



AquaDUTY



AY Series 6"

Rewindable Motor 50Hz



Franklin Electric

www.franklinwatersea.com

AY6 SERIES

The **AquaDuty AY Series 6"** submersible rewindable motor is a high-efficiency solution designed for durability and ease of maintenance operation. Featuring a completely rewindable design, non-toxic fluid cooling, and special electrical design, it ensures long-lasting performance in demanding environments, minimizing operating costs while maintaining consistent reliability.

Specification

- ✓ **Ratings:** Three Phase - 4kW - 37kW
- ✓ **Supply Voltage (Tolerance +6% /-10%):**
220V-230V 1 Phase 50Hz
380V-415V 3 Phase 50Hz
- ✓ **Degree of protection:** IP68
- ✓ **Duty Cycle:** S1 Continuous
- ✓ **Ambient Temperature:** 30°C
- ✓ **Rotation:** CCW from top
- ✓ **Maximum No. of Starts/hour:** 20
- ✓ **Water pH:** 6.5-8
- ✓ **Minimum Cooling flow along the motor:** 0.2m/sec
- ✓ **Mounting:** Vertical
- ✓ Use cooling sleeve for borewell size larger than 200mm

Feature

- ✓ Completely rewindable
- ✓ Cooling and lubrication by non-toxic fluid
- ✓ Special coated Cu rotor shaft for longer life
- ✓ High quality carbon vs SS thrust bearing
- ✓ High efficiency electrical design
(lower operating cost)
- ✓ 6" NEMA coupling flanges
- ✓ Pressure compensation diaphragm



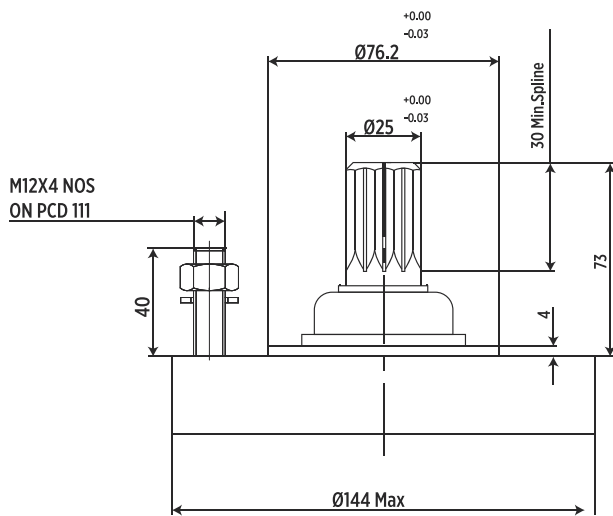
6” Rewindable Motor - Performance Data 50Hz [3 Phase]

MOTOR TYPE	P _N		Thrust F[N]	U _N [v]	n _N [RPM]	I _N [A]	I max [A]	I _l [A]	η [%] at % load			Cos φ [PF] at % load			T _N [Nm]	T _A [Nm]	Length mm	Weight kg
	KW	HP							50	75	100	50	75	100				
NPS6 550T	4	5.5	15500	380	2850	9	10	37	73	75	76	0.69	0.75	0.81	12.6	22.6	668	46
				415	2860	9	10	35	72	73	75	0.7	0.79	0.81	12.1	21.8		
NPS6 750T	5.5	7.5	15500	380	2850	13	14.2	52.7	77	79	80	0.70	0.77	0.83	18.4	33.2	698	48.5
				415	2860	12.7	13.8	51.1	77	78	79	0.70	0.79	0.81	18.1	32.7		
NPS6 1000T	7.5	10	15500	380	2850	18	18.5	68.9	78	80	81	0.69	0.76	0.82	25.1	45.3	718	51.5
				415	2860	17.5	18.1	65	77	79	80	0.69	0.75	0.81	24.7	44.6		
NPS6 1250T	9.3	12.5	15500	380	2850	21.3	23.2	86.3	78	80	81	0.65	0.73	0.81	31.2	56.1	748	53.5
				415	2860	21	22.3	81	77	79	80	0.63	0.72	0.80	30.9	55.8		
NPS6 1500T	11	15	15500	380	2850	26	28.3	105.3	79	81	82	0.70	0.76	0.82	36.9	66.4	778	57
				415	2860	25.2	27.5	98	78	80	81	0.68	0.75	0.81	36.3	65.5		
NPS6 1750T	13	17.5	15500	380	2850	26.5	28.9	107.3	79	81	82	0.64	0.73	0.81	43.6	78.5	828	62
				415	2860	24.8	27	130	78	80	81	0.63	0.71	0.79	42.7	77.1		
NPS6 2000T	15	20	15500	380	2850	33.8	36.8	136.9	79	81	82	0.72	0.78	0.83	50.3	90.5	873	67
				415	2860	33	36	133.7	78	80	81	0.69	0.75	0.81	49.3	89		
NPS6 2500T	18.5	25	15500	380	2850	40.5	42.5	164	79	82	83	0.70	0.77	0.83	62	111.6	918	70
				415	2860	40	42.7	164.8	78	81	82	0.68	0.74	0.80	61.1	110.3		
NPS6 3000T	22	30	15500	380	2850	47.6	50	192.8	80	82	83	0.72	0.78	0.84	75.4	135.8	1008	81.5
				415	2860	46.7	49	189.1	79	80	81	0.68	0.75	0.81	72.2	130.3		
NPS6 3500T	26	35	15500	380	2850	57.5	60.4	268	83	84	83	0.68	0.79	0.86	86	120.4	1113	90
				415	2860	56.5	59.3	268	81	81	82	0.66	0.76	0.84	85.3	153.9		
NPS6 4000T	30	40	27500	380	2850	66.4	69.1	328	82	84	83	0.67	0.78	0.84	98.8	135	1213	98
				415	2860	65	67.6	328	81	81	82	0.65	0.76	0.82	98.2	177.2		
NPS6 5000T	37	50	27500	380	2850	82	85.3	409	83	84	83	0.67	0.78	0.85	122.1	192.8	1293	105
				415	2860	81.2	84.4	409	81	83	82	0.65	0.75	0.82	121.3	218.9		

