

PHOTOVOLTAIC WATER HEATING WITH GSM MONITORING

The SOLAR KERBEROS system is used for economical water heating. It takes full advantage of the **photovoltaic storage heating** and top-level technology of **maximum power point tracking (MPPT)**.

The SOLAR KERBEROS system provides **maximum use** of energy generated by photovoltaic modules and **minimizes consumption** of mains electricity through the smart water heating control. The high efficiency is achieved by utilising a maximum power point tracking DC/DC converter.

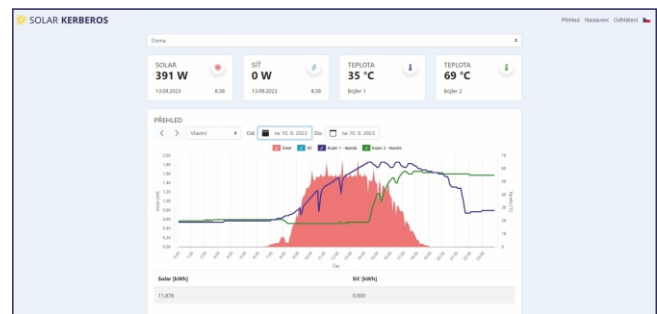
The GSM type is additionally equipped with remote GSM monitoring, which allows convenient monitoring of the device in a web application. The module works on a GSM basis, it is equipped with a SIM card with prepaid data for 4 years of operation. You can buy more data after you run out. The data is sent via GSM to cloud storage and is available on any device with an internet browser and access to the internet.

THE WEB APPLICATION DISPLAYS:

- Current production from panels
- Current consumption from the mains
- Water temperature in the water tank (in both water tanks for 320.H type)
- Graphs of production, consumption and temperature in the water tank
- Chart history (daily, weekly, monthly overview / overview for the selected period)

ADVANTAGES OF SOLAR KERBEROS GSM:

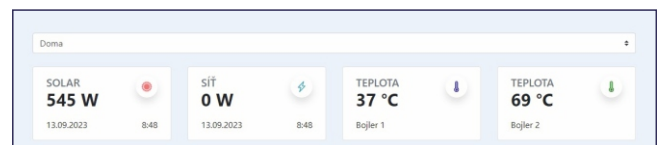
- Immediate display of current status
- The possibility to monitor the device remotely
- The convenience of the application on a mobile phone or computer
- Clear charts
- Early detection of possible defects



Production graph for the selected day



Production graph for the selected period



Current production and temperature data

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Technical data

Electric data - photovoltaic	315.B GSM	320.B GSM 320.H GSM
Input open circuit voltage (limits)	185 - 280 VDC	200 - 340 VDC
MPP tracking range	120 - 260 VDC	140 - 310 VDC
Maximum utilizable current	10 A	10 A
Maximum efficiency	99 %	99 %
Typical installed power	~2000 Wp	~2500 Wp

Maximum and minimum input voltage limits must be strictly kept at any solar irradiance and temperature.

Electric data - electricity mains

Input voltage	230 VAC / 80 Hz	230 VAC / 80 Hz
Maximum output current	13 A	13 A

Heating element

Recommended power of heating element	2 - 2,5 kW	2 - 2,5 kW
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Secondary heating element (320.H GSM)

Recommended power of heating element	2 - 2,5 kW	2 - 2,5 kW
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Thermal regulators

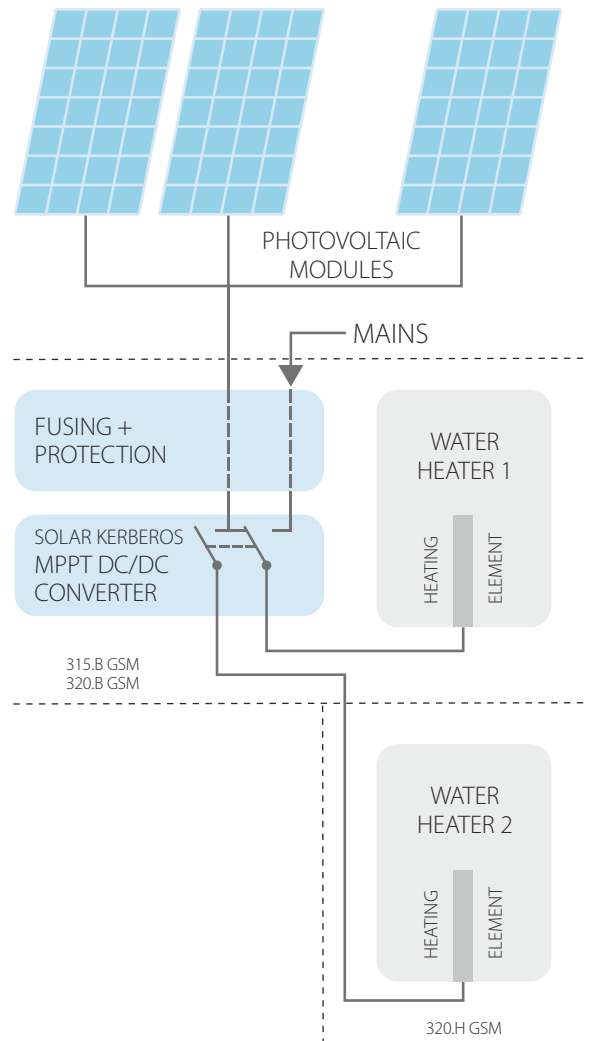
Setting range	10 - 80°C
Thermal fuse	YES - electronic

Working conditions

Operating temperature	+5 to +40°C
Storage temperature	-10 to +40°C
Operating relative humidity	Max 75 % non condensing
Storage relative humidity	Max 90 % non condensing
Environment dustiness	Dust particles volume max 0,75 mg/m ³
Chemical effects	Non aggressive

Construction parameters

Dimensions	395 x 322 x 105 mm
Weight	6 100 g
Ingress protection	IP 20



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