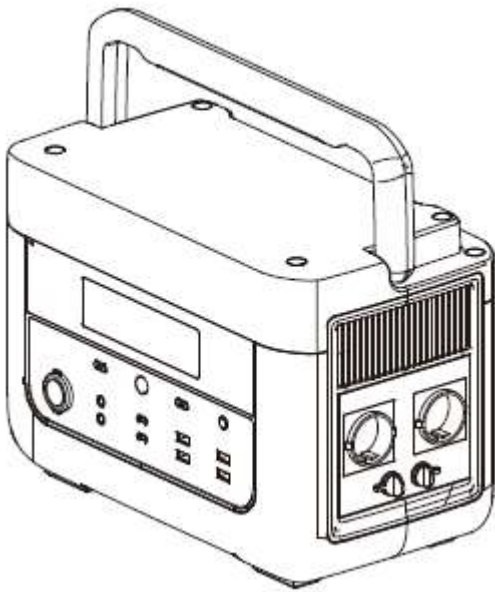


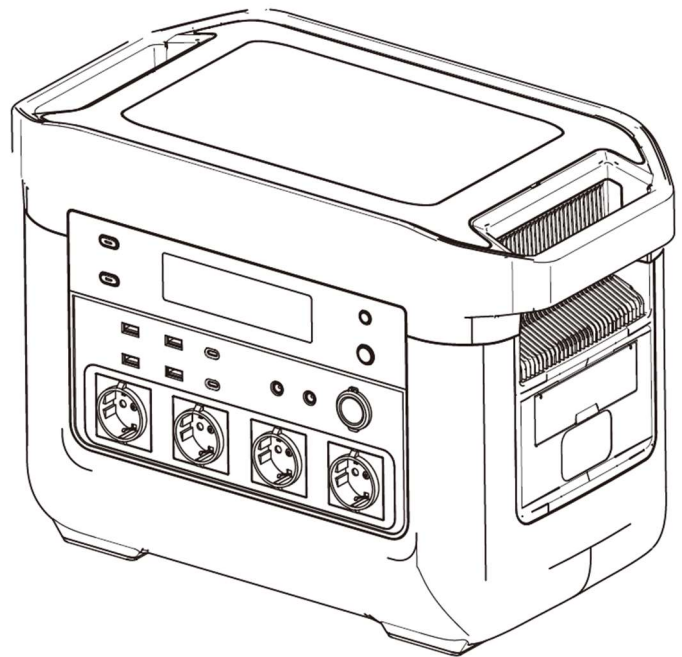
Operator's manual

# **Portable Power Station**

## *PWB series*



**PWB1200**



**PWB2400**

Copyright © 2023 PR Industrial s.r.l. unipersonale – Loc. Il Piano – 53031 Casole d'Elsa (SI)  
Printed in Italy All rights are reserved, in particular the world-wide applicable copyright, right of duplication and right of distribution.

This document may only be used by the recipient for the intended purpose. The document may not be reproduced entirely or partially or translated into any other language.

Reproduction or translation, even extracts thereof, only with written approval of PR Industrial s.r.l. unipersonale.

Any breach of the statutory provisions, in particular the protection of copyright, will lead to civil and criminal prosecution. PR Industrial s.r.l. unipersonale constantly working on the improvement of its products as part of the technical further development. Therefore, we reserve the right to make changes to the illustrations and descriptions in this documentation without incurring any obligation to make changes already delivered.

Errors excepted. The battery station on the cover may have special equipment (options).

#### **Manufacturer**

PR Industrial s.r.l. unipersonale  
Loc. Il Piano  
53031 Casole d'Elsa (SI) - Italy  
Tel.: +39 0577965200  
E-mail address: [info@pramac.com](mailto:info@pramac.com)

#### **Original operator's manual**

<b>1</b>	<b>Foreword.....</b>	<b>5</b>
1.1	PRAMAC representative .....	6
1.2	Described device types .....	6
1.3	Identification of the device .....	6
<b>2</b>	<b>Proper use .....</b>	<b>7</b>
2.1	Safety Instruction.....	7
2.2	General Safety Instruction .....	8
2.3	Residual risks .....	10
<b>3</b>	<b>Symbols on the product.....</b>	<b>11</b>
<b>4</b>	<b>Product description .....</b>	<b>12</b>
4.1	PWB1200 .....	12
4.2	PWB 2400 .....	13
4.3	LCD DISPLAY (same for both models) .....	14
<b>5</b>	<b>Technical data.....</b>	<b>15</b>
5.1	PWB 1200 .....	15
5.2	PWB 2400 .....	16
<b>6</b>	<b>Unpacking .....</b>	<b>17</b>
<b>7</b>	<b>Packaging content.....</b>	<b>18</b>
<b>8</b>	<b>Charging.....</b>	<b>19</b>
8.1	Charging with the mains power unit.....	19
8.2	Charging with Solar Panel Power Station 200W (optional).....	19
8.3	Charging with 12V vehicle output (in a vehicle) .....	20
<b>9</b>	<b>Front panel .....</b>	<b>21</b>
9.1	Panel connections .....	21
9.2	Display .....	22
<b>10</b>	<b>Start up .....</b>	<b>23</b>
10.1	On/Off operation.....	23
10.2	DC Current .....	23
10.3	AC Current .....	24
10.4	Overload protection .....	24
10.5	Electrical connection.....	25
10.6	Damaged electrical connection cable .....	25
<b>11</b>	<b>Parallel wire connection PRAMAC branded (optional).....</b>	<b>26</b>
<b>12</b>	<b>Cleaning.....</b>	<b>28</b>
<b>13</b>	<b>Transport.....</b>	<b>29</b>
<b>14</b>	<b>Storage .....</b>	<b>30</b>

---

<b>15</b>	<b>Maintenance .....</b>	<b>31</b>
<b>16</b>	<b>Disposal and recycling .....</b>	<b>32</b>
16.1	Notes for packaging.....	32
16.2	Notes on the electrical and electronic equipment act [ElektroG].....	32
16.3	Information on the battery act [BattG].....	32
16.4	Removing the battery before disposing of the device .....	33
<b>17</b>	<b>Troubleshooting.....</b>	<b>34</b>
<b>18</b>	<b>CE declaration of conformity .....</b>	<b>35</b>

## 1 Foreword

This operator's manual contains important information and procedures for the safe, proper and economic operation of this PRAMAC device. Carefully reading, understanding and observing is an aid to avoiding hazards, repair costs and downtime, and therefore to increasing the availability and service life of the machine.

