

UPS2000-G1-(1 kVA–3 kVA) V100R001

Quick Guide

UPS2000-G1-(1kVA–3kVA) V100R001 快速指南

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Precautions /

Safety Precautions /
To ensure safety of humans and the equipment, pay attention to the safety symbols on the equipment and all the safety instructions in this document. The "NOTE", "CAUTION", and "WARNING" marks in other documents do not represent all the safety instructions. They are only supplements to the safety instructions. When operating Huawei equipment, in addition to following the general precautions in this document, follow the specific safety instructions given by Huawei. Huawei will not be liable for any consequences that are caused by the violation of safety regulations and design, production, and usage standards./


Local Safety Regulations /
When operating Huawei equipment, you must follow the local laws and regulations./


Personnel Requirements /
Only trained and qualified personnel are allowed to install, operate, and maintain Huawei equipment./

You can modify default parameters only after being granted approval from Huawei technical support./

Only qualified personnel are allowed to perform high voltage and AC operations and install the UPS./

Symbols /

 **CAUTION** Alerts you to a potentially hazardous situation that could, if not avoided, result in equipment damage, data loss, performance deterioration, or unanticipated results.

 **NOTE** Provides additional information to emphasize or supplement important points in the main text.

Human Safety /

- To prevent electric shock, get the tool insulated and wear insulated gloves when connecting cables. /
- To prevent inhalation or eye contact with dust, take adequate preventive measures when drilling holes. /
- To prevent body injuries, wear protective shoes when moving storage batteries./

Installation Tools/安装工具

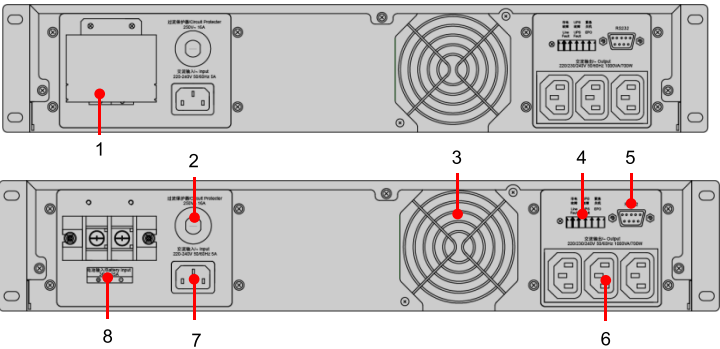
 Phillips screwdriver (M4 and M6)	 ESD gloves	 Insulated gloves	 Protective gloves
 COAX crimping tool	 Wire stripper	 Hydraulic pliers	 Diagonal pliers
 Socket wrench	 Heat gun	 Multimeter	 Heat shrink tubing Ø6)
 Electrician's knife	 Cotton cloth	 PVC insulation tape	 Label paper
 Cable tie			

