



AFM 6"

Water Lubricated
Submersible Motors, 50Hz



Approvals



Content

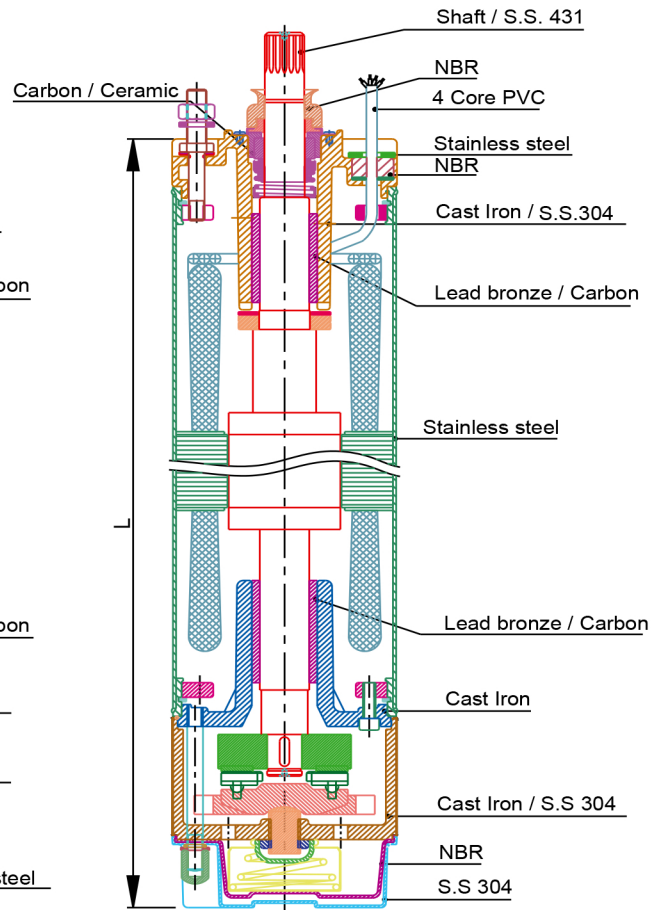
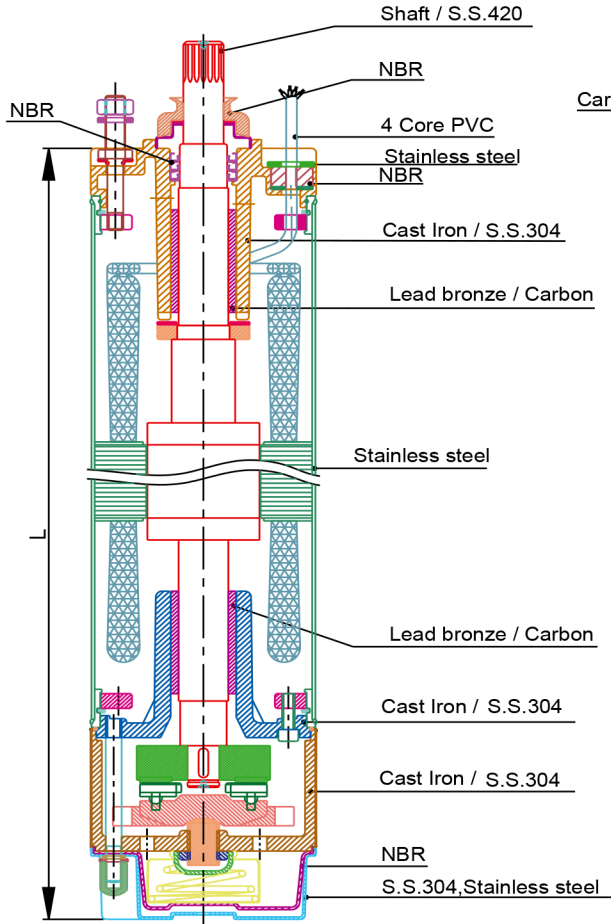
Section Drawing	page	4
Specifications		5
Version		5
Product Model Number		6
Performance Data		7
Flat Cable Leads		8
Spare Parts		9
Standard stator and rotor code		11
Outline Drawing Motors		12