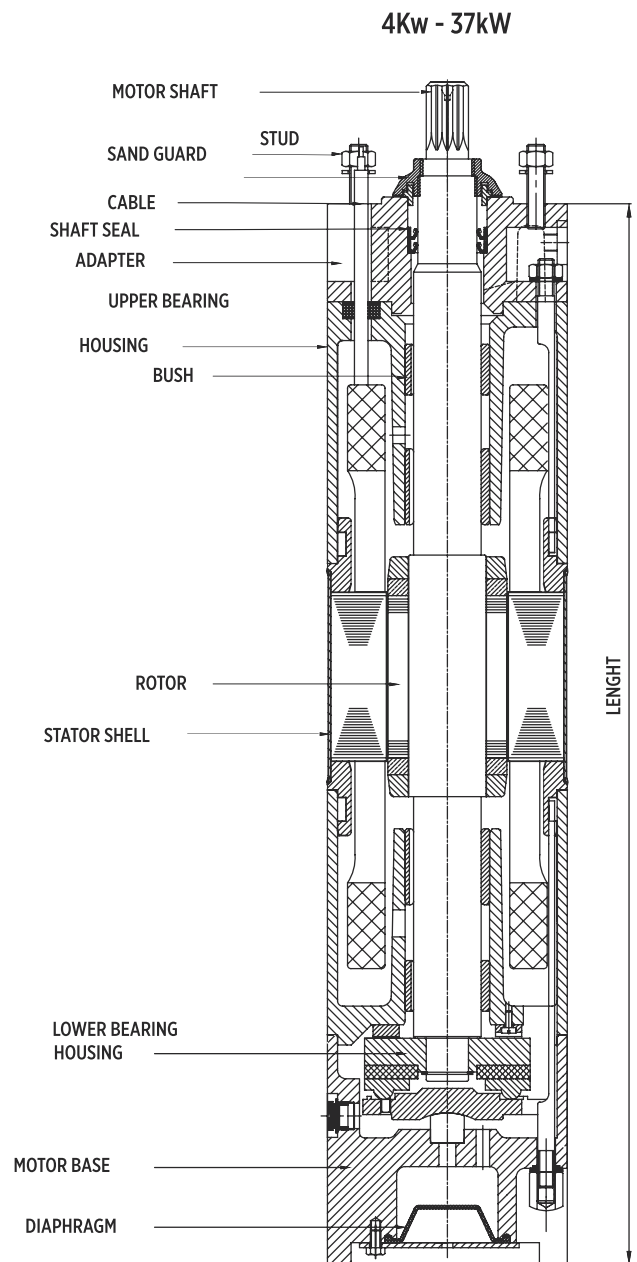
P_N: Rated Power U_N: Rated Voltage T_N: Rated Torque I_N: Rated Current I_A: Locked Rotor Current T_A: Locked Rotor Torque

NOTE: These specifications are based on existing design, which may change for the improvement of performance

