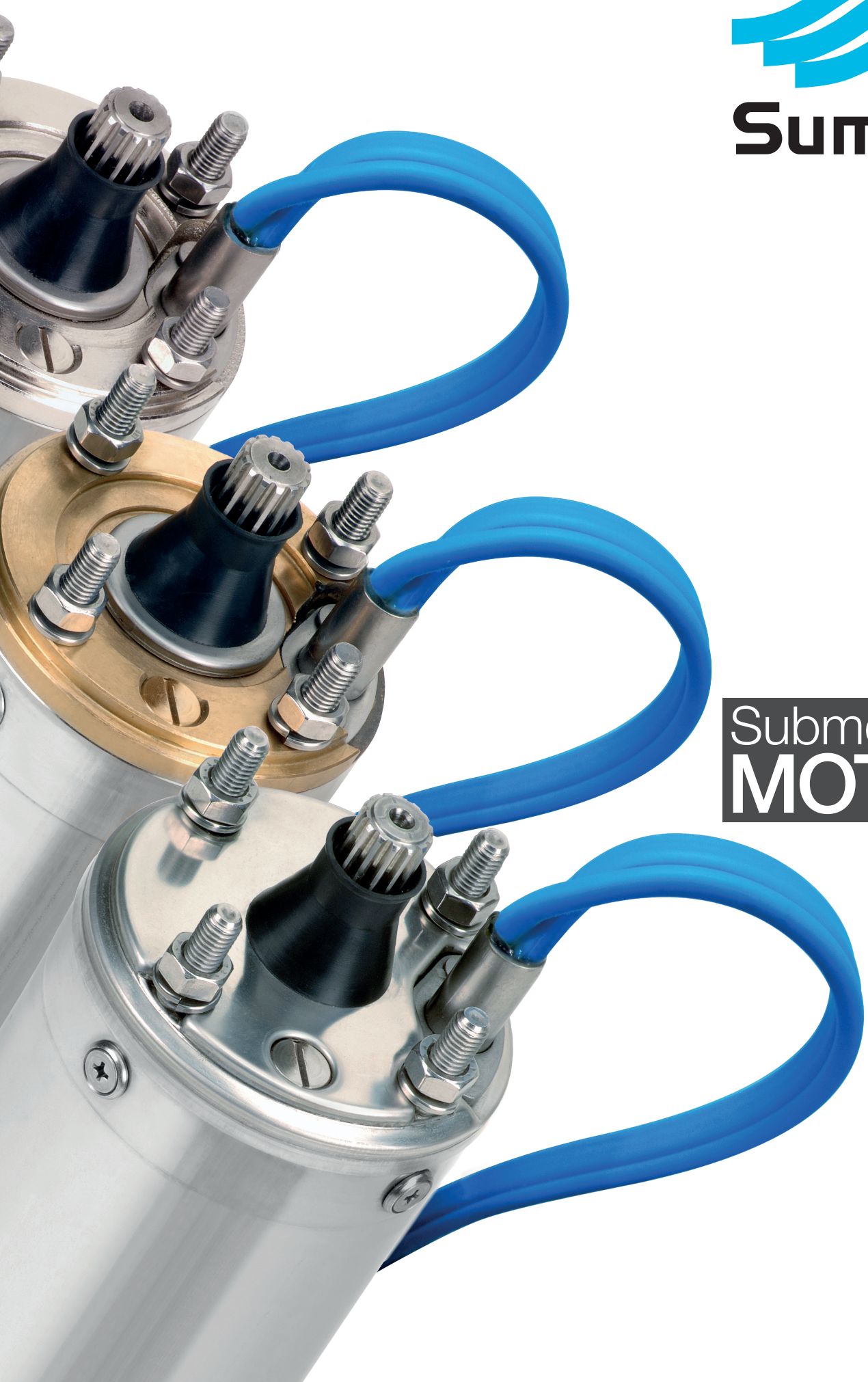


**Sumoto**



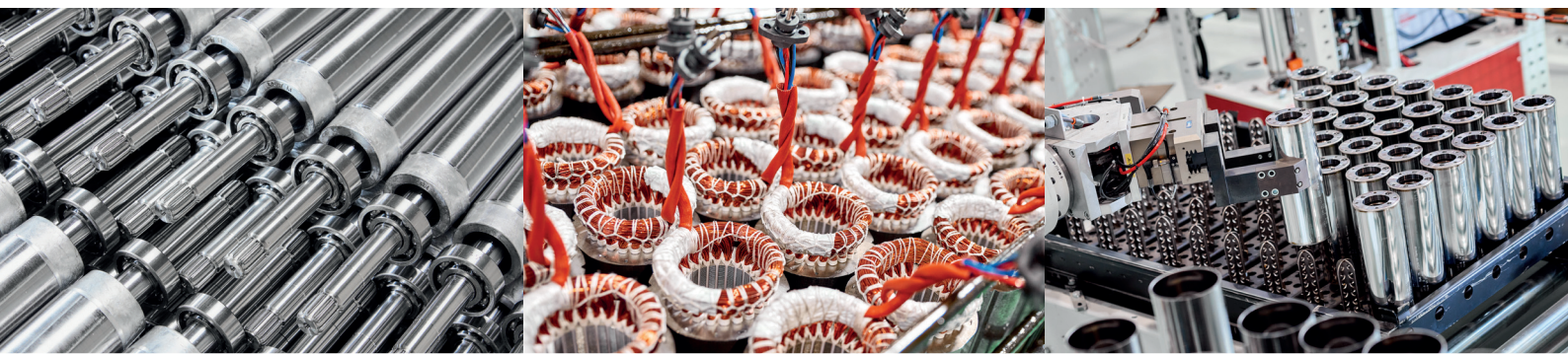
Submersible  
**MOTOR**



Sumoto is one of the world leaders in the production and commercialization of 3, 4 and 6 inch submersible motors. The company, founded in 1991 and situated in the North East of Italy, which has always been a manufacturing hub of excellence where the electropump sector is concerned, covers an area of 12,000 sq.m., of which 8,000 are covered and used for production.

The company mission is therefore to offer one of the most complete ranges of submersible motors, both oil filled rewindable ones and encapsulated-resin filled ones.

Nowadays, when environmental quality and sensitivity is necessary in order to distinguish oneself from the competition, Sumoto is constantly working to improve its product range, and has created new "Energy Saving" motors, like the new 3"IPM high speed one.



## OP3 Series 3" oil filled submersible motor

### Technical features

- Rewindable.
- Upper bracket: Nickel plated cast iron. SS 316 available.
- 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 insulation.
- 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.



## OP3 2W Series 3" 2 wire oil filled submersible motor

### Technical features

- Rewindable.
