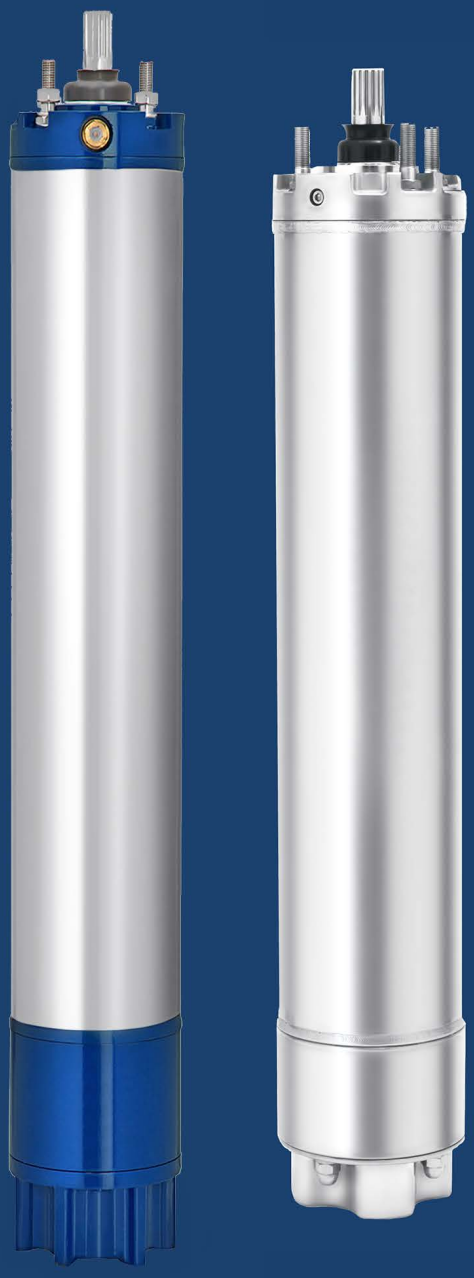
SISTEMA®

Rewindable Sumbersible Motors

Made in India



Catalogo 50/60 Hz

3" OIL FILLED SUBMERSIBLE MOTORS (RE-WINDABLE)

TECHNICAL SPECIFICATIONS:

3" Oil filled Motors are rewindable.

Winding wires are Enamelled dual coated.

Insulation class : B.

Degree of protection : IP58.

Max oil temperature : 35'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.

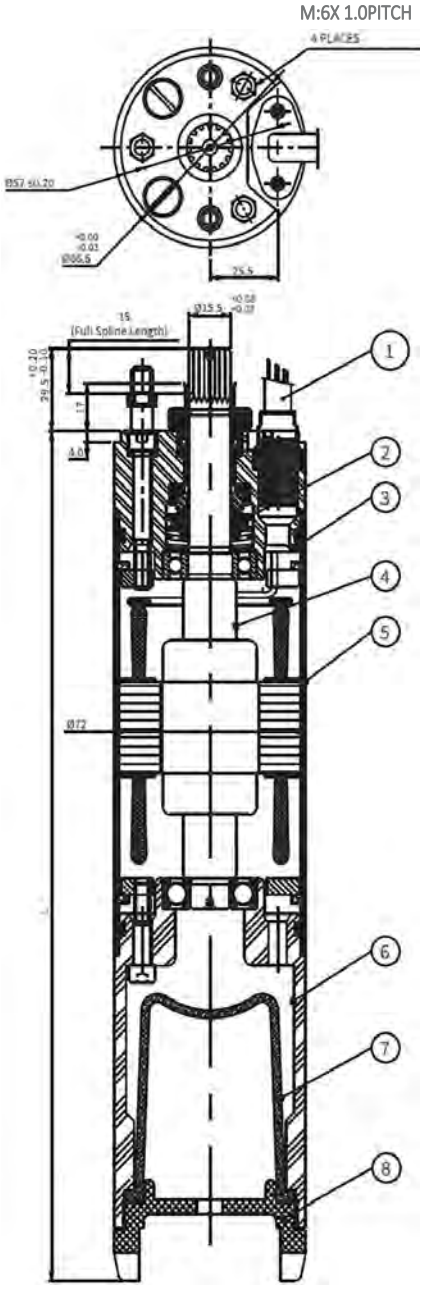
Motor Cable length : 3 Meter (3 Core/ earth wire separate on demand).

Coolant : Die electric non - toxic.

VERSIONS:

Single Phase : 0.37 kW to 1.10 kW, 220-230 Volt/ 50 Hz.
Single Phase : 0.37 kW to 1.10 kW, 230 Volt/ 60 Hz.
Motors with other Voltage and frequency ratings are available on specific demand.

3" OIL FILLED REWINDABLE MOTOR DESIGN



SRNO.	PART'SNAME	MATERIAL
01	CABLE 3 CORE	EPR/P.V.C
02	MECH.SEAL	CERAMIC/CARBON
03	UPPER HOUSING	CAST IRON (F.G 200)
04	ROTOR SHAFT	S.S.420
05	MOTOR SHELL	STAINLESS STEEL
06	LOWER HOUSING	CAST IRON (F.G 200)
07	PRESSURE CUP	N.B.R
08	MOTOR BASE	CAST IRON (F.G 200)
09	ALL HARDWARE	S.S.316/304

PN [kW]	PN [H.P.]	SP L [mm]	MOTOR WEIGHT [kg]	MOTOR WEIGHT (incl.pkg) [kg]
0.37	0.50	373	7.50	8.50
0.55	0.75	398	8.00	9.00
0.75	1.00	423	8.50	9.50
0.94	1.25	448	9.50	10.5

PN [kW]	PN [H.P.]	TP L [mm]	MOTOR WEIGHT [kg]	MOTOR WEIGHT (incl.pkg) [kg]
1.10	1.50	473	10.00	11.00

Performance Data of 3" Rewindable Single Phase (O/L) Motors (220-230 Volt/SO Hz) CSR

PN [H.P.]	PN [kW]	Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	η(Eff.) [%] at % load 50	75	100	cos φ (PF) at % load 50	75	100	TN [Nm]	TA [Nm]	Capacitor Running µF (Uc=450V)
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	

Performance Data of 3" Rewindable Single Phase (0/L) Motors (220-230 Volt/SO Hz) CSCR

PN [H.P.]	PN [kW]	Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	η (Eff.) [%] at % load 50	75	100	cos φ (PF) at % load 50	75	100	TN [Nm]	TA [Nm]	Capacitor Running µF (Uc=450V)	Capacitor Starting µF (Uc=270V)
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		

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

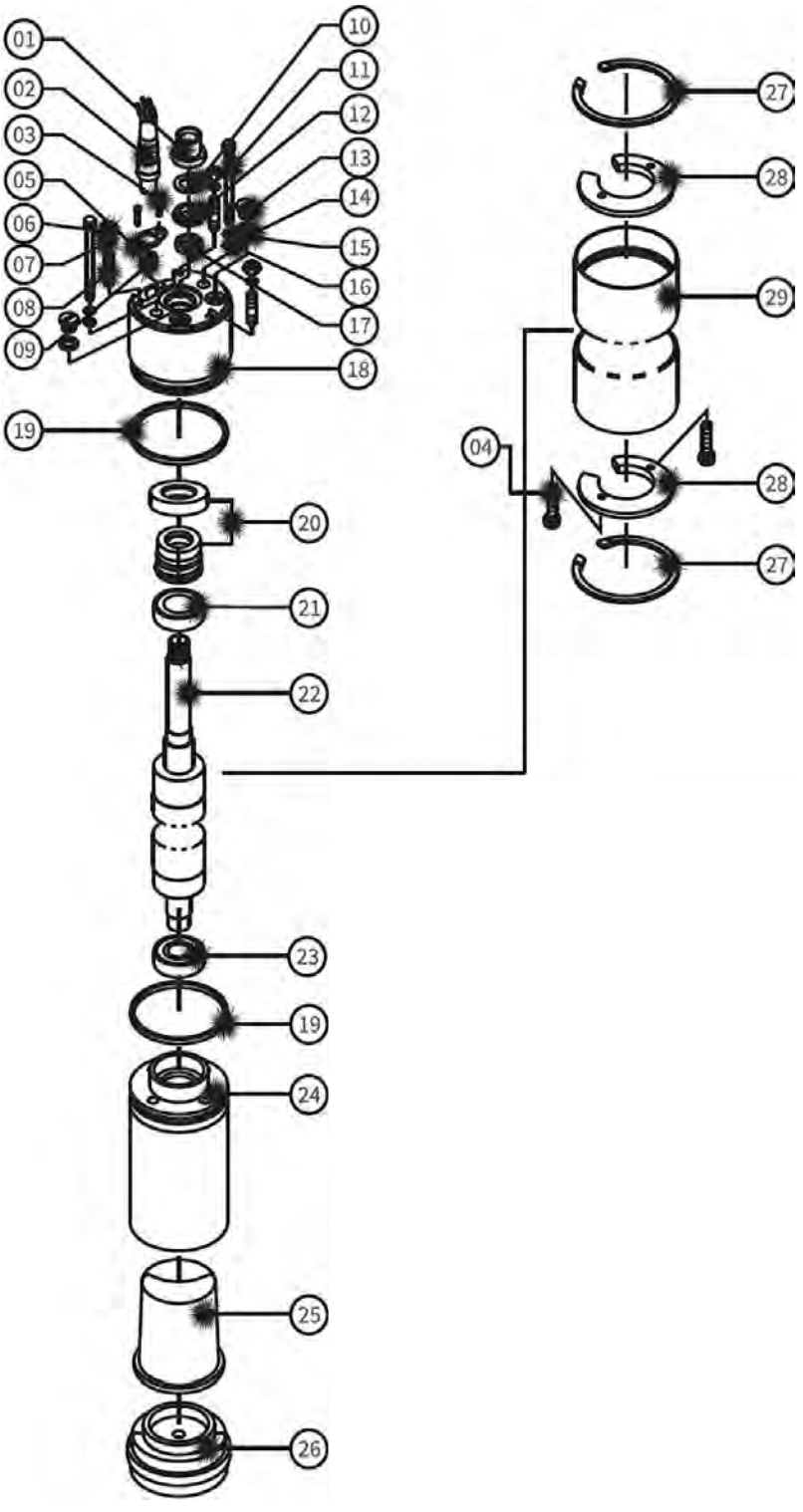
PN [H.P.]	PN [kW]	Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	η (Eff.) [%] at % load 50	75	100	cos φ (PF) at % load 50	75	100	TN [Nm]	TA [Nm]	Capacitor Running µF (Uc=450V)
0.5	0.37	1500	230	3430	4.6	12.2	38	40	42	0.80	0.82	0.84	1.02	0.84	20
0.75	0.55	1500	230	3430	6.3	17.3	45	47	49	0.86	0.88	0.91	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

Performance Data of 3" Rewindable Single Phase (0/L) Motors/60 Hz (CSCR)

PN [H.P.]	PN [kW]	Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	η (Eff.) [%] at % load 50	75	100	cos φ (PF) at % load 50	75	100	TN [Nm]	TA [Nm]	Capacitor Running µF (Uc=450V)	Capacitor Starting µF (Uc=270V)
0.5	0.37	1500	230	3430	4.6	12.2	38	40	42	0.80	0.82	0.84	1.02	1.70	20	100-120
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
- nN -RPM
- IN - Full Load Current
- IA·Starting Current
- 11 • Motor Efficiency
- coscp - Power Factor
- TN - Full Load Torque
- TA-Starting Torque

Exploded View of Spare Parts of Motors



1 Sand Guard
2 Cable
3 Cable Clio Screw
4 Allen Bolt
5 Cable Clip
6 Hex Nut
7 Stud Washer
8 Stud
9 Cable Grommet
10 Teflon Washer
11 Allen Bolt
12 Oil Seal Collar
13 Drain Plu•
14 Drain Plue "O" Rine.
15 Allen Bolt Washer
16 Allen Bolt ·o· Ring
17 Oil Seal
18 Uooer Housin2
19 "O" Ring
20 Mechanical Seal
21 Uooer Bearine:
22 Rotor Shaft
23 Lower Bearine:
24 Lower Houslne:
25 Pressure Cup
26 Motor Base
27 Cir Clio Ontemall
28 Uooer & Lower Flan••
29 Finish Stator Bodv

3" WATER FILLED SUBMERSIBLE MOTORS (RE-WINDABLE)

TECHNICAL SPECIFICATIONS:

3" Water filled Motors are rewindable.

Winding wire: Polywrapped.

Degree of protection : IP68.

Max water temperature : 35' 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 : 100 M.

Mounting : vertical/ horizontal.

Upper/ Lower bracket in Cast Iron with Epoxy Paint.

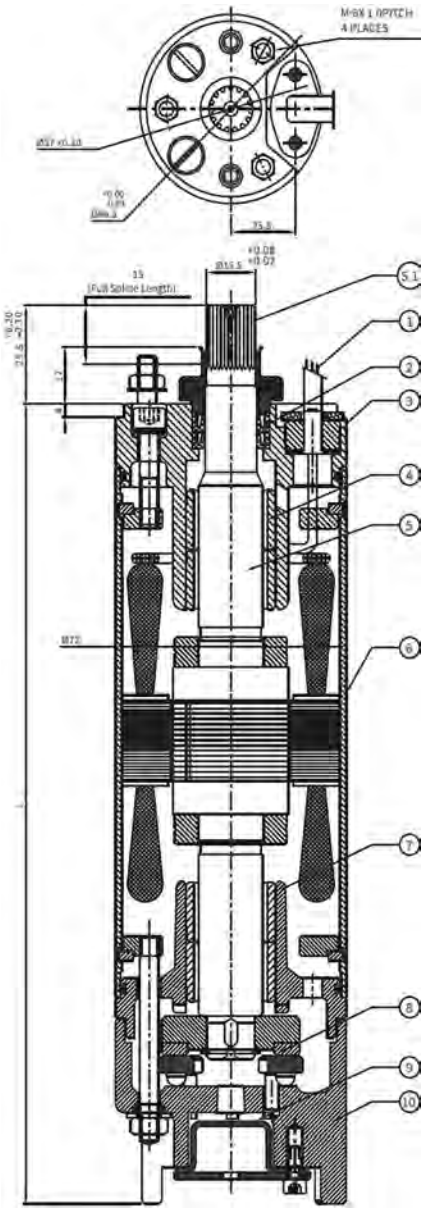
Single Phase Motors are Capacitor start and run.

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

VERSIONS:

Single Phase : 0.37 kW to 1.10 kW, 220 - 230Volt/ 50 Hz.
Single Phase : 0.37 kW to 1.10 kW, 230 Volt/ 60 Hz.
Motors with other Voltage and frequency ratings are available on specific demand.

3" WATER FILLED REWINDABLE MOTOR DESIGN



SRNO.	PART'S NAME	MATERIAL
01	CABLEJCORE	EPR/P.V.C
02	OIL SEAL	N.B.R
03	UPPER HOUSING	CAST IRON (F.G 200)
04	BEARING BUSH	L. T.B-4(2%NI)
05	ROTOR SHAFT	S.S.420
06	MOTOR SHELL	S.S304
07	LOWER HOUSING	CAST IRON (F.G 200)
08	THRUST BEARING	CARBON/S.S.420
09	PRESSURE CUP	N,B.R
10	MOTOR BASE	CAST IRON (F.G 200)
11	All HARDWARE	S.S.316/304

PN		S.P.	MOTOR WEIGHT	MOTOR WEIGHT
[kW]	[H.P.]	L[mm]	[kg]	(incl.pkg)[kg]
0.37	O.SO	305	8.SO	9.SO
0.55	0.75	445	9.50	10.5
0.75	1.00	515	11.0	12.0
0.75	1.00	535	11.5	12.5
0.94	1.25	500	10.5	11.5
1.10	I.SO	515	11.0	12.0
1.10	1.50	535	11.5	12.5

3" Rewindable Sub. Motors

Performance Data of 3" Rewindable Single Phase (W/L) Motors (220-230 Volt/SO Hz) CSR

PN [H.P.]	PN [kW]	Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	η (Eff.) [%] at % load 50	75	100	cos φ (PF) at % load 50	75	100	TN [Nm]	TA [Nm]	Capacitor Running µF (Uc=450V)
0.50	0.37	1500	220	2870	4.20	8.00	34	35	36	0.89	0.92	0.93	1.20	0.91	50
			230	2880	4.70	8.40	33	34	35	0.88	0.90	0.92	1.20	1.00	
0.75	0.55	1500	220	2870	5.20	13.20	36	39	41	0.84	0.86	0.88	1.80	1.24	50
			230	2880	6.00	13.70	35	37	39	0.81	0.83	0.85	1.80	1.37	
1.00	0.75	1500	220	2850	7.00	16.10	48	49	51	0.75	0.77	0.78	2.46	1.99	72
			230	2860	8.50	16.80	46	47	50	0.73	0.74	0.75	2.46	2.19	
1.50	1.10	1500	220	2790	8.50	16.10	53	55	56	0.77	0.79	0.85	3.78	2.87	72
			230	2800	9.00	16.80	51	53	55	0.76	0.78	0.83	3.76	3.15	

Performance Data of 3" Rewindable Single Phase (W/L) Motors (220-230 Volt/SO Hz) CSCR

