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.

Specifications **PowerRouter Solar Inverter**

Grid	PR50S/S0	PR37S/S0	PR30S/S0
Continuous output power at 40 °C (P nom)	5000 Wac (4600 Wac DE)	3700 Wac	3000 Wac
AC output current	22A	16A	13A
AC output voltage (nominal)	230 Vac ± 2%, 50 Hz ± 0.2%, true sine wave <3% THD, single phase		
AC output range	180-264 Vac 45-55 Hz (limited by local anti-islanding regulations)		
Protection	electronic, fused		
Standby losses	≤ 4W		
User interface	interactive display with 4-button operation		
Connectivity	ethernet RJ45, TCP/IP		
Backup switch over time	<1 second		

Solar	PR50S/S0	PR37S/S0	PR30S/S0
Max. Input	5.5 kWp and 15 A per string	4 kWp and 15 A per string	3.3 kWp 15 A
No. of strings	2	2	1
No. of MPP trackers	2, fully independent	2, fully independent	1
DC Disconnection switch	4-pole, 600V, 15A	4-pole, 600V, 15A	2-pole, 600V, 15A
Solar Voltage	150 – 600 Vdc per string		
MPP Voltage	100 – 480 Vdc per string		
Solar Connections	MC4		
Max. Efficiency	94.5%		
Max. MPP Efficiency	99.9%		

Environmental	PR50S/S0	PR37S/S0	PR30S/S0
Operating Temperature Range (full power)	-10 °C to +50 °C (derating from 40 °C)		
Storage Temperature	-40 °C to +70 °C		
Humidity	maximum 95%, non-condensing		
Regulatory Approvals and Standards	CE		
Safety	EN 60950-1, EN 62109-1		
Emission	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, G83/1(UK), RD1663/2000(ESP), DK5940 E.d. 2.2 (IT), AS4777(AUS) (check www.PowerRouter.com for other country certifications)		
Warranty	five years (optional: extension to ten years)		

General	PR50S/S0	PR37S/S0	PR30S/S0
Dimensions (WxHxD)	545 x 502 x 149 mm		
Protection Category	IP 21		
Weight	15.5 kg		
Topology	galvanic isolated transformer		
Cooling	forced airflow		

Connect & Grow Options

PowerRouter Solar Inverter + Battery Manager

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