This operator's manual is not a manual for extensive maintenance or repair work. Such work should be carried out by PRAMAC service or by technically trained personnel. The PRAMAC battery pack should be operated and maintained in accordance with this operator's manual. An improper operation or improper maintenance can pose dangers. Therefore, the operator's manual should be constantly available at the location of the device.

Defective parts must be exchanged immediately!

If you have any questions concerning the operation or maintenance, a PRAMAC contact person is always available.

## 1.1 PRAMAC representative

Depending on your country, your PRAMAC representative is your PRAMAC service, your PRAMAC affiliate or your PRAMAC dealer.

You can find the addresses in the Internet at [WWW.PRAMAC.COM](http://WWW.PRAMAC.COM)

The address of the manufacturer is located at the beginning of this operator's manual.

## 1.2 Described device types

This operator's manual is valid for different device types from a product range. Therefore some figures can differ from the actual appearance of your product.

It is also possible that the descriptions include components which are not a part of your product.

Details for the described device types can be found in the chapter *Technical data*.

## 1.3 Identification of the device

### Nameplate data

The nameplate lists information that uniquely identifies your device. This information is needed to order spare parts and when requesting additional technical information.

➤ Enter the information of your machine into the following table:

Designation	Your information
Group and type	
Construction year	
Code no.	
Serial no.	


## 2 Proper use

The Powerstation is designed to charge rechargeable batteries or operate electronic products that do not exceed a max. power of 1200/2400 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 device 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.

### 2.1 Safety Instruction

This safety information guideline contains safety information of the categories: DANGER, WARNING, CAUTION, NOTICE.

They should be followed to prevent danger to life and limb of the operator or damage to equipment and exclude improper service.

	<b>DANGER</b>	This warning notice indicates immediate hazards that result in serious injury or even death.
	<b>WARNING</b>	This warning notice indicates possible hazards that can result in serious injury or even death
	<b>CAUTION</b>	This warning notice indicates possible hazards that can result in minor injury.
	<b>NOTICE</b>	This warning notice indicates possible hazards that can result in material damage.

## 2.2 General Safety Instruction



### DANGER

- 230 V, 50 Hz voltage is present on parallel port. Use only the supplied cables to perform the parallel connection. Any other cable could expose the user to electric shock and / or damage the product. Don't use parallel mode if the cables are damaged. Read through the operating instructions completely before using the parallel mode.
- 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 or parallel 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 im-pacts 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 voltage range (AC voltage: for 1200W: 195 - 264V, for 2400W: 184 - 264V, DC charging voltage: 12~60V). 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
  - If the machine has been completely discharged (0% on display), it must be recharged within 1 month. Otherwise, the machine can no longer be recharged and must be sent to the PRAMAC service centre for repair.
- 



---

### **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.

---











## **2.3 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 non-obvious 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-ups 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.

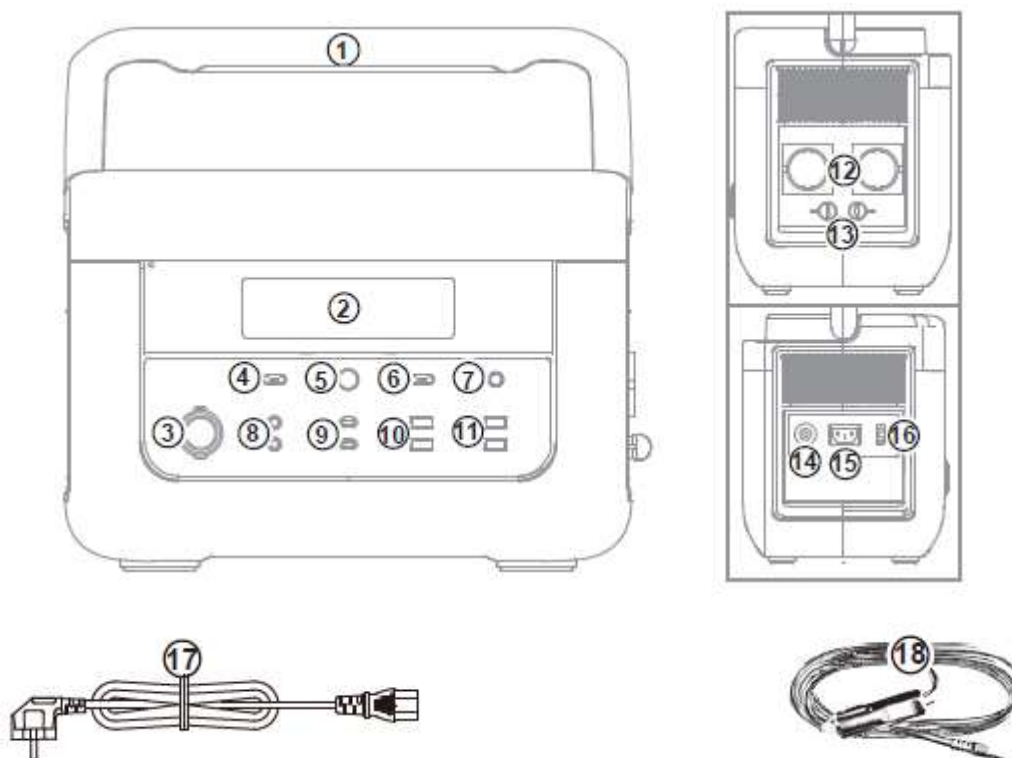
### 3 Symbols on the product

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!		Connect identification
	Do not throw old equipment away with household waste		The product complies with the applicable European directives.
 <b>Attention!</b>	We have marked points in this operating manual that impact your safety with this symbol		Do not throw Li-ion rechargeable batteries away with household waste

