Off-Grid Solar Inverter

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	GF500	GF1000	GF2000	GF3000
Rated power	500 W	1000 W	2000 W	3000 W
Battery voltage	12 V	24 V	48 V	
PV INPUT				
Max. input voltage (Voc)	30 V (standard) / 60 V (optional)	60 V (standard) / 120 V (optional)	95 V (standard) / 180 V (optional)	
Optimum operating voltage (Vmp)	15 ~ 23 Vdc (standard) / 15 ~ 45 Vdc (optional)	30 ~ 46 Vdc (standard) / 30 ~ 90 Vdc (optional)	60 ~ 75 Vdc (standard) / 60 ~ 140 Vdc (optional)	
Max. charging current	50 A	50 A	50 A	65 A
Recommended PV configuration	700 W	1400 W	2800 W	3500 W
AC INPUT				
AC input range (bypass mode)	0 ~ 156 Vac / 0 ~ 312 Vac (high-end limit)			
Rated input voltage	100 V / 110 V / 115 V / 120 Vac or 200 V / 220 V / 230 V / 240 Vac			
Rated Input frequency	50 Hz / 60 Hz ± 5 Hz (auto-sense)			
Max. charging current	1 ~ 20 A settable	20 A settable	30 A settable	
INVERTER OUTPUT				
Output voltage	100 V / 110 V / 115 V /120 Vac ± 2% or 200 V / 220 V / 230 V / 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%			
Max. efficiency (resistive load)	⩾ 78%	⩾ 82%	⩾ 85%	⩾ 85%
Sleep mode	Settable (< 3% load) access in ⩽ 2 min			
Output voltage harmonic	⩽ 3% (linear load)			
BATTERIES				
DOD	1.75 ~ 2.2 V, default 1.8 V / cell			
EOD	VRLA AGM battery: 1.60 ~ 2.0 V, default 1.75 V / cell			
Equalizing charge voltage	VRLA AGM battery: 2.3 ~ 2.5 V, default 2.35 V / cell			
Floating charge voltage	VRLA AGM battery: 2.2 ~ 2.3 V, default 2.27 V / cell			
Restroration point of overvoltage	15.5 V	31.0 V	62.0 V	
OTHERS				
Transfer time	3 ~ 6 ms (typical); ⩽ 10 ms (max.)			
Overload (linear load)	⩾ 105%: transfer to bypass in 5 mins; ⩾ 110%: transfer to bypass in 2 mins; ⩾ 125%: transfer to bypass in 1 min; ⩾ 150%: transfer to bypass in 10 s; ⩾ 200%: shut down inverter in 3 s			
ECO mode (optional)	Load < 3% (settable) , Yes / No settable			
No-load shutdown (optional)	Load < 3% ~ 50%, Yes / No settable			
Load adaptation	Inductive load: ⩽ 50%; capacitive load: ⩽ 100%; 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	–10℃ ~ 45℃			
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.