

CE

# Submersible Motors

## 50Hz/60Hz

3" OIL LUBRICATED SUBMERSIBLE MOTORS

(Re-Windable)



PUMPS • MOTORS • PIPES • CABLES



# Submersible Motors

3" OIL LUBRICATED SUBMERSIBLE MOTORS (RE-WINDABLE)



## TECHNICAL SPECIFICATIONS:

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3" Varuna Oil Lubricated Motors are rewindable.

Winding wires are Enamelled dual coated.

Insulation class : B.

Degree of protection : IP58.

Max oil temperature : 350 C.

Start per hour : 30 times (Max.).

Allowable voltage variation : +6% - 10%.

Motor shaft of Stainless Steel.

Stator shell of Stainless Steel.

Max depth immersion : 100M.

Mounting : Vertical / Horizontal.

Upper / Lower bracket in Cast Iron with Epoxy Point

Single Phase Motors are Capacitor start and run.

Motor Cable length : 3 Meter (3 Core / earth wire separate on demand).

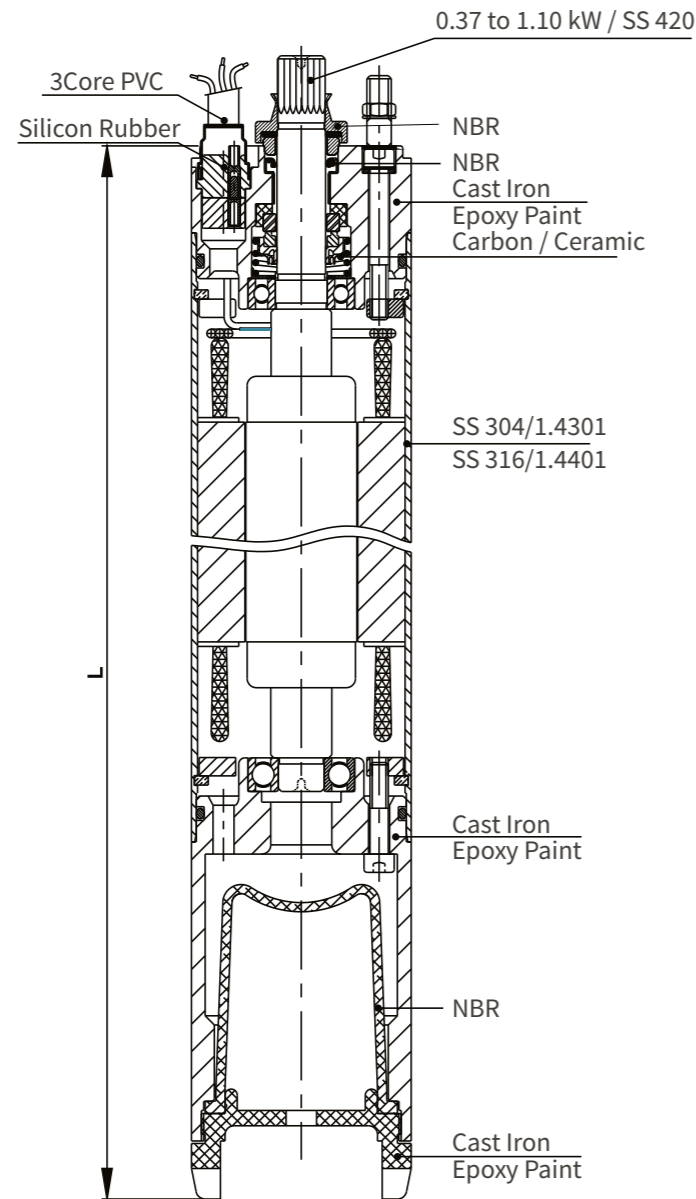
Coolant : Die electric non - toxic.

## VERSIONS:

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Single Phase : 0.37 kW to 1.10 kW, 220-230 Volt / 50 Hz.

Motors with other Voltage and frequency ratings are available on specific demand.



PN		S.P. L [mm]	Motor weight [kg]	Motor Weight (Incl. pkg) [kg]
[H.P.]	[kW]		Cast Iron Nickel Coated	Cast Iron Nickel Coated
0.50	0.37	373	7.5	8.5
0.75	0.55	398	8.0	9.0
1.00	0.75	423	8.5	9.5
1.50	1.10	448	9.5	10.5

