Water Cooled Rewindable Series

2-Pole, 50/60 Hz

Certified to NSF/ANSI/CAN 61

KOMAX

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.

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: 50 HP (37 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

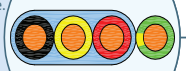
Construction Material
Cast Iron with Stainless Steel Cover

info@komaxmotor.com

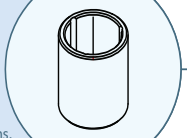
X-Sectional View with Specification

KM6 Single Flange

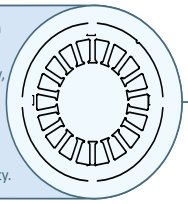
- 3 meter long Tail Cable with Red, Black, Yellow colored wires, and a Green-Yellow colored ground wire.
- Pure Copper with a high-grade rubber sheath.
- Robust Sealing ensures safe and reliable operation.



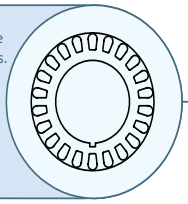
- The upper portion with carbon bushes gives greater stability and vibration-free operation of the motor.
- Avoid damage to motor internal parts even in the worst pump malfunction / damaged conditions.



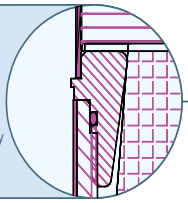
- Stator made of high-grade silicon steel sheet.
- Low core losses, higher efficiency, lower ampere consumption and lower heat generation.
- Low-quality motors use ordinary steel sheets to save cost, hence sacrificing efficiency and reliability.



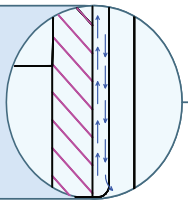
- The rotor is made of a high-grade silicon steel sheet with low losses.
- Pure copper bar inserted in rotor slots.
- High efficiency and longer service life.



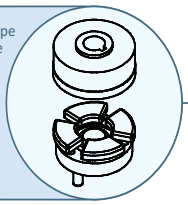
- Stator upper and lower ends are welded with threaded flange.
- Allows more dimensional accuracy due to independent machine-ability.
- Provide better structural integrity serviceability and vibration-free operation.

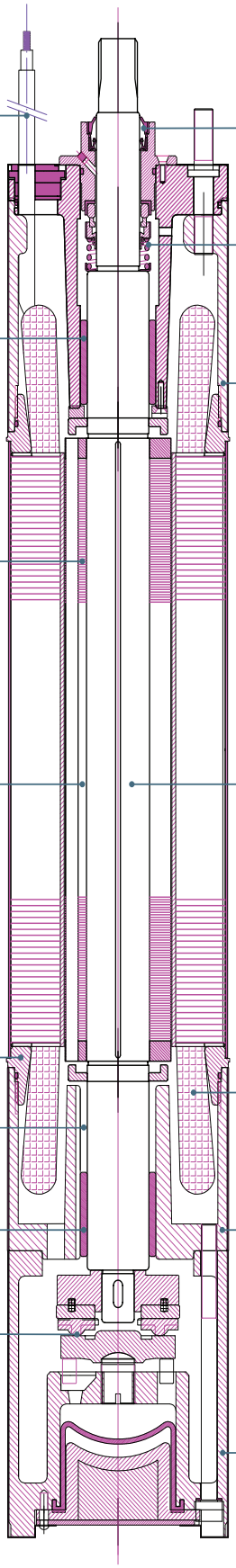


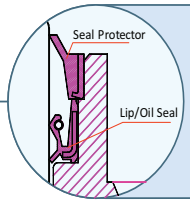
- The lower portion with carbon bushes gives greater stability and vibration-free operation of the motor.
- With water passage all along for better lubrication and heat dissipation.



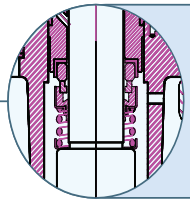
- Robust and overrated Mitchell type thrust sliding block bearing made of high-grade material (Stainless Steel 400 Series) with the finest workmanship.
- Water lubricated, low friction and highly durable.
- Thrust load capacity 26600 N.



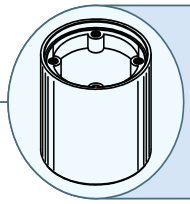




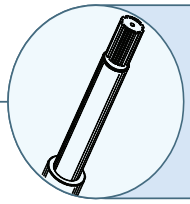
- Komax Sealing has 3 layers of Protection.
- Seal Protector resists sand, clay and mud against entering to Seal Support, while remaining intact at 3500 RPM.
- Lip/Oil Seal resist fine sand against entering to Mechanical Seal.
- And finally, Mechanical Seal - Sealing it perfectly.



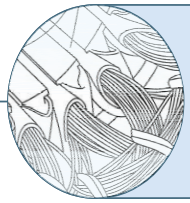
- High grade spring-loaded Mechanical Seal made of Silicon Carbide.
- Ensures perfect sealing in extreme working conditions.
- Highly resistive to fine and coarse sand particles, thus ensuring safe operation in sandy wells.



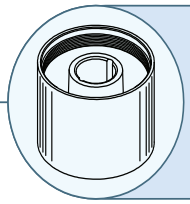
- Upper socket made of cast iron grade GG25 having a wall thickness of 8 mm and further covered SS 304 sheet, thus giving strength and surface protection at the same time.
- 100% leak-proof and explosion-proof.
- Better structural integrity.



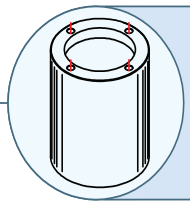
- High grade SS431 stainless steel shaft hardened to 40 HRC.
- Integral / single-piece design ensures better stiffness and dimensional accuracy.
- Fully machined and grinded throughout the length.



- Pure copper winding wire with BOPP+BOPET Insulation for higher temperature and better insulation as compared to PE//PA insulation.
- Mechanized coil insertion to maintain quality and precision.
- Oversized wire gauge to ensure longer service life and higher efficiency.



- Lower socket made of cast iron grade GG25 having a wall thickness of 8mm and further covered SS304 sheet, thus giving strength and surface protection at the same time.
- 100% leak-proof and explosion-proof.
- Better structural integrity.



- Robust and over-designed lower support covered with stainless steel sheet gives a stable foundation to the motor.
- More space to easily accommodate larger thrust bearings.
- More space allows more coolant water for better heat dissipation.

KM6 SF

SINGLE FLANGE 6-INCH SERIES

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
20	max. starts per hour
Rotation	CCW facing shaft end
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 431 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, available with an axial load capacity of 26600 N.

Mechanical Seal with Lip/Oil Seal:
Tungsten 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.

info@komaxmotor.com

Electrical DATA - 50 Hz

Electrical Data - Three Phase - 2 Pole - 380 ~ 415 Volt @ 50 Hz

380 - 415V @ 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	
KM6 055T	5,5	4	2815	10,0	50	73,3	76,0	75,6	0,61	0,72	0,79	1
KM6 075T	7,5	5,5	2810	13,2	57	73,2	76,7	76,4	0,60	0,73	0,80	1
KM6 100T	10	7,5	2830	16,9	70	75,8	78,6	78,3	0,61	0,74	0,81	1
KM6 125T	12,5	9,3	2840	20,8	84	78,2	80,9	80,2	0,60	0,73	0,81	1
KM6 150T	15	11	2830	24,5	100	78,6	81,3	80,8	0,61	0,74	0,82	1
KM6 175T	17,5	13	2845	28,4	131	80,4	82,4	81,4	0,61	0,74	0,81	1
KM6 200T	20	15	2840	32,2	151	81,0	82,8	81,3	0,62	0,75	0,82	1
KM6 250T	25	18,5	2845	39,4	177	82,9	83,7	83,2	0,62	0,75	0,82	1
KM6 300T	30	22	2835	47,4	232	82,0	83,9	83,3	0,62	0,75	0,82	1
KM6 350T	35	26	2855	56,0	297	84,1	85,4	84,4	0,59	0,72	0,80	1
KM6 400T	40	30	2850	63,9	342	84,1	85,2	84,2	0,59	0,72	0,80	1
KM6 500T	50	37	2820	80,2	433	83,8	84,1	82,7	0,61	0,74	0,81	1

Electrical DATA - 60 Hz

Electrical Data - Three Phase - 2 Pole - 230 Volts @ 60 Hz

230V @ 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	
KM6 055T	5,5	4,0	3455	18	19,9	98	73,8	76,7	77,3	0,52	0,65	0,74	1,15
KM6 075T	7,5	5,5	3450	23.7	26,3	111	74,8	78,3	78,8	0,53	0,66	0,75	1,15
KM6 100T	10	7,5	3460	31,0	34,3	140	76,0	79,1	79,8	0,54	0,67	0,76	1,15
KM6 125T	12,5	9,3	3465	37,5	42,1	167	77,5	80,2	80,9	0,57	0,70	0,77	1,15
KM6 150T	15	11	3460	44,7	50,2	202	77,3	79,8	80,7	0,58	0,70	0,78	1,15
KM6 175T	17,5	13,0	3465	50,7	56,7	255	79,5	83,1	83,0	0,57	0,69	0,78	1,15
KM6 200T	20	15	3460	57,6	64,6	298	79,9	82,9	82,7	0,57	0,70	0,79	1,15
KM6 250T	25	18,5	3460	71,0	79,5	351	81,0	83,9	83,3	0,59	0,71	0,79	1,15
KM6 300T	30	22	3470	84,1	94,3	453	81,6	83,4	83,7	0,60	0,73	0,80	1.15

Electrical DATA - 60 Hz

Electrical Data - Three Phase - 2 Pole - 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	
380V @ 60 Hz	KM6 055T	5,5	4,0	3445	10,6	11,9	60	70,3	74,5	75,3	0,60	0,71	0,78	1,15
	KM6 075T	7,5	5,5	3440	14,0	15,5	67	71,2	75,1	76,3	0,59	0,72	0,80	1,15
	KM6 100T	10	7,5	3450	18,0	20,3	84	74,2	79,3	78,8	0,59	0,72	0,80	1,15
	KM6 125T	12,5	9,3	3460	21,8	24,6	99	78,3	81,1	81,3	0,61	0,73	0,80	1,15
	KM6 150T	15	11	3450	26,0	29,3	120	77,9	80,8	81,1	0,61	0,73	0,81	1,15
	KM6 175T	17,5	13,0	3455	29,7	33,3	153	79,1	82,0	82,0	0,62	0,74	0,81	1,15
	KM6 200T	20	15	3450	33,8	38,2	180	79,4	82,0	81,7	0,63	0,75	0,82	1,15
	KM6 250T	25	18,5	3450	41,8	47,1	212	81,0	83,5	83,4	0,62	0,75	0,81	1,15
	KM6 300T	30	22	3460	50,3	56.5	277	82,4	83,8	84,2	0,62	0,75	0,80	1,15
	KM6 350T	35	26	3465	58,0	65,2	346	83,3	85,4	85,8	0,60	0,72	0,80	1,15
	KM6 400T	40	30	3460	65,8	74,4	398	83,7	85,5	85,7	0,60	0,73	0,80	1,15
	KM6 500T	50	37	3440	83,2	94,0	508	83,5	84,8	83,8	0,61	0,74	0,81	1,15
460V @ 60 Hz	KM6 055T	5,5	4,0	3445	8,8	9,9	50	70,5	74,7	75,4	0,59	0,71	0,77	1,15
	KM6 075T	7,5	5,5	3440	11,7	13,1	56	71,4	75,2	76,4	0,60	0,72	0,79	1,15
	KM6 100T	10	7,5	3450	15,1	17,0	71	74,5	79,5	78,9	0,58	0,71	0,79	1,15
	KM6 125T	12,5	9,3	3460	18,2	20,5	83	78,5	81,2	81,4	0,60	0,72	0,79	1,15
	KM6 150T	15	11	3450	21,7	24,5	100	78,1	81,0	81,2	0,60	0,72	0,80	1,15
	KM6 175T	17,5	13,0	3455	24,9	27,9	128	79,3	82,2	82,1	0,61	0,73	0,80	1,15
	KM6 200T	20	15	3450	28,2	31,9	150	79,6	82,2	81,8	0,62	0,74	0,81	1,15
	KM6 250T	25	18,5	3450	34,9	39,3	177	81,2	83,7	83,4	0,62	0,74	0,80	1,15
	KM6 300T	30	22	3460	42,0	47,2	231	82,6	84,0	84,4	0,61	0,74	0,79	1,15
	KM6 350T	35	26	3465	48,5	54,6	289	83,5	85,6	85,9	0,59	0,71	0,79	1,15
	KM6 400T	40	30	3460	55,1	62,2	333	83,9	85,7	85,8	0,59	0,72	0,79	1,15
	KM6 500T	50	37	3440	69,7	78,9	426	83,7	85,0	83,9	0,60	0,73	0,80	1,15

