

2-Pole

50/60 Hz



KOMAX



Certified to
NSF/ANSI/CAN 61



SUBMERSIBLE ELECTRIC MOTORS KM6-KM8-KM10

FOR 6, 8 & 10-INCH BORE HOLE

Comapny Profile

KOMAX (Private) Limited Pakistan, an ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 certified company, is the first-ever manufacturer of 6, 8 and 10 inches NEMA Submersible Motors in Pakistan. Our state of the art manufacturing facility, located at Plot No. 722, Sundar Industrial Estate Lahore, has a covered area of 110,000 sq. ft. we are manufacturing quality submersible motors and pumps conforming to IEC 60034-1 standard and having CE, NSF and PSQCA certifications conforming to PS/IEC/86/60034-1/2012.

6, 8 and 10-Inch NEMA Submersible Motors – KM6, KM8 and KM10 are the core products of KOMAX (Pvt.) Limited. These are specialized motors suitable for operating in deep wells. Its application areas are Agriculture, Industry, Commercial Buildings, Oil-fields, Municipalities and any other system that involves pumping the water from deep wells.

The existing facility having the latest CNC machines and a fully automated winding insertion and assembly line of German & Italian origin has an annual manufacturing capacity of 30,000 units. Komax motors have proven its reliability in local as well as in the international market and exponentially gaining markets in the Middle East, North America, South America, Europe, Australia and Africa.





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KM6

Single Flange 6" Borehole Submersible Electric Water Cooled Rewindable Motors

Models Range

Standard: Single 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

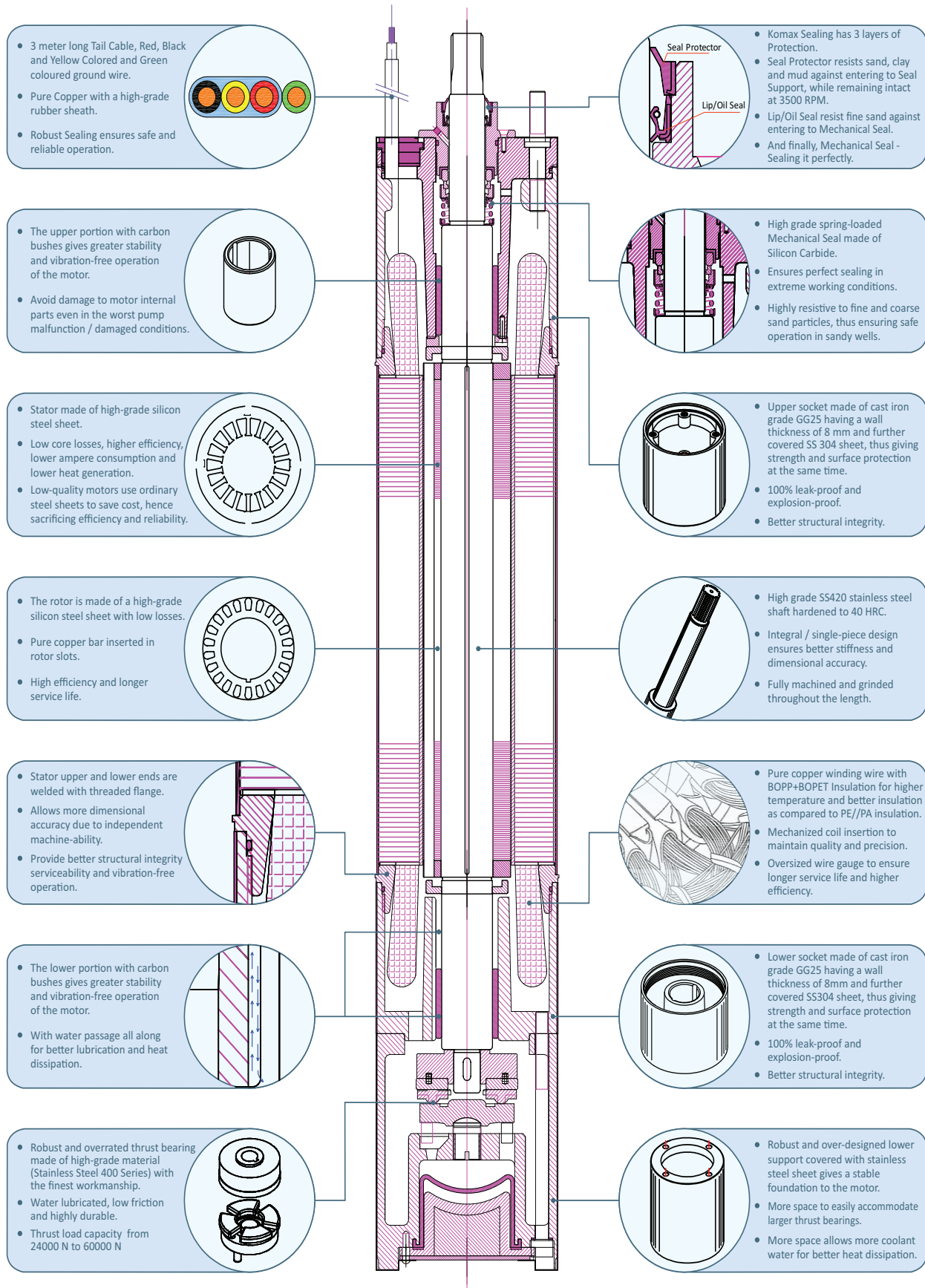
Cast Iron with Stainless Steel Cover





X-Sectional View with Specification

KM6 Single Flange





Salient Features

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

The new improved 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

* Double carbon bush bearings in lower & upper supports for horizontal/inclined installation are available on request.



Specifications

Winding:

Made of pure electrolytic copper wire sheathed with BOPP+BOPET insulation for high temperature. Robust winding having extra copper than standard version to lower the current density and the electric resistance resulting in reduced winding losses.

Stator:

Increased length with M800 low-losses electrical magnetic sheet fixed in a stainless steel casing.

Rotor:

Increased length with M800 low-losses electrical magnetic sheet fixed with high-grade copper bars.

Spline Shaft:

AISI 420 stainless steel induction hardened and grinded, flange dimensions according to 6" NEMA standard, oversize designed to ensure stiffness in severe conditions.

Shaft Bearing/Bush:

Super finished water-lubricated guide bearing/ bush made of high-grade carbon, are fixed in upper and lower brackets.

Thrust Bearings:

Super grade thrust sliding block bearings, self-aligning Mitchell type, with an axial load capacity of 24000 N (upto 50 HP) and 60000 N (60 to 70 HP).

Mechanical Seal with Lip/Oil Seal:

Silicon carbide mechanical seal for normal and sandy wells and new added Lip/Oil seal resist fine sand against entering to Mechanical Seal.

Pressure Equalizing System:

Consists of rubber diaphragm located at the lower end providing compensative volume for internal pressure developed during operation.

Brackets:

High resistance cast iron upper & lower bracket supports are dressed in stainless steel jackets.

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 SF

SINGLE FLANGE 6-INCH SERIES



Electrical DATA - 60 Hz

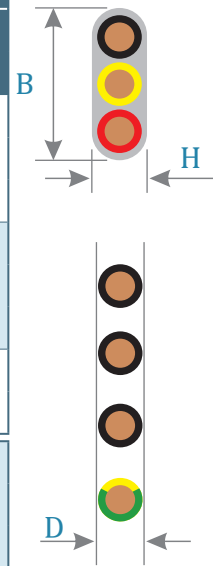
	Electrical Data - Three Phase - 2 Pole - 230 Volts, 380 Volts & 460 Volt @ 60 Hz													
	Motor Type	Motor Size		RPM	Full Load Current (Amp.)	Safety Load Current (Amp.)	Starting Current (Amp.)	Efficiency at % Load			Cos. Φ at % Load			Service Factor
		HP	kW					50	75	100	50	75	100	
230V @ 60 Hz	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

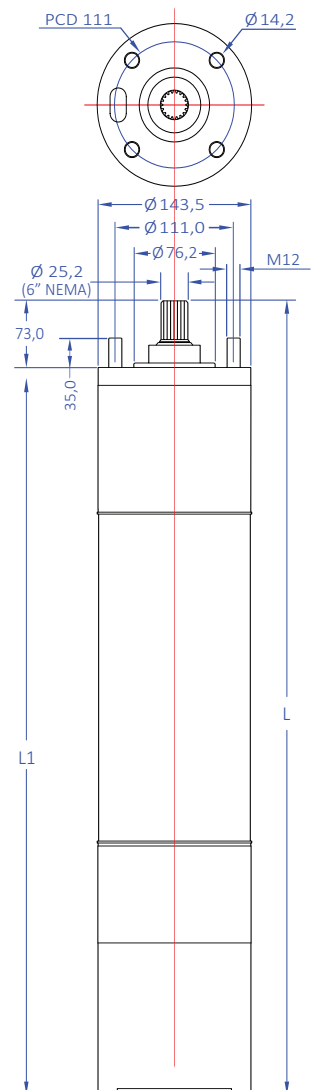
Sr. No.	Volts	Motor Size		Cable Size Nos. x Cross Section (mm ²)	Dimension B x H (mm)	Cable Length (mtr)	Qty (Nr.)
		HP	kW				
DOL	1	230	5,5 ~ 15	4 ~ 11	3 x 6 1 x 10	19 x 8	1
	2	380 ~ 415	5,5 ~ 30	4 ~ 22		D = 6,7	1
	3	460	5,5 ~ 30	4 ~ 22			
	4	230	20 ~ 30	15 ~ 22	3 x 10 1 x 10	24 x 9	1
	5	380 ~ 415	35 ~ 50	26 ~ 37		D = 6,7	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	1
SD	9	230	5,5 ~ 30	4 ~ 22	3 x 6 1 x 10	19 x 8	2
	10	380 ~ 415	5,5 ~ 70	4 ~ 52		D = 6,7	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 Single 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	4,0	24000	718	645	245 x 330 x 845	52	62
KM6 075T	7,5	5,5	24000	718	645	245 x 330 x 845	52	62
KM6 100T	10	7,5	24000	768	695	245 x 330 x 845	56	66
KM6 125T	12,5	9,3	24000	853	780	245 x 330 x 1010	66	76
KM6 150T	15	11	24000	853	780	245 x 330 x 1010	66	76
KM6 175T	17,5	13,0	24000	943	870	245 x 330 x 1010	75	86
KM6 200T	20	15	24000	943	870	245 x 330 x 1010	75	86
KM6 250T	25	18,5	24000	1033	960	245 x 330 x 1212	86	97
KM6 300T	30	22	24000	1118	1045	245 x 330 x 1212	95	106
KM6 350T	35	26	24000	1213	1140	245 x 330 x 1352	104	116
KM6 400T	40	30	24000	1253	1180	245 x 330 x 1352	109	122
KM6 500T	50	37	24000	1253	1180	245 x 330 x 1352	109	122
KM6 600T	60	45	60000	1321	1248	245 x 330 x 1420	117	131
KM6 700T	70	52	60000	1381	1308	245 x 330 x 1480	123	137



