

Pearl[®] *Water Systems*

4" - 6" - 8" - 10"
Submersible motors



SUBMERSIBLE MOTORS

CODE	DESCRIPTION	PAGE
	MATERIALS & COMPONENTS	3
4MWP	4" ENCAPSULATED SUBMERSIBLE MOTORS	4
4MOP	4" OIL FILLED SUBMERSIBLE MOTORS	12
6MWCP	6" ENCAPSULATED SUBMERSIBLE MOTOS	16
6MRCP 6MRSP	6" REWINDABLE SUBMERSIBLE MOTOS	20
7MRCP	7" REWINDABLE SUBMERSIBLE MOTORS	24
8MRCP 8MRSP	8" REWINDABLE SUBMERSIBLE MOTORS	28
10MRCP 10MRSP	10" REWINDABLE SUBMERSIBLE MOTORS	32



High thrust capacity bearings

Heavy duty bearings provides the option to revolve both sides, has the capacity to carry high thrust load.



Water lubricated radial carbon bearings

Slinger helps to prevent the sand inside the water of the well entering in mechanical seal and through mechanical seal to inside of the motor.



Chrome-plated bearing collet

Chrome-plated and precisely machined bearing collets which are located in the radial bearings operating area, have a great importance for bearing the rotor.



High quality mechanical sealing system. High sand resistance and degree of IP68 protection. Although mechanical seal is optionally used by other companies, it is always used by PEARL as a standard, to prevent sand and other particles to get in motors to provide long bearing life.



PT100 Overheating protection

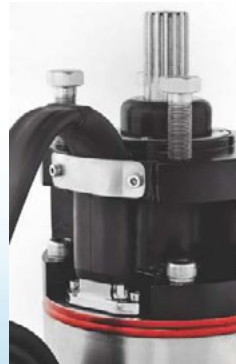
By connecting the PT100 thermal sensors to the slot that is standardly placed on upper bearing body, motor temperature values can be easily measured.

Only for 6" Encapsulated submersible motors.



Cable connection

Preventing the water inside the motor to run through the cable and reach connection parts of power cables by specifically designed cable seats.



Practical cable connection

Extremely simple and very practical power cable connection to the motor body.

Only for 6" Encapsulated submersible motors.



Adjustment screw

Standard shaft height can be precisely adjusted by the adjustment screw on the thrust bearing base.



Pressure balancing checkvalve

When pressure increases, it throw water out of the motor. When pressure drops, it filtrates the water inside well and gets it inside the motor by the help of this checkvalve to balance the pressure inside. That's why pressure differences inside motor never causes membrane under motor to blow up.



Up-Thrust ring

Provides safe operation conditions for motor by absorbing Up-Thrust loads with it's machined surface and water channels on it.



Slinger (sand guard)

Slinger helps to prevent the sand inside the water of the well entering in mechanical seal and through mechanical seal to inside of the motor.



Membrane

Membrane minimizes the expansion pressure that is caused by heating of cooling water's inside the motor.



4" Encapsulated Submersible Motors, Single Phase, 2 Wire

Four inch, asynchronous, two pole, submersible motor, made in AISI 304 stainless steel for parts in contact with water.

Cooling and lubrication of the thrust bearing assembly and carbon brushes is provided by a mixture of water and glycol. Squirrel-cage rotor mounted on Kingsbury self-centering thrust bearing. Stator housed in an airtight stainless steel casing (canned-type) with both flanges and shell in AISI 304L stainless steel.

Motor lead connection allows for fast and easy maintenance. Motor suitable for use with variable frequency drive (30Hz – 60Hz). The capacitor is placed in the Noryl cartridge directly connected to the motor, so the motor does not require an external control box. Thermal protection included in the motor.

General Features

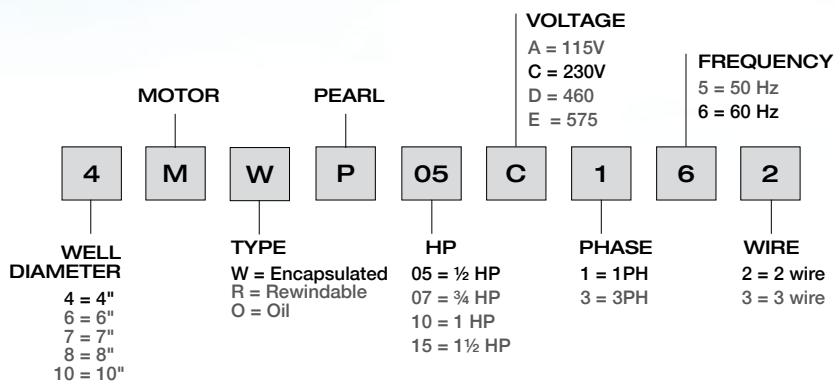
- NEMA 4" Flanges
- Protection IP68
- Insulation class F

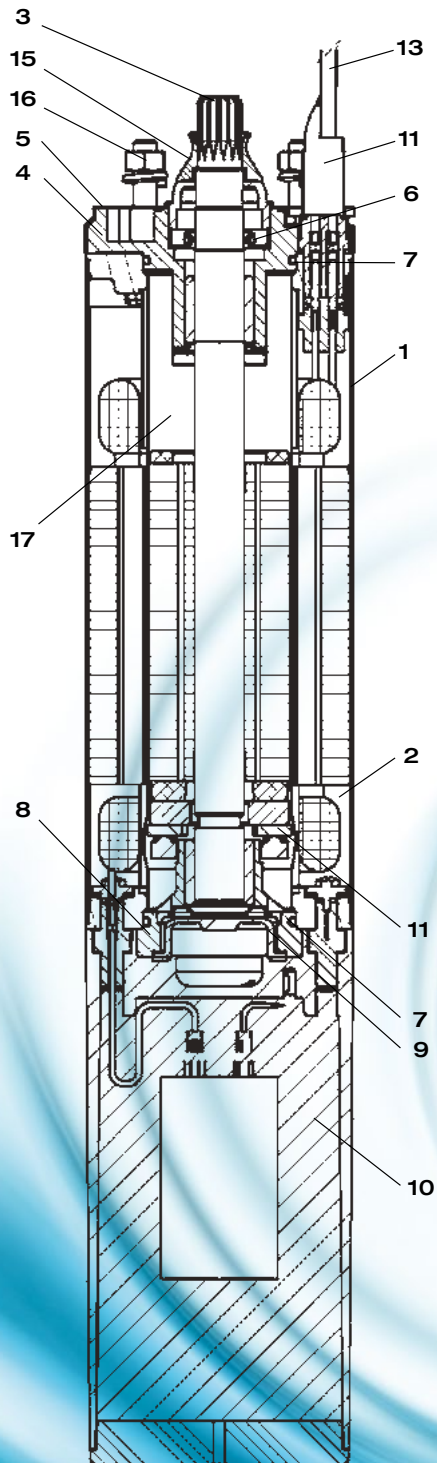
Operating Limits

- Cooling flow: min. 0.2 m/s (0,66 ft/s)
- Voltage tolerance: $\pm 10\%$
- Max. motor startings per hour: 20
- Max. immersion depth: 984 feet (300 m)

Nomenclature

Reading the motor data in the label.





Components

	PART NAME	MATERIAL	TYPE
1	Internal and external sleeve	Stainless Steel	AISI 304
2	Stator	Stainless Steel	AISI 304L
3	Shaft	Stainless Steel	AISI 431
4	Upper bracket	Cast iron	
5	Bracket cover	Stainless Steel	AISI 304
6	Lip seal / Gasket	Rubber	NBR
7	Gasket	Rubber	NBR
8	Lower bracket	Cast iron	
9	Diaphragm	Rubber	EDPM
10	Capacitor case	Plastic	Noryl
11	Thrust bearing	Stainless steel-graphite	
12	Valve	Stainless Steel	AISI 304
13	Cable	Rubber	EDPM
14	Connecting plug	Stainless Steel	AISI 316
15	Sand slinger (fixed-removable)	Rubber	NBR
16	Bolt and screws	Stainless Steel	AISI 304
17	Cooling liquid	Antifreeze + water	



Stainless steel AISI 304 with a special process of surface hardening and polishing of the working area of the brushes.
Squirrel-cage rotor made in aluminum.



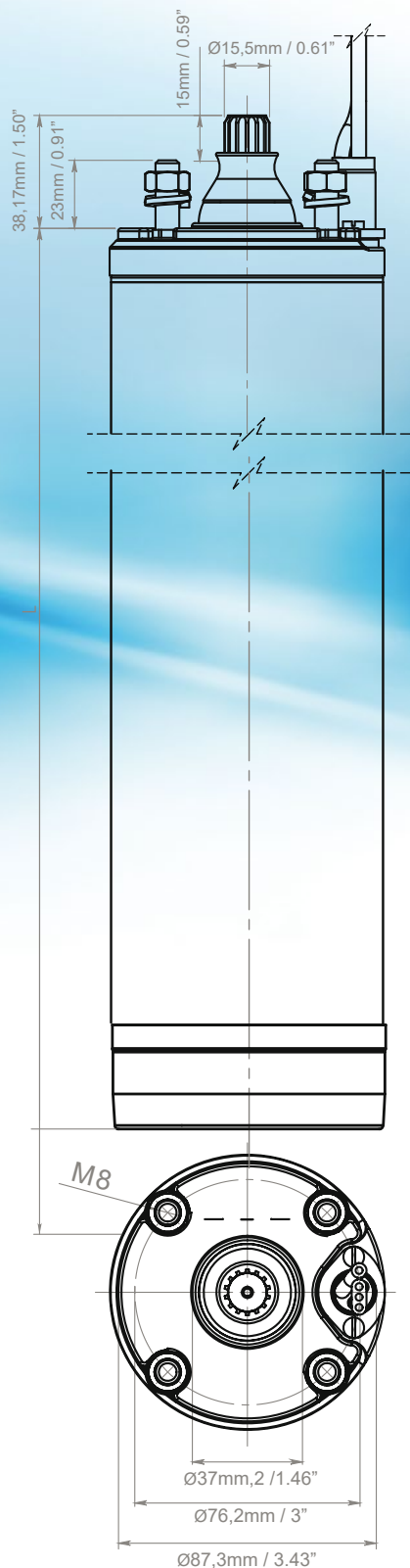
Kingsbury type thrust bearing unit consisting of tilting pads made of highly-resistant stainless steel and machined using the spherical lapping process. From 0,5 HP to 1,5 HP: 2000N (3000N in the 1,5 HP 60Hz version)

Shafts with end part made of stainless



4MWP

4" Encapsulated Submersible Motors, Single Phase, 2 Wire



Dimensions

4MWP - SINGLE PHASE / 2 WIRE

MODEL	P2		L		WEIGHT	
	[HP]	[kW]	[mm]	[inch]	[Kg]	[lbs]
4MWP 05	0.5	0.37	341	13.425	10.1	22.3
4MWP 05	0.5	0.37	331	13.031	9.9	21.9
4MWP 07	0.75	0.55	351	13.819	10.9	24.1
4MWP 10	1	0.75	426	16.772	13.5	29.8
4MWP 15	1.5	1.1	471	18.543	15.5	34.2

Other Options

Motor Leads with different lengths.
Different supply voltages.

Electrical Data 60 Hz

4MWP - SINGLE PHASE / 2 WIRE

MODEL	P2		AXIAL LOAD	V	SF	I _n	I _n (SF)	I _s / I _n	C _s / C _n	P1	N	Cos φ	η	C	Ø	LC	R
	[HP]	[kW]	[lbf]	[V]		[A]	[A]			[W]	rpm		%	[μF]	[plg ²]	[ft]	[Ω]
4MWP 05A162	0.5	0.37	450	115	1.6	8.6	10	4.2	0.65	800	3450	0.88	46	80	3 x 14	5 1/2	0.95
4MWP 05C162	0.5	0.37	450	230	1.6	3.9	5	4.6	0.65	800	3450	0.88	46	20	3 x 14	5 1/2	3.70
4MWP 07C162	0.75	0.55	450	230	1.5	6.3	6.9	4.3	0.65	1200	3450	0.82	47	25	3 x 14	5 1/2	2.50
4MWP 10C162	1	0.75	700	230	1.4	7.7	8.8	4.8	0.68	1500	3450	0.84	50	35	3 x 14	5 1/2	1.90
4MWP 15C162	1.5	1.1	700	230	1.3	11.8	12.7	4.7	0.7	2120	3450	0.85	53	40	3 x 14	5 1/2	1.45

P2: Rated output
 V: Rated voltage
 SF: Service factor
 I_n: Rated current
 I_n (SF): Service factor current
 I_s/I_n: Locked rotor current-Rated current
 C_s/C_n: Locked rotor Torque-Rated Torque

P1: Power consumption
 N: RPM
 Cos φ: Power factor
 η: Efficiency
 C: Capacitor
 Ø: Cable section
 LC: Cable length



4" Encapsulated Submersible Motors, Single and 3 Phase, 3 Wire Motors

Four inch, asynchronous, two pole, submersible motor, made in AISI 304 stainless steel for parts in contact with water.

Cooling and lubrication of the thrust bearing assembly and carbon brushes is provided by a mixture of water and glycol. Squirrel-cage rotor mounted on Kingsbury self-centring thrust bearing. Stator housed in an airtight stainless steel casing (canned type) with both flanges and shell in AISI 304L stainless steel.

Motor lead connection allows for fast and easy maintenance. Motor suitable for use with variable frequency drive (30Hz – 60Hz). Capacitor and manually resettable overload protection located in the control box that can be supplied separately for the single-phase version. Overload protection must be provided by user for the three-phase version.