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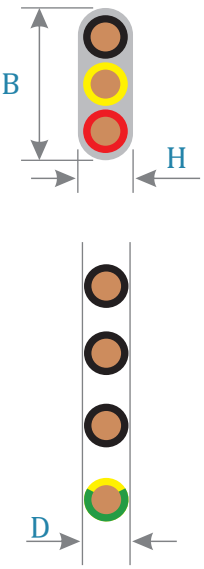
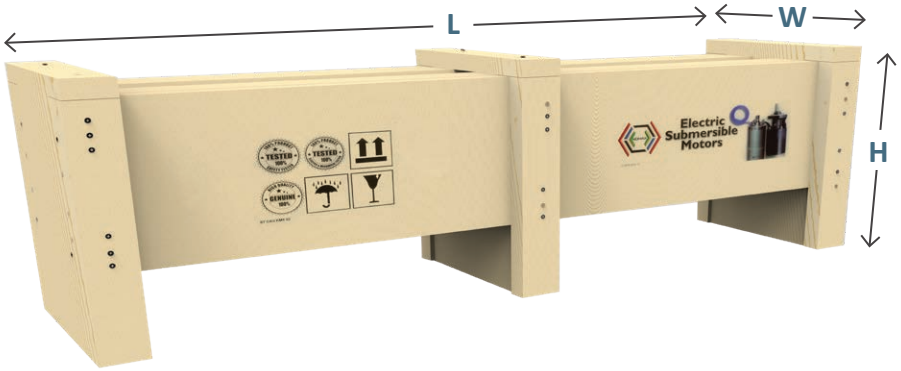
Technical DATA

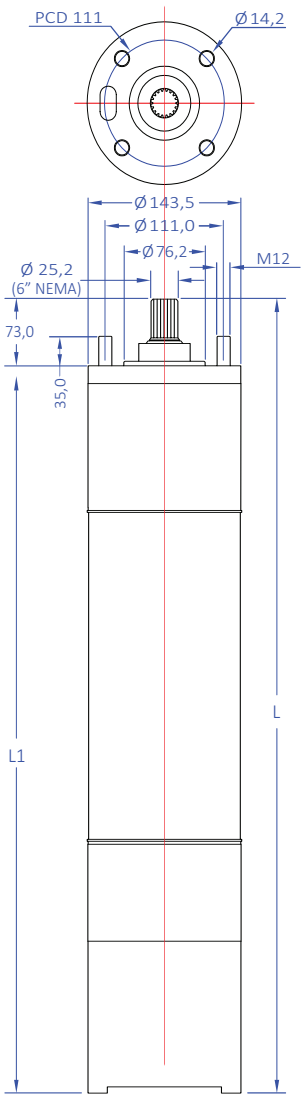
	Sr: No.	Volts	Motor Size HP	Motor Size kW	Cable Size Nos. x Cross Section (mm2)	Dimension B x H (mm)	Cable Length (mtr)	Qty (Nr.)
DOL	1	230	5,5 ~ 15	4 ~ 11	3 x 6 1 x 10	19 x 8 D = 6,7	3 3	1 1
	2	380 ~ 415	5,5 ~ 30	4 ~ 22				
	3	460	5,5 ~ 30	4 ~ 22				
	4	230	20 ~ 30	15 ~ 22	3 x 10 1 x 10	24 x 9 D = 6,7	3 3	1 1
	5	380 ~ 415	35 ~ 50	26 ~ 37				
	6	460	35 ~ 50	26 ~ 37				
SD	7	230	5,5 ~ 30	4 ~ 22	3 x 6 1 x 10	19 x 8 D = 6,7	3 3	2 1
	8	380 ~ 415	5,5 ~ 50	4 ~ 37				
	9	460	5,5 ~ 50	4 ~ 37				



Motor Dimensions and Weights KM6 Single Flange

Motor Type	Motor Size HP	Motor Size kW	Thrust Load (N)	L Motor Length (mm)	L1 Motor Length (mm)	Packing Dimension W x H x L (mm)	Weight (Kg) Without Packing	Weight (Kg) With Packing
KM6 055T	5,5	4,0	26600	718	645	245 x 330 x 845	52	62
KM6 075T	7,5	5,5	26600	718	645	245 x 330 x 845	52	62
KM6 100T	10	7,5	26600	768	695	245 x 330 x 845	56	66
KM6 125T	12,5	9,3	26600	853	780	245 x 330 x 1010	66	76
KM6 150T	15	11	26600	853	780	245 x 330 x 1010	66	76
KM6 175T	17,5	13,0	26600	943	870	245 x 330 x 1010	75	86
KM6 200T	20	15	26600	943	870	245 x 330 x 1010	75	86
KM6 250T	25	18,5	26600	1033	960	245 x 330 x 1212	86	97
KM6 300T	30	22	26600	1118	1045	245 x 330 x 1212	95	106
KM6 350T	35	26	26600	1213	1140	245 x 330 x 1352	104	116
KM6 400T	40	30	26600	1253	1180	245 x 330 x 1352	109	122
KM6 500T	50	37	26600	1253	1180	245 x 330 x 1352	109	122





All dimensions are in mm

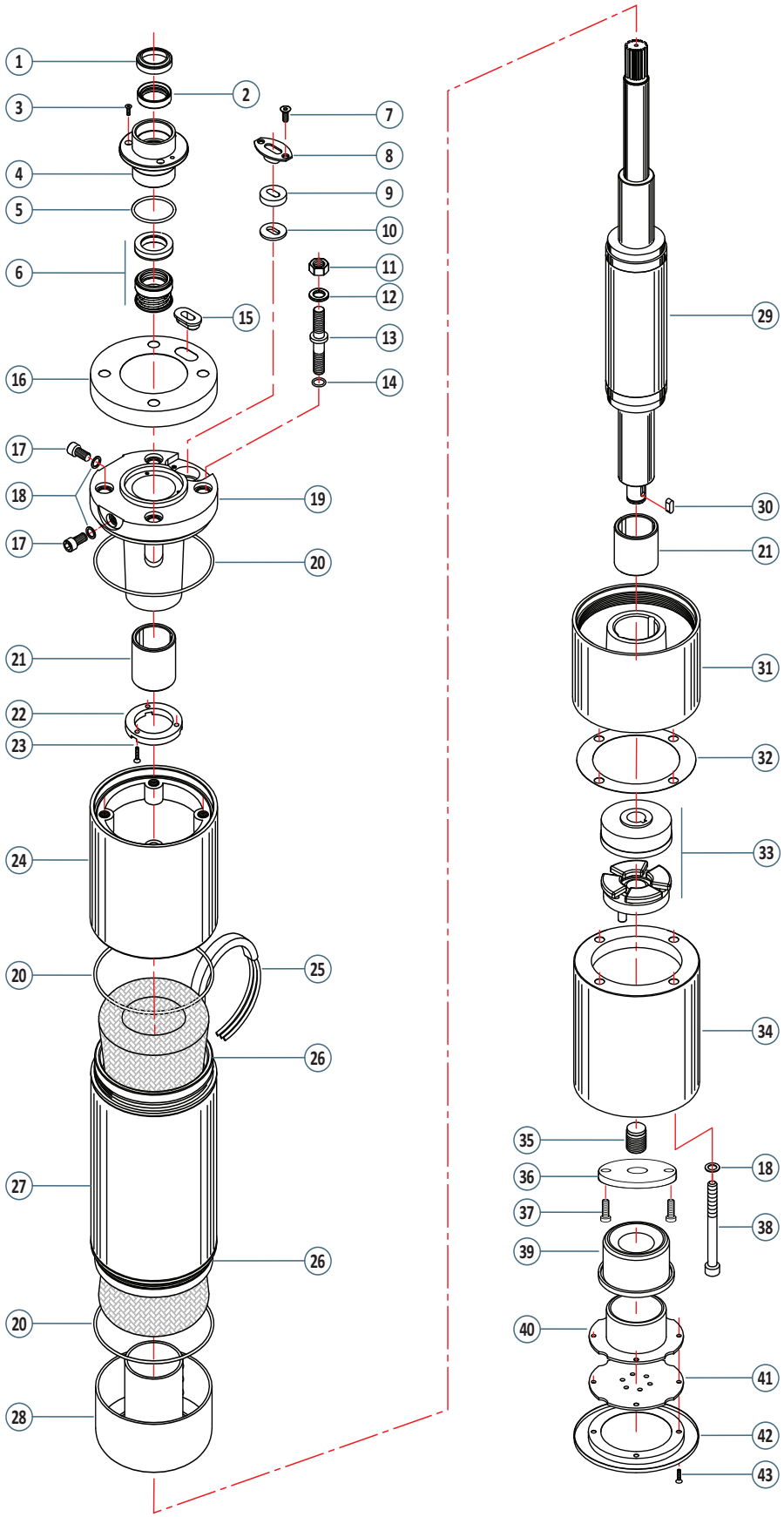
KM6 SF

SINGLE FLANGE 6-INCH SERIES

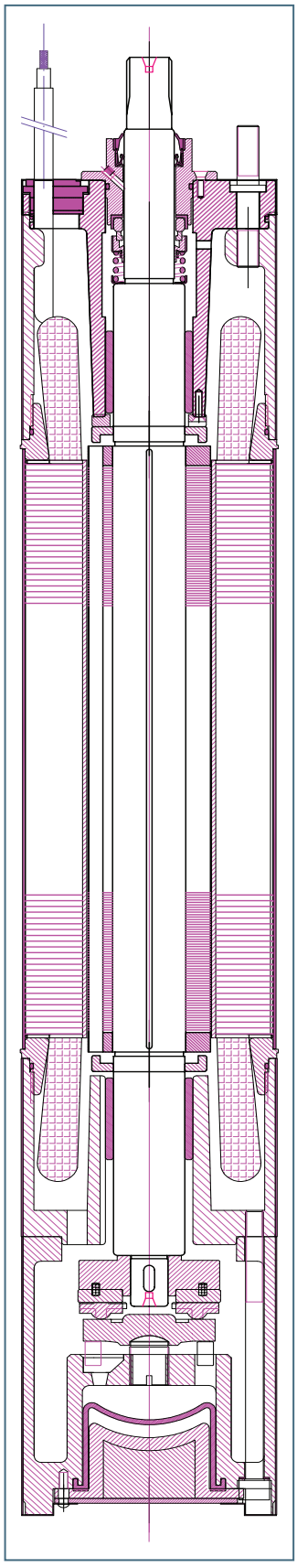
KM6 SF

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	Tungsten Carbide + NBR + Stainless 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 AISI 316	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 AISI 316	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 + Rubber	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	Stainless Steel	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: 75 HP (55 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

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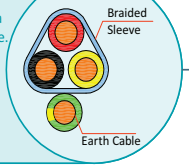
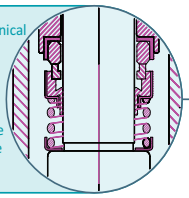
X-Sectional View with Specification

KM6 Double Flange

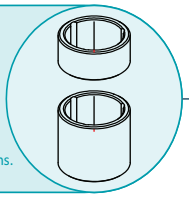
- 4 meter long Tail Cable with Red, Black, Yellow colored wires, and a Green-Yellow colored ground wire.
- Heat shrinkable braided sleeve - Protects the Cable during installation.
- Robust Sealing ensures safe and reliable operation.



