

Operation manual

PURE SINE WAVE INVERTER / UPS

Preface

Welcome to use this inverter / UPS, please read this manual for details before operation.

Product features

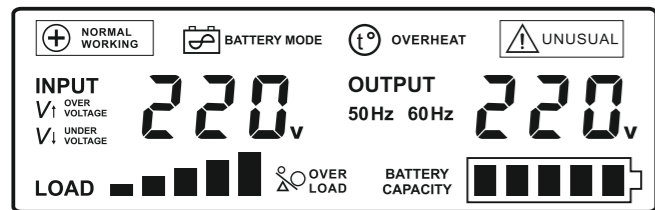
- with inverter, UPS, AVR and charger function;
- toroidal transformer design, high efficiency low static loss, much more energy-saving than old square transformer type design;
- 32-bit high speed CPU controlled, swift reponse speed, more accurate detection;
- LED colorful humanistic and friendly operation interface, displays clearly device's working status, input&output voltage, loading status, battery status, etc;
- pure sine wave output, suitable for almost all of appliance;
- high charging current
- short switchover time, guarantees the connected appliances uninterruptable usage;
- vantilation fan intelligent controlled, fan working based on the setting temperature and working status.

Safety precautions

- this series product is designed for computer&internet devices and home appliance usage not recommended in life support system and other special important equipment application
- avoid overloading, do not use the device beyond its maximum power capacity;
- it will be a danger of high voltage in the device even all the switches are turned off, any operation to move or open the device should be performed by authorized professional personnel;
- in case of fire, use dry powder type fire extinguisher, do not use liquid type fire extinguisher;
- if the device works unusually, please switch off both power sources of battery and city power immediately, any power source exist in such case will cause danger; and please report to the distributor for professional advices.

Display, controll and warning details

● normal working interface



● detail display

	/		city power input normal, device through AVR supplies output
	/		city power input abnormal, battery through inverter supplies AC output
	/		temperature is too high, device cuts off output
	/		battery over voltage, short circuit, high MOSFET's temperature
	/		city power input is over voltage
	/		city power input is low voltage
	/		loading exceeds device's rated power
	/		loading bar showing the loading situation
	/		battery bar showing the battery capacity, when in charging, the bar will be flashing
	/		input voltage indication
	/		output voltage indication and frequency indication

Operational description

Name	Component drawing	Description
output switch		pushing it for more than 2 seconds, switch on/off the inverter or output
AC input cord or terminal		plug it or connect it to wall socket or city power when charges battery or supplies output through AVR
mains switch		when connect to city power and city power is normal, turn on this switch, device will work on mains mode, charging the battery; Turn off this switch, device will switchover to battery mode
output socket or terminal		appliance connect to this socket or terminal for output Note: The Max. power for single socket is 2000W If your appliance's power is more than 2000W, please connect to terminal
vantilation fan		under battery mode or charging, when the power transistor temperature higher than 45°C, fan will start
battery input pole		red battery input cable for positive pole, black battery input cable for negative pole; be attention to the battery voltage must follow the device marking
ac charger		(mains charger on / off switch in the power supply) the button is used to turn on / off the battery charger built into the power supply

Buzzer working status description

Working status	Description
when city power abnormal swithover to battery mode	beeping one time
battery working low voltage or output overload	beeping every second
protection or output abnormal	beeping hurrily

Installation and operation

1. installation

- 1.1 if found any damage upon package opening, please contact distributor immediately;
- 1.2 do not install the device up-side-down; not exposed to direct sunlight or heat source; out of reach from children; away from water, moisture, oil or grease and any flammable substance;
- 1.3 for better ventilation, fan outlet and device ventilation hole should have at least 10CM distance from the wall or other adjacent not heat producing equipment;
- 1.4 make sure the city power voltage and frequency matches the device rated;
- 1.5 the device should be placed in the well grounded condition to ensure the safety;

2. battery connection

connect the red cable to battery “ + ” pole and connect the black cable to battery “ - ” pole, device can not work under wrong connection.

Technical parameter table

MODEL		500 W	800 W	1000 W	2000 W	2500 W	5000 W
max power		500VA	800VA	1000VA	2000 VA	2500 VA	5000 VA
max power current		300W	500W	700W	1400W	1800W	3500W
input	voltage	170VDC-270VDC					
	frequency	45 ~ 65 Hz					
output	voltage	230 VAC ± 1% in battery mode; 230 VAC ± 8% in mains mode with AVR					
	frequency	50 Hz ± 0.5 Hz					
	voltage waveform	pure sine wave					
	distortions	< 3%					
button battery mode/mains mode		yes					
protection		overload, temperature, over and under voltage,battery discharge, short circuit, overcharging					
time of switching between battery mode/mains mode		≤ 4ms					
battery voltage		12VDC			24VDC		48VDC
charging current		10A		20A			10A
dimensions (mm)		253x241x102		311x232x140		312x310x167	540x330x130
weight (kg)		4,2	4,7	6,8	9,5	12	22