

Power Station 600W /1000W User Manual

Version V2.1

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About This Document

Preface

- This portable power station is designed and tested in strict accordance with relevant safety regulations, but as an electronic device, users need to follow the safety instructions in this manual. Please read the complete user manual before operating, and familiarize yourself with the functions and features of the product before using it. Improper operation will cause serious injury and property loss to users! The Company disclaims any direct or indirect liability. By using this Product, you shall be deemed to have understood, acknowledged, and accepted all terms and contents of this Document. Users undertake to be responsible for their own actions and all consequences arising therefrom.
- Use officially provided or suggested parts, and strictly follow the guidelines in this manual when using the product. Otherwise, you won't get official after-sales service. This manual includes safety, operation, and maintenance instructions. Be sure to carefully read and follow all instructions and warnings in the user manual before using the product.
- Subject to complying with laws and regulations, our company enjoys the final right to interpret this document and all related documents of this product. Please refer to the latest official announcement if there is any update, revision, or termination without prior notice.

Revision History

The product manual is constantly updated, and the latest product manual contains all previously updated records.

Version	Date	Record
V1.0	2022/09/30	First edition release
V1.1	2023/07/18	1. Updated the relevant drawings; 2. Improved the relevant descriptions.
V2.1	2023/09/06	3. Updated layout and description

01 Safety Instructions

1. This product is recommended to be used at an ambient temperature of 15 to 35°C. Do not store the machine at room temperature above 45°C or below -20°C. Too high a temperature may cause a battery fire. If the temperature is too low, the product performance will be seriously degraded and may not meet the requirements of normal use.

1.1 This product contains batteries. Do not place the product near a heat source, such as a fire or heating furnace. Otherwise, it will trigger spontaneous combustion of the battery and possibly even an explosion. If a fire breaks out due to improper storage of the product, use fire extinguishing equipment in the recommended order: water or water mist, sand, fire blanket, dry powder, and carbon dioxide extinguisher.

2. Store the product in a dry environment. The product should not touch any liquid; do not submerge the

product in water or get it wet. Do not use this product in rainy or wet environments. If the product accidentally falls into the water during use, after removing it from the water, place it in a safe, open area until the product is completely dry. After drying, it shall not be used again. It shall be scrapped according to the method of abandonment in this manual.

3. Do not use in an environment with strong static electricity or magnetic fields, as some of the protective functions of the machine may fail.

5. Do not place anything heavy on top of the product.

6. Do not bump, fall, or step on this product. Turn off the power immediately if this product is struck by a serious external force.

7. In case of serious damage to the product, keep it away from combustible materials and people, ensure the surrounding safety, and scrap it in accordance with local laws and regulations.

8. Do not use unofficially provided parts or accessories. Please go to the official sales channel for relevant purchase information if a replacement is required.

9. Without official authorization, do not disassemble the machine or pierce the battery with sharp objects in any way. Otherwise, the battery will spontaneously burn or cause harm to humans, and the company will not be responsible.

10. Damage to the battery may cause the electrolyte to leak. If the electrolyte leaks, do not touch the leaked electrolyte or volatile gas, and immediately contact the after-sales service center for help

11. Avoid using products in dusty areas, which can clog fans.

12. If there is dirt in the interface of the product, use a dry cloth to clean it. Otherwise, it will cause poor contact, resulting in energy loss or failure to charge.

13. Keep this product out of reach of children and pets to prevent accidents. If a child accidentally swallows parts, please seek medical advice immediately.

02 Transportation & Storage

1. Please turn off the product when storing or transporting it, and store it in a dry, ventilated room temperature environment.

2. Please charge this product before storing it. Long-term storage may damage the batteries. If the battery capacity is seriously depleted or operates idle for too long, it will enter deep sleep mode. You need to charge the battery and wake up before the product function can be restored from the hibernation state.

3. It is recommended to charge and discharge this product once every three months, first to 0%, then fully charged, then discharged to 60% for long-term storage to extend the life of this product.

4. When storing this product, seal it with an outer packaging bag to avoid dust entering and blocking the fan port.
5. It is forbidden to store or transport machines with metal necklaces, glasses, watches, hairpins, or other metal objects
6. Please fix it properly during transportation to avoid vibration and impact.
7. DO NOT place products near heat sources, such as cars with direct sunlight, fire sources, or heating furnaces.
8. DO NOT transport products with battery power exceeding 30%.
9. Please DO NOT take this product on board.