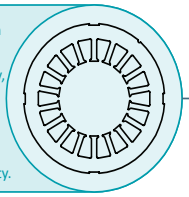
- High grade spring-loaded Mechanical Seal made of Tungsten Carbide.
- Ensures perfect sealing in extreme working conditions.
- Highly resistive to fine and coarse sand particles, thus ensuring safe operation in sandy wells.



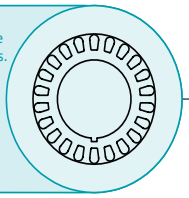
- The upper portion with double carbon bushes gives greater stability and vibration-free operation of the motor.
- Avoid damage to motor internal parts even in the worst pump malfunction / damaged conditions.



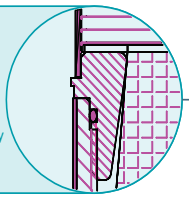
- Stator made of high-grade silicon steel sheet.
- Low core losses, higher efficiency, lower ampere consumption and lower heat generation.
- Low-quality motors use ordinary steel sheets to save cost, hence sacrificing efficiency and reliability.



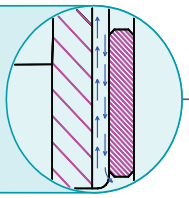
- The rotor is made of a high-grade silicon steel sheet with low losses.
- Pure copper bar inserted in rotor slots.
- High efficiency and longer service life.



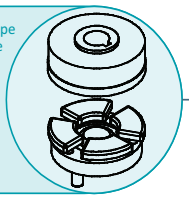
- Stator upper and lower ends are welded with threaded flange.
- Allows more dimensional accuracy due to independent machine-ability.
- Provide better structural integrity serviceability and vibration-free operation.

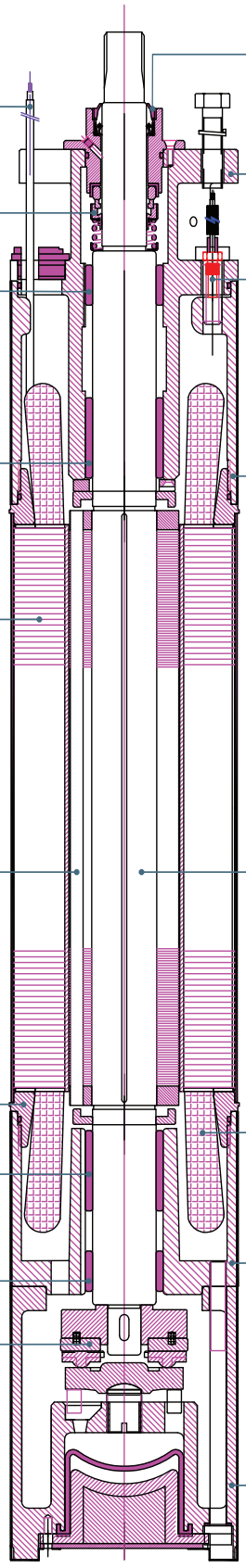


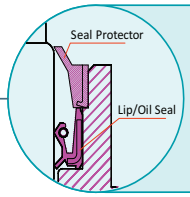
- The lower portion with double carbon bushes gives greater stability and vibration-free operation of the motor.
- With water passage all along for better lubrication and heat dissipation.



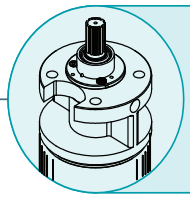
- Robust and overrated Mitchell type thrust sliding block bearing made of high-grade material (Stainless Steel 400 Series) with the finest workmanship.
- Water lubricated, low friction and highly durable.
- Thrust load capacity from 26600 N to 61600 N.



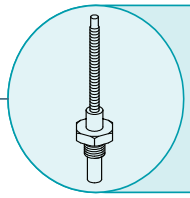




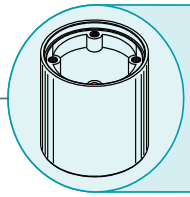
- Komax Sealing has 3 layers of Protection.
- Seal Protector resists sand, clay and mud against entering to Seal Support, while remaining intact at 3500 RPM.
- Lip/Oil Seal resist fine sand against entering to Mechanical Seal.
- And finally, Mechanical Seal - Sealing it perfectly.



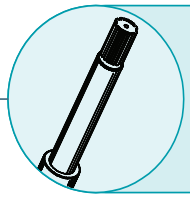
- Two flange top design with pump connection holes tapped ½" - 20UNF-2B with Stainless Steel Hex Bolt 1 ½" long, along with spring washer.
- More secure pump connection.
- Allows greater service flexibility versus stud-type design.



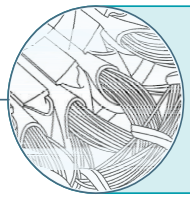
- Provision for installation of PT100 temperature sensor for real-time motor temperature monitoring and control.
- Added protection in special application conditions.



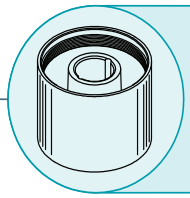
- Upper socket made of cast iron grade GG25 having a wall thickness of 8 mm and further covered SS 304 sheet, thus giving strength and surface protection at the same time.
- 100% leak-proof and explosion-proof.
- Better structural integrity.



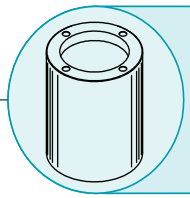
- High grade SS431 stainless steel shaft hardened to 40 HRC.
- Integral / single-piece design ensures better stiffness and dimensional accuracy.
- Fully machined and grinded throughout the length.



- Pure copper winding wire with BOPP+BOPET Insulation for higher temperature and better insulation as compared to PE//PA insulation.
- Mechanized coil insertion to maintain quality and precision.
- Oversized wire gauge to ensure longer service life and higher efficiency.



- Lower socket made of cast iron grade GG25 having a wall thickness of 8mm and further covered SS304 sheet, thus giving strength and surface protection at the same time.
- 100% leak-proof and explosion-proof.
- Better structural integrity.



- Robust and over-designed lower support covered with stainless steel sheet gives a stable foundation to the motor.
- More space to easily accommodate larger thrust bearings.
- More space allows more coolant water for better heat dissipation.

KM6 DF

DOUBLE FLANGE 6-INCH SERIES

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
20	max. starts per hour
Rotation	CCW facing shaft end
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 431 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 26600 N (upto 50 HP) and 61600 N (60 to 75 HP).

Seal Configuration:
Komax offers a triple seal configuration that consists of two outer back to back lip seals in NBR with an inner 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.

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Electrical DATA - 50 Hz

Electrical Data - Three Phase - 2 Pole - 380 ~ 415 Volt @ 50 Hz

380 - 415V @ 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	
KM6 055T	5,5	4	2815	10,0	50	73,3	76,0	75,6	0,61	0,72	0,79	1
KM6 075T	7,5	5,5	2810	13,2	57	73,2	76,7	76,4	0,60	0,73	0,80	1
KM6 100T	10	7,5	2830	16,9	70	75,8	78,6	78,3	0,61	0,74	0,81	1
KM6 125T	12,5	9,3	2840	20,8	84	78,2	80,9	80,2	0,60	0,73	0,81	1
KM6 150T	15	11	2830	24,5	100	78,6	81,3	80,8	0,61	0,74	0,82	1
KM6 175T	17,5	13	2845	28,4	131	80,4	82,4	81,4	0,61	0,74	0,81	1
KM6 200T	20	15	2840	32,2	151	81,0	82,8	81,3	0,62	0,75	0,82	1
KM6 250T	25	18,5	2845	39,4	177	82,9	83,7	83,2	0,62	0,75	0,82	1
KM6 300T	30	22	2835	47,4	232	82,0	83,9	83,3	0,62	0,75	0,82	1
KM6 350T	35	26	2855	56,0	297	84,1	85,4	84,4	0,59	0,72	0,80	1
KM6 400T	40	30	2850	63,9	342	84,1	85,2	84,2	0,59	0,72	0,80	1
KM6 500T	50	37	2820	80,2	433	83,8	84,1	82,7	0,61	0,74	0,81	1
KM6 600T	60	45	2780	96,7	527	83,9	83,1	81,2	0,62	0,76	0,82	1
KM6 700T	70	52	2780	113,0	621	83,1	82,6	80,7	0,63	0,76	0,83	1
KM6 750T	75	55	2785	122,0	683	83,4	82,9	80,6	0,62	0,75	0,82	1

Electrical DATA - 60 Hz

Electrical Data - Three Phase - 2 Pole - 230 Volts @ 60 Hz

230V @ 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	
KM6 055T	5,5	4,0	3455	18,0	19,9	98	73,8	76,7	77,3	0,52	0,65	0,74	1,15
KM6 075T	7,5	5,5	3450	23,7	26,3	111	74,8	78,3	78,8	0,53	0,66	0,75	1,15
KM6 100T	10	7,5	3460	31,0	34,3	140	76,0	79,1	79,8	0,54	0,67	0,76	1,15
KM6 125T	12,5	9,3	3465	37,5	42,1	167	77,5	80,2	80,9	0,57	0,70	0,77	1,15
KM6 150T	15	11	3460	44,7	50,2	202	77,3	79,8	80,7	0,58	0,70	0,78	1,15
KM6 175T	17,5	13,0	3465	50,7	56,7	255	79,5	83,1	83,0	0,57	0,69	0,78	1,15
KM6 200T	20	15	3460	57,6	64,6	298	79,9	82,9	82,7	0,57	0,70	0,79	1,15
KM6 250T	25	18,5	3460	71,0	79,5	351	81,0	83,9	83,3	0,59	0,71	0,79	1,15
KM6 300T	30	22	3470	84,1	94,3	453	81,6	83,4	83,7	0,60	0,73	0,80	1.15