- Built in capacitor.
- Built in thermal overload.
- Upper bracket: Nickel plated cast iron. SS 316 available.
- 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 insulation.
- 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 (2 wires plus ground).
- Voltage variation: +/-10%.
- Suitable for horizontal operation.

### Motor range versions:

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





## OP4 Series 4" oil filled submersible motor

### Technical features

- Rewindable.
- Upper bracket: Nickel plated cast iron. SS304 cover sheet / Brass / SS316 available.
- 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 insulation .
- Max temp. 35° with water cooling flow min. 0.08 m/s.
- Max depth immersion: 150 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 to 4 m according to motor size (3 wires plus ground).
- Voltage variation: +/-10%.
- Single phase motor available in both version CSCR & PSC.
- Suitable for horizontal operation.

### Motor range versions:

- Single Phase: 0.37kW (0.5hp) to 4kW (5.5hp), 220-230V / 50Hz (or 60 Hz).
- Three Phase: 0.37kW (0.5hp) to 7.5kW (10hp), 380-415V / 50Hz – 460V / 60Hz.
- Axial thrust:
  - 1500 N from 0.37kW to 2.2kW
  - 2500 N from 2.2kW to 5.5kW
  - 5000 N from 2.2kW to 5.5kW
  - 7500 N from 2.2kW to 7.5kW.

