1200	2010	83	189	1.7	1200	2560	80
TH25 2	19.5	144	137	2.1	1250	2120	72	199	1.5	1250	2760	80
TH25 2	22.6	124	144	1.9	1250	2220	62	200	1.3	1250	2810	80
TH25 2	26.7	105	152	1.7	1250	2370	52	200	1.1	1250	3090	80
TH25 2	32.1	87	166	1.6	1250	2560	44	200	0.9	1250	3250	80
TH25 2	35.5	79	166	1.4	1250	2650	39	200	0.8	1250	3550	80
TH25 2	39.7	71	163	1.2	1250	2850	35	200	0.8	1250	3720	80
TH25 2	44.7	63	158	1.1	1250	2900	31	200	0.7	1250	3940	80
TH25 2	51.0	55	167	1.0	1250	2900	27	200	0.6	1250	3940	80
TH25 3	53.1	52	167	1.0	1300	3220	26	200	0.6	1300	4320	80
TH25 3	58.6	47	155	0.8	1300	3350	23	200	0.5	1300	4400	80
TH25 3	65.1	43	153	0.7	1300	3450	21	200	0.5	1300	4760	80
TH25 3	72.8	38	154	0.6	1300	3650	19	200	0.4	1300	4920	80
TH25 3	82.3	34	153	0.6	1300	3760	17	200	0.4	1300	5000	80
TH25 3	91.3	30	145	0.5	1300	3870	15	200	0.3	1300	5000	80
TH25 3	100.2	28	136	0.4	1300	4150	14	200	0.3	1300	5000	80
TH25 3	110.5	25	139	0.4	1300	4450	12	200	0.3	1300	5000	80
TH25 3	122.7	22	134	0.3	1300	5000	11	200	0.2	1300	5000	80
TH25 3	137.3	20	132	0.3	1300	5000	10	200	0.2	1300	5000	80
TH25 3	155.2	18	134	0.3	1300	5000	9	200	0.2	1300	5000	80
TH25 3	177.6	15	135	0.2	1300	5000	7	200	0.2	1300	5000	80

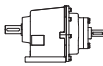
13.2 TH..ISS.. Performance Parameter

TH25												200Nm
	i	n ₁ =900[r/min]					n ₁ =500[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH25 2	3.8	235	104	2.6	980	1750	131	129	1.8	980	2350	80
TH25 2	5.0	181	134	2.6	1010	1980	100	164	1.8	1010	2650	80
TH25 2	6.6	137	173	2.5	1210	2160	76	196	1.6	1210	2660	80
TH25 2	7.9	114	197	2.4	1260	2320	63	200	1.4	1260	2760	80
TH25 2	9.0	100	197	2.1	1300	2420	56	200	1.2	1300	2940	80
TH25 2	10.3	87	198	1.8	1300	2560	48	199	1.0	1300	3250	80
TH25 2	12.0	75	199	1.6	1300	2710	42	200	0.9	1300	3450	80
TH25 2	14.9	60	183	1.2	1300	2860	34	187	0.7	1300	3720	80
TH25 2	17.0	53	185	1.0	1300	3160	29	189	0.6	1300	3860	80
TH25 2	19.5	46	187	0.9	1300	3350	26	193	0.5	1300	4050	80
TH25 2	22.6	40	188	0.8	1300	3450	22	195	0.5	1300	4460	80
TH25 2	26.7	34	189	0.7	1300	3760	19	197	0.4	1300	4900	80
TH25 2	32.1	28	189	0.6	1300	4150	16	196	0.3	1300	5000	80
TH25 2	35.5	25	188	0.5	1300	4350	14	193	0.3	1300	5000	80
TH25 2	39.7	23	190	0.5	1300	4650	13	200	0.3	1300	5000	80
TH25 2	44.7	20	191	0.4	1300	4750	11	199	0.2	1300	5000	80
TH25 2	51.0	18	199	0.4	1300	4780	10	199	0.2	1300	5000	80
TH25 3	53.1	17	197	0.4	1300	5000	9	197	0.2	1300	5000	80
TH25 3	58.6	15	175	0.3	1300	5000	8	195	0.2	1300	5000	80
TH25 3	65.1	14	167	0.3	1300	5000	7	199	0.2	1300	5000	80
TH25 3	72.8	12	180	0.2	1300	5000	6	189	0.1	1300	5000	80
TH25 3	82.3	11	195	0.2	1300	5000	6	183	0.1	1300	5000	80
TH25 3	91.3	10	197	0.2	1300	5000	5	186	0.1	1300	5000	80
TH25 3	100.2	9	196	0.2	1300	5000	5	186	0.1	1300	5000	80
TH25 3	110.5	8	192	0.2	1300	5000	4	192	0.1	1300	5000	80
TH25 3	122.7	7	190	0.2	1300	5000	4	190	0.1	1300	5000	80
TH25 3	137.3	7	173	0.1	1300	5000	3	184	0.1	1300	5000	80
TH25 3	155.2	6	165	0.1	1300	5000	3	176	0.1	1300	5000	80
TH25 3	177.6	5	164	0.1	1300	5000	2	164	0.1	1300	5000	80

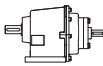
13.2 TH..ISS.. Performance Parameter

TH30												300Nm
	i	n ₁ =2800[r/min]					n ₁ =1400[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH30 2	3.6	777	119	9.9	560	1830	388	148	6.1	940	2850	83
TH30 2	5.1	551	143	8.4	470	1990	275	202	5.9	1100	2850	83
TH30 2	6.1	459	153	7.5	300	2130	230	210	5.2	1450	2900	83
TH30 2	7.9	353	184	6.9	1870	2480	177	246	4.7	2200	2950	83
TH30 2	9.2	306	179	5.8	1910	2580	153	230	3.8	2200	3500	83
TH30 2	10.7	262	198	5.5	1800	2700	131	248	3.5	2200	3600	83
TH30 2	12.6	222	213	5.0	1910	2820	111	268	3.2	2200	3750	83
TH30 2	15.0	187	228	4.6	1880	3000	94	300	3.0	2200	3850	83
TH30 2	17.3	162	234	4.1	1900	3100	81	300	2.6	2200	4200	83
TH30 2	20.1	139	246	3.7	1900	3290	70	300	2.2	2200	4500	83
TH30 2	23.8	118	260	3.3	1900	3560	59	300	1.9	2200	4700	83
TH30 2	28.8	97	276	2.9	1900	3770	49	300	1.6	2200	5000	83
TH30 2	31.9	88	295	2.8	1900	3850	44	300	1.4	2200	5200	83
TH30 2	35.7	79	300	2.5	1900	4030	39	300	1.3	2200	5200	83
TH30 2	40.3	70	300	2.2	1900	4050	35	300	1.1	2200	5200	83
TH30 3	41.8	67	300	2.2	1010	4160	33	300	1.1	1300	5500	83
TH30 3	48.0	58	300	1.9	1030	4420	29	300	0.9	1300	5500	83
TH30 3	55.8	50	300	1.6	1060	4650	25	300	0.8	1300	5500	83
TH30 3	65.7	42	300	1.4	1120	5500	21	300	0.7	1300	5500	83
TH30 3	78.8	35	300	1.2	1180	5500	17	300	0.6	1300	5500	83
TH30 3	90.5	30	300	1.0	1200	5500	15	300	0.5	1300	5500	83
TH30 3	105.1	26	300	0.9	1200	5500	13	300	0.4	1300	5500	83
TH30 3	123.9	22	300	0.7	1300	5500	11	300	0.4	1300	5500	83
TH30 3	149.1	18	300	0.6	1300	5500	9	300	0.3	1300	5500	83
TH30 3	165.0	17	300	0.5	1300	5500	8	300	0.3	1300	5500	83
TH30 3	184.2	15	300	0.5	1300	5500	7	300	0.2	1300	5500	83
TH30 3	207.6	13	300	0.4	1300	5500	6	300	0.2	1300	5500	83
TH30 3	236.9	12	342	0.4	1300	5500	6	342	0.2	1300	5500	83

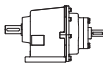
13.2 TH..ISS.. Performance Parameter

TH30												300Nm
	i	n ₁ =900[r/min]					n ₁ =500[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH30 2	3.6	250	156	4.2	1500	2790	139	194	2.9	2200	3480	83
TH30 2	5.1	177	173	3.3	1700	3210	98	226	2.4	2200	3790	83
TH30 2	6.1	148	182	2.9	2200	3350	82	237	2.1	2200	4120	83
TH30 2	7.9	113	261	3.2	2200	3400	63	294	2.0	2200	4410	83
TH30 2	9.2	98	264	2.8	2200	3750	55	300	1.8	2200	4640	83
TH30 2	10.7	84	286	2.6	2200	3930	47	300	1.5	2200	4990	83
TH30 2	12.6	71	299	2.3	2200	4120	40	300	1.3	2200	5250	83
TH30 2	15.0	60	292	1.9	2200	4210	33	300	1.1	2200	5500	83
TH30 2	17.3	52	300	1.7	2200	4780	29	300	0.9	2200	5500	83
TH30 2	20.1	45	300	1.4	2200	5030	25	300	0.8	2200	5500	83
TH30 2	23.8	38	300	1.2	2200	5200	21	300	0.7	2200	5500	83
TH30 2	28.8	31	300	1.0	2200	5500	17	300	0.6	2200	5500	83
TH30 2	31.9	28	300	0.9	2200	5500	16	300	0.5	2200	5500	83
TH30 2	35.7	25	300	0.8	2200	5500	14	300	0.4	2200	5500	83
TH30 2	40.3	22	300	0.7	2200	5500	12	300	0.4	2200	5500	83
TH30 3	41.8	22	300	0.7	1300	5500	12	300	0.4	1300	5500	83
TH30 3	48.0	19	300	0.6	1300	5500	10	300	0.3	1300	5500	83
TH30 3	55.8	16	300	0.5	1300	5500	9	300	0.3	1300	5500	83
TH30 3	65.7	14	300	0.4	1300	5500	8	300	0.2	1300	5500	83
TH30 3	78.8	11	300	0.4	1300	5500	6	300	0.2	1300	5500	83
TH30 3	90.5	10	300	0.3	1300	5500	6	300	0.2	1300	5500	83
TH30 3	105.1	9	300	0.3	1300	5500	5	300	0.2	1300	5500	83
TH30 3	123.9	7	300	0.2	1300	5500	4	300	0.1	1300	5500	83
TH30 3	149.1	6	300	0.2	1300	5500	3	300	0.1	1300	5500	83
TH30 3	165.0	5	300	0.2	1300	5500	3	300	0.1	1300	5500	83
TH30 3	184.2	5	300	0.2	1300	5500	3	300	0.1	1300	5500	83
TH30 3	207.6	4	300	0.1	1300	5500	2	300	0.1	1300	5500	83
TH30 3	236.9	4	317	0.1	1300	5500	2	439	0.1	1300	5500	83

13.2 TH..ISS.. Performance Parameter

TH35												560Nm
	i	n ₁ =2800[r/min]					n ₁ =1400[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH35 2	3.7	764	267	21.8	1050	1450	382	269	11.0	1850	2210	86
TH35 2	5.0	559	302	18.0	1160	1850	280	291	8.7	2550	2650	86
TH35 2	6.1	459	305	15.0	2250	2050	229	327	8.0	2620	3100	86
TH35 2	7.0	399	300	12.8	2300	2650	199	367	7.8	2900	3380	86
TH35 2	8.1	344	318	11.7	2330	2800	172	383	7.0	3010	3550	86
TH35 2	8.8	318	317	10.8	2390	2950	159	396	6.7	3050	3750	86
TH35 2	10.4	270	336	9.7	2450	3050	135	433	6.2	3100	3800	86
TH35 2	12.4	225	371	8.9	2460	3250	112	428	5.2	3120	4120	86
TH35 2	14.4	194	378	7.8	2470	3400	97	401	4.2	3180	4300	86
TH35 2	18.4	152	420	6.8	2480	3610	76	438	3.6	3200	4760	86
TH35 2	22.1	127	438	5.9	2500	3950	63	452	3.1	3230	5100	86
TH35 2	24.4	115	451	5.5	2550	4150	57	468	2.9	3230	5420	86
TH35 2	27.1	103	457	5.1	2550	4290	52	465	2.6	3250	5660	86
TH35 2	30.3	92	461	4.6	2550	4550	46	461	2.3	3300	5750	86
TH35 2	34.3	82	470	4.1	2550	4560	41	477	2.1	3320	6170	86
TH35 2	39.3	71	518	4.0	2550	4600	36	504	1.9	3350	6200	86
TH35 3	42.3	66	532	3.8	3050	4900	33	521	1.9	3500	6450	86
TH35 3	49.3	56	534	3.3	3050	5150	28	528	1.6	3500	6650	86
TH35 3	58.4	48	536	2.8	3050	5360	24	530	1.4	3500	7000	86
TH35 3	70.4	39	537	2.3	3050	5550	20	512	1.1	3500	7000	86
TH35 3	87.5	32	482	1.7	3050	6000	16	482	0.8	3500	7000	86
TH35 3	103.6	27	490	1.4	3050	6300	14	484	0.7	3500	7000	86
TH35 3	125.0	22	511	1.2	3050	6700	11	494	0.6	3500	7000	86
TH35 3	138.6	20	494	1.1	3050	7000	10	494	0.5	3500	7000	86
TH35 3	155.0	18	503	1.0	3050	7000	9	492	0.5	3500	7000	86
TH35 3	175.0	16	475	0.8	3050	7000	8	463	0.4	3500	7000	86

13.2 TH..ISS.. Performance Parameter

TH35												560Nm
	i	n ₁ =900[r/min]					n ₁ =500[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH35 2	3.7	246	290	7.6	2650	3100	136	292	4.3	3500	3960	86
TH35 2	5.0	180	330	6.3	2850	3210	100	371	4.0	3500	4350	86
TH35 2	6.1	147	383	6.0	3300	3550	82	430	3.8	3500	4520	86
TH35 2	7.0	128	419	5.7	3360	3860	71	468	3.6	3500	4720	86
TH35 2	8.1	111	444	5.3	3450	3980	61	498	3.3	3500	5150	86
TH35 2	8.8	102	444	4.9	3500	4160	57	522	3.2	3500	5280	86
TH35 2	10.4	87	481	4.5	3500	4350	48	548	2.8	3500	2750	86
TH35 2	12.4	72	525	4.1	3500	4710	40	549	2.4	3500	6320	86
TH35 2	14.4	62	476	3.2	3500	5050	35	492	1.8	3500	6750	86
TH35 2	18.4	49	483	2.5	3500	5450	27	498	1.4	3500	7000	86
TH35 2	22.1	41	487	2.1	3500	6320	23	499	1.2	3500	7000	86
TH35 2	24.4	37	492	1.9	3500	6650	21	506	1.1	3500	7000	86
TH35 2	27.1	33	493	1.8	3500	7000	18	507	1.0	3500	7000	86
TH35 2	30.3	30	496	1.6	3500	7000	16	511	0.9	3500	7000	86
TH35 2	34.3	26	502	1.4	3500	7000	15	516	0.8	3500	7000	86
TH35 2	39.3	23	551	1.4	3500	7000	13	522	0.7	3500	7000	86
TH35 3	42.3	21	546	1.3	3500	7000	12	553	0.7	3500	7000	86
TH35 3	49.3	18	552	1.1	3500	7000	10	555	0.6	3500	7000	86
TH35 3	58.4	15	553	0.9	3500	7000	9	551	0.5	3500	7000	86
TH35 3	70.4	13	554	0.8	3500	7000	7	550	0.4	3500	7000	86
TH35 3	87.5	10	521	0.6	3500	7000	6	540	0.3	3500	7000	86
TH35 3	103.6	9	522	0.5	3500	7000	5	526	0.3	3500	7000	86
TH35 3	125.0	7	530	0.4	3500	7000	4	522	0.2	3500	7000	86
TH35 3	138.6	6	531	0.4	3500	7000	4	554	0.2	3500	7000	86
TH35 3	155.0	6	516	0.3	3500	7000	3	535	0.2	3500	7000	86
TH35 3	175.0	5	468	0.3	3500	7000	3	528	0.2	3500	7000	86

13.2 TH..ISS.. Performance Parameter

TH40												940Nm
	i	n ₁ =2800[r/min]					n ₁ =1400[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH40 2	4.4	638	392	26.7	1150	4010	319	485	16.5	2010	5360	89
TH40 2	5.6	496	448	23.8	1290	4360	248	545	14.5	2400	5650	89
TH40 2	6.9	406	502	21.8	2250	4750	203	619	13.4	2850	5980	89
TH40 2	7.4	378	514	20.8	2280	4900	189	625	12.6	2880	6050	89
TH40 2	8.6	327	567	19.8	2310	5100	163	670	11.7	2900	6680	89
TH40 2	10.0	279	605	18.0	2310	5310	139	688	10.3	3010	7560	89
TH40 2	11.9	235	675	16.9	2360	5890	117	750	9.4	3070	8150	89
TH40 2	13.4	209	727	16.2	2360	6100	104	763	8.5	3100	8550	89
TH40 2	15.7	178	707	13.5	2390	6320	89	780	7.4	3120	9560	89
TH40 2	18.7	150	716	11.5	2390	6580	75	778	6.2	3150	10000	89
TH40 2	20.5	137	738	10.8	2410	7100	68	786	5.7	3180	10000	89
TH40 2	22.6	124	755	10.0	2410	7160	62	792	5.2	3250	10000	89
TH40 2	24.6	114	766	9.3	2450	7550	57	799	4.9	3400	10000	89
TH40 2	27.1	103	771	8.5	2460	7680	52	807	4.5	3500	10000	89
TH40 2	30.0	93	775	7.7	2480	7810	47	811	4.0	3500	10000	89
TH40 2	33.5	84	776	6.9	2510	8150	42	816	3.6	3500	10000	89
TH40 2	37.8	74	788	6.2	2510	8350	37	823	3.3	3500	10000	89
TH40 3	39.4	71	792	6.1	2760	9530	36	818	3.1	3500	10000	89
TH40 3	42.6	65	829	5.9	2810	10000	33	856	3.0	3500	10000	89
TH40 3	50.3	55	834	5.0	2840	10000	28	880	2.6	3500	10000	89
TH40 3	60.3	46	840	4.2	2860	10000	23	906	2.3	3500	10000	89
TH40 3	66.5	42	841	3.8	2990	10000	21	906	2.1	3500	10000	89
TH40 3	78.6	35	808	3.1	3010	10000	18	841	1.6	3500	10000	89
TH40 3	94.3	29	816	2.6	3030	10000	15	850	1.4	3500	10000	89
TH40 3	104.1	26	820	2.4	3060	10000	13	850	1.2	3500	10000	89
TH40 3	115.6	24	825	2.2	3100	10000	12	855	1.1	3500	10000	89
TH40 3	129.5	21	827	1.9	3100	10000	11	865	1.0	3500	10000	89
TH40 3	146.5	19	836	1.7	3100	10000	10	874	0.9	3500	10000	89
TH40 3	167.7	16	838	1.5	3100	10000	8	832	0.8	3500	10000	89

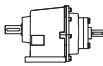
13.2 TH..ISS.. Performance Parameter

TH40												940Nm
	i	n ₁ =900[r/min]					n ₁ =500[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH40 2	4.4	205	470	10.3	2900	6300	114	496	6.0	3500	8100	89
TH40 2	5.6	159	587	10.0	3080	6850	89	575	5.4	3500	8400	89
TH40 2	6.9	130	689	9.6	3310	6950	72	639	5.0	3500	8760	89
TH40 2	7.4	122	716	9.3	3450	7200	68	645	4.7	3500	9150	89
TH40 2	8.6	105	794	8.9	3480	7400	58	699	4.4	3500	9680	89
TH40 2	10.0	90	868	8.3	3500	7780	50	763	4.1	3500	10000	89
TH40 2	11.9	75	847	6.8	3500	8900	42	818	3.7	3500	10000	89
TH40 2	13.4	67	786	5.6	3500	9450	37	820	3.3	3500	10000	89
TH40 2	15.7	57	792	4.9	3500	9800	32	830	2.8	3500	10000	89
TH40 2	18.7	48	807	4.2	3500	10000	27	840	2.4	3500	10000	89
TH40 2	20.5	44	813	3.8	3500	10000	24	842	2.2	3500	10000	89
TH40 2	22.6	40	821	3.5	3500	10000	22	850	2.0	3500	10000	89
TH40 2	24.6	37	827	3.2	3500	10000	20	854	1.9	3500	10000	89
TH40 2	27.1	33	829	2.9	3500	10000	18	849	1.7	3500	10000	89
TH40 2	30.0	30	831	2.7	3500	10000	17	862	1.5	3500	10000	89
TH40 2	33.5	27	838	2.4	3500	10000	15	863	1.4	3500	10000	89
TH40 2	37.8	24	844	2.1	3500	10000	13	875	1.2	3500	10000	89
TH40 3	39.42	23	910	2.2	3500	10000	13	923	1.3	3500	10000	89
TH40 3	42.60	21	907	2.1	3500	10000	12	928	1.2	3500	10000	89
TH40 3	50.25	18	912	1.8	3500	10000	10	912	1.0	3500	10000	89
TH40 3	60.26	15	918	1.5	3500	10000	8	930	0.8	3500	10000	89
TH40 3	66.51	14	912	1.3	3500	10000	8	906	0.7	3500	10000	89
TH40 3	78.63	11	857	1.1	3500	10000	6	885	0.6	3500	10000	89
TH40 3	94.28	10	875	0.9	3500	10000	5	890	0.5	3500	10000	89
TH40 3	104.07	9	861	0.8	3500	10000	5	869	0.5	3500	10000	89
TH40 3	115.63	8	875	0.7	3500	10000	4	882	0.4	3500	10000	89
TH40 3	129.51	7	875	0.7	3500	10000	4	917	0.4	3500	10000	89
TH40 3	146.47	6	886	0.6	3500	10000	3	931	0.3	3500	10000	89
TH40 3	167.67	5	811	0.5	3500	10000	3	870	0.3	3500	10000	89

13.2 TH..ISS.. Performance Parameter

TH50		1600Nm										
	i	n ₁ =2800[r/min]					n ₁ =1400[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH50 2	4.3	645	646	44.6	2000	5250	323	752	25.9	2100	6100	92
TH50 2	5.6	496	765	40.6	2000	5420	248	933	24.8	2350	6550	92
TH50 2	6.9	403	896	38.6	2200	5620	202	1102	23.8	2650	6850	92
TH50 2	8.0	348	984	36.6	2280	6000	174	1218	22.7	2860	7060	92
TH50 2	8.7	323	1034	35.6	2380	6120	161	1257	21.7	2920	7540	92
TH50 2	10.2	275	1113	32.7	2650	6580	137	1309	19.2	2960	7710	92
TH50 2	12.9	217	1282	29.7	2450	7220	108	1406	16.3	2980	8530	92
TH50 2	15.0	187	1337	26.7	2520	7850	94	1367	13.7	3400	9430	92
TH50 2	18.9	148	1200	19.0	2750	8000	74	1262	10.0	3530	10300	92
TH50 2	21.9	128	1216	16.6	2850	8750	64	1274	8.7	3750	11500	92
TH50 2	23.7	118	1222	15.4	2600	9350	59	1284	8.1	3850	11900	92
TH50 2	25.7	109	1225	14.3	2750	9750	54	1294	7.5	3950	12600	92
TH50 2	28.1	100	1236	13.2	2950	10250	50	1283	6.8	3980	13400	92
TH50 2	30.9	91	1245	12.1	3650	11000	45	1307	6.3	4020	13600	92
TH50 2	34.1	82	1253	11.0	3700	11500	41	1309	5.7	4050	13700	92
TH50 2	38.0	74	1265	9.9	3750	12100	37	1309	5.1	4050	13800	92
TH50 2	42.8	65	1274	8.9	3800	12500	33	1369	4.8	4050	14000	92
TH50 3	48.2	58	1500	9.4	3820	13500	29	1563	4.9	4700	15500	92
TH50 3	57.2	49	1522	8.0	3850	14500	24	1581	4.2	4700	16000	92
TH50 3	69.3	40	1528	6.7	3850	15200	20	1595	3.5	4700	16000	92
TH50 3	83.7	33	1307	4.7	3850	16000	17	1356	2.5	4700	16000	92
TH50 3	91.8	31	1315	4.3	3850	16000	15	1369	2.3	4700	16000	92
TH50 3	101.3	28	1313	3.9	3850	16000	14	1372	2.0	4700	16000	92
TH50 3	110.5	25	1325	3.6	3850	16000	13	1375	1.9	4700	16000	92
TH50 3	121.5	23	1340	3.3	3850	16000	12	1379	1.7	4700	16000	92
TH50 3	134.6	21	1309	2.9	3850	16000	10	1405	1.6	4700	16000	92
TH50 3	150.3	19	1345	2.7	3850	16000	9	1393	1.4	4700	16000	92
TH50 3	169.4	17	1351	2.4	3850	16000	8	1417	1.3	4700	16000	92

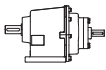
13.2 TH..ISS.. Performance Parameter

TH50		1600Nm										
	i	n ₁ =900[r/min]					n ₁ =500[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH50 2	4.3	207	982	21.8	2850	7950	115	1053	13.0	4700	9600	92
TH50 2	5.6	160	1219	20.8	3100	8150	89	1254	11.9	4700	10500	92
TH50 2	6.9	130	1429	19.8	3250	8250	72	1441	11.1	4700	11200	92
TH50 2	8.0	112	1473	17.6	3850	8350	62	1519	10.1	4700	11500	92
TH50 2	8.7	104	1483	16.4	4050	8950	58	1463	9.0	4700	12200	92
TH50 2	10.2	88	1490	14.1	4250	10200	49	1511	7.9	4700	12800	92
TH50 2	12.9	70	1516	11.3	4460	10800	39	1508	6.2	4700	14000	92
TH50 2	15.0	60	1525	9.8	4470	11500	33	1414	5.0	4700	15000	92
TH50 2	18.9	48	1302	6.6	4650	13500	26	1353	3.8	4700	16000	92
TH50 2	21.9	41	1319	5.8	4700	14000	23	1366	3.3	4700	16000	92
TH50 2	23.7	38	1316	5.3	4700	14600	21	1368	3.1	4700	16000	92
TH50 2	25.7	35	1324	5.0	4700	14900	19	1368	2.8	4700	16000	92
TH50 2	28.1	32	1330	4.6	4700	15200	18	1379	2.6	4700	16000	92
TH50 2	30.9	29	1347	4.2	4700	16000	16	1389	2.4	4700	16000	92
TH50 2	34.1	26	1345	3.8	4700	16000	15	1391	2.2	4700	16000	92
TH50 2	38.0	24	1363	3.4	4700	16000	13	1410	2.0	4700	16000	92
TH50 2	42.8	21	1403	3.2	4700	16000	12	1467	1.8	4700	16000	92
TH50 3	48.2	19	1604	3.2	4700	16000	10	1586	1.8	4700	16000	92
TH50 3	57.2	16	1599	2.7	4700	16000	9	1598	1.5	4700	16000	92
TH50 3	69.3	13	1598	2.2	4700	16000	7	1600	1.2	4700	16000	92
TH50 3	83.7	11	1401	1.6	4700	16000	6	1412	0.9	4700	16000	92
TH50 3	91.8	10	1407	1.5	4700	16000	5	1450	0.9	4700	16000	92
TH50 3	101.3	9	1410	1.4	4700	16000	5	1416	0.8	4700	16000	92
TH50 3	110.5	8	1404	1.2	4700	16000	5	1444	0.7	4700	16000	92
TH50 3	121.5	7	1434	1.1	4700	16000	4	1456	0.6	4700	16000	92
TH50 3	134.6	7	1425	1.0	4700	16000	4	1442	0.6	4700	16000	92
TH50 3	150.3	6	1409	0.9	4700	16000	3	1446	0.5	4700	16000	92
TH50 3	169.4	5	1435	0.8	4700	16000	3	1401	0.4	4700	16000	92

13.2 TH..ISS.. Performance Parameter

TH60		2300Nm										
	i	n ₁ =2800[r/min]					n ₁ =1400[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH60 2	4.6	613	1179	77.2	1650	5590	306	1572	51.5	1860	7100	95
TH60 2	5.8	480	1408	72.3	1850	5600	240	1690	43.4	2100	7350	95
TH60 2	7.1	396	1592	67.3	1850	6750	198	1855	39.2	2530	7400	95
TH60 2	8.7	321	1788	61.4	1860	6850	161	2048	35.1	2680	7680	95
TH60 2	10.1	276	1978	58.4	1870	7150	138	2099	31.0	3560	8750	95
TH60 2	11.9	235	2012	50.5	1900	7860	117	2147	26.9	4250	9350	95
TH60 2	14.6	191	2083	42.6	1920	9390	96	2044	20.9	5120	12100	95
TH60 2	17.2	163	2223	38.6	1920	9860	81	2052	17.8	5320	13800	95
TH60 2	19.8	142	2324	35.2	2380	10200	71	2068	15.6	6000	15600	95
TH60 2	21.5	130	2209	30.7	2950	10600	65	2066	14.4	6200	17200	95
TH60 2	23.6	119	2183	27.7	3100	11600	59	2058	13.1	6350	17900	95
TH60 2	25.9	108	2170	25.0	3420	12800	54	2059	11.9	6700	18500	95
TH60 2	28.7	98	2185	22.8	3650	13400	49	1938	10.1	6860	19200	95
TH60 2	32.1	87	2228	20.8	3960	14200	44	1910	8.9	6950	21000	95
TH60 2	36.2	77	2300	19.0	4050	14500	39	1946	8.1	7000	21500	95
TH60 3	39.5	71	2300	17.6	5650	17800	35	2300	8.8	7000	22800	95
TH60 3	46.4	60	2300	15.0	5700	18600	30	2300	7.5	7000	23800	95
TH60 3	58.8	48	2300	11.8	5700	19800	24	2300	5.9	7000	25000	95
TH60 3	68.1	41	2300	10.2	5700	20900	21	2300	5.1	7000	25000	95
TH60 3	80.1	35	2300	8.7	5700	22100	17	2300	4.3	7000	25000	95
TH60 3	87.5	32	2300	8.0	5700	23500	16	2300	4.0	7000	25000	95
TH60 3	96.1	29	2300	7.2	5700	25000	15	2300	3.6	7000	25000	95
TH60 3	106.5	26	2300	6.5	5700	25000	13	2300	3.3	7000	25000	95
TH60 3	115.8	24	2300	6.0	5700	25000	12	2300	3.0	7000	25000	95
TH60 3	126.4	22	2300	5.5	5700	25000	11	2300	2.7	7000	25000	95
TH60 3	138.8	20	2300	5.0	5700	25000	10	2300	2.5	7000	25000	95
TH60 3	153.5	18	2300	4.5	5700	25000	9	2300	2.3	7000	25000	95
TH60 3	171.2	16	2300	4.1	5700	25000	8	2300	2.0	7000	25000	95
TH60 3	192.7	15	2300	3.9	5700	25000	7	2300	1.8	7000	25000	95

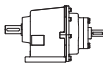
13.2 TH..ISS.. Performance Parameter

TH60		2300Nm										
	i	n ₁ =900[r/min]					n ₁ =500[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH60 2	4.6	197	1862	39.2	1560	9350	109	1947	22.8	5500	13200	95
TH60 2	5.8	154	2028	33.5	1650	9980	86	2268	20.8	5650	13500	95
TH60 2	7.1	127	2185	29.7	1710	10600	71	2229	16.8	5760	15200	95
TH60 2	8.7	103	2207	24.4	1760	12400	57	2300	14.1	5950	17100	95
TH60 2	10.1	89	2190	20.8	1810	13500	49	2178	11.5	6320	17900	95
TH60 2	11.9	75	2111	17.0	2460	14500	42	2121	9.5	6850	18600	95
TH60 2	14.6	61	2300	15.1	3250	17600	34	2278	8.3	7000	21800	95
TH60 2	17.2	52	2146	12.0	4360	18200	29	2171	6.7	7000	23800	95
TH60 2	19.8	45	2179	10.6	5960	20500	25	2199	5.9	7000	25000	95
TH60 2	21.5	42	2150	9.6	6350	21500	23	2235	5.5	7000	25000	95
TH60 2	23.6	38	2183	8.9	7000	23500	21	2300	5.2	7000	25000	95
TH60 2	25.9	35	2188	8.1	7000	25000	19	2300	4.7	7000	25000	95
TH60 2	28.7	31	2300	7.7	7000	25000	17	2300	4.3	7000	25000	95
TH60 2	32.1	28	2300	6.9	7000	25000	16	2299	3.8	7000	25000	95
TH60 2	36.2	25	2297	6.1	7000	25000	14	2300	3.4	7000	25000	95
TH60 3	39.5	23	2300	5.7	7000	25000	13	2300	3.1	7000	25000	95
TH60 3	46.4	19	2300	4.8	7000	25000	11	2300	2.7	7000	25000	95
TH60 3	58.8	15	2300	3.8	7000	25000	9	2300	2.1	7000	25000	95
TH60 3	68.1	13	2300	3.3	7000	25000	7	2300	1.8	7000	25000	95
TH60 3	80.1	11	2300	2.8	7000	25000	6	2300	1.5	7000	25000	95
TH60 3	87.5	10	2300	2.6	7000	25000	6	2300	1.4	7000	25000	95
TH60 3	96.1	9	2300	2.3	7000	25000	5	2300	1.3	7000	25000	95
TH60 3	106.5	8	2300	2.1	7000	25000	5	2300	1.2	7000	25000	95
TH60 3	115.8	8	2300	1.9	7000	25000	4	2300	1.1	7000	25000	95
TH60 3	126.4	7	2300	1.8	7000	25000	4	2300	1.0	7000	25000	95
TH60 3	138.8	6	2300	1.6	7000	25000	4	2300	0.9	7000	25000	95
TH60 3	153.5	6	2300	1.5	7000	25000	3	2300	0.8	7000	25000	95
TH60 3	171.2	5	2300	1.3	7000	25000	3	2300	0.7	7000	25000	95
TH60 3	192.7	5	2299	1.2	7000	25000	3	2299	0.6	7000	25000	95

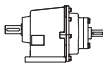
13.2 TH..ISS.. Performance Parameter

TH80		4200Nm										
	i	n ₁ =2800[r/min]					n ₁ =1400[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH80 2	4.5	616	2092	137.8	1900	12400	308	2741	90.3	2100	14200	98
TH80 2	5.8	483	2356	121.6	1920	12600	241	3129	80.8	2680	16300	98
TH80 2	7.0	398	2592	110.2	1980	13200	199	3575	76.0	3550	16800	98
TH80 2	8.7	323	3028	104.5	2050	13500	162	3633	62.7	4250	17600	98
TH80 2	10.1	278	3135	93.1	2100	15800	139	3519	52.3	5100	19200	98
TH80 2	11.9	236	3389	85.5	2200	16100	118	3765	47.5	5300	20400	98
TH80 2	13.2	213	3384	77.0	2200	16800	106	3509	39.9	5500	22100	98
TH80 2	15.3	183	3642	71.3	2300	17600	92	3788	37.1	6000	23600	98
TH80 2	18.0	156	3772	62.7	2300	18500	78	3886	32.3	6000	22800	98
TH80 2	20.3	138	3809	56.1	2450	19100	69	4003	29.5	6200	24100	98
TH80 2	22.1	126	3867	52.3	2450	19500	63	3937	26.6	6350	25500	98
TH80 2	24.2	116	3924	48.5	2450	19900	58	4001	24.7	6700	27500	98
TH80 2	26.7	105	3980	44.7	2800	20300	53	4064	22.8	6860	28200	98
TH80 2	29.5	95	4200	42.5	2900	21400	47	4128	20.9	6950	29000	98
TH80 2	33.0	85	4200	38.1	3000	21600	42	4191	19.0	6950	30000	98
TH80 2	37.2	75	4200	33.8	3250	22500	38	4200	16.9	7000	30500	98
TH80 3	44.0	64	4200	28.8	5700	24800	32	4200	14.4	7000	31000	98
TH80 3	51.2	55	4200	24.8	5850	26400	27	4200	12.4	7000	31000	98
TH80 3	60.2	47	4200	21.1	5850	29200	23	4200	10.5	7000	31000	98
TH80 3	66.8	42	4200	19.0	5850	31000	21	4200	9.5	7000	31000	98
TH80 3	77.6	36	4200	16.4	5850	31000	18	4200	8.2	7000	31000	98
TH80 3	91.4	31	4200	13.9	5850	31000	15	4200	6.9	7000	31000	98
TH80 3	104.9	27	4200	12.1	5850	31000	13	4200	6.1	7000	31000	98
TH80 3	114.2	25	4200	11.1	5850	31000	12	4200	5.6	7000	31000	98
TH80 3	125.0	22	4200	10.2	5850	31000	11	4200	5.1	7000	31000	98
TH80 3	137.5	20	4200	9.2	5850	31000	10	4200	4.6	7000	31000	98
TH80 3	152.3	18	4200	8.3	5850	31000	9	4200	4.2	7000	31000	98
TH80 3	170.1	16	4200	7.5	5850	31000	8	4200	3.7	7000	31000	98
TH80 3	191.8	15	4200	6.6	5850	31000	7	4200	3.3	7000	31000	98

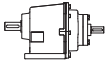
13.2 TH..ISS.. Performance Parameter

TH80		4200Nm										
	i	n ₁ =900[r/min]					n ₁ =500[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH80 2	4.5	198	3636	77.0	1560	14500	110	4200	49.4	5500	19800	98
TH80 2	5.8	155	3952	65.6	1650	14800	86	4200	38.7	5650	21600	98
TH80 2	7.0	128	4243	58.0	1710	15500	71	4200	31.9	5760	26800	98
TH80 2	8.7	104	4243	47.1	1760	16200	58	4200	25.9	5950	31000	98
TH80 2	10.1	89	4243	40.5	1810	19800	50	4200	22.3	6320	31000	98
TH80 2	11.9	76	4243	34.4	2460	21200	42	4200	18.9	6850	31000	98
TH80 2	13.2	68	3769	27.6	3250	24600	38	4200	17.1	7000	31000	98
TH80 2	15.3	59	3777	23.8	4360	26700	33	4200	14.7	7000	31000	98
TH80 2	18.0	50	4090	21.9	5960	27800	28	4200	12.5	7000	31000	98
TH80 2	20.3	44	4200	19.9	6350	29500	25	4200	11.0	7000	31000	98
TH80 2	22.1	41	4200	18.2	7000	31000	23	4200	10.1	7000	31000	98
TH80 2	24.2	37	4200	16.7	7000	31000	21	4200	9.3	7000	31000	98
TH80 2	26.7	34	4200	15.1	7000	31000	19	4200	8.4	7000	31000	98
TH80 2	29.5	30	4200	13.7	7000	31000	17	4200	7.6	7000	31000	98
TH80 2	33.0	27	4200	12.2	7000	31000	15	4200	6.8	7000	31000	98
TH80 2	37.2	24	4200	10.9	7000	31000	13	4200	6.0	7000	31000	98
TH80 3	44.0	20	4200	9.3	7000	31000	11	4200	5.2	7000	31000	98
TH80 3	51.2	18	4200	8.0	7000	31000	10	4200	4.4	7000	31000	98
TH80 3	60.2	15	4200	6.8	7000	31000	8	4200	3.8	7000	31000	98
TH80 3	66.8	13	4200	6.1	7000	31000	7	4200	3.4	7000	31000	98
TH80 3	77.6	12	4200	5.3	7000	31000	6	4200	2.9	7000	31000	98
TH80 3	91.4	10	4200	4.5	7000	31000	5	4200	2.5	7000	31000	98
TH80 3	104.9	9	4200	3.9	7000	31000	5	4200	2.2	7000	31000	98
TH80 3	114.2	8	4200	3.6	7000	31000	4	4200	2.0	7000	31000	98
TH80 3	125.0	7	4200	3.3	7000	31000	4	4200	1.8	7000	31000	98
TH80 3	137.5	7	4200	3.0	7000	31000	4	4200	1.6	7000	31000	98
TH80 3	152.3	6	4200	2.7	7000	31000	3	4200	1.5	7000	31000	98
TH80 3	170.1	5	4200	2.4	7000	31000	3	4200	1.3	7000	31000	98
TH80 3	191.8	5	4200	2.1	7000	31000	3	4200	1.2	7000	31000	98

13.2 TH..ISS.. Performance Parameter

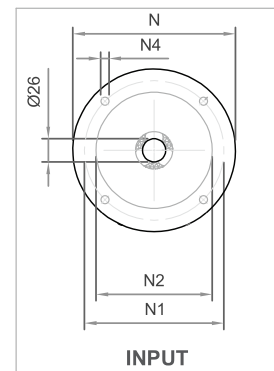
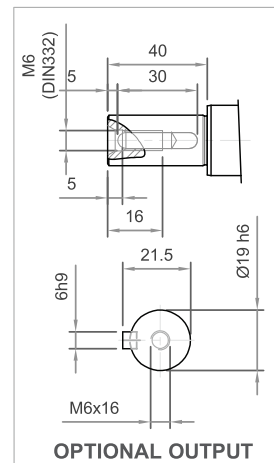
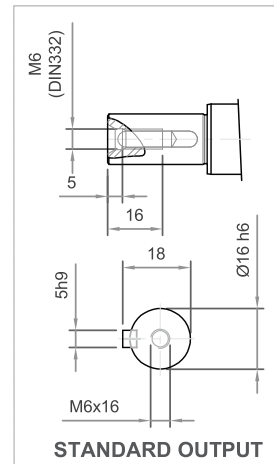
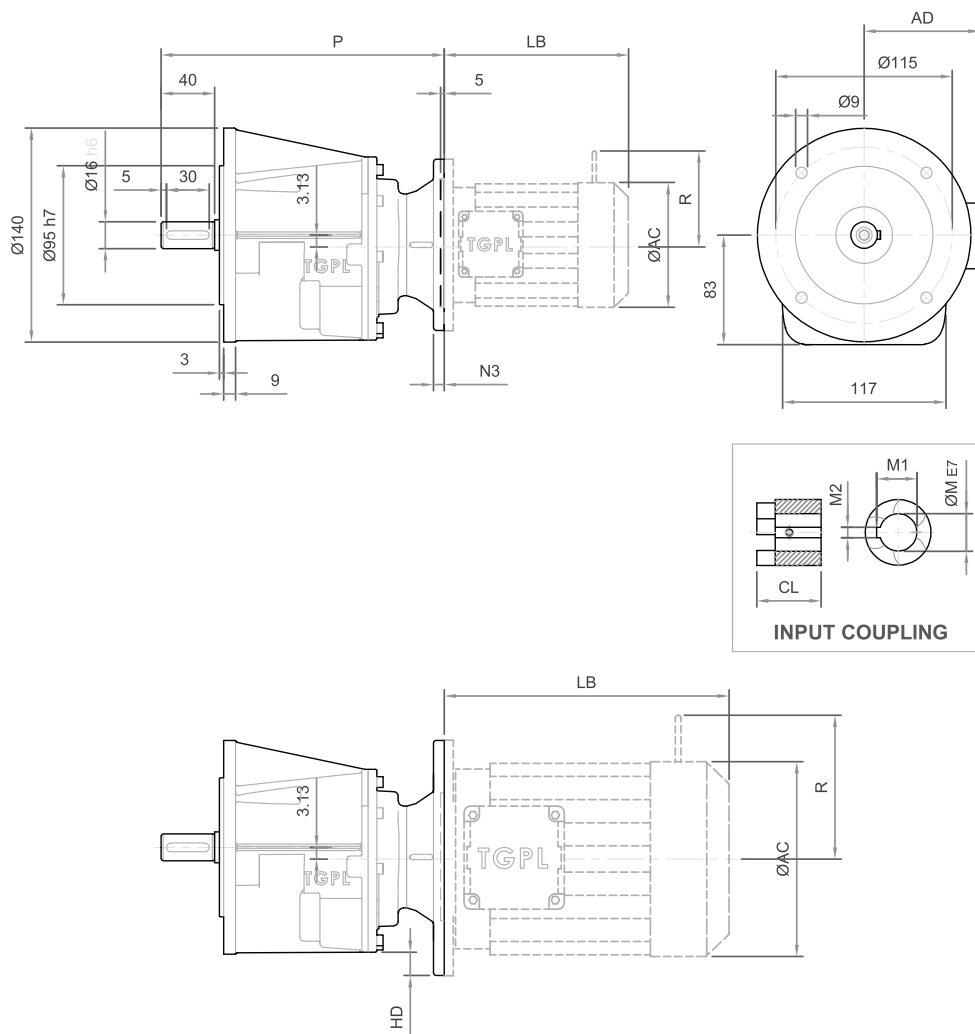
TH90												7500Nm
	i	n ₁ =2800[r/min]					n ₁ =1400[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH90 2	4.6	605	3305	213.8	2150	14200	303	3966	128.3	3100	15200	101
TH90 2	5.8	485	3850	199.5	2680	15700	242	4693	121.6	3700	17300	101
TH90 2	7.3	383	4183	171.0	3500	16500	191	5671	115.9	4500	19200	101
TH90 2	8.9	315	4570	153.9	4250	17200	158	6489	109.3	5200	21000	101
TH90 2	10.2	274	4802	140.6	5100	18200	137	7138	104.5	6100	22000	101
TH90 2	11.9	236	5095	128.3	5300	19100	118	7500	94.4	6400	23200	101
TH90 2	12.9	217	5114	118.8	5500	20000	109	7494	87.0	6600	23800	101
TH90 2	14.9	188	6087	122.6	6000	20800	94	6464	65.1	7000	24200	101
TH90 2	17.1	164	5969	104.5	6250	22000	82	6534	57.2	7800	26300	101
TH90 2	19.9	141	6123	92.2	6500	23100	70	6602	49.7	8100	27500	101
TH90 2	21.6	130	6159	85.5	3700	24000	65	6652	46.2	8800	29200	101
TH90 2	24.3	115	5795	71.3	7000	25200	58	6706	41.2	9200	30100	101
TH90 2	26.4	106	5877	66.5	7100	26800	53	6751	38.2	9870	31250	101
TH90 2	31.7	88	6244	58.9	7200	28000	44	6829	32.2	11500	32350	101
TH90 2	35.1	80	5569	47.5	7400	29800	40	6883	29.4	12200	34000	101
TH90 3	37.4	75	6470	52.3	8500	32100	37	7500	30.3	12800	34500	101
TH90 3	43.5	64	7110	49.4	8800	36700	32	7500	26.1	12800	39200	101
TH90 3	51.2	55	7403	43.7	9200	39800	27	7500	22.1	12800	42500	101
TH90 3	57.8	48	7500	39.2	9680	41200	24	7500	19.6	12800	44000	101
TH90 3	63.0	44	7500	36.0	10200	42500	22	7500	18.0	12800	44000	101
TH90 3	68.9	41	7500	32.9	10500	42800	20	7500	16.4	12800	44000	101
TH90 3	72.8	38	7500	31.2	10800	43500	19	7500	15.6	12800	44000	101
TH90 3	85.6	33	6890	24.3	11000	44000	16	7213	12.7	12800	44000	101
TH90 3	96.7	29	6993	21.9	11000	44000	14	7297	11.4	12800	44000	101
TH90 3	105.4	27	6953	20.0	11000	44000	13	7284	10.5	12800	44000	101
TH90 3	115.3	24	6993	18.3	11000	44000	12	7355	9.6	12800	44000	101
TH90 3	126.9	22	7058	16.8	11000	44000	11	7417	8.8	12800	44000	101
TH90 3	140.6	20	7069	15.2	11000	44000	10	7422	8.0	12800	44000	101
TH90 3	157.0	18	7155	13.8	11000	44000	9	7500	7.2	12800	44000	101
TH90 3	177.1	16	7236	12.4	11000	44000	8	7500	6.4	12800	44000	101

