

制作说明：A4对折，骑马钉

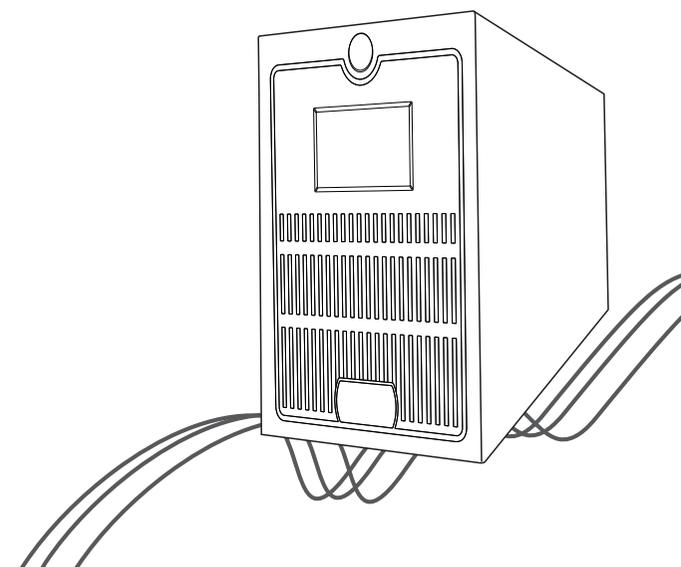
封面纸质：铜板纸

使用手册

USER'S MANUAL

不 间 断 电 源

Uninterruptible Power Supply



6. Service

(1) When there is a problem or damage to the machine, please contact the customer service center with the customer service card for assistance.

(2) Please contact the maintenance center or dealer about the relevant items. If the battery is found to be defective (for example, the battery life is greatly reduced), it should be replaced in time. Please contact the local dealer to confirm if you need to replace the battery. Battery replacement must be performed by a qualified professional. Note: The replacement battery must be the same as the original model number. The battery may generate electric shock hazard and short-circuit current. When replacing the battery, please remove the watch, ring or other metal objects and use a tool with an insulated handle. Do not throw the old battery into the fire, it may explode, and do not open the battery. The old battery should be returned to the local recycling station for disposal or return it to our company to ensure proper recycling.

Specifications:

Capacity	500VA	1000VA	1500VA
Nominal power	300W	600W	900W
Input			
Range of working voltage under UPS mode	125~280 VAC at 50% load		
Range of working voltage under INV mode	100~280 VAC at 50% load		
Frequency	42-80Hz		
Output			
Voltage range (Battery mode)	220VAC ± 10%		
Frequency range (Battery mode)	47~53 Hz		
Transfer time	Normally 2~6 ms, not exceeding 10ms		
Waveform (Battery)	Analog sine wave		
Charging			
Battery numbers	12V × 1	12V × 2	
Charging voltage	13.75V ± 1%	27.5V ± 1%	
Charging current	3.5~6A	7~12A	
LED instructions			
LCD display	Load size, battery capacity, mains mode, battery mode, malfunction indication		
Audible alarm			
Battery mode	6 seconds beeping		
Low battery	1 second beeping		
Overload	0.5 second beeping		
Malfunction	continuous beeping		
Protections			
Overall protections	Overload protection; Deep discharge and overcharge		
Physical properties			
Dimensions, D X W X H (mm)	245x122x195mm		
Working environment			
Humidity and temperature	Relative humidity 0-90 % and temperature 0- 40°C (non condensing)		
Acoustic Noise (db)	<40dB @ 1 meter		

(Product technical changes are not subject to further notice)

一、前言

感谢您购买本系列机器。

此系列不间断电源系统，当市电电压正常时能有效抑制雷击、突波、脉冲以及滤除杂讯，而且在市电过高过低时能自动调整输出电压；当市电异常时，输出电力立即转为电池供电，是个人电脑以及其他过敏感性电子设备之电力守护神。

二、安全说明

1. 本系统产品不推荐用于生命支持系统的其它特殊重要设备。
2. 即使没有和市电连接，它的电源输出插座仍可能有220V电压。
3. 电源线若需要更换，请向本公司服务站或经销商购买原材料，避免因容量不足而造成发热引起火灾。
4. 请勿自行打开外盖，有触电危险。

⚡ 注意 !