Electrical DATA - 60 Hz

Electrical Data - Three Phase - 2 Pole - 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	
380V @ 60 Hz	KM6 055T	5,5	4,0	3445	10,6	11,9	60	70,3	74,5	75,3	0,60	0,71	0,78	1,15
	KM6 075T	7,5	5,5	3440	14,0	15,5	67	71,2	75,1	76,3	0,59	0,72	0,80	1,15
	KM6 100T	10	7,5	3450	18,0	20,3	84	74,2	79,3	78,8	0,59	0,72	0,80	1,15
	KM6 125T	12,5	9,3	3460	21,8	24,6	99	78,5	81,2	81,4	0,60	0,72	0,79	1,15
	KM6 150T	15	11	3450	26,0	29,3	120	77,9	80,8	81,1	0,61	0,73	0,81	1,15
	KM6 175T	17,5	13,0	3455	29,7	33,3	153	79,3	82,2	82,1	0,61	0,73	0,80	1,15
	KM6 200T	20	15	3450	33,8	38,2	180	79,4	82,0	81,7	0,63	0,75	0,82	1,15
	KM6 250T	25	18,5	3450	41,8	47,1	212	81,0	83,5	83,4	0,62	0,75	0,81	1,15
	KM6 300T	30	22	3460	50,3	56.5	277	82,4	83,8	84,2	0,62	0,75	0,80	1,15
	KM6 350T	35	26	3465	58,0	65,2	346	83,3	85,4	85,8	0,60	0,72	0,80	1,15
	KM6 400T	40	30	3460	65,8	74,4	398	83,7	85,5	85,7	0,60	0,73	0,80	1,15
	KM6 500T	50	37	3440	83,2	94,0	508	83,5	84,8	83,8	0,61	0,74	0,81	1,15
460V @ 60 Hz	KM6 055T	5,5	4,0	3445	8,8	9,9	50	70,5	74,7	75,4	0,59	0,71	0,77	1,15
	KM6 075T	7,5	5,5	3440	11,7	13,1	56	71,4	75,2	76,4	0,60	0,72	0,79	1,15
	KM6 100T	10	7,5	3450	15,1	17,0	71	74,5	79,5	78,9	0,58	0,71	0,79	1,15
	KM6 125T	12,5	9,3	3460	18,2	20,5	83	78,5	81,2	81,4	0,60	0,72	0,79	1,15
	KM6 150T	15	11	3450	21,7	24,5	100	78,1	81,0	81,2	0,60	0,72	0,80	1,15
	KM6 175T	17,5	13,0	3455	24,9	27,9	128	79,3	82,2	82,1	0,61	0,73	0,80	1,15
	KM6 200T	20	15	3450	28,2	31,9	150	79,6	82,2	81,8	0,62	0,74	0,81	1,15
	KM6 250T	25	18,5	3450	34,8	39,3	177	81,2	83,7	83,6	0,62	0,74	0,80	1,15
	KM6 300T	30	22	3460	42,0	47,2	231	82,6	84,0	84,4	0,61	0,74	0,79	1,15
	KM6 350T	35	26	3465	48,5	54,6	289	83,5	85,6	85,9	0,59	0,71	0,79	1,15
	KM6 400T	40	30	3460	55,1	62,2	333	83,9	85,7	85,8	0,59	0,72	0,79	1,15
	KM6 500T	50	37	3440	69,7	78,9	426	83,7	85,0	83,9	0,60	0,73	0,80	1,15
	KM6 600T	60	45	3420	83,1	94,9	517	84,4	84,9	83,2	0,62	0,74	0,81	1,15
	KM6 700T	70	52	3420	95,9	109,9	604	84,1	85,2	83,3	0,63	0,76	0,82	1,15
	KM6 750T	75	55	3415	102,6	116,3	651	85,3	86,0	84,3	0,61	0,74	0,81	1,15

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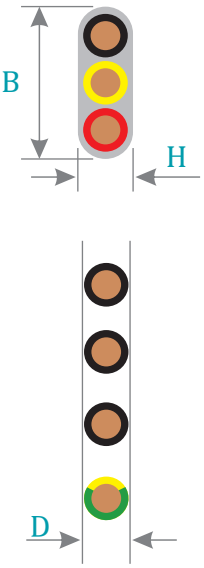
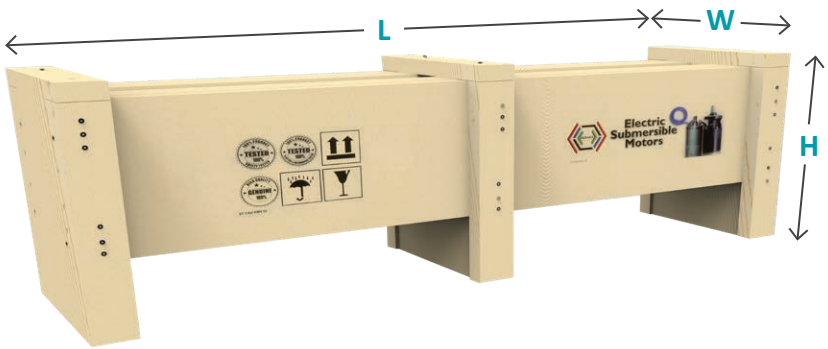
Technical DATA

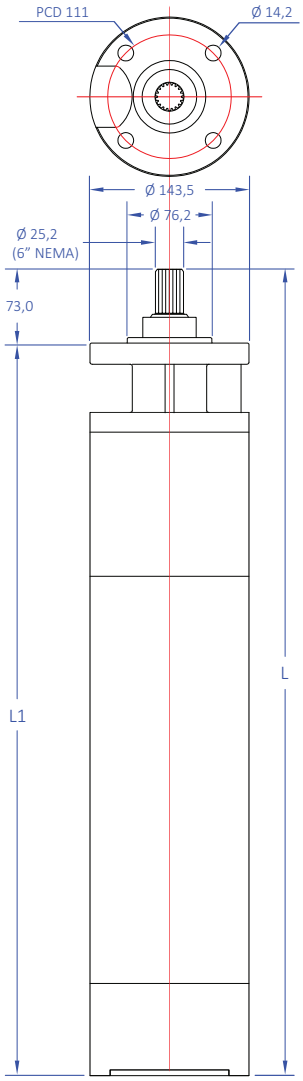
	Size & Dimensions Motor Tail Cable - Three Phase - 50 Hz / 60 Hz							
	Sr: No.	Volts	Motor Size		Cable Size Nos. x Cross Section (mm2)	Dimension B x H (mm)	Cable Length (mtr)	Qty (Nr.)
			HP	kW				
DOL	1	230	5,5 ~ 15	4 ~ 11	3 x 6 1 x 10	19 x 8 D = 6,7	3 3	1 1
	2	380 ~ 415	5,5 ~ 30	4 ~ 22				
	3	460	5,5 ~ 30	4 ~ 22				
	4	230	20 ~ 30	15 ~ 22	3 x 10 1 x 10	24 x 9 D = 6,7	3 3	1 1
	5	380 ~ 415	35 ~ 50	26 ~ 37				
	6	460	35 ~ 50	26 ~ 37				
	7	380 ~ 415	60 ~ 75	45 ~ 55	1 x 16* 1 x 10	D = 10,3 D = 6,7	3 3	3 1
	8	460	60 ~ 75	45 ~ 55				
SD	9	230	5,5 ~ 30	4 ~ 22	3 x 6 1 x 10	19 x 8 D = 6,7	3 3	2 1
	10	380 ~ 415	5,5 ~ 75	4 ~ 55				
	11	460	5,5 ~ 75	4 ~ 55				



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

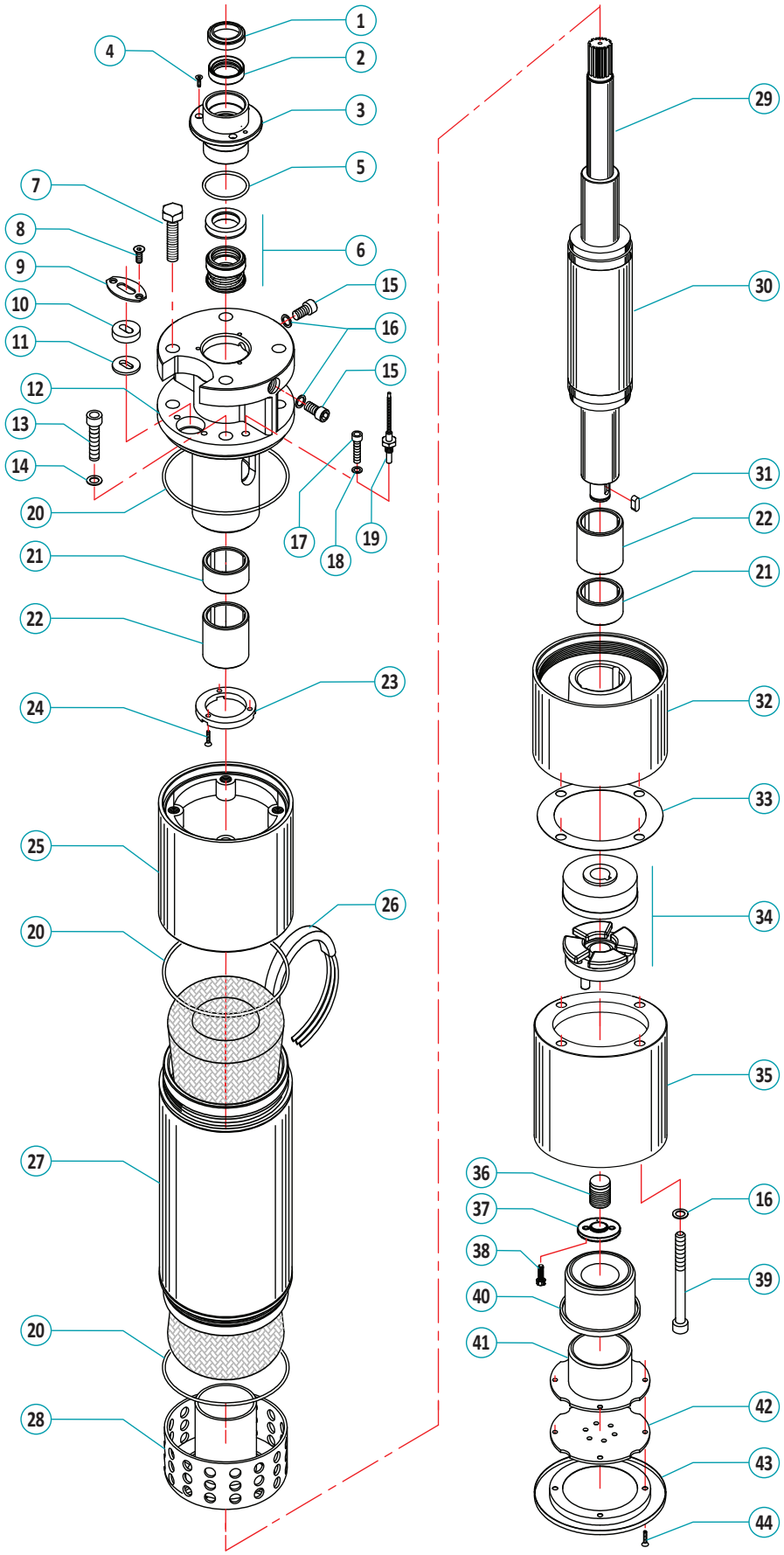
Motor Dimensions and Weights KM6 Double Flange								
Motor Type	Motor Size		Thrust Load (N)	L Motor Length (mm)	L1 Motor Length (mm)	Packing Dimension W x H x L (mm)	Weight (Kg)	
	HP	kW					Without Packing	With Packing
KM6 055T	5,5	4	26600	785	712	245x330x905	55	64
KM6 075T	7,5	5,5	26600	785	712	245x330x905	55	64
KM6 100T	10	7,5	26600	835	762	245x330x905	60	69
KM6 125T	12,5	9,3	26600	920	847	245x330x1075	70	80
KM6 150T	15	11	26600	920	847	245x330x1075	70	80
KM6 175T	17,5	13	26600	1010	937	245x330x1075	79	89
KM6 200T	20	15	26600	1010	937	245x330x1075	79	89
KM6 250T	25	18,5	26600	1100	1027	245x330x1165	89	100
KM6 300T	30	22	26600	1185	1112	245x330x1275	98	110
KM6 350T	35	26	26600	1280	1207	245x330x1400	112	125
KM6 400T	40	30	26600	1320	1247	245x330x1400	112	125
KM6 500T	50	37	26600	1320	1247	245x330x1400	112	125
KM6 600T	60	45	61600	1388	1315	245x330x1465	117	132
KM6 700T	70	52	61600	1448	1375	245x330x1540	125	139
KM6 750T	75	55	61600	1508	1435	245x330x1600	133	148



