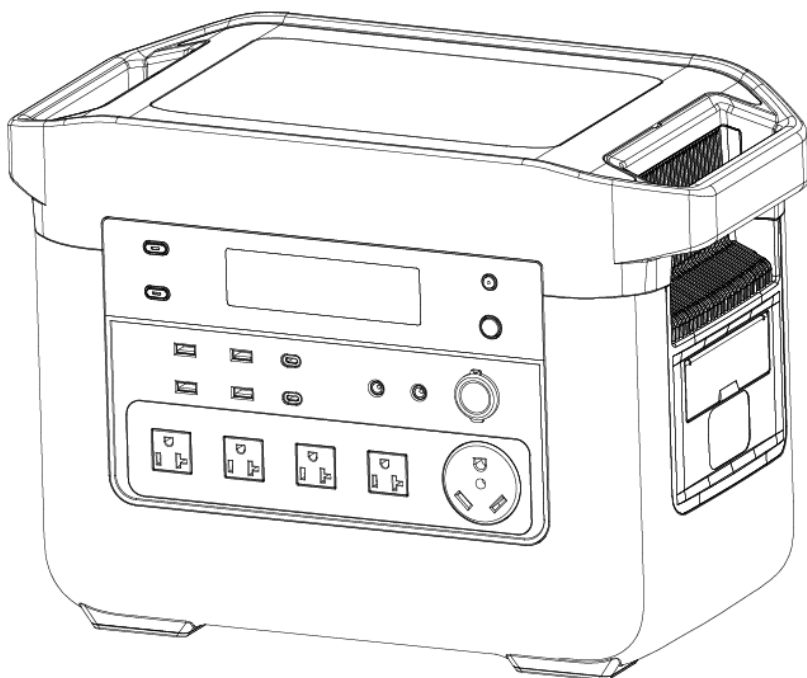


DUCAR[®]

POWER WITH VISION

POWER STATION

Model:DPS2400L-C



Caution

Before using our power station, please read this manual carefully to understand the proper use of your unit. Keep this manual handy.

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Explanation of the symbols on the product

Symbols are used in this manual to draw your attention to potential hazards. The safety symbols and the accompanying explanations must be fully understood. The warnings themselves will not rectify a hazard and cannot replace proper accident prevention measures.

	Before commissioning, read and observe the operating manual and safety instructions!		The battery charger is only suitable for use indoors.
	Do not use the product in wet conditions! Protect from moisture!		Mains power unit corresponds to the RoH guideline.
	Observe warnings and safety instructions!		Connection identification
	Do not throw old equipment away with household waste		Do not throw Li-ion rechargeable batteries away with household waste
	SMPS (Switch mode power supply unit)		SMPS incorporating a short-circuit-proof safety isolating transformer (inherently or non-inherently)
 Attention!	We have marked points in this operating manual that impact your safety with this symbol		

Introduction

Dear Customer,

We hope your new product brings you much enjoyment and success.

Note:

In accordance with the applicable product liability laws, the manufacturer of this product assumes no liability for damage to the product or caused by the product arising from:

- Improper handling
- Failure to comply with the operating instructions
- Repairs carried out by third parties, unauthorised specialists.
- Installing and replacing nonoriginal spare parts
- Application other than specified
- Failure of the electrical system in the event of the electrical regulations and VDE provisions 0100, DIN 57113 / VDE0113 not being observed

Note:

Read through the complete text in the operating manual before installing and commissioning the device. This operating manual should help you to familiarise yourself with your product and to use it for its intended purpose.

The operating manual includes important instructions for the safe, proper and economic operation of the product, for avoiding danger, for minimising repair costs and downtimes and for increasing the reliability and extending the service life of the product.

In addition to the safety instructions in this operating manual, you must also observe the regulations applicable to the operation of the product in your country. Keep the operating manual package with the power tool at all times and store it in a plastic cover to protect it from dirt and moisture. They must be read and carefully observed by all operating personnel before starting the work.

The product may only be used by personnel who have been trained to use it and who have been instructed with respect to the associated hazards. The required minimum age must be observed.

In addition to the safety instructions in this operating manual and the separate regulations of your country, the generally recognised technical rules relating to the operation of such machines must also be observed. We accept no liability for accidents or damage that occur due to a failure to observe this manual and the safety instructions.