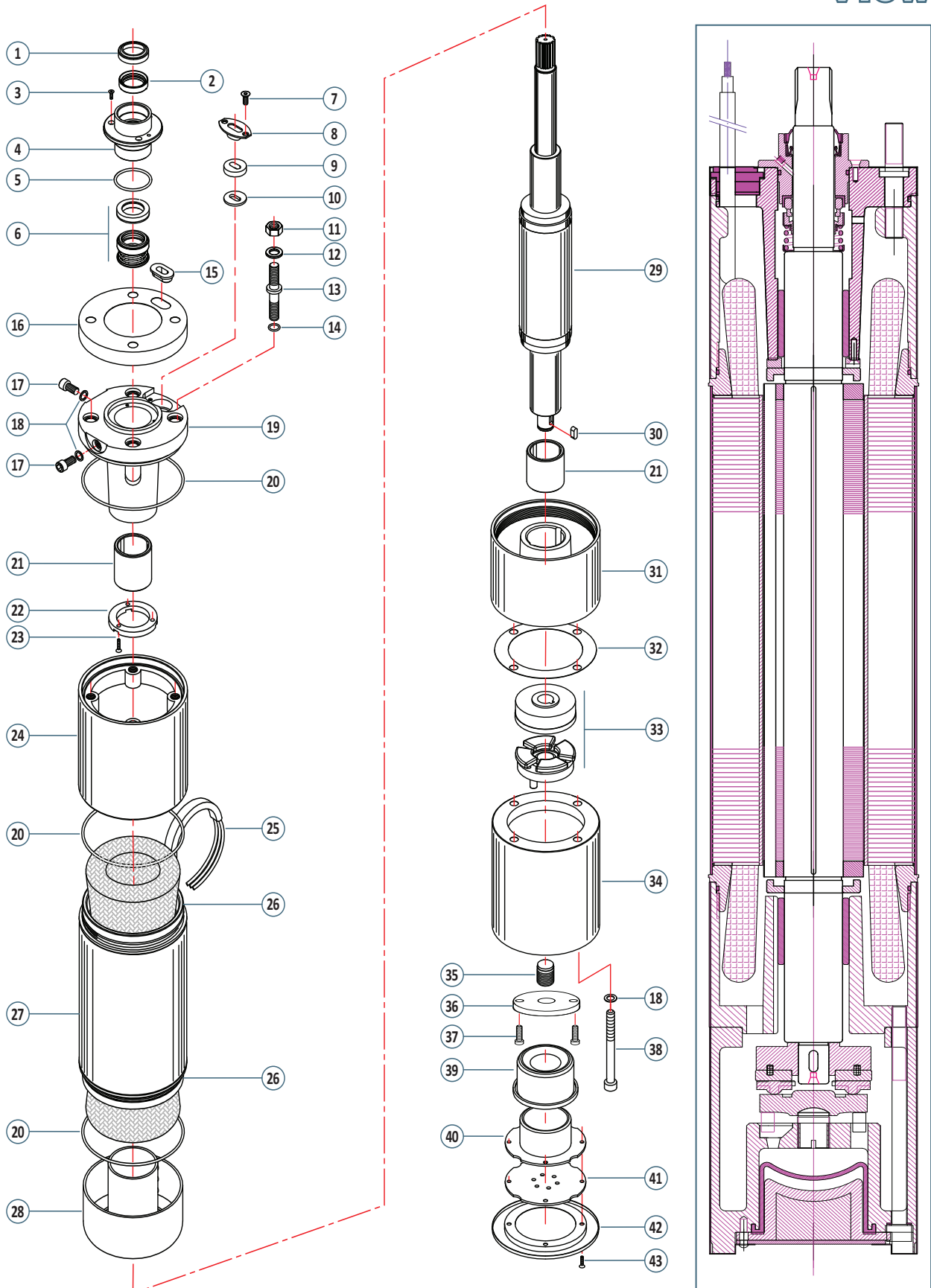
All dimensions are in mm

KM6 SF

SINGLE FLANGE 6-INCH SERIES

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	60101075	Allen Bolt (Seal Support)	Stainless Steel	3	Nr
4	60101090	Seal Support KM6	Stainless Steel	1	Nr
5	60101095	O. Ring (Seal Support)	NBR	1	Nr
6	60101080	Mechanical Seal	Silicon Carbide + NBR + S Steel	1	Nr
7	60101077	Screw (Tail Cable)	Stainless Steel	2	Nr
8	60101137	Cable Top Plate (Tail Cable)	Stainless Steel	1	Nr
9	60101125	Gasket Rubber (Tail Cable)	NBR	1	Nr
10	60101130	Cable Washer (Tail Cable)	Stainless Steel	1	Nr
11	60101117	Hex: M12 Nut	Stainless Steel	4	Nr
12	60101120	Spring Washer for M12	Stainless Steel	4	Nr
13	60101115	Bolt M12	Stainless Steel	4	Nr
14	60101156	Washer Bonded / Dowty Seal	NBR + Carbon Steel	4	Nr
15	60101122	Gasket for Top Cover (Tail Cable)	NBR	1	Nr
16	60101039	Top Cover KM6 (Top Piece)	Stainless Steel	1	Nr
17	60101068	Allen Bolt (Top Piece)	Stainless Steel	2	Nr
18	60101157	Dowty Washer	NBR + Carbon Steel	6	Nr
19	60101002	Upper Support / Top Piece	Cast Iron	1	Nr
20	60101065	O. Ring 3500	NBR	3	Nr
21	60101055	Carbon Bush Large (Lower & Upper)	Carbon	2	Nr
22	60101087	Upper Thrust Bearing	Brass	1	Nr
23	60101142	Screw (Upper Thrust)	Stainless Steel	3	Nr
24	60101010	Upper Threaded Socket	Cast Iron	1	Nr
25	60101170	Motor Tail Cable (03 Core)	Copper + PE + PVC	3	Mtr
26	60101465	Flange SS304	Silicon Steel (M800-50A)	1	Set
27	601013XX	Stator Stack (Assembly)	Silicon Steel (M800-50A)	1	Set
28	60101202	Winding Protection Cover (Lower)	LDPE	1	Nr
29	60101350	Rotor Lamination (Assembly)	Silicon Steel (M800-50A)	1	Set
30	60101145	Key for Rotor Shaft	Stainless Steel	1	Nr
31	60101013	Lower Support	Cast Iron	1	Nr
32	60101212	Gasket	Fiberglass	1	Nr
33	60101025	Thrust Bearing	Stainless Steel + Carbon	1	Nr
34	60101018	Thrust Support	Cast Iron	1	Nr
35	60101030	Adjustment Bolt (Thrust Bearing)	Stainless Steel	1	Nr
36	60101233	Thrust Washer MS for Adjustment Bolt	Mild Steel	1	Nr
37	60161252	Bolt Allen M6x20	Stainless Steel	2	Nr
38	60101071	Bolt Allen M10x170	Carbon Steel 12,9	4	Nr
39	60101045	Diaphragm Rubber	NBR	1	Nr
40	60101216	Diaphragm Support	Polycarbonate	1	Nr
41	60101050	End Cover of Diaphragm	Stainless Steel	1	Nr
42	60101052	Cover for Thrust Support	Stainless Steel	1	Nr
43	60101143	Allen Bolt (Lower Thrust Plate)	Stainless Steel	4	Nr

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

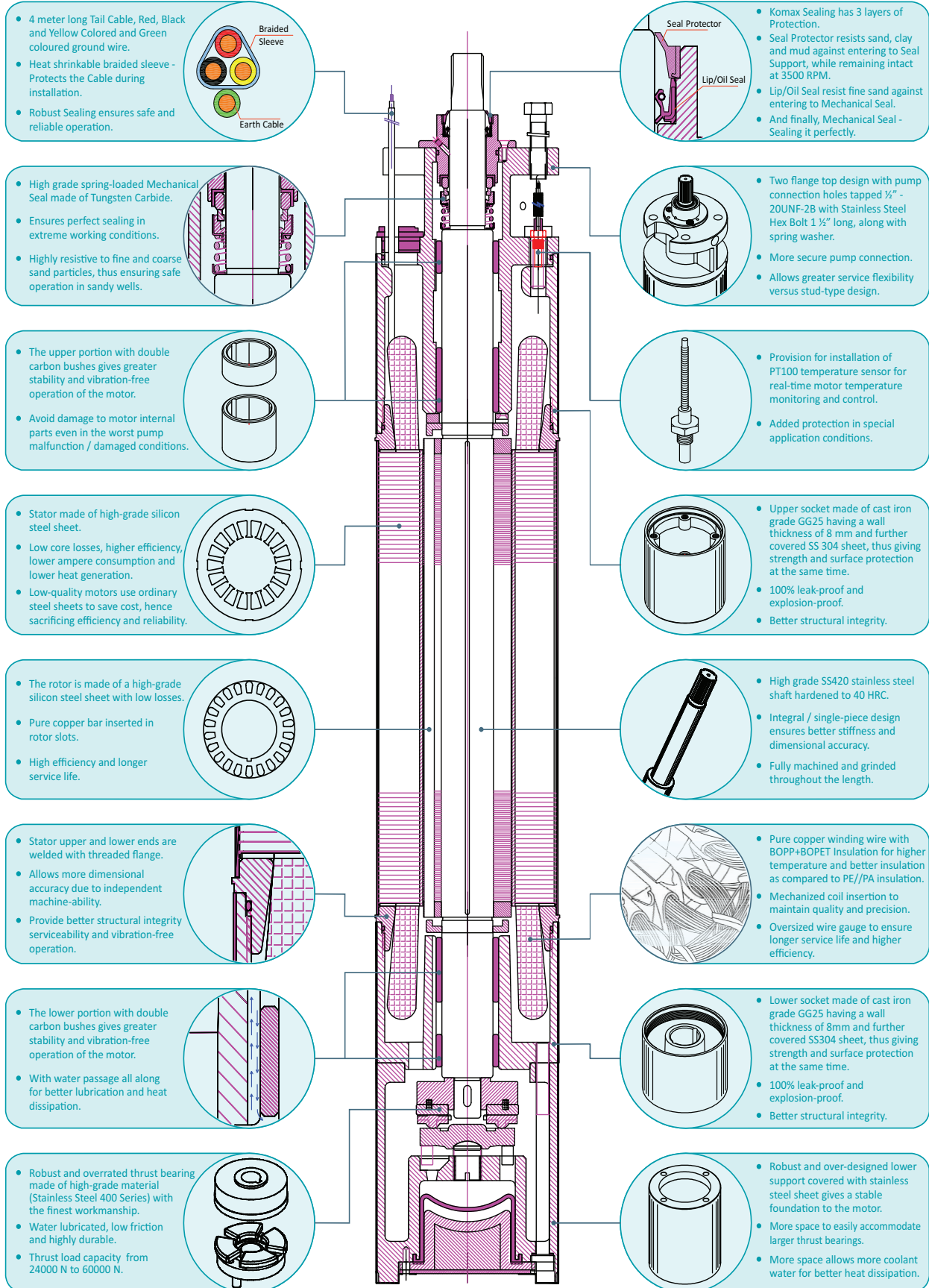
Optional: Complete 316L Stainless Steel



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 BOPET+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

