

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

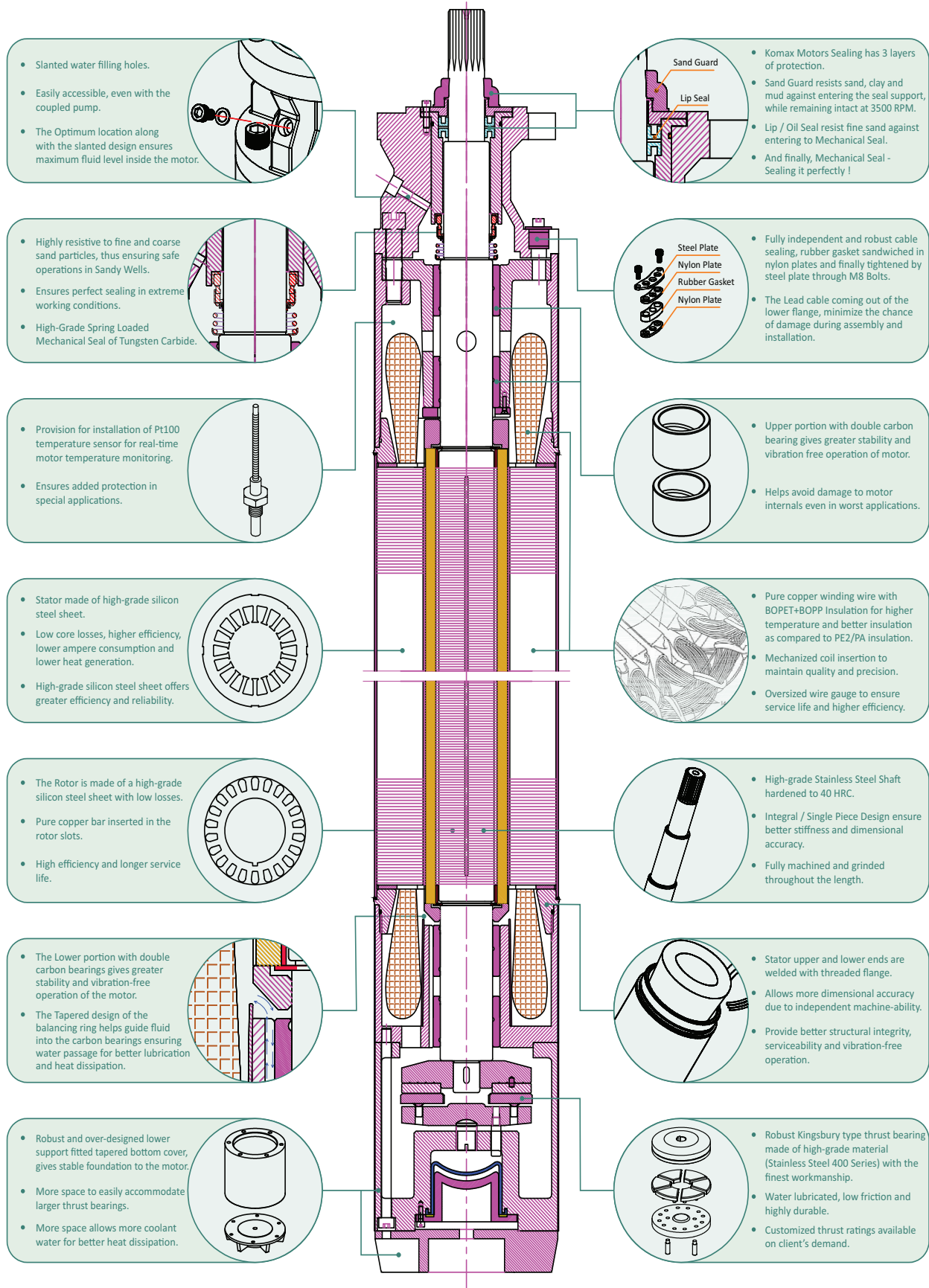
Construction Material

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 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

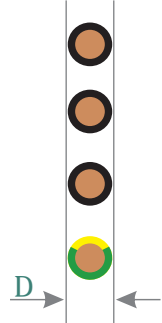
	Motor Type	Motor Size		RPM	Full Load Current (Amp.)	Safety Load Current (Amp.)	Starting Current (Amp.)	Efficiency at % Load			Cos. Φ at % Load			Service Factor
		HP	kW					50	75	100	50	75	100	
380-415V @ 50 Hz	KM8 0300T	30	22	2890	46,4		246	78,5	84,3	83,6	0,70	0,79	0,83	1
	KM8 0400T	40	30	2885	60,9		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