Maintenance

Maintenance item	Maintenance cycle
Clean housing and output (including DC output/AC socket/USB output port) with a clean, dust-free cloth	Three months
It is recommended to charge and discharge this product once every three months. First, discharge it to 0%, then fully charge it, and then discharge it to 60% for long-term storage to extend the life of this product.	Three months

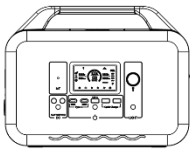
03 Product Disposal

1. After the machine battery is completely discharged, put the machine battery in the designated battery recycling bin. Batteries are dangerous chemicals, so it is strictly forbidden to put them in ordinary garbage bins
2. Be sure to comply with local laws and regulations on battery recycling and disposal.

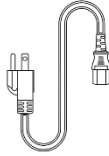
04 Product Introduction

4.1 Package Contents

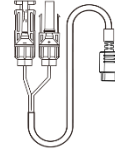
After receiving the product, please check whether the products are complete in the packing box. If there is any abnormality, please contact the after-sales service center as soon as possible.



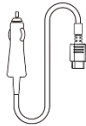
Power Station x1



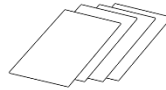
AC charging cable x1



Solar charging cable x1

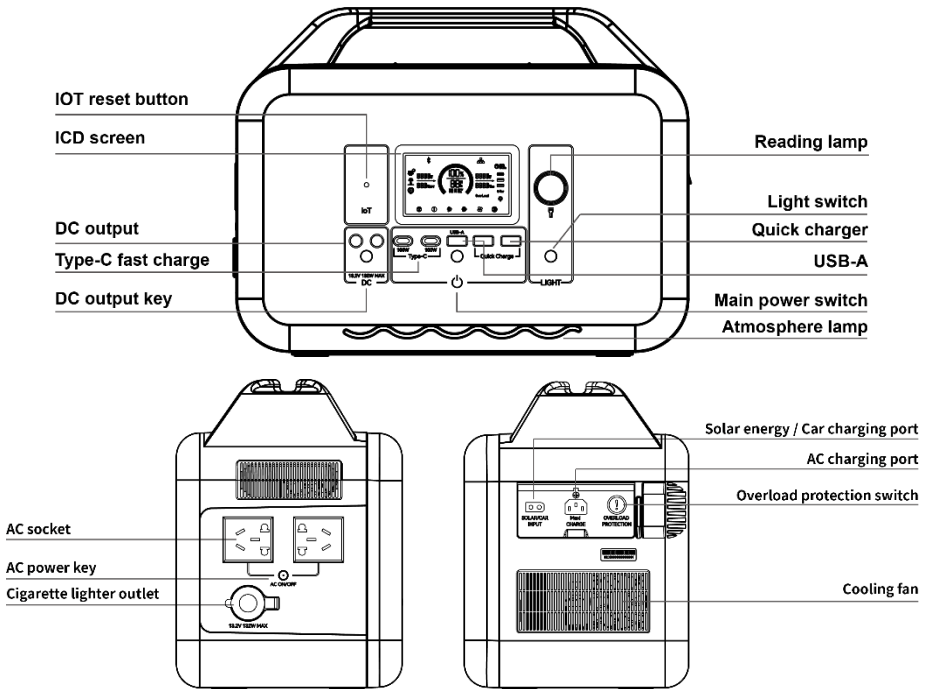


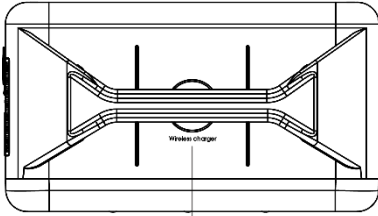
Car charge input cable x1



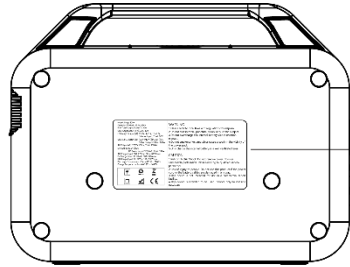
User manual & Approval certificate x1

4.2 Product Details



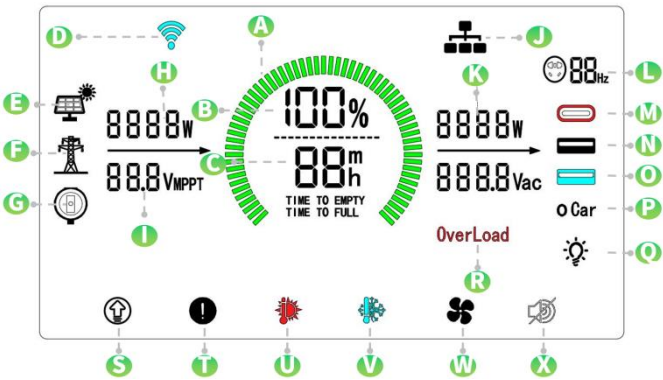


Wireless Charger



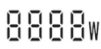

















Name plate

4.3 The User Interface



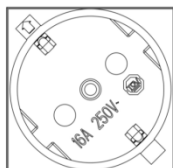
S/N	Icons	Description
A		Battery power status bar. The status bar will vary with the charging and discharging of the battery.
B		Displays the percentage of remaining power.
C		Remaining rechargeable/discharge time. Determine the remaining charge/discharge time, accurate to minutes, based on the current power consumption of the product.
D		Displays IOT connection status. Icons will be displayed when connected to WIFI but will not be displayed when not connected.
E		Indicates being recharged by solar panels.

F		Indicates being recharged by AC input.
G		Indicates being recharged by car or DC adaptor.
H		Displays the current input power. Displays the current input power of the product in watts.
I		Display the current MPPT value of the product in terms of voltage. This icon will only appear when the battery is charged by solar panels.
J		When the internal communication fails, the icon blinks.
K		Displays the current output power and AC voltage.
L		Indicates the corresponding output frequency of AC output.