机器内有高压，为避免伤及人身安全，如有任何问题
请咨询经销商专业人员或维修中心，不要擅自修理。

*****机器内没有维修配件*****

三、安装说明

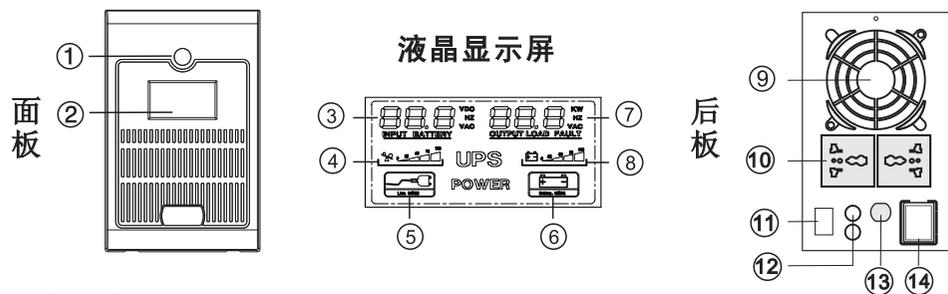
拆包检验

打开包装，请检查随机附件。包括外接电源线、使用手册、保修卡、合格证。检查本机器是否在运输途中损坏。如发现损坏或附件缺少，请勿开机，并告知承运商和经销商。

安装注意事项：

- 1、放置区域必须能够有良好通风、远离水、可燃性气体和腐蚀性。
- 2、周围环境温度应保持在0℃-40℃。
- 3、使用机器时，请不要通过其他稳压滤波电源设备或电源板机器接入市电，请直接将电源线插头插入市电插座即可。并且机器应放在市电输入插座附近，以便紧急情况时拔掉市电输入插头，切断电源。
- 4、因变压器电磁场影响，与显示器的距离必须在25公分以上，否则显示器就会出现闪烁。

四、机器面板外观图示



面板说明:

1、电源开关键

(1) 电池开机

按下电源开关键，听到哪一声，液晶显示屏亮，电池工作模式点亮显示屏右上方显示输出电压值时，说明机器进入电池工作，向负载输出电压；

(2) 市电开机

按下电源开关键，听到哪一声，液晶显示屏亮，市电工作模式点亮显示屏左上方显示当前市电电压值，右上方显示输出电压值时，说明机器进入市电工作，向负载输出电压；

(3) 关机

按下电源开关键大约3秒左右，听到哪一声，液晶显示屏熄灭，说明机器关机，停止向外输出。

2、液晶显示屏

液晶显示屏功能说明:

3、市电输入显示：电压和频率交替显示。

4、负载容量显示：0、25%、50%、75%、100%。

5、市电工作模式（UPS/INV）显示。

6、机器输出显示：电压和频率交替显示。

7、电池量显示：0、25%、50%、75%、100%。

8、电池工作模式显示：并且机器每6秒一叫哪的声音，直至到进入市电工作状态时声音停止。

后板说明:

9、机内散热风扇：向外抽风。

10、输出插座：用来连接输出端至外接负载用的输出插座。

11、功能转换开关：

开关处于“0”时机器工作在UPS状态。

开关处于“I”时机器工作在逆变器状态。

12、外接电池线：红色线接电池正极“+”，黑色线接电池负极“-”

13、无熔丝开关：用来保护电力短路或超大电流作用减少负载量和排除短路故障后按下可以恢复正常的工作。

14、外接电源插座：通过电源线，用来连接市电。

Normal mode

The display interface has only one page, and the left and right digital tubes display the input voltage and output voltage. Under normal conditions, the input voltage and output voltage are always displayed. If an alarm message is generated, the voltage parameter is displayed in the first 7s and the alarm message is displayed in the last 3s.

Left digitron	Alarm causes	Right digitron
ALA	Low battery voltage	27
	High battery voltage	28
	Overload	31
	Abnormal output	51

Failure display

Alarm display after failure shutdown.