13.2 TH..ISS.. Performance Parameter

TH90												7500Nm
	i	n ₁ =900[r/min]					n ₁ =500[r/min]					
		n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	n ₂ [r/min]	Mn ₂ Nm	Pn ₁ kW	Fr ₁ N	Fr ₂ N	
TH90 2	4.6	195	4844	100.7	4600	18100	108	4524	52.3	7500	19800	101
TH90 2	5.8	156	5589	93.1	5200	18500	87	4312	39.9	8500	21600	101
TH90 2	7.3	123	6218	81.7	5760	19200	68	5336	39.0	9100	26800	101
TH90 2	8.9	101	6671	72.2	5950	21000	56	5056	30.4	9850	31000	101
TH90 2	10.2	88	6864	64.6	6320	24200	49	5269	27.6	10500	31000	101
TH90 2	11.9	76	7280	58.9	6850	26300	42	5072	22.8	11200	31000	101
TH90 2	12.9	70	7383	55.1	7250	27500	39	4583	19.0	12800	31000	101
TH90 2	14.9	61	6679	43.2	7750	29200	34	4492	16.2	12800	31000	101
TH90 2	17.1	53	6753	38.0	8500	32500	29	4255	13.3	12800	31000	101
TH90 2	19.9	45	6814	33.0	8900	38000	25	4701	12.6	12800	31000	101
TH90 2	21.6	42	6834	30.5	9200	42000	23	4714	11.7	12800	31000	101
TH90 2	24.3	37	6923	27.4	10300	44000	21	4889	10.7	12800	31000	101
TH90 2	26.4	34	6922	25.2	11200	44000	19	4843	9.8	12800	31000	101
TH90 2	31.7	28	7050	21.4	12000	44000	16	5302	8.9	12800	31000	101
TH90 2	35.1	26	7103	19.5	12800	44000	14	5302	8.1	12800	31000	101
TH90 3	37.4	24	7500	19.5	12800	44000	13	6127	8.8	12800	31000	101
TH90 3	43.5	21	7500	16.7	12800	44000	11	5820	7.2	12800	31000	101
TH90 3	51.2	18	7500	14.2	12800	44000	10	5948	6.3	12800	31000	101
TH90 3	57.8	16	7500	12.6	12800	44000	9	5701	5.3	12800	31000	101
TH90 3	63.0	14	7500	11.6	12800	44000	8	4878	4.2	12800	31000	101
TH90 3	68.9	13	7500	10.6	12800	44000	7	4610	3.6	12800	31000	101
TH90 3	72.8	12	7500	10.0	12800	44000	7	4098	3.0	12800	31000	101
TH90 3	85.6	11	7500	8.5	12800	44000	6	4371	2.8	12800	31000	101
TH90 3	96.7	9	7500	7.5	12800	44000	5	4546	2.5	12800	31000	101
TH90 3	105.4	9	7500	6.9	12800	44000	5	4524	2.3	12800	31000	101
TH90 3	115.3	8	7500	6.3	12800	44000	4	4464	2.1	12800	31000	101
TH90 3	126.9	7	7500	5.7	12800	44000	4	4466	1.9	12800	31000	101
TH90 3	140.6	6	7500	5.2	12800	44000	4	4528	1.7	12800	31000	101
TH90 3	157.0	6	7500	4.6	12800	44000	3	4160	1.4	12800	31000	101
TH90 3	177.1	5	7500	4.1	12800	44000	3	4692	1.4	12800	31000	101

TH16- - - IEC

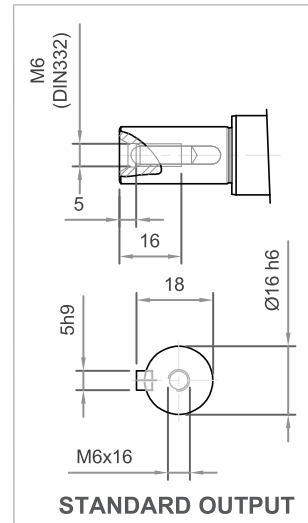
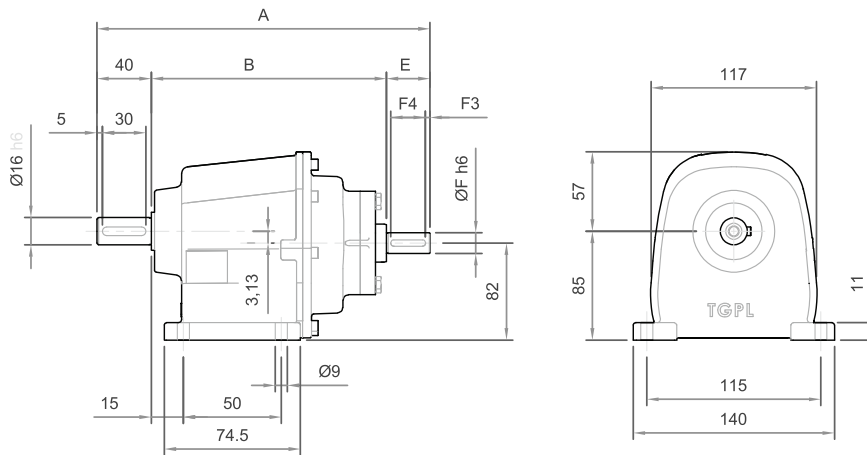
FL



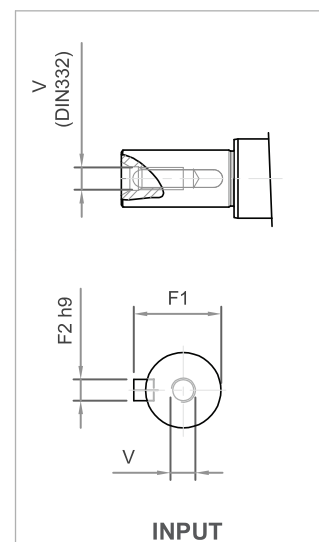
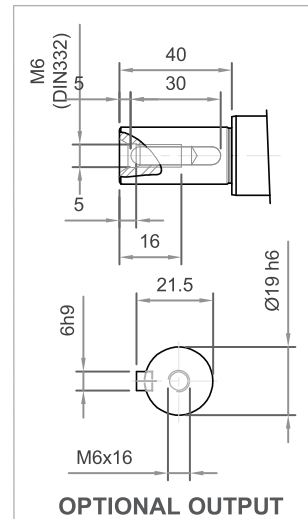
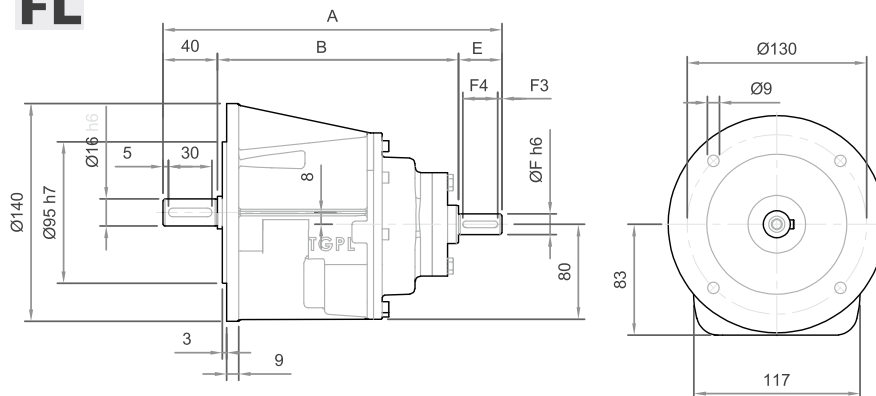
	TH16-2 --- FL												TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P	kg	IEC	LB	AC	AD	LB	AC	AD	R	HD
63	11	12.8	4	25.7	140	115	95	10	9	182.5	6.3	TM63	184	120	98	247	120	100	120	-
71	14	16.3	5	28.7	160	130	110	10	9	185.5	6.5	TM71	200	139	109	258	140	112	130	-
80	19	21.8	6	38.7	200	165	130	12	12	195.5	6.7	TM80	224	156	131	290	156	133	140	20.13

TH16- - - ISS

F



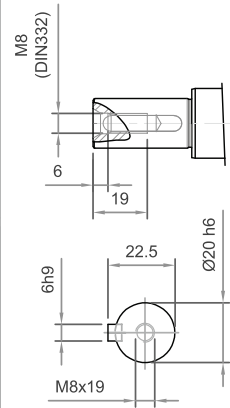
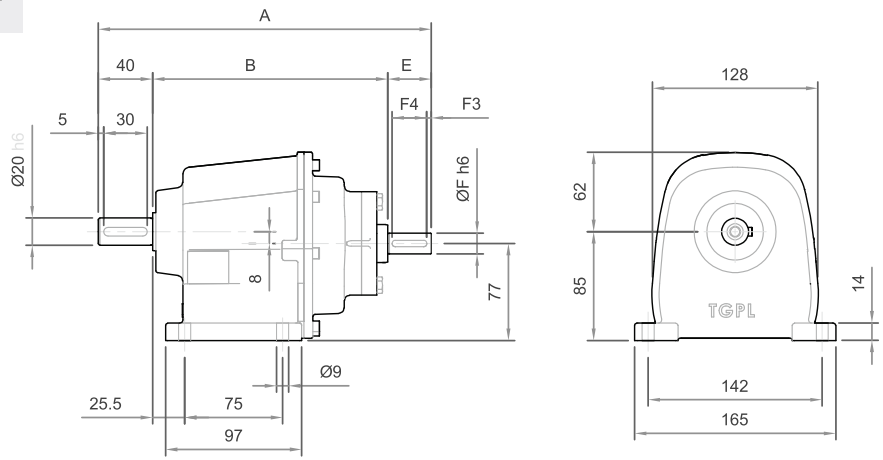
FL



TH16-2 ---ISS											
	A	B	E	F	F1	F2	F3	F4	V	Kg	
ISS	206	126	40	16	18	6	4	32	M6x16	6.2	6.3

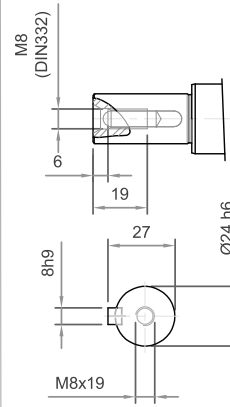
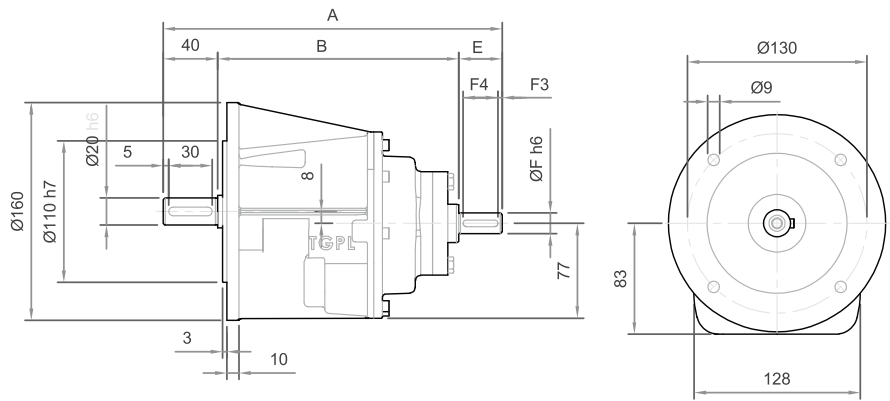
TH20 --- ISS

F



STANDARD OUTPUT

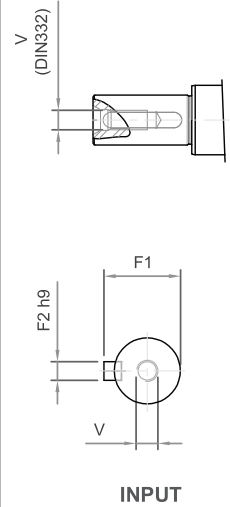
FL



OPTIONAL OUTPUT

TH20-2 ---ISS											
	A	B	E	F	F1	F2	F3	F4	V	Kg	
ISS	243.5	163.5	40	19	21.5	6	5	30	M6x16	9.1	9.7

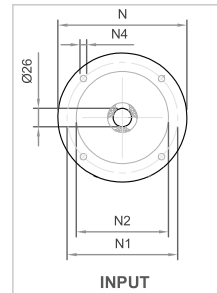
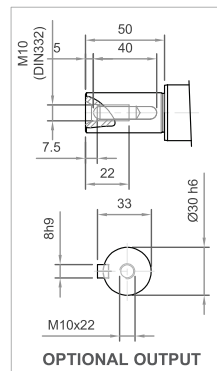
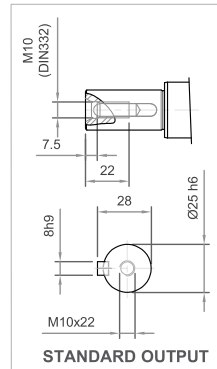
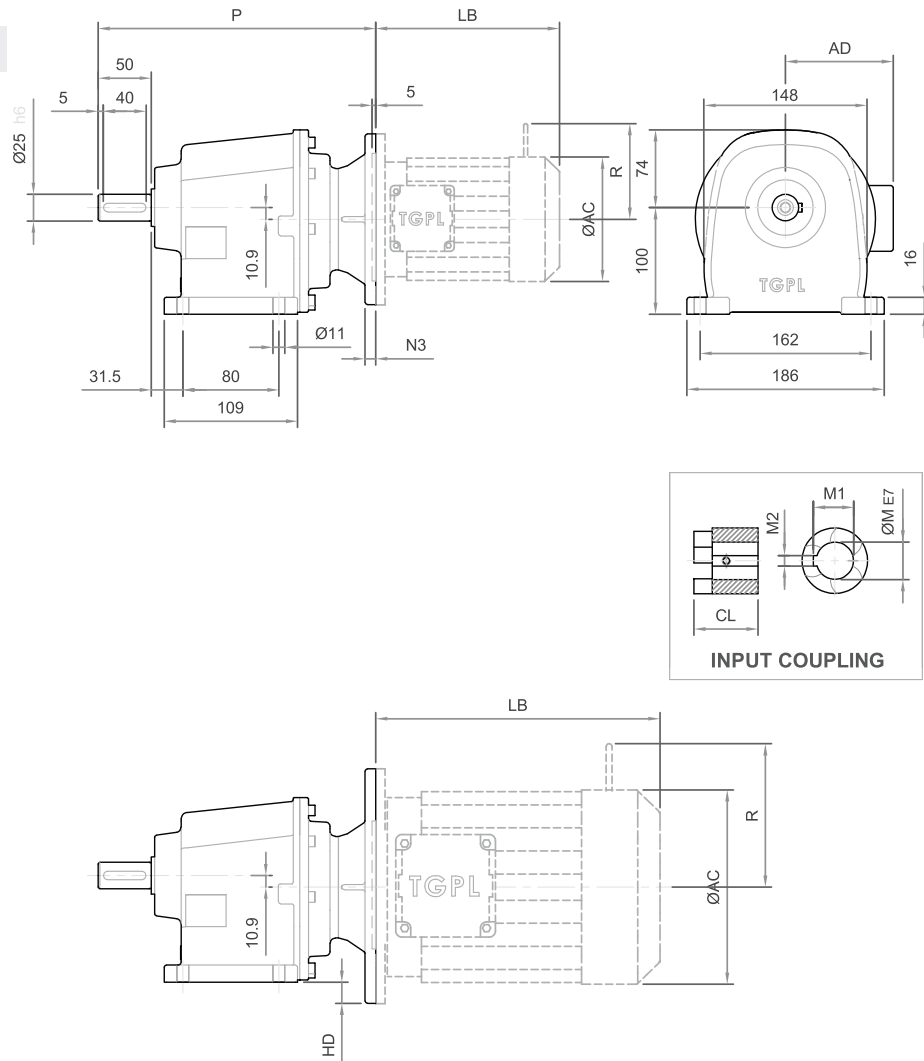
TH20-3 ---ISS											
	A	B	E	F	F1	F2	F3	F4	V	Kg	
ISS	249.5	169.5	40	16	18	5	5	30	M6x16	9.8	10.4



INPUT

TH25 --- IEC

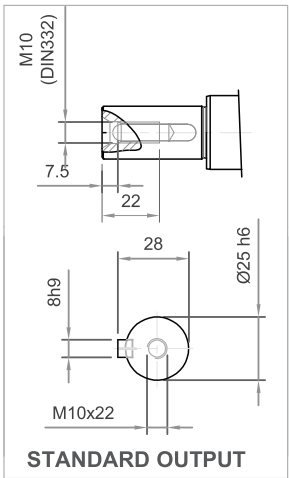
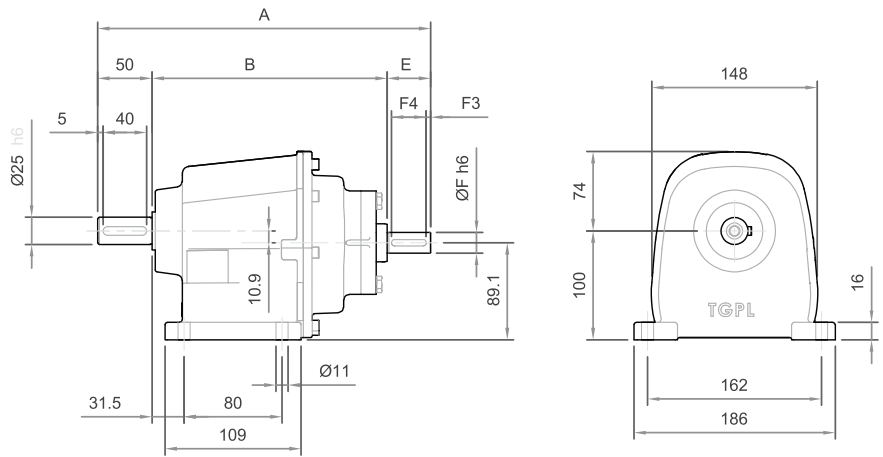
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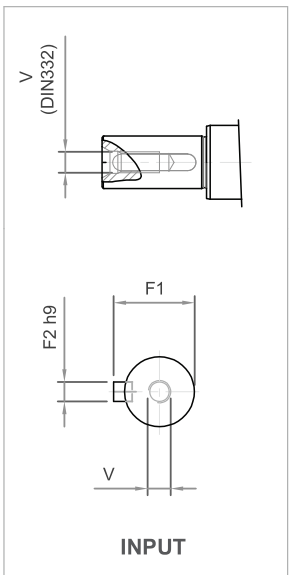
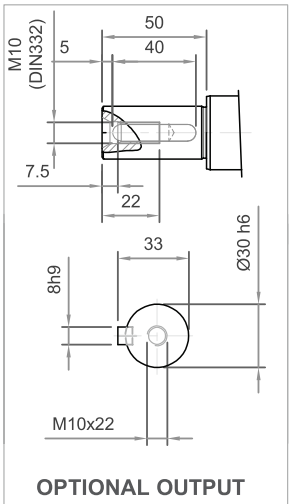
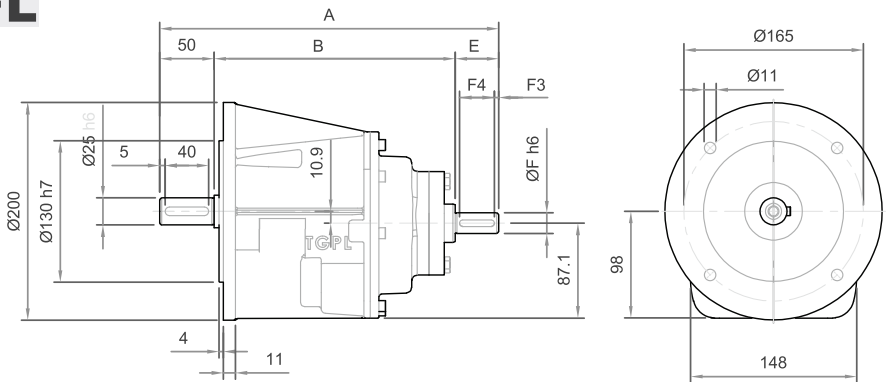
TH25-2 --- F													TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P	 		LB	AC	AD	LB	AC	AD	R	HD
63	11	12.8	4	25.7	140	115	95	10	9	250	13.4	TM63	184	120	98	247	120	100	120	-
71	14	16.3	5	28.7	160	130	110	10	9	253	13.4	TM71	200	139	109	258	140	112	130	-
80	19	21.8	6	38.7	200	165	130	12	12	263	13.8	TM80	224	156	131	290	156	133	140	10.9
90S 90L	24	27.3	8	38.7	200	165	130	12	12	263	13.8	TM90	$\frac{242}{265}$	172	136	$\frac{315}{336}$	172	136	146	10.9
TH25-3 --- F													TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P	 		LB	AC	AD	LB	AC	AD	R	HD
63	11	12.8	4	25.7	140	115	95	10	9	256.5	14	TM63	184	120	98	247	120	100	120	-
71	14	16.3	5	28.7	160	130	110	10	9	259.5	14	TM71	200	139	109	258	140	112	130	-
80	19	21.8	6	38.7	200	165	130	12	12	269.5	14.2	TM80	224	156	131	290	156	133	140	10.9

TH25 --- ISS

F



FL

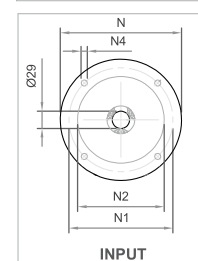
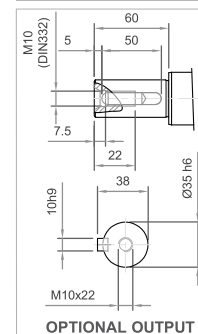
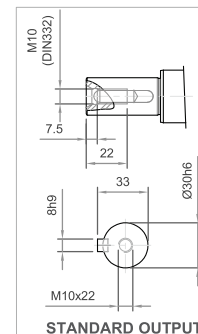
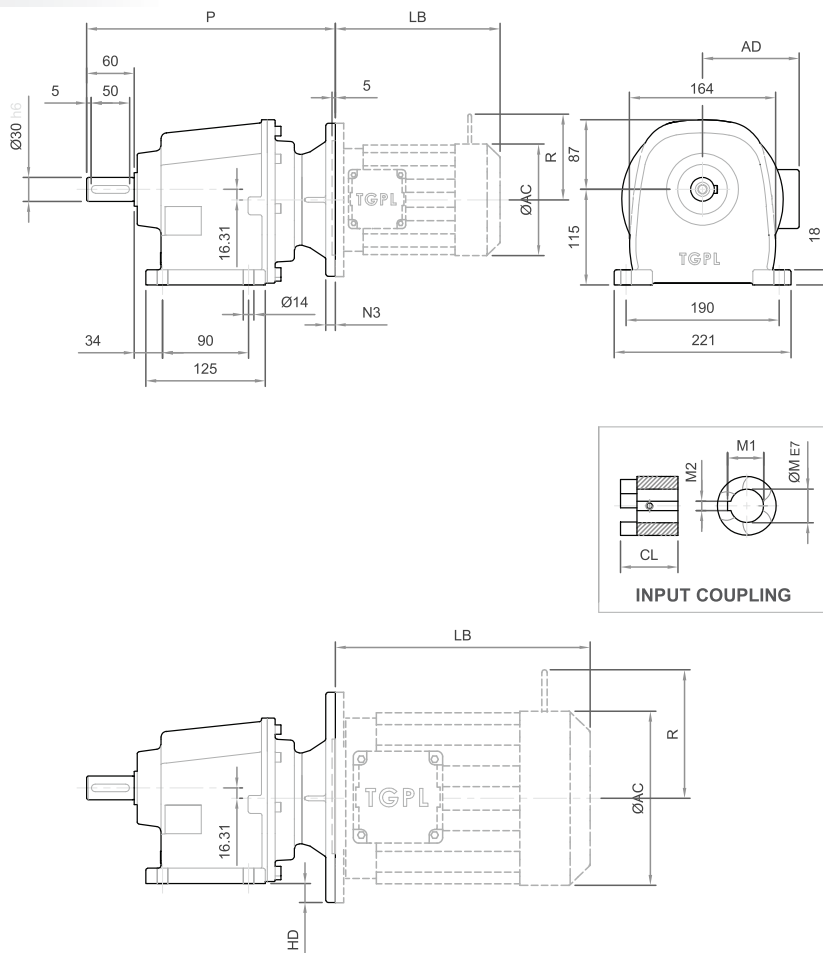


TH25-2 ---ISS											
	A	B	E	F	F1	F2	F3	F4	V		
ISS	273.5	183.5	40	19	21.5	6	5	30	M6x16	13.8	14.9

TH25-3 ---ISS											
	A	B	E	F	F1	F2	F3	F4	V		
ISS	280.5	190.5	40	16	18	5	5	30	M6x16	14.2	15.6

TH30 --- IEC

F

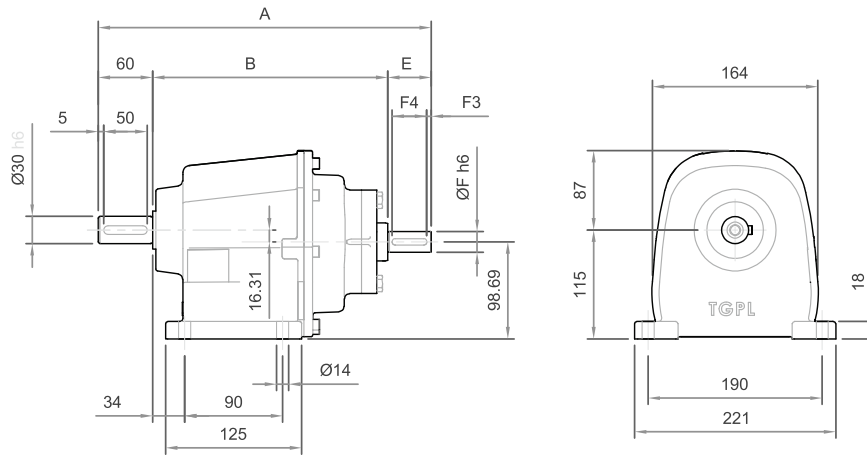


	TH30-2 --- F												TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P			LB	AC	AD	LB	AC	AD	R	HD
71	14	16.3	5	28.7	160	130	110	10	9	285	19.8	TM71	200	139	109	258	140	112	130	-
80	19	21.8	6	38.7	200	165	130	12	12	295	20.2	TM80	224	156	131	290	156	133	140	1.31
90S90L	24	27.3	8	38.7	200	165	130	12	12	295	20.4	TM90	242265	172	136	315336	172	136	146	1.31
100	28	31.3	8	45.7	250	215	180	14	15	302	20.8	TM100	297	196	145	387	198	146	158	26.31
112	28	31.3	8	45.7	250	215	180	14	15	302	20.8	TM112	316	216	154	395	217	156	168	26.31

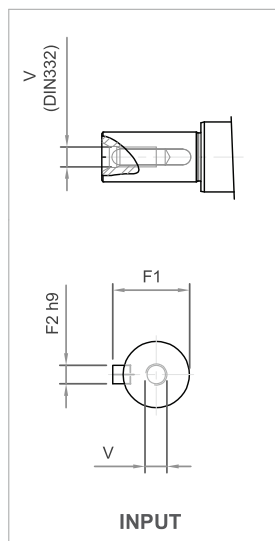
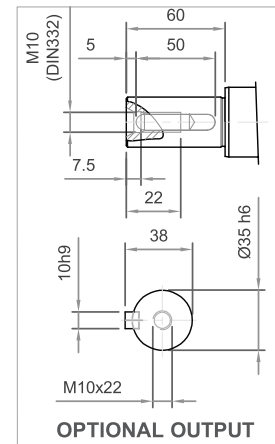
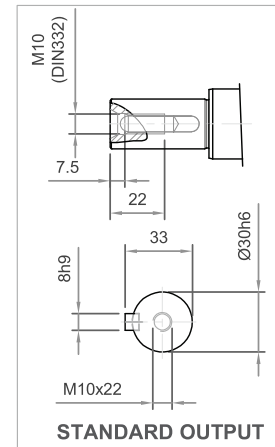
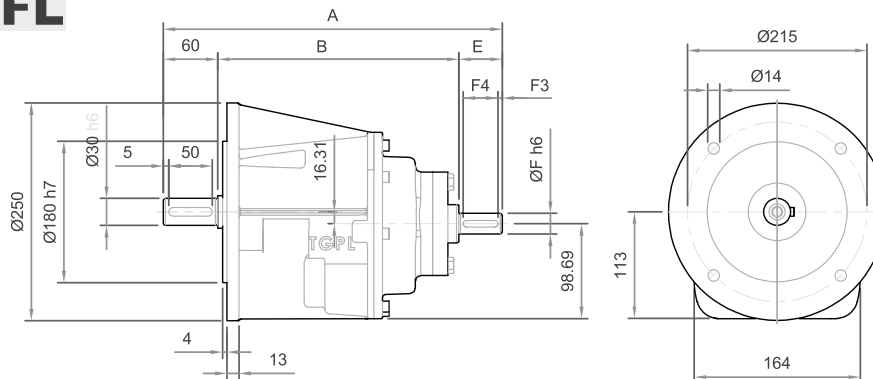
 TH30-3 --- F													TM			TM-DCB					
	M	M1	M2	CL	N	N1	N2	N3	N4	P			LB	AC	AD	LB	AC	AD	R	HD	
63	11	12.8	4	25.7	140	115	95	10	9	291	20.4	TM63	184	120	98	247	120	100	120	-	
71	14	16.3	5	28.7	160	130	110	10	9	294	20.5	TM71	200	139	109	258	140	112	130	-	
80	19	21.8	6	38.7	200	165	130	12	12	305	21	TM80	224	156	131	290	156	133	140	1.31	
90S 90L	24	27.3	8	38.7	200	165	130	12	12	305	CO	TM90	242 265	172	136	315 336	172	136	146	1.31	

TH30 --- ISS

F



FL

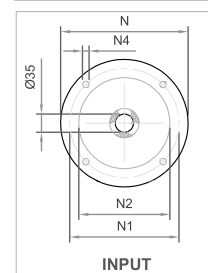
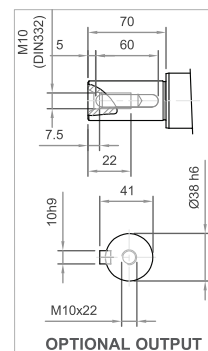
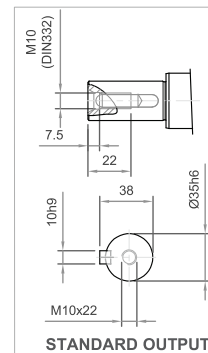
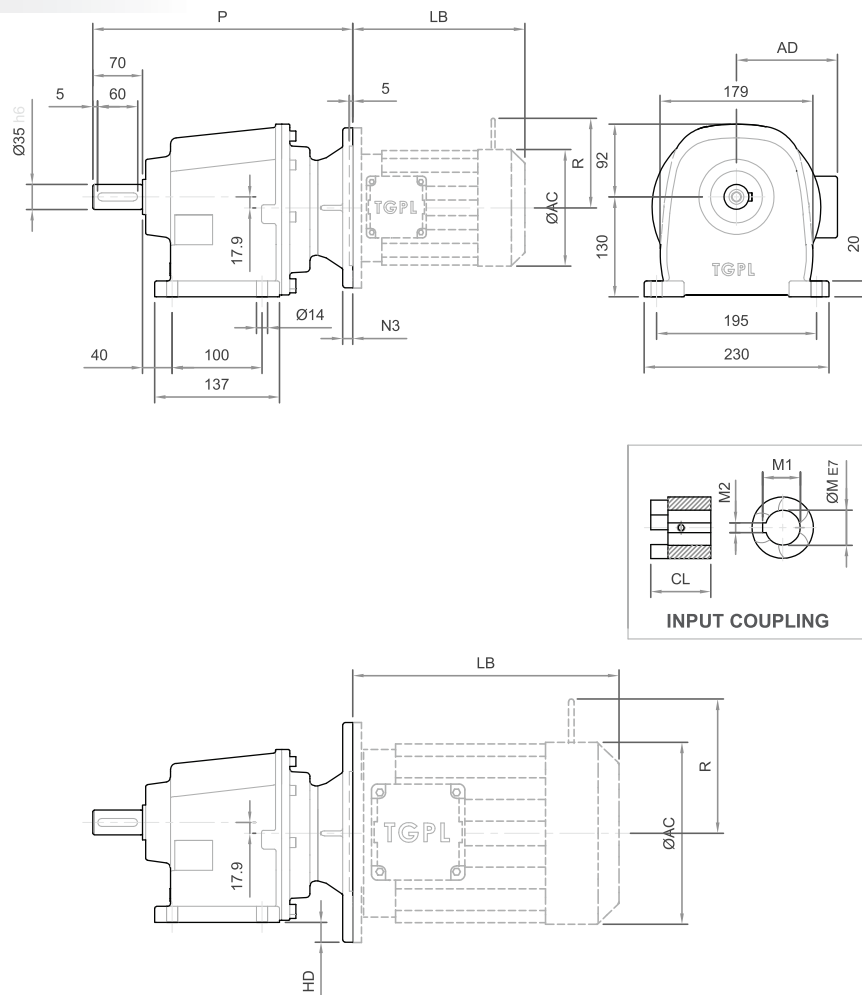


		TH30-2 ---ISS											
		A	B	E	F	F1	F2	F3	F4	V			
ISS		322	212	50	24	27	8	5	40	M8x19		20	22.9

		TH30-3 ---ISS											
		A	B	E	F	F1	F2	F3	F4	V			
ISS		323	223	40	19	21.5	6	5	30	M6x16		20.7	23.7

TH35 --- IEC

F

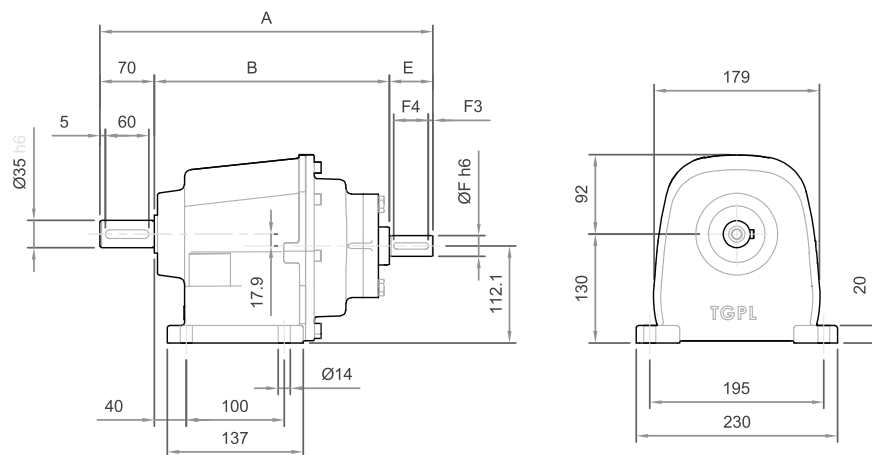


TH35-2 --- F													TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P	kg		LB	AC	AD	LB	AC	AD	R	HD
71	14	16.3	5	28.7	160	130	110	10	9	312.5	27	TM71	200	139	109	258	140	112	130	-
80	19	21.8	6	38.7	200	165	130	12	12	322.5	27.4	TM80	224	156	131	290	156	133	140	-
90S 90L	24	27.3	8	38.7	200	165	130	12	12	322.5	27.6	TM90	242 265	172	136	315 336	172	136	146	-
100	28	31.3	8	45.7	250	215	180	14	15	328.5	28	TM100	297	196	145	387	198	146	158	12.9
112	28	31.3	8	45.7	250	215	180	14	15	328.5	28	TM112	316	216	154	395	217	156	168	12.9

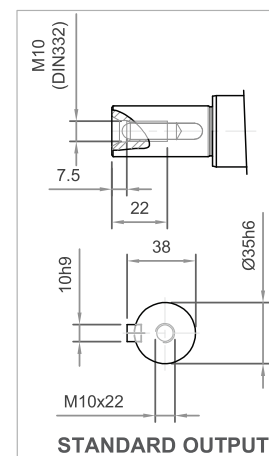
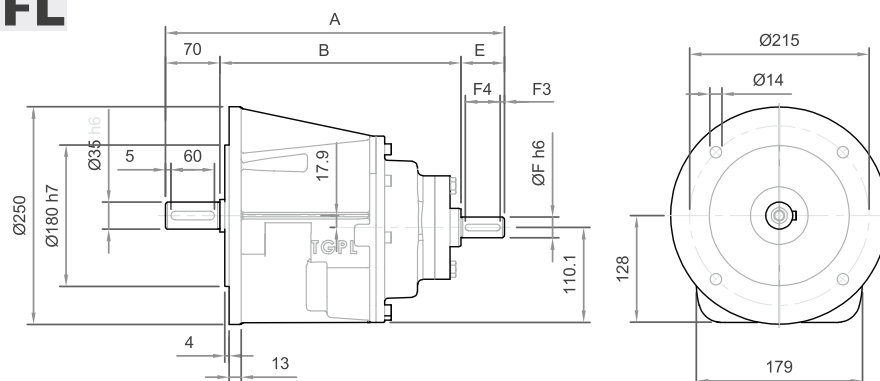
TH35-3 --- F													TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P	kg		LB	AC	AD	LB	AC	AD	R	HD
71	14	16.3	5	28.7	160	130	110	10	9	328	28	TM71	200	139	109	258	140	112	120	-
80	19	21.8	6	38.7	200	165	130	12	12	338	28.4	TM80	224	156	131	290	156	133	130	-
90S 90L	24	27.3	8	38.7	200	165	130	12	12	338	28.6	TM90	242 265	172	136	315 336	172	136	140	-

TH35 --- ISS

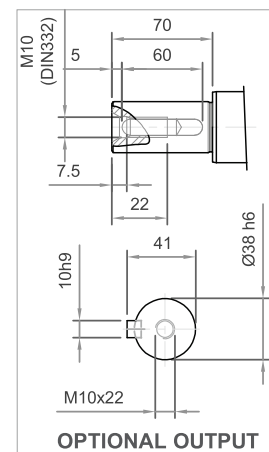
F



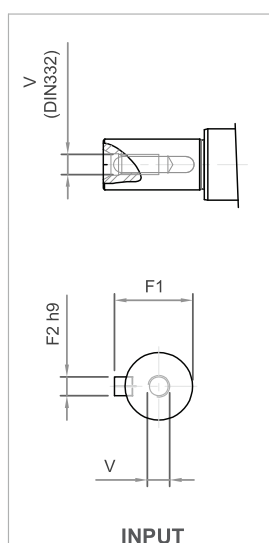
FL



STANDARD OUTPUT



OPTIONAL OUTPUT



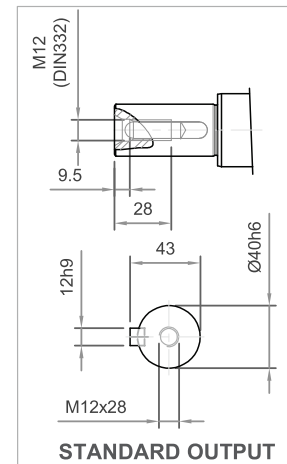
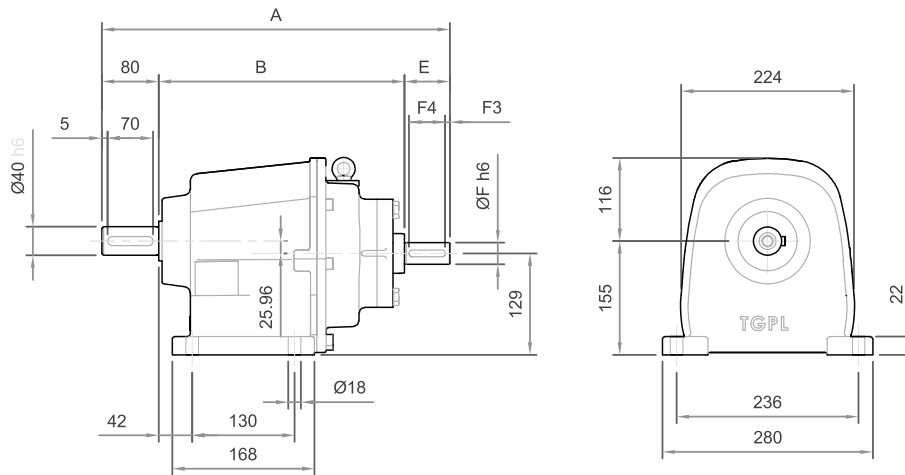
INPUT

TH35-2 ---ISS										
	A	B	E	F	F1	F2	F3	F4	V	
ISS	347.5	227.5	50	24	27	8	5	40	M8x19	27.4 29.8

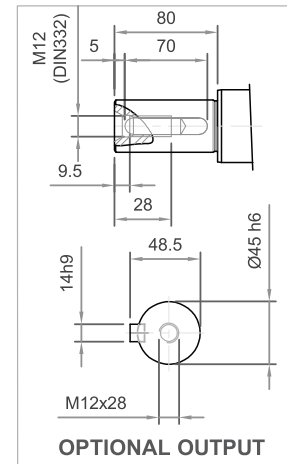
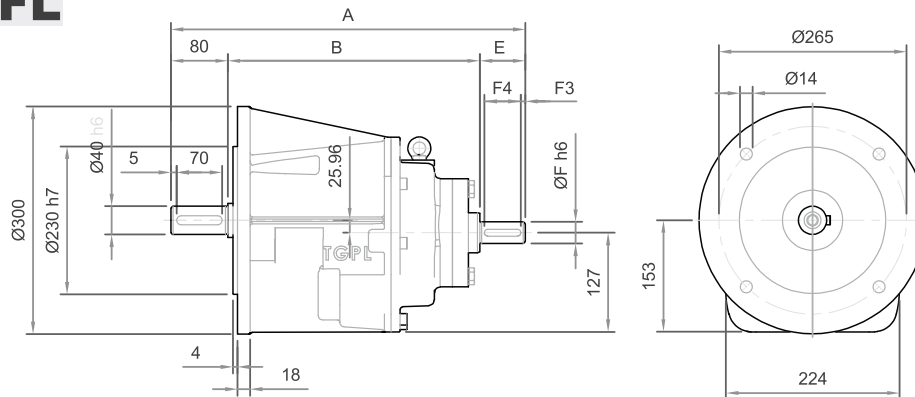
TH35-3 ---ISS										
	A	B	E	F	F1	F2	F3	F4	V	
ISS	363	243	50	24	27	8	5	40	M8x19	28.4 30.8