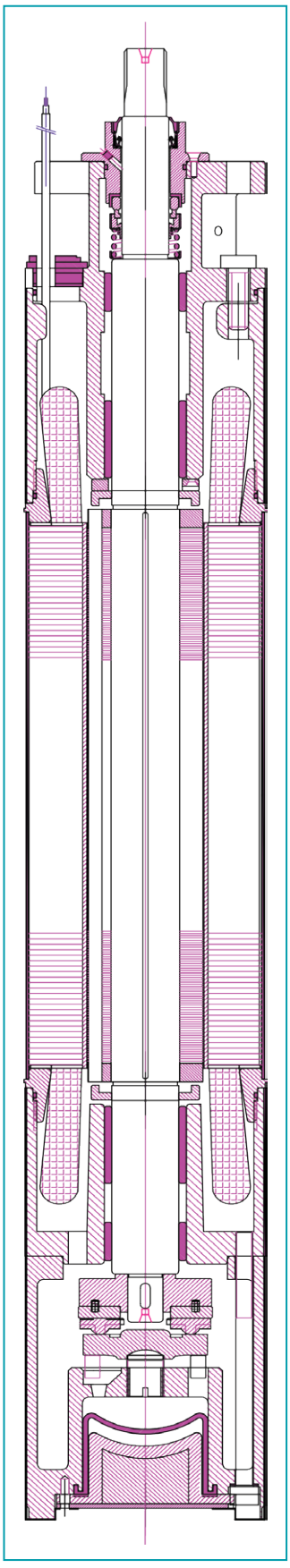


All dimensions are in mm

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	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 + Stainless Steel AISI 316	4	Nr
15	60101068	Allen Bolt (Top Piece)	Stainless Steel	2	Nr
16	60101157	Washer Bonded / Dowty Seal M10	NBR + Stainless Steel AISI 316	6	Nr
17	60161250	Allen Bolt M8 X 20	Stainless Steel	1	Nr
18	60161267	Washer Bonded / Dowty Seal M8	NBR + Stainless Steel AISI 316	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	4	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	Stainless Steel	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
Sandard: 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

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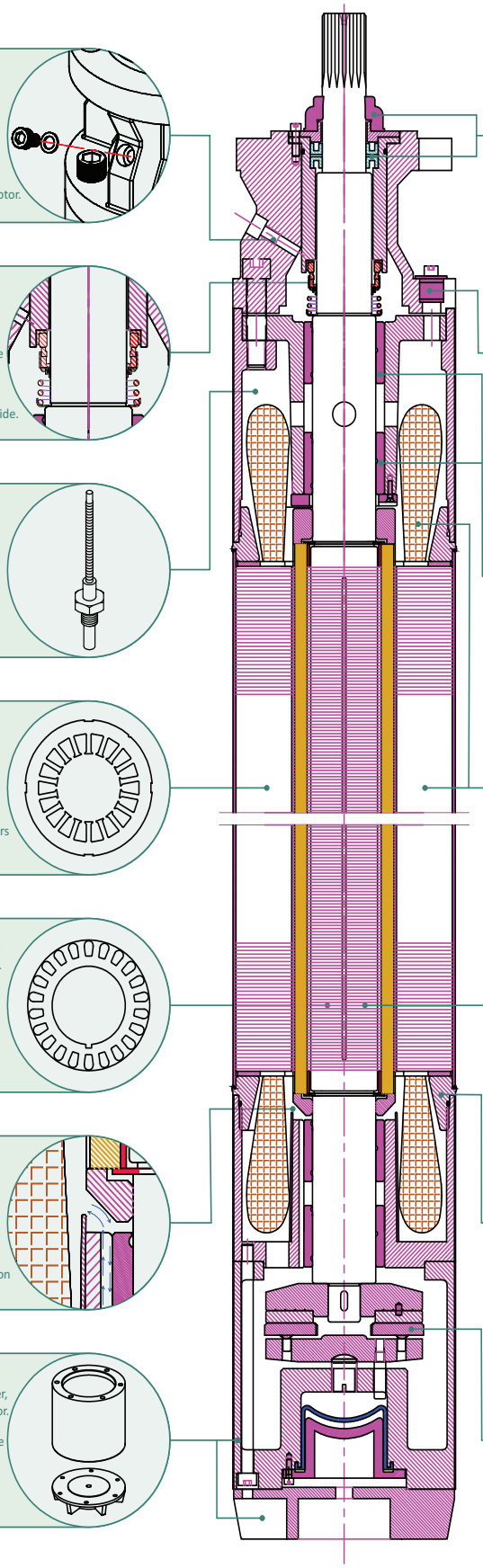
X-Sectional View with Specification

KM8 Double Flange



- Slanted water filling holes.
- Easily accessible, even with the coupled pump.
- The Optimum location along with the slanted design ensures maximum fluid level inside the motor.

- Highly resistive to fine and coarse sand particles, thus ensuring safe operations in Sandy Wells.
- Ensures perfect sealing in extreme working conditions.
- High-Grade Spring Loaded Mechanical Seal of Tungsten Carbide.

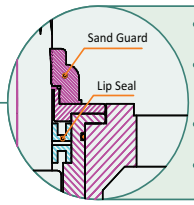
- Provision for installation of Pt100 temperature sensor for real-time motor temperature monitoring.
- Ensures added protection in special applications.

- Stator made of high-grade silicon steel sheet.
- Low core losses, higher efficiency, lower ampere consumption and lower heat generation.
- High-grade silicon steel sheet offers greater efficiency and reliability.

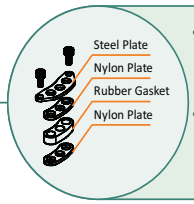
- The Rotor is made of a high-grade silicon steel sheet with low losses.
- Pure copper bar inserted in the rotor slots.
- High efficiency and longer service life.

- The Lower portion with double carbon bearings gives greater stability and vibration-free operation of the motor.
- The Tapered design of the balancing ring helps guide fluid into the carbon bearings ensuring water passage for better lubrication and heat dissipation.

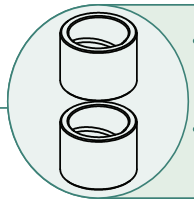
- Robust and over-designed lower support fitted tapered bottom cover, gives stable foundation to the motor.
- More space to easily accommodate larger thrust bearings.
- More space allows more coolant water for better heat dissipation.



- Komax Motors Sealing has 3 layers of protection.
- Sand Guard resists sand, clay and mud against entering the seal support, while remaining intact at 3500 RPM.
- Lip / Oil Seal resist fine sand against entering to Mechanical Seal.
- And finally, Mechanical Seal - Sealing it perfectly !

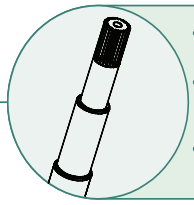


- Fully independent and robust cable sealing, rubber gasket sandwiched in nylon plates and finally tightened by steel plate through M8 Bolts.
- The Lead cable coming out of the lower flange, minimize the chance of damage during assembly and installation.

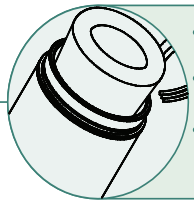


- Upper portion with double carbon bearing gives greater stability and vibration free operation of motor.
- Helps avoid damage to motor internals even in worst applications.

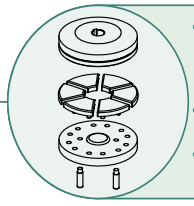
- Pure copper winding wire with BOPET+BOPP Insulation for higher temperature and better insulation as compared to PE2/PA insulation.
- Mechanized coil insertion to maintain quality and precision.
- Oversized wire gauge to ensure service life and higher efficiency.



- High-grade Stainless Steel Shaft hardened to 40 HRC.
- Integral / Single Piece Design ensure better stiffness and dimensional accuracy.
- Fully machined and grinded throughout the length.



- Stator upper and lower ends are welded with threaded flange.
- Allows more dimensional accuracy due to independent machine-ability.
- Provide better structural integrity, serviceability and vibration-free operation.



- Robust Kingsbury type thrust bearing made of high-grade material (Stainless Steel 400 Series) with the finest workmanship.
- Water lubricated, low friction and highly durable.
- Customized thrust ratings available on client's demand.

KM8

8-INCH SERIES

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
10	max. starts per hour
Rotation	CCW facing shaft end
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 431 stainless steel induction hardened and ground to operate in severe conditions. Dimensions according to international 6″/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 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.

