

SUBMERSIBLE MOTOR

4" OIL LUBRICATED REWINDABLE MOTORS

TECHNICAL SPECIFICATIONS:

- 4" Oil lubricated 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.

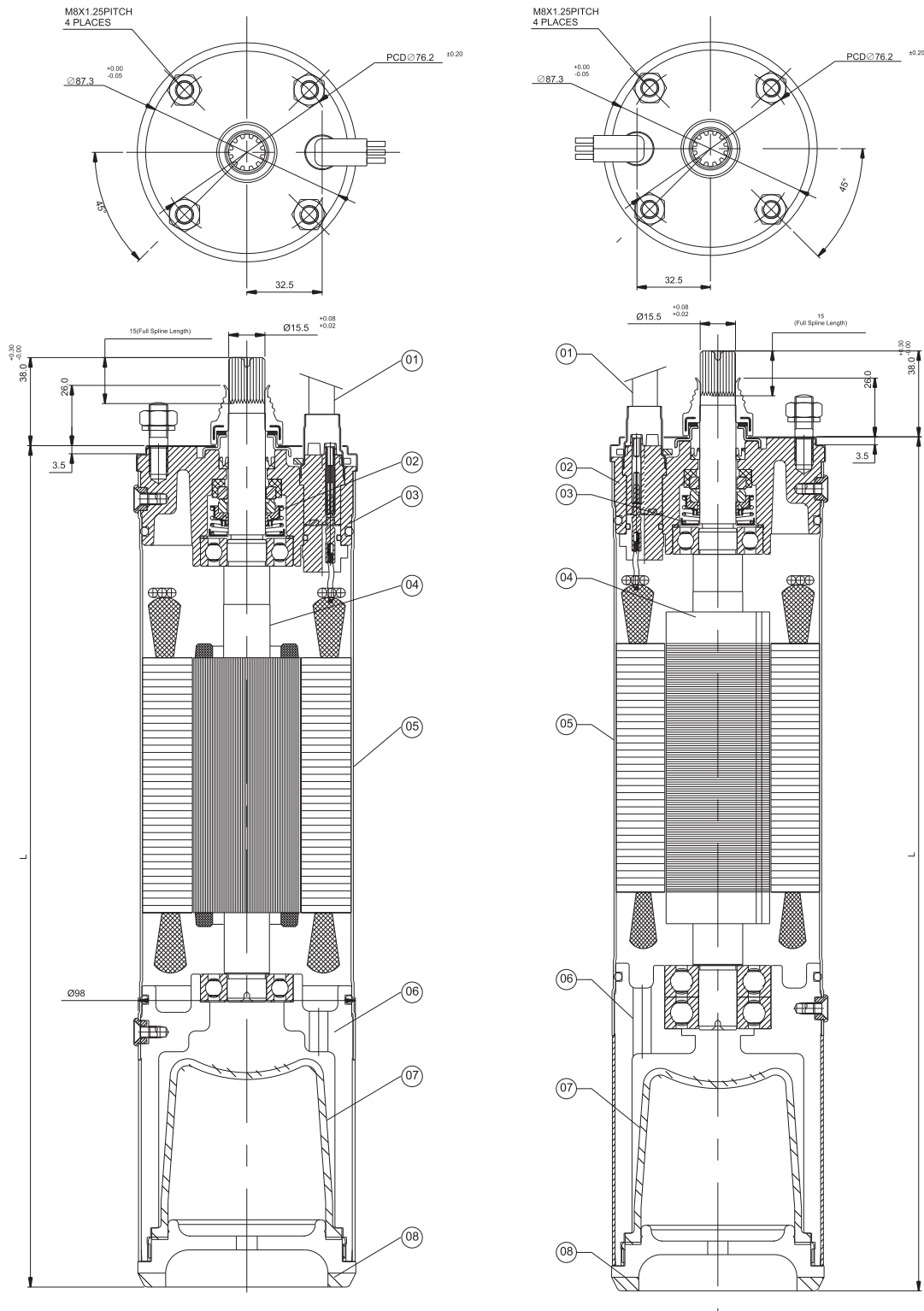
0.37 kW to 2.20 kW, 230Volt / 60 Hz.