M		Indicates Type-C output is working. (Color: green)
N		Indicates USB-A output is working. (Color: white)
O		Indicates QC fast charge port is working. (Color: blue)
P		Indicates that the cigarette lighter and DC output are working.
Q		This icon displays when the reading lamp is on.
R	OverLoad	Output overload indication icon.
S		The icon indicates that the SmartDrive function is on. The device can power the AC loads that require higher power than the rated output power.
T		Displayed if the BMS is faulty.
U		A high-temperature warning icon appears when the temperature of the machine is too high. Please pay attention to the cooling of the machine.
V		A low-temperature warning icon will appear on the screen to warn that the temperature of the machine is too low. Please warm up the machine properly before using it.

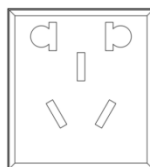
W		When the cooling fan is turned on, the icon rotates dynamically.
X		Silent charging mode: Hold down AC ON/OFF to manually enable it, and hold down AC ON/OFF to disable silent charging.

4.4 Socket Types

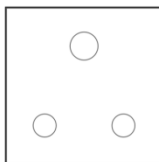
The type of socket in each region is different, and the specific kind received shall prevail.



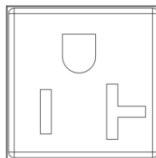
Universal European Standard (Type F)



Mainland China (Type A & I)



South Africa Standard (Type M)



USA Standard (Type B)

05 Product Safety Guidelines

1. Portable energy storage sources must be charged using officially designated charging cables. The Company will not be responsible for any damage and consequences caused by charging without using the official charging cable.
2. When recharging, please place this product on the horizontal surface to ensure that there are no inflammable and explosive materials in close proximity. Please arrange for someone to take care of the product when charging to prevent accidents.
3. After the machine is continuously discharged at full load if the battery of the product is in a high-temperature state, it is recommended to wait for the temperature of the product to drop to room temperature before charging. Otherwise, the high-temperature protection function of the battery may be triggered, and charging is prohibited.
4. The product can be charged in the temperature range (0°C ~ 40°C) and can be discharged in the

temperature range (-15°C ~ 40°C). The battery life can be greatly extended in the ideal charging and discharging temperature range (15°C ~ 35°C).

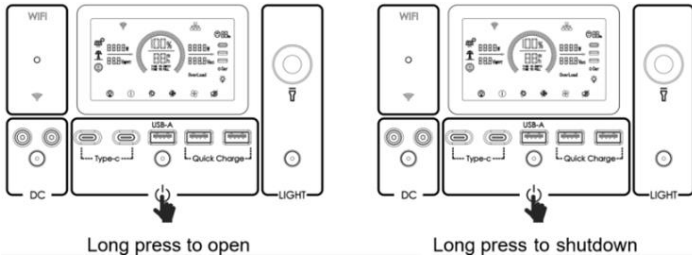
5. When using the product for the first time, please fully discharge the power inside the product and then recharge it fully (to 100%) for subsequent regular use.