Other voltage and frequencies available upon request.



## OP4 2W Series 4" 2 wire oil filled submersible motor

### Technical features

- Rewindable.
- Built in capacitor.
- Built in thermal overload.
- Upper bracket: Nickel plated cast iron. SS304 cover sheet / Brass / SS316 available.
- 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 insulation.
- Max temp. 35° with water cooling flow min. 0.08 m/s.
- Max depth immersion: 150 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 (2 wires plus ground).
- Voltage variation: +/-10%.
- Suitable for horizontal operation.

### Motor range versions:

- Single Phase: 0.37kW (0.5hp) to 1.1kW (1.5hp), 220-230V / 50Hz (or 60Hz).

Other voltage and frequencies available upon request.



## 4WP Series 4" encapsulated submersible motor

### Technical features

- Encapsulated resin filled stator.
- Upper bracket: Cataphoresis treated cast iron plus SS304 cover cap .
- Motor case: SS 304.
- Motor shaft: SS 304.
- Shaft end and Coupling: NEMA Standard.
- Kingsbury thrust bearing.
- Winding: enameled copper - Class F insulation.
- Degree of protection: IP68/Class B insulation.
- Max temp. 35° with water cooling flow min. 0.08 m/s.
- Max depth immersion: 150 m.
- Nos. of start per hour: max 30 at regular intervals.
- Labyrinth seal, sand slinger and lip seal.
- Coolant: water and propylene glycol.
- Motor cable length: 1,75 to 4 m according to motor size (3 wires plus ground).
- Voltage variation: +6 / -10%.
- Single phase motor available in both version CSCR & PSC.
- Suitable for horizontal operation.

### Motor range versions:

- Single Phase: 0.37kW (0.5hp) to 4kW (5.5hp), 220-230V / 50Hz (or 60 Hz).
- Three Phase: 0.37kW (0.5hp) to 7.5kW (10hp), 380-415V / 50Hz – 460V / 60Hz.
- Axial thrust:
  - 1500 N from 0.37kW to 0.75kW
  - 3000 N from 1.1kW to 2.2kW
  - 6500 N from 3kW to 7.5kW.

Other voltage and frequencies available upon request.



## 4WP 2W Series 4" 2 wire encapsulated submersible motor

### Technical features

- Encapsulated resin filled stator.
- Built in electronic starter.
- Built in thermal overload.
- Built in lightning arrestor.
- Upper bracket: Cataphoresis treated cast iron plus SS304 cover cap.
- Motor case: SS 304.
- Motor shaft: SS 304.
- Shaft end and coupling: NEMA standard.
- Kingsbury thrust bearing.
- Winding: enameled copper – Class F insulation.
- Degree of protection: IP68/Class B insulation.
- Max temp. 35° with water cooling flow min. 0.08 m/s.
- Max depth immersion: 150 m.
- Nos. of start per hour: max 30 at regular intervals.
- Labyrinth seal, sand slinger and lip seal.
- Coolant: water and propylene glycol.
- Motor cable length: 1,75 m (2 wires plus ground).
- Voltage variation: +6 / -10%.
- Suitable for horizontal operation.

### Motor range versions:

- Single Phase: 0.37kW (0.5hp) to 1.1kW (1.5hp), 220-230V / 50Hz (or 60 Hz).
- Other voltage and frequencies available upon request.





## OY6 Series 6" oil filled submersible motor

### Technical features

- Rewindable.
- Upper bracket: Nickel plated cast iron. SS316 available.
- 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 insulation.
- Max temp. 35° with water cooling flow min. 0.16 m/s.
- Max depth immersion: 150 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: 2,8 to 4 m according to motor size (3 wires plus ground).
- Voltage variation: +/-10%.
- Starting method: D.O.L / Star-Delta.
- CSCR single phase motor available.
- Suitable for horizontal operation.