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" O/L REWINDABLE MOTOR



SUBMERSIBLE MOTOR

SR NO.	PARTS NAME	MATERIAL
01	CABLE 3 CORE / 4 CORE	EPR/PVC
02	MECH. SEAL	CERAMIC CARBON
03	UPPER HOUSING	CAST IRON with S.S Claded
04	ROTOR SHAFT	SS 420
05	MOTOR SHELL	S.S.304
06	LOWER HOUSING	CAST IRON with S.S Claded
07	PRESSURE CUP	HBR
08	MOTOR BASE	ENG. PLASTIC
09	ALL HARDWARE	S.S.304

P _N		S.P. L [mm]	MOTOR WEIGHT [kg]	MOTOR WEIGHT (incl.pkg)[kg]
[kW]	[H.P.]			
0.37	0.50	303	6.3	8.30
0.55	0.75	328	6.8	8.80
0.75	1.00	363	8.2	10.2
1.10	1.50	403	9.4	11.4

P _N		T.P. L [mm]	MOTOR WEIGHT [kg]	MOTOR WEIGHT (incl.pkg)[kg]
[kW]	[H.P.]			
0.37	1.00	328	6.8	8.80
0.37	1.00	348	7.5	9.5
1.10	1.50	363	8.2	10.2

P _N		S.P. L [mm]	MOTOR WEIGHT [kg]	MOTOR WEIGHT (incl.pkg)[kg]
[kW]	[H.P.]			
1.50	2.00	468	12.9	14.9
2.20	3.00	498	13.5	15.5
2.20	3.00	528	20.0	22.0

P _N		T.P. L [mm]	MOTOR WEIGHT [kg]	MOTOR WEIGHT (incl.pkg)[kg]
[kW]	[H.P.]			
1.50	2.00	403	11.0	13.0
2.20	3.00	448	12.0	14.0
4.00	5.50	498	13.5	15.5
5.50	7.50	598	22.0	24.0

Technical Data of 4" Motors Single Phase (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 μF (Uc=450V)
[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	

Technical Data of 4" Motors Single Phase (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				
0.33	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
- cosφ - Power Factor
- TN - Full Load Torque
- TA - Starting Torque

SUBMERSIBLE MOTOR

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

PN		Thrust F [N]	UN [V]	nN [min-1]	IN [A]	IA [A]	η (Eff.) [%] at % load			$\cos \varphi$ (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

Technical Data of 4" Motors Single Phase (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

Technical Data of 4" Motors Single Phase (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 ηF (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
- η - Motor Efficiency
- cosφ - Power Factor
- TN - Full Load Torque
- TA - Starting Torque

