

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.](#)





I-P-HPC-Series System



Application

1. Off-grid solar power system
2. [Solar and utility complementary power system](#)

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					
General Parameter		Timed on / off AC output automatically					
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 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

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

2.1AC 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 charge batteries at the same time.

Step 2: When utility power is cut off suddenly, the inverter will convert DC to AC automatically to ensure uninterrupted power supply within 5ms.

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.

2.2DC first, AC standby UPS mode:

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.

Steps are as follows:

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.

3.Timing function

3.1 On/Off mode: Users can set specific time to turn on/off the output of the inverter.

3.2 Working mode: Battery or utility switchable mode. Users can set specific time when to use battery or utility supplying power (suitable for areas where electric fee is charged differently in different period)

4.Recording/checking function

4.1 Inverter fault checking: Users can check the inverter fault information

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

LDC display