Introduction FCC

FCC ID: 2BQTM-DPS2400L

Contion FCC ID:2ANDL-CBU

his device complies with Part 15 of the FCC Rules / Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

- (1) this device may not cause harmfulinterference.
- (2) this device must accept any interference received, including interference thatmay cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void

the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device,

pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection

against harmful interference in a residential installation. This equipment generates uses and can

radiate radio frequency energy and, if not installed and used in accordance with the instructions, may

cause harmful interference to radio communications. However, there is no guarantee that

interference will not occur in a particular installation. If this equipment does cause harmful

interference to radio or television reception, which can be determined by turning the equipment off

and on, the user is encouraged to try to correct the interference by one or more of the following

measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

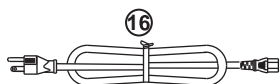
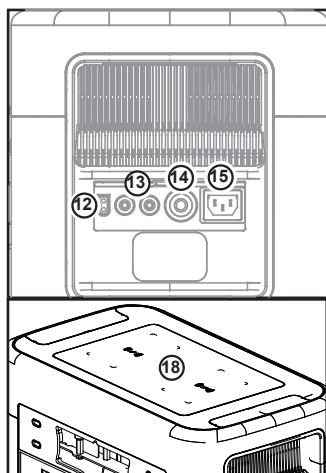
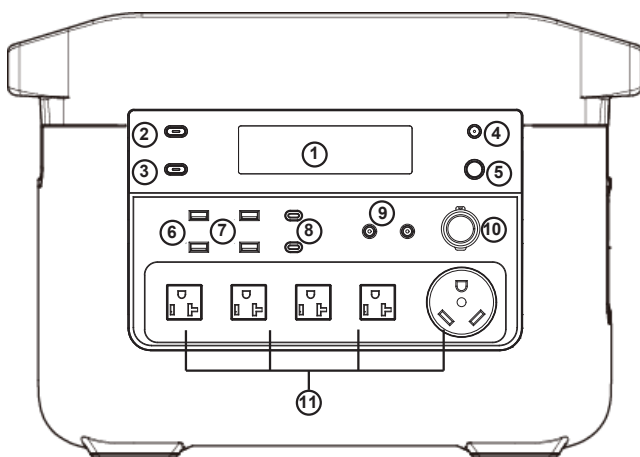
MPE caution (if a FCC certified RF module is inserted in & the separation distance is indicated

in the FCC grant of RF module)

To satisfy FCC / IC RF exposure requirements, a separation distance of 20 cm or more should

be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended.

Product description



1. LCD display

2. AC switch

3. DC switch

4. WIFI/Bluetooth switch

5. Powerswitch

6. USB 5V 2.4A output

7. USB 12V 2A fast Charge output

8. USB-C output

9. DC output

10. Vehicle output

11. 120V AC output

12. DC charging interface

13. Parallel interface

14. Safety switch

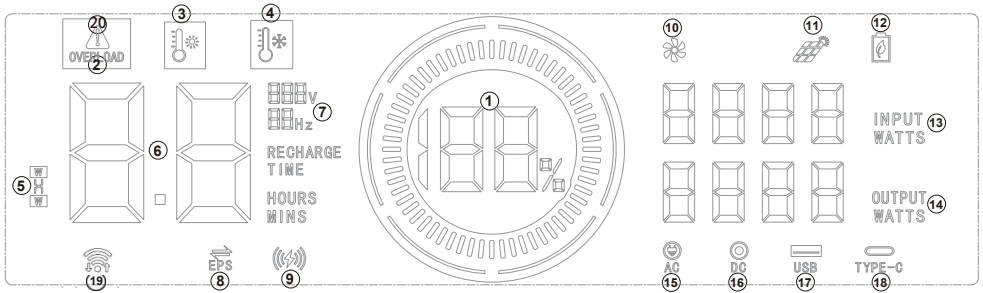
15. AC charging interface

16. AC power cable

17. Vehicle charge cable

18. Wireless charging

LCD display



- | | |
|--|---------------------------------------|
| 1. Battery level icon | 10. Fan icon |
| 2. Overload protection icon | 11. Solar or DC charging display icon |
| 3. Heat protection warning icon | 12. Energy-saving mode icon |
| 4. Cold protection warning icon | 13. Charging Power icon |
| 5. Parallel icon | 14. Output power icon |
| 6. Charging or discharging time display icon | 15. AC output icon icon |
| 7. Voltage and frequency display icon | 16. DC output icon icon |
| 8. EPS icon | 17. USB-A icon |
| 9. Wireless charging icon | 18. Type-C icon |
| | 19.WIFI/Bluetooth icon |
| | 20.Warning icon |

Proper use

The Powerstation is designed to charge rechargeable batteries or operate electronic products that do not exceed a max. power of 2400 W.

The product may only be used in the intended manner. Any use beyond this is improper. The user/operator, not the manufacturer, is responsible for damages or injuries of any type resulting from this.