Section Drawing

OIL SEAL

MECHANICAL SEAL

Three Phase :- 2.2 TO 30.0 kW



Model	Pn		PW L[mm] CI / SS	Motor Weight [Kg]		Motor Weight (incl. pkg) [Kg]	
	(HP)	(KW)		SS 304	Cast Iron	SS 304	Cast Iron
AFM 6/3	3	2.2	585	34	33	42	41
AFM 6/5.5	5.5	4	607	35	34	43	42
AFM 6/7.5	7.5	5.5	677	41.5	40.5	49.5	48.5
AFM 6/10	10	7.5	707	45	44	53	52
AFM 6/12.5	12.5	9.2	737	49	48	57	56
AFM 6/15	15	11	777	52	51	60	59
AFM 6/17.5	17.5	13	827	55	54	63	62
AFM 6/20	20	15	867	60	59	68	67
AFM 6/25	25	18.5	917	63	60	71	70
AFM 6/30	30	22	997	66	65	74	73
AFM 6/35	35	26	1057	69	68	77	76
AFM 6/40	40	30	1147	77	76	85	84

Technical Specification

- 6" Water Lubricated Motors are rewindable.
- Flange and shaft are as per NEMA standard.
- Winding wire: Polywrapped.
- Degree of protection: IP68.
- Max water temperature: 35°C (optional Y90-wire up to max. temperature 90°C).
- Starts per hr: 30 time (Max).
- Allowable voltage variation: +6% - 10%.
- Motor shaft of Stainless Steel.
- Stator shell of Stainless Steel.
- Max depth immersion: 350M.
- 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.

Version

- Three Phase: 2.2 Kw To 30 Kw, 380 - 415 Volt / 50Hz.
- Motor with other Voltage and frequency rating are also available on specific demand.
- Upper and Lower bracket are available in cast iron with epoxy paint / cast iron with Nickel coated / SS 304 / SS 316 on specific demand.

Product Model Number of AFM 6" Aqualite Submersible Motors

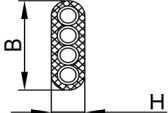
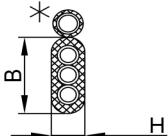
Model	P _N		U _N / f [V] / [Hz]	Model Nubmer Digit 1-6		Model Nubmer Digit 7-14		
	[HP]	[KW]		DOL	Y Δ	Cast Iron	SS 304	Nickel
						Epoxy Paint	Standard	Coating
AFM 6/3	3	2.2	380-415/50	60 3611	60 3711	5WAXQ1 41	5WBXQ1 41	5WEXQ1 41
AFM 6/5.5	5.5	4	380-415/50	60 3612	60 3712	5WAXQ1 41	5WBXQ1 41	5WEXQ1 41
AFM 6/7.5	7.5	5.5	380-415/50	60 3620	60 3720	5WAXQ1 41	5WBXQ1 41	5WEXQ1 41
AFM 6/10	10	7.5	380-415/50	60 3623	60 3723	5WAXQ1 41	5WBXQ1 41	5WEXQ1 41
AFM 6/12.5	12.5	9.2	380-415/50	60 3626	60 3726	5WAXQ1 41	5WBXQ1 41	5WEXQ1 41
AFM 6/15	15	11	380-415/50	60 3630	60 3730	5WAXR1 41	5WBXR1 41	5WEXR1 41
AFM 6/17.5	17.5	13	380-415/50	60 3635	60 3735	5WAXR1 41	5WBXR1 41	5WEXR1 41
AFM 6/20	20	15	380-415/50	60 3639	60 3739	5WAXR1 41	5WBXR1 41	5WEXR1 41
AFM 6/25	25	18.5	380-415/50	60 3044	60 3744	5WAXR1 41	5WBXR1 41	5WEXR1 41
AFM 6/30	30	22	380-415/50	60 3652	60 3752	5WAXR1 41	5WBXR1 41	5WEXR1 41
AFM 6/35	35	26	380-415/50	60 3658	60 3758	5WAXR1 41	5WBXR1 41	5WEXR1 41
AFM 6/40	40	30	380-415/50	60 3670	60 3770	5WAXR1 41	5WBXR1 41	5WEXR1 41

