

Off-Grid Solar Inverter GP-SM SERIES

500W ~ 3000W (with isolated transformer)

PF = 1



Features

- High reliability: adopt high-speed DSP control system, combine advanced SPWM technology and high-speed power MOS
- Operating mode selectable: energy storage priority or power supply priority
- No PID attenuation damage for solar panels to ensure their service life
- Flexible battery management system: auto switch three-stage charging mode shortens recharge time; wide charging current is selectable according to configured battery; flexible DOD (Depth of discharge) is settable to meet more applications
- AC input with effective online synchronous stabilizing technology
- No-load auto shutdown function (optional)
- Automatic frequency selection
- Auto Power-On/Off function; real-time monitoring, test and intelligent startup / shutdown by RS232 or USB interface communicating with PC; remote monitoring by optional SNMP networks

Specifications

MODEL	GP-SM 500	GP-SM 1000	GP-SM 2000	GP-SM 3000
Rated power	500 W	1000 W	2000 W	3000 W
Battery voltage	12 Vdc	24 Vdc	48 Vdc	
PV INPUT				
Max. input voltage (Voc)	60 Vdc	100 Vdc	150 Vdc	
Optimum operating voltage (Vmp)	16 ~ 48 Vdc	33 ~ 80 Vdc	65 ~ 120 Vdc	
Max. charging current	50 A		65 A	
Recommended PV configuration	700 W	1400 W	2800 W	3500 W
AC INPUT				
AC input range (bypass mode)	0 ~ 132 Vac / 0 ~ 264 Vac (high-end limit)			
Rated input voltage	100 Vac / 110 Vac / 115 Vac / 120 Vac or 200 Vac / 220 Vac / 230 Vac / 240 Vac ± 25%			
Rated Input frequency	50 Hz / 60 Hz ± 5 Hz (auto-sense)			
Max. charging current	20 A			30 A
INVERTER OUTPUT				
Output voltage	100 Vac / 110 Vac / 115 Vac / 120 Vac ± 2% or 200 Vac / 220 Vac / 230 Vac / 240 Vac ± 2% settable			
Rated output power	500 W	1000 W	2000 W	3000 W
Power factor	1			
Rated output frequency	50 Hz / 60 Hz ± 1%			
Waveform	Sinusoidal			
Max. efficiency (resistive load)	≥ 78%	≥ 82%	≥ 85%	≥ 85%
Sleep mode	Settable (< 3% load) access in ≤ 2 min			
Output voltage harmonic	≤ 3% (linear load)			
BATTERIES				
Charging current	5 ~ 50 A settable			5 ~ 65 A settable
DOD	9.6 ~ 13.0 Vdc / cell (settable), 10.8 Vdc / cell (default)			
EOD	9.6 ~ 11.5 Vdc / cell (settable), 10.2 Vdc / cell (default)			
Equalizing charge voltage	13.6 ~ 15.0 Vdc / cell (settable), 14.1 Vdc / cell (default)			
Floating charge voltage	13.2 ~ 14.6 Vdc / cell (settable), 13.5 Vdc / cell (default)			
Restoration point of overvoltage	15.5 Vdc	31.0 Vdc	62.0 Vdc	
OTHERS				
Transfer time	3 ~ 6 ms (typical); ≤ 10 ms (max.)			
Overload (linear load)	105% for 5 mins, 110% for 2 mins, 125% for 1 min, 150% for 10 s, 180% for 1 s			
ECO mode (optional)	Load < 3% (settable), Yes / No settable			
No-load shutdown (optional)	Load < 3% ~ 50%, Yes / No settable			
Load adaptation	Inductive load: ≤ 30%; capacitive load: ≤ 50%; resistive load: ≤ 100%			
Protections	Output overload - short-circuit - overdischarge - overcharge - battery reverse polarity - PV reverse polarity			
Lightning protection	Class III			
Communications	RS232 / USB / RS485 ; SNMP / WiFi / Bluetooth (optional)			
Standards	IEC62040, IEC / EN 61000			
IP rating	IP21			
Display	LCD & LED			
Operating temperature	0°C ~ 40°C			
Relative humidity	≤ 93%			
Noise	< 50 dB			
Dimensions (W × D × H) (mm)	480 × 380 × 202			480 × 380 × 217
Packaged dimensions (W × D × H) (mm)	545 × 458 × 278			545 × 458 × 295
Net weight (kg)	17	18.8	27.7	35
Gross weight (kg)	18	19.8	28.7	36

● All specifications subject to change without notice.