An element of the intended use is also the observance of the safety instructions, as well as the assembly instructions and operating information in the operating manual. Persons who operate and maintain the machine must be familiar with it and must be informed about potential dangers.

In addition, the applicable accident prevention regulations must be strictly observed. Other general occupational health and safety-related rules and regulations must be observed.

The liability of the manufacturer and resulting damages are excluded in the event of modifications of the product.

The product may only be operated with original parts and original accessories from the manufacturer. The safety, operating and maintenance specifications of the manufacturer, as well as the dimensions specified in the technical data, must be observed.

Please note that our products were not designed with the intention of use for commercial or industrial purposes. We assume no guarantee if the product is used in commercial or industrial applications, or for equivalent work.

Safety instructions

DANGER

A failure to observe these instructions poses an extreme danger of death or the risk of life-threatening injuries.

NOTE

Personal injury or property damage can result from incorrect operation.

General safety instructions

DANGER

- Please do not disassemble, repair or transform, which may cause electric shock, heat, fire and other dangers.
- Do not place the product near the source of fire or expose it to fire or heat as this could result in fire, burns, and other hazards.

-
- This product cannot be charged and used in dew, bathhouse, rain and other places; do not use water to clean the product, it will cause electric shock, heat, fire and other dangers.
 - Do not touch this product or connector plug when your hands are wet. It may cause electric shock hazard.
 - Do not use metal to contact AC output interface. It may cause electric shock, fever, fire and other dangers.
 - Please do not dispose of the product in general waste disposal. Electricity shock, heat and fire may occur in the garbage collection truck or in the garbage collection truck.
 - Do not use AC connections other than those specified. It may cause electric shock, fever, fire and so on.
 - Please check the rated specifications of the connection interface or the connection product and do not exceed the specifications. It may cause electric shock, fever, fire and so on.
 - Please do not have a strong impact on the product such as a drop or a hammer strike. This can result in an electric shock, heating up, fire or damage to the product.
 - Do not place, store and use the product at locations where it can fall down or drop (e.g. on high shelves). This can result in an electric shock, heating up, fire or damage to the product.
 - Do not move the product, while it is charging or in use. Heating up, fire, electric shock or damage can be caused to the product due to vibrations or impacts while moving.
 - When in use, ensure that the connected product is reliably grounded. Improperly grounded devices may pose a serious threat to your life and property.

⚠ Warning!

- Please keep the place clean for use and storage. Powder or small metal contact terminal may cause short circuit, accidents such as smoke or fire.
- Make sure to check the product before use. In the case of anomalies such as breakages, cracks, leaks, heating up or breakage of the AC power line, please stop using the product immediately.
- Do not let children use this product or it may cause accidents or injuries.
- Do not use if a connector cannot be fully inserted due to a loose or deformed interface. Otherwise, electric shocks, heating up and fire can be caused.
- Please do not use it on the beach or in dusty places. Or it may cause smoke, fire.
- Please do not use and keep in the car, trunk, loading table or high temperature place under direct sunlight. Otherwise, it may cause product failure obstacles or deterioration or cause fever.
- If the liquid within the product adheres to the skin or clothing, please wash with water immediately. Otherwise may cause the skin injury and so on. Wash the liquid out of the eyes. After washing with clean water, please see a doctor immediately. It may cause the risk of blindness.
- In the event of a thunderstorm or lightning strike, pull the power cord out of the socket while charging. Overload can lead to overheating, fire, and other accidents.
- Please charge the product within the specified volt-age range (240 V alternating current). Otherwise, heat, fire, and other accidents may result.
- Please do not place the product upside down or on its side when using and storing it, otherwise it may cause leakage, heat, fire and other hazards.

Note

- Stop using the product immediately if any abnormalities such as rust, unusual smell, heating, etc. appear.
- When transporting the product by a car, etc., please fix it so that it cannot be moved. Otherwise, the product may be damaged, resulting in electric shock, heat, fire, etc.
- Do not allow this product or the power cord to come into contact with water or other liquids. This may lead to short circuits, heat, fire, etc.
- Charge, use and store this product at temperatures between 0 and 40°C, otherwise loss of power or heating up may occur.
- In the event of an accidental drop or impact, the housing could be damaged by electric shock, heat, fire, etc. Please stop using the product immediately. To avoid accidents, immediately contact the installation and maintenance personnel responsible on site.
- Read through the operating instructions completely before connecting the electrical products. Operating errors can lead to accidents or injuries.
- Before connecting electrical products, ensure that electrical products are switched off. A sudden start of electrical products can result in accidents or injuries.
- Make sure to turn off the main switch during storage to avoid unnecessarily discharging the battery and avoiding electric shock.

