

# M4WS

## Submersible Borehole Motors For 4" Well

### Construction

Submersible borehole motors for 4"(100mm) deep well gives best in class performance with greater reliability. The component materials used ensures superior quality and ease of installation.

#### Operating Conditions

- Maximum water temperature : upto 35 °C
- Water Ph : 4 to 8
- Maximum immersion depth : 220m

#### Maximum number of starts

- Direct start : 15/hour
- Impedance start : 10/hour

#### Standard Voltage

- Single phase 230V up to 2.2kw
- Three phase 440V up to 4.5kw
- Voltage tolerances : +6% -15%
- Insulation category : B

#### Water filled motor

- 2-pole Induction motor, 50Hz (n= 2900 rpm) is easy to dismantle and rewind
- The stator stampings of the motor body are made up of special type material which can withstand all type of water corrosions

#### Special features and benefits

- Rotors are dynamically balanced for smooth operation
- High quality thrust bearings to withstanding axial stress
- Wounded motor body has been tested by using highly precise testing equipments
- Motor assembly is closely monitored by high qualified and experienced quality assurance team at each level of process

### MATERIAL SPECIFICATIONS

Components	Materials
Body	SS 304
Housings	SS304
Rotor shaft	SS 420 (Hardened)
Thrust Bearing	Carbon, SS410
Seal	Oil Seal, Nitrile Rubber
Bush	LTB4



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### Single Phase Characteristics

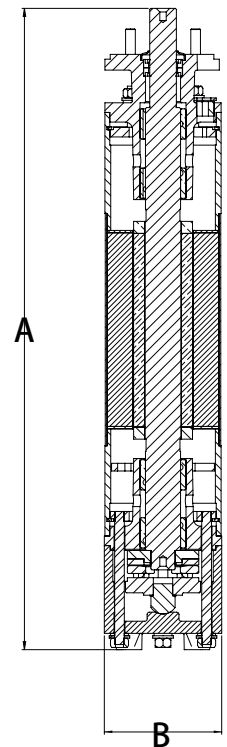
Product Code	P1		I1 A	SPEED RPM	POWER FACTOR			EFFICIENCY		
	HP	kW			4/4	3/4	2/4	4/4	3/4	2/4
M4WS03M5	0.37	0.50	5.3	2850	0.91	0.81	0.63	43	44	37
M4WS05M5	0.55	0.75	6.2		0.92	0.82	0.64	46	47	39
M4WS07M5	0.75	1	7.5		0.93	0.83	0.65	51	52	43
M4WS11M5	1.1	1.5	10.5		0.93	0.83	0.65	54	55	45
M4WS15M5	1.5	2	13.8		0.95	0.85	0.66	56	57	47
M4WS22M5	2.2	3	19.8		0.97	0.87	0.67	61	62	51

### Three Phase Characteristics

Product Code	P1		I1 A	SPEED RPM	POWER FACTOR			EFFICIENCY		
	HP	kW			4/4	3/4	2/4	4/4	3/4	2/4
M4WS07T5	0.75	1.0	2.5	2850	0.57	0.51	0.39	63	64	53
M4WS11T5	1.1	1.5	4		0.60	0.54	0.42	64	65	54
M4WS15T5	1.5	2.0	4.8		0.63	0.56	0.44	68	69	57
M4WS22T5	2.2	3.0	6.9		0.67	0.60	0.46	70	71	59
M4WS30T5	3.0	4.0	9		0.69	0.62	0.48	71	72	60
M4WS37T5	3.7	5.0	10.6		0.71	0.63	0.49	71	72	60
M4WS45T5	4.5	6.0	12.6		0.72	0.64	0.50	72	73	61

### Dimensions, Weights and Cable Data

Product Code	P1		DIMENSIONS (mm)		CABLE DATA		WEIGHT Kg
	HP	kW	A	B	Sec (mm²)	L m	
M4WS03M5	0.50	0.37	97.5	530	1.5	3	18
M4WS05M5	0.75	0.55	97.5	530	1.5	3	18
M4WS07M5, M4WS07T5	1.0	0.75	97.5	530	1.5	3	18
M4WS11M5, M4WS11T5	1.5	1.1	97.5	570	1.5	3	20
M4WS15M5, M4WS15T5	2.0	1.5	97.5	570	2.5	3	24
M4WS22M5, M4WS22T5	3.0	2.2	97.5	650	2.5	3	24
M4WS30T5	4.0	3.0	97.5	710	2.5	3	27
M4WS37T5	5.0	3.7	97.5	750	2.5	3	29
M4WS45T5	6.0	4.5	97.5	750	2.5	3	29



\* M - Single Phase, T - Three Phase