

## 4 INCH ENCAPSULATED PREMIUM MOTOR

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### PRODUCT APPLICATION AND PRODUCT SPECIFICATION

#### GENERAL DATA

These 4 Inch Encapsulated motors, manufactured in ISO 9001:2015 certified facilities

#### Applications

This motor is built for dependable operation in 4" diameter or larger water wells. It is fitted with water lubricated radial and thrust bearings for a maintenance – free operations. The motor is filled with a special fluid, Providing frost protection down to 5°F storage temperature . A special diaphragm ensures pressure compensation inside the motor..

#### Product advantages:

- Hermetically sealed stator , Anti track, self healing stator resin prevents motor burn out.
- High efficiency electrical design (low operation cost, cooler winding temperature).
- Removable water resistance lead connector.
- Motor with sand slinger.
- Cable material in accordance with regulations for drinking water.
- Water lubricated radial and thrust bearing.
- All motors pre-filled and 100% tested.
- Non contaminating, water-filled design.
- Max. storage temperature 5°F to 140°F.

#### Technical Specification

- Power range : 0.5-5 HP – Single phase  
0.5-10 HP – Three phase
- Mounting : 4" NEMA
- Degree of protection : IP68
- Insulation Class : F
- Ambient temperature : 86°F
- Cooling flow : 0.25 ft/sec
- Starts/hr : 20
- Voltage tolerance : +6% / -10% U<sub>N</sub>

## 4 INCH ENCAPSULATED PREMIUM MOTOR

### MOTOR PERFORMANCE DATA

SUBMERSIBLE MOTORS				
Material	Stainless Steel 304/316		Rating	0.5 HP - 5.0 HP
Type	Encapsulated		Thrust Rating	1500 - 6500 N

#### SINGLE PHASE (3 WIRE) MOTOR SPECIFICATION (60 Hz) 3450 RPM

MATERIAL CODE	RATING				FULL LOAD		MAXIMUM LOAD		WINDING (1) RES. IN OHMS M=MAIN RES S=START RES	EFFICIENCY %		POWER %		LOCKED ROTOR AMPS
	[HP]	[KW]	VOLTS	S.F.	AMPS	WATTS	AMPS	WATTS		S.F.	F.I.	S.F.	F.I.	
9000008299	0.5	0.37	230	1.6	Y=3.5	631	Y=3.85	1010	M=5.64,S=7.86	59	59	0.90	0.90	22.1
					B=3.2		B=3.7							
					R=1.8		R=1.8							
9000008300	0.75	0.55	230	1.5	Y=4.3	812	Y=4.73	1218	M=5.13,S=5.23	68	68	1	1	27.1
					B=3.1		B=5.2							
					R=2.2		R=2.0							
9000008301	1.0	0.75	230	1.4	Y=7.3	1079	Y=8.03	1511	M=4.65,S=5.5	69	69	1	1	46.0
					B=4.2		B=6.2							
					R=2.2		R=2.1							
9000008302	1.5	1.1	230	1.3	Y=8.7	1573	Y=9.57	2045	M=2.28,S=6.55	70	70	0.9	0.9	54.8
					B=7.4		B=8.14							
					R=2.2		R=2.2							
9000013748	2.0	1.5	230	1.3	Y=10.0	2045	Y=11.0	2556	M=1.73,S=4.18	73	73	0.9	0.9	63.0
					B=9.1		B=10.8							
					R=2.7		R=2.5							
9000013749	3.0	2.2	230	1.2	Y=16.5	3040	Y=18.15	3496	M=1.21,S=1.96	72	72	1	1	104.0
					B=12.4		B=13.6							
					R=5.4		R=5.3							
9000008331	5.0	3.7	230	1.2	Y=23.0	5145	Y=25.3	5916	M=0.75,S=1.16	72	72	1	1	144.9
					B=20		B=21.5							
					R=10.3		R=10.2							

(1) Main winding - yellow to black  
Start winding - yellow to red

(2) Y= Yellow lead -line amps  
B= Black lead - main winding amps  
R= Red lead - start or auxillary winding amps.

