After-sales warranty service:

This portable energy storage power supply has a warranty period of 36 months from the date of sale; during the warranty period, due to defects in material and workmanship, the product will be repaired by our company; during the warranty period. Damage is assumed under normal use and free repair is provided. During the warranty period, the following conditions cannot benefit from our free repair services:

- Unlocking the product without permission;
- The appearance of the product body is scratched, scratched, broken and other damages are not covered by the warranty;
- Damage caused by improper use or repackaging, etc. by the user who does not comply with the requirements of the manual;
- Caused by man-made accidents, environmental and other factors (operating errors, collisions, unreasonable voltage, moisture and water, etc.)

ВG - Монтирането и въвеждането в експлоатация да се извършва единствено от специалист с подходящо електротехническо образование. Преди свързването му към захранващата клема първо се уверете, че няма наранена или липсваща изолация по захранващите проводници. Цветният код на кабелите е черен или кафяв (L) фазов проводник, син N нулев проводник и жълто-зелен - защитен (зануляващ) проводник - при тела защитени срещу поражение от елекрически ток клас 1. Видът на източника на напрежение, както и останалите технически характеристики са посочени в таблица. EN - The light fitting must only be mounted and put into operation by a qualified electrician! Make sure that you do not damage any electric cables when you are mounting the light fitting. The colour codes of the wire are the following: black or brown (L) = phase conductor, blue (N) = neutral conductor, and in the case of a light fitting of shock protection class 1: green-yellow=protecting conductor. Only a light source of maximum performance and of the type indicated in the data plate and around the socket can be used for the product. The light fitting must only be mounted and put into operation by a qualified electrician! D - Die Montage und Inbetriebsetzung des Leuchtkörpers darf nur von Fachleuten vorgenommen werden! Bei der Montage des Lichtkörpers soll darauf geachtet werden, dass das elektrische Kabel nicht verletzt wird. Die Leitungen sind mit den folgenden Farben versehen: schwarz oder braun (L)=Phasenleiter, blau (N) = Nullleiter, und bei Leuchtkörpern mit Berührungsschutz klasse 1. : grün - gelb = Schutzleiter. CZ - Montáž a zprovoznění lampy smí provádět výhradně jenom odborná osoba. Při montáži lampy dejte pozor na to, aby jste náhodou nepoškodil elektrický kabel. Význam používaných barev u kabelů jsou následující: černá, nebo hnědá (L) = fázový vodič, modrá (N) = nulový vodič, u lampy s proti dotykovou ochranou: zele- ná-žlutá = ochranný (uzemnění) vodič. SLO - Namontovanie osvetľovacieho telesa a jeho uvedenie do prevádzky môže vykonávať len odbornik! Pri namontovaní osvetľovacieho telesa dbajte na to, aby ste neporušili kábel elek-trického vedenia. Farebné označenia vodičov sú nasledovné: čierna, alebo hnedá farba (L) = lazový vodič, modrá (N) = nulový vodič, a v pripade osvetľovacieho telesa patriaceho do l.triedy ochrany pred nebez-pečným dotykom: zelená-žltá = ochranný vodič. PL - Lampa może być zamontowana i urucho-miona tylko przez specialiste! Przy montowaniu lampy należy uważać, aby nie uszkodzić kabla elektrycznego. Oznakowanie kolorów kabli: czarny lub brązowy (L) = przewód fazowy, niebieski (N) = przewód zerowy i w przypadku lampy I. ochrony kontaktu: zielono-żółty =przewód ochronny. HU - A lámpatest felszerelését és üzembe helyezését csak szakember végezheti! A lámpatest felszerelésénél vigyázzon arra, hogy ne sértsen meg elektromos kábelt. A vezetékek színjelölései a következők: fekete vagy barna (L) = fázisvezető, kék (N) = nulla vezető, és 1. érintésvédelmi lámpatest esetén; zöld-sárga védővezető, SK - Montiranie in stavlienie svetilke v obrat sme izvrševati le strokovniak! Pri montiranju svetilke pazite da ne poškodujte električnega kabela. Barvna zaznamovanja vod so naslednja: črna ali rjava (L) = fazni vod, modra (N) = neutralni vod, in v primeru svetilke z zaščito pred dotikom: zelena- rumena = zaščitni vod. BiH -Montažu rasvjetnog tijela i stavljanje u pogon može izvršiti samo stručna osoba! Kod montaže rasvjetnog tijela pazite da ne oštetite električni kabel. Označavanje kablova prema bojama: crna ili smeđa (L)= faza, plava (N) = nula, i kod rasvjetnog tijela sa 1. stupnjem zaštite zeleno-žuta = uzemljenje. SRB - Montažu lampe i stavljanje u pogon može izvršiti samo stručna osoba. Priliokm montaže lampe pazite da ne oštetite kabel. Značenje kablova prema bojama: crna ili smeđa (L)= faza, plava (N) = nula, i kod lampi sa 1 štepenom zaštite zeleno-žuta = uzemljenje. RO - Montarea și punerea în funcțiune a corpului de iluminat poate fi realizată doar de personal de specialitate! La montarea corpului de iluminat urmăriți să nu deteriorizați cablurile electrice. Marcarea cu colori a cablurilor este următoarea: negru sau maro (L) = cablu de fază, albastru (N) = cablul nul, și în cazul corpului de ilumiat cu clasa de împământare I.: verde-galben = împământarea. GR - H τοποθέτηση και οι ρυθμίσεις πρέπει να γίνονται μόνο από ειδικό. Στην τοποθέτηση πρέπει να προσέξετε να μην προκαλέσετε φθορές στο καλώδιο. Το χρώμα των καλωδίων είναι ως εξής: μαύρο ή καφέ (L) = φάση, μπλε (N) = ουδέτερο, και σε περίπτωση φωτιστικών με προστασία ηλεκτροπληξίας κλάσης 1: κίτρινο-πράσινο = καλώδιο προστασίας; IT - Per la tua sicurezza, l'installazione e la messa a punto vengono eseguite solo da uno specialista!; HR - Za vašu sigurnost, instalacije i ugađanje izvodi samo stručna osoba!; МК - За ваша безбедност, инсталација и подесување се изведува само од специјалист!: PL - Ze względów bezpieczeństwa instalacie i strojenie wykonuje tylko specialista!: P -Para sua segurança, a instalação e o ajuste são realizados apenas por um especialista!

