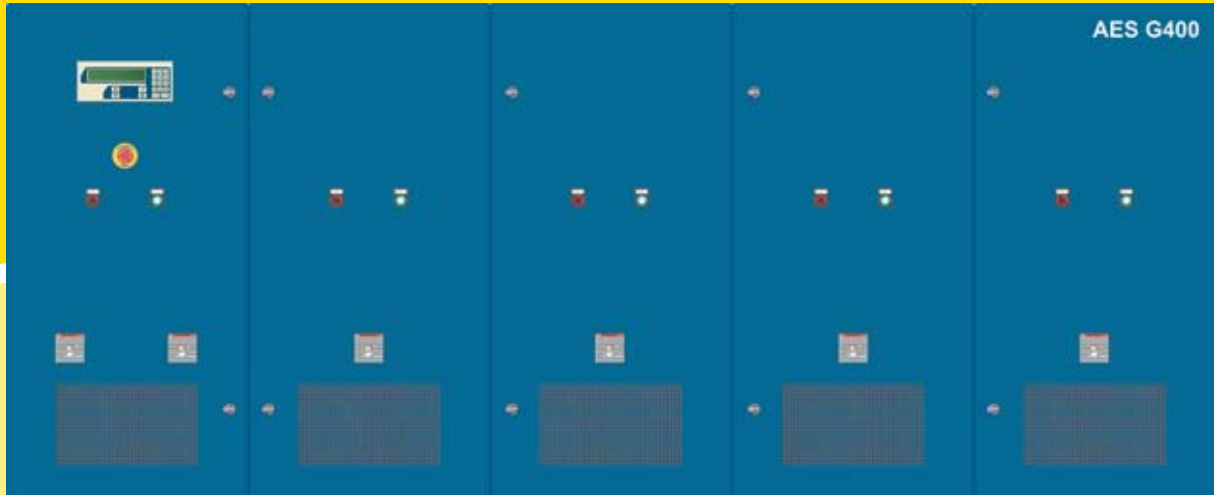


Technical Specifications

SunEnergy - Grid Connect



SunEnergy Solar Inverters

SunEnergy Environmentally Hardened Solar Inverters are designed for the extreme temperatures of Australian deserts, the heat and humidity of Asia and the freezing conditions of North American winters – we build rugged inverters for the harshest environments on earth. At SunEnergy, we pioneered the design and development of large solar inverters to power entire remote communities and remote installations. Our products meet or exceed stringent military specifications with field hardened operating specifications of -20°F to + 140°F.

SunEnergy Intelligent Architecture

SunEnergy solar inverters have many embedded processors that manage sophisticated data logging, diagnostics and peer-to-peer communications providing unparalleled reliability and performance.

SunEnergy solar inverters collect and archive data to manage and report on solar systems status, energy metering, solar tracking, site access, self diagnostic results, inverter load sharing statistics, as well as user specified digital and analogue inputs.

Our system controllers use intelligent stage management to only operate sufficient power blocks to meet the immediate user current requirements. This architecture guarantees optimal efficiency, maximises system reliability and results in extended equipment life.

SunEnergy inverters use multiple maximum power point (MMPT) tracking algorithms to ensure that power delivery is efficient and reliable.

SunEnergy client inverters are monitored 365X24 by the SunEnergy Network Management Centre.

SunEnergy Performance

We have successfully designed and built inverters for over twenty (20) years. The world's most demanding clients, including power utilities and every branch of the U.S. Military use SunEnergy solar inverters.

SunEnergy solar inverters are your guarantee of performance. We offer high-energy conversion efficiencies, resource scheduling, maximum uptime and low cost of ownership.



MODEL		AES G40	AES G250	AES G500	AES G750	AES G1000
DC Input						
Recommended max PV power	kW	50	300	600	1000	1250
MPPT voltage window	V	260...590				
Maximum open circuit voltage	V	600				
Number of input circuits		4	4	6	12	12
Maximum DC current per circuit	A	50	300	400	300	400
Array grounding configuration		Floating or monopole grounded				
AC Output						
Rated AC output power @ 40°C	kW	40	250	500	750	1000
Rated AC output power @ 60°C	kW	32	200	400	600	800
Operating grid voltage	V	400/480±15% 3P+NE				
Operating current	A	20	120	240	360	480
Power factor		>0.98 or remote reactive power control option				
Frequency	Hz	50/60±3				
Current THD		<3%				
Rated elevation	m	1000				
Protection						
Anti islanding		Passive and Active methods				
Excess input power		DC operating point control				
Overcurrent		Breakers on AC, Fuses for DC input				
Surge protection		MOV protection on DC and AC power inputs/ outputs				
System						
Night losses	W	<20W	<50W	<50W	<100W	<100W
Maximum efficiency	%	95%	96%	96%	96%	96%
Transformer configuration		Internal	Internal	External	External	External
Ambient temperature	°C	-20°C...60°C				
Enclosure protection		Outdoor rated				
Humidity	%	0...95% non condensing				
Dimensions [W x H x D]	mm	1600x1600x600	2200x2100x800	2200x1800x800	2200x2100x800	2 of 2200x1800x800
Weight	kg	600	1900	1400	1800	2800
User Interface						
Display/keypad		4x40 LCD with numeric and function keypad				
Data communications		RS232 or USB, Modbus protocol				
Logging		internal 4Mbyte storage				
External parameter interface		optional interface for array and ambient temperature plus solar radiation				
Web enabled		optional				