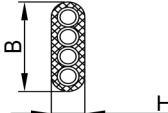
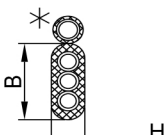
Performance Data of AFM 6" Aqualite Submersible Motors

Model	P _N		Thrust F [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]
	[HP]	[KW]						50	75	100	50	75	100		
	AFM 6/3	3						2.2	15500	380	2840	6.2	21.7		
				400	2870	6.3	22.1	61	64	65	0.65	0.70	0.71	7.3	11.77
				415	2870	6.5	23	58	66	67	0.60	0.68	0.70	7.3	12.67
AFM 6/5.5	5.5	4	15500	380	2910	10.4	48	71	75	76	0.59	0.71	0.78	13.1	15.5
				400	2930	10.6	51	68	73	76	0.53	0.65	0.73	13.1	17.3
				415	2930	10.9	53	65	72	76	0.50	0.61	0.69	13	18.8
AFM 6/7.5	7.5	5.5	15500	380	2860	13.7	48	74	76	75	0.67	0.78	0.83	18.3	15.5
				400	2890	13.3	51	72	76	76	0.62	0.74	0.81	18.2	17.3
				415	2890	13.4	53	71	75	75	0.59	0.71	0.78	18.1	18.8
AFM 6/10	10	7.5	15500	380	2860	18.3	59	77	78	76	0.70	0.80	0.84	25	19.2
				400	2880	17.7	63	75	78	77	0.65	0.76	0.82	24.8	21.5
				415	2890	17.7	65	73	77	77	0.61	0.73	0.80	24.7	23.4
AFM 6/12.5	12.5	9.2	15500	380	2850	22	74	79	80	78	0.71	0.80	0.84	31.1	25.9
				400	2870	21.4	78	78	79	78	0.64	0.76	0.82	31	29
				415	2880	21.2	81	76	79	78	0.60	0.72	0.80	30.9	31.4
AFM 6/15	15	11	15500	380	2860	25.8	93	78	80	78	0.71	0.80	0.85	36.7	31.5
				400	2880	25.2	98	77	80	79	0.65	0.76	0.83	36.4	35.3
				415	2890	25.1	102	75	78	79	0.61	0.73	0.80	36.3	38.2
AFM 6/17.5	17.5	13	15500	380	2880	30.1	118	80	81	80	0.68	0.79	0.84	43.1	45
				400	2900	29.6	125	78	80	80	0.61	0.74	0.81	42.8	50.3
				415	2900	29.7	130	76	79	80	0.57	0.70	0.78	42.7	54.6
AFM 6/20	20	15	15500	380	2880	33.9	140	81	82	81	0.71	0.81	0.85	49.7	53.9
				400	2890	33.1	148	79	81	81	0.65	0.77	0.83	49.4	60.4
				415	2900	33	154	77	82	81	0.60	0.73	0.81	49.3	65.5
AFM 6/25	25	18.5	15500	380	2860	42.3	172	81	80	81	0.68	0.78	0.84	61.7	75.2
				400	2880	42	182	78	81	81	0.61	0.74	0.80	61.2	84.3
				415	2890	42.5	189	76	79	80	0.57	0.70	0.77	61.1	91.3
AFM 6/30	30	22	15500	380	2880	49.1	218	82	84	83	0.68	0.78	0.84	72.6	91.2
				400	2900	49	231	80	82	82	0.61	0.73	0.80	72.5	102.2
				415	2910	49.6	240	77	81	82	0.56	0.69	0.77	72.2	110.7
AFM 6/35	35	26	15500	380	2880	57.5	268	83	84	83	0.68	0.79	0.86	86	120.4
				400	2900	56.5	284	81	83	83	0.61	0.74	0.83	85.6	134.7
				415	2910	57.3	296	78	82	82	0.56	0.69	0.80	85.3	146.1
AFM 6/40	40	30	27500	380	2900	66.4	328	82	84	83	0.67	0.78	0.84	98.4	135
				400	2910	66.4	347	80	83	83	0.60	0.73	0.80	98.4	151
				415	2910	67.5	361	77	81	82	0.55	0.68	0.77	98.2	163