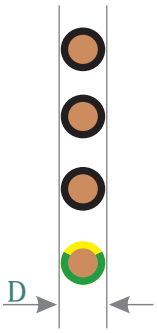
info@komaxmotor.com

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	2880	46,4		246	78,5	84,3	83,6	0,70	0,79	0,83	1
	KM8 0400T	40	30	2875	60,9		323	79,0	84,8	84,1	0,71	0,80	0,84	1
	KM8 0500T	50	37	2870	74,7		403	80,1	85,0	84,4	0,72	0,81	0,85	1
	KM8 0600T	60	45	2875	89,7		520	80,8	85,8	84,9	0,72	0,81	0,85	1
	KM8 0750T	75	56	2870	110,8		665	82,4	86,7	85,8	0,72	0,80	0,85	1
	KM8 0800T	80	60	2875	116,9		719	82,4	86,9	86,1	0,72	0,81	0,86	1
	KM8 0900T	90	67	2880	133,5		841	82,7	86,4	85,6	0,72	0,80	0,85	1
	KM8 1000T	100	75	2875	146,1		935	82,6	86,8	86,1	0,73	0,81	0,86	1
	KM8 1100T	110	82	2880	161,5		1066	82,7	86,8	85,9	0,72	0,81	0,85	1
	KM8 1250T	125	93	2875	180,9		1230	83,9	87,0	86,3	0,73	0,82	0,86	1
	KM8 1500T	150	112	2875	215,1		1506	82,6	86,8	86,7	0,73	0,82	0,87	1
	KM8 1750T	175	130	2875	252,7		1820	83,1	86,9	86,3	0,73	0,82	0,86	1
	KM8 2000T	200	150	2860	291,1		2090	86,9	87,8	86,1	0,72	0,81	0,86	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	3480	249,7	284,0	2039	88,0	89,2	88,4	0,70	0,80	0,85	1,15

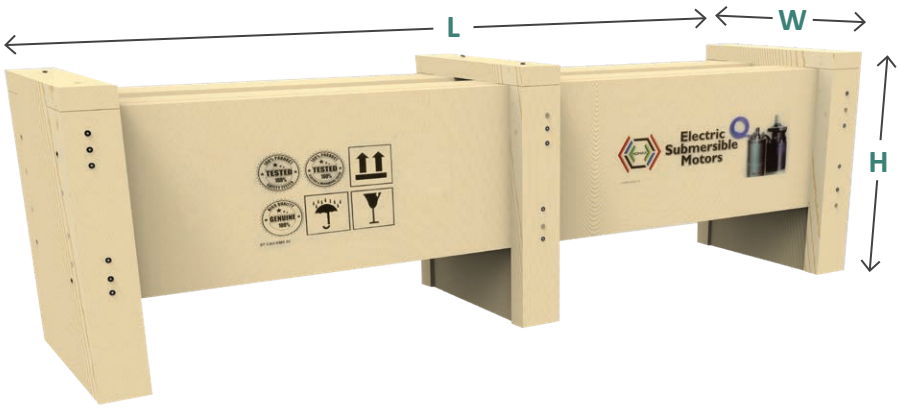
Technical DATA

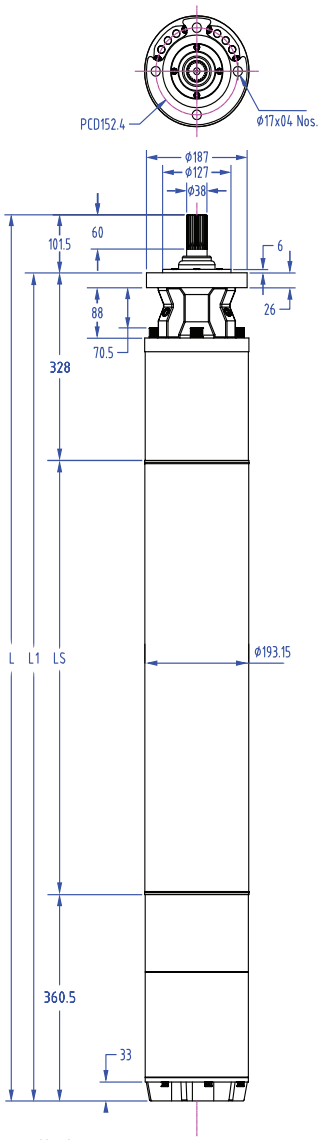
	Size & Dimensions Motor Tail Cable - Three Phase - 50 Hz / 60 Hz							
	Sr: No.	Volts	Motor Size		Cable Size Nos. x Cross Section (mm2)	Dimension B x H (mm)	Cable Length (mtr)	Qty (Nr.)
			HP	kW				
DOL	1	380 ~ 415 460	30 ~ 50	22 ~ 37	1 x 10 / 16	6,7 / 10,3	5	3
DOL	2		60 ~ 80	45 ~ 60	1 x 16	10,3	5	3
DOL	3		90 ~ 125	67 ~ 93	1 x 25	11,7	5	3
DOL	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
SD	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)	Motor Length		Packing Dimension W x H x L (mm)	Weight (Kg)	
	HP	kW		L (mm)	L1 (mm)		Without Packing	With Packing
KM8 0300T	30	22	80000	1240	1139	305x401x1392	180	194
KM8 0400T	40	30	80000	1240	1139	305x401x1392	180	194
KM8 0500T	50	37	80000	1339	1238	305x401x1491	199	212
KM8 0600T	60	45	80000	1420	1319	305x401x1572	209	230
KM8 0750T	75	56	80000	1638	1537	305x401x1791	247	271
KM8 0800T	80	60	80000	1638	1537	305x401x1791	247	271
KM8 0900T	90	67	80000	1829	1728	305x401x1981	280	307
KM8 1000T	100	75	80000	1829	1728	305x401x1981	280	307
KM8 1100T	110	82	80000	1928	1827	305x401x2080	302	331
KM8 1250T	125	93	80000	1928	1827	305x401x2080	302	331
KM8 1500T	150	112	80000	2029	1928	305x401x2182	328	357
KM8 1750T	175	130	80000	2139	2038	305x401x2291	347	375
KM8 2000T	200	150	80000	2249	2148	305x401x2401	356	389



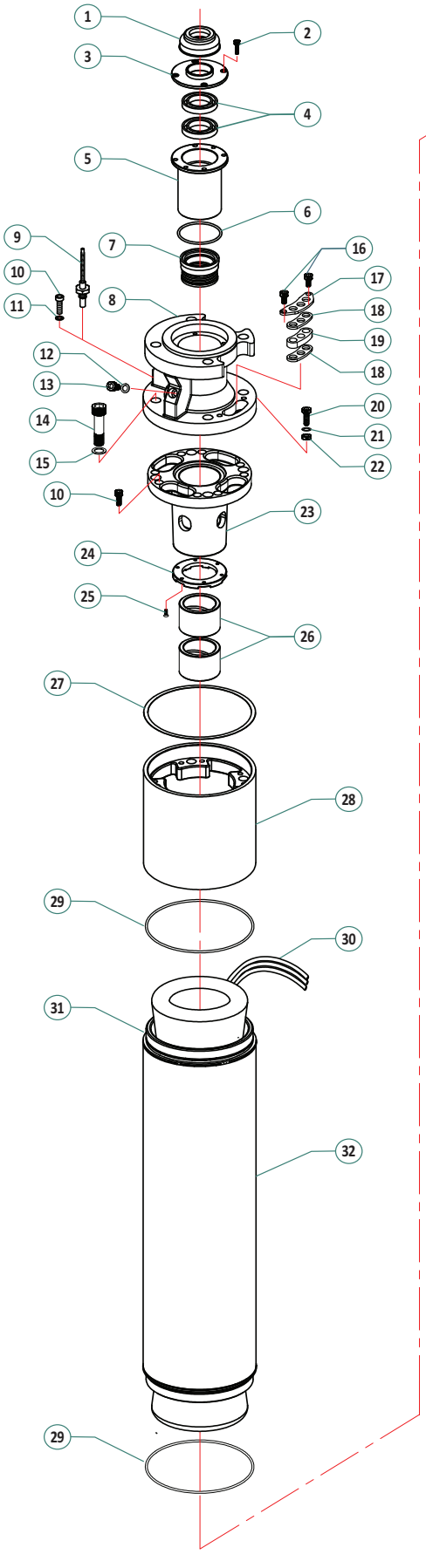


All dimensions are in mm

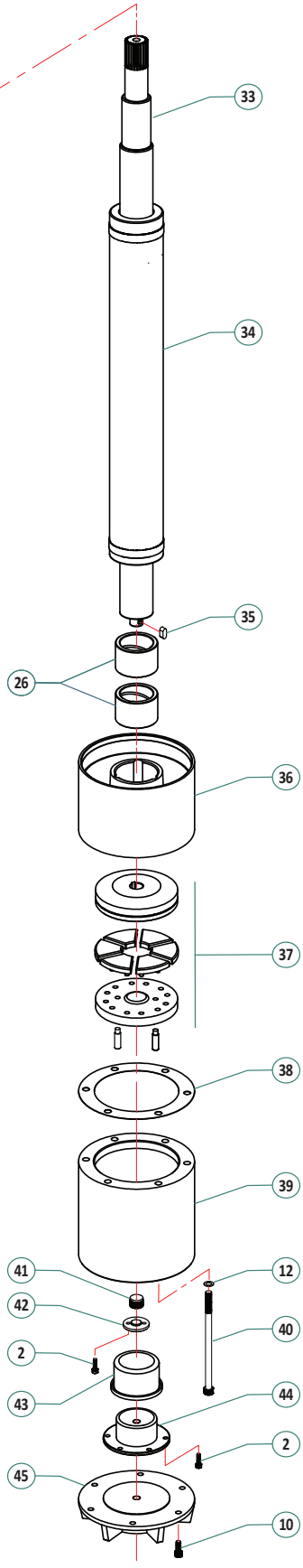
KM8

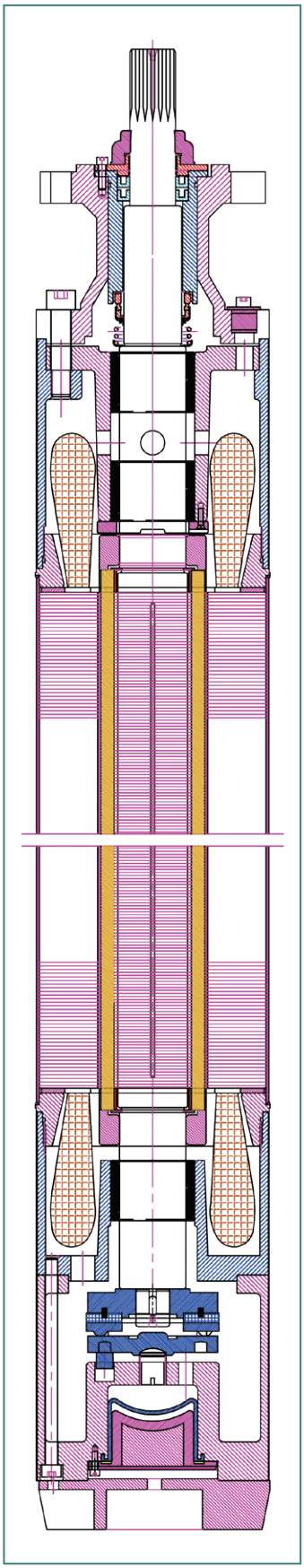
8-INCH SERIES

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	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 AISI 316	1	Nr
12	60101157	Washer Bonded / Dowty Seal M10	NBR + Stainless Steel AISI 316	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 AISI 316	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)	Rubber + 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	Stainless Steel	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
Sandard: Double Flange

Power Range
From: 75 HP (56 kW)
To: 270 HP (200 kW)

