

KM6

Double Flange 6" Borehole Submersible Electric Water Cooled Rewindable Motors

Models Range

Optional: Double Flange

Power Range

From: 5,5 HP (4 kW)

To: 70 HP (52 kW)

Voltage Range

380 ~ 415 Volts, 50 Hertz

230 Volts - 60 Hertz

380 Volts - 60 Hertz

460 Volts - 60 Hertz

Speed Range

2 Poles, 2900 RPM

2 Poles, 3600 RPM

Construction Material

Standard: Cast Iron with Stainless Steel Cover

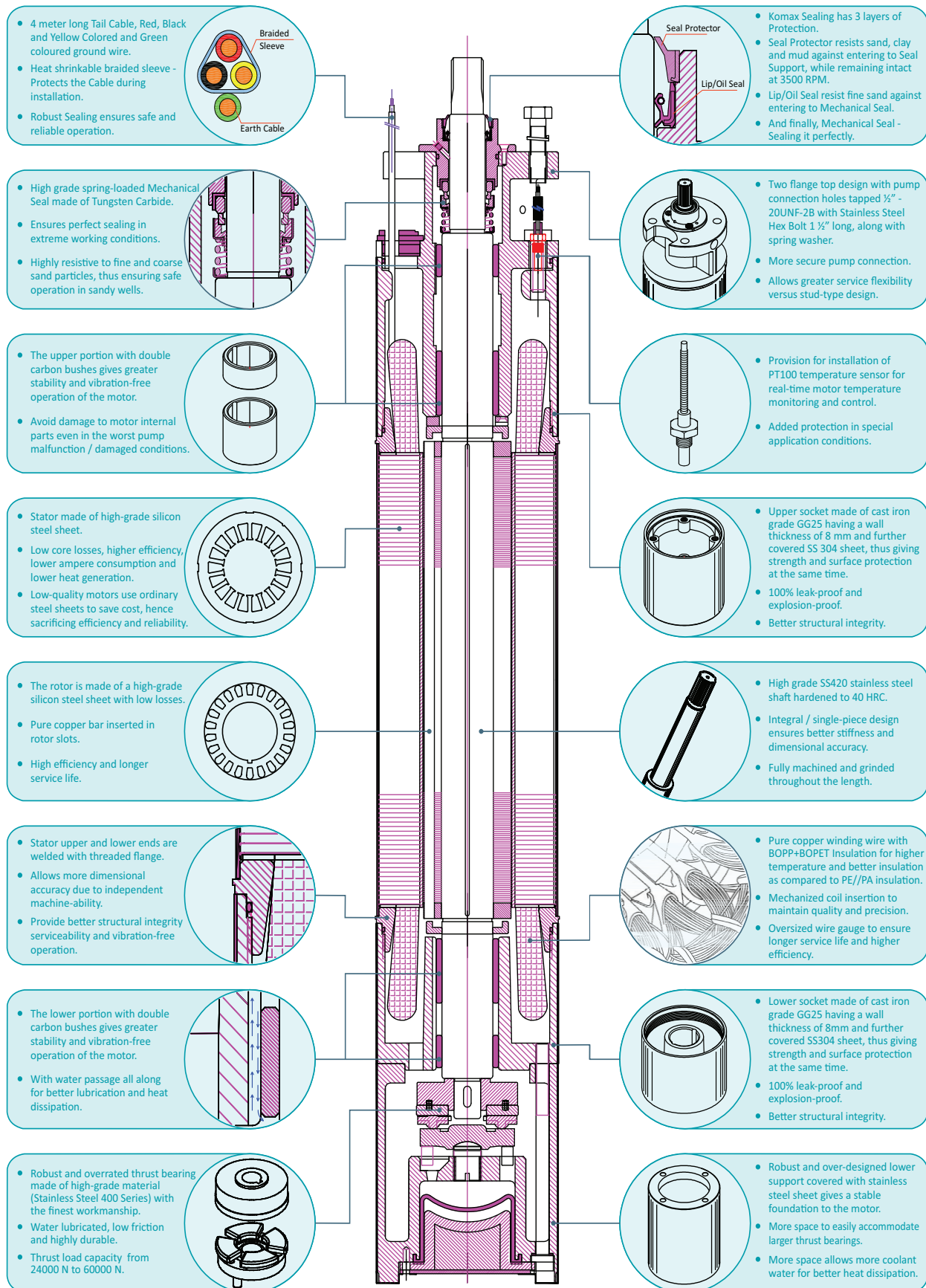
Optional: Complete 316L Stainless Steel



KOMAX
Electric Submersible Motor
Model KM6 1307 HP: 10
Power 7.5 Amps 18 V 380-415
2900 RPM 2900 Cos 0.98
Shaft Dia. 2.00 Max. Depth 1.00"
1.00" Dia. Cooling Flow 1500 l/min
Insulation Class "A" S.F. 1.00
Thermal Protection Yes We 15 kg
Shaft Speed 15000 RPM 1/2" 7/16"
IEC 60054-2 S/N 8006 1803085

X-Sectional View with Specification

KM6 Double Flange





Salient Features

KM6 6" water-filled submersible electric motors have asynchronous three-phase rewindable stator and squirrel cage rotor.

The new improved double flange series of 6" submersible electric motors KM6 has been designed to achieve compatibility with VFD outputs making it the first choice for solar and other high efficiency applications. In this optional design and material selection all efforts have been made to offer an energy efficient product to our customers which stand for reliability, excellent quality, long and trouble-free life.

- Wet Stator Design
- High Grade Material
- Easy Maintenance
- Long Service Life
- High Thermal Capacity
- High Efficiency
- High Sand Resistance
- Re-windable
- Eco Friendly
- Industrial, Commercial, Agriculture and Irrigation Purpose



Technical Specification

IP68	degree of protection
A / B	insulation class
50 °C	ambient temperature
+6% / -10%	voltage tolerance
Vertical*	mounting position
16 cm/sec	min. cooling flow rate speed
150 m	max. immersion depth
110	starts per 24 hours
Wooden case	packing



Specifications

Winding:

