# Smart · Green · Inverter

Pure sine wave power frequency inverter



Low Consumption

### **PREFACE**

Thankyou for choosing intelligent power frequency inverter, homeinverter and online interactive series products produced by our company.

Please read this manual carefully, which will help you get the most full service life and service. Please strictly follow all the warnings and operation instructions in the manual and the machine andkeepthis bo ok properly.

The installation/operation and maintenance of this series of products shall be carried out by trained and technical personnel, and the following requirements shall be followed:

- **1.** Please confirm that the dc/ac voltage of the access product confor ms to the nominal and rated working voltage of the product.
- 2. Please ensure that the dc input positive and negative poles of this product are correctly connected with the positive and negative electr odes of the battery, and not the reverse connection.
- 3. Please ensure that the connection wire between the product and the battery is as short as possible, the input and output wiring is correct and firm, and pay attention to avoid short circuit of the connection wire.
- **4.** High voltage exists in the product. Non-electrical professionals are not allowed to open the case.

A car starting battery can provide a large current for a short period of time to start the engine, but it is not designed for continuous power consumption and is not suitable for deep cycle discharge. If you want to use some kind of electrical equipment continuously for a long time, you are recommended to equip with an additional set of batteries suit able for deep discharge, such as AGM or GEL batteries.

Statement: due to the continuous update and improvement of products and technologies, the content of this material may not fully conform to the actual products, please understand. If you need to inquire a bout the product update, please contact us.

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### 1. Installation instructions

1. Unpacking inspection

Open the inverter packaging, please check the random attachment, the attachment includes a manual, warranty card, certificate. Check whether the inverter is damaged in transportation. If damaged or missing parts are found, please do not turn on the machine and inform the carrier and distributor.

### Pay attention to

Please keep the packing cases and packing materials for future handling.

This series of products is heavy (see appendix), handle with care.

### 2 installation notes

- 1, the inverter must be placed in an area with good ventilation, away from water, flammable gas and corrosive agent.
- 2. The side panel fan inlet air hole shall be maintained, and the ou tlet air hole and the side box inlet air hole shall be unobstructed.
- 3, inverter of the ambient temperature shall be maintained betwee n 0  $^{\circ}$  C to 40  $^{\circ}$  C.
- 4. If the machine is disassembled and installed at low temperatur e, there may be condensation of water droplets. It is necessary to wait for complete drying of the inside and outside of the machine before I nstallation and use.
- 5. Please install the inverter near the mains power input socket or switch, so as to unplug the mains power input plug and cut off the power in case of emergency.
- 6. Do not connect the inverter output directly to the power supply. Note:

Load and inverter connection, must first close the load, then wirin g, and then turn on the load one by one

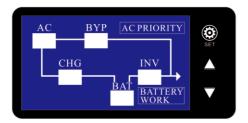
Connect the inverter to a special socket with over current protection device

All power sockets shall be connected to the protective ground end.

No matter whether the input power cord is inserted into the munici pal socket or not, the output of the inverter may be charged. Turning o ff the inverter does not guarantee that the machine is not charged inte rnally. If the inverter has no output, it must first turn off allSwitch on an d off the power supply.

When the motor, display, laser printer, and other inductive loads are connected, due to the high starting power of operation, the capacity of the inverter should be calculated based on the starting power. The starting power is generally twice of the rated power.

### 3.THE LCD PANEL SHOWS





INV INFO 2

BAT VAL: 13.8V 100%

BAT TYPE: VRLAB 12V

TEMP : 29°C

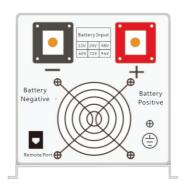


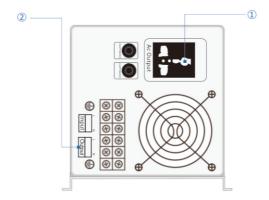
### Note:

Press ▼ key to switch information, press ▲ returnhome page. Long press ⊚ key in 3 seconds. Set state. LCD screen no operation 5 seconds automatic off backlight(energysa ving)Press again ⊚ Open Backlight

Energy saving(dormant) function, inverter working in battery mode and no load, 20 secondsfter entering the state(off output) toachieve energy-saving effects, the load auto matically open, normal use.

# 4.INVERTER INPUT/OUTPUT CONNECTIONS



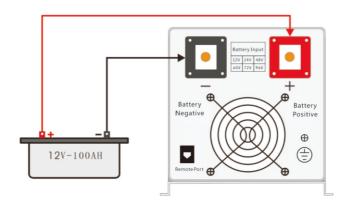


### Side panels that

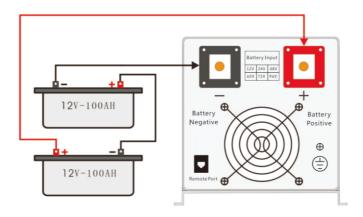
- 1 Power is larger machine through the mains terminals co nnected the input and output load, universal ac output soc ket is only suitable for small power load under 1 of lw
- 2 Ac inverter output 220 v, not with the utility grid.

### **5.INVERTER CONNECTION DIAGRAMTHE**

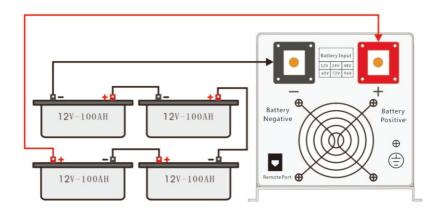
### 12V BATTERY WIRING DIAGRAM



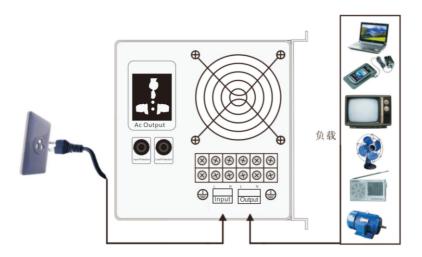
### 24V BATTERY WIRING DIAGRAM



### **48 V BATTERY WIRING DIAGRAM**



### INPUT AND OUTPUT WIRING DIAGRAM



### Note:

If connect a generator to complete the following steps to run:

- ① Start the engine, wait for after its running stability of genera tor output power inverter inputEnd (at this point to determine the inverter for no-load), then press the boot program start the inverter, the inverterStarts, then each connected to the load.
- Recommendations to inverter two to three times the capacity of generator capacity.

