

SGI

solar grid interactive
sine wave inverter

3 phase 12.5-75kW



Solarhat solar concentrator, Rotherham, Western Australia



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.

power solutions australia
state of the art



Specifications 3 ϕ 12.5-75kW

Model

Input voltages*	120VDC	120VDC	240VDC	360VDC	600VDC
Operating DC voltage	110-360	110-360	220-360	300-380	500-700
Continuous output @40C	12.5kW	22kW	30kW	50kW	75kW
1/2 hour @40C ambient	16.25kW	28.6kW	39kW	65kW	97.5kW
1 hour @40C ambient	14.4kW	26.4kW	36kW	60kW	90kW
Surge	25kW	44kW	60kW	100kW	125kW
Peak efficiency	>90%	>90%	>93%	>94%	>96%
Power factor range	0-1	0-1	0-1	0-1	0-1
Total harmonic distortion	<4%	<4%	<4%	<4%	<4%
Standby	<30W	<50W	<50W	<50W	<50W
Integrated isolation	cct breaker	cct breaker	cct breaker	cct breaker	cct breaker
Indicators	LED & LCD	LED & LCD	LED & LCD	LED & LCD	LED & LCD
Weight Kg	270-300 Kg	270-300 Kg	270-300 Kg	270-300 Kg	65 Kg no trans.
Size (mm) WHD	700 1100 500	700 1100 500	700 1100 500	700 1100 500	700 1100 500

APSGI-12-120-3	APSGI-22-120-3	APSGI-30-240-3	APSGI-50-360-3	APSGI-75-600-3
120VDC	120VDC	240VDC	360VDC	600VDC
110-360	110-360	220-360	300-380	500-700
12.5kW	22kW	30kW	50kW	75kW
16.25kW	28.6kW	39kW	65kW	97.5kW
14.4kW	26.4kW	36kW	60kW	90kW
25kW	44kW	60kW	100kW	125kW
>90%	>90%	>93%	>94%	>96%
0-1	0-1	0-1	0-1	0-1
<4%	<4%	<4%	<4%	<4%
<30W	<50W	<50W	<50W	<50W
cct breaker	cct breaker	cct breaker	cct breaker	cct breaker
LED & LCD	LED & LCD	LED & LCD	LED & LCD	LED & LCD
270-300 Kg	270-300 Kg	270-300 Kg	270-300 Kg	65 Kg no trans.
700 1100 500	700 1100 500	700 1100 500	700 1100 500	700 1100 500

Common to all units

- 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.
- *All units available with nominal DC input voltages from 110 to 650VDC on application
- All units available with nominal AC output voltages (phase-phase 3 wire) of 415, 400, 380, 208VAC, 50 or 60Hz.

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



power solutions australia
 p. 61 3 9762 0757
 f. 61 3 9762 0715
 3/6 Holloway Drive,
 Bayswater, Victoria
 Australia 3153
 mail@powersolution.com.au