## 4 Product description

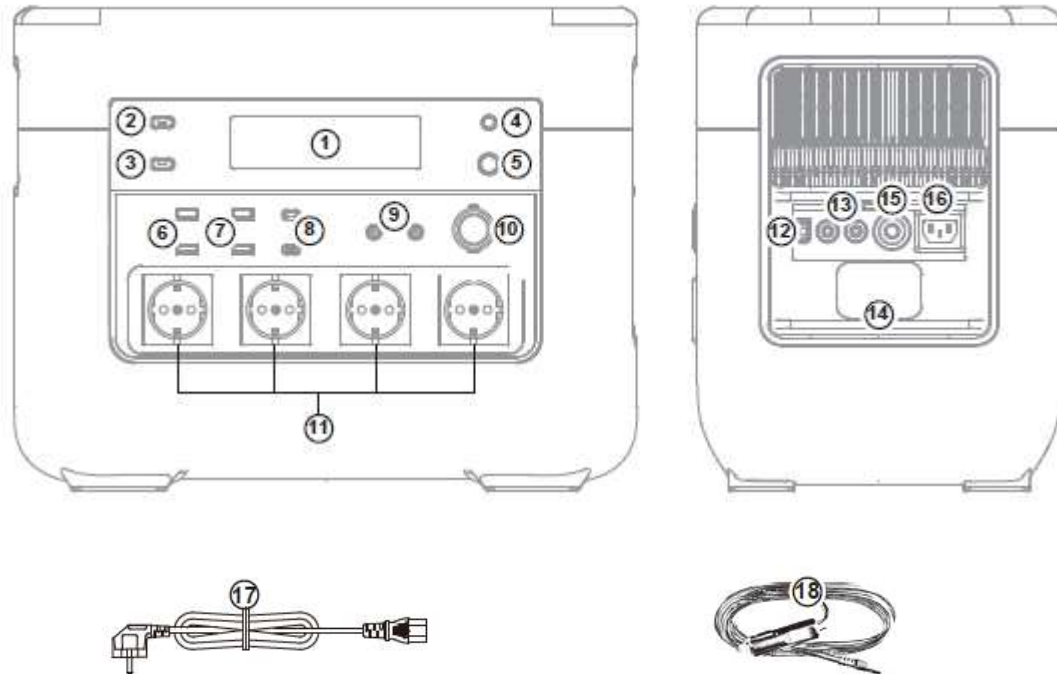
### 4.1 PWB1200



- |                                   |                        |                           |
|-----------------------------------|------------------------|---------------------------|
| 1. Transport handle               | 2. LCD display         | 3. 12V vehicle output     |
| 4. DC switch                      | 5. Power switch        | 6. AC switch              |
| 7. LCD ON/OFF                     | 8. 12V DC output       | 9. USB-C output           |
| 10. USB 12V 2A Fast Charge output | 11. USB 5V 2.4A output | 12. 230V AC output        |
| 13. Parallel interface            | 14. Safety switch      | 15. AC charging interface |
| 16. DC charging interface         | 17. AC power cable     | 18. Vehicle charge cable  |

NOTE: the AC outlet socket shown is only corresponding to a certain geographical area, the different laws and regulations according to the sales area changes corresponding to the socket.

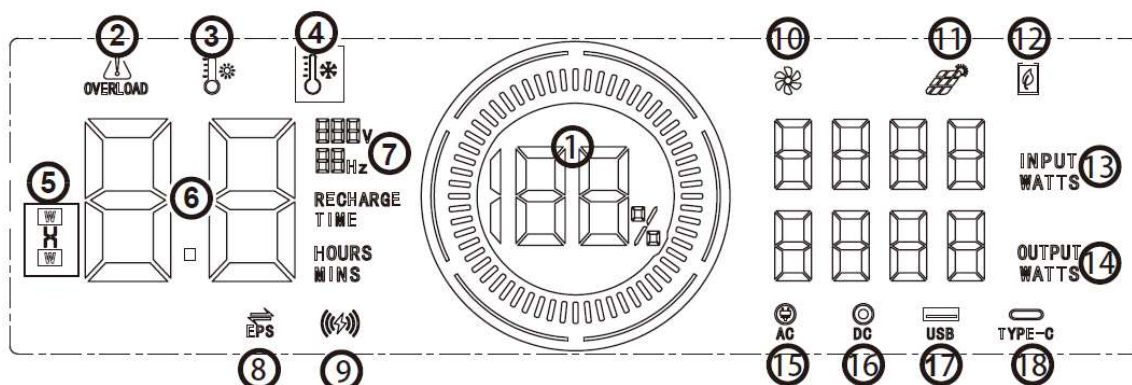
## 4.2 PWB 2400



- |                                  |                                  |                           |
|----------------------------------|----------------------------------|---------------------------|
| 1. LCD display                   | 2. AC switch                     | 3. DC switch              |
| 4. LCD ON/OFF                    | 5. Power switch                  | 6. USB 5V 2.4A output     |
| 7. USB 12V 2A Fast Charge output | 8. USB-C output                  | 9. 12V DC output          |
| 10. 12V vehicle output           | 11. 230V AC output               | 12. DC charging interface |
| 13. Parallel interface           | 14. Capacity expansion interface | 15. Safety switch         |
| 16. AC charging interface        | 17. AC power cable               | 18. Vehicle charge cable  |

NOTE: the AC outlet socket shown is only corresponding to a certain geographical area, the different laws and regulations according to the sales area changes corresponding to the socket.