## CSCR Performance Data of Single Phase Motors (220-230 Volt / 50 Hz)

PN [H.P.]	[kW]	Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	μ (Eff.) [%] at % load			cos φ (PF) at % load			TN [Nm]	TA [Nm]	Capacitor Running μF (Uc=450V)	Capacitor Starting μF (Uc=270V)
							50	75	100	50	75	100				
0.50	0.37	1500	220	2690	5.00	6.30	33	34	35	0.94	0.96	0.97	1.30	2.17	30	100-120
			230	2700	4.80	6.60	31	32	33	0.92	0.95	0.97	1.30	2.17		
0.75	0.55	1500	220	2690	5.40	8.90	34	36	39	0.92	0.95	0.96	1.95	2.92	30	100-120
			230	2700	5.20	9.35	32	34	37	0.91	0.93	0.94	1.95	2.92		
1.00	0.75	1500	220	2740	6.20	10.70	44	48	50	0.92	0.96	0.97	2.55	4.18	30	100-120
			230	2750	6.00	11.20	42	46	48	0.91	0.95	0.96	2.55	4.18		
1.50	1.10	1500	220	2740	6.80	12.40	50	51	55	0.90	0.92	0.95	3.83	6.21	36	100-120
			230	2750	6.60	13.00	48	49	53	0.88	0.90	0.93	3.83	6.21		

## CSR Performance Data of Single Phase Motors (220-230 Volt / 50 Hz)

PN [H.P.]	[kW]	Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	μ (Eff.) [%] at % load			cos φ (PF) at % load			TN [Nm]	TA [Nm]	Capacitor Running μF (Uc=450V)
							50	75	100	50	75	100			
0.50	0.37	1500	220	2690	5.00	6.30	33	34	35	0.94	0.96	0.97	1.30	0.99	30
			230	2700	4.80	6.60	31	32	33	0.92	0.95	0.97	1.30	1.01	
0.75	0.55	1500	220	2690	5.40	8.90	34	36	39	0.92	0.95	0.96	1.95	1.35	30
			230	2700	5.20	9.35	32	34	37	0.91	0.93	0.94	1.95	1.48	
1.00	0.75	1500	220	2740	6.20	10.70	44	48	50	0.92	0.96	0.97	2.55	2.07	30
			230	2750	6.00	11.20	42	46	48	0.91	0.95	0.96	2.55	2.27	
1.50	1.10	1500	220	2740	6.80	12.40	50	51	55	0.90	0.92	0.95	3.83	2.91	30
			230	2750	6.60	13.00	48	49	53	0.88	0.90	0.93	3.83	3.22	

- PN - Rated Output
- F[N] - Axial Thrust Load
- UN - Rated Voltage
- nN - RPM
- IN - Full Load Current
- IA - Starting Current
- μ - Motor Efficiency
- cos φ - Power Factor
- TN - Full Load Torque
- TA - Starting Torque

### Performance Data of 3" Rewindable Single Phase (O/L) Motors / 60 Hz (CSR)

PN		Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	μ (Eff.) [%] at % load			cos φ (PF) at % load			TN [Nm]	TA [Nm]	Capacitor Running μF (Uc=450V)
[H.P.]	[kW]						50	75	100	50	75	100			
0.5	0.37						1500	230	3430	4.6	12.2	38			
0.75	0.55	1500	230	3430	6.3	17.3	45	47	49	0.86	0.88	0.91	1.54	1.26	30
1.0	0.75	1500	230	3440	8.7	23	48	50	51	0.88	0.90	0.92	2.04	1.82	30
1.5	1.1	1500	230	3440	12	34	49	51	53	0.87	0.88	0.90	3.06	2.6	36