- (BG) Инструкция за монтаж и експлоатация
- (EN) Instruction for installation and use
- (RO) Instrucțiune de instalare și utilizare
- SRB Uputstvo za ugradnju i upotrebu
- (HR) Uputstvo za ugradnju i upotrebu
- (BIH) Uputstvo za ugradnju i upotrebu
- (HU) Szerelési és kezelési utasítás
- (SLO) Navodilo za vgradnjo in uporabo
- GR) Οδηγιεσ για την εγκατασταση και τη χρηση
- мк Упатство за вградување и употреба
- (SK) Návod na montáž a používanie
- (PL) Instrukcja instalacji i użytkowania
- P Instrução para instalação e uso
- IT Istruzioni per l'installazione e l'uso





FI MARK

www.elmarkholding.eu

- (BG) Мобилна електростанция 500-2000W
- **EN** Portable power station 500-2000W
- (RO) Centrală electrică portabilă
- (SRB) Prijenosna elektrana
- (HR) Prijenosna električna stanica
- (BIH) Prijenosna elektrana
- (HU) Hordozható erőmű
- (SLO) Prenosna elektrarna
- GR Φορητός σταθμός παραγωγής ενέργειας
- МК Приеносна електрана
- (SK) Prenosná elektráreň
- (PL) Przenośna elektrownia
- P Central elétrica portátil
- (IT) Centrale elettrica portatile



USER GUIDE

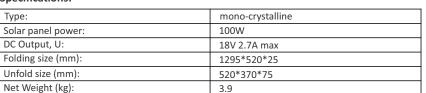
Read carefully before installation

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PORTABLE POWER STATIONS 500W / 1000W / 2000W

Solar panel 18V 100W (98SOL501PAN)

Specifications:



How to charge your device:

- 1. Please unfold this folding bag charger and place it in a place where it can be exposed to direct sunlight;
- 2. Please connect your device to this charger through the charging cable;
- 3. When charging, put your device in a cool place. You can put it under the solar panel, in the pocket of the solar panel, or in the shade of a tree. Please avoid the sun and cause overheating.

Common problems & solutions:

1. What should I do if this folding bag charger cannot charge my device?

A. Please confirm the manual of your device to ensure that the input voltage required by the device is 36V.

- B. Cloudy weather and indirect sunlight may cause fluctuations in the output current of the charger, which may hinder or affect the charging of the device. Please place the charger in a location where it can be directly exposed to sunlight, or wait for the weather Use it when it's sunny.
- C. During use, please wipe the solar panel of this charger with a damp cloth to avoid scratches.
- $\label{eq:decomposition} D.\ Please\ avoid\ this\ charger\ close\ to\ fire,\ water,\ or\ liquid\ chemicals.$

2. If the weather turns to cloudy or cloudy, does the charger still work?

 $Yes, but the charging \ efficiency \ will be \ greatly \ reduced, resulting \ in \ a \ much \ longer \ charging \ time.$

3. Can this charger charge the power bank?

Yes, please make sure to put the power bank in a cool place or in the pocket of the charger, away from the sun to avoid overheating.

Precautions:

1. Please do not damage, disassemble or drop this charger;



2. Please dispose of this charger according to local environmental regulations;

3. This charger is not waterproof, so please avoid exposing it to water, rain or humidity.

4. The product cannot be used across glass, because part of the light will be refracted every time it passes through a layer of glass.

Solar panel 36V 100W (98SOL1001PAN)

Specifications:

Туре:	mono-crystalline
Solar panel power:	100W
DC Output, U:	36V 2.7A max
Folding size (mm):	1295*520*25
Unfold size (mm):	520*370*75
Net Weight (kg):	3.9

How to charge your device:

- 1. Please unfold the SOLAR PANEL (foldable bag) and place it in a place where it can be exposed to direct sunlight;
- 2. Please connect your device to the SOLAR PANEL via the charging cable;
- 3. When charging, place the device in a cool place. You can place it under the solar panel, in the pocket of the solar panel or in the shade of a tree. Please avoid the sun and cause overheating.

Common problems and solutions:

1. What should I do if this foldable bag charger can't charge my device?

- A. Please check your device manual that the input voltage is 36V.
- B. Cloudy weather and indirect sunlight may cause fluctuations in the output current of the charger, which may prevent or affect the charging of the device. Please place the charger in a place where it can be exposed to direct sunlight or wait for the weather. Use it when it's sunny.
- C. During use, please wipe the solar panel of this charger with a damp cloth to avoid scratches.
- D. Please keep this charger away from fire, water or liquid chemicals.

2. If the weather becomes cloudy or cloudy, does the charger still work?

Yes, but the charging efficiency will be greatly reduced, resulting in a much longer charging time.

3. Can this charger charge the power bank?

Yes, please remember to put the power bank in a cool place or in the charger pocket, away from the sun to avoid overheating.

Precautions:

- 1. Please do not damage, disassemble or drop this charger
- 2. Please dispose of this charger in accordance with local environmental regulations
- $3. This \, charger \, is \, not \, water proof, so \, please \, avoid \, exposing \, it \, to \, water, \, rain \, or \, moisture$
- 4. The product cannot be used on glass because some of the light will be refracted every time it passes through a layer of glass.

Solar panel 36V 200W (98SOL2001PAN)

Specifications::

Type:	монокристален
Solar panel power:	200W
DC Output, U:	36V 5.5A max
Folding size (mm):	2455*520*25
Unfold size (mm):	520*395*65
Net Weight (kg):	7.35



PORTABLE POWER STATION 500W

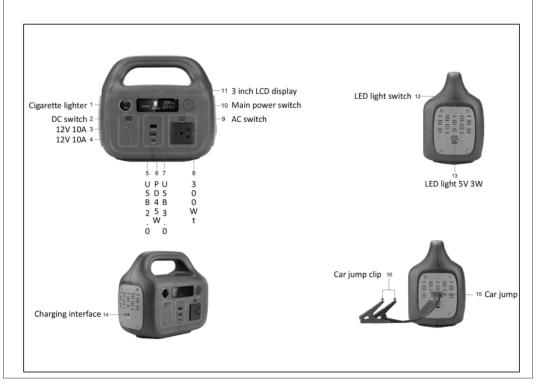


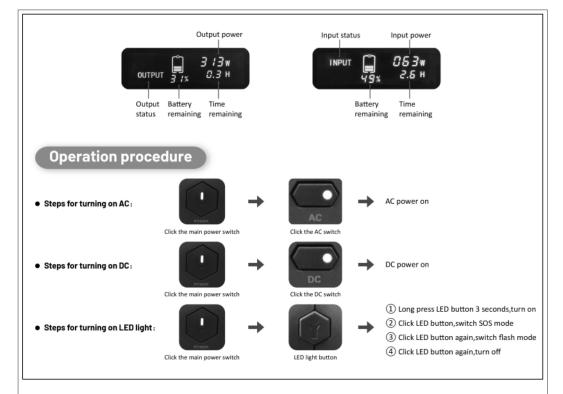
Please read this user manual carefully before using this product and follow basic precautions.

