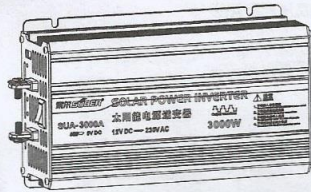




Solar Power Inverter

Product instructions SUA-3000A



The core technical support:
Foshan sunchonglic Electronic R&D Co.,Ltd.
Add: Floor 9, Building 1, Huachuang Square, No. 88 Guang
to Road Pingdi Segment, Yanbu Dali, Nanhai District,
Foshan City.

Manufacturer: Foshan Suoer Electronic Industry Co., Ltd
Add: The second village road of ShiShan YanFeng avenue
Foshan Nanhai district, Guangdong province.

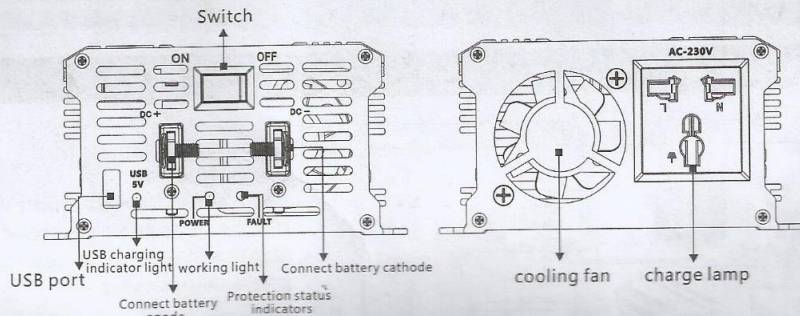
Http://www.chinasuoer.cn
Execution standard: Q/SE 013-2011

(tel): 400-8837-603

MADE IN CHINA



Function Introduced / Parameter



MODEL	AC input	output power	Peak Power	Frequency	No-load current	Working voltage	Voltage range	Efficiency	size	weight
SUA-3000A	AC220V	3000W	6000W	50Hz	<0.3A	DC12V	10.5-15V	>90%	230X127X67mm	1.15Kg

Matters Needing Attention

when connect with the battery will produce spark, connect the former to ensure that no flammable gas.

Battery charging, discharging will produce inflammable gases, should be well ventilated, do not put in the place may accumulate flammable gases.

FORBIDDEN

Output can not be parallel with the mains

will damage the inverter and the danger of electric shock.

FORBIDDEN

Minors can not use it

output high voltage will cause a danger of electric shock.

FORBIDDEN

Do not to damage output sockets or wires.

Do not cut, remodel, close to the pyrogenic, over-discharge, reverse, wiring and pull wires, or slacking outlet weight on wires or sockets.

FORBIDDEN

ATTENTION

Do not disassemble or remodel the inverter.

Do not disassemble or remodel the inverter, disassemble or modify unauthorized inverter may cause a malfunction or fire, electric shock.

FORBID TO OPEN

Do not wet the airframe

otherwise may lead to short circuit, even the fire and electric shock.

FORBID GET WET

Do not place rod or other metal objects at vent or other openings.

This may touch on the internal components to cause electric shock or injury.

FORBIDDEN

use inverter in the common ground wire power system.

If the output connect with the ground will cause inverter to short circuit and damage. For example used in the car, the inverter's output terminal have the voltage reflected on the car body.

FORBIDDEN

In power, do not let the load and to type in the loop.

cause the overload protection circuit will invalidate or increase the overload protection power.

FORBIDDEN

Put the plug of load of equipment full insert into an electrical outlet.

Failure to fully insert the plug socket, could lead to electric shock and overheating, even cause a fire accident.

Do not use a damaged plug or loosed outlet.

FORBID WET HAND

Do not touch power plug with wet hands.

This may cause electric shock. Prohibit wet hands.

FORBID WET HAND

Do not let the volatile substances or combustible materials floating into the machine. Away from the flame,

or may cause fire accident.

KEEP AWAY FIRE

Do not install inverter worked in hot, humid environment.

Inverter leakage may cause electric shock or fire caused by accident.

FORBIDDEN

The inverters have not been tested for use in medical equipment.

FORBIDDEN

Method Of Use

Rated current and the actual used equipment

The nominal current or power of most of electromotion tools, household appliances and audio-visual equipment, in the range of nominal power or much lower, but when they startup it will occurred overload protection phenomenon. Inverter most likely to drive resistive loads and switching power supply load. Because the resistive load is linear load that can be work with full load. Such as stove, rice cooker, LCD TVs and other devices.

ATTENTION

1. In connection cable should be used to install the appropriate cable, if the 230V output cable is too long or the wire cross-sectional area is too small, will generate a large number of cable power loss, the load performance as low power, low voltage.
2. Battery and inverter connection cable are not standardized, cable is too long, cross-sectional area is too small, to connect parts of contact short, and even turn on does not work give a alarm. Meanwhile, cable must have waterproof, insulate strength to meet environment requires.

