

PURE SINE WAVE INVERTER

300W-6000W Multi-function LCD display

DC TO AC



User Manual

2022-V1.0

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Please read the instruction manual carefully before use.
This manual refers to the graphic reference, whichever is the real thing.

PREFACE

Dear user:

First of all, thank you for choosing our pure sine wave inverter. All products of our company have undergone strict production control, quality control and accurate testing and proof, so that all the requirements specified in the specifications can be met after delivery. Users can rest assured to buy and use!

PRECAUTIONS

The installation and commissioning of this equipment shall be carried out by professional electrical maintenance personnel who are familiar with the structure and operation of the device. Failure to follow this precaution could result in bodily harm.

Do not connect this equipment to a consumer utility line box, such as a home line.

Keep the inverter away from water, and avoid dropping water on the machine or getting it up. Do not insert or pull the plug with wet hands. Keep the inverter in a cool environment, suitable temperature should be -20 °C ~ 40 °C, avoid direct sunlight and hot vents.

Keep the inverter away from flammable materials or where flammable gases accumulate.

After prolonged use, the inverter will heat up, so avoid getting close to heat sensitive substances.

Make sure the vents are smooth and well cooled.

Do not open the machine due to high voltage danger.

Use a suitable type of wire to avoid blowing the wire due to excessive inverter current.

Make sure the inverter is connected to the correct battery, otherwise the fuse of the inverter will be blown. Turn off the switch when the machine is not in use. Please turn off the switch before cleaning and clean it with a dry cloth. Do not use a damp cloth or detergent.

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FEATURES

The inverter power supply adopts SPWM technology controlled by MCU micro-processing, pure sine wave output, and the waveform is pure.

The unique dynamic current loop control technology ensures reliable operation of the inverter.

Load adaptability, including inductive load, capacitive load, resistive load, mixed load.

Heavy load capacity and impact resistance.

It has perfect protection functions such as input overvoltage, undervoltage, overload, overheat, and output short circuit.

The sine wave inverter adopts LCD liquid crystal display mode, and the state is clear at a glance.

Stable performance, safe and reliable, long service life.

APPLICATIONS

Power Tools: Circular saws, electric drills, grinding machines, grinders, bumpers, weeders and trimmers, air compressors

Home entertainment electronic devices: TV, video cassette recorders, video game consoles, audio, musical instruments, satellite equipment

Industrial equipment: cloud server, face recognition server, intelligent manufacturing robot, emergency system

Household appliances: vacuum cleaners, fans, fluorescent and incandescent lamps, razors, sewing machines

Office equipment: computers, printers, surveillance, fax machines, scanners

Kitchen appliances: coffee machine, blender, ice mark, toaster

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PANEL DESCRIPTION
POWER:300W-500W



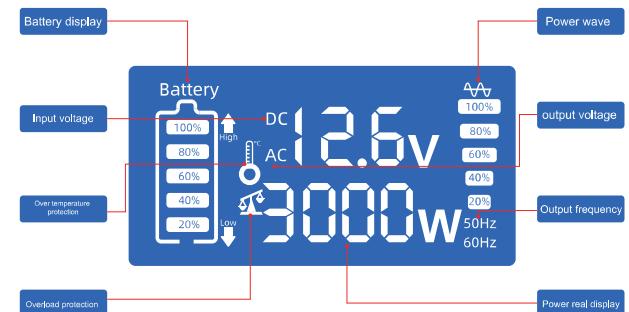
PANEL DESCRIPTION
POWER:600W-2500W



PANEL DESCRIPTION
POWER:3000W-6000W



Display (1)



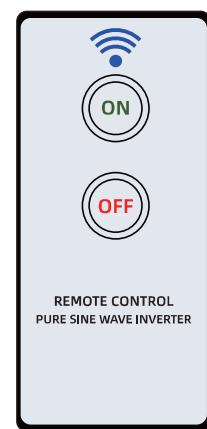
Protective function

- (1) Low-voltage alarm: The buzzer sounds 2 times with 1 Hz gap.
- (2) Low voltage protection: The buzzer continuously sounds 3 times with 1 Hz gaps.
- (3) Low-voltage recovery: the low-voltage rise automatically restores the output, and the buzzer sounds 3 times and the alarm is cancelled.
- (4) Overvoltage protection: The buzzer sounds 4 times with 1 Hz gap.
- (5) Overvoltage recovery: The voltage is reduced automatically to restore the output, and the buzzer sounds 4 times and the alarm is cancelled.
- (6) thermal protection: $80^\circ \pm 5^\circ$, when overheat protection buzzer sounds 5 times alarm, with 1 Hz gap
- (7) Overload protection: 105 automatic shutdown output for overload protection, 5s automatic recovery, automatic locking for three consecutive times
- (8) Short circuit protection: Output short circuit protection 15s shutdown lock.
- (9) The input is reversed: the fuse is blown.