- Please fully charge it first before using it because it is only 30% power when you first get it.
- To ensure its life, it should be stopped when the remaining power is below 10% and recharged before using it again.
- To ensure that the power plant will not be damaged and permanent damage due to power loss and not being used for a long time, please fully charge it and store it in a cool, dry and ventilated place, and make sure it is checked

once a every 5 months.

- Children should stay away from this product and not use it to ensure safety and prevent danger.
- The product should not be filled with water or other liquids, dust or other objects, and should not be placed in the product with metal strips to prevent danger and damage to the power supply.
- Please do not disassemble the product. The risk of fire, explosion or injury, and unforeseen risks may occur after disassembling the product. The consequences of disassembly are borne by you and have nothing to do with the manufacturer.
- Do not place the product under high temperature, fire, heat source above 90°C, or it may explode.
- If the product is not normal or does not work, please stop using it immediately to avoid fire.



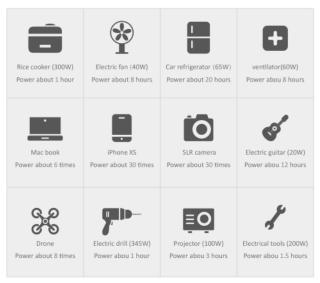








Three charging methods



Support electrical equipment

PORTABLE POWER STATION 1000W 3 2

lease read this manual carefully before using this product, nd follow basic precautions:

- . Please fully charge it first before using it, because it is only 0% power when you get it for the first time.
- . To ensure its life, it should be stopped when the remaining ower is below 10% and echarge it before using it again
- . In orn to ensure that its power plant is not damaged and ermanent damage from power loss and not if you use for a ong time, please charge it fully and store it in a cool, dry and entilated place and make sure that is checked once every 6

months.

- 4. Children should stay away from this product and not use it to ensure safety and prevent danger.
- 5. The product should not be filled with water or other liquids, dust or other objects, and should not be placed in the product with metal strips to prevent danger and damage to the power supply.
- 6. Please do not disassemble the product. The risk of fire, explosion or injury, as well as unforeseen risks may occur after disassembling the product. The consequences of disassembly are borne by yourself and you have nothing to do with the manufacturer
- 7. Do not place the product under high temperature, fire, heat source above 90°C may explode.
- 8. If the product has a suspicious appearance or does not work, please stop using it immediately to avoid electric shock, fire, and injury.

Product introduction

Panel functions

- 1. Master Switch 8 2 1 9 1 QO
- 2. Display
- 3. AC Switch
- 4. AC Output Multifunctional Socket
- 5, USB and Type-C Ports
- 6. DC switch
- 7. DC output port
- 8. Cigarette lighter output port
- 9. LED switch 10. LED lighting
- 11. DC and solar panel input port



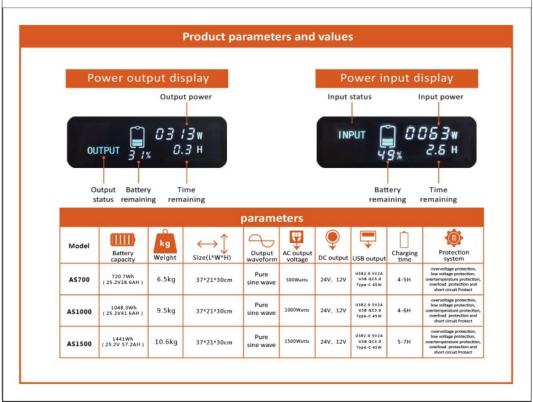
Product direction How to use 1.Steps for turning on AC: (1)Click the main power switch, (2)Click the AC switch. (3)AC power on 2.Steps for turning on DC: (1)Click the main power switch, (2)Click the AC switch. (3)DC power on 3.Steps for turning on LED light:(1)Click the main power switch, (2)LED light button, (3)Long press LBD button 3 seconds, turn on Щракнете върху LED бутона, превключете SOS режима; LED switch Щракнете отново върху бутона LED, превключете режима на

Щракнете отново върху бутона LED, изключете.

1. When press switch, the light of output port is on, it will be standby state 2.If the AC port is not used, press the switch button to close it to save power

Temperature range

Low temperature may affect the battery capacity of the product, the product can be charged in the temperature range of 0-40 C, if you charge it in sub-zero conditions, we recommend that the product is stored in an insulating cooler or other temperature conditions, and connected to the power supply (AC output socket, solar panel). The product can charge the equipment in the temperature range of -10-60 C.



PORTABLE POWER STATION 2000W



Please read this manual carefully before using this product

The TC2000 is a multi-functional outdoor portable AC and DC emergency mobile power supply. It uses a safe lithium-ion battery and high-efficiency inverter conversion technology. It has light weight, large capacity, high power, portable use and integrates multiple functions. It is very convenient for your family and emergency outdoor use and provides ideal protection for your life. The power product capacity is 2590Wh, and the main functions are as follows:

Basic function introduction:

- 220V50HZ/110V60HZ pure sine wave AC output
- 12V15A*1 constant voltage DC output
- 24V15A*1 DC output (same as battery voltage)
- USB-3.0*2 output
- Charging from external charger + solar charging
- Display for battery level, voltage, percentage, temperature
- Protection board reset function to reset

The main features are as follows:

- 1. AC output is a unique soft start function. This function increases better the adaptability of the AC output to all loads. It can better start all kinds of loads, better function to start energy saving lamps;
- 2. AC/DC output has excellent overcurrent, overload, overheat and short circuit protection functions, which is safer and more reliable;

This portable power product uses excellent intelligent single-chip microcomputer and advanced software control algorithm and uses excellent lithium-ion battery). It has a unique design of the AC circuit soft start function, which can be a better response to different load characteristics of electrical appliances, fully satisfying the use of electrical appliances with resistive, capacitive and inductive load, complete protection functions and higher safety and reliability. It is suitable for powering a variety of intelligent digital products and electrical products, such as: mobile phones, satellite phones, digital cameras, mobile hard drives, tablet computers, LED lights, notebook computers, outdoor lighting, low-power water pumps, post and telecommunications, medical equipment, etc. It is widely used in various scenarios, such as: field survey operations, military fields, scientific research, financial fields, outdoor media applications, as well as self-guided outdoor tourism, rescue and disaster relief, medical assistance, family emergency first aid and self-rescue etc, good decision Before using this portable power supply, please read the specifications carefully before using it and keep the "Specifications of the Portable Energy Storage Power Supply" and the proof of purchase and do not lose them for future reference and warranty use.

Panel function description

Panel function:

- 1. AC switch
- 2. DC switch
- 3. Reset switch
- 4. USB3.0 port
- 5. 12V15A output
- 6. 24V15A output
- 7. DC and solar charging input port
- 8. display screen
- 9. AC output socket
- 10. Case
- 11. Case lever



Function describe

- AC switch: Press the switch and the light is on, the AC output socket outputs AC220V50Hz voltage, which can supply electricity to the corresponding electrical appliances
- DC switch: press the switch and the light is on, 12V/24V/USB3.0 output voltage can be used for the corresponding electrical appliances
- Reset switch: When the power supply has abnormal protection in the middle, pressing the AC and DC switches does not respond, and each output port cannot output normally, press and hold the Reset switch for 5-15 seconds and then turn it on, reset to activate the battery protection board, and it can be used normally at this time
- Bright screen/check battery level: Click the switch button on the display, the display is turned on, you can check the power status of the battery
- DC DC charging input port: support voltage 30-40V15A (MAX) charging, you can use solar panels above 36V200W to charge

Instructions and precautions for use (optional):

The AC socket output of this portable power product is 220V50HZ/110V60HZ, pure sine wave AC voltage, and its rated power is 2000W. Before use, please pay attention to the following:

- 1. Before use, make sure that the electrical product is well grounded. Do not use it in high humidity areas. At the same time, do not allow rain or other liquids to enter the power product. Otherwise, please do not use it to prevent damage or electric shock. Pay attention to safe use of electricity and ensure that children Keep away from this product.
- 2. The input voltage and frequency of the electrical appliance must be consistent with this product.
- 3. Please make sure that the rated power of the electrical appliance is less than the 2000W rated power of the power supply.
- * If you fail to do the above, there may be danger, and the electrical appliance will not work normally or even be damaged. Please choose to use it carefully, and safety first.
- * If the power of the electrical appliance is greater than the rated power of the 2000W power supply, please choose another portable power supply with a larger power model.

Remarks: The AC output of this machine is designed to have the highest instantaneous start-up capacity of 5-7 times, and it has good start-up performance for inductive electrical loads and low power factor PF capacitive electrical loads; but in actual use, there will be moments when the machine is turned on. The generated starting power far exceeds the rated power value (for example, the starting current of compressor-type inductive load equipment such as air conditioners is generally 6-8 times the rated power), which triggers the overload protection function to start the protection and cannot be used normally.