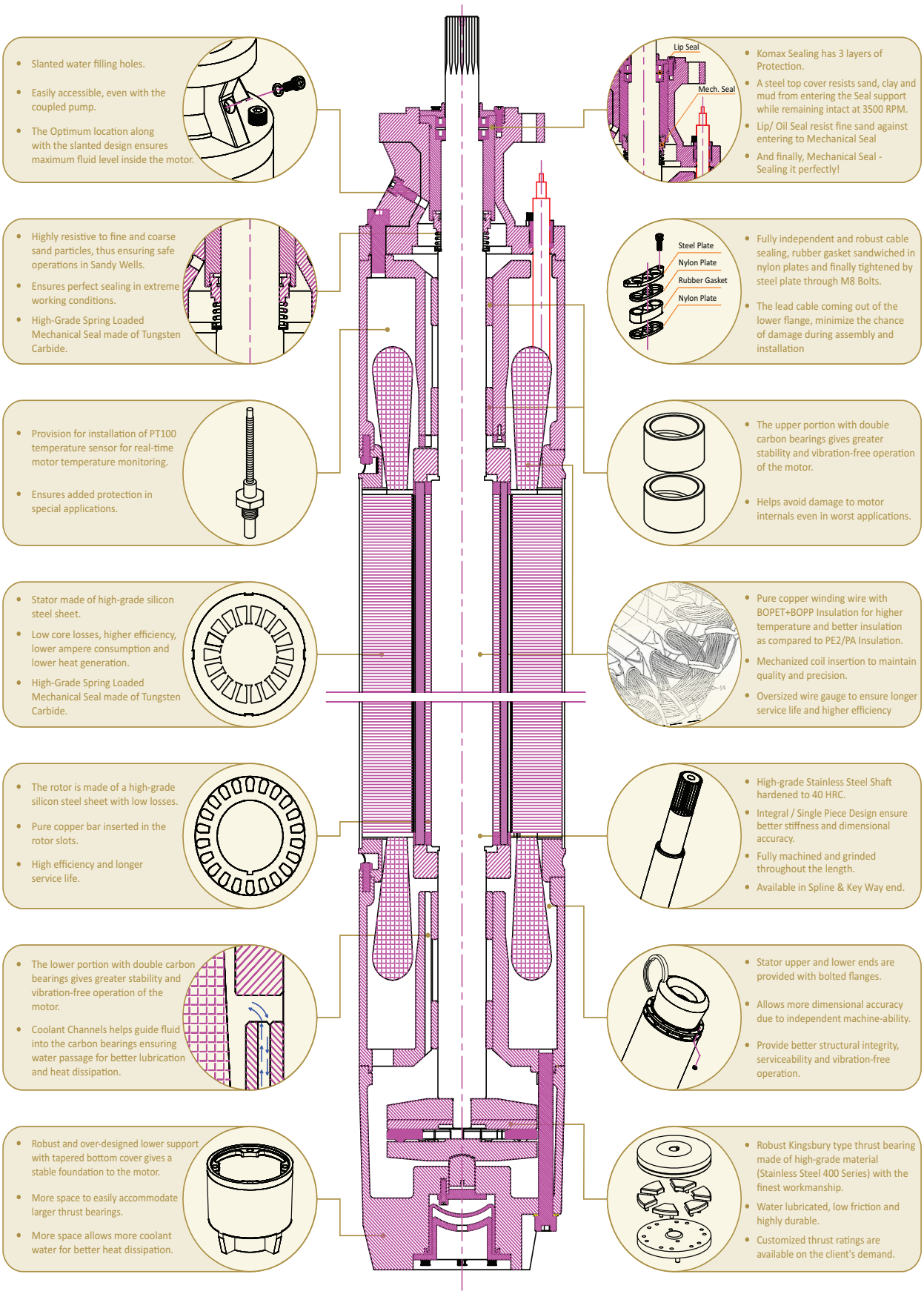
Voltage Range
380 ~ 415 Volts @ 50 Hertz
460 Volts @ 60 Hertz

Speed Range
2 Poles, 2900 RPM
2 Poles, 3600 RPM

Construction Material
Standard: Cast Iron with NSF Certified Epoxy
Optional: Complete 316L Stainless Steel

X-Sectional View with Specification

KM10 Double Flange



- Slanted water filling holes.
- Easily accessible, even with the coupled pump.
- The Optimum location along with the slanted design ensures maximum fluid level inside the motor.

- Highly resistive to fine and coarse sand particles, thus ensuring safe operations in Sandy Wells.
- Ensures perfect sealing in extreme working conditions.
- High-Grade Spring Loaded Mechanical Seal made of Tungsten Carbide.

- Provision for installation of PT100 temperature sensor for real-time motor temperature monitoring.
- Ensures added protection in special applications.

- Stator made of high-grade silicon steel sheet.
- Low core losses, higher efficiency, lower ampere consumption and lower heat generation.
- High-Grade Spring Loaded Mechanical Seal made of Tungsten Carbide.

- The rotor is made of a high-grade silicon steel sheet with low losses.
- Pure copper bar inserted in the rotor slots.
- High efficiency and longer service life.

- The lower portion with double carbon bearings gives greater stability and vibration-free operation of the motor.
- Coolant Channels helps guide fluid into the carbon bearings ensuring water passage for better lubrication and heat dissipation.

- Robust and over-designed lower support with tapered bottom cover gives a stable foundation to the motor.
- More space to easily accommodate larger thrust bearings.
- More space allows more coolant water for better heat dissipation.

- Komax Sealing has 3 layers of Protection.
- A steel top cover resists sand, clay and mud from entering the Seal support while remaining intact at 3500 RPM.
- Lip/ Oil Seal resist fine sand against entering to Mechanical Seal
- And finally, Mechanical Seal - Sealing it perfectly!

- Fully independent and robust cable sealing, rubber gasket sandwiched in nylon plates and finally tightened by steel plate through M8 Bolts.
- The lead cable coming out of the lower flange, minimize the chance of damage during assembly and installation

- The upper portion with double carbon bearings gives greater stability and vibration-free operation of the motor.
- Helps avoid damage to motor internals even in worst applications.

- Pure copper winding wire with BOPET+BOPP Insulation for higher temperature and better insulation as compared to PE2/PA Insulation.
- Mechanized coil insertion to maintain quality and precision.
- Oversized wire gauge to ensure longer service life and higher efficiency

- High-grade Stainless Steel Shaft hardened to 40 HRC.
- Integral / Single Piece Design ensure better stiffness and dimensional accuracy.
- Fully machined and grinded throughout the length.
- Available in Spline & Key Way end.

- Stator upper and lower ends are provided with bolted flanges.
- Allows more dimensional accuracy due to independent machine-ability.
- Provide better structural integrity, serviceability and vibration-free operation.

- Robust Kingsbury type thrust bearing made of high-grade material (Stainless Steel 400 Series) with the finest workmanship.
- Water lubricated, low friction and highly durable.
- Customized thrust ratings are available on the client's demand.

info@komaxmotor.com

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
10	max. starts per hour
Rotation	CCW facing shaft end
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 431 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 120000 N.

Seal Configuration:
Komax offers a triple seal configuration that consists of two outer back to back lip seals in NBR with an inner 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

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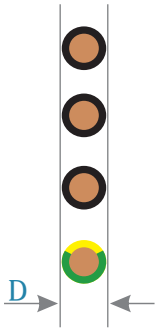
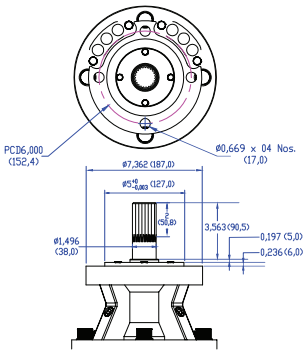
Technical DATA

	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 (mm2)	Dimension B x H (mm)	Cable Length (mtr)	Qty (Nr.)
		HP	kW				
DOL	1	75	56.0	1 x 16	10,3	5	3
DOL	2	100	75.0	1 x 25	11,7	5	3
DOL	3	125 ~ 150	93 ~ 110	1 x 35	12,7	5	3
DOL	4	175 ~ 270	112 ~ 200	1 x 70	17,3	5	3
SD	5	75 ~ 100	56 ~ 75	1 x 10 / 16	6,7 / 10,3	5	6
SD	6	125	93.0	1 x 16	10,3	5	6
SD	7	150 ~ 200	110 ~ 150	1 x 25	11,7	5	6
SD	8	250 ~ 270	186 ~ 200	1 x 35	12,7	5	6

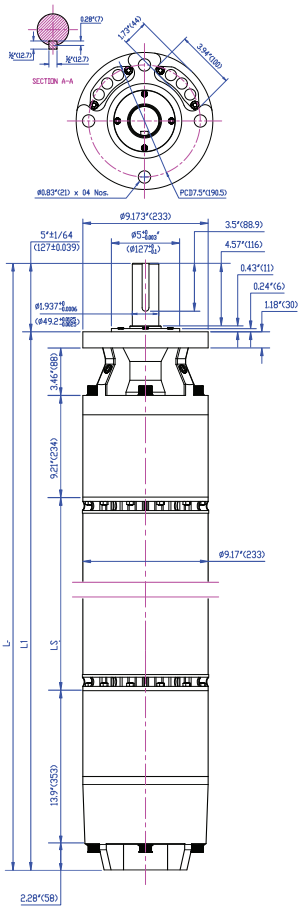
Additional core 1 x 10 mm² 5 meters for earthing.