Appearance/

Appearance/

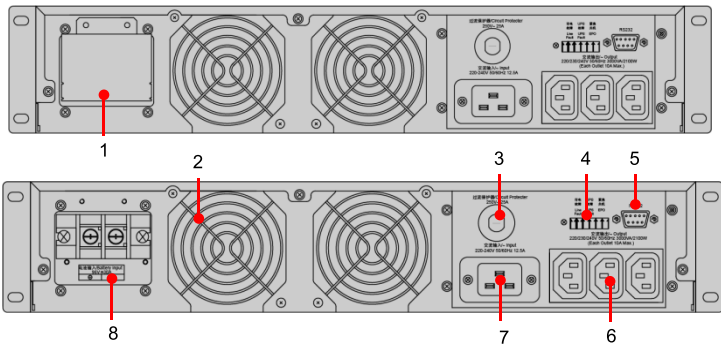


UPS2000-G1-1 kVA rear panel / UPS2000-G1-1kVA



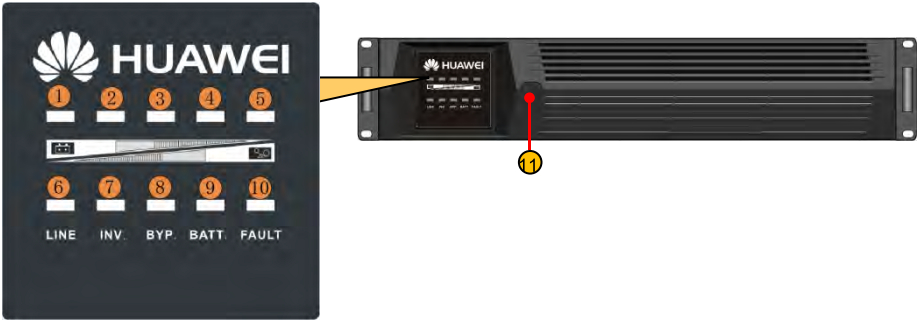
NO.	UPS2000-G1-(1 kVA–3 kVA) Rear Panel Description/
1	Battery input busbar cover/
2	Circuit Protector/
3	Fan/
4	EPO port and dry contact/EPO+
5	RS232 port/RS232
6	AC output socket/
7	AC input socket/
8	Battery input busbar/

UPS2000-G1-3 kVA rear panel / UPS2000-G1-3kVA



NO.	UPS2000-G1-(1 kVA–3 kVA) Rear Panel Description/
1	Battery input busbar cover/
2	Fan/
3	Circuit Protector/
4	EPO port and dry contact/EPO+
5	RS232 port/RS232
6	AC output socket/
7	AC input socket/
8	Battery input busbar/

UPS2000-G1-(1 kVA–3 kVA)



UPS2000-G1-(1 kVA–3 kVA) Display Panel Description/			
NO.	Silkscreen	Name	Remarks
1	—	OUTPUT/	Steady on: The output is normal./ Off: No power output is provided./
2	—	LOAD STATUS LOAD CAPACITY	Steady on: The load capacity amount is greater than 25%. Flashing: The load capacity amount is 0%–25%.
3			Steady on: The load capacity amount is greater than 50%. /亮: 负载率大于50% Flashing: The load capacity amount is 25%–50%. /闪: 25%~50%负载率
4			Steady on: The load capacity amount is greater than 75%. /亮: 负载率大于75% Flashing: The load capacity amount is 50%–75%. /闪: 50%~75%负载率
5			Steady on: The load capacity amount is greater than 100%. /亮: 负载率大于100% Flashing: The load capacity amount is 75%–100%. //闪: 75%~100%负载率
2			BATTERY STATUS BATTERY CAPACITY 电池模式 电池容量
3	Steady on: The battery capacity amount is greater than 75%. /亮: ≥75%电池容量 Flashing: The battery capacity amount is 50%–100%. /闪: 50%~100%电池容量		
4	Steady on: The battery capacity amount is greater than 50%. /亮: ≥50%电池容量 Flashing: The battery capacity amount is 25%–100%. /闪: 25%~100%电池容量		
5	Steady on: The battery capacity amount is greater than 25%. /亮: ≥25%电池容量 Flashing: The battery capacity amount is 0%–100%. /闪: 0%~100%电池容量		
6	LINE	LINE/市电	
7	INV.	INVERTER/ 逆变	Steady on: The inverter is working properly./亮: 逆变模式 Off: The inverter is not working./灭: 非逆变模式 Flashing: The UPS is to be remotely shut down in a 10-second countdown./闪: 遥控关机最后10s倒计时
8	BYP.	BAPASS/旁 路	Steady on: The UPS is working in bypass mode properly./ 亮: 旁路模式 Off: The UPS is not working in bypass mode. /灭: 非旁路模式
9	BATT.	BATTERY/电 池	Steady on: The UPS is working in battery mode. /亮: 工作在电池模式 Off: The UPS is not working in battery mode. /灭: 非电池工作模式 Flashing: Storage batteries are being protected against undervoltage or overcharge, or batteries are not connected in normal mode./ 闪: 电池欠压保护/电池过充/市电状态判断到电池未接/电池欠压告警
10	FAULT	FAULT/故障	Steady on: The UPS is faulty./亮: UPS故障 Off: The UPS is working properly./灭: 正常 Flashing: The output is overloaded or storage batteries are overcharged./闪: 输出过载/电池过充