TH40 --- ISS

F

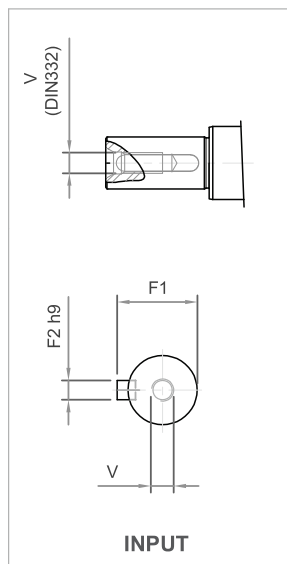


FL



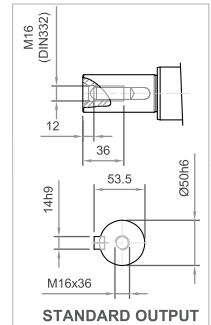
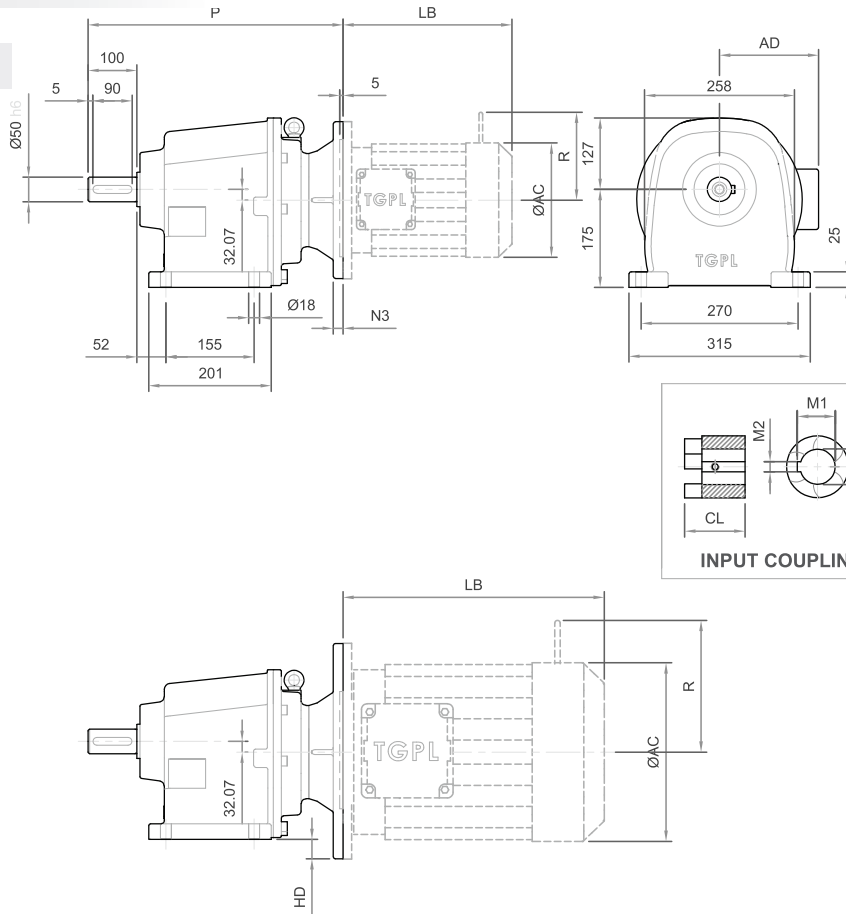
		TH40-2 ---ISS											
		A	B	E	F	F1	F2	F3	F4	V			
ISS		428	288	60	28	31	8	5	50	M10x22	51.4	54.8	

		TH40-3 ---ISS											
		A	B	E	F	F1	F2	F3	F4	V			
ISS		413	283	50	24	27	8	5	40	M8x19	45.8	52.4	

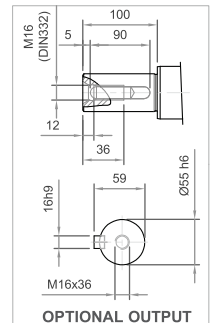


TH50 --- IEC

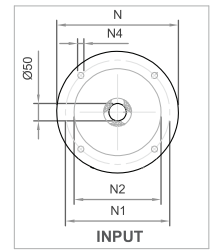
F



STANDARD OUTPUT



OPTIONAL OUTPUT



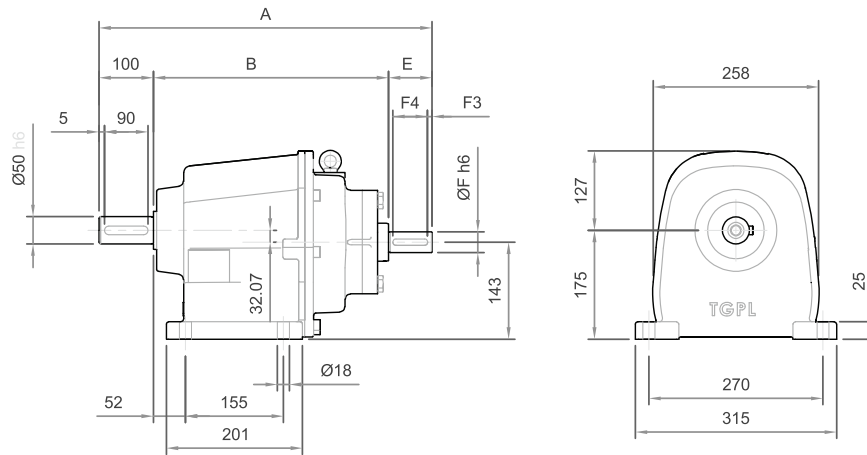
INPUT

	TH50-2 --- F												TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P			LB	AC	AD	LB	AC	AD	R	HD
90S 90L	24	27.3	8	50.2	200	165	130	12	12	462	74	TM90	$\frac{242}{265}$	172	136	$\frac{315}{336}$	172	136	146	-
100	28	31.3	8	54.2	250	215	180	14	15	466	75.2	TM100	297	196	145	387	198	146	158	-
112	28	31.3	8	54.2	250	215	180	14	15	466	75.2	TM112	316	216	154	395	217	156	168	-
132	38	41.3	10	64.2	300	265	230	16	15	476	77.2	TM132								7.07
160	42	45.3	12	71.7	350	300	250	20	19	484	83.8	TM160								32.07

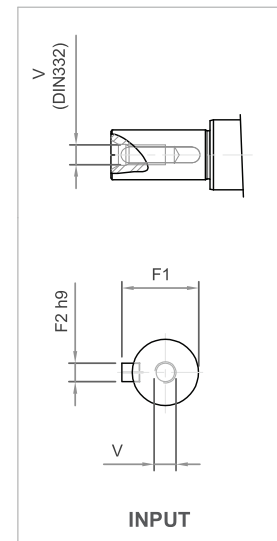
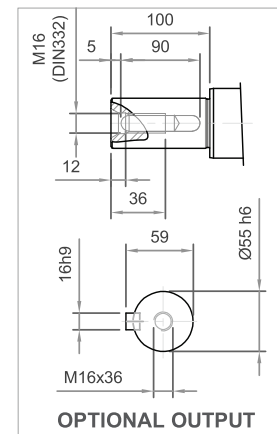
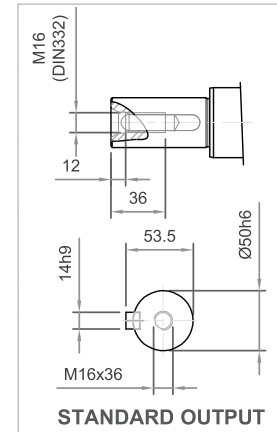
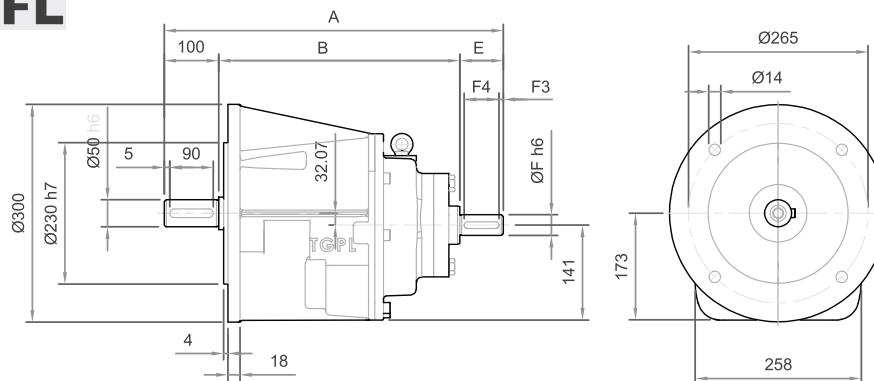
 TH50-3 --- F													TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P			LB	AC	AD	LB	AC	AD	R	HD
80	19	21.8	6	44.2	200	165	130	12	12	475	75.2	TM80	224	156	131	290	156	133	140	-
90S90L	24	27.3	8	44.2	200	165	130	12	12	475	75.2	TM90	242265	172	136	315336	172	136	146	-
100	28	31.3	8	51.2	250	215	180	14	15	482	76.6	TM100	297	196	145	387	198	146	158	-
112	28	31.3	8	51.2	250	215	180	14	15	482	76.6	TM112	316	216	154	395	217	156	168	
132	38	41.3	10	63.2	300	265	230	16	15	494	80	TM132								7.07

TH50 --- ISS

F



FL

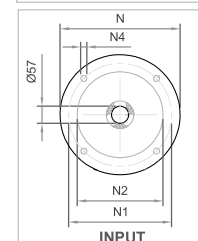
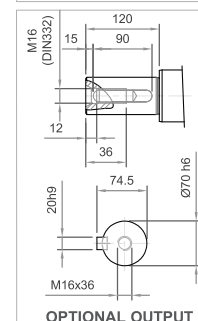
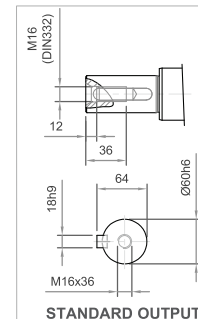
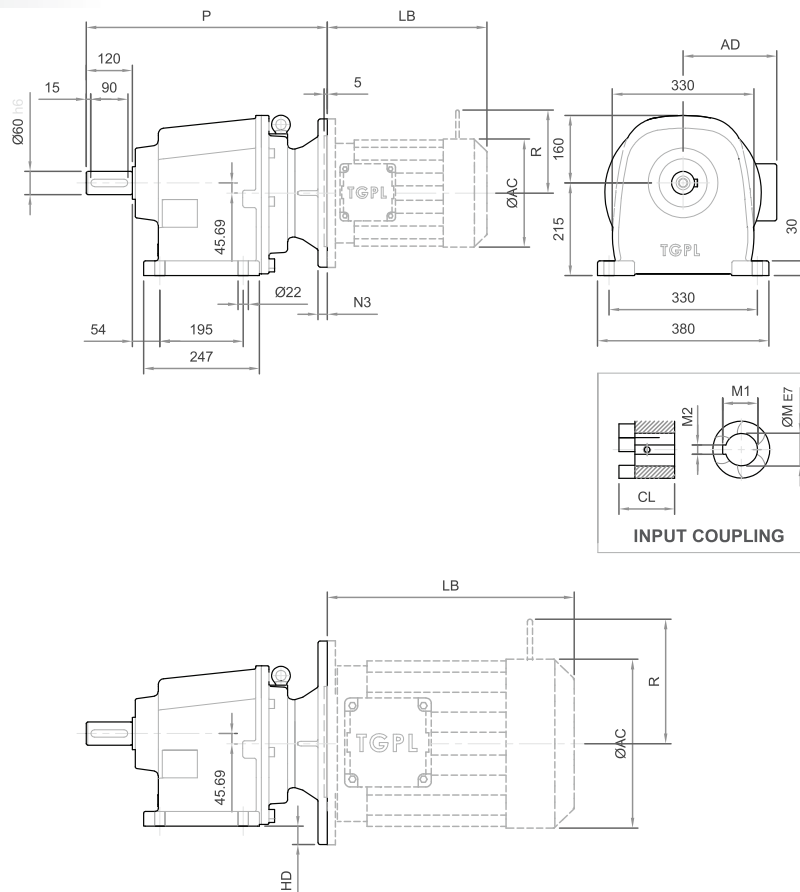


TH50-2 ---ISS											
	A	B	E	F	F1	F2	F3	F4	V		
ISS	516	336	80	38	41	10	10	60	M10x22	75.2	77

TH50-3 ---ISS											
	A	B	E	F	F1	F2	F3	F4	V		
ISS	512	352	60	28	31	8	5	50	M10x22	76.6	78.5

TH60 --- IEC

F

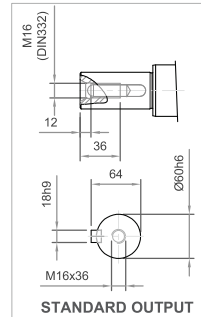
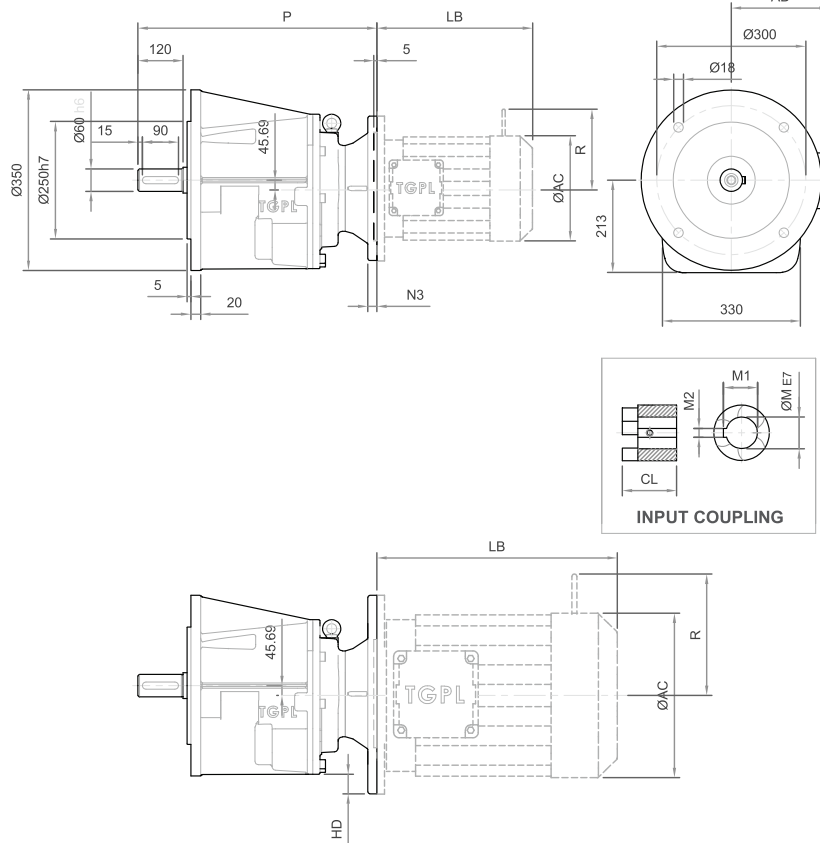


	TH60-2 --- F												TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P			LB	AC	AD	LB	AC	AD	R	HD
100	28	31.3	8	54.2	250	215	180	14	15	535	124.2	TM100	297	196	145	387	198	146	158	-
112	28	31.3	8	54.2	250	215	180	14	15	535	124.2	TM112	316	216	154	395	217	156	168	-
132	38	41.3	10	64.2	300	265	230	16	15	545	128.4	TM132								
160	42	45.3	12	71.7	350	300	250	20	19	553	131.2	TM160								5.69
180	48	51.8	14	71.7	350	300	250	20	19	553	131.2	TM180								5.69

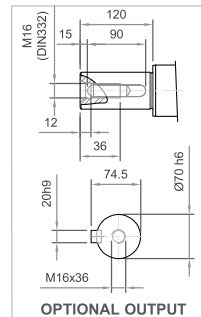
 TH60-3 --- F												TM			TM-DCB					
	M	M1	M2	CL	N	N1	N2	N3	N4	P			LB	AC	AD	LB	AC	AD	R	HD
$\frac{90S}{90L}$	24	27.3	8	50.2	200	165	130	12	12	552	127.1	TM90	$\frac{242}{265}$	172	136	$\frac{315}{336}$	172	136	146	
100	28	31.3	8	54.2	250	215	180	14	15	556	127.3	TM100	297	196	145	387	198	146	158	
112	28	31.3	8	54.2	250	215	180	14	15	556	127.3	TM112	316	216	154	395	217	156	168	-
132	38	41.3	10	64.2	300	265	230	16	15	566	127.8	TM132								
160	42	45.3	12	71.7	350	300	250	20	19	574	128.9	TM160								5.69

TH60 --- IEC

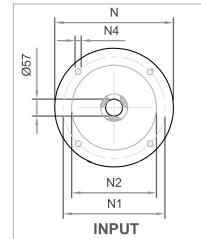
FL



STANDARD OUTPUT



OPTIONAL OUTPUT



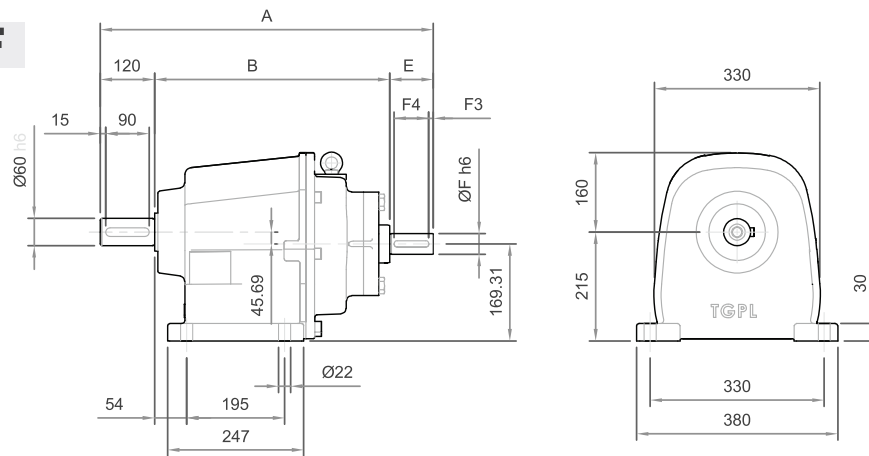
INPUT

	TH60-2 --- FL												TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P			LB	AC	AD	LB	AC	AD	R	HD
100	28	31.3	8	54.2	250	215	180	14	15	535	128	TM100	297	196	145	387	198	146	158	-
112	28	31.3	8	54.2	250	215	180	14	15	535	128	TM112	316	216	154	395	217	156	168	-
132	38	41.3	10	64.2	300	265	230	16	15	545	129.4	TM132								-
160	42	45.3	12	71.7	350	300	250	20	19	553	135	TM160								7.69
180	48	51.8	14	71.7	350	300	250	20	19	553	135	TM180								7.69

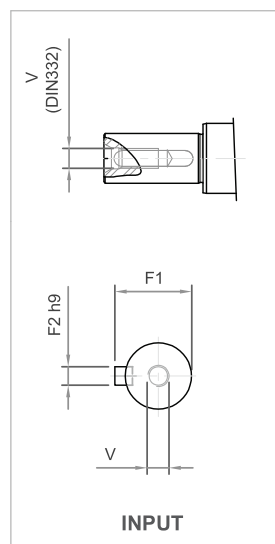
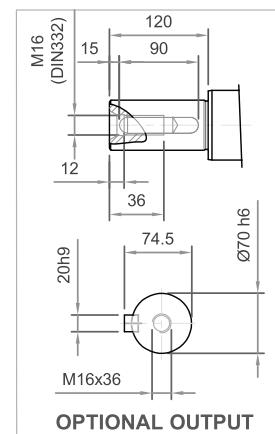
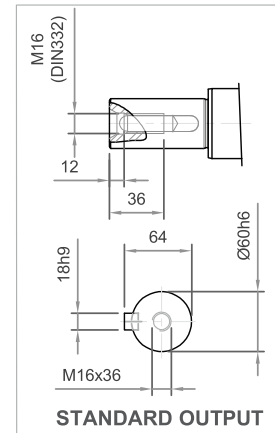
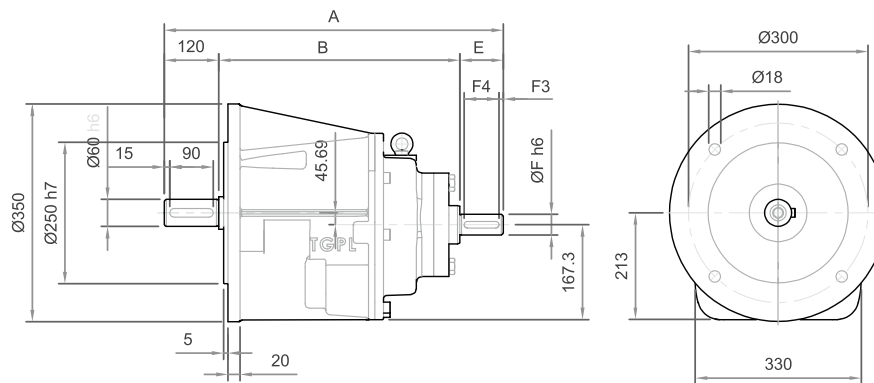
 TH60-3 --- FL													TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P			LB	AC	AD	LB	AC	AD	R	HD
90S 90L	24	27.3	8	50.2	200	165	130	12	12	552	131	TM90	242 265	172	136	315 336	172	136	146	-
100	28	31.3	8	54.2	250	215	180	14	15	556	131	TM100	297	196	145	387	198	146	158	-
112	28	31.3	8	54.2	250	215	180	14	15	556	132.5	TM112	316	216	154	395	217	156	168	-
132	38	41.3	10	64.2	300	265	230	16	15	566	132.8	TM132								-
160	42	45.3	12	71.7	350	300	250	20	19	574	134	TM160								7.69

TH60 --- ISS

F



FL

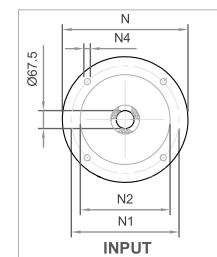
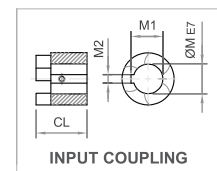
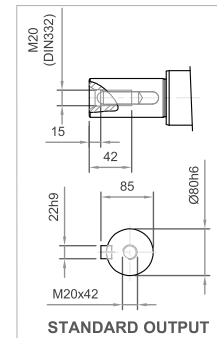
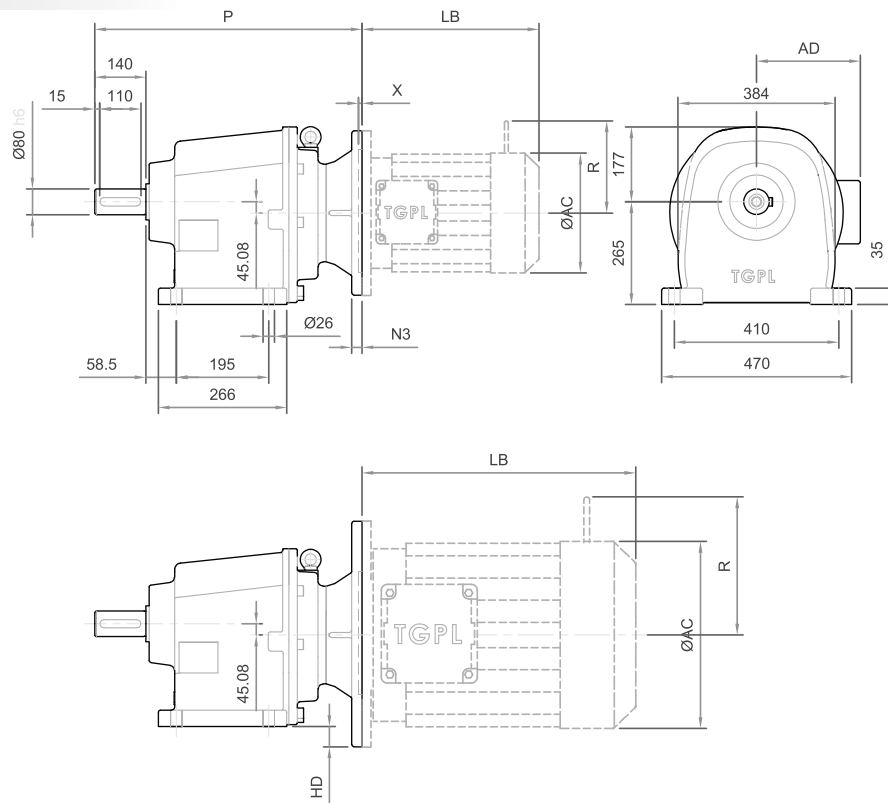


TH60-2 ---ISS											
	A	B	E	F	F1	F2	F3	F4	V		
ISS	616	386	110	42	45	12	10	90	M12x28	125	128

TH60-3 ---ISS											
	A	B	E	F	F1	F2	F3	F4	V		
ISS	607	407	80	38	41	10	10	60	M10x22	128.9	131

TH80 --- IEC

F

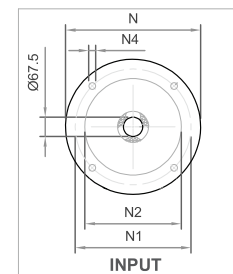
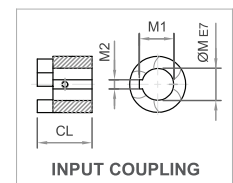
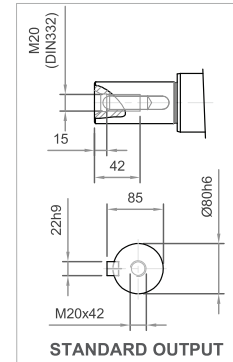
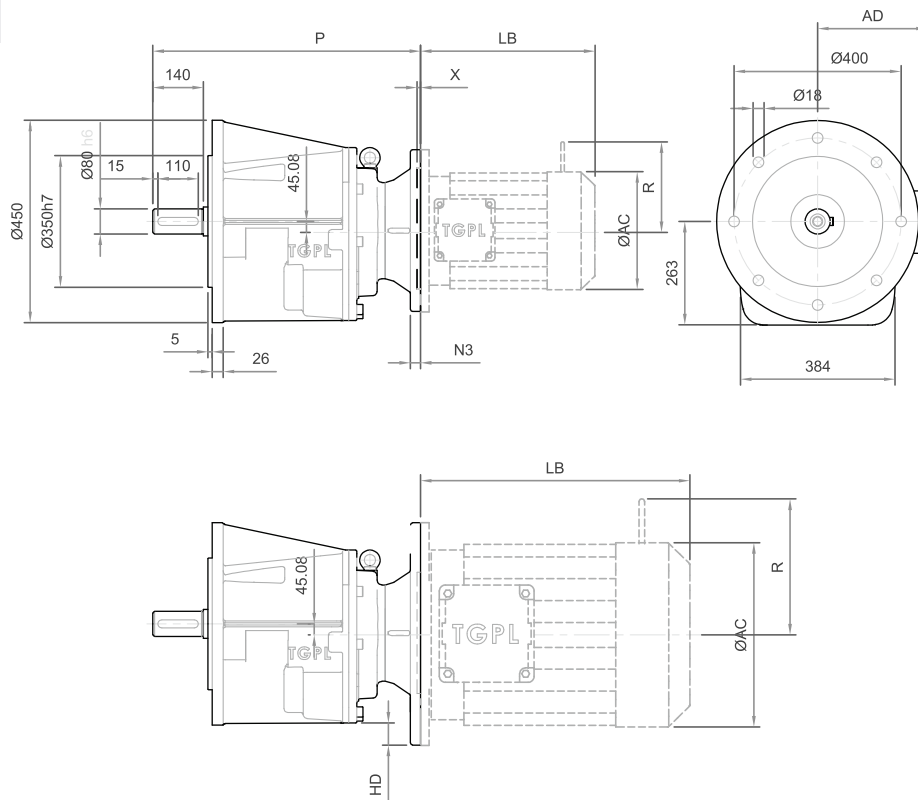


	TH80-2 --- F													TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P	X	Kg		LB	AC	AD	LB	AC	AD	R	HD
100	28	31.3	8	54.2	250	215	180	14	15	586	5	196	TM100	297	196	145	387	198	146	158	-
112	28	31.3	8	54.2	250	215	180	14	15	586	5	196	TM112	316	216	154	395	217	156	168	-
132	38	41.3	10	64.7	300	265	230	16	15	596	5	198	TM132								
160	42	45.3	12	74.7	350	300	250	20	19	606	6	203	TM160								
180	48	51.8	14	74.7	350	300	250	20	19	606	6	203	TM180								
200	55	59.3	16	81.7	400	350	300	20	19	613	6	207	TM200								

	TH80-3 --- FL													TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P	X	Kg		LB	AC	AD	LB	AC	AD	R	HD
100	28	31.3	8	54.2	250	215	180	14	15	611.5	5	209	TM100	297	196	145	387	198	146	158	-
112	28	31.3	8	54.2	250	215	180	14	15	611.5	5	209	TM112	316	216	154	395	217	156	168	-
132	38	41.3	10	64.2	300	265	230	16	15	621.5	5	211	TM132								
160	42	45.3	12	71.7	350	300	250	20	19	629.5	6	216	TM160								
180	48	51.8	14	71.7	350	300	250	20	19	629.5	6	216	TM180								

TH80 --- IEC

FL

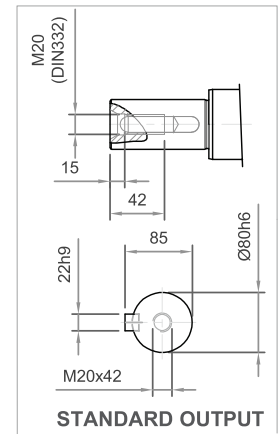
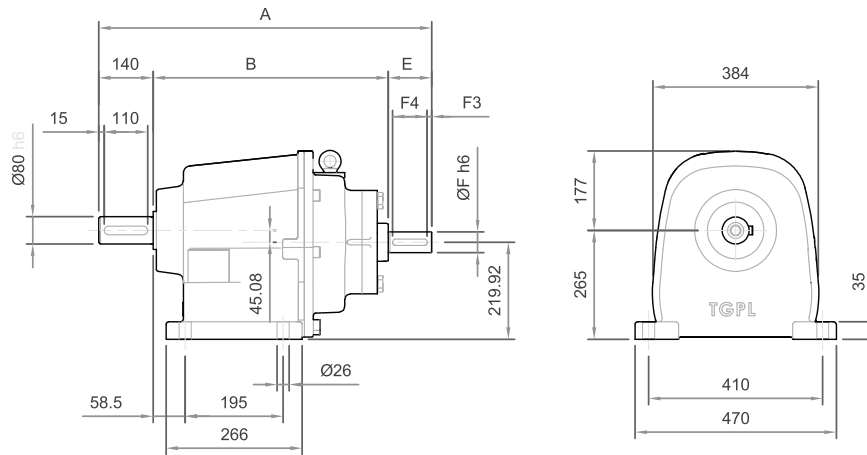


TH80-2 --- FL														TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P	X			LB	AC	AD	LB	AC	AD	R	HD
100	28	31.3	8	54.2	250	215	180	14	15	586	5	199	TM100	297	196	145	387	198	146	158	-
112	28	31.3	8	54.2	250	215	180	14	15	586	5	199	TM112	316	216	154	395	217	156	168	-
132	38	41.3	10	64.7	300	265	230	16	15	596	5	201	TM132								
160	42	45.3	12	74.7	350	300	250	20	19	606	6	206	TM160								
180	48	51.8	14	74.7	350	300	250	20	19	606	6	206	TM180								
200	55	59.3	16	81.7	400	350	300	20	19	613	6	210	TM200								

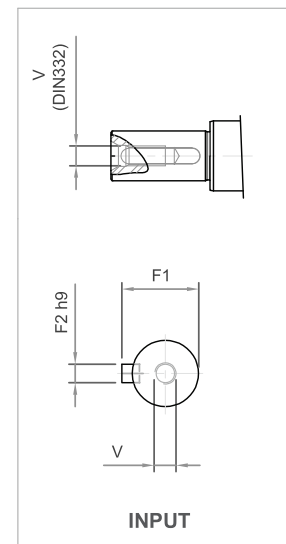
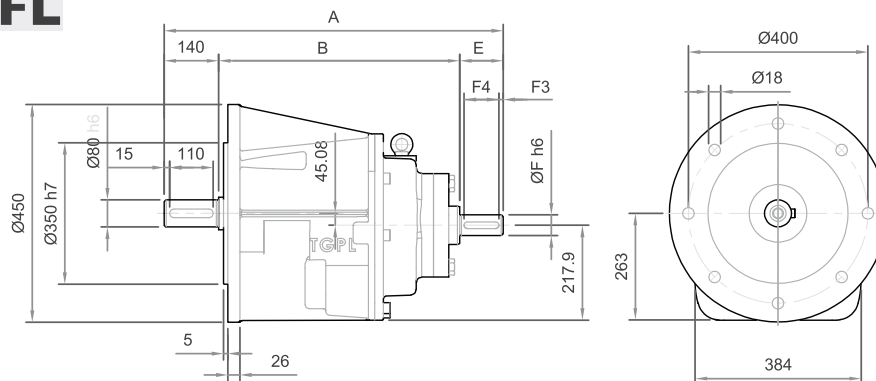
TH80-3 --- FL														TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P	X			LB	AC	AD	LB	AC	AD	R	HD
100	28	31.3	8	54.2	250	215	180	14	15	611.5	5	214	TM100	297	196	145	387	198	146	158	-
112	28	31.3	8	54.2	250	215	180	14	15	611.5	5	214	TM112	316	216	154	395	217	156	168	-
132	38	41.3	10	64.2	300	265	230	16	15	621.5	5	216	TM132								
160	42	45.3	12	71.7	350	300	250	20	19	629.5	6	221	TM160								
180	48	51.8	14	71.7	350	300	250	20	19	629.5	6	221	TM180								

TH80 --- ISS

F



FL

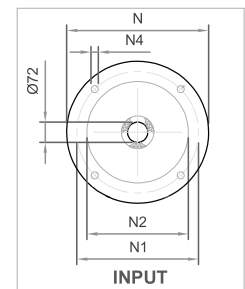
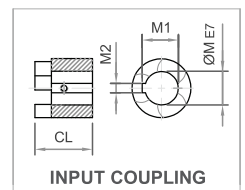
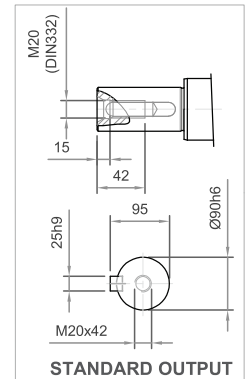
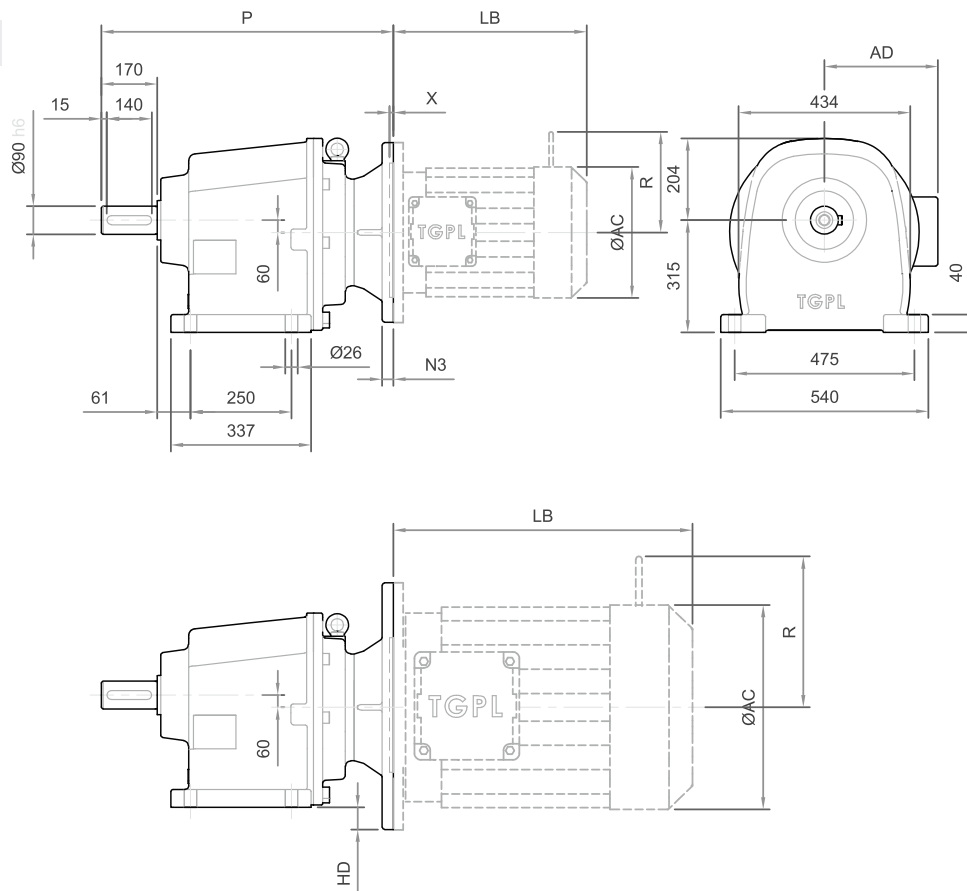


TH80-2 ---ISS											
	A	B	E	F	F1	F2	F3	F4	V		
ISS	674	424	110	48	51.5	14	10	90	M16x36	200	206

TH80-3 ---ISS											
	A	B	E	F	F1	F2	F3	F4	V		
ISS	694.5	444.5	110	42	45	12	10	90	M12x28	211	216

TH90 --- IEC

F

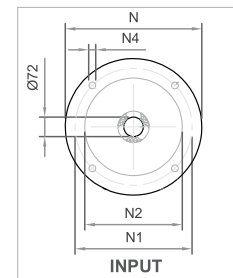
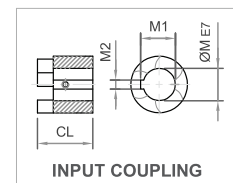
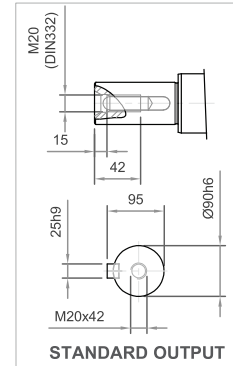
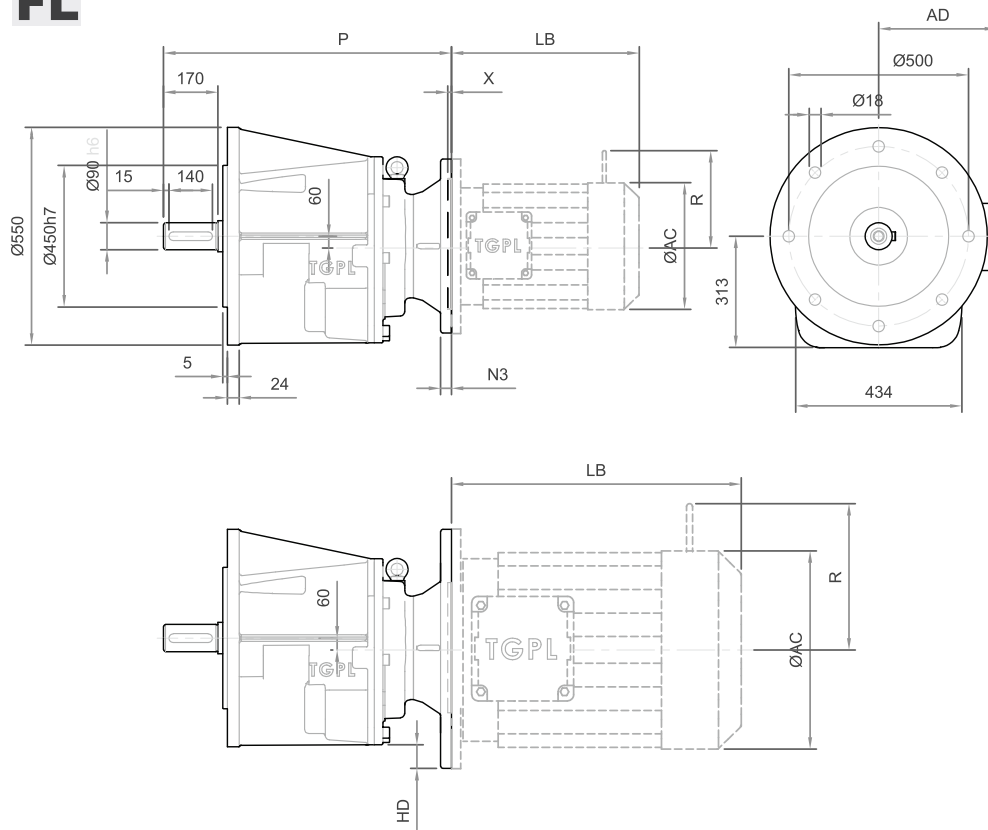


TH90-2 --- F														TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P	X	Kg		LB	AC	AD	LB	AC	AD	R	HD
160	42	45.3	12	74.7	350	300	250	20	19	700	6	-	TM160								
180	48	51.8	14	74.7	350	300	250	20	19	700	6	-	TM180								
200	55	59.3	16	81.7	400	350	300	20	19	707	6	-	TM200								
225	60	64.4	18	83.7	450	400	350	20	19	707	6	-	TM225								

TH90-3 --- F														TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P	X	Kg		LB	AC	AD	LB	AC	AD	R	HD
100	28	31.3	8	54.2	250	215	180	14	15	723	5	-	TM100	297	196	145	387	198	146	158	-
112	28	31.3	8	54.2	250	215	180	14	15	723	5	-	TM112	316	216	154	395	217	156	168	-
132	38	41.3	10	64.7	300	265	230	16	15	733	5	-	TM132								
160	42	45.3	12	74.7	350	300	250	20	19	743	6	-	TM160								
180	48	51.8	14	74.7	350	300	250	20	19	743	6	-	TM180								
200	55	59.3	16	81.7	400	350	300	20	19	750	6	-	TM200								

TH90 --- IEC

FL

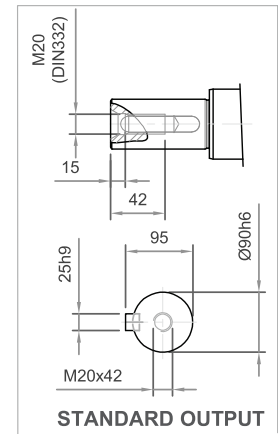
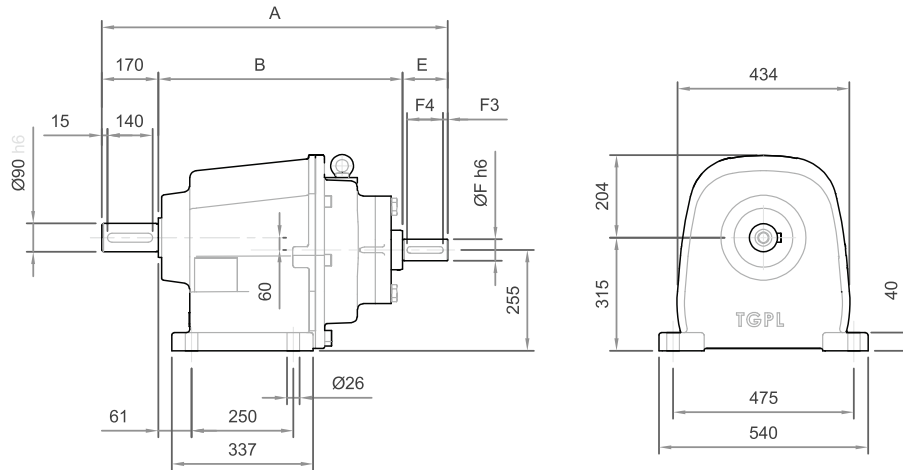


TH90-2 --- FL													TM			TM-DCB				
	M	M1	M2	CL	N	N1	N2	N3	N4	P	X		LB	AC	AD	LB	AC	AD	R	HD
160	42	45.3	12	74.7	350	300	250	20	19	700	6	-	TM160							
180	48	51.8	14	74.7	350	300	250	20	19	700	6	-	TM180							
200	55	59.3	16	81.7	400	350	300	20	19	707	6	-	TM200							
225	60	64.4	18	83.7	450	400	350	20	19	707	6	-	TM225							