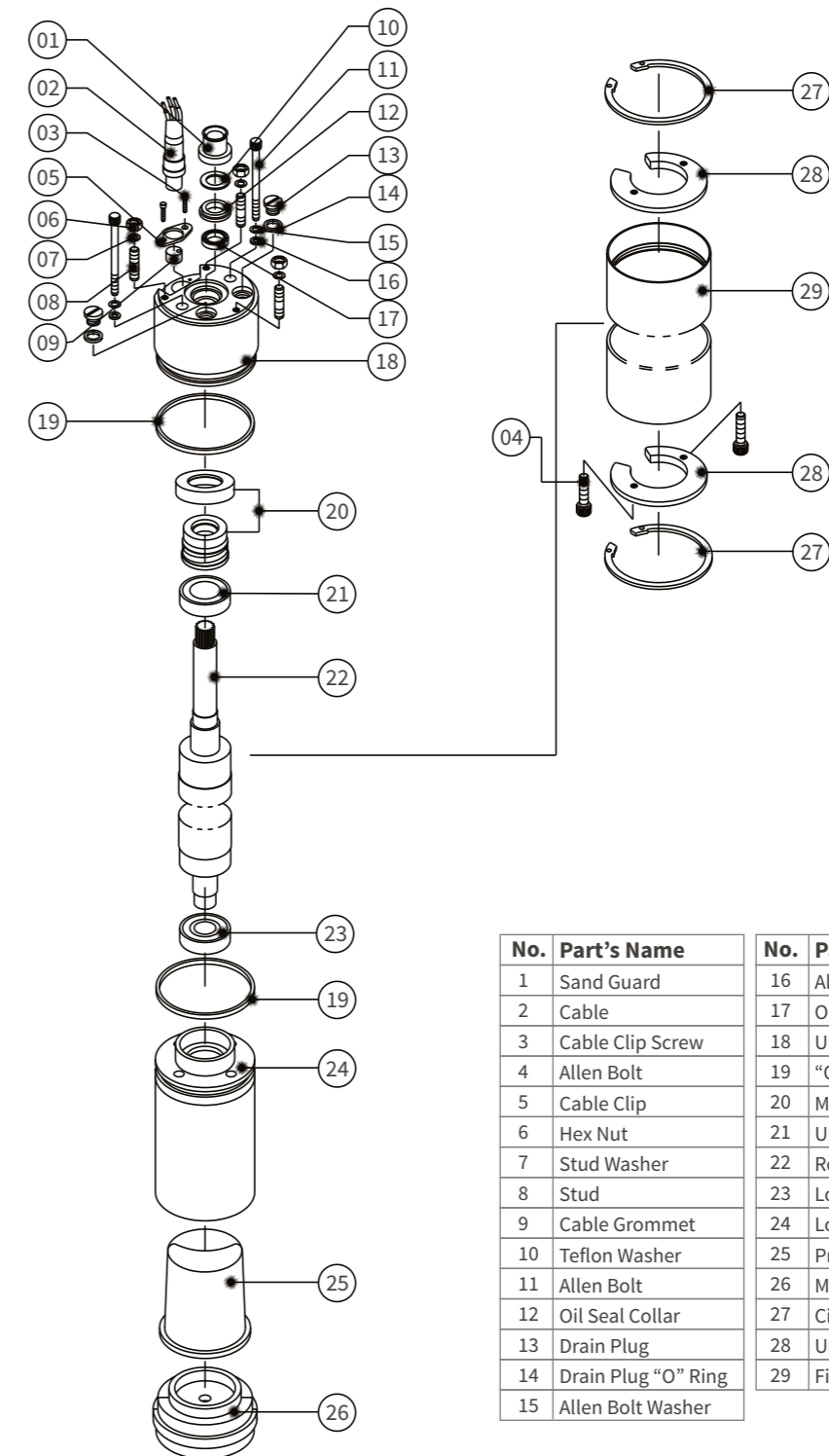
- PN - Rated Output
- F[N] - Axial Thrust Load
- UN - Rated Voltage
- nN - RPM
- IN - Full Load Current
- IA - Starting Current
- μ - Motor Efficiency
- cosφ - Power Factor
- TN - Full Load Torque
- TA - Starting Torque

### Performance Data of 3" Rewindable Single Phase (O/L) Motors / 60 Hz (CSR)

PN		Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	μ (Eff.) [%] at % load			cos φ (PF) at % load			TN [Nm]	TA [Nm]	Capacitor Running μF (Uc=450V)	Capacitor Starting μF (Uc=270V)
[H.P.]	[kW]						50	75	100	50	75	100				
0.5	0.37						1500	230	3430	4.6	12.2	38				
0.75	0.55	1500	230	3430	6.3	17.3	45	47	49	0.86	0.88	0.91	1.54	2.31	30	100-120
1.0	0.75	1500	230	3440	8.7	23	48	50	51	0.88	0.90	0.92	2.04	3.35	30	100-120
1.5	1.1	1500	230	3440	12	34	49	51	53	0.87	0.88	0.90	3.06	4.96	36	100-120

- PN - Rated Output
- F[N] - Axial Thrust Load
- UN - Rated Voltage
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### Exploded View of Spare Parts of Motors



No.	Part's Name	No.	Part's Name
1	Sand Guard	16	Allen Bolt "O" Ring
2	Cable	17	Oil Seal
3	Cable Clip Screw	18	Upper Housing
4	Allen Bolt	19	"O" Ring
5	Cable Clip	20	Mechanical Seal
6	Hex Nut	21	Upper Bearing
7	Stud Washer	22	Rotor Shaft
8	Stud	23	Lower Bearing
9	Cable Grommet	24	Lower Housing
10	Teflon Washer	25	Pressure Cup
11	Allen Bolt	26	Motor Base
12	Oil Seal Collar	27	Circlip (Internal)
13	Drain Plug	28	Upper & Lower Flange
14	Drain Plug "O" Ring	29	Finish Stator Body
15	Allen Bolt Washer		