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

Flat Cable Leads AFM 6" Rewindable Aqualite Submersible Motors

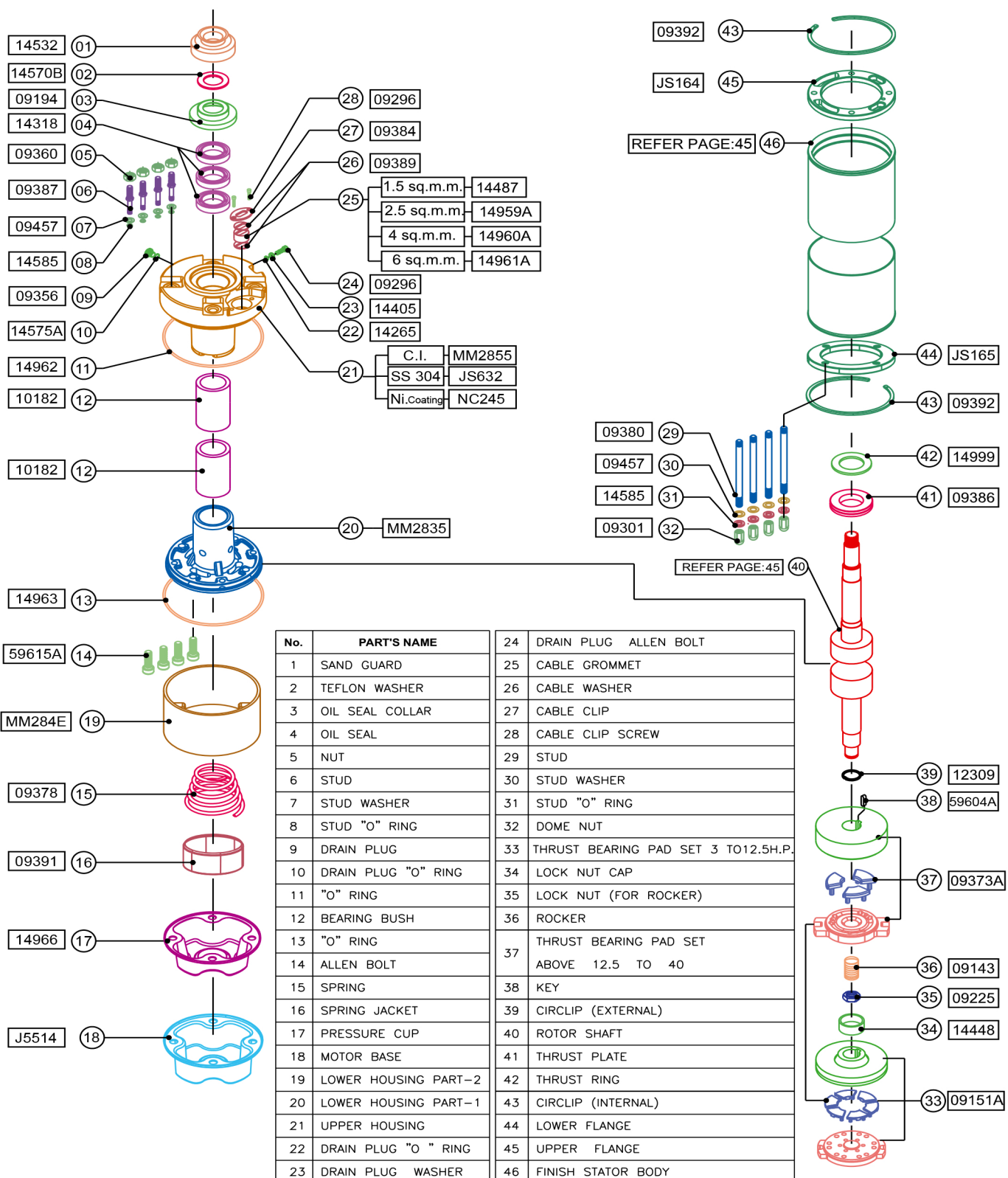
DOL	P _N [kW]	Ø [mm ²]	B [mm]	H [mm]	Length [m]
	2.2 - 13	2.5	17.8 ±0.30	7.0 ±0.30	3
	15 - 22	4.0	20.8 ±0.30	7.8 ±0.30	3
	26 - 30	6.0	18.7 ±0.30	7.9 ±0.30	3