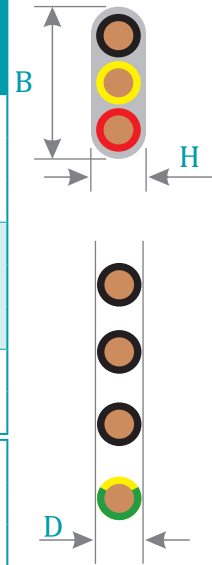
	Electrical Data - Three Phase - 2 Pole - 230 Volts, 380 Volts & 460 Volt @ 60 Hz													
	Motor Type	Motor Size		RPM	Full Load Current (Amp.)	Safety Load Current (Amp.)	Starting Current (Amp.)	Efficiency at % Load			Cos. Φ at % Load			Service Factor
		HP	kW					50	75	100	50	75	100	
230V @ 60 Hz	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

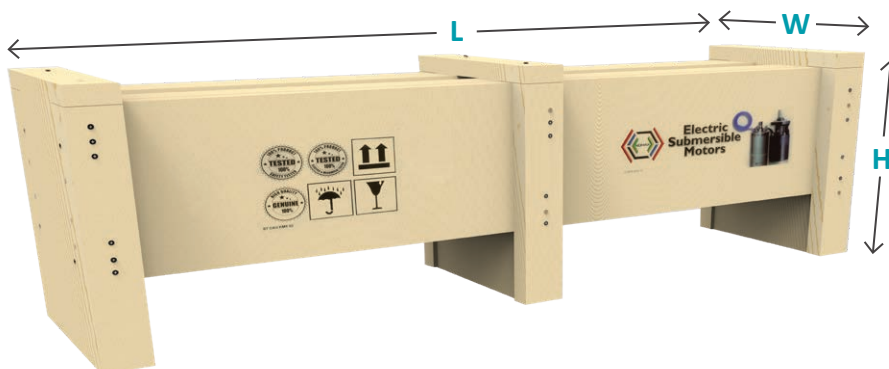
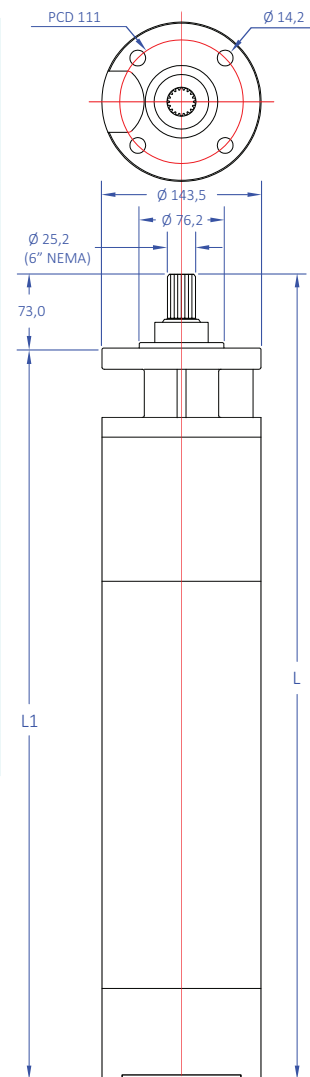
Sr. No.	Volts	Motor Size		Cable Size Nos. x Cross Section (mm ²)	Dimension B x H (mm)	Cable Length (mtr)	Qty (Nr.)
		HP	kW				
DOL	1	230	5,5 ~ 15	4 ~ 11			
	2	380 ~ 415	5,5 ~ 30	4 ~ 22	3 x 6 1 x 10	19 x 8 D = 6,7	3 3
	3	460	5,5 ~ 30	4 ~ 22			
	4	230	20 ~ 30	15 ~ 22			
	5	380 ~ 415	35 ~ 50	26 ~ 37	3 x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



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

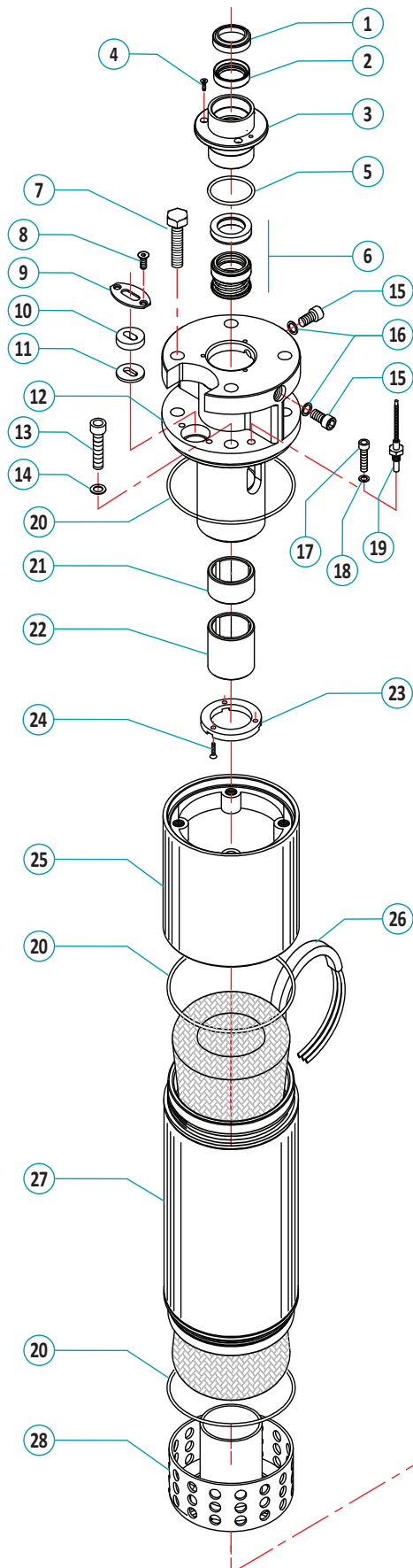
Motor Dimensions and Weights KM6 Double Flange

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

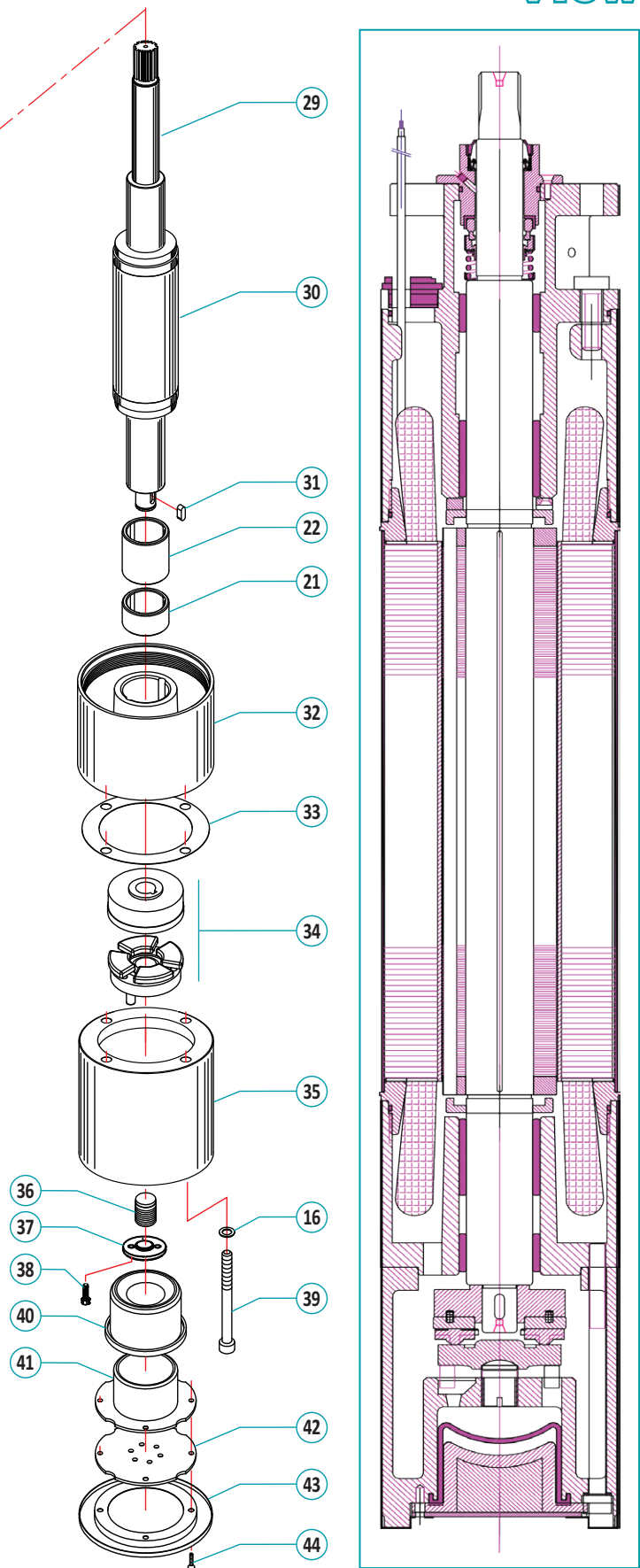


All dimensions are in mm

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

KM8

8" Borehole Submersible Electric Water Cooled Rewindable Motors

Models Range

Standard: Double Flange

Power Range

From: 30 HP (22 kW)

To: 200 HP (150 kW)

