



Installation and operation manual

# STOP MODULE



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# 1. STOP MODULE Introduction

STOP MODULE (SM) for HR solar pumps allows to:

- Connect PV panels to HR pump by MC4 PV connectors.
- Connect earth protection wires.
- Start and stop pump by a push-button.
- Start and stop pump by float switch or any other voltage free contact.
- Protect pump from voltage spikes.

## 2. Safety Instructions

The manufacturer strongly suggests to read carefully this operation manual before using and installing its products. Any operation (installation, maintenance and repair) must be carried out by trained, skilled and qualified personnel. Failure to observe and follow the instructions in this manual may result in dangerous and potentially lethal electric shock. Pay attention to all standard safety and accident prevention regulations.

	<p><b>Ensure the complete disconnection from the power supply pump and/or on any other device (float switch or pressure switch) connected to the SM. Disconnect the SM from the PV panels by removing the PV connectors before commencing any work.</b></p>
	<p><b>Do not remove, for any reason, the cover and the cable plate without having first disconnected the device from the power supply and having waited at least 5 minutes.</b></p> <p><b>SM, PV panels and pumping system must be grounded properly before operation. For the entire period SM is power supplied, high voltage is present on the output terminals whether or not the pump is running.</b></p> <p><b>Tightening all 4 screws on the cover and cable glands to ensure the ingress protection degree.</b></p>

Avoid any shock or significant impact during transport.

Check the product immediately upon delivery and check for damage and/or missing parts. If either occurs, immediately notify the supplier.

Damages due to transport, incorrect installation, or improper use of the device will null and void the warranty.

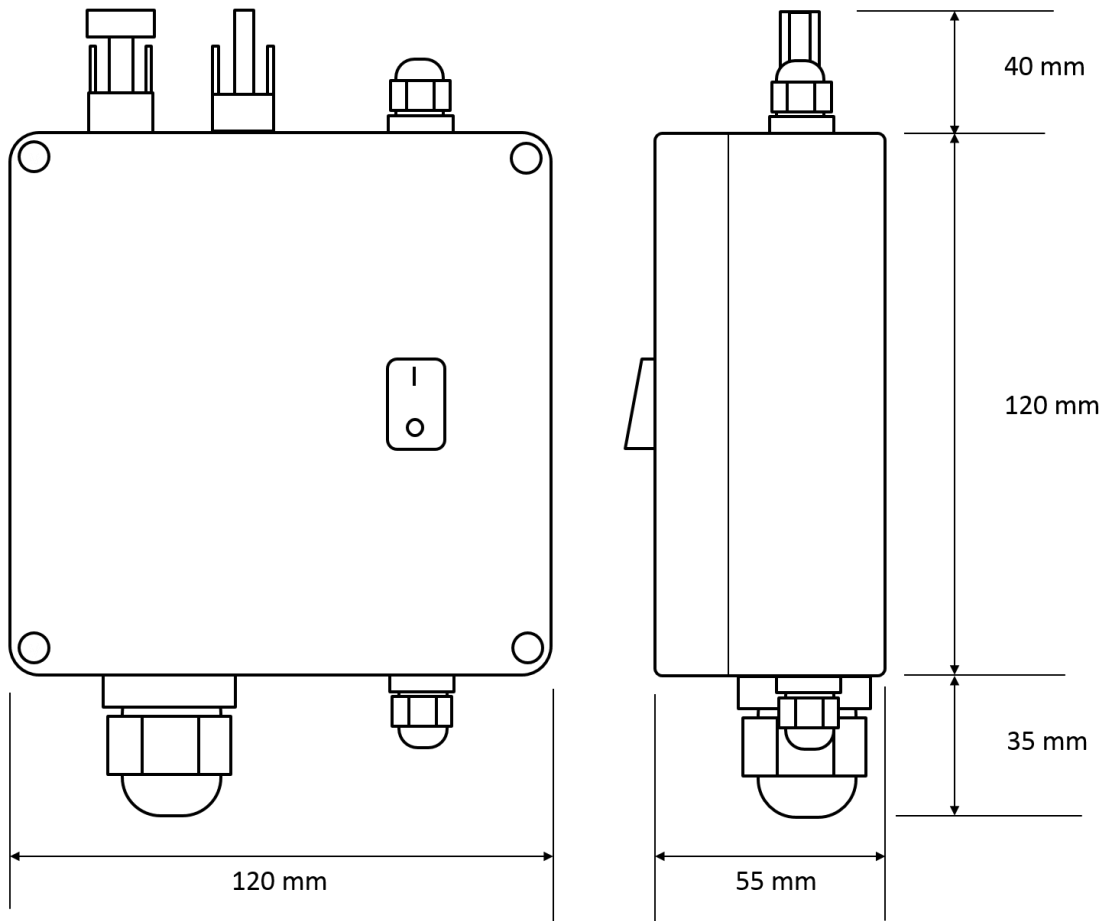
Tampering or disassembly of any component will automatically void the warranty.

