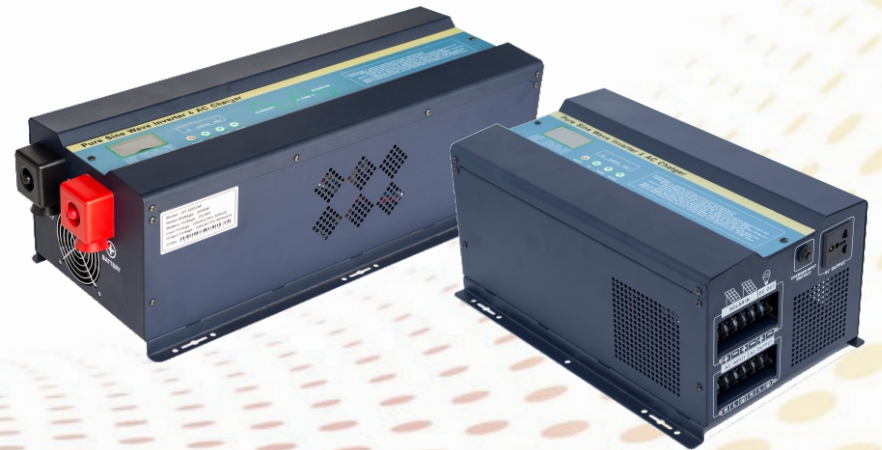


# Low Frequency Pure Sine Wave Inverter with MPPT Controller

Operational Manual



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## 1. Operating instruction

### 1-1. Unstuffy Survey

- After opening the package, please check random accessories, accessories include 1 pcs user manual. And check whether the inverter is still protected well after transportation, if find any brokenor

Note: compon ent miss, do not turn on the machine, feedback to the carrier and distributor.

- Please keep the packing box and packing material, can be used for next delivery if needed.
- This series of product is very heavy(check attachment as reference), please handle with care when carrying.

### 1-2. Installation notice:

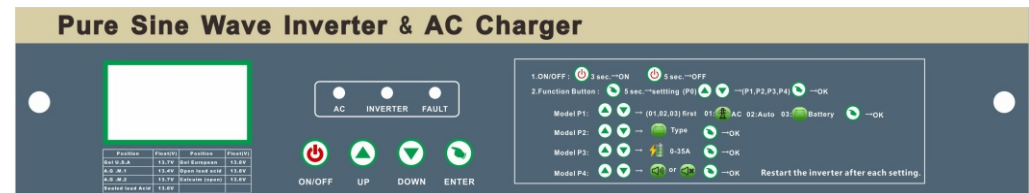
- Install in an area of well ventilated, free of water, burning gas and corrosive product.
- Not good to put on the side, better keep good air ventilation from front panel's bottom air intake, or air outlet from back panel's fan, and side face of machine.
- Around environment temperature should remain 0 to 40 centigrade.
- If disassembling and operate under low temperature environment, may happen water condense, only can work till through dry of machine inside and outside, otherwise will be shock risk..
- Install the inverter near mains supply input socket or switch, easy to pull out mains supply plug to cut off power when meet emergency situation.

Attention:

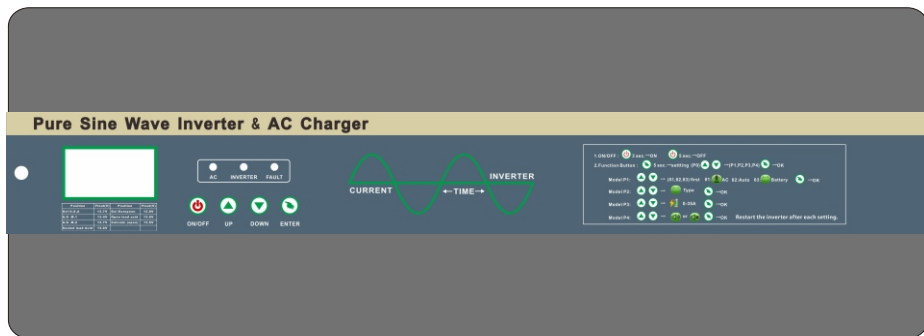
- < Load should be turned off before connecting to inverter and turned on one by one after connection completed.
- < Connect inverter to accessible socket with over current protection.
- < All power socket should link with ground protection.
- < No matter input power cable inserts to mains socket or not, inverter possibly has output. Shutting off Inverter does not guarantee no current inside machine. To ensure no output, it should turn off all switches and then cut off mains power.
- < To load inductive appliances such as electromotor, displayer and laser printer, inverter capacity should be two times more than rated power of load.