Voltage Range

380 ~ 415 Volts, 50 Hertz

460 Volts - 60 Hertz

Speed Range

2 Poles, 2900 RPM

2 Poles, 3600 RPM

Construction Material

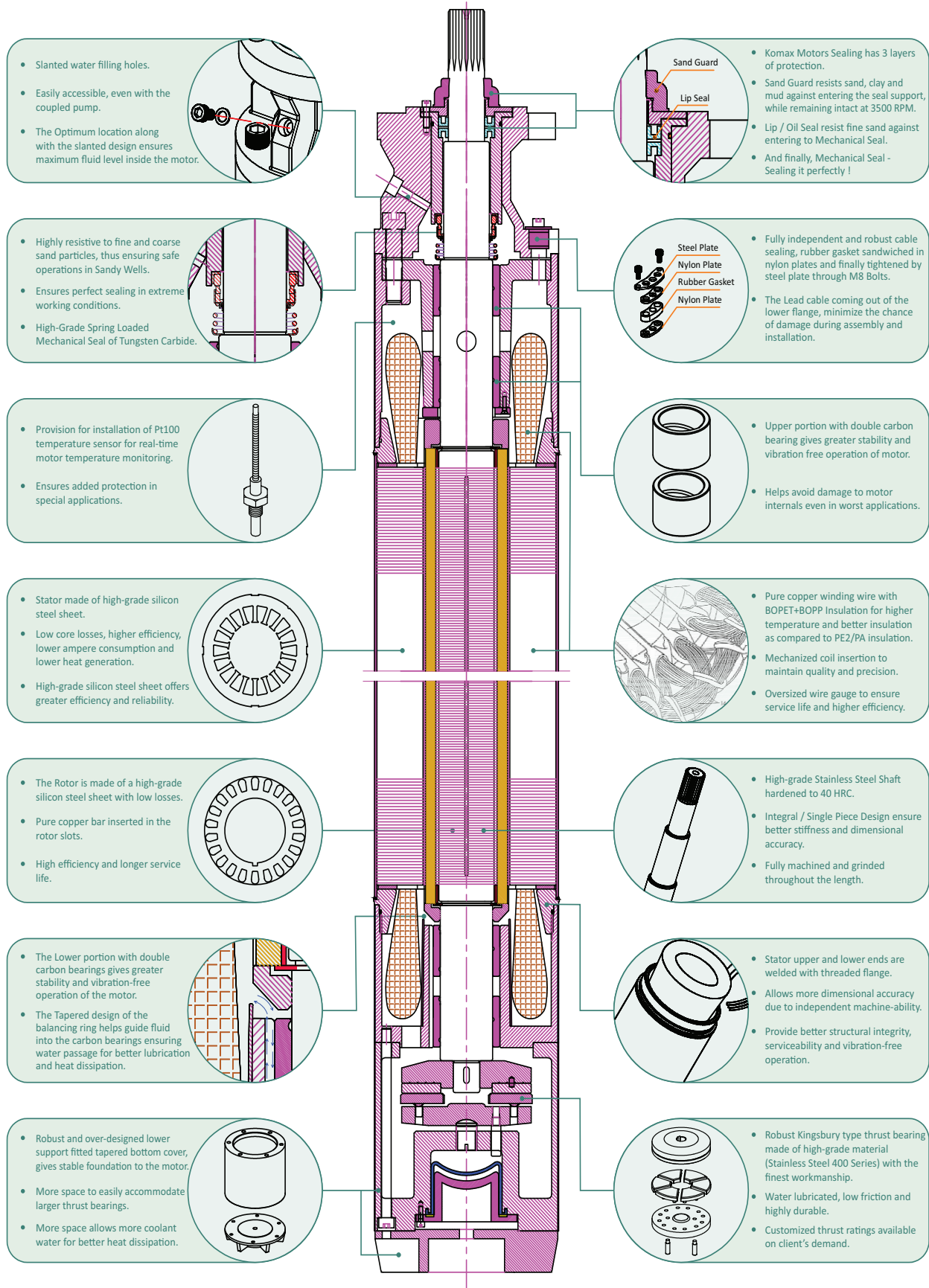
Standard: Cast Iron with NSF Certified Epoxy

Optional: Complete 316L Stainless Steel



X-Sectional View with Specification

KM8 Double Flange





Salient Features

KM8 8" water-filled submersible electric motors have asynchronous three-phase rewindable stator and squirrel cage rotor.

The new series of 8" submersible electric motors KM8 has been designed and produced according to the market's requirements. In 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/Horizontal	mounting position
16 cm/sec	min. cooling flow rate speed
200 m	max. immersion depth
110	starts per 24 hours
Wooden case	packing



Specification

Winding:

Electrolytic Solid Copper wire wrapped in BOPET+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 8" 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 80000 N.

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 with epoxy coating.

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 & 60 Hz

Technical Data - Three Phase - 2 Pole - 380~415 Volt @ 50 Hz - 460 Volt @ 60 Hz

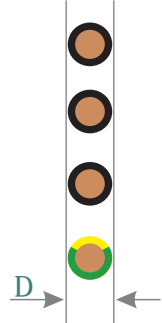
	Motor Type	Motor Size		RPM	Full Load Current (Amp.)	Safety Load Current (Amp.)	Starting Current (Amp.)	Efficiency at % Load			Cos. Φ at % Load			Service Factor
		HP	kW					50	75	100	50	75	100	
380-415V @ 50 Hz	KM8 0300T	30	22	2890	46,4		246	78,5	84,3	83,6	0,70	0,79	0,83	1
	KM8 0400T	40	30	2885	60,9		323	79,0	84,8	84,1	0,71	0,80	0,84	1
	KM8 0500T	50	37	2880	74,7		403	80,1	85,0	84,4	0,72	0,81	0,85	1
	KM8 0600T	60	45	2885	89,7		520	80,8	85,8	84,9	0,72	0,81	0,85	1
	KM8 0750T	75	56	2890	110,8		665	82,4	86,7	85,8	0,72	0,80	0,85	1
	KM8 0800T	80	60	2885	116,9		719	82,4	86,9	86,1	0,72	0,81	0,86	1
	KM8 0900T	90	67	2890	133,5		841	82,7	86,4	85,6	0,72	0,80	0,85	1
	KM8 1000T	100	75	2885	146,1		935	82,6	86,8	86,1	0,73	0,81	0,86	1
	KM8 1100T	110	82	2895	161,5		1066	82,7	86,8	85,9	0,72	0,81	0,85	1
	KM8 1250T	125	93	2890	180,9		1230	83,9	87,0	86,3	0,73	0,82	0,86	1
	KM8 1500T	150	112	2885	215,1		1506	82,6	86,8	86,7	0,73	0,82	0,87	1
	KM8 1750T	175	130	2890	252,7		1820	83,1	86,9	86,3	0,73	0,82	0,86	1
	KM8 2000T	200	150	2880	288,0		2160	82,7	86,6	86,1	0,74	0,82	0,87	1
460V @ 60 Hz	KM8 0300T	30	22	3470	40,5	46,6	215	78,3	84,2	83,5	0,70	0,79	0,83	1,15
	KM8 0400T	40	30	3465	53,4	61,5	283	78,9	84,5	83,8	0,71	0,8	0,84	1,15
	KM8 0500T	50	37	3460	65,5	75,5	354	80,1	84,7	84,2	0,72	0,81	0,85	1,15
	KM8 0600T	60	45	3475	78,8	91,2	457	81,0	85,5	84,6	0,72	0,8	0,84	1,15
	KM8 0750T	75	56	3480	96,6	110,9	580	82,3	86,9	86,1	0,72	0,81	0,84	1,15
	KM8 0800T	80	60	3470	102,4	117,9	630	82,2	86,7	85,9	0,72	0,81	0,85	1,15
	KM8 0900T	90	67	3480	116,6	134,0	735	82,6	86,1	85,4	0,72	0,8	0,85	1,15
	KM8 1000T	100	75	3475	127,8	147,2	818	84,1	86,6	85,9	0,72	0,81	0,85	1,15
	KM8 1100T	110	82	3485	141,1	162,4	931	82,4	86,5	85,7	0,71	0,8	0,85	1,15
	KM8 1250T	125	93	3480	158,4	182,5	1077	83,8	86,8	86,1	0,73	0,81	0,86	1,15
	KM8 1500T	150	112	3475	188,5	217,2	1320	82,5	86,7	86,4	0,72	0,82	0,86	1,15
	KM8 1750T	175	130	3480	221,0	254,2	1592	82,9	86,7	86,1	0,73	0,81	0,86	1,15
	KM8 2000T	200	150	3470	252,1	289,8	1891	82,6	86,5	86,0	0,73	0,82	0,86	1,15

KM8

8-INCH SERIES

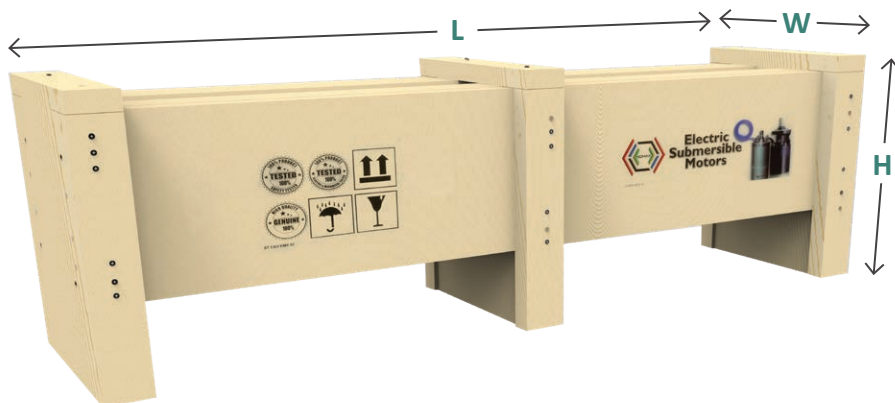
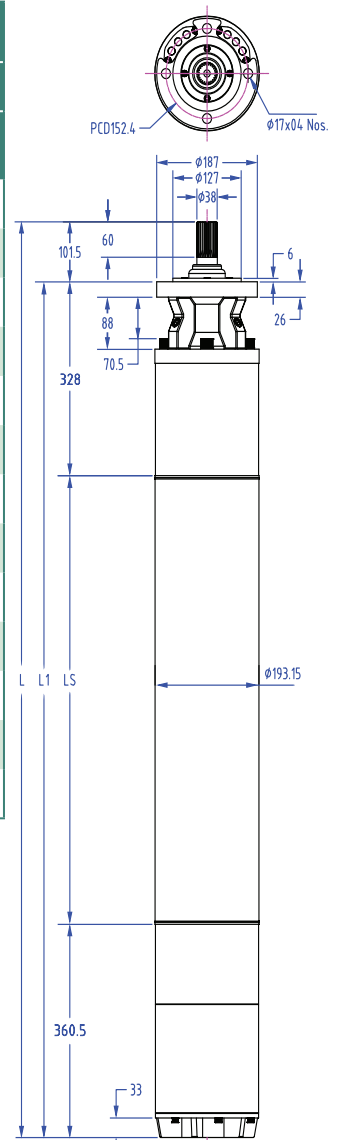
Technical DATA

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	380 ~ 415 460	30 ~ 50	22 ~ 37	1 x 10 / 16	6,7 / 10,3	5	3
	2		60 ~ 80	45 ~ 60	1 x 16	10,3	5	3
	3		90 ~ 125	67 ~ 93	1 x 25	11,7	5	3
	4		150 ~ 200	112 ~ 150	1 x 35	12,7	5	3
SD	5	380 ~ 415 460	30 ~ 125	22 ~ 93	1 x 16	10,3	5	6
	6		150 ~ 200	112 ~ 150	1 x 25	11,7	5	6



Additional core 1 x 10 mm² 5 meters for earthing.