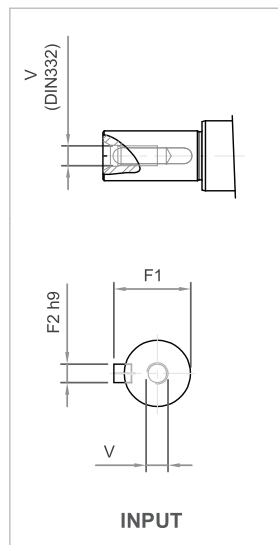
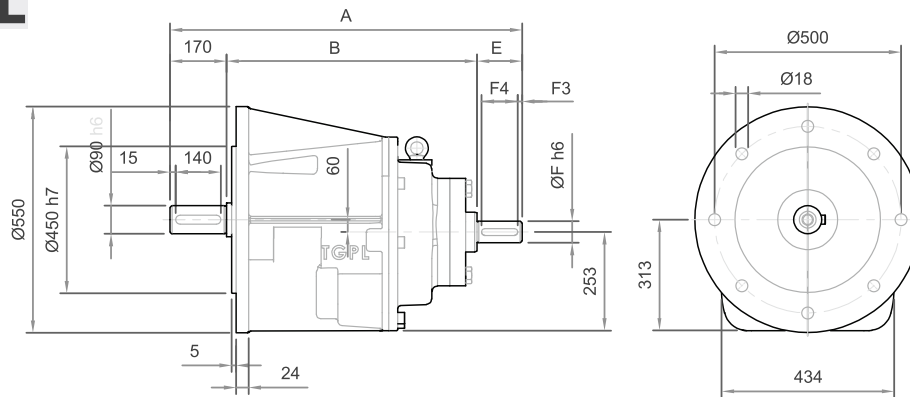
TH90-3 --- FL														TM			TM-DCB					
	M	M1	M2	CL	N	N1	N2	N3	N4	P	X			LB	AC	AD	LB	AC	AD	R	HD	
100	28	31.3	8	54.2	250	215	180	14	15	723	5	-	TM100	297	196	145	387	198	146	158	-	
112	28	31.3	8	54.2	250	215	180	14	15	723	5	-	TM112	316	216	154	395	217	156	168	-	
132	38	41.3	10	64.7	300	265	230	16	15	733	5	-	TM132									
160	42	45.3	12	74.7	350	300	250	20	19	743	6	-	TM160									
180	48	51.8	14	74.7	350	300	250	20	19	743	6	-	TM180									
200	55	59.3	16	81.7	400	350	300	20	19	750	6	-	TM200									

TH90 --- ISS

F



FL

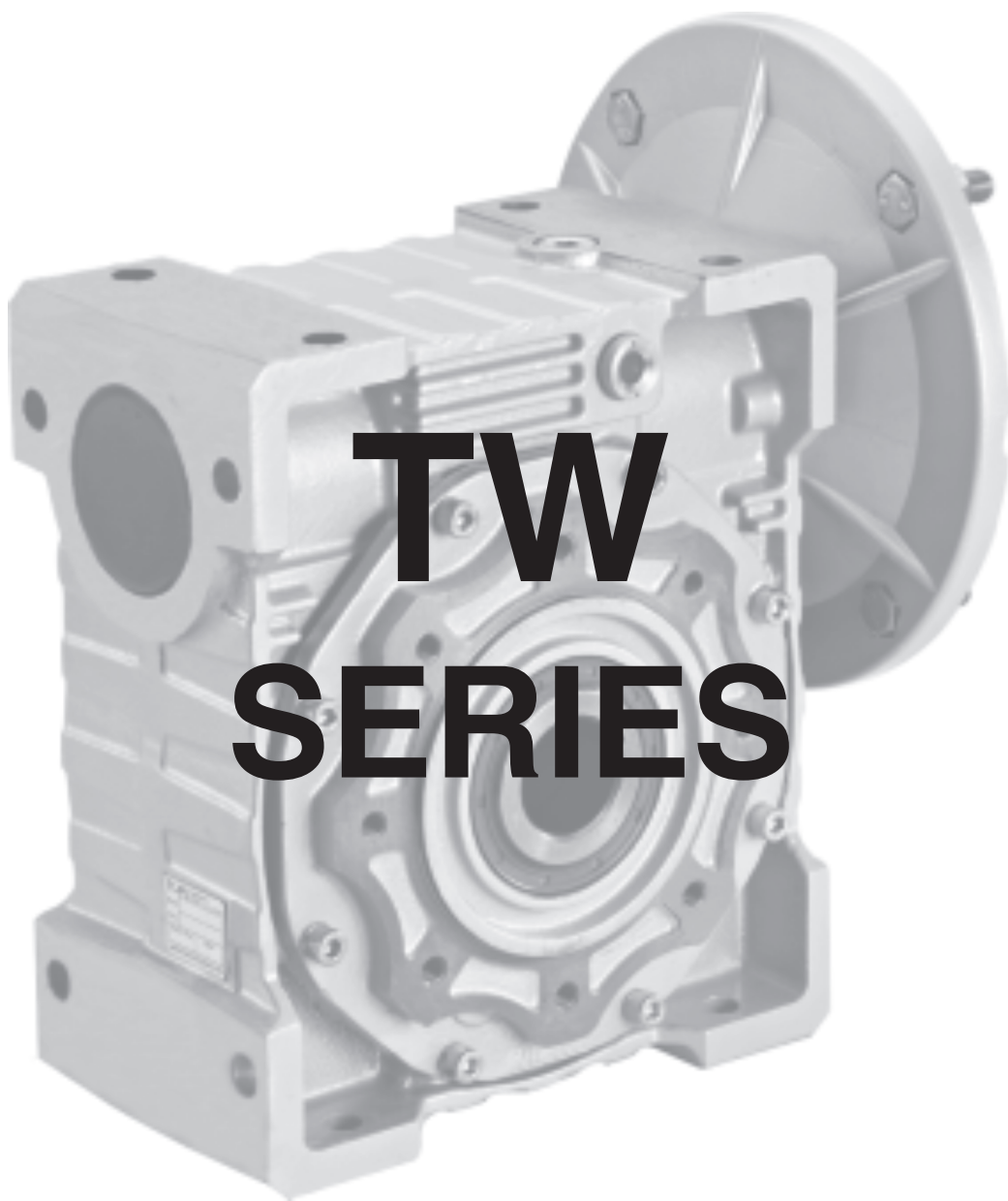


TH90-2 ---ISS											
	A	B	E	F	F1	F2	F3	F4	V		
ISS	798	488	140	60	64	18	10	120	M16x36	-	-

TH90-3 ---ISS											
	A	B	E	F	F1	F2	F3	F4	V		
ISS	813	533	110	48	51.5	14	10	90	M16x36	-	-

Notes

TW SERIES



1. SUMMARIZE

1.1 Products Features:

TW Series main design features are as follows:

- High durability – The Gear Box body made of high quality aluminum alloy, non-rusting.
- Superior efficiency & Low noise, because of precise machining.
- Worm shaft made of case hardened steel for high strength & efficiency, ground machining for excellent finishing.
- Flexible mounting, wide variety of mounting options.
- High reduction ratio.
- Efficient radiator.
- Elegant appearance.
- Lubricated for life and maintenance free operation.

1.2 Main Materials

1. Housing: die-cast aluminum alloy (frame size: 30 to 90); cast iron (frame size: 110 to 150)
2. Worm Shaft: 20Cr, carbonize & quencher heat treatment make the hardness of gear's surface up to 56-62 HRC.
3. Worm wheel: wearable stannum bronze alloy.

1.3 Surface Painting

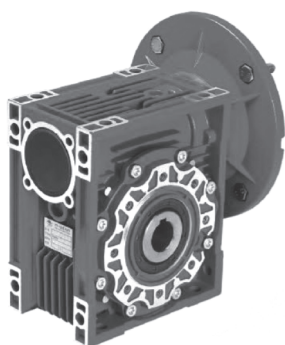
Aluminum alloy housing:

1. Shot blasting and special antiseptic treatment on the aluminum alloy surface.
2. After phosphating, powder coated in silvery white.

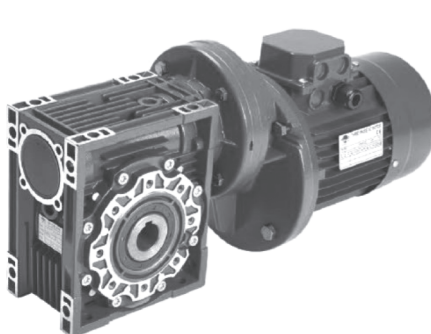
Cast iron housing:

First paint with red antirust paint, then painted with silvery white paint.

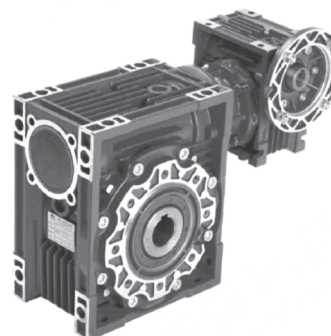
2. PRODUCT STRUCTURE PICTURE



TW



HL-TW



TW / TW

3. MODEL DESIGNATION

WORM GEAR BOX DESIGNATION (TW)

TW	63	U	50	F90	B5	B3	Options
Gear box Type (Worm)	Gear box Frame	U-Universal Mounting (Foot) (or)	i-Ratio	Gear box Input Frame Size	Motor Mounting	Gear box Mounting Position	SSOS (Single Solid Output Shaft); DOS (Double Output Shaft); NDES (Non Driven End Side Shaft); TRA (Torque Arm); C (Output Side Cover)
	30 (or) 40 (or) 50 (or) 63 (or) 75 (or) 90 (or) 110 (or) 130 (or) 150	UFA (or) UFB (or) UFD Flange Mounting	7.5 (or) 10 (or) 15 (or) 20 (or) 25 (or) 30 (or) 40 (or) 50 (or) 60 (or) 80 (or) 100	F 63 (or) F 71 (or) F 80 (or) F 90 (or) F 100 (or) F 112 (or) F 132 (or) ISS (Input Solid Shaft)	B5-TW 30 to TW 150 (or) B14-TW 30 to TW 110 (or) NA	B3 (or) B6 (or) B7 (or) B8 (or) V5 (or) V6	

HELI - WORM GEAR BOX DESIGNATION (HL-TW)

HL-TW	63	U	300	F71	B5	B3	Options
Gear box Type (Heli-Worm)	Gear box Frame	U-Universal Mounting (Foot) (or)	i-Ratio	Gear box Input Frame Size	Motor Mounting	Gear box Mounting Position	SSOS (Single Solid Output Shaft); DOS (Double Output Shaft); NDES (Non Driven End Side Shaft); TRA (Torque Arm); C (Output Side Cover)
		UFA (or) UFB (or) UFD Flange Mounting		F 63 (or) F 71 (or) F 80 (or) F 90	Only B5	B3 (or) B6 (or) B7 (or) B8 (or) V5 (or) V6	

Double (Combination) Worm Gear Box Designation (TW / TW)

TW / TW	30/50	U	200	F90	B5	AS2	Options
Gear box Type (Double Worm)	Gear box Frame	U-Universal Mounting (Foot) (or) UFA } (or) Flange UFB } Mounting (or) UFD }	i-Ratio 150 (or) 200 (or) 250 (or) 300 (or) 400 (or) 500 (or) 600 (or) 750 (or) 900 (or) 1200 (or) 1500 (or) 1800 (or) 2400 (or) 3000 (or) 4000 (or) 5000	Gear box Input Frame Size F 63 (or) F 71 (or) F 80 (or) F 90 (or) ISS (Input Solid Shaft)	Motor Mounting B5-TW 30 to TW 150 (or) B14-TW 30 to TW 110 (or) NA	Gear box Mounting Position AS1 (or) AS2 (or) VS1 (or) VS2 (or) PS1 (or) PS2 (or) BS1 (or) BS2	SSOS (Single Solid Output Shaft); (or) DOS (Double Output Shaft); (or) NDES (Non Driven End Side Shaft); (or) TRA (Torque Arm); (or) C (Output Side Cover)

4. RELEVANT PARAMETER

4.1 Power P

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

$$P_{1n} \geq P_1 \cdot f_s \text{ [kW]}$$

P_1 Input power

P_2 Output power

P_{1n} Rated input motor power

f_s Service factor

η Transmission efficiency

The parameter can be found in the TW/ISS gearbox rating charts and represents the KW that can be safely transmitted to the gearbox, based on input speed n_1 and service factor $f_s=1$.

Values of η_d are calculated for gearboxes after a sufficiently long running-in period. After the running-in period the surface temperature in operation reduces and finally stabilises. It may be worth highlighting that values of rated torque M_{2n} given in the catalogue take the transmission efficiency η_d into consideration.

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.

4.3 Transmission ratio i

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

4.4 Torque M

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

$$M_{2n} \geq M_2 \cdot f_s \text{ [Nm]}$$

M_2 Output torque

M_{2n} Rated output torque

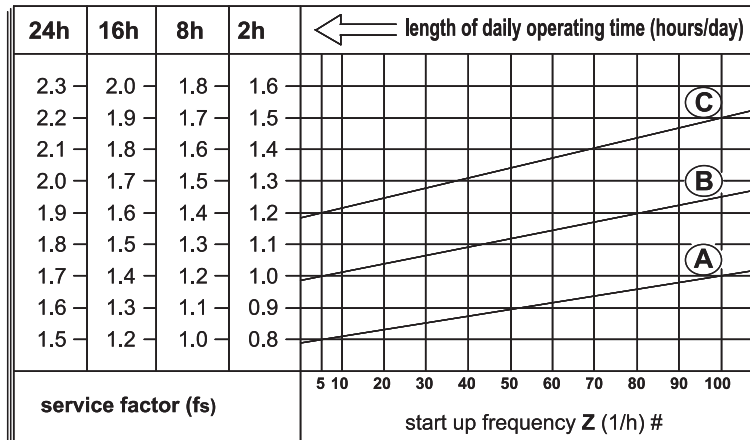
P_1 Input power

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 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.



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

Type of load:

- Ⓐ Uniform, permitted mass acceleration factor $f_a \leq 0.25$
- Ⓑ Moderate shock load, permitted mass acceleration factor $f_a \leq 3$
- Ⓒ Heavy shock load, permitted mass acceleration factor $f_a \leq 10$

NOTE : For detailed load classification refer page no : 6

4.5.2 Mass acceleration factor

The mass acceleration factor is calculated as follows:

$$f_a = \frac{J_c}{J_m}$$

f_a Mass acceleration factor

J_c All external mass moments of inertia [kgm^2]

J_m Mass moment of inertia on the motor end [kgm^2]

If mass acceleration factors $f_a > 10$, please call our Technical Service.

Service factor f_s should be adjusted as followings:

- 1) Ambient temperature is 30 ~ 40°C: $f_s \times (1.1 \sim 1.2)$
- 2) Ambient temperature is 40 ~ 50°C: $f_s \times (1.3 \sim 1.4)$
- 3) Ambient temperature is 50 ~ 60°C: $f_s \times (1.5 \sim 1.6)$
- 4) Ambient temperature > 60°C, 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**.

4.A Radial loads F_r

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 f_z	Comments
Gears	1.00	≥ 17 / teeth
	1.15	< 17 / teeth
Chain sprockets	1.00	≥ 20 / teeth
	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:

$$F_r = \frac{M \cdot 2000 \cdot f_z}{d_0} \quad [\text{N}]$$

F_r Resulting radial load [N]

M Torque on the shaft [Nm]

d_0 Mean diameter of the mounted transmission element in [mm]

f_z Transmission element factor

The allowed radial load force on the shaft is calculated with the following formula:

$$F_{xL} \leq \frac{F_{r2} \cdot a}{(b+x)} \quad [\text{N}]$$

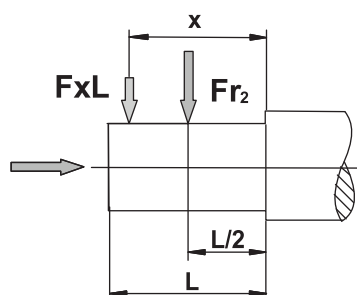
F_{r2} Permitted overhung load ($x = L/2$) for foot-mounted gear units according to the selection tables in [N]

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

x Distance from the shaft shoulder to the force application point in (mm)

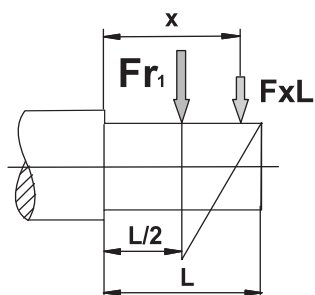
The values of a , b , F_{r2} are given in the following tables:

Output shafts radial loads



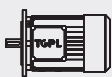
TW	030	040	050	063	075	090	110	130	150
a	65	84	101	120	131	162	176	188	215
b	50	64	76	95	101	122	136	148	174
Fr₂ max	1830	3490	4840	6270	7380	8180	12000	13500	18000

Input shafts radial loads



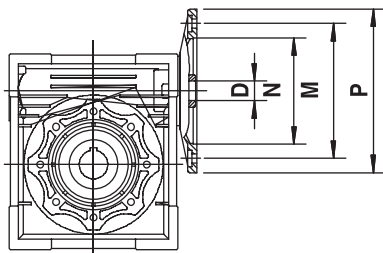
TW/ISS	030	040	050	063	075	090	110	130	150
a	86	106	129	159	192	227	266	314	350
b	76	94.5	114	139	167	202	236	274	310
Fr₁ max	210	350	490	700	980	1270	1700	2100	2800

4.B SYMBOLS AND UNITS OF MEASURE

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	Fr_2 [N]	f_s			
Rated power driving motor	Output speed	Rated output torque	Gear unit ratio	Output Shaft radial load	Service factor	Gear unit Size	Motor Size	Page number - Dimension details

5. RELEVANT DATA

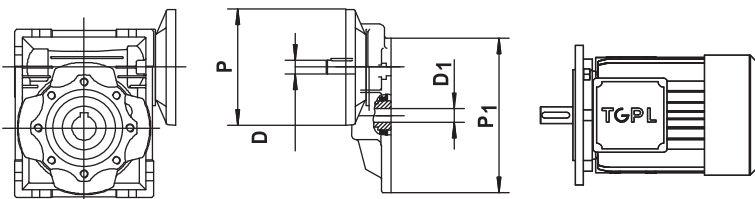
5.1 Ratio and IEC motor adapters



	IEC motor adapters				D Input Hollow Shaft Dia										
	IEC	P	M	N	i Transmission ratio										
					7.5	10	15	20	25	30	40	50	60	80	100
TW30	63B5	140	115	95	11	11	11	11	11	11	11	11	11		
	63B14	90	75	60											
TW40	63B5	140	115	95	11	11	11	11	11	11	11	11	11	11	11
	63B14	90	75	60											
	71B5	160	130	110	14	14	14	14	14	14					
	71B14	105	85	70											
TW50	63B5	140	115	95								11	11	11	11
	71B5	160	130	110	14	14	14	14	14	14	14	14	14		
	71B14	105	85	70											
	80B5	200	165	130	19	19	19								
	80B14	120	100	80											
TW63	71B5	160	130	110							14	14	14	14	14
	71B14	105	85	70											
	80B5	200	165	130	19	19	19	19	19	19	19	19	19	19	
	80B14	120	100	80											
	90B5	200	165	130	24	24	24	24	24	24					
	90B14	140	115	95											
TW75	71B5	160	130	110								14	14	14	14
	80B5	200	165	130				19	19	19	19	19	19	19	19
	80B14	120	100	80											
	90B5	200	165	130	24	24	24	24	24	24					
	90B14	140	115	95											
	100 / 112B5	250	215	180	28	28	28								
	100 / 112B14	160	130	110											
TW90	80B5	200	165	130							19	19	19	19	19
	80B14	120	100	80											
	90B5	200	165	130	24	24	24	24	24	24	24	24	24		
	90B14	140	115	95											
	100 / 112B5	250	215	180	28	28	28	28	28	28					
	100 / 112B14	160	130	110											
TW110	80B5	200	165	130										19	19
	90B5	200	165	130					24	24	24	24	24	24	24
	100 / 112B5	250	215	180	28	28	28	28	28	28	28	28	28		
	100 / 112B14	160	130	110											
TW130	90B5	200	165	130										24	24
	100 / 112B5	250	215	180					28	28	28	28	28	28	28
TW150	100 / 112B5	250	215	180								28	28	28	28
	132B5	300	265	230				38	38	38	38	38	38		

5.2. HL - TW Combinations

	i	HL 063	HL 071	HL 080	HL 090
		105 / 11 i = 3	120 / 14 i = 3	160 / 19 i = 3	160 / 24 i = 2.42
TW40	25				
	30				
	40				
	50				
	60				
	80				
TW50	100				
	25				
	30				
	40				
	50				
	60				
TW63	80				
	100				
	25				
	30				
	40				
	50				
TW75	60				
	80				
	100				
	25				
	30				
	40				
TW90	50				
	60				
	80				
	100				
	25				
	30				
TW110	40				
	50				
	60				
	80				
	100				
	25				
TW130	30				
	40				
	50				
	60				
	80				
	100				



	P	D	P1	D1
HL 063	105	11	140 (63B5)	11
HL 071	120	14	160 (71B5)	14
HL 080	160	19	200 (80B5)	19
HL 090	160	24	200 (90B5)	24

5.3 Efficiency & Irreversibility Character

Efficiency is an important parameter of reducer, Efficiency η depends on the following parameters: 1) helix angle of gearing, 2) driving speed, 3) running-in of gearing, 4) The performance of oil, oil seal and bearing. The mesh data table on shows dynamic efficiency ($n_1=1400$) and static efficiency values. Remember that these values are only achieved after the unit has been run in. Torque values M_{n2} indicated in the catalogue are calculated by considering the steady-state performance of the gearboxes. The actual values mentioned above may be have deflection.

5.3.1 Dynamic irreversibility

Dynamic irreversibility is achieved when the output shaft stops instantly when drive is no longer transmitted through the worm shaft. This condition requires a dynamic efficiency of $\eta_d < 0.4$

5.3.2 Static irreversibility

Static irreversibility is achieved when the gear reducer at a standstill, the application of a load to the output shaft can't drive the worm shaft. This condition requires a static efficiency of $\eta_s < 0.5$

η_d	>0.6	0.5 ~ 0.6	0.4 ~ 0.5	<0.4
DYNAMIC IRREVERSIBILITY	dynamic reversibility	low dynamic reversibility	good dynamic irreversibility	dynamic irreversibility

η_s	>0.55	0.5 ~ 0.55	<0.5
STATIC IRREVERSIBILITY	Static reversibility	low static reversibility	static irreversibility

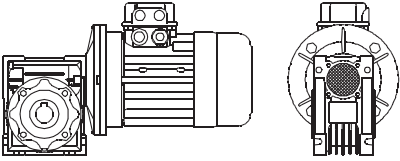
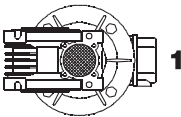
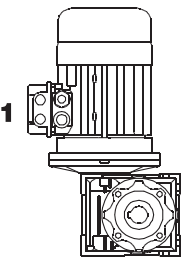
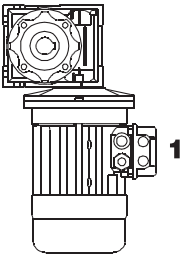
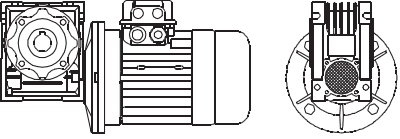
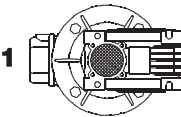
The table shows approximate irreversibility classes. Vibrations and shocks can affect a gear reducer's irreversibility. As it is virtually impossible to provide and guarantee total non reversing, we recommend the use of an external brake with sufficient capability to prevent vibrations in duced starting, where these circumstances are required. For the irreversibility conditions of a combined geared unit one must consider that the efficiency of the group is given by the product of the efficiencies of each single reducer, i.e.: $\eta_{tot} = \eta_1 \times \eta_2$.

5.3.3 Mesh Data

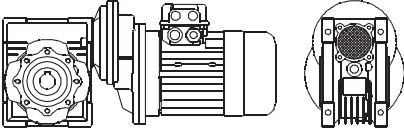
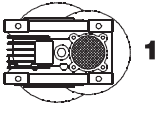
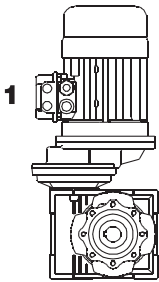
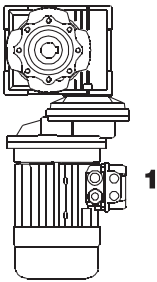
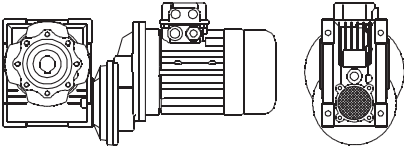
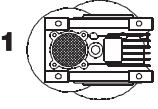
	<i>i</i>	7.5	10	15	20	25	30	40	50	60	80	100
TW30	z₁	4	3	2	2	1	1	1	1	1		
	m_n	1.36	1.39	1.42	1.09	1.69	1.43	1.10	0.89	0.74		
	Y	18°55'	14°25'	9°44'	7°50'	5°33'	4°54'	3°56'	3°17'	2°43'		
	η_d	0.84	0.81	0.76	0.72	0.66	0.64	0.59	0.54	0.50		
	η_s	0.66	0.62	0.54	0.49	0.41	0.38	0.33	0.29	0.26		
TW40	z₁	4	3	2	2	2	1	1	1	1	1	1
	m_n	1.87	1.95	2.00	1.54	1.26	2.04	1.55	1.27	1.06	0.80	0.65
	Y	23°54'	18°23'	12°30'	10°3'	8°45'	6°19'	5°4'	4°24'	3°42'	2°52'	2°29'
	η_d	0.86	0.84	0.80	0.77	0.74	0.69	0.65	0.61	0.57	0.51	0.47
	η_s	0.70	0.66	0.59	0.54	0.51	0.44	0.39	0.36	0.32	0.27	0.24
TW50	z₁	4	3	2	2	2	1	1	1	1	1	1
	m_n	2.34	2.43	2.50	1.92	1.56	2.54	1.94	1.58	1.32	1.00	0.80
	Y	23°49'	18°19'	12°27'	10°3'	8°33'	6°18'	5°4'	4°18'	3°38'	2°52'	2°17'
	η_d	0.87	0.85	0.81	0.78	0.75	0.71	0.67	0.63	0.59	0.53	0.48
	η_s	0.70	0.66	0.59	0.54	0.51	0.44	0.39	0.36	0.32	0.27	0.24
TW63	z₁	4	3	2	2	2	1	1	1	1	1	1
	m_n	2.96	3.08	3.17	2.44	1.98	3.23	2.47	1.99	1.68	1.27	1.02
	Y	24°31'	18°53'	12°51'	10°29'	8°45'	6°30'	5°17'	4°24'	3°49'	2°59'	2°26'
	η_d	0.88	0.86	0.82	0.80	0.77	0.73	0.69	0.65	0.62	0.56	0.51
	η_s	0.70	0.66	0.59	0.55	0.51	0.44	0.40	0.36	0.33	0.28	0.24
TW75	z₁	4	3	2	2	2	1	1	1	1	1	1
	m_n	3.53	3.70	3.83	2.94	2.39	3.92	2.99	2.41	2.02	1.54	1.24
	Y	26°38'	20°37'	14°5'	11°19'	9°29'	7°9'	5°43'	4°46'	4°1'	3°17'	2°44'
	η_d	0.88	0.87	0.84	0.81	0.79	0.76	0.72	0.68	0.64	0.59	0.55
	η_s	0.71	0.68	0.61	0.57	0.53	0.47	0.41	0.37	0.34	0.29	0.26
TW90	z₁	4	3	2	2	2	1	1	1	1	1	1
	m_n	4.23	4.47	4.66	3.60	2.93	4.79	3.67	2.97	2.49	1.89	1.52
	Y	29°5'	22°39'	15°33'	12°50'	10°53'	7°55'	6°30'	5°29'	4°46'	3°45'	3°6'
	η_d	0.89	0.88	0.85	0.83	0.81	0.78	0.74	0.71	0.68	0.63	0.59
	η_s	0.72	0.69	0.63	0.59	0.56	0.49	0.44	0.41	0.37	0.32	0.28
TW110	z₁	4	3	2	2	2	1	1	1	1	1	1
	m_n	5.18	5.45	5.67	4.47	3.64	5.82	4.58	3.71	3.12	2.36	1.91
	Y	28°15'	21°57'	15°2'	14°42'	12°33'	7°39'	7°29'	6°21'	5°33'	4°27'	3°46'
	η_d	0.89	0.88	0.86	0.85	0.83	0.79	0.77	0.74	0.72	0.67	0.63
	η_s	0.72	0.69	0.62	0.62	0.59	0.48	0.48	0.44	0.41	0.36	0.32
TW130	z₁	4	3	2	2	2	1	1	1	1	1	1
	m_n	6.11	6.45	6.72	5.24	4.28	6.91	5.36	4.35	3.65	2.76	2.23
	Y	28°43'	22°20'	15°19'	13°47'	11°54'	7°48'	6°60'	6°1'	5°16'	4°8'	3°27'
	η_d	0.90	0.89	0.87	0.85	0.84	0.80	0.78	0.75	0.73	0.68	0.64
	η_s	0.72	0.69	0.63	0.61	0.58	0.49	0.46	0.43	0.40	0.34	0.30
TW150	z₁	6	4	3	2	2	2	1	1	1	1	1
	m_n	5.5	6.155	5.5	6.155	5	4.193	6.155	5	4.193	3.17	2.55
	Y	32°09'	24°35'	17°27'	12°53'	11°19'	9°50'	6°32'	5°43'	4°57'	3°55'	3°14'
	η_d	0.91	0.90	0.88	0.86	0.84	0.83	0.78	0.76	0.73	0.68	0.64
	η_s	0.73	0.71	0.66	0.60	0.57	0.54	0.45	0.42	0.39	0.33	0.29

6. MOUNTING POSITIONS

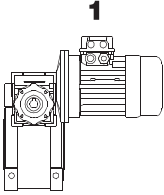
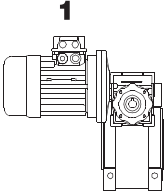
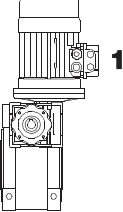
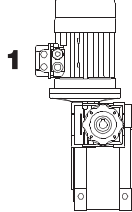
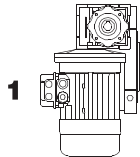
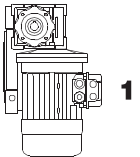
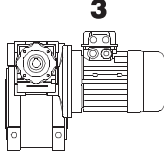
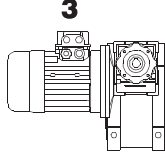
6.1 TW & TW.. IEC & ISS Mounting Positions

TW...U - B3	B6	V5	V6
1 			
B8	B7		
3 			

6.2 HL - TW.. Mounting Positions

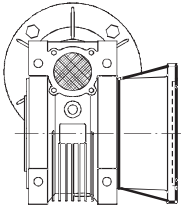
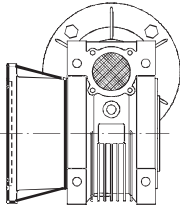
HL - TW...U - B3	B6	V5	V6
1 			
B8	B7		
3 			

6.3 TW / TW & TW / TW..IEC & ISS Mounting Positions

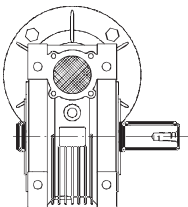
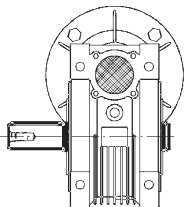
AS1	AS2	VS1	VS2
			
PS1	PS2	BS1	BS2
			

The position of the 1st reducer with respect to the 2nd gear reducer depends on the versions. Unless specified at the time of order, combination groups are supplied in version PS1. The specified mounting position refers to the 1st gear reducer.

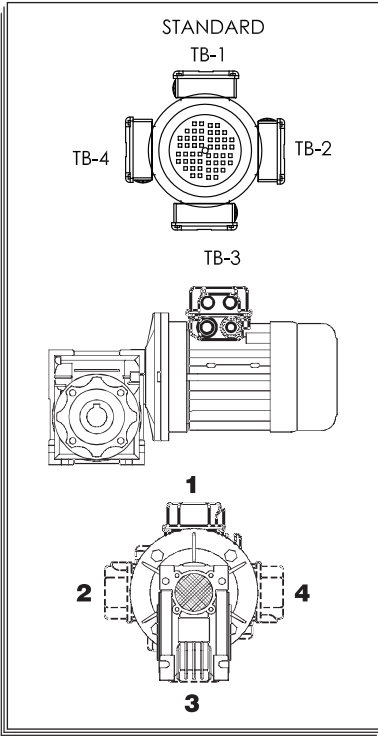
6.4 Position diagram for output flange

FA-A, FB-A, FD-A	FA-B, FB-B, FD-B
	

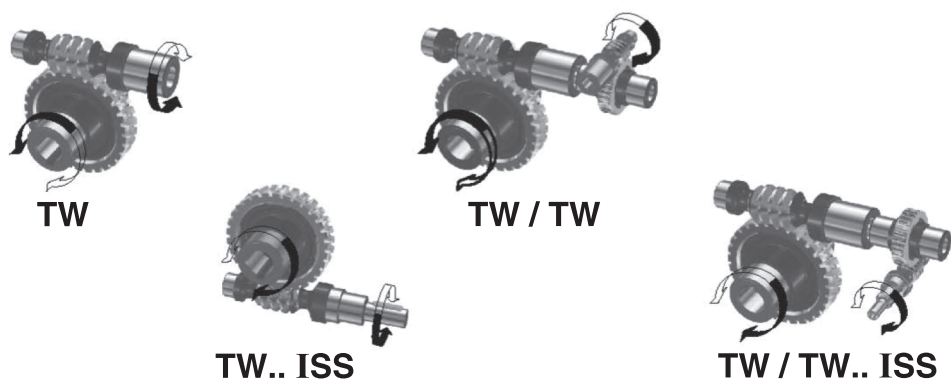
6.5 Position diagram for single output shaft

SSOS1	SSOS2
	

6.6 Position of terminal box



6.7 Direction of rotation



7. LUBRICATION

7.1 Lubricants detail

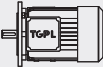
MODEL	GRADE			OIL TYPE	AMBIENT TEMPERATURE	
	LIGHT DUTY	NORMAL DUTY	Heavy DUTY			
TW30 TO TW90	150	220	320	SYNTHETIC OIL	-15°C	+50°C
HL63 TO HL90	150	220	320			
TW110 TO TW150	220	220	320	MINERAL OIL		

7.2 Quantity of Lubricant (Ltrs)

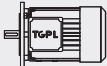
	B3	B6	B7	B8	V5	V6
TW 30	0.05					
TW 40	0.1					
TW 50	0.15					
TW 63	0.3					
TW 75	0.5					
TW 90	1					
TW 110	3	2.5	2.5	2.2	3	2.2
TW 130	4.5	3.5	3.5	3.3	4.5	3.3
TW 150	7	5.4	5.4	5.1	7	5.1
HL 63	0.05					
HL 71	0.07					
HL 80	0.15					
HL 90	0.16					

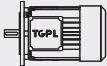
8. GEAR UNIT SELECTION TABLES

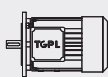
8.1 TW..(IEC).. Performance Parameter

P _{1n} [kW]	n ₂ [r/min]	M _{2n} [Nm]	i	Fr ₂ [N]	f _s			
0.12	186.7	5.2	7.5	683	3.5	TW30 63B5/B14	TM 63 A4	148
	140	6.6	10	752	2.7			
	93.3	9.3	15	861	1.9			
	70	12	20	948	1.5			
	56	14	25	1021	1.6			
	46.7	16	30	1085	1.3			
	35	19	40	1194	0.9	TW40 63B5/B14	TM 63 A4	149
	28	22	50	1286	0.8			
	46.7	17	30	2087	2.7			
	35	21	40	2298	1.9			
	28	25	50	2475	1.6			
	23.3	28	60	2630	1.3			
	17.5	33	80	2895	1.0			
	14	38	100	3118	0.8			
	23.3	29	60	3610	2.3	TW50 63B5/B14	TM 63 A4	150
	17.5	35	80	3973	1.9			
	14	39	100	4280	1.4			
0.18	373.3	4.0	7.5	542	3.2	TW30 63B5/B14	TM 63 A2	148
	280	5.2	10	597	2.5			
	186.7	7.4	15	683	1.8			
	140	9.5	20	752	1.3			
	112	11	25	810	1.4			
	93.3	13	30	861	1.2			
	70	16	40	948	0.9	TW30 63B5/B14	TM 63 B4	148
	186.7	7.7	7.5	683	2.3			
	140	10	10	752	1.8			
	93.3	14	15	861	1.3			
	70	18	20	948	1.0			
	56	20	25	1021	1.0			
	46.7	24	30	1085	0.8	TW40 63B5/B14	TM 63 A2	149
	93.3	14	30	1657	2.5			
	70	17	40	1824	1.8			
	56	21	50	1964	1.4	TW40 63B5/B14	TM 63 B4	149
	70	19	20	1824	2.1			
	56	23	25	1964	1.7			
	46.7	25	30	2087	1.8			
	35	32	40	2298	1.3			
	28	37	50	2475	1.0			
	23.3	42	60	2630	0.9	TW40 71B5/B14	TM 71 A6	149
	45	28	20	2113	1.6			
	36	34	25	2276	1.3			
	30	38	30	2419	1.3			
	22.5	47	40	2662	1.0	TW50 63B5/B14	TM 63 A2	150
	46.7	24	60	2865	2.1			
	35	30	80	3153	1.5			
	28	34	100	3397	1.2			

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	Fr_2 [N]	f_s			
0.18	35	33	40	3153	2.3	TW50 63B5/B14	TM 63 B4	150
	28	39	50	3397	1.9			
	23.3	43	60	3610	1.6			
	17.5	52	80	3973	1.2			
	14	59	100	4280	0.9			
	18	56	50	3936	1.4	TW50 71B5/B14	TM 71 A6	150
	15	63	60	4183	1.1			
	11.3	75	80	4604	0.9			
	15	66	60	5467	2.1	TW63 71B5/B14	TM 71 A6	151
	11.3	79	80	6018	1.6			
	9	90	100	6270	1.4			
0.25	373.3	5.6	7.5	542	2.3	TW30 63B5/B14	TM 63 B2	148
	280	7.2	10	597	1.8			
	186.7	10	15	683	1.3			
	140	13	20	752	0.9			
	112	15	25	810	1.0			
	93.3	18	30	861	0.8			
	186.7	11	7.5	1315	3.6	TW40 71B5/B14	TM 71 A4	149
	140	14	10	1447	3.0			
	93.3	21	15	1657	2.0			
	70	27	20	1824	1.5			
	56	32	25	1964	1.2			
	46.7	36	30	2087	1.3			
	35	45	40	2298	0.9			
	120	17	7.5	1524	2.6	TW40 71B5/B14	TM 71 B6	149
	90	22	10	1677	2.0			
	60	31	15	1920	1.4			
	45	39	20	2113	1.1			
	36	48	25	2276	0.9			
	30	53	30	2419	0.9			
	35	42	80	3153	1.1	TW50 63B5/B14	TM 63 B2	150
	28	48	100	3397	0.8			
	70	27	20	2503	2.7	TW50 71B5/B14	TM 71 A4	150
	56	32	25	2696	2.2			
	46.7	36	30	2865	2.3			
	35	46	40	3153	1.7			
	28	54	50	3397	1.4			
	23.3	60	60	3610	1.1			
	17.5	72	80	3973	0.9			
	45	40	20	2900	1.9	TW50 71B5/B14	TM 71 B6	150
	36	48	25	3124	1.5			
	30	54	30	3320	1.7			
	22.5	67	40	3654	1.2			
	18	78	50	3936	1.0			
	15	88	60	4183	0.8			

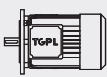
P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	Fr_2 [N]	f_s			
0.25	28	55	50	4440	2.4	TW63 71B5/B14	TM 71 A4	151
	23.3	63	60	4719	2.0			
	17.5	76	80	5193	1.6			
	14	87	100	5595	1.4			
	18	81	50	5145	1.8	TW63 71B5/B14	TM 71 B6	151
	15	92	60	5467	1.5			
	11.3	110	80	6018	1.2			
	9	125	100	6270	1.0			
	17.5	80	80	6130	2.4	TW75 71B5/B14	TM 71 A4	152
	14	94	100	6603	1.9			
	11.3	117	80	7103	1.7	TW75 71B5/B14	TM 71 B6	152
	9	133	100	7380	1.4			
0.37	373.3	8.3	7.5	1044	3.4	TW40 71B5/B14	TM 71 A2	149
	280	11	10	1149	2.6			
	186.7	16	15	1315	1.9			
	140	20	20	1447	1.4			
	112	25	25	1559	1.1			
	186.7	16	7.5	1315	2.5	TW40 71B5/B14	TM 71 B4	149
	140	21	10	1447	2.1			
	93.3	31	15	1657	1.4			
	70	40	20	1824	1.1			
	56	48	25	1964	0.8			
	46.7	54	30	2087	0.9			
	112	25	25	2140	2.0	TW50 71B5/B14	TM 71 A2	150
	93.3	29	30	2274	2.2			
	70	37	40	2503	1.6			
	56	44	50	2696	1.2			
	46.7	50	60	2865	1.0			
	35	62	80	3153	0.7			
	140	21	10	1987	3.4	TW50 71B5/B14	TM 71 B4	150
	93.3	31	15	2274	2.4			
	70	39	20	2503	1.9			
	56	47	25	2696	1.5			
	46.7	54	30	2865	1.6			
	35	68	40	3153	1.1			
	28	80	50	3397	0.9			
	23.3	89	60	3610	0.8			
	120	25	7.5	2091	3.4	TW50 80B5/B14	TM 80 A6	150
	90	33	10	2302	2.6			
	60	47	15	2635	1.8			
	45	59	20	2900	1.3			
	36	72	25	3124	1.0			
	30	80	30	3320	1.1			
	35	70	40	4122	2.1	TW63 71B5/B14	TM 71 B4	151
	28	82	50	4440	1.6			
	23.3	94	60	4719	1.4			
	17.5	113	80	5193	1.1			
	14	129	100	5595	0.9			

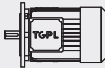
P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	Fr_2 [N]	f_s			
0.37	45	60	20	3791	2.4	TW63 80B5/B14	TM 80 A6	151
	36	73	25	4084	1.9			
	30	82	30	4339	2.1			
	22.5	102	40	4776	1.6			
	18	120	50	5145	1.2			
	15	137	60	5467	1.0			
	23.3	97	60	5569	2.1	TW75 71B5/B14	TM 71 B4	152
	17.5	119	80	6130	1.6			
	14	139	100	6603	1.3			
	18	124	50	6073	1.8	TW75 80B5/B14	TM 80 A6	152
	15	141	60	6453	1.5			
	11.3	173	80	7103	1.2			
	9	196	100	7380	1.0			
	11.3	185	80	7859	1.7	TW90 80B5/B14	TM 80 A6	153
	9	212	100	8180	1.3			
0.55	373.3	12	7.5	1044	2.3	TW40 71B5/B14	TM 71 B2	149
	280	16	10	1149	1.8			
	186.7	24	15	1315	1.3			
	140	30	20	1447	1.0			
	112	37	25	1559	0.8			
	140	31	20	1987	1.7	TW50 71B5/B14	TM 71 B2	150
	112	38	25	2140	1.4			
	93.3	43	30	2274	1.5			
	70	55	40	2503	1.1			
	56	65	50	2696	0.8			
	46.7	74	60	2865	0.7			
	186.7	24	7.5	1805	2.9	TW50 80B5/B14	TM 80 A4	150
	140	32	10	1987	2.3			
	93.3	46	15	2274	1.6			
	70	59	20	2503	1.2			
	56	70	25	2696	1.0			
	46.7	80	30	2865	1.1			
	120	37	7.5	2091	2.3	TW50 80B5/B14	TM 80 B6	150
	90	48	10	2302	1.7			
	60	69	15	2635	1.2			
	45	88	20	2900	0.9			
	70	56	40	3272	1.9	TW63 71B5/B14	TM 71 B2	151
	56	68	50	3524	1.5			
	46.7	78	60	3745	1.2			
	35	96	80	4122	0.9			
	28	111	100	4440	0.7			
	70	60	20	3272	2.2	TW63 80B5/B14	TM 80 A4	151
	56	72	25	3524	1.8			
	46.7	82	30	3745	1.9			
	35	104	40	4122	1.4			
	28	122	50	4440	1.1			
	23.3	140	60	4719	0.9			

