

4" WATER-FILLED REWINDABLE MOTORS

0.5hp through 10HP 50Hz/60Hz 2Pole-2950RPM

4 INCH PREMIUM
SUBMERSIBLE
MOTORS

4

OVERVIEW

- Asynchronous 4" Electric Motor with Squirrel Cage Rotor
- Ability to be Coupled to any Type of Radial or Semi-Axial Pump with one or more Stages
- Ideal for use in Clear Water or Water with Limited Sand Content
- Municipal, Industrial & Agricultural Applications
- Motor Winding Immersed in Anti-Freeze Water Based Mixture
- High Quality Castings and Components

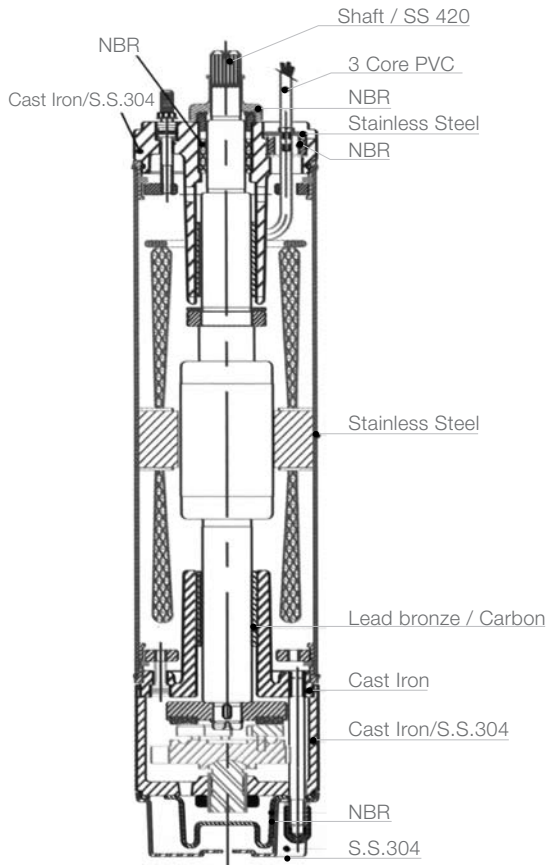
OPTIONS:

- Stainless Steel AISI 316 or Marine Bronze Construction
- High Temperature PE2 Insulation. (Up to 195°F)
- Thermal Sensors (RTDs)
- Sterling Control Panel with the 777 Motor Protection Device
- Wye-Delta (6 Lead) Configuration
- Rubber bushings (in lieu of graphite)
- Extended Warranty with a Sterling Motor Control Panel
- Enlarger / Reducer Adaptors
- Horizontal Configuration

• SINGLE PHASE - THREE PHASE • VOLTAGES: 120, 208, 230, 380, 460, 575 4" 2-POLE 0.5HP TO 10HP 50HZ, 60HZ

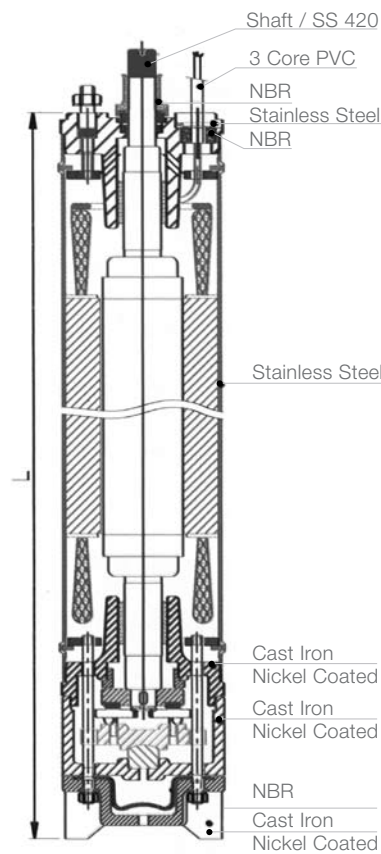
Motor type : SN

Single Phase :- 2.20 kW
Three Phase :- 1.50 to 7.50kW



Motor type : SN1

Single Phase :- 0.37 to 1.50 kW
Three Phase :- 0.55 to 1.10 kW



Outline Drawings of 4" Rewindable Water Lubricated Motors



P _N		Motor Type	S.P L [mm]	Motor Weight [kg]		Motor Weight (Incl.pkg) [kg]	
[H.P]	kW			Nickel Coated	Nickel Coated	Nickel Coated	Nickel Coated
0.50	0.37	SN	432	13.5	15.5		
0.75	0.55	SN	432	13.5	15.5		
1.00	0.75	SN	452	14.5	16.5		
1.50	1.10	SN	482	15.5	17.5		
2.00	1.50	SN	517	17.0	19.0		
3.00	2.20	SN1	589	24.0	26.0		
P _N		Motor Type	S.P L [mm]	Motor Weight [kg]		Motor Weight (Incl.pkg) [kg]	
[H.P]	kW			Nickel Coated	Nickel Coated	Nickel Coated	Nickel Coated
0.75	0.55	SN	482	15.0	17.0		
1.00	0.75	SN	482	15.0	17.0		
1.50	1.10	SN	517	17.0	19.0		
2.00	1.50	SN1	589	23.0	25.0		
3.00	2.20	SN1	639	24.0	26.0		
5.50	4.00	SN1	739	29.0	31.0		
7.50	5.50	SN1	879	36.0	38.0		
10.0	7.50	SN1	1019	48.0	50.0		