ATTENTION!

This power tool generates an electromagnetic field during operation. This field can impair active or passive medical implants under certain circumstances. In order to prevent the risk of serious or deadly injuries, we recommend that persons with medical implants consult with their physician and the manufacturer of the medical implant prior to operating the machine.

Residual risks

The product has been built according to state-of-the-art and the recognised technical safety rules. However, individual residual risks can arise during operation.

- Health hazard due to electrical power, with the use of improper electrical connection cables.
- Furthermore, despite all precautions having been met, some unobvious residual risks may still remain.
- Residual risks can be minimised if the "Safety Instructions" and the "Intended Use" together with the operating manual as a whole are observed.
- Avoid accidental start-up of the machine: The operating button may not be pressed when inserting the plug in a socket. Use the tool that is recommended in this operating manual. This is how to ensure that your machine provides optimum performance.

Technical data

Model	DPS2400L-C	
Power output for AC output	Rated voltage	120 V
	Nominal pow	2400 W
	Frequency	60 Hz
Power output for DC output	Rated voltage	12V
	Rated current	Max. 5 A
	Required connector Coaxial power connector	
Power output for USB-A output	Rated voltage	5 V
	Rated current	2.4 A
	Nominal power	12 W
Power output for USB-A quick charge	Rated voltage	5V/9V/12V
	Rated current	3A/2.2A/2A
	Nominal power	24 W
Power output for USB-C output	Quick charge	PD3.0
	Rated voltage	5V/3A,9V/3A,12V/3A,15V/3A,20V/5A
	Max. power	100 W
Power output for Vehicle output	Rated voltage	12 V
	Rated current	10 A
	Nominal power	120 W
Power supply	Rated voltage	120 V / AC
	Rated current	15 A Max
	Nominal power	1750 W
	Input voltage	96-138 V
	Frequency	60 Hz
DC Power supply	Input voltage	12-60V
	Rated current	25 A
	Max. power	1200 W
Li-ion battery	Rated voltage	51.2 V
	Battery capacity	2150 Wh
	Voltage	40 - 57.6 V
Working conditions	Air humidity	10% - 65%
	Operating temperature	-10°C to 40°C
General	Protection category	IP 20
	Protection class	I
Wireless charging output	Max. 15W	

Unpacking

- Open the packaging and carefully remove the product.
- Remove the packaging material, as well as the packaging and transport safety devices (if present).
- Check whether the scope of delivery is complete.
- Check the product and accessory parts for transport damage. In the event of complaints the carrier must be informed immediately. Later claims will not be recognised.
- If possible, keep the packaging until the expiry of the warranty period.
- Familiarise yourself with the product by means of the operating manual before using for the first time.
- With accessories as well as wearing parts and replacement parts use only original parts. Spare parts can be obtained from your specialist dealer.
- When ordering please provide our article number as well as type and year of manufacture for the product.

⚠ ATTENTION!

The product and the packaging material are not children's toys! Do not let children play with plastic bags, films or small parts! There is a danger of choking or suffocating!

Charging

⚠ NOTE: The product is not fully charged when delivered. We recommend fully charging the product before initial use.

While charging, the ring symbol on the LCD display is in a dynamic state. After fully charging the battery, the display symbol is in the static state.

⚠ Note: Please make sure that the connected electrical products can work properly before using this product.

⚠ Note: It is normal for the product to warm up while charging.
Regular discharging and charging increases the service life.

⚠ Note: Ensure that the cabling is properly inserted otherwise the contact terminals could melt or catch fire at high temperatures.

⚠ Note: Charge the product at an ambient temperature of 0 to 40°C.

Charging with the mains power unit

Always use the mains power unit supplied with the product.

- Press the ON/OFF switch with operating indicator until it lights up green. The LCD display is visible.
- Connect the input plug of the AC power cable to a wall outlet, and the other end is connected to the AC charging input port of the product.