06 General Product Usage

6.1 Powering On/Off

Three ways to power on:

1. Long press the power button for 3~5 seconds to turn on the product (the light on the power button illuminates), and the display screen lights up.



2. When the device is turned off and the Type-C socket detects load access, the power supply automatically powers on and the display screen lights up.

3. When the device is turned off and AC/solar/car charging input is connected, the display screen will light up.

Shutdown:

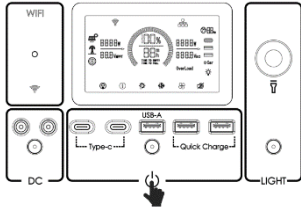
Press the main power switch for 3 ~ 5 seconds, and the product will shut down (the light on the power button goes out). Please check that each control switch has been turned off before shutting down.

Attention:

1. When this product continues for half an hour without any operation, the display screen will automatically go out. When there is an operation change, the display screen will automatically light up.

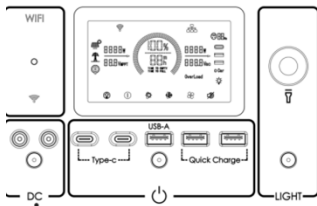
2. The product will enter sleep mode after half an hour without input charging and without any load access.

Waking up display screen: When the display screen of the product is off (the screen is off, but the light of the main power switch is on), press the main power switch, and the screen lights up.

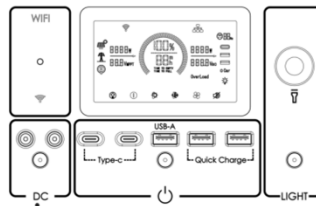


6.2 Wireless Charging Function/12V Output

After the main power supply is turned on, press the DC output power switch to turn on the DC output and wireless charging. Press the DC output power switch again to turn it off.



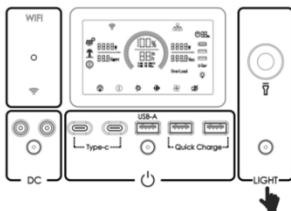
Short press to open



Short press to close

6.3 Reading Lamp

After the main power supply is turned on, please click to turn on the strong light; Click again to turn on the dim light; Press again to turn on the SOS rescue signal flash. Finally, click again to turn off the reading light.



Short press to open

6.4 AC Output/Atmosphere Lamp

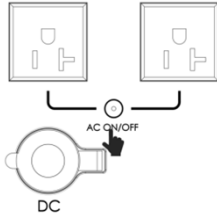
1. The AC output has two specifications: 110V(60Hz)/230V(50Hz). The specifications are set before delivery and cannot be changed. Before using the equipment, please check the voltage level of the product in advance and use the electrical equipment in a standardized manner to avoid injury to the equipment and people.

2. After the main power supply is turned on, press the AC output power switch to turn on the AC

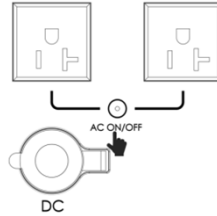
output port and the atmosphere lamp lights up simultaneously. Press the AC output power switch again to turn it off and the atmosphere lamp goes out simultaneously.

3. When the AC output power switch is turned on, if you want to shut down, please turn off the AC power switch first.

Note: When AC output is not used, please turn it off in time to avoid battery power loss.



Short press to turn on AC output



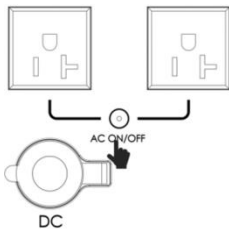
Short press to turn off AC output

6.5 SmartDrive Mode

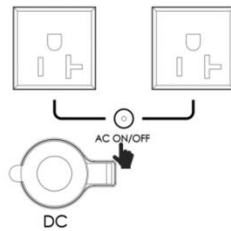
When the load power is greater than the rated output power, the SmartDrive mode will start! When the product recognizes that the required power of the load is greater than the rated output power, it can still supply power to the load. So that you can use more types of electrical appliances and you can get an extraordinary usage experience!