General Features

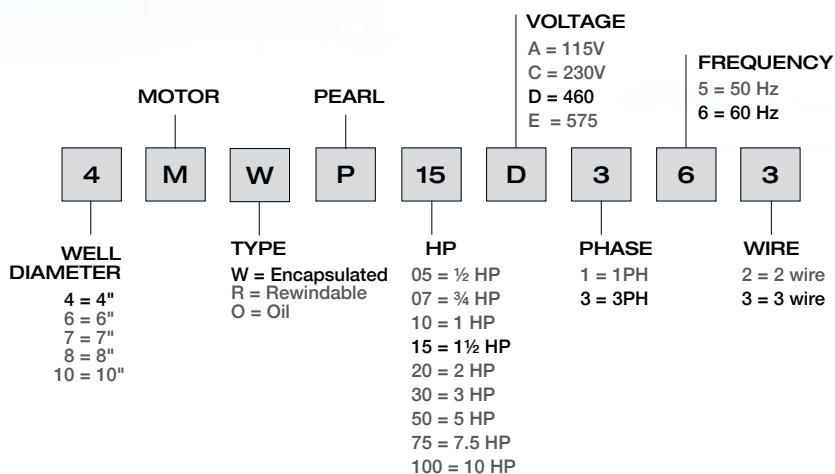
- NEMA 4" Flanges
- Protection IP68
- Insulation class F

Operating Limits

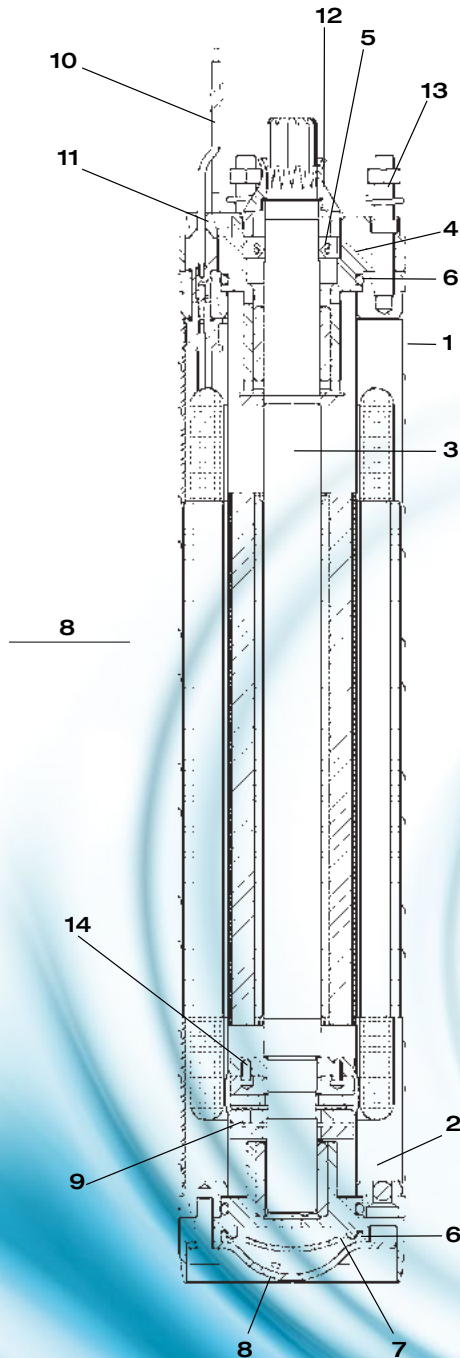
- Cooling flow: min. 0.2 m/s (0,66 ft/s)
- Voltage tolerance: $\pm 10\%$
- Max. motor startings per hour: 20
- Max. immersion depth: 984 feet (300 m)

Nomenclature

Reading the motor data in the label.



Components



	PART NAME	MATERIAL	TYPE
1	Internal and external sleeve	Stainless Steel	AISI 304
2	Stator	Stainless Steel	AISI 304L
3	Shaft	Stainless Steel	AISI 431
4	Upper bracket	Cast iron	
5	Bracket cover	Stainless Steel	AISI 304
6	Lip seal	Rubber	NBR
7	Gasket	Rubber	NBR
8	Lower bracket	Cast iron	
9	Diaphragm	Rubber	EDPM
10	Thrust bearing	Stainless steel-graphite	
11	Valve	Stainless Steel	AISI 304
12	Cable	Rubber	EDPM
13	Connecting plug	Stainless Steel	AISI 316
14	Sand slinger (fixed-removable)	Rubber	NBR
15	Bolt and screws	Stainless Steel	AISI 304
16	Cooling liquid	Antifreeze + water	



surface hardening and polishing of the working area of the brushes. Squirrel-cage rotor made in aluminium for replace with motors though 3HP, in copper for motors 4 HP and higher.

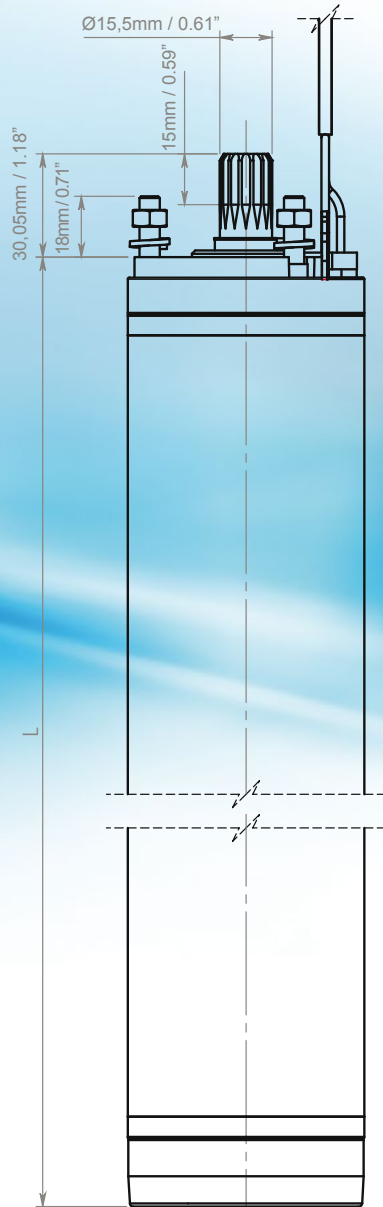


Kingsbury type thrust bearing unit consisting of tilting pads made of highly-resistant stainless steel and machined using the spherical lapping process.
From 0,5 HP to 1,5 HP: 2000N
From 2 HP to 3 HP: 3000N
From 4HP to 10HP: 6000N



4MWP

4" Encapsulated Submersible Motors, Single and 3 Phase, 3 Wire Motors



Dimensions

4MWP - SINGLE PHASE / 3 WIRE

MODEL	P2		L		WEIGHT	
	[HP]	[kW]	[mm]	[inch]	[Kg]	[lbs]
4MWP 05	0.5	0.37	266	10.472	9.2	20.3
4MWP 07	0.75	0.55	286	11.26	10.1	22.3
4MWP 10	1	0.75	346	13.622	13	27.8
4MWP 15	1.5	1.1	411	16.181	15.1	34.3
4MWP 20	2	1.5	411	16.181	15.2	33.6
4MWP 30	3	2.2	451	17.756	18	39.8
4MWP 50	5	3.7	684	26.929	27.3	60.3

4MWP - THREE PHASE / 3 WIRE

MODEL	P2		L		WEIGHT	
	[HP]	[kW]	[mm]	[inch]	[Kg]	[lbs]
4MWP 05	0.5	0.37	236	9.291	7.8	17.2
4MWP 07	0.75	0.55	266	10.472	9.2	20.3
4MWP 10	1	0.75	286	11.26	10.1	22.3
4MWP 15	1.5	1.1	346	13.622	12.1	26.7
4MWP 20	2	1.5	391	15.394	14.2	31.4
4MWP 30	3	2.2	411	16.181	15.1	33.4
4MWP 50	5	3.7	614	24.173	23.7	52.4
4MWP 75	7.5	5.5	684	26.929	27.3	60.3
4MWP 100	10	7.5	764	30.079	31.3	69.2

Other Options

Motor leads with different lengths.
Different supply voltages.
Thermal protection (60 Hz - PSC).

4MWP

4" Encapsulated Submersible Motors, Single and Three Phase

Electrical Data 60 Hz

4MWP - SINGLE PHASE / 3 WIRE

MODEL	P2		AXIAL LOAD	V	SF	I _n	I _n (SF)	I _s / I _n	Cs / Cn	P1	N	Cos φ	η	C ¹	C ²	Ø	LC	Rm	Rstart
	[HP]	[kW]	[lbf]	[V]		[A]	[A]			[W]	rpm		%	[μF]	[μF]	[plg ²]	[m]	[Ω]	[Ω]
4MWP 05A163	0.5	0.37	450	115	1.6	10	12.6	4.2	0.65	1050	3450	0.8	56	-	250-300	4 x 14	5 1/2	1.2	4.9
4MWP 05C163	0.5	0.37	450	230	1.6	5.5	6.6	4.6	0.65	1130	3450	0.78	54	-	59-71	4 x 14	5 1/2	3.9	15.0
4MWP 07C163	0.75	0.55	450	230	1.5	7.4	8.6	4	0.65	1420	3450	0.82	56	-	86-103	4 x 14	5 1/2	3.0	10.8
4MWP 10C163	1	0.75	700	230	1.4	8.3	9.8	4.9	0.68	1650	3450	0.8	62	-	105-126	4 x 14	5 1/2	2.4	9.9
4MWP 15C163	1.5	1.1	700	230	1.3	10.1	11.5	4.6	0.7	2100	3450	0.88	67	10	105-126	4 x 14	5 1/2	1.8	9.1
4MWP 20C163	2	1.5	700	230	1.25	10.6	13	5.4	0.65	2700	3450	0.95	70	20	105-126	4 x 14	5 1/2	1.9	5.7
4MWP 30C163	3	2.2	700	230	1.15	14.3	16.2	3.6	0.5	3500	3450	0.94	71	45	208-250	4 x 14	5 1/2	1.2	2.5
4MWP 50C163	5	3.7	1400	230	1.15	22.2	24.3	3.3	0.5	5700	3450	0.98	76	2x40	270-324	4 x 14	8 3/4	0.8	1.5

4MWP - 3 PHASE / 3 WIRE

MODEL	P2		AXIAL LOAD	V	SF	I _n	I _n (SF)	I _s / I _n	Cs / Cn	P1	N	Cos φ	η	C	Ø	LC	R
	[HP]	[kW]	[lbf]	[V]		[A]	[A]			[W]	rpm		%	[μF]	[plg ²]	[ft]	[Ω]
4MWP 05C363	0.5	0.37	450	230	1.6	3.6	3.7	4.4	3.2	870	3450	0.4	42	-	4 x 14	5 1/2	5.80
4MWP 05D363	0.5	0.37	450	460	1.6	1.6	1.9	5.0	3.2	870	3450	0.4	42	-	4 x 14	5 1/2	25.60
4MWP 07C363	0.75	0.55	450	230	1.5	4.6	4.9	5.2	3.6	1140	3450	0.47	48	-	4 x 14	5 1/2	3.90
4MWP 07D363	0.75	0.55	450	460	1.5	2.2	2.4	5.5	3.6	1140	3450	0.47	48	-	4 x 14	5 1/2	17.30
4MWP 10C363	1	0.75	450	230	1.4	4.7	5.2	6.4	4.2	1260	3450	0.59	59	-	4 x 14	5 1/2	3.70
4MWP 10D363	1	0.75	450	460	1.4	2.6	2.8	5.8	4.2	1260	3450	0.59	59	-	4 x 14	5 1/2	13.0
4MWP 15C363	1.5	1.1	700	230	1.3	8.1	8.5	5.9	4.1	1875	3450	0.53	60	-	4 x 14	5 1/2	2.30
4MWP 15D363	1.5	1.1	700	460	1.3	3.6	3.9	6.7	4.1	1875	3450	0.53	60	-	4 x 14	5 1/2	8.90
4MWP 20C363	2	1.5	700	230	1.25	10.2	10.8	6.1	3.8	2230	3450	0.57	67	-	4 x 14	5 1/2	1.60
4MWP 20D363	2	1.5	700	460	1.25	4.6	4.9	6.7	3.8	2230	3450	0.57	67	-	4 x 14	5 1/2	6.0
4MWP 30C363	3	2.2	700	230	1.15	10.7	11.6	7.5	4.8	3160	3450	0.69	71	-	4 x 14	5 1/2	1.30
4MWP 30D363	3	2.2	700	460	1.15	5.6	6	7.1	4.8	3160	3450	0.69	71	-	4 x 14	5 1/2	5.10
4MWP 50C363	5	4	1400	230	1.15	17.8	19.2	7.4	4	5230	3450	0.7	77	-	4 x 14	8 3/4	0.83
4MWP 50D363	5	4	1400	460	1.15	8.9	9.6	7.4	4	5230	3450	0.7	77	-	4 x 14	8 3/4	3.30
4MWP 75C363	7.5	5.5	1400	230	1.15	25.7	27.5	7.5	3.8	7100	3450	0.71	78	-	4 x 14	8 3/4	0.60
4MWP 75D363	7.5	5.5	1400	460	1.15	12	13	7.5	3.8	7100	3450	0.71	78	-	4 x 14	8 3/4	2.35
4MWP 100D363	10	7.5	1400	460	1.15	15.4	16.6	7.1	3.9	9300	3450	0.78	80	-	4 x 14	11 1/2	2.0



4" Oil Filled Submersible Motors, Single and 3 Phase, 3 Wire

Four inch, asynchronous, two pole, rewindable submersible motor, rewindable-type, made in AISI 304 stainless steel for parts in contact with water.

Cooling and lubrication of the ball bearings is provided by a special FDA-approved liquid. Stator housed in an external shell in AISI 304L (rewindable-type) connected with stainless steel pins to the upper support of the motor.

Motor lead allows fast and easy maintenance. Motor suitable for use with variable frequency drive (30Hz – 60Hz). Capacitor and manually resettable overload protection located in the control box that can be supplied separately for the single-phase version.

