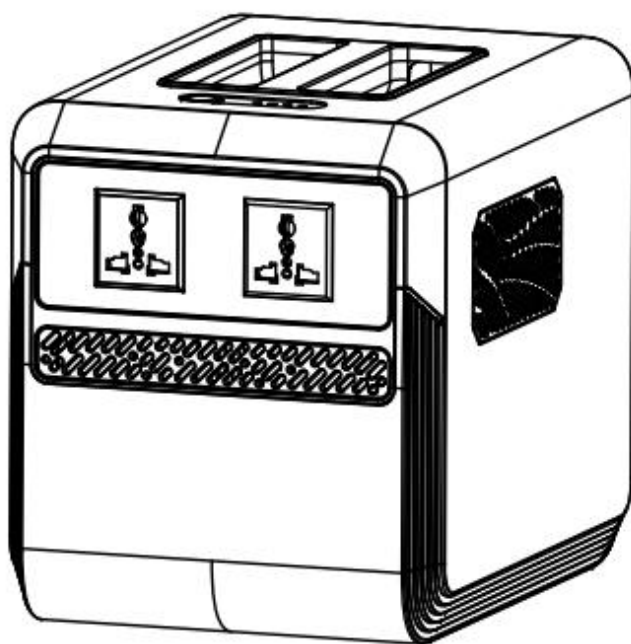


1kWh/500W User Manual

1kWh/500W用户手册

V 1.0.1



1kWh/500W

注意事项:

1. 请确保 1kWh/500W产品以及配件干燥，远离火源。
2. 请勿拆解产品或违规改装产品接口。
3. 请根据当地法规回收弃置产品。
4. 儿童或者特殊人群需要在监护人的保护下使用产品。

Caveats:

- Please make sure to keep the product and accessories dry and away from any sources of fire.
- Please avoid taking apart or making any unauthorized modifications to the product interface.
- Kindly follow local regulations when disposing of the product.
- For the safety of children or individuals with special needs, it's important for them to use the product under the supervision of a guardian.

产品免责声明:

请仔细阅读所有安全提示，警告说明，使用说明，免责声明。如果没有正确操作本产品，您可能会对自身或他人造成严重伤害，或者导致产品损坏和财产损失。一旦使用本产品，即视为您已理解、认可和接受本文档全部条款和内容。本产品不承担因用户未按《用户手册》使用产品所引发的一切损失。使用产品前，请熟悉您所在地区的相关法律规定，您有责任了解相关法律条文，并以合规的方式使用该产品。

Important Notice:

Please take time to review all safety tips, warning instructions, usage guidelines and disclaimers. As the user, you are fully responsible for how the product is used and operated. Before using the product, we advise you to become familiar with the applicable legal regulations in your area. It's important to understand and comply with the relevant legal provisions when using the product.

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产品使用说明:

1. 请使用本产品配套配件，使用非配套配件所产生的任何问题，造成的一切后果，本公司概不负责。
2. 使用时请确保处于干燥通风的环境，避免堵塞出风口。
3. 请勿在无人看管的情况下使用本产品。
4. 严禁产品接触任何液体，请勿将产品浸入水中，请勿在雨中或潮湿环境中使用产品。
5. 连接产品配件或输入输出线时，请保持机器电源关闭。
6. 若使用环境温度过高(>60°C)，可能会引起电池着火甚至爆炸。使用环境温度过低(<0°C)，产品可能无法正常工作。
7. 禁止对产品进行拆解或使用尖锐物品刺破产品，否则可能会引起内部故障造成起火。
8. 产品遭遇严重撞击或跌落时，不得再次使用。
9. 禁止使用导线或金属物体短接产品，造成产品短路有起火的风险。
10. 在电源产品使用时会不可避免的会产生电磁场，对于易受到磁场影响的相关设备，请咨询制造商相关的使用限制条件。
11. 连接冰箱等波动负载时，可能会造成输出关闭，对于储存药品，疫苗等高价物品的冰箱，请确保进行完整测试后，再使用本产品为冰箱进行供电。

Product Usage Guidelines:

1. Please make sure to use the appropriate accessories designed for the product. Our company cannot be held responsible for any issues arising from the use of non-matching accessories or for any resulting consequences.
2. It's important to use the product in a dry and well-ventilated environment, and to avoid obstructing the air vents.
3. Please don't leave the product in operation when unattended.
4. Keep the product away from any contact with liquids, submersion in water, or use in rainy or humid conditions.
5. When connecting product accessories or input/output wires, remember to turn off the device's power.

