User Manual – Universal Cooling for Inverters – UN01-T

Dear customers,
thank you for your trust and for purchasing this product. This user manual is part of the product. It contains important instructions for commissioning and operation. If you hand the product over to another person, make sure to also provide this manual. Keep this manual for future reference!

Product Description

Additional active cooling for PV inverters, designed to reduce the inverter temperature under load by 15–30 °C (depending on installation conditions). Helps prevent power derating during hot days and prolongs the service life of electronic components.

Package Contents

- Power supply SAW30-240-1200G, 230V AC / 24V DC
- Cooling rail
- Control box with thermostat and NTC sensor

Specifications

Compatibility: according to rail dimensions
Control box to rail cable length: 2 m, **power supply cable length:** 2 m
Rail dimensions: 430 × 40 × 70 mm (W × H × D)
Power supply: 24V DC (5.5*2.1), min. 0.8A source
Active cooling: 3 × Sunon 60 mm fans, Vapo (MagLev), rated lifetime 70,000 h, airflow total 138 m³/h
Consumption: Stand-by 0.5 W, operation 7 W

Safety Instructions

- The device is intended for indoor use only.
- Do not use in humid, dusty, flammable, or explosive environments.
- Do not open, repair, modify, or tamper with the device – doing so voids the warranty.
- If the cooling is not connected to power and regulation does not function, the cooling must be promptly removed from the inverter. Regularly check cooling functionality.
- Always follow the rules, instructions, and warnings provided by the inverter manufacturer during installation, removal, and handling.
- If not properly mounted or connected, cooling may not reduce inverter temperature effectively and can even increase it – check operation after installation.
- If disconnected from the power supply, cooling must be promptly removed from the inverter.
- Use only a 24 V DC, min. 0.8 A power supply.
- Do not use the device if the power cable, casing, or fans show visible damage.
- Prevent foreign objects from entering the fans during operation.
- Never cover the device – ensure free airflow.
- Not intended for use by children or persons with reduced capabilities without supervision.
- Do not install or use near water sources (sinks, pools, showers, etc.).
- Always disconnect from power before cleaning and wait until fans have completely stopped.

Manufacturer and Service: Jaroslav Rychtecky, Vetrna 108, Svinare-Halouny, 26727, Czech Republic, IČO: 71774033, DIČ: CZ8306080068
www.solar-inverter-cooling.eu, shop@solar-inverter-cooling.eu, +420 773 902 693

Installation Instructions

Before installation or removal, both the inverter and cooling must be powered off.
Screw the cooling rail under the inverter. Use appropriate anchoring material depending on the wall material (not included).
Choose a suitable place for the thermostat control box (smooth and clean surface), degrease the surface, then remove the protective tape and press the control box firmly onto the surface for 5 seconds (room temperature min. 15 °C).
Repeat the same procedure (degrease, remove protective tape, press 5s) for the temperature sensor and attach it to the warmest spot on the inverter.
Then connect the thermostat box to the cooling rail. Finally, plug the power supply into the thermostat box.

Function Description

After connecting the power supply and switching on via the side switch, the thermostat displays the temperature at the sensor location. If the temperature exceeds the set threshold (P0), cooling turns on. When the temperature drops below the lower set threshold (P1), cooling turns off. Cooling draws air from below.

Adjusting Cooling On/Off Temperature

- SET – enter menu/confirm selection
- Up/Down buttons – increase/decrease temperature, switch between P0, P1, P2, P3
- The set values are stored in the internal memory of the thermostat and remain saved even after disconnecting power.

P0 – Temperature at which the thermostat (cooling) switches on. Default: 40 °C. Use SET, select P0 with arrows, adjust value, confirm with SET.
P1 – Temperature at which the thermostat (cooling) switches off. Default: 35 °C. Use SET, select P1 with arrows, adjust value, confirm with SET.
P2 – Temperature measurement correction (offset). If the thermostat shows e.g. 1 °C higher than the actual value, set correction to –1 °C. Range: ±10 °C. Confirm with SET.
P3 – Delay time for thermostat switching. Set with arrows, confirm with SET. Range: 0–10 minutes (recommended not to use).

OUT indicator: When lit, the thermostat (cooling) is active.

Storage and Cleaning

- Operating environment: temperature 5 °C–55 °C, relative humidity <70%
- Storage conditions: temperature 0 °C–55 °C, relative humidity <70%
  The product requires no maintenance. Clean the casing with a soft cloth slightly dampened with water only. Do not use abrasive agents or solvents (paint or varnish thinners), as these may damage the product. Clean once per year. Cleaning may only be carried out when the cooling is removed and disconnected from the power supply.

Disposal Information

For environmental protection, the device must not be disposed of with household waste at the end of its service life. Dispose of it in accordance with local regulations at designated collection points. Dispose of in compliance with Directive 2002/96/EC – WEEE (Waste Electrical and Electronic Equipment). For questions, contact your local authority responsible for disposal.

Warranty

This product is covered by a 24-month warranty. The warranty does not cover damage during transport, damage caused by improper handling, accidents, failure to follow instructions, modifications by third parties, force majeure (e.g., lightning, earthquakes, fire, volcanic eruptions), or damage after the warranty period has expired.

The product complies with **EMC 2014/30/EU** and **RoHS 2011/65/EU**. The EU Declaration of Conformity is available from the manufacturer.

Manufacturer and Service: Jaroslav Rychtecky, Vetrna 108, Svinare-Halouny, 26727, Czech Republic, IČO: 71774033, DIČ: CZ8306080068
www.solar-inverter-cooling.eu, shop@solar-inverter-cooling.eu, +420 773 902 693