Overload protection must be provided by user for the three-phase version. The motor can be equipped with a PT100 temperature sensor.

General Features

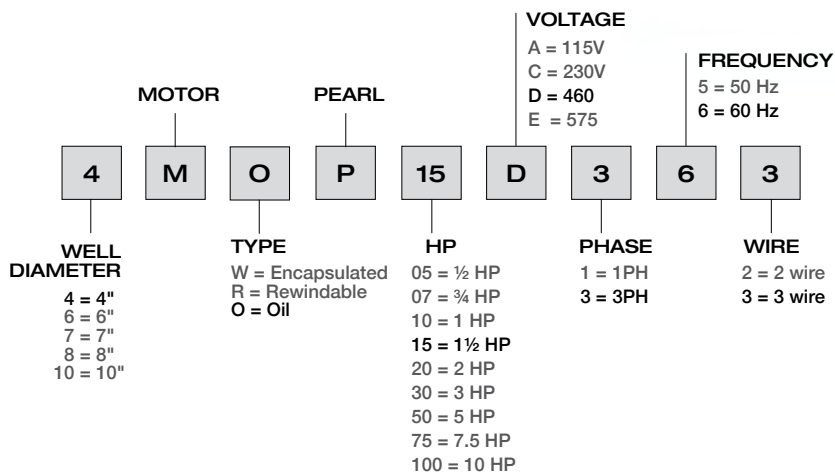
- NEMA 4" Flanges
- Protection IP68
- Insulation class F

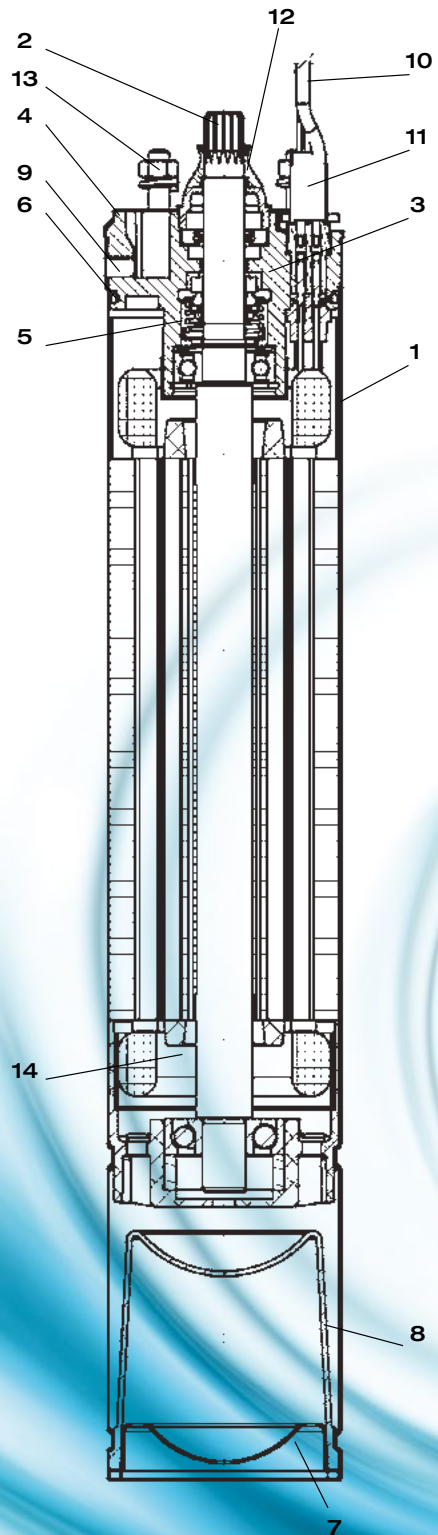
Operating Limits

- Cooling flow: min. min. 0.15 m/s (0.5 ft/s)
- Voltage tolerance: $\pm 10\%$
- Max. motor startings per hour: 20
- Max. immersion depth: 2690 feet (820 m)
- Horizontal operation: 0,5 HP - 10 HP

Nomenclature

Reading the motor data in the label.





Components

	PART NAME	MATERIAL	TYPE
1	External sleeve	Stainless Steel	AISI 304
2	Shaft	Stainless Steel	AISI 431
3	Upper bracket	Cast iron	
4	Bracket cover	Stainless Steel	AISI 304
5	Mechanical Seal	Ceramic - carbon	
6	Gasket	Rubber	NBR
7	Lower cover	Stainless Steel	NBR
8	Diaphragm	Rubber	EDPM
9	Pins	Stainless Steel	
10	Cable	Rubber	EDPM
11	Connecting plug	Stainless Steel	AISI 316
12	Sand slinger (fixed-removable)	Rubber	NBR
13	Bolt and screws	Stainless Steel	AISI 304
14	Cooling liquid	Antifreeze + water	



Rewindable stator with external shell made in AISI 304L stainless steel. The stator has 24 slots for better elasticity and regularity of operation. Class H double insulated copper wire.



Oversized high axial load ball bearings.
From 0.5 HP to 2 HP: 2000N
3 HP: 3000N
From 4 HP to 5.5 HP: 3000N
From 7.5HP to 10HP: 5000N

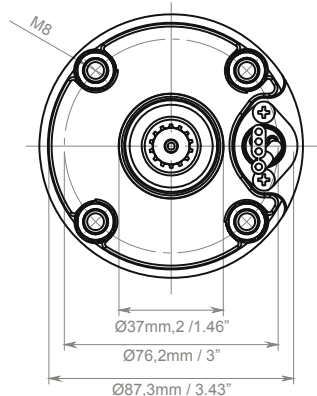
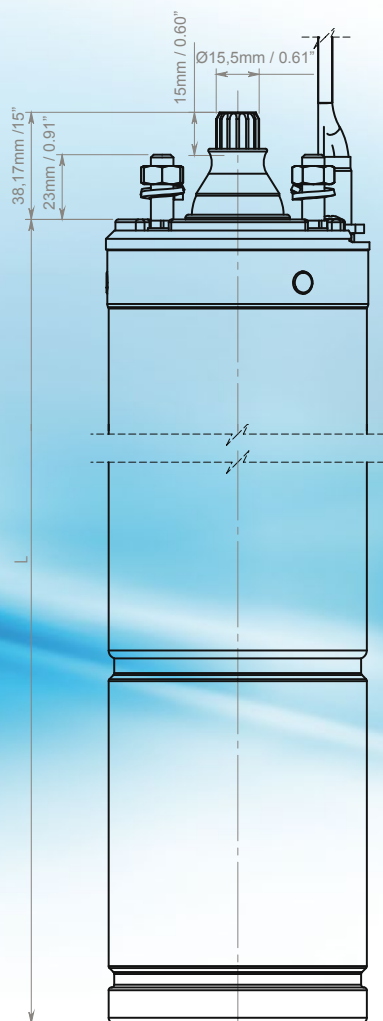


Shafts with end part made of stainless steel AISI 304/Duplex with a special process of surface hardening and polishing of the working area of the brushes. Squirrel-cage rotor made in aluminium for motors though 3 HP, in copper for motors 4 HP and higher.



4MOP

4" Oil Filled Submersible Motors, Single and 3 Phase, 3 Wire



Dimensions

4MOP - SINGLE PHASE / 3 WIRE

MODEL	P2		L		WEIGHT	
	[HP]	[kW]	[mm]	[inch]	[Kg]	[lbs]
4MOP 05	0.5	0.37	325	12.8	6.6	14.5
4MOP 07	0.75	0.55	325	12.8	7.5	16.5
4MOP 10	1	0.75	375	14.76	8.7	19.2
4MOP 15	1.5	1.1	395	15.55	9.6	21.1
4MOP 20	2	1.5	439	17.32	11.5	25.35
4MOP 30	3	2.2	558	21.96	15.8	34.8
4MOP 50	5	3.7				

4MOP - 3 PHASE / 3 WIRE

MODEL	P2		L		WEIGHT	
	[HP]	[kW]	[mm]	[inch]	[Kg]	[lbs]
4MOP 05	0.5	0.37	325	12.8	6.6	14.5
4MOP 07	0.75	0.55	325	12.8	6.6	14.5
4MOP 10	1	0.75	345	13.58	7.9	6.5
4MOP 15	1.5	1.1	375	14.76	8.7	19.2
4MOP 20	2	1.5	394	15.55	9.6	21.1
4MOP 30	3	2.2	498	19.6	11.5	25.35
4MOP 50	5.5	4	628	24.72	23	50.7
4MOP 75	7.5	5.5	698	27.48	26.6	58.7
4MOP 100	10	7.5	778	30.62	30.6	67.6

Other Options

Motor leads with different lengths.
Different supply voltages.
Temperature sensor.

Electrical Data 60 Hz

4MOP - SINGLE PHASE / 3 WIRE

MODEL	P2		AXIAL LOAD	V	SF	I _n	I _n (SF)	I _s / I _n	C _s / C _n	P1	N	Cos φ	η	C	Ø	LC
	[HP]	[kW]														
4MOP 05A163	0.5	0.37	2000	115	1.6	8	10	3.4	0.6	830	3450	0.90	64	65	4 x 0.002	5
4MOP 05C163	0.5	0.37	2000	230	1.6	3.8	4.5	3.4	0.6	830	3450	0.90	64	16	4 x 0.002	5
4MOP 07A163	0.75	0.55	2000	115	1.5	10	12.2	3.4	0.65	1100	3470	0.85	65	80	4 x 0.002	5
4MOP 07C163	0.75	0.55	2000	230	1.5	5	6.1	3.4	0.65	1100	3470	0.85	65	20	4 x 0.002	5
4MOP 10A163	1	0.75	2000	115	1.4	14	16	3.9	0.62	1350	3450	0.84	68	100	4 x 0.002	5
4MOP 10C163	1	0.75	2000	230	1.4	7	8.1	3.9	0.62	1350	3450	0.84	68	25	4 x 0.002	5
4MOP 15C163	1.5	1.1	2000	230	1.3	8.9	10.4	4.0	0.6	1850	3440	0.88	69	35	4 x 0.002	5
4MOP 20C163	2	1.5	2000	230	1.25	11.3	13	4.0	0.6	2300	3430	0.90	72	40	4 x 0.002	5
4MOP 30C163	3	2.2	3000	230	1.15	14.8	16.5	3.8	0.6	3300	3440	0.90	74	50	4 x 0.002	5
4MOP 50C163	5	3.7	3000	230	1.15	23.7	26.7	3.5	0.5	5100	3480	0.94	74	75	4 x 0.003	8

4MOP - 3 PHASE / 3 WIRE

MODEL	P2		AXIAL LOAD	V	SF	I _n	I _n (SF)	I _s / I _n	C _s / C _n	P1	N	Cos φ	η	C	Ø	LC
	[HP]	[kW]														
4MOP 05C363	0.5	0.37	2000	230	1.6	3.1	3.4	5.2	4.8	720	3450	0.4	68	-	4 x 0.002	5
4MOP 05D363	0.5	0.37	2000	460	1.6	1.5	1.7	5.2	4.8	720	3450	0.4	64	-	4 x 0.002	5
4MOP 07C363	0.75	0.55	2000	230	1.5	4.3	5	4.4	4.8	900	3450	0.47	69	-	4 x 0.002	5
4MOP 07D363	0.75	0.55	2000	460	1.5	2	2.4	4.4	4.8	900	3450	0.47	83	-	4 x 0.002	5
4MOP 10C363	1	0.75	2000	230	1.4	6.2	6.6	4.7	4.8	1320	3450	0.59	72	-	4 x 0.002	5
4MOP 10D363	1	0.75	2000	460	1.4	2.8	3	4.7	4.8	1320	3450	0.59	84	-	4 x 0.002	5
4MOP 15C363	1.5	1.1	2000	230	1.3	6.9	7.6	5.8	5.8	1600	3450	0.53	72	-	4 x 0.002	5
4MOP 15D363	1.5	1.1	2000	460	1.3	3.6	4	5.8	5.8	1600	3450	0.53	83	-	4 x 0.002	5
4MOP 20C363	2	1.5	2000	230	1.25	8.2	9	5.9	5.2	2150	3450	0.57	74	-	4 x 0.002	5
4MOP 20D363	2	1.5	2000	460	1.25	4.5	5	5.9	5.2	2150	3450	0.57	84	-	4 x 0.002	5
4MOP 30C363	3	2.2	3000	230	1.15	11.3	12	5.5	5	3050	3420	0.69	74	-	4 x 0.002	5
4MOP 30D363	3	2.2	3000	460	1.15	5.6	6	5.5	5	3050	3420	0.69	83	-	4 x 0.002	5
4MOP 50C363	5.5	4	4000	230	1.15	17.3	18.7	7.5	4	5500	3520	0.7	75	-	4 x 0.003	8
4MOP 50D363	5.5	4	4000	460	1.15	8	9	7.5	4	5500	3520	0.7	82	-	4 x 0.002	8
4MOP 75C363	7.5	5.5	5000	230	1.15	23	25	7.5	3.8	6800	3520	0.71	75	-	4 x 0.003	8
4MOP 75D363	7.5	5.5	5000	460	1.15	11.4	12.5	7.5	3.8	6800	3520	0.71	80	-	4 x 0.002	8
4MOP 100C363	10	7.5	5000	230	1.15	30.2	33.2	7.1	3.9	9300	3500	0.78	81	-	4 x 0.003	11
4MOP 100D363	10	7.5	5000	460	1.15	15.1	16.6	7.1	3.9	9300	3500	0.78	79	-	4 x 0.003	11

P2: Rated output
 V: Rated voltage
 SF: Service factor
 I_n: Rated current
 I_n (SF): Service factor current
 I_s/I_n: Locked rotor current-Rated current
 C_s/C_n: Locked rotor Torque-Rated Torque

P1: Power consumption
 N: RPM
 Cos φ: Power factor
 η: Efficiency
 C: Capacitor
 Ø: Cable section
 LC: Cable length

Water cooled motors with encapsulated resin filled stator.
Coupling dimensions and flange according to NEMA standard.

