

550 W solar immersion heater

Solar electricity directly for hot water.



Product illustration for reference, not to scale.

0 - 550 W

continuously variable heating power

G 1½"

standard thread

2 000 Wp

maximum connected PV capacity

Use the sun. Support your heating.

Use solar electricity directly

Connect suitable PV modules directly to the heater. No inverter, external battery or 230 V mains connection required.

Support your existing heating

Reduce the hot-water workload of your gas, oil or pellet heating system or heat pump. Especially in the summer half of the year, solar heat can reduce the energy demand and energy costs of your existing heating system.

Use solar power efficiently

The integrated MPP tracker continuously adjusts heating power to the available solar energy.

Keep everything in view

The digital display shows water temperature, PV input power, input voltage and PV energy used.

Solar electricity. Used directly.

Heating operation, PV connection and temperature control.

Heating operation and PV connection

Technical parameter	ROD-550
PV heating power	0 - 550 W, continuously variable
Max. PV current consumption	15.5 A
Max. PV open-circuit voltage (Voc)	50 V DC
Max. connected PV capacity	2 000 Wp
Recommended PV capacity ¹	800 - 1 600 Wp
PV wiring / connection	Parallel only / MC4 solar connectors
Control / features	MPP tracker, reverse-polarity protection, display
Water temperature	Factory setting 65 °C; adjustable up to 85 °C

¹ Recommendation on the current product page. Suitable sizing depends on hot-water demand, location and usage period. Connect no more than 2 000 Wp.

Choose suitable PV modules.

The maximum open-circuit voltage of 50 V DC must not be exceeded. Connect multiple modules in parallel only; connect no more than 2 000 Wp.

Easy to read. Automatic heating.

All values on the display

Read water temperature, PV input power, input voltage and total solar energy used directly on the device.

Set the temperature

Select the desired maximum temperature in the device menu. Once it is reached, the heater stops heating.

Use solar power automatically

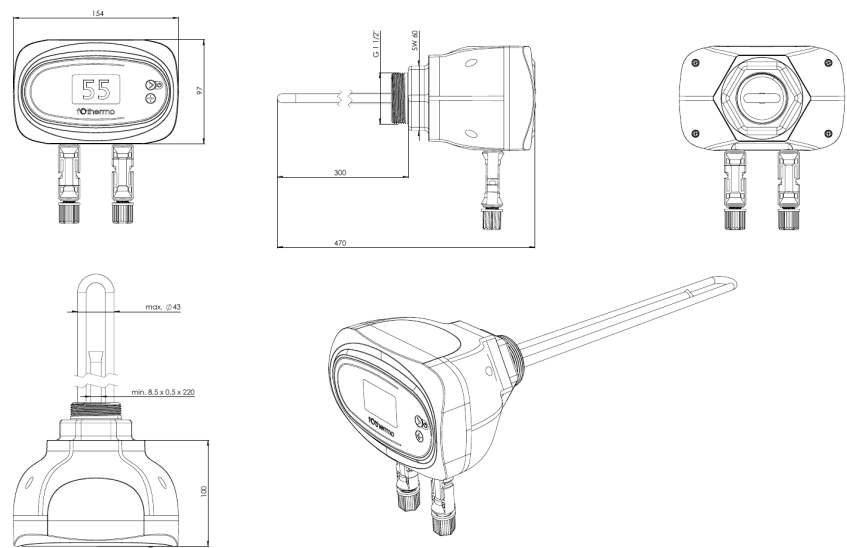
The integrated MPP tracker continuously regulates heating power according to the available solar electricity. No manual power adjustment is needed.

Set the temperature with care.

The factory setting is 65 °C. Domestic and drinking water, as well as hard water, must not exceed 65 °C. Settings up to 85 °C are intended exclusively for lime-free water not used as domestic or drinking water, in accordance with the instructions. Higher temperatures promote limescale deposits.

Dimensions and connections.

Check the tank and plan the installation space.



Manufacturer drawing · dimensions in mm · not to scale.

Device and installation dimensions

Technical parameter	ROD-550
Screw-in thread	G 1½" male thread (6/4")
Heater length from sealing face	300 mm
Overall dimensions (L × W × H)	470 × 154 × 97 mm
Housing dimensions (L × W × H)	100 × 154 × 97 mm
Weight (± 3 %)	0.8 kg
Max. heating-element diameter	43 mm
Width across flats	SW 60
IP rating	IP24
Storage temperature	-20 to +70 °C

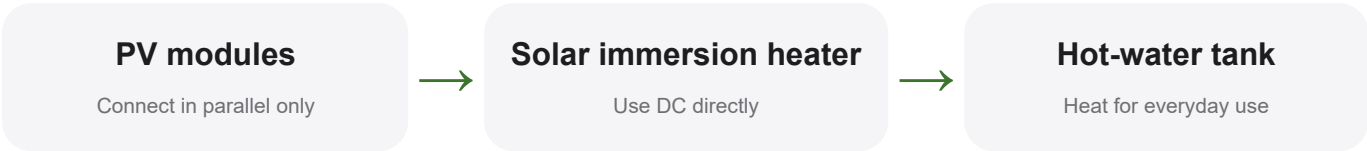
Key installation considerations.

Check the G 1½" socket and ensure clearance for the 300 mm heater length. Install horizontally, with PV connectors facing down. Protect the housing from water. Allow space for installation, cables and maintenance.

Installation and functional checks must be carried out by qualified persons in accordance with the operating instructions. Never operate the heater in an empty or only partially filled tank.

How it works.

Solar heat for your existing hot-water tank.



Operating principle, not a wiring diagram. The heater is installed in a suitable existing tank.

In sunshine

The MPP tracker regulates heating power to match the available solar energy up to the set maximum temperature.

With little sunshine

The existing heating system provides additional heat when needed. The ROD-550 has no 230 V backup heater.

At target temperature

The heater stops heating. There is no integrated surplus-energy output.

How quickly does the water heat up?

Calculated temperature rise per hour at constant heating power

Heating power	100 litres	200 litres	300 litres
200 W	approx. 1.7 °C/h	approx. 0.9 °C/h	approx. 0.6 °C/h
400 W	approx. 3.4 °C/h	approx. 1.7 °C/h	approx. 1.1 °C/h
550 W	approx. 4.7 °C/h	approx. 2.4 °C/h	approx. 1.6 °C/h

Idealised calculations: evenly heated water, no heat loss or water draw-off; heat capacity 1.163 Wh/(litre·K). In practice, solar yield, stratification and heat losses affect heating. No performance or yield guarantee.

Easy preparation.

01 · Prepare the tank	Check suitability, seal the thread correctly and install the heater. Fill the tank completely with water.
02 · Plan the PV connection	Select suitable modules, solar cables and parallel connectors. Keep cables as short as possible, provide strain relief and protect them from abrasion.
03 · Commission the system	Connect PV connectors with the correct polarity. Check for leaks and correct operation; set the temperature according to the water type and instructions.

Included in delivery

550 W solar immersion heater and operating instructions.

Also required

PV modules with mounting hardware, solar cables, parallel connectors if needed, a suitable hot-water tank and sealing material.

This datasheet does not replace the installation, operating and maintenance instructions. Follow the instructions for your device.

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