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	Fr_2 [N]	f_s			
0.55	60	70	15	3444	2.2	TW63 80B5/B14	TM 80 B6	151
	45	90	20	3791	1.6			
	36	108	25	4084	1.3			
	30	123	30	4339	1.4			
	22.5	152	40	4776	1.1			
	35	99	80	4865	1.3	TW75 71B5/B14	TM 71 B2	152
	28	116	100	5241	1.0			
	35	108	40	4865	2.0	TW75 80B5/B14	TM 80 A4	152
	28	128	50	5241	1.6			
	23.3	144	60	5569	1.4			
	17.5	177	80	6130	1.1			
	14	206	100	6603	0.9			
	30	124	30	5122	2.1	TW75 80B5/B14	TM 80 B6	152
	22.5	156	40	5637	1.5			
	18	184	50	6073	1.2			
	15	210	60	6453	1.0			
	17.5	189	80	6783	1.5	TW90 80B5/B14	TM 80 A4	153
	14	221	100	7306	1.2			
	18	196	50	6719	2.0	TW90 80B5/B14	TM 80 B6	153
	15	224	60	7140	1.6			
	11.3	275	80	7859	1.1			
	9	315	100	8180	0.9			
	17.5	201	80	8571	2.6	TW110 80B5/B14	TM 80 A4	154
	14	236	100	9232	2.0			
	11.3	294	80	9931	1.9	TW110 80B5/B14	TM 80 B6	154
	9	344	100	10320	1.5			
0.75	373.3	17	7.5	1433	3.0	TW50 80B5/B14	TM 80 A2	150
	280	22	10	1577	2.4			
	186.7	31	15	1805	1.7			
	140	41	20	1987	1.3			
	112	49	25	2140	1.0			
	93.3	56	30	2274	1.1			
	186.7	33	7.5	1805	2.1	TW50 80B5/B14	TM 80 B4	150
	140	43	10	1987	1.7			
	93.3	62	15	2274	1.2			
	70	80	20	2503	0.9			
	140	43	20	2597	2.3	TW63 80B5/B14	TM 80 A2	151
	112	52	25	2797	1.8			
	93.3	60	30	2973	2.0			
	70	77	40	3272	1.4			
	56	92	50	3524	1.1			
	46.7	106	60	3745	0.9			
	93.3	63	15	2973	2.2	TW63 80B5/B14	TM 80 B4	151
	70	82	20	3272	1.6			
	56	98	25	3524	1.3			
	46.7	112	30	3745	1.4			
	35	141	40	4122	1.0			

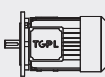
P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	Fr_2 [N]	f_s			
0.75	120	51	7.5	2734	2.9	TW63 90B5/B14	TM 90 S6	151
	90	67	10	3009	2.3			
	60	96	15	3444	1.6			
	45	123	20	3791	1.2			
	36	147	25	4084	0.9			
	30	167	30	4339	1.0	TW75 80B5/B14	TM 80 A2	152
	46.7	107	60	4421	1.3			
	35	135	80	4865	1.0			
	28	159	100	5241	0.8	TW75 80B5/B14	TM 80 B4	152
	56	101	25	4160	2.0			
	46.7	117	30	4421	2.0			
	35	147	40	4865	1.5			
	28	174	50	5241	1.2			
	23.3	196	60	5569	1.0	TW75 90B5/B14	TM 90 S6	152
	60	97	15	4065	2.4			
	45	124	20	4474	1.9			
	36	149	25	4820	1.4			
	30	170	30	5122	1.5			
	22.5	213	40	5637	1.1	TW90 80B5/B14	TM 80 A2	153
	35	143	80	5383	1.6			
	28	169	100	5799	1.2			
	28	182	50	5799	1.9	TW90 80B5/B14	TM 80 B4	153
	23.3	209	60	6163	1.5			
	17.5	258	80	6783	1.1			
	14	302	100	7306	0.9			
	30	179	30	5667	2.6	TW90 90B5/B14	TM 90 S6	153
	22.5	226	40	6238	1.8			
	18	267	50	6719	1.5			
	15	306	60	7140	1.1			
	17.5	274	80	8571	1.9	TW110 80B5/B14	TM 80 B4	154
	14	322	100	9232	1.5			
	15	325	60	9023	2.1	TW110 90B5/B14	TM 90 S6	154
	11.3	401	80	9931	1.4			
	9	470	100	10320	1.1			
	11.3	401	80	12989	2.1	TW130 90B5/B14	TM 90 S6	155
	9	470	100	13500	1.7			
1.1	373.3	25	7.5	1433	2.1	TW50 80B5/B14	TM 80 B2	150
	280	33	10	1577	1.7			
	186.7	48	15	1805	1.2			
	140	62	20	1987	0.9			
	186.7	46	15	2359	2.1	TW63 80B5/B14	TM 80 B2	151
	140	60	20	2597	1.6			
	112	72	25	2797	1.2			
	93.3	82	30	2973	1.4			
	70	104	40	3272	1.0			

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	Fr_2 [N]	f_s			
1.1	120	75	7.5	2734	2.0	TW63 90B5/B14	TM 90 L6	151
	90	98	10	3009	1.6			
	60	140	15	3444	1.1			
	45	180	20	3791	0.8			
	186.7	50	7.5	2359	2.6	TW63 90B5/B14	TM 90 S4	151
	140	65	10	2597	2.0			
	93.3	92	15	2973	1.5			
	70	120	20	3272	1.1			
	56	144	25	3524	0.9			
	46.7	164	30	3745	1.0			
	112	77	25	3302	2.0	TW75 80B5/B14	TM 80 B2	152
	93.3	89	30	3509	1.9			
	70	114	40	3862	1.4			
	56	137	50	4160	1.1			
	46.7	158	60	4421	0.9	TW75 90B5/B14	TM 90 L6	152
	90	98	10	3551	2.3			
	60	142	15	4065	1.7			
	45	182	20	4474	1.3			
	36	219	25	4820	1.0			
	30	249	30	5122	1.0			
	93.3	95	15	3509	2.1	TW75 90B5/B14	TM 90 S4	152
	70	122	20	3862	1.7			
	56	148	25	4160	1.3			
	46.7	171	30	4421	1.3			
	35	216	40	4865	1.0			
	35	210	80	5383	1.1	TW90 80B5/B14	TM 80 B2	153
	28	248	100	5799	0.8			
	36	228	25	5333	1.6	TW90 90B5/B14	TM 90 L6	153
	30	263	30	5667	1.8			
	22.5	331	40	6238	1.2			
	18	391	50	6719	1.0			
	15	448	60	7140	0.8			
	35	222	40	5383	1.6	TW90 90B5/B14	TM 90 S4	153
	28	266	50	5799	1.3			
	23.3	306	60	6163	1.0			
	22.5	345	40	7882	2.3	TW110 90B5/B14	TM 90 L6	154
	18	414	50	8491	1.8			
	15	476	60	9023	1.4			
	11.3	588	80	9931	1.0			
	28	278	50	7328	2.4	TW110 90B5/B14	TM 90 S4	154
	23.3	324	60	7787	1.9			
	17.5	402	80	8571	1.3			
	14	473	100	9232	1.0			
	11.3	588	80	12989	1.5	TW130 90B5	TM 90 L6	155
	9	689	100	13500	1.1			
	17.5	408	80	11210	2.1	TW130 90B5	TM 90 S4	155
	14	480	100	12076	1.5			

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	Fr_2 [N]	f_s			
1.5	186.7	68	7.5	2359	1.9	TW63 90B5/B14	TM 90 L4	151
	140	88	10	2597	1.5			
	93.3	126	15	2973	1.1			
	70	164	20	3272	0.8			
	373.3	35	7.5	1873	2.7	TW63 90B5/B14	TM 90 S2	151
	280	45	10	2061	2.2			
	186.7	66	15	2359	1.6			
	140	86	20	2597	1.2			
	112	105	25	2797	0.9	TW75 100B5/B14	TM 100 L6	152
	93.3	120	30	2973	1.0			
	120	103	7.5	3227	2.1			
	90	134	10	3551	1.7			
	60	193	15	4065	1.2	TW75 90B5/B14	TM 90 S2	152
	56	187	50	4160	1.3			
	46.7	215	60	4421	1.1			
	140	89	10	3065	2.2	TW75 90B5/B14	TM 90 L4	152
	93.3	129	15	3509	1.6			
	70	166	20	3862	1.3			
	56	202	25	4160	1.0			
	46.7	233	30	4421	1.0	TW75 90B5/B14	TM 90 S2	152
	280	45	10	2433	3.2			
	186.7	66	15	2785	2.3			
	140	86	20	3065	1.9			
	112	105	25	3302	1.4	TW90 100B5/B14	TM 100 L6	153
	93.3	121	30	3509	1.4			
	70	156	40	3862	1.1			
	90	137	10	3929	2.7	TW90 100B5/B14	TM 100 L6	153
	60	198	15	4498	2.1			
	45	258	20	4951	1.5			
	36	310	25	5333	1.2			
	30	358	30	5667	1.3	TW90 90B5/B14	TM 90 L4	153
	70	170	20	4273	2.1			
	56	207	25	4603	1.6			
	46.7	239	30	4891	1.7			
	35	303	40	5383	1.2	TW90 90B5/B14	TM 90 S2	153
	28	363	50	5799	0.9			
	23.3	417	60	6163	0.8			
	56	197	50	4603	1.3	TW90 90B5/B14	TM 90 S2	153
	46.7	227	60	4891	1.1			
	45	264	20	6256	2.7	TW110 100B5/B14	TM 100 L6	154
	36	322	25	6739	2.4			
	30	363	30	7161	2.3			
	22.5	471	40	7882	1.7			
	18	565	50	8491	1.3	TW110 90B5/B14	TM 90 L4	154
	15	649	60	9023	1.1			
	35	315	40	6803	2.2			
	28	379	50	7328	1.7			
	23.3	442	60	7787	1.4	TW110 90B5/B14	TM 90 L4	154
	17.5	548	80	8571	0.9			

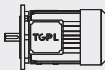
P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	Fr_2 [N]	f_s			
1.5	46.7	236	60	6181	2.0	TW110 90B5/B14	TM 90 S2	154
	35	299	80	6803	1.3			
	28	358	100	7328	1.0			
	22.5	471	40	10309	2.3	TW130 100B5/B14	TM 100 L6	155
	18	565	50	11105	1.9			
	15	659	60	11801	1.4			
	11.3	802	80	12989	1.1	TW130 90B5/B14	TM 90 L4	155
	17.5	557	80	11210	1.5			
	14	655	100	12076	1.1			
	18	589	50	15182	2.7	TW150 100/112B5	TM 100 L6	156
	15	678	60	16133	2.1			
	11.3	841	80	17757	1.5			
	9	971	100	18000	1.2			
2.2	373.3	51	7.5	1873	1.8	TW63 90B5/B14	TM 90 L2	151
	280	66	10	2061	1.5			
	186.7	97	15	2359	1.1			
	186.7	99	7.5	2785	1.9	TW75 100B5/B14	TM 100 LA4	152
	140	131	10	3065	1.5			
	93.3	189	15	3509	1.1			
	373.3	50	7.5	2210	2.6	TW75 90B5/B14	TM 90 L2	152
	280	66	10	2433	2.2			
	186.7	97	15	2785	1.5			
	140	126	20	3065	1.3			
	112	154	25	3302	1.0			
	93.3	178	30	3509	1.0			
	186.7	100	7.5	3081	2.9	TW90 100B5/B14	TM 100 LA4	153
	140	132	10	3391	2.3			
	93.3	191	15	3882	1.9			
	70	249	20	4273	1.4			
	56	304	25	4603	1.1			
	46.7	351	30	4891	1.2			
	120	154	7.5	3570	2.2	TW90 112B5/B14	TM 112 M6	153
	90	201	10	3929	1.8			
	60	291	15	4498	1.4			
	45	378	20	4951	1.0			
	140	129	20	3391	2.0	TW90 90B5/B14	TM 90 L2	153
	112	159	25	3653	1.6			
	93.3	185	30	3882	1.7			
	70	237	40	4273	1.2			
	56	289	50	4603	0.9			
	70	255	20	5399	2.5	TW110 100B5/B14	TM 100 LA4	154
	56	311	25	5816	2.2			
	46.7	356	30	6181	2.0			
	35	462	40	6803	1.5			
	28	555	50	7328	1.2			
	23.3	648	60	7787	1.0			

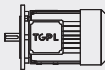
P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	Fr_2 [N]	f_s			
2.2	90	203	10	4965	3.5	TW110 112B5/B14	TM 112 M6	154
	60	294	15	5684	2.6			
	45	388	20	6256	1.9			
	36	473	25	6739	1.6			
	30	532	30	7161	1.6			
	112	161	25	4616	3.1	TW110 90B5/B14	TM 90 L2	154
	93.3	187	30	4905	3.0			
	70	243	40	5399	2.2			
	56	296	50	5816	1.7			
	46.7	347	60	6181	1.4			
	35	468	40	8897	2.2	TW130 100B5	TM 100 LA4	155
	28	563	50	9584	1.7			
	23.3	657	60	10185	1.4			
	17.5	816	80	11210	1.0			
	36	473	25	8814	2.2	TW130 112B5	TM 112 M6	155
	30	539	30	9366	2.2			
	22.5	691	40	10309	1.6			
	18	829	50	11105	1.3			
	15	966	60	11801	1.0			
	35	444	80	8897	1.3	TW130 90B5/B14	TM 90 L2	155
	28	525	100	9584	1.0			
	28	578	50	13103	2.4	TW150 100B5	TM 100 LA4	156
	23.3	667	60	13924	1.9			
	17.5	829	80	15325	1.4			
	14	976	100	16508	1.0			
	18	864	50	15182	1.9	TW150 112B5	TM 112 M6	156
	15	995	60	16133	1.4			
	11.3	1233	80	17757	1.1			
	9	1425	100	18000	0.8			
4.0	373.3	91	7.5	2210	1.4	TW75 112B5/B14	TM 112 M2	152
	280	120	10	2433	1.2			
	186.7	180	7.5	2785	1.0	TW75 112B5/B14	TM 112 M4	152
	140	237	10	3065	0.8			
	373.3	93	7.5	2446	2.3	TW90 112B5/B14	TM 112 M2	153
	280	123	10	2692	1.9			
	186.7	182	7.5	3081	1.6	TW90 112B5/B14	TM 112 M4	153
	140	240	10	3391	1.3			
	93.3	348	15	3882	1.0			
	70	453	20	4273	0.8			
	140	240	10	4285	2.5	TW110 112B5/B14	TM112M4	154
	93.3	352	15	4905	1.9			
	70	464	20	5399	1.4			
	56	566	25	5816	1.2			
	46.7	647	30	6181	1.1			

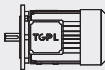
P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	Fr_2 [N]	f_s				
4.0	56	573	25	7607	1.6	TW130 112B5	TM 112 M4	155	
	46.7	655	30	8084	1.6				
	35	851	40	8897	1.2				
	28	1023	50	9584	1.0				
	23.3	1195	60	10185	0.8				
	28	1051	50	13103	1.3	TW150 112B5	TM 112 M4	156	
	23.3	1212	60	13924	1.0				
	17.5	1507	80	15325	0.8				
	45	722	20	11186	2.1	TW150 132B5	TM 132 MA6	156	
	36	892	25	12050	1.5				
	30	1045	30	12805	1.3				
	22.5	1291	40	14094	1.4				
	18	1571	50	15182	1.0				
	15	1809	60	16133	0.8				
	5.5	93.3	472	15	8771	2.5	TW150 132B5	TM 132 S4	156
		70	653	20	9654	2.0			
		56	798	25	10400	1.5			
		46.7	946	30	11051	1.3			
35		1186	40	12163	1.3				
28		1445	50	13103	1.0				
23.3		1667	60	13924	0.8				
7.5	93.3	656	15	8771	1.8	TW150 132B5	TM 132 M4	156	
	70	891	20	9654	1.5				
	56	1088	25	10400	1.1				
	46.7	1290	30	11051	0.9				
	35	1617	40	12163	1.0				
	28	1971	50	13103	0.7				

8.2 HL-TW..(IEC).. Performance Parameter

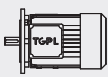
P _{1n} [kW]	n ₂ [r/min]	M _{2n} [Nm]	i	F _{r2} [N]	f _s			
0.12	18.7	42	75	2833	1.2	HL63 - TW40 63B5	TM 63 A4	158
	15.6	46	90	3011	1.2			
	11.7	57	120	3314	0.9			
	9.3	66	150	3490	0.7			
	7.8	74	180	3490	0.6			
	9.3	68	150	4840	1.3	HL63 - TW50 63B5	TM 63 A4	158
	7.8	75	180	4840	1.1			
	5.8	88	240	4840	0.8			
	4.7	98	300	4840	0.7			
	5.8	92	240	6270	1.5	HL63 - TW63 63B5	TM 63 A4	158
	4.7	103	300	6270	1.2			
0.18	18.7	64	75	2833	0.8	HL63 - TW40 63B5	TM 63 B4	158
	15.6	70	90	3011	0.8			
	11.7	85	120	3314	0.6			
	18.7	64	75	3889	1.4	HL63 - TW50 63B5	TM 63 B4	158
	15.6	71	90	4132	1.5			
	11.7	87	120	4548	1.1			
	9.3	101	150	4840	0.9			
	7.8	113	180	4840	0.7			
	5.8	133	240	4840	0.6			
	9.3	103	150	6270	1.7	HL63 - TW63 63B5	TM 63 B4	158
	7.8	117	180	6270	1.4			
	5.8	139	240	6270	1.0			
	4.7	155	300	6270	0.8			
	12.0	95	75	4506	1.2	HL71 - TW50 71B5	TM 71 A6	159
	10.0	105	90	4788	1.4			
	7.5	126	120	4840	1.0			
	12.0	97	75	5889	2.2	HL71-TW63 71B5	TM 71 A6	159
	10.0	107	90	6259	2.4			
	7.5	131	120	6270	1.8			
	6.0	152	150	6270	1.4			
	5.0	168	180	6270	1.2			
	3.8	197	240	6270	0.9			
	3.0	218	300	6270	0.7			
	5.0	179	180	7380	1.7	HL71 - TW75 71B5	TM 71 A6	159
	3.8	211	240	7380	1.2			
	3.0	235	300	7380	1.0			
0.25	18.7	88	75	3889	1.0	HL71 - TW50 71B5	TM 71 A4	159
	15.6	98	90	4132	1.1			
	11.7	121	120	4548	0.8			
	18.7	91	75	5083	1.8	HL71- TW63 71B5	TM 71 A4	159
	15.6	100	90	5401	2.0			
	11.7	125	120	5945	1.5			
	9.3	143	150	6270	1.2			

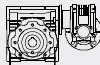
P _{1n} [kW]	n ₂ [r/min]	M _{2n} [Nm]	i	F _{r2} [N]	f _s			
0.25	7.8	163	180	6270	1.0	HL71 - TW63 71B5	TM 71 A4	159
	5.8	192	240	6270	0.7			
	4.7	215	300	6270	0.6			
	12.0	135	75	5889	1.6	HL71 - TW63 71B5	TM 71 B6	159
	10.0	148	90	6259	1.8			
	7.5	181	120	6270	1.3			
	6.0	211	150	6270	1.0			
	9.3	151	150	7380	1.7	HL71 - TW75 71B5	TM 71 A4	159
	7.8	172	180	7380	1.4			
	5.8	201	240	7380	1.1			
	4.7	230	300	7380	0.9			
	12.0	139	75	6952	2.4	HL71 - TW75 71B5	TM 71 B6	159
	10.0	155	90	7380	2.5			
	7.5	191	120	7380	1.9			
	6.0	219	150	7380	1.5			
	5.0	248	180	7380	1.2	HL71 - TW90 71B5	TM 71 B6	160
	3.8	318	240	8180	1.4			
	3.0	358	300	8180	1.1			
0.37	18.7	134	75	5083	1.2	HL71 - TW63 71B5	TM 71 B4	159
	15.6	148	90	5401	1.4			
	11.7	185	120	5945	1.0			
	9.3	212	150	6270	0.8			
	18.7	138	75	6000	1.8	HL71 - TW75 71B5	TM 71 B4	159
	15.6	154	90	6375	1.9			
	11.7	191	120	7017	1.5			
	9.3	223	150	7380	1.1			
	7.8	254	180	7380	0.9	HL80 - TW75 80B5	TM 80 A6	160
	12.0	206	75	6952	1.6			
	10.0	230	90	7380	1.7			
	7.5	283	120	7380	1.3			
	6.0	324	150	7380	1.0	HL71 - TW90 71B5	TM 71 B4	160
	7.8	268	180	8180	1.5			
	5.8	321	240	8180	1.1			
	4.7	371	300	8180	0.9			
	6.0	347	150	8180	1.6	HL80 - TW90 80B5	TM 80 A6	160
	5.0	389	180	8180	1.3			
	3.8	471	240	8180	1.0			
	3.8	509	240	10320	1.6	HL80 - TW110 80B5	TM 80 A6	161
	3.0	577	300	10320	1.3			
0.55	18.7	205	75	6000	1.2	HL80 - TW75 80B5	TM 80 A4	160
	15.6	230	90	6375	1.3			
	11.7	284	120	7017	1.0			
	9.3	332	150	7380	0.8			
	12.0	306	75	6952	1.1	HL80 - TW75 80B5	TM 80 B6	160
	10.0	341	90	7380	1.1			

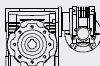
P _{1n} [kW]	n ₂ [r/min]	M _{2n} [Nm]	i	F _{r2} [N]	f _s			
0.55	15.6	240	90	7054	2.3	HL80 - TW90 80B5	TM 80 A4	160
	11.7	297	120	7764	1.6			
	9.3	355	150	8180	1.3			
	7.8	398	180	8180	1.0			
	10.0	357	90	8174	2.0	HL80 - TW90 80B5	TM 80 B6	160
	7.5	441	120	8180	1.4			
	6.0	516	150	8180	1.1			
	5.0	578	180	8180	0.9			
	7.8	425	180	10320	1.8	HL80 - TW110 80B5	TM 80 A4	161
	5.8	513	240	10320	1.3			
	4.7	597	300	10320	1.0			
	7.5	462	120	10320	2.6	HL80 - TW110 80B5	TM 80 B6	161
	6.0	552	150	10320	2.0			
	5.0	620	180	10320	1.6			
	3.8	756	240	10320	1.1			
	3.8	756	240	13500	1.6	HL80 - TW130 80B5	TM 80 B6	161
	3.0	858	300	13500	1.3			
0.75	18.7	280	75	6000	0.9	HL80 - TW75 80B5	TM 80 B4	160
	15.6	313	90	6375	1.0			
	15.6	327	90	7054	1.7	HL80 - TW90 80B5	TM 80 B4	160
	11.7	405	120	7764	1.2			
	9.3	483	150	8180	0.9			
	7.8	543	180	8180	0.7			
	11.7	430	120	9811	2.2	HL80 - TW110 80B5	TM 80 B4	161
	9.3	506	150	10320	1.7			
	7.8	580	180	10320	1.3			
	5.8	700	240	10320	0.9			
	12.4	393	73	9614	3.2	HL90 - TW110 90B5	TM 90 S6	161
	9.3	508	96.8	10320	2.3			
	7.4	607	121	10320	1.8			
	6.2	682	145.2	10320	1.5			
	4.6	832	193.6	10320	1.0			
	5.8	712	240	13500	1.4			
	4.7	813	300	13500	1.1	HL80 - TW130 80B5	TM 80 B4	161
	12.4	399	73	12575	4.4			
	9.3	508	96.8	13500	3.2	HL90 - TW130 90B5	TM 90 S6	161
	7.4	607	121	13500	2.6			
	6.2	682	145.2	13500	2.1			
	4.6	832	193.6	13500	1.5			
	3.7	944	242	13500	1.2			
	12.4	576	73	9614	2.2	HL90 - TW110 90B5	TM 90 L6	161
	9.3	746	96.8	10320	1.6			
	7.4	890	121	10320	1.2			
	6.2	1000	145.2	10320	1.0			

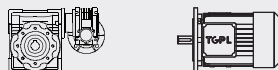
P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	f_s			
1.1	19.3	392	73	8298	2.5	HL90 - TW110 90B5	TM 90 S4	161
	14.5	508	96.8	9133	1.8			
	11.6	599	121	9838	1.5	HL90 - TW110 90B5	TM 90 S4	161
	9.6	686	145.2	10320	1.1			
	7.2	828	193.6	10320	0.8			
	12.4	585	73	12575	3.0	HL90 - TW130 90B5	TM 90 L6	161
	9.3	746	96.8	13500	2.2			
	7.4	890	121	13500	1.7			
	6.2	1000	145.2	13500	1.4			
	4.6	1220	193.6	13500	1.0			
	19.3	398	73	10853	3.5	HL90 - TW130 90B5	TM 90 S4	161
	14.5	508	96.8	11945	2.6			
	11.6	608	121	12868	2.0			
	9.6	686	145.2	13500	1.6			
	7.2	843	193.6	13500	1.2			
	5.8	962	242	13500	0.9			
1.5	19.3	535	73	8298	1.9	HL90 - TW110 90B5	TM 90 L4	161
	14.5	693	96.8	9133	1.3			
	11.6	817	121	9838	1.1			
	9.6	936	145.2	10320	0.8			
	19.3	542	73	10853	2.6	HL90 - TW130 90B5	TM 90 L4	161
	14.5	693	96.8	11945	1.9			
	11.6	830	121	12868	1.5			
	9.6	936	145.2	13500	1.1			
	7.2	1149	194	13500	0.8			

8.3 TW / TW..(IEC).. Performance Parameter

Performance Parameters										
P _{1n} [kW]	n ₂ [r/min]	M _{2n} [Nm]	i	F _{r2} [N]	f _s					
0.12	9.3	74	150	4350	1.8	TW/TW30/50	63B5/B14	TM 63 A4	162	
	7.0	94	200	4788	1.3					
	5.6	110	250	4840	1.0					
	4.7	112	300	4840	1.2					
	3.5	138	400	4840	0.9					
	2.8	160	500	4840	0.7					
	9.3	75	150	5686	2.8	TW/TW30/63	63B5/B14	TM 63 A4	162	
	7.0	95	200	6259	2.7					
	5.6	114	250	6270	2.0					
	4.7	117	300	6270	2.2					
	3.5	152	400	6270	1.7					
	2.8	168	500	6270	1.3					
	2.3	199	600	6270	1.1					
	1.9	217	750	6270	0.9					
	1.6	335	900	7380	1.2	TW/TW40/75	63B5/B14	TM 63 A4	163	
	1.2	411	1200	7380	0.9					
	0.8	470	1800	8180	0.9	TW/TW40/90	63B5/B14	TM 63 A4	163	
	0.6	593	2400	8180	0.9					
	0.5	731	3000	10320	1.2	TW/TW50/110	63B5/B14	TM 63 A4	164	
	0.4	884	4000	10320	1.0					
	0.3	1023	5000	10320	0.8					
	0.18	9.3	112	150	4350	1.2	TW/TW30/50	63B5/B14	TM 63 B4	162
		7.0	141	200	4788	0.9				
		4.7	183	300	4840	0.8				
9.3		113	150	5686	1.9	TW/TW30/63	63B5/B14	TM 63 B4	162	
7.0		143	200	6259	1.8					
5.6		171	250	6270	1.4					
4.7		175	300	6270	1.5					
3.5		216	400	6270	1.0					
2.8		252	500	6270	0.8					
2.3		336	600	7380	1.1	TW/TW40/75	63B5/B14	TM 63 B4	163	
1.9		371	750	7380	0.9					
1.6		419	900	7380	0.8					
1.2		544	1200	8180	1.0	TW/TW40/90	63B5/B14	TM 63 B4	163	
0.9		647	1500	8180	0.8					
0.8		727	1800	10320	1.5	TW/TW50/110	63B5/B14	TM 63 B4	164	
0.6		948	2400	10320	1.1					
0.25	7.0	150	400	6270	1.4	TW/TW30/63	63B5/B14	TM 63 B2	162	
	5.6	175	500	6270	1.2					

P _{1n} [kW]	n ₂ [r/min]	M _{2n} [Nm]	i	F _{r2} [N]	f _s					
0.25	9.3	165	150	6712	2.6	TW/TW40/75	71B5/B14	TM 71 A4	163	
	7.0	209	200	7380	2.0					
	5.6	250	250	7380	1.5					
	4.7	278	300	7380	1.6					
	3.5	321	400	7380	1.1					
	2.8	375	500	7380	0.8					
	2.3	488	600	8180	1.2	TW/TW40/90	71B5/B14	TM 71 A4	163	
	1.9	553	750	8180	0.9					
	1.6	612	900	8180	0.8					
	1.2	776	1200	10320	1.3	TW/TW50/110	71B5/B14	TM 71 A4	164	
	0.9	924	1500	10320	1.2					
	0.8	1010	1800	10320	1.1					
	0.6	1358	2400	13500	1.0	TW/TW63/130	71B5/B14	TM 71 A4	164	
	0.5	1626	3000	13500	0.8					
	0.4	1910	4000	13500	0.6					
	0.3	2132	5000	13500	0.5					
	0.6	1702	2400	18000	1.6	TW/TW63/150	71B5/B14	TM 71 A4	165	
	0.5	1998	3000	18000	1.2					
	0.4	2453	4000	18000	0.9					
	0.3	2749	5000	18000	0.8					
	0.37	9.3	245	150	6712	1.7	TW/TW40/75	71B5/B14	TM 71 B4	163
		7.0	309	200	7380	1.4				
		5.6	370	250	7380	1.0				
		4.7	383	300	7380	1.0				
3.5		474	400	7380	0.7					
4.7		406	300	8180	1.5	TW/TW40/90	71B5/B14	TM 71 B4	163	
3.5		505	400	8180	1.2					
2.8		593	500	8180	0.9					
2.3		722	600	8180	0.8					
1.9		837	750	10320	1.3	TW/TW50/110	71B5/B14	TM 71 B4	164	
1.6		928	900	10320	1.1					
1.2		1148	1200	10320	0.8					
0.9		1699	1500	13500	1.0	TW/TW63/130	71B5/B14	TM 71 B4	164	
0.8		1918	1800	13500	0.9					
0.6		2519	2400	18000	1.1	TW/TW63/150	71B5/B14	TM 71 B4	165	
0.5		2958	3000	18000	0.8					
0.55	9.3	305	300	8180	2.0	TW/TW40/90	71B5/B14	TM71B2	163	
	7.0	375	400	8180	1.5					
	5.6	441	500	8180	1.2					
	9.3	382	150	7426	1.7	TW/TW50/90	80B5/B14	TM 80 A4	163	
	7.0	490	200	8174	1.2					
	5.6	588	250	8180	1.0					
	4.7	656	300	8180	1.1					
	3.5	809	400	8180	0.8					

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	f_s			
0.55	4.7	615	300	10320	1.9	TW/TW50/110 80B5/B14	TM 80 A4	164
	3.5	810	400	10320	1.4			
	2.8	938	500	10320	1.1			
	2.3	1096	600	10320	1.0			
	1.9	1244	750	10320	0.9			
	2.8	957	500	13500	1.6	TW/TW63/130 80B5/B14	TM 80 A4	164
	1.9	1382	750	13500	1.2			
	1.2	2057	1200	13500	0.8			
	2.3	1248	600	18000	2.1	TW/TW63/150 80B5/B14	TM 80 A4	165
	1.9	1465	750	18000	1.6			
	1.6	1849	900	18000	1.1			
	1.2	2229	1200	18000	1.2			
	0.6	3744	2400	18000	0.7			
0.75	9.3	521	150	7426	1.3	TW/TW50/90 80B5/B14	TM 80 B4	163
	7.0	668	200	8174	0.9			
	5.6	801	250	8180	0.7			
	9.3	424	300	10320	2.8	TW/TW50/110 80B5/B14	TM 80 A2	164
	7.0	553	400	10320	2.1			
	5.6	640	500	10320	1.6			
	9.3	527	150	9384	1.8	TW/TW50/110 80B5/B14	TM 80 B4	164
	7.0	685	200	10320	1.7			
	5.6	835	250	10320	1.4			
	4.7	838	300	10320	1.3			
	3.5	1105	400	1032	0.9			
	9.3	527	150	9384	2.3	TW/TW63/110 80B5/B14	TM 80 B4	164
	7.0	685	200	10320	1.7			
	5.6	835	250	10320	1.4			
	4.7	895	300	10320	1.4			
	3.5	1157	400	10320	1.0			
	2.8	1573	500	10320	0.7			
	2.3	1686	600	10320	0.8			
	2.8	1305	500	13500	1.1	TW/TW63/130 80B5/B14	TM 80 B4	164
	2.3	1557	600	13500	1.0			
	1.9	1772	750	13500	0.9			
	1.6	2300	900	13500	0.7			
	2.3	1702	600	18000	1.6	TW/TW63/150 80B5/B14	TM 80 B4	165
	1.9	1998	750	18000	1.2			
	1.6	2521	900	18000	0.8			
	1.2	3039	1200	18000	0.9			
1.1	9.3	621	300	10320	1.9	TW/TW50/110 80B5/B14	TM 80 B2	164
	7.0	810	400	10320	1.4			
	5.6	938	500	10320	1.1			
	9.3	774	150	9384	1.5	TW/TW63/110 90B5/B14	TM 90 S4	164
	7.0	1005	200	10320	1.1			
	5.6	1224	250	10320	1.0			
	4.7	1312	300	10320	1.0			

P_{1n} [kW]	n_2 [r/min]	M_{2n} [Nm]	i	F_{r2} [N]	f_s		
1.1	4.7	1274	300	13500	1.3	TW/TW63/130 90B5/B14	TM 90 S4
	3.5	1621	400	13500	1.0		
	2.8	1913	500	13500	0.8		
	9.3	771	150	18000	2.6	TW/TW63/150 90B5/B14	TM 90 S4
	7.0	1005	200	18000	2.1		
	5.6	1224	250	18000	1.7		
	4.7	1456	300	18000	1.6		
	3.5	1723	400	18000	1.5		
	2.8	2024	500	18000	1.2		
	2.3	2496	600	18000	1.1		
	1.9	2931	750	18000	0.8		
	9.3	847	300	10320	1.4	TW/TW50/110 90B5/B14	TM 90 S2
	7.0	1105	400	10320	1.0		
	5.6	1279	500	10320	0.8		
1.5	9.3	1055	150	9384	1.1	TW/TW63/110 90B5/B14	TM 90 L4
	7.0	1371	200	10320	0.8		
	5.6	1669	250	10320	0.7		
	4.7	1789	300	10320	0.7		
	9.3	878	300	13500	1.9	TW/TW63/130 90B5/B14	TM 90 S2
	7.0	1105	400	13500	1.4		
	5.6	1305	500	13500	1.1		
	9.3	1042	150	12274	1.5	TW/TW63/130 90B5/B14	TM 90 L4
	7.0	1371	200	13500	1.2		
	5.6	1669	250	13500	0.9		
	4.7	1737	300	13500	1.0		
	3.5	2210	400	13500	0.7		
	9.3	1052	150	18000	1.9	TW/TW63/150 90B5/B14	TM 90 L4
	7.0	1371	200	18000	1.5		
	5.6	1669	250	18000	1.2		
	4.7	1985	300	18000	1.2		
	3.5	2350	400	18000	1.1		
	2.8	2760	500	18000	0.8		
	2.3	3404	600	18000	0.8		

8.4 TW.. ISS.. Performance Parameter

M_{2n} [Nm]	n₁ [r/min]	i	P_{1n} [kW]	n₂ [r/min]	Fr₂ [N]	Fr₁ [N]		
13	2800	7.5	0.58	373.3	542	125	TW 30 ISS	157
13	2800	10	0.45	280	597	140		
13	2800	15	0.32	186.7	683	140		
12	2800	20	0.23	140	752	146		
16	2800	25	0.26	112	810	210		
15	2800	30	0.21	93.3	861	210		
14	2800	40	0.16	70	948	127		
13	2800	50	0.12	56	1021	128		
12	2800	60	0.10	46.7	1085	126		
11	2800	80	0.08	35	1194	130		
28	2800	7.5	1.2	373.3	1044	233	TW 40 ISS	157
29	2800	10	1.0	280	1149	272		
31	2800	15	0.72	186.7	1315	291		
29	2800	20	0.52	140	1447	204		
28	2800	25	0.42	112	1559	236		
34	2800	30	0.44	93.3	1657	350		
31	2800	40	0.32	70	1824	350		
30	2800	50	0.26	56	1964	350		
28	2800	60	0.21	46.7	2087	350		
25	2800	80	0.16	35	2298	350		
23	2800	100	0.12	28	2475	350		
52	2800	7.5	2.3	373.3	1433	324	TW 50 ISS	157
54	2800	10	1.8	280	1577	378		
57	2800	15	1.3	186.7	1805	399		
53	2800	20	0.95	140	1987	417		
51	2800	25	0.75	112	2140	482		
64	2800	30	0.81	93.3	2274	490		
59	2800	40	0.59	70	2503	490		
53	2800	50	0.45	56	2696	490		
50	2800	60	0.37	46.7	2865	490		
45	2800	80	0.27	35	3153	490		
40	2800	100	0.21	28	3397	490		
93	2800	7.5	4.0	373.3	1873	395	TW 63 ISS	157
97	2800	10	3.2	280	2061	463		
103	2800	15	2.3	186.7	2359	492		
100	2800	20	1.7	140	2597	538		
92	2800	25	1.3	112	2797	593		
120	2800	30	1.5	93.3	2973	700		
108	2800	40	1.1	70	3272	700		
100	2800	50	0.81	56	3524	700		
95	2800	60	0.67	46.7	3745	700		
85	2800	80	0.49	35	4122	700		
74	2800	100	0.37	28	4440	700		
130	2800	7.5	5.7	373.3	2210	560	TW 75 ISS	157
145	2800	10	4.8	280	2433	703		
150	2800	15	3.4	186.7	2785	727		
160	2800	20	2.8	140	3065	872		
150	2800	25	2.1	112	3302	980		

M_{2n} [Nm]	n₁ [r/min]	i	P_{1n} [kW]	n₂ [r/min]	F_{r2} [N]	F_{r1} [N]		
170	2800	30	2.1	93.3	3509	980	TW 75 ISS	157
165	2800	40	1.6	70	3862	980		
150	2800	50	1.2	56	4160	980		
145	2800	60	1.0	46.7	4421	980		
130	2800	80	0.72	35	4865	980		
120	2800	100	0.57	28	5241	980		
210	2800	7.5	9.0	373.3	2446	715	TW 90 ISS	157
235	2800	10	7.7	280	2692	900		
270	2800	15	6.0	186.7	3081	1034		
260	2800	20	4.4	140	3391	1120		
250	2800	25	3.4	112	3653	1270		
310	2800	30	3.7	93.3	3882	1270		
275	2800	40	2.6	70	4273	1270		
265	2800	50	2.0	56	4603	1270		
245	2800	60	1.6	46.7	4891	1270		
225	2800	80	1.2	35	5383	1270		
200	2800	100	0.9	28	5799	1270		
391	2800	7.5	16.8	373.3	3090	950	TW 110 ISS	157
437	2800	10	14.2	280	3401	1194		
489	2800	15	10.9	186.7	3893	1337		
483	2800	20	8.1	140	4285	1485		
506	2800	25	6.9	112	4616	1700		
552	2800	30	6.5	93.3	4905	1700		
529	2800	40	4.8	70	5399	1700		
495	2800	50	3.7	56	5816	1700		
473	2800	60	3.0	46.7	6181	1700		
399	2800	80	2.0	35	6803	1700		
368	2800	100	1.5	28	7328	1700		
520	2800	7.5	22.3	373.3	4042	1190	TW 130 ISS	157
580	2800	10	18.9	280	4449	1493		
670	2800	15	14.7	186.7	5092	1725		
660	2800	20	11.0	140	5605	1912		
670	2800	25	9.1	112	6038	2100		
770	2800	30	9.0	93.3	6416	2100		
730	2800	40	6.5	70	7062	2100		
700	2800	50	5.1	56	7607	2100		
640	2800	60	4.0	46.7	8084	2100		
590	2800	80	2.9	35	8897	2100		
520	2800	100	2.2	28	9584	2100		
840	2800	7.5	35.7	373.3	5526	1550	TW 150 ISS	157
890	2800	10	28.4	280	6082	1848		
910	2800	15	19.8	186.7	6962	1889		
980	2800	20	16.0	140	7663	2289		
890	2800	25	11.9	112	8254	2494		
920	2800	30	10.3	93.3	8771	2800		
1200	2800	40	10.5	70	9654	2800		
1100	2800	50	8.0	56	10400	2800		
990	2800	60	6.1	46.7	11051	2800		
920	2800	80	4.5	35	12163	2800		
810	2800	100	3.3	28	13103	2800		

M_{2n} [Nm]	n₁ [r/min]	i	P_{1n} [kW]	n₂ [r/min]	F_{r2} [N]	F_{r1} [N]		
18	1400	7.5	0.4	186.7	683	150	TW 30 ISS	157
18	1400	10	0.3	140	752	169		
18	1400	15	0.2	93.3	861	169		
18	1400	20	0.2	70	948	190		
21	1400	25	0.2	56	1021	210		
20	1400	30	0.2	46.7	1085	210		
18	1400	40	0.1	35	1194	210		
17	1400	50	0.1	28	1286	210		
16	1400	60	0.1	23.3	1367	210		
13	1400	80	0.1	17.5	1504	210		
40	1400	7.5	0.9	186.7	1315	294	TW 40 ISS	157
40	1400	10	0.7	140	1447	331		
40	1400	15	0.5	93.3	1657	331		
39	1400	20	0.4	70	1824	350		
38	1400	25	0.3	56	1964	350		
45	1400	30	0.3	46.7	2087	350		
41	1400	40	0.2	35	2298	350		
39	1400	50	0.2	28	2475	350		
36	1400	60	0.2	23.3	2630	350		
33	1400	80	0.1	17.5	2895	350		
29	1400	100	0.1	14	3118	350		
71	1400	7.5	1.6	186.7	1805	401	TW 50 ISS	157
72	1400	10	1.2	140	1987	490		
74	1400	15	0.9	93.3	2274	490		
73	1400	20	0.7	70	2503	490		
70	1400	25	0.5	56	2696	490		
84	1400	30	0.6	46.7	2865	490		
76	1400	40	0.4	35	3153	490		
73	1400	50	0.3	28	3397	490		
68	1400	60	0.3	23.3	3610	490		
65	1400	80	0.2	17.5	3973	490		
55	1400	100	0.2	14	4280	490		
128	1400	7.5	2.8	186.7	2359	500	TW 63 ISS	157
130	1400	10	2.2	140	2597	571		
140	1400	15	1.7	93.3	2973	615		
135	1400	20	1.2	70	3272	667		
130	1400	25	1.0	56	3524	700		
160	1400	30	1.1	46.7	3745	700		
145	1400	40	0.8	35	4122	700		
135	1400	50	0.6	28	4440	700		
130	1400	60	0.5	23.3	4719	700		
122	1400	80	0.4	17.5	5193	700		
118	1400	100	0.3	14	5595	700		
185	1400	7.5	4.1	186.7	2785	700	TW 75 ISS	157
195	1400	10	3.3	140	3065	830		
200	1400	15	2.3	93.3	3509	851		
210	1400	20	1.9	70	3862	980		
200	1400	25	1.5	56	4160	980		
230	1400	30	1.5	46.7	4421	980		

M_{2n} [Nm]	n₁ [r/min]	i	P_{1n} [kW]	n₂ [r/min]	F_{r2} [N]	F_{r1} [N]		
220	1400	40	1.1	35	4865	980	TW 75 ISS	157
210	1400	50	0.9	28	5241	980		
200	1400	60	0.8	23.3	5569	980		
190	1400	80	0.6	17.5	6130	980		
180	1400	100	0.5	14	6603	980		
290	1400	7.5	6.4	186.7	3081	900	TW 90 ISS	157
310	1400	10	5.2	140	3391	1082		
360	1400	15	4.1	93.3	3882	1257		
355	1400	20	3.1	70	4273	1270		
340	1400	25	2.5	56	4603	1270		
410	1400	30	2.6	46.7	4891	1270		
360	1400	40	1.8	35	5383	1270		
340	1400	50	1.4	28	5799	1270		
320	1400	60	1.1	23.3	6163	1270		
285	1400	80	0.8	17.5	6783	1270		
270	1400	100	0.7	14	7306	1270		
552	1400	7.5	12.1	186.7	3893	1200	TW 110 ISS	157
598	1400	10	10.0	140	4285	1463		
656	1400	15	7.5	93.3	4905	1604		
644	1400	20	5.6	70	5399	1700		
679	1400	25	4.8	56	5816	1700		
725	1400	30	4.5	46.7	6181	1700		
702	1400	40	3.3	35	6803	1700		
660	1400	50	2.6	28	7328	1700		
616	1400	60	2.1	23.3	7787	1700		
515	1400	80	1.4	17.5	8571	1700		
483	1400	100	1.1	14	9232	1700		
750	1400	7.5	16.3	186.7	5092	1500	TW 130 ISS	157
820	1400	10	13.5	140	5605	1845		
920	1400	15	10.3	93.3	6416	2070		
910	1400	20	7.8	70	7062	2100		
930	1400	25	6.5	56	7607	2100		
1040	1400	30	6.4	46.7	8084	2100		
1050	1400	40	4.9	35	8897	2100		
980	1400	50	3.8	28	9584	2100		
900	1400	60	3.0	23.3	10185	2100		
840	1400	80	2.3	17.5	11210	2100		
740	1400	100	1.7	14	12076	2100		
1200	1400	7.5	25.8	186.7	6962	1950	TW 150 ISS	157
1240	1400	10	20.2	140	7663	2267		
1250	1400	15	13.9	93.3	8771	2285		
1300	1400	20	11.0	70	9654	2674		
1200	1400	25	8.3	56	10400	2800		
1200	1400	30	7.0	46.7	11051	2800		
1550	1400	40	7.2	35	12163	2800		
1400	1400	50	5.3	28	13103	2800		
1260	1400	60	4.2	23.3	13924	2800		
1150	1400	80	3.1	17.5	15325	2800		
1000	1400	100	2.3	14	16508	2800		

