

# Sumoto

# OP3

3" Rewindable oil filled submersible motor



Manufactured by Sumoto since 1998, the 3-inch oil-filled submersible motor is an asynchronous two-pole electric motor specifically designed for use in small-diameter boreholes, making it an ideal choice for domestic and light commercial water supply applications.

It is filled with a dielectric, non-toxic oil, certified for possible contact with potable water, ensuring safe operation and effective thermal exchange.

#### TECHNICAL FEATURES

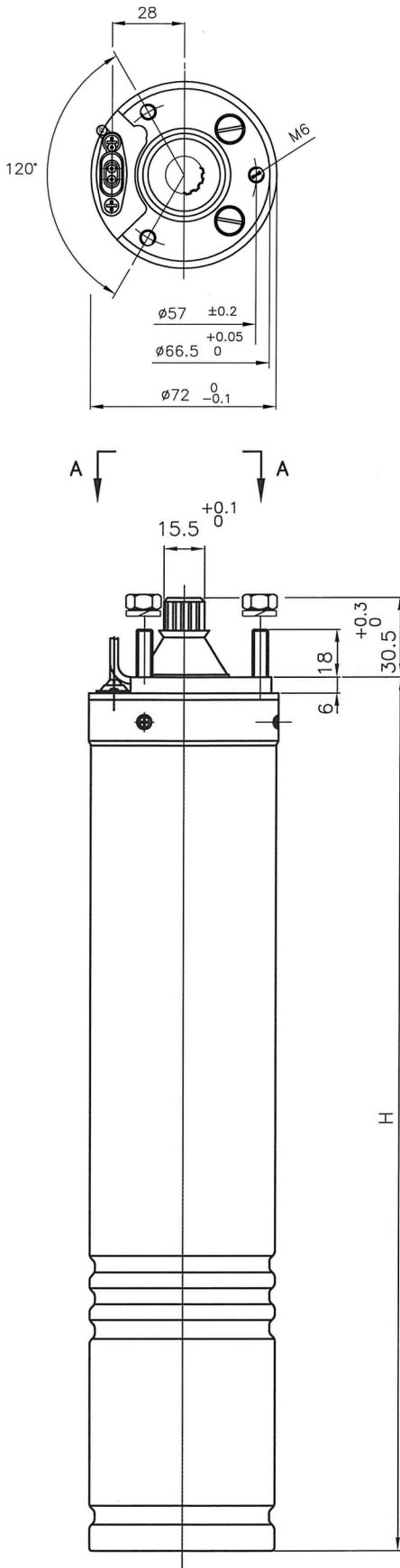
- Rewindable.
- Upper bracket: Nickel plated cast iron, S1X, SS 304 or SS 316.
- Motor case: SS 304.
- Motor shaft: SS 304.
- Shaft extension and coupling: NEMA Standard.
- High quality radial and thrust ball bearings.
- Winding: enameled copper - Class F insulation.
- Degree of protection: IP68/Class B.
- Max temp. 35° with water cooling flow min. 0.08 m/s.
- Max depth immersion: 100 m.
- Nos. of start per hour: max 30 at regular intervals.
- Over-dimensioned sand slinger.
- Mechanical seal: graphite/ceramic.  
SiC/SiC or SiC/Al mechanical seal available as option.
- Coolant: dielectric non toxic high quality lubricant.
- Motor cable length: 1,75 m (3 wires plus ground).
- Voltage variation: +/-10%.
- Single phase motor available with permanent split capacitor.
- Suitable for horizontal operation.

#### MOTOR RANGE VERSIONS

- Single Phase: 0.37kW (0.5hp) to 0.75kW (1hp), 220-230V / 50Hz (or 60Hz)
  - Three Phase: 0.37kW (0.5hp) to 1.10kW (1.5hp), 380-415V / 50Hz - 460V / 60Hz.
- Other voltage and frequencies available upon request.



## TECHNICAL DRAWING



## OP3 CONSTRUCTION DETAILS

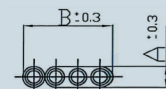
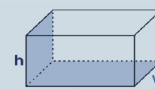


The motor features a removable cable connector for quick and easy maintenance. Our flat blue power cable, approved for use with drinking water, is certified according to ACS, KTW, and WRAS. Upon request, a stranded cable version is also available.



The upper bracket is available in different materials and finishes to meet a variety of application needs: a Standard version in nickel-plated cast iron, the S1X version in nickel-plated cast iron with a 304 stainless steel cover, or fully in SS 304 or SS 316.