PERFORMANCE DATA OF THREE PHASE MOTORS (380 - 415 VOLT / 50 Hz)

PN		Thrust F [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	n (Eff.) [%] at % load			COSØ (PF) At % load			TN [Nm]	TA [Nm]
[H.P.]	[kW]						50	75	100	50	75	100		
0.75	0.55	1500	380	2830	1.6	6.0	61	67	67	0.59	0.72	0.80	1.9	3.1
			400	2855	1.6	6.4	58	64	67	0.54	0.67	0.75	1.9	3.5
			415	2870	1.7	6.6	55	63	66	0.50	0.63	0.80	1.9	3.7
1.00	0.75	1500	380	2850	2.1	8.9	63	68	70	0.57	0.70	0.79	2.5	4.8
			400	2870	2.1	9.3	60	67	69	0.52	0.65	0.75	2.5	5.3
			415	2880	2.2	9.8	57	65	68	0.49	0.61	0.71	2.5	5.9
1.50	1.10	3000	380	2820	3.0	13.8	69	72	72	0.59	0.73	0.81	3.8	9.6
			400	2840	3.0	14.5	66	71	73	0.53	0.67	0.76	3.7	10.6
			415	2860	3.1	15.3	64	70	72	0.49	0.62	0.72	3.7	11.5
2.00	1.50	3000	380	2840	3.9	18.6	69	72	73	0.59	0.72	0.81	5.0	11.3
			400	2855	4.0	19.2	66	71	73	0.53	0.66	0.76	5.0	12.6
			415	2870	4.1	20.2	63	69	72	0.48	0.61	0.72	4.9	13.5
3.00	2.20	4000	380	2815	5.8	28.7	72	75	75	0.58	0.72	0.81	7.6	21.7
			400	2840	5.9	28.9	69	73	75	0.51	0.64	0.75	7.5	23.6
			415	2870	6.3	30.8	66	71	73	0.45	0.59	0.69	7.5	25.9
5.50	4.00	4000	380	2785	10.8	32.3	63	67	70	0.73	0.79	0.83	13.4	21.24
			400	2790	10.5	34.0	61	65	68	0.70	0.75	0.82	13.3	23.54
			415	2800	10.0	35.0	59	63	66	0.69	0.74	0.81	13.3	25.30
7.50	5.50	4000	380	2785	14.8	50.5	70	73	74	0.75	0.79	0.84	18.94	37.18
			400	2790	14.5	53.0	68	71	72	0.74	0.78	0.84	18.92	41.20
			415	2800	14.0	55.0	66	69	71	0.72	0.77	0.83	18.80	44.34
10.0	7.50	4000	380	2850	18.0	61.0	71	72	73	0.99	0.95	0.91	24.60	45.00
			400	2860	18.3	62.0	67	70	71	0.99	0.95	0.91	24.50	46.00
			415	2880	18.8	66.0	65	68	69	0.97	0.92	0.87	24.40	47.50

STANDARD SPECIFICATIONS

COUPLING

NEMA MG1 -18/413

ROTATION

Clockwise or Counter Clockwise

TEMPERATURE

25°C (77°F) Water Temperature

COOLING

IC40, 1 ft/sec Flow Rate

VOLTAGE

+/- 10% Variation from Rated

THRUST BEARING

Self-Aligning Kingsbury-type
NEMA MG1 18.411

MOTOR LEAD

10' Length

SERVICE FACTOR

60Hz = 1.15
50Hz = 1.00

CSR PERFORMANCE DATA OF SINGLE PHASE (230 - 240 VOLT / 50 Hz)

PN		Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	n [%]			COSf			TN [Nm]	TA [Nm]	Capacitor Running uF (Uc+450V)
[H.P.]	[kW]						50	75	100	50	75	100			
0.50	0.37	1500	220	2850	3.2	10.7	37	49	56	0.88	0.94	0.97	1.22	0.93	72
			230	2860	3.4	11.2	36	46	53	0.81	0.84	0.93	1.22	1.02	
0.75	0.55	1500	220	2840	4.2	15.4	48	58	64	0.90	0.95	0.97	1.86	1.28	72
			230	2855	4.3	16.1	46	56	63	0.82	0.90	0.94	1.86	1.41	
1.00	0.75	1500	220	2840	5.8	20.2	44	55	61	0.96	0.98	0.99	2.46	1.99	72
			230	2855	5.7	21.1	42	53	60	0.90	0.95	0.98	2.46	2.19	
1.50	1.10	3000	220	2840	8.4	30.1	48	57	64	0.90	0.95	0.97	3.70	2.80	72
			230	2855	8.6	31.5	44	54	62	0.82	0.89	0.94	3.70	3.10	
2.00	1.50	3000	220	2805	10.6	33.9	52	62	67	0.91	0.96	0.98	4.97	3.28	72
			230	2825	10.6	35.4	49	59	66	0.82	0.90	0.95	4.97	3.63	
3.00	2.20	4000	220	2810	16.0	54.2	53	61	65	0.94	0.97	0.99	7.42	4.37	108
			230	2840	15.5	56.7	51	61	66	0.86	0.93	0.97	7.42	4.82	

* PN - Rated Output

* UN - Rated Voltage

* IN - Full Load Current

* n - Motor Efficiency

* TN - Full Load Torque

* F[N] - Axial Thrust Load

* nN - RPM

* IA - Starting Current

* COSØ - Power Factor

* TA - Starting Torque