Turn on SmartDrive:

- ◆ This product starts the SmartDrive function by default
- ◆ Manual: Press AC ON/OFF twice to turn on and off.
- ◆ The icon (🔌) will be displayed after the driver starts.



Short press 2 times to open



Short press 2 times to close

When using the SmartDrive function, please pay attention to the following:


- 1) This product cannot be connected to the grid for power generation.
- 2) SmartDrive Mode is not available when charged.
- 3) SmartDrive mode is specially designed for resistive load, which is suitable for heating equipment, not for all electrical appliances. It is recommended to use heating electrical equipment, such as a hair dryer, electric kettle, electric heater, chainsaw, induction cooker,

and so on. Some electrical appliances equipped with voltage protection (such as precision instruments, etc.) are not suitable for SmartDrive mode. To confirm whether the device can use smart driving mode, please fully test it before using it.

Turn off the SmartDrive: press AC ON/OFF twice to turn it on and off.

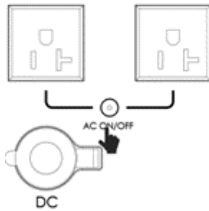
6.6 Silent Charging

Turn on:

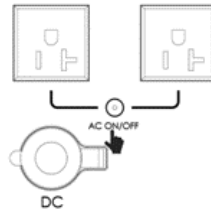
Long press the AC output switch, and the screen will display the silent charging icon . When enabling the silent charging, the product will run at 0.2c charging power.

Turn off:

Hold down AC ON/OFF to enable/exit silent charging.



Long press to turn on silent charging

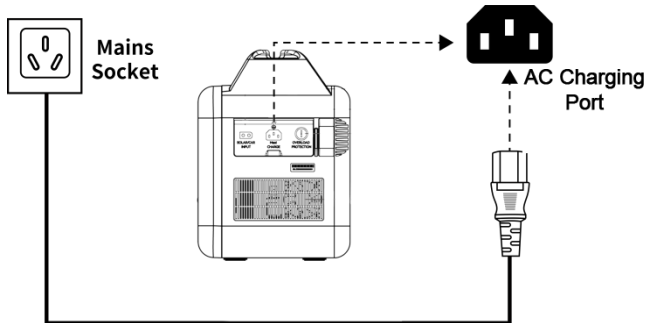


Long press to turn off silent charging

6.7 AC, Car, Solar Charging

AC Charging

This product is built-in with a bi-directional inverter, which can output alternating current and also charge the battery by the power grid. See the following figure for connection mode.

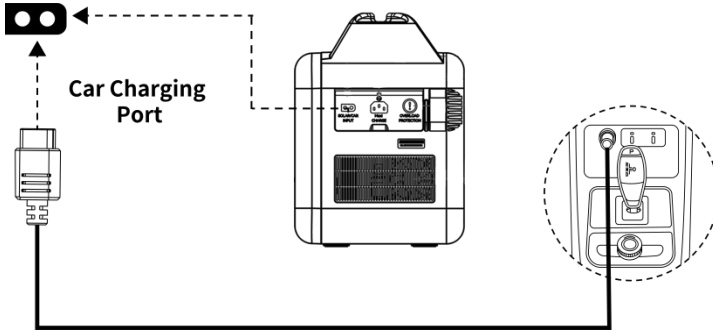


Note: Charging process equipment according to the temperature of the cell, battery capacity, and other factors to determine the size of the charging power to ensure that the battery is in the optimal state.

Car Charging

Car charging supports 12V/10A (Max) input. This product can be charged by using the cigarette lighter

port on the car, and the connection mode is shown in the following figure. Please start the car ignition before recharging this product through the car input port, so as not to cause the car battery to drain. At the same time, make sure that the cigarette light port of the car and the cigarette lighter plug of the car charge input line are in good contact. The company will not assume responsibility if the machine is not operated in accordance with these guidelines.