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6. Using the product in environments with temperatures exceeding 60°C may cause the battery to catch fire or explode. In temperatures below 0°C, the product may not function properly.
7. Please refrain from disassembling the product or piercing it with sharp objects as this may lead to internal malfunctions and fire hazards.
8. If the product has been subjected to severe impact or has been dropped, it should not be used again.
9. It is strictly prohibited to short-circuit the product with wires or metal objects, as this poses a fire risk.
10. The use of power products inevitably generates an electromagnetic field. For devices susceptible to electromagnetic interference, please consult the manufacturer for relevant usage restrictions.
11. Devices like refrigerator that require a peak power to start up may cause the AC output to shut down when connected to the product. For refrigerator used to store high-value items such as medicines and vaccines, please ensure a complete test before using the 1kWh/500W to power it.

产品存储运输说明:

1. 本产品无法携带登机。
2. 请将机器存放在儿童无法接触的地方。
3. 请将本产品保持干燥，远离火源，远离热源。
4. 产品在运输快递过程中，请将电池电量降至 < 50%。

Storage and Transportation Guidelines:

1. Please refrain from carrying this product on board an aircraft
2. Store the device in a location that is out of reach of children.
3. Ensure that the product is kept dry, away from sources of fire, and away from heat sources.
4. When transporting or delivering the device, please reduce the battery level to < 50%.

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产品电池废弃说明:

1. 电池属于危险化学品，严禁废置于普通垃圾桶。请遵循当地电池回收法律处理废弃电池。
2. 当电池严重馈电无法启动后，请联系售后人员确认产品是否报废。

Battery Disposal Guidelines:

1. Batteries are hazardous chemicals and should not be thrown away in regular trash bins. Please follow local battery recycling laws to dispose of used batteries properly.
2. If the battery is severely flatted and unable to power up, please get in touch with our customer service team to determine if the product should be discarded.

产品保养说明:

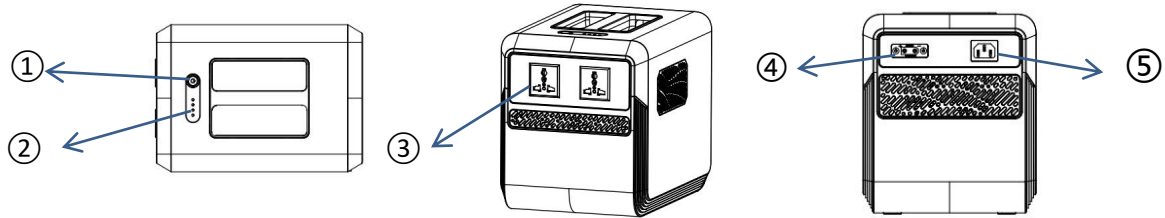
1. 电池的储存环境温度为-20°C~45°C，使用环境温度为 0~45°C。
2. 请至少每隔三个月为 1kWh/500W进行充放电，即先将电池电量放电至 25%，然后再充电至 75%，以保持电池性能。

Maintenance Guidelines:

1. The battery should be stored in a temperature range of -20°C to 45°C, and it should be used in a temperature range of 0°C to 45°C.
2. It's important to fully discharge and recharge the product at least once every three months. This involves discharging the battery to 25% capacity and then recharging it to 75% capacity to maintain battery performance.

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1. 产品功能介绍 Features Introduction:



1. 开关按钮 On & Off Button
2. 状态指示 Status Indicators
3. 交流输出插头 AC Output port(230V, 50Hz)
4. 光伏输入插口 PV Input port(11~55V, 300W)
5. 交流输入插口 AC Input port(230V, 50Hz)

1.1 开关按钮(On& Off Button)

- 1) 关机状态下按下按钮，状态指示灯全部亮起，系统开机，开机后交流输出默认开启，指示灯指示当前电量。
- 2) 开机状态下按下按钮，状态指示灯全部熄灭，系统关机，关闭交流输出。

- 1) To turn on the system when the device is powered off, press the button for 0.5seconds. All status indicators will light up, and the AC output will be enabled by default. The indicators will show the current battery level.
- 2) When the device is powered on, press the button for 3 seconds to turn off the system. All status indicators will turn off, and the AC output will be disabled.

