

HYBRID INVERTER GEM SERIES



WE MAKE THINGS WORK THE WAY YOU WISH THEY WOULD.

- Continuous operation during grid blackouts (built-in emergency power supply)
- Water and dust proof design (IP65 rated)
- Extremely low noise (no fan)
- Exceptional max. efficiency of 97.10%
- Remote monitoring (Wi-Fi / hard-wired) via user-friendly App
- Off-site remote control of inverter via SCADA technology
- Wide voltage range
- Flexible export restriction mode
- Full demand response mode (DRM-Compliant)
- Engineered to maximise performance of Sapphire Solar Batteries
- 5 year warranty



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SPECIFICATIONS	GEM 5000
Input Data (DC)	
Max. DC power	5400W
Max. DC voltage	600V
Start voltage	100V
DC nominal voltage	360V
PV voltage range	100V-600V
MPPT voltage range	120V-550V
Max. input current per string of tracker A/tracker B	11A/11A
Number of independent MPPT inputs	2
Output Data (AC)	
Nominal AC output power	5000W
Max.AC apparent power	5000VA
Max. output current	22.8A
AC nominal voltage; range	220V/230V/240V; 180V-280V
AC grid frequency; range	50,60Hz;+5 Hz
Power factor at rate power	1
Power factor	0.8leading...0.8lagging
THDi	<3%
AC connection	Single phase
Battery	
Battery type	LifePO ₄
Nominal voltage	51.2V
Battery capacity	≥100Ah(depending requirement)
Energy	5.0kWh
Max.discharging/charging power	2500W / 2500W
Charging curve	3-stage adaptive with maintenance
Operating voltage range	46V-57V
Max.charging/discharging current	50A / 50A
Backup Output	
Output rate power	2300VA
Peak power	3450VA, 10s
Output voltage	230V±2%, 50Hz (60Hz Optional)±0.2%, THDv<=3%[linear load]
Efficiency	
Max.efficiency	97.10%
Euro - eta	96.50%
MPPT efficiency	99.50%
Protection Devices	
DC reverse polarity protection	Yes
DC switch rating for each MPPT	Yes
Output over current protection	Yes
Output overvoltage protection-varistor	Yes
Ground fault monitoring	Yes
Grid monitoring	Yes
Integrated all - pole sensitive leakage current	Yes
Monitoring unit	
General Data	
Dimensions (W/H/D)	495/420/165mm
Weight	24kg
Operating temperature range	-25...+60°C [-13... + 140°F] With derating above 45°C [113°F]
Noise emission (typical)	<25 dB(A)
Altitude	Up to 2000m (6560ft) Without power derating
Relative humidity	95%
Consumption: operating (standby) / night	<5W / <0.5W
Topology	Transformerless
Cooling concept	Natural
Environmental Protection Rating	IP65
Features	
DC connection	H4/MC4
AC connection	Screw terminal
Display	LED

*Warranty valid when inverter is used in accordance with specified warranty conditions