B&W

Cases of Success

energy.case PROX 1500

Original operating instructions for PROX versions

see next page

Please fully charge the battery before first use!

CE

energy.case

PROX 1500 AC 1000W

energy.case

PROX 1500 AC 300W

energy.case

PROX 1500 AC USV

energy.case

PROX 1500 DC

Table of contents

1. general information

Contents:

- Device
- Accessories

This must be taken into account:

The device is EMC certified according to EN55011 class A - industrial environment. Use in residential areas must be avoided. In the event of interference with radio or television reception, the device must be placed at a greater distance from the object being interfered with.

B&W customer service:

Phone: 05451-8946-0
E-Mail: info@b-w-international.com

Purpose of the document:

These operating instructions familiarize the user with

- the working method,
- the operation,
- familiarize yourself with the safety instructions of the device

Description of authorized users

The appliance is not intended for use by persons - including children - with reduced physical, sensory or mental capabilities, lack of experience and / or lack of knowledge. Unless they are supervised by a person responsible for their safety and have received instructions from this person on how to use the appliance. Children should always be supervised to ensure that they use the appliance properly.

Important note:

These operating instructions are an important document that must be kept in a safe place so that information on the correct use of the appliance is available at all times!

Imprint:

Junkendiek 5
49479 Ibbenbüren
Germany

2. technical data

2.1 PROX 1500 AC 1000W

Case type	PP - 6800 - 66 x 49 x 33.5 cm
Tightness, closed version	IP54
Tightness, hinged version	closed: IP54 opened: IP20
Connections:	1x 230V Schuko
	1x USB PD
	1x charging input
Output power	230V 1000W
	USB PD 65W
Charging power	max 350W
Charging options	230V power supply unit
	12V car
	24V TRUCK
	Solar cell
MPPT for solar	integrated
Remote control	integrated
Weight:	33,3kg
Battery	1500Wh LiFePO4
Operating temperature	-20°C to +40°C (charging and discharging)
Display	Membrane keypad
	Remote control

2.2 PROX 1500 AC 300W

Case type	PP - 6800 - 66 x 49 x 33.5 cm
Tightness, closed version	IP65
Tightness, hinged version	closed: IP65 opened: IP20
Connections:	1x 230V Schuko
	1x USB PD
	1x charging input
Output power	230V 1000W
	USB PD 65W
Charging power	max 350W
Charging options	230V power supply unit
	12V car
	24V TRUCK
	Solar cell
MPPT for solar	integrated
Remote control	not available
Weight:	31,2kg
Battery	1500Wh LiFePO4
Operating temperature	-20°C to +40°C (charging and discharging)
Display	Membrane keypad

2.3 PROX 1500 AC USV

Case type	PP - 6800 - 66 x 49 x 33.5 cm
Tightness, closed version	IP54
Tightness, hinged version	closed: IP54 opened: IP20
Connections:	1x 230V Schuko
	1x USB PD
	1x IEC
Output power	230V 1000W
	USB PD 65W
Power UPS - throughput power	1000W
Switching time	16ms
Charging power	max 350W
Charging options	230V IEC
Weight:	36,6kg
Battery	1500Wh LiFePO4
Operating temperature	-20°C to +40°C (charging and discharging)
Display	Membrane keypad

2.4 PROX 1500 DC

Case type	PP - 6800 - 66 x 49 x 33.5 cm
Tightness, closed version	IP65
Tightness, hinged version	closed: IP65 opened: IP20
Connections:	1x DC
	1x USB PD
	1x charging input
Output power	24V 1000W
	USB PD 65W
Charging power	max 350W
Charging options	230V power supply unit
	12V car
	24V TRUCK
	Solar cell
MPPT for solar	integrated
Remote control	integrated
Weight:	29,8kg
Battery	1500Wh LiFePO4
Operating temperature	-20°C to +40°C (charging and discharging)
Display	Membrane keypad
	Remote control

3. explanation of the symbols

The following symbol indicates a hazardous situation which, if not avoided, could very probably result in serious injury or death.