**The manufacturer cannot be held responsible for any damages to people and/or property due to improper use of its products.**

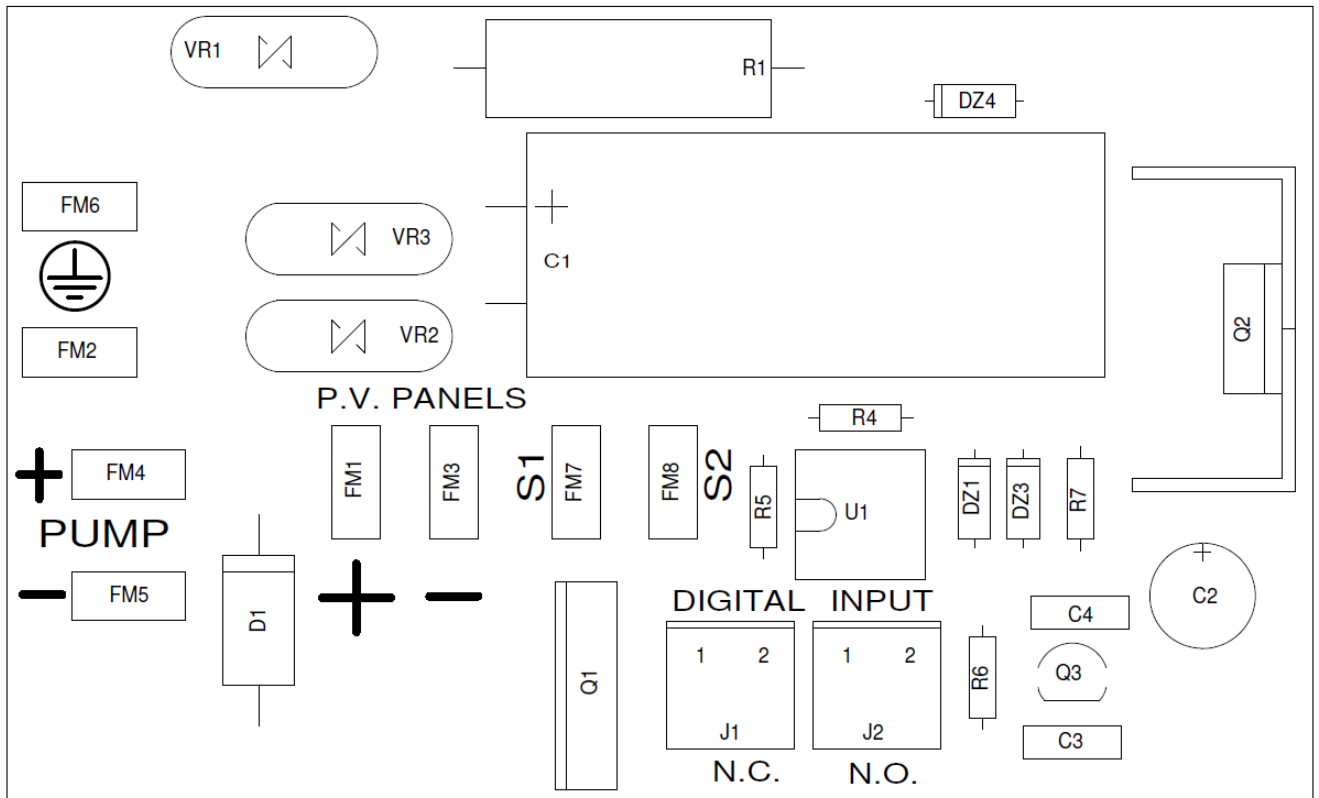
### 3. Technical characteristics

- Max input voltage : 190 VDC
- Protection degree: IP65 (NEMA 4) \*
- Max Ambient Temperature: 50 °C (122 °F)
- Certifications: CE


\* IP65 protection grade is granted with perfect tightness of the cover screws and cable glands. It is recommended anyway to protect the SM from the direct exposure to weather and direct sunlight.



## 4. Electric wiring



<p><b>PUMP</b></p>	<p><b>Pump output</b></p> <p><b>WARNING: Respect polarity</b></p>
<p><b>P.V. PANELS</b></p>	<p><b>PV panels input</b></p> <p><b>WARNING: Not exceed 190 VDC</b></p>
	<p><b>PV panels and pump protection earth.</b></p>

<p>S1</p> <div style="border: 1px solid black; padding: 5px; width: 50px; margin: 5px auto;">FM7</div> <div style="border: 1px solid black; padding: 5px; width: 50px; margin: 5px auto;">FM8</div> <p>S2</p>	<p>Rocker switch connections.</p>
<p>DIGITAL INPUT</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 60px;"> <p>1    2</p> <p>J1</p> <p>N.C.</p> </div> <div style="border: 1px solid black; padding: 5px; width: 60px;"> <p>1    2</p> <p>J2</p> <p>N.O.</p> </div> </div>	<p>Digital input (Normally Closed or Normally Open) for float switch or pressure switch connection.</p> <div style="display: flex; align-items: center; margin-top: 20px;">  <p><b>WARNING: Use only voltage free contacts</b></p> </div>