## 2.Outlook drawing of inverter

### 1、 1KW-3KW series

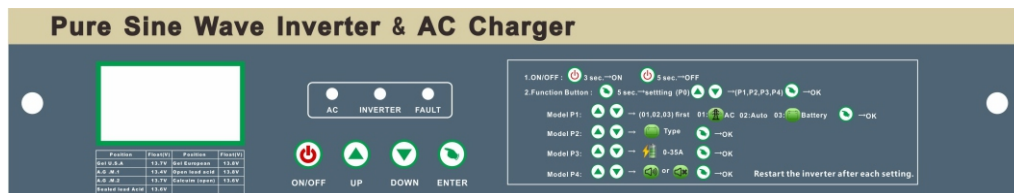


## 2、4KW-6KW series



## 3.Description of front board

Meaning of indicate lamp&button



INPUT	AC input voltage
Hz	output frequency / Working mode
OUTPUT	AC output voltage
BATT	Battery working condition and capacity
LOAD	Load power
AC	AC input voltage normal
FAULT	False signal light
INVERTER	Battery mode
25%--100%	Overload condition
	MUTE/FUNCTION
	ON/OFF
	UP
	DOWN

## 4.Function and setting of panel button

ON/OFF Button: 1, press for 3 seconds to turn on and 5 seconds turn off.

Function Button: press the function button 5 seconds , then start setting

P0- ON P0 model press the function button 2times to exit or in 10 seconds without function Exit Automatic. It Has P1, P2, P3, P4 . 4 working model, press up or down to setting.

Model P1- on left side P1 showing 01 AC charging first, 02 energy saving model, 03 Battery charge first. Press up or down choose the Working model and press the Function Button.

Model P2- Battery Type setting , press the Function Button, press up or down choose the battery type

Model P3- Charging Current 0-35A: from 0-20%-40%-60%-80%-100%, Maximum is 35A , Minimum 0A

Model P4- Silent working setting: press the Function Button, Up or down for turn on / off the Buzzer.

Position	Float(V)	Position	Float(V)
<b>U0=Gel U.S.A</b>	<b>13.7V</b>	<b>U4=Gel European</b>	<b>13.8V</b>
<b>U1=A.G .M.1</b>	<b>13.4V</b>	<b>U5=Open lead acid</b>	<b>13.8V</b>
<b>U2=A.G .M.2</b>	<b>13.7V</b>	<b>U6=Calcium (open)</b>	<b>13.6V</b>
<b>U3=Sealed lead Acid</b>	<b>13.6V</b>		

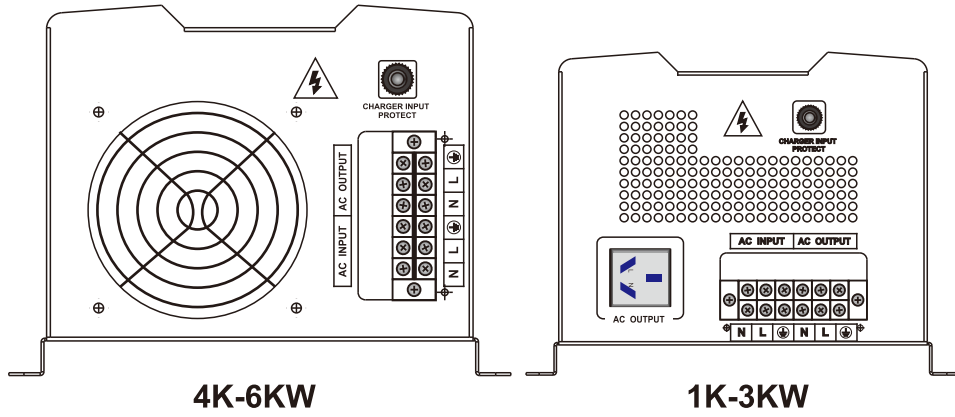
## 5.Connection way of input & output

Connect with AC input and load output by connecting terminal, load output can connect both by terminal blocks and output plug.

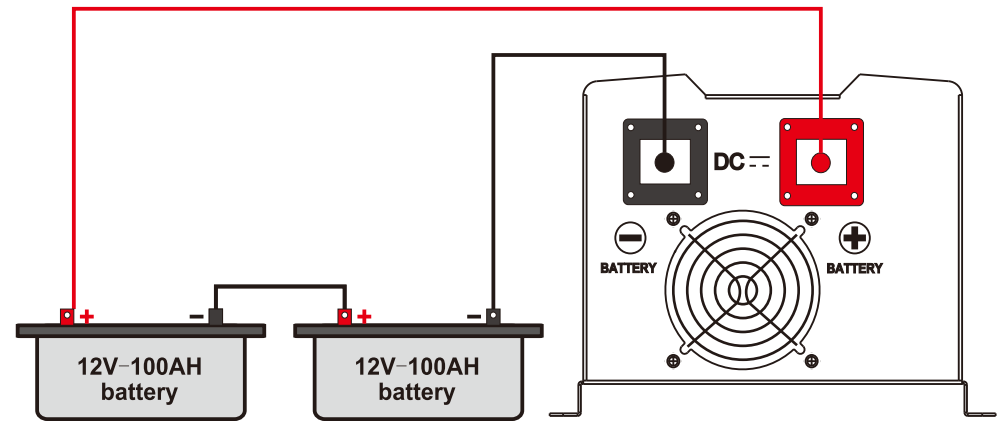
Note: Output plug only can connect with each load less than 1500W.