Y D	P _N [kW]	Ø [mm ²]	B [mm]	H [mm]	Length [m]
	2.2 - 4	1.5	15.50 ±0.30	6.0 ±0.30	3
	5.5 - 9.3	2.5	17.8 ±0.30	7.0 ±0.30	3
	11 - 15	4.0	20.8 ±0.30	7.8 ±0.30	3
	18.5 - 30	6.0	18.7 ±0.30	7.9 ±0.30	3

* Separate earth cable on demand

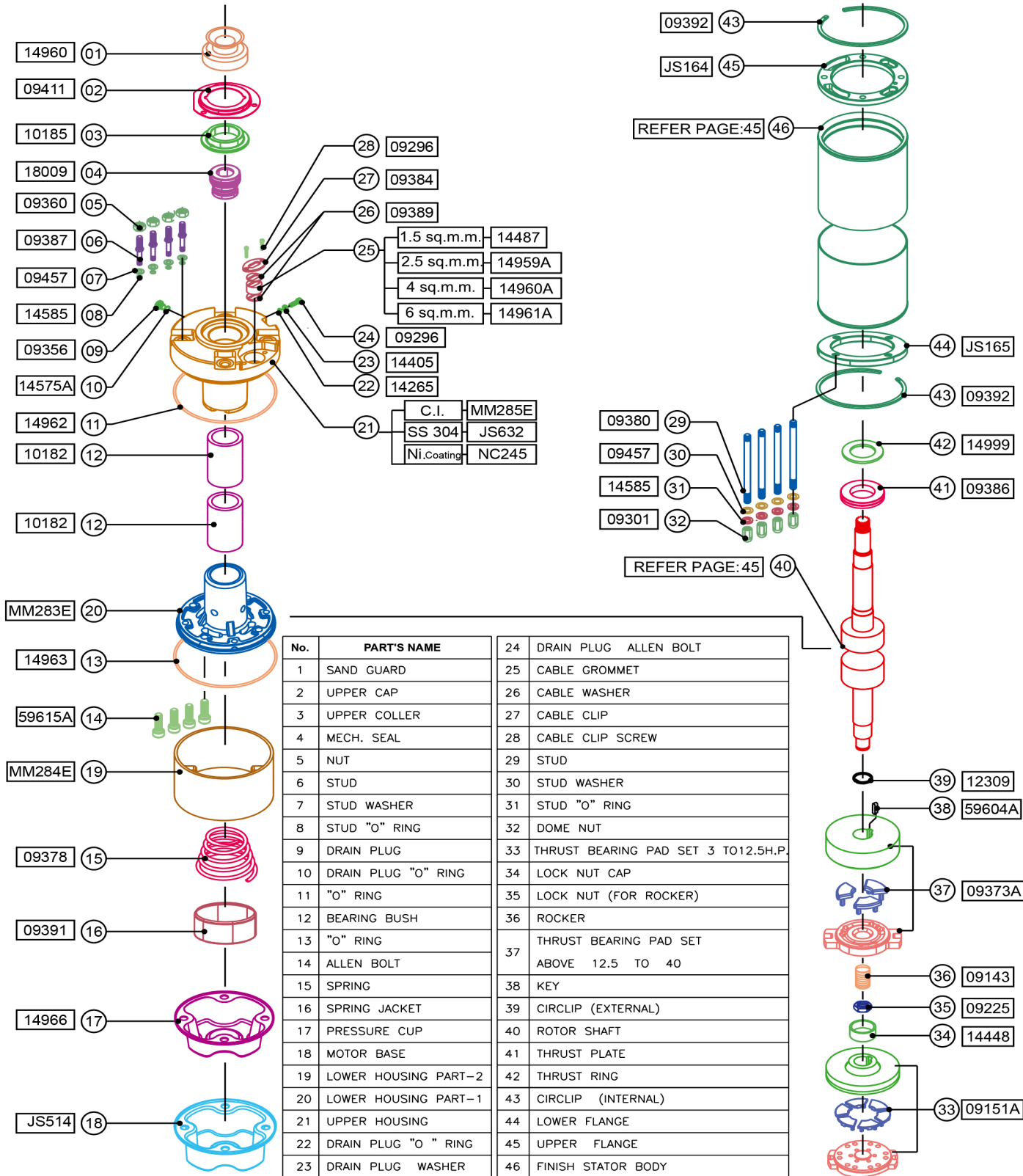
- Separate earth cable on request / On demand.