PN [H.P.]	PN [kW]	Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	η (Eff.) [%] at % load 50	75	100	cos φ (PF) at % load 50	75	100	TN [Nm]	TA [Nm]	Capacitor Running µF (Uc=450V)	Capacitor Starting µF (Uc=270V)
0.50	0.37	1500	220	2870	4.20	8.00	34	35	36	0.89	0.92	0.93	1.20	2.00	50	100-120
			230	2880	4.70	8.40	33	34	35	0.88	0.90	0.92	1.20	2.00		
0.75	0.55	1500	220	2870	5.20	13.20	36	39	41	0.84	0.86	0.88	1.80	2.70	50	100-120
			230	2880	6.00	13.70	35	37	39	0.81	0.83	0.85	1.80	2.70		
1.00	0.75	1500	220	2850	7.00	16.10	48	49	51	0.75	0.77	0.78	2.46	4.00	72	100-120
			230	2860	8.50	16.80	46	47	50	0.73	0.74	0.75	2.46	4.00		
1.50	1.10	1500	220	2790	8.50	16.10	53	55	56	0.77	0.79	0.85	3.78	6.00	72	100-120
			230	2800	9.00	16.80	51	53	55	0.76	0.78	0.83	3.76	6.00		

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

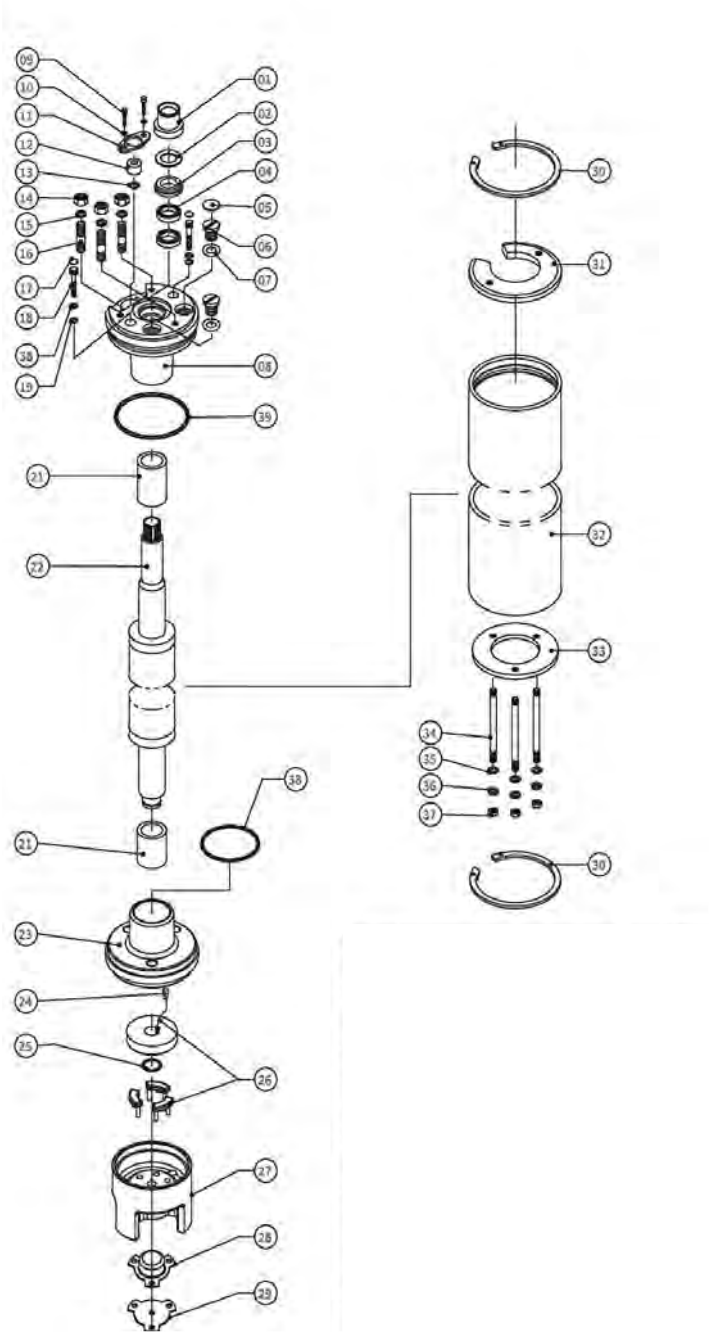
PN [H.P.]	PN [kW]	Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	η (Eff.) [%] at % load 50	75	100	cos φ (PF) at % load 50	75	100	TN [Nm]	TA [Nm]	Capacitor Running µF (Uc=450V)
0.5	0.37	1500	230	3440	5	13	38	43	44	0.74	0.76	0.78	1.02	0.85	36
0.75	0.55	1500	230	3440	7	18.5	48	49	50	0.74	0.78	0.80	1.53	1.16	36
1.0	0.75	1500	230	3450	9.5	24	48	50	52	0.75	0.79	0.81	2.04	1.79	61
1.5	1.1	1500	230	3450	14	50	50	52	54	0.75	0.77	0.80	3.06	2.57	61

Performance Data of 3" Rewindable Single Phase (W/L) Motors/ 60 Hz (CSCR)

PN [H.P.]	PN [kW]	Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	η (Eff.) [%] at % load 50	75	100	cos φ (PF) at % load 50	75	100	TN [Nm]	TA [Nm]	Capacitor Running µF (Uc=450V)	Capacitor Starting µF (Uc=270V)
0.5	0.37	1500	230	3440	5	13	38	43	44	0.74	0.76	0.78	1.02	1.69	36	100-120
0.75	0.55	1500	230	3440	7	18.5	48	49	50	0.74	0.78	0.80	1.53	2.30	36	100-120
1.0	0.75	1500	230	3450	9.5	24	48	50	52	0.75	0.79	0.81	2.04	3.32	61	100-120
1.5	1.1	1500	230	3450	14	50	50	52	54	0.75	0.77	0.80	3.06	4.9	61	100-120

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

Exploded View of Spare Parts of Motors



No.	Part's Name
1	Sand Guard
2	Teflon Washer
3	Oil Seal Collar
4	Oil Seal
5	Drain Plug Cap
6	Drain Plug
7	Drain Plug "O" Ring
8	Upper Housing
9	Cable Clip Screw
10	Cable Clip Washer
11	Cable Clip
12	Cable Grommet
13	Cable Grommet Washer
14	Hex Nut
15	Upper Stud Washer
16	Upper Stud
17	Allen Bolt Cap
18	Allen Bolt
19	Allen Bolt "O" Ring
20	Hex Nut
21	Bearing Bush
22	Rotor Shaft
23	Lower Housing
24	Key
25	Cir Clip (External)
26	Thrust Bearing Pad Set
27	Motor Base
28	Pressure Cup
29	Motor Base Plate
30	Cir Clip
31	Upper Flange
32	Finish Stator Body
33	Lower Flange
34	Stud
35	Stud Washer
36	Stud "O"- Ring
37	Allen Bolt Copper Washer
38	Upper & Lower "O" Ring

4" OIL FILLED SUBMERSIBLE MOTORS (RE-WINDABLE)

TECHNICAL SPECIFICATIONS:

4" Oil filled Motors are rewindable.

Coupling dimensions as per NEMA standard.

Winding wires are dual coated Enamelled.

Insulation class : B.

Degree of protection : IP58.

Max oil temperature : 35'C.

Start per hour : 30 time (Max.).

Allowable voltage variation: +6% - 10%.

Motor shaft of Stainless Steel.

Stator shell of Stainless Steel.

Max depth immersion : 250M.

Mounting : Vertical/ Horizontal.

Upper/ Lower bracket with Stainless Steel cladding.

Single Phase Motors are Capacitor start and run.

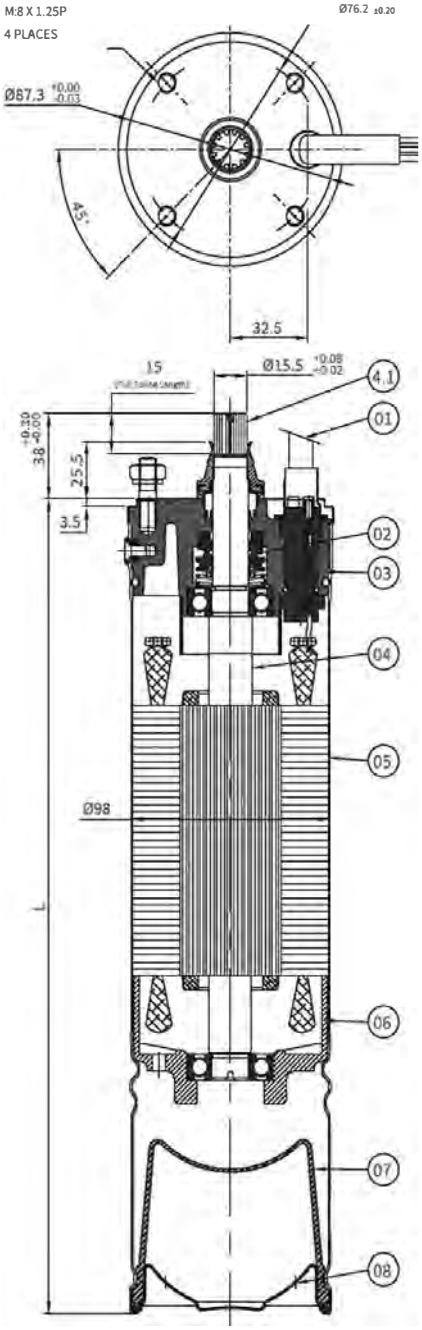
Motor Cable length : 3 Meter (3 Core/4 Core).

Coolant : Die electric non - toxic.

VERSIONS:

Single Phase : 0.25 kW to 2.20 kW, 220 - 230Volt/ 50 Hz.
0.37 kW to 2.20 kW, 230Volt/ 60 Hz.
Three Phase : 0.37 kW to 5.50 kW, 380 - 400 - 415Volt/50 Hz.
0.37 kW to 4.00 kW, 230 - 380 - 460Volt/60 Hz.
Motor with other voltage and frequency ratings are available on specific demand.

4" OIL FILLED REWINDABLE MOTOR DESIGN



SRNO.	PART'SNAME	MATERIAL
01	CABLE 3 CORE/ 4 CORE	EPR/P.V.C
02	MECH. SEAL	CERAMIC/ CARBON
03	UPPER HOUSING	CAST IRON (F.G 200) with S.S Claded
04	ROTOR SHAFT	S.S.420
4.1	SHAFT END	S.S.303
05	MOTOR SHELL	S.S.304
06	LOWER HOUSING	CAST IRON (F.G 200)
07	PRESSURE CUP	N.B.R
08	MOTOR BASE	S.S.304
09	ALL HARDWARE	S.S.316/304

PN		L[mm]	MOTOR WEIGHT [kg]	MOTOR WEIGHT (incl.pkg)[kg]
[kW]	[H.P.]			
0.37	0.50	291	6.3	8.30
0.55	0.75	316	6.8	8.80
0.75	LOO	351	8.2	10.2
1.10	LSO	376	9.4	11.4
L50	2.00	421	1L6	13.6
2.20	3.00	471	12.9	14.9
0.75	LOO	336	9.20	11.2
2.20	3.00	421	1L6	13.6
3.15	5.00	471	12.9	14.9
5.50	7.50	571	2L6	21.6

4" Rewindable Sub. Motors

Performance Data of 4" Rewindable Single Phase {0/L) Motors (220-230 Volt/50 Hz) CSR

PN		Thrust Load [N]	UN [V]	nn [min-1]	IN [A]	IA [A]	η (Eff.) [%] at % load			cos φ (PF) at % load			TN [Nm]	TA [Nm]	Capacitor Running
[H.P.]	[kW]						50	75	100	50	75	100			
0.33	0.25	1500	220	2860	2.3	7.0	35	46	54	0.85	0.90	0.94	0.81	0.77	25
			230	2870	2.5	8.4	32	43	50	0.78	0.85	0.90	0.81	0.85	
0.50	0.37	1500	220	2850	3.2	10.7	37	49	56	0.88	0.94	0.97	1.22	0.93	25
			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	36
			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	36
			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	40
			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	50
			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	80
			230	2840	15.5	56.7	51	61	66	0.86	0.93	0.97	7.42	4.82	

Performance Data of 4" Rewindable Single Phase (0/L) Motors (220-230 Volt/50 Hz) CSCR

PN		Thrust Load [N]	UN [V]	nn [min-1]	IN [A]	IA [A]	η (Eff.) [%] at % load			cos φ (PF) at % load			TN [Nm]	TA [Nm]	Capacitor Running	Capacitor Starting
[H.P.]	[kW]						50	75	100	50	75	100				
0.33	0.25	1500	220	2900	2.9	12	45	53	57	0.50	0.60	0.69	0.81	1.37	25	100-120
			230	2900	2.8	11.5	45	53	57	0.50	0.60	0.69	0.81	1.37		
0.50	0.37	1500	220	2890	4.2	15.1	51	59	62	0.52	0.64	0.73	1.2	2	25	100-120
			230	2890	4	14.4	51	59	62	0.52	0.64	0.73	1.2	2		
0.75	0.55	1500	220	2900	6.3	24.1	52	59	63	0.48	0.59	0.69	1.8	2.7	36	100-120
			230	2900	6	23.1	52	59	63	0.48	0.59	0.69	1.8	2.7		
1.00	0.75	1500	220	2890	7.6	29.6	56	62	64	0.54	0.66	0.75	2.5	4.1	36	100-120
			230	2890	7.3	28.3	56	62	64	0.54	0.66	0.75	2.5	4.1		
1.50	1.10	3000	220	2890	9.6	41.4	58	65	68	0.59	0.71	0.80	3.7	6	40	100-120
			230	2890	8.9	39.6	58	65	68	0.59	0.71	0.80	3.7	6		
2.00	1.50	3000	220	2875	11.6	55.8	60	66	68	0.71	0.81	0.88	4.9	8.3	50	100-120
			230	2875	11.1	53.4	60	66	68	0.71	0.81	0.88	4.9	8.3		
3.00	2.20	4000	220	2885	16.7	84	61	68	70	0.72	0.82	0.88	7.4	14	80	100-150
			230	2885	15.9	88	61	68	70	0.72	0.82	0.88	7.4	14		

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

Performance Data of 4" Rewindable Three Phase Motors {380-415 Volt/50 Hz)

PN		Thrust F [N]	UN [V]	nn [min-1]	IN [A]	IA [A]	η (Eff.) [%] at % load			cos φ (PF) at % load			TN [Nm]	TA [Nm]
[H.P.]	[kW]						50	75	100	50	75	100		
0.50	0.37	1500	380	2840	1.1	4.4	59	64	66	0.57	0.69	0.76	1.2	2.3
			400	2865	1.1	4.7	56	63	66	0.53	0.65	0.70	1.2	2.5
			415	2875	1.2	4.9	54	62	66	0.49	0.60	0.76	1.2	2.8
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
4.00	3.00	6500	380	2785	6.4	32.0	70	73	75	0.70	0.73	0.76	10.15	23.35
			400	2790	6.3	32.5	69	71	74	0.69	0.72	0.75	10.10	25.25
			415	2810	6.1	33.2	67	70	73	0.67	0.71	0.73	10.00	28.0
5.50	4.00	6500	380	2785	9.70	38.0	70	72	75	0.71	0.73	0.75	13.37	26.56
			400	2790	9.50	40.0	69	70	74	0.69	0.72	0.74	13.34	29.4
			415	2800	9.40	41.5	67	69	73	0.67	0.70	0.73	13.30	32
7.50	5.50	6500	380	2810	13.70	47.0	70	72	75	0.72	0.73	0.75	18.76	37.52
			400	2820	13.50	49.0	69	71	74	0.70	0.71	0.74	18.70	41.14
			415	2840	13.00	51.0	68	70	73	0.68	0.70	0.72	18.56	44.54

4" Rewindable Sub. Motors

Performance Data of 4" Rewindable Single Phase {0/L) Motors (220-230 Volt/60 Hz) CSR

Pn		Thrust Load (N)	Un (V)	nn (min-1)	In (A)	Ia (A)	η (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	3000	230	3450	3.1	10.7	43	53	60	0.76	0.79	0.88	1.02	0.86	25
0.75	0.55	3000	230	3450	4.2	15.4	50	60	67	0.83	0.91	0.95	1.53	1.16	36
1.0	0.75	3000	230	3460	5.8	20.2	46	55	62	0.90	0.95	0.98	2.03	1.81	36
1.5	1.1	3000	230	3450	8	30.1	49	59	67	0.81	0.88	0.93	3.06	2.57	40
2.0	1.5	3000	230	3450	10.1	33.9	53	63	70	0.83	0.91	0.96	4.07	2.97	50
3.0	2.2	4000	230	3430	14	54.2	58	68	73	0.87	0.94	0.98	6.15	4.00	80

Performance Data of 4" Rewindable Single Phase (O/L) Motors (220-230 Volt/60 Hz) CSCR