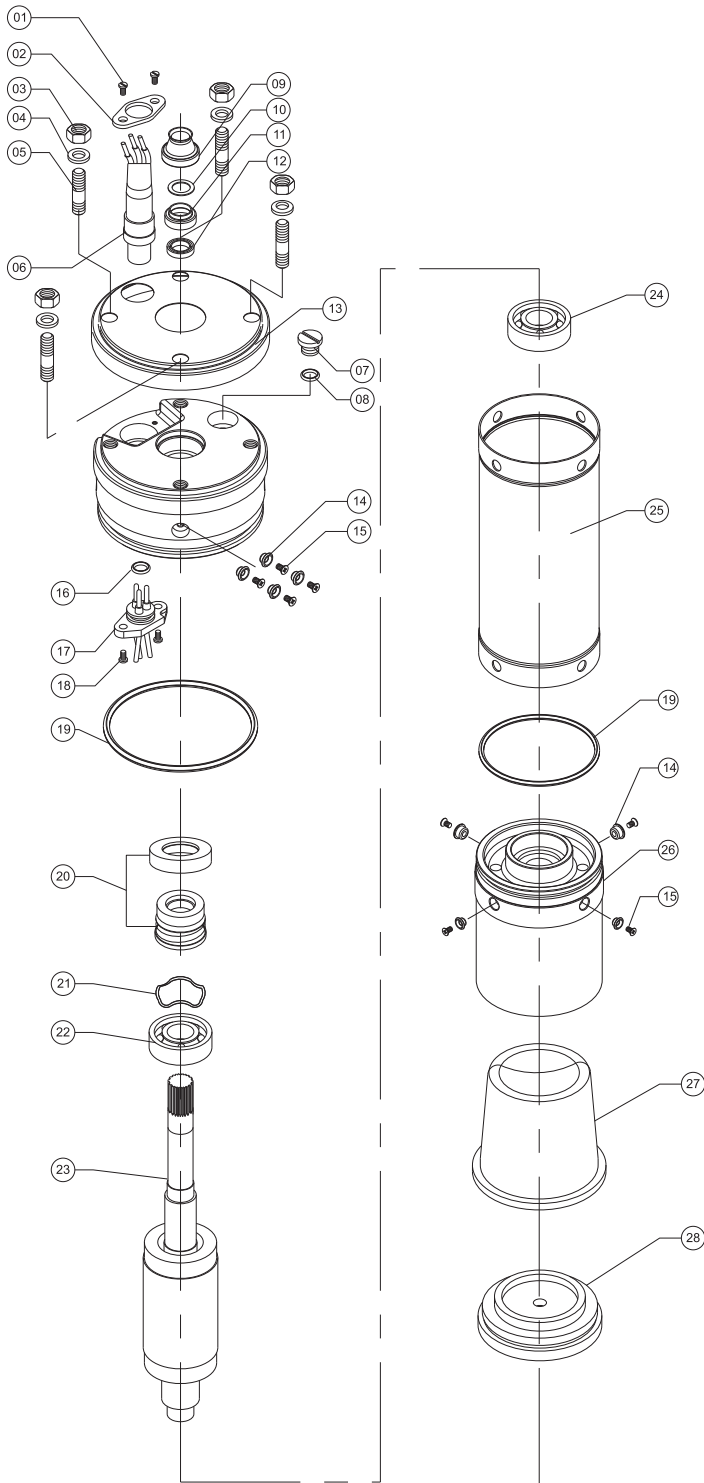
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Technical Data of 4" Motors Three Phase / 60 Hz

P _N		Thrust Load [N]	U _N [V]	n _N [min ⁻¹]	I _N [A]	I _A [A]	η (Eff.) [%] at % load			cos φ (PF) at % load			T _N [Nm]	T _A [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

- 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 Efficiency
- cos φ - Power Factor
- T_N - Full Load Torque
- T_A - Starting Torque

Exploded Drawing of 4" O/L Motor



No.	PARTS NAME
1	CABLE CLIP SCREW
2	CABLE CLIP
3	HEX NUT
4	STUD WASHER
5	UPPER STUD
6	CABLE SET
7	DRAIN PLUG
8	DRAIN PLUG 'O' RING
9	SAND GUARD(WITH INSTERT)
10	TEFLON WASHER
11	UPPER CAP
12	OIL SEAL
13	UPPER JACKET
14	SCREW COLLAR
15	SCREW (FOR COLLAR)
16	CABLE CONNECTOR PIN 'O' RING
17	CABLE CONNECTOR PIN
18	CABLE CONNECTOR PIN SCREW
19	'O' RING
20	MECHANICAL SEAL
21	WAVE WASHER
22	BALL BEARING (UPPER SIDE)
23	ROTOR
24	BALL BEARING (LOWER SIDE)
25	STATOR BODY
26	LOWER HOUSING
27	PRESSURE CUP
28	MOTOR BASE PLATE