

制作说明：A4对折
封面纸质：铜板纸

PRODUCT MANUAL

PURE SINE WAVE ELECTRONIC INVERTERS
WITH UPS



HB



TECHNICAL PARAMETERS

MODEL		HB0512	HB0812	HB1012/24	HB1512/24	HB2024/48	HB2524/48	HB3024/48	HB4024/48	HB5024/48
Max power		500VA	800VA	1000VA	1500VA	2000VA	2500VA	3000VA	4000VA	5000VA
Max constant power		400W	640W	800W	1200W	1600W	2000W	2400W	3200W	4000W
Idle current (battery mode)		<1A								
Input	Voltage	154~264VAC								
	Frequency	45~65Hz								
Output	Voltage	220VAC±3%								
	Frequency	50Hz±0.5Hz								
	Voltage type	PURE SINE WAVE								
	Distorions	<3%THD								
Priority selection button(AC/battery)		YES								
Charge current selection(50%/100%)		YES								
Securities		Overload,temperature,over and undervoltage, before the battery is discharged,short-circuiting,before overcharging								
Switching time AC/BATTERY		≤10ms								
Battery voltage		12VDC		12/24VDC		24/48VDC				
Environment	Temperature	0~40℃								
	Humidity	C0-95% , Non condensing								
	Accoustic Noise(db)	<45dB								
Max charge current		10A	15A	19A/10A	29A/15A	19A/10A	24A/12A	29A/15A	38A/19A	48A/24A
Dimensions		300*144*213mm				385*190*345mm				

LCD DISPLAY ELEMENTS



- Normal operation mode, devices powered directly from the 230V BYPASS network



- No mains voltage, output devices powered from a connected battery



- Incorrect battery voltage, short-circuit or overheating of MOSFET transformers



- Inverter overload, too high power output devices



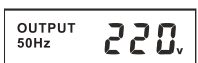
- Inverter load level



- Battery charge level, this indicator will flash during charging



- Input voltage value and frequency



- Output voltage value and frequency

INTRODUCTION

Please read this user manual before starting the device.

Inverter characteristics

- One device with built-in DC/ AC converter, an uninterruptible power supply unit and an automatic battery charger.
- Toroidal transformer used in the converter ensures high efficiency and low idling current. The device is much more energy-efficient than older constructions that used E-type transformers.
- Fast 32-bit microprocessor ensures accurate and trouble-free operation.
- Intuitive and simple operation thanks to the color LCD display, which informs about the current operating status of the device(input and output voltage, battery capacity, charging, etc.).
- Converter generates a pure sinusoidal voltage at the output, which makes it possible to work with practically any type of load
- High battery charging current(exact values in the table with technical specifications).
- Fast switching from mains supply to operating mode as a UPS enables uninterrupted operation of connected devices.
- Intelligent control of the cooling fan, depending on the actual temperature of the device and the operating status of the inverter.
- Adapted to work with Lithium,AGM or GEL batteries.

FIRST TIME START UP

STARTING UP INVERTER

1. Open the carton and check, if the the device is not undamaged. Disconnect mains cable from the device.
2. Connect battery properly to the device according to the correct polarity (red wire+/black wire-)
3. Connect the plug to the mains socket
4. Start the device with the ON/ OFF button
5. Change the mains charger switch to the, "I" or "ON" position to start charging the battery (AC/battery charging)
6. Connect all devices that you want to use and turn them on one by one after connecting.

SWITCHING-OFF THE INVERTER

1. Turn off one by one, all the devices connected to the inverter.
2. Change the charger switch to the "0" position to stop the battery charging process.
3. Press the ON/OFF button to disconnect the inverter output.
4. Disconnect mains plug from the network.
5. Disconnect battery from the inverter.

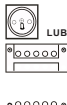
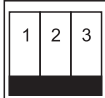
Information how to connect CO as stoves to the power supply!

When connecting the power plug to the stove, first connect it to a socket with a grounding pin. If the magneto in the furnace does not work (ionization current error) , switch the plug to the socket without the grounding pin (turning it 180 degrees from the previous connection).

ATTENTION

1. Be careful when connecting the battery, the voltage generated when reverse polarity happen can damage the inverter.
2. Do not overload the device above its nominal power. When connecting refrigerators, freezers and other induction appliances/consuming more power on start-up, remember not to exceed 30% of the total power rating of the UPS.
3. Do not connect the device on the outdoors, avoid contact with water.
4. Remember to install the power supply in the right place, with access to fresh air and a minimum distance of 30 cm from each side of the housing.
5. If you notice an incorrect operation/damage to the inverter contact the manufacturer's service department.
6. If you want to test the device please do not unplug inverter from the mains. Instead turn off mains RCD switch in building to observe proper work of the device. By unpluggin inverter from the mains, neutral- "zero" is cut off from the inverter, which can cause incorrect work of the inverter.

OPERATION OF THE DEVICE

NAME	PICTURE	DESCRIPTION		
Output switch		If the switch is turned on at the position of "I", the machine will start up. If the switch is turned on at the position of "O", the machine will shut down		
AC input cord or terminal		Connecting the plug to an electrical outlet allows the battery to be charged and to power the output devices through the built-in voltage regulator.		
Mains switch		If the device is connected to the mains supply and the switch is in the "I" position, the battery will be charged and the output devices will be supplied from the mains. Switching to the "0" position will start the inverter and supply the output devices from the battery.		
Output socket or terminal		Connect output devices to the terminal or terminal strip. The maximum power of a single socket is 2000W. If the power of the output devices is higher, please connect them to the terminal block.		
Ventilation fan		The cooling fan starts when the UPS inverter is running or when the battery is being charged-when the temperature of the transistors exceeds 45°C		
Battery input		The red terminal should be connected to the positive pole of the battery (+) , and black to negative (-) . Changing the cables will prevent proper operation of the device.		
Charging current switch (0.5-1.5KVA)		Turn the switch to the "I" position, and the charging current is 100%. Turn the switch to the "O" position, and the charging current is 50%.		
Dip switch (2-5KVA)		SW1:Battery low cut off point	UP	10.5V/21V/42V
			DOWN	10V20V40V
		SW2:Input voltage range	UP	154-265VAC
			DOWN	185-265VAC
		SW3:Battery charger current	UP	100%
			DOWN	50%