General Features

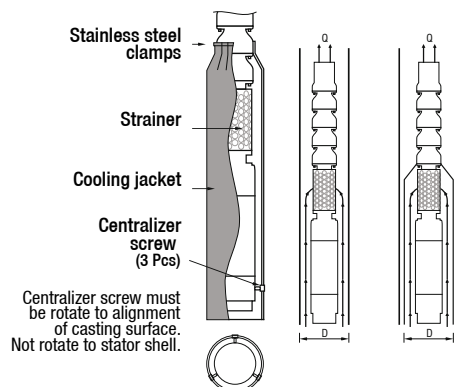
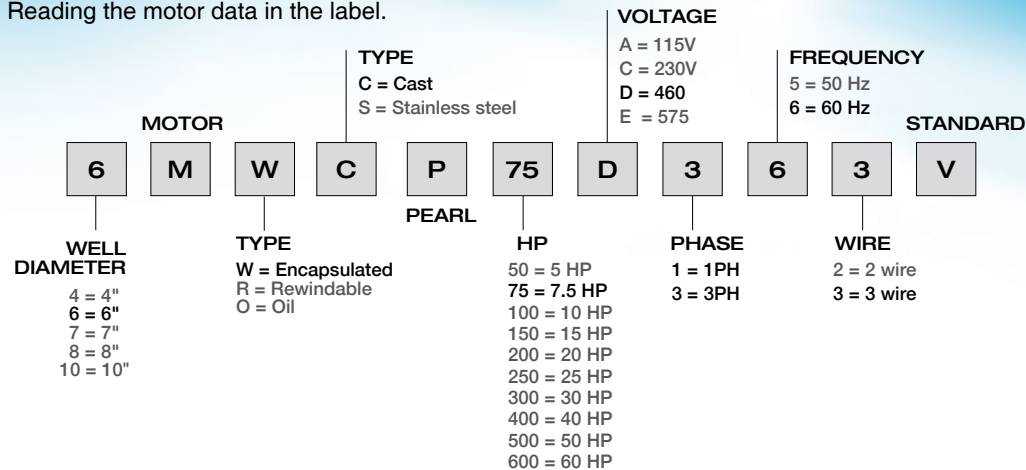
- 5,5-60 HP / 3 PH. 220-230 Volts / 60Hz
- High efficiency provides operation cost savings
- Motor casing and shaft made of AISI304L stainless steel (Optional AISI316L)
- High resistance coated cast iron upper and lower bracket (Optional AISI304L / AISI316L)
- Water lubricated Kingsbury type thrust bearings
- Protection IP68
- Sand slinger protection
- Pressure equalizing diaphragm
- Insulation class F
- Removable lead cable
- Starting method D.O.L. or star/delta
- Variable operation revolutions by frequency drive (over 30 Hz)
- Availability to be operated by Soft-Starter

Operating Limits

- Max. voltage fluctuation: $\pm 10\%$
- Max. water temperature: 95°F (35°C) with at least 0.16 m/s (0.53 ft/s) of water flow speed
- Max. motor startings per hour: 20
- Max. immersion depth: 1150 feet (350 m)
- Horizontal operation: 5 HP - 30 HP

Nomenclature

Reading the motor data in the label.



Use cooling jacket

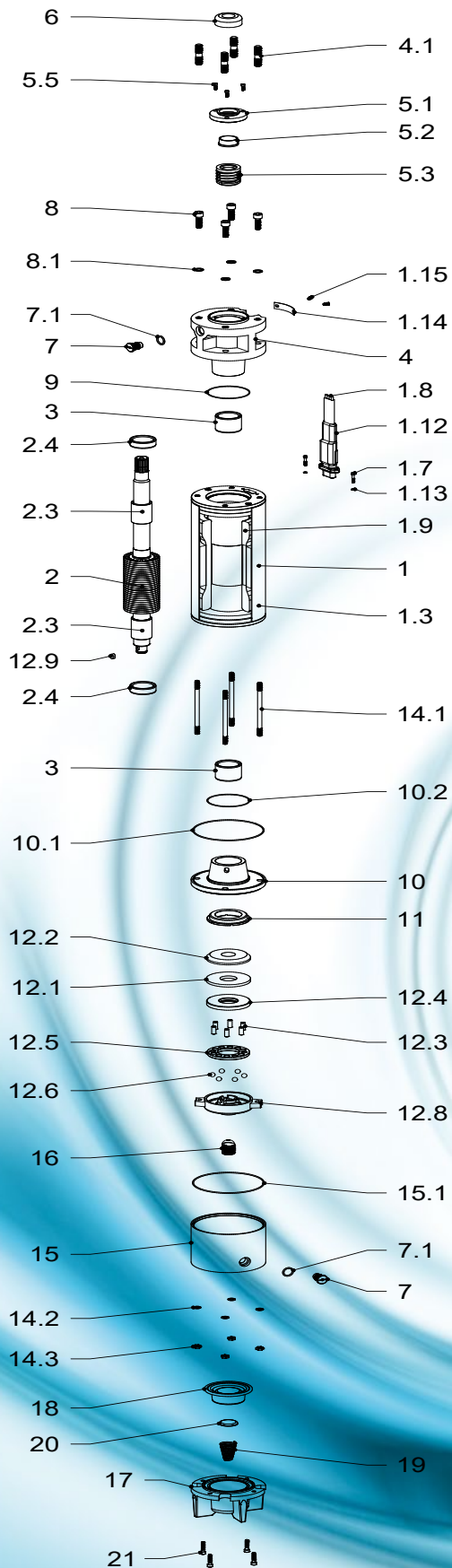
Cooling of submersible motors is provided with the flow of the water around it. That's why water flow around motors has vital importance during submersible pump installation. This flow rate depends on diameter and power of motor.

Most important factor of submersible motors' long service life is that the motor must have adequate flow for proper cooling. See adjacent table.

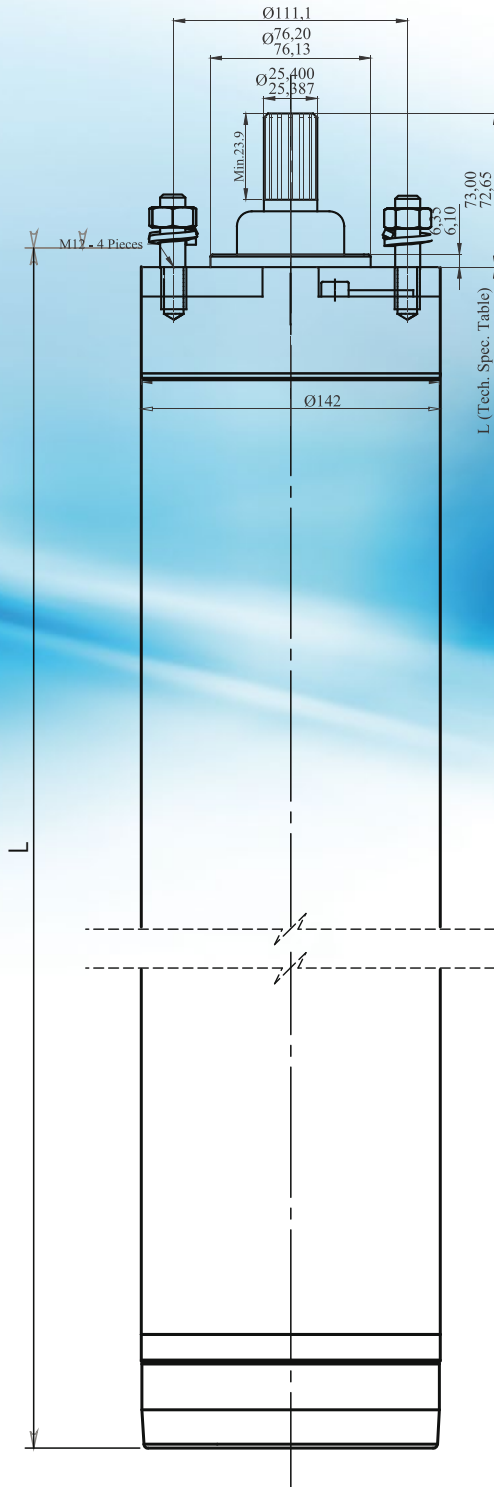
If the motor will be installed in an open body of water (i.e pool) or diameter of the well is much bigger than the diameter of the motor, Flow Inducer Sleeve must be used to provide the flow velocities that are given in the table below, around the motor.



Components



No	PARTS	MATERIAL
1	Stator	-
1.3	Stator shell	AISI 304
1.7	Socket screw	Inox
1.8	Cable	NYN
1.9	Winding wire	Copper
1.12	VSM Connection female	-
1.13	Washer	Inox
1.14	Cable protection plate	AISI 304
1.15	Socket screw	Inox
2	Rotor	-
2.3	Shaft sleeve	Coated CrNi
2.4	Balance ring	St 37
3	Radial bearing	Resin Impregnated Carbon
4	Upper bearing body	GG 25
4.1	Stud	Inox
5.1	Cover seal	AISI 420
5.2	Bushing	Bronze
5.3	Mechanical seal	Ceramic Carbon
5.5	Socket screw	Inox
6	Slinger (sand guard)	NBR-EPDM
7	Check-valve	Bronze / AISI 302
7.1	O-ring	NBR-EPDM
8	Socket screw	Inox
8.1	Washer	Inox
9	O-ring	NBR-EPDM
10	Lower bearing body	GG 25
10.1	O-ring	NBR-EPDM
10.2	O-ring	NBR-EPDM
11	Up-Thrust	Bronze
12.1	Metal table	-
12.2	Carbon	Antimony Impregnated Carbon
12.3	Ball holder pins	Inox
12.4	Tilting pads	AISI 420
12.5	Ball holder	St 37 (Coated Cr+3)
12.6	Thrust bearing ball	AISI 420
12.8	Thrust bearing support	GG 25
12.9	Axial thrust bearing key	AISI 420
14.1	Tie rod	AISI 420 / AISI 304
14.2	Washer	Cu
14.3	Nut	Inox
15	Thrust bearing body	GG 25
15.1	O-ring	NBR-EPDM
16	Screw (thrust bearing base)	Inox
17	Membrane body	GG 25
18	Membrane	NBR-EPDM
19	Spring	Inox
20	Sheet	AISI 304
21	Socket screw	Inox



Dimensions

6MWCP- SINGLE PHASE / 3 WIRE

MODEL	P2		L		WEIGHT	
	[HP]	[kW]	[mm]	[plg]	[Kg]	[lbs]
6MWCP 75	7.5	5.5	598	23.5	43	95
6MWCP 100	10	7.5	653	25	48	106
6MWCP 150	15	11	718	28	55	121.6

6MWCP- 3 PHASE / 3 WIRE

MODEL	P2		L		WEIGHT	
	[HP]	[kW]	[mm]	[plg]	[Kg]	[lbs]
6MWCP 50	5	3.7	578	22.7	41	90.6
6MWCP 75	7.5	5.5	598	23.5	43	95
6MWCP 100	10	7.5	653	25.7	48	106
6MWCP 150	15	11	718	28.3	55	121.6
6MWCP 200	20	15	798	31.4	61	134.8
6MWCP 250	25	18.5	858	33.8	68	150.3
6MWCP 300	30	22	898	35.3	74	163.6
6MWCP 400	40	30	1063	41.8	88	194.5
6MWCP 500	50	37	1198	47.2	137	302.8

Electrical Data 60 Hz

6MWCP - SINGLE PHASE / 3 WIRE

MODEL	P _N		AXIAL LOAD	VOLT.	SF	I _N			I _N (SF)			N	η	Cos φ (% load)	CABLE	CABLE LC
	[kW]	[HP]	[kN]	V		A			A			rpm	%	sf	size	ft
						line	main	aux	line	main	aux					
6MWCP 75C163V	5.5	7.5	20	230	1.15	36.8	34.6	5.5	42.30	39.80	6.30	3445	73	0.89	3X10 AWG	12
6MWCP 100C163V	7.5	10	20	230	1.15	45.2	40.6	9.5	52.0	46.7	10.9	3450	75	0.94	3X10 AWG	12
6MWCP 150C163V	11	15	20	230	1.15	62.4	51.8	17.5	71.8	59.6	20.1	3460	78	0.96	3X10 AWG	12

CAPACITOR (μF)		
POWER	CAP. START	CAP. RUN
7,5 HP	145	130
10 HP	280	140
15 HP	300	200

WIRE / CABLE	US	PEARL
Line or Common Winding	(Yellow) lead	(Black) lead
Main Winding	(Black) lead	(Gray) lead
Start or Auxiliari Winding	(Red) lead	(Brown) lead
Ground	(Green) lead	(Yellow/Green) lead

RESISTANCE [Ω]		
Yellow-Red Wire	Yellow-Black Wire	Red-Black Wire
1.18	0.42	1.57
0.83	0.35	1.14
0.58	0.24	0.80