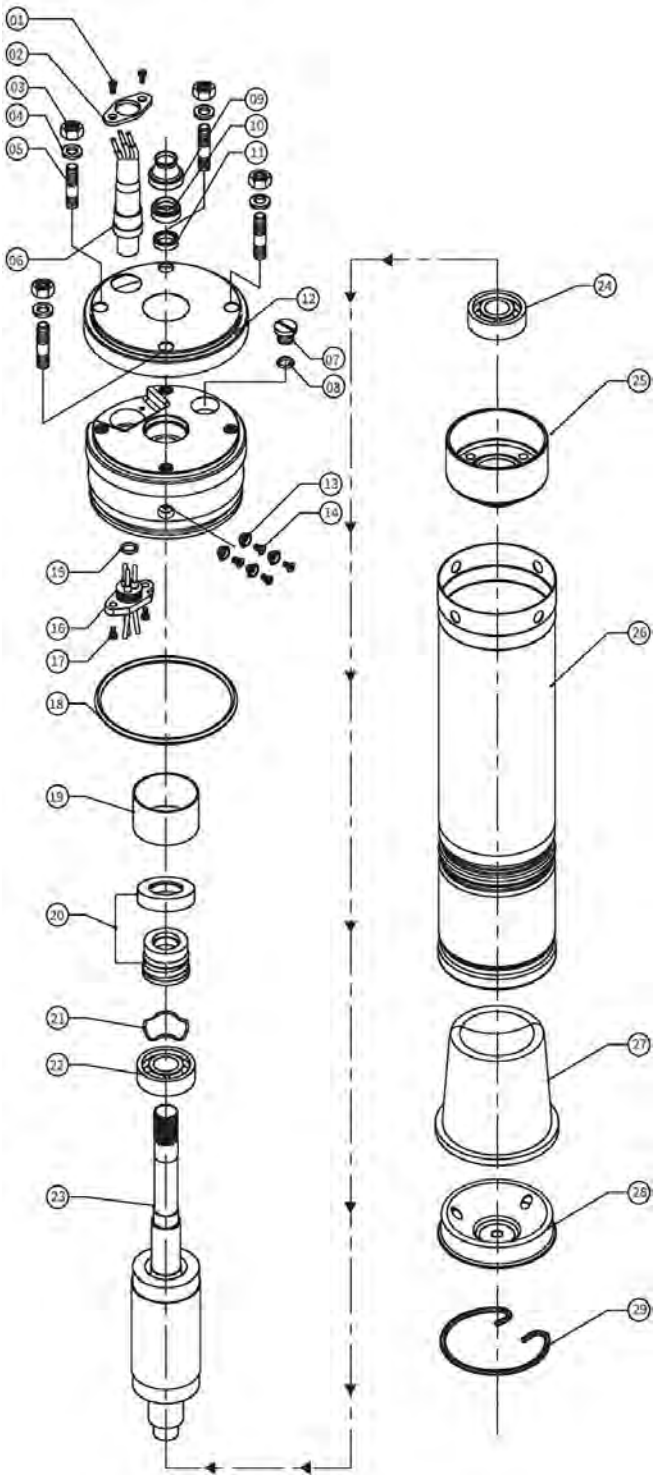
Pn		Thrust Load (N)	Un (V)	nn (min-1)	In (A)	Ia (A)	η (Eff.) (%) at % load			cos φ (PF) at % load			Tn (Nm)	TA (Nm)	Capacitor Running µF (Uc=450V)	Capacitor Starting µF (Uc=270V)
(H.P.)	(kW)						50	75	100	50	75	100				
0.5	0.37	3000	230	3480	4.2	15.2	57	64	67	0.50	0.59	0.68	1.01	1.68	25	100-120
0.75	0.55	3000	230	3485	6.5	24.2	57	65	68	0.49	0.59	0.70	1.51	2.27	36	100-120
1.0	0.75	3000	230	3590	7.8	30	54	62	65	0.53	0.64	0.73	2.01	3.3	36	100-120
1.5	1.1	3000	230	3490	9.6	41.5	60	67	70	0.59	0.70	0.79	3.04	4.92	40	100-120
2.0	1.5	3000	230	3480	11.1	55.3	63	71	74	0.69	0.80	0.89	4.04	6.87	50	100-120
3.0	2.2	4000	230	3475	14.7	82	67	74	77	0.70	0.81	0.89	6.07	11.5	80	120-150

- PN -Rated Output
- F(N)-Axial Thrust Load
- UN -Rated Voltage
- nN-RPM
- IN - Full Load Current
- IA-Starting Current
- 11 - Motor Efficiency
- **COS(j) -** Power Factor
- TN - Full Load Torque
- TA-Starting Torque

Performance Data of 4" Rewindable Three Phase Motors/60 Hz

Pn		Thrust Load (N)	Un (V)	nn (min-1)	In (A)	Ia (A)	η (Eff.) (%) at % load			cos φ (PF) at % load			Tn (Nm)	TA (Nm)
(H.P.)	(kW)						50	75	100	50	75	100		
0.5	0.37	3000	230	3445	2.41	9.6	59	62	64	0.58	0.71	0.79	1.02	1.84
			380	3445	1.42	5.6	59	62	64	0.58	0.71	0.79	1.02	1.96
			460	3445	1.21	4.8	59	62	64	0.58	0.71	0.79	1.02	2.24
0.75	0.55	3000	230	3450	3.10	12.4	63	67	69	0.57	0.71	0.80	1.53	2.3
			380	3450	1.91	7.6	63	67	69	0.57	0.71	0.80	1.53	2.5
			460	3450	1.60	6.4	63	67	69	0.57	0.71	0.80	1.53	2.75
1.0	0.75	3000	230	3455	3.91	17.55	65	68	70	0.59	0.72	0.81	2.03	3.55
			380	3455	2.32	10.35	65	68	70	0.59	0.72	0.81	2.03	3.90
			460	3455	2.00	9	65	68	70	0.59	0.72	0.81	2.03	4.47
1.5	1.1	3000	230	3445	5.00	25	70	73	76	0.61	0.76	0.83	3.04	6.69
			380	3445	3.00	15	70	73	76	0.61	0.76	0.83	3.04	7.7
			460	3445	2.51	12.5	70	73	76	0.61	0.76	0.83	3.04	8.2
2.0	1.5	3000	230	3445	6.71	33.5	64	66	69	0.59	0.73	0.81	4.08	8.16
			380	3445	4.11	20.5	64	66	69	0.59	0.73	0.81	4.08	9.22
			460	3445	3.40	17	64	66	69	0.59	0.73	0.81	4.08	10.2
3.0	2.2	4000	230	3450	9.51	47.5	70	73	75	0.52	0.65	0.74	6.11	15.3
			380	3450	5.80	29	70	73	75	0.52	0.65	0.74	6.11	17.4
			460	3450	4.82	24	70	73	75	0.52	0.65	0.74	6.11	18.33
5.5	4.0	6500	230	3450	15.91	55.65	69	71	74	0.52	0.66	0.75	11.2	18.50
			380	3450	9.62	33.6	69	71	74	0.52	0.66	0.75	11.2	22.18
			460	3450	8.00	28	69	71	74	0.52	0.66	0.75	11.2	25.80

4" Rewindable Sub. Motors



No.	Part's Name
1	Cable Clip Screw
2	Cable Clip
3	Hex Nut
4	StudWasher
5	Upper Stud
6	Cable Set
7	Drain Plug
8	Drain Plug "O" Ring
9	Sand Guard (With Instert)
10	Upper Cap
11	Oil Seal
12	Upper Jacket
13	Screw Coller
14	Screw (For Coller)
15	Cable Connector Pin 'O' Ring
16	Cable Connector Pin
17	Cable Connector Pin Screw
18	Upper 'O' Ring
19	Winding Cap
20	Mechanical Seal
21	WaweWasher
22	Ball Bearing (Upper Side)
23	Rotor
24	Ball Bearing (Lower Side)
25	Lower Housing
26	Stator Body
27	Pressure Cup
28	Motor Base Plate
29	Cir Clip

4" WATER FILLED SUBMERSIBLE MOTORS (RE-WINDABLE)

TECHNICAL SPECIFICATIONS:

4" Water Filled Motors are rewindable. Coupling dimensions as per NEMA standard.

Winding wire : Polywrapped.

Degree of protection : IP68.

Max water temperature : 35° C.

Start per hour : 30 time (Max.).

Allowable voltage variation +6% - 10%.

Motor shaft of Stainless Steel.

Stator shell of Stainless Steel.

Max depth immersion : 250 M.

Mounting : vertical/ horizontal.

Upper/ Lower bracket in Cast Iron with Epoxy Paint OR Upper Bracket Steel Cast/ Lower bracket with SS Cladding.

Single Phase Motors are Capacitor start and run.

Motor Cable length : 3 Meter (3 Core/ 4 Core).

Coolant : Clear Water.

VERSIONS:

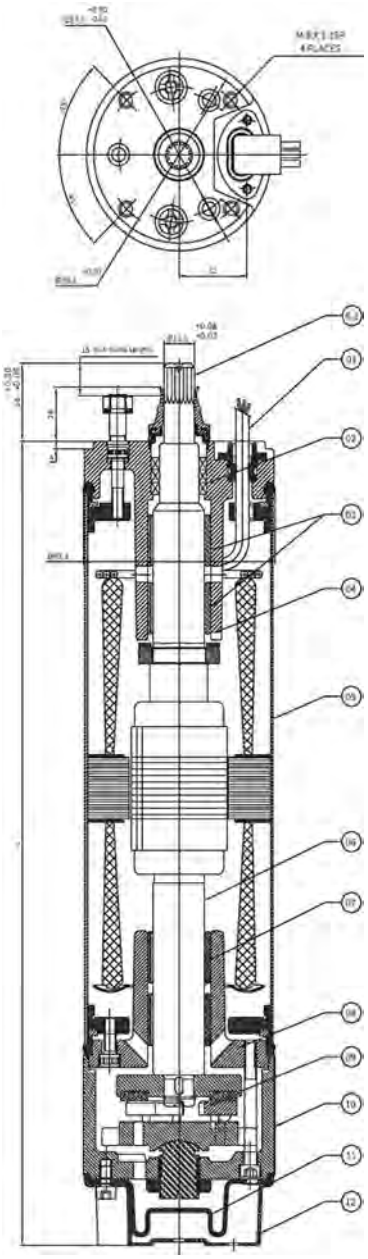
Single Phase : 0.37 kW to 4.00 kW, 220 - 230Volt/ 50 Hz.
0.37 kW to 4.00 kW, 230Volt/ 60 Hz.

Three Phase : 0.55 kW to 7.50 kW, 380 - 415Volt/ 50 Hz.
0.37 kW to 7.50 kW, 230 - 380 - 460Volt/60 Hz.

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

4" WATER FILLED REWINDABLE MOTOR DESIGN

Exploded View of Spare Parts of Motors



SRNO.	PART'SNAME	MATERIAL
01	CABLE 3 CORE/4 CORE	EPR/P.V.C
02	OIL SEAL	N.B.R
03	BEARING BUSH	CARBON
04	UPPER HOUSING	CAST IRON (F.G 200) / S.S 304
05	MOTOR SHELL	S.S.304
06	ROTOR SHAFT	S.S.420
6.1	SHAFT END	S.S.303
07	BEARING BUSH	CARBON
08	LOWER HOUSING	CAST IRON (FG-200)
09	THRUST BEARING SET	CARBON / S.S 420
10	LOWER PART-2	CAST IRON (F.G 200) WITH S.S. CLADED
11	PRESSURE CUP	N.B.R
12	MOTOR BASE	S.S.304
13	ALL HARDWARE	S.S.316/304

PN		PN	Motor Weight [kg]		Motor Weight (incl. packaging) [kg]	
kW	HP	L [mm]	S.S.304	CAST IRON	S.S.304	CAST IRON
0.37	0.50	495	12.0	12.2	13.8	15.7
0.55	0.75	495	12.0	12.2	13.8	15.7
0.75	1.00	510	12.5	12.6	14.2	16.2
1.10	1.50	525	12.8	13.2	14.7	16.7
1.50	2.00	610	20.6	21.7	23.7	24.0
2.20	3.00	660	23.2	24.3	26.0	27.0
3.70	5.00	880	36.2	38.4	40.5	42.0

PN		PN	Motor Weight [kg]		Motor Weight (incl. packaging) [kg]	
kW	HP	L [mm]	S.S.304	CAST IRON	S.S.304	CAST IRON
0.37	0.50	535	12.9	13.2	15.0	17.0
0.55	0.75	535	12.9	13.2	15.0	17.0
0.75	1.00	570	16.9	17.2	20.2	22.2
1.10	1.50	570	16.9	17.2	20.2	22,2
1.50	2.00	590	20.0	21.0	23.0	24.0
2.20	3.00	640	22.5	23.6	25.2	26.2
3.70	5.00	740	33.5	35.4	38.0	39.0
5.50	7.50	880	36.2	38.4	40.5	43.0
7.50	10.00	935	38.4	40.7	42.9	45.6

Performance Data of 4" Rewindable Single Phase (W/L) Motors (220-2 30 Volt / 50 Hz) CSR

PN		Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	η [%]			cosφ			TN [Nm]	TA [Nm]	Capacitor Running F (Uc=450V)
[H.P.]	[kW]						50	75	100	50	75	100			
0.50	0.37	1500	220	2855	3.21	10.6	37	49	56	0.89	0.93	0.96	1.21	0.93	72
			230	2860	3.40	11.3	36	47	54	0.82	0.84	0.93	1.21	1.02	
0.75	0.55	1500	220	2845	4.19	15.38	47	58	64	0.91	0.94	0.97	1.86	1.28	72
			230	2855	4.29	16.11	46	57	64	0.82	0.91	0.93	1.86	1.42	
1.00	0.75	1500	220	2845	5.79	20.21	45	56	61	0.95	0.98	0.99	2.45	1.99	72
			230	2855	5.70	21.10	43	53	61	0.91	0.96	0.98	2.45	2.19	
1.50	1.10	3000	220	2850	8.41	30.11	47	58	64	0.91	0.95	0.98	3.70	2.81	72
			230	2855	8.58	31.50	44	54	63	0.82	0.90	0.95	3.70	3.10	
2.00	1.50	3000	220	2805	10.59	33.91	52	62	68	0.92	0.95	0.98	4.97	3.28	72
			230	2825	10.59	35.38	50	59	67	0.81	0.90	0.96	4.97	3.62	
3.00	2.20	4000	220	2815	16.00	54.1	52	60	64	0.95	0.96	0.99	7.41	4.37	108
			230	2840	15.51	56.6	51	62	66	0.85	0.92	0.97	7.41	4.82	
4.00	3.00	4000	220	2810	20.1	72	55	61	66	0.94	0.96	0.96	10	6	108
			230	2830	20.0	74	52	61	67	0.85	0.93	0.97	9.94	6.5	
5.50	4.00	4000	220	2815	25.5	92.0	55	62	67	0.95	0.96	0.97	13.7	8.90	108
			230	2830	25.2	95.7	53	62	67	0.86	0.94	0.98	13.6	8.98	

Performance Data of 4" Rewindable Single Phase (W/L) Motors (220-230 Volt / 50 Hz) CSCR

PN		Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	η (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				
0.50	0.37	1500	220	2890	4.21	15.11	50	60	62	0.51	0.64	0.74	1.21	2	72	100-120
			230	2890	4.00	14.30	50	60	62	0.51	0.64	0.74	1.21	2		
0.75	0.55	1500	220	2895	6.29	24.11	51	59	63	0.49	0.60	0.69	1.79	2.7	72	100-120
			230	2895	6.00	23.00	51	59	63	0.49	0.60	0.69	1.79	2.7		
1.00	0.75	1500	220	2890	7.59	29.5	55	63	64	0.55	0.66	0.76	2.51	4.1	72	100-120
			230	2890	7.31	28.2	55	63	64	0.55	0.66	0.76	2.51	4.1		
1.50	1.10	3000	220	2890	9.58	41.3	57	66	68	0.58	0.72	0.80	3.69	6.0	72	100-120
			230	2890	8.90	39.5	57	66	68	0.58	0.72	0.80	3.69	6.0		
2.00	1.50	3000	220	2880	11.58	55.7	61	67	68	0.70	0.82	0.88	4.89	8.28	72	100-120
			230	2880	11.10	53.5	61	67	68	0.70	0.82	0.88	4.89	8.28		
3.00	2.20	4000	220	2885	16.71	83	62	68	70	0.71	0.81	0.88	7.41	14	108	120-150
			230	2885	15.89	87	62	68	70	0.71	0.81	0.88	7.41	14		
4.00	3.00	4000	220	2885	20.6	103	62	68	71	0.73	0.82	0.88	9.75	18.5	108	120-150
			230	2885	20.3	112	62	68	71	0.73	0.82	0.88	9.75	18.5		
5.50	4.00	4000	220	2885	25.8	129	63	69	71	0.74	0.82	0.89	13.4	24.1	108	120-150
			230	2885	25.6	141	63	69	71	0.74	0.82	0.89	13.4	24.1		

- PN - Rated Output
- UN - Rated Voltage
- nN- RPM
- IN - Full Load Current
- IA - Starting Current
- η - Motor Efficiency
- cosφ - Power Factor
- TN - Full Load Torque
- TA - Starting Torque

F(N)- Axial Thrust Load

Performance Data of 4" Rewindable Three Phase Motors (380-415 Volt/ 50 Hz)

PN		Thrust F [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	η (Eff.) [%] at % load			cos φ (PF) at % load			TN [Nm]	TA [Nm]
[H.P.]	[kW]						50	75	100	50	75	100		
0.75	0.55	1500	380	2835	1.59	6.00	60	66	67	0.60	0.72	0.81	1.89	3.11
			400	2855	1.59	6.38	58	65	67	0.54	0.68	0.75	1.89	3.51
			415	2875	1.70	6.61	55	64	66	0.50	0.64	0.80	1.89	3.70
1.00	0.75	1500	380	2845	2.11	8.88	64	67	70	0.58	0.71	0.79	2.50	4.81
			400	2870	2.11	9.30	60	68	69	0.51	0.64	0.75	2.50	5.32
			415	2880	2.20	9.81	58	65	68	0.49	0.61	0.72	2.50	5.89
1.50	1.10	3000	380	2825	3.00	13.70	68	72	73	0.58	0.72	0.81	3.79	9.61
			400	2840	3.00	14.51	67	71	73	0.53	0.67	0.75	3.69	10.60
			415	2860	3.11	15.28	65	70	72	0.50	0.62	0.72	3.69	11.49
2.00	1.50	3000	380	2845	3.91	18.59	68	72	73	0.60	0.72	0.81	5.0	11.31
			400	2855	4.00	19.21	66	72	73	0.54	0.66	0.77	5.0	12.60
			415	2870	4.10	20.21	64	70	72	0.49	0.62	0.73	4.9	13.49
3.00	2.20	4000	380	2820	5.80	28.68	71	75	75	0.59	0.72	0.81	7.59	21.71
			400	2840	5.91	28.90	70	73	75	0.51	0.65	0.76	7.51	23.61
			415	2870	6.29	30.78	66	71	74	0.46	0.60	0.69	7.51	25.90
4.00	3.00	4000	380	2810	8.5	29.5	62	67	70	0.72	0.78	0.82	10	16
			400	2820	8.2	31.0	61	66	68	0.71	0.77	0.80	9.97	17.95
			415	2850	8.0	33.0	60	65	67	0.70	0.76	0.80	9.87	18.75
5.50	4.00	4000	380	2790	10.79	32.29	62	67	71	0.72	0.79	0.83	13.39	21.25
			400	2790	10.51	34.00	61	65	69	0.70	0.76	0.82	13.30	23.54
			415	2810	10.0	35.00	59	64	66	0.69	0.74	0.82	13.30	25.29
7.50	5.50	4000	380	2785	14.79	50.4	69	73	74	0.74	0.79	0.84	18.93	37.19
			400	2790	14.51	53.0	68	72	73	0.74	0.79	0.84	18.92	41.21
			415	2810	14.00	54.9	67	69	71	0.73	0.77	0.83	18.81	44.35
10.0	7.50	4000	380	2855	18.00	61.1	70	72	73	0.98	0.95	0.92	24.58	45.10
			400	2860	18.31	62.0	67	71	72	0.99	0.94	0.91	24.51	46.00
			415	2880	18.79	65.9	66	68	70	0.97	0.92	0.88	24.40	47.51