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1.2 状态指示灯 Status Indicators

	指示灯 1 Indicator 1	指示灯 2 Indicator 2	指示灯 3 Indicator 3	指示灯 4 Indicator 4
关机状态 Powered-off status				
	○	○	○	○
故障状态 Fault status				
	●	○	○	○
充电状态 Charging status				
当前电量不闪，增加电量闪烁 The battery level stays consistent, and a blinking light indicates an increase in battery level.				
0-25%SOC	◇	○	○	○
25-50%SOC	◆	◇	○	○
50-75%SOC	◆	◆	◇	○
75-100%SOC	◆	◆	◆	◇
放电状态 Discharging status				
稳定在如下状态 Steady in the state described below				
75-100%SOC	◆	◆	◆	◆
50-75%SOC	◆	◆	◆	○
25-50%SOC	◆	◆	○	○
0-25%SOC	◆	○	○	○
充电完成/Charging completed				
100% SOC	◆	◆	◆	◆
系统升级中 System upgrade in process				
	○	○	◆	◆

◆ Green led on ◇ Green led blinking ● Red led on ○ Led off

- 1) 第一个灯为红绿双色灯，其余 3 个灯颜色为绿灯，当故障红灯与闪烁绿灯重叠，视觉上显示黄灯闪烁。
- 2) 充电为绿灯当前指示灯持续点亮，下一级电量指示灯闪烁。
- 3) 故障输出异常时，红灯持续点亮，此时禁止交流输出，需要设备关机重启重置故障。
- 4) 输出为绿灯显示电量，随电量降低从右向左逐渐灭灯。
- 5) 当系统正在升级中时，第三、四个指示常亮。
- 6) 当电量降低到 0%时，红灯闪烁 10s 后，系统自动关机。

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- 1) The first indicator shows both red and green colors, while the other three indicators are green, The overlapping illumination of a steady red fault indicator and flashing green LED creates a perceived yellow.
- 2) While charging, the green indicator stays on continuously, and the next level of battery indicator light blinks.
- 3) In the case of a serious fault, the red indicator stays on continuously, and AC output is disabled, the product needs to be shut down and restarted to reset the fault.
- 4) The green indicator shows the output power, and as the power decreases, the indicators gradually go out from right to left.
- 5) When the device is in the process of upgrading, the 3rd and 4th indicator light up.
- 6) When the battery level is 0%, the red led flash for 10s, after that system automatic shutdown.
- 7) When the 1st red is on, the remaining green LEDs will indicate different fault type, check below list for fault information.

Fault list

	Indicator1	Indicator2	Indicator3	Indicator4
Short circuit	◆	○	○	○
Over load	●	◆	○	○
Over temperature	●	○	◆	○
PV Over current	●	○	○	◆
Bus soft start fault	◆	◆	○	○
Battery over voltage	◆	○	◆	○
Sensor fault	◆	○	○	◆
Soft start of inverter overtime	●	◆	◆	○

Bus low voltage	●	◆	○	◆
Bus over voltage	●	○	◆	◆
Abnormal mains power supply	◆	◆	◆	○
Bypass over current	◆	○	◆	◆
AC relay fault	◆	◆	○	◆
Inverter output fault	●	◆	◆	◆
Other	◆	◆	◆	◆

●Red LED on ◆Yellow led blinking ◆Green led blinking ○LED off

1.3 交流输出插口 AC output port

可以为设备提供 230V 交流电，例如：电视，风扇，台灯，笔记本，手机充电器等设备。使用1kWh/500W为设备供电前，请仔细查看设备说明书，设备额定功率应该不高于 500W。

The product can supply 230V AC power for devices like TVs, fans, desk lamps, laptops, and mobile phone chargers etc. Before using 1kWh/500W to power a device, please make sure to carefully read the device manual and ensure that the device's rated power does not exceed 500W.