Electrolytic Solid Copper wire wrapped in BOPP Insulation rated for temperatures over 100 °C that allows more copper in the current slots. This technology allows the motor to run much cooler and achieve higher than normal horsepower ratings in standard frame sizes.

Stator:

All motors include an increased Stator stack length and combined M800 low-loss electrical magnetic sheet for a cooler running motor.

Rotor:

Increased stack length with M800 low-loss electrical magnetic sheet assembled and designed with the newest technology and high-grade copper bars.

Spline Shaft:

AISI 420 stainless steel induction hardened and ground to operate in severe conditions. Dimensions according to international 6" NEMA standards.

Shaft Bearing/Bush:

Dual Water lubricated guide bearings made of high-grade carbon, are fixed in upper and lower brackets for optimal operation in sandy wells and pump vibration control.

Thrust Bearings:

All Komax submersible motors have Kingsbury type thrust bearing. The thrust assembly consists of a high-quality carbon disc with hardened stainless steel shoes to handle necessary pump thrust loads. Available with an axial load capacity of 24000 N (upto 50 HP) and 60000 N (60 to 70 HP).

Seal Configuration:

Komax offers a triple seal configuration that consists of two outer back to back lip seals in NBR with an inner Silicon Tungsten Carbide Seal for optimum protection in sandy wells.

Pressure Equalizing System:

Pressure compensation is managed by using a suitably sized NBR bellow to allow for expansion of the internal water as it heats up- or- from external pressure due to the depth of submergence.

Brackets:

High resistance cast iron upper & lower bearing housing are dressed in stainless steel cover.

Filler Fluid:

Water mixed with non-toxic antifreeze provide cooling and lubrication, also protect and prevent inside parts from corrosion.

Connection:

Connected through rubber sheathed cable Available in Delta & WYE (Star) configuration.

Note: All specifications are subject to change without any prior notice.