### 6. Maintenance and maintenance

- 1 This series inverter require little maintenance, the standard model of battery for regulating valve control type, low WeiHuXi ng,Only need to often keep charging for life expectancy.
- 2 If long-term do not use the inverter, it is recommended that the charge once every two to three months.
- 3 Under normal circumstances, the service life of the battery for three years, if it is found that condition, you must early replacement, replace the battery, a professional must perform.
- 4 Battery should not be individual replacement, integral repla cement battery supplier instructions should be strictly abided by during the normal every two to three months to charge the bat tery, discharge time, discharge is machine after charging, Charging time and standard machine shall not be less than 12 hours
- (5) .In the high temperature region, charge the battery every two months, discharge time, charging standard machine shall not be less than 12 hours at a time

### Note:

- Replace the battery must be closed before inverter and from the mains, close the battery switch
- 2 Take off the ring, watch metal objects
- 3 Use with insulated handles screwdriver, don't put the tools and other metal on the battery
- Connected battery line, in a tiny spark joint belongs to the n ormal phenomenon, will not cause harm to the personal safety and inverter.
- Solution
  Never will the battery is negative sub or the reverse

# 7. Simple maintenance and repair methods

THE FAULTTHE	CAUSE OF THE PROBLEM	ELIMINATION METHOD
Fan does not turn	Machines have not reache d 45 degrees Celsius temp erature	Normal phenomenon, fan is I ntelligent control method
Terminal fever	Poor contact or loose	To tighten
Load off	The battery without electri city or overload	The battery or reduce some load
Can't open the ma chine	Cell line didn't answer	Check whether the cell line is connected or in again
Switch on the alarm	The battery without electric ity or overload	The battery or reduce some load

## THE APPENDIX

MODEL		ZY-AW102	ZY-AW102 ZY-AW152 ZY-AW202 ZY-AW302 ZY-AW402 ZY-AW502 ZY-AW602	ZY-AW202	ZY-AW302	ZY-AW402	ZY-AW502	ZY-AW602
RATED POWER	OWER	1000W	1500W	2000W	3000W	4000W	5000W	M0009
PEAK POWER	NER	3000W	4500W	6000W	M0006	12000W	15000W	18000W
THE	VOLTAGE			.(1)	(170-260)VAC	U		
INPUT	FREQUENCY	<b>≿</b> ;			45-65Hz			
Ļ	VOLTAGE		AC	220V+3%	AC220V+3% (THE BATTERY MODEL)	FRY MODE	EL)	
OUTPUT	FREQUENCY	λ;	20'	/60Hz+1%	50/60Hz+1% (THE BATTERY MODEL)	ERY MODE	EL)	
OUTPUT	OUTPUT WAVEFORM				SINE WAVE			
THE MACHIN	THE MACHINE EFFICIENCY	٠,			>85%			
THE BAT1	THE BATTERY FORM		LEAD ACID, IRON, LITHIUM, COLLOID, THREE YUAN (18650) CAN BE CUSTOMIZED	IRON, LITH NBE CUSTO	IIUM, COLL OMIZED	OID, THRE	EYUAN	
AN EXTERNAL BATTI NOMINAL VOLTAGE	AN EXTERNAL BATTERY NOMINAL VOLTAGE		12/24/48VDC	12/24/	12/24/48VDC		24/48VDC	
THE UTILITY MAXIN ARGING CURRENT	THE UTILITY MAXIMUM CH ARGING CURRENT	I	<b>708</b>	(12VDC), 4	80A(12VDC), 40A(24VDC), 20A(48VDC)	20A(48VDC)		
TOPRO	то ркотест тне	OVERLOA	OVERLOAD, SHORT CIRCUIT, OVER TEMPERATURE, HIGH VOLTAGE LOWVOLTAGE PROTECTION ELECTRIC BATTERY	RCUIT, OVER ND LOW VOL	TEMPERATI	JRE, HIGH VA	OLTAGE LOV	WOLTAGE .RY
TRANSFOR	TRANSFORMATION WAY	\		INTERACT	INTERACTIVE 5 MS (TYPICAL)	(YPICAL)		
OVERLOA	OVERLOAD CAPACITY		110% ~ 120% MAINTENANCE MORE THAN 150% AFTER 60 SECONDS, 10 SECONDS	ANCE MORE	THAN 150%	AFTER 60 SE	CONDS, 10 S	SECONDS
COMMUNIC	COMMUNICATION INTERFACE	RFACE			RS-232	RS-232 (OPTIONAL)	(T)	
THE WORK		THE TEMPERATURE	ш		0 - 40°C	,,		
ENVIRONMENT		HUMIDITY			10%-90%	%		
CASESIZE	CASESIZE L*W*H(mm)	(	480*220*180mm	*180mm		)9	660*220*180mm	uu
WEIGHT (NE	WEIGHT (NET WEIGHT) (kg)	g) 12kg	14.5kg	17kg	20 kg	30 kg	32 kg	35 kg

# THE ABOVE PARAMETERS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

Totaling Tairi

This practical instructions mentioned in the product specification or related information are subject to change without prior notice