11	—	Power/	At shut down status, the UPS starts running if you press this button for 1 second in normal mode or for 3 seconds in battery mode. At running status, press this key 1second to shut up.
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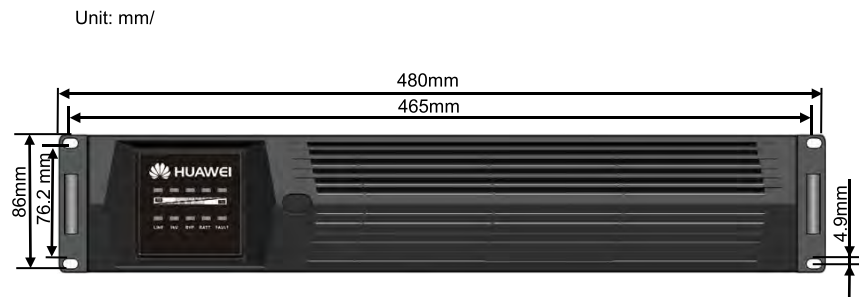
1 Unpacking Inspection/

NO.	Conduct checks
1	Check the UPS exterior. If any damages are found, notify the carrier immediately.
2	Check auxiliary devices against the packing list. If some components are missing or component models do not comply with the packing list, record the information and contact the local Huawei office.

