
Pure Sine Wave Inverter

User' s Manual

(Read the manual carefully before use)

Content

1. Safety instructions

1.1 Warning

1.2 Other safety instructions

2. Product features

2.1 Input features

2.2 Output features

2.3 Working environment and storage

3. Product installation

3.1 Installation of battery matching

3.2 Installation of solar power generation system

4. Troubleshooting

5. Maintain

5.1 Product maintenance

5.2 The quality assurance period

1. Safety instructions

1.1 Warning: to reduce failure caused by improper use of the product, please follow the below steps.

- A. Do not place the inverter in the environment of rain, snow, water mist, dust and high temperature.
- B. Do not seal or block the vents of the inverter to avoid failure and danger.
- C. In order to avoid fire or electric shock, ensure the battery cable is intact, use the battery cable provided by the product. Do not change or extend the battery cable to avoid machine failure and danger.
- D. When the inverter is connected, arc or spark may be generated. Please do not install near combustible and explosive materials.
- E. Do not install the inverter in a box with the battery, which will discharge highly corrosive gases.
- F. Disconnect the inverter from other components when you need to move the inverter.
- G. The ac voltage produced by this product is similar to that of household ac voltage. Please take protective measures.
- H. When installing the product, please wear insulating gloves to prevent electric shock. (two people are recommended for installation, one for installation and one for assistance.)
- I. Keep away from children.

1.2 Other safety instructions

- A. Check whether the product is damaged before receiving the product. If there is any damage, please immediately notify the carrier or the after-sales service personnel.
- B. The inverter shall not be opened, dismantled or modified without authorization; otherwise, the warranty right shall be revoked.
- C. Environment temperature: inverter should work in $-10\text{ }^{\circ}\text{C}$ to $50\text{ }^{\circ}\text{C}$ environment temperature range, otherwise the output power, functions could be affected. It is forbidden to block the inverter cooling vents.

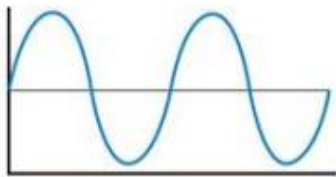
2. Product features

2.1 Input features:

The serial number	The rated voltage (VDC)	Low voltage protection (VDC)	Low voltage alarm (VDC)	Over voltage protection (VDC)	The scope of work (VDC)
1	12	10.0 ± 0.5	10.5 ± 0.5	15.5 ± 0.5	10.0-15.5
2	24	20.0 ± 0.5	21.0 ± 0.5	31.0 ± 1.0	20.0-31.0
3	48	40.0 ± 1.0	42.0 ± 1.0	61.0 ± 2.0	40.0-61.0

2.2 Output features:

The output voltage of this product is similar to that of municipal power.
Pure sine wave output, distortion rate within 3%.



2.3 Working environment and storage:

Working temperature: $-10\text{ }^{\circ}\text{C}$ to $50\text{ }^{\circ}\text{C}$

Working humidity: 20%~90%RH

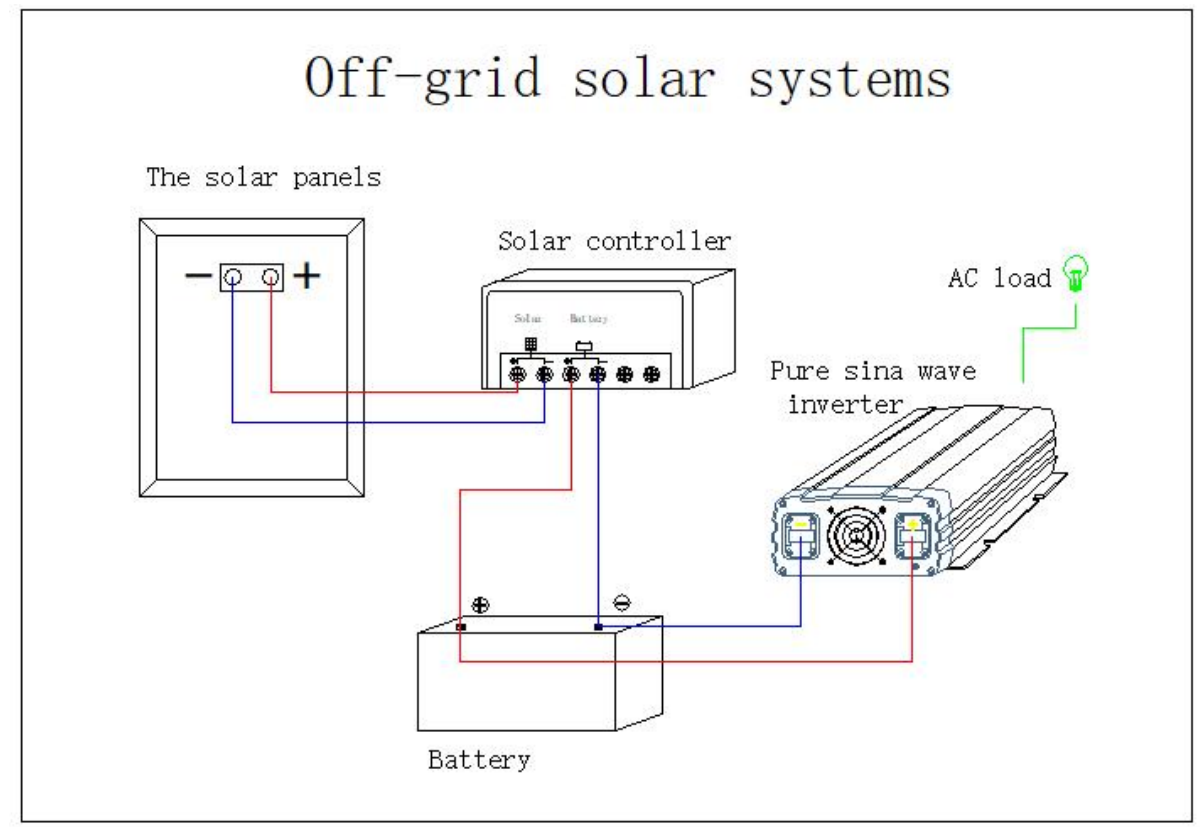
Storage conditions: $-30\text{ }^{\circ}\text{C}$ ~ $70\text{ }^{\circ}\text{C}$

