

wholesale price cost effective stable high efficiency mppt controller home UPS inverter 2000w

Introduction

Pure sine wave inverter with built-in MPPT controller I-P-HPC-Series is a module design. It has the advantages of high conversion efficiency, low power consumption and strong load-carrying ability. With intelligent control, users can set charging mode, (Utility as complementary power) AC first mode or DC first mode, timing inversion mode and timing utility mode, on/off mode. It is one of advanced hybrid inverter & controller in the world.



Application

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



Feature

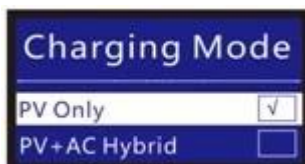
1. Easy to install. To configure a solar system, users just need to connect it with solar panels and batteries
2. CPU management, intelligent control, modular design, LCD display
3. Built-in MPPT controller, high charging efficiency
4. Low power consumption, high conversion efficiency
5. Intellectual multi-function, it's convenient for users to make full use of solar energy in different situation
6. External battery connection, it's convenient for users to expand back-up power time
7. Strong load-carrying ability, low failure rate, easy to maintenance and long service life (under proper operation, it can last at least 5 years)
8. Perfect protection: low voltage protection, high voltage protection, over temperature protection, short-circuit protection, overload protection
9. CE / EMC / LVD/ RoHS Approvals
10. Two years warranty, life-long technical support

Function

1. Charging function

1.1 PV only mode: when PV and utility are both connected to the inverter, only the PV will charge the battery while utility will not charge the battery.

1.2 PV+AC hybrid mode: when PV and utility are both connected to the inverter, both PV and utility will charge the battery.



2. Utility as complementary power UPS function

2.1 AC first, DC standby UPS mode

When utility and battery are connected to the inverter, utility will supply power to the loads preferentially. When utility is cut off, the battery will automatically continue to supply power to the loads.

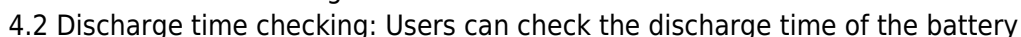
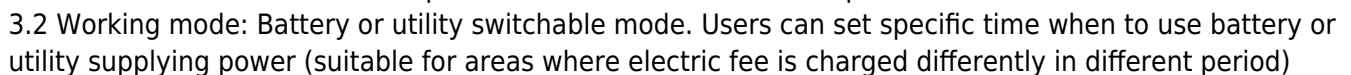
Steps are as follows:

Step 1: When utility power is available, it will drive the loads directly after voltage being stabilized and

Step 3: When utility power is available again, it will automatically transfer to utility supplying power to loads and charge batteries at the same time.

When utility and battery are connected to the inverter, battery will supply power to the loads prior to utility. When battery capacity is not enough, utility will continue to supply power automatically.

Step 1: When battery has enough power, it will drive the loads directly via power inverter
Step 2: When battery does not have enough power, it will automatically transfer to utility supplying power to the loads
Step 3: After the battery is fully charged (e.g. by solar or wind charge controller), it will automatically transfer to battery supplying power to the loads.



Parameter	Model	1000W	1500W	2000W	3000W	4000W	5000W
Rated Output Power		1000W	1500W	2000W	3000W	4000W	5000W
Peak Power		2000W	3000W	4000W	6000W	8000W	10000W
Battery (Lead-acid battery)		24V	24V/48V(optional)			48V	
Charging Parameter							
Charge Mode[setting]		PV charge					
		PV charge + utility charge					
MPPT Solar Controller	Voltage	24V	24V/48V			48V	
	Current	20A	25A	30A	40A	40A	40A
	Max PV Input Voltage	100V					
	PV Charge Efficiency	95%~99%					
	Max PV Input Power	568W	24V: 710W 48V1420W	24V: 852W 48V: 1704W	24V:1136 W 48V: 2272W	2272W	2272W
Utility	AC Charge Current	0~15A					
Inversion parameter		Charge Mode					
		3-Stage Charging					

AC Output	Voltage	220V±3% or 230V±3 or 240V±3% or 100V±3% or 110V±3% (optional)						
	Frequency	50Hz±0.5 or 60Hz±0.5 (optional)						
Output wave type	Pure sine wave output, Total Harmonic Distortion THD≤3							
Overload ability	>120% 1 min, >130% 10s							
Power Consumption (under normal working mode)	0.4A	24V: 0.5A 48V: 0.4A	24V: 0.7A 48V: 0.45A	24V: 0.7A 48V: 0.5A	0.6A	0.65A		
Power Consumption (under sleep mode)	1-6W							
Inverter Conversion Efficiency	85%~92%							
Utility Mode								
AC Input	Voltage	220V±35% or 110V+35%[optional]						
	Frequency	The same as utility's frequency						
AC Output	Voltage	220V±5% or 110V+5%[optional]						
	Frequency	The same as utility's frequency						
Overload Ability (AC first or DC first) priority	>120% 1 min,>130% 10s							
UPS Output[setting]	AC first, DC standby DC first, AC standby							
Switch Time	<5ms [AC to DC / DC to AC]							
Power On [setting]	Set by users Timed on / off AC output automatically							
General Parameter								
Display	Display Mode	LCD+LED						
	Display Information	Input voltage, output voltage, output frequency, battery capacity, load condition, status Information						
Protection	Overload, short-circuit, high-voltage input, low-voltage input, overheat							
Environment	Temperature	-10°C[50°C						
	humidity	10%[90%						
	Altitude	≤4000m						
Size WxDxH(mm)	438*208*413				450*246*468			
Packing Size WxDxH(mm)	520*310*460				540*300*518			
Net Weight (kg)	15	17	19	25	34	35		
Gross Weight (kg)	16	18	20	27	40	41		

Pictures