1.4 太阳能光伏输入插口 PV input port

支持 11~55V 太阳能输入，最大功率 300W。由于受光照条件的影响，所以需要配置高于300W的光伏板，建议使用320W的光伏板充电。可以接入大于 300W的光伏板，但是需要确保光伏板的输入电压在 11~55V 之间。

The product can handle solar input ranging from 11~55V with a maximum power of 300W. Due to the influence of light conditions, we need to configure more than 300Watts of photovoltaic panels and it is recommended to use 320 watts of photovoltaic panels for charging. It's also feasible to connect solar panels with a power greater than 300W, but it's important to ensure that the input voltage of the solar panel falls within the 11~55V range.

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1.5 市电输入插口 AC input port

可通过市电为设备充电，支持 90V-280V 交流电。

You can charge 1kWh/500W using your local grid, which supports 90V-280V AC input.

1.6 通风散热孔 Ventilation holes

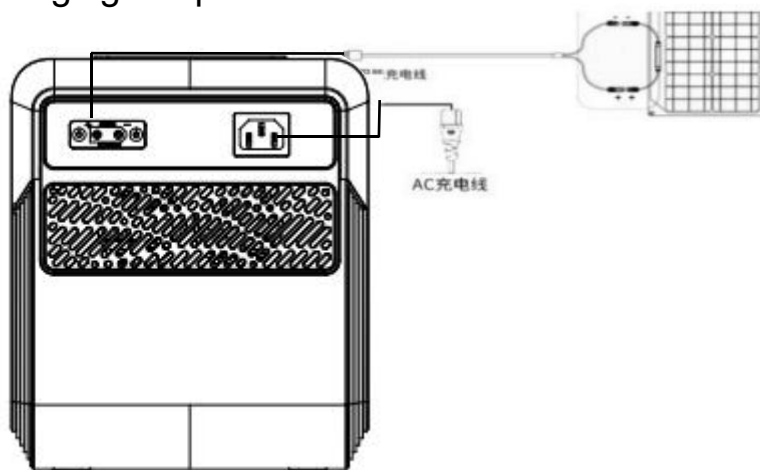
散热孔可以防止 1kWh/500W 过热，请避免遮挡散热孔。

The ventilation holes help prevent 1kWh/500W from overheating, so please make sure not to block them.

2. 产品使用说明 How to use 1kWh/500W

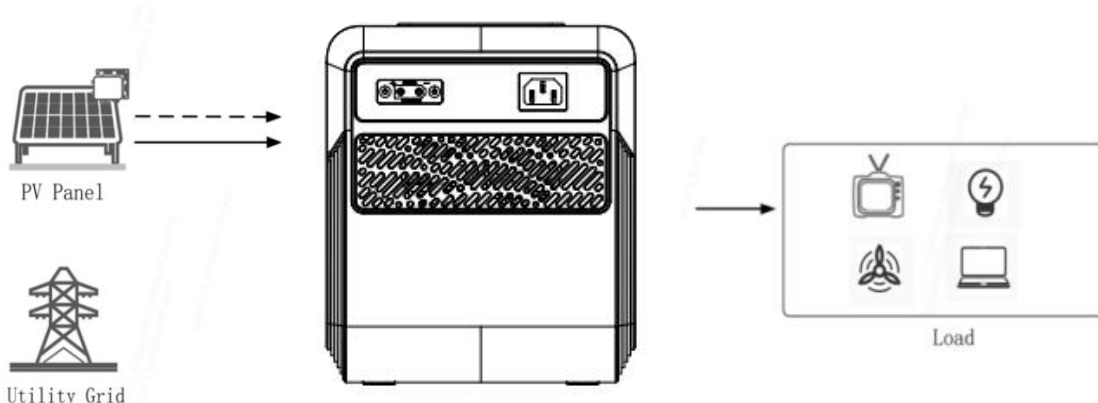
1kWh/500W 的充电接口包括：一个 AC 充电接口，一个 XT90 太阳能充电接口，可以通过市电或太阳能板为 1kWh/500W 进行充电。最大充电功率 500W。产品处于关机状态下时，插入 AC 充电或光伏充电，自动激活产品充电。

The product comes with a charging interface that includes an AC charging port and an XT90 solar charging port, allowing it to be charged using your local grid or solar panels. It has a maximum charging power of 500W, When the product is turned off, plugging in the AC charge or PV charge will automatically start charging the product.