- PN - Rated Output
- UN - Rated Voltage
- nN- RPM
- IN - Full Load Current
- IA - Starting Current
- η - Motor Efficiency
- cosφ - Power Factor
- TN - Full Load Torque
- TA - Starting Torque

F(N)- Axial Thrust Load

Performance Data of 4" Rewindable Single Phase (W/L) Motors / 60 Hz (CSR)

PN		Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	η (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	3000	230	3450	4.2	10.7	43	53	60	0.76	0.79	0.88	1.02	0.86	72
0.75	0.55	3000	230	3450	5	15.4	50	60	67	0.83	0.91	0.95	1.53	1.16	72
1.0	0.75	3000	230	3460	7	20.2	46	55	62	0.90	0.95	0.98	2.03	1.81	72
1.5	1.1	3000	230	3450	9.5	30.1	49	59	67	0.81	0.88	0.93	3.06	2.57	72
2.0	1.5	3000	230	3450	12	33.9	53	63	70	0.83	0.91	0.96	4.07	2.97	72
3.0	2.2	4000	230	3430	16	54.2	58	68	73	0.87	0.94	0.98	6.15	4.00	108

Performance Data of 4" Rewindable Single Phase (W/L) Motors / 60 Hz (CSCR)

PN		Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	η (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	3000	230	3480	4.2	15.2	57	64	67	0.50	0.59	0.68	1.01	1.68	72	100-120
0.75	0.55	3000	230	3485	6.5	24.2	57	65	68	0.49	0.59	0.70	1.51	2.27	72	100-120
1.0	0.75	3000	230	3490	7.8	30	54	62	65	0.53	0.64	0.73	2.01	3.3	72	100-120
1.5	1.1	3000	230	3490	9.6	41.5	60	67	70	0.59	0.70	0.79	3.04	4.92	72	100-120
2.0	1.5	3000	230	3480	12.5	55.3	63	71	74	0.69	0.80	0.89	4.04	6.87	72	100-120
3.0	2.2	4000	230	3475	16.5	82	67	74	77	0.70	0.81	0.89	6.07	11.5	108	120-150
5.5	4.0	4000	230	3450	26.0	130	68	74	77	0.70	0.82	0.98	11.2	21.2	108	200-250

- PN - Rated Output
- UN - Rated Voltage
- nN- RPM
- IN - Full Load Current
- IA - Starting Current
- η - Motor Efficiency
- cosφ - Power Factor
- TN - Full Load Torque
- TA - Starting Torque

F(N)- Axial Thrust Load

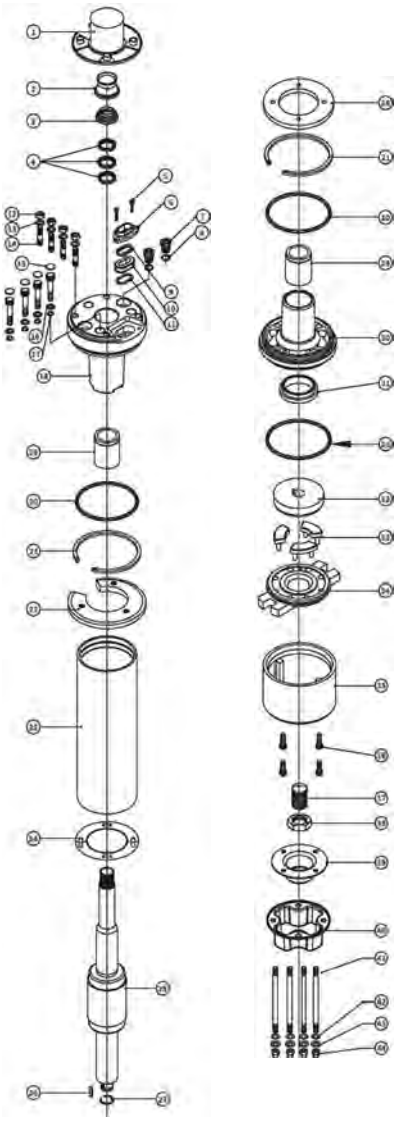
Performance Data of 4" Rewindable Three Phase Motors/ 60 Hz

PN		Thrust Load [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	η (Eff.) [%] at % load			cos φ (PF) at % load			TN [Nm]	TA [Nm]
[H.P.]	[kW]						50	75	100	50	75	100		
0.5	0.37	3000	230	3445	2.41	9.6	59	62	64	0.58	0.71	0.79	1.02	1.84
			380	3445	1.42	5.6	59	62	64	0.58	0.71	0.79	1.02	1.96
			460	3445	1.21	4.8	59	62	64	0.58	0.71	0.79	1.02	2.24
0.75	0.55	3000	230	3450	3.10	12.4	63	67	69	0.57	0.71	0.80	1.53	2.3
			380	3450	1.91	7.6	63	67	69	0.57	0.71	0.80	1.53	2.5
			460	3450	1.60	6.4	63	67	69	0.57	0.71	0.80	1.53	2.75
1.0	0.75	3000	230	3455	3.91	17.55	65	68	70	0.59	0.72	0.81	2.03	3.55
			380	3455	2.32	10.35	65	68	70	0.59	0.72	0.81	2.03	3.9
			460	3455	2.00	9	65	68	70	0.59	0.72	0.81	2.03	4.47
1.5	1.1	3000	230	3445	5.00	25	70	73	76	0.61	0.76	0.83	3.04	6.69
			380	3445	3.00	15	70	73	76	0.61	0.76	0.83	3.04	7.7
			460	3445	2.51	12.5	70	73	76	0.61	0.76	0.83	3.04	8.2
2.0	1.5	3000	230	3445	6.71	33.5	64	66	69	0.59	0.73	0.81	4.08	8.16
			380	3445	4.11	20.5	64	66	69	0.59	0.73	0.81	4.08	9.22
			460	3445	3.40	17	64	66	69	0.59	0.73	0.81	4.08	10.2
3.0	2.2	4000	230	3450	9.51	47.5	70	73	75	0.52	0.65	0.74	6.11	15.3
			380	3450	5.80	29	70	73	75	0.52	0.65	0.74	6.11	17.4
			460	3450	4.82	24	70	73	75	0.52	0.65	0.74	6.11	18.33
5.5	4.0	6500	230	3450	15.91	55.65	69	71	74	0.52	0.66	0.75	11.2	15.70
			380	3450	9.62	33.6	69	71	74	0.52	0.66	0.75	11.2	17.70
			460	3450	8.00	28	69	71	74	0.52	0.66	0.75	11.2	19.04
7.5	5.5	6500	230	3445	23.0	92	71	73	76	0.56	0.68	0.77	15.30	22.95
			380	3445	13.91	55.6	71	73	76	0.56	0.68	0.77	15.30	30.00
			460	3445	11.51	46	71	73	76	0.56	0.68	0.77	15.30	33.70
10.0	7.5	6500	230	3450	27.1	95	70	73	75	0.58	0.71	0.80	20.4	32.64
			380	3450	19.29	67.55	70	73	75	0.58	0.71	0.80	20.4	37.33
			460	3450	15.91	55.65	70	73	75	0.58	0.71	0.80	20.4	44.90

- PN - Rated Output
- UN - Rated Voltage
- nN- RPM
- IN - Full Load Current
- IA - Starting Current
- η - Motor Efficiency
- cosφ - Power Factor
- TN - Full Load Torque
- TA - Starting Torque

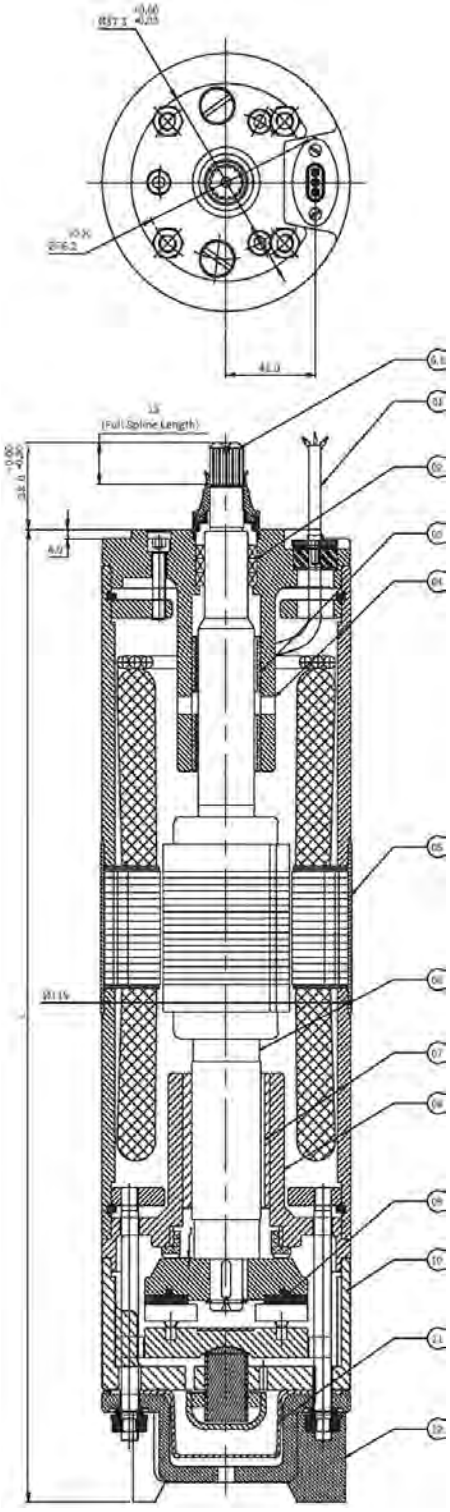
F(N)- Axial Thrust Load

Exploded View of Spare Parts of Motors S.S. Motor Base



No.	Part's Name
I	Plastic Cap
2	Sand Guard (With Insert)
3	Upper Cap
4	Oil Seal
5	Cable Clip Screw
6	Cable Protector Cap
7	Drain Plug
8	Drain Plug 'O' Ring
9	Plastic Grommet Washer
10	Rubber Grommet
1	S.S. Grommet Washer
12	Hex Nut
13	Stud Washer
14	Upper Stud
15	Allen Bolt Cap
16	Allen Bolt Washer
17	Allen Bolt 'O' Ring
18	Upper Housing
19	Bearing Bush Upper Side
20	'O' Ring
21	Cir Clip
22	Upper Flange
23	Stator Body
24	Winding Cap
25	Rotor Stamping
26	Rotor Key
27	Rotor Cir Clip
28	Lower Flange
29	Bearing Bush Lower Side
30	Lower Housing
31	Fiber C.T. Bearing
32	Carbon Plate
33	Segment
34	Counter Bearing
35	Lower Part -
36	Allen Bolt (Lower Side)
37	Rocker
38	Rocker Lock Nut
39	Pressure Cup
40	Motor Base
41	Lower Stud
42	Stud 'O' Ring
43	Stud Washer
44	Dome Nut

5" REWINDABLE MOTOR DESIGN



SR.NO.	PART'S NAME	MATERIAL
01	CABLE 3 CORE/4 CORE	EPR/P.V.C
02	OIL SEAL	N.B.R
03	BEARING BUSH	L.T.B-4 2% NI
04	UPPER HOUSING	CAST IRON (F.G 200)
05	MOTOR SHELL	S.S.304
06	ROTOR SHAFT	S.S.420
6.1	SHAFT END	S.S.303
07	BEARING BUSH	L.T.B-4 (2%NI)
08	LOWER HOUSING	CAST IRON(FG-200)
09	THRUST BEARING SET	CARBON / 5.5 420
10	LOWER PART-2	CAST IRON (FG-200)
11	PRESSURE CUP	N.B.R
12	MOTOR BASE	N.B.R
13	ALL HARDWARE	S.S.316/304

pN		PW L[mm) C.I	Motor Weight [kg]	Motor Weight (incl. pack.) (kg)
[kw]	[HP) (T.P)			
1.10	1.50	520.00	21.9	23.9
1.50	2.00	545.00	23.0	25.0
2.20	3.00	565.00	23.9	25.9
2.94	4.00	565.00	23.9	25.9
4.00	5.50	630.00	26.7	28.7
5.50	7.50	695.00	29.5	31.5
7.50	10.00	815.00	34.6	36.6
9.30	12.50	880.00	37.3	39.3

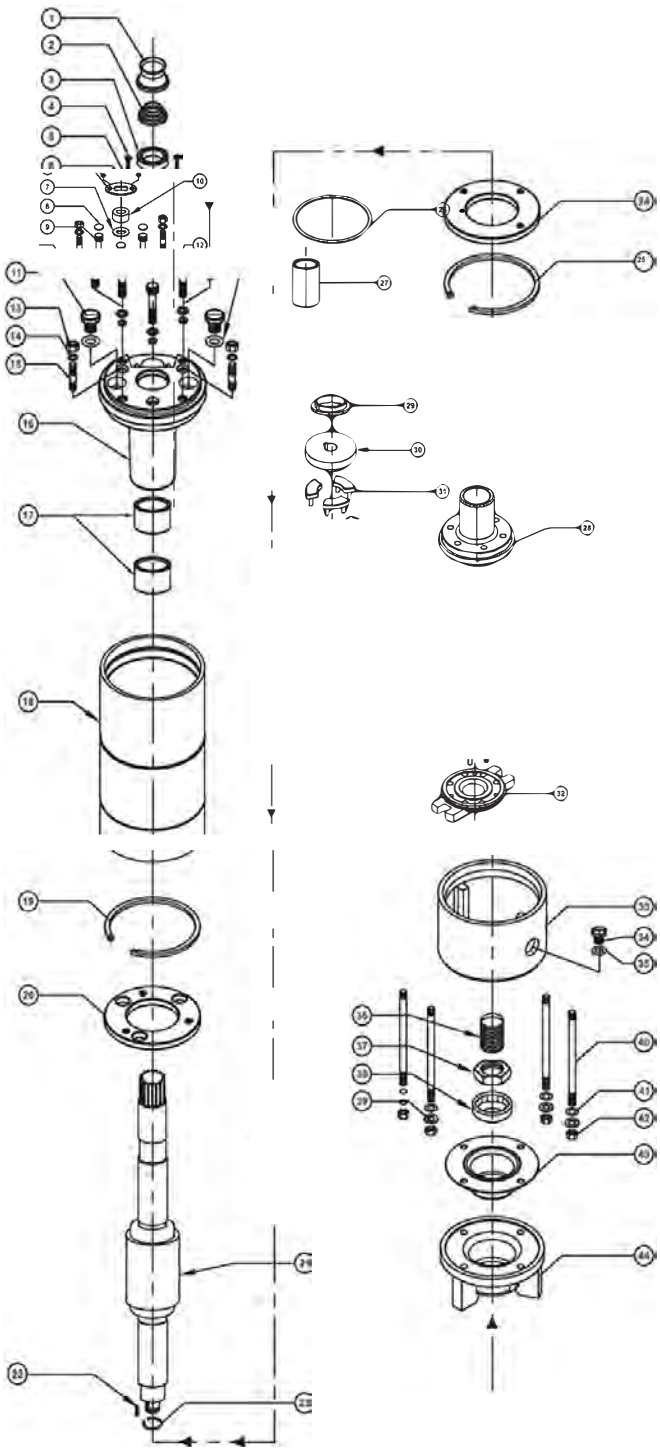
Performance Data of S" Rewindable Aqualite Submersible Motors/ SO Hz