6MWCP - 3 PHASE / 3 WIRE

MODEL	P _N		AXIAL LOAD	VOLT.	N	I _N	I _N - SF	I _A	η (% load)			Cos φ (% load)			TN	TA	RESISTANCE 3 ~ 60 hz
	[HP]	[kW]	[kN]	V	rpm	A	A	A	50	75	100	50	75	100	Nm	Nm	Dol (U1-V1) [Ω]
6MWCP 50D363V	5	4	20	460	3470	7,8	9	32,0	71.1	75.9	78	0.73	0.79	0.83	10,9	18,1	4.75
6MWCP 50C363V				230	3455	16.3	18.7	66,9	70	75	78	0.73	0.79	0.83	11,2	19,0	1.72
6MWCP 75D363V	7,5	5,5	20	460	3430	9,8	11.3	52,5	73.5	78.6	80	0.79	0.83	0.88	15,2	29,2	3.12
6MWCP 75C363V				230	3415	20.5	23.6	109,8	72.5	77.5	79	0.79	0.83	0.88	15,5	30,1	1.32
6MWCP 100D363V	10	7,5	20	460	3460	14,2	16.3	75,0	69.6	75.6	78	0.74	0.81	0.85	20,5	44,8	1.59
6MWCP 100C363V				230	3445	29.7	34.2	156,8	69	74.7	77	0.79	0.83	0.88	20,8	45,7	0.46
6MWCP 150D363V	15	11	20	460	3490	18,0	20.7	97,2	72.6	78.1	85	0.75	0.81	0.9	30,1	71,0	0.83
6MWCP 150C363V				230	3475	37.6	43.2	203,2	71.6	77.2	84	0.75	0.81	0.9	30,4	71,9	0.51
6MWCP 200D363V	20	15	20	460	3485	26,4	30.4	195,0	72.3	77.9	81	0.77	0.81	0.86	41,1	98,0	0.83
6MWCP 200C363V				230	3470	55.2	63.5	407,7	71.5	77	81	0.77	0.81	0.86	41,4	98,9	0.33
6MWCP 250D363V	25	18,5	20	460	3490	34,1	39.2	265,0	71.8	77.5	82	0.74	0.8	0.85	50,5	138,0	0.95
6MWCP 250C363V				230	3475	71.3	82	554,1	70.9	76.5	82	0.74	0.8	0.85	50,8	138,9	0.25
6MWCP 300D363V	30	22	20	460	3485	39,5	45.4	300,0	74.4	79.3	82	0.75	0.8	0.86	60,2	157,0	0.54
6MWCP 300C363V				230	3470	82.6	95	627,3	73.4	79.3	82	0.75	0.8	0.86	60,5	157,9	0.16
6MWCP 400D363V	40	30	26,5	460	3490	55,6	63.9	444,0	73.1	78.4	83	0.74	0.8	0.84	81,6	240,0	0.42
6MWCP 400C363V				230	3475	116,3	133.7	928,4	72.2	77.5	83	0.74	0.8	0.84	81,9	240,9	0.14
6MWCP 500D363V	50	37	26,5	460	3480	69,0	79.4	516,0	73.4	78.6	83	0.7	0.78	0.83	100,7	249,0	0.33
6MWCP 500C363V				230	3465	144,3	165.9	1.078,9	73.5	77.7	83	0.7	0.78	0.83	101,0	249,9	0.12

P2: Rated output
 V: Rated voltage
 SF: Service factor
 I_N: Rated current
 I_N (SF): Service factor current
 I_s/I_N: Locked rotor current-Rated current
 C_s/C_N: Locked rotor Torque-Rated Torque

P1: Power consumption
 N: RPM
 Cos φ: Power factor
 η: Efficiency
 C: Capacitor
 Ø: Cable section
 LC: Cable length

Pearl®

6MRCP - 6MRSP

6" Rewindable Submersible Motors

6" rewindable submersible motors, asynchronous, two pole submersible motor, made combining cast iron and AISI 304 stainless steel or full stainless steel 304 or 316, to get the best durability and resistance. Available up to 60 HP.

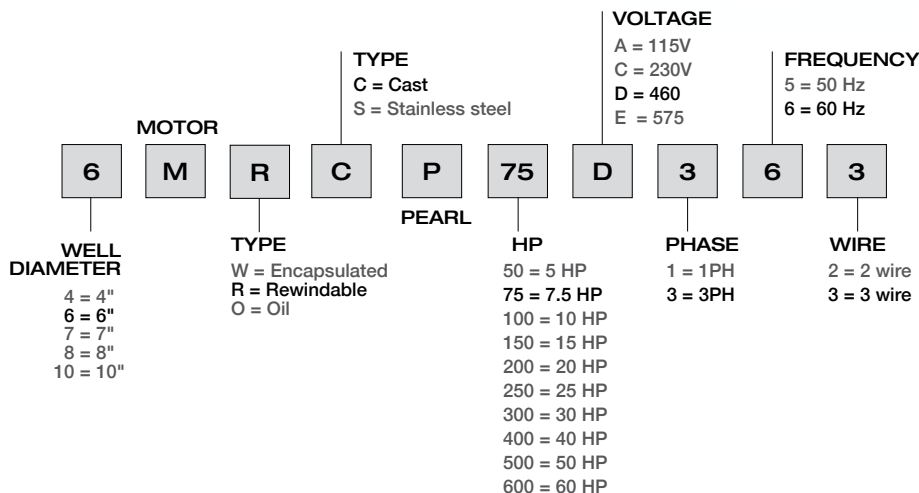
Our electrical design provides the best efficiency motor, bringing the best performance out of your submersible pump. PEARL MOTORS suitable for use with variable frequency drive (30Hz – 60Hz).

General Features

- Rewindable 6MRCP and 6MRSP motors up to 60 HP
- High efficiency provides operation cost savings
- Flange with NEMA standards
- Stainless steel shaft
- Optional high corrosion resistive materials (AISI 304 - AISI 316 - Duplex - Bronze)
- Standard motor. Max. ambient water temperature 85°F (30° C) (optional up to 150°F (70°C))
- Max. Ambient water temperature up to 176°F (80°C) when motor is provided with PE2 + PA winding wire and PT100.
- Minimum water flow for temperature above indicated:
0.65 ft/seg (0.2 m/seg) for motors up to 25 HP.
1.64 ft/seg (0.5 m/seg) for motors up to 60 HP
- Standard voltage 220/230/380/460V - 50/60 Hz
(Allowable voltage tolerance $\pm$ %10)
- Variable operation revolutions by frequency drive (over 30 Hz)
- Availability to be operated by Soft-Starter
- CW & CCW direction of rotation
- Rewindable Motors (PVC, PP & PE2 + PA winding wire) provides long service life

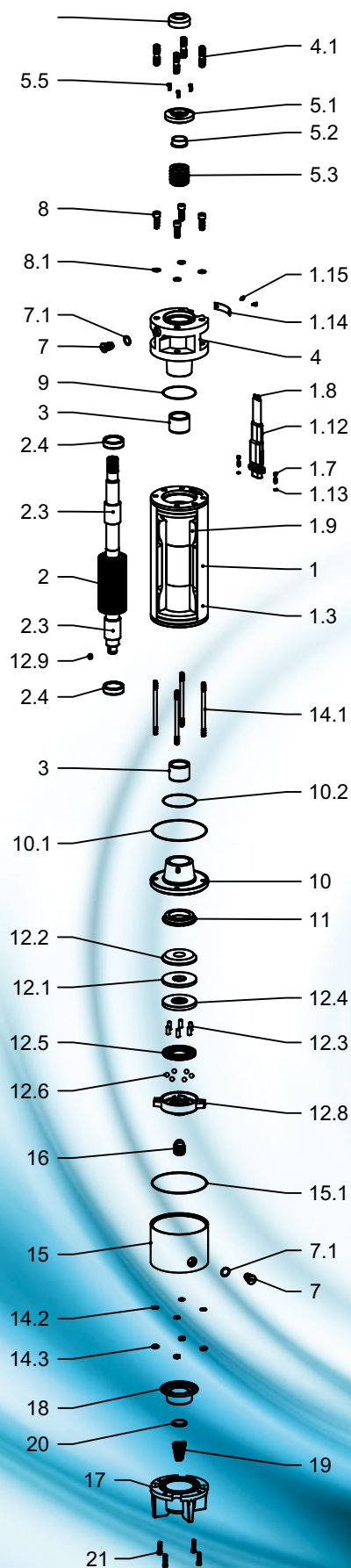
Nomenclature

Reading the motor data in the label.



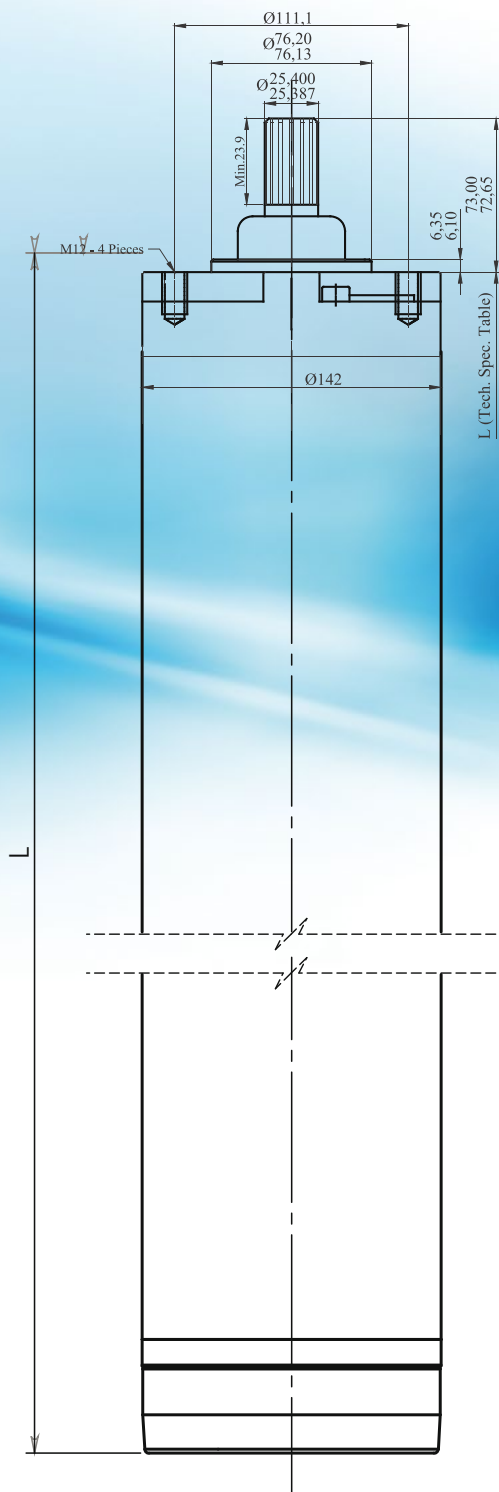
6MRCP - 6MRSP

6" Rewindable Submersible Motors



Components

No	PART NAME	MATERIAL
1	Stator	-
1.3	Stator Shell	AISI 304
1.7	Socket Screw	Inox
1.8	Cable	NYT
1.9	Winding Wire	Copper
1.12	VSM Connection Female	-
1.13	Washer	Inox
1.14	Cable Protection Plate	AISI 304
1.15	Socket Screw	Inox
2	Rotor	-
2.3	Shaft Sleeve	Coated CrNi
2.4	Balance Ring	St37
3	Radial Bearing	Resin Impregnated Carbon
4	Upper Bearing Body	GG 25
4.1	Stud	Inox
5.1	Cover Seal	AISI 420
5.2	Bushing	Bronze
5.3	Mechanical Seal	Ceramic Carbon
5.5	Socket Screw	Inox
6	Slinger (Sand Guard)	NBR - EPDM
7	Check - Valve	Bronze / AISI 302
7.1	O - Ring	NBR - EPDM
8	Socket Screw	Inox
8.1	Washer	Inox
9	O - Ring	NBR - EPDM
10	Lower Bearing Body	GG 25
10.1	O - Ring	NBR - EPDM
10.2	O - Ring	NBR - EPDM
11	Up - Thrust	Bronze
12.1	Metal Table	-
12.2	Carbon	Antimony Impregnated Carbon
12.3	Ball Holder Pins	Inox
12.4	Tilting Pads	AISI 420
12.5	Ball Holders	St37 Coated Cr+3
12.6	Thrust Bearing Ball	AISI 420
12.8	Thrust Bearing Support	GG 25
12.9	Axial Thrust Bearing Key	AISI 420
14.1	Tie Rod	AISI 420 / AISI 304
14.2	Washer	Cu
14.3	Nut	Inox
15	Thrust Bearing Body	GG 25
15.1	O - Ring	NBR - EPDM
16	Screw (Thrust Bearing Base)	Inox
17	Membrane Body	GG 25
18	Membrane	NBR - EPDM
19	Spring	Inox
20	Sheet	AISI 304
21	Socket Screw	Inox



Dimensions

6MRCP - 3 PHASE / 3 WIRE

MODEL	P2		L		WEIGHT	
	[HP]	[kW]	[mm]	[plg]	[Kg]	[lbs]
6MRCP 50	5.5	4	649	25.6	40	88.4
6MRCP 75	7,5	5,5	678	26.7	43.5	96.1
6MRCP 100	10	7,5	758	29.8	50	110.5
6MRCP 150	15	11	851	33.5	60	132.6
6MRCP 200	20	15	973	38.3	72	159.1
6MRCP 250	25	18,5	1006	39.6	76	168
6MRCP 300	30	22	1106	43.5	87	192.3
6MRCP 400	40	30	1247	49.1	98	217
6MRCP 500	50	37	1347	53	103	228
6MRCP 600	60	40	1347	53	110	243

6MRSP - 3 PHASE / 3 WIRE

MODEL	P2		L		WEIGHT	
	[HP]	[kW]	[mm]	[plg]	[Kg]	[lbs]
6MRSP 50	5.5	4	594	23.4	38	83.9
6MRSP 75	7.5	5.5	623	24.5	42	92.8
6MRSP 100	10	7.5	703	27.7	48	106.1
6MRSP 150	15	11	796	31.3	58	128.2
6MRSP 200	20	15	918	36.14	70	154.7
6MRSP 250	25	18.5	951	37.4	74	163.5
6MRSP 300	30	22	1051	41.4	85	187.5
6MRSP 400	40	30	1196	47	101	223.2
6MRSP 500	50	37	1296	50.8	108	238.6
6MRSP 600	60	40	1296	53	115	254

Other Options

Motor leads with different lengths.
Different supply voltages.