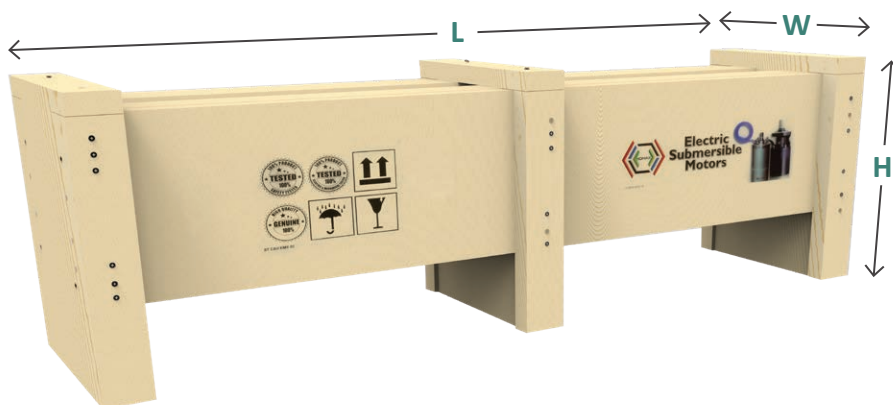
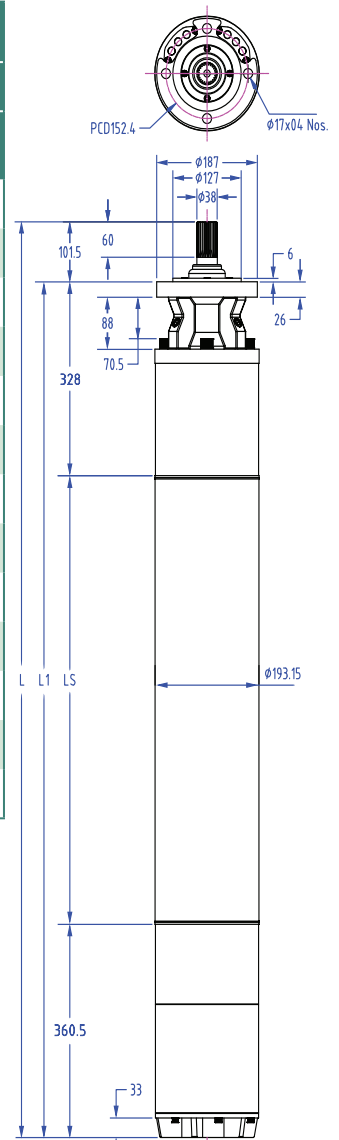
Technical DATA

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.

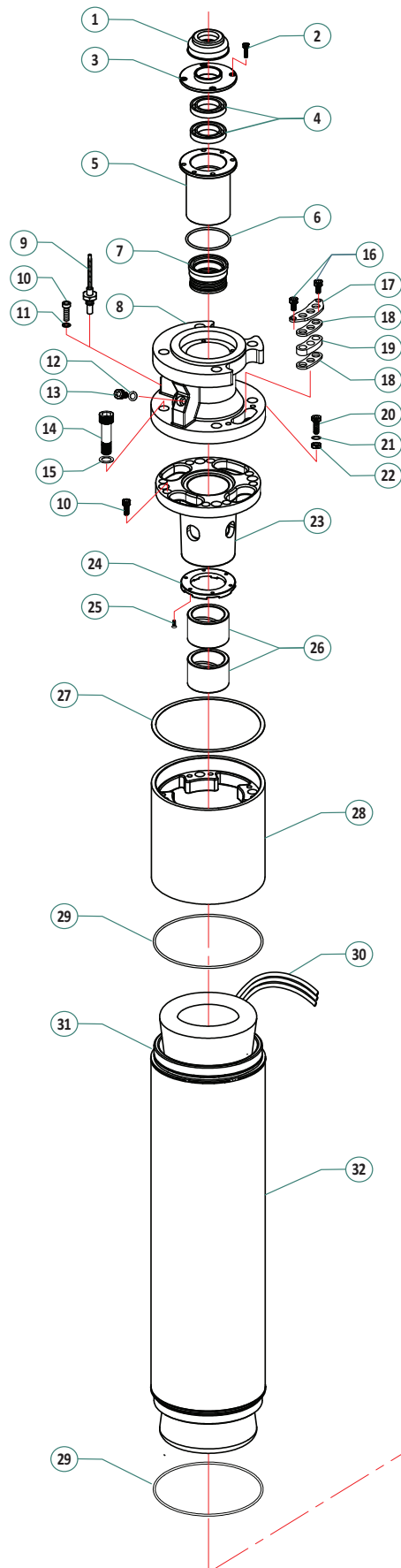
Motor Dimensions and Weights KM8								
Motor Type	Motor Size		Thrust Load (N)	L Motor Length (mm)	L1 Motor Length (mm)	Packing Dimension W x H x L (mm)	Weight (Kg)	
	HP	kW					Without Packing	With Packing
KM8 0300T	30	22	80000	450	1240	305 x 401 x 1392	180	194
KM8 0400T	40	30	80000	450	1240	305 x 401 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



