

Solar hybrid water heater

Hot water from solar power.

Automatic backup heating when needed.



30 L
PVB-30-AC



80 L
PVB-80-AC

Product images for guidance, not to scale. Dimensions on page 3.

0 - 550 W

continuously variable PV heating output

1500 W

230 V mains backup heating

30 / 80 L

two tank sizes

Use solar power. Save grid electricity.

Lower electricity costs

Use solar energy for your hot water and reduce your grid electricity consumption.

Easy connection

Connect PV modules directly to the heater. No inverter or battery required.

Greater independence

Your own solar power makes you less dependent on rising electricity prices.

Solar power. Mains power.

Heating and electrical connections compared.

Heating and PV input

Specification	30 L · PVB-30-AC	80 L · PVB-80-AC
PV heating output	0 - 550 W, continuously variable	0 - 550 W, continuously variable
Max. PV open-circuit voltage (Voc)	50 V DC	50 V DC
Recommended module voltage (Vmpp)	35 - 40 V	35 - 40 V
Max. PV input current	15.5 A, current limiting	15.5 A, current limiting
Max. connected PV power	2000 Wp	2000 Wp
Recommended PV power	400 - 800 W	600 - 1200 W
PV wiring	Parallel only	Parallel only
PV connection	MC4 solar connectors	MC4 solar connectors
MPP tracker	1	1
Digital display	Included	Included
Adjustable PV temperature	5 - 65 °C	5 - 65 °C

230 V mains backup heating

Specification	30 L · PVB-30-AC	80 L · PVB-80-AC
Mains connection	230 V, socket	230 V, socket
Heating output	1500 W	1500 W
Adjustable backup temperature	10 - 75 °C	10 - 75 °C
Control	Thermostat with rotary dial	Thermostat with rotary dial

Connect PV modules in parallel only; maximum open-circuit voltage 50 V, even in cold weather.

Tank and size.

Compare the models and plan your installation space.

Tank and general data

Specification	30 L · PVB-30-AC	80 L · PVB-80-AC
Tank volume	29 L	77 L
Rated pressure	0.7 MPa (7 bar)	0.7 MPa (7 bar)
Water connection	G½ male thread	G½ male thread
IP rating	IP24	IP24
Energy efficiency class	C	C
Tank material	Enamelled steel	Enamelled steel
Corrosion protection	Magnesium anode	Magnesium anode
Thermal insulation	Polyurethane foam	Polyurethane foam
Temperature loss per hour ²	approx. 0.42 °C/h	approx. 0.25 °C/h

² Average based on a loss of approx. 10 °C (30 L) or 6 °C (80 L) over 24 hours. Cooling depends on temperature and is not uniform.

30 L

PVB-30-AC

For small water draws and limited space.

approx. 58 L

Mixed water at 40 °C¹

400 - 800 W

recommended PV power

L × W × H: 400 × 400 × 600 mm

Empty weight: approx. 15 kg

Filled: approx. 44 kg (calculated)

80 L

PVB-80-AC

For regular showers and a larger hot water reserve.

approx. 154 L

Mixed water at 40 °C¹

600 - 1200 W

recommended PV power

L × W × H: 470 × 480 × 900 mm

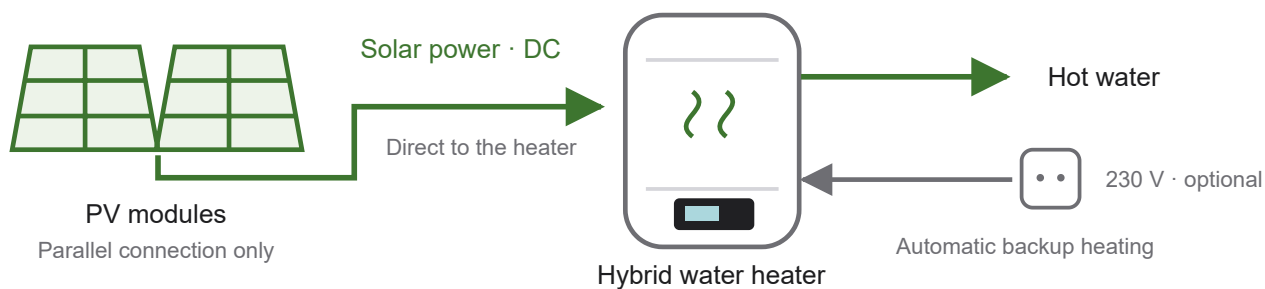
Empty weight: approx. 25 kg

Filled: approx. 102 kg (calculated)

¹ Calculated mixed-water example: tank fully heated to 65 °C, cold water at 15 °C, draw-off at 40 °C. Based on tank volumes of 29 and 77 litres. Heat losses, mixing and usage affect the actual amount.

How it works.

Solar first. Mains power when needed.



Connect PV modules directly to the heater. Optional 230 V mains backup heating supplements solar energy when needed.

Schematic, not to scale; not a wiring diagram. Connect PV modules in parallel only. Maximum open-circuit voltage 50 V, even in cold weather.

Heating rates

Temperature rise per hour at the stated heating output

Heating output / energy source	30 L	80 L
200 W photovoltaic power	6 °C/h	2 °C/h
400 W photovoltaic power	12 °C/h	4.5 °C/h
550 W photovoltaic power	16 °C/h	6 °C/h
1500 W from 230 V mains	43 °C/h	16 °C/h

Indicative values. Actual heating depends on solar power, ambient conditions and water draw-off.

Your hybrid water heater in daily use

In sunshine

The MPP tracker uses the available PV power to heat your water.

With little sunshine

When connected to the mains, the heater reheats below the set minimum temperature.

Without mains power

Solar power alone heats your water. Temperature and hot water volume depend on solar yield.

Ready to install.

Plan the connections and installation of your hybrid water heater.



Temperature and solar yield

Read water temperature, PV power and solar yield directly on the unit.



All connections on the unit

G½ water connections, PV connectors and rotary dial for mains backup heating.

Detail views: PVB-30-AC · Photos show the unit with transport caps on the water connections.

Before installation

01 Wall and installation space

Check load capacity and space for connections and servicing. Mount vertically in a frost-free location.

02 Water and PV connection

Plan a safety valve with a drain. Connect PV modules in parallel only; select cables as specified in the manual.

03 Commissioning

Have the unit installed by a qualified person and completely filled with water before electrical connection.

Included

- Solar hybrid water heater PVB-30-AC or PVB-80-AC
- Safety and quick-start guide
- Non-return and pressure relief valve
- Mains cable and PV warning notice

What else you need

PV modules with mounting hardware, solar cables and parallel connectors if required. Wall mounting and plumbing materials, valve drain and a pressure reducer if needed.

Contact Questions about selection or installation? We are happy to help.

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This datasheet does not replace the installation, operating and maintenance instructions. Follow all installation, operating and safety instructions in your unit's manual.