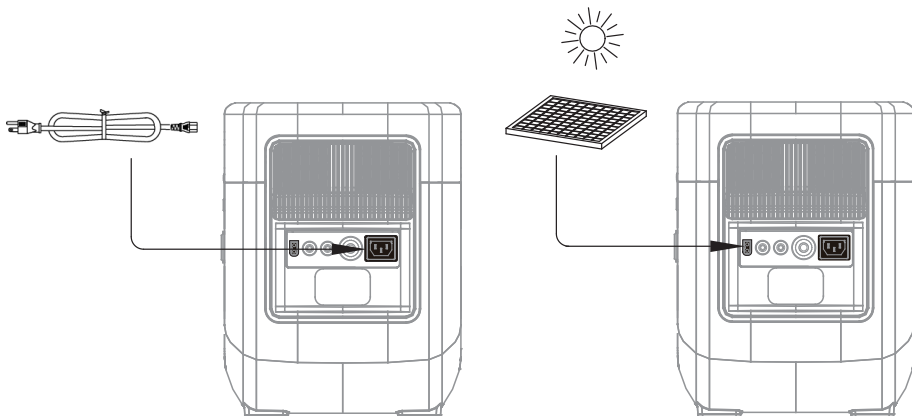
- You can read the charge status on the LCD display.
- When the Power station is fully charged, the charging process is ended automatically.
- As soon as the Power station is fully charged, switch the product off and disconnect the mains power unit from the power connection.

Charging with a solar panel (not included in the scope of delivery)

- Press the ON/OFF switch with operating indicator until it lights up green. The LCD display is visible.
- Place your solar panel where it can get as much direct sunlight as possible.
- Connect the solar panel to the charging socket.
- You can read the charge status on the LCD display.
- When the Powerstation is fully charged by the solar panel, the charging process is ended automatically.
- Disconnect the solar panel from the Powerstation and switch it off.

⚠ **Note:** You can link several solar panels to each other in order to shorten the charging time. The Powers tation is able to absorb 1200W of charging power. The off-load voltage of the solar panel should be between 12V and 60V. Otherwise, the overvoltage protection of the charging process can be triggered or cause damage.

⚠ **Note:** The charging time is different when light intensity is different.



Charging via the Vehicle output (cigarette lighter) in a vehicle

Ensure that the vehicle engine is running.

- Connect the Power station and the socket (cigarette lighter) of your vehicle using the car charger cable.
- Charge the Power station after starting the vehicle. You can read the charge status on the LCD display.
- When the Power station is fully charged, the charging process is ended automatically.
- Disconnect the car charger cable from the Power station when fully charged.

Description of the various connections and the display

Connections

This product is equipped with 3 function outputs, namely the AC area, DC area and USB area.

- **USB-C output** : smart phones, tablets, etc.
- **USB 5V 2.4A output** : smartphone, MP3 player, digital camera, electronic reader, tablet, etc.
- **USB 12V 2A Fast Charge output** : Smartphone, MP3 player, digital camera, electronic reader, tablet, etc. (provided these devices support fast charging)
- **DC output** : mainly used for LED light bulb lighting.
- **120V AC output** : Notebook, camera, display devices and other working devices for the alternating current supply with a max. power of 2400 W.
- **Vehicle output** : Camping equipment with connection such as kettles, camping refrigerators, travel coffee machines, camping cool boxes.

⚠ **Note:** The direct current output (DC is suitable for most products on the market. Some products with high current can trigger the overload protection .

⚠ **Note:** Devices with a power rating of more than 2400 W must not be operated with this Power station.

Display

Battery level (1)	Displays the battery charge status in segments (0-10%, 11-20%, 21-30%, 31-40%, 41-50%, 51-60%, 61-70%, 71-80%, 81-90%, 91-100%). In addition, the charge status is displayed as an exact percentage. When the Powerstation is charging, the segments rotate by the percentage.
Overload protection (2)	In AC mode, once the rated power is exceeded for too long or the peak power is exceeded, a warning sign with "overload" will appear.
Heat protection warning (3)	A thermometer with a sun is displayed if the Powerstation becomes too hot due to external or technical influences
Cold protection warning (4)	A thermometer with a snowflake is displayed if the Powerstation becomes too cold due to external influences
Parallel icon (5)	Only when there is no city power access and the AC button triggers the parallel mode can be displayed, the rest of the time is not displayed (the default is turned off when starting)
Charging and discharging time display (6)	When the device has charging current, the RECHARGE TIME icon is steady on and displays the corresponding remaining charging time. When the device is discharging, the RECHARGE TIME icon is not displayed, only the remaining discharge time displayed
Voltage and frequency display (7)	When AC is turned on, the screen displays the corresponding output voltage level and frequency
EPS (8)	When the mains is connected and the AC output is on, the icon is always on
Wireless charging (9)	If the device has this function, the icon is steady on. If the device does not have this function, the icon is not displayed
Fan (10)	When the inverter is loaded, the temperature of the inverter is $\geq 45\pm 5^{\circ}\text{C}$, and the fan starts to work, the inverter temperature is $\leq 40\pm 5^{\circ}\text{C}$, the fan stops. When the inverter is unloaded, the inverter temperature is $\geq 70\pm 5^{\circ}\text{C}$, and the fan starts to work. The inverter temperature $\leq 65\pm 5^{\circ}\text{C}$, the fan stops. The DC output power is higher than 100W then need to start the fan.
Solar or DC charging display (11)	When a solar device or DC is charging the device, the icon is on
Energy-saving mode (12)	Hold down the DC over 5 seconds start the ECO, the hold down it 5 seconds again, cancel the ECO. When the energy saving mode is on, the DC automatically shuts down after 12 hours (power less than 2W), and the AC automatically shuts down after 12 hours (power less than 5W).
charging power icon (13)	The input charging power is indicated by "INPUT".
Output power icon (14)	The total output power is indicated by "OUTPUT".
AC output (15)	The AC inscription and a plug symbol indicate that the 240V output is active.
DC output (16)	A socket symbol and the DC inscription indicate that the DC outputs and the Vehicle output are active.
USB-A (17)	A USB-A symbol and the USB inscription indicate that the USB-A outputs are active.
Type-C (18)	A type-C symbol and the type-C inscription indicate that the type-C output is active.
Wifi/Bluetooth (19)	After power on, if the module has distribution network information and can connect to the cloud, this icon will be steady on. If there is no connection, this icon will not be displayed. If you press the network distribution button for more than 5 seconds, the icon blinks, indicating that the device can be reconfigured
Warning icon (20)	when the device fails, the icon light, meanwhile the screen show the failed code.