Back panel illustration

BATTERY Negative	Battery negative polarity connection
BATTERY Positive	Battery positive polarity connection
AC INPUT	AC input connection
AC OUTPUT	Universal socket output or connection terminal output
FUSE AC INPUT	Ac input voltage over current protection
FUSE AC OUTPUT	Ac output voltage over current protection

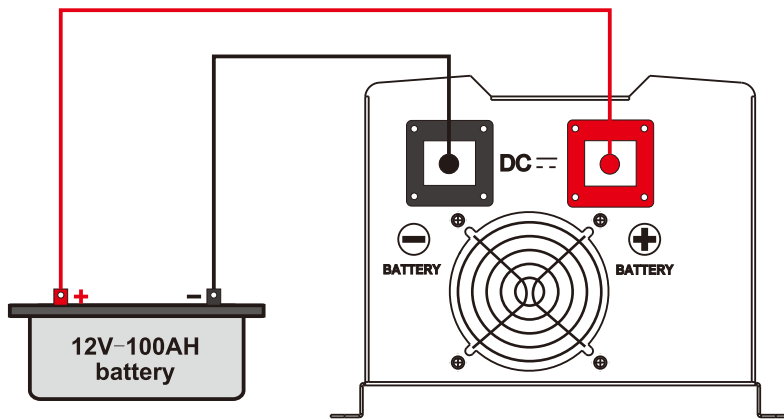


## 2. 24V series battery wiring diagram

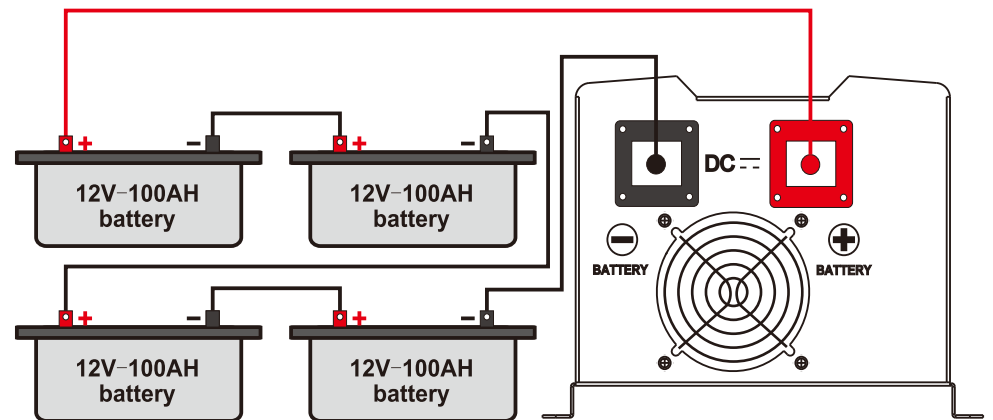


## 6. Inverter wiring diagram

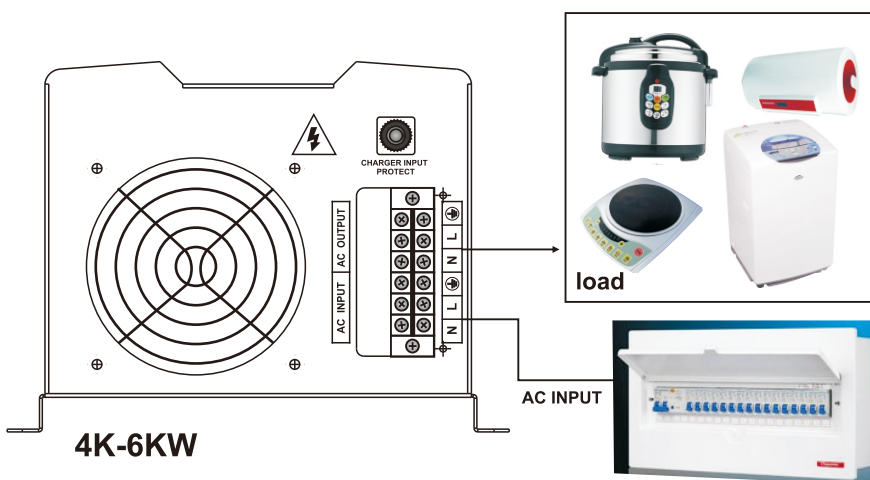
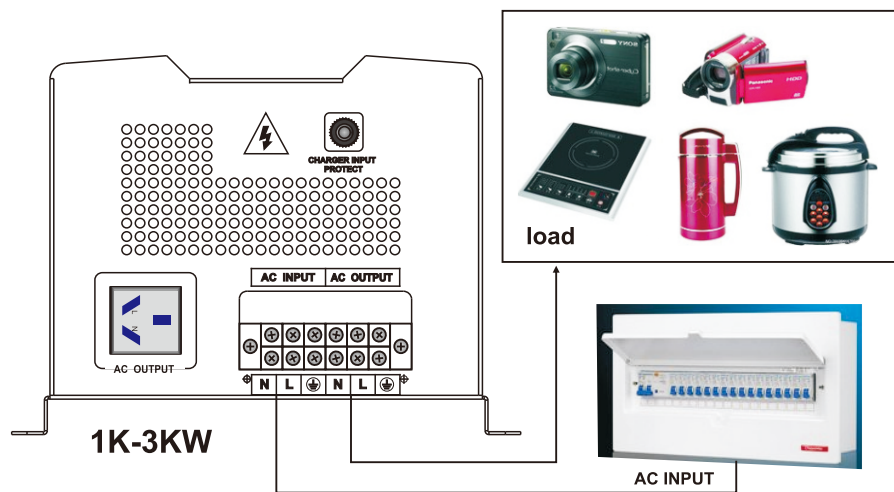
### 1. 12V series battery wiring diagram



