

LOW-FREQUENCY SPLIT-PHASE SOLAR INVERTER

120VAC/230VAC 1-12KW



- Low Frequency Split Phase
- UPS
- PV Storage System
- Built-in MPPT
- Smart APP — RJ11/RJ45 RS232/485 for Option
- AC Four-Level Charging Mode
- Smart LED/LCD Setting
- Pure Sine Wave Output

Datasheet

Model	1KW	2KW	3KW	4KW	5KW	6KW	8KW	10KW	12KW
AC INPUT									
Nominal Power	1000W	2000W	3000W	4000W	5000W	6000W	8000W	10000W	12000W
Input Voltage Waveform	Pure Sine Wave (Same as Input/Bypass Mode)								
Nominal Input Voltage	120VAC (LV models)					230VAC (HV models)			
Low Line Disconnect	85Vac±4% (Normal) or 80Vac±4% (Wide)					184Vac±4% (Normal) or 155Vac±4% (Wide)			
Low Line Re-connect	95Vac±4% (Normal) or 85Vac±4% (Wide)					194Vac±4% (Normal) or 165Vac±4% (Wide)			
High Line Disconnect	135Vac±4% (Normal) or 142Vac±4% (Wide)					253Vac±4% (Normal) or 270Vac±4% (Wide)			
High Line Re-connect	125Vac±4% (Normal) or 135Vac±4% (Wide)					243Vac±4% (Normal) or 255Vac±4% (Wide)			
Max AC Input Voltage	Max 150Vac					Max 270Vac			
Frequency	50Hz: 41–54Hz / 60Hz: 51–64Hz								
AC OUTPUT									
Output Voltage Waveform	Sine Wave								
Power Factor	0.9–1.0								
Nominal Output Voltage (V)	120Vac±10%rms					120V/230Vac±10%rms			
Nominal Output Frequency (Hz)	60Hz±0.3Hz / 50Hz±0.3Hz								
AC CHARGER									
Nominal Charge Current	28A/50A/70A/90A (4-stage adjustable charging current, according to the model)								
Charge Current Regulation	±25%A dc								
Over Charge Protection	Bat.V≥15.5VDC for 12V battery; Bat.V≥31.0VDC for 24V battery; Bat.V≥62.0VDC for 48V battery; beeps 0.5s every 1s & fault after 60s								
Algorithm	Three stage: Boost CC (constant current) → Boost CV (constant voltage) → Float (constant voltage)								
SOLAR CHARGER									
Rated Charge Current	40A (1–5KW models) · 60A (6–12KW models)								
Max. PV Open Circuit Array Voltage	40Vdc for 12V; 55Vdc for 24V; 110Vdc for 48V								
Charger Mode	MPPT								
PV Low Voltage Re-connect	PV > Bat.V+3V								
PV Low Voltage Disconnect	PV = Bat.V								
Efficiency	>97%								
EFFICIENCY									
Efficiency (Battery Mode)	≥85%								
Efficiency (Line Mode)	>96%								
BATTERY VOLTAGE									
Nominal DC Input Voltage	12/24/48VDC								
Low Battery Alarm	10.5VDC±0.3VDC for 12VDC; 21VDC±0.6VDC for 24VDC; 42VDC±1.2VDC for 48VDC								
Low DC Input Shut-Down	10VDC±0.3VDC for 12VDC; 20VDC±0.6VDC for 24VDC; 40VDC±1.2VDC for 48VDC								
High DC Input Alarm & Fault	16VDC±0.3VDC for 12VDC; 32VDC±0.6VDC for 24VDC; 64VDC±1.2VDC for 48VDC								
Transfer Time	15ms (max)								
SYSTEM PARAMETER									
Over-load Protection	110%<load<150%, beeps 0.5s every 1s, fault after 60s off the output; Load>150%, beeps 0.5s every 1s, fault after 20s								
Output Short Circuit Protection	Current limit (Fault after 10s)								
Surge Rating (VA)	1:3 (VA)								
Power Saver	Load<25W (Enabled on P/S auto setting of remote control)								
Protections	Low battery, over charging, over load, over temp								
Indicators	LED + LCD Display								
GENERAL SPECIFICATIONS									
Operating Temperature Range	0°C to 40°C								
Storage Temperature	-15°C ~ 60°C								
Operation Humidity	5% to 95% (non-condensing)								
Audible Noise	60dB max								
Cooling	Forced air, variable speed fan								
Dimensions (L×W×H mm)	425×376×200 (1–3KW) · 560×420×235 (4–6KW) · 655×480×240 (8–12KW)								

* If the ambient temperature is too high or too low, performance will be limited.
* Under specific test conditions.