The following symbol indicates a hazardous situation which, if not avoided, could result in serious injury or death.

The following symbol indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

The following symbol indicates a situation which may result in damage to the appliance if not observed.

The following symbol warns of dangerous electrical voltage in addition to any existing symbols.

In addition to any symbols already present, the following symbol warns of a considerable risk of tripping.

4. general safety instructions

These operating instructions contain the most important information on how to use the appliance safely. The safety instructions in this section and throughout the operating instructions apply to all activities carried out on and with the appliance. Safety instructions in the descriptions warn of specific hazardous situations. To protect the user, it is very important that these instructions are always followed.

The appliance may only be used for its intended purpose and in a technically safe condition. All faults that could impair safety must be rectified immediately!

Intended use:

The intended use is to use the appliance as an energy source for all electrical loads with a maximum power consumption and permissible operating voltage as described in the chapter - Technical data. Inductive loads must not be connected. Intended use also includes observing all instructions in the operating instructions, complying with the operating and maintenance specifications and taking foreseeable misconduct into account.

Uses other than those listed above are considered improper use! Improper use may result in hazards. Improper use includes, for example, using the appliance as an energy source for consumers with voltages and power consumption other than those described in the Technical data section, unauthorized modifications or conversions to the appliance, failure to observe the safety instructions, use or operation of the appliance other than described, work on the appliance carried out by unqualified personnel, failure to comply with general safety and operating instructions as well as occupational safety and accident prevention regulations or failure to observe legal requirements.

It is also prohibited to use the appliance to operate pumps that convey flammable liquids or gases and can generate an electrostatic charge. This applies in particular when pumping gasoline or diesel. The appliance must also not be operated in potentially explosive atmospheres containing flammable liquids, gases or dust

The device must not be used to feed electricity into a fixed installation, such as a house. Furthermore, it is only approved for the operation of a single consumer.

The 230V charger of the device may not be used outdoors or in a damp environment, the 230V socket of the device may only be used in an absolutely dry condition and in an absolutely dry environment. The device may only be connected to fully functional consumers where all safety devices are in perfect condition. In particular, the cable and plug of a consumer unit should be checked before each use! Also, no objects may be inserted into the connection holes of the 230V socket of the appliance!

There is a risk of slight electric shock when touching parts with residual voltage, which in turn can lead to secondary accidents due to fright. Avoid touching the contacts of the plug after the 230V charger has been disconnected.

The device must not be used to operate inductive loads! These include relays, coils and electromagnets, for example. Non-observance can lead to failure of the inverter!

5. exclusion of warranty and liability

Warranty claims and liability claims for personal injury and damage to property are excluded if they are attributable to one or more of the following causes:

- improper use of the device
- improper installation, commissioning or operation of the device
- Operation of the appliance despite defective safety devices or improper operation attached or non-functional safety and protective devices
- Failure to observe the instructions in these operating instructions regarding transportation Commissioning, use, repair or dismantling or disposal
- unauthorized structural changes to the device
- improperly carried out repaire
- Disasters caused by foreign bodies and force majeure

6. maintenance, troubleshooting and repair

The appliance should be cleaned regularly or as required, taking particular care to ensure that the appliance and all connections are properly sealed! A soft, damp but not wet cloth with a little washing-up liquid is recommended for cleaning.

When cleaning, make sure that the appliance is always switched off and disconnected from the 230V charger! There is a risk of fatal electric shock!

It is strongly recommended to have the device serviced by the manufacturer regularly, but at least once a year! In particular, the use of ventilated Energy.cases in dusty environments can lead to harmful soiling inside the device.

