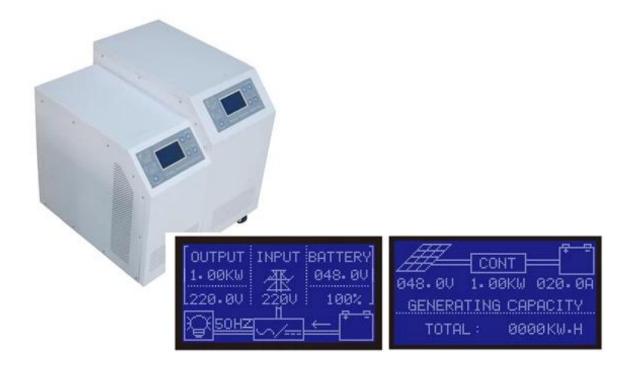
Specification of High quality Intelligent Inverter with Built-in MPPT Controller I-P-HPC series

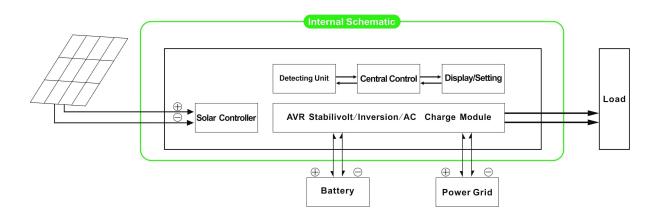


Introduction

This series of product is a module design of inverter and built-in MPPT controller, which has the advantages of high conversion efficiency, low power consumption and strong load-carrying ability. With intelligent control, customers can set charging mode, (Utility as complementary power) AC first mode or DC first mode, timed inversion mode and timed utility mode, timed on/off sleep mode. This is the currently the most advanced inverter & controller hybrid in the world.

Application

- 1. Off-grid solar power system
- 2. Solar power system with utility as complementary power



Feature

- 1. Easy to install. To configure a solar system, customers only need to connect it with solar panels and batteries
- 2. CPU management ,intelligent control modular design, User-friendly LCD display
- 3. Built-in MPPT controller, high charging efficiency
- 4. Low power consumption, high conversion efficiency
- 5. Intellectual[multi-function, convenient for customers with different using environment to fully use the solar energy
- 6. External battery connection, convenient to expand back-up power time
- 7. Strong load-carrying ability, low failure rate, easy maintenance and long service life (under proper operation, it may be as long as 5 years)
- 8. Perfect protection: low voltage protection, over voltage protection, overheat protection, short-circuit protection, overloads protection
- 9. CE / EMC / LVD/ RoHS Approvals
- 10. Two years warranty, life-long technical supports

Function

1. Charging function

There are 2 modes as shown bellow:

- 1.1 PV charge the battery, utility will not: when PV and utility are both connected to the machine, only the PV will charge the battery when there is sunlight
- 1.2 Both PV and utility will charge the battery: when PV and utility are both connected to the machine, AC (utility) will charge the battery. In the meanwhile, PV will also charge the battery if there is sunlight.
- 2. Utility as complementary power function

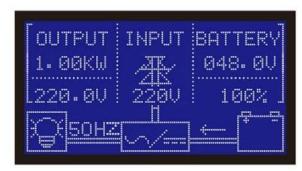
There are 2 kinds of complementary modes, shown as bellow:

2.1 AC first , DC standby UPS mode

When both utility and battery are connected to the machine, utility will supply power to the loads prior to the battery. When utility is cut off, the battery will automatically continue to supply power.

Steps are as follows:

- Step 1: When utility power is available, it will output directly after voltage being stabilized and charge batteries at the same time.
- Step 2: When utility power is cut off suddenly, the inverter will convert DC power to AC power automatically to ensure uninterrupted power supply within 5ms.
- Step 3: When utility power becomes available again, it will automatically transfer to utility supplying power to loads and charge batteries at the same time.





Photos:



Parameter:

Parameter Model		1000W
Rated Output Power		1000W
Peak Power		2000W
Battery (Lead-acid battery[]		24V
Charging Pa	rameter	
Charge Mode[setting[PV charge PV charge + utility charge
MPPT Solar Controller	Voltage	24V
	Current	20A
	Max PV Input Voltage	100V
	PV Charge Efficiency	95%~99%
	Max PV Input Power	568W