### 4.3 LCD DISPLAY (same for both models)



- |  |                                   |
|--|-----------------------------------|
| 1. Battery level                         | 10. fan                           |
| 2. Overload protection                   | 11. Solar or DC charging display  |
| 3. Heat protection warning               | 12. Energy-saving mode            |
| 4. Cold protection warning               | 13. Charging Power                |
| 5. Parallel                              | 14. Output power                  |
| 6. Charging and discharging time display | 15. AC (AC = alternating current) |
| 7. Voltage and frequency display         | 16. DC (DC = direct current)      |
| 8. EPS                                   | 17. USB-A                         |
| 9. Wireless charging                     | 18. USB-C                         |

## 5 Technical data

### 5.1 PWB 1200

Model	DPS1200L-B(MAX)/DPS1200L-D(MAX)	
<b>Power output for AC output</b>	Rated voltage	230 V
	Nominal power	1200 W
	Frequency	50 Hz
<b>Power output in parallel mode (2 x PWB1200) for AC output - EU</b>	Rated voltage	230 V
	Nominal power	2400 W
	Frequency	50 Hz
<b>Power output for 12V DC output</b>	Rated voltage	12V
	Rated current	max. 5 A
	Required connector Coaxial power connector	
<b>Power output for USB-A output</b>	Rated voltage	5 V
	Rated current	2.4 A
	Nominal power	12 W
<b>Power output for USB-A QUICK CHARGE</b>	Rated voltage	5V/9 V/12 V
	Rated current	3 A/2.2 A/2 A
	Nominal power	24 W
<b>Power output for USB-C output</b>	Quick charge	PD3.0
	Rated voltage	5V/3A; 9V/3A; 12V/3A; 15V/3A; 20V/3A; 20V/5A
	Max. power	100 W
<b>Power output for 12V vehicle output</b>	Rated voltage	12 V
	Rated current	10 A
	Nominal power	120 W
<b>Power supply</b>	Rated voltage	230 V / AC
	Rated current	4 A
	Nominal power	800 W
	Input voltage	195-264 V
	Frequency	50 Hz
<b>Li-ion battery</b>	Rated voltage	25.6 V
	Battery capacity	1075 Wh/DPS1200L-B (D) MAX
	Voltage	22.4 – 28.8 V
<b>Working conditions</b>	Air humidity	10% - 90%
	Operating temperature	-10°C to 40°C
<b>General</b>	Protection category	IP 20
	Protection class	I

**5.2 PWB 2400**

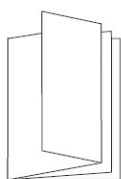
Model	DPS2400L-B/DPS2400L-D	
<b>Power output for AC output</b>	Rated voltage	230 V
	Nominal power	2400 W
	Frequency	50 Hz
<b>Power output in parallel mode (2 x PWB2400) for AC output - EU</b>	Rated voltage	230 V
	Nominal power	3600 W
	Frequency	50 Hz
<b>Power output in parallel mode (2 x PWB2400) for AC output - UK</b>	Rated voltage	230 V
	Nominal power	3000 W
	Frequency	50 Hz
<b>Power output for 12V DC output</b>	Rated voltage	12V
	Rated current	max. 5 A
	Required connector Coaxial power connector	
<b>Power output for USB-A output</b>	Rated voltage	5 V
	Rated current	2.4 A
	Nominal power	12 W
<b>Power output for USB-A QUICK CHARGE</b>	Rated voltage	5V/9 V/12 V
	Rated current	3A/2.2A/2A
	Nominal power	24 W
<b>Power output for USB-C output</b>	Quick charge	PD3.0
	Rated voltage	5V/3A; 9V/3A; 12V/3A; 15V/3A; 20V/5A
	Max. power	100 W
<b>Power output for 12V vehicle output</b>	Rated voltage	12 V
	Rated current	10 A
	Nominal power	120 W
<b>Power supply</b>	Rated voltage	230 V / AC
	Rated current	8.5 A
	Nominal power	1800 W
	Input voltage	184-264 V
	Frequency	50 Hz
<b>Li-ion battery</b>	Rated voltage	51.2 V
	Battery capacity	2150 Wh
	Voltage	44.8 – 57.6 V
<b>Working conditions</b>	Air humidity	10% - 90%
	Operating temperature	-10°C to 40°C
<b>General</b>	Protection category	IP 20
	Protection class	I



## 6 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 recognized.
- If possible, keep the packaging until the expiry of the warranty period.
- Familiarize 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.

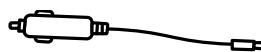
## 7 Packaging content



Safety Guidance



AC charging cable



Car charging cable



Battery pack

## 8 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.



**NOTE:** If the machine has been completely discharged (0% on display), it must be recharged within 1 month. Otherwise, the machine can no longer be recharged and must be sent to the PRAMAC service centre for repair.

### 8.1 Charging with the mains power unit

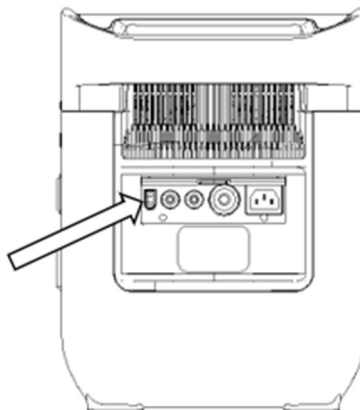
Always use the mains power unit supplied with the product.

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

### 8.2 Charging with Solar Panel Power Station 200W (optional)

Please use only Solar Panel 200W PRAMAC branded **KY000A00000** (optional).

It is shown below the solar charging interface of the machine. Please refer to the solar panel guide for connection and user instructions.



### 8.2.1 Connecting solar panels together to shorten the charging time

It is possible to parallel several solar panels to shorten the charging time.  
PWB1200 power station can absorb maximum 400 W of charging power.  
PWB 2400 power station can absorb maximum 800 W of charging power  
The charge voltage of the solar panel should be between 12V and 60V or it may cause damage.