Electrical DATA - 50 Hz

	Electrical Data - Three Phase - 2 Pole - 380 ~ 415 Volt @ 50 Hz												
	Motor Type	Motor Size		RPM	Full Load Current (Amp.)	Starting Current (Amp.)	Efficiency at % Load			Cos. Φ at % Load			Service Factor
		HP	kW				50	75	100	50	75	100	
380 - 415V @ 50 Hz	KM6 055T	5,5	4	2870	10,0	48	70,4	76,0	75,6	0,64	0,74	0,78	1
	KM6 075T	7,5	5,5	2865	13,2	51	70,5	76,9	76,4	0,68	0,77	0,80	1
	KM6 100T	10	7,5	2865	17,1	63	74,9	79,0	78,3	0,69	0,78	0,81	1
	KM6 125T	12,5	9,3	2870	20,7	79	76,2	80,9	80,4	0,68	0,77	0,81	1
	KM6 150T	15	11	2865	24,2	97	77,3	81,9	81,4	0,69	0,78	0,82	1
	KM6 175T	17,5	13	2870	28,2	121	77,6	82,1	81,8	0,70	0,78	0,82	1
	KM6 200T	20	15	2865	31,9	150	78,7	82,7	82,3	0,70	0,78	0,82	1
	KM6 250T	25	18,5	2870	39,1	172	77,2	83,9	83,4	0,70	0,79	0,82	1
	KM6 300T	30	22	2870	47,1	226	77,1	83,8	83,3	0,71	0,79	0,82	1
	KM6 350T	35	26	2875	55,0	275	77,5	84,2	83,7	0,70	0,78	0,82	1
	KM6 400T	40	30	2870	64,5	342	76,8	83,0	82,3	0,69	0,77	0,81	1
	KM6 500T	50	37	2860	80,8	437	77,1	81,9	81,4	0,69	0,78	0,82	1
	KM6 600T	60	45	2865	96,3	539	78,2	82,2	81,7	0,70	0,78	0,82	1
	KM6 700T	70	52	2860	111,1	622	78,1	82,6	82,1	0,70	0,79	0,83	1