Description Charge Mode Charge Mode Mode Mode Mode Mode Mode Mode Mod	Utility	AC Charge	0~15A		
AC Output Voltage 220V±3% or 230V±3 or 240V±3% or 100V±3% or 110V±3%]optional[]		Current	U~15A		
AC Output		Charge Mode	3-Stage Charging		
AC Output Frequency SoHz±0.5 or 60Hz±0.5 Optional Output wave type Pure sine wave output, waveform distortion rate≤3 Overload ability Overload ability Output waveform distortion rate≤3 Output Output waveform distortion rate≤3 Output	Inversion pa	rameter			
Output wave type Dutput wave type Dutput wave type Duverload ability Dower Consumption Frequency Duverload ability Dower Consumption Frequency Duverload ability Dower Consumption Frequency Dower Consumption Frequency Dower Conversion Frequency Duverload ability Dower Consumption Frequency Dower Conversion Frequency Doverload Ability	AC Output	Voltage			
Output wave type Pure sine wave output, waveform distortion rate≤3 Overload ability Dower Consumption Under normal working Mode) Overload ability Dower Consumption Under sleep mode) Prower Consumption Under sleep mode) Prower Conversion Efficiency Ditility Mode AC Input AC Input AC Output Overload Ability Doverload Output, short-circuit, high-voltage input, low-voltage input, overheat					
Overload ability		Frequency	<u> </u>		
Power Consumption (under normal working mode) Power Consumption (under sleep mode) Inverter Conversion (sfficiency) AC Input (voltage prequency) AC Output (voltage prequency) Frequency (voltage prequency) AC first, DC standby DC first, AC standby Display (voltage) Frequency (voltage)	Output wave type		·		
Constant	Overload ability		□120% 1 min, □130% 10s		
Power Consumption (under sleep mode) 1-6W 1-6W	Power Consumption		0.4A		
Power Consumption (under sleep mode) Inverter Conversion Efficiency July Mode AC Input AC Output AC Output AC Great or DC first) priority JPS Output[]setting[] Setting[] Semeral Parameter Display Information Protection Protection J-6W 85%~92% 85%~	(under normal working				
Inverter Conversion State	mode)				
under sleep mode) nverter Conversion Efficiency Utility Mode AC Input AC Output AC Output Voltage Frequency Frequency The same as utility Voltage Frequency The same as utility The same as u			1_6W		
Sefficiency			-OVV		
Display Disp	Inverter Con	version	85%~92%		
Voltage	Efficiency		03/0~92/0		
Frequency The same as utility AC Output	Utility Mode				
Prequency The same as utility AC Output Voltage Frequency The same as utility Diverload Ability Diverload	AC Input	Voltage	220V±35% or 110V+35%[optional]		
The same as utility	AC IIIput	Frequency			
Prequency The same as utility	AC Quitaut	Voltage	220V±5% or 110V+5%[optional]		
AC first or DC first) priority JPS Output setting AC first, DC standby DC first, AC standby Switch Time Set by users Timed open / close AC output automatically General Parameter Display Mode LCD+LED Display Information Capacity, Load condition, Status Information Overload output, short-circuit, high-voltage input, low-voltage input, overheat	AC Output	Frequency	The same as utility		
AC first, DC standby DC first, AC standby Switch Time Dower On Set by users Timed open / close AC output automatically General Parameter Display Mode Display Information Display Information Overload output, short-circuit, high-voltage input, low-voltage input, overheat	Overload Ability		□120% 1 min□□130% 10s		
DC first, AC standby Switch Time Set by users Set by users Seneral Parameter Display Mode Display Information Display Display Display Information Display Information Display Display	, – – – – – – – – – – – – – – – – – – –				
Switch Time Set by users Set by users Seneral Parameter Display Display Information Protection Overload output, short-circuit, high-voltage input, low-voltage input, overheat Display Overload output, short-circuit, high-voltage input, low-voltage input, overheat Display Di	LIDC Output	la attina 🗆	AC first, DC standby		
Power On Set by users Timed open / close AC output automatically General Parameter Display Mode LCD+LED Display Information Capacity, Load condition, Status Information Overload output, short-circuit, high-voltage input, low-voltage input, overheat	UPS Output_setting[]		DC first, AC standby		
Power On Set by users Timed open / close AC output automatically General Parameter Display Mode LCD+LED Display Information Capacity, Load condition, Status Information Overload output, short-circuit, high-voltage input, low-voltage input, overheat	Switch Time		□5ms □AC to DC / DC to AC□		
General Parameter Display Mode LCD+LED Display Information capacity, Load condition, Status Information Overload output, short-circuit, high-voltage input, low-voltage input, overheat	Power On				
General Parameter Display Mode LCD+LED Display Information capacity, Load condition, Status Information Overload output, short-circuit, high-voltage input, low-voltage input, overheat	_setting_		Timed open / close AC output automatically		
Display Display Input voltage, output voltage, output frequency, battery capacity, Load condition, Status Information Overload output, short-circuit, high-voltage input, low-voltage input, overheat	General Para	ameter			
Display Display Input voltage, output voltage, output frequency, battery capacity, Load condition, Status Information Overload output, short-circuit, high-voltage input, low-voltage input, overheat	Display	Display Mode	LCD+LED		
Information capacity, Load condition, Status Information Overload output, short-circuit, high-voltage input, low-voltage input, overheat			Input voltage, output voltage, output frequency, battery		
input, overheat		1 ' '			
input, overheat	Protection		Overload output, short-circuit, high-voltage input, low-voltage		
Temperature -10°C□50°C			,		
	Environment	Temperature	-10°C∏50°C		
Environment humidity 10% 00%		<u> </u>	_		
Altitude ≤4000m			≤4000m		
	Size W×D×H(mm)		438*208*413		
` '	Packing Size W×D×H(mm)				
• • •	Net Weight (kg)				
	Gross Weight (kg)				

Remarks:

The "optional" parameter can be set as per customer's requirement

The above is our standard parameter. Subject to change without prior notice.

We have our own professional inverter and controller R&D team and we provide technical support and OEM service.

Connection Diagram:

I-P-HPC-Series System



I-P-HPC-Series Inverter+MPPT Solar Controller

Others:

Please refer to the outline design, technical documents, product brochures, etc. Made by Engineering Department, May 15, 2014, 2nd Edition