#### 8.2.1.1 Solar panels series connection instructions

Please use only Solar Panel 200W PRAMAC branded KY000A00000 (optional).  
PRAMAC recommends using 2 solar panels of 200W in series for a total of 400W.  
**ATTENTION**



Please refer to the solar panel guide for connection and user instructions.

#### 8.2.1.2 Solar panels parallel connection instructions (only for PWB2400)

Please use only Solar Panel 200W PRAMAC branded KY000A00000 (optional) with  
PRAMAC Y cables for parallel connection PRAMAC branded KY000A00002  
(optional)

PRAMAC recommends to parallel 2 pairs of 200W solar panels connected in series to  
each other (4 solar panels 200W) for a total of 800W.

**ATTENTION**



Please refer to the Y cable instructions for connection and user instructions.

### 8.3 Charging with 12V vehicle output (in a vehicle)

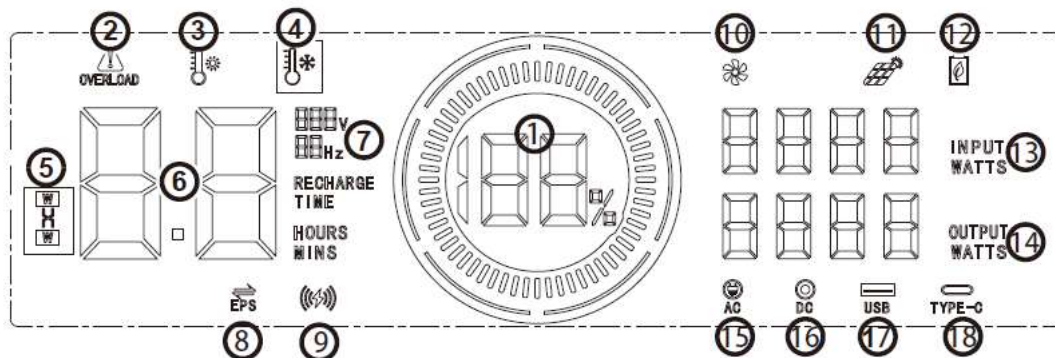
Ensure that the vehicle engine is running.

- Connect the Powerstation and the 12 volt socket (cigarette lighter) of your vehicle using the car charger cable.
- Charge the Powerstation after starting the vehicle. You can read the charge status on the LCD display.
- When the Powerstation is fully charged, the charging process is ended automatically.
- Disconnect the car charger cable from the Powerstation when fully charged.

## 9 Front panel

### 9.1 Panel 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)
- **12V DC output** : mainly used for LED light bulb lighting.
- **230V AC output** : Notebook, camera, display devices and other working devices for the alternating current supply with a max. power of 1200W for PWB1200 and 2400W for PWB2400.
- **12V vehicle output** : Camping equipment with 12V connection such as kettles, camping refrigerators, travel coffee machines, camping cool boxes.

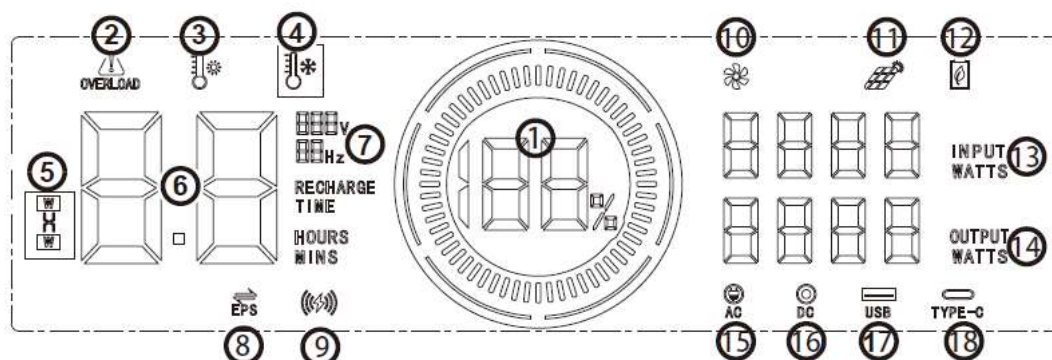


**NOTE:** The direct current output (DC is suitable for most products on the market. Some products with high current can trigger the overload protection.



**NOTE:** Devices with a power rating of more than 1200W for PWB1200W or 2400W for PWB2400 must not be operated with this Powerstation.

## 9.2 Display



Battery status ( 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 )	The fan symbol switches on for cooling after some time in AC mode.
Cold protection warning ( 4 )	A thermometer with a snowflake is displayed if the Powerstation becomes too cold due to external influences
Parallel ( 5 )	Press and hold the AC button for more than 5 seconds, the buzzer will emit a short beep, and the LCD screen will display the parallel operation icon.
Charging and discharging 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 )	The fan symbol switches on for cooling after some time in AC mode.
Solar or DC charging display ( 11 )	When a solar device or DC is charging the device, the icon is on
Energy-saving mode ( 12 )	If you press the DC button for more than 5 seconds, the icon will be steady on and enter the energy saving mode. If you press the DC button again, the icon will disappear and the energy saving mode will close. 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).
Input charge power ( 13 )	The input charging power is indicated by "INPUT".
Output charging power ( 14 )	The total output power is indicated by "OUTPUT".
AC ( 15 )	The AC inscription and a plug symbol indicate that the 230V output is active.
DC ( 16 )	A socket symbol and the DC inscription indicate that the 12V DC outputs are active.
USB-A ( 17 )	A USB-A symbol and the USB inscription indicate that the USB-A outputs are active.
USB-C ( 18 )	A USB-C symbol and the Type-C inscription indicate that the USB-C output is active.