Start up

⚠ **Note:** If certain connections are not used, switch them off to save power. To do this, press the DC button with operating indicator or AC button with operating indicator.

ATTENTION: When using the respective consumer, select the appropriate output depending on the required type of current for the consumer to be operated.

Switching the product on and off

Switching on:

1. Press the ON/OFF switch with operating indicator until the operating indicator lights up green.
2. The LCD display is visible.

Switching off:

1. Keep the on/off switch with operating display pressed for a few seconds.
2. The operating display and the LCD display go out.

⚠ **Note:** The LCD display goes out automatically after a certain amount of time without operation. Press the ON/OFF switch with operating indicator briefly to switch the LCD display on again.

⚠ **Note:** If the DC / AC buttons are switched off and no consumer is connected to the USB-C connection, the product is shut down automatically after 120 minutes to save power.

⚠ **Note:** You can switch the display lighting on or off with a short press of the ON/OFF switch with operating indicator.

⚠ **Note:** Always remember to turn off the product when not in use.

Supplying the consumer with direct current

Press the DC button with operating indicator to supply the products with direct current.

1. Insert a consumer into the corresponding output.
2. With the product switched on, press the DC button with operating indicator to switch on the DC output, the Vehicle accessory power output and the USB connections.
3. The corresponding operating indicator lights up and the display symbols for DC and USB are displayed on the LCD display.
4. The corresponding output can now be used.
5. Press the DC button with operating indicator again to switch off the DC, the Vehicle accessory power output and the USB connections.
6. The corresponding operating indicator goes out and the display symbols for DC and USB are no longer displayed on the LCD display.

Supplying the consumer with alternating current

Press the AC button with operating display to supply the products with alternating current.

1. Insert a consumer into the corresponding output.
2. With the product switched on, press the AC button with operating indicator to switch on the AC outputs.
3. The corresponding operating indicator lights up green and the display symbol for AC is displayed on the LCD display .
4. The fan also switches on when the temperature rises and the corresponding display symbol is displayed on the LCD display.
5. The output can now be used.
6. Press the AC button with operating indicator again to switch off the AC outputs.
7. The operating indicator goes out and the display symbol for AC is no longer displayed on the LCD display. The display symbol of the fan disappears as soon as the device has cooled down again.

⚠ **Note:** You can read the total consumption of your consumers on the LCD display. The value indicates how much power your products draw from the Power station.

Overload protection

The power station is equipped with overload protection.

1. Disconnect the consumer from the product which triggers the overload protection.
2. Switch the product off and on again to acknowledge the error.
3. Then the product can be used as usual.

⚠ **Note:** If possible, keep your portable power station fully charged before long-term non-use. Otherwise it can negatively affect the service life of the battery.

Electrical connection

The connection complies with the applicable VDE and DIN provisions. The customer's mains connection as well as the extension cable used must also comply with these regulations.

Important information

In the event of overloading, the product switches itself off. After a cool-down period (time varies), the product can be switched back on again.

Damaged electrical connection cable.

The insulation on electrical connection cables is often damaged.

