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 ± %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.

6	M	R	C	P	75	D	3	6	3
WELL DIAMETER	MOTOR	TYPE	TYPE	PEARL	HP	VOLTAGE	PHASE	FREQUENCY	WIRE
4 = 4"		W = Encapsulated	C = Cast		50 = 5 HP	A = 115V	1 = 1PH	5 = 50 Hz	2 = 2 wire
6 = 6"		**R = Rewindable**	S = Stainless steel		**75 = 7.5 HP**	C = 230V	**3 = 3PH**	**6 = 60 Hz**	**3 = 3 wire**
7 = 7"		O = Oil			100 = 10 HP	**D = 460**			
8 = 8"					150 = 15 HP	E = 575			
10 = 10"					200 = 20 HP				
					250 = 25 HP				
					300 = 30 HP				
					400 = 40 HP				
					500 = 50 HP				
					600 = 60 HP				

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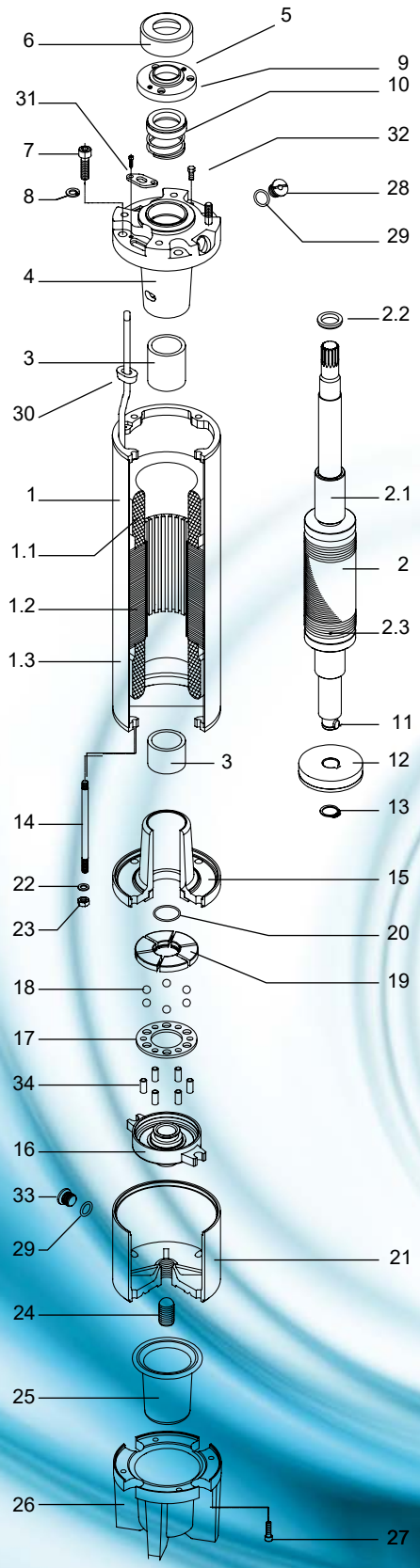

Components

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

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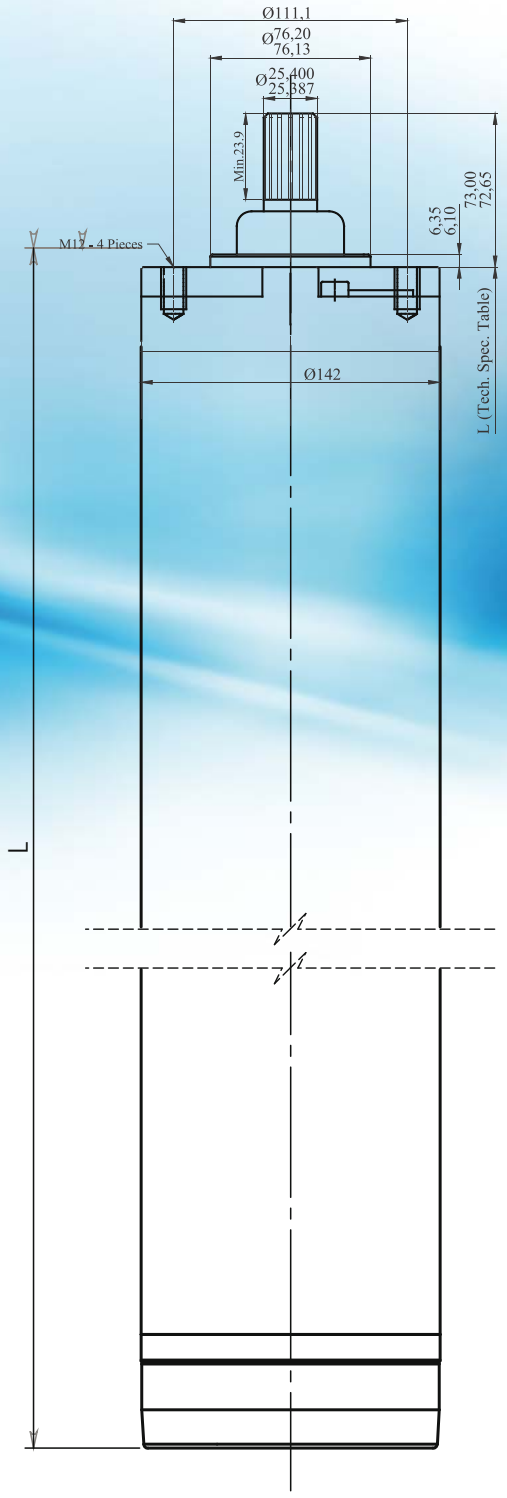

Dimensions

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.

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Electrical Data 60 Hz

6MRCP - 3 PHASE / 3 WIRE

MODEL	PN		AXIAL LOAD	VOLT.	N	I_n	$I_{n\ (SF)}$	I_A	η (% load)			Cos φ (% load)			RESİSTANCE 3 ~ 60 hz
	[HP]	[kW]	[kN]	V	rpm	A	A	A	50	75	100	50	75	100	Dol (U1-V1) [Ω]
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.	N	I_n	$I_{n\ (SF)}$	I_A	η (% load)			Cos φ (% load)			RESİSTANCE 3 ~ 60 hz
	[HP]	[kW]	[kN]	V	rpm	A	A	A	50	75	100	50	75	100	Dol (U1-V1) [Ω]
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