KM6 DF

DOUBLE FLANGE 6-INCH SERIES



Electrical DATA - 60 Hz

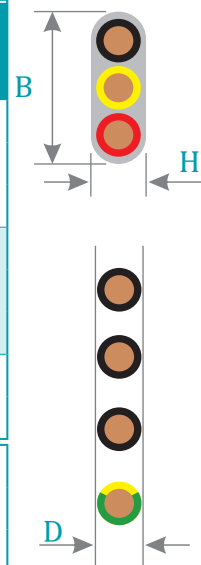
	Electrical Data - Three Phase - 2 Pole - 230 Volts, 380 Volts & 460 Volt @ 60 Hz													
	Motor Type	Motor Size		RPM	Full Load Current (Amp.)	Safety Load Current (Amp.)	Starting Current (Amp.)	Efficiency at % Load			Cos. Φ at % Load			Service Factor
		HP	kW					50	75	100	50	75	100	
230V @ 60 Hz	KM6 055T	5,5	4	3480	17,9	20,4	86	70,4	76,0	75,4	0,63	0,72	0,76	1,15
	KM6 075T	7,5	5,5	3475	22,9	26,5	89	70,8	77,3	77,4	0,67	0,76	0,79	1,15
	KM6 100T	10	7,5	3475	30,8	35,3	114	74,3	78,6	78,0	0,67	0,75	0,78	1,15
	KM6 150T	15	11	3470	43,5	50,0	174	77,1	81,6	81,1	0,67	0,76	0,80	1,15
	KM6 200T	20	15	3475	57,0	65,8	268	78,4	82,7	82,3	0,68	0,76	0,80	1,15
	KM6 250T	25	18,5	3480	71,1	82,0	313	77,1	83,5	83,2	0,66	0,75	0,79	1,15
	KM6 300T	30	22	3475	84,7	97,8	407	77,5	84,0	83,7	0,68	0,76	0,79	1,15
380V @ 60 Hz	KM6 055T	5,5	4	3475	10,7	12,2	51	70,4	76,0	75,6	0,63	0,73	0,77	1,15
	KM6 075T	7,5	5,5	3470	13,8	15,9	54	70,6	77,1	77,0	0,68	0,77	0,80	1,15
	KM6 100T	10	7,5	3470	18,3	21,0	68	74,6	78,8	78,2	0,67	0,76	0,79	1,15
	KM6 150T	15	11	3470	25,9	29,8	104	77,4	81,9	81,3	0,68	0,77	0,81	1,15
	KM6 200T	20	15	3470	34,0	39,2	160	78,4	82,5	82,1	0,69	0,77	0,81	1,15
	KM6 250T	25	18,5	3475	42,6	49,1	187	76,9	83,4	83,1	0,67	0,76	0,80	1,15
	KM6 300T	30	22	3470	50,8	58,6	244	77,2	83,8	83,4	0,69	0,77	0,80	1,15
	KM6 350T	35	26	3475	58,8	68,2	294	78,1	84,7	84,2	0,68	0,76	0,80	1,15
	KM6 400T	40	30	3475	68,0	78,4	360	77,1	83,4	82,7	0,69	0,77	0,81	1,15
	KM6 500T	50	37	3465	86,8	99,5	469	77,0	81,7	81,3	0,67	0,75	0,80	1,15
460V @ 60 Hz	KM6 055T	5,5	4	3470	8,8	10,0	42	70,4	76,0	75,4	0,64	0,74	0,78	1,15
	KM6 075T	7,5	5,5	3465	11,4	13,0	44	70,8	77,1	76,5	0,69	0,78	0,81	1,15
	KM6 100T	10	7,5	3470	14,9	17,1	55	74,7	78,9	78,1	0,69	0,77	0,81	1,15
	KM6 150T	15	11	3465	21,1	24,3	85	77,2	81,8	81,2	0,69	0,78	0,82	1,15
	KM6 200T	20	15	3465	27,9	32,0	131	78,2	82,3	81,9	0,70	0,78	0,82	1,15
	KM6 250T	25	18,5	3470	34,8	40,0	153	76,8	83,3	82,8	0,68	0,77	0,81	1,15
	KM6 300T	30	22	3465	41,5	47,9	199	77,1	83,6	83,2	0,70	0,78	0,81	1,15
	KM6 350T	35	26	3470	48,1	55,7	241	77,8	84,5	83,9	0,69	0,77	0,81	1,15
	KM6 400T	40	30	3470	55,8	64,2	296	76,6	82,8	82,2	0,70	0,78	0,82	1,15
	KM6 500T	50	37	3460	69,4	79,9	375	77,0	82,3	81,9	0,68	0,77	0,82	1,15
	KM6 600T	60	45	3465	82,0	95,1	459	78,4	83,1	82,6	0,70	0,79	0,83	1,15
	KM6 700T	70	52	3460	95,7	110,2	536	78,1	82,8	82,4	0,71	0,80	0,83	1,15



