

PowerRouter Solar Inverter

generate and use your own solar energy

The PowerRouter Solar inverter is the perfect solution for all feed-in and self-use schemes. This compact, all-in-one system inverts the solar energy you generate and its integrated, web-based logging features allow you to remotely monitor your self-generated power. Thanks to its “connect & grow” capability, the PowerRouter can be easily expanded with batteries for storing energy. Not only does this provide backup during a power outage, it also allows you to optimize the use of your self-generated power during normal operation.



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



maximize your output

Maximize the yield of your solar generation system by selecting the most cost-effective energy mode, either feeding into the grid or directly using your self-generated energy (self-use).

The system has two wide-range inputs with fully independent MPP trackers to maximize yield and system configuration flexibility. This feature can accommodate two separate solar arrays at maximum string length and minimum installation costs.

backup power supply

The PowerRouter Solar Inverter 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. This backup works as long as there is sufficient solar power. For full backup, even at night, the PowerRouter can be easily expanded with a Battery Manager (“connect & grow”).

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.

Grid
Continuous output power at 40 °C (P nom)
AC output current
AC output voltage (nominal)
AC output range
Protection
Standby losses
User interface
Connectivity
Backup switch over time

PR50S/S0	PR37S/S0	PR30S/S0
5000 Wac (4600 Wac DE)	3700 Wac (3680 Wac DE/UK/PT)	3000 Wac
22A	16A	13A
230 Vac ± 2%, 50 Hz ± 0.2%, true sine wave <3% THD, single phase		
180-264 Vac 45-55 Hz (limited by local anti-islanding regulations)		
electronic, fused		
≤ 4W		
interactive display with 4-button operation		
ethernet RJ45, TCP/IP		
<1 second		

Solar
Max. Input
No. of strings
No. of MPP trackers
DC Disconnection switch
Solar Voltage
MPP Voltage
Solar Connections
Max. Efficiency
Max. MPP Efficiency

PR50S/S0	PR37S/S0	PR30S/S0
5.5 kWp and 15 A per string	4 kWp and 15 A per string	3.3 kWp 15 A
2	2	1
2, fully independent	2, fully independent	1
4-pole, 600V, 15A	4-pole, 600V, 15A	2-pole, 600V, 15A
150 – 600 Vdc per string		
100 – 480 Vdc per string		
MC4		
94.5%		
99.9%		

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

PR50S/S0	PR37S/S0	PR30S/S0
-10 °C to +50 °C (derating from 40 °C)		
-40 °C to +70 °C		
maximum 95%, non-condensing		
CE		
EN 60950-1, EN 62109-1		
EN 55014-1, EN 61000-3-2, EN 61000-3-3, EN 61000-6-3		
EN 55014-2, EN 61000-6-2		
VDE 0126.1.1, G83/1(UK), RD1663/2000(ESP), DK5940 E.d. 2.2 (IT), AS4777(AUS)		
(check www.PowerRouter.com for other country certifications)		
five years (optional: extension to ten years)		

General
Dimensions (WxHxD)
Protection Category
Weight
Topology
Cooling

PR50S/S0	PR37S/S0	PR30S/S0
545 x 502 x 149 mm		
IP 21		
15.5 kg		
galvanic isolated transformer		
forced airflow		

Connect & Grow Options

PowerRouter Solar Inverter + Battery Manager



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