Electrical Data 60 Hz

6MRCP - 3 PHASE / 3 WIRE

MODEL	PN		AXIAL LOAD	VOLT. V	N rpm	I _n A	I _n (SF) A	I _A A	η (% load)			Cos φ (% load)			RESISTANCE 3 ~ 60 hz Dol (U1-V1) [Ω]
	[HP]	[kW]							50	75	100	50	75	100	
6MRCP 50C363V	5	3.7	20	230	3350	16.8	19.3	87.8	69	70	70	65	74	85	1.33
6MRCP 50D363V				460	3350	8.4	9.7	44	69	70	70	65	74	85	5.22
6MRCP 75C363V	7.5	5.5	20	220	3480	23.8	27.4	126	73	77	77	60	72	79	0.93
6MRCP 75D363V				460	3490	11.7	13.5	62	73	76	75	64	75	79	3.25
6MRCP 100C363V	10	7.5	20	220	3480	32.8	37.7	174	74	78	78	57	70	77	0.53
6MRCP 100D363V				460	3480	15.1	17.4	80	74	77	77	66	76	81	2.35
6MRCP 150C363V	15	11	20	220	3480	46.3	53.2	245	76	79	80	59	71	78	0.35
6MRCP 150D363V				460	3490	21.3	24.5	113	77	80	79	67	76	82	1.55
6MRCP 200C363V	20	15	20	220	3490	60.1	69.1	318	79	82	82	62	73	80	0.25
6MRCP 200D363V				460	3500	28.4	32.7	150	79	81	81	67	77	82	0.95
6MRCP 250C363V	25	18.5	20	220	3480	77.9	89.6	413	76	80	81	58	70	77	0.16
6MRCP 250D363V				460	3490	35.9	41.3	190	79	81	81	64	75	80	0.79
6MRCP 300C363V	30	22	20.5	220	3500	91.6	105.3	495	81	83	83	64	73	76	0.15
6MRCP 300D363V				460	3510	41.1	47.3	222	82	83	83	71	78	81	0.58
6MRCP 400D363V	40	30	26.5	460	3510	56.1	64.5	303	80	83	83	63	74	81	0.45
6MRCP 500D363V	50	37	26.5	460	3510	69.2	79.6	374	81	83	84	62	74	80	0.37
6MRCP 600D363V	60	40	26.5	460	3510	84.1	96.7	454	80	82	83	62	75	81	0.35

6MRSP - 3 PHASE / 3 WIRE

MODEL	PN		AXIAL LOAD	VOLT. V	N rpm	I _n A	I _n (SF) A	I _A A	η (% load)			Cos φ (% load)			RESISTANCE 3 ~ 60 hz Dol (U1-V1) [Ω]
	[HP]	[kW]							50	75	100	50	75	100	
6MRSP 50C363V	5	3.7	20	230	3350	16.8	19.3	87.8	69	70	70	65	74	85	1.33
6MRSP 50D363V				460	3350	8.4	9.7	44	69	70	70	65	74	85	5.22
6MRSP 75C363V	7.5	5.5	20	220	3480	23.8	27.4	126	73	77	77	60	72	79	0.93
6MRSP 75D363V				460	3490	11.7	13.5	62	73	76	75	64	75	79	3.25
6MRSP 100C363V	10	7.5	20	220	3480	32.8	37.7	174	74	78	78	57	70	77	0.53
6MRSP 100D363V				460	3480	15.1	17.4	80	74	77	77	66	76	81	2.35
6MRSP 150C363V	15	11	20	220	3480	46.3	53.2	245	76	79	80	59	71	78	0.35
6MRSP 150D363V				460	3490	21.3	24.5	113	77	80	79	67	76	82	1.55
6MRSP 200C363V	20	15	20	220	3490	60.1	69.1	318	79	82	82	62	73	80	0.25
6MRSP 200D363V				460	3500	28.4	32.7	150	79	81	81	67	77	82	0.95
6MRSP 250C363V	25	18.5	20	220	3480	77.9	89.6	413	76	80	81	58	70	77	0.16
6MRSP 250D363V				460	3490	35.9	41.3	190	79	81	81	64	75	80	0.79
6MRSP 300C363V	30	22	20.5	220	3500	91.6	105.3	495	81	83	83	64	73	76	0.15
6MRSP 300D363V				460	3510	41.1	47.3	222	82	83	83	71	78	81	0.58
6MRSP 400D363V	40	30	26.5	460	3510	56.1	64.5	303	80	83	83	63	74	81	0.45
6MRSP 500D363V	50	37	26.5	460	3510	69.2	79.6	374	81	83	84	62	74	80	0.37
6MRSP 600D363V	60	40	26.5	460	3510	84.1	96.7	454	80	82	83	62	75	81	0.35

7" rewindable submersible motors, asynchronous, two pole submersible motor, made combining cast iron and AISI 304 stainless steel to get the best durability and resistance. Available up to 75 HP.

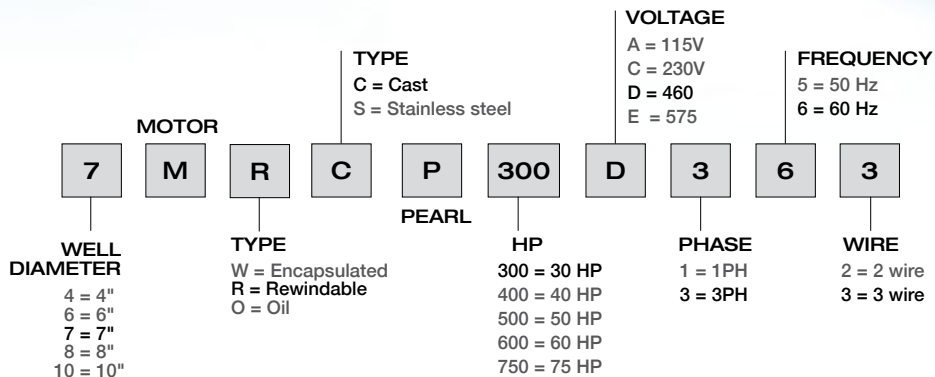
Our electrical design provides the best efficiency motor, bringing the best performance out of your submersible pump. PEARL MOTORS suitable for use with variable frequency drive (30Hz – 60Hz).

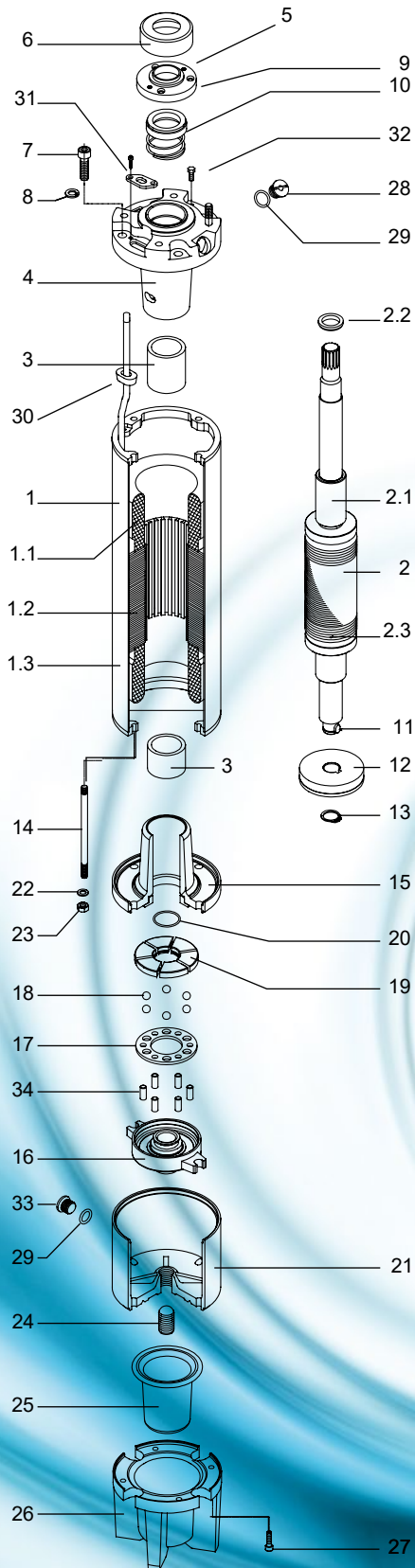
General Features

- Rewindable 7MRCP motors up to 75 HP
- High efficiency provides operation cost savings
- Water coolant system
- Flange with NEMA standards
- Stainless steel shaft
- Optional high corrosion resistive materials (AISI 304 - AISI 316 - Duplex - Bronze)
- Standard motor. Max. ambient water temperature 85°F (30° C) (optional up to 150°F (70°C))
- Max. Ambient water temperature up to 176°F (80°C) when motor is provided with PE2 + PA winding wire and PT100.
- Standard voltage 220/230/380/460V - 50/60 Hz (Allowable voltage tolerance $\pm 10\%$)
- Variable operation revolutions by frequency converter (over 30 Hz)
- Availability to be operated by Soft-Starter
- CW & CCW direction of rotation
- Rewindable Motors (PVC, PP & PE2 + PA winding wire) provides long service life

Nomenclature

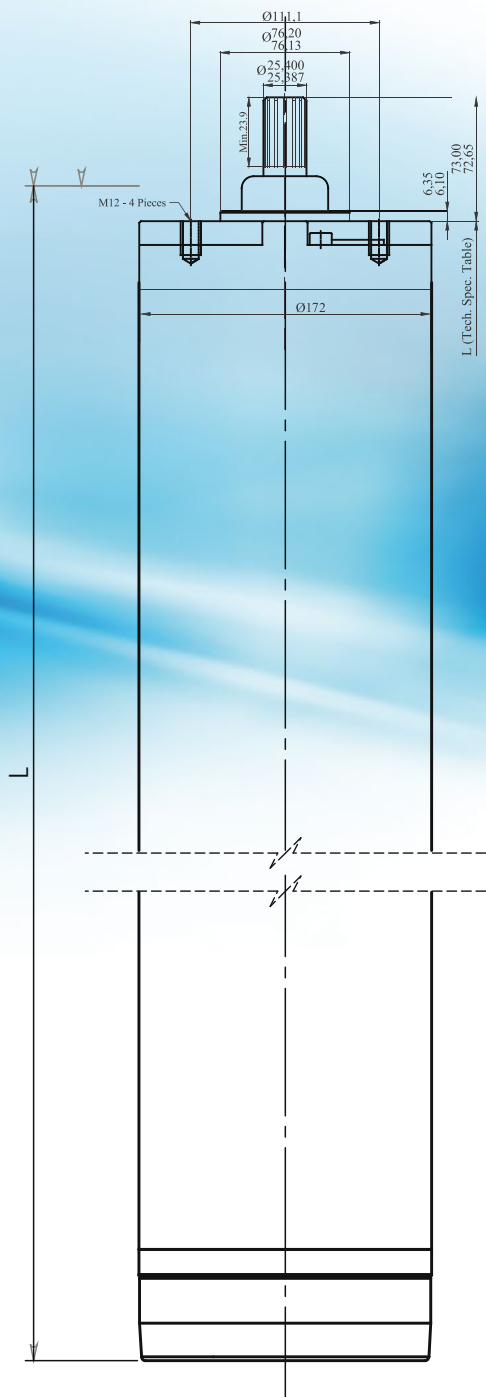
Reading the motor data in the label.





Components

No	PART NAME	MATERIAL
1	Stator	-
1.1	Winding wire	Copper
1.2	Stator package	M350 / Magnetic Seal
1.3	Stator shell	AISI 304
2	Rotor / Rotor	-
2.1	Shaft sleeve	Coated CrNi
2.2	Balance ring	St 37
2.3	Copper ring	Cu
3	Radial bearing	Carbon
4	Upper bearing body	GG20-22
5	Bushing	Bronze
6	Slinger (sand guard)	NBR_EPDM
7	Hexagon socket cap screws	Stainless Steel
8	Copper ring	Cu
9	Cover seal	AISI 420
10	Mechanical seal	Ceramic Carbon
11	Axial thrust bearing key	AISI 420
12	Axial thrust bearing	Carbon With Antimony
13	Retaining ring	St 37
14	Tie rod	Stainless Steel
15	Lower bearing body	GG20-22
16	Thrust bearing support	GG20-22
17	Ball holder	St 37 (Coated Cr+3)
18	Thrust bearing ball	Stainless Steel
19	Tilting pads	AISI 420
20	O-ring	NBR 70
21	Thrust bearing body	GG20
22	Copper ring	Cu
23	Nut	Stainless Steel
24	Screw (thrust bearing base)	Stainless Steel
25	Membrane	NBR-EPDM
26	Membrane body	GG22
27	Hexagon socket cap screws	Stainless Steel
28	Check-valve	Bronze / Bronze
29	O-ring	NBR 70
30	Cable seal	NBR
31	Cover seal	AISI 304
32	Nut	Stainless Steel
33	Plush (r 3/8")	Bronze
34	Ball holder pins	Stainless Steel



Dimensions

7MRCP - 3 PHASE / 3 WIRE

MODEL	P2		L		WEIGHT	
	[HP]	[kW]	[mm]	[plg]	[Kg]	[lbs]
7MRCP 300	30	22	890	35	86	190
7MRCP 400	40	30	980	38.6	103	227.6
7MRCP 500	50	37	1060	41.73	113	249.7
7MRCP 600	60	45	1139	44.85	127	280.6
7MRCP 750	75	55	1250	49.21	138	304.9

7MRSP - 3 PHASE / 3 WIRE

MODEL	P2		L		WEIGHT	
	[HP]	[kW]	[mm]	[plg]	[Kg]	[lbs]
7MRSP 300	30	22	842	33.0	83	183.4
7MRSP 400	40	30	922	36.3	100	221
7MRSP 500	50	37	1001	39.4	110	243.1
7MRSP 600	60	45	1081	42.55	124	274
7MRSP 750	75	55	1160	45.6	135	298.4

Other Options

Motor leads with different lengths.
Different supply voltage.