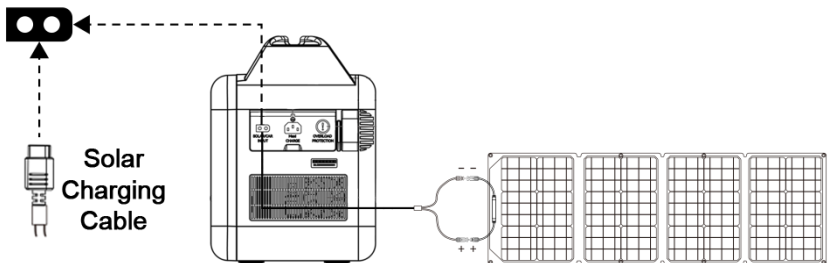


Attention: Confirm the current output capacity of the cigarette light port before use. If it is less than 10A, the fuse of the cigarette light port will be damaged.

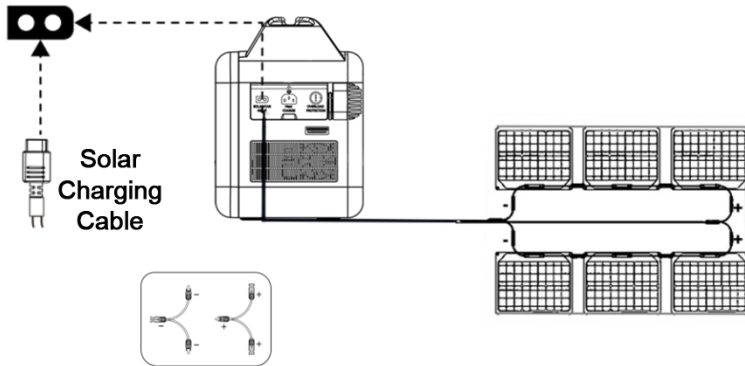
Solar Charging

Users can use the universal solar panel with MC4 interface standard to power the product, as long as the voltage and current meet the requirements (10-30V 10A MAX). Pay attention to the connection sequence of positive and negative terminals at the interface. Incorrect connection may cause damage to the device.

1) Schematic diagram of solar charging by single plate connection



2) Schematic diagram of connection and parallel connection of two solar charging plates



*Note: Users need to purchase their own solar panels and related parallel components


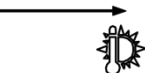
6.8 On/Off Grid Switching


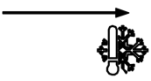
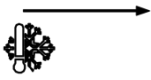
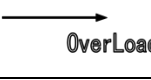



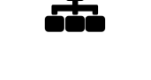



- 1) This system has an On/Off Grid Switching function. When the AC socket is connected to the mains supply (in this case, the AC power comes from the grid, not from the battery), the grid can supply power to the load through the bypass relay and recharge its own battery at the same time. When the battery is fully charged, the charging will automatically stop.
- 2) When a power outage occurs, the battery output will automatically start and continue to supply power to the electrical equipment. The switching time of the battery power supply is only 10 milliseconds to ensure uninterrupted power supply to electrical equipment.






07 Troubleshooting & Maintenance


7.1 Faults Display and Troubleshooting

The display screen will show information for device protection through different icons and their combinations.

Icons	Status	Fault analysis	Solution
	Blink	Battery full	The icon flashes in the recharging process the battery is fully recharged. Disconnect this product from recharging, and the system will automatically recover.
	Blink together	Charging high temperature protection	Cool down the battery properly to restore the power supply.

Icons	Status	Fault analysis	Solution
	Blink together	Discharge high temperature protection	Cool down the battery properly to restore the power supply.
	Blink together	Charging low temperature protection	After the battery is properly warmed, the power supply can be restored.
	Blink together	Discharge low temperature protection.	Place the battery in a warm place and restore the power supply after the battery warms up.
	Blink together	Charge overload protection	Plug out the AC input, and restart this product. And then plug in the AC power again.
	Blink together	Discharge overload protection	This product can be restored after pulling out the loads and restarting the product. The loads must be used within the rated power.
	Blink together	USB Overload Protection	Unplug the appliance, it can automatically resume operation after 10 seconds.
	Blink	The communication between the main control board and the AC failed	Restart the machine.
	Blink together	Inverter output overload	After 10 seconds, restart ON/OFF can be restored. Please note that the electrical appliances must be guaranteed to be used within the rated power.
	Blink together	Over-temperature protection of inverter	After the interface cools down, the AC ON/OFF switch can be turned on again, and the operation can be resumed automatically.
	Blink together	DC Output Overload	Restart the machine can be restored.
	Blink together	DC high temperature protection	After the interface cools down, normal use can be resumed.