Technical DATA

Size & Dimensions Motor Tail Cable - Three Phase - 50 Hz / 60 Hz

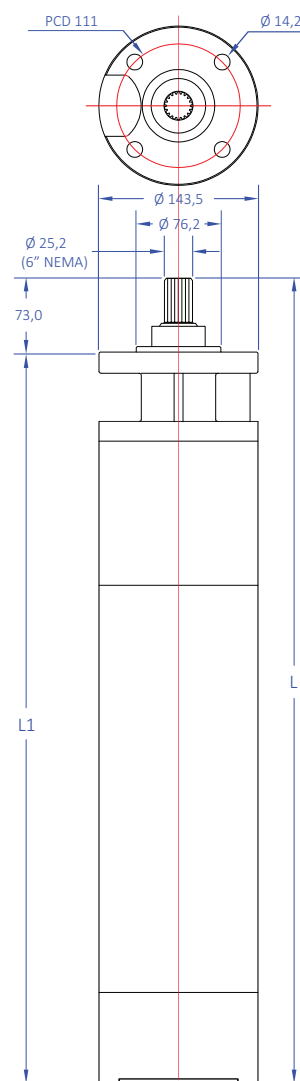
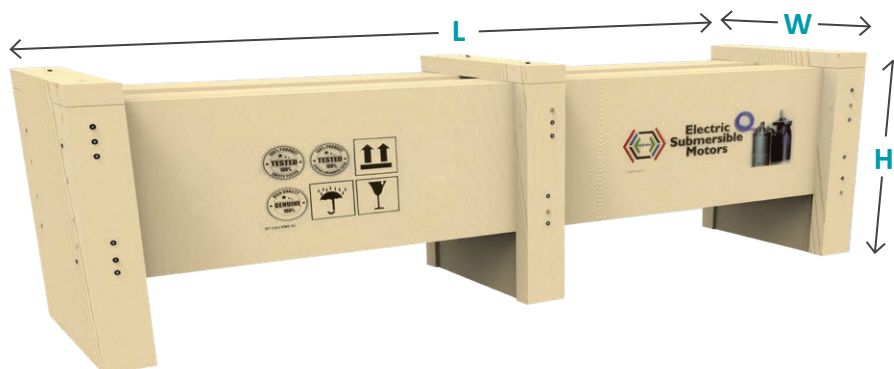
Sr. No.	Volts	Motor Size		Cable Size Nos. x Cross Section (mm ²)	Dimension B x H (mm)	Cable Length (mtr)	Qty (Nr.)
		HP	kW				
DOL	1	230	5,5 ~ 15	4 ~ 11			
	2	380 ~ 415	5,5 ~ 30	4 ~ 22	3 x 6 1 x 10	19 x 8 D = 6,7	3 1
	3	460	5,5 ~ 30	4 ~ 22			
	4	230	20 ~ 30	15 ~ 22			
	5	380 ~ 415	35 ~ 50	26 ~ 37	3 x 10 1 x 10	24 x 9 D = 6,7	3 1
	6	460	35 ~ 50	26 ~ 37			
	7	380 ~ 415	60 ~ 70	45 ~ 52	1 x 16*	D = 10,3	3
	8	460	60 ~ 70	45 ~ 52	1 x 10	D = 6,7	3
SD	9	230	5,5 ~ 30	4 ~ 22			
	10	380 ~ 415	5,5 ~ 70	4 ~ 52	3 x 6 1 x 10	19 x 8 D = 6,7	3 1
	11	460	5,5 ~ 70	4 ~ 52			



* 1 x 16 mm² as black color used for all three (3) wires.

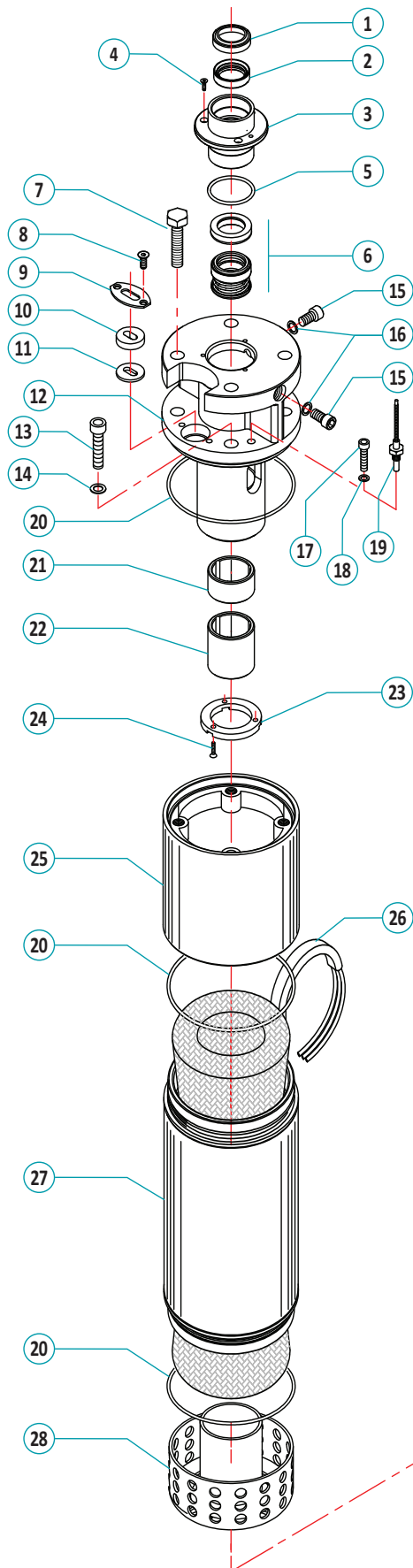
Motor Dimensions and Weights KM6 Double Flange