P N		Thrust	U N	nN	IN	IA	η(Eff)(%) at % load			COS P(PF) At %load		TN	TA
[H.P.]	[kW]	F[N]	[VJ	[min-1)	[A)	[A)	50	75	100	50	75 100	[Nm)	[Nm)
1.50	1.10	4000	380	2860	3.20	15.0	68	71	71	0.62	0.70 0.71	3.69	9.22
			400	2870	3.30	15.7	67	71	72	0.60	0.67 0.72	3.67	9.35
			415	2870	3.40	16.3	65	70	72	0.55	0.65 0.72	3.67	9.60
2.00	1.50	4000	380	2860	4.10	19.5	70	72	73	0.60	0.70 0.78	4.91	11.80
			400	2865	4.20	20.2	66	72	73	0.55	0.66 0.77	4.90	11.85
			415	2870	4.30	20.6	66	70	72	0.52	0.62 0.75	4.89	11.93
3.00	2.20	15500	380	2865	6.00	21.0	68	69	72	0.66	0.70 0.70	7.36	13.25
			400	2870	6.15	21.8	67	68	71	0.65	0.70 0.69	7.34	13.60
			415	2875	6.25	22.5	66	67	70	0.64	0.69 0.68	7.33	13.90
4.00	3.00	15500	380	2860	9.00	31.5	70	70	72	0.65	0.70 0.72	9.83	17.70
			400	2875	9.20	32.8	69	70	72	0.64	0.69 0.70	9.78	18.00
			415	2875	9.30	33.6	69	68	71	0.64	0.69 0.69	9.78	18.40
5.50	4.00	15500	380	2870	10.20	35.7	70	70	72	0.68	0.70 0.73	13.47	24.90
			400	2875	10.40	37.0	69	70	71	0.66	0.69 0.71	13.44	25.00
			415	2875	10.60	37.4	69	68	71	0.65	0.70 0.71	13.44	25.54
7.50	5.50	15500	380	2875	13.40	46.9	71	72	73	0.70	0.71 0.75	18.33	34.80
			400	2880	13.20	46.9	70	69	72	0.69	0.70 0.75	18.30	35.90
			415	2885	13.10	47.2	70	70	72	0.69	0.70 0.74	18.27	36.50
10.0	7.50	15500	380	2880	18.10	63.4	70	72	74	0.72	0.74 0.75	24.40	46.40
			400	2885	17.50	63.9	70	73	75	0.71	0.72 0.75	24.36	46.77
			415	2885	17.50	64.0	69	70	73	0.70	0.72 0.74	24.36	47.80
12.5	9.30	15500	380	2880	20.50	73.0	72	72	74	0.74	0.74 0.75	30.50	57.90
			400	2885	20.40	74.5	71	73	75	0.72	0.72 0.75	30.45	58.50
			415	2885	20.20	74.7	70	71	73	0.70	0.71 0.74	30.45	59.40

- PN - Rated Output
- UN - Rated Voltage
- nN- RPM
- IN -Full Load Current
- IA-Starting Current
- n -Motor Efficiency
- cos(p) -Power Factor
- TN -Full Load Torque
- TA-Starting Torque
- F[N)-Axial Thrust Load

5" Rewindable Sub. Motors

Exploded View of Spare Parts of Motors



No.	Part's Name
1	Sand Guard
2	UpperCap
3	Oil Seal
4	Cable Clip Screw
5	CableClip Screw Washer
6	CableClip
7	Cable Grommet Washer
8	Allen BoltCap
9	Allen Bolt
10	Cable Grommet
11	DrainPlug
12	DrainPlug 'O' Ring
13	Hex Nut
14	Upper Stud Washer
15	Upper Stud
16	Upper Housing
17	Bearing Bush
18	Stator Body
19	CirClip
20	Upper Flange
21	Rotor
22	Rotor Key
23	RotorCirClip
24	Lower Flange
25	CirClip
26	Paper Gasket
27	Bearing Bush
28	Lower Housing
29	C.T. Bearing
30	Carbon Bearing
31	Segment
32	Counter
33	LowerPart-2
34	Drain Plug
35	DrainPlug 'O' Ring
36	Rocker
37	Rocker Lock Nut
38	Rocker Lock NutCap
39	Stud Washer
40	Lower Stud
41	Stud 'O' Ring
42	Hex Nut
43	Pressure Cup
44	Motor Base

6" Rewindable Sub. Motors

TECHNICAL SPECIFICATIONS:

6" SISTEMA Water Lubricated Submersible Motors are rewindable. Coupling dimensions as per NEMA standard.

Winding wire: Polywrapped/ PVC winding available on specific demand Degree of protection: IP68.

Max water temperature : 35' C.

Starts per hour: 30 times (Max.).

Allowable voltage variation: +6% - 10%.

Motor shaft of Stainless steel.

Stator shell of Stainless steel.

Max depth immersion: 350 M.

Mounting: vertical/ horizontal.

Motor Cable length: 3 Meter/ 3 Core with separate earth cable & 4 Core. Cooling Flow: V=0.2 M/S.

Coolant: Clear Water.

VERSIONS:

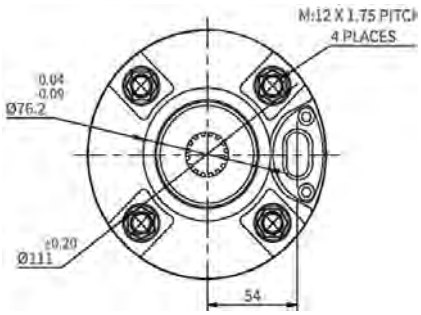
Three Phase: 2.20 kW To 37.5 kW/ 380-415 VolV 50 Hz.

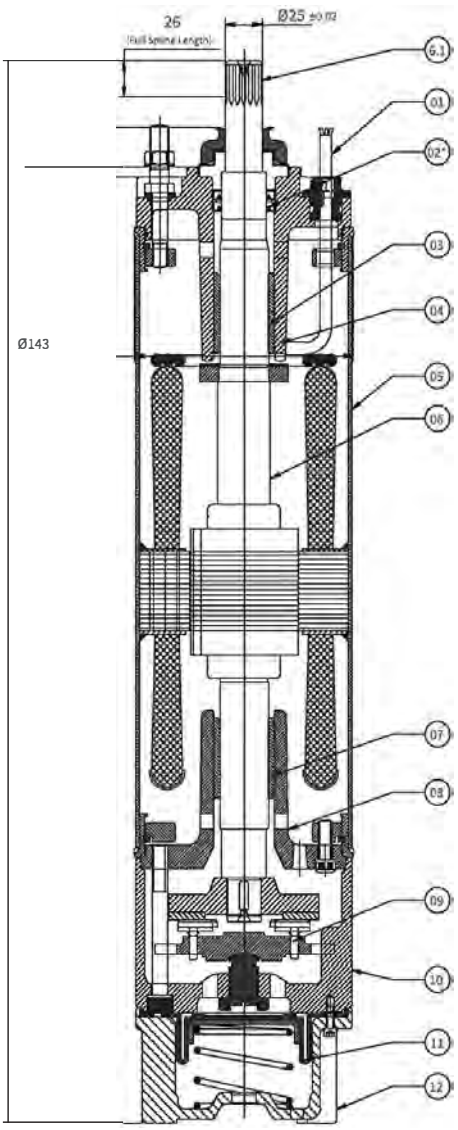
2.20 kW To 37.5 kW/ 230 - 380 - 460Volt/60 Hz.

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

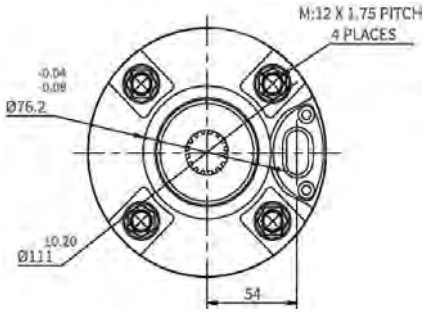
6" REWINDABLE MOTOR DESIGN

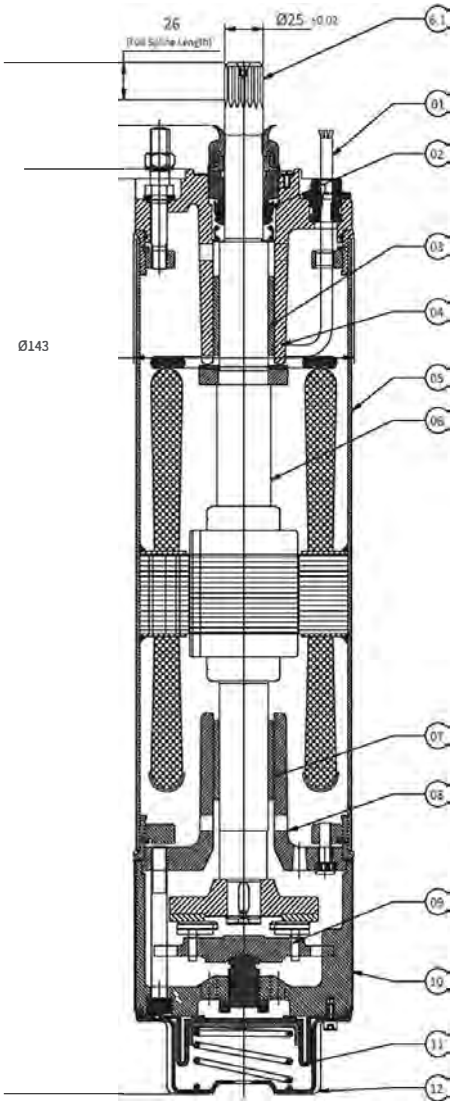
MOTOR-A





MOTOR-B





6" Rewindable Sub. Motors

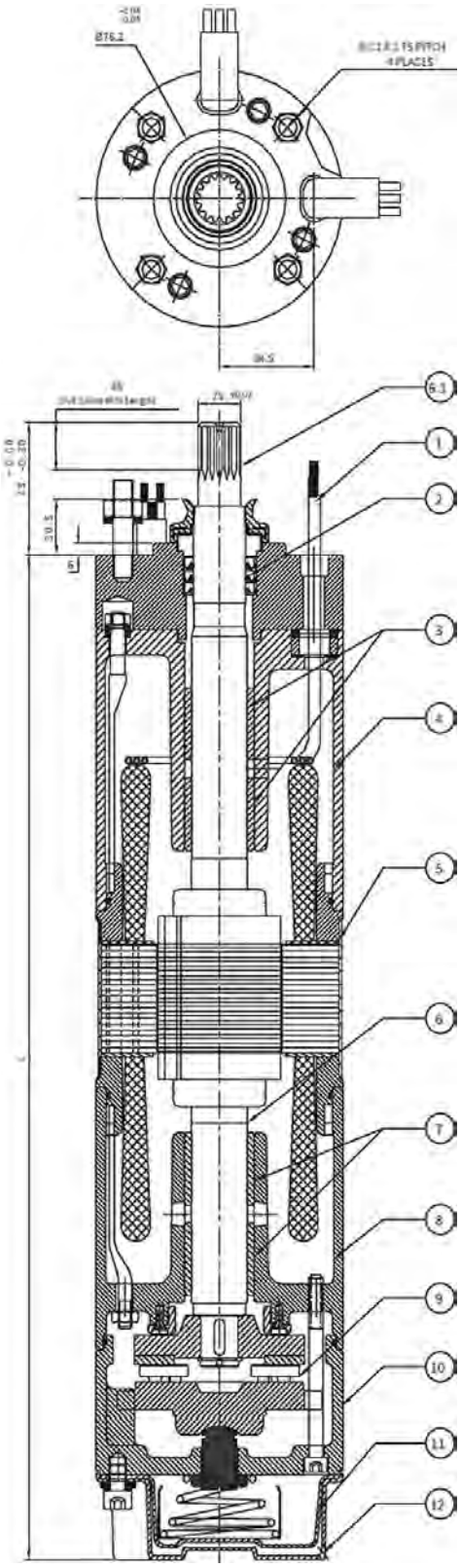
MOTOR-A		
SRNO	PART'SNAME	MATERIAL
01	CABLE 3 CORE/4 CORE	EPR
02	OIL SEAL	N.B.R
02	MECH / SEAL'	CARBON/CIRAMIC
03	BEARING BUSH	CARBON
04	UPPER HOUSING	CAST IRON (F.G 200)
05	MOTOR SHELL	S.S.304
06	ROTOR SHAFT	S.S.420
6.1	SHAFT END	S.S.303
07	BEARING BUSH	CARBON
08	LOWER HOUSING	CAST IRON (F.G 200)
09	THRUST BEARING SET	CARBON / S.S.420
10	LOWER PART-2	CAST IRON (F.G 200)
11	PRESSURE CUP	N.B.R
12	MOTOR BASE	CAST IRON (F.G 200)
13	ALL HARDWARE	S.S.316/304

ON DEMAND MECH SEAL'

MOTOR-B		
SRNO	PART'SNAME	MATERIAL
01	CABLE 3 CORE/4 CORE	EPR
02	MECH. SEAL	CARBON/CIRAMIC
03	BEARING BUSH	CARBON
04	UPPER HOUSING	CAST IRON(F.G 200) / S.S.304
05	MOTOR SHELL	S.S.304
06	ROTOR SHAFT	S.S.420
6.1	SHAFT END	S.S.303
07	SEARiNG BUSH	CARBON
08	LOWER HOUSING	CAST IRON (F.G 200)
09	THRUST BEARING SET	CARBON / S.S.420
10	LOWER PART-2	CAST IRON {fG 200) WITH S.S. CU.OED
11	PRESSURE CUP	N.B.R
12	MOTOR BASE	S.S.304
13	ALL HARDWARE	S.S.316/304

PN		PW L[mm]	PW L[mm]	Motor Weight [kg]		Motor Weight (incl.pkg) [kg]	
[kW]	[hp]	C.I.	S.S.	S.S. 304	Cast Iron	S.S. 304	Cast Iron
2.2	3.00	657	637	24.0	20.0	27.0	24.0
3.7	5.00	667	647	39.0	35.0	42.7	39.4
4.1	5.50	682	662	43.0	39.0	46.7	43.4
5.5	7.50	747	727	46.0	49.0	51.2	54.2
7.5	10.00	777	757	50.0	54.0	54.2	57.8
9.3	12.50	803	787	53.0	59.0	56.8	63.0
11.0	15.00	847	827	61.0	63.0	64.8	66.6
13.0	17.50	897	877	64.0	67.0	67.7	70.7
15.0	20.00	937	917	70.0	71.0	74.6	75.2
18.5	25.00	992	972	76.0	80.0	79.8	83.5
22.0	30.00	1067	1047	90.0	90.0	94.2	94.3
26.0	35.00	1127	1107	94.0	97.0	98.0	101.0
30.0	40.00	1247	1227	102.0	100.0	108.0	105.0
37.0	50.00	1347	1347	127.5	125.5	133.5	130.5

6" Cl T-TVPE RE-WINDABLE MOTOR DESIGN



SRNO	PART'SNAME	MATERIAL
01	CABLE 3 CORE/4 CORE	E.P.R
02	OIL SEAL	N.B.R
02	MECH / SEAL'	CARBON/Cl RAMIC
03	BEARING BUSH	CARBON
04	UPPER HOUSING	CAST IRON (F.G 200)
05	MOTOR SHELL	S.S.304
06	ROTOR SHAFT	S.S.420
6.1	SHAFT END	S.S.303
07	BEARING BUSH	CARBON
08	LOWER HOUSING	CAST IRON (F.G 200)
09	THRUST BEARING SET	CARBON / S.S.420
10	LOWER PART-2	CAST IRON (F.G 200) WITH S.S. C ADEO
11	PRESSURE CUP	N.B.R
12	MOTOR BASE	S.S.304
13	ALL HARDWARE	S.S.316/304

ON DEMAND MECH SEAL'

PN		PW L [mm] C.I.	Motor Weight [kg]	Motor Weight (incl.pack.) [kg]
[kW]	[HP]		Cast Iron	Cast Iron
2.20	3.00	590	20.0	24.0
2.94	4.00	590	20.0	24.0
3.70	5.00	605	35.0	39.4
3.70	5.00	615	39.0	43.4
4.40	6.00	630	44.0	49.5
5.50	7.50	695	49.0	54.6
7.50	10.00	725	54.0	58.2
9.30	12.50	755	59.0	63.0
11.0	15.00	795	62.0	66.0
13.0	17.50	845	67.0	70.7
15.0	20.0	885	70.0	74.2
18.5	25.00	940	76.0	80.2
22.0	30.00	1015	85.0	89.2
26.0	35.00	1075	97.0	101.0
30.0	40.00	1195	104.0	108.4
37.0	50.00	1295	113.0	117.8