## 10 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.

### 10.1 On/Off operation

#### 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.

### 10.2 DC 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 12V DC output, the 12V 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 12V DC, the 12V 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.

### 10.3 AC 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 Powerstation.

### 10.4 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 longterm non-use. Otherwise it can negatively affect the service life of the battery.

#### Battery Pack PWB 1200 AC Output Overload Protection

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

131%-200% rated load, enter constant power mode after 1.5s;

Greater than 200% of the rated load, enter constant power mode after 300ms;

Output will be automatically shut down when voltage drops to protection threshold

#### Battery Pack PWB 2400 AC Output Overload Protection

105%-130% rated load, enter constant power after 10s;

131%-200% rated load, enter constant power mode after 1.5s;

Greater than 200% of the rated load, enter constant power mode after 300ms;

Output will be automatically shut down when voltage drops to protection threshold



---

## 10.5 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.

## 10.6 Damaged electrical connection cable

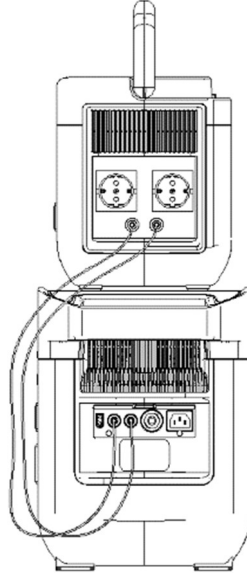
- The insulation on electrical connection cables is often damaged. This may have the following causes:
- Pressure points, where connection cables are passed through windows or doors.
- Kinks where the connection cable has been improperly fastened or routed.
- Places where the connection cables have been 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 dis-connected 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.

## 11 Parallel wire connection PRAMAC branded (optional)

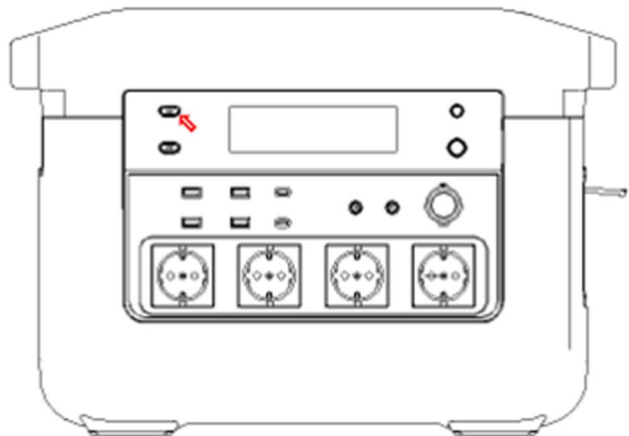
Please use only parallel kit for P Inverter series PRAMAC branded **KY000A00001**.

- 1) Insert the red and black ends into the parallel ports.

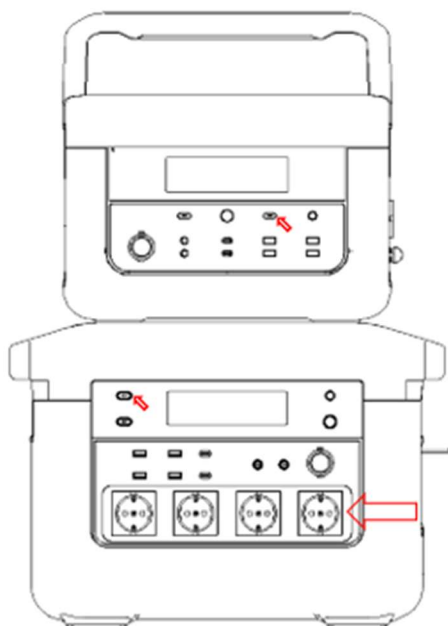


**ATTENTION:** The red and black ends should be inserted relatively as per unit. Reverse connection can't be paralleled and protection will be activated.

- 2) Press AC button for at least 5 seconds, the parallel icon will show up.



3) Connect the load and turn on AC button



---

**ATTENTION**

- 230 V, 50 Hz voltage is present on parallel port. Use only the supplied cables to perform the parallel connection. Any other cable could expose the user to electric shock and / or damage the product. Don't use parallel mode if the cables are damaged. Read through the operating instructions completely before using the parallel mode.
  - The power is proportionally distributed as per model in parallel mode.
  - Parallel operation should follow the above operating steps. If the parallel wire is inserted after parallel mode started, parallel operation would failed as unit protection triggered.
  - Parallel operation didn't allocate output as per power level; if the power of one unit is low and discharge to protection point, the units will automatically shut down AC output and parallel mode will fail.
  - The constant power will be automatically cancelled in parallel mode. If the machine loaded is more than 105% of the rated load, the machine will automatically shut down.
  - Parallel mode will be cancelled automatically when the unit is in charge.
-

---

## 12 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.

---

## 13 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.

---

---

## 14 Storage

Store the product and its accessories in a dark, dry and frost-free place that is inaccessible to children. Although it is permitted to store the product at temperatures between 0 and 40 °C, for better performance the suggested storage temperature should be between 10 and 30 °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.



---

**NOTE:** Please charge the machine to 60% before storage, check every 6 months and if it is found below 30%, recharge to 60%. Otherwise, the product can be damaged.

---

## 15 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.

## 16 Disposal and recycling

### 16.1 Notes for packaging

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

### 16.2 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 non-destructively 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 take-back 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 end-user. 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.

### 16.3 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 % mercury
  - Cd: Battery contains more than 0.002 % cadmium
  - Pb: Battery contains more than 0.004 % lead
- Rechargeable batteries and batteries can be re-turned free of charge to the following places:
  - Public disposal or collection points (e.g. municipal works yards)
  - Sales points for batteries and rechargeable batteries
  - Take-back points of the common take-back system for old device batteries
  - Take-back point of the manufacturer (if not a member of the common take-back 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.

#### **16.4 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.

## 17 Troubleshooting

The following table shows fault symptoms and describes remedial measures in the event of your product failing to work properly. If you cannot localize 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.