### Motor range versions:

- Single Phase: 4kW (5.5hp) to 11kW (15hp), 220-230V / 50Hz (or 60Hz)
- Three Phase: 4kW (5.5hp) to 37kW (50hp), 380-415V / 50Hz – 460V / 60 Hz
- Axial thrust: - 10.000 N from 4kW to 22kW  
- 20.000 N from 30kW to 37kW.

Other voltage and frequencies available upon request.



## 6WP Series 6" encapsulated submersible motor

### Technical features

- Encapsulated resin filled stator.
- Upper and lower bracket: Cataphoresis treated cast iron.
- Motor case: SS 304.
- Motor shaft: SS 304.
- Shaft end and coupling: NEMA Standard.
- Kingsbury thrust bearing.
- Winding: enameled copper - Class F insulation.
- Degree of Protection: IP68/Class B insulation.
- Max temp. 35° with water cooling flow min. 0.16 m/s.
- Max depth immersion: 350 m.
- Nos. of start per hour: max 20 for D.O.L. type.
- Mechanical seal: SiC/SiC.
- Sand slinger.
- Coolant: water and propylene glycol.
- Motor cable length: 4 m (3 wires plus ground).
- Voltage variation: +/-10%.
- Starting method: D.O.L / Star-Delta.
- Suitable for horizontal operation.

### Motor range versions:

- Single Phase: 3.7kW (5.5hp) to 11kW (15hp), 220-230V / 50Hz (or 60 Hz).
- Three Phase: 3.7kW (5.5hp) to 45kW (60hp), 380-415V / 50Hz – 460V / 60Hz.
- Axial thrust: - 7.840 N or 15.500 N from 3.7kW to 11kW  
- 15.500 N from 15kW to 22kW  
- 27.500 N from 30kW to 45kW.

Other voltage and frequencies available upon request.



# CONTROL BOX for single phase motor

## PLASTIC CONTROL BOX

### PSC Series

- Enclosure made out of ABS.
- Switch on-off.
- Thermal protection with manual reset.
- Running capacitor.
- Cable glands.
- Range: from 0.37kW up to 2.2kW.

PSC A Series Dimensions: 180 x 150 x 70 mm.

PSC B Series Dimensions: 195 x 150 x 80 mm.

### CSCR Series

- Enclosure made out of ABS.
- Switch on-off.
- Thermal protection with manual reset.
- Starting capacitor and running capacitor.
- Potential starting relay.
- Cable glands.
- Lightning arrestor.
- Range: da 0.37kW a 2.2kW.

CSCR A Series Dimensions: 195 x 150 x 80 mm.

CSCR B Series Dimensions: 240 x 190 x 90 mm.

### CSCR 3.7Kw Series:

- Double starting capacitor and double running capacitor
- Range: 3.7kW
- Dimensions: 310 x 230 x 150 mm.



## METAL CONTROL BOX

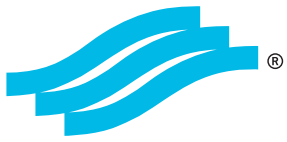
- Enclosure made in painted steel.
- Available in:
  - PSC running capacitor
  - CSCR starting capacitor and running capacitor
  - CSIR starting capacitor/induction run.
- Voltmetric relay.
- Suitable for indoor and outdoor installation.
- External access to thermal protection.



## SUMODRY for single phase and three phase motor

- Designed for 230V single-phase and 400V three-phase supply.
- Overload protection.
- Dry running protection (water level probes not needed), automatic reset.
- Protection in case of lack of one or more phases (for 3-phase motors).
- Short circuit protection.
- Overvoltage protection.
- Remote control.
- Nominal current and power factor self-learning.
- Manual reset.





# Sumoto

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