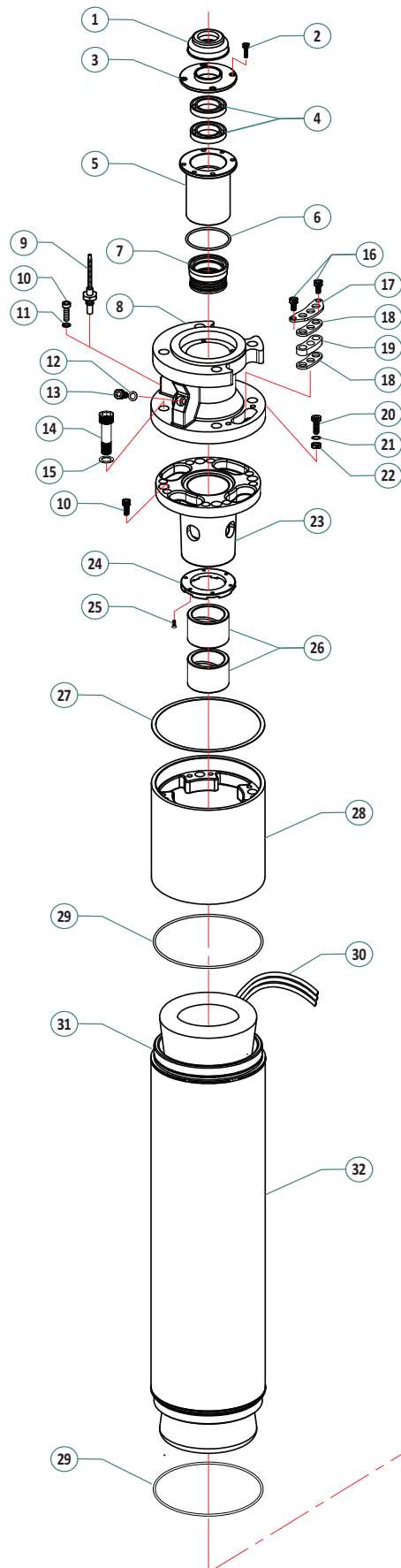
Motor Dimensions and Weights KM8								
Motor Type	Motor Size		Thrust Load (N)	L Motor Length (mm)	L1 Motor Length (mm)	Packing Dimension W x H x L (mm)	Weight (Kg)	
	HP	kW					Without Packing	With Packing
KM8 0300T	30	22	80000	450	1240	305 x 401 x 1392	180	194
KM8 0400T	40	30	80000	450	1240	305 x 401 x 1392	180	194
KM8 0500T	50	37	80000	549	1339	305 x 401 x 1491	199	212
KM8 0600T	60	45	80000	630	1420	305 x 401 x 1572	209	230
KM8 0750T	75	56	80000	848	1638	305 x 401 x 1791	247	271
KM8 0800T	80	60	80000	848	1638	305 x 401 x 1791	247	271
KM8 0900T	90	67	80000	1039	1829	305 x 401 x 1981	280	307
KM8 1000T	100	75	80000	1039	1829	305 x 401 x 1981	280	307
KM8 1100T	110	82	80000	1138	1928	305 x 401 x 2080	302	331
KM8 1250T	125	93	80000	1138	1928	305 x 401 x 2080	302	331
KM8 1500T	150	112	80000	1240	2029	305 x 401 x 2182	328	357
KM8 1750T	175	130	80000	1349	2139	305 x 401 x 2291	347	375
KM8 2000T	200	150	80000	1459	2249	305 x 401 x 2401	356	389



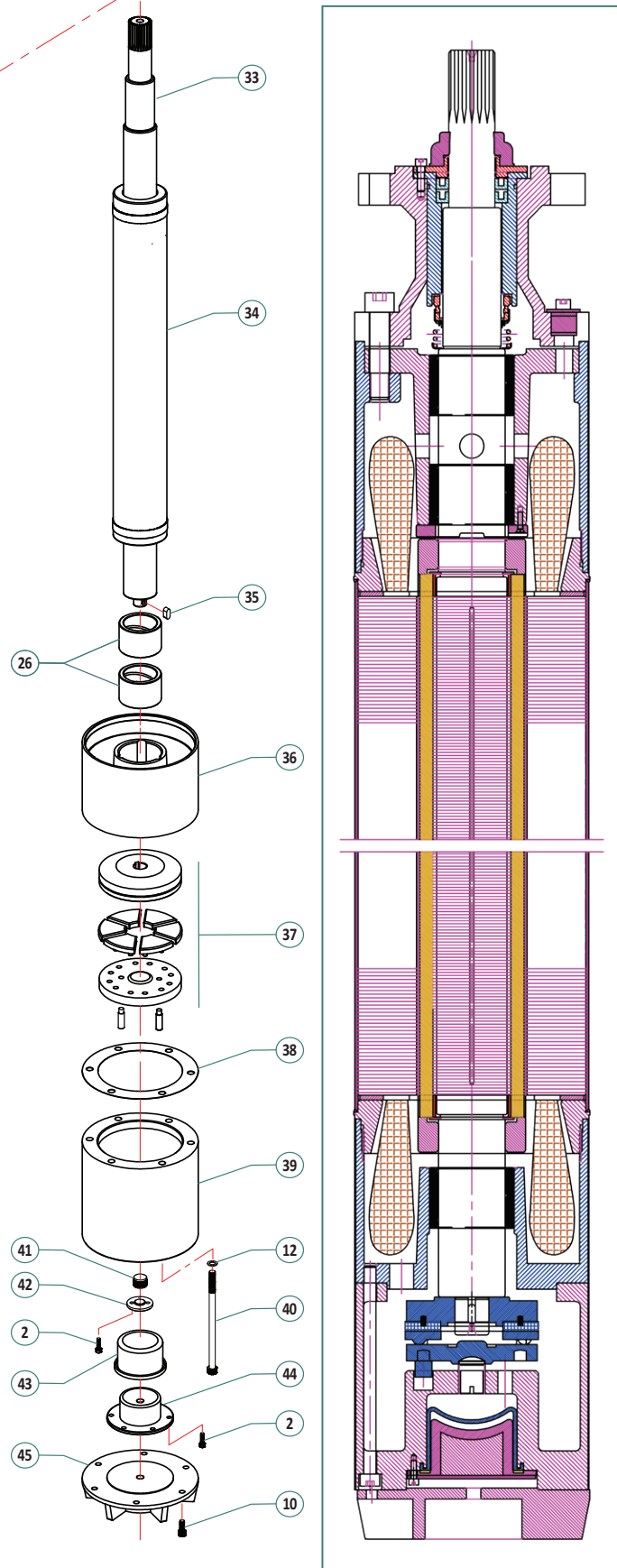
All dimensions are in mm



Exploded View



Cross-Sectional View



KM8

8-INCH SERIES



Parts LIST with Material & Quantity

Pos.	Item Code	Part Name	Material	Qty	Unit
1	60161050	Sand Guard	Rubber	1	Nr
2	60161252	Bolt Allen M6 x 20	Stainless Steel	12	Nr
3	60161085	Mechanical Seal Cover	Stainless Steel	1	Nr
4	60161127	Oil Seal 38x60x10	NBR	2	Nr
5	60161125	Bush Seal Support	Cast Iron	1	Nr
6	60161220	O-Ring 65x2,5	NBR	1	Nr
7	60161275	Mechanical Seal Complete	Silicon Tungsten Carbide (WC) + NBR + Stainless Steel	1	Nr
8	60161065	Top Piece / Upper Support Double Flange	Cast Iron	1	Nr
9	60101485	PT 100 Sensor	Stainless Steel	1	Nr
10	60161250	Bolt Allen M8x20	Stainless Steel	14	Nr
11	60161267	Washer Bonded / Dowty Seal M8	NBR / Stainless Steel	1	Nr
12	60101157	Washer Bonded / Dowty Seal M10	NBR / Stainless Steel	8	Nr
13	60101068	Bolt Allen M10 x 16	Stainless Steel	2	Nr
14	60161255	Bolt Allen M16 x 75	Stainless Steel	4	Nr
15	60161272	Washer Bonded / Dowty Seal M16	NBR / Stainless Steel	4	Nr
16	60161253	Bolt Allen M8 x 25	Stainless Steel	2	Nr
17	60161150	Cable Top Cover Plate	Carbon Steel	2	Nr
18	60161092	Washer Nylon	Nylon	2	Nr
19	60161095	Gasket Rubber	NBR	1	Nr
20	60161254	Bolt Allen M8 x 35	Stainless Steel	1	Nr
21	60161263	Spring Washer M8	Stainless Steel	1	Nr
22	60161262	Nut Hex M8	Stainless Steel	1	Nr
23	60161080	Upper Support for Carbon Bush	Cast Iron	1	Nr
24	60161105	Upper Thrust Bearing	Brass	1	Nr
25	60101142	Screw CSK M4x10	Stainless Steel	6	Nr
26	60161020	Carbon Bush	Carbon	4	Nr
27	60161042	Gasket Top Piece	Fiber	1	Nr
28	60161315	Upper Threaded Socket	Cast Iron	1	Nr
29	60161215	O-Ring 165x2,5	NBR	2	Nr
30A	60101197	Cable Tail (1x10 mm2)	PVC + Copper	5	Mtr
30B	60161185	Cable Tail 1x16mm2/1x25mm2/1x35mm2)	PVC + Copper	15	Mtr
31	60161594	Flange (200-140-46)	Stainless Steel	2	Nr
32	601616XX	Stator Stack (Assembly)	Silicon Steel (50C800) + SS	1	Set
33	601063XX	Rotor Shaft	Stainless Steel	1	Nr
34	60161660	Rotor Lamination (Including Shaft + Copper Bars+ End Ring)	Silicon Steel (50C800) + Stainless Steel + Copper	1	Set
35	60101145	Key for End Shaft	Stainless Steel	1	Nr
36	60161320	Lower Bearing Housing	Cast Iron	1	Nr
37	60161280K	Thrust Bearing	Stainless Steel / Carbon	1	Set
38	60161040	Gasket Thrust Support	Fiber	1	Nr
39	60161070	Thrust Support	Cast Iron	1	Nr
40	60161260	Bolt Allen M10x190	MS 12,9	6	Nr
41	60161000	Adjustment Bolt	Stainless Steel	1	Nr
42	60161010	Lock Washer Adj. Bolt	MS	1	Nr
43	60101045	Diaphragm Rubber	NBR	1	Nr
44	60161130	Diaphragm Support	Cast Iron	1	Nr
45	60161037	Bottom Plate	Cast Iron	1	Nr



KM10

10" Borehole Submersible Electric Water Cooled Rewindable Motors

Models Range

Standard: Double Flange

Power Range

From: 75 HP (56 kW)

To: 270 HP (200 kW)