Electrical Data 60 Hz

7MRCP - 3 PHASE / 3 WIRE

MODEL	PN		AXIAL LOAD	VOLT.	N	I _n	I _a	η (% load)			Cos ϕ (% load)		
	[HP]	[kW]	[kN]	V	rpm	A	A	50	75	100	50	75	100
7MRCP 300D363	30	22	45	460	3480	38.2	194	82	83	83	77	83	87
7MRCP 400D363	40	30	45	460	3480	52.1	260	84	85	84	77	83	87
7MRCP 500D363	50	37	45	460	3480	61.4	311	84	85	85	79	86	89
7MRCP 600D363	60	45	45	460	3470	74.7	379	84	85	85	77	85	89
7MRCP 750D363	75	55	45	460	3460	92.0	468	84	85	85	79	84	88

7MRSP - 3 PHASE / 3 WIRE

MODEL	PN		AXIAL LOAD	VOLT.	N	I _n	I _a	η (% load)			Cos ϕ (% load)		
	[HP]	[kW]	[kN]	V	rpm	A	A	50	75	100	50	75	100
7MRSP 300D363	30	22	45	460	3480	38.2	194	82	83	83	77	83	87
7MRSP 400D363	40	30	45	460	3480	52.1	260	84	85	84	77	83	87
7MRSP 500D363	50	37	45	460	3480	61.4	311	84	85	85	79	86	89
7MRSP 600D363	60	45	45	460	3470	74.7	379	84	85	85	77	85	89
7MRSP 750D363	75	55	45	460	3460	92.0	468	84	85	85	79	84	88

P2: Rated output
 V: Rated voltage
 SF: Service factor
 I_n: Rated current
 I_n (SF): Service factor current
 I_s/I_n: Locked rotor current-Rated current
 C_s/C_n: Locked rotor Torque-Rated Torque

P1: Power consumption
 N: RPM
 Cos ϕ : Power factor
 η : Efficiency
 C: Capacitor
 Ø: Cable section
 LC: Cable length

Pearl®

8MRCP - 8MRSP

8" Rewindable Submersible Motors

8" rewindable submersible motors, asynchronous, two pole submersible motor, made combining cast iron and AISI 304 stainless steel or full stainless steel 304 or 316, to get the best durability and resistance. Available up to 150 HP.

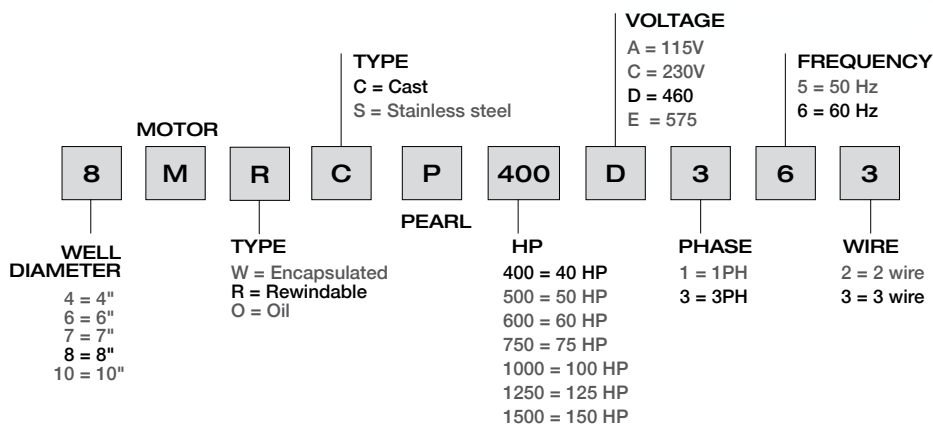
Our electrical design provides the best efficiency motor, bringing the best performance out of your submersible pump. PEARL MOTORS suitable for use with variable frequency drive (30Hz – 60Hz).

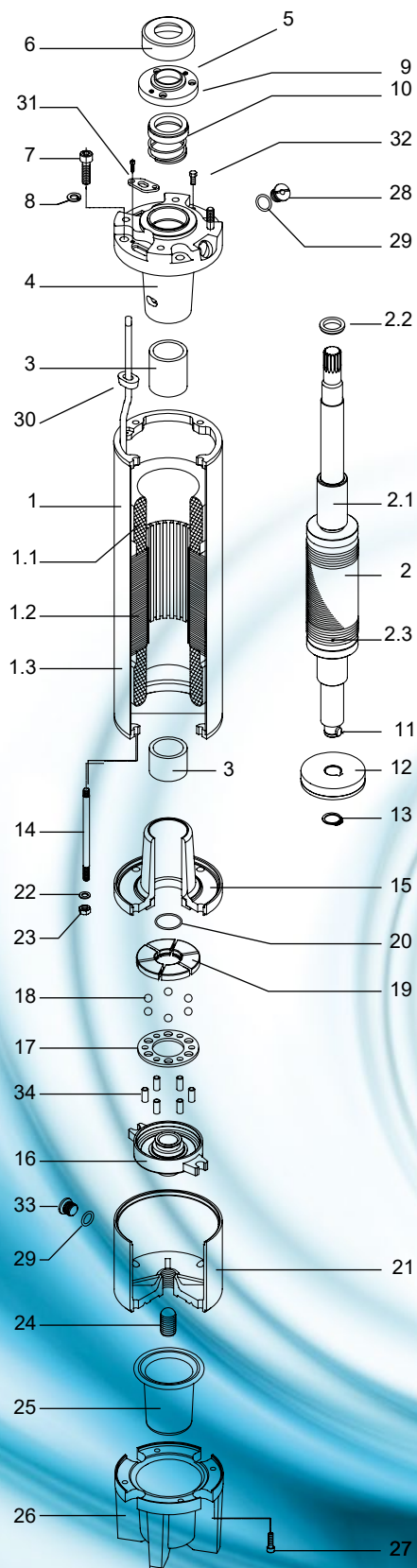
General Features

- Rewindable motors up to 150 HP
- High efficiency provides operation cost savings
- Flange with NEMA standards
- Stainless steel shaft
- Optional high corrosion resistive materials (AISI 304 - AISI 316 - Duplex - Bronze)
- Standard motor. Max. ambient water temperature 85°F (30° C) (optional up to 150°F (70°C))
- Max. Ambient water temperature up to 176°F (80°C) when motor is provided with PE2 + PA winding wire and PT100.
- Minimum water flow for temperature above indicated: 0.65 ft/seg (0.2 m/seg) for motors up to 75 HP. 1.64 ft/seg (0.5 m/seg) for motors up to 125 HP
- Standard voltage 220/230/380/460V - 50/60 Hz (Allowable voltage tolerance $\pm$ %10)
- Variable operation revolutions by frequency convertor (over 30 Hz)
- Availability to be operated by Soft-Starter
- CW & CCW direction of rotation
- Rewindable Motors (PVC, PP & PE2 + PA winding wire) provides long service life

Nomenclature

Reading the motor data in the label.





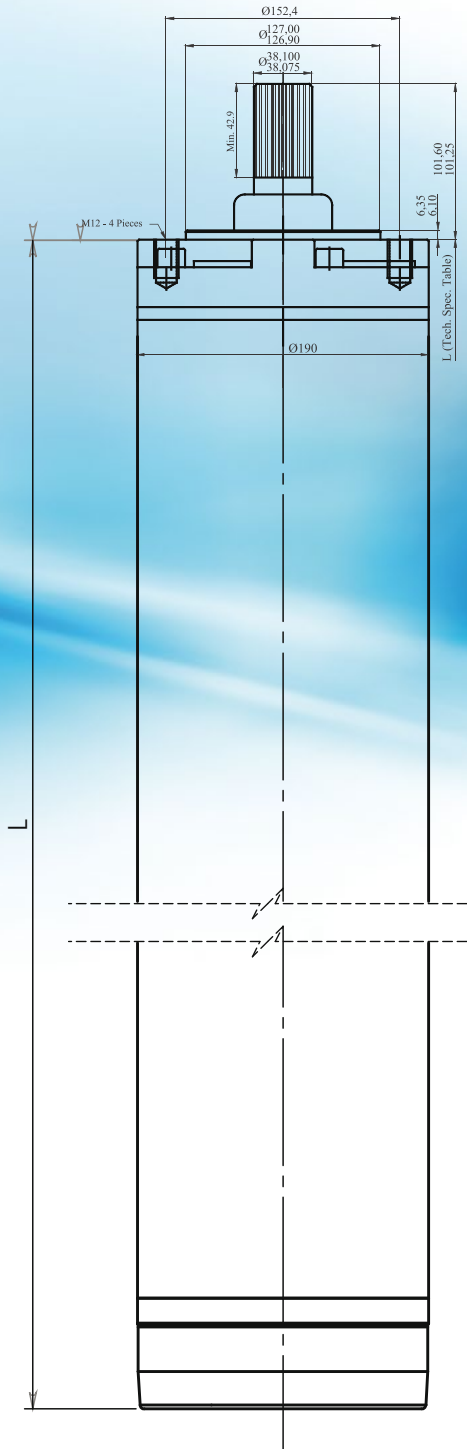
Components

No	PART NAME	MATERIAL
1	Stator	-
1.1	Winding wire	Copper
1.2	Stator package	M350 / Magnetic Seal
1.3	Stator shell	AISI 304
2	Rotor	-
2.1	Shaft sleeve	Coated CrNi
2.2	Balance ring	St 37
2.3	Copper ring	Cu
3	Radial bearing	Carbon
4	Upper bearing body	GG20-22
5	Bushing	Bronze
6	Slinger (sand guard)	NBR_EPDM
7	Hexagon socket cap screws	Stainless Steel
8	Copper ring	Cu
9	Cover seal	AISI 420
10	Mechanical seal	Ceramic Carbon
11	Axial thrust bearing key	AISI 420
12	Axial thrust bearing	Carbon With Antimony
13	Retaining ring	St 37
14	Tie rod	Stainless Steel
15	Lower bearing body	GG20-22
16	Thrust bearing support	GG20-22
17	Ball holder	St 37 (Coated Cr+3)
18	Thrust bearing ball	Stainless Steel
19	Tilting pads	AISI 420
20	O-ring	NBR 70
21	Thrust bearing body	GG20
22	Copper ring	Cu
23	Nut	Stainless Steel
24	Screw (thrust bearing base)	Stainless Steel
25	Membrane	NBR-EPDM
26	Membrane body	GG22
27	Hexagon socket cap screws	Stainless Steel
28	Check-valve	Bronze
29	O-ring	NBR 70
30	Cable seal	NBR
31	Cover seal	AISI 304
32	Nut	Stainless Steel
33	Plush (r 3/8")	Bronze
34	Ball holder pins	Stainless Steel

Pearl®

8MRCP - 8MRSP

8" Rewindable Submersible Motors



Dimensions

8MRCP - 3 PHASE / 3 WIRE

MODEL	P2		L		WEIGHT	
	[HP]	[kW]	[mm]	[plg]	[Kg]	[lbs]
8MRCP 400	40	30	1056	41.6	129	284
8MRCP 500	50	37	1116	43.9	138	304.9
8MRCP 600	60	45	1201	47.3	152	335.9
8MRCP 750	75	55	1286	50.6	170	375.7
8MRCP 1000	100	75	1391	54.7	195	430.9
8MRCP 1250	125	92	1471	57.9	210	462.9
8MRCP 1500	150	110	1601	63	235	518

OPTIONS AVAILABLE:

8MRCP 1500D36V 8" Submersible motors, 150 HP, 460 V, 3 PH, 60 Hz.

8MRSP - 3 PHASE / 3 WIRE

MODEL	P2		L		WEIGHT	
	[HP]	[kW]	[mm]	[plg]	[Kg]	[lbs]
8MRSP 400	40	30	948	37.3	125	276.3
8MRSP 500	50	37	1008	39.7	134	296.1
8MRSP 600	60	45	1093	43	148	327
8MRSP 750	75	55	1178	46.4	166	366.9
8MRSP 1000	100	75	1283	50.5	191	422.1
8MRSP 1250	125	92	1471	57.9	210	462.9
8MRSP 1500	150	110	1601	63	235	518

Other Options

Motor leads with different lengths.
Different supply voltages.

Electrical Data 60 Hz

8MRCP - 3 PHASE / 3 WIRE

MODEL	PN		AXIAL LOAD	VOLT. V	N rpm	I _n A	I _n (SF) A	I _A A	η (% load)			Cos φ (% load)			RESISTANCE 3 ~ 60 hz DoI (U1-V1) [Ω]
	[HP]	[kW]							50	75	100	50	75	100	
8MRCP 400D363V	40	30	45	460	3480	54.1	62.2	288	81	83	83	79	81	84	0.51
8MRCP 500D363V	50	37	45	460	3480	65.9	75.8	351	83	84	84	74	81	84	0.36
8MRCP 600D363V	60	45	45	460	3490	79.2	91.1	421	84	85	85	74	81	84	0.27
8MRCP 750D363V	75	55	45	460	3500	95.7	110.1	509	85	86	86	74	81	84	0.23
8MRCP 1000D363V	100	75	45	460	3500	127.4	146.5	678	85	87	87	74	82	85	0.15
8MRCP 1250D363V	125	92	55	460	3500	158.2	181.9	842	86	87	87	73	80	84	0.12
8MRCP 1500D363V	150	110	55	460	3490	191.3	220	1018	86	86	86	73	80	84	0.11

8MRSP - 3 PHASE / 3 WIRE

MODEL	PN		AXIAL LOAD	VOLT. V	N rpm	I _n A	I _n (SF) A	I _A A	η (% load)			Cos φ (% load)			RESISTANCE 3 ~ 60 hz DoI (U1-V1) [Ω]
	[HP]	[kW]							50	75	100	50	75	100	
8MRSP 400D363V	40	30	45	460	3480	54.1	62.2	288	81	83	83	79	81	84	0.51
8MRSP 500D363V	50	37	45	460	3480	65.9	75.8	351	83	84	84	74	81	84	0.36
8MRSP 600D363V	60	45	45	460	3490	79.2	91.1	421	84	85	85	74	81	84	0.27
8MRSP 750D363V	75	55	45	460	3500	95.7	110.1	509	85	86	86	74	81	84	0.23
8MRSP 1000D363V	100	75	45	460	3500	127.4	146.5	678	85	87	87	74	82	85	0.15
8MRSP 1250D363V	125	92	55	460	3500	158.2	181.9	842	86	87	87	73	80	84	0.12
8MRSP 1500D363V	150	110	55	460	3490	191.3	220	1018	86	86	86	73	80	84	0.11

P2: Rated output
V: Rated voltage
SF: Service factor
I_n: Rated current
I_n (SF): Service factor current
I_s/I_n: Locked rotor current-Rated current
C_s/C_n: Locked rotor Torque-Rated Torque

P1: Power consumption
N: RPM
Cos φ: Power factor
η: Efficiency
C: Capacitor
Ø: Cable section
LC: Cable length

Pearl®

10MRCP-10MRSP

10" Rewindable Submersible Motors

10" rewindable submersible motors, asynchronous, two pole submersible motor, made combining cast iron and AISI 304 stainless steel or full stainless steel 304 or 316, to get the best durability and resistance. Available up to 300 HP.

