

# PowerRouter PR50SB

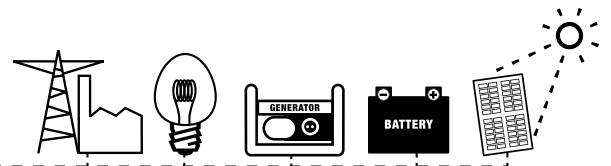
5 kW solar backup, on-grid and off-grid

Combine solar panels and batteries to an independent energy system. The PR50SB is the very heart of every on-grid and off-grid solar power system. No need for extra inverters, just connect solar, batteries, generators and loads. This simplified, all in one, efficient solution allows you to use your own solar energy for power consumption! Manage and control your energy via the internet portal. You're in charge!



## independently manage your power

- one unit for on-grid and off-grid applications
- compatible with all PV technologies, including thin film
- two independent MPP trackers
- integrated charge controller
- UPS functionality
- plug-in internet connection



## maximize your output

Maximize the power yield of your solar inverter by selecting the most cost effective energy mode. Feed-in, or for your own consumption.

Two wide range inputs with independent MPP trackers allow capture of the earliest sunshine.

Charge the batteries from the grid or with renewable energy. Switch over to off-grid mode within 20 msec. Start a generator when all other resources are depleted.

## you're in charge

Monitor and control your PowerRouter performance with the integrated data logging, capable of connecting directly to the Internet for remote monitoring and control.

Install new firmware with advanced features or perform updates remotely to keep your system up to date.

## all in one

Create a fully hybrid solar and wind-power solution within one enclosure. Simply extend your PowerRouter PR50SB by adding our wind module.

The modular PowerRouter creates a solution for a variety of on- and off-grid applications for various renewable energy sources.

# Specifications **PowerRouter PR50SB**

## Electrical

AC Output Voltage  
 Frequency  
 AC Output range (off-grid)  
 Continuous Output Power Watts at 40 °C (P nom).  
 AC output current  
 Protection  
 Standby losses  
 Display  
 Connectivity  
 UPS Switch over time

**230 Vac ± 2%**      **true sine wave < 5% THD, single phase**  
**50 Hz ± 0.2%**  
**180-254 Vac**      **45-55 Hz**  
**5000 Wac (4600 Wac for Germany)**  
**22 A (20 A for Germany)**  
**Electronic, fused**  
**6 W**  
**Integrated, 4 x 20 characters**  
**TCP/IP**  
**20 milliseconds**

## Solar Input

Solar Voltage  
 MPP Voltage  
 No. of strings  
 No. of MPP trackers  
 Max. Input  
 Max. Efficiency (EU)  
 MPP Efficiency  
 DC Disconnection

**150 - 600 Vdc + 5%**  
**100 - 450 Vdc**  
**2**  
**2, fully independent**  
**5.5 kWp and 15A per string**  
**94%**  
**99.9%**  
**Optional, 4-pole, 600V, 15A**

## Battery Input

Battery types  
 Battery Voltage Output Range (Vout)  
 Output Charge Current  
 Battery capacity  
 Charging curve  
 Short circuit protection  
 Multipurpose relay  
 Battery temperature compensation  
 Battery voltage sense

**Gel, AGM**  
**18 - 32 Vdc**  
**30 – 200 A continuous, programmable**  
**Min. 150 Ah, at 30 A charge current**  
**float or 3-stage adaptive with maintenance**  
**electronic, at max. charge current, switch off < 1 sec**  
**2, NO/NC, user adjustable, 250 Vac, 1 A, 24 Vdc, 5 A**  
**optional**  
**optional**

## Environmental

Operating Temperature Range (full power)  
 Storage Temperature  
 Humidity  
 Regulatory Approvals and Standards  
 Safety  
 Emission  
 Immunity  
 Anti Islanding Protection  
 Warranty

**-10 °C to 50 °C (de-rating from 40 °C)**  
**- 40°C to 70 °C**  
**Maximum 95% non-condensing**  
**CE**  
**EN 60950-1, EN 62109-1, EN 60335-1,-29, EN 62040-1**  
**EN 55014-1, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-3**  
**EN 55014-2,**  
**VDE 0126.1.1, G83/1(UK), RD1663/2000(ESP), other countries on request**  
**Five years**

## Mechanical

Device Dimensions (W x H x D)  
 Solar Connections  
 Weight  
 Protection Category  
 Cooling

**765 x 504 x 149 mm**  
**MC4**  
**20.5kg**  
**IP 21**  
**forced airflow**

## Connect & Grow Options

Solar Backup Wind Hybrid

## PR50SB +PRE50W



All specifications are subject to change without prior notice