Performance Data of 6" Aqualite Submersible Motors/ 5OHz

PN (H.P.)	PN (kW)	Thrust F(N)	UN M	nN [min-1)	IN [A]	IA [Al]	η (Eff.)[%) at% load 50	η (Eff.)[%) at% load 75	η (Eff.)[%) at% load 100	COS(p) (PF) at load 50	COS(p) (PF) at load 75	COS(p) (PF) at load 100	TN [Nm]	TA (Nm)
3.00	2.2	15500	380	2845	6.21	21.7	62	61	62	0.68	0.70	0.72	7.41	10.63
3.00	2.2	15500	400	2875	6.30	22.2	61	63	65	0.64	0.70	0.71	7.30	11.78
3.00	2.2	15500	415	2875	6.51	23.1	59	66	67	0.61	0.69	0.71	7.30	12.66
5.50	4	15500	380	2915	10.39	47	71	74	76	0.60	0.71	0.77	13.11	15.50
5.50	4	15500	400	2935	10.61	50	69	73	76	0.54	0.66	0.74	13.11	17.31
5.50	4	15500	415	2935	10.90	52	66	72	76	0.50	0.60	0.70	13.00	18.82
7.50	5.5	15500	380	2865	13.71	47	73	76	76	0.68	0.79	0.83	18.31	15.40
7.50	5.5	15500	400	2885	13.30	50	72	76	76	0.62	0.75	0.81	18.20	17.30
7.50	5.5	15500	415	2890	13.41	54	72	75	75	0.60	0.71	0.79	18.10	18.70
10.0	7.5	15500	380	2870	18.29	58	77	78	78	0.70	0.80	0.83	25.10	19.20
10.0	7.5	15500	400	2890	17.70	63	76	78	78	0.66	0.75	0.81	24.80	21.40
10.0	7.5	15500	415	2890	17.70	64	73	74	77	0.62	0.74	0.81	24.80	23.40
12.5	9.3	15500	380	2855	22.00	75	79	80	79	0.70	0.80	0.83	31.11	25.91
12.5	9.3	15500	400	2860	21.30	77	79	79	78	0.63	0.75	0.81	31.00	29.00
12.5	9.3	15500	415	2885	21.l0	81	77	79	78	0.60	0.72	0.82	30.91	31.42
15.0	11	15500	380	2865	25.79	93	77	80	78	0.71	0.80	0.84	36.60	31.50
15.0	11	15500	400	2880	25.21	97	77	80	80	0.66	0.75	0.83	36.40	35.30
15.0	11	15500	415	2890	25.10	101	75	78	80	0.61	0.73	0.81	36.30	38.10
17.5	13	15500	380	2885	30.11	117	79	81	80	0.69	0.79	0.83	43.20	45.00
17.5	13	15500	400	2900	29.60	126	78	80	81	0.62	0.75	0.80	42.70	50.20
17.5	13	15500	415	2905	29.71	131	77	79	81	0.58	0.70	0.77	42.60	54.50
20.0	15	15500	380	2880	33.91	140	80	82	81	0.72	0.82	0.85	49.71	53.80
20.0	15	15500	400	2895	33.10	147	80	81	81	0.66	0.78	0.84	49.40	60.30
20.0	15	15500	415	2900	33.00	155	78	80	81	0.61	0.74	0.82	49.20	65.40
25.0	18.5	15500	380	2870	42.31	171	80	82	81	0.68	0.79	0.84	61.72	75.21
25.0	18.5	15500	400	2880	42.00	182	77	80	81	0.61	0.73	0.81	61.22	84.30
25.0	18.5	15500	415	2895	42.49	188	76	80	80	0.58	0.71	0.78	61.00	91.20
30.0	22	15500	380	2875	49.11	217	82	83	84	0.69	0.78	0.83	72.62	91.10
30.0	22	15500	400	2900	49.00	231	80	82	83	0.61	0.74	0.81	72.48	102.10
30.0	22	15500	415	2910	49.59	239	76	81	82	0.57	0.68	0.78	72.20	110.60
35.0	26	15500	380	2890	57.49	267	82	84	83	0.69	0.79	0.85	86.10	120.40
35.0	26	15500	400	2905	56.72	283	81	82	83	0.60	0.74	0.84	85.50	134.80
35.0	26	15500	415	2910	57.30	295	77	83	83	0.56	0.70	0.81	85.20	146.20
40.0	30	27500	380	2895	66.39	329	81	84	83	0.68	0.77	0.84	98.82	135.00
40.0	30	27500	400	2910	66.42	346	80	82	82	0.61	0.74	0.81	98.41	151.00
40.0	30	27500	415	2910	67.50	360	77	81	82	0.56	0.69	0.78	98.22	164.00
50.0	37	27500	380	2890	82.00	406	82	83	83	0.68	0.79	0.83	122.00	192.70
50.0	37	27500	400	2910	81.92	432	81	82	83	0.60	0.73	0.81	121.50	215.70
50.0	37	27500	415	2910	83.91	449	78	80	82	0.56	0.67	0.77	121.20	234.10

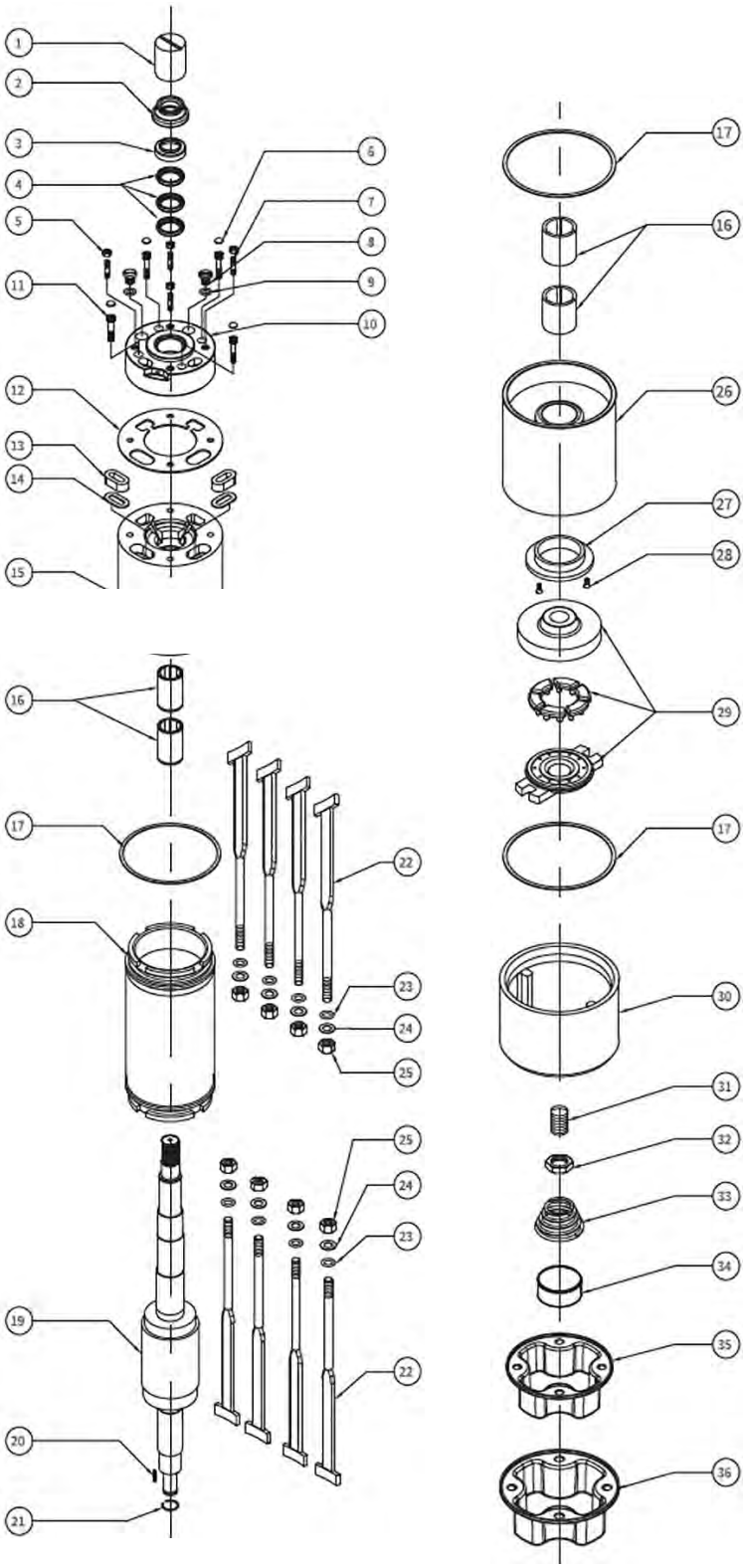
- PN • Rated Output
- UN. Rated Voltage
- nN-RPM
- IN· Full Load Current
- IA - Starting Current
- n - Motor Efficiency
- cos<p-Power Factor
- TN· Full Load Torque
- TA· Starting Torque
- F[N] • Axial Thrust Load

Performance Data of 6" Aqualite Submersible Motors/ 60 Hz

PN		P (max)	Thrust Load	UN	nN	IN	IA	TI (Eff.)[%] at load			COS(p)(PF) at% load			TN	TA
[H.P.]	[kW]	[kW]	[N]	M	[min-1]	[A]	[A]	50	75	100	50	75	100	[Nm]	[Nm]
3.00	2.2	2.5	15500	230	3520	10	40	70	73	76	0.51	0.62	0.72	6.64	9.8
3.00	2.2	2.5	15500	380	3530	6.51	33	66	71	76	0.50	0.61	0.70	5.97	8.00
3.00	2.2	2.5	15500	460	3520	5.59	28	70	75	77	0.55	0.65	0.74	6.64	8.13
5.50	4	4.6	15500	230	3520	26.11	105	71	75	77	0.53	0.64	0.73	12.49	18.6
5.50	4	4.6	15500	380	3530	13.30	62	67	72	77	0.51	0.64	0.71	12.41	15.1
5.50	4	4.6	15500	460	3520	10.11	51	71	76	78	0.56	0.68	0.75	12.48	15.3
7.50	5.5	6.3	15500	230	3490	26.11	106	74	78	78	0.62	0.73	0.80	17.29	15.9
7.50	5.5	6.3	15500	380	3480	15.39	62	75	78	78	0.65	0.75	0.81	17.29	15.0
7.50	5.5	6.3	15500	460	3480	12.90	51	75	77	77	0.66	0.76	0.82	17.29	15.1
10.0	7.5	8.6	15500	230	3490	35.91	145	75	78	79	0.59	0.71	0.78	23.58	22.41
10.0	7.5	8.6	15500	380	3485	20.79	81	76	78	77	0.65	0.75	0.81	23.58	20.20
10.0	7.5	8.6	15500	460	3470	17.20	65	76	78	78	0.67	0.78	0.82	23.70	19.40
12.5	9.3	10.7	15500	230	3490	44.41	183	76	79	79	0.60	0.71	0.78	29.3	28.91
12.5	9.3	10.7	15500	380	3470	25.60	101	77	79	80	0.65	0.75	0.81	29.4	25.89
12.5	9.3	10.7	15500	460	3460	20.79	78	79	80	80	0.67	0.78	0.82	29.4	24.40
15.0	11	12.7	15500	230	3480	51.21	221	77	80	81	0.61	0.72	0.80	34.59	35.61
15.0	11	12.7	15500	380	3490	30.29	129	77	81	81	0.62	0.74	0.80	34.51	34.30
15.0	11	12.7	15500	460	3480	25.00	97	78	81	80	0.69	0.77	0.83	34.70	31.50
17.5	13	15.0	15500	230	3500	62.39	289	76	80	82	0.56	0.68	0.76	40.71	50.51
17.5	13	15.0	15500	380	3505	36.30	164	77	81	82	0.59	0.71	0.79	40.71	47.21
17.5	13	15.0	15500	460	3490	29.00	124	77	81	81	0.66	0.76	0.82	40.90	43.30
20.0	15	17.3	15500	230	3500	65.89	324	80	82	83	0.64	0.74	0.81	47.1	59.52
20.0	15	17.3	15500	380	3490	39.10	188	81	83	83	0.66	0.77	0.83	47.2	56.50
20.0	15	17.3	15500	460	3495	32.11	150	80	83	83	0.69	0.78	0.84	47.1	55.61
25.0	18.5	21.3	15500	230	3490	85.39	401	77	81	82	0.60	0.71	0.77	58.11	81.81
25.0	18.5	21.3	15500	380	3490	52.49	249	77	81	81	0.59	0.70	0.77	58.11	83.60
25.0	18.5	21.3	15500	460	3480	40.60	183	80	82	82	0.65	0.76	0.81	58.39	74.51
30.0	22	25.3	15500	230	3510	100.2	521	81	84	84	0.66	0.74	0.77	68.78	96.61
30.0	22	25.3	15500	380	3510	59.89	390	82	83	84	0.67	0.76	0.78	68.78	94.91
30.0	22	25.3	15500	460	3500	47.11	231	83	84	84	0.72	0.79	0.81	69.10	85.80
35.0	26	29.9	15500	230	3510	118.3	658	83	84	85	0.63	0.72	0.76	81.29	135.00
35.0	26	29.9	15500	380	3500	67.49	360	83	85	85	0.63	0.74	0.81	81.61	121.41
35.0	26	29.9	15500	460	3510	55.71	288	83	85	85	0.64	0.75	0.84	81.6	117.20
40.0	30	34.5	27500	230	3510	135.7	757	78	81	83	0.59	0.71	0.78	93.81	139.61
40.0	30	34.5	27500	380	3510	79.59	436	79	83	84	0.62	0.75	0.81	93.89	132.90
40.0	30	34.5	27500	460	3500	64.41	345	81	83	84	0.63	0.76	0.82	94.00	126.41
50.0	37.0	42.6	27500	230	3510	135.6	757	78	82	83	0.59	0.71	0.78	93.78	139.61
50.0	37.0	42.6	27500	380	3510	102.7	568	77	81	82	0.59	0.72	0.78	115.8	193.61
50.0	37.0	42.6	27500	460	3500	79.12	430	81	84	85	0.63	0.75	0.82	115.9	177.80

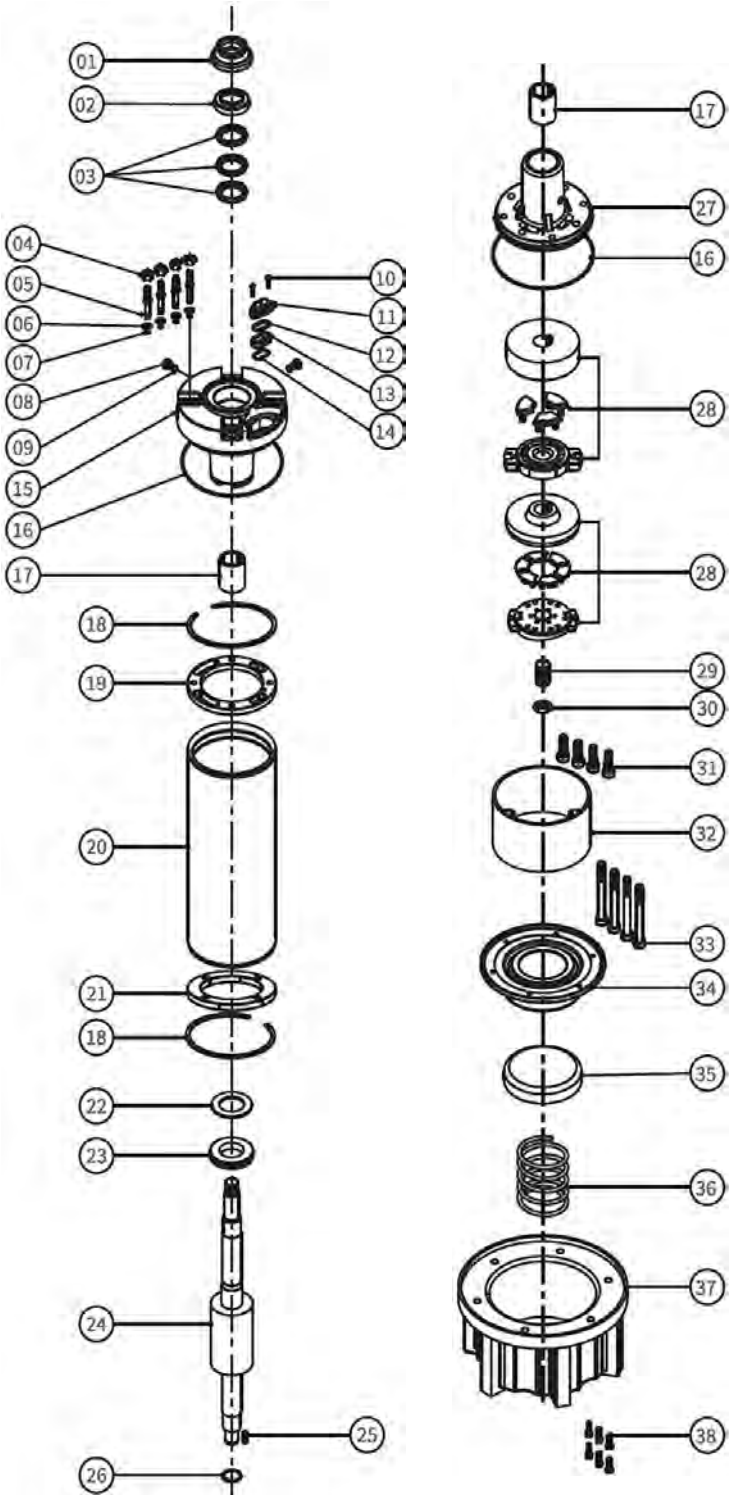
- PN - Rated Output
- UN - Rated Voltage
- nN-RPM
- IN - Full Load Current
- IA-Starting Current
- n- Motor Efficiency
- cos(p) - Power Factor
- TN - Full Load Torque
- TA-Starting Torque
- F[N) -Axial Thrust Load