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### MOTOR PERFORMANCE DATA

SUBMERSIBLE MOTORS			
Material	Stainless Steel 304/316	Rating	0.5 HP - 10 HP
Type	Encapsulated	Thrust Rating	1500 - 6500 N

#### THREE PHASE (3 WIRE) MOTOR SPECIFICATION (60 Hz) 3450 RPM

MATERIAL CODE	RATING				FULL LOAD		MAXIMUM LOAD		LINE TO LINE RESISTANCE IN OHMS	EFFICIENCY%		LOCKED ROTOR AMPS
	[HP]	[KW]	VOLTS	S.F.	AMPS	WATTS	AMPS	WATTS		S.F.	F.L.	
9000008280	0.5	0.37	230	1.6	1.9	543	3.1	869	8.82-10.78	68	68	12.3
9000008274			460	1.6	1.1	543	1.21	869	29.76-36.37	68	68	6.9
9000008281	0.75	0.55	230	1.5	2.5	774	3.7	1160	9.05-11.06	71	71	15.7
9000008275			460	1.5	1.20	774	1.32	1160	29.76-36.37	71	71	7.6
9000008282	1.0	0.75	230	1.4	3.4	1040	4.7	1456	5.47-6.68	72	72	21.4
9000008276			460	1.4	2.0	1040	2.2	1456	15.28-18.67	72	72	12.6
9000008283	1.5	1.1	230	1.3	4.6	1488	6.0	1935	4.56-5.57	74	74	29.1
9000008277			460	1.3	2.50	1488	2.75	1935	11.47-14.02	74	74	15.8
9000008284	2.0	1.5	230	1.25	6.7	2060	8.4	2576	2.92-3.57	73	73	42.3
9000008278			460	1.25	3.10	2060	3.41	2576	8.26-10.09	73	73	19.5
9000013741	3.0	2.2	230	1.15	8.9	2910	10.2	3347	1.65-2.02	75	75	56.1
9000013738			460	1.15	5.0	2910	5.5	3347	3.70-4.53	75	75	31.5
9000008313	5.0	3.7	230	1.15	14.8	4881	17.0	5613	1.08-1.32	76	76	93.0
9000008307			460	1.15	8.5	4881	9.35	5613	2.31-2.82	76	76	53.6
9000008315	7.5	5.5	230	1.15	21.9	7314	25.1	8411	0.72-0.89	75	75	137.7
9000008309			460	1.15	12.0	7314	13.2	8411	2.06-2.51	75	75	75.6
9000008310	10	7.5	460	1.15	16.0	9772	17.6	11238	1.63-2.00	77	77	100.8

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### MOTOR LENGTH & WEIGHT

SUBMERSIBLE MOTORS			
Material	Stainless Steel 304/316	Rating	0.5 HP - 5.0 HP
Type	Encapsulated	Thrust Rating	1500 - 6500 N

#### LENGTH & WEIGHT (3 WIRE) AISI SS 304/316

##### PREMIUM 100 SINGLE PHASE 230V 60Hz

HP	kW	LENGTH (Inches)	SHIPPING WEIGHT		MOTOR CARTON SIZE (in Inches)
			LBS	KG	
0.5	0.37	9.53	22	10	3.62x3.62x19.68
0.75	0.55	11.46	26	12	3.62x3.62x19.68
1	0.75	11.46	26	12	3.62x3.62x19.68
1.5	1.1	13.35	33	15	3.62x3.62x21.65
2	1.5	15.91	37	17	3.62x3.62x21.65
3	2.2	21.18	53	24	3.62x3.62x31.49
5	3.7	25.67	68	31	3.62x3.62x35.43

