

SOLAR PUMP UNITS



SAFETY: Please read carefully the mounting and the setting working instructions before starting the unit, in order to avoid accidents and failures caused by an incorrect use of the product. Please keep this manual for future consultations.

TECHNICAL FEATURES COMMON TO THE SOLAR PUMP UNITS

- 1" circulating pumps (180 mm)
- Fittings and components: copper alloy CW617N
- Insulation: EPP
- Washers: EPDM Peroxide
- Fluids: Water (with glycol 50% max.)

CIRCULATING PUMPS



Wilo Para ST 25/6 iPWM
 PWM2 – 2-43 W – I_{max} 0,39 A
 PN10 – max. 100°C
 230 VAC, 50/60 Hz – EEI ≤ 0.20

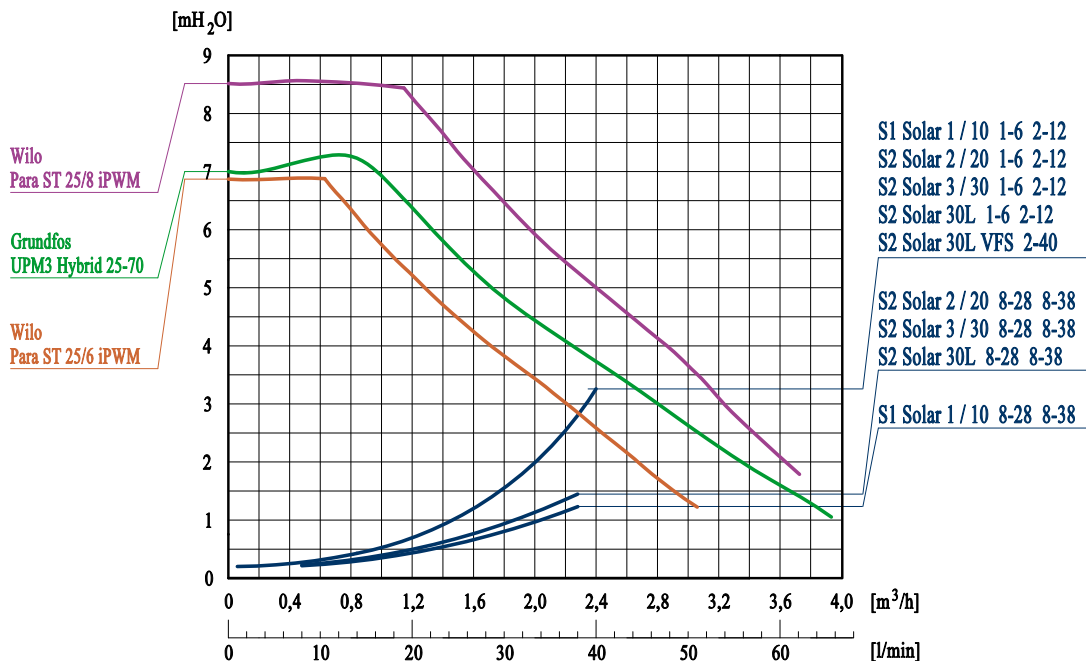


Grundfos UPM3 Hybrid 25-70
 $\Delta p-v / \Delta p-c / \text{Const. speed, PWM A and C}$
 2-53 W – I_{max} 0,52 A
 PN10 – max. 110°C
 230 VAC, 50/60 Hz – EEI ≤ 0.20



Wilo Para ST 25/8 iPWM
 PWM2 – 2-75 W – I_{max} 0,38 A
 PN10 – max. 100°C
 230 VAC, 50/60 Hz – EEI ≤ 0.21

CHARACTERISTIC CURVES OF THE PUMP UNIT AND OF THE CIRCUULATING PUMPS



S1 Solar 1 / 10 1-6 2-12
 S2 Solar 2 / 20 1-6 2-12
 S2 Solar 3 / 30 1-6 2-12
 S2 Solar 30L 1-6 2-12
 S2 Solar 30L VFS 2-40