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- 用户可以购买本产品配套的 320W 太阳能板进行充电，并请详细阅读太阳能电池板说明书，确保太阳能电池板电压不超过 55V，高于 55V 的电压将触发保护，过高的电压将有可能造成产品损坏。用户使用非本产品配套的太阳能板或不按照说明进行连接，造成的产品损坏，本公司不承担免费维修。
- 将光伏板的 MC4 接头通过转接线转换为 XT90 接口，插入到本产品的光伏输入接口。当光照充足时，产品开始充电。
- 产品采用光伏优先模式，当市电和光伏同时插入时，优先采用光伏进行充电。
- 产品开机后，默认进入光伏输入模式，如果光伏发电功率过小，低于设定值 (60W) 时，自动切换到市电输入进行充电。市电充电过程中，每隔一段时间对光伏进行检测，如果光伏发电功率大于设定值 (60W)，则使用光伏充电，否则继续由市电充电，直到电池充满。



- Users have the option to use the 320W solar panel specifically for the product to charge the device, the solar panel voltage shouldn't exceed 60V, exceeding this voltage will trigger protection, and may cause damage to the product, Please note that supplier does not provide free repairs for damage caused by the use of non-matching solar panel or improper connection.
- To charge the product, connect the MC4 connector of the photovoltaic panel to the XT90 interface using an adapter cable, and then insert it into the PV input port of the product. When there is sufficient sunlight, the product will begin charging.

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- The product operates in PV priority mode, meaning that when mains electricity and photovoltaic power are connected simultaneously, PV power takes priority for charging.
- Upon start up, the product defaults to PV priority mode. If the solar power generation is too low and falls below the set value (60W), it will automatically switch to grid power input for charging. During mains charging, the PV charging power is checked at regular intervals. If the PV power generation exceeds the set value (60W), it will switch to PV charging; otherwise, it will continue to charge from grid power until the battery is full.

2.1 备用电源功能 EPS feature

产品按照以下图示方式进行连接，可以实现备用电源功能: AC 充电线连接到市电充电，用电设备连接到交流输出口。

当市电正常时，市电直接通过内部旁路为用电设备供电，不消耗电池电能。当市电发生断电时，15ms 内部自动切换至 1kWh/500W 对外供电。该功能可以保障风扇电视等用电设备持续运行，在市电停电时，无感切换至 1kWh/500W 电池供电。当市电重新来电时，可以从电池供电无感切换至市电供电。

请注意该功能是 EPS 功能，不对市电进行处理，有市电时自身不输出，切换时间 15ms 左右，一般应急备电使用。此功能非专业级别 UPS 功能，不支持 0ms 切换，请勿用于服务器，工作站，医疗设备，精密仪器等设备供电。如造成设备无法正常使用，数据丢失，本公司概不负责。

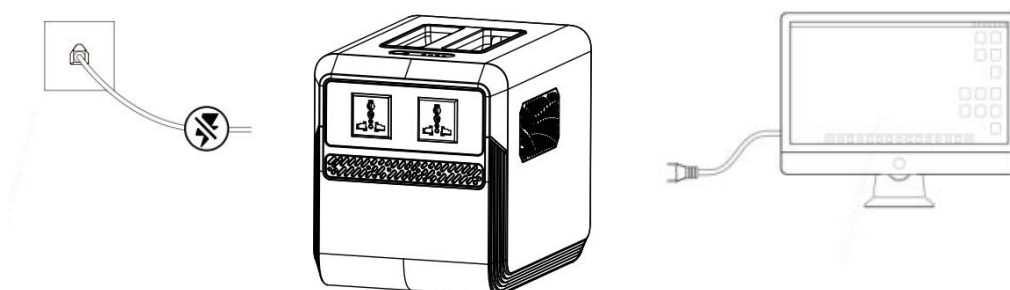
The product can provide backup power by following the connection diagram: the AC charging cable is plugged into the main grid for charging, and the electrical devices are connected to the AC output port.

When the grid power is working normally, the electrical devices are powered directly by the grid power through an internal bypass, without using the battery power. In the event of a grid power outage / load shedding, the product automatically switches to take over the power supply within 15ms. This feature ensures that electrical devices such as fans and televisions continue to operate smoothly, seamlessly transitioning to the product battery power when the grid power is off. When the grid power is restored, it can seamlessly switch from battery power supply to grid power supply.