6" Cl T-Type Re-windable Motor Exploded View



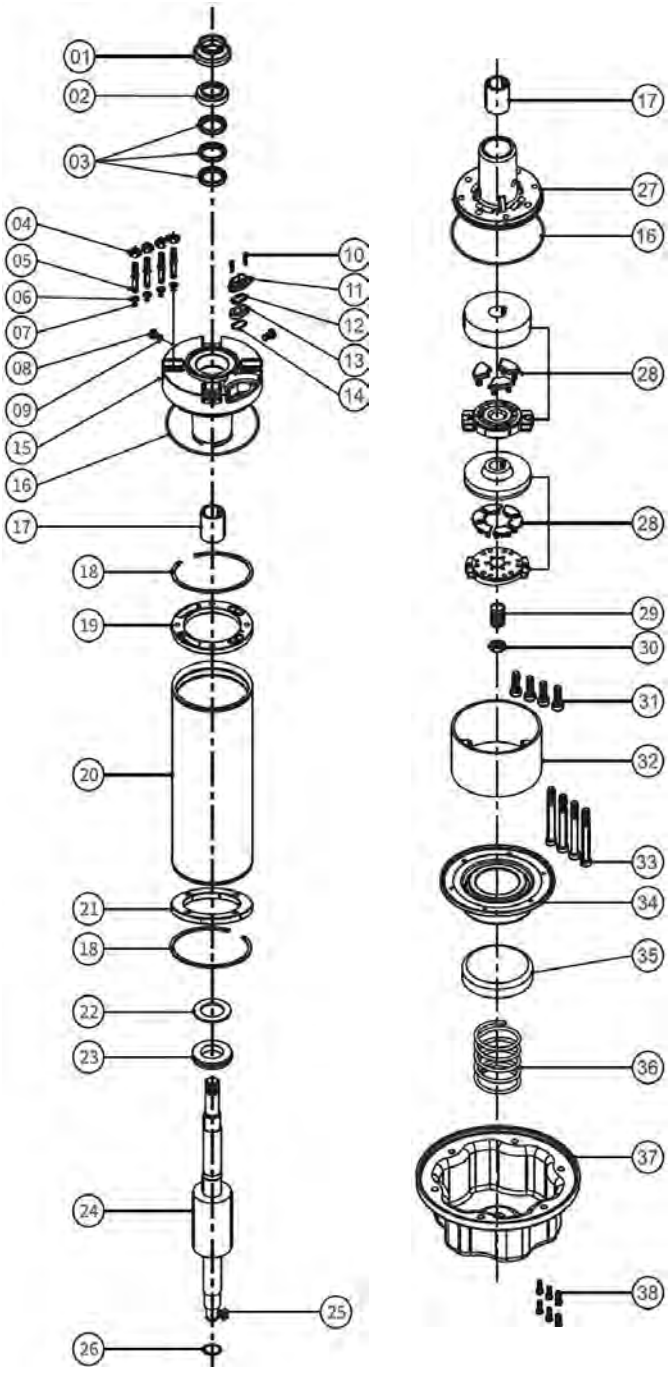
NO.	PARTS NAME
1.	ROTOR CAP
2.	SAND GUARD
3.	UPPER CAP
4.	OIL SEAL
5.	HEX. NUT (UPPER SIDE)
6.	ALLEN BOLT CAP
7.	STUD (UPPER SIDE)
8.	DRAIN PLUG
9.	DRAIN PLUG 'O' RING
10.	ADAPTOR
11.	ALLEN BOLT
12.	PAPER GASKET
13.	CABLE GROMMET
14.	CABLE GROMMET WASHER
15.	UPPER HOUSING
16.	BEARING BUSH
17.	PAPER GASKET
18.	STATOR BODY
19.	ROTOR
20.	ROTOR KEY
21.	CIRCLIP
22.	T-BOLT
23.	T-BOLT 'O' RING
24.	WASHER
25.	HEX NUT
26.	LOWER HOUSING
27.	C.TBEARING
28.	SCREW
29.	THRUST BEARING SET
30.	LOWER PART-2
31.	ROCKER
32.	ROCKER LOCK NUT
33.	SPRING
34.	SPRING JACKET
35.	PRESSURE CUP
36.	MOTOR BASE

Exploded View of Spare Parts of Motors C.I. Motor Base



No.	Part's name
1	Sand Guard
2	Upper Cap
3	Oil Seal
4	Nut
5	Stud
6	Stud Washer
7	Stud 'O' Ring
8	Drain Plug
9	Drain Plug 'O' Ring
10	Allen Bolt
11	Cable Protector Cap
12	Plastic Grommet Washer
13	Rubber Grommet
14	S.S. Grommet Washer
15	Upper Housing
16	'O' Ring (Upper & Lower)
17	Bearing Bush
18	Cir Clip
19	Upper Flange
20	Stator Body
21	Lower Flange
22	Teflon Washer
23	Thrust Ring
24	Rotor Shaft
25	Rotor Key
26	Cir Clip Bearing Side
27	Lower Housing
28	Thrust Bearing Set (Up To 10.0 H.P) Thrust Bearing Set (Above 10.0 H.P)
29	Rocker
30	Rocker Lock Nut
31	Allen Bolt Lower Side
32	Lower Part-2
33	Allen Bolt Lower Part-2 Side
34	Pressure Cup
35	Spring Jacket
36	Spring
37	Motor Base C.I
38	Allen Bolt Motor Base Side

Exploded View of Spare Parts of Motors Stainless Steel Motor Base



No.	Part's Name
1	Sand Guard
2	Upper Cap
3	OilSeal
4	Nut
5	Stud
6	Stud Washer
7	Stud 'O' Ring
8	DrainPlug
9	DrainPlug 'O' Ring
10	Allen Bolt
11	CableProtector Cap Plastic
12	Grommet Washer
13	Rubber Grommet
14	S.S. Grommet Washer
15	Upper Housing
16	'O' Ring(Upper & Lower)
17	Bearing Bush
18	Cir Clip
19	Upper Flange
20	Stator Body
21	Lower Flange
22	Teflon Washer
23	Thrust Ring
24	RotorShaft
25	Rotor Key
26	Cir Clip BearingSide
27	Lower Housing
28	Thrust BearingSet (Up To10.0 H.P) Thrust BearingSet (Above 10.0 H.P)
29	Rocker
30	Rocker Lock Nut
31	Allen Bolt LowerSide
32	LowerPart-2
33	Allen Bolt LowerPart-2Side
34	Pressure Cup
35	Spring Jacket
36	Spring
37	Motor Base
38	Allen Bolt Motor BaseSide

8" SUBMERSIBLE MOTORS (RE-WINDABLE)

TECHNICAL SPECIFICATIONS:

8" Water Lubricated Submersible Motors are rewindable.

Coupling dimensions as per NEMA standard.

Winding wire : Polywrapped/ PVC winding available on specific demand

Degree of protection : IP68.

Max water temperature: 35° C.

Starts per hour: 20 time (Max.).

Allowable voltage variation: +6% - 10%.

Motor shaft of Stainless steel.

Stator shell of Stainless steel.

Max depth immersion : 350 M.

Mounting: vertical/ horizontal.

Motor Cable length : 3 Meter/ 3 Core with separate earth cable & 4 Core.

Cooling Flow: V:0.2 M/S.

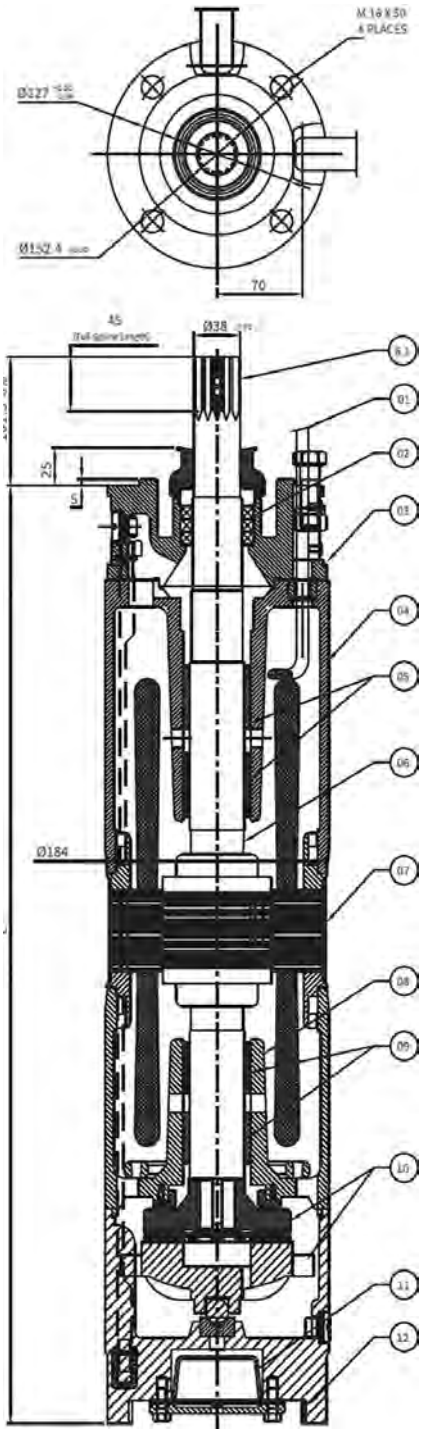
Coolant : Clear Water.

VERSIONS:

Three Phase: 22 kW To 55 kW/ 380-415 Volt/50 Hz
30 kW To 55 kW/ 380-460 Volt/60 Hz.

Motor With Other Voltage and frequency ratings are available on specific Demand.

8" REWINDABLE MOTOR DESIGN



SRNO.	PART'SNAME	MATERIAL
01	CABLE 3 CORE/4 CORE	EPR/P.V.C
02	OIL SEAL	N.B.R
03	ADAPTOR	CAST IRON(FG-200)
04	UPPER HOUSING	CAST IRON(FG-200)
05	BEARING BUSH	LTB-4 (2% Ni.)/ M.S-N.B.R
06	ROTOR SHAFT	S.S.420
6.1	SHAFT END	S.S.303
07	MOTOR SHELL	S.S.304
08	LOWER HOUSING	CAST IRON(FG-200)
09	BEARING BUSH	LTB-4 (2% Ni.)/ M.S-N.B.R
10	THRUST BEARING SET	CARBON / S.S.420
11	PRESSURE CUP	N.B.R
12	MOTOR BASE	CAST IRON(FG-200)
13	ALL HARDWARE	S.S.316/304

P N		PW L[mm]	Motor Weight [kg]	Motor Weight (incl.pkg[kg]
[kW]	[HP]	C.I.	Cast Iron	Cast Iron
30.0	40.00	1250.00	121	137.4
37.0	50.00	1320.00	138	156.4
45.0	60.00	1320.00	165	183.4
55.0	75.00	1380.00	205	223

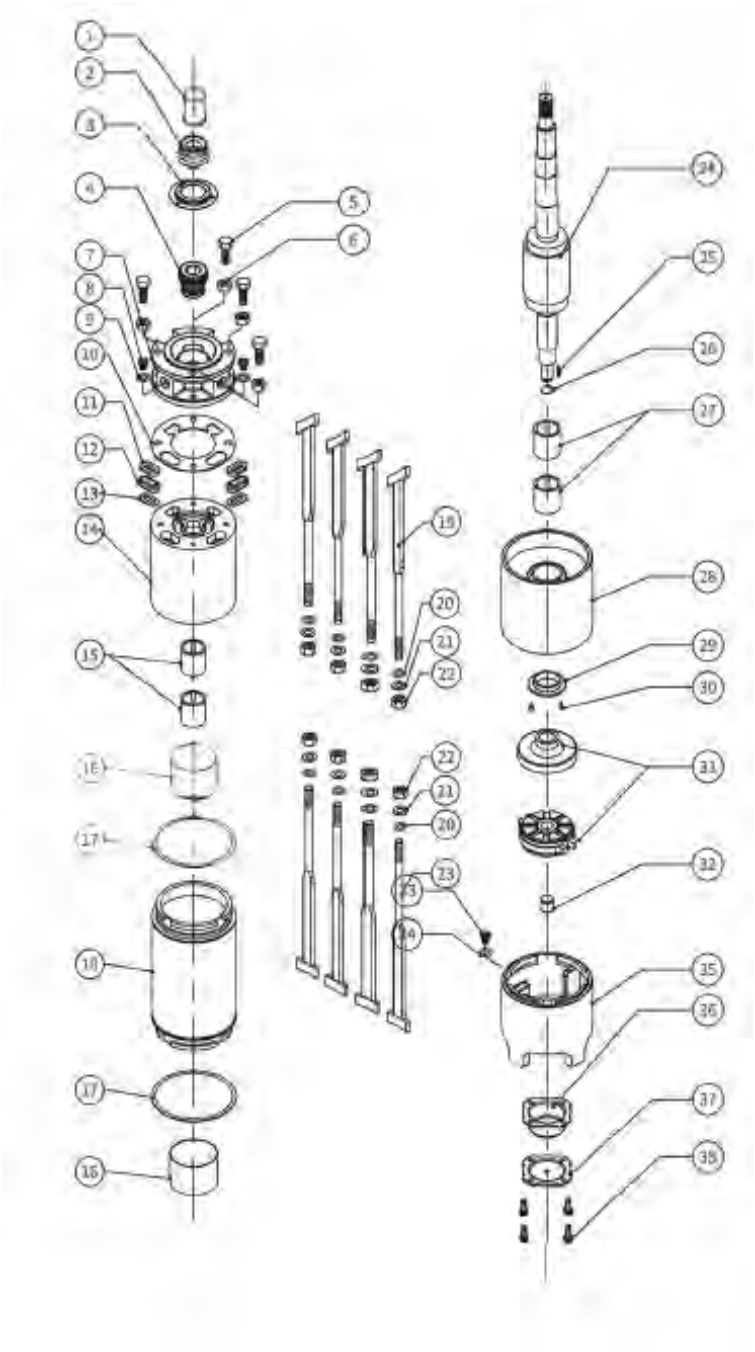
Performance Data of 8" Rewindable Aqualite Submersible Motors/ 50 Hz

PN [H.P.]	PN [kW]	Thrust Load [N]	UNM	nN [min-1]	IN [A]	IA [A]	n (Eff) [%] at % load 50	n (Eff) [%] at % load 75	n (Eff) [%] at % load 100	cos(p)(PF) at%load 50	cos(p)(PF) at%load 75	cos(p)(PF) at%load 100	TN [Nm]	TA [Nm]
40.0	30	45000	380	2885	63.10	301	83.4	84.4	83.2	0.88	0.88	0.89	99.1	126
40.0	30	45000	400	2900	60.00	317	83.5	85	84.4	0.80	0.85	0.89	99.0	141
40.0	30	45000	415	2910	58.00	331	83.4	85.1	84.8	0.76	0.88	0.89	98.l	150
50.0	37	45000	380	2890	79.11	377	84.5	85.2	84.0	0.81	0.85	0.87	122	155
50.0	37	45000	400	2910	76.00	400	83.8	85.2	84.5	0.75	0.82	0.86	122	176
50.0	37	45000	415	2910	75.10	411	82.5	84.4	84.3	0.70	0.80	0.85	120	189
60.0	45	45000	380	2895	92.90	490	85.7	86.5	85.2	0.80	0.85	0.88	149	218
60.0	45	45000	400	2910	90.00	520	85.3	86.5	86.0	0.75	0.82	0.86	148	240
60.0	45	45000	415	2910	88 .00	542	84.4	86.1	85.8	0.69	0.80	0.85	147	262
75.0	55	45000	380	2910	115.0	625	86.4	86.8	85.7	0.78	0.84	0.88	182	302
75.0	55	45000	400	2915	110.0	660	85.8	87.0	86.5	0.72	0.82	0.85	180	341
75.0	55	45000	415	2920	109.0	687	84.7	86.5	86.2	0.67	0.78	0.85	180	367

Performance Data of 8" Rewindable Standard or Aqualite Submersible Motors / 60 Hz

P N [H.P.]	P N [kW]	Thrust Load [N]	UNM	nN [min-1]	IN [A]	IA [A]	n(Eff) [%] at%load 50	n(Eff) [%] at%load 75	n(Eff) [%] at%load 100	cos(p) (PF) at%load 50	cos(p) (PF) at%load 75	cos(p) (PF) at%load 100	TN [Nm]	TA [Nm]
40.0	30	45000	380	3500	73	393	82.3	84.6	84.6	0.81	0.86	0.88	99	142
			460	3495	60	325	81.5	83.5	83.4	0.82	0.86	0.89	99	131
50.0	37	45000	380	3510	91	513	83.2	85.1	85.4	0.76	0.82	0.85	121	178
			460	3490	75	407	83.8	85.4	84.8	0.77	0.85	0.87	122	163
60.0	45	45000	380	3510	110	660	83.5	85.7	85.8	0.73	0.81	0.85	149	241
			460	3505	90	523	85.0	86.5	86.3	0.77	0.84	0.87	149	220
75.0	55	45000	380	3520	137	841	84.3	86.5	86.5	0.72	0.81	0.84	182	320
			460	3515	108	658	85.7	87.1	86.8	0.77	0.84	0.88	181	288

8" Rewindable Sub. Motors



No.	Part's Name
1	Rotor Cap
2	Sand Guard (M.S Insert)
3	Upper Cap
4	Mech. Seal
5	Hex Bolt
6	Hex Nut
7	Adaptor
8	Drain Plug
9	Drain Plug 'O' Ring
10	Paper Gasket
11	Grommet Washer
12	Grommet
13	Grommet Washer
14	Upper Housing
15	Bearing Bush (Upper Side)
16	Winding Cap
17	Paper Gasket
18	Stator Body
19	T-bolt (Upper Side)
20	T-bolt 'O' Ring
21	T-Bolt Washer
22	Hex Nut
23	T-Bolt (Lower Side)
24	Rotor
25	Rotor Key
26	Rotor Cir Clip
27	Bearing Bush (Lower Side)
28	**Lower Housing**
29	Fiber C.T Bearing
30	Screw
31	Counter Bearing Set
32	Fix Rocker
33	Drain Plug
34	Drain Plug 'O' Ring
35	Motor Base
36	Pressure Cup
37	Motor Base Plate
38	Hex Bolt

9" SUBMERSIBLE MOTORS (RE-WINDABLE)

TECHNICAL SPECIFICATIONS:

9" VARUNA Water Lubricated Submersible Motors are rewindable.

Coupling dimensions: 8" NEMA standard.

Winding wire: PVC winding

Degree of protection : IP68.

Max water temperature : 35 °C.

Starts per hour : 20 time (Max.).

Allowable voltage variation : +6% - 10%.

Motor shaft of Stainless steel.

Stator shell of Stainless steel.

Max depth immersion : 350 M.

Mounting : vertical

Motor Cable length : 3 Meter/ 3 Core with separate earth cable.

Cooling Flow : V:0.2 M/S.