S2 Solar 2 / 20 8-28 8-38
 S2 Solar 3 / 30 8-28 8-38
 S2 Solar 30L 8-28 8-38

S1 Solar 1 / 10 8-28 8-38



ATTENTION

ELECTRIC WIRING

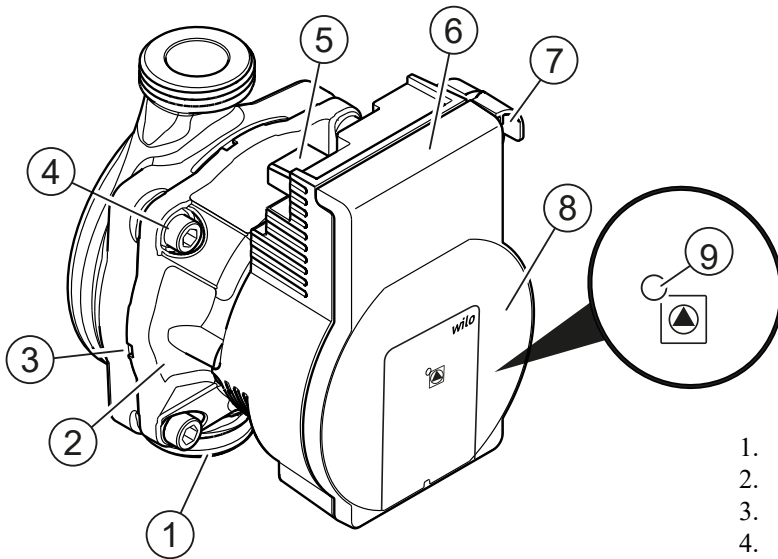
Connection to the electric system: Voltage: 230 VAC \pm 10%.
 Please be sure that the electric wirings are made only by an electrician in conformity with the local directions in force. The type of current and the tension must correspond to the directions written on the data plate of the circulating pump.

CONFORMITY DECLARATIONS / QUALITY DECLARATIONS

Solar pump units series is manufactured according to the Quality System certified ISO 9001:2015, ICIM / IQNET


SOLAR PUMP UNITS

PUMP UNITS WITH PARA ST 25/6 iPWM AND 25/8 iPWM CIRCULATING PUMP



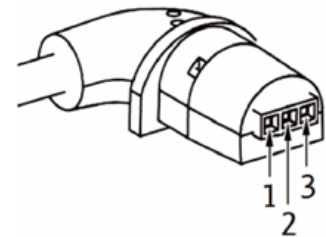
1. Pump housing with screwed connections
2. Glandless motor
3. Condensate drain openings (4x around circumference)
4. Housing screws
5. Mains connection: 3-pin plug connection
6. Control module
7. PWM signal cable connection
8. Rating plate
9. Run/fault signal LED

Indicator light (LED)

-  LED is lit up in green in normal operation.
- LED flashes green: waiting for PWM signal.
- LED flashes red: mains voltage error, short-circuit or excessive temperature.
- LED flashes red/green: circulation of the fluid while mains voltage is missing; air in the pump (dry run), pump is operated outside of its specifications (overload).
- LED is lit up in red: rotor blocked, excessive temperature or electric damage.

Connecting the iPWM signal cable

- Connect the signal cable plug to the iPWM connection (7) until it snaps into place.
- Cable assignment:
 - 1 brown: PWM input (from controller)
 - 2 blue or grey: Signal earth (GND)
 - 3 black: PWM output (from the pump) - **Normally it is not used**
- Signal properties:
 - Signal frequency: 100 Hz - 5000 Hz (1000 Hz nominal)
 - Signal amplitude: Min. 3.6 V at 3 mA to 24 V for 7.5 mA, absorbed by the pump interface.
- Signal polarity: yes



The supply voltage phase cut, can damage the electronic system.



- Never manage the pump's speed by means of the supply voltage phase cut.
- If the pump is managed by means of an external control, deactivate the pump's speed control by supply voltage phase cut.
- When need, it is possible to manage the activation/deactivation of the pump via Triac or Solid State Relay.
- In case of applications with which it is not clear whether the pump's speed is managed by means of the supply voltage phase cut, the manufacturer of the control/system must certify that the pump is supplied with a full wave sinusoidal voltage.