

PHOTOVOLTAIC WATER HEATING WITH GSM MONITORING

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

KERBEROS POWER is a **high performance** modular photovoltaic water heating system. It is designed for ~8 kWp of installed photovoltaic power. It operates with **standard heating elements** with an output of 2 - 2,5 kW for each of maximum 3 modules. The water is heated **solely by solar energy**, the grid is being used only to supply control and communication modules. The power section operates in **off-grid mode**, the photovoltaic section is **isolated from the ground**.

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 8 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.



BENEFITS

- Even more savings due to innovative technology
- High efficiency
- Suitable for any type of hot water tank
- Low roof load
- Efficient operation even during winter
- Easy and cost-efficient installation
- Fully autonomous system (even during power outage)
- Self-diagnostics
- Developed and produced in the Czech Republic
- Patented technology

APPLICATION AREAS

- Residential properties, hotels, guest houses
- Sports facilities
- Wellness centers, aquaparks
- Holiday facilities
- Restaurants

THE WEB APPLICATION DISPLAYS:

- Current production from panels
- Water temperature in the water tank
- Graphs of production and temperature in the water tank
- Chart history (daily, weekly, monthly overview / overview for the selected period)



Production graph for the selected period

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Technical data

Electric data (one photovoltaic power module)	
Input open circuit voltage (limits)	200 - 340 VDC
MPP tracking range	185 - 320 VDC
Maximum utilizable current	10 A
Maximum efficiency	99 %
Typical installed power	~2500 Wp per module

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

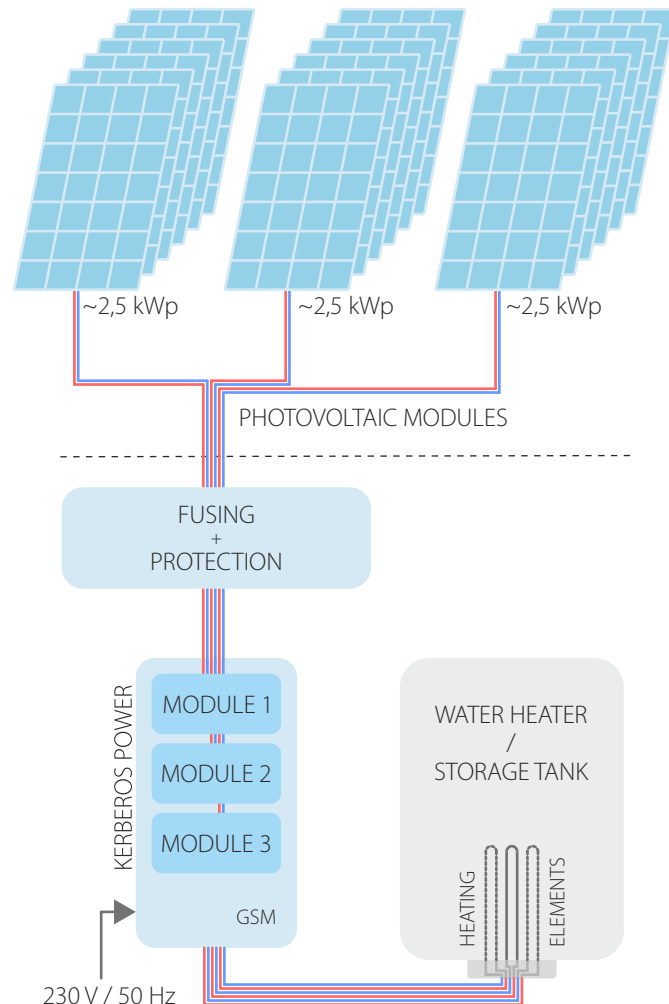
Electric data - electricity mains	
Input voltage	230 VAC / 50 Hz
Power consumption	< 5W

Heating elements	
Number of heating elements or independent sections	1 - 3 pcs
The performance of heater / section	2 - 2,5 kW
The possibility of using a three-phase body with separate sections	YES
The possibility of using separate single phase heating elements	YES
The possibility of using a three phase body with a common center	NO

Thermal regulator	
Setting range	10 - 85°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
Environmental dustiness	Dust particles volume max 0,75 mg/m ³
Chemical influence	Non aggressive

Construction parameters	
Measurements (height x width x depth)	498 x 210 x 270 mm
Weight	11,2 kg
Ingress protection	IP 20



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