Please be aware that this feature is an EPS function and does not regulate grid waveform. The battery stops outputting power when grid power is available and the switching time is approximately 15ms, typically used for emergency backup power. This function is not a professional-grade UPS function and does not support 0ms switching. Please refrain from using it to supply power to servers, workstations, and other

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equipment, Manufacture is not liable for any equipment malfunctions or data loss resulting from improper use.



3. 技术参数 Datasheet

技术参数 Technical parameter	
型号 Model No.	1kWh/500W
额定功率 Rated power	500W
额定容量 Rated Battery Capacity	1004.8Wh
电池 Battery	磷酸铁锂 LiFePO4
电池容量 Battery capacity	314Ah
存储时间 Shelf Time	1 年(满电状态) 1Year (fully-charged)
输入规格 Input Specifications	
市电输入电压 AC input voltage	230Vac (90~280Vac)
市电输入频率范围 AC input frequency	50Hz (45~65Hz)
市电输入功率因数 AC input Power Factor	>0.95
市电充电功率 AC charging power	500W
光伏输入电压 PV input voltage	11~55V
光伏输入最大电流 Max.PV input Current	10A max
光伏最大充电功率 Max.PV input power	300W
输出规格 Out Specifications	
交流输出电压 AC output voltage	230V
交流输出功率 AC output power	500W
工作频率 Operating Frequency	50/60Hz
过载能力 Overload Capability	CP 500W,Latch output @ <170Vac
旁路模式 Bypass model	Available
UPS 模式 UPS model	UPS switch time:<20ms
直流输出电压 DC output voltage	3.2V
界面 Interface	
交流输入端口 AC input port	1*C14 AC inlet port
光伏输入端口 PV input port	1*PV port 11-55V, 300W max
交流输出端口 AC output port	2*AC output port, 500W max total

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电池SOC指示灯 Battery SOC indicator	4 LEDs ●●●●
尺寸 Dimensions	L210*W130*H285mm
工作环境温度 Operating Temperature	0~45 °C
工作海拔 Operating Altitude	<2000m
湿度 Humidity	95%
防护等级 IP Level	IP20
认证标准 Certification	UN38.3
保护功能 Protection	AC Input Over/Under Voltage Protection AC Output Over-current Protection PV Input Reverse Connection Protection (PV Input Power Limitation) Over-charge Protection Over-discharge Protection Battery Cell High/Low Temperature Protection Over temperature Protection Short Circuit Protection

4.常见问题 FAQ

本产品应该如何存放？ How to store the product?

请将本产品存放在干燥的地方，避免淋雨，防止浸水。如长时间不使用，请关闭产品电源。在温度适宜，通风良好的地方存放。为了延长电池寿命，如果长期存放，请每隔 3 个月对产品进行一次充放电，即先将电池放电至 25%，然后在充电至 75%。

Keep the product in a dry place, away from rain and water. If you're not going to use it for a while, remember to switch it off, Find a spot with the right temperature and good airflow for storage. To keep the battery in good condition during long-term storage, it's good idea to charge and discharge the product every 3 months. Simply discharge the battery to 25% and then charge it back up to 75%.

本产品为什么不能对外放电了？

Why can't discharge power from the product?

1. 请确保使用原厂充电线和插排，非原厂充电线或插排可能无法适配。
2. 请确保产品电源已经打开，按下开关按钮 0.5s,产品指示灯亮起。
3. 请确保产品电量充足，如果指示灯只显示一个绿色指示灯，说明电量低于 25%，请插入充电线为产品进行充电。
4. 如果产品指示灯有红色故障灯亮起，需要产品关机后重新开机。
5. 如果依然无法对外放电，请联系我们的售后人员。

1. Please make sure to use the original charging cable and socket, other charging cables or sockets may not work properly.

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2. Make sure that the product is turned on. Press the power button for 0.5 seconds and the product indicator will turn on.
3. Check if the product has enough power. If only one green indicator, it means the power is less than 25%. Please connect the charging cable to recharge the product first.
4. If the product indicator shows a red fault light, turn off the product and then restart it.
5. If you still can't discharge power, please get in touch with our after-sales team.