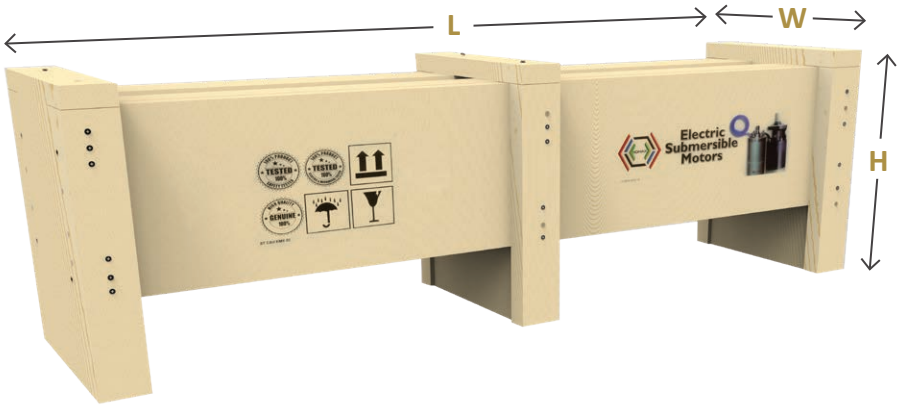
10"× 8" NEMA Spline Shaft



10"×10" Key way Shaft

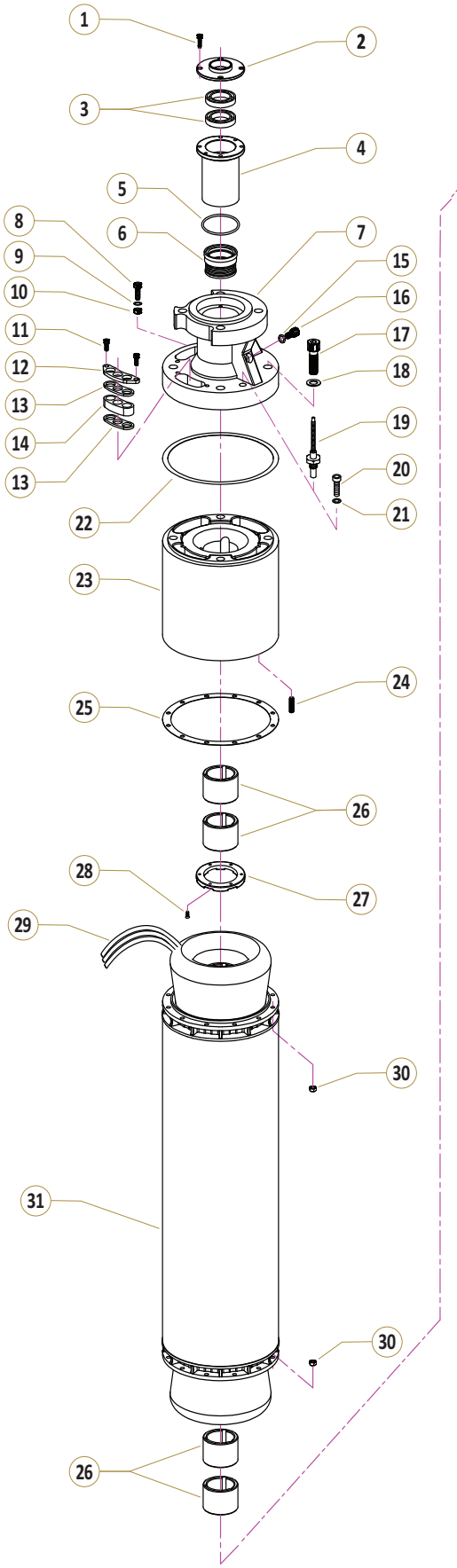


Motor Dimensions and Weights KM10								
Motor Type	Motor Size		Thrust Load (N)	Motor Length		Packing Dimension W x H x L (mm)	Weight (Kg)	
	HP	kW		L (mm)	L1 (mm)		Without Packing	With Packing
KM10 075T	75	56	120000	1184	1057	356x452x1336	176	198
KM10 100T	100	75	120000	1433	1306	356x452x1585	304	332
KM10 125T	125	93	120000	1433	1306	356x452x1585	304	332
KM10 150T	150	112	120000	1532	1405	356x452x1684	361	393
KM10 175T	175	130	120000	1732	1605	356x452x1885	451	490
KM10 200T	200	150	120000	1732	1605	356x452x1885	451	490
KM10 250T	250	186	120000	1933	1806	356x452x2085	562	607
KM10 270T	270	200	120000	2032	1905	356x452x2184	613	661

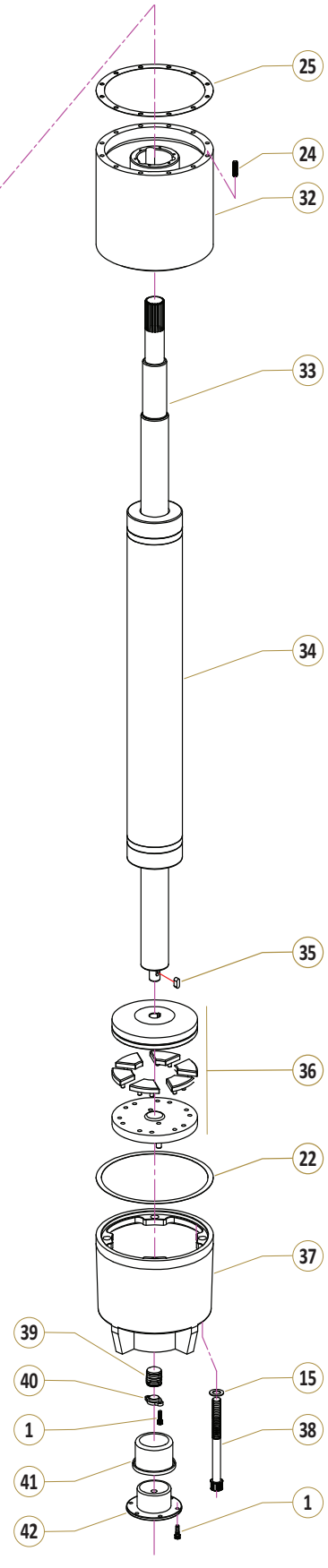


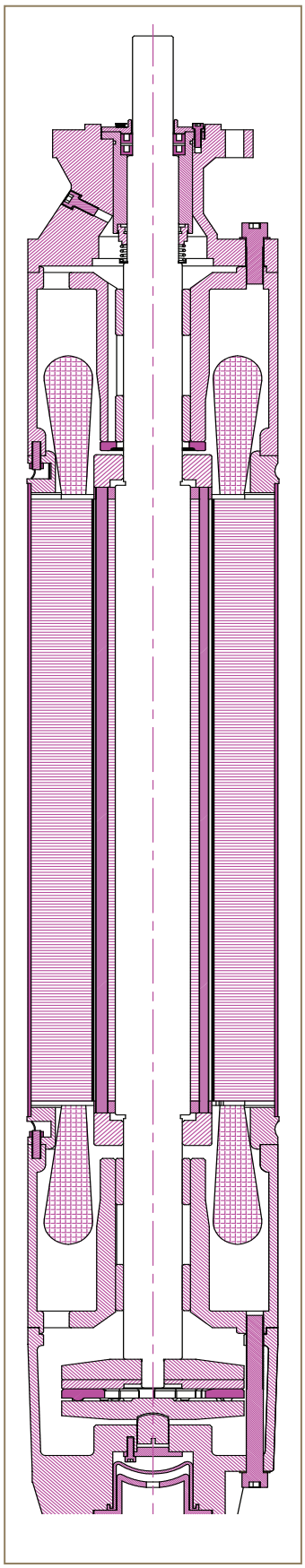
All dimensions are in mm

Exploded View



Cross-Sectional View





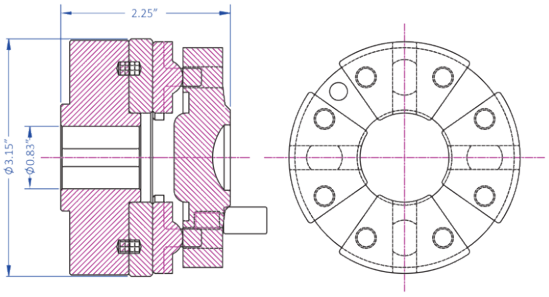
Parts LIST with Material & Quantity

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 AISI 316	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 AISI 316	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 AISI 316	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)	Rubber + 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

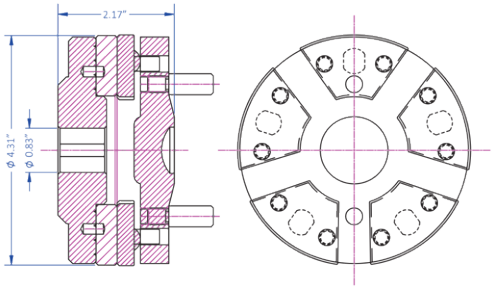
4 Segment Thrust Bearing

26600 N / 6000 Lbs axial load capacity



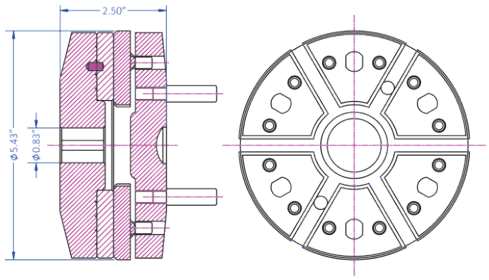
5 Segment Thrust Bearing

61600 N / 13850 Lbs axial load capacity



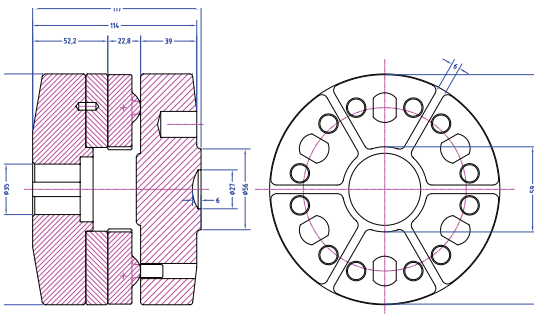
6 Segment Thrust Bearing

80000 N / 18000 Lbs axial load capacity



6 Segment Thrust Bearing

120000 N / 27000 Lbs axial load capacity

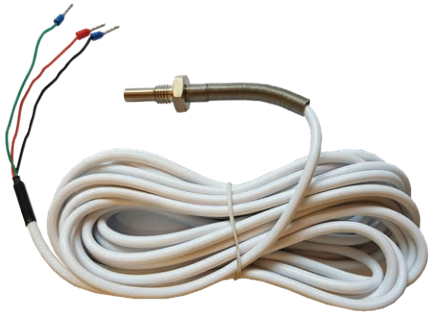


Sensor PT100

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.

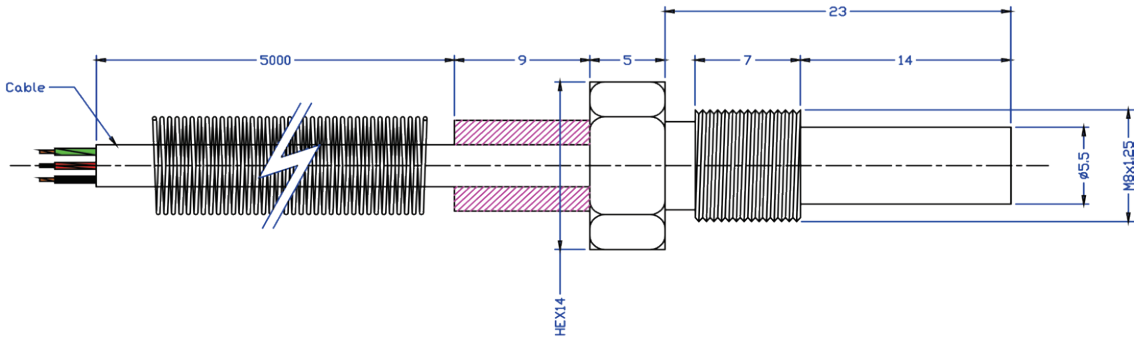
Accuracy Class: Class B

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

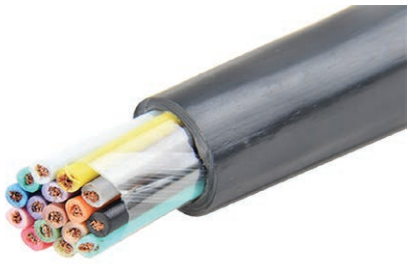
Usage: Multiwire cable specially developed for borehole submersible motor's temperature sensors.

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	1022
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	1489
	90	67									217	304	412	521	651	803	1042	1303
	100	75									198	277	377	476	595	734	953	1191
	110	82										251	341	431	538	664	862	1077
	125	93										224	304	384	480	593	769	961
	150	112											256	323	404	498	647	809
	175	130												275	344	424	550	688
	200	150													302	372	483	604
	250	186														293	380	475
	270	200															355	444

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

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Cable Selection CHART

Star-Delta 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		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.

Komax Pumps Range

Stainless Steel Pumps Range

KPS5 > 5″ Submersible Pumps
KPS6 > 6″ Submersible Pumps
KPS8 > 8″ Submersible Pumps
KPS10 > 10″ Submersible Pumps
KPS12 > 12″ Submersible Pumps

Cast Iron Pumps Range

FX8 > 8″ Submersible Pumps
FX10 > 10″ Submersible Pumps
FX12 > 12″ Submersible Pumps

- **Premium Efficiency with Wide Voltage Ranges**
- **Robust 400 Series Stainless Steel Thrust Assembly and Tungsten Mechanical Seal**
- **Optimally Designed for Endurance in Sandy Conditions**
- **Electrically Engineered for Broad Application Tolerances**

Pakistan Standards

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
BUREAU VERITAS Certification

CE

NSF
Certified to NSF/ANSI/CAN 61

KOMAX

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