Display (2)



Remote



Remote control

Instructions

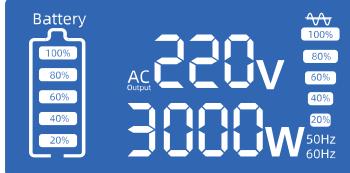
①switch	④Output frequency
1. Press for 1 second to turn on	⑤Output power
2. Press for 3 seconds to shut down	⑥Output voltage
3. Press the energy-saving mode twice, and press once to restore	⑦Battery capacity
4. Power on and press for 3 seconds to pair the wireless remote control	⑧Overheat protection
②Load ratio	⑨ Low voltage protection
③Battery voltage	⑩ Overload protection

The remote control needs to be paired with the inverter before use; long press to reverse
Change the power on button for 3 seconds, then press the remote power on button again
to complete the setting. remote control

The control range of the device is less than or equal ≤ 10 meters.

Remote protocol:RF

Remote control is optional

	Show description
	<ol style="list-style-type: none"> 1. Battery capacity 2. Power display 3. Input voltage 4. Output power 5. Load ratio 6. Output frequency 50/60Hz
	Show description
	<ol style="list-style-type: none"> 1. Battery capacity 2. Power display 3. Output voltage 110V or 220V 4. Output power 5. Load ratio 6. Output frequency 50/60Hz

	Overvoltage protection
	<ol style="list-style-type: none"> 1. Measured battery voltage 2. The battery indicator flashes 3. The output voltage is 0 volts 4. Output power 0 watts 5. Load ratio 0% 6. Buzzer 4×Beeeeep
	Overheating protection
	<ol style="list-style-type: none"> 1. The battery voltage is normal 2. The battery display is normal 3. The output voltage is 0 volts 4. Output power 0 watts 5. Load ratio 0% 6. Buzzer 5×Beeeeep

Technical specifications

Model	300W	600W	1000W	1500W	2000W				
Output Power	300W	600W	1000W	1500W	2000W				
Display method	LED	LCD							
Input voltage	12V/24V/48V/60V/72Vdc								
Input range	12Vdc(10-15),24Vdc(20-30),48Vdc(40-60),60Vdc(50-75),72Vdc(60-90)								
Low voltage protection	12V(10.0V±0.3),24V(20.0V±0.3),48V(40.0V±0.3),60V(50.0V±0.3),72V(60.0V±0.3)								
High voltage protection	12V(15.0V±0.3),24V(30.0V±0.3),48V(60.0V±0.3),60V(75.0V±0.3),72V(90.0V±0.3)								
Recovery voltage	12V(12.8V±0.3),24V(25.6V±0.3),48V(51.0V±0.3),60V(65.0V±0.3),72V(78.0V±0.3)								
No-load current	0.35A	0.50A	0.60A	0.60A	0.70A				
Overload protection	≤130%								
Output voltage	110Vac±10% or 220Vac±10%								
Output frequency	50Hz±1Hz or 60Hz±1Hz								
Output waveform	Pure sine wave								
Overheating protection	80°±5°								
Waveform THD	≤3%THD								
Conversion efficiency	90%								
cooling method	Fan cooling								
Dimensions	183*110*60mm	228*173*76mm	300*173*76mm	360*173*76mm					
Product weight	1.0kg	2.0kg	3.0kg	3.5kg	4.0kg				

Technical specifications

Model	2500W	3000W	4000W	5000W	6000W
Output Power	2500W	3000W	4000W	5000W	6000W
Display method	LCD				
Input voltage	12V/24V/48V/60V/72Vdc				24V/48V/60V/72Vdc
Input range	12Vdc(10-15),24Vdc(20-30),48Vdc(40-60),60Vdc(50-75),72Vdc(60-90)				
Low voltage protection	12V(10.0V±0.3),24V(20.0V±0.3),48V(40.0V±0.3),60V(50.0V±0.3),72V(60.0V±0.3)				
High voltage protection	12V(15.0V±0.3),24V(30.0V±0.3),48V(60.0V±0.3),60V(75.0V±0.3),72V(90.0V±0.3)				
Recovery voltage	12V(12.8V±0.3),24V(25.6V±0.3),48V(51.0V±0.3),60V(65.0V±0.3),72V(78.0V±0.3)				
No-load current	0.80A	1.2A	1.2A	0.8A	0.8A
Overload protection	≤130%				
Output voltage	110Vac±10% or 220Vac±10%				
Output frequency	50Hz±1Hz or 60Hz±1Hz				
Output waveform	Pure sine wave				
Overheating protection	80°±5°				
Waveform THD	≤3%THD				
Conversion efficiency	90%				
cooling method	Fan cooling				
Dimensions	360*173*76mm	400*242*88mm		420*242*88mm	
Product weight	4.0kg	7.5kg	8.0kg	9.0kg	10.0kg

