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 (95%~99%);**

4. **Low power consumption, high conversion efficiency(85%~92%);**

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

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

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.

2.2 DC first, AC standby UPS mode

When both 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.

3. Timing function

3.1 Timed on/off normal working mode and sleep mode: can set specific time when to open normal output and when to close AC output to enter sleep mode.

3.2 Battery and utility switchable mode: can set specific time when to use battery or utility supply power (suitable for areas where electric fee is

charged according to period in different intervals).

4. Recording/checking function

4.1 Machine fault checking: can check the machine fault information.

4.2 Discharge time checking: can check the discharge time of the battery.

Parameter

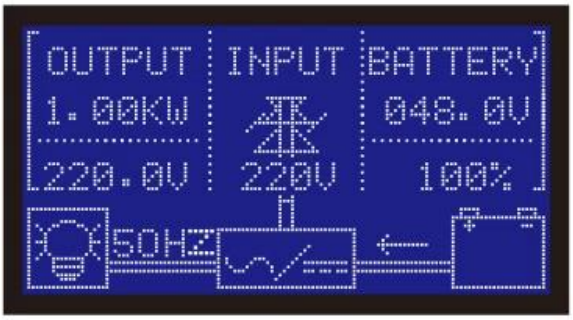
Parameter Model		1000W	1500W	2000W	3000W	4000W	5000W
Rated Output Power		1000W	1500W	2000W	3000W	4000W	5000W
Peak Power		2000W	3000W	4000W	6000W	8000W	10000W
Battery (Lead-acid battery)		24V	24V/48V(optional)			48V	
Charging Parameter							
Charge Mode(setting)		PV charge PV charge + utility charge					
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:1136W 48V: 2272W	2272W	2272W
Utility	AC Charge Current	0~15A					
	Charge Mode	3-Stage Charging					
Inversion parameter							
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, waveform distortion rate≤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					
AC Output	Voltage	220V±5% or 110V+5%□optional□					
	Frequency	The same as utility					
Overload Ability		□120% 1 min□□130% 10s					
(AC first or DC first) priority							
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 open / close 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 output, short-circuit, high-voltage input, low-voltage input, overheat					
Environment	Temperature	-10℃□50℃					
	humidity	10%□90%					
	Altitude	≤4000m					
Size W×D×H(mm)		438*208*413				450*246*468	
Packing Size W×D×H(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

Products photo

I-P-HPC-Series System

I-P-HPC-Series Inverter+Solar Controller



Company photo

I-Panda爱庞德