This may have the following causes:

- Pressure points, where connection cables are passed through windows or doors.
- Kinks where the connection cable has been improperly fastened or routed.
- Places where the connection cables have been cut due to being driven over.
- Insulation damage due to being ripped out of the wall outlet.

-
- Cracks due to the insulation ageing.

Such damaged electrical connection cables must not be used and are life-threatening due to the insulation damage.

Check the electrical connection cables for damage regularly. Ensure that the connection cables are disconnected from electrical power when checking for damage. Electrical connection cables must comply with the applicable VDE and DIN provisions. The printing of the type designation on the connection cable is mandatory.

Cleaning

Attention!

Switch the product off before performing any cleaning work.

We recommend that you clean the product directly after every use.

Wipe dust off the product from time to time with a dry cloth. Do not use any cleaning products or solvents; they could attack the plastic parts of the product. Make sure that no water can penetrate the interior of the product.

Transport

⚠ Note: When transporting, make sure that the product is switched off and no consumers are connected. For a short transport distance, carry the product by the transport handle. If transporting the product with a car or similar, please ensure that the product does not move during transport. Otherwise, the product can be damaged. This can lead to electric shock, heating up, fire etc.

Storage

Store the product and its accessories in a dark, dry and frostfree place that is inaccessible to children. The optimum storage temperature lies between $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$. Store the product in its original packaging. Cover the product to protect it from dust or moisture. Store the operating manual with the product.

Do not store the product in the car, boot, loading platform or in other hot locations in direct sunlight. It may cause the product failure, degradation or thermal problem.

Please fully charge the product before storage. To prevent a deep discharge, the product must be charged every 3 months even if not in use.

Maintenance

There are no parts on the product that require maintenance. Have tasks that are not described in these operating instructions carried out by our service centre.

Repairs

Repair work on the electrical equipment may only be carried out by electricians.

Disposal and recycling

Notes for packaging



The packaging materials are recyclable. Please dispose of packaging in an environmentally friendly manner.

Notes on the electrical and electronic equipment act [ElektroG]



Electrical and electronic appliances do not belong in household waste, but should be collected and disposed of separately.

- Used batteries or rechargeable batteries that are not installed permanently in the old appliance must be removed nondestructively before disposal. Their disposal is regulated by the battery act.
- Owners or users of electrical and electronic devices are legally obliged to return them after use.
- The end user is responsible for deleting their personal data from the old device being disposed of!
- The symbol of the crossed-out dustbin means that waste electrical and electronic equipment must not be disposed of with household waste.
- Waste electrical and electronic equipment can be handed in free of charge at the following places:
 - Public disposal or collection points (e.g. municipal works yards)
 - Points of sale of electrical appliances (stationary and online), provided that dealers are obliged to take them back or offer to do so voluntarily.
 - Up to three waste electrical devices per type of device, with an edge length of no more than 25 centimetres, can be returned free of charge to the manufacturer without prior purchase of a new device from the manufacturer or taken to another authorised collection point in your vicinity.
 - For additional takeback conditions of the manufacturers and distributors, please contact the respective customer service.
- In the case of delivery of a new electrical device by the manufacturer to a private household, the latter may arrange for the free collection of the old electrical device upon request from the enduser. Get in contact with the manufacturer's customer service.
- These statements only apply to devices installed and sold in the countries of the European Union and which are subject to the European Directive 2012/19/EU. Different provisions may apply to the disposal of electrical and electronic appliances in countries outside the European Union.

Information on the battery act [BattG]



Used batteries and rechargeable batteries do not belong in household waste, but should be collected and disposed of separately.

- For safe removal of batteries or rechargeable batteries from the electrical device and for information on their type or chemical system, please refer to the additional information in the operating or assembly instructions.
- Owners or users of batteries and rechargeable batteries are legally obliged to return them after use. The return is limited to household quantities.
- Used batteries may contain pollutants or heavy metals that can harm the environment or human health. Recycling used batteries and using the resources they contain helps to protect these two important issues.
- The symbol of the crossed-out dustbin means that batteries and rechargeable batteries must not be disposed of with household waste.
- If the signs Hg, Cd or Pb are also located below the dustbin symbol, this stands for the following:
 - Hg: Battery contains more than 0.0005 % mer-cury
 - Cd: Battery contains more than 0.002 % cadmium
 - Pb: Battery contains more than 0.004 % lead
- Rechargeable batteries and batteries can be returned free of charge to the following places:
 - Public disposal or collection points (e.g. municipal works yards)
 - Sales points for batteries and rechargeable bat-teries
 - Takeback points of the common takeback system for old device batteries
 - Takeback point of the manufacturer (if not a member of the common takeback system)
- These statements are only valid for rechargeable batteries and batteries sold in the countries of the European Union and subject to the European Directive 2006/66/EC. Different provisions can apply to the disposal of rechargeable batteries and batteries in countries outside the European Union.