USE ENVIRONMENT

Install the inverter according to local power requirements.

The installation location must be dry, clean and well ventilated.

Working temperature : -20°C to 40°C

Storage temperature : -10 to 40°C

Relative humidity : 0%-90%, no condensation

Cooling: forced ventilation

WIRING REQUIREMENTS

1 meter long battery line configuration requirements.

POWER	DC INPUT	WIRE DIAMETER
600W	12V	10AWG
600W	24/48V	12AWG
1000W	12V	7AWG
1000W	24/48V	10AWG
2000W	12V	4AWG
2000W	24/48V	7AWG
3000W	12V	2AWG
3000W	24/48V	4AWG
4000W	12V	1AWG
4000W	24/48V	4AWG
5000W	12V	2AWG*2
5000W	24/48V	4AWG

● Subject to outside interference

● The inverter may be affected by some strong electromagnetic waves

in the use, such as nearby motors, power inverters, strong magnetic fields, etc.

Inverter indicator is not light

1. The battery and inverter are not connected and reconnected.

2. The pole of the battery is reversed and the fuse is blown. Replace the fuse.

● Low output voltage

1. Overload, the load current exceeds the nominal current, and some of the load is turned off to restart.

2. The input voltage is too low. Make sure the input voltage is within the nominal voltage range.

● Low voltage alarm

1. The battery is out of power and needs to be charged.

2. The battery voltage is too low or the contact is poor, recharge, check the battery terminals or clean the terminals with a dry cloth.

● Inverter has no output

1. The battery voltage is too low, recharge or replace the battery.

2. The load current is too high, and some of the load is turned off to restart the inverter.

3. Inverter over temperature protection. Allow the inverter to cool for a while and place it in a well ventilated area.

4. The inverter failed to start and restarted.

5. The terminal is reversed, the fuse is blown, and the fuse is replaced.

FORM ON VOLTS / Hz AND PLUG STYLE FOR WORLDWIDE COUNTRY(AREA)