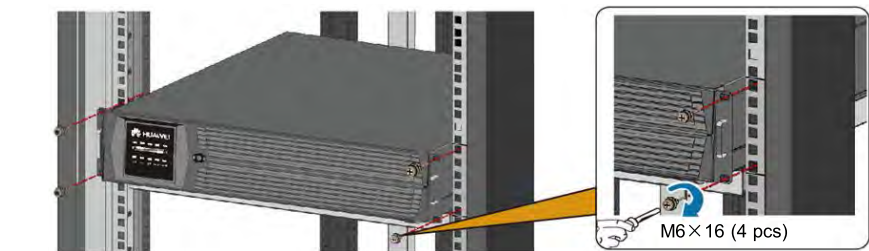
2 Mechanical Installation/

a Rack-mounting the UPS/

- ① Determine the position for installing the UPS./

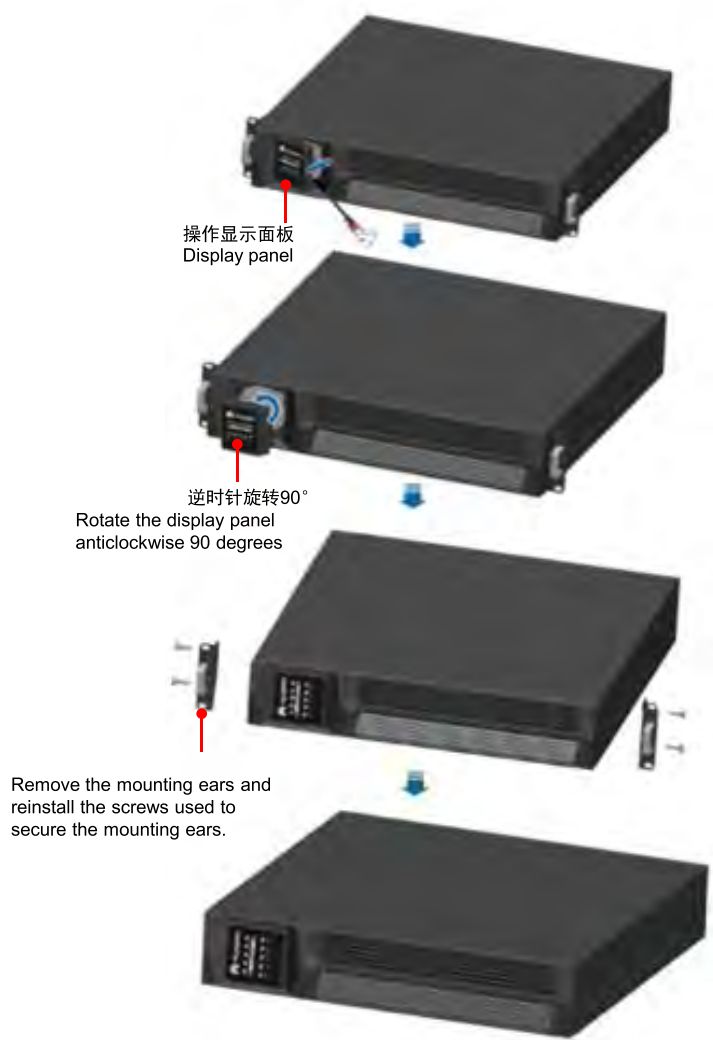


- ② Slide the UPS along the guide rails on the rack and Secure the rack by installing screws in the mounting ears on the left and right sides of the UPS./将UPS放置于机架的导轨上（禁止通过挂耳搬运UPS），然后通过UPS左右两侧挂耳上的安装孔与机架固定。



b Tower-mounting the UPS/塔式安装

- ① Determine the position for installing the UPS. Gently remove the plastic front panel of the UPS and pull out the display panel. Rotate the display panel anticlockwise 90 degrees and push it back. Then remove the mounting ears and reinstall the screws used to secure the mounting ears./轻轻拆下UPS的前塑胶面板，使用一字螺丝刀（螺丝刀头需套保护套管），将操作显示面板撬开，然后用手将操作显示面板逆时针旋转90度，按回原位。最后拆除支耳，并将固定支耳的紧固螺栓锁回原处。



- ② Place the UPS on two support bases. /

CAUTION / 注意

A distance of at least 280 mm is recommended between two bases so that the UPS stands firmly./



3 Cable Connection/线缆连接

CAUTION / 注意

1. Connect power cables to the UPS after switching off circuit breakers and securing the UPS./需确认UPS相应的各级配电开关处于安全分断状态，且设备安置妥当后，方可进行UPS电缆的连接。
2. Reverse battery connection will cause short circuits.
切勿将电池正负极互相接反造成电气短路。

1 Switch off the three circuit breakers that respectively control storage batteries, loads, and AC inputs.
/确认电池包/电池架有空开，且置于OFF，确认负载开关置于OFF状态。将UPS前级交流输入空开置于OFF。

2 Remove the protective cover from the busbar, connecting cables according to following in sequence:
AC INPUT → AC OUTPUT → BATTERY。
取下接线排防护罩，按照以下顺序连接线缆：AC INPUT（交流输入）→ AC OUTPUT（交流输出）→ BATTERY（电池）。