Fault or fault messages:

1. The red LED in the center of the warning lights lights up continuously
2. The red LED in the center of the warning lights flashes
3. The battery level drops very quickly
4. The device no longer emits any power
5. The device can no longer be charged
6. The appliance has switched off after connecting or operating a load
7. The appliance has switched off during operation and an acoustic signal sounds repeated in the form of a sequence of five tones.
8. The remote control does not connect and permanently displays the blue WLAN symbol

Troubleshooting:

1. The device is too hot for operation: Switch off the device using the main switch, disconnect it from any charging devices and connected consumers and allow it to cool down in a cool place.
2. The device is too hot for charging: Switch the device off using the main switch off, disconnect it from any charging equipment and connected Consume and leave to cool in a cool place.
3. Fully charge the device and disconnect the charger at the earliest 8 hours after the battery indicator shows 100%.
4. Carry out step 3.
5. Carry out step 1 or use a different charger.
6. Disconnect all connected loads from the appliance, switch it off and restart it after at least 1 minute. If this does not work, the power requirement of the connected appliance is too high and cannot be operated on the appliance.
7. The device's inverter has overheated and switched off. Switch off the appliance and allow it to cool down.
8. Switch the remote control off while the energy.case is switched on (!) by double-clicking the red button on the side and switch it on again after five seconds with a single click on the red button on the side.

   Note: If the fault cannot be rectified, contact the manufacturer immediately.

Repairs may only be carried out by B&W International specialist personnel or by external specialist personnel trained by B&W International! There is also a risk of injury due to the use of unauthorized spare parts. Incorrect or faulty spare parts can lead to damage, malfunctions or total failure as well as impairing safety. In general: check the appliance for defects before each use, switch off the appliance immediately in the event of defects and arrange for the necessary repairs. It should also be noted that B&W International GmbH's warranty for the safety and function of the appliance is void if: Spare parts are fitted to the appliance that do not correspond to the original parts, repairs are carried out by unqualified personnel, the appliance is not positioned correctly during operation or storage or other instructions in these operating instructions are not observed.

7. operation

7.1 Permitted environment

First ensure that the environment is suitable for operating the device. The surface on which the appliance is placed must be level and stable. The ambient temperature must be between -20°C and +40°C and it must not be a potentially explosive environment. The appliance must also not be operated in environments with particularly fine dust. It is also important to ensure that the appliance is always positioned horizontally and not upright.

Warning of injury to legs or feet: If the appliance tips over or falls from a table or similar elevation, it may cause injury to legs or feet.

The device must never be placed in direct sunlight, especially for long periods of time. Uncontrolled overheating can cause serious damage to the batteries.

The appliance may only be operated if all fixed protective devices are fitted correctly. This includes the housing itself as well as all correctly fitted additional insulation for cables and lines and the separate contact protection for electrical components inside. All components, including the protective devices, must always be in perfect condition. Safety signs on the appliance must not be removed and must be replaced immediately by qualified personnel from B&W International GmbH or appropriately trained external personnel if damaged or soiled. Safety devices must not be removed or disabled under any circumstances!

7.2 Charging the device

With the exception of the energy.case UPS, the energy.case can be charged using various energy sources. The system automatically regulates the optimum parameters and power to prevent the vehicle battery from being deeply discharged when charging via a car cigarette lighter, for example. However, it should be noted that the charging power varies, as certain systems can deliver less energy than others. As a result, charging from a car cigarette lighter takes significantly longer than charging with a 230V charger.

Charging with the 230V charger:

The 230V charger is the fastest way to charge the device. It is most gentle on the battery if the device does not release any energy during charging.

The 230V charger may only be used in an absolutely dry environment!

The device must never be left unattended while charging!

To prevent damage to the battery, the device should be discharged to approx. 10% at least once a month and then fully charged using the charger supplied!

Charging in the car or truck

The device can also be charged in the car using the separately available car charging cable. When charging via a cigarette lighter in the car, the system automatically monitors the car battery and thus prevents it from being deeply discharged. However, it should be noted that the charging capacity varies, as certain systems can deliver less energy than others. As a result, charging from a car's cigarette lighter takes significantly longer than charging with a 230V charger.

Vehicles can sometimes get very hot! The permissible operating temperatures must always be observed.

The device must never be left unattended while charging!

To prevent damage to the battery, the device should be discharged to approx. 10% at least once a month and then fully charged using the charger supplied!

Charging with a solar cell

The device can also be charged using a solar cell. When setting up the solar cell, it is also essential to ensure that the surface of the solar cell is free of dust and dirt and that as little shadow as possible falls on the solar cell, as even a very small shadow significantly reduces the solar yield. When using solar cells, the energy.case must not be placed in direct sunlight.

