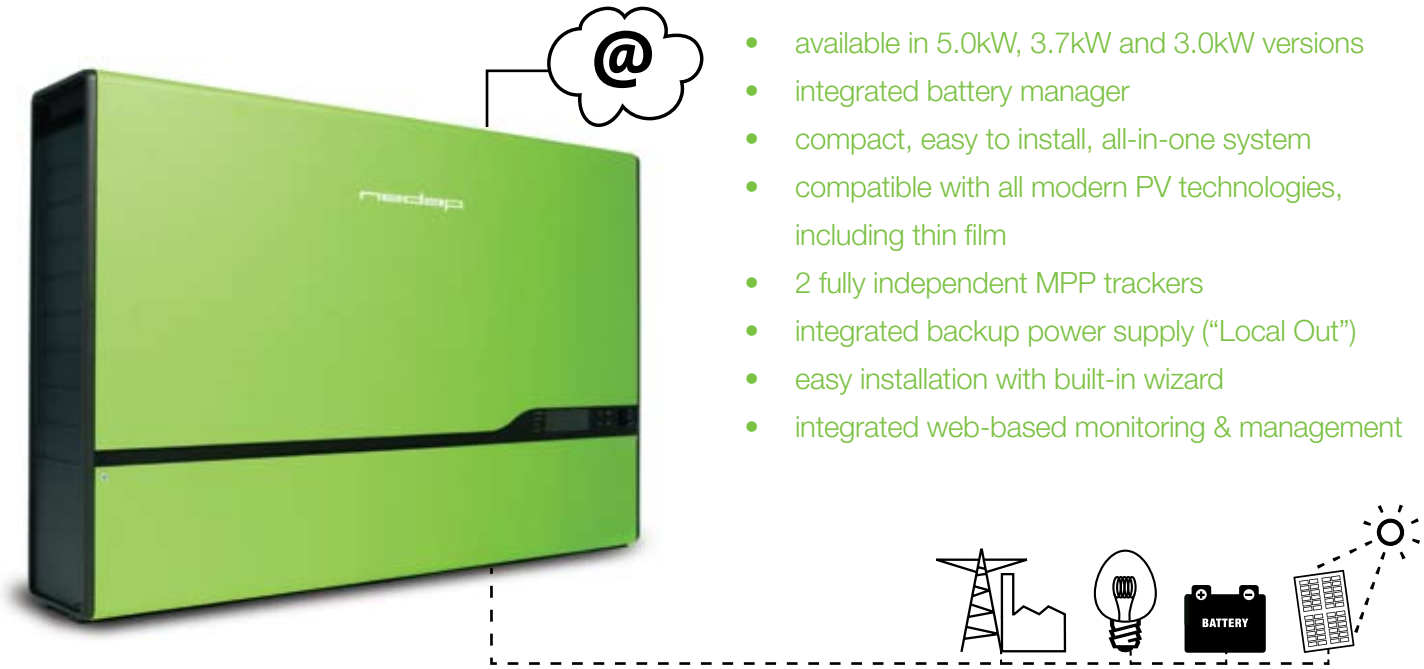
PowerRouter Solar Battery

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 **PowerRouter Solar Battery**

Grid	PR50SB-BU	PR37SB-BU	PR30SB-BU
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	≤ 6W		
User interface	interactive display with 4-button operation		
Connectivity	ethernet RJ45, TCP/IP		
Backup switch over time	<1 second		

Solar	PR50SB-BU	PR37SB-BU	PR30SB-BU
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%		

Battery	PR50SB-BU	PR37SB-BU	PR30SB-BU
Output charge current	25 - 200 A continuous, programmable	25 - 155 A continuous, programmable	25 - 125 A continuous, programmable
Battery types	Gel, AGM, NiCd, Li-ion		
Battery voltage output range (Vout)	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	PR50SB-BU	PR37SB-BU	PR30SB-BU
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, EN 60335-2-29		
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	PR50SB-BU	PR37SB-BU	PR30SB-BU
Dimensions (WxHxD)	765 x 502 x 149 mm		
Protection Category	IP 21		
Weight	20.5 kg		
Topology	galvanic isolated transformer		
Cooling	forced airflow		

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