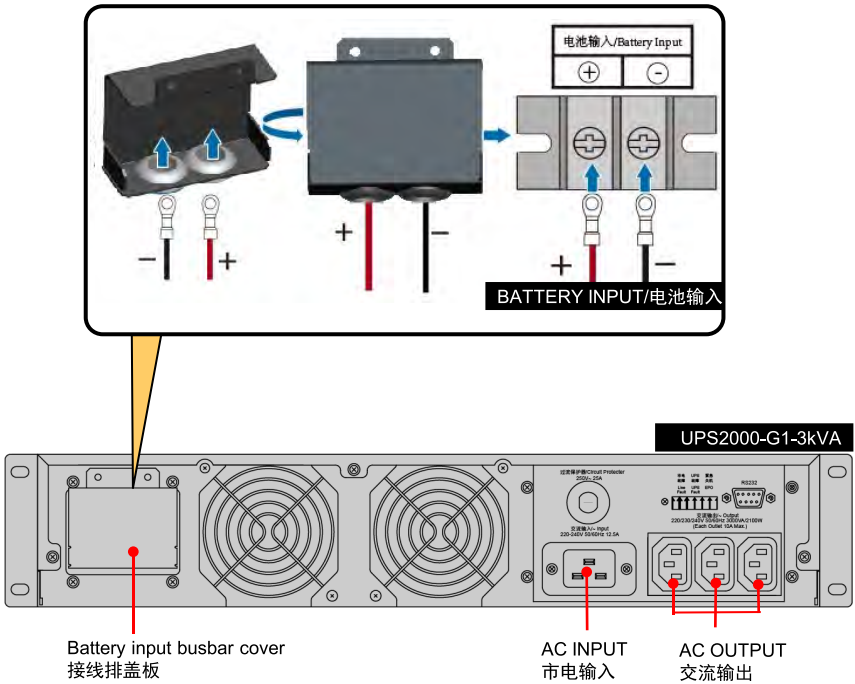
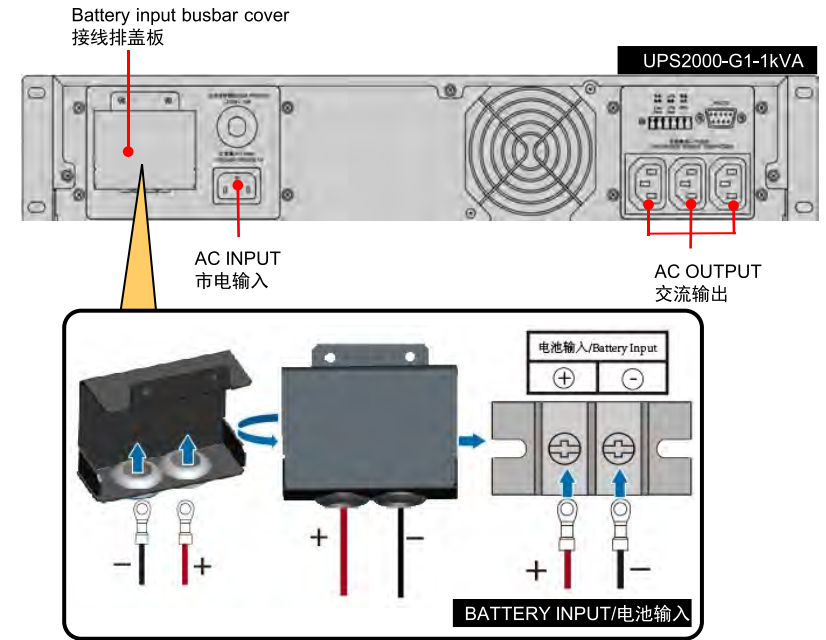
NOTE/说明

1. The AC input socket provides a port for connecting to the ground cable.
接地线已经包含在交流输入的其中一个端口里，无需再另外连接。
2. Recommended cable diameters and screw models:
推荐接线的线径及螺钉型号：

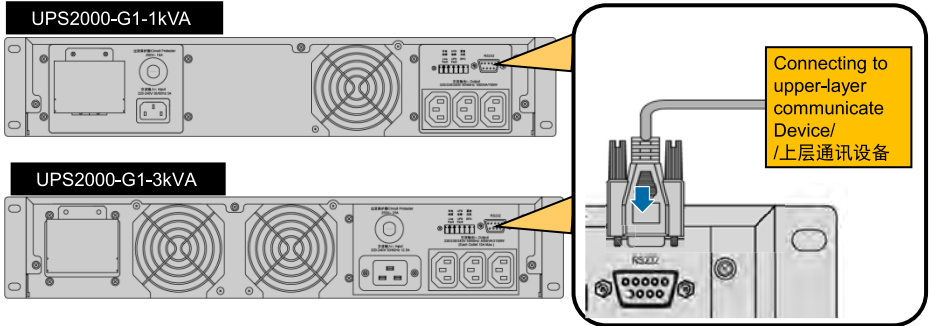
UPS Model/机型	UPS2000-G1-1kVA	UPS2000-G1-3kVA
Cross-sectional area of battery input cables/电池输入线径（mm²）	4	4
Wiring terminal model/接线端子型号	RV3.5-6	RV3.5-6
Busbar screw model/接线排螺钉型号	M6x13	M6x13