Error code	Possible cause	Remedy
F001	Defective power amplifier	Contact the customer service department.
F002	BMS failed to communicate with the main control	Contact after sales service
F003	Fan stuck	Check whether the fan is stuck and whether the cable is connected properly
F004	Power amplifier overheated	Switch off the Powerstation and let it cool down. Check the functionality of the fans if necessary
F005	External short-circuit or overload	Check the connected load for short-circuit or whether it exceeds the specified rated power.
F006	Inverter hardware protection	Check whether the AC output is within the rated operating range of the device.
F007	Output voltage of the power amplifier too low	Remove the connected consumer, switch off the Powerstation and restart
F008	Low voltage	Recharge the power station.
F009	The output voltage of the city power does not match with the power station	Check the output of the city power and read the instructions carefully to ensure that the connected city power signal is consistent with the instructions.
F010	The output frequency of the city power does not match with the power station	Check the output of the city power and read the instructions carefully to ensure that the connected city power signal is consistent with the instructions.
F011	AC output overload	Check whether the AC output power is too high and reduce the load.
F013	DC charging over-voltage	Check whether the Solar/Car input voltage exceeds 60V and reduce the DC input voltage
F015	DC 12V or cigarette lighter output is overloaded or short-circuited	Check whether the 6514 interface or cigarette lighter is short-circuited or overloaded.

## 18 CE declaration of conformity

<p><b>Dichiarazione CE di Conformità</b> - Declaration CE de Conformité - CE Conformity Declaration - EG Konformitätsklärung - Declaration CE de Conformité - Declarație CE de Conformitate - EG Konformitätsklärung - EG Overenskomstens Erklæring - EG Inge på Læfærmighet - EG-erklæring om EU Overenskomstens gyldighed - EG-erklæring om EU Overenskomstens gyldighed - EG-erklæring om EU Overenskomstens gyldighed</p>		<p>Prohlášení o Shodě s Pravidly CE - CE Valatavastavustatus          ES Adhinkstas Dichlaratja - CE Atistatich Dichlaratja - Dichlaratja Zgodnoti CE          Zashchena o sootvetstvii s pravilami Sovera Evropa - CE Prohlášení o Shodě -          EG Inge på Læfærmighet - EG-erklæring om EU Overenskomstens gyldighed - Declaration          de conformité CE - Декларация ЕС на Соответствие - EG - Inge på o shodnosti</p>
---	---	---

PR Industriali S.r.l. unipersonale - Loc. Il Piano - 53031 Cascine d'Elba (SI) - ITALIA  
Società alla direzione e coordinamento di Genero Power System Inc.

Fabrikante e persona detritrice della documentazione tecnica autorizzata alla costruzione del fascicolo tecnico - Fabricant et personne detritrice de la documentation technique, autorisée à construire le fascicule technique - Manufacturer and holder of the technical documentation, authorised to establish the technical file - Hersteller und Inhaber der technischen Dokumentation, der den Entwurf der technischen Unterlagen befragt ist - Fabricante y persona poseedora de la documentación técnica autorizada para la elaboración del expediente técnico - Fabricant e persoa ce poartă a documentației tehnice autorizată să constituie dosarul tehnic - Fabricant en houders van de technische documentatie met toestemming om technische dossiers samen te stellen - Hersteller und Inhaber der technischen Unterlagen, die die Zusammenstellung der technischen Unterlagen genehmigt ist - Producent og person ansvar for teknisk dokumentation som dermed har lov til at sætte sammen den tekniske helhed - Tillverkare och person ansvar för teknisk dokumentation som därmed har tillstånd att skapa den tekniska helheten - Kännisgevarens og svarstegernes tekniske dokumentationssætning har lov til at opstille den tekniske helhed - Valmistaja ja yksikön joiden hallussa on tekniset asiakirjat ja jotka ovat valtuutetut tekemään sellaisen kokonaisuuden - Vyrobce a osoba, která se v rámci technické dokumentace a je oprávněna k sestavení technické brochure - Tojota ja tehnikien tekemien koostamiseksi valtuutettu ihminen, kelle valtuutus on tahtilukien dokumentaatioon - Rahoittaja ja persona, kura ristiit ja tehnikien dokumentaattija, kas autorizatsia tekemiseks mappistat - Gamintojai ir techninių dokumentų sągandai namo, įgaliojati sudaryti techninio knygelę - Producent ir osoba posielajaca dokumentacje techniczna upowazniona jest do tworzenia zbioru dokumentow technicznych - Навостворача а заправача документационих документацис, уполномоченнах на составлених техникескох асове - Vyrobce a osoba, která má v rámci technické dokumentace a je oprávněna na uplatnění technické brochure - Производитель и osoba, ká vlastní technické dokumentace a je пообавлена за составление техникескох асове - Gyártó és a technikai dokumentációt őrző, a technikai adat lefordítására felhatalmazott személy - Fabricant și persoana deținătoare a documentației tehnice autorizată pentru constituirea fascicolului tehnic - Производитель и лицо, притязатель на техническую документацию, оторупленная за составление и технический справочник - Производител и власник техникеско документације, који је овлашћен за састављање техничког досије

**Dichiara sotto la Sua sola responsabilità che la macchina**  
 Déclare sous sa seule responsabilité que la machine  
 Declares full and sole responsibility that the machine  
 Erklart unter Ihre eigenverantwortung, dass die Maschine  
 Declara, bajo su sola responsabilidad, que la máquina  
 Declara alinto a sua somente responsabilidade que a máquina  
 Verklaart onder eigen verantwoordelijkheid dat de machine  
 Erkläre ich auf mein allein Verantwortung