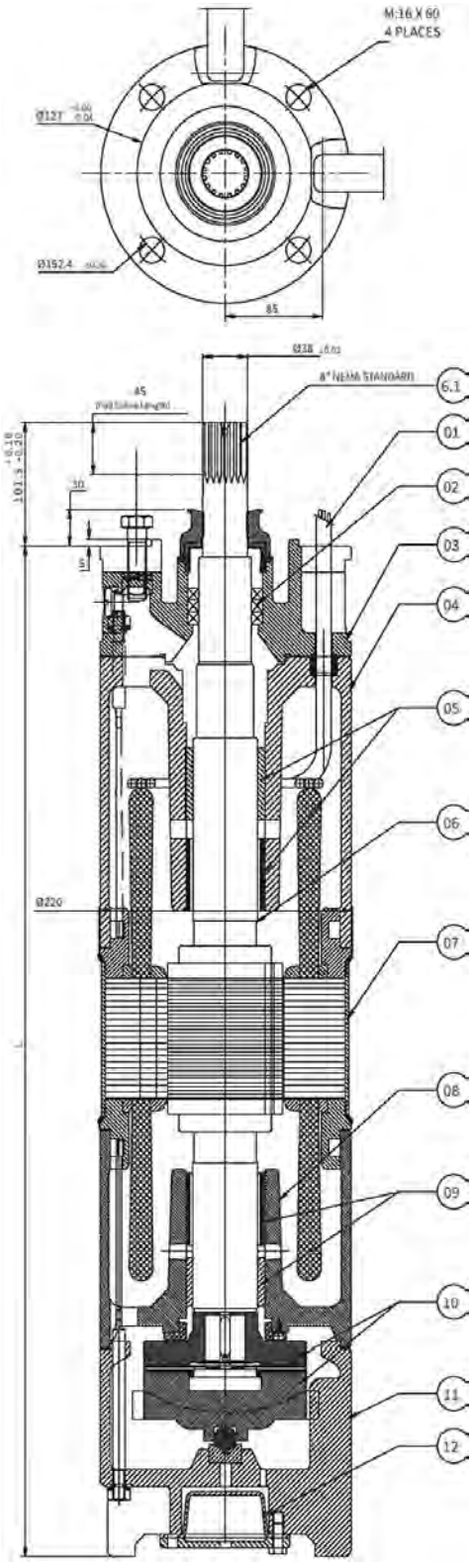
Coolant : Clear Water.

VERSIONS:

Three Phase : 45 kW To 93 kW/ 380-41 5 Volt/50 Hz

Motor With Other Voltage and frequency ratings are available on specific Demand.

9" REWINDABLE MOTOR DESIGN



SRNO.	PART'SNAME	MATERIAL
01	CABLE 3 CORE /4 CORE	EPR/P.V.C
02	OIL SEAL	N.B.R
03	ADAPTOR	CAST IRON (FG-200)
04	UPPER HOUSING	CAST IRON (FG-200)
05	BEARING BUSH	LTB-4 (2% Ni.)/ M.S-N.B.R
06	ROTOR SHAFT	S.S.420
07	MOTOR SHELL	S.S.304
08	LOWER HOUSING	CAST IRON (FG-200)
09	BEARING BUSH	LTB-4 (2% Ni.)/ M.S-N.B.R
10	THRUST BEARING SET	CARBON / S.S.420
11	MOTOR BASE	CAST IRON (FG-200)
12	PRESSURE CUP	N.B.R
13	All HARDWARE	S.S.316/304

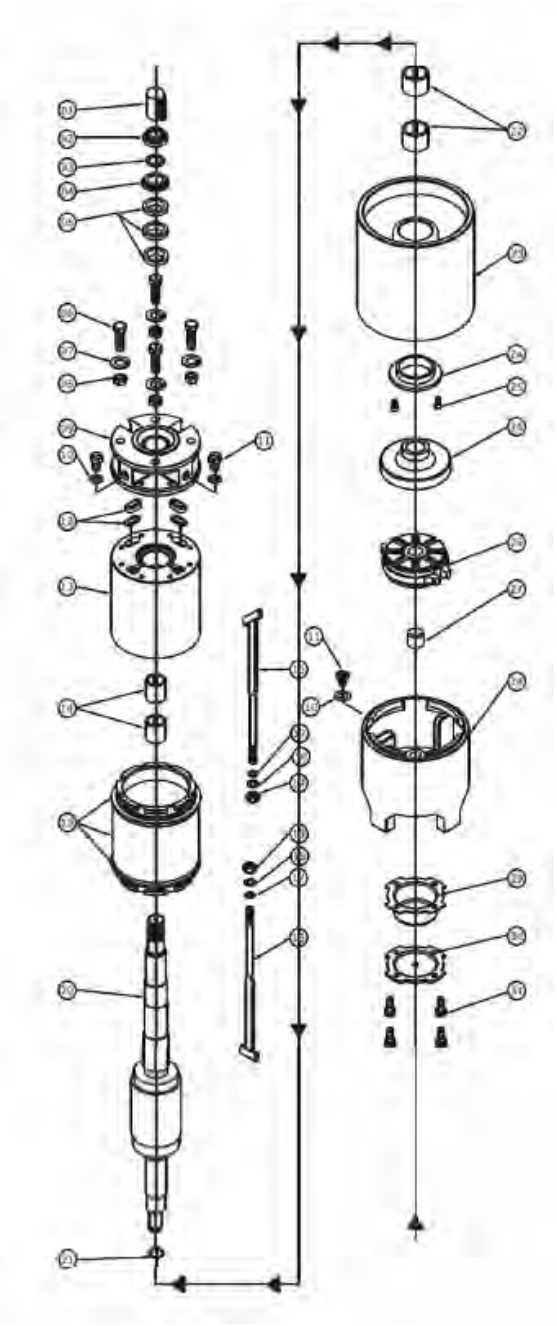
P N		PW L[mm]	MOTOR WEIGHT [kg]	MOTOR WEIGHT (incl.pkg) [kg]
[kW]	[HP]	Cast Iron	CastIron	CastIron
45.0	60.00	1336.0	165.0	183.0
55.0	75.00	1466.0	262.0	342.0
75.0	100.0	1606.0	300.0	360.0
93.0	125.0	1606.0	300.0	360.0

Performance Data of 9" Standard Rewindable Submersible Motors/ 50 Hz

PN		Thrust Load	UN	nN	IN	IA	n (Eff.) [%] at % load			cos (p) (PF) at % load			TN	TA
[H.P.]	[kW]	[N]	M	[min-1]	[A]	[A]	50	75	100	50	75	100	[Nm]	[Nm]
60	45	45000	380	2905	93.1	490	86.0	86.2	85.3	0.80	0.87	0.89	155	219
60	45	45000	400	2915	90	520	85.5	86.4	85.9	0.75	0.84	0.87	154	241
60	45	45000	415	2920	88	540	84.8	86.3	85.7	0.70	0.80	0.85	154	262
75	55	45000	380	2910	114	624	86.8	87.0	85.6	0.79	0.85	0.89	193	301
75	55	45000	400	2915	110	660	85.9	86.9	86.3	0.73	0.83	0.87	193	341
75	55	45000	415	2920	108	687	84.9	87.1	86.1	0.66	0.79	0.86	193	367
100	75	45000	380	2905	153	891	86.8	87.2	85.8	0.78	0.85	0.88	258	420
100	75	45000	400	2920	148	942	86.2	87.4	86.8	0.75	0.84	0.85	257	471
100	75	45000	415	2915	146	983	85.5	86.8	86.5	0.68	0.78	0.84	257	511
125	93	45000	380	2905	187	1185	87.9	88.5	87.7	0.78	0.84	0.87	305	558
125	93	45000	400	2915	182	1275	87.3	88.4	87.8	0.72	0.82	0.86	304	627
125	93	45000	415	2925	183	1309	86.3	87.7	87.6	0.66	0.77	0.84	304	677

- P_N - Rated Output
- F[N] - Axial Thrust Load
- U_N - Rated Voltage
- n_N - RPM
- I_N - Full Load Current
- I_A - Starting Current
- η - Motor E iciency
- cosq - Power Factor
- T_N - Full Load Torque
- T_A - Starting Torque

9" Rewindable Sub. Motors



Sr. No.	Part's Name
01	Rotor Cap
02	Sand Guard
03	Teflon Washer
04	Upper Cap
05	Oil Seal
06	Hex Bolt
07	Spring Washer
08	Hex Nut
09	Adoptor
10	Drain Plug 'O' Ring
11	Drain Plug
12	Grommet & Washer
13	Upper Housing
14	Bearing Bush
15	Stator Body Finish Flange (use For Upper & Lower Side)
16	T-Bolt (Upper Side) T-Bolt (Lower Side)
17	T-Bolt 'O' ring
18	T-Bolt Washer
19	Nylock Nut
20	Rotor Finish
21	Cir Clip (Use For Rotor)
22	Bearing Bush
23	**Lower Housing**
24	C.T. Bearing
25	C.S.K. Screw
26	Counter Bearing
27	Fix Rocker
28	Motor Base
29	Pressure Cup
30	Motor Base Plate
31	Hex Bolt

10" SUBMERSIBLE MOTORS (RE-WINDABLE)

TECHNICAL SPECIFICATIONS:

10" Water Lubricated Submersible Motors are rewindable.

Coupling dimensions: 8" NEMA standard.

Winding wire: PVC winding

Degree of protection : IP68.

Max water temperature: 35'C.

Starts per hour : 20 time (Max.).

Allowable voltage variation: +6% - 10%.

Motor shaft of Stainless steel.

Stator shell of Stainless steel.

Max depth immersion : 350 M.

Mounting: vertical

Motor Cable length : 3 Meter/3 Core with separate earth cable.

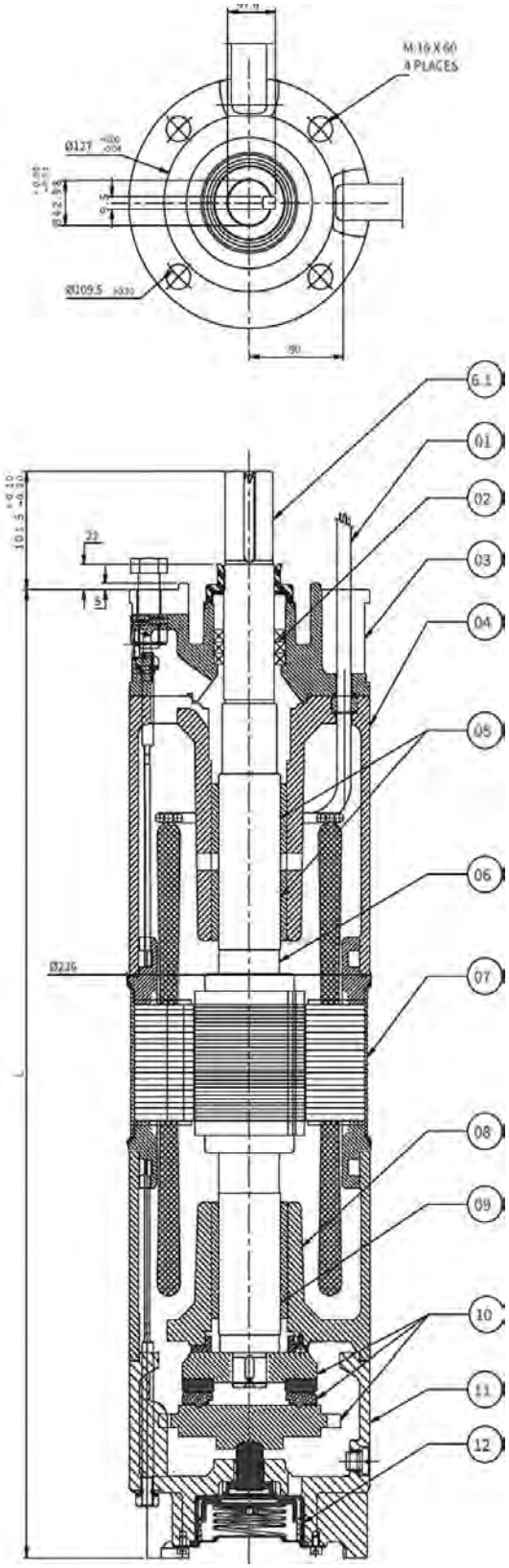
Cooling Flow : V:0.2 M/S.

Coolant : Clear Water.

VERSIONS:

Three Phase : 110 kw to 150 kw/380-415 Volt/SO Hz
Motor With Other Voltage and frequency ratings are available on specific Demand.

10" REWINDABLE MOTOR DESIGN



SRNO.	PART'SNAME	MATERIAL
01	CABLE 3 CORE /4 CORE	EPR/P.V .C
02	OIL SEAL	N.B.R
03	ADAPTOR	CAST IRON (FG-200)
04	UPPER HOUSING	CAST IRON (FG-200)
05	BEARING BUSH	LTB-4 (2% Ni.)
06	ROTOR SHAFT	5.5.420
07	MOTOR SHELL	5.5.304
08	LOWER HOUSING	CAST IRON (FG-200)
09	BEARING BUSH	LTB-4 (2% Ni.)
10	THRUST BEARING SET	CARBON / 5.5.420
11	MOTOR BASE	CAST IRON (FG-200)
12	PRESSURE CUP	N.B.R
13	ALL HARDWARE	5.5.316/304

"AVAILABLE MOTOR RATING :-115 H.P,150 H.P,180 H.P,200 H.P

P N		PW L[mm]	MOTOR WEIGHT [kg]	MOTOR WEIGHT (incl.pkg) [kg]
[kW]	[HP]	Cast Iron	Cast Iron	CastIron
110.0	150.0	1636.0	306.0	366.0
150.D	2 00.0	1911.D	357.0	42 7.0

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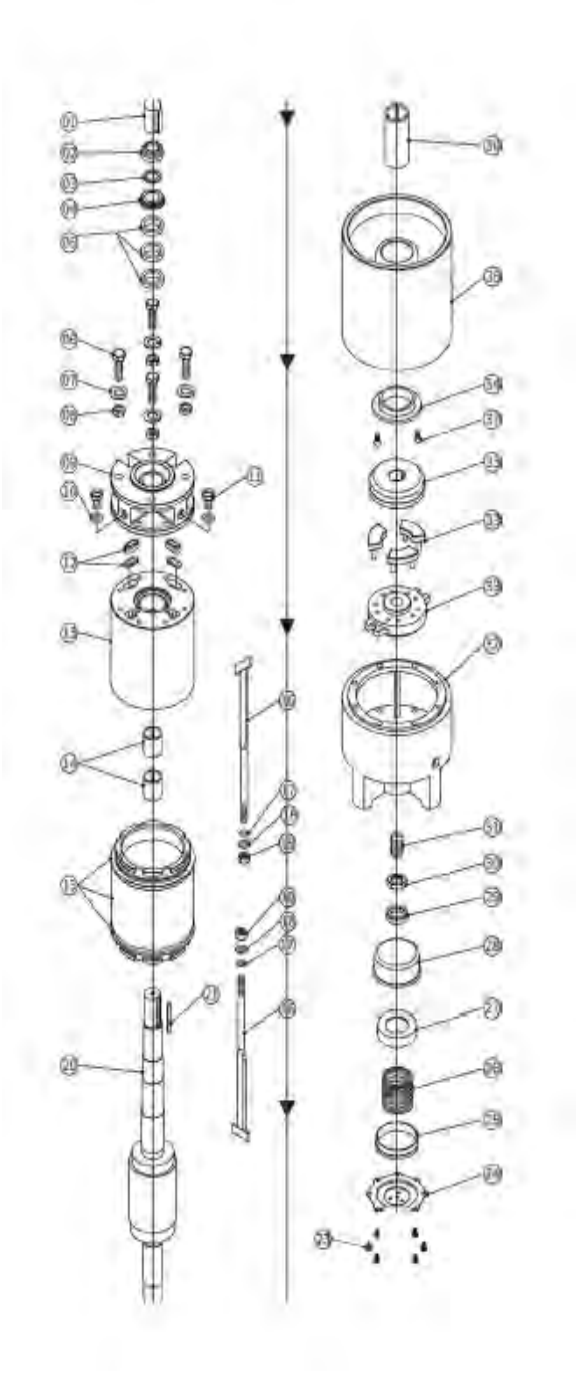
PN [H.P.]	PN [kW)	Thrust Load [NJ	UN [VJ	nN [min-1)	IN [A]	IA [A]	η(Eff)[%] at % load 50	75	100	COS(P) (PF) At % load so	75	100	TN [Nm)	TA [Nm)
мрл	ммл	сл ллл	380	нфлр	нос	млфс	ур	ус	ур	лфто	лфун	лфус	осл	пмф
			плл	нфмр	ном	ммрт	ур	ут	ур	лфср	лфтт	лфуо	орф	псу
			415	нфнл	нон	мнлр	уо	уп	ус	лфсл	лфтм	лфул	орф	рлу
нлл	мрл	сл ллл	оул	нфмл	олс	мрлм	уу	уу	ут	лфул	лфуп	лфут	пфм	рсф
			плл	нфмр	нфт	мруф	ур	ут	ус	лфтр	лфун	лфут	пфл	сос
			415	нфол	нфр	мсрп	ут	уу	уу	лфтл	лфту	лфуп	пуф	сфл

- PN - Rated Output
- UN - Rated Voltage
- nN - RPM
- IN - Full Load Current
- IA - Starting Current

- η - Motor E iciency
- coscp - Power Factor
- TN - Full Load Torque
- TA - Starting Torque
- F[N] - Axial Thrust Load

Exploded View of Spare Parts of Motors



No.	Part's Name
01	Rotor Cap
02	Sand Guard
03	Teflon Washer
04	Upper Cap
05	Oil Seal
06	Hex Bolt
07	Spring Washer
08	Hex Nut
09	Adapter
10	Drain Plug 'O' Ring
11	Drain Plug
12	Grommet & Washer
13	Upper Housing
14	Bearing Bush
15	Stator Body Finish Flange (use For Upper & Lower Side)
16	T-Bolt (Upper Side) T-Bolt (Lower Side)
17	T-Bolt 'O' Ring
18	T-Bolt Washer
19	Nylock Nut
20	Rotor Finish
21	Cir Clip (Use For Rotor)
22	Key (use For Coupling Side)
23	Slotted Roundhead Screw
24	Motor Base Plate
25	SpringJacket-1
26	Spring
27	Spring Jacket-2
28	PressurCup
29	Rocker Nut Cap
30	Rocker Nut
31	Rocker
32	Motor Base
33	Carbon Bearing Set
34	C.T. Bearing
35	Lower Housing
36	Bearing Bush
37	C.S.K. Screw (use For C.T. Bearing)