### 3. 48V series battery wiring diagram



## 4. Input & output wiring diagram



## Note

- If connect to diesel generator such this kind or, must operate according to below steps
- < Start generator, till it works stably, connect its output power to machine's input port(to be sure there's noany other load connecting to machine this time), then start the machine according to start procedure, aftermachine start well, add connection of other loads one by one.
- < Suggest to choose twice of three times capacity of inverter than generator capacity.

## 7.Care and maintenance

- I This series inverter just needs less maintenance. Battery of standard model is valve adjusting,low maintenance, ensure better life only by charging often. when connect to mains supply, no matter inverter on or off, it still keep charging for battery, and provide over charge, over discharge protective.
- I If long time no use of inverter, it would be better to charge on after four to six months.
- I Working life of battery is three to five years normally, if it work worse, please change as early as possible. Must operating by professional stuff.
- I It is not good to change battery individually, should base on instruction of battery supplier when change all batteries.
- I Charge and discharge the battery when after working four to six months normally, start to charge after discharge till off, standard charging time should not be less than 12 hours.
- I In high temperature area, battery should be charged and discharged every 2 months and standard charging time is not less than 12 hours.

## Note

- < Before changing battery, must switch off battery, turn off inverter and free of mains supply connection.
- < Remove metal object like ring, watch etc.
- < Use tool as insulated handle and screwdriver, do not put any tool and metal object onto battery.
- < It will be small spark when connecting by battery wire, but will not harm the human safe and Inverter.
- < Be attention not short connection between anode and cathode, or converse connection.

## 8.Convenient method of maintenance & fixing

Fault	Cause	Solution
No city power input	Recoverable fuse popup	Press fuse back
Terminal heating	Fault or loose connection	Fasten again
Switch off with loads	Battery no energy or overload	Charge battery or reduce loads
Switch on failure	Fault connection with city power or battery	Check connection with battery or connect again
Alarm when switch on	Battery no energy or overload	Charge battery or reduce loads
Buzzer scream 2secs every 1 secs stop	Over temperature alarm (85 alarm-90 shut down)	Check if fan heat dissipation hole jammed
Fan twirls sometimes fast as well as lowly	Fan twirls fast when inside temperature reaches 45 degree,twirls lowly when 42	Normal phenomenon, fan is under intelligent control

## 9. Technical data

Model	G102	G202	G302	G402	G502	G602		
Rated capacity	1000W	2000W	3000W	4000W	5000W	6000W		
Input	Voltage	(170-275)VAC						
	Frequency	45-65Hz						
Output	Voltage	AC220V+2% (battery mode)						
	Frequency	50/60Hz+1% (battery mode)						
Output waveform	Sine wave							
Efficiency	>85%							
Battery	Optional							
Battery rated voltage	12/24/48VDC		24/48/96VDC		48/96VDC			
Max AC charging current	0-30A (optional)							
Protect	Overload, short circuit, battery high and low voltage and AC input high and low voltage protection							
Conversion way	Interactive							
Capacity of overload	110%~120% turn to bypass after 30secs, 160% maintain 300ms and then shut down							
Communication port	RS-232							
Operating environment	Temperature	-10~+40℃						
	Humidity	10%-90%						
Size: L*W*Hm	430*270*200mm		600*270*200mm					
N.W/G.W (kg)	17kg	25kg	32.5kg	46kg	52kg	57kg		

Above parameter revision change without notification.