

Grid Connect GC Inverters - small/medium power

BP Solar's Grid Connect (GC) inverters, by SMA, are one of the worlds most popular grid connect inverters. The range, made for BP Solar, incorporate several outstanding features making these one of the most robust, user friendly inverters for grid connect applications on the market today.

Widely Used

Due to their outstanding features, thousands of GC inverters have been used by BP Solar in projects such as

- Athletes Village in Sydney,
- BP's Plug in the Sun solar service station program,
- Olympic boulevard lighting towers,
- Queen Victoria markets in Melbourne,
- for many years in domestic homes and corporate solar electric systems around the world.

With the introduction of new models, the range has now become even larger and now includes higher levels of performance and even more features.

Technically Outstanding

The inverter range is ideally suited for use where efficiency, safety, ease of connection and a high degree of environmental protection is required. Housed in an attractive outdoor water and dust proof, powder coated stainless steel chassis, the inverters can be mounted in a variety of locations, providing maximum flexibility in system design. The range is available with a wide input voltage window, allowing solar arrays from 840W to 3kW to be connected in a variety of configurations. The inverters now feature an LCD display as standard, which provides a wealth of information on solar system and inverter performance.

Key Features:

Standard Features

- IP65 stainless steel chassis
- Advanced Maximum Power Point Tracking
- Extended temperature range (-25°C to +60°C)
- Integrated diagnostic functions
- MC[®] plug and socket DC connectors
- Efficiency >94% even with low input power
- Backlit 2-line display lid
- 5 year warranty

Options Include:

- SolarSight remote wireless display
- RS232 or RS485 communications interface
- Multiple inverter data acquisition / logger and control interface (Sunny Boy Controller or Sunny WebBox) for up to 50 inverters
- Free PC software to communicate direct to the inverter or a Sunny Boy Controller
- 10 year warranty



GC range of inverters



Small sized system



Medium sized system using multiple inverters ⁽⁶⁾



Options of a Sunny Boy Controller or SolarSight

Grid Connect GC Inverters - Technical Specifications - small/medium power

Model	SB1100	SB1700	SB2500
Electrical input values			
Recommended maximum array (Wp):	1350	2100	3000
Maximum input DC power (W):	1210	1890	2700
Maximum DC voltage (V DC):	400	400	600
Input DC voltage range (V DC) ⁽¹⁾ :	139-400	139-400	224-550
DC voltage threshold to begin exporting (V DC)	180	180	300
Maximum input current (I _p max) (A):	10	12.6	12
DC disconnect:	n/a	n/a	Electronic Solar Switch (ESS)
DC cable connection:	Safe to touch MC [®] connectors		
Surge protection:	Thermally monitored varistors on DC side		
Earth fault monitoring:	Standard feature		
Reverse polarity protection:	Short circuit diode		
Electrical output values			
Nominal output power P _{AC} (W):	1000	1550	2300
Peak AC power (W) ⁽²⁾ :	1100	1700	2500
Total harmonic distortion of output current ⁽³⁾ :	< 4%	< 4%	< 4%
Grid AC voltage default range (V AC):	205 to 265		
Grid AC voltage programmable range (V AC):	180 to 265		
Grid frequency range (Hz):	49.8 to 50.2		
Grid frequency programmable range (Hz):	45.5 to 54.5 (50 Hz)		
General data			
Maximum efficiency:	93%	93.5%	94.1%
Weight (approx) (kg)	21	28	30
Size (W x H x D) (mm):	322 x 320 x 180	340 x 295 x 214	340 x 295 x 214
Ambient temperature:	- 25°C to 60°C		
Ambient humidity (non condensing)	0 to 100%		
Environmental protection classification:	IP65		
Display / communication options ⁽⁴⁾	LCD display cover is standard, options of RS 485, RS 232		
Certifications / compliances (Australia only) ⁽⁵⁾	AS 4777, Certificate of Suitability, C-Tick		
Standard warranty:	5 years (optional 10 years)		

Notes

1. Lower limit dependant on grid AC voltage.
2. AC power output derating can occur with higher temperatures as a protective function of the inverter.
3. Total harmonic distortion of output current (with K_{Vgrid} AC <2%, and P_{AC} > 0.5 P_{AC nom.}).
4. One other communication option can be combined with the standard display cover.
5. Contact BP Solar for international equivalents.
6. Image courtesy of University of New South Wales and Solar Technology Australia.

This publication summarises product warranty and specifications, which are subject to change without notice and should not be used as the definitive source of information for the final system design. Additional warranty and technical information may be obtained from your local BP Solar representative or by calling 1800 802 762 in Australia.