## PACKAGING WEIGHT & DIMENSIONS



	Type	kW	Hp	Thrust Load	Weight kg	Height cm	Width cm	Length cm	Cable		
									Sec. mm <sup>2</sup>	A mm	B mm
SINGLE PHASE	OP3 050 M	0,37	0,5	1200 N	6,0	10	11	50	1,5	5	16
	OP3 075 M	0,55	0,75	1200 N	6,4	10	11	50	1,5	5	16
	OP3 100 M	0,75	1	1200 N	6,8	10	11	50	1,5	5	16
THREE PHASE	OP3 050 T	0,37	0,5	1200 N	6,0	10	11	50	1,5	5	16
	OP3 075 T	0,55	0,75	1200 N	6,1	10	11	50	1,5	5	16
	OP3 100 T	0,75	1	1200 N	6,4	10	11	50	1,5	5	16
	OP3 150 T	1,1	1,5	1200 N	6,8	10	11	50	1,5	5	16



MADE IN ITALY



# 50Hz.

## SINGLE PHASE - 200V

Type	kW	Hp	Thrust Load	Weight	Height	In	Istart	RPM	Cosφ	Ts/Tn	EFF%	μF	Rm [Ω]	Ra [Ω]
			N	Kg	mm	Amp								
OP3 050 M	0,37	0,5	1200	6,0	377	3,8	8,8	2800	0,96	0,58	51	16	11,10	35,50
OP3 075 M	0,55	0,75	1200	6,4	397	4,5	12,2	2800	0,98	0,54	55	20	7,85	21,35
OP3 100 M	0,75	1	1200	6,8	416	5,9	14,5	2800	0,98	0,55	57	25	6,01	12,95

## THREE PHASE - 380V

Type	kW	Hp	Thrust Load	Weight	Height	In	Istart	RPM	Cosφ	Ts/Tn	EFF%	Rf [Ω]
			N	Kg	mm	Amp						
OP3 050 T	0,37	0,5	1200	6,0	377	2,4	8,0	2800	0,71	2,10	51	29,50
OP3 075 T	0,55	0,75	1200	6,1	377	2,5	9,1	2800	0,75	2,00	56	29,50
OP3 100 T	0,75	1	1200	6,4	397	2,9	11,7	2800	0,75	2,00	63	22,60
OP3 150 T	1,1	1,5	1200	6,8	416	3,6	14,0	2800	0,75	2,00	63	22,10

## THREE PHASE - 200V

OP3 050 T	0,37	0,5	1200	6,0	377	4,2	14,0	2800	0,71	2,10	51	9,28
OP3 075 T	0,55	0,75	1200	6,1	377	4,3	16,0	2800	0,75	2,00	56	9,28
OP3 100 T	0,75	1	1200	6,4	397	5,0	20,0	2800	0,75	2,00	63	7,30
OP3 150 T	1,1	1,5	1200	6,8	416	6,2	24,0	2800	0,75	2,00	63	6,83

# 60Hz.

## SINGLE PHASE - 200V

Type	kW	Hp	Thrust Load	Weight	Height	In	Istart	I <sub>max</sub>	RPM	Cosφ	Ts/Tn	EFF%	μF	Rm [Ω]	Ra [Ω]
			N	Kg	mm	Amp									
OP3 050 M	0,37	0,5	1200	6	377	3,8	9,0	5,2	3400	0,96	0,54	51	12,5	11,32	36,40
OP3 075 M	0,55	0,75	1200	6,4	397	4,6	13,0	6,0	3400	0,98	0,52	55	16	8,25	22,60
OP3 100 M	0,75	1	1200	6,8	416	6,0	15,0	7,6	3400	0,98	0,52	57	25	6,20	12,90

## THREE PHASE - 380V

Type	kW	Hp	Thrust Load	Weight	Height	In	Istart	I <sub>max</sub>	RPM	Cosφ	Ts/Tn	EFF%	Rf [Ω]
			N	Kg	mm	Amp							
OP3 050 T	0,37	0,5	1200	6,0	377	2,1	9,0	2,5	3400	0,71	2,00	51	29,40
OP3 075 T	0,55	0,75	1200	6,1	377	2,2	10,0	2,6	3400	0,75	2,00	56	29,40
OP3 100 T	0,75	1	1200	6,4	397	2,6	13,0	3,1	3400	0,75	2,00	63	22,90
OP3 150 T	1,1	1,5	1200	6,8	416	3,4	15,0	3,8	3400	0,75	2,00	63	22,60

## THREE PHASE - 220V

OP3 050 T	0,37	0,5	1200	6,0	377	3,6	15,6	3,0	3400	0,67	2,00	58	9,28
OP3 075 T	0,55	0,75	1200	6,1	377	3,8	17,3	4,1	3400	0,79	2,00	63	9,28
OP3 100 T	0,75	1	1200	6,4	397	4,5	22,5	5,0	3400	0,76	2,00	66	7,30
OP3 150 T	1,1	1,5	1200	6,8	416	5,9	26,0	7,5	3400	0,88	2,00	65	6,83

