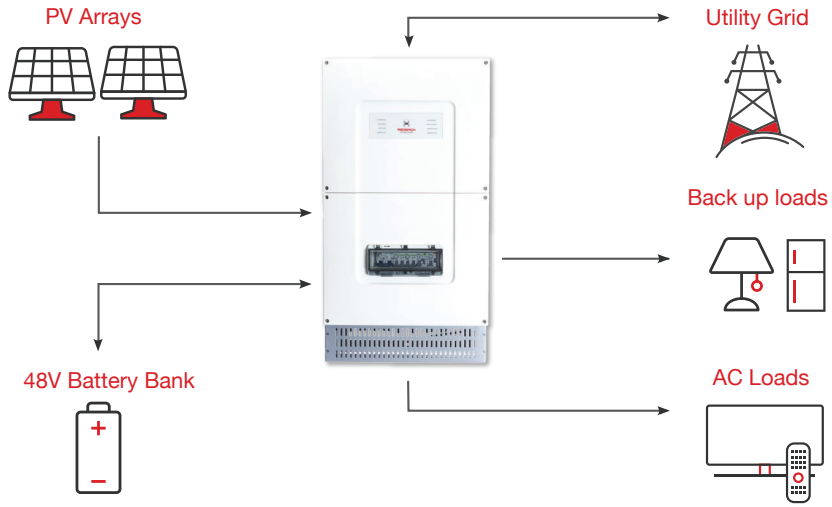
REDBACK TECHNOLOGIES

Gen 1.1

Smart Hybrid Solar Inverter System

- **UPS/battery backup** in one robust unit
- **Easy to mount**, configure and quick installation
- **Export control** that can be managed according to local grid regulations
- **Wi-Fi, generation, and consumption** monitoring included – no external devices required
- **IP65 outdoor unit** with unparalleled charge and discharge capabilities
- **Intelligent system** that maximises self-consumption and provides market leading return on investment
- **Ouija board** with cloud based control and programmable relays

About the tech



Redback App

Configure and monitor the current energy output of your customers' Smart Hybrid Solar Inverter System.

For more information please call our distributor Sonepar Solar + Solutions **1300 255 410** or visit **www.redbacktech.com**

Smart Hybrid Solar Inverter System

Solar Array	SH4600
Recommended maximum solar array DC power	6.0kW
Number of solar array inputs	2 (individual maximum power point tracking)
Maximum DC open circuit voltage	580V DC
MPPT operating range	125-550V DC
Starting voltage	125V DC
Maximum DC input current (for each solar array input)	11A DC
Overcurrent protection (for each solar array input)	20A DC
Input connectors	Amphenol H4
Residual current and insulation monitoring	Integrated
Utility Interface	
Nominal AC voltage/frequency	230V AC, 50Hz, single phase
Continuous AC power rating	4600W AC
Maximum AC power to utility grid	4600W AC
Maximum AC current to utility grid	20A AC
Maximum AC current from utility grid	40A AC
Nominal AC output range	180 to 270V AC, 45 to 55Hz (adjustable)
Current THD	Less than 1.5%
Power factor	0.8 leading to 0.8 lagging (adjustable)
AC overvoltage category	Category III
Anti-islanding and AC overcurrent protection	Integrated
Inverter topology	Transformerless (with HF transformer isolation for battery)
Battery Interface	
Nominal DC voltage	48V DC
Battery compatibility	Lithium, flow or lead acid
Maximum charging and discharge power (from battery)	4600W DC
Maximum charging current	50A DC
Maximum discharging current	100A DC
Battery charging method	Three stage (adaptive with maintenance charging)
Typical charging voltage (bulk/absorption phase)	57.0V DC
Battery disconnect	Integrated 125A DC breaker (2 pole)
Back Up Loads Output	
Nominal AC voltage/frequency	230V AC, 50Hz, single phase
Continuous AC power rating	4600W AC (derate over 45°C ambient)
Maximum AC power rating	6900W AC (10 seconds maximum)
Maximum AC current	20A continuous, 30A for 10 seconds maximum
Voltage THD	Less than 3.0% (with linear loads)
Back-up loads AC disconnect & residual current leakage protection	Integrated combined 32A MCB & RCD
Manual back-up load AC bypass switch	Integrated
Efficiency	
Maximum efficiency (to utility grid)	97.6%
European averaged efficiency	97.0%
Maximum power point tracking efficiency	99.9%
Efficiency (powering loads from battery)	90% typical
Standby losses	Less than 8W AC
General Data	
Dimensions (W x H x D)	516 mm x 950 mm x 278 mm
Mounting and weight	Wall (mounting plate included), 40kg
Ambient temperature range	-25 to 60°C (derate above 45°C)
Relative humidity	0 to 100%
DC overcurrent category	Category II
Moisture location category	4K4H
Environmental protection rating	IP65
Cooling	Natural convection
Noise emissions	Less than 25dB
Warranty	5 years
User Interface	
Front panel display	Multi-colouring LED indicators
Communications	Integrated WiFi + ethernet for smartphone and web monitoring
Software	Web and android/iOS application
Power/energy monitoring	Includes grid meter with clip-on 120A AC sensor
Ouija Board	
Signal relay outputs	4
DRM modes	0-8
Remote firmware updates	Supported

Grid regulation compliance: AS4777.2, AS4777.3 Safety certification: AS3100, IEC62109-1, IEC62109-2, IEC62040-1