

Solar storage water heater

Hot water from solar electricity.

Compatible with gas, oil or pellet heating.



200 L

PVB-200



300 L

PVB-300

0 - 1 650 W

variable PV heating power

3 MPP trackers

independent PV inputs

186 / 264 L

Storage volume

Use solar power. Reduce heating demand.

Use solar power directly

Connect PV modules directly. No inverter or battery required.

Integrate your heating system

The heat exchanger enables auxiliary heating with gas, oil or pellets.

Reduce energy costs

Use solar electricity for hot water and reduce your heating system's energy demand.

Direct solar power.

Three independent MPP trackers use the available PV power.

Heating operation and PV input

Technical parameter	200 L · PVB-200	300 L · PVB-300
PV heating power (W)	0 - 1,650, continuously variable	0 - 1,650, continuously variable
Heating power per MPP tracker (W)	0 - 550	0 - 550
Number of MPP trackers	3	3
Max. connected PV power (Wp)	6 000	6 000
Max. connected power per tracker (Wp)	2 000	2 000
Recommended PV power (Wp) ¹	1 800 - 3 600	2 200 - 4 000
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 per tracker (A)	15.5; current limiting	15.5; current limiting
PV wiring	Parallel only, per input	Parallel only, per input
PV connection	Screw terminals	Screw terminals
Max. PV water temperature (°C)	65	65
Status display / reverse polarity protection	LED / included	LED / included

¹ Sizing recommendation for northern and central Europe. Solar yield and hot water demand determine the suitable number of modules. Connected power in Wp refers to module power; it does not increase the maximum heating power of 1,650 W.

Connect PV modules in parallel only. Open-circuit voltage must not exceed 50 V per input, even in cold conditions. Take the modules' temperature coefficient into account.

Heating with solar electricity

From 10 to 65 °C at 1,500 W heating power: approx. 7½ h (200 L) or 10¾ h (300 L). Guide values from the manual; dependent on solar yield, heat losses and water draw-off.

Storage and heat exchanger.

Technical data for both storage sizes compared.

Storage tank

Technical parameter	200 L · PVB-200	300 L · PVB-300
Storage volume (L)	186	264
Rated pressure (MPa / bar)	0.8 / 8	0.8 / 8
Standing heat loss (W)	47.5	50.2
Weight according to datasheet (kg) ²	74 (± 3 %)	88 (± 3 %)
Mixed water volume at 40 °C (L) ³	286	406
Heat storage 10 - 65 °C (kWh) ⁴	approx. 11.9	approx. 16.9

Both models: energy efficiency class B, IP24 protection, enamelled steel tank and magnesium anodes for corrosion protection.

Heat exchanger S1

Technical parameter	200 L · PVB-200	300 L · PVB-300
Rated pressure (MPa / bar)	1.0 / 10	1.0 / 10
Max. heating fluid / tank temperature (°C)	110 / 95	110 / 95
Heat exchanger: area / volume	0.90 m ² / 4.3 L	1.12 m ² / 5.4 L
Performance index NL (DIN 4708) ⁵	3.6	8.0
Continuous output (DIN 4708) (kW)	25	35
Flow rate (DIN 4708) (L/min)	10	14
Output / heating time (EN 12897)	18.6 kW / 28.8 min	19.3 kW / 39.4 min
Pressure drop (mbar)	120	50

² Manual V1.2 differs: 71 / 87 kg gross weight (± 5%). Check the weight of the delivered unit.