Exploded view of spare parts of motors



No.	PART'S NAME	
1	SAND GUARD	24 DRAIN PLUG ALLEN BOLT
2	TEFLON WASHER	25 CABLE GROMMET
3	OIL SEAL COLLAR	26 CABLE WASHER
4	OIL SEAL	27 CABLE CLIP
5	NUT	28 CABLE CLIP SCREW
6	STUD	29 STUD
7	STUD WASHER	30 STUD WASHER
8	STUD "O" RING	31 STUD "O" RING
9	DRAIN PLUG	32 DOME NUT
10	DRAIN PLUG "O" RING	33 THRUST BEARING PAD SET 3 TO12.5H.P.
11	"O" RING	34 LOCK NUT CAP
12	BEARING BUSH	35 LOCK NUT (FOR ROCKER)
13	"O" RING	36 ROCKER
14	ALLEN BOLT	37 THRUST BEARING PAD SET ABOVE 12.5 TO 40
15	SPRING	38 KEY
16	SPRING JACKET	39 CIRCLIP (EXTERNAL)
17	PRESSURE CUP	40 ROTOR SHAFT
18	MOTOR BASE	41 THRUST PLATE
19	LOWER HOUSING PART-2	42 THRUST RING
20	LOWER HOUSING PART-1	43 CIRCLIP (INTERNAL)
21	UPPER HOUSING	44 LOWER FLANGE
22	DRAIN PLUG "O" RING	45 UPPER FLANGE
23	DRAIN PLUG WASHER	46 FINISH STATOR BODY

Exploded view of spare parts of motors



Standard Stator and Rotor Model of AFM 6" Motor

Model	P _N		Stator (incl. winding and 3M motor lead)		Rotor	Without winding Finished Stator
	[HP]	[KW]	DOL 304	YΔ 304		
			PW	PW		
AFM 6/3	3	2.2	CWSV6E2110	CWSV6E2110SD	73553	71560
AFM 6/5.5	5.5	4	CWSV6E2120	CWSV6E2120SD	73554	71561
AFM 6/7.5	7.5	5.5	CWSV6E2200	CWSV6E2200SD	73556	71563
AFM 6/10	10	7.5	CWSV6E2230	CWSV6E2230SD	73557	71564
AFM 6/12.5	12.5	9.2	CWSV6E2260	CWSV6E2260SD	73558	71565
AFM 6/15	15	11	CWSV6E2300	CWSV6E2300SD	73558	71566
AFM 6/17.5	17.5	13	CWSV6E2350	CWSV6E2350SD	73559	71567
AFM 6/20	20	15	CWSV6E2390	CWSV6E2390SD	73560	71568
AFM 6/25	25	18.5	CWSV6E2445	CWSV6E2445SD	73561	71569
AFM 6/30	30	22	CWSV6E2520	CWSV6E2520SD	73562	71570
AFM 6/35	35	26	CWSV6E2580	CWSV6E2580SD	73631	71600
AFM 6/40	40	30	CWSV6E2700	CWSV6E2700SD	73563	71571

Outline Drawing of AFM 6" Rewindable Water Lubricated Motors