The device must never be left unattended while charging!

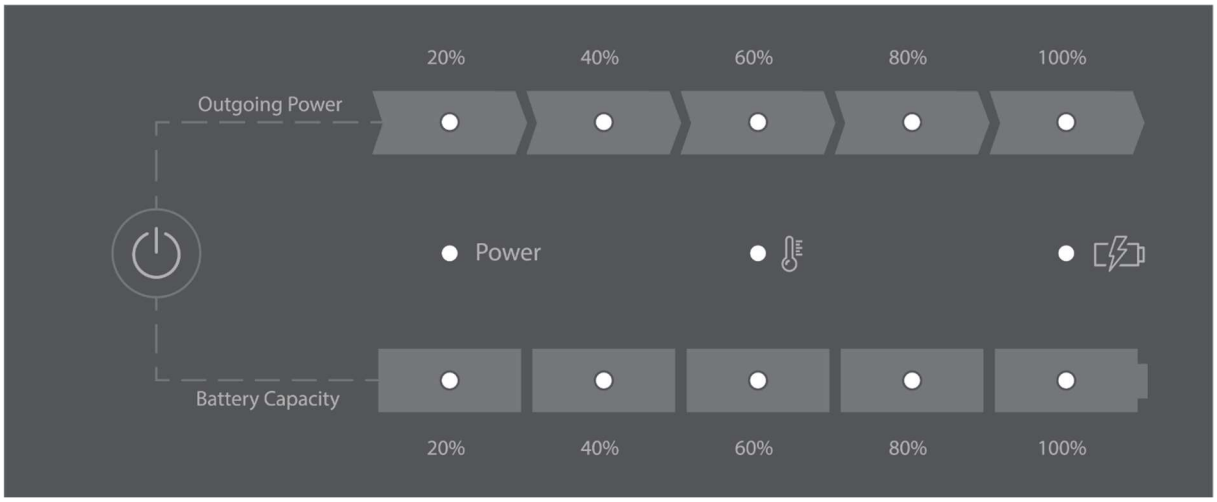
To prevent damage to the battery, the device should be discharged to approx. 10% at least once a month and then fully charged using the charger supplied!

Cables connected to draw power from external consumers or to charge the device's batteries can be tripping hazards. Care must be taken to ensure safe installation!

7.3 Control panel of the membrane keypad

The device has various simple status and warning lights, see also illustration below, which provide information about the operating status during use. The following are explanations of the various displays and LEDs:

- **Green LED for connections:** indicates that voltage is present at the 230V output is applied and the inverter is active
- **Battery Capacity:** shows the current battery level in relation to 1500 Wh in percent
- **Outgoing Power:** shows the utilization of the system in percent related to the maximum power
- **Power:** Entire system switched on and ready for operation
- **Temperature symbol** lights up when the temperature for operation or the charging device is too high
- **Flash on battery** lights up when the device is charging



7.4 Operating the remote control

Certain variants of the energy.case have a remote control with its own battery; see also the Technical data chapter. The remote control can be charged in the energy.case or with any USB-C charging cable.

IF THE REMOTE CONTROL IS CONNECTED TO THE USB PORT OF THE ENERGY CASE, THE REMOTE CONTROL IS STARTED AUTOMATICALLY WHEN THE ENERGY CASE IS SWITCHED ON!

Regardless of the energy.case, the remote control can be switched on and off using the red button on the side; see the following illustration. This is

ONE CLICK = ON

DOUBLE = OFF

Regardless of the type of start, the connection screen is displayed after the remote control is switched on. While the remote control is searching for the WLAN connection to the energy.case, the WLAN symbol flashes blue. After a successful and secure connection to the energy.case, the WLAN symbol and the lettering below it light up green; see also the following illustration:

Once the connection to the energy.case has been successfully established, the remote control displays the main screen. **The main screen shows:**

- **The charge status** of the energy.case battery at the top
- Under **"Output"** the current energy consