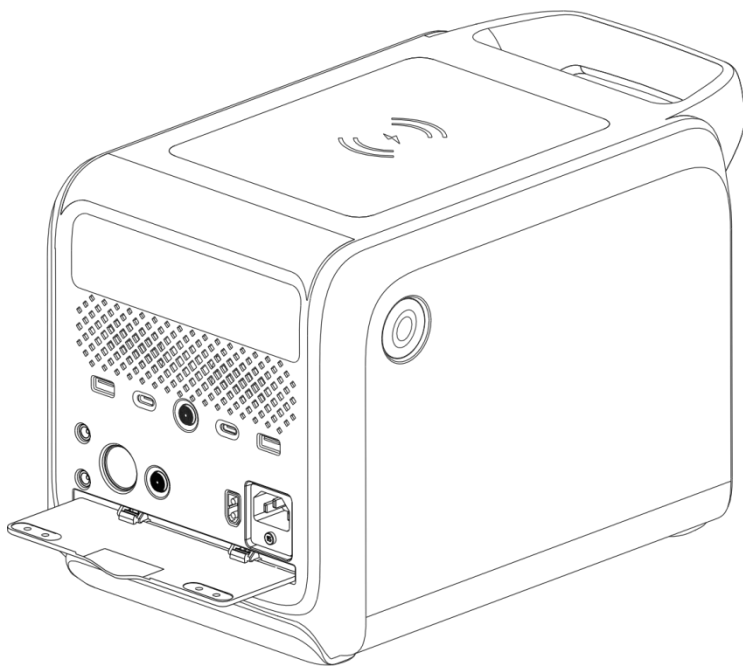


# **OM-600**

## **Portable power station**

### **User Manual**



Please read this manual book and follow the instructions before using it.  
Please keep the user manual properly for future reference.

**DONGGUAN OMMO TECHNOLOGY Co., Ltd.**

Version: V1.02

# Catalogue

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## **1.Disclaimer**

Please read the user manual of this product to ensure that you use it correctly after fully understanding it. After reading, please keep the user manual in a safe place for future reference. If you do not operate this product correctly, you may cause serious injury to yourself or others, or cause product damage and property loss. Once you use this product, it is deemed that you have understood, recognized and accepted all the terms and contents of this document. The user promises to be responsible for his or her own behavior and all the consequences arising therefrom. OMMO does not bear any losses caused by the user's failure to use the product in accordance with the "User Manual". Subject to laws and regulations, OMMO has the final right of interpretation of this document and all related documents of this product. If there is any update, revision or termination without further notice, please visit the OMMO official website for the latest product information.

## **2.Safety Notice**

### **2.1.Prohibitions**

- 1.Do not place this product near heat sources, such as fire or heating furnace.
2. Do not allow this product to contact any liquid, do not immerse this battery in water or soak it. Do not use this product in rain or humid environment.
3. Do not use this product in strong static electricity or strong magnetic field environment.
4. Do not disassemble this product in any way or pierce this battery with sharp objects.
5. Do not stack other heavy objects on this electrical product except our battery.
6. Do not place this product in an unventilated or high-temperature space.
7. Do not insert foreign objects into any port (AC, DC or ventilation holes) of the product.  
This product generates potentially lethal AC current, which is as dangerous as a household wall socket.
8. Except for the authorized agent, it is dangerous for anyone to replace the internal battery of the product or perform repair operations on other components of the product.

## 2.2.Notice

1. Please do not use NON-OMMO parts or accessories to avoid any risks. If you need to replace the parts, please visit OMMO's official website and reach out customer support for better assistance.
2. If the shell falls off or the inside part is exposed, please do not operate it by yourself. Please turn to professional personnel to check and repair it.
3. If the chemical substances inside the battery leak accidentally, please do not touch or inhale. If you accidentally contact your skin or eyes, please wash with plenty of clean water. If necessary, please take medical measures.
4. Do not wear metal objects such as watches, necklaces, bracelets, etc. to operate the product to avoid accidentally causing a short circuit. If the product catches fire, use fire extinguishing equipment in the following recommended steps: water or water mist, sand, fire blanket, dry powder fire extinguisher, carbon dioxide fire extinguisher.
5. When using the product for the first time, if you find that the product is not clean or has abnormal phenomena such as odor, do not continue to use, please return the product to the seller.
6. If the product accidentally falls into the water during use, please place it in a safe open area, away from it until the product is completely dry. The dried product must not be used again, please contact after-sales service.
7. If the product is still charging after the normal charging time has passed, stop charging immediately. Overcharging may cause the battery to heat up, smoke, deform, or burn.
8. Please store this product out of reach of children and pets.
9. Before using the product, be sure to check all materials. Stop using the device immediately if it is damaged, cracked, leaking, or disconnected.
10. Do not use the device and connector plug with wet hands. Otherwise, it may cause electric shock or other hazards.
11. Do not block the fan to ensure proper ventilation during use. Otherwise, it may cause permanent damage to the product.
12. Do not move the product during use, as vibration and sudden impact may cause poor connection with internal hardware.
13. Please read and fully understand the instructions for use of the connected electrical appliances. Failure to properly operate electrical products may cause accidents or injuries.
14. Please use cables designed for the product. The company is not responsible for damage caused by third-party equipment, which may invalidate your warranty.

## 2.3.Transportation Precautions

1. When moving this product, please focus on the handle to avoid damage to other parts.
2. When moving this product, please handle it with care.

## 3.Introduction

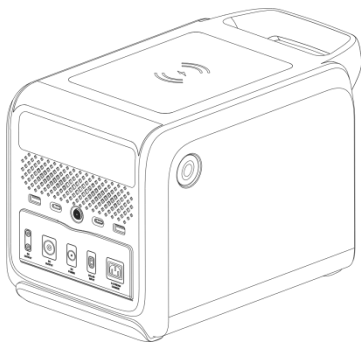
The product is a portable power station with the extreme innovation and mature technology. Equipped with a 600W power inverter and a 512Wh(20Ah) LiFePO4 battery pack, it is enough to power your essentials on the short journey or during a power outage, it measures L345mm\*W215mm\*H218mm and net weighs 7KG. It can be charged to 80% in 1 hour with fast charging mode. In addition, the OM-600 supports a low power mode, where the AC or DC output can be automatically turned off after 4 hours of low power or no load to save power consumption.

Overall, this product is the best choice for portable energy storage, and its powerful features are perfect for your backup or outdoor activity needs.

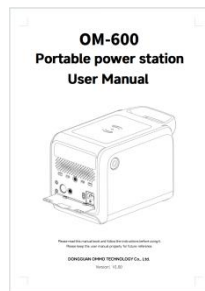
## 4.Abbreviation

- MPPT: Maximum power point tracking
- SOC: State of charge
- UPS: Uninterruptible power supply
- AC: Alternating current
- DC: Direct current
- PV: Photovoltaic
- DOD: Depth of discharge

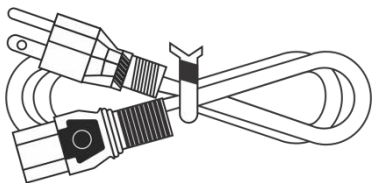
## 5.Packing List



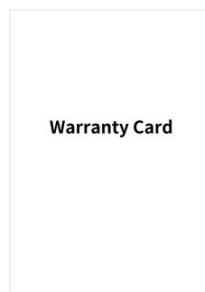
600W portable power station



User Manual



AC Charging Cable



Warranty Card

The following accessories are not included in the standard package and can be purchased at : <https://www.ommo.com/>



Car Charging Cable



Solar Charging Cable



TYPE-C Cable

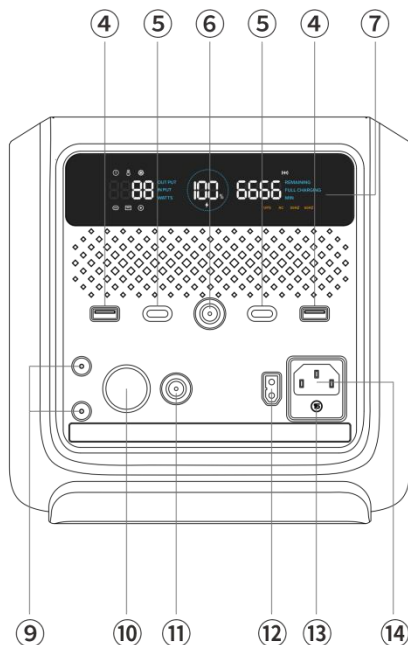
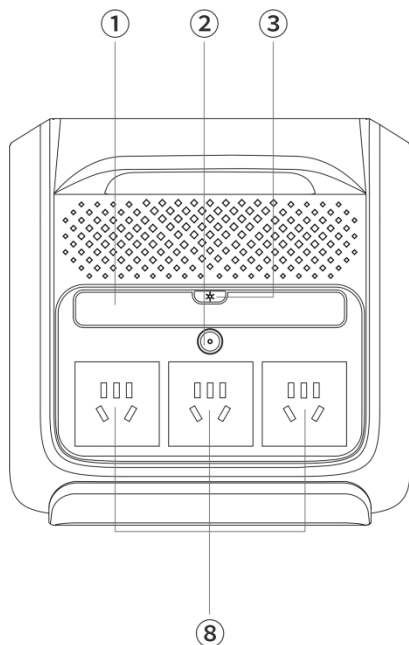
AC charging cable :3X1.5mm<sup>2</sup>、1500mm

TYPE-C cable: 5A/100W, length 2m

Car charging cable :16AWG, 720mm

Solar charging cable :2X2.5mm<sup>2</sup> ,

## 6.Product Introduction



01. LED Light

02. AC Switch

03. LED Light Switch

04. USB-A 18W\*2

05. USB-C 100W\*2

06. USB/ wireless charging switch

07. LCD Screen

08. AC Output Port \*3

09. 12V DC5521 port

10. 12V Cigarette lighter port

11. Cigarette port & DC5521 switch

12. Solar charging /DC charging port

13. Over-current reset switch

14. AC charging port

Mark: A circuit breaker is an electrical safety switch used to protect your equipment from damage caused by over-current or short circuit.

## 7.Button Operation Guide

The product has separate AC and DC power buttons. Press either button to start or close the specified port area.

### 7.1.Individual Button Guide

Any button, tap, light up for 1 minute.

Press any button for about 1 second to turn on or off the corresponding function.

Press any button for about 3 seconds to turn off all functions.

### 7.2.Constant Power Mode

It will enter the constant power mode when the load output power exceeds 600W.

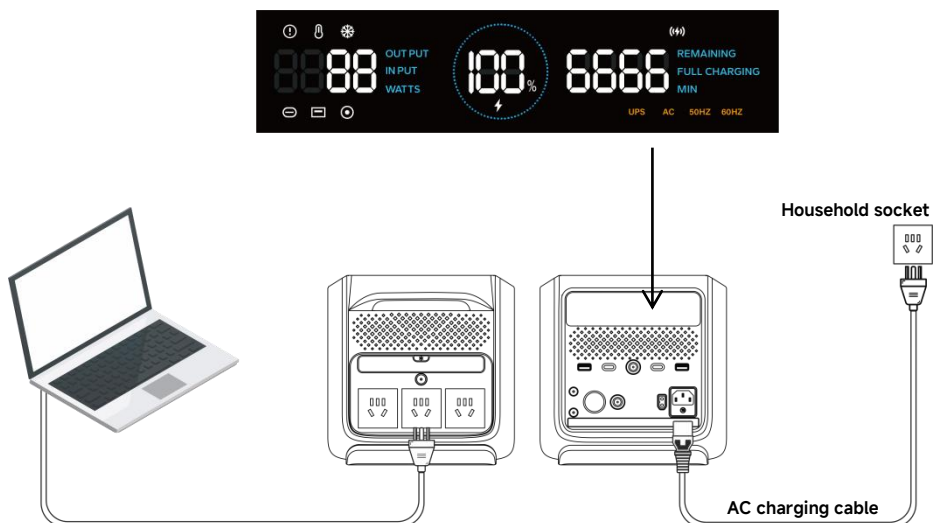
105%-130% rated load, enter constant power after 60s;

131%-200% rated load, enter constant power after 3s;

Greater than 200% rated load, enter the constant power after 3s.

Note: Under voltage protection working if the voltage is lower than 80% of the rated voltage in case of constant power and output will be blocked. In this mode, appliances greater than 600W (up to 1200W) can be running, but the power will be constant at 600W output. It enables to operate high-power heating equipment such as space heaters and electric irons.

Do not use it to run air conditioners or washing machine.



## 7.3.UPS Mode

### 7.3.1. UPS mode setting

Connect the AC power, then click the AC power button to turn on the AC output. The LCD screen displays "UPS", indicating that the product has entered the UPS working mode. The AC power directly supplies power to the load at the AC output port. If the load power is less than the maximum power of the AC input, the AC power will also charge the product until the battery is fully charged. (Note: In UPS mode, the AC power will first supply power to the load and then charge the battery.)

### 7.3.2.DC charging in UPS mode

In UPS mode, connect photovoltaic power generation or other DC power supply (12~80VDC) to the solar charging port/DC charging port. At this time, the DC will charge the battery until the battery is fully charged.

### 7.3.3.Maximum output current in UPS mode

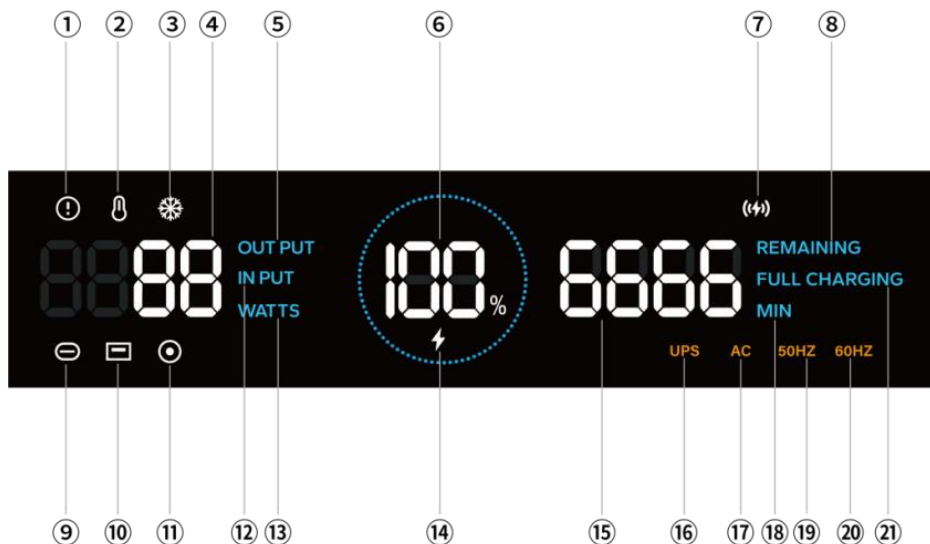
The maximum output current in the UPS working mode is 600W(100-240V). When the output current is greater than the maximum current, the product will enter the protection state and the DC port will stop charging.

### 7.3.4.UPS work switching

In UPS mode, if the external AC power input stops suddenly, the product will switch to internal battery power supply in less than 20ms to maintain power supply to the load.

## 8.LCD Screen Guide





### 8.1.Description OF LCD Screen ICONS



- 1.Warning icon
- 2.High temperature warning icon
- 3.Low temperature warning icon
- 4.Real-time power display
- 5.Output power
- 6.Battery Capacity
- 7.Wireless charging icon
- 8.Remaining time
- 9.USB-C icon
- 10.USB-A icon
- 11.Cigarette lighter port/DC5521 port icon

- 12.Input power
- 13.Watt
- 14.Charging icon
- 15.Remaining time for charging  
or discharging
- 16.UPS icon
- 17.AC icon
- 18.Minutes
- 19.50HZ AC frequency
- 20.60HZ AC frequency
- 21.Full charging icon

## 8.2.LCD Screen Status Description

LCD Status Description	
Normal power on	The LCD screen lights up
Normal power off	LCD screen off
AC connect on	LCD screen shows "AC"
USB-A, USB-C & wireless charge are enabled	LCD screen shows "   ,  "
Cigarette lighter, car charge, DC5521 are enabled	LCD screen shows "  "
AC charge and discharge	"UPS" displayed on the LCD screen

Please refer to section 9 for more information on fault indication and solution.

## 9.Troubleshooting

The fault code is displayed at position 15 of the display screen, and the related fault type and recovery method are as follows:

Fault Description	Fault Code	Troubleshooting
USB-A1 alarm	E61	Remove abnormal load, and the system will automatically recover after the load returns to normal.
USB-A2 alarm	E62	
USB-C alarm	E71	
Wireless charging alarm	E81	Automatic recovery after load returns to normal.
Cigarette lighter alarm	E51	
Battery charging high temperature	E11	The battery temperature will automatically recover after it drops below 45°C.
Battery charging at low temperature	E12	The battery temperature will automatically recover after it returns to above 5°C.
Battery discharge high temperature	E13	The battery temperature will automatically recover after it drops below 45°C.
Battery discharge low temperature	E14	The battery temperature will automatically recover after it returns to above -10°C.
Battery communication timeout	E15	Restart the machine to see if it can be restored. If not, please contact after-sales personnel.
Output alarm	E16	Please contact after-sales support.

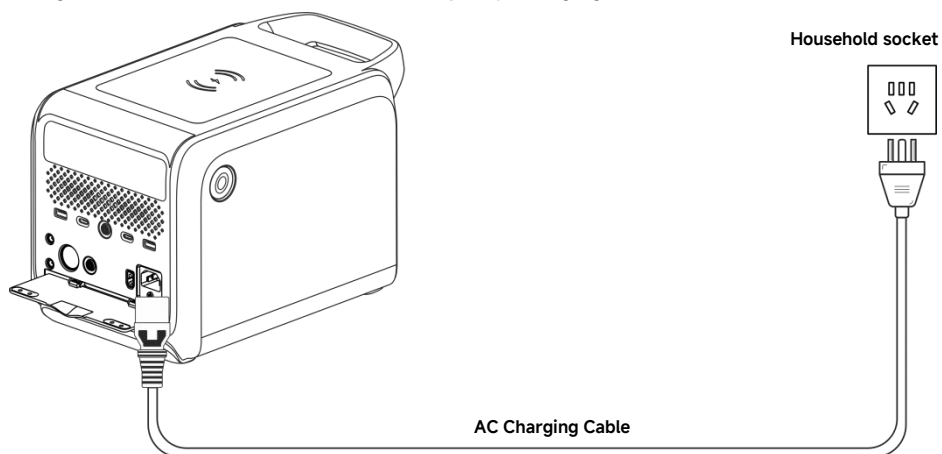
Input alarm	E17	Please contact after-sales.
Motherboard high temperature	E21	The motherboard temperature will automatically recover after it drops < 45°C.
Inverter overload	E41	Remove abnormal load and restart the machine to recover.
Abnormal battery voltage	E42	Remove the power device and restart the machine to see if it can be restored. If no, please contact after-sales personnel.
Inverter failure	E43	Remove high-power devices and restart the machine to see if it can be restored. If it cannot be restored, please contact after-sales personnel. (For the power limit of electrical appliances in constant power mode, please refer to the introduction of constant power function)
Abnormal AC input frequency	E44	Please confirm whether the local voltage and frequency are consistent with the product manual. If they are consistent and there is still an abnormality, please contact after-sales personnel.
Abnormal AC input voltage	E45	
Abnormal AC output voltage	E46	Remove the abnormal load and restart the machine to see if it can be restored. If it cannot be restored, please contact after-sales personnel.
Inverter overload short circuit	E47	
AC high temperature	E48	Restart the machine to recover.
PV over-current	E31	Remove the solar charging cable and restart the machine to recover.
PV over-voltage	E32	

## 10.Charging Method

This product supports AC, solar, car, generator four charging methods.

### 10.1.AC Charging

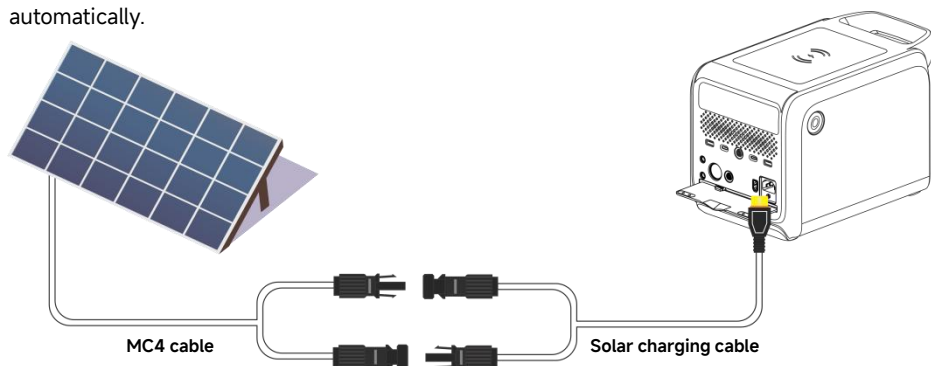
Connect the AC power cord input plug to the wall outlet and connect the other end to the AC charging input port of the product. Equipment built-in advanced control circuit. After full charge (about 1.5 hours), it will automatically stop charging.



### 10.2.Solar Panel Charging

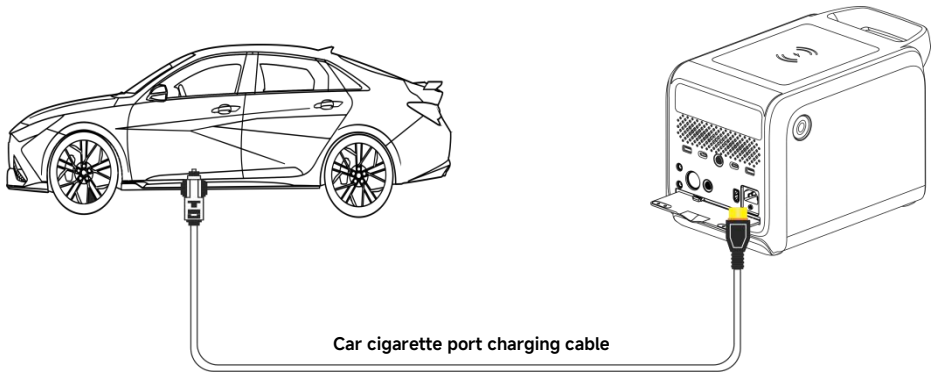
Connect solar panels (series or parallel), open circuit voltage range :12-60V. Then connect the solar panel to the product via the solar charging cable.

When charging with solar panels, the maximum input current and power are 12A and 200W, respectively. In addition, when it is fully charged (about 2 hours),it will stop charging automatically.



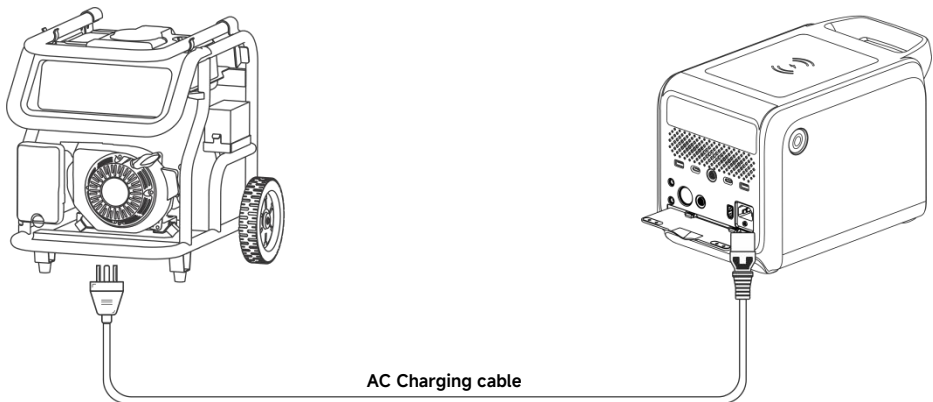
### 10.3.Car Charging

Connect the product to the vehicle 12V cigarette lighter socket via the vehicle charging cable. When the device is fully charged it will automatically stop charging.



### 10.4.Generator Charging

Connect the AC adapter input plug to the generator and the output plug to the AC charging port of the product. When fully charged (about 1-2 hours), it will automatically stop charging.



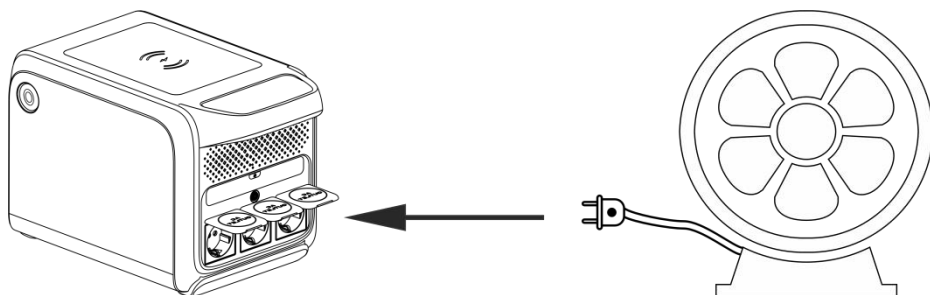
## 11.Discharging(Output)

System runtime will be determined by a variety of factors such as ambient temperature, discharge rate, battery capacity, altitude, and other factors.

### 11.1.Output Port

#### 11.1.1.AC Outlet

This product is suitable for Japanese, American, European, British, Australian and New National Standard High Voltage version, and is equipped with 3 AC output ports, the rated output power is 600W and peak power is 1200W. Please ensure that the load power connected to the device does not exceed 600W.



#### 11.1.2.DC Outlet

12V/10A cigarette lighter output port

12V/10A 5521 output port (traditional jack for routers/cameras, older laptops, etc.)

USB-C Output Port (PD 100W)

USB-A Output Port (5V3A)

Wireless charging (If your mobile phone supports wireless charging, please place your mobile phone on the top of the product and turn on the USB button switch to start wireless charging)

## 11.2.Estimated Operation Duration

Please note: All statistics below are based on estimation. Actual results may vary depending on environment, usage, and firmware version.

Smart Phone 12W 50 times	Laptop 60W 10 hours	Game Machine 16W 37 times	Digital Camera 20W 30 hours
Fans 40W 15 hours	Projector 65W 9 hours	Drone 41W 14 times	Smart Speakers 130W 4 hours
Electric hair dryer 600w 1 hour	Car Refrigerator 30W 20 hours	LED Light 10W 60 hours	TV 110W 5 hours
Electric cooker 400W 1.5 hours	Electric Kettle 500W 1.2 hours	Cutting Machine 450W 1.3 hours	Ventilator/Respirator 90W 6.6 hours

$512\text{Wh} \times \text{DOD} \times \text{transferring efficiency} / \text{load power} = \text{Loading time/hour}$

If you want to calculate the rated power of 450W cutting machine can be used for how long?

For example:  $512\text{Wh} \times 90\% \times 90\% / 450\text{W} = \text{about 1 hour}$

What is Battery Depth of Discharge (DOD)?

In order to extend the battery life, the system sets the battery to 90% discharge depth, which means that the battery can only discharge 90% of the battery capacity, and reserve 10% of the battery power to prevent the battery from over-discharging. DOD = 80% ~ 90% (determined by ambient temperature and discharge rate)

Note: In low temperature environment and large load conditions, the discharge capacity of the battery cell is greatly affected, the product performance will be seriously reduced, the load time will be shortened, and it may not meet the normal use requirements.

## 12. Technical Specifications

Model	OM-600
Weight	7Kg
Dimension	345mm*215mm*218mm (L*W*H)
Optimal operating environment temperature	20°C ~ 30°C
Charging temperature	0 ~ 40°C
Discharge temperature range	-10 ~ 40°C
Storage temperature range	0 ~ 40°C(20°C ~ 30°C is optimal)
Operating humidity range	10~90%
Safety certification	UN38.3,MSDS,RoHS
Battery capacity	512Wh(20Ah)
Battery type	LiFePO4
DC Input	
Interface type	XT60
Input power	Max 200W/ @0~40°C
Input voltage range	12~60V DC
Input current	Max 8.5A
Solar MPPT DC Input	
Interface type	Solar interface to XT-60
Input power	MAX 200W/@0~40°C
Input voltage range	12~60VDC
Input current	0~12A

DC Output Specification			
Cigarette lighter	12VDC/10A		
DC5521 X 2	12VDC/10A		
USB-A X 2	5V/3A,9V/2A,12V/1.5A		
USB-C (Type-C) X 2	5/9/12/15,3A; 20V/5A		
Wireless charge	5W/10W/15W		
<div>Noted:</div> <div>1、Cigarette lighter port is in parallel with DC5521, sharing 10A current.</div> <div>2、There is no fast charging function when Type-C1 and Type-C2 are output at the same time (10W output), and the maximum output power of a single is 100W;</div> <div>3、The ability of this product to charge and discharge depends on the actual temperature of the battery.</div>			
Standard	EU	US	JP
AC Input			
Rated input voltage	220~240Vac	120Vac	100Vac
Maximum input current	2A	3.4A	4A
Input frequency	50Hz	60Hz	50Hz/60Hz
UPS function	Yes,≤20ms		
Charging power	MAX 400W / 1.5 hours full / @0-40℃		
AC Output Parameter			
Rated output power	600W Total	600W Total	600W Total
Rated output voltage	220~240Vac	120Vac	100Vac
Rated output current	2.6A	5A	6A
Rated output frequency	50Hz	60Hz	50Hz/60Hz
Peak output power	1200W		

## 13.Product Guide

### 13.1.Usage Method

- Most electrical appliances on the market are suitable for 5521 interface, cigarette outlet, USB-A, USB-C outlet specifications of this product. Largely transient current generated by some appliance when charging may activate over current protection
- It is suitable for household appliances with output power below 600W. However, overload protection is still activated, though rated power is below 512kwh. Just apply the product to electrical equipment with low power rating.
- Though output over-current, overload, or short circuit, the product will close the corresponding output port. If above situations exist, turn off the device, press a button to restart. Seek help from supplier and professors
- Straight-through charging been supported. Please keep the device flat during use, charging, and discharging.
- The AC and DC outputs automatically turn off when the product power level drops to 0%. Check the battery level before using the AC/DC output to maintain a long battery life. Be better to recharge it when battery capacity drops to 20% or less.
- Whether this product can be charged or discharged depends on the actual temperature of the battery pack.

### 13.2.How To Maintain

- Be better to use or store the product at environment with temperature from 20°C to 30°C, away from water, heat sources, or metal objects.
- Be better to recharge and discharge it once per month that is, discharge the product to 30% and then charge to 80%;No guarantee if product not been charged or discharged for more than 6 months.
- Do not store it in temperature over 45°C or lower than -10°C for a long time)
- Please recharge to 80% before storage if the power of this product is less than 1% after use.
- If the battery is seriously low and the product is left idle for a long time, it will cause irreversible damage to the battery and shorten the life cycle of the product. Please charge the product before resuming use.

## 14.FAQ

Q1: What devices can the product charge/power?

A: The maximum AC output power of the product is 600W, so please make sure that the total power of your device does not exceed this power, otherwise the product will automatically shut down the output and enter the protection mode.

Note: For some equipment with built-in motor/compressor, the instantaneous starting power may be 2-4 times the rated power, which may exceed the upper limit of the product.

Q2: How can solar panel charge the product?

A: Solar panels must meet:

- (1) Open circuit voltage (OCV) between 12V-60V;
- (2) Equipped with MC4 connector. If your photovoltaic panel uses Anderson connector, please purchase Anderson to MC4 cable.

Note: The actual charging time depends on the weather, solar conditions and the Angle of the solar panel.

Q3: Can I charge and discharge it at the same time?

A: Yes, the product supports simultaneous charging and discharging. It uses premium LiFePO4 batteries and an advanced battery management system, so feel free to use it in a way that better suits your needs.

Q5: How to clean the product?

A: Be better with dry and non-abrasive cloth. The multi-functional product need to be cleaned to keep its good state in simple method.

## 15.Statement

- Without notice through in development of specifications and appearance.
- No guarantee to any damage caused by some force majeure( fire, typhoon, flood, earthquake) and abnormal circumstances (as user's intentional negligence, misoperation)
- No guarantee to any accident or damage resulting from failure to comply with the precautions in the instructions.
- No guarantee to any failure caused by the use of unauthorized parts.
- This product is not suitable for electrical appliances that require special power reliability and safety. (Like Aerospace, trunk communications, nuclear control, medical equipment, etc.)