##### PREMIUM 100 THREE PHASE 230V 60Hz

HP	kW	LENGTH (Inches)	SHIPPING WEIGHT		MOTOR CARTON SIZE (in Inches)
			LBS	KG	
0.5	0.37	10.67	24	11	3.62x3.62x19.68
0.75	0.55	10.67	24	11	3.62x3.62x19.68
1	0.75	11.46	26	12	3.62x3.62x19.68
1.5	1.1	13.35	33	15	3.62x3.62x21.65
2	1.5	15.91	37	17	3.62x3.62x21.65
3	2.2	21.18	53	24	3.62x3.62x31.49
5	3.7	22.68	57	26	3.62x3.62x35.43
7.5	5.5	28.70	77	35	3.62x3.62x43.30

##### PREMIUM 100 THREE PHASE 460V 60Hz

HP	kW	LENGTH (Inches)	SHIPPING WEIGHT		MOTOR CARTON SIZE (in Inches)
			LBS	KG	
0.5	0.37	10.67	24	11	3.62x3.62x19.68
0.75	0.55	10.67	24	11	3.62x3.62x19.68
1	0.75	11.46	26	12	3.62x3.62x19.68
1.5	1.1	13.35	33	15	3.62x3.62x21.65
2	1.5	15.91	37	17	3.62x3.62x21.65
3	2.2	21.18	53	24	3.62x3.62x31.49
5	3.7	25.67	68	31	3.62x3.62x35.43
7.5	5.5	28.70	77	35	3.62x3.62x43.30
10	7.5	30.98	84	38	3.62x3.62x43.30

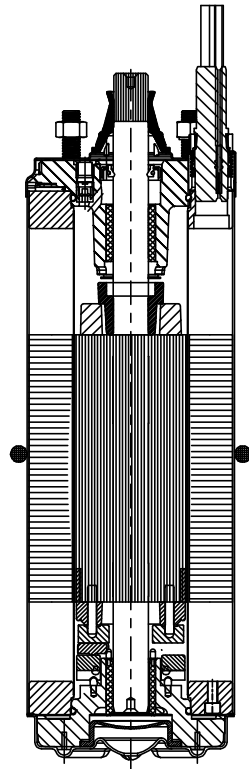
## 4 INCH ENCAPSULATED PREMIUM MOTOR

### MATERIAL OF CONSTRUCTION

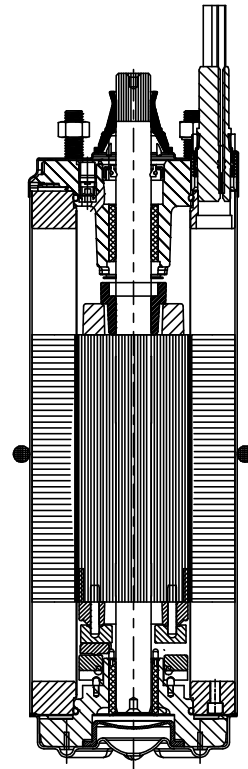
SUBMERSIBLE MOTORS			
Material	Stainless Steel 304/316	Rating	0.5 HP - 10 HP
Type	Encapsulated	Thrust Rating	1500 - 6500 N

#### PREMIUM (0.5 TO 2 HP)

SS AISI 304



SS AISI 316



PART	MATERIAL
SAND SLINGER	NBR
SEAL COVER	PPS
OIL SEAL	EPDM+ SS AISI 304
TOP END BELL COVER	SS AISI-304
TOP END BELL	CAST IRON - POWDER COATED
BUSH	CARBON WITH RESIGN IMPREGATED
ROTOR SHAFT	SS (STAINLESS STEEL SPECIAL GRADE)
ROTOR SUB ASSLY	N/A
TOP FLANGE	MS
STATOR PIPE	SS AISI-304
STATOR SUB ASSLY	N/A
THRUST DISC	ANTIMONY CARBON
THRUST PAD	SS AISI-420
LEVELING DISC	MS+ HARD CHROM
BOTTOM END BELL	CAST IRON - POWDER COATED
DIAPHRAGM	EPDM
BOTTOM FLANGE	MS
BOTTOM END BELL COVER	SS AISI-304