Icons	Status	Fault analysis	Solution
	Blink	Fan	Check whether the fan is stuck. Restart the machine can be restored.
 TIME TO EMPTY	Blink together	Battery under voltage	A level-1 undervoltage alarm is generated and the AC stops output. Charge the battery.
 TIME TO EMPTY	Blink together	Battery level 2 undervoltage	level-2 undervoltage alarm is generated and the PD/DC12V output stops. Charge the battery.
 TIME TO EMPTY	Blink together	Battery undervoltage protection	The battery enters the undervoltage protection and all ports (including AC, DC, USB, and wireless charging) stop output. Charge the battery.
	Bright	BMS failure	Restart the machine can be restored.
F01.	Display	The BUS soft start of the inverter fails.	<p>The output voltage displays the fault icon. There are two solutions:</p> <ol style="list-style-type: none"> 1. No operation is required. The product returns to normal five minutes later. 2. Hold down the main power supply to power off the device. Wait for one minute and then start it again.
F02.	Display	The inverter output is short-circuited.	
F03.	Display	The inverter BUS Undervoltage	
F04.	Display	The inverter BUS overvoltage is faulty.	
F05.	Display	The BUS of the inverter is short-circuited.	
F06.	Display	The output overcurrent of the inverter is faulty.	
F07.	Display	The DC component of the inverter is too high.	
F08.	Display	The inverter is overheated.	

Icons	Status	Fault analysis	Solution
F09.	Display	The inverter over-discharge is faulty.	
F10.	Display	The inverter charging overcurrent is faulty.	
F11.	Display	The inverter current sensor is faulty.	
F12.	Display	The inverter output overvoltage or over-frequency is faulty.	
F13.	Display	AC load short circuit	The output voltage shows the fault icon: 1. Remove the AC load and wait for five minutes. 2. Unplug the AC load and press the POWER button to forcibly shut down the AC. Wait for one minute and restart the AC.
F14.	Display	The inverter mains relay is faulty	The output voltage displays the fault icon. There are two solutions: 1. No operation is required. The product returns to normal five minutes later. 2. Hold down the main power supply to power off the device. Wait for one minute and then start it again. If the problem still cannot be resolved, please contact us through the after-sales service center.
F15.	Display	The fan of the inverter is faulty.	
F16.	Display	The communication between the DSP and MCU of the inverter is faulty.	
 OVERLOAD PROTECTION	Button Pop-up	Overload protection	When the input current is continuously greater than 15A during charging, the AC charging port will be protected. After confirming that there is no fault in the machine, press the protection switch to reset and resume charging.

If the above problems occur during the use of this product and cannot be solved after operating it in the methods suggested above, please stop using it immediately and contact us through the after-sales service center.

08 Specifications

Product		600W	1000W
General Information	Net weights	9.5kg	11.1 kg
	Dimensions	348*264*192 mm	
	Capacity	672Wh	1008Wh
	Cycle life	2000 times (25 °C, 1C discharge)	
Charging Information	AC charging	480W Maxi Super Fast Charge	800W Maxi Super Fast Charge
	AC charging voltage range.	85 ~ 130Vac or 180 ~ 270Vac	85 ~ 130Vac or 180 ~ 270Vac
	Car charging	12V,10A, 120W (Max)	
	Solar charging	10 ~ 30V,10A, 200W (Max)	
Output Ports	AC (x2)	110V/60Hz or 230V/50Hz for a total of 600W (support 1800W peak power)	110V/60Hz or 230V/50Hz for 1000W (support 2000W peak power)
	Maximum total AC/DC output power	720W	1200W
	Car Port Output (x1) DC Output (x2)	DC cigarette lighter: 13.2 V, 10A DC5525: 13.2 V, 10A Total 132W	
	USB-A (x1)	5V, 2.4 A; 12W	
	Type-C (x2)	5V/9V/12V/15:3A; 20V:5A; each 100W	
	Fast Charge 3.0 (x2)	18W Max per port, 5V/3A, 9V/2A, 12V/1.5A	
	Wireless charging	10W	
Maintenance	The temperature of operation and storage	0 ~ 40 °C (charge), -15 ~ 40 °C (discharge)	
	Ideal temperature of operation and storage	15 ~ 35 °C	
	Humidity range of operation and storage	RH 0%-85%, no coagulation	
	Temperature of battery operation	0 ~ 40 °C ±2(charge), -20 ~ 60 °C±2 (discharge)	