

Submersible Motor

TECHNICAL SPECIFICATIONS:

- 8" RAINDROP 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.

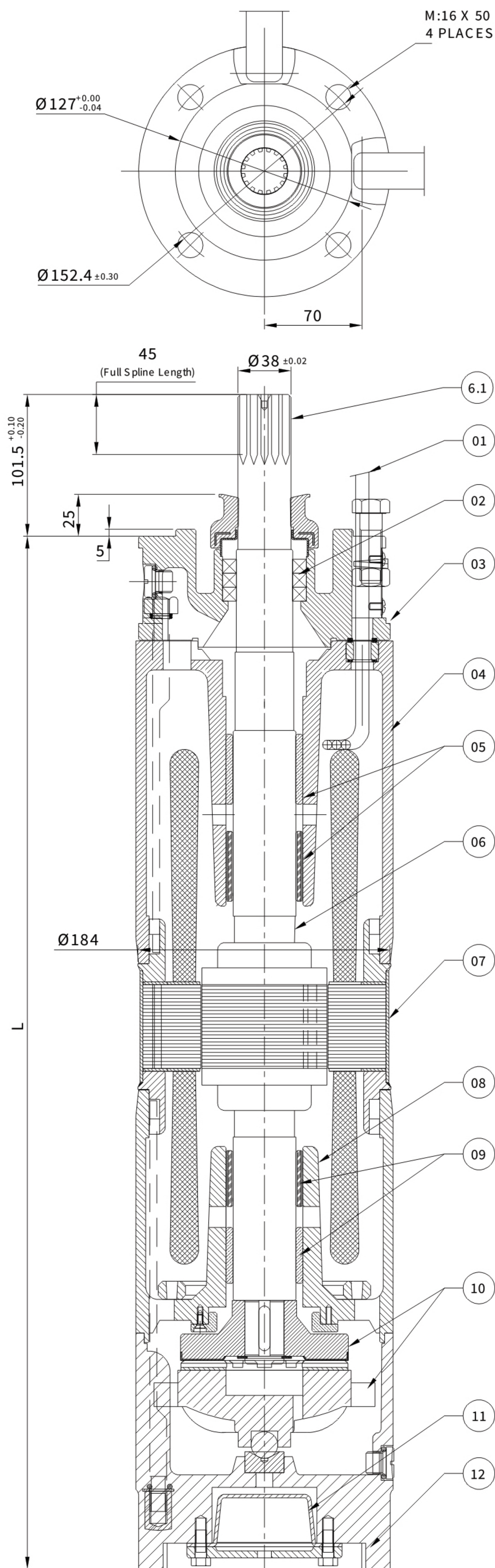
VERSIONS:

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" SUBMERSIBLE MOTORS (RE-WINDABLE)



8" 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	ADAPTOR	CAST IRON(FG-200)
04	UPPER HOUSING	CAST IRON(FG-200)
05	BEARING BUSH	G.M / M.S RUBBER
06	ROTOR SHAFT	S.S.420
6.1	SHAFT END	S.S.303
07	MOTOR SHELL	S.S.202
08	LOWER HOUSING	CAST IRON(FG-200)
09	BEARING BUSH	G.M / RUBBER M.S
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

PN		PW	MOTOR WEIGHT	MOTOR WEIGHT
[kW]	[HP]	L [mm]	[kg]	(incl.pkg) [kg]
		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

Submersible Motor

Performance Data of 8" Rewindable Aqualite Submersible Motors / 50 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		
30.0	22						15500	380	2880	54	255	82		
			400	2890	51	270	83	84	83	0.80	0.84	0.87	73.0	130
			415	2900	48	275	82	85	84	0.76	0.83	0.86	72.6	141
35.0	26	15500	380	2880	59	281	82	84	83	0.85	0.84	0.87	85.3	133
			400	2900	56	297	83	85	84	0.80	0.84	0.87	84.7	147
			415	2910	54	307	83	85	84	0.76	0.83	0.86	84.5	159
40.0	30	45000	380	2885	63.10	301	83.4	84.4	83.2	0.88	0.88	0.89	99.1	126
			400	2900	60.00	317	83.5	85	84.4	0.80	0.85	0.89	99.0	141
			415	2910	58.00	331	83.4	85.1	84.8	0.76	0.88	0.89	98.1	150
45.0	33	45000	380	2880	73.0	354	83.2	84.6	83.3	0.88	0.88	0.89	98.91	141
			400	2905	71.1	377	83.7	85.0	84.5	0.81	0.85	0.89	98.10	157
			415	2910	69.0	394	83.6	85.2	84.8	0.77	0.89	0.88	97.00	168
50.0	37	45000	380	2890	79.11	377	84.5	85.2	84.0	0.81	0.85	0.87	122	155
			400	2910	76.00	400	83.8	85.2	84.5	0.75	0.82	0.86	122	176
			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
			400	2910	90.00	520	85.3	86.5	86.0	0.75	0.82	0.86	148	240
			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
			400	2915	110.0	660	85.8	87.0	86.5	0.72	0.82	0.85	180	341
			415	2920	109.0	687	84.7	86.5	86.2	0.67	0.78	0.85	180	367