Left digitron	Alarm causes	Right digitron
ERR	Low power shutdown	134
	Short circuit shutdown or incorrect phase	105
	Overload shutdown	102
	Low output shutdown	104

5. Troubleshootings

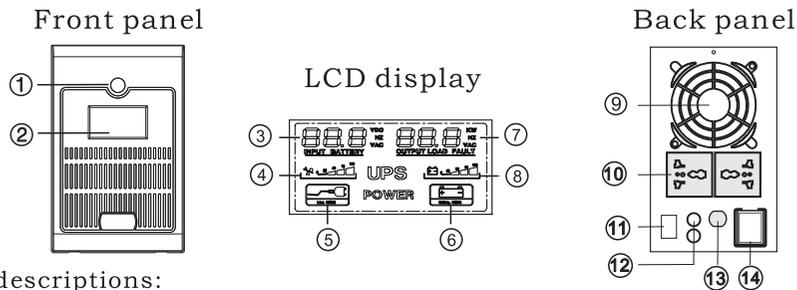
Abnormal occurrence	Possible causes	Solutions
No mains inputs	1. Mains voltage is too high or too low; 2. No-fuse switch pops up; 3. The power cord is not plugged in properly.	1. Save and exit on the computer and turn off the machine and wait for the utility to return to normal. 2. Press the no-fuse switch to reset. 3. Plug in the power cord.
No batteries inputs	1. Overload; 2. Insufficient battery power; 3. Battery damage.	1. Please reduce the load. 2. Charge continuously for 8 hours. 3. Replace the batteries.
No reactions after power on	1. Battery input cable is loose 2. Low battery voltage 3. Host internal failure	1. Check the battery and battery input cable. 2. Please send it to the repair center.
Mains/battery mode switch frequently	1. The changes of mains are too large, causing normal, steady voltage and buck-boost switching.	1. This is normal
In the case of normal operation of the machine, the fuseless switch on the rear panel immediately pops up and shuts down when the load is applied.	1. Overload severely or short circuit.	1. Please check if the loaded device power is too high or short circuited. 2. Press the no-fuse switch to reset.

If the faulty still remains and cannot be eliminated, please contact the dealer and do not handle it yourself.

A. First turn off the power and unplug the mains input cable, then press no-fuse switch on the rear panel.

B. Replacement of the battery.

4. Illustrations of panel appearance



Panel descriptions:

(1) Power switch

① Battery on

After pressing the power switch button, you will hear a beep and notice the LCD screen lights up, the battery working mode lights up when the output voltage value is displayed at the upper right of the display. Those actions indicate that the machine enters the battery operation and outputs voltage to the load;

② Mains on

After pressing the power switch button, you will hear a beep and notice the LCD screen lights up, the mains work mode lights up. The upper left side of the display shows the current mains voltage value, and the upper right shows the output voltage value. Those actions indicate that the machine enters the battery and outputs to the load voltage;

③ Power off

After pressing the power button for about 3 seconds, you will hear a beep and notice the LCD screen goes out, indicating that the machine is turned off and the output is stopped.

(2) LCD display

LCD display function descriptions:

(3) Mains input display: voltage and frequency are displayed alternately.

(4) Load capacity display: 0, 25%, 50%, 75%, 100%.

(5) The mains working mode (UPS/INV) is displayed.

(6) Machine output display: voltage and frequency are displayed alternately.

(7) Battery capacity display: 0, 25%, 50%, 75%, 100%.

(8) The battery working mode is displayed: the machine beeps every 6 seconds until the sound stops when it enters the mains working state.

Back panel descriptions:

(9) The internal cooling fan: venting outward.

(10) Output socket: it is used to connect the output terminal to the output socket for external load.

(11) Function changeover switch: When the switch is at "O", the machine works in the UPS state. The machine is operating in the inverter state when the switch is at "I".

(12) External battery cable: the red wire connects to the battery positive "+", the black wire connects to the battery negative "-".

(13) No-fuse switch: It can be used to protect the power short circuit or super-current action to reduce the load and eliminate the short-circuit fault. Press it to resume normal operation.

(14) External power socket: connect to the mains through the power cord.