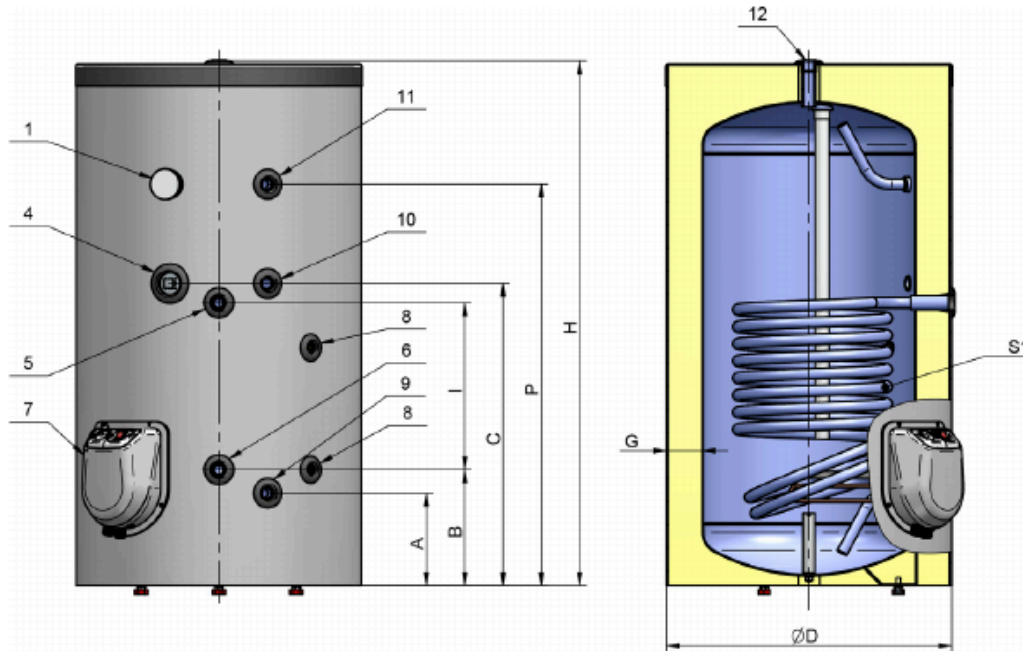
³ According to EN 12897 with unit switched off; actual draw-off volume depends on operation.

⁴ Calculated: 186 / 264 L × 55 K × 1.163 Wh/(L·K), excluding heat losses.

⁵ NL test conditions: heating water 80 °C, cold water 10 °C, stored water 60 °C.

Dimensions and connections.

Original manufacturer drawing; information for installation planning.



Front view and section; not to scale. All dimensions in mm. S1: heat exchanger. IG: female thread.

Reference dimensions

Dimension	200 L	300 L
A	210	210
B	260	265
C	855	840
D · Ø	600	670
G	75	85
H · Height	1 430	1 605
I	550	530
M · Width	690	760
P	1 155	1 315

Connections on both models

Connection	Specification
1 · Thermometer	Included
4 · Additional connection	G 1½ IG
5 / 6 · S1 flow / return	G ¾ IG
7 · Heating element / PV	Flange / terminals
8 · Thermostat ¹	G ½ IG
9 · Cold water / drain	G ¾ IG
10 · Circulation	G ¾ IG
11 / 12 · Hot water	G ¾ IG

¹ Thermostat thread: G ½ according to datasheet; manual V1.2 states G 1½. Check on the unit.

M: maximum width including attachments. Allow additional space for pipes, valves and maintenance.

Ready to install.

PV use and auxiliary heating in one hot water system.



Solar first. Heat as needed.

Three independent MPP trackers supply the PV heating elements. A sensor in the existing heating system can trigger auxiliary heating via S1 when needed. Plan sensors, controls and hydraulic integration to suit the system.

PV heating: maximum 65 °C. Higher temperature limits apply only to S1. Provide scald protection appropriate to the installation.

Before installation

01 Location and water connection

Choose a dry, frost-free location and a load-bearing base. Provide a safety valve with an unobstructed discharge and space for maintenance and connections.

02 PV modules and wiring

Maximum open-circuit voltage 50 V, even in cold conditions. Parallel wiring only per input; select cable cross-section and terminal connections according to the unit's manual.

03 Installation and commissioning

Installation by qualified personnel. Fill the tank completely with water before connecting PV or operating the heat exchanger. Do not operate dry.

Scope of delivery

PVB-200 or PVB-300
Pressure relief and non-return valve
Operating manual

Additionally required

PV modules, mounting materials, solar cables and water connection materials. For S1: heating pipes, sensor and controls.

Suitable electric auxiliary heating can be added at the additional connection. Plan the heating element, controls and mains connection separately. This datasheet does not replace the installation, operating and maintenance instructions.