Motor Type	Motor Size		Thrust Load (N)	L Motor Length (mm)	L1 Motor Length (mm)	Packing Dimension W x H x L (mm)	Weight (Kg)	
	HP	kW					Without Packing	With Packing
KM6 055T	5,5	4	24000	785	712	245x330x905	55	64
KM6 075T	7,5	5,5	24000	785	712	245x330x905	55	64
KM6 100T	10	7,5	24000	835	762	245x330x905	60	69
KM6 125T	12,5	9,3	24000	920	847	245x330x1075	70	80
KM6 150T	15	11	24000	920	847	245x330x1075	70	80
KM6 175T	17,5	13	24000	1010	937	245x330x1075	79	89
KM6 200T	20	15	24000	1010	937	245x330x1075	79	89
KM6 250T	25	18,5	24000	1100	1027	245x330x1165	89	100
KM6 300T	30	22	24000	1185	1112	245x330x1275	98	110
KM6 350T	35	26	24000	1280	1207	245x330x1400	112	125
KM6 400T	40	30	24000	1320	1247	245x330x1400	112	125
KM6 500T	50	37	24000	1320	1247	245x330x1400	112	125
KM6 600T	60	45	60000	1388	1315	245x330x1465	117	132
KM6 700T	70	52	60000	1448	1375	245x330x1540	125	139