1. 普通模式

显示界面只有一页，左右两边数码管显示输入电压，输出电压。

正常情况下，一直显示输入电压和输出电压，若产生报警信息，则前7s显示电压参数，后3s显示报警信息。

左边数码管	报警原因	右边数码管
ALA	电池电压低	27
	电池电压高	28
	过载	31
	逆变故障	51

2. 故障显示

故障关机后的报警显示

左边数码管	报警原因	右边数码管
ERR	低电关机	134
	短路关机或相位不正确	105
	过载关机	102
	逆变输出低关机	104

五、简易故障排除

异常现象	可能原因	处理对策
机器不入市电	1、市电电压过高或过低于规定值。 2、无熔丝开关弹出 3、电源插头线未插接好。	1、对计算机存盘退出，并关闭本机器等候市电恢复正常。 2、将无熔丝开关按下复位。 3、插好电源线。
电池供电失败	1、负载过大。 2、电池电力不足。 3、电池损坏。	1、请减少负载。 2、连续充电8小时。 3、更换电池。
机器开机无任何反应	1、电池输入连接线松动。 2、电池电压低。 3、主机内部故障。	1、检查电池及电池输入连接线。 2、请送交维修中心。
市电/电池切换频繁	1、市电变化过大造成本机及稳压、升降压之间不停切换。	1、此是属于正常情形。
机器正常工作时，加负载时就立刻后板无熔丝开关弹出和关机	1、负载严重过载或短路。	1、请检查负载设备功率是否太大或短路。 2、按下无熔丝开关复位

如果如表程序仍有故障不能排除，请即与经销商接洽，切勿自行处理。

A、首先关闭电源并拔掉市电输入线插头，然后按下后板无熔丝开关。

B、电池的更换

六、服务

1、当机器出现问题或损坏要持客户服务卡到各保修中心寻求协助。

2、在维修之前请先和各保修中心或经销商联络相关事项。

若发现电池不良（例如：电池供电时间大大缩短），则应及时更换。请联系经销商，确认是否需要更换电池。更换电池必须由专业的服务人员进行。注意：更换的电池必须与原用的规格型号相同。电池可能产生电击危险和短路电流，在更换电池时请摘掉手表、戒指或其它金属物品，使用有绝缘柄的工具，不要把旧电池丢进火里，可能爆炸，也不要打开电池，应将旧电池送回当地回收站处理或回本公司以确保正确回收。

技术参数

容量	500VA	1000VA	1500VA
额定功率	300W	600W	900W
输入			
UPS模式工作电压范围	125~280 VAC于 50% 负载		
INV模式工作电压范围	100~280 VAC于 50% 负载		
频率	42-80Hz		
输出			
电压范围（电池模式）	220VAC±10%		
频率范围（电池模式）	47~53Hz		
转换时间	一般2~6ms, 最多不超过10ms		
波形（电池）	模拟正弦波		
充电			
电池数量	12Vx1节	12Vx2节	
充电电压	13.75V±1%	27.5V±1%	
充电电流	3.5~6A	7~12A	
指示灯说明			
LCD液晶显示	负载大小, 电池容量, 市电模式, 电池模式, 故障指示		
警告声音			
电池模式	每6秒一叫		
电池电量低	每1秒一叫		
过载	每0.5秒响一声（1秒二声）		
错误	连续鸣响		
保护功能			
全面保护	过载, 深度放电及过充保护		
物理性能			
尺寸, D X W X H (mm)	245x122x195mm		
使用环境			
温湿度	相对湿度0-90%且温度0-40℃（不结露条件）		
噪音	少于40dB@1米处		

(产品技术更改不再另行通知)

1. Preface

Thank you for purchasing this series of products.

This series of uninterruptible power supply systems can effectively suppress lightning strikes, surges, pulses and filter noise when the mains voltage is normal, and automatically adjust the output voltage when the mains is too high or too low. When the mains is abnormal, the output electricity will be immediately converted to battery power and it is the power patron of personal computers and other over-sensitive electronic devices.

2. Safety instructions

(1) This system product is not recommended for other special important equipment for life support systems.

(2) Even if it is not connected to the mains, its power outlet can still have 220 V.

(3) If the power cord needs to be replaced, please purchase raw materials from our service station or dealer to avoid fire caused by heat caused by insufficient capacity.

(4) To avoid the risk of electric shock, please DO NOT open the cover by yourself.



3. Installation notes

Unpacking inspection

Please check the attached accessories after opening the package, including external power cord, manual, warranty card, and certificate. Please also check if the machine is damaged during transportation. If damages could be found or the attachment was missing, do not switch it on and inform the carrier and dealer.

Installation precautions:

(1) The placement area must be well ventilated, away from water, flammable gases and corrosives.

(2) The ambient temperature should be maintained between 0 °C and 40 °C.

(3) When using the machine, please do not connect to the mains through other regulated filter power supply or power board. Please plug the power cord directly into the mains socket. And the machine should be placed near the mains input socket, so that the mains input plug can be unplugged in case of emergency and the power supply can be cut off.

(4) Due to the influence of the electromagnetic field of the transformer, the distance from the display must be more than 25 cm, otherwise the display will flash.