PowerRouter Solar Battery
for feed-in with backup power supply

This PowerRouter is best suited for countries with feed-in or generation tariff programs where grid failures occur frequently. Integrated into a single compact unit, the PowerRouter feeds self-generated solar energy back into the grid, while ensuring that the battery remains full. During a grid failure, the PowerRouter switches over to Island mode and its fully charged batteries keep your loads energized. No extra inverters or cables are necessary. Simply connect solar panels, batteries and loads to the PowerRouter and start saving.

- available in 5.0kW, 3.7kW and 3.0kW versions
- integrated battery manager
- compact, easy to install, all-in-one system
- compatible with all modern PV technologies, including thin film
- 2 fully independent MPP trackers
- integrated backup power supply (“Local Out”)
- easy installation with built-in wizard
- integrated web-based monitoring & management

maximize your output
Maximize the yield of your solar power system by selecting the most cost-effective energy mode. The system has two wide-range inputs with fully independent MPP trackers to maximize yield and system configuration flexibility.

This revolutionary technology allows the PowerRouter to keep its battery full at all times, charging it either from the grid or from self-generated solar energy. Charging conditions can be adjusted to maximize the lifetime of the batteries.

backup power supply
The PowerRouter Solar Battery has a unique feature: it supplies backup power in the event of a grid failure. Unlike other inverters, the PowerRouter switches to Island mode when the grid fails. After a short delay it resumes operation, enabling its unique Local Out connection to supply a stable 230Vac power signal to your connected loads.

monitor & manage
When the PowerRouter is connected to the internet, the web portal myPowerRouter.com gives detailed system information (e.g. performance, profit, solar yield) on each PowerRouter unit. The PowerRouter can even be remotely updated with new firmware containing the latest features, so your system is always up to date.
## Specifications

### Grid
- **Continuous output power at 40 °C (P nom)**
- **AC output current**: PR50SB-BU 5000 Wac, PR37SB-BU 3700 Wac, PR30SB-BU 3000 Wac
- **AC output voltage (nominal)**: PR50SB-BU 22A, PR37SB-BU 16A, PR30SB-BU 13A
- **Protection**: ≤ 6W standby losses
- **User interface**: interactive display with 4-button operation
- **Connectivity**: ethernet RJ45, TCP/IP
- **Backup switch over time**: <1 second

### Solar
- **Max. Input**: PR50SB-BU 5.5 kWp and 15 A per string, PR37SB-BU 4 kWp and 15 A per string, PR30SB-BU 3.3 kWp and 15 A per string
- **No. of strings**: 2, PR50SB-BU, PR37SB-BU, PR30SB-BU
- **No. of MPP trackers**: 2, PR50SB-BU, PR37SB-BU, PR30SB-BU
- **DC Disconnection switch**: 4-pole, 600V, 15A
- **Solar Voltage**: PR50SB-BU 150 – 600 Vdc per string, PR37SB-BU 100 – 480 Vdc per string
- **MPP Voltage**: PR50SB-BU 150 – 600 Vdc per string, PR37SB-BU 100 – 480 Vdc per string
- **Solar Connections**: MC4
- **Max. Efficiency**: PR50SB-BU 94.5%, PR37SB-BU 99.9%

### Battery
- **Output charge current**: PR50SB-BU 25 - 200 A continuous, programmable, PR37SB-BU 25 - 155 A continuous, programmable, PR30SB-BU 25 - 125 A continuous, programmable
- **Battery types**: Gel, AGM, NiCd, Li-ion
- **Battery voltage output range (Vout)**: PR50SB-BU 18 – 32 Vdc, PR37SB-BU 18 – 32 Vdc, PR30SB-BU 18 – 32 Vdc
- **Battery capacity**: min. 100 Ah, at 25A charge current
- **Charging curve**: float or 3-stage adaptive with maintenance
- **Short circuit protection**: electronic, at max. charge current, switch off <1 sec
- **Multipurpose relay**: 2 (NO/NC, 250 Vac, 1 A, 24 Vdc, 5 A)
- **Battery temperature compensation**: included
- **Battery voltage sense**: included
- **Current shunt**: included

### Environmental
- **Operating Temperature Range (full power)**: PR50SB-BU -10 °C to +50 °C (derating from 40 °C), PR37SB-BU -40 °C to +70 °C, PR30SB-BU -40 °C to +70 °C
- **Storage Temperature**: maximum 95%, non-condensing
- **Humidity**: CE
- **Regulatory Approvals and Standards**: EN 60950-1, EN 62109-1, EN 60335-2-29
- **Safety**: EN 55014-1, EN 61000-3-2, EN 61000-3-3, EN 61000-6-3
- **Immunity**: EN 55014-2, EN 61000-6-2
- **Anti Islanding Protection**: VDE 0126.1.1, GB3/1(UK), RD1663/2000(ESP), DK5940 E.d. 2.2 (IT), AS4777(AUS)
- **Warranty**: five years (optional: extension to ten years)

### General
- **Dimensions (WxHxD)**: PR50SB-BU 765 x 502 x 149 mm, PR37SB-BU 765 x 502 x 149 mm, PR30SB-BU 765 x 502 x 149 mm
- **Protection Category**: PR50SB-BU IP 21
- **Weight**: PR50SB-BU 20.5 kg
- **Cooling**: galvanic isolated transformer