3. Product installation

3.1 Installation of battery matching



3.2 Installation of solar power generation system



Wiring steps

First, connect the inverter to the battery pack, start the inverter, and check whether the inverter is working properly.

Then, connect the controller to the battery pack and check that the controller is working properly.

Finally, connect the solar panels to the controller and check that the system is working properly.

4. Troubleshooting

Use tool: digital display multimeter.

Step 1: Measure the AC voltage.

The multimeter is adjusted to the AC750 position, the load is removed, and the inverter is started. Insert the two test leads of the multimeter into the AC-OUTPUT socket of the inverter.

If the multimeter display voltage = rated output voltage, the inverter is normal.

If the multimeter shows voltage = "0", proceed to the next step.

Step 2: Measure the DC voltage.

The multimeter is adjusted to the DC1000 position, the black multimeter pen contacts the black terminal, and the red pen contacts the red terminal. If the voltage displayed by the multimeter is less than the "working voltage", the "Low voltage protection".

If the voltage displayed by the multimeter is greater than the "working voltage", the "Overvoltage protection".

If the voltage displayed by the multimeter is within the "working voltage", which may be the "Overheating protection", please check the temperature of the inverter and the temperature of the working environment. Check whether the air inlet hole and air outlet of the inverter are blocked by foreign body; Check to see if the fan of the inverter is damaged or not.

Other: the inverter is normal when no load is on, but not working when load is on.

If the load power is greater than the rated power of the inverter, it is the "Overload protection". Please select a suitable inverter with high power.

If the load power is less than the rated power of the inverter, it is the "Short circuit protection". Your load is short circuited.

Protection function	State description				The solution
	AC-OUT	Buzzer	LED-green	LED-red	
Low voltage alarm	OK	Ring	Light up	Light up	The battery is low in power and needs to be charged.
Low voltage protection	No AC	No ring	Light up	Light up	The battery is dead and needs recharging. Input end wire diameter is too small, replace the appropriate wire.
Over voltage protection	No AC	No ring	Light up	Light up	The battery voltage is too high and needs to stop charging.
Overheating protection	No AC	No ring	Light up	Light up	Transfer the inverter to a cool and ventilated place; Ensure that the inverter working environment is ventilated and that the temperature of the working environment is in order.
Overload protection	No AC	Ring	Light up	Light up	Select a suitable inverter with high power.
Short circuit protection	No AC	Ring (di.di.d i.)	Light up	Light up	Check your load for short circuit.

5. Maintenance and others

5.1 Product maintenance

- Make sure that the cooling vents are not blocked, and remove dust from fan openings and vents area regularly.
- Use a soft, dry cloth to wipe the shell and front and back side plates
- For long time working inverter, check the dc input terminal to see if the screw is loose.

Warning!

Disassembling the inverter is prohibited and attempts to disassemble may result in electrical shock or fire.

5.2 The quality assurance period:

This product quality guarantee period is two years, 24 months from the date of purchase.

If the inverter is "not used in accordance with the regulations", water intake, foreign body entry, dust pollution, privately tampering with the line, deliberate damage, or other human factors caused damage, maintenance fees will be charged.