Instructions before use:

- 1. Charging and solar panel selection instructions:
- a). In order to ensure the safe transportation of power supply products, the power of this portable power supply is half-charged when it leaves the factory. To ensure good use, please fully charge it before use.
- b). In order to ensure the safety of charging, please be sure to use our company's special charging power when charging. For example, when using solar power to charge, please use 36V solar panels to charge. 40V.
- c). When the power supply is fully charged, the power supply will automatically stop charging, the battery will be displayed as full, and the charging will be completed. After fully charged, please unplug the charging head and turn off the display in time.

Usage scenarios and maintenance precautions:

- a). Do not use this portable power product in areas such as high humidity, dust, fuel-burning areas, mining areas, etc., to prevent water and various metal or non-metallic dust from entering the product and causing product damage, danger and safety hazards.
- b). Keep children away from the power supply, and it is strictly forbidden to insert small metals into the product to prevent electric shock and other dangers or damage to the power supply.
- c). During use, there should be no other objects within 0.2m around the product to ensure the safe use of ventilation.
- d). Storage and maintenance: When not in use, please fully charge it first, check that the product functions well, turn off the main switch of the product, and then clean the surface of the product with a dry towel, put it in a moisture-proof and dust-proof protective rubber sleeve and store it in a dry and ventilated place.
- e). For long-term storage, please check every 4-6 months and refill the battery before continuing to store (due to self-discharge, the storage time cannot exceed 6 months, otherwise the battery is likely to lose power and cause permanent damage).

Use and storage environment requirements:			
Test item	Parameters	Unit	Remarks
Working environment temperature	-20 ~ 60	°C	
Storage environment temperature	-20 ~ 60	°C	
Working and storage humidity	45% ~ 85%	RH	
Cooling type	≥42	°C	
Altitude	3000	m.	Air-cooled

Product basic parameter specifications:

Functions	98SOL2001PS	
Rated output	2000W	
Peak output	4000W	
Output voltage	220V/50HZ или 110V60HZ	
Output waveform	Чиста синусоида	
Battery model	3.7V 40000mAh (7S2P)	
Battery capacity	2072Wh (25.9V 80Ah)	
Battery Typ	Power lithium ion battery cell (support up to 3C discharge)	
DC output	12V constant voltage and 20-29V voltage	
USB Output	USB QC3.0	
Charging time	5 ~ 6 часа	
Charging voltage and current	DC 30~40V 15A (MAX) Solar panels 36V	
Protective function	Over voltage, low voltage, over temperature, overload, output short circuit protection	

Electrical specifications:

L340*W240*H570 (mm)

20 Kg

1.1. Input specifications and electrical performance parameter requirements

Product Size

Product Weight

Test item	Parameters	Unit	Remarks
AC input (external charger)			
Rated voltage	100V ~ 240V	VAC	
Rated frequency frequency	50/60	Hz	

Input Current ток	0.6	А	
Conversion efficiency	≥85	%	Vin=220Vac rated load
DC Input			
Voltage	30-40 (MAX)	VDC	External adapter & solar charging
Current	≤15	А	

1.2. Изходни спецификации

Test item	Parameters	Unit	Remarks
AC Output			
Rated voltage	220/110±5%	VAC	
Rated frequency	50/60±1%	Hz	
Rated power	300	W	
Waveform distortion	<5	%	
Conversion efficiency	≥89%	%	
DC Output			
USB QC3.0	5V3A / 9V2A / 12V1.5A	V/A	Adaptive
DC output voltage	12±0.5	V	
DC output current	14-15	А	
DC output voltage	20-29.4	V	
DC output current	15	А	

Use problem judgment and countermeasures

Problems and phenomena	Reason	Coping method
Press the main switch, the LCD has no display	No output from internal battery	Charge activation
Crystal screen displays normally.	Over temperature	Disconnect the load and wait for the temperature to drop
Press AC switch, no AC output,	Over load	View load power and reduce load
product alarm	Low pressure	Charge
USB no output	Not plugged in or poorly connected	Reconnect
12V DC or USB DC power down fast	The AC switch is in the open state, and the standby current is too large	Do not use AC during DC output, turn off the AC switch
Belt power is too small	DC and AC are working at the same time	At the same time, the total working power cannot exceed the rated power, reduce the power used
Can not be fully charged with solar panels	The solar charging board does not match Insufficient sunlight	Choose a suitable solar panel to make the charging current less than 3.5A