Voltage Range

380 ~ 415 Volts @ 50 Hertz

460 Volts @ 60 Hertz

Speed Range

2 Poles, 2900 RPM

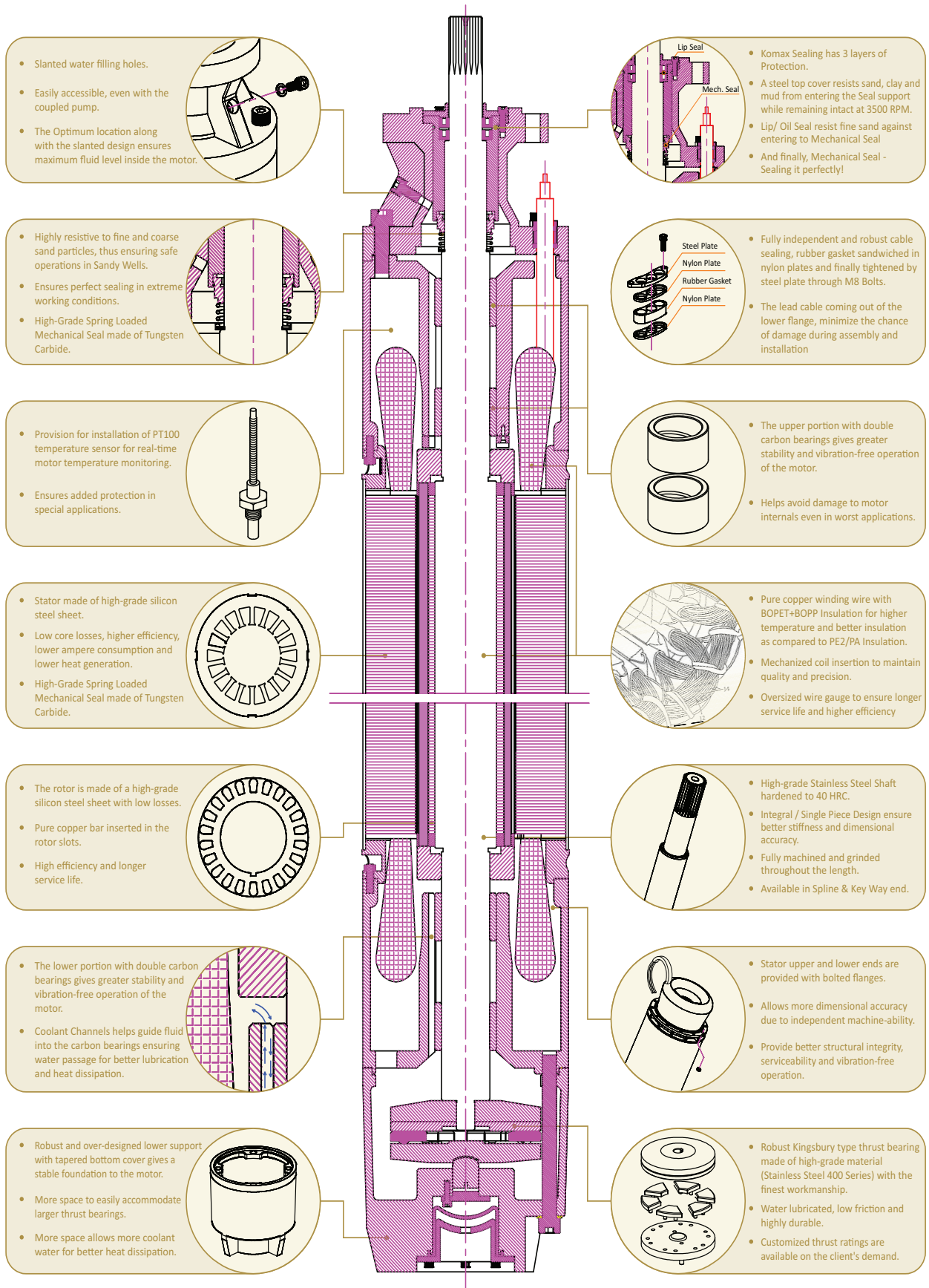
2 Poles, 3600 RPM

Construction Material

Standard: Cast Iron with NSF Certified
Expoxy

Optional: Complete 316L Stainless Steel





**Salient Features**

KM10 10" water-filled submersible electric motors have asynchronous three-phase rewindable stator and squirrel cage rotor.

The new series of 10" submersible electric motors KM10 has been designed and produced according to the market's requirements. In 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/Horizontal	mounting position
16 cm/sec	min. cooling flow rate speed
200 m	max. immersion depth
110	starts per 24 hours
Wooden case	packing

**Specification****Winding:**

Electrolytic Solid Copper wire wrapped in BOPET+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 having interlocked M800 low-loss electrical magnetic sheet stator stack with an increased length for cooler running motor.

Rotor:

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

Spline Shaft:

AISI 420 stainless steel induction hardened & ground to operate in severe conditions. Dimensions according to international 8"/10" 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 80000 N.

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 with epoxy coating.

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 & 60 Hz

Technical Data - Three Phase - 2 Pole - 380~415 Volt @ 50 Hz - 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	
380-415V @ 50 Hz	KM10 075T	75	56	2900	111,5		535	80,6	86,7	86,4	0,71	0,80	0,84	1
	KM10 100T	100	75	2890	146,0		701	81,5	87,4	86,9	0,72	0,81	0,85	1
	KM10 125T	125	93	2895	183,6		900	81,9	87,4	87,1	0,72	0,80	0,84	1
	KM10 150T	150	112	2905	217,0		1085	82,7	88,1	87,7	0,73	0,81	0,85	1
	KM10 175T	175	130	2910	257,6		1366	83,9	87,9	87,3	0,73	0,80	0,84	1
	KM10 200T	200	150	2900	291,9		1576	84,5	87,9	87,0	0,75	0,81	0,85	1
	KM10 250T	250	186	2905	366,3		2051	84,7	88,1	87,3	0,74	0,81	0,84	1
460V @ 60 Hz	KM10 075T	75	56	3495	97,5	112,0	468	80,3	86,5	86,2	0,70	0,79	0,84	1,15
	KM10 100T	100	75	3490	127,7	147,0	613	81,3	87,1	86,7	0,71	0,80	0,85	1,15
	KM10 125T	125	93	3500	160,9	185,3	788	81,6	87,2	86,8	0,71	0,80	0,84	1,15
	KM10 150T	150	112	3505	189,5	218,7	948	82,2	87,9	87,5	0,72	0,81	0,85	1,15
	KM10 175T	175	130	3510	225,0	259,5	1193	83,8	87,7	87,1	0,72	0,80	0,84	1,15
	KM10 200T	200	150	3500	255,1	294,0	1377	84,3	87,7	86,8	0,74	0,81	0,85	1,15
	KM10 250T	250	186	3505	320,4	370,6	1794	84,4	87,8	87,1	0,73	0,80	0,84	1,15
	KM10 270T	270	200	3500	338,7	391,6	1965	85,0	88,5	87,6	0,75	0,82	0,85	1,15



Technical DATA

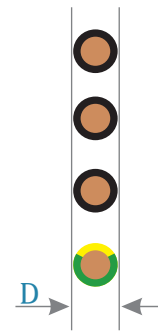
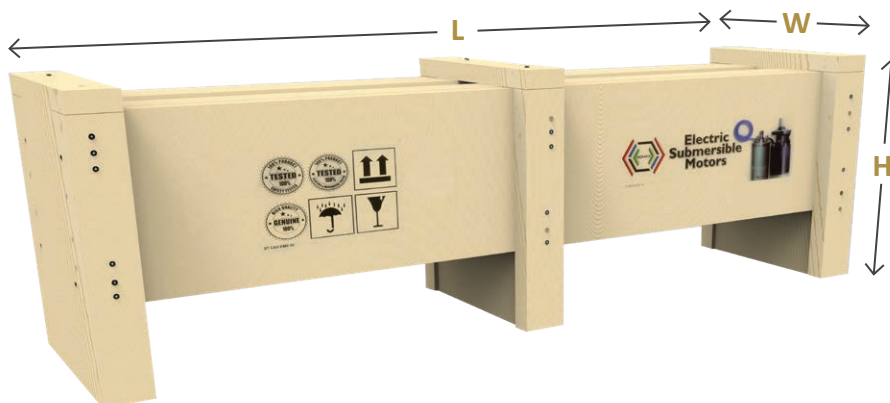
**Size & Dimensions Motor Tail Cable - Three Phase
2 Pole - 380~415 Volt @ 50 Hz - 460 Volt @ 60 Hz**

	Sr: No.	Motor Size		Cable Size Nos. x Cross Section (mm ²)	Dimension B x H (mm)	Cable Length (mtr)	Qty (Nr.)
		HP	kW				
DOL	1	75	56.0	1 x 16	10,3	5	3
	2	100	75.0	1 x 25	11,7	5	3
	3	125 ~ 150	93 ~ 110	1 x 35	12,7	5	3
	4	175 ~ 270	112 ~ 150	1 x 70	17,3	5	3
SD	5	75 ~ 100	56 ~ 75	1 x 10 / 16	6,7 / 10,3	5	6
	6	125	93.0	1 x 16	10,3	5	6
	7	150 ~ 200	110 ~ 150	1 x 25	11,7	5	6
	8	250 ~ 270	186 ~ 150	1 x 35	12,7	5	6

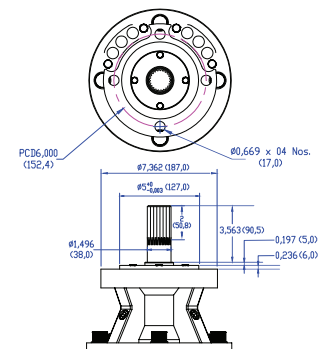
Additional core 1 x 10 mm² 5 meters for earthing.

Motor Dimensions and Weights KM10

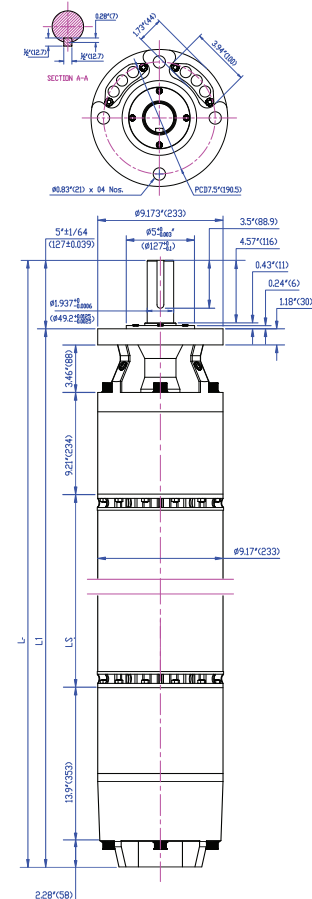
Motor Type	Motor Size		Thrust Load (N)	L Motor Length (mm)	L1 Motor Length (mm)	Packing Dimension W x H x L (mm)	Weight (Kg)	
	HP	kW					Without Packing	With Packing
KM10 075T	75	56	80000	701	1184	356x452x1336	176	198
KM10 100T	100	75	80000	953	1433	356x452x1585	304	332
KM10 125T	125	93	80000	953	1433	356x452x1585	304	332
KM10 150T	150	112	80000	1052	1532	356x452x1684	361	393
KM10 175T	175	130	80000	1252	1732	356x452x1885	451	490
KM10 200T	200	150	80000	1252	1732	356x452x1885	451	490
KM10 250T	250	186	80000	1453	1933	356x452x2085	562	607
KM10 270T	270	200	80000	1552	2032	356x452x2184	613	661