CAUTION / 注意

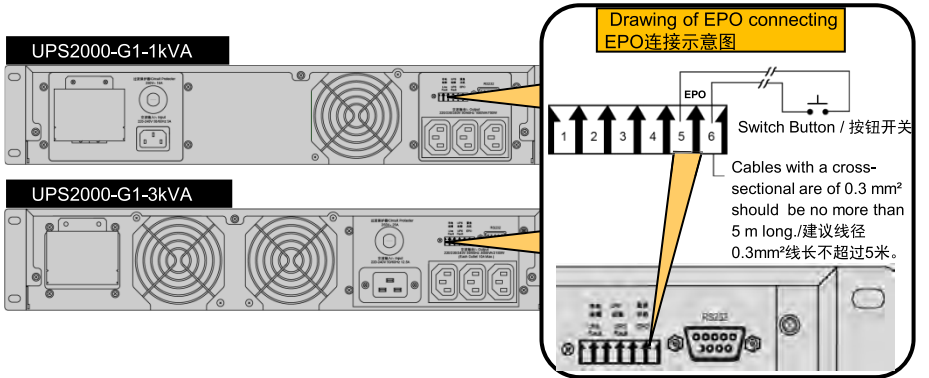
- 1.Ensure input/output cables and terminals contact firmly and can not reverse connection.
接线时，一定要确保输入、输出线与输入、输出端子之间接触牢靠，且不能接反！
2. On the UPS2000-G1-3 kVA, a 20 A circuit breaker is required for controlling the AC input.
对于UPS2000-ODG1-3kVA，必须在其交流输入前级外置一个20A规格的断路器。



3 Connecting a Communications Cable to an RS232 Port./连接通讯线缆。



4 Connecting Cables to EPO Ports./ EPO连接。



NOTE/说明

Connect an external button to the EPO ports. One second after you press the button, which means that ports 5 and 6 are short-circuited, the inverter stops, and the bypass is also disabled. In this way, the UPS output stops immediately.
闭合紧急断电开关约1秒后，UPS关闭逆变器输出，同时不会转换为旁路输出，从而实现输出端子上完全断电，达到紧急关闭输出的目的。

4 The operation and movement/操作与运行

a Check Before Turn-On UPS/上电检查

NO./ 序号	Check Item/ 检查项目
1	AC power cable colors comply with electrical regulations./检查交流电缆的线色是否符合规范。
2	Cables are securely connected./检查线缆的连接点是否稳固。
3	Battery cables connect to correct battery terminals in the correct order. The battery voltage complies with the requirements in appendix A "Technical Specifications./检查电池连接线的极性和顺序是否正确，及电池电压是否符合要求。
4	Correct labels are attached to power cables./检查电缆的标识是否正确。
5	Cables are neatly routed and securely bound./检查布线是否整齐或有松脱，电缆的绑扎是否符合工艺规范。
6	Devices are installed and cables are routed in ways that facilitate modification, capacity expansion, and maintenance./检查设备的安装和布线是否有利于系统今后的改造、扩容、维护。
7	Ground cables are properly connected./检查接地点是否可靠接地。
8	The voltage between the neutral wire and the ground cable is less than 5 V AC./检查零线与地线间的电压差是否小于5V AC。
9	Ensure the ground resistance of the UPS shell is less than 0.1Ω./确认UPS外壳接地电阻小于0.1Ω。

b Starting the UPS / UPS开机

CAUTION / 注意

1. Before starting the UPS, switch on the battery breaker./ 开机前先合上电池包/箱的电池开关。
2. To prevent triggering overload protection, start the loads with higher power and then the loads with lower power.
UPS开启负载时为防止大功率负载启动时发生过载保护动作，开机顺序按照先开启大功率设备，后开启小功率设备。

1) Starting the UPS for Normal Mode/市电启动

- 1 Switch on the battery breaker./闭合电池空开。
- 2 Connect the UPS to the power grid./插上UPS市电输入端插头。
- 3 Press the POWER button for 1 second. The INV indicator is on. A few seconds later, the BYP indicator is off, which indicates that the inverter is working.
/按动UPS面板开机键1秒，UPS将启动，“INV.”指示灯亮，延时后，“BYPASS”灯熄灭，UPS转为逆变供电，此时完成开机。
- 4 After the UPS runs without loads for about 10 seconds, start the computer and other devices./ UPS开始运转，经空载运行约10秒后，方可开启电脑或其它仪器使用。

2) Starting the UPS for Battery Mode/电池冷启动


- 1 Switch on the battery breaker./闭合电池空开。
- 2 Press the POWER button for 3 seconds. If the INV indicator is on, the UPS has started./ 按动UPS面板开机键3秒，UPS将启动，“INV.”指示灯亮，此时完成开机。
- 3 After the UPS runs without loads for about 10 seconds, start the computer and other devices, start the loads with higher power and then the loads with lower power. /UPS开始运转，经空载运行约10秒后，方可开启电脑或其它仪器使用。应该按照负载从大功率设备到小功率设备的开机顺序启动负载。