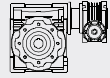
M_{2n} [Nm]	n_1 [r/min]	i	P_{1n} [kW]	n_2 [r/min]	F_{r2} [N]	F_{r1} [N]		
20	900	7.5	0.30	120	792	175	TW 30 ISS	157
20	900	10	0.24	90	871	197		
20	900	15	0.17	60	997	197		
20	900	20	0.13	45	1098	210		
23	900	25	0.14	36	1183	210		
21	900	30	0.11	30	1257	210		
20	900	40	0.09	22.5	1383	210		
18	900	50	0.07	18	1490	210		
17	900	60	0.06	15	1583	210		
15	900	80	0.04	11.3	1743	210		
44	900	7.5	0.66	120	1524	319	TW 40 ISS	157
44	900	10	0.51	90	1677	350		
45	900	15	0.36	60	1920	350		
44	900	20	0.28	45	2113	350		
43	900	25	0.23	36	2276	350		
49	900	30	0.23	30	2419	350		
45	900	40	0.17	22.5	2662	350		
42	900	50	0.14	18	2868	350		
39	900	60	0.11	15	3047	350		
35	900	80	0.09	11.3	3354	350		
32	900	100	0.07	9	3490	350		
84	900	7.5	1.2	120	2091	448	TW 50 ISS	157
84	900	10	0.95	90	2302	490		
84	900	15	0.67	60	2635	490		
77	900	20	0.48	45	2900	490		
75	900	25	0.39	36	3124	490		
90	900	30	0.42	30	3320	490		
82	900	40	0.31	22.5	3654	490		
77	900	50	0.25	18	3936	490		
72	900	60	0.21	15	4183	490		
68	900	80	0.16	11.3	4604	490		
56	900	100	0.12	9	4840	490		
151	900	7.5	2.2	120	2734	580	TW 63 ISS	157
153	900	10	1.7	90	3009	661		
155	900	15	1.2	60	3444	670		
148	900	20	0.91	45	3791	700		
137	900	25	0.70	36	4084	700		
175	900	30	0.79	30	4339	700		
160	900	40	0.58	22.5	4776	700		
145	900	50	0.45	18	5145	700		
138	900	60	0.37	15	5467	700		
128	900	80	0.29	11.3	6018	700		
124	900	100	0.25	9	6270	700		
215	900	7.5	3.1	120	3227	810	TW 75 ISS	157
230	900	10	2.6	90	3551	975		
235	900	15	1.8	60	4065	980		
235	900	20	1.4	45	4474	980		
215	900	25	1.1	36	4820	980		
260	900	30	1.2	30	5122	980		

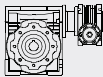
M_{2n} [Nm]	n₁ [r/min]	i	P_{1n} [kW]	n₂ [r/min]	F_{r2} [N]	F_{r1} [N]		
240	900	40	0.84	22.5	5637	980	TW 75 ISS	157
220	900	50	0.66	18	6073	980		
210	900	60	0.55	15	6453	980		
200	900	80	0.43	11.3	7103	980		
190	900	100	0.36	9	7380	980		
340	900	7.5	4.9	120	3570	1040	TW 90 ISS	157
370	900	10	4.1	90	3929	1270		
420	900	15	3.2	60	4498	1270		
390	900	20	2.3	45	4951	1270		
370	900	25	1.8	36	5333	1270		
460	900	30	1.9	30	5667	1270		
410	900	40	1.4	22.5	6238	1270		
390	900	50	1.1	18	6719	1270		
350	900	60	0.86	15	7140	1270		
315	900	80	0.63	11.3	7859	1270		
280	900	100	0.49	9	8180	1270		
650	900	7.5	9.3	120	4511	1390	TW 110 ISS	157
713	900	10	7.7	90	4965	1700		
759	900	15	5.7	60	5684	1700		
725	900	20	4.1	45	6256	1700		
759	900	25	3.5	36	6739	1700		
840	900	30	3.5	30	7161	1700		
794	900	40	2.5	22.5	7882	1700		
748	900	50	2.0	18	8491	1700		
682	900	60	1.6	15	9023	1700		
567	900	80	1.1	11.3	9931	1700		
515	900	100	0.82	9	10320	1700		
880	900	7.5	12.4	120	5901	1740	TW 130 ISS	157
960	900	10	10.4	90	6494	2100		
1060	900	15	7.8	60	7434	2100		
1040	900	20	5.9	45	8182	2100		
1050	900	25	4.9	36	8814	2100		
1170	900	30	4.8	30	9366	2100		
1100	900	40	3.5	22.5	10309	2100		
1050	900	50	2.8	18	11105	2100		
940	900	60	2.1	15	11801	2100		
860	900	80	1.6	11.3	12989	2100		
780	900	100	1.2	9	13500	2100		
1400	900	7.5	19.6	120	8067	2270	TW 150 ISS	157
1480	900	10	15.7	90	8878	2700		
1450	900	15	10.5	60	10163	2645		
1500	900	20	8.3	45	11186	2800		
1380	900	25	6.2	36	12050	2800		
1400	900	30	5.4	30	12805	2800		
1800	900	40	5.6	22.5	14094	2800		
1600	900	50	4.1	18	15182	2800		
1440	900	60	3.2	15	16133	2800		
1300	900	80	2.3	11.3	17757	2800		
1150	900	100	1.8	9	18000	2800		

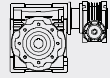
M_{2n} [Nm]	n₁ [r/min]	i	P_{1n} [kW]	n₂ [r/min]	F_{r2} [N]	F_{r1} [N]		
24	500	7.5	0.21	66.7	963	210	TW 30 ISS	157
24	500	10	0.16	50	1060	210		
24	500	15	0.12	33.3	1213	210		
23	500	20	0.09	25	1336	210		
29	500	25	0.10	20	1439	210		
26	500	30	0.08	16.7	1529	210		
23	500	40	0.06	12.5	1683	210		
21	500	50	0.05	10	1813	210		
19	500	60	0.04	8.3	1830	210		
17	500	80	0.03	6.3	1830	210		
54	500	7.5	0.45	66.7	1853	350	TW 40 ISS	157
54	500	10	0.35	50	2040	350		
55	500	15	0.26	33.3	2335	350		
52	500	20	0.19	25	2570	350		
49	500	25	0.15	20	2769	350		
58	500	30	0.16	16.7	2942	350		
53	500	40	0.12	12.5	3238	350		
49	500	50	0.10	10	3488	350		
46	500	60	0.08	8.3	3490	350		
40	500	80	0.06	6.3	3490	350		
36	500	100	0.05	5	3490	350		
103	500	7.5	0.87	66.7	2544	490	TW 50 ISS	157
103	500	10	0.67	50	2800	490		
103	500	15	0.47	33.3	3205	490		
93	500	20	0.33	25	3528	490		
91	500	25	0.27	20	3800	490		
108	500	30	0.30	16.7	4038	490		
98	500	40	0.22	12.5	4445	490		
91	500	50	0.17	10	4788	490		
83	500	60	0.14	8.3	4840	490		
75	500	80	0.11	6.3	4840	490		
65	500	100	0.09	5	4840	490		
184	500	7.5	1.5	66.7	3325	700	TW 63 ISS	157
185	500	10	1.2	50	3660	700		
187	500	15	0.85	33.3	4190	700		
178	500	20	0.63	25	4611	700		
164	500	25	0.48	20	4967	700		
200	500	30	0.53	16.7	5279	700		
185	500	40	0.40	12.5	5810	700		
173	500	50	0.32	10	6259	700		
160	500	60	0.26	8.3	6270	700		
137	500	80	0.19	6.3	6270	700		
128	500	100	0.16	5	6270	700		
260	500	7.5	2.2	66.7	3925	980	TW 75 ISS	157
270	500	10	1.7	50	4320	980		
280	500	15	1.3	33.3	4945	980		
285	500	20	0.99	25	5443	980		
255	500	25	0.74	20	5863	980		
300	500	30	0.77	16.7	6231	980		

M_{2n} [Nm]	n₁ [r/min]	i	P_{1n} [kW]	n₂ [r/min]	F_{r2} [N]	F_{r1} [N]		
280	500	40	0.58	12.5	6858	980	TW 75 ISS	157
250	500	50	0.44	10	7380	980		
240	500	60	0.38	8.3	7380	980		
215	500	80	0.28	6.3	7380	980		
210	500	100	0.24	5	7380	980		
410	500	7.5	3.3	66.7	4343	1270	TW 90 ISS	157
435	500	10	2.7	50	4780	1270		
490	500	15	2.1	33.3	5472	1270		
470	500	20	1.6	25	6022	1270		
440	500	25	1.2	20	6487	1270		
550	500	30	1.4	16.7	6894	1270		
480	500	40	0.94	12.5	7588	1270		
450	500	50	0.75	10	8174	1270		
400	500	60	0.58	8.3	8180	1270		
365	500	80	0.45	6.3	8180	1270		
330	500	100	0.35	5	8180	1270		
794	500	7.5	6.4	66.7	5488	1700	TW 110 ISS	157
851	500	10	5.2	50	6040	1700		
909	500	15	3.9	33.3	6914	1700		
863	500	20	2.8	25	7610	1700		
909	500	25	2.4	20	8198	1700		
1000	500	30	2.4	16.7	8711	1700		
932	500	40	1.7	12.5	9588	1700		
880	500	50	1.4	10	10320	1700		
781	500	60	1.1	8.3	10320	1700		
662	500	80	0.75	6.3	10320	1700		
599	500	100	0.58	5	10320	1700		
1080	500	7.5	8.7	66.7	7178	2100	TW 130 ISS	157
1160	500	10	7.1	50	7900	2100		
1300	500	15	5.5	33.3	9043	2100		
1230	500	20	4.0	25	9953	2100		
1200	500	25	3.2	20	10722	2100		
1400	500	30	3.4	16.7	11394	2100		
1300	500	40	2.4	12.5	12540	2100		
1220	500	50	1.9	10	13500	2100		
1070	500	60	1.5	8.3	13500	2100		
970	500	80	1.1	6.3	13500	2100		
860	500	100	0.83	5	13500	2100		
1700	500	7.5	13.5	66.7	9812	2800	TW 150 ISS	157
1780	500	10	10.7	50	10800	2800		
1730	500	15	7.2	33.3	12363	2800		
1820	500	20	5.8	25	13607	2800		
1630	500	25	4.3	20	14658	2800		
1670	500	30	3.7	16.7	15576	2800		
2120	500	40	3.4	12.5	17144	2800		
1870	500	50	2.8	10	18000	2800		
1680	500	60	2.3	8.3	18000	2800		
1530	500	80	1.7	6.3	18000	2800		
1350	500	100	1.29	5	18000	2800		

8.5 TW / TW.. ISS Performance Parameter

M_{2n} [Nm]	n₁ [r/min]	i	P_{1n} [kW]	n₂ [r/min]	Fr₂ [N]	Fr₁ [N]		
73	1400	300	0.07	4.7	3490	210	TW/TW 30/40 ISS	165
65	1400	400	0.06	3.5	3490	210		
61	1400	500	0.04	2.8	3490	210		
73	1400	600	0.05	2.3	3490	210		
73	1400	750	0.04	1.9	3490	210		
73	1400	900	0.04	1.6	3490	210		
65	1400	1200	0.03	1.2	3490	210		
73	1400	1500	0.03	0.9	3490	210		
73	1400	1800	0.02	0.8	3490	210		
65	1400	2400	0.02	0.58	3490	210		
60	1400	3200	0.01	0.43	3490	210		
48	1400	4000	0.01	0.35	3490	210		
43	1400	5000	0.01	0.28	3490	210		
145	1400	300	0.16	4.7	4840	210	TW/TW 30/50 ISS	165
124	1400	400	0.11	3.5	4840	210		
120	1400	500	0.09	2.8	4840	210		
145	1400	600	0.09	2.3	4840	210		
145	1400	750	0.08	1.9	4840	210		
145	1400	900	0.07	1.6	4840	210		
145	1400	1200	0.05	1.2	4840	210		
145	1400	1500	0.05	0.93	4840	210		
145	1400	1800	0.05	0.78	4840	210		
124	1400	2400	0.03	0.6	4840	210		
120	1400	3000	0.03	0.5	4840	210		
82	1400	4000	0.02	0.35	4840	210		
79	1400	5000	0.02	0.29	4840	210		
255	1400	300	0.24	4.7	6270	210	TW/TW 30/63 ISS	165
230	1400	400	0.19	3.5	6270	210		
216	1400	500	0.15	2.8	6270	210		
230	1400	600	0.14	2.3	6270	210		
216	1400	750	0.12	1.9	6270	210		
198	1400	900	0.09	1.6	6270	210		
230	1400	1200	0.09	1.2	6270	210		
216	1400	1500	0.08	0.93	6270	210		
198	1400	1800	0.06	0.78	6270	210		
230	1400	2400	0.06	0.58	6270	210		
216	1400	3000	0.05	0.47	6270	210		
172	1400	4000	0.04	0.35	6270	210		
150	1400	5000	0.03	0.28	6270	210		
390	1400	300	0.38	4.7	7380	350	TW/TW 40/75 ISS	165
360	1400	400	0.28	3.5	7380	350		
320	1400	500	0.21	2.8	7380	350		
390	1400	600	0.21	2.3	7380	350		
390	1400	750	0.19	1.9	7380	350		
390	1400	900	0.17	1.6	7380	350		
360	1400	1200	0.13	1.2	7380	350		
390	1400	1500	0.12	0.93	7380	350		
390	1400	1800	0.11	0.78	7380	350		
360	1400	2400	0.08	0.58	7380	350		
320	1400	3000	0.06	0.47	7380	350		
250	1400	4000	0.04	0.35	7380	350		
230	1400	5000	0.03	0.28	7380	350		

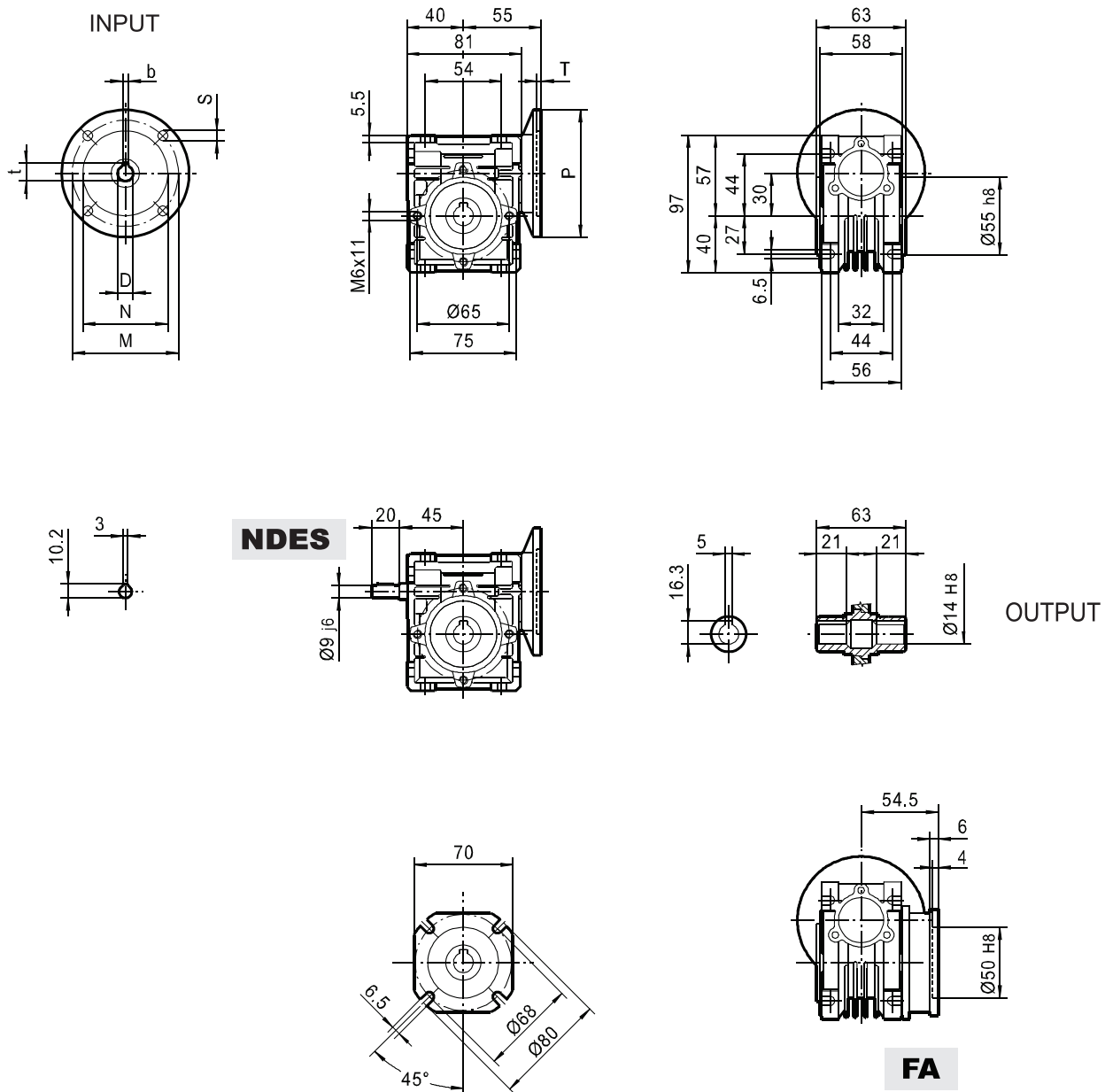
M_{2n} [Nm]	n₁ [r/min]	i	P_{1n} [kW]	n₂ [r/min]	F_{r2} [N]	F_{r1} [N]		
610	1400	300	0.56	4.7	8180	350	TW/TW 40/90 ISS	165
610	1400	400	0.45	3.5	8180	350		
560	1400	500	0.35	2.8	8180	350		
610	1400	600	0.31	2.3	8180	350		
560	1400	750	0.25	1.9	8180	350		
505	1400	900	0.21	1.6	8180	350		
610	1400	1200	0.20	1.2	8180	350		
560	1400	1500	0.16	0.93	8180	350		
505	1400	1800	0.13	0.78	8180	350		
610	1400	2400	0.12	0.58	8180	350		
560	1400	3000	0.10	0.47	8180	350		
460	1400	4000	0.07	0.35	8180	350		
410	1400	5000	0.05	0.28	8180	350		
700	1400	300	0.59	4.7	8180	490	TW/TW 50/90 ISS	165
610	1400	400	0.41	3.5	8180	490		
570	1400	500	0.29	2.8	8180	490		
700	1400	600	0.32	2.3	8180	490		
700	1400	750	0.27	1.9	8180	490		
700	1400	900	0.23	1.6	8180	490		
700	1400	1200	0.19	1.2	8180	490		
700	1400	1500	0.16	0.9	8180	490		
700	1400	1800	0.14	0.8	8180	490		
610	1400	2400	0.10	0.6	8180	490		
560	1400	3000	0.08	0.5	8180	490		
560	1400	4000	0.07	0.4	8180	490		
560	1400	5000	0.06	0.3	8180	490		
1265	1400	300	1.06	4.7	10320	490	TW/TW 50/110 ISS	165
1185	1400	400	0.77	3.5	10320	490		
1173	1400	500	0.60	2.8	10320	490		
1265	1400	600	0.54	2.3	10320	490		
1265	1400	750	0.48	1.9	10320	490		
1265	1400	900	0.42	1.6	10320	490		
1265	1400	1200	0.31	1.2	10320	490		
1265	1400	1500	0.29	0.93	10320	490		
1265	1400	1800	0.26	0.78	10320	490		
1185	1400	2400	0.19	0.58	10320	490		
1100	1400	3000	0.14	0.47	10320	490		
1100	1400	4000	0.12	0.35	10320	490		
1100	1400	5000	0.10	0.28	10320	490		
1196	1400	150	1.70	9.3	9384	595	TW/TW 63/110 ISS	165
1139	1400	200	1.25	7.0	10320	595		
1173	1400	250	1.05	5.6	10320	595		
1265	1400	300	1.06	4.7	10320	595		
1185	1400	400	0.77	3.5	10320	595		
1173	1400	500	0.56	2.8	10320	700		
1265	1400	600	0.56	2.3	10320	700		
1265	1400	750	0.47	1.9	10320	700		
1265	1400	900	0.41	1.6	10320	700		
1265	1400	1200	0.32	1.2	10320	700		
1265	1400	1500	0.28	0.9	10320	700		
1265	1400	1800	0.24	0.8	10320	700		
1185	1400	2400	0.18	0.6	10320	700		
1100	1400	3000	0.14	0.5	10320	700		
1100	1400	4000	0.11	0.4	10320	700		
1100	1400	5000	0.10	0.3	10320	700		

M_{2n} [Nm]	n₁ [r/min]	i	P_{1n} [kW]	n₂ [r/min]	F_{r2} [N]	F_{r1} [N]		
1584	1400	150	2.28	9.3	12274	700	TW/TW 63/130 ISS	165
1600	1400	200	1.75	7.0	13500	700		
1530	1400	250	1.37	5.6	13500	700		
1760	1400	300	1.5	4.7	13500	700		
1650	1400	400	1.1	3.5	13500	700		
1550	1400	500	0.84	2.8	13500	700		
1650	1400	600	0.77	2.3	13500	700		
1760	1400	750	0.64	1.9	13500	700		
1760	1400	900	0.56	1.6	13500	700		
1650	1400	1200	0.45	1.2	13500	700		
1760	1400	1500	0.38	0.93	13500	700		
1760	1400	1800	0.33	0.78	13500	700		
1650	1400	2400	0.25	0.58	13500	700		
1550	1400	3000	0.19	0.47	13500	700		
1550	1400	4000	0.16	0.35	13500	700		
1550	1400	5000	0.14	0.28	13500	700		
1971	1400	150	2.81	9.3	18000	500	TW/TW 63/150 ISS	165
2084	1400	200	2.28	7.0	18000	595		
2050	1400	250	1.84	5.6	18000	595		
2312	1400	300	1.75	4.7	18000	660		
2670	1400	400	1.70	3.5	18000	595		
2330	1400	500	1.27	2.8	18000	595		
2670	1400	600	1.18	2.3	18000	660		
2330	1400	750	0.87	1.9	18000	660		
2100	1400	900	0.62	1.6	18000	700		
2670	1400	1200	0.66	1.2	18000	700		
2100	1400	1800	0.37	0.8	18000	700		
2670	1400	2400	0.39	0.6	18000	700		
2330	1400	3000	0.29	0.5	18000	700		
2330	1400	4000	0.24	0.4	18000	700		
2330	1400	5000	0.21	0.3	18000	700		

9. OUTLINE DIMENSION

9.1 TW.. Outline dimension

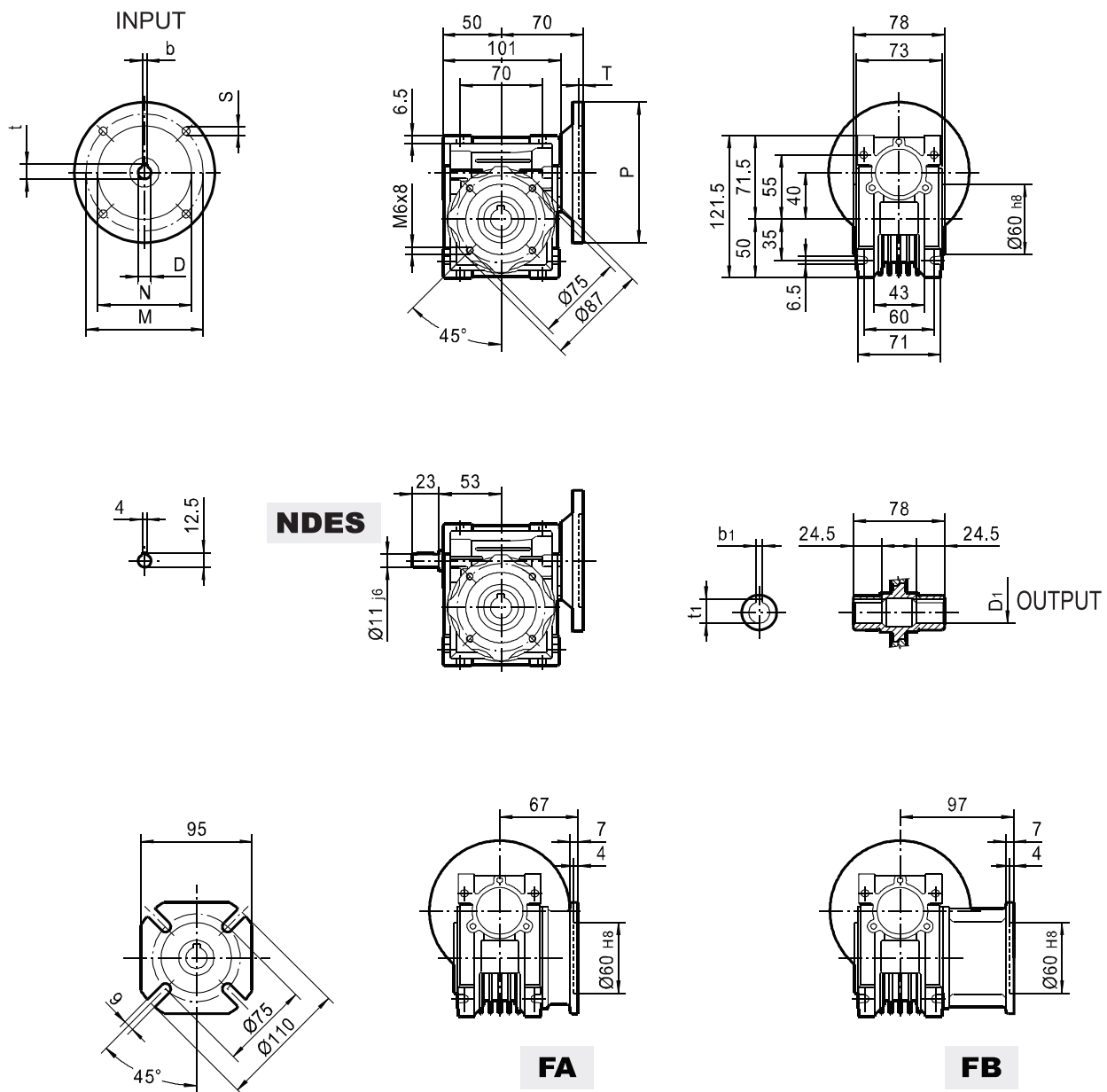
TW30..(IEC)



IEC	D _{E8}	t	b	P	M	N	S	T
63B5	11	12.8	4	140	115	95	9	5
63B14	11	12.8	4	90	75	60	5.5	4

TW 30 Gear Box Weight $\approx 1.3 \text{ kg}$
(Without Flange)

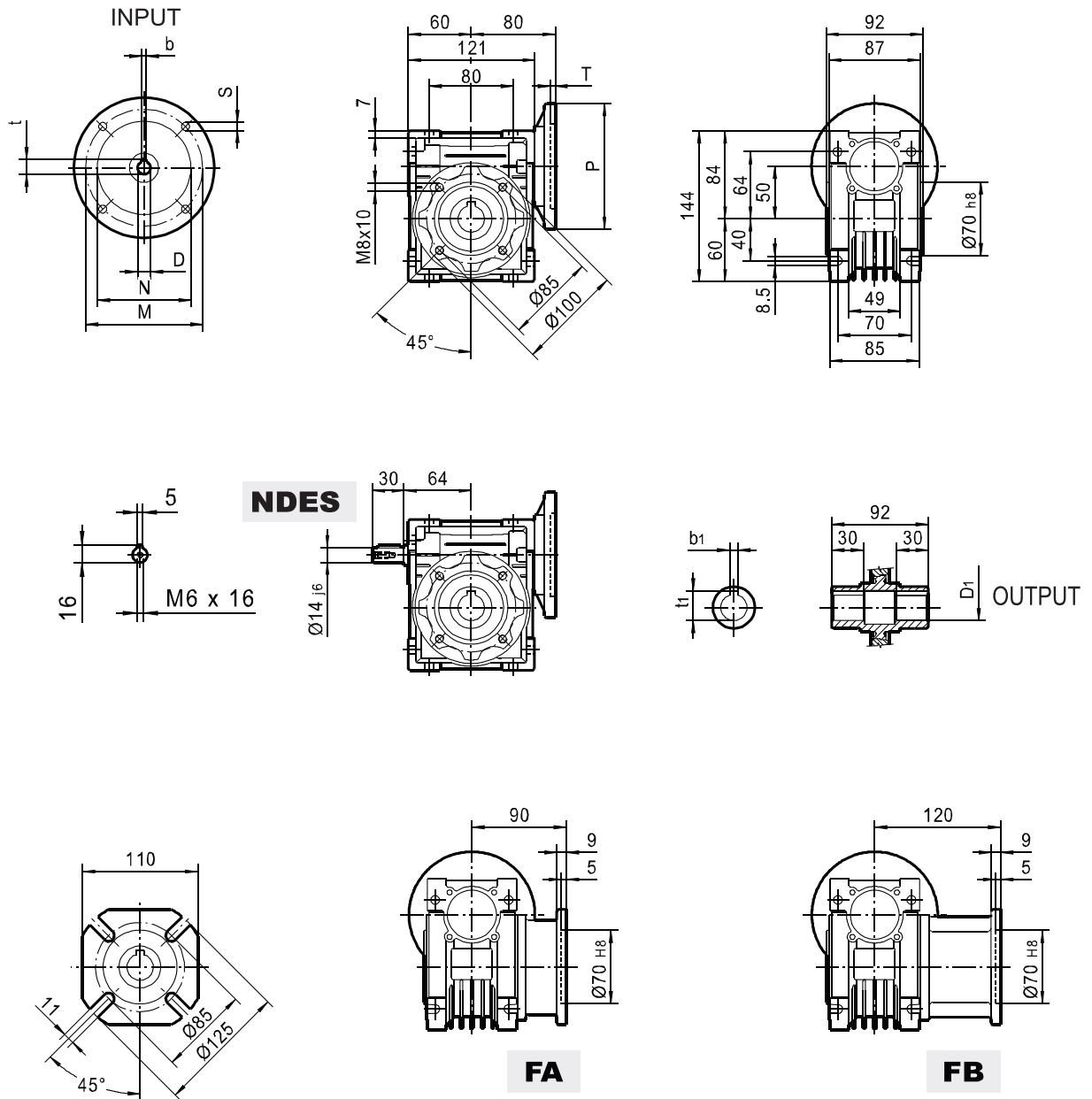
TW40..(IEC)



IEC	D _{E8}	t	b	P	M	N	S	T	D ₁ H8	b ₁	t ₁
63B5	11	12.8	4	140	115	95	9	5	18	6	20.8
63B14	11	12.8	4	90	75	60	5.5	4			
71B5	14	16.3	5	160	130	110	9	5			
71B14	14	16.3	5	105	85	70	7	5			

TW 40 Gear Box Weight $\approx$ 2.4 kg
(Without Flange)

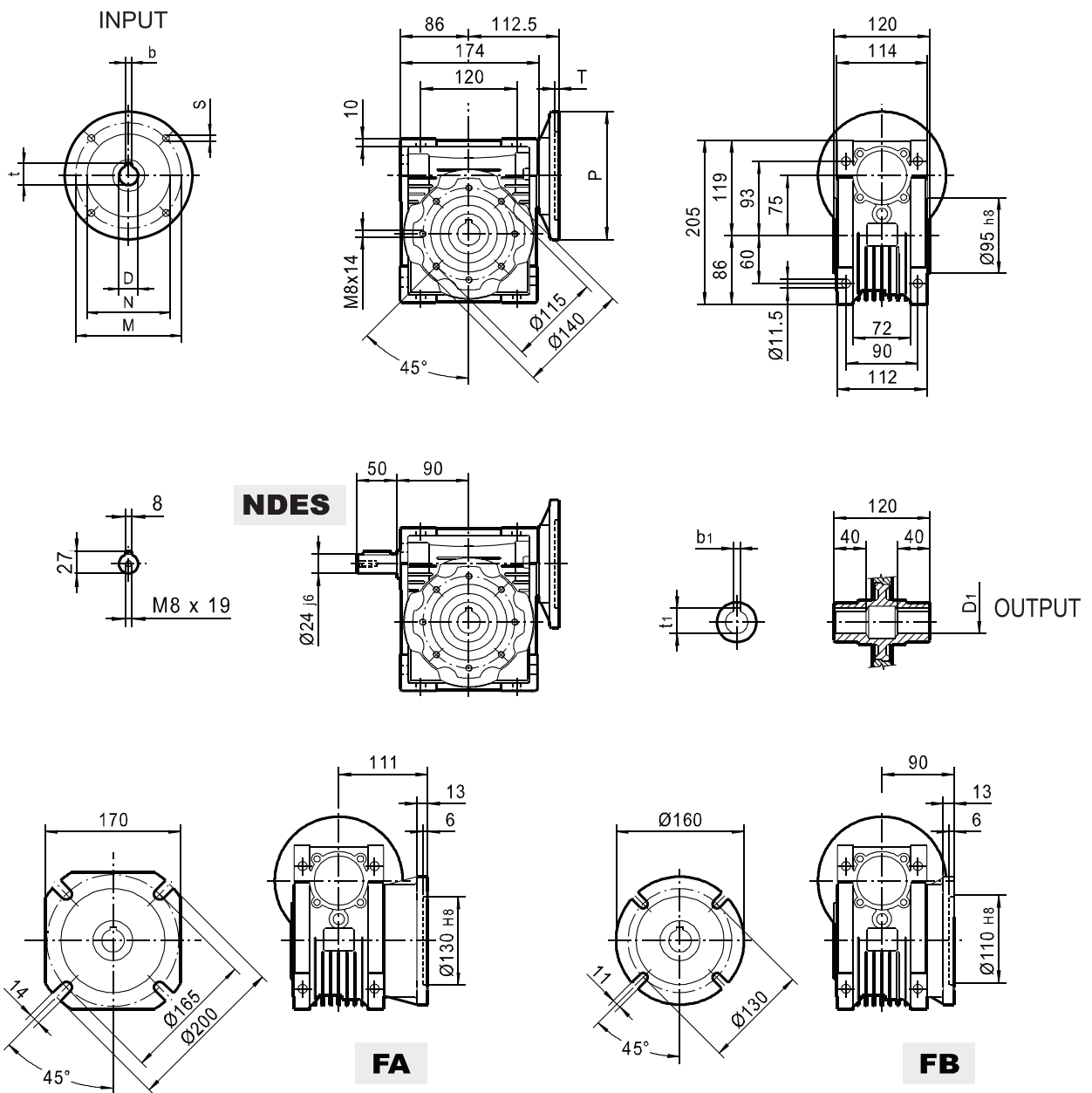
TW50..(IEC)



IEC	D_{E8}	t	b	P	M	N	S	T	$D1_{H8}$	$b1$	$t1$
63B5	11	12.8	4	140	115	95	9	5	25	8	28.3
71B5	14	16.3	5	160	130	110	9	5			
71B14	14	16.3	5	105	85	70	7	5			
80B5	19	21.8	6	200	165	130	11	5			
80B14	19	21.8	6	120	100	80	7	5			

TW 50 Gear Box Weight $\approx$ 3.75 kg
(Without Flange)

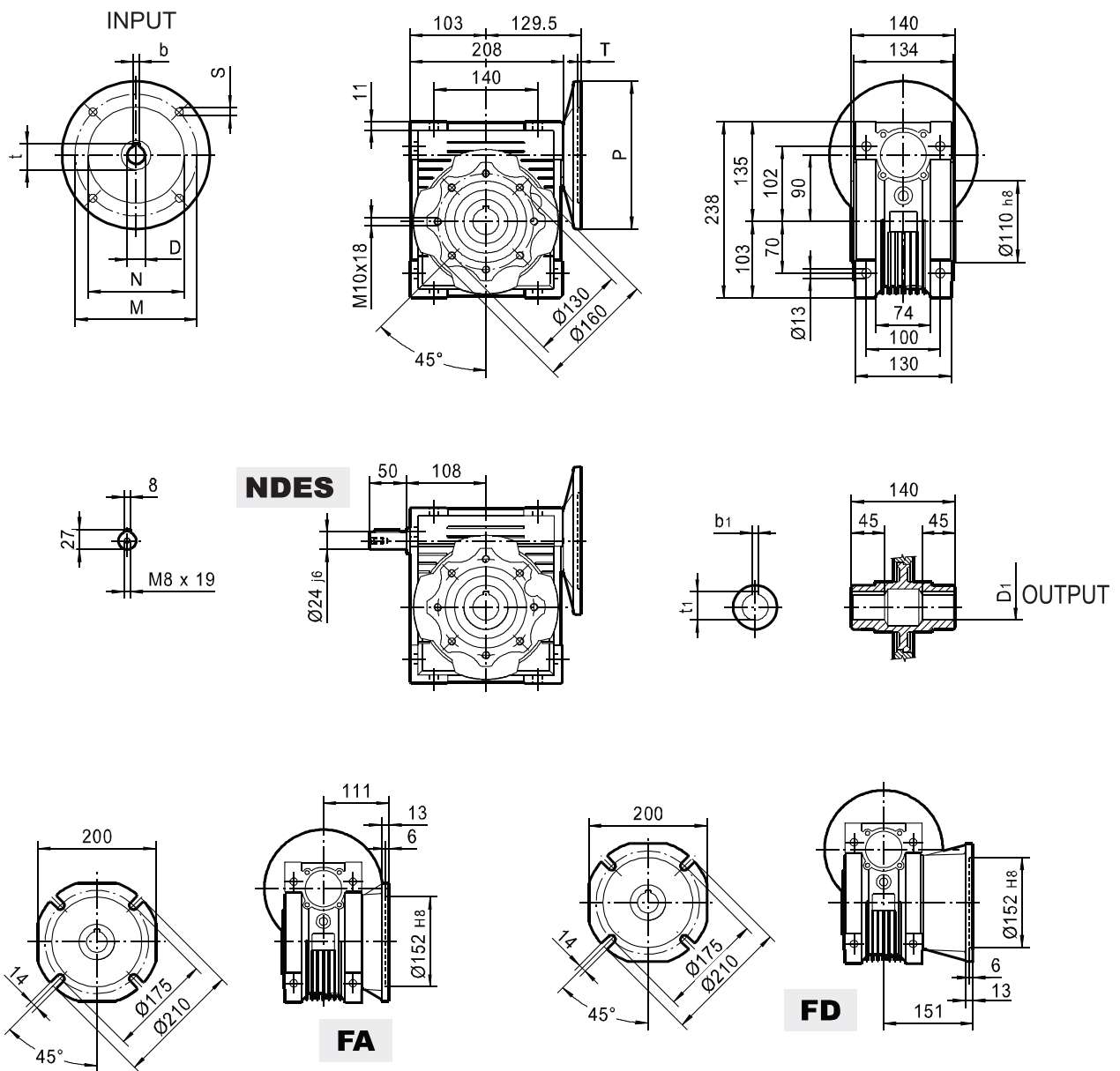
TW75..(IEC)



IEC	D_{E8}	t	b	P	M	N	S	T	D_1 H8	b_1	t_1
71B5	14	16.3	5	160	130	110	9	5	28	8	31.3
80B5	19	21.8	6	200	165	130	11	5			
80B14	19	21.8	6	120	100	80	7	5			
90B5	24	27.3	8	200	165	130	11	5			
90B14	24	27.3	8	140	115	95	9	5			
100/112B5	28	31.3	8	250	215	180	13.5	5			
100/112B14	28	31.3	8	160	130	110	9	5			

TW 75 Gear Box Weight ≈ 9 kg
(Without Flange)

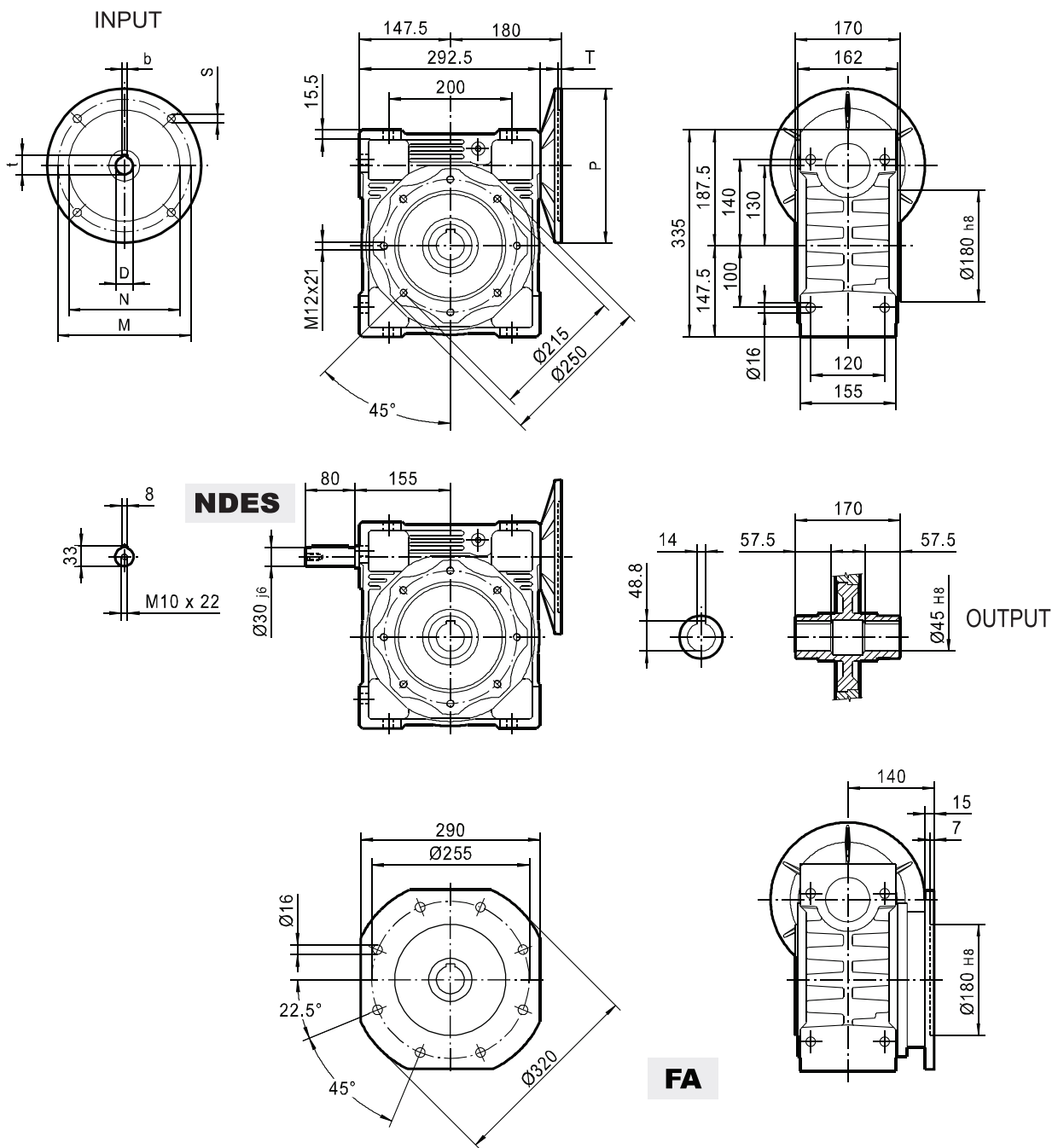
TW90..(IEC)