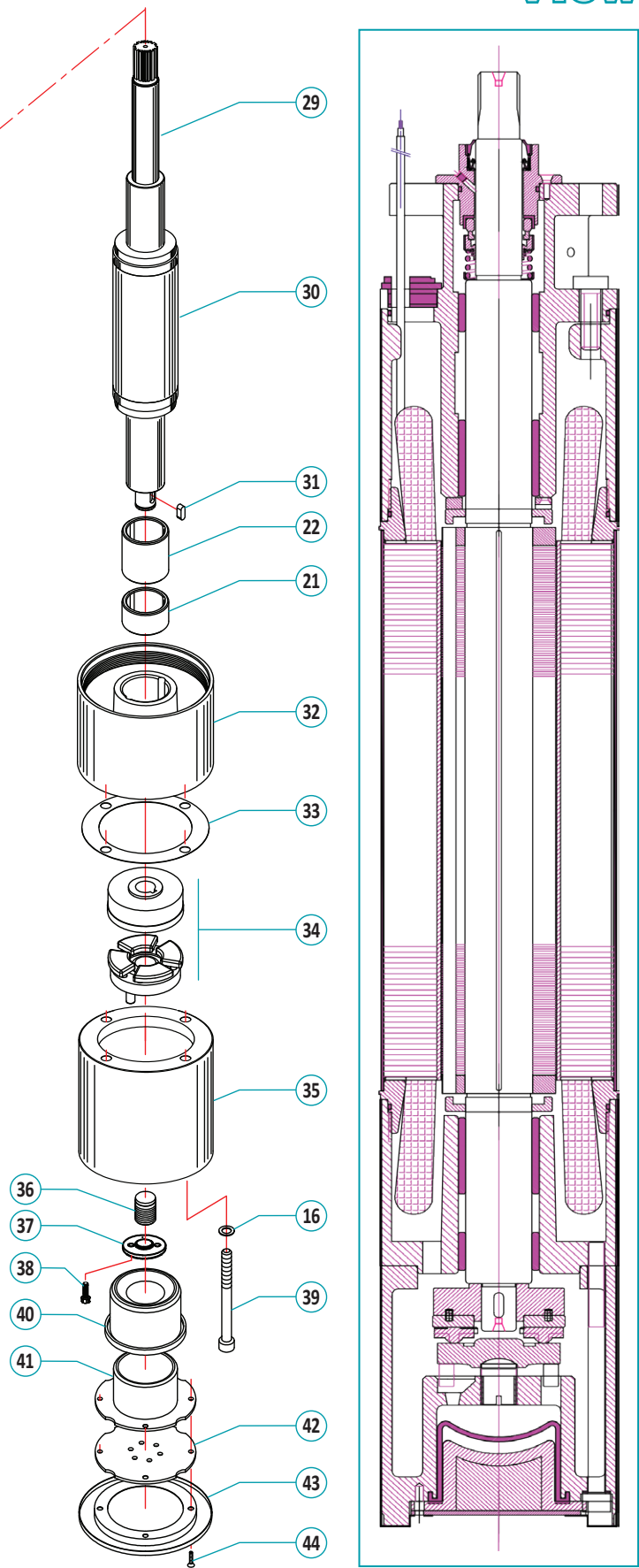


All dimensions are in mm

Exploded View



Cross-Sectional View





Parts LIST with Material & Quantity

Pos.	Item Code	Part Name	Material	Qty	Unit
1	60101480	Wiper Seal	NBR + Stainless Steel	1	Nr
2	60101475	Lip Seal / Oil Seal	NBR + Stainless Steel	1	Nr
3	60101090	Seal Support KM6	Stainless Steel	1	Nr
4	60101075	Allen Bolt (Seal Support)	Stainless Steel	3	Nr
5	60101095	O.Ring (Seal Support)	NBR	1	Nr
6	60101080	Mechanical Seal	Silicon Tungsten Carbide (WC) + NBR + Stainless Steel	1	Nr
7	60101110	Hex Bolt ½ Inch X 1½ Inch 20TPI	Stainless Steel	4	Nr
8	60101077	Screw (Tail Cable)	Stainless Steel	2	Nr
9	601011XX	Cable Top Plate (Tail Cable)	Stainless Steel	1	Nr
10	601011XX	Gasket Rubber (Tail Cable)	NBR	1	Nr
11	601011XX	Cable Washer (Tail Cable)	Stainless Steel	1	Nr
12	60101005	Upper Support / Top Piece (Double Flange)	Cast Iron	1	Nr
13	60161245	Allen Bolt M12 X 45	Stainless Steel	4	Nr
14	60101156	Washer Bonded / Dowty Seal M12	NBR + Carbon Steel	4	Nr
15	60101068	Allen Bolt (Top Piece)	Stainless Steel	2	Nr
16	60101157	Washer Bonded / Dowty Seal M10	NBR + Stainless Steel	6	Nr
17	60161250	Allen Bolt M8 X 20	Stainless Steel	1	Nr
18	60161267	Washer Bonded / Dowty Seal M8	NBR/Stainless Steel	1	Nr
19	60101485	PT100 Sensor (Optional)		1	Nr
20	60101065	O. Ring 3500	NBR	3	Nr
21	60101058	Carbon Bush Small (Lower & Upper)	Carbon	2	Nr
22	60101055	Carbon Bush Large (Lower & Upper)	Carbon	2	Nr
23	60101087	Upper Thrust Bearing	Brass	1	Nr
24	60101142	Screw (Upper Thrust) CSK M4X10	Stainless Steel	3	Nr
25	60101010	Upper Bearing Housing	Cast Iron	1	Nr
26	601011XX	Motor Tail Cable (03 Core)	Copper + Rubber	3	Mtr
27	601013XX	Stator Stack (Assembly)	Silicon Steel (M800-50A)	1	Set
28	60101202	Winding Protection Cover (Lower)	LDPE	1	Nr
29	601063XX	Rotor Shaft	Stainless Steel	1	Nr
30	60101350	Rotor Lamination (Assembly)	Silicon Steel (M800-50A)	1	Set
31	60101145	Key for Rotor Shaft	Stainless Steel	1	Nr
32	60101013	Lower Bearing Housing	Cast Iron	1	Nr
33	60101212	Gasket	Tesnit	1	Nr
34	601010XX	Thrust Bearing	Stainless Steel + Carbon	1	Nr
35	60101018	Thrust Support	Cast Iron	1	Nr
36	60101030	Adjustment Bolt (Thrust Bearing)	Stainless Steel	1	Nr
37	60161010	Lock Washer Adj. Bolt	Mild Steel	1	Nr
38	60161252	Bolt Allen M6 x 20	Stainless Steel	2	Nr
39	60101071	Bolt Allen M10x170	Carbon Steel 12,9	4	Nr
40	60101045	Diaphragm Rubber	NBR	1	Nr
41	60101216	Diaphragm Support	Polycarbonate	1	Nr
42	60101050	End Cover of Diaphragm	Stainless Steel	1	Nr
43	60101052	Cover for Thrust Support	Stainless Steel	1	Nr
44	60101143	Allen Bolt (Lower Thrust Plate)	Stainless Steel	4	Nr