C Shutting Down the UPS/ UPS关机

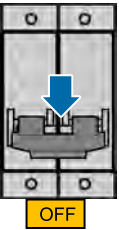
- ❶

Shut down all loads, and keep the UPS running for 10 minutes to dissipate its heat./
关闭负载，让UPS空载运行10分钟将机内热量排出。
- ❷

Press the POWER button for 1 second to power off the UPS./
轻按面板上的开机键1秒。


- ❸

Switch off the battery breaker./断开外置电池空开。


- ❹

Disconnect the UPS from the power grid./拔出UPS 的市电输入端插头。
After all indicators are off and fans stop running, the UPS is shut down and stops supplying power to loads./所有指示灯熄灭，风扇停止运行，此时UPS停止工作，负载断电。

NO./ 序号	Symptom/异常现象	Cause/ 可能原因	Measures/ 措施
3	The AC input to the UPS is persist, but the buzzer beeps intermittently./UPS有输入时，蜂鸣器仍然会发出间歇性的叫声。	The AC input voltage is beyond the UPS input voltage range, or the AC input frequency is not normal./输入电压或频率不正常，超出UPS允许的市电输入电压范围。	Check voltage or frequency if over range, please contact local electric power company./检测市电的输入电压与频率是否超出使用范围，若超出请与当地电力公司协商解决。
		The AC input fuse is faulty./输入熔断器故障。	Replace the AC input fuse./更换熔断器。
4	All indicators on the front panel are off./面板指示灯全部不亮。	Cables to the front panel are not properly connected./面板的连接线未连接好。	Reconnect cables to the front panel./重新连接面板的连接线。
		There is no input voltage./没有输入电压。	Check the input voltage and battery voltage. If both values are normal, Contact the local Huawei office./检测输入电压是否正常，检查电池电压是否正常，如果都正常，请联系供应商。
		The UPS is faulty./UPS发生故障。	please Contact the local Huawei office./请联系供应商。
5	The UPS input is normal, but the LINE indicator is Flashing./UPS输入正常，LINE灯闪烁。	The live wire and neutral wire are reversely connected./输入L、N接反。	Connect the live wire and neutral wire correctly./请按正确的连接，接好L、N线。

NOTE/说明

For more information, please see the *UPS2000-G1-(1 kVA– 3 kVA) V100R001 user manual 05*.
如需了解UPS2000-G1-(1kVA-3kVA)更多信息，请阅*UPS2000-G1-(1kVA-3kVA) V100R001 用户手册 05*。

5 Troubleshooting故障处理

NO./ 序号	Symptom/异常现象	Possible Cause/可能原因	Measures/ 措施
1	The buzzer buzzes, the FAULT indicator is on, the inverter is faulty, and the UPS switches to the bypass./蜂鸣器长鸣故障灯亮，UPS转由旁路供电，逆变器故障。	The UPS is being protected against overload or short circuits./输出负载过载或短路所致，UPS自动保护。	Reduce the load power./请减小负载。 Reconnect short-circuited wires, and restart the inverter./排除短路点，关闭UPS逆变器，再重新开启逆变器。
		The UPS triggers protection against overtemperature./UPS过热保护。	Clean or replace fans./请清理风扇上的灰尘或更换风扇。
		The UPS is faulty./UPS发生故障。	Contact the local Huawei office./请联系供应商。
2	The UPS fails to supply power to loads during a AC input outage./ UPS平时正常工作，停电时无法发挥作用。	Storage batteries are faulty./电池故障。	Replace storage batteries./请更换电池组。
		The battery charger fails to charge storage batteries in normal mode./电池充电器故障，平时无法对电池充电。	Contact the local Huawei office./ 请联系供应商。
		Battery cables are not properly connected, or wiring terminals are not in good contact./电池连接线未接好或接线端子接触不良。	Connect battery cables properly./请连接好电池的连接线。

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