6" Water Filled Rewindable Submersible Motor

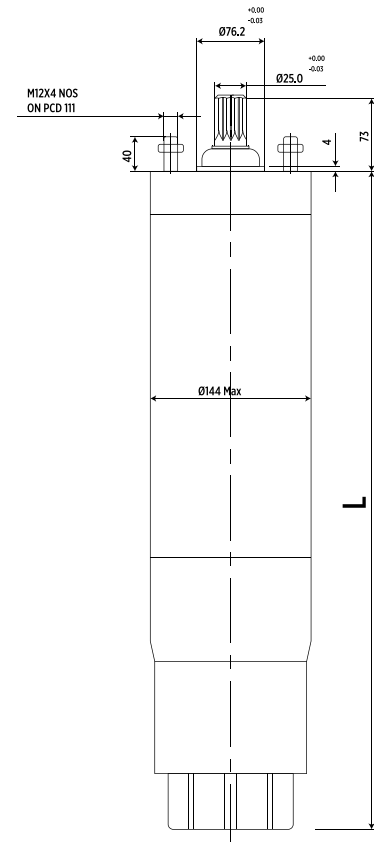


PART	STANDARD CAST IRON
Motor Shaft	Stainless Steel
Cable	EPR/PVC
Sand Guard	NBR
Stud/Hardware	SS
Shaft Seal	NBR
Upper Bearing Housing	CI FG-260
Bush	Carbon
Stator Shell	SS
Rotor	Copper
Lower Bearing Housing	CI FG-260
Motor Base	CI FG-260
Diaphragm	NBR



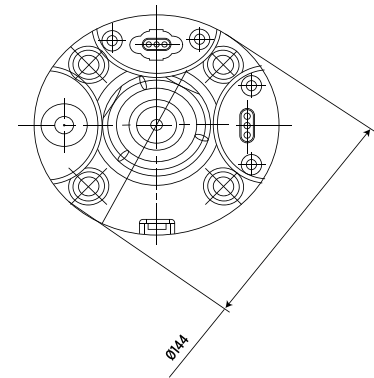
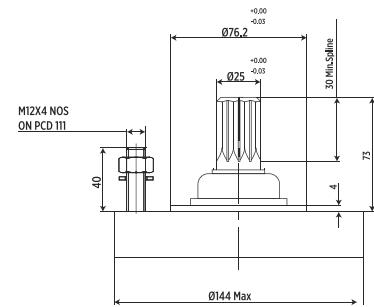
Motor Leads

MODEL	KW	HP	LEAD [mm ²]			
			CABLE SIZE [MM ²]		CABLE LENGTH [M]	
			DOL	STAR-DELTA	DOL	STAR-DELTA
NPS6 550T	4	5.5	3 X 6	-	3.3	3.3
NPS6 750T	5.5	7.5	3 X 6	2 X (3 X 2.5)	3.3	3.3
NPS6 1000T	7.5	10	3 X 6	2 X (3 X 2.5)	3.3	3.3
NPS6 1250T	9.3	12.5	3 X 6	2 X (3 X 2.5)	3.3	3.3
NPS6 1500T	11	15	3 X 6	2 X (3 X 4)	3.3	3.3
NPS6 1750T	13	17.5	3 X 6	2 X (3 X 4)	3.3	3.3
NPS6 2000T	15	20	3 X 6	2 X (3 X 4)	3.3	3.3
NPS6 2500T	18.5	25	3 X 6	2 X (3 X 6)	3.3	3.3
NPS6 3000T	22	30	3 X 6	2 X (3 X 6)	3.3	3.3
NPS6 3500T	26	35	3 X 6	2 X (3 X 6)	3.3	3.3
NPS6 4000T	30	40	3 X 10	2 X (3 X 10)	3.3	3.3
NPS6 5000T	37	50	3 X 10	2 X (3 X 10)	3.3	3.3



Dimensions

MODEL	KW	HP	Axial Thrust [N]	Length L (mm)	Weight (kg)
NPS6 550T	4	5.5	15500	668	46
NPS6 750T	5.5	7.5	15500	698	48.5
NPS6 1000T	7.5	10	15500	718	51.5
NPS6 1250T	9.3	12.5	15500	748	53.5
NPS6 1500T	11	15	15500	778	57
NPS6 1750T	13	17.5	15500	828	62
NPS6 2000T	15	20	15500	873	67
NPS6 2500T	18.5	25	15500	918	70
NPS6 3000T	22	30	15500	1008	82
NPS6 3500T	26	35	15500	1113	90
NPS6 4000T	30	40	27500	1213	98
NPS6 5000T	37	50	27500	1293	105





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