10" x 8" NEMA Spline Shaft



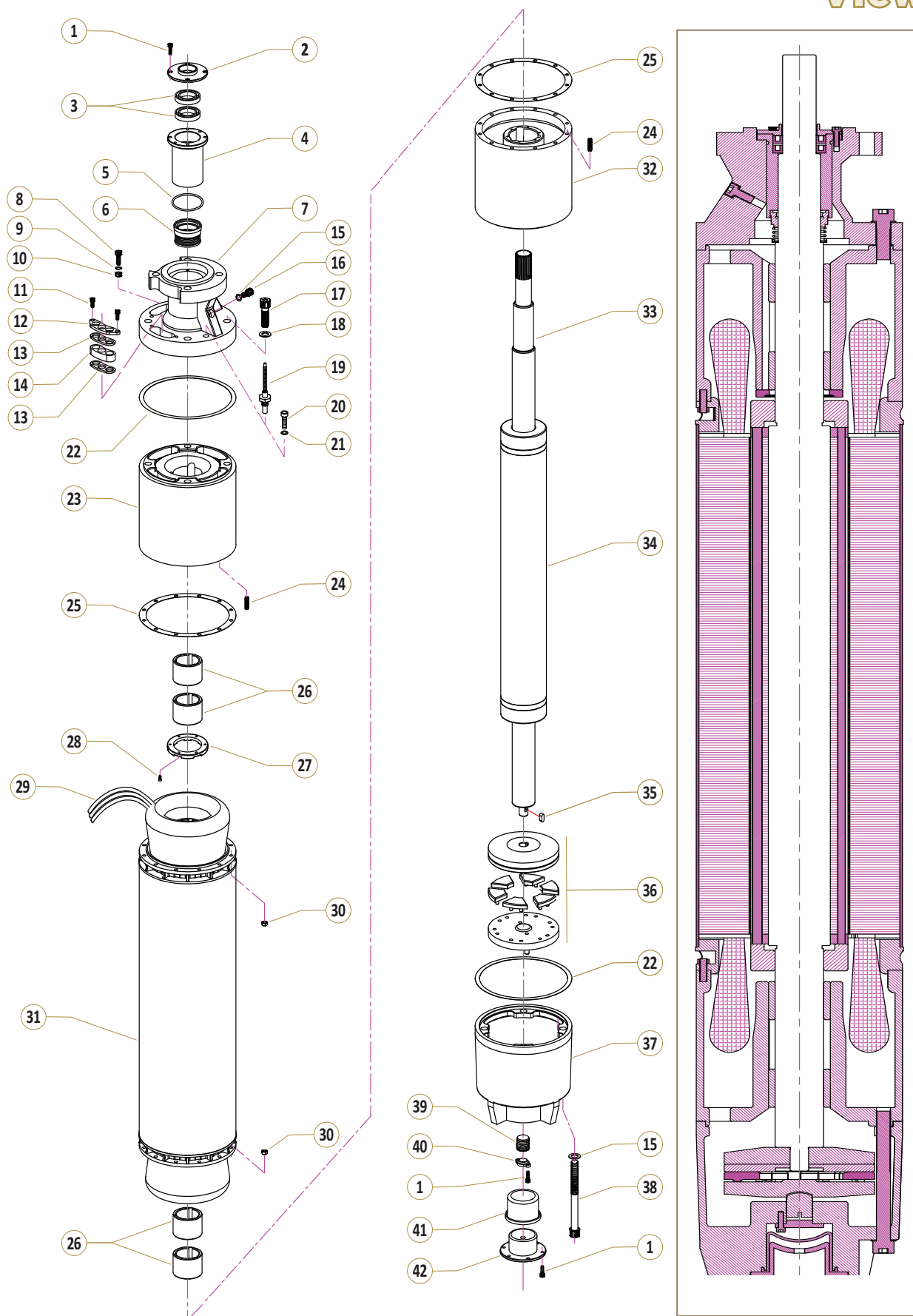
10" x 10" Key way Shaft



All dimensions are in mm

Exploded View

Cross-Sectional View



**Parts LIST** with Material & Quantity

Pos.	Item Code	Part Name	Material	Qty	Unit
1	60161252	Bolt Allen M6 x 20	Stainless Steel	12	Nr
2	60161085	Mechanical Seal Cover	Stainless Steel	1	Nr
3	60161127	Oil Seal 38x60x10	NBR	2	Nr
4	60161125	Bush Seal Support	Cast Iron	1	Nr
5	60161115	O-Ring 65x2,5	NBR	1	Nr
6	60161275	Mechanical Seal Complete	Silicon Tungsten Carbide (WC) + NBR + Stainless Steel	1	Nr
7	60271000	Top Piece / Upper Support Double Flange	Cast Iron	1	Nr
8	60161254	Bolt Allen M8 x 35	Stainless Steel	1	Nr
9	60161263	Spring Washer M8	Stainless Steel	1	Nr
10	60161262	Nut Hex M8	Stainless Steel	1	Nr
11	60161253	Bolt Allen M8 x 25	Stainless Steel	2	Nr
12	60161150	Cable Top Cover Plate	Carbon Steel	2	Nr
13	60271165	Washer nylon	Nylon	2	Nr
14	60271180	Gasket Rubber	NBR	1	Nr
15	60101157	Washer Bonded / Dowty Seal M10	NBR / Stainless Steel	2	Nr
16	60101068	Bolt Allen M10 x 16	Stainless Steel	2	Nr
17	60161255	Bolt Allen M16 x 75	Stainless Steel	4	Nr
18	60161272	Washer Bonded / Dowty Seal M16	NBR / Stainless Steel	8	Nr
19	60101485	PT 100 Sensor	Stainless Steel	1	Nr
20	60161250	Bolt Allen M8x20	Stainless Steel	9	Nr
21	60161267	Washer Bonded / Dowty Seal M8	NBR / Stainless Steel	2	Nr
22	60271150	Gasket Upper & Lower	Tesnit	2	Nr
23	60161080	Upper Bearing Housing	Cast Iron	1	Nr
24	60271170	Setscrew / Stud Bolt M8x35	Stainless Steel	24	Nr
25	60271152	Gasket Stator	Tesnit	2	Nr
26	60271100	Carbon Bush	Carbon	4	Nr
27	60271030	Upper Thrust Bearing	Brass	1	Nr
28	60101142	Screw CSK M4x10	Stainless Steel	6	Nr
29A	601011XX	Cable Tail (1 x 10 / 16 / 25 / 35 / 70 mm ²)	PVC + Copper	48	Ft
29B	60101185	Cable Tail 1 x 10 mm ² (For Earthing)	PVC + Copper	16	Ft
30	60161262	Nut Hex M8	Stainless Steel	24	Nr
31	602712XX	Stator Stack (Assembly)	Silicon Steel (50C800) + S Steel	1	Set
32	60271040	Lower Bearing Housing	Cast Iron	1	Nr
33	602713XX	Motor Shaft	Stainless Steel	1	Nr
34	60271330	Rotor Lamination (Including Shaft + Copper Bars + End Ring)	Silicon Steel (50C800) + Stainless Steel + Copper	1	Set
35	60101145	Key for End Shaft	Stainless Steel	1	Nr
36	60271050	Thrust Bearing Complete	Stainless Steel / Carbon	1	Set
37	60271020	Thrust Support	Cast Iron	1	Nr
38	60271142	Bolt Allen M16x180	Stainless Steel	4	Nr
39	60271140	Adjustment Bolt	Stainless Steel	1	Nr
40	60161010	Lock Washer Adj. Bolt	MS	1	Nr
41	60271130	Diaphragm Rubber	NBR	1	Nr
42	60271135	Diaphragm Support	Cast Iron	1	Nr

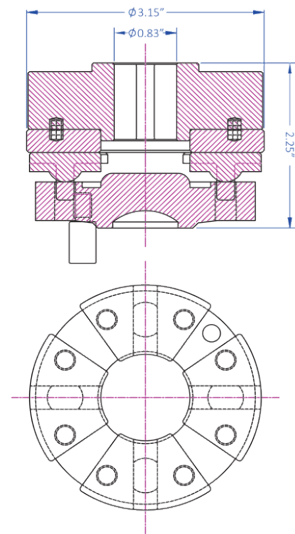
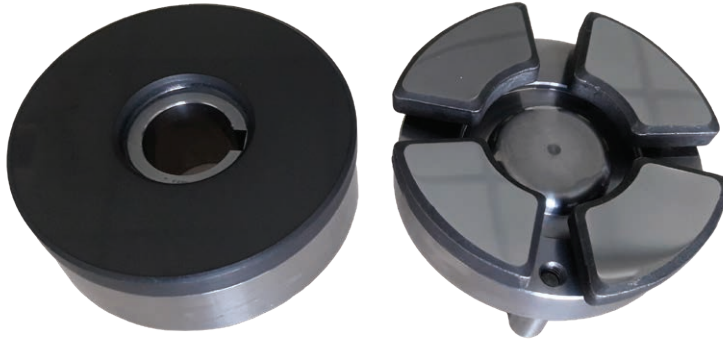
Thrust BEARINGS



4 Segment Thrust Bearing

24000 N / 6000 Lbs

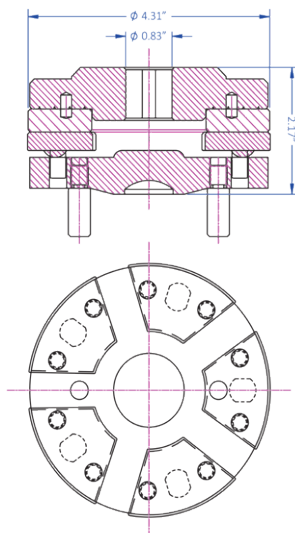
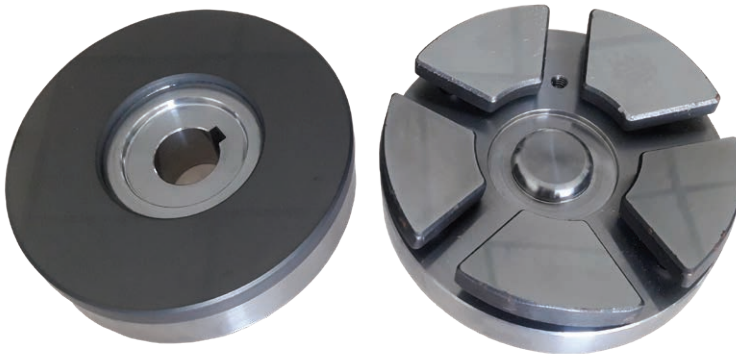
axial load capacity



5 Segment Thrust Bearing

60000 N / 13850 Lbs

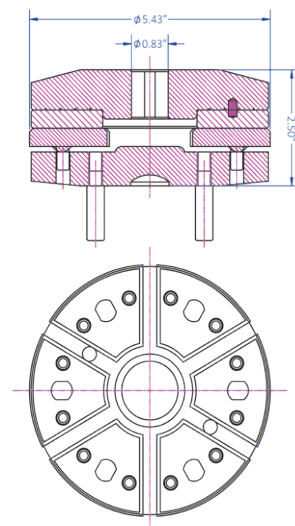
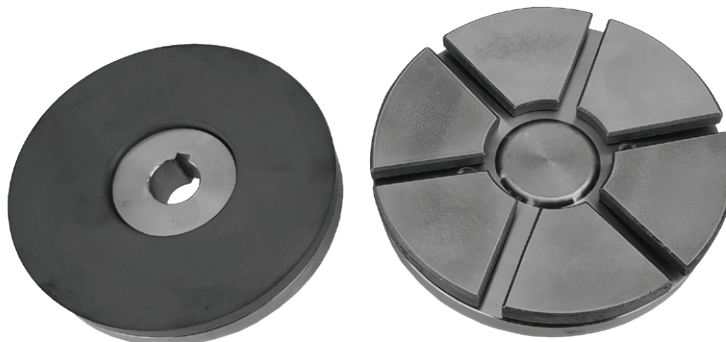
axial load capacity



6 Segment Thrust Bearing

80000 N / 18000 Lbs

axial load capacity





Sensor PT100



PT100 Sensor Features

PT100s (Platinum Resistance Transducers) or RTDs (Resistance Temperature Detectors) are an economical and accurate method of measuring temperature because of the resistance of the PT100 chip changes in direct proportion to the temperature.