PART	MATERIAL
SAND SLINGER	NBR
SEAL COVER	PPS
OIL SEAL	EPDM+ SS AISI 304
TOP END BELL COVER	SS AISI-316
TOP END BELL	CAST IRON - POWDER COATED
BUSH	CARBON WITH RESIGN IMPREGATED
ROTOR SHAFT	SS (STAINLESS STEEL SPECIAL GRADE)
ROTOR SUB ASSLY	N/A
TOP FLANGE	MS
STATOR PIPE	SS AISI-316
STATOR SUB ASSLY	N/A
THRUST DISC	ANTIMONY CARBON
THRUST PAD	SS AISI-420
LEVELING DISC	MS+ HARD CHROM
BOTTOM END BELL	CAST IRON - POWDER COATED
DIAPHRAGM	EPDM
BOTTOM FLANGE	MS
BOTTOM END BELL COVER	SS AISI-316

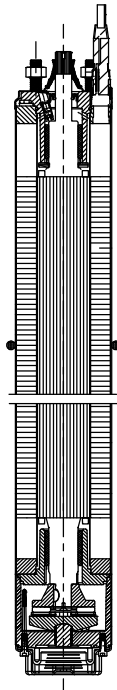
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### MATERIAL OF CONSTRUCTION

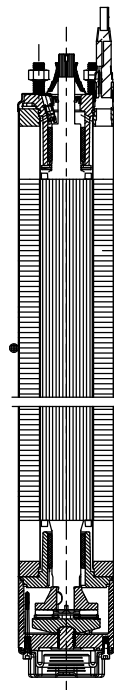
SUBMERSIBLE MOTORS			
Material	Stainless Steel 304/316	Rating	0.5 HP - 10 HP
Type	Encapsulated	Thrust Rating	1500 - 6500 N

#### PREMIUM (3 TO 10 HP)

SS AISI 304



SS AISI 316



PART	MATERIAL
SAND SLINGER	NBR
SEAL COVER	PPS
OIL SEAL	EPDM+ SS AISI 304
TOP END BELL COVER	SS AISI-304
TOP END BELL	CAST IRON - POWDER COATED
BUSH	CARBON WITH RESIGN IMPREGATED
ROTOR SHAFT	SS (STAINLESS STEEL SPECIAL GRADE)
ROTOR SUB ASSLY	N/A
TOP FLANGE	MS
STATOR PIPE	SS AISI-304
STATOR SUB ASSLY	N/A
THRUST HOUSING	CAST IRON - POWDER COATED
THRUST PIPE	SS AISI-304
THRUST DISC	CAST IRON - POWDER COATED
CARBON PLATE	REGIN IMPREGNATED
LEVELING DISC	SS AISI 410L
ADJUSTING STUD	DUPLEX
BOTTOM END BELL	CAST IRON - POWDER COATED
DIAPHRAGM	EPDM
BOTTOM FLANGE	MS
DIAPHRAGM COVER	SS AISI-304

PART	MATERIAL
SAND SLINGER	NBR
SEAL COVER	PPS
OIL SEAL	EPDM+ SS AISI 304
TOP END BELL COVER	SS AISI-316
TOP END BELL	CAST IRON - POWDER COATED
BUSH	CARBON WITH RESIGN IMPREGATED
ROTOR SHAFT	SS (STAINLESS STEEL SPECIAL GRADE)
ROTOR SUB ASSLY	N/A
TOP FLANGE	MS
STATOR PIPE	SS AISI-316
STATOR SUB ASSLY	N/A
THRUST HOUSING	CAST IRON - POWDER COATED
THRUST HOUSING	SS AISI-304
THRUST DISC	CAST IRON - POWDER COATED
CARBON PLATE	REGIN IMPREGNATED
LEVELING DISC	SS AISI 410L
ADJUSTING STUD	DUPLEX
BOTTOM END BELL	CAST IRON - POWDER COATED
DIAPHRAGM	EPDM
BOTTOM FLANGE	MS
DIAPHRAGM COVER	SS AISI-316