IEC	D_{E8}	t	b	P	M	N	S	T	$D1$ H8	$b1$	$t1$
80B5	19	21.8	6	200	165	130	11	5	35	10	38.3
80B14	19	21.8	6	120	100	80	7	5			
90B5	24	27.3	8	200	165	130	11	5			
90B14	24	27.3	8	140	115	95	9	5			
100/112B5	28	31.3	8	250	215	180	13.5	5			
100/112B14	28	31.3	8	160	130	110	9	5			

TW 90 Gear Box Weight $\approx$ 13.25 kg
(Without Flange)

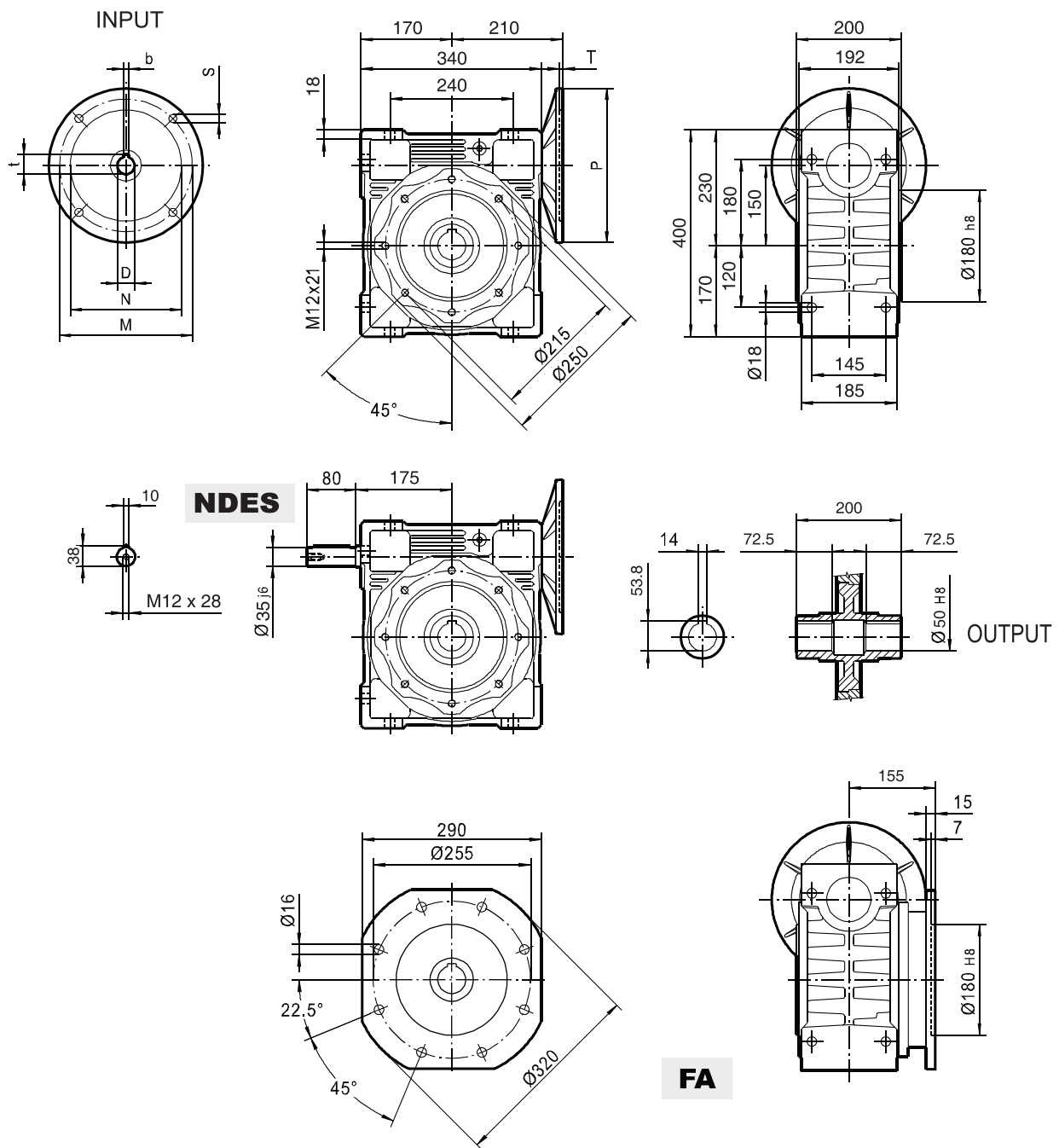
TW130..(IEC)



IEC	D _{E8}	t	b	P	M	N	S	T
90B5	24	27.3	8	200	165	130	11	5
100B5	28	31.3	8	250	215	180	14	7
112B5	28	31.3	8	250	215	180	14	7

TW 130 Gear Box Weight $\approx$ 48 kg
(Without Flange)

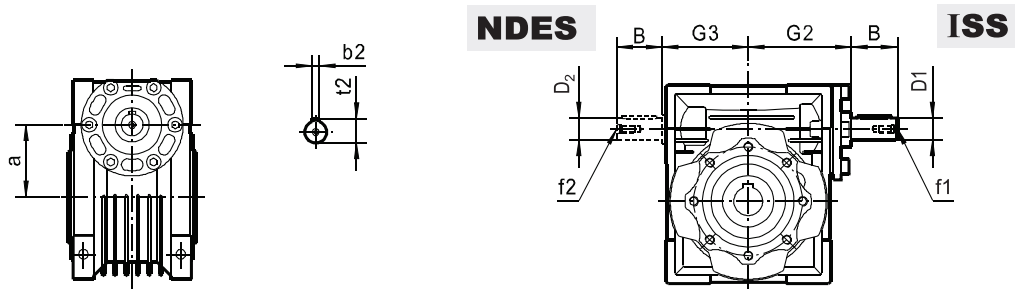
TW150..(IEC)



IEC	DE8	t	b	P	M	N	S	T
100/112B5	28	31.3	8	250	215	180	14	7
132B5	38	41.3	10	300	265	230	14	7

TW 150 Gear Box Weight $\approx$ 84 kg
(Without Flange)

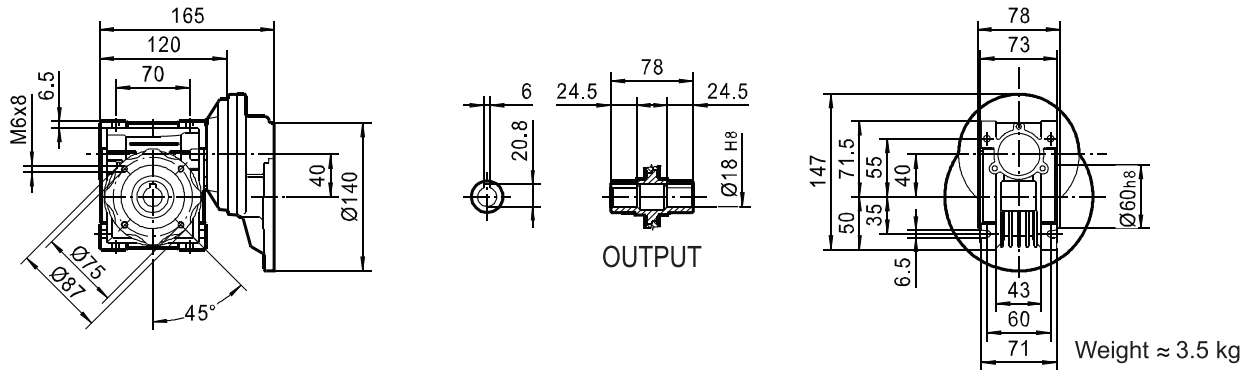
9.2 TW..ISS and NDES Outline Dimension



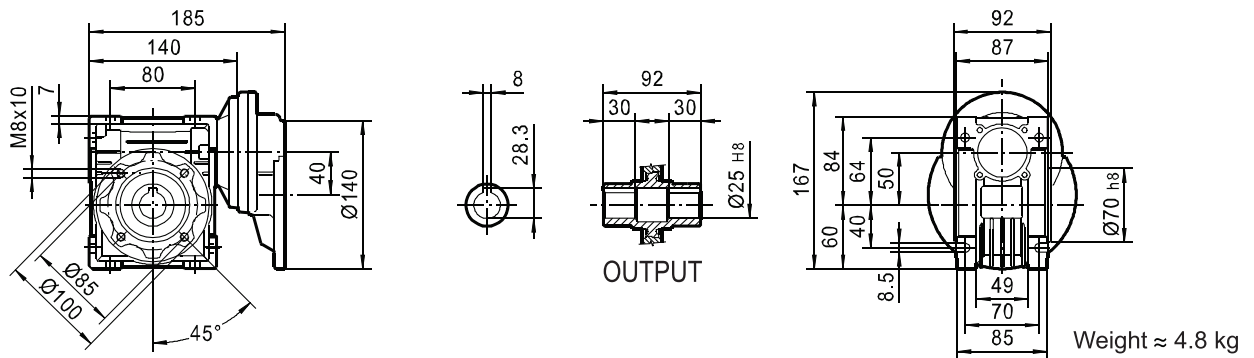
TW..ISS &NDES	030	040	050	063	075	090	110	130	150
B	20	23	30	40	50	50	60	60 (80)	60 (80)
D1 j6	9	11	14	19	24	24	28	30	35
D2 j6	9	11	14	19	24	24	28	30	35
G2	51	60	74	90	105	125	142	162	195
G3	45	53	64	75	90	108	135	155	175
a	30	40	50	63	75	90	110	130	150
b2	3	4	5	6	8	8	8	8	8 (10)
f1	M4	M4	M6	M6	M8	M8	M10	M10	M10(M12)
f2	M5	M5	M6	M6	M8	M8	M10	M10	M10(M12)
t2	10.2	12.5	16	21.5	27	27	31	33	38

9.3 HL - TW.. Outline dimension

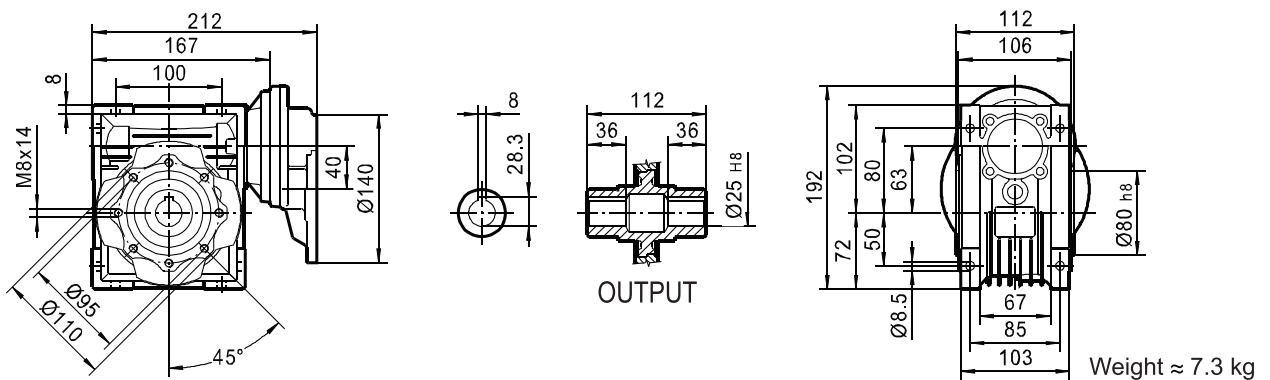
HL63 - TW40



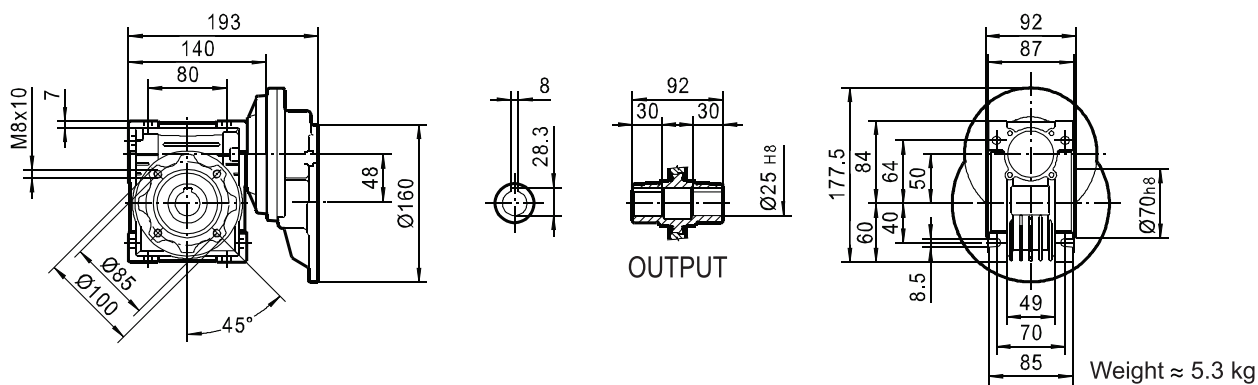
HL63 - TW50



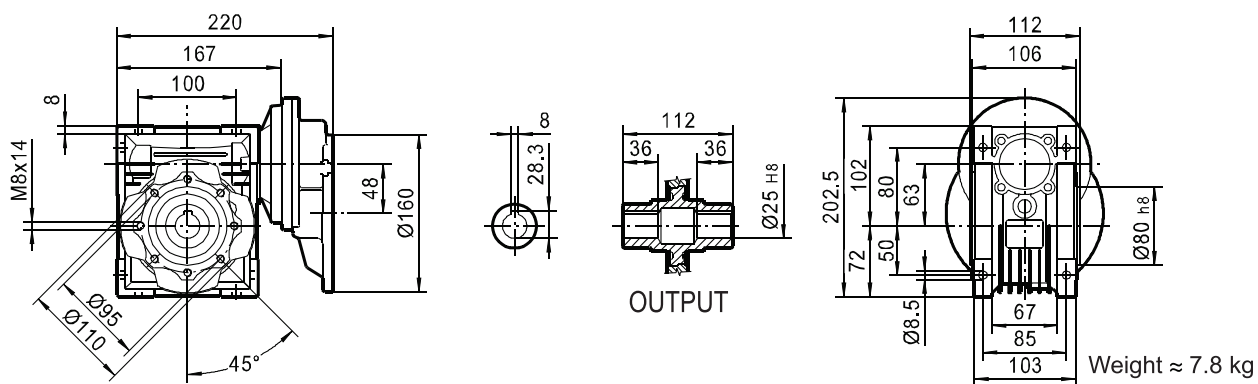
HL63 - TW63



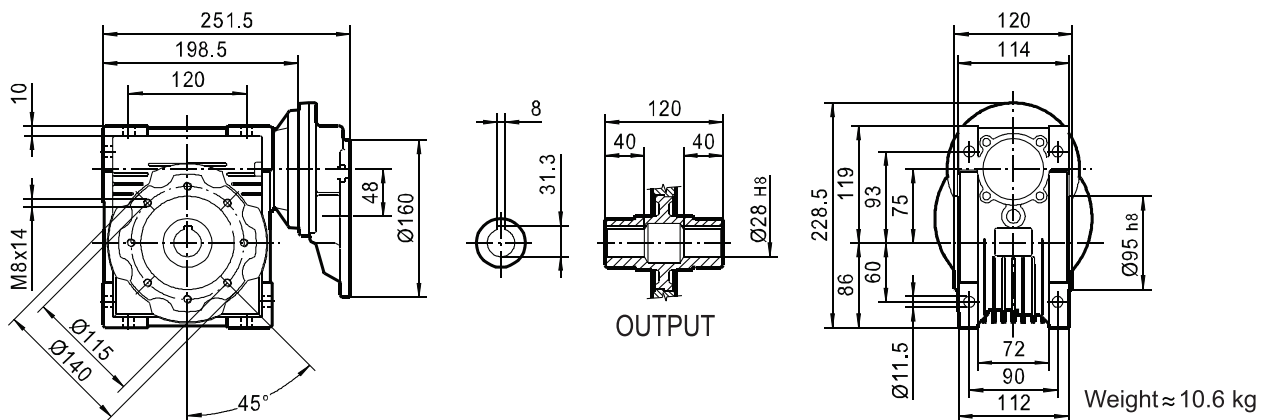
HL71 - TW50



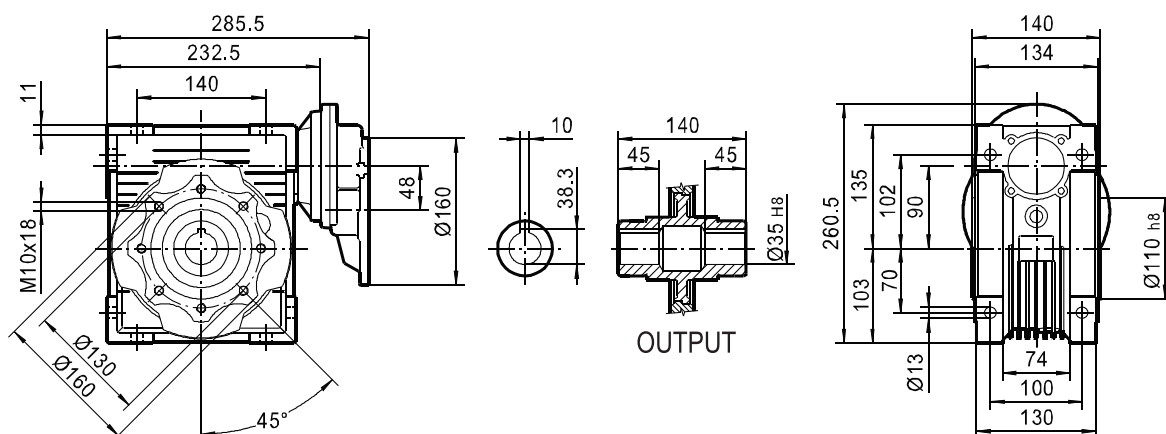
HL71 - TW63



HL71 - TW75

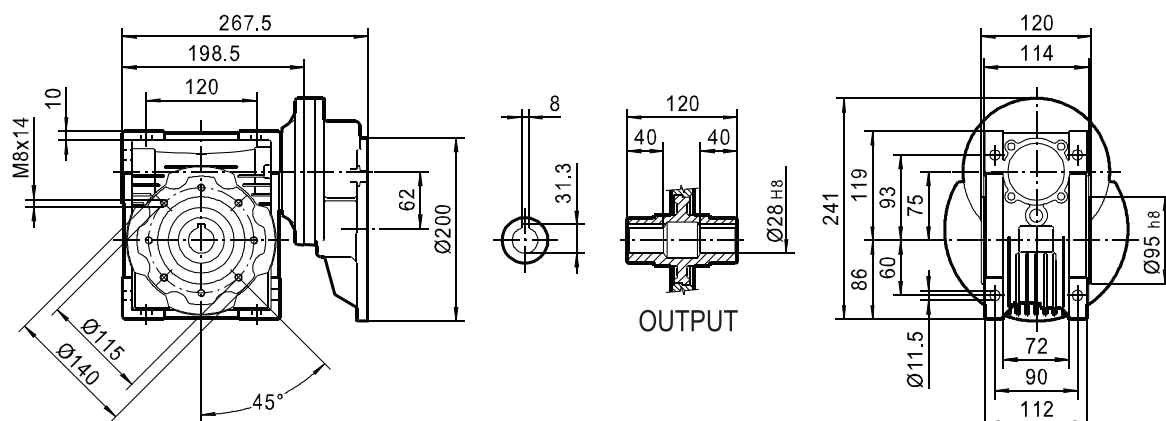


HL71 - TW90



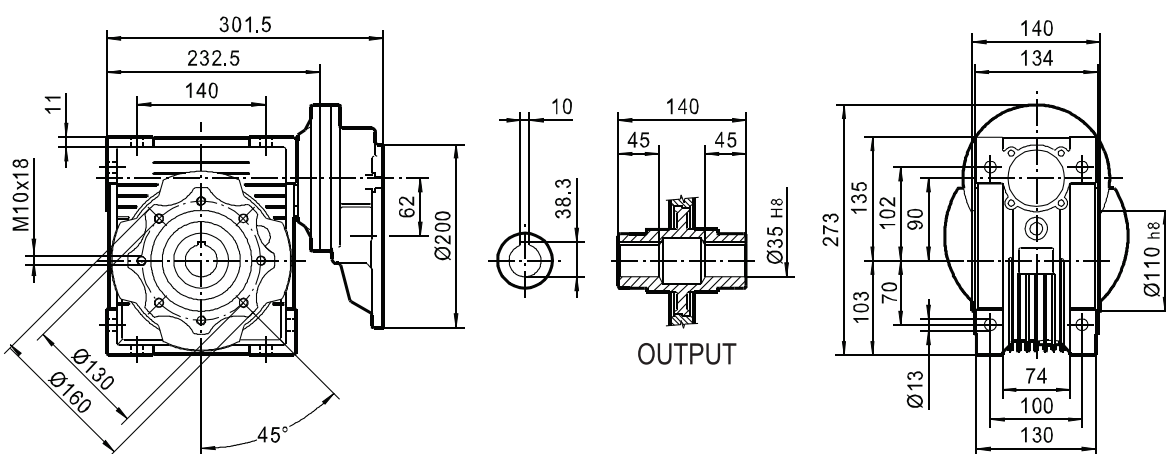
Weight ≈ 14.8 kg

HL80 - TW75



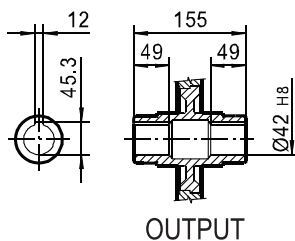
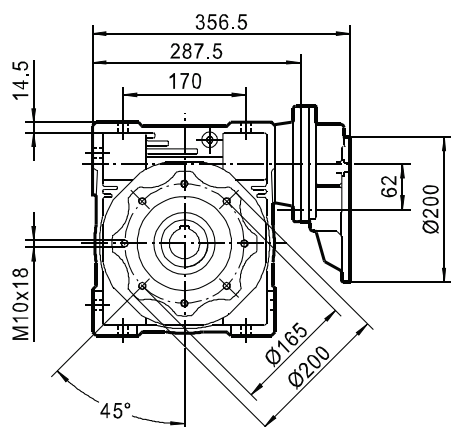
Weight ≈ 12.4 kg

HL80 - TW90

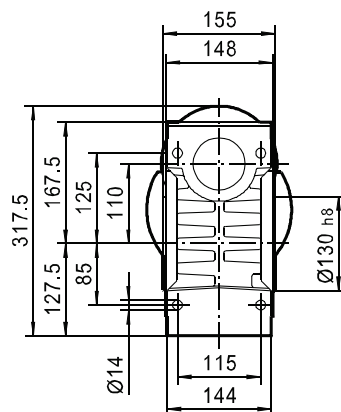


Weight ≈ 16.6 kg

HL80- TW110

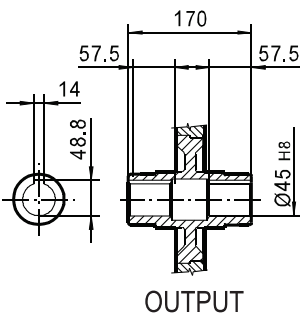
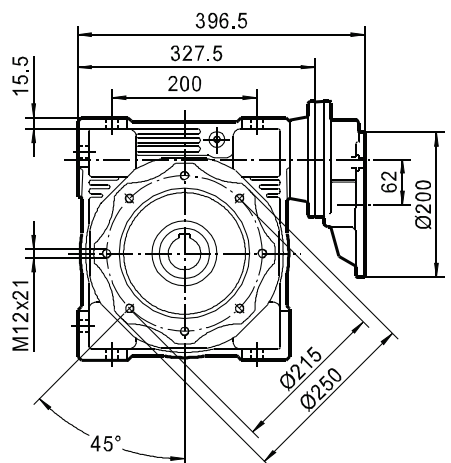


HL90- TW110

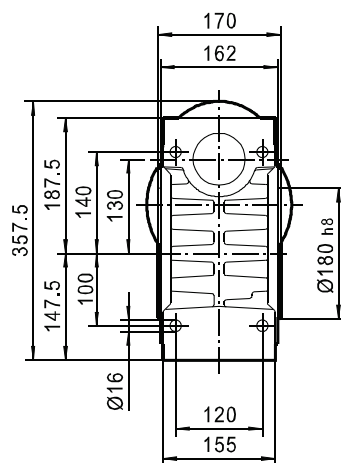


Weight ≈ 41.4 kg

HL80- TW130



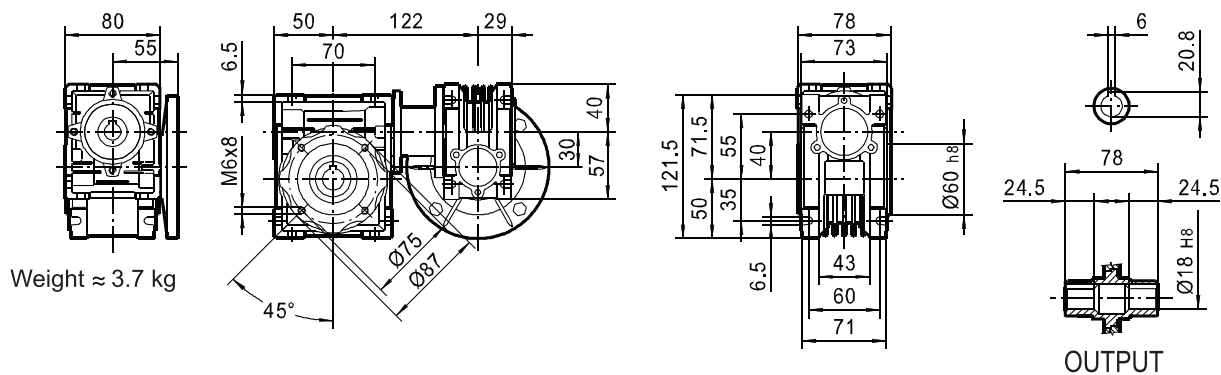
HL90- TW130



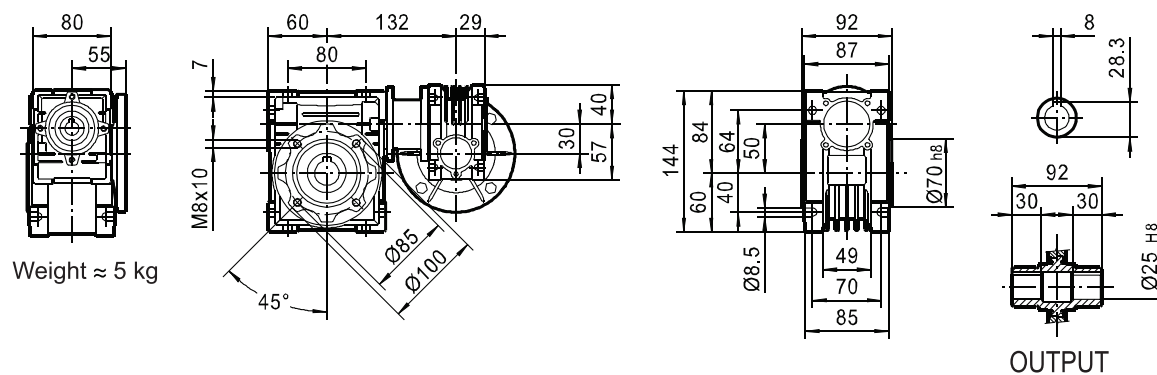
Weight ≈ 55.9kg

9.4 TW / TW.. Outline dimension

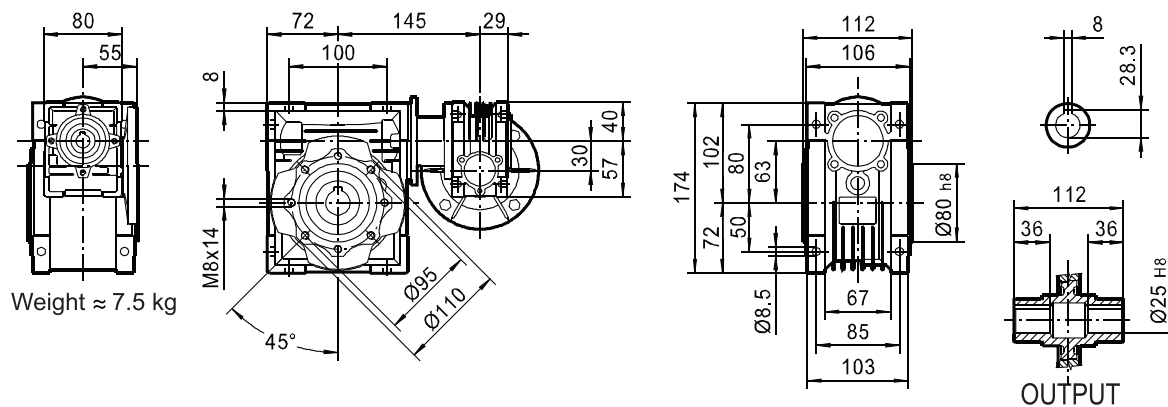
TW30/40



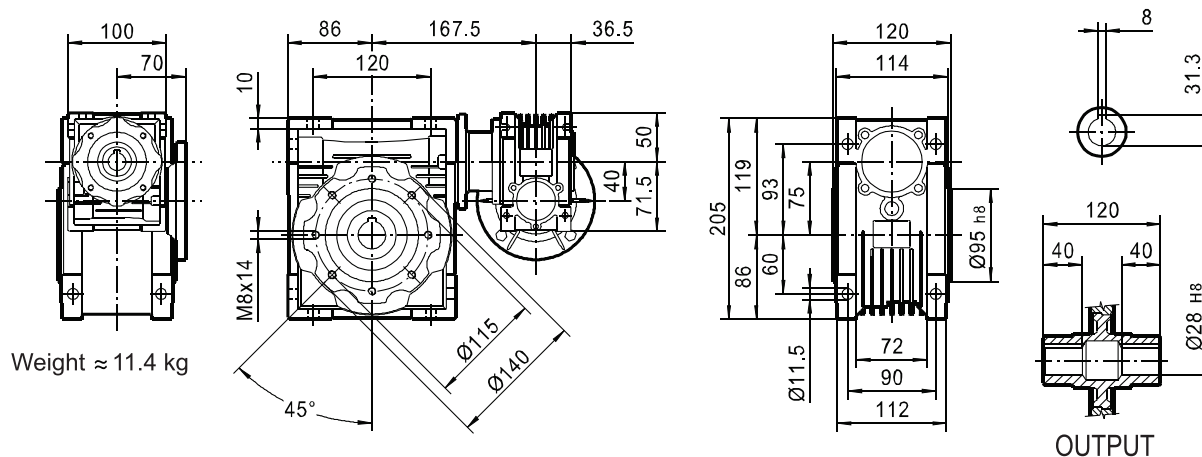
TW30/50



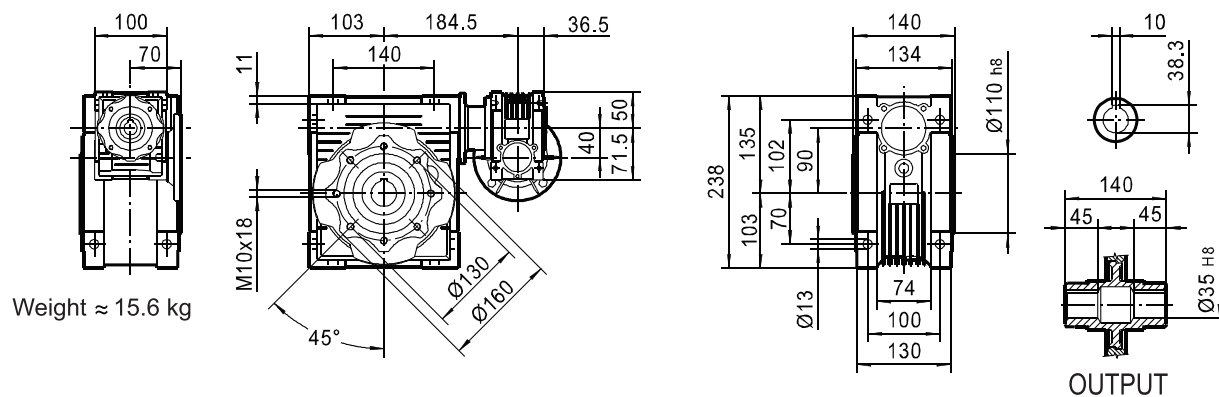
TW30/63



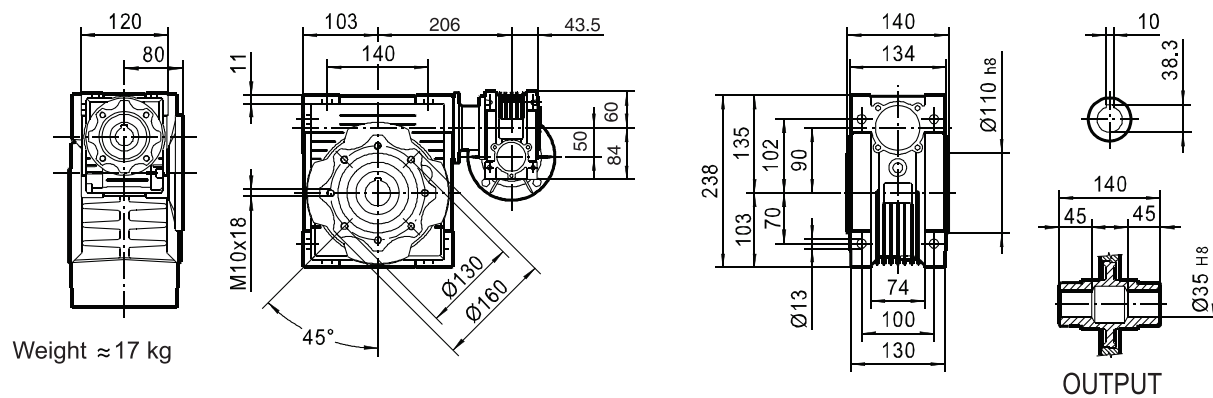
TW40/75



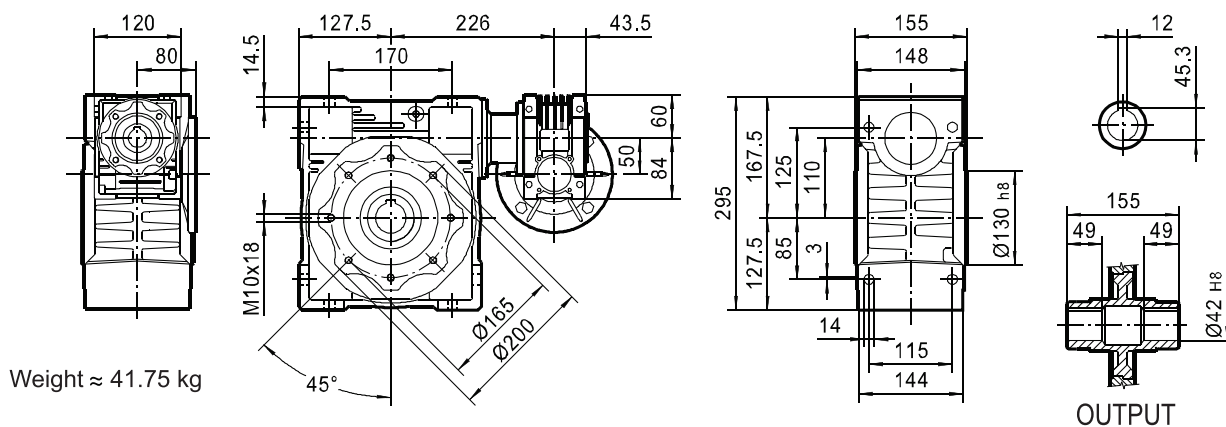
TW40/90



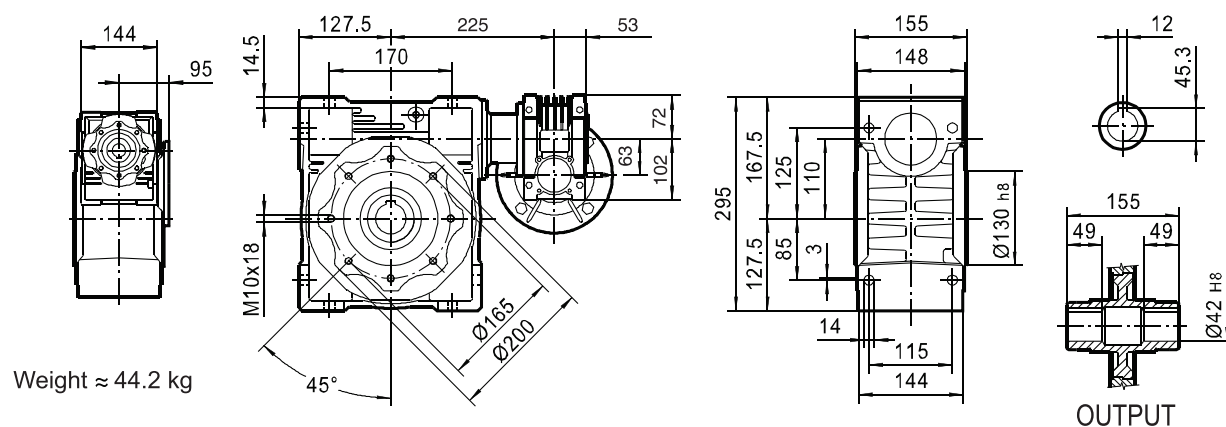
TW50/90



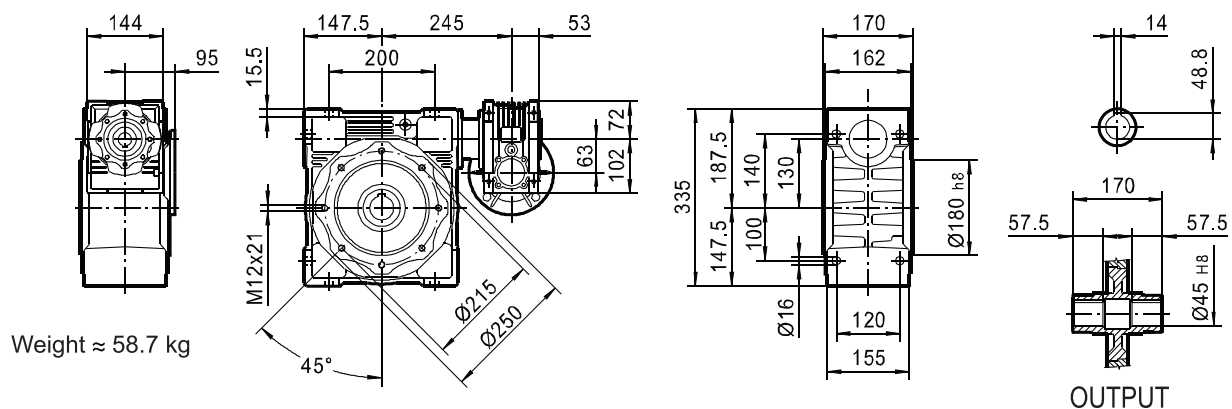
TW50/110



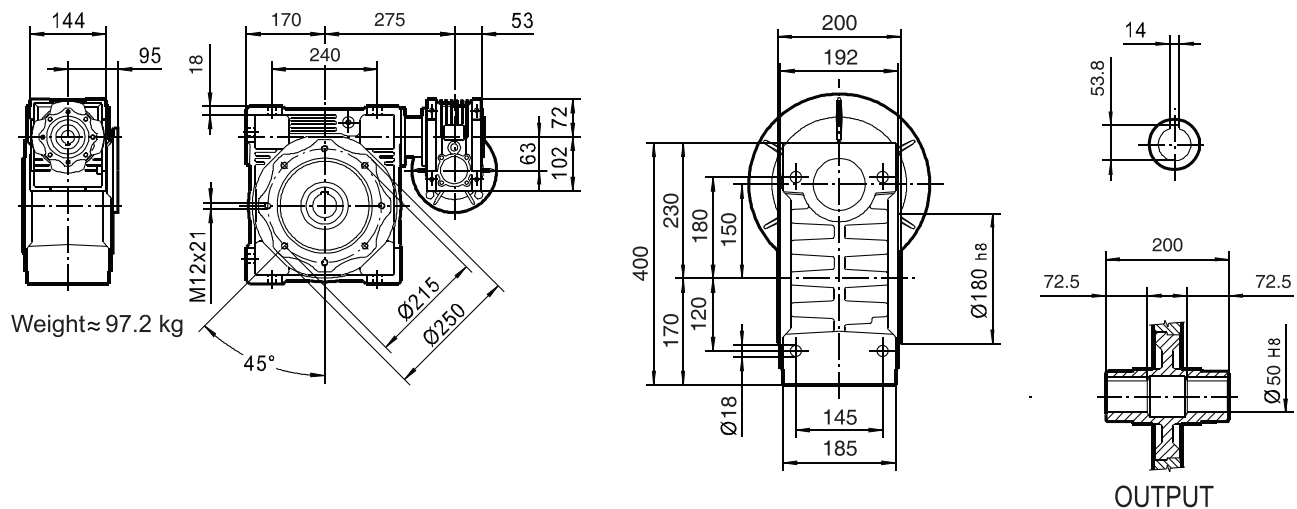
TW63/110



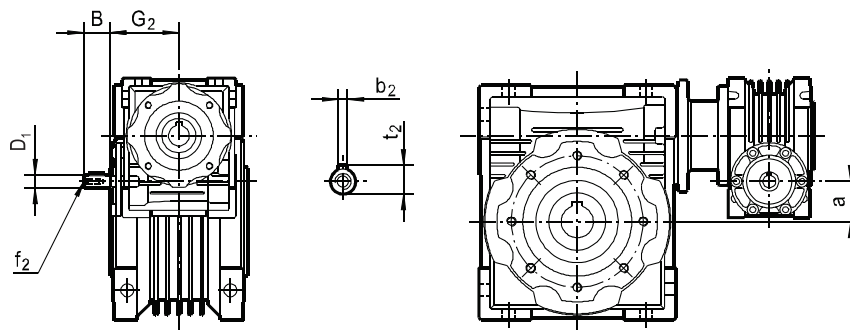
TW63/130



TW63/150



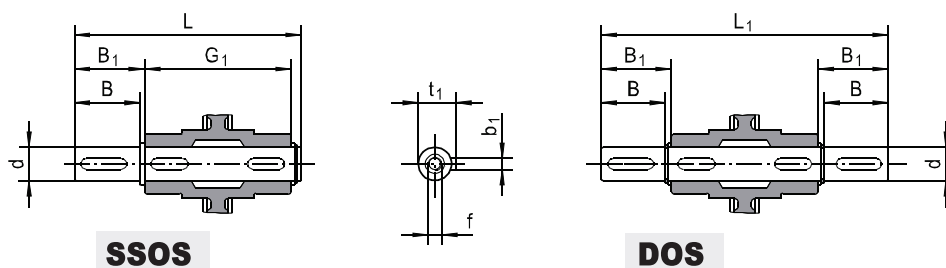
9.5 TW / TW..ISS Outline Dimension



TW/TW..ISS	30 / 40	30 / 50	30 / 63	40 / 75	40 / 90	50 / 90	50 / 110	63 / 110	63 / 130	63/150
B	20	20	20	23	23	30	30	40	40	40
D₁ j6	9	9	9	11	11	14	14	19	19	19
G₂	51	51	51	60	60	74	74	90	90	90
a	10	20	33	35	50	40	60	47	67	87
b₂	3	3	3	4	4	5	5	6	6	6
f₂	-	-	-	-	-	M6	M6	M6	M6	M6
t₂	10.2	10.2	10.2	12.5	12.5	16	16	21.5	21.5	21.5

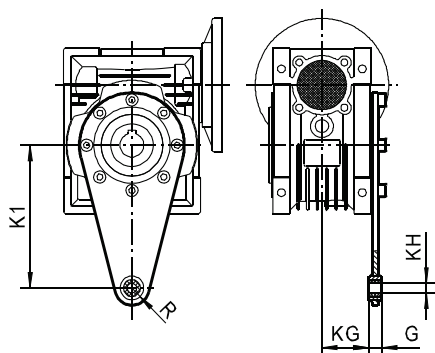
10. ACCESSORIES OUTLINE DIMENSION

10.1 Output Shafts



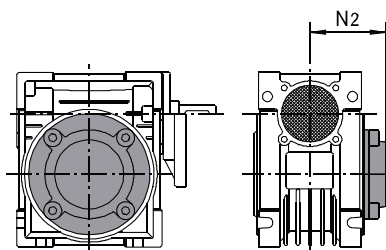
	d h6	B	B₁	G₁	L	L₁	f	b₁	t₁
TW30	14	30	32.5	63	102	128	M6	5	16
TW40	18	40	43	78	128	164	M6	6	20.5
TW50	25	50	53.5	92	153	199	M10	8	28
TW63	25	50	53.5	112	173	219	M10	8	28
TW75	28	60	63.5	120	192	247	M10	8	31
TW90	35	80	84.5	140	234	309	M12	10	38
TW110	42	80	84.5	155	249	324	M16	12	45
TW130	45	80	85	170	265	340	M16	14	48.5
TW150	50	82	87	200	297	374	M16	14	53.5

10.2 Torque Arm (TRA)



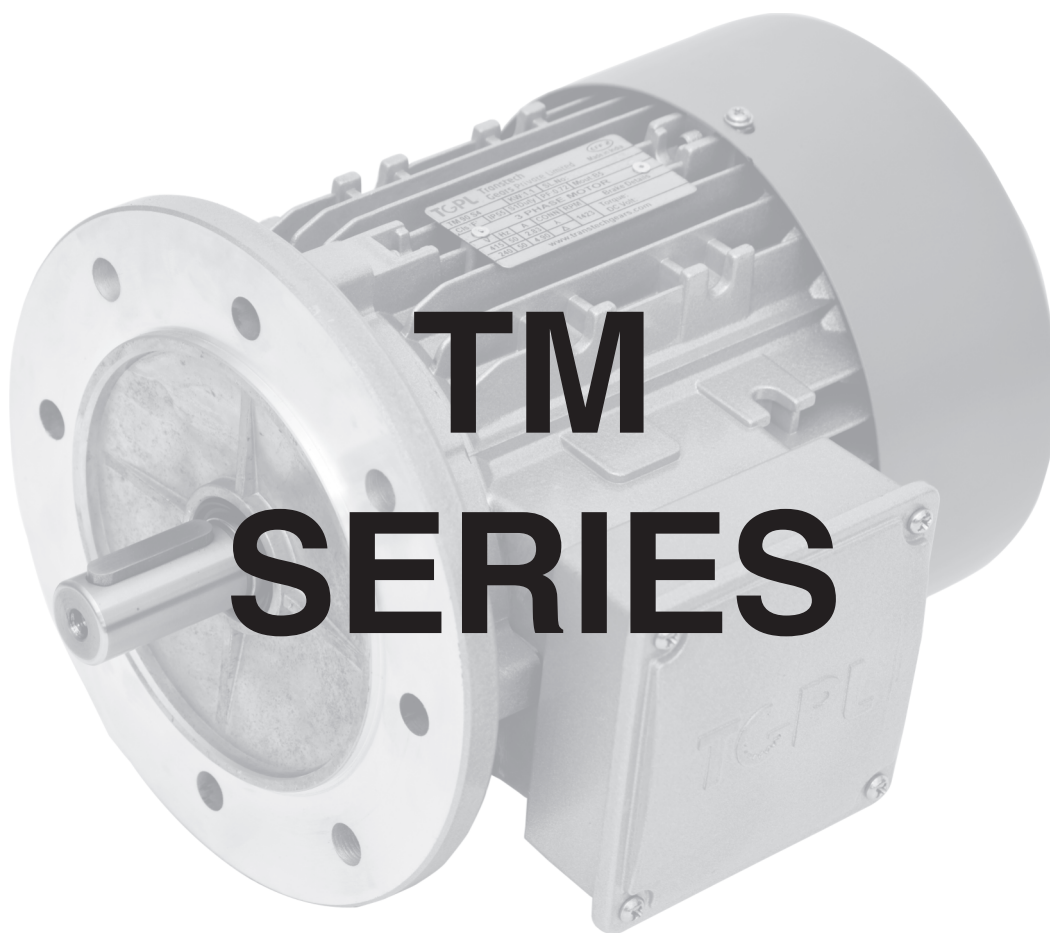
	K₁	G	KG	KH	R
TW30	85	14	24	8	15
TW40	100	14	31.5	10	18
TW50	100	14	38.5	10	18
TW63	150	14	49	10	18
TW75	200	25	47.5	20	30
TW90	200	25	57.5	20	30
TW110	250	30	62	25	35
TW130	250	30	69	25	35
TW150	250	30	84	25	35

10.3 Output side Cover (C)



	N₂		N₂
TW30	47	TW90	94
TW40	55	TW110	102
TW50	63	TW130	117
TW63	73	TW150	132
TW75	79		

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



1. INTRODUCTION

Transtech Gears manufactures three phase asynchronous motors from 63 frame size to 112 frame in 4 pole and conform to efficiency class **IE2**

2. ELECTRICAL TOLERANCE

Values for	Tolerance
Efficiency η – machines up to and include 50 kW	-0.15 (1 – η)
Power-factor, $\cos\phi$, for induction motors	$-(1 - \cos\phi)/6$ Minimum absolute value 0.02 Maximum absolute value 0.07
Slip of induction motors (at full load and at working temperature) $P_N < 1$ kW $P_N \geq 1$ kW	$\pm 30\%$ of the slip $\pm 20\%$ of the slip
Locked rotor current of cage induction motors	+20% of the current
Locked rotor torque of cage induction motors	-15% and +25% of the torque
Breakdown torque of induction motors	-10%
Moment of inertia	$\pm 10\%$ of the value

3. MECHANICAL TOLERANCE

Component	Code	Dimensions	Tolerance
Shaft End	D - DA	$\varnothing 11$ to 28	j6
Key	F - FA		h9
Flange	N	$\varnothing < 250$	j6
		$\varnothing \geq 250$	h6

4. VOLTAGE & FREQUENCY

The motors are suitable for 415 Voltage $\pm 10\%$, Frequency 50Hz $\pm 5\%$ with 3 phase in Star connection.