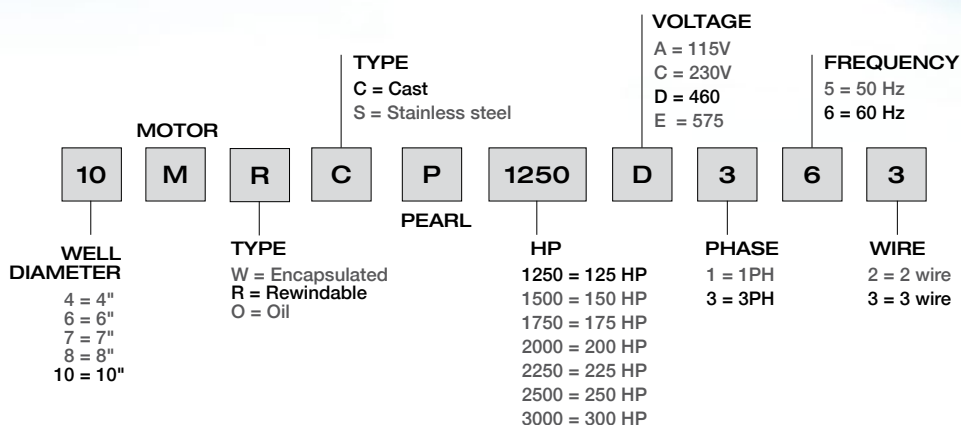
Our electrical design provides the best efficiency motor, bringing the best performance out of your submersible pump. PEARL MOTORS suitable for use with variable frequency drive (30Hz – 60Hz).

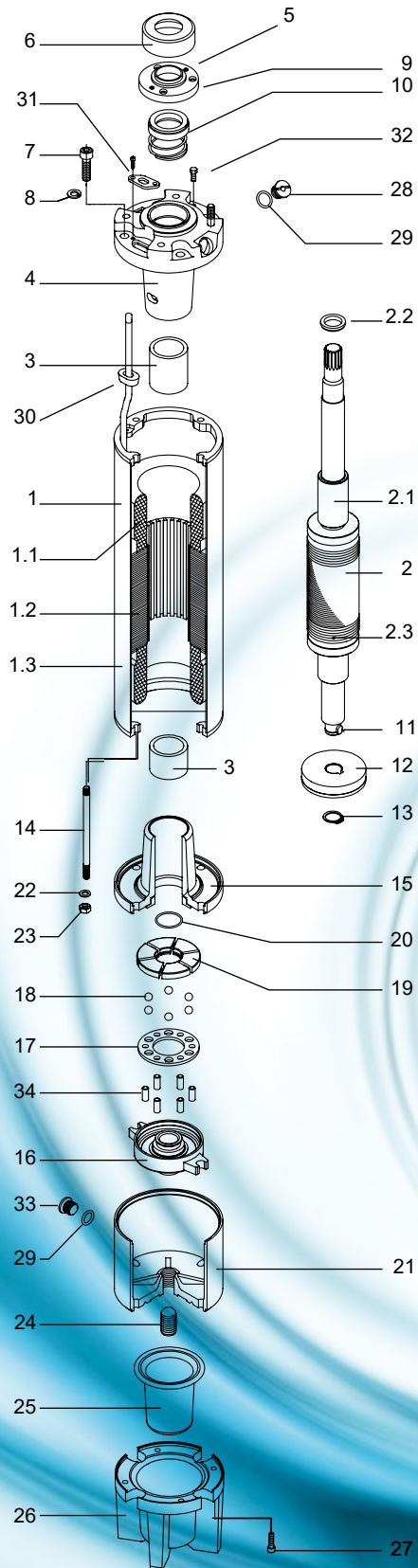
General Features

- Rewindable motors up to 300 HP
- High efficiency provides operation cost savings
- Flange with NEMA standards
- Stainless steel shaft
- Optional high corrosion resistive materials (AISI 304 - AISI 316 - Duplex - Bronze)
- Standard motor. Max. ambient water temperature 85°F (30° C) (optional up to 150°F (70°C))
- Max. Ambient water temperature up to 176°F (80°C) when motor is provided with PE2 + PA winding wire and PT100.
- Minimum water flow for temperature above indicated: 1.64 ft/seg (0.5 m/seg) for motors up to 300 HP
- Standard voltage 220/230/380/460V - 50/60 Hz (Allowable voltage tolerance $\pm 10\%$)
- Variable operation revolutions by frequency convertor (over 30 Hz)
- Availability to be operated by Soft-Starter
- CW & CCW direction of rotation
- Rewindable Motors (PVC, PP & PE2 + PA winding wire) provides long service life

Nomenclature

Reading the motor data in the label.





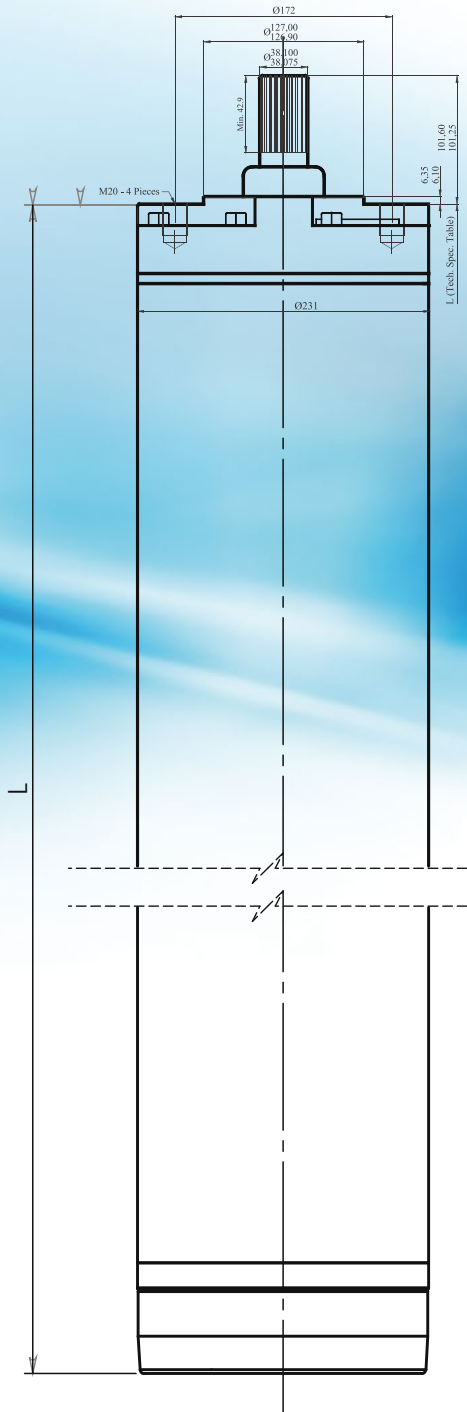
Components

No	PART NAME	MATERIAL
1	Stator	-
1.1	Winding wire	Copper
1.2	Stator package	M350 / Magnetic Seal
1.3	Stator shell	AISI 304
2	Rotor	-
2.1	Shaft sleeve	Coated CrNi
2.2	Balance ring	St 37
2.3	Copper ring	Cu
3	Radial bearing	Carbon
4	Upper bearing body	GG20-22
5	Bushing	Bronze
6	Slinger (sand guard)	NBR_EPDM
7	Hexagon socket cap screws	Stainless Steel
8	Copper ring	Cu
9	Cover seal	AISI 420
10	Mechanical seal	Ceramic Carbon
11	Axial thrust bearing key	AISI 420
12	Axial thrust bearing	Carbon With Antimony
13	Retaining ring	St 37
14	Tie rod	Stainless Steel
15	Lower bearing body	GG20-22
16	Thrust bearing support	GG20-22
17	Ball holder	St 37 (Coated Cr+3)
18	Thrust bearing ball	Stainless Steel
19	Tilting pads	AISI 420
20	O-ring	NBR 70
21	Thrust bearing body	GG20
22	Copper ring	Cu
23	Nut	Stainless Steel
24	Screw (thrust bearing base)	Stainless Steel
25	Membrane	NBR-EPDM
26	Membrane body	GG22
27	Hexagon socket cap screws	Stainless Steel
28	Check-valve	Bronze
29	O-ring	NBR 70
30	Cable seal	NBR
31	Cover seal	AISI 304
32	Nut	Stainless Steel
33	Plush (r 3/8")	Bronze
34	Ball holder pins	Stainless Steel

Pearl®

10MRCP - 10MRSP

10" Rewindable Submersible Motors



Dimensions

10MRCP - 3 PHASE / 3 WIRE

MODEL	P2		L		WEIGHT	
	[HP]	[kW]	[mm]	[plg]	[Kg]	[lbs]
10MRCP 1250	125	92	1430	56.29	284	626
10MRCP 1500	150	110	1510	59.44	311	686
10MRCP 1750	175	129	1610	63.38	338	745
10MRCP 2000	200	147	1740	68.50	370	816
10MRCP 2250	225	166	1820	71.65	400	882
10MRCP 2500	250	185	1820	71.65	405	893
10MRCP 3000	300	220	1820	71.65	405	893

10MRSP - 3 PHASE / 3 WIRE

MODEL	P2		L		WEIGHT	
	[HP]	[kW]	[mm]	[plg]	[Kg]	[lbs]
10MRSP 1250	125	92	1430	56.29	284	626
10MRSP 1500	150	110	1510	59.44	311	686
10MRSP 1750	175	129	1610	63.38	338	745
10MRSP 2000	200	147	1740	68.50	370	816
10MRSP 2250	225	166	1820	71.65	400	882
10MRSP 2500	250	185	1820	71.65	405	893
10MRSP 3000	300	220	1820	71.65	405	893

Other Options

Motor leads with different lengths.
Different supply voltages.

Electrical Data 60 Hz

10MRCP - 3 PHASE / 3 WIRE

MODEL	PN		AXIAL LOAD	VOLT.	N	I _n	I _n (SF)	I _A	η (% load)			Cos φ (% load)			RESISTANCE 3 ~ 60 hz
	[HP]	[kW]	[kN]	V	rpm	A	A	A	50	75	100	50	75	100	Dol (U1-V1) [Ω]
10MRCP 1250D363V	125	92	75	460	3520	156.3	179.7	829	85	85	85	82	85	87	0.11
10MRCP 1500D363V	150	110	75	460	3520	189.1	217.5	1002	85	86	85	81	84	86	0.86
10MRCP 1750D363V	175	129	75	460	3530	216.7	249.2	1148	86	87	86	82	85	87	0.72
10MRCP 2000D363V	200	147	75	460	3520	246.9	283.9	1308	86	86	86	82	85	87	0.62
10MRCP 2250D363V	225	166	75	460	3510	278.8	320.6	1478	86	86	86	82	85	87	0.96
10MRCP 2500D363V	250	185	75	460	3510	310.7	357.3	1647	86	86	86	82	85	87	0.87
10MRCP 3000D363V	300	230	75	460	3510	369.5	424.9	1958	86	86	86	82	85	87	0.82

10MRSP - 3 PHASE / 3 WIRE

MODEL	PN		AXIAL LOAD	VOLT.	N	I _n	I _n (SF)	I _A	η (% load)			Cos φ (% load)			RESISTANCE 3 ~ 60 hz
	[HP]	[kW]	[kN]	V	rpm	A	A	A	50	75	100	50	75	100	Dol (U1-V1) [Ω]
10MRSP 1250D363V	125	92	75	460	3520	156.3	179.7	829	85	85	85	82	85	87	0.11
10MRSP 1500D363V	150	110	75	460	3520	189.1	217.5	1002	85	86	85	81	84	86	0.86
10MRSP 1750D363V	175	129	75	460	3530	216.7	249.2	1148	86	87	86	82	85	87	0.72
10MRSP 2000D363V	200	147	75	460	3520	246.9	283.9	1308	86	86	86	82	85	87	0.62
10MRSP 2250D363V	225	166	75	460	3510	278.8	320.6	1478	86	86	86	82	85	87	0.96
10MRSP 2500D363V	250	185	75	460	3510	310.7	357.3	1647	86	86	86	82	85	87	0.87
10MRSP 3000D363V	300	230	75	460	3510	369.5	424.9	1958	86	86	86	82	85	87	0.82

P2: Rated output
V: Rated voltage
SF: Service factor
I_n: Rated current
I_n (SF): Service factor current
I_s/I_n: Locked rotor current-Rated current
C_s/C_n: Locked rotor Torque-Rated Torque

P1: Power consumption
N: RPM
Cos φ : Power factor
η: Efficiency
C: Capacitor
Ø: Cable section
LC: Cable length