Komax standard PT100s are available in 3 wire configurations. The accuracy of the measured temperature increases with the number of wires, i.e. 3 wire units give a more accurate reading than 2 wire units. When PT100s are used with a suitable measuring instrument they will display the actual temperature of the sensor, wherever it is located, with a small accuracy tolerance.

Temperature Range: PT100 -50 °C to +200 °C.

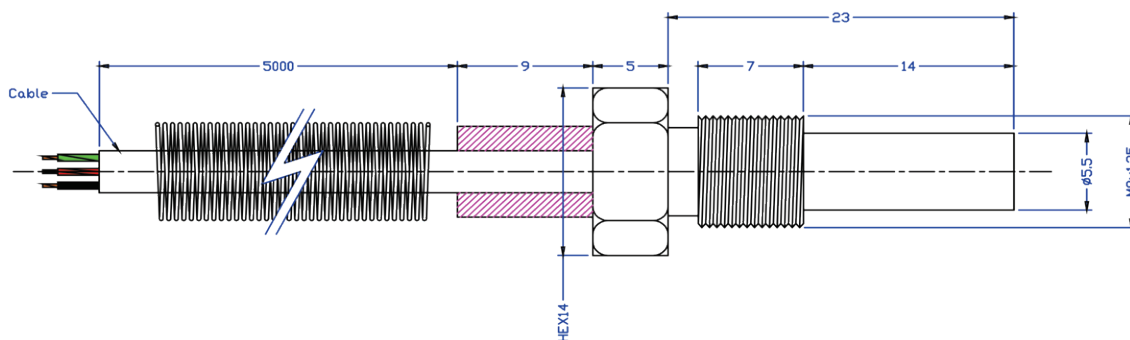
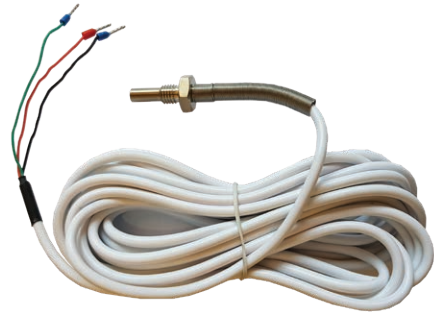
Accuracy Class: Class B

Nominal Resistance: 100 Ohms at 0 °C (The resistance will change by 0.3851 ohms of each 1 °C change in temperature, and the tolerance of a Class B Device is +/- 0.0012 ohms).

Standard Sheath Material: Ceramic with SS304 Cover Tube

Wire Temperature Rating: 250 °C

Recommended Operating Current: 1 m.Amp.



Sensor Cable Specifications

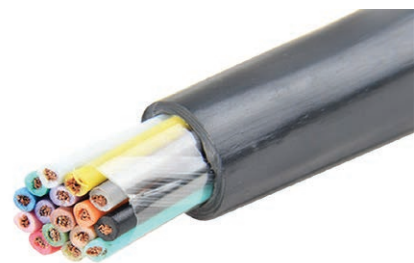
Usage: Multiwire cable specially developed for borehole submersible motor's temperature sensors.

Packing: 328 or 1640 feet coil.

Insulation: PE

Sheath: Standard Grey High Temp PVC (Other materials and colours are available upon request)

Screen: Overall Aluminum/Polyester Laminate.



Nearest AWG	No. of Cores	Conductors Nos./Dia (mm)	Insulation Thickness (mm)	Nominal Wire to Wire Capacitance (pf/m)	Nominal Dia (mm)
24	3	7/0.20 TC	0.3	80	4.7
24	6	7/0.20 TC	0.3	80	5.5
24	12	7/0.20 TC	0.3	80	7.5



Cable Selection CHART

Direct-on-Line Starting

Motor Size		Square Millimeter Wire Size, Copper Wire, Three Wire Cables (Length in Meters)															
HP	kW	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
230V @ 60 Hz	5,5	4		40	65	98	163	261	408	571	816	1143					
	7,5	5,5			50	75	125	201	314	440	629	881	1196				
	10	7,5				56	94	151	236	330	472	660	897	1133			
	15	11					66	106	166	233	333	466	633	800	1000		
	20	15						81	126	177	253	354	481	607	759	937	
	25	18,5							101	142	203	284	386	488	610	752	976
	30	22							85	119	170	238	323	409	511	630	818
380-415V @ 50 Hz / 460V @ 60 Hz	5,5	4	86	144	231	347	579	926	1447								
	7,5	5,5	66	110	176	264	440	704	1100								
	10	7,5		84	135	203	339	543	849	1189							
	12,5	9,3			111	167	279	447	699	979	1399						
	15	11			95	143	239	383	598	838	1197						
	17,5	13				123	205	329	514	720	1028	1440					
	20	15				109	181	291	454	636	909	1273					
	25	18,5					148	237	370	518	741	1037	1408				
	30	22					123	197	307	430	615	861	1169				
	35	26						168	263	368	527	737	1001	1265			
	40	30						143	224	314	449	629	854	1079	1349		
	50	37							179	251	358	502	681	861	1076	1327	
	60	45							150	210	301	421	572	722	903	1114	1445
	70	52								182	261	365	495	626	783	965	1252
	75	56								183	261	366	497	628	785	968	1256
	80	60									248	347	471	595	744	918	1191
	90	67									217	304	412	521	651	803	1042
	100	75									198	277	377	476	595	734	953
	110	82										251	341	431	538	664	862
	125	93										224	304	384	480	593	769
	150	112											256	323	404	498	647
	175	130												275	344	424	550
	200	150													302	372	483
	250	186														293	380
	270	200															355

Cable length calculations are based on voltage drop of 5% and working temperature 60 °C.



Cable Selection CHART

Star-Delta Starting

		Motor Size		Square Millimeter Wire Size, Copper Wire, Three Wire Cables (Length in Meters)														
				1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
230V @ 60 Hz	5,5	4		60	98	147	245	392	612	857	1224							
	7,5	5,5		47	75	113	188	302	471	660	944	1322						
	10	7,5		35	56	84	141	227	354	495	708	990	1346					
	15	11				60	99	159	249	350	500	699	950	1200				
	20	15				45	75	122	189	266	380	531	722	911	1139			
	25	18,5					60	98	152	213	305	426	579	732	915	1128		
	30	22					51	81	128	179	255	357	485	614	767	945	1227	
380-415V @ 50 Hz / 460V @ 60 Hz	5,5	4	129	216	347	521	869	1389										
	7,5	5,5	99	165	264	396	660	1056										
	10	7,5	75	126	203	305	509	815	1274									
	12,5	9,3	62	104	167	251	419	671	1049	1469								
	15	11		89	143	215	359	575	897	1257								
	17,5	13			123	185	308	494	771	1080								
	20	15			108	164	272	437	681	954	1364							
	25	18,5				132	222	356	555	777	1112							
	30	22				110	185	296	461	645	923	1292						
	35	26					158	252	395	552	791	1106						
	40	30					134	215	336	471	674	944	1281					
	50	37						171	269	377	537	753	1022	1292				
	60	45						144	225	315	452	632	858	1083	1355			
	70	52							195	273	392	548	743	939	1175	1448		
	75	56							195	275	392	549	746	942	1178	1452		
	80	60							186	260	372	521	707	893	1116	1377		
	90	67							162	228	326	456	618	782	977	1205		
	100	75								207	297	416	566	714	893	1101	1430	
	110	82								188	269	377	512	647	807	996	1293	
	125	93									240	336	456	576	720	890	1154	1442
	150	112									201	282	384	485	606	747	971	1214
	175	130										240	327	413	516	636	825	1032
	200	150											287	362	453	558	725	906
	250	186												285	356	440	570	713
	270	200													333	411	533	666

Cable length calculations are based on voltage drop of 5% and working temperature 60 °C.



Blank lined area for notes or specifications.

Komax Pumps Range



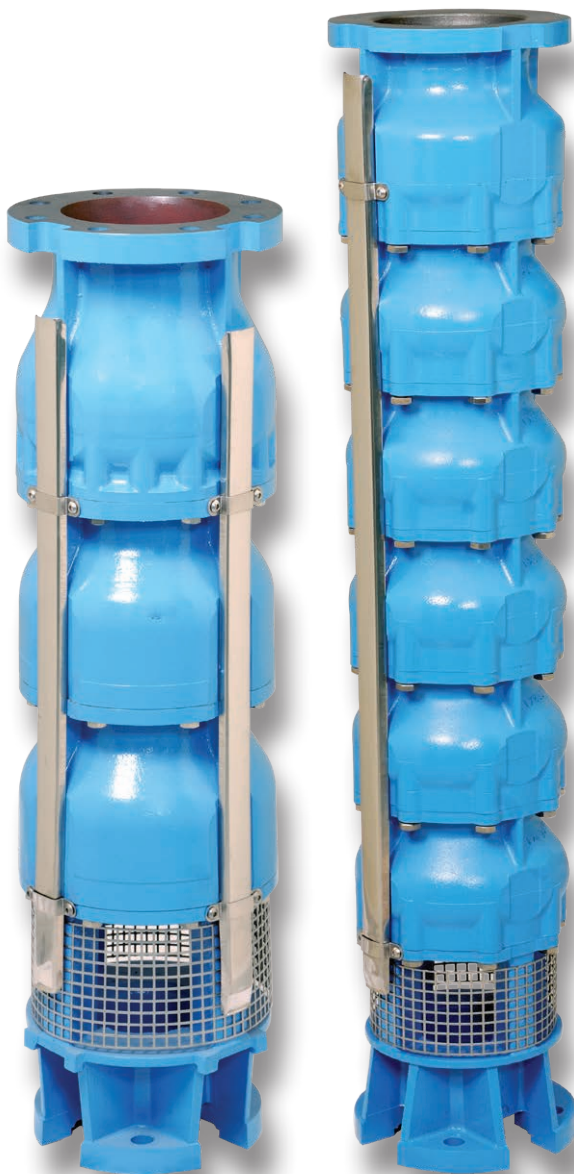
Stainless Steel Pumps Range

- KPS5 > 5" Submersible Pumps
- KPS6 > 6" Submersible Pumps
- KPS8 > 8" Submersible Pumps
- KPS10 > 10" Submersible Pumps



Cast Iron Pumps Range

- FX8 > 8" Submersible Pumps
- FX10 > 10" Submersible Pumps
- FX12 > 12" Submersible Pumps





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