本产品红灯亮起是什么原因？

When the red indicator is on, what does it indicate?

当红色指示灯亮起时候，说明产品由于负载过大，内部过热等问题，停止工作。请拔掉所有用电器，长按开关 3S 钟关机。静置 10 分钟后，重新开机，查看设备是否正常工作，如果产品依然无法工作，请联系我们的售后人员。

When the red indicator is on, it means that the product has stopped working due to issues like excessive load or internal overheating. Please unplug all devices, press and hold the power button for 3 seconds to turn it off. After 10 minutes, restart the device and see if it's working properly. If the product still doesn't work, get in touch with our after-sales team.

1kWh/500W可以连接哪些设备？

1kWh/500W can be connected to what kinds of devices?

1kWh/500W可以为风扇，电视，显示屏，笔记本电脑，手机充电器，台灯，小冰箱等常见电器供电。为电器供电之前，请详细查看电器产品说明书，确保连接到 1kWh/500W的所有电器总功率低于 500W。

1kWh/500W can power everyday devices like fans, TVs, monitors, laptops, phone chargers, desk lamps, small refrigerators, and other similar appliances. Before connecting any device to 1kWh/500W, please make sure to carefully read the device's manual to ensure that the total power of all devices connected to 1kWh/500W is less than 500W.

5. 包装内容 Packaging

1. 1kWh/500Wx1
2. 市电充电插头 AC charging plug x1
3. 用户手册 User manual
4. 保修卡 Warranty card x1

保 修 卡

产品信息			
产品名称		规格型号	
购买日期		序列号	
销售商信息			
销售商名称		联系电话	
销售日期		发票号码	
地址			
用户信息			
姓名		联系电话	
邮箱		地址	
维修记录			
日期	故障原因及处理情况		

登录链接或扫描二维码为您的产品注册保修。



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深圳科乐新能源有限公司

1kWh/500W

保修条例

一、自购买日期7天内，如果产品为非人为因素损坏，并在下列条件下，可凭有效发票、有效收据凭条或有效售后服务卡更换。

- 1、包装完整、没有人为损坏。
- 2、发票、收据凭条或售后服务卡必须是有效的,并未被涂改。
- 3、同型号调换。

二、保修期内，如果产品为非人为因素损坏，凭有效发票、有效 收据凭条或有效售后服务卡享有免费保修服务。

三、本保修不适用于：

- 非产品质量问题；
- 从未经授权的经销商处购买的物品；
- 无法提供有效的购买证明；
- 已退款的商品；
- 已超过保修期的物品；
- 因误用产品、未经授权的修改、拆卸或不按照官方说明或手册操作而造成的任何缺陷或损坏；
- 因暴露于过热、液体而造成的任何缺陷或损坏；
- 使用未经授权的第三方零件，因可靠性或兼容性问题造成的任何缺陷或损坏；
- 产品丢失或被盗；
- 免费赠送产品。

Warranty Card

Product Information			
Name		Model	
Purchase Date		SN.	
Dealer's Information			
Name		Contact	
Warranty Period		Invoice No.	
Address			
User's Information			
Name		Contact	
Email		Address	
Service Record			
Date	Service description		

Scan the QR code to register for product warranty.



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Warranty Policy

1. Please note that the warranty period may vary according to local laws and regulations. Contact your local reseller for the period of warranty.
2. Within 7 days from the date of purchase, if the product is damaged by non-human factors, present a valid invoice, receipt or service card to exchange to same model.
3. Within warranty period from the date of purchase, if the product is damaged by non-human factors, present a valid invoice, receipt or warranty card to enjoy free warranty service.
4. Exclusions and Limitations, this warranty does not apply:
 - Non-quality related issues;
 - Items purchased from unauthorized resellers;
 - Purchases without valid proof of purchase;
 - Items that have been refunded;
 - Items that have expired their warranty period;
 - Any defects or damages caused by misuse of products, unauthorized modification, dis-assembly or operation not in accordance with the official instructions or manuals;
 - Any defects or damages caused by exposure to excessive heat, liquids or other external causes;
 - Any defects or damages caused by reliability or compatibility issues when using unauthorized third-party parts;
 - Lost or stolen products;
 - Free products.



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Shenzhen Cola New Energy Co., Ltd

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