



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 falls either to short circuit or an open circuit or if the voltage or frequency of the network falls out of tolerance.



## Specifications

# 3-6 kW

### Model

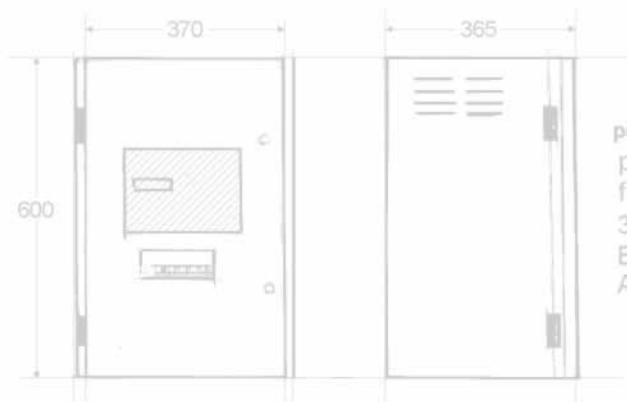
Input voltages nominal  
 Operating DC Voltage range  
 Input voltage and frequency  
 MPPT working range  
 Continuous output @40C  
 ½ hour @ 40C ambient  
 1 hour @40C ambient  
 Peak efficiency/  
 Load power factor range  
 Off line losses  
 Integrated output isolation  
 Indicators  
 Weight Kg

	SGI-3-110	SGI-4-110	SGI-5-110	SGI-6-110
Input voltages nominal	110V	110V	110V	110V
Operating DC Voltage range	98-156	98-156	98-156	98-156
Input voltage and frequency	240V 50/60	240V 50/60	240V 50/60	240V 50/60
MPPT working range	105-155VDC	105-155VDC	105-155VDC	105-155VDC
Continuous output @40C	3kW	4kW	5kW	6kW
½ hour @ 40C ambient	4kW	5.2kW	6.5kW	7.8kW
1 hour @40C ambient	3.6kW	4.8kW	6kW	7.2kW
Peak efficiency/	>94%	>94%	>94%	>94%
Load power factor range	0-1	0-1	0-1	0-1
Off line losses	<10W	<10W	<15W	>15W
Integrated output isolation	cct breaker	cct breaker	cct breaker	cct breaker
Indicators	LED & LCD	LED & LCD	LED & LCD	LED & LCD
Weight Kg	70 Kg	70 Kg	70 Kg	70 Kg

### 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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