The motors are suitable for 230 Voltage $\pm 10\%$, Frequency 50Hz $\pm 5\%$ with 3 phase in delta connection.

5. INSULATION

The motor insulating materials (Enameled wire, Surface insulation treatments & impregnation type) are provided with class F & temperature rise limited to class B.

6. TYPE OF DUTY

S1 Duty (Continuous Duty) – The motor operated under rated condition continuously.

7. AMBIENT TEMPERATURE

All motors in our standard design are suitable for an ambient temperature from -15°C to $+50^{\circ}\text{C}$ and altitude above sea level $\leq 1000\text{m}$. Motors can be used at ambient temperatures from 50°C to 60°C as long as the derating factors listed as below table are applied:

Ambient temperature ($^{\circ}\text{C}$)	50°	55°	60°
% of rated power	100%	95%	90%

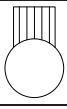
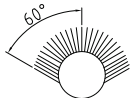
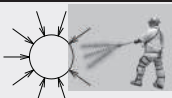
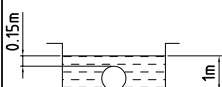
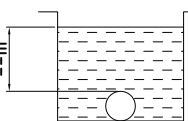
8. BEARINGS

All motors are fitted with life lubricated radial ball bearings and the types of bearings in use are listed in the below table.

FRAME SIZE	DRIVE END	NON-DRIVE END (FAN SIDE)
63	6201-2Z/C3	6201-2Z/C3
71	6202-2Z/C3	6202-2Z/C3
80	6204-2Z/C3	6204-2Z/C3
90	6205-2Z/C3	6205-2Z/C3
100	6206-2Z/C3	6206-2Z/C3
112	6207-2Z/C3	6207-2Z/C3

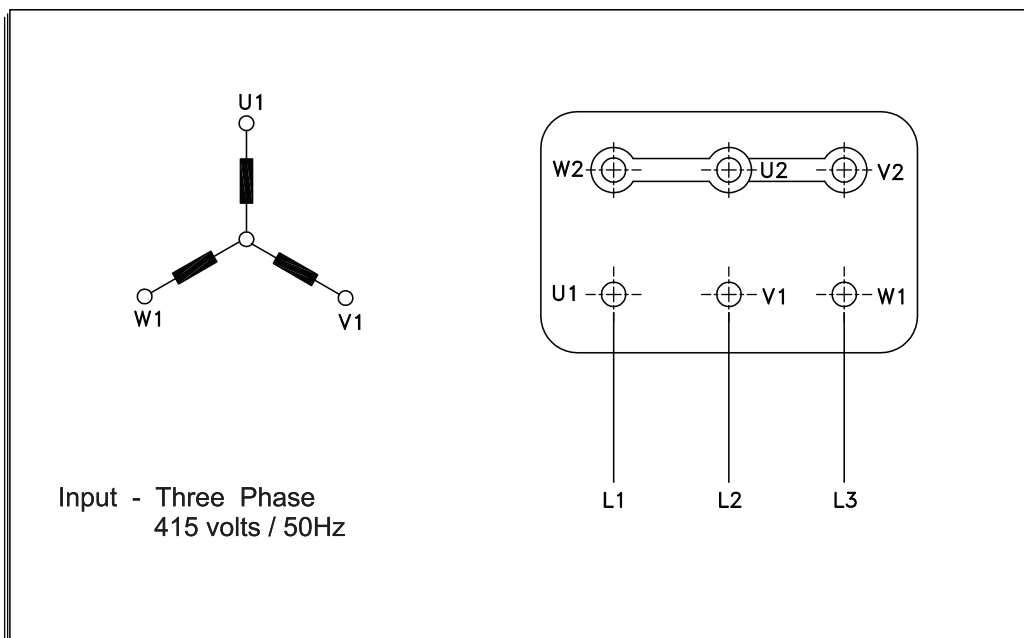
9. PROTECTION CLASS

Motors are designed with standard IP55 protection class. For outdoor installation, motors has to be protected from direct sunlight and if mounted vertically with shaft downwards, The rain canopy must be provided.

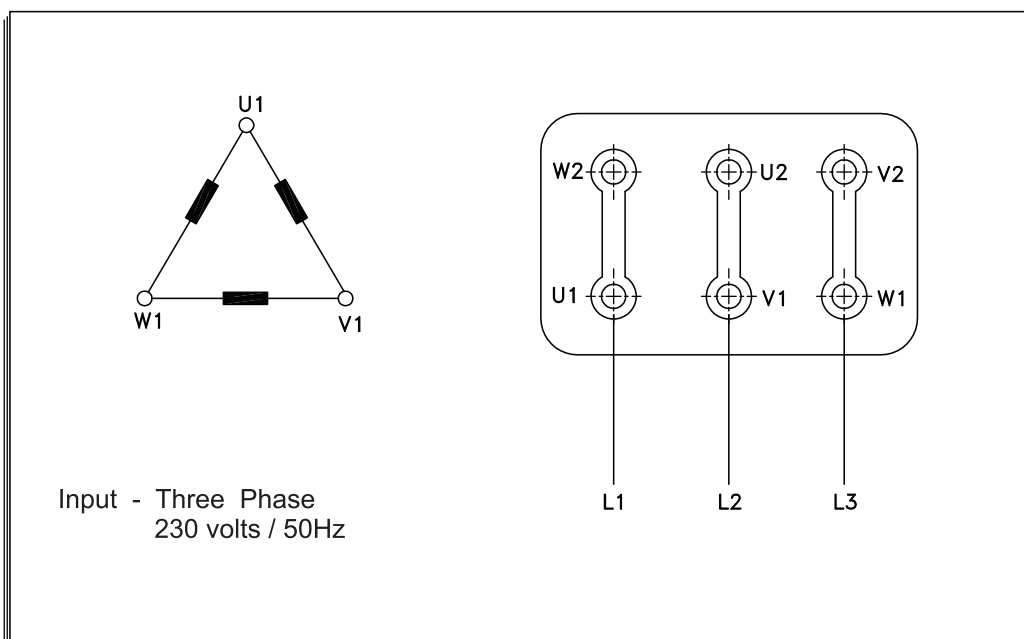
IP					
5			5		
0		No special protection	0		No special protection
1		Protection against solid foreign bodies having $\geq 50 \text{ mm } \varnothing$	1		Protected against vertical water drips
2		Protection against solid foreign bodies having $\geq 12.5 \text{ mm } \varnothing$	2		Dripping water (15° tilted)
3		Protection against solid foreign bodies having $\geq 2.5 \text{ mm } \varnothing$	3		Protected against spraying water
4		Protection against solid foreign bodies having $\geq 1 \text{ mm } \varnothing$	4		Protected against splashing water
5		Protected against dust	5		Protected against jetting water
6		Dust-tight	6		Protected against powerful jetting water
			7		Protected against temporary immersion
			8		Protected against continuous immersion

10. CONNECTION DIAGRAMS

STAR CONNECTION



DELTA CONNECTION

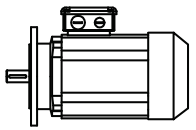
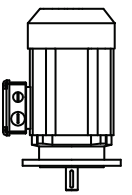
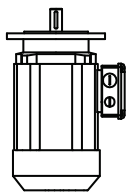
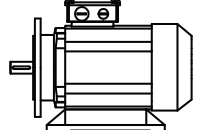
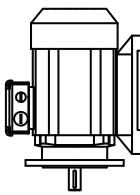
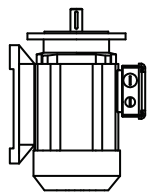


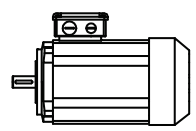
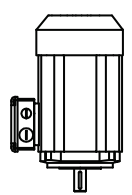
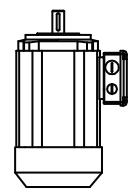
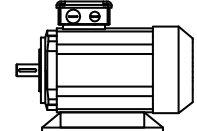
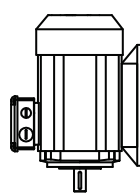
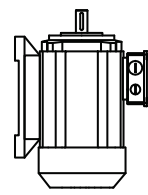
11. BRAKE DETAILS

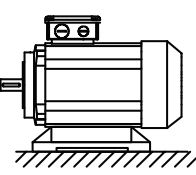
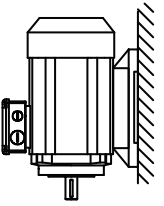
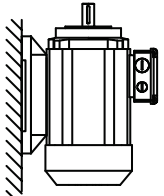
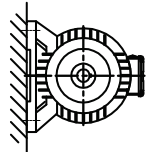
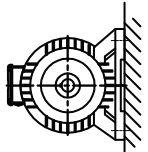
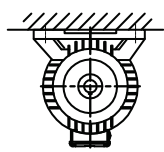
The brake motors are fitted with DC type fail safe brake with a brake power supply of 230V $\pm$ 10% or 415V $\pm$ 10%.

PRINCIPLE OF OPERATION : When electric current is given to the brake coil the armature plate is attracted to the stator against the spring force, thus releasing the rotor. When current is cut off, strong compression springs push the armature plate back to its original position, which clamps the friction plate providing the braking torque.

12. MOUNTING POSITIONS

FLANGE MOUNT			FLANGE AND FOOT MOUNT		
					
IM - B5	IM - V1	IM - V3	IM - B3 / B5	IM - V5 / V1	IM - V6 / V3

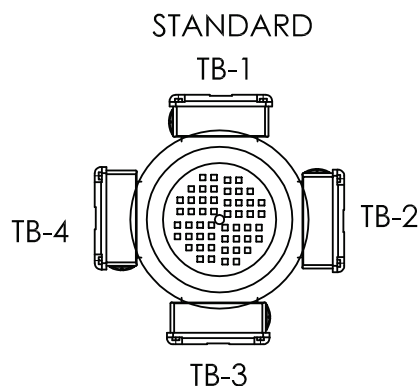
SHORT (FACE) MOUNT			SHORT (FACE) AND FOOT MOUNT		
					
IM - B14	IM - V18	IM - V19	IM - B3 / B14	IM - V5 / V18	IM - V6 / V19

FOOT MOUNT					
					
IM - B3	IM - V5	IM - V6	IM - B6	IM - B7	IM - B8

13. MODEL DESIGNATION

TM63 B	4	B5	DCB415	SPL. OPTIONS
MOTOR SIZE	Number Of Poles	Mounting	DC Brake	
TM63B (or) TM71A (or) TM71B (or) TM80A (or) TM80B (or) TM90S (or) TM90L (or) TM100L (or) TM112M	4 Pole	B5 - Flange (or) B14 - Short Flange (or) B3 - Foot (or) B3 / B5 - Foot With Flange (or) B3 / B14 - Foot with Short Flange	DCB 415 or DCB 230	Option - 1 TB - 1 (or) TB - 2 (or) TB - 3 (or) TB - 4 Option - 2 - D-ES Option - 3 - N-ES Option - 4 - FC

Option - 1 : Terminal Box Position



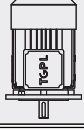
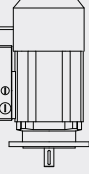
Option - 2 : Driven Side Extension Shaft (**D-ES**)

Option - 3 : Non Driven Side Extension Shaft (**N-ES**)

Option - 4 : Forced Cooling Fan (**FC**)

14. 3 PHASE SQUIRREL CAGE INDUCTION MOTOR ELECTRICAL PERFORMANCE CHART FOR 4 POLE - IE2

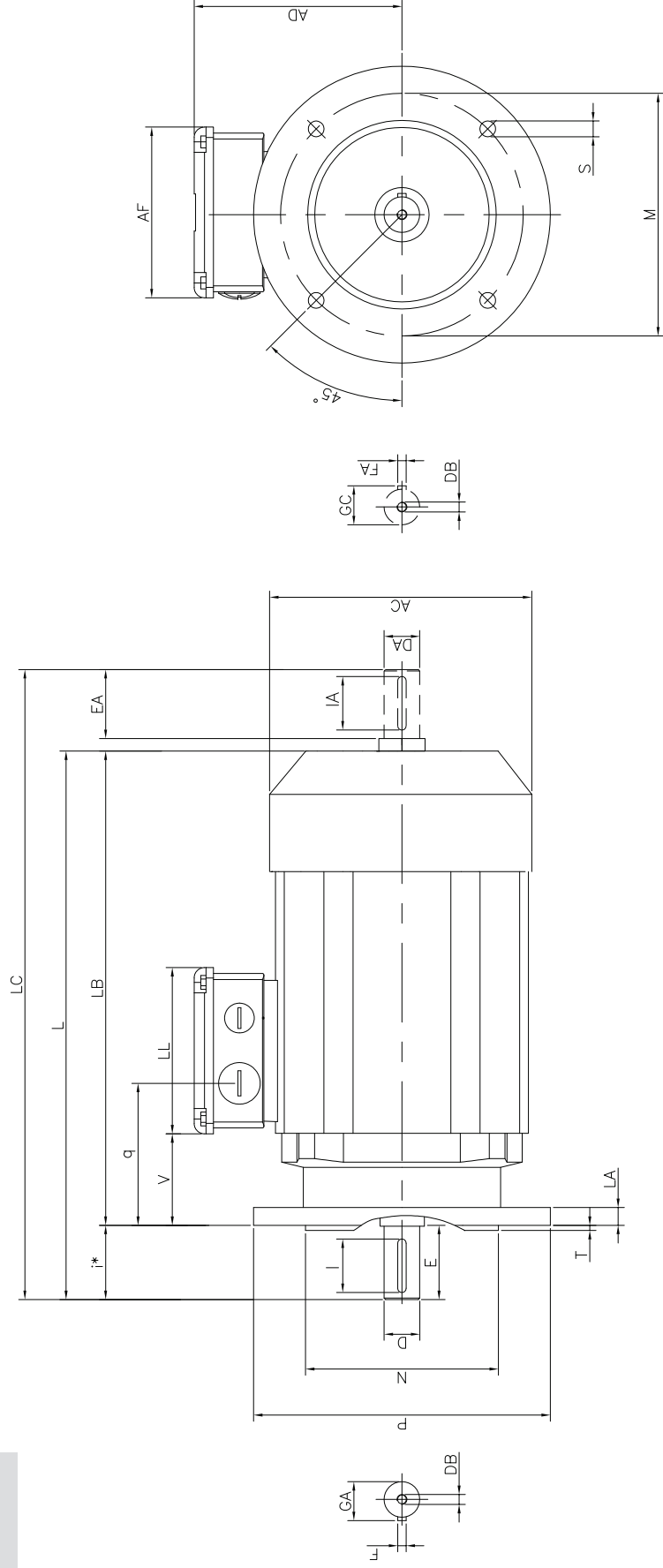
Degree of Protection IP55, Insulation Class 'F', With Temperature Rise Limited to Class B, Duty S1, Ambient Temperature 50° C
Version as per IS: 12615 / IEC : 60034 - 1

Model 	Rated Output		Frame Size	Pole	Rated Speed At 50Hz	Rated Current At 415V,50Hz	Rated Current At 230V,50Hz	Efficiency (100%)	Efficiency (75%)	Power Factor	Rated Torque	Locked Rotor Current / Rated Current	Break Down Torque / Rated Torque	Locked Rotor Torque / Rated Torque	GD² of Rotor	IM B5 Motor Weight	DC Brake Motor 	DC Brake Torque
	HP	KW				A	A	%	%	cosφ	Nm	Is/In	Ms/Mn	Ma/Mn	kgfm²	Kg	Model	Nm
TM 63 B4	0.25	0.18	63	4	1370	0.71	1.2	67	65.3	0.7	1.31	5	2.9	2.6	0.0012	4.4	TM63 B4 DCB	4
TM 71 B4	0.5	0.37	71	4	1400	1.1	1.6	70.1	70.1	0.74	2.5	5.5	2.75	2.6	0.0033	6.9	TM71 B4 DCB	8
TM 80 A4	0.75	0.55	80	4	1410	1.4	2.2	75.1	75.1	0.75	3.75	5.5	2.75	2.6	0.01	10	TM80 A4 DCB	16
TM 80 B4	1	0.75	80	4	1420	1.7	2.9	79.6	79.6	0.78	5.1	6	2.75	2.6	0.0112	10.7	TM80 B4 DCB	16
TM 90 S4	1.5	1.1	90	4	1410	2.4	4.3	81.4	81.4	0.8	7.8	5.7	2.75	2.5	0.0122	13.2	TM90 S4 DCB	20
TM90 LA4	2	1.5	90	4	1410	3.2	5.4	82.8	82.8	0.8	10	5.7	2.75	2.6	0.0148	15.6	TM90 LA4 DCB	20
TM100 LA4	3	2.2	100	4	1420	4.5	7.8	84.3	84.3	0.8	15	6	2.75	2.8	0.0237	19.8	TM100 LA4 DCB	40
TM112 M4	5	3.7	112	4	1430	7.3	12.4	86.3	86.3	0.82	24	6	2.75	2.6	0.0518	31.2	TM112 M4 DCB	60

63 Frame Size is not as per IE-2 Standard

15. OUTLINE DIMENSIONS

B5

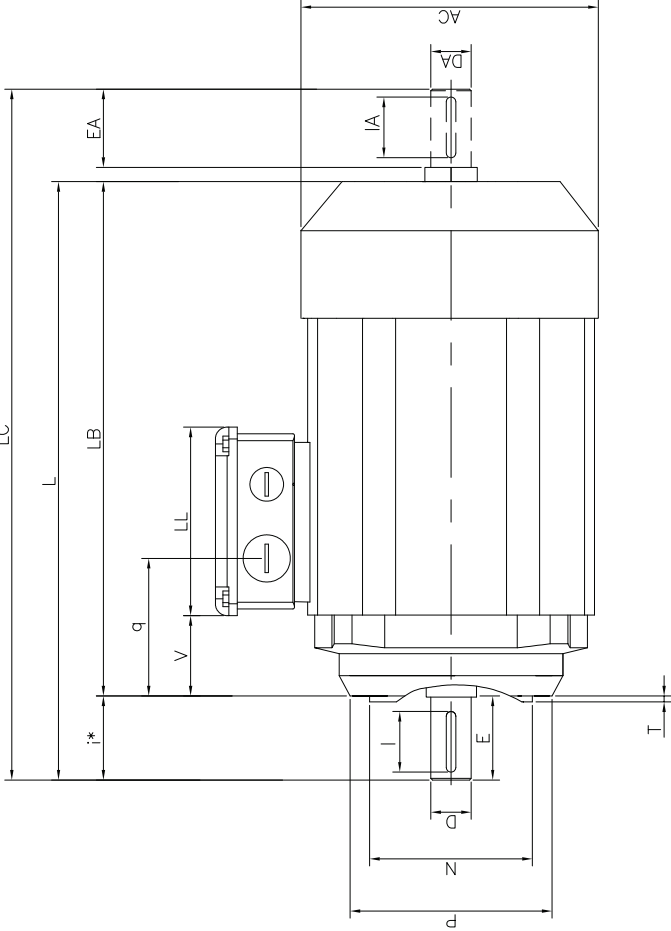


MECHANICAL DIMENSIONS (FLANGE MOUNTED MOTORS- B5)

Frame	FLANGE						SHAFT						OVERALL DIMENSIONS									
	N	M	P	S	T	i [*]	LA	D DA	E EA	GA GC	F FA	DB	I IA	AC	L	LB	LC	AD	LL	V	q	AF
TM 63	95	115	140	9	3	23	10	11	23	12.5	4	M4	18	120	207	184	235	98	89	17	46	89
TM 71	110	130	160	9	3.5	30	10	14	30	16	5	M5	25	139	230	200	266	109	89	23.5	53	89
TM 80	130	165	200	11.5	3.5	40	11.5	19	40	21.5	6	M6	35	156	267	224	312	131	106	23	58	106
TM 90 S	130	165	200	11.5	3.5	50	11.5	24	50	27	8	M8	40	172	292	242	347	136	106	25.5	60	106
TM 90 L	130	165	200	11.5	3.5	50	11.5	24	50	27	8	M8	40	172	315	265	370	136	106	25.5	60	106
TM 100	180	215	250	14	4	60	14	28	60	31	8	M10	50	196	372	297	437	145	106	32.5	69	106
TM 112	180	215	250	14	4	60	15	28	60	31	8	M10	50	216	380	316	445	154	106	36	70	106

Note : i^{}Tolerance → up to length 85 mm ± 1mm Over 85 mm ± 1.5mm

B14

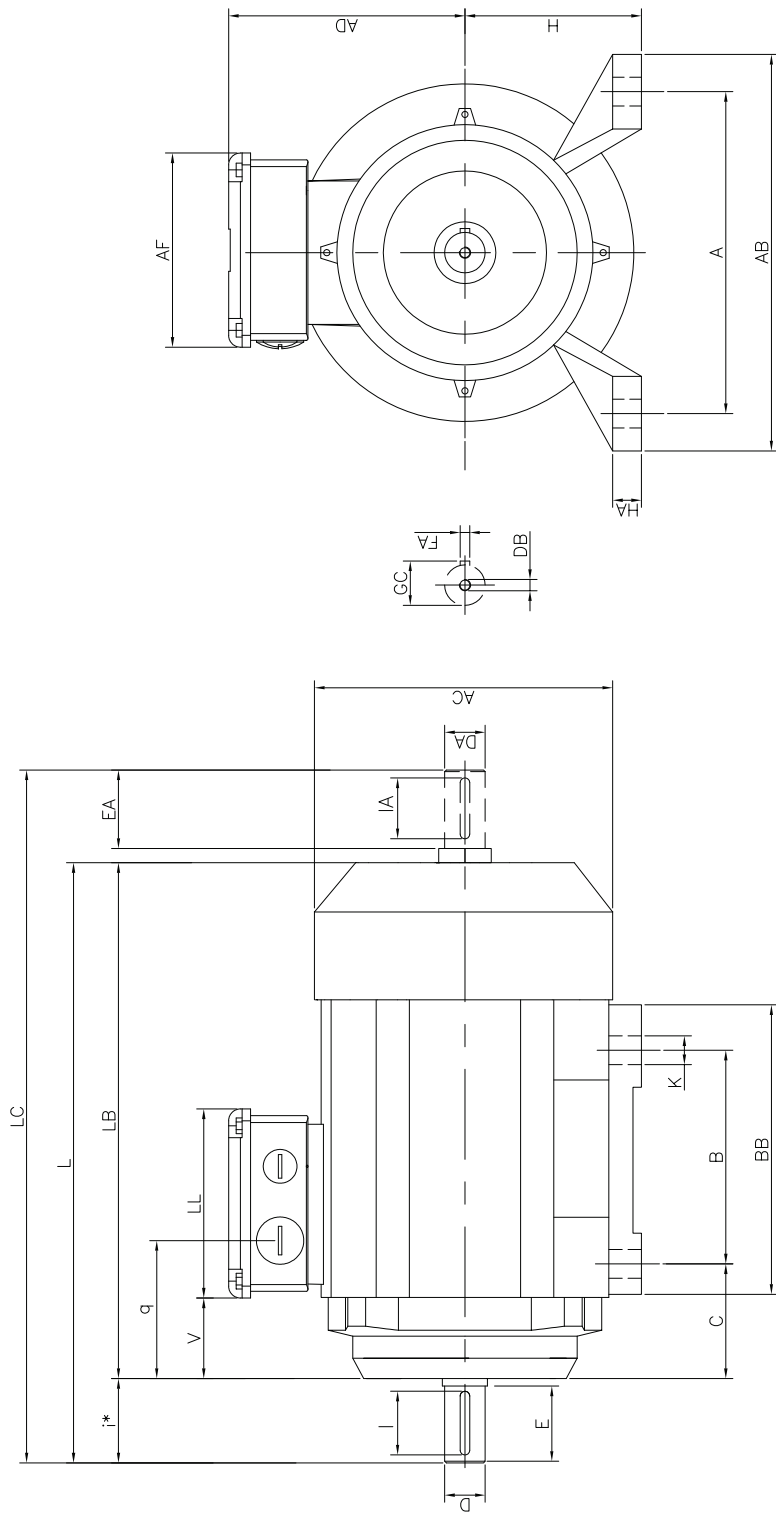


MECHANICAL DIMENSIONS (FLANGE MOUNTED MOTORS- B14)

Frame	FLANGE						SHAFT						OVERALL DIMENSIONS									
	N	M	P	S	T	i [*]	D DA	E EA	GA GC	F FA	DB	I IA	AC	L	LB	LC	AD	LL	V	q	AF	
TM 63	60	75	90	M5x8	2.5	23	11	23	12.5	4	M4	18	120	207	184	235	98	89	17	46	89	
TM 71	70	85	105	M6x10	2.5	30	14	30	16	5	M5	25	140	230	200	266	109	89	23.5	53	89	
TM 80	80	100	120	M6x12	3	40	19	40	21.5	6	M6	35	156	267	224	312	131	106	23	58	106	
TM 90 S	95	115	140	M8x15	3	50	24	50	27	8	M8	40	172	292	242	347	136	106	25.5	60	106	
TM 90 L	95	115	140	M8x15	3	50	24	50	27	8	M8	40	172	315	265	370	136	106	25.5	60	106	
TM 100	110	130	160	M8x15	3.5	60	28	60	31	8	M10	50	198	372	297	437	145	106	32.5	69	106	
TM 112	110	130	160	M8x17	3.5	60	28	60	31	8	M10	50	217	380	316	445	154	106	36	70	106	

Note : i^{}Tolerance → up to length 85 mm ± 1mm Over 85 mm ± 1.5mm

B3

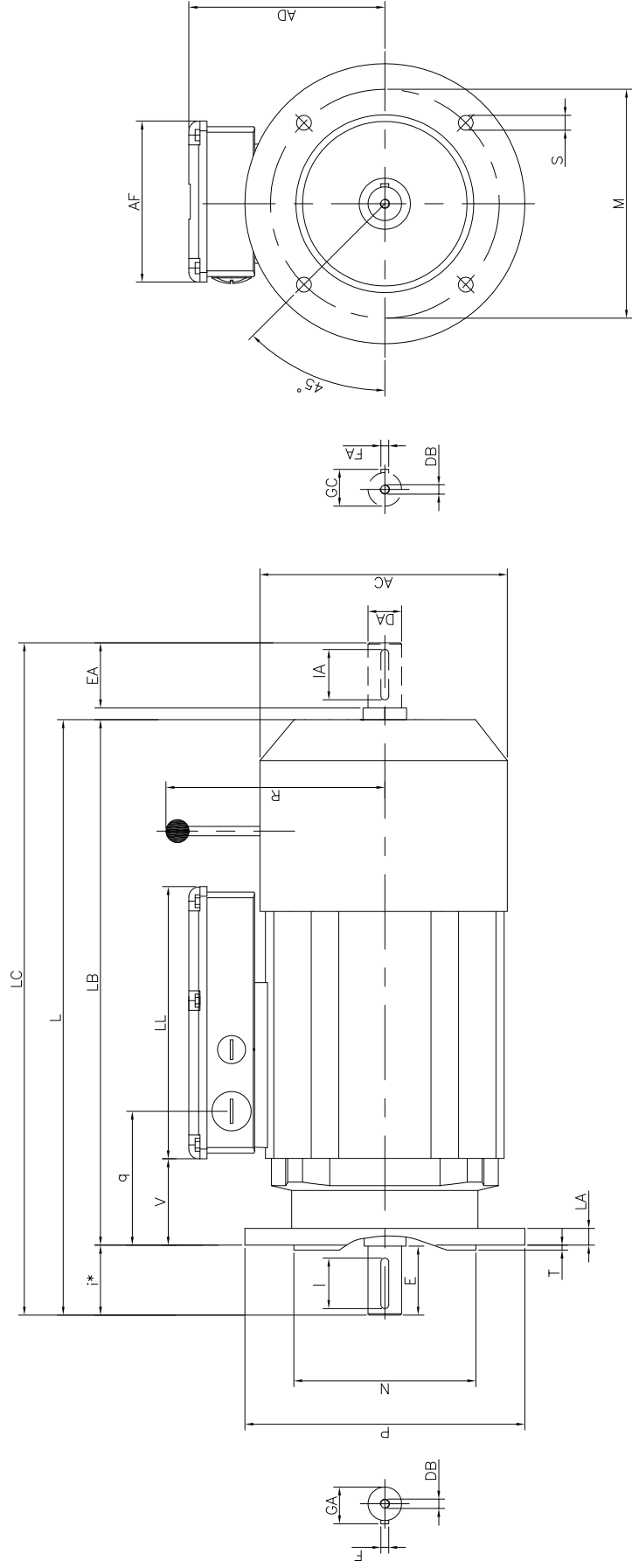


MECHANICAL DIMENSIONS (FOOT MOUNTED MOTORS- B3)

Frame	FOOT										SHAFT							OVERALL DIMENSIONS						
	A	B	HA	BB	AB	K	C	i [*]	H	D DA	E EA	GA GC	F FA	DB	I IA	AC	L	LB	LC	AD	LL	V	q	AF
TM 63	100	80	9.3	105	125	8	40	23	63	11	23	12.5	4	M4	18	120	207	184	235	98	89	17	46	89
TM 71	112	90	9.5	108	140	8	45	30	71	14	30	16	5	M5	25	140	230	200	266	109	89	23.5	53	89
TM 80	125	100	13	125	154	10.5	50	40	80	19	40	21.5	6	M6	35	156	267	227	312	131	106	23	58	106
TM 90 S	140	100	14	130	174	11.5	56	50	90	24	50	27	8	M8	40	172	292	242	347	136	106	25.5	60	106
TM 90 L	140	125	15	155	177	11.5	56	50	90	24	50	27	8	M8	40	172	315	272	370	136	106	25.5	60	106
TM 100	160	140	15	175	190	13	63	60	100	28	60	31	8	M10	50	198	372	312	437	145	106	32.5	69	106
TM 112	190	140	15	175	225	13	70	60	112	28	60	31	8	M10	50	217	380	320	445	154	106	36	70	106

Note : i^{} Tolerance → up to length 85 mm ± 1mm Over 85 mm ± 1.5mm

B5 DCB

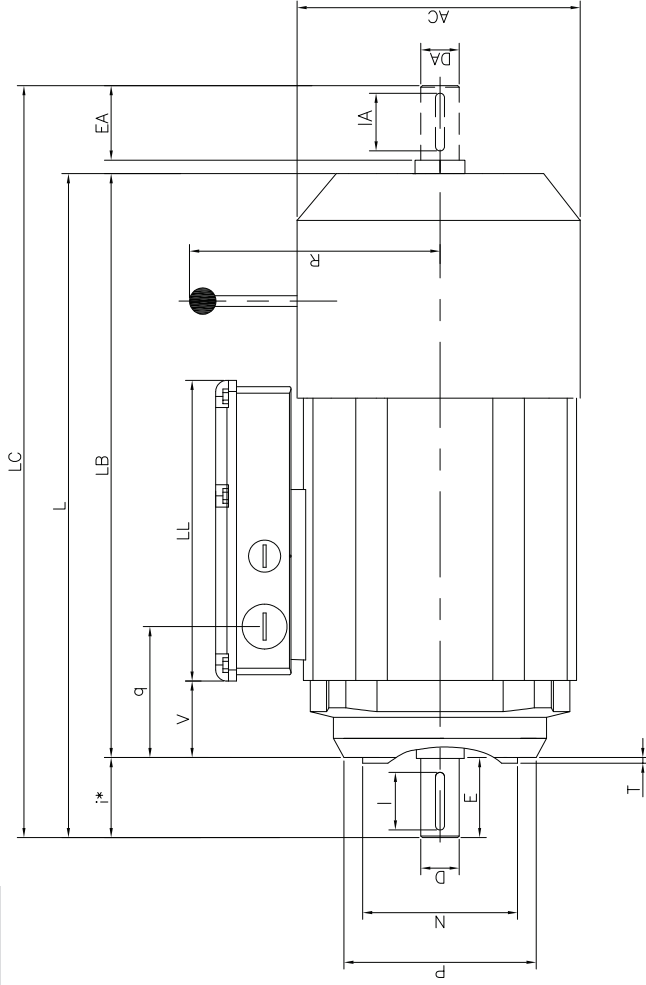


MECHANICAL DIMENSIONS (FLANGE MOUNTED MOTORS- B5 DCB)

Frame	FLANGE						SHAFT						OVERALL DIMENSIONS										
	N	M	P	S	T	i [*]	LA	D DA	E EA	GA GC	F FA	DB	I IA	AC	L	LB	LC	AD	LL	V	q	AF	R
TM 63	95	115	140	9	3	23	10	11	23	12.5	4	M4	18	120	270	247	298	100	137	12	46	92	120
TM 71	110	130	160	9	3.5	30	10	14	30	16	5	M5	25	140	288	258	323	112	137	23	53	92	130
TM 80	130	165	200	11.5	3.5	40	11.5	19	40	21.5	6	M6	35	156	330	290	375	133.5	152	23.5	58	108	140
TM 90 S	130	165	200	11.5	3.5	50	11.5	24	50	27	8	M8	40	172	365	315	420	136	152	24	60	108	146
TM 90 L	130	165	200	11.5	3.5	50	11.5	24	50	27	8	M8	40	172	386	336	441	136	152	24	60	108	146
TM 100	180	215	250	14	4	60	14	28	60	31	8	M10	50	198	447	387	512	146	152	31	69	108	158
TM 112	180	215	250	14	4	60	15	28	60	31	8	M10	50	217	455	395	520	156	152	33	70	108	168

Note : i Tolerance → up to length 85 mm ± 1mm Over 85 mm ± 1.5mm

B14 DCB

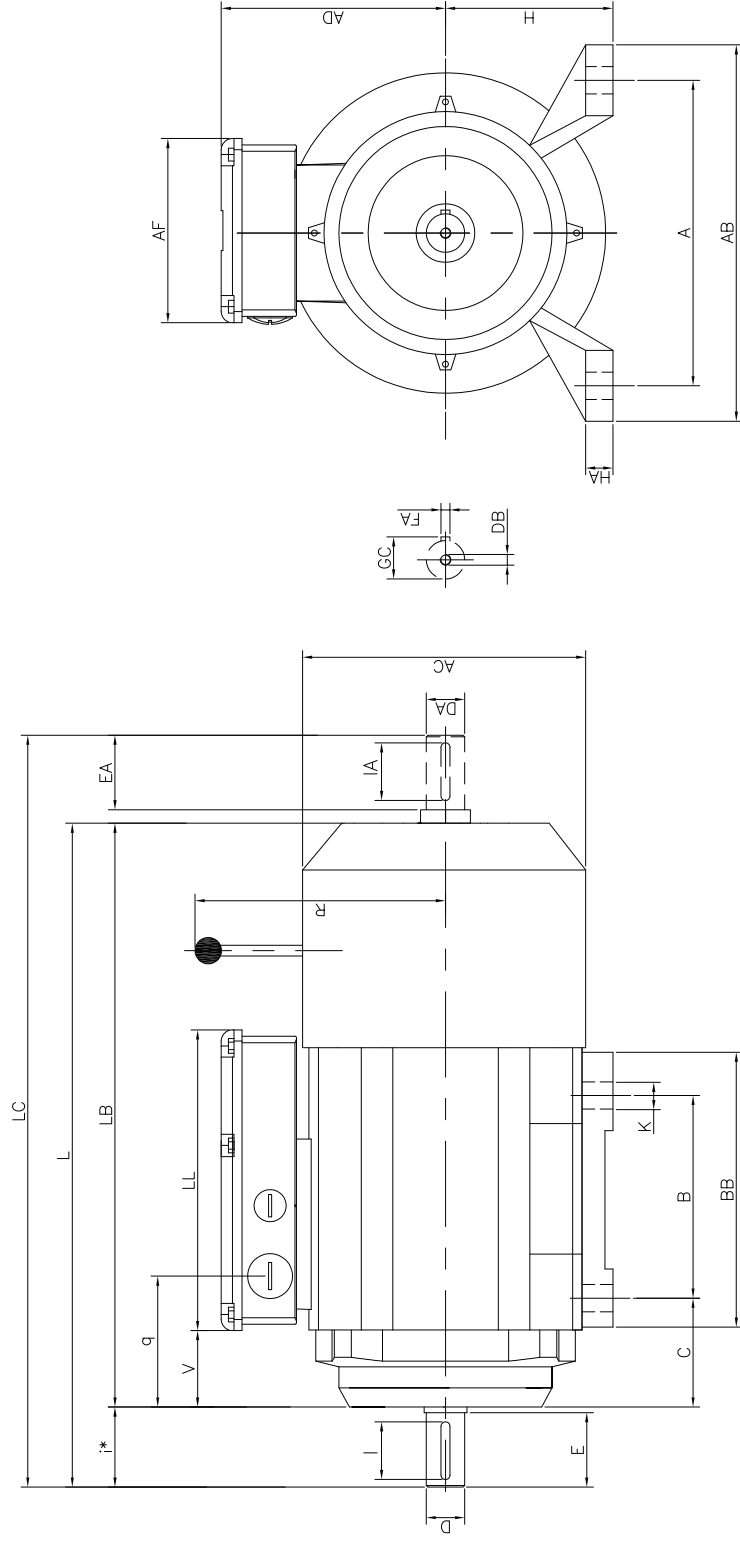


MECHANICAL DIMENSIONS (FLANGE MOUNTED MOTORS- B14 DCB)

Frame	FLANGE						SHAFT					OVERALL DIMENSIONS										
	N	M	P	S	T	i [*]	D DA	E EA	GA GC	F FA	DB	I IA	AC	L	LB	LC	AD	LL	V	q	AF	R
TM 63	60	75	90	M5x8	2.5	23	11	23	12.5	4	M4	18	120	270	247	298	100	137	12	46	92	120
TM 71	70	85	105	M6x10	2.5	30	14	30	16	5	M5	25	140	288	258	323	112	137	23	53	92	130
TM 80	80	100	120	M6x12	3	40	19	40	21.5	6	M6	35	156	330	290	375	133.5	152	23.5	58	108	140
TM 90 S	95	115	140	M8x15	3	50	24	50	27	8	M8	40	172	365	315	420	136	152	24	60	108	146
TM 90 L	95	115	140	M8x15	3	50	24	50	27	8	M8	40	172	386	336	441	136	152	24	60	108	146
TM 100	110	130	160	M8x15	3.5	60	28	60	31	8	M10	50	198	447	387	512	146	152	31	69	108	158
TM 112	110	130	160	M8x17	3.5	60	28	60	31	8	M10	50	217	455	395	520	156	152	33	70	108	168

Note : i^{} Tolerance → up to length 85 mm ± 1mm Over 85 mm ± 1.5mm

B3 DCB



MECHANICAL DIMENSIONS (FOOT MOUNTED MOTORS- B3 DCB)

FOOT										SHAFT					OVERALL DIMENSIONS										
Frame	A	B	HA	BB	AB	K	C	i *	H	D DA	E EA	GA GC	F FA	DB	I IA	AC	L	LB	LC	AD	LL	V	q	AF	R
TM 63	100	80	9.3	105	125	8	40	23	63	11	23	12.5	4	M4	18	120	270	247	298	100	137	12	46	92	120
TM 71	112	90	9.5	108	140	8	45	30	71	14	30	16	5	M5	25	140	288	258	323	112	137	23	53	92	130
TM 80	125	100	13	125	154	10.5	50	40	80	19	40	21.5	6	M6	35	156	330	290	375	133.5	152	23.5	58	108	140
TM 90 S	140	100	14	130	174	11.5	56	50	90	24	50	27	8	M8	40	172	365	315	420	136	152	24	60	108	146
TM 90 L	140	125	15	155	177	11.5	56	50	90	24	50	27	8	M8	40	172	386	336	441	136	152	24	60	108	146
TM 100	160	140	15	175	180	13	63	60	100	28	60	31	8	M10	50	198	447	387	512	146	152	31	69	108	158
TM 112	190	140	15	175	225	13	70	60	112	28	60	31	8	M10	50	217	455	395	520	156	152	33	70	108	168

Note : i^{}Tolerance → up to length 85 mm ± 1mm Over 85 mm ± 1.5mm

Notes