Removing the battery before disposing of the device

- The integrated battery must be removed and disposed of separately in an environmentally friendly manner before disposing of the device.
- Mask off the contacts and package the battery such that it cannot move in the packaging. Please also observe any further national regulations.

Troubleshooting

The following table shows fault symptoms and describes remedial measures in the event of your product failing to work properly. If you cannot localise and rectify the problem with this, please contact your service workshop.

Fault	Possible cause	Remedy
Device does not work or not as expected	Overheating protection	Check the ambient temperature. Output is restarted when the generator cools down.
	Battery over-current protection	Disconnect the product from the power connection and carry out commissioning again.
	Battery charging protection	Contact the customer service department.
	Protection at low discharge temperatures	Check the ambient temperature to see if it is lower than -10°C.
	Battery low voltage protection	Charge the product in good time, restart after it has fully charged.
	Power inverter overcurrent protection	Check if the AC output is overloaded or short-circuited.
	Power inverter overload protection	Check if the AC output is overloaded.
	Power inverter short-circuit protection	Check if the AC output is overloaded or short-circuited.
	Protection against overvoltage while charging	Check whether the input voltage exceeds the maximum input voltage.
	Battery overheat protection	Check if the ambient temperature is higher than 40°C. Allow the product to cool down.

Fault code	Fault code description	Failure reasons (All possible reasons)
F001	Abnormal communication between the main control panel and power board	1.The communication harness between the main control panel and the power board falls off. 2.The wiring harness of the power supply end of the power board falls off. 3.Power board communication circuit is faulty. 4.main control panel communication circuit is faulty.
F002	Abnormal communication between the main control panel and BMS	1.The communication harness between the main control panel and BMS board falls off. 2.BMS board communication circuit is faulty. 3.main control panel communication circuit is faulty.
F003	main control panel detects fan stalling	1.The fan connected to the main control panel is stuck by a foreign object. 2.The fan harness connected to the main control panel has fallen off or is faulty. 3.main control panel circuit is faulty.
F004	Power board detects overheating	1.The fan is not turning or stuck. 2.Power board circuit is faulty.
F006	Power board is faulty (hardware over current)	1. The circuit of the power board is faulty.
F008	Power board recognition input under voltage	1. The circuit of the power board is faulty.
F009	Power board detects abnormal voltage in the power grid	1. Check whether the grid voltage is normal, or restart the device.
F010	Power board detects abnormal grid frequency	1. Power board failure or grid abnormality.
F011	Power board detects output overload	1. Output device overload or power board failure
F012	Inverter detects battery over voltage	1. If restarting the device doesn't resolve the issue, it could be a hardware malfunction.
F013	Inverter detects photovoltaic over voltage	1. Check whether the DC input voltage is abnormal.
F014	Inverter detects DC charging over-current	1. Check whether the DC input current exceeds the rated value.
F015	main control panel detects cigarette lighter output overload	1. Unplug the load device and verify whether the power consumption exceeds the rated power.

Fault code	Fault code description	Failure reasons (All possible reasons)
F016	Warning icon: BMS charging high-temperature fault	1.Recharge the device after it has cooled down.
F017	Warning icon: BMS charging undertemperature fault;	1. Move the device to an environment at room temperature. 2. Recharge once the battery temperature has risen.
F018	Warning icon: BMS discharging overtemperature fault;	1.Turn off the load and, after the battery temperature has dropped, resume discharging.
F019	Warning icon: BMS MOS temperature high;	1. Move the device to an environment at room temperature. 2. Once the battery temperature has risen, resume discharging.
F020	Warning icon: BMS temperature abnormality;	1.Temperature detection failure—please contact customer service.
F021	Warning icon: BMS MOS temperature high;	1.Resume operation after the device has cooled dow
F024	Warning icon: BMS differential pressure abnormality;	1. Turn off the loa 2. Perform a full discharge and recharge cycle again in sequence. 3. If the issue persists, please contact customer servic
F026	Warning icon: BMS charging overcurrent;	1.Charging board failure—please contact customer service.
F030	The master controller, when in EPS mode, will continuously display F030 if it detects a GFCI leakage fault;	1.Remove the AC input cable and simultaneously check the cable, outlet, and other components for any potential leakage.
F031	The master controller, when in EPS mode, will continuously display F031 if it detects an abnormality during the GFCI self-test.	1.GFCI module failure—restart the device. If the problem persists, please contact customer service.