- 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

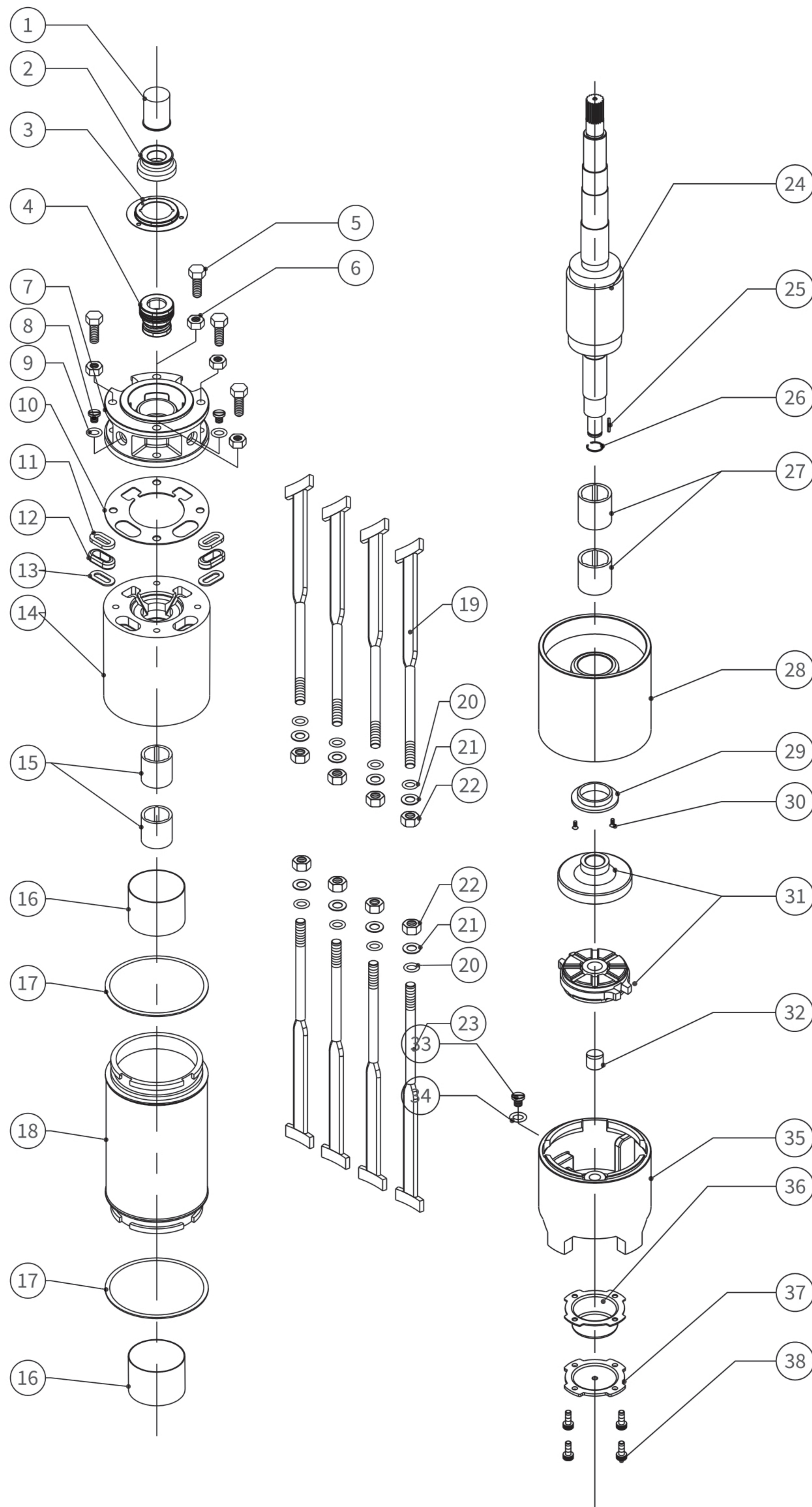
Performance Data of 8" Rewindable Standard or Aqualite Submersible Motors / 60 Hz

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		
40.0	30						45000	380	3500	73	393	82.3		
			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
70.0	52	45000	380	3505	124	765	85.3	87.0	86.9	0.76	0.83	0.87	174	301
			460	3510	102	605	85.1	86.6	86.2	0.79	0.85	0.88	174	277
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

- 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

Exploded View of Spare Parts of 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