Under eget ansvar, så maskinen  
 Tillåtna under eget ansvar att maskinen  
 Använda utöver (in i jag)  
 Otta: liden vattentät tillstånd, att liden  
 Prohibitiv o plevant eget ansvar tillstånd, att liden  
 Tunnat: tillstånd, att liden vattentät tillstånd, att liden  
 Deklarer att plevant tillstånd, att liden vattentät tillstånd, att liden  
 Vattentät tillstånd, att liden vattentät tillstånd, att liden

Deklariruje z pełną odpowiedzialnością, że urządzenie  
Przeznaczam wyłącznie do własnego użytkownictwa, które nie przysporzy  
Przekazuje w własnym imieniu kompetencje z odpowiedzialnością, że stworzy  
W pełni odpowiedzialności oświadczam, że nie narusza  
Tejże odpowiedzialności oświadczam, że nie narusza  
Deklaruję przed przebiegiem badania, że nie narusza  
Deklaruję przed przebiegiem badania, że nie narusza  
Podjęcie odpowiedzialności oświadczam, że nie narusza

#### PORTABLE POWER STATION

[illegible]

**Output rating**

N° Serie, N° de Série, Serial No, Serien Nr., N° de Serie, N° de Série, Seriennummer, Seriennummer, Seriennummer, Seriennummer, Ap  
Expoz, Serjammumero, Vyrobní číslo, Seeria Nr., Sérijas numurs, Serijos Nr., Numar serijay, Серијални бројев, Sériová číslo, Serijaka St.,  
Sorozatszám, N° de serie, Cserman momep, Serijatski broj

Anno costruzione, Année de construction, Year of construction, Baujahr, Año de construcción, Année de construction, Bousnjahr, Framstillingsåret, Konstruktionsår, Tilhverkningsår, Eros, karesovuznyj, Valmistusvuosi, Rok výroby, Zhihtusaasa, Izahidama gads, Pagaminimo metai, Rok produkciji, Fox samyazka, Rok výroby, Leto proizvođača, A gyártás éve, An de constructie, Година за промисловост, Година gradnje

Alla quale questa Dichiarazione si riferisce è conforme alle Direttive  
 A laquelle se réfère cette Déclaration est conforme à des Directives  
 To which this Declaration refers is in conformity with the Directives  
 Auf die diese Erklärung sich bezieht, ist die Richtlinie  
 A la cual esta Declaración se refiere conforme a las Directivas  
 Al cual esta declaración se refiere conforme a las Directivas  
 Waar deze Verklaring betrekking op heeft, overeenkomstig de Richtlijnen  
 Hvorved denne Erklæring henviser, er i overensstemmelse med Direktiverne  
 Som denna Erklæring hänvisar till är i överensstämmelse med Direktiven  
 Till vilken denna Förklaring hänvisar står i överensstämmelse med Direktiv  
 Έμφανις αναφοράς η παρούσα δήλωση στην οδηγία με την οποία  
 Alla quale questa dichiarazione si riferisce, in conformità delle direttive

Ko ktorému je toto prehlásenie vzťahujúce sa v súlade s Direktívou  
Výstav EC Direktívy  
Je odkaz na súhrnnú Direktívu  
Ktorou takisto sa v Deklarácii, súhrnná Direktíva  
Do ktorého odkazuje na množstvo dokladov spĺňajú súhrnnú Deklaráciu v Dedykovaní  
Ukazujúcu na dianie, ktoré súhrnnou Deklaráciou  
Na ktorý sa vzťahujú tieto prehlásenia spĺňa ustanovenia Smernice  
Ústava Smernice  
Analyzuje sa a nylizujúci vonkajší, konfigurácia  
A sa nie je referent predmetu dokladu nie, možnosť Direktívy  
Deklarácia na súhrnnú Deklaráciu, nie súhrnnou Deklaráciou  
Na ktorý sa odkazuje v Deklarácii, súhrnnou Deklaráciou

[illegible]

Norme armonizate: - Normes harmonisées: - Harmonised standards: - Harmonisierte Normen: - Normas armonizadas: - Normas harmonizadas: - Geharmoniseerde normen: - Harmonisierde standards: - Harmonist standarder: - Harmoniserte standarder: - Έναρμονισμένα πρότυπα: - Yhdyskannatusten standardit: - Harmonisovane normy: - Harmonisimid standardid: - Darnieji standartai: - Sastikopie standartai: - Normy zharmonizowane: - Сoгласoванные стандарты: - Harmonizované normy: - Uklajeni standardi: - Harmonizált szabványok: - Norme armonizate: - Хармонизованe стандарты	EN 62388-1 EN IEC 61906-6-1 EN IEC 61906-6-3 IEC 62133-2 EN 301 486-1 EN 301 489-17 EN 300 326 EN 303 417
--	--

**Responsible:** Le Responsable, Authorized by, Der Verantwortliche, El Responsable, O Responsável, De Verantwoordelijke, Den Ansvarlige, Ansvärlig Person, Ansvärlig, O Ymsvörður, Vastavaa liideri odustaja, Oprávěněn, Vollziehend, Pölvörður, Sankcionero, Fortwährende, Ответственный орган, Schwäb, Pooboladen od, Enzadelvert, Responsahilul, Orroscopu, Odgovorna osoba

PAOLO CAMPENOTI

Firma, Signature, Signed, Unterschrift, Firma, Asenatura, Handtekening, Underskrift, Underskrift, Underskrift, Υπογραφή, Аллеkirjutus, Podpis, Alle kirjutatud  
Parasole, Parasole, Podpis, Parassole, Podpis, Podpis, Aláírás, Semnătură, Подпис, Подпись

CASCLE D'ELSA

<b>22/01/2025</b>	<b>02</b>	<i>Added NOTES about charging the battery before storage and charging the battery when fully discharged; Added chapter “8.2.1 Connecting solar panels together to shorten the charging time”; Added note for AC outlet socket market; Added power values in parallel mode.</i>
<b>08/05/2024</b>	<b>01</b>	EMISSION
<b>Data</b>	<b>Rev.</b>	<b>Review description</b>