



robust powder coated zinc anneal housing

The **power solutions australia** Grid Interactive inverters provide a means of directly connecting dc renewable sources such as solar photovoltaic arrays and small wind turbines to the electricity grid. Grid connection ensures that all renewable energy generated can be utilised.

The Solar Grid Interactive inverter uses similar hardware and software as our remote area power systems with solar panels to be directly connected to the dc side of the inverter. Provided the grid supply is present and in tolerance the inverter starts when solar power becomes available. It controls the voltage presented to the panels to optimise power output and supplies AC power to the network. When the array output falls below the level required to meet inverter losses the inverter shuts down until isolation rises sufficiently to justify restarting the inverter.

The inverter automatically synchronises with the network, no additional controls are required. The inverter will shut down if the network supply fails either to short circuit or an open circuit or if the voltage or frequency of the network falls out of tolerance.



# Specifications 10-15kW

## Model

Input voltages available  
 Output voltage and frequency  
 MPPT working range  
 Continuous output @40C  
 ½ hour @ 40C ambient  
 1 hour @ 40C ambient  
 Peak efficiency/  
 Power factor range  
 Off line losses  
 Output isolation  
 Indicators  
 Weight Kg  
 Cooling  
 Data Logging  
 Internal/DC cct breaker  
 Remote access RS232

	SGI-10-110	SGI-12-110	SGI-15-110
Input voltages available	110VDC	110VDC	110VDC
Output voltage and frequency	240V 50/60	240V 50/60	240V 50/60
MPPT working range	105-155VDC	105-155VDC	105-155VDC
Continuous output @40C	10kW	12kW	15kW
½ hour @ 40C ambient	13kW	15.6kW	19.5kW
1 hour @ 40C ambient	12kW	12kW	18kW
Peak efficiency/	>94%	>93%	>93%
Power factor range	0-1	0-1	0-1
Off line losses	12W	13W	14W
Output isolation	cct breaker	cct breaker	cct breaker
Indicators	LED & LCD	LED & LCD	LED & LCD
Weight Kg	160 Kg	160 Kg	210 Kg
Cooling	5 x fans	5 x fans	5 x fans
Data Logging	yes	yes	yes
Internal/DC cct breaker	yes	yes	yes
Remote access RS232	yes	yes	yes

### Common to all units

- Automatic Bypass: All load supply maintained by generator automatically if the inverter is off-line.
- Data Logging Remote Access: Standard data logging and remote access via modem, satellite, GSM, and CDMA technology.
- Cooling: Convection and thermostatically controlled fans.
- Enclosures: Electronics IP50, transformer and heatsink IP23. Weatherproof enclosures or rack mounting are available on request.
- Protection: Over current trip, over voltage, over temperature, reverse polarity, fast electronic trip, transient over voltage protection.

Standards: All Inverters are designed to AS3100/AS2604/AS61000.3.5 and the draft AS/NZ standard for grid connected inverters.



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