Applied to the following product:

Bulb, fluorescent light, Rice cooker, electric iron, desktops computer, laptops, graphoscope, fax machines, printers, LCD TV, TV, fans, DVD machine, cell phone chargers, electric drill, electric iron, washing machine, hair dryer and so on.

Not applicable products:

It can't be used to power amplifier, music center, subwoofer and other equipments that with appendron core transformer power supply.

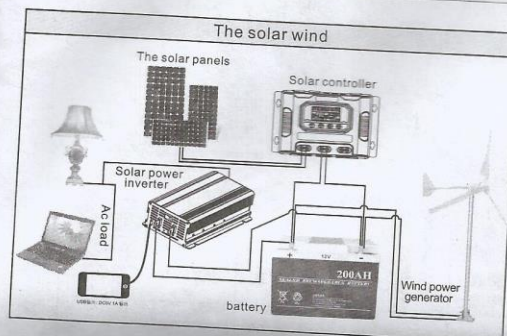
Environment For Use

In order to get the best using results, please put the inverter on the flat surface, such as the ground, car floor, or other solid surface which can easily fixed the inverter's power cord. The working place should meet the following criteria:

1. Keep dry, should not let the inverter contact the water or other liquids, keep the inverter away from moisture or water.
2. Cool environment, keep the temperature between 0 Celsius degrees (no condensation) and 40 Celsius degrees. Do not put the inverter next to heat vents or other heat devices. Try to keep the inverter not be shined directly by the sunshine.
3. Ventilation. No objects block around, and keep free flow of the air. Do not put anything on the inverter when it was working, because the fan is help to radiating.
4. Safety. Do not use inverter near the place of flammable materials or accumulate flammable gases.

The battery is not only to provide a 11V to 15V DC voltage also provide sufficient load operating current. Power should be a full power, good lead-acid batteries Rough estimate the current that a load need, can be estimated by the load power dividing 10.

For example: an AC load power is 100W, the power supply must provide a current of $100/10 = 10A$. If you need larger current, you can use a few batteries in parallel. The most important is to ensure that there is sufficient cross-sectional area of the connecting cable. This manual can not list all of the battery combinations. Battery charging and battery configuration are other areas of expertise



Installation connection steps: please refer to the above connection diagram

1. First of all, turn off the inverter power.
2. Use the black DC cable to connect the negative terminal of the battery and the black post head of the inverter.
3. Use the red DC cable to connect the anode terminal of the battery and the red post head of the inverter.
4. Plug the power plug of the equipment in the inverter's output socket.
5. Press the inverter's switch then it can be used.

Dismantle steps:

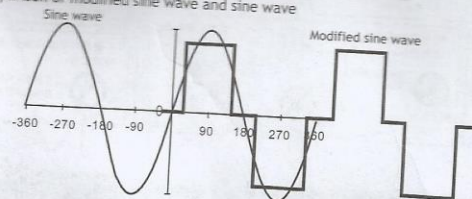
1. First of all, turn off the inverter power.
2. Disconnect the power plug.
3. Dismantle the red DC cable.
4. Dismantle the black DC cable.

Introduction Of Performance

Inverter is a power equipment that can change DC (storage battery, solar cells, wind dynamo, etc.) to AC. The inverter use high-frequency power conversion technology, and use the ferrite transformer instead of the old bulky silicon steel transformer. That is why Suoer's power inverter is lighter, smaller than other similar inverter. When the inverter working in inversion mode, the output waveform is modified sine wave. This waveform is the most appropriate for the linear load and the electronic equipment that use the switching power supply, such as light bulbs, electric cooker, energy saving lights and so on. Also applies to inductive loads such as transformers and motors.

The inverter output modify sine wave RMS voltage is 220V, it is the same as the standard of household power supply. Most AC voltmeter (digital and analog) is use the sensitive average waveform, rather than RMS. Their calibration is set in the RMS voltage, which is used to measure the pure sine wave. Use them to measure the output voltage of the inverter may have 20-30V lower than the normal. To measure the accuracy, please use the voltmeter that can measure the RMS.

Pic 1 : Comparison of modified sine wave and sine wave



Abnormal Problem

Some audio-visual equipment and electromotion tools need more power than the resistive load to work normally, an asynchronous motor, CRT TV, compressors, pumps and so on. They need 2 to 6 times of the operating current to start. Whether it can run a specific load depend on the subject test.

Note: continuous frequently on and off the inverter may cause damage.

Power tools and microwave ovens can not start	Read the parameter of the high-power equipment carefully and make sure the input power and output power that if it has enough power to run the equipment and the microwave ovens, please remember that the electro tools may needs 2 to 6 times power.
Television interference	The inverter just has little interference to the TV signal. But in some case, it will has interference, special when the TV signal is poor. Please try to deal with it in the following way: 1. Let the inverter away from the TV antenna as far as possible or lengthen the TV antenna cable. 2. Adjust the placed direction of the inverter. 3. To ensure that the signal strength the antenna supply to the TV is strong enough, and use a good shielding effect and good quality antenna cable. 4. When you watch TV, do not run the high power electrical equipment or tools. 5. There's no way to completely disappear interference of some old TV.