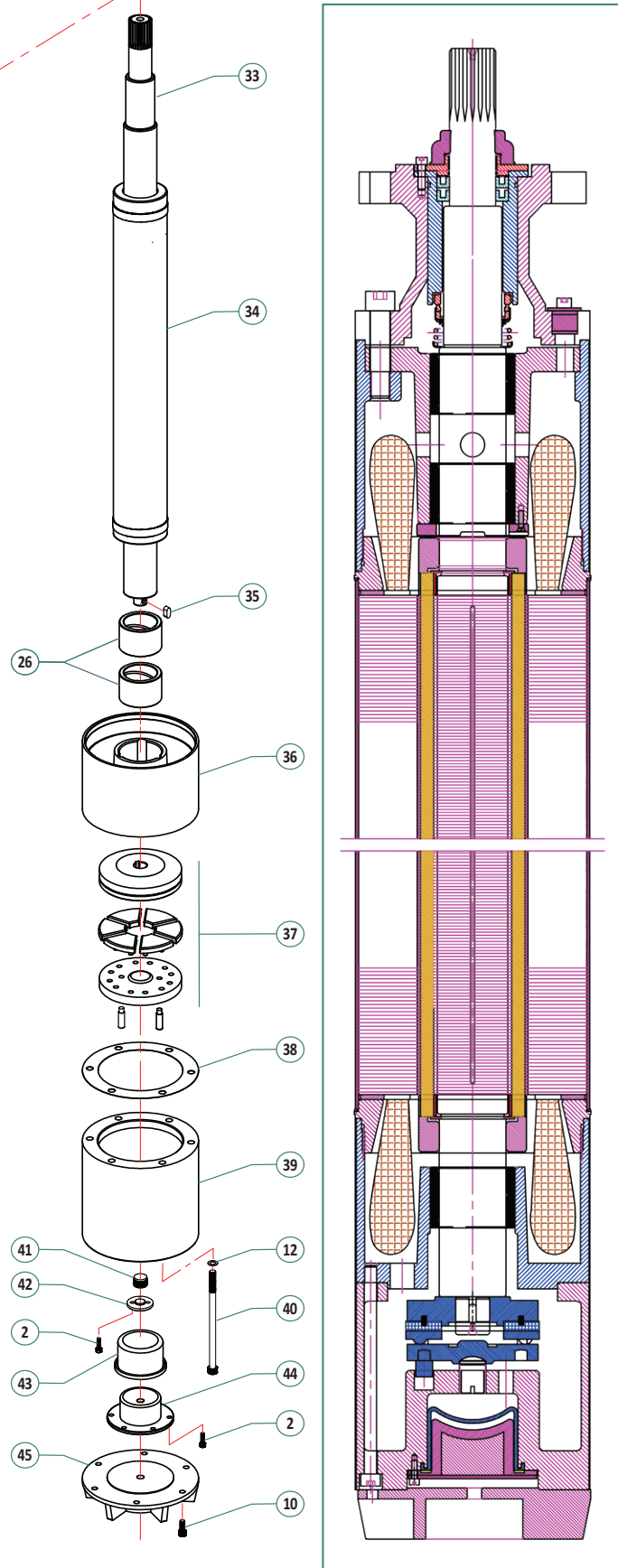
All dimensions are in mm



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