Country	VoltsHz	Plug style	Country	VoltsHz	Plug style			
NORTH AMERICA								
Canada	120/60Hz	A&B	Romania	230V/50Hz	C&F			
U.S.A	120/60Hz	A&B	Span	230V/50Hz	C&F			
CENTRAL AMERICA								
Anguilla	110V/60Hz	C	Sweden	230V/50Hz	C&F			
Antigua	230V/60Hz	A&B	Switzerland	230V/50Hz	J			
Bahamas	120V/60Hz	A&B	East	230V/50Hz	G			
Barbados	115V/50Hz	A&B	Yugoslavia	220V/50Hz	C&F			
Bolivia	110/220V/60Hz	B&G	AFRICA					
Bolivia	110V/50Hz	A&B	Gambia	230V/50Hz	DAG			
Costa Rica	120V/60Hz	A&B	Ghana	230V/50Hz	C,F&K			
Cuba	110/220V/60Hz	A&B,C&L	Kenya	240V/50Hz	G			
Dominican	230V/50Hz	D&G	Lesotho	220V/50Hz	M			
Dominican	110V/60Hz	A	Liberia	120V/60Hz	D			
Grenada	230V/50Hz	G	Mali	220V/50Hz	C&E			
Guatemala	120V/60Hz	A,B,G,I	Morocco	127V/220V/50Hz	C&E			
Haiti	110V/60Hz	A&B	Rwanda	230V/50Hz	C&J			
Honduras	110V/50Hz	A&B	Senegal	230V/50Hz	C,B,&K			
Jamaica	110V/50Hz	A&B	Seychelles	240V/50Hz	G			
Mexico	127V/60Hz	A	Somalia	220V/50Hz	C			
Netherlands	230V/50Hz	C&F	South Africa	220V/230V/50Hz	M			
Nicaragua	230V/50Hz	J	Sudan	220V/50Hz	D&G			
Panama	110V/60Hz	A&B	Tanzania	230V/50Hz	D&G			
Puerto Rico	120V/60Hz	A&B	Togo	220V/50Hz	C			
Virgin Islands	110V/60Hz	A&B	Uganda	240V/50Hz	G			
SOUTH AMERICA								
Argentina	220V/50Hz	C&I	Zimbabwe	220V/50Hz	D&G			
Brazil	110/220V/60Hz	A&E&C	Algeria	230V/50Hz	C&F			
Chile	220V/50Hz	C&L	Angola	220V/50Hz	C			
Colombia	110V/60Hz	A&B	Benin	220V/50Hz	E			
Ecuador	120/127V/60Hz	A&B	Bolivia	220V/50Hz	C&E			
Guatemala	220V/50Hz	A&B&G	Cameron	220V/50Hz	C&F			
Paraguay	220V/50Hz	J	Chad	220V/50Hz	D,E,F			
Peru	220V/60Hz	A&B&C	Congo	230V/50Hz	C&E			
Surinam	127V/60Hz	C&F	Djibouti	220V/50Hz	C&E			
Uruguay	220V/50Hz	C,F&L	Egypt	220V/50Hz	C			
Venezuela	120V/60Hz	C&F	Ethiopia	220V/50Hz	D,J,L			
AUSTRALIA OCEANIA								
Australia	230V/50Hz	I	Gabon	220V/50Hz	C			
Fiji Island	40V/50Hz	I	Algeria	220V/50Hz	C&F			
Guam	110V/60Hz	A&B	Iraq	230V/50Hz	D			
New Caledonia	20V/60Hz	F	Jordan	230V/50Hz	C,D&G			
New Zealand	230V/50Hz	I	Kuwait	230V/50Hz	C,E			
Tahiti	110V/220V/60Hz	A&B&E	Lebanon	230V/50Hz	A,B,C,D,G			
Tonga	240V/50Hz	I	Greece	240V/50Hz	C&G			
Vanuatu	230V/50Hz	C	Pakistan	230V/50Hz	C,D			
Austria	230V/50Hz	C,F	Qatar	240V/50Hz	B&G			
Azerbaijan	220V/50Hz	B,C,F	South Africa	127/220V/50Hz	A,B,E,G			
Belgium	230V/50Hz	C&F	Syria	220V/50Hz	C,E,L			
Burma	230V/50Hz	C&G	Turkey	230V/50Hz	C,F			
Chad	240V/50Hz	C&G	United Arab Emirates	220V/50Hz	C,G,J			
Czechoslovakia	230V/50Hz	E	ASIA					
Denmark	230V/50Hz	C&K	Bangladesh	220V/50Hz	A,C,D,G,K			
Finland	230V/50Hz	C&F	Brunei	240V/50Hz	G			
France	230V/50Hz	C,E	China	220V/50Hz	A,G			
Germany	230V/50Hz	C&F	Hong Kong	220V/50Hz	D,G			
Greece	220V/50Hz	A,D,E,F	India	240V/50Hz	C,D,G			
Greenland	220V/50Hz	C&K	Indonesia	110V/220V/50Hz	C,F			
Hong Kong	230V/50Hz	C	Japan	100V/220V/50Hz	A,B			
Iceland	220V/50Hz	C&F	Korea(South)	220V/60Hz	C,F			
Isla de Mun	230V/50Hz	H&C	Laos	230V/50Hz	A,B,C,E,F			
Italy	230V/50Hz	F&L	Macau	220V/50Hz	D,G			
Luxembourg	230V/50Hz	C&F	Malaysia	240V/50Hz	G			
Macao	240V/50Hz	C	Nepal	230V/50Hz	C,B			
Monaco	127V/220V/50Hz	C,D,E,F	Philippines	220V/60Hz	A,B,C			
Netherlands	230V/50Hz	C&F	Singapore	230V/50Hz	G			
Norway	230V/50Hz	C&F	Sri Lanka	230V/50Hz	G			
Portugal	230V/50Hz	C&F	Taiwan	110V/160Hz	A,B			
Portugal	120V/50Hz	C&F	Thailand	220V/50Hz	A,C			
PLUG STYLES								

All the data are for reference only, please refer to actual data of country/Area

Meat case, good to assemble the following output sockets:



Certificate of conformity

Product name: see nameplate

Product model: see nameplate

Factory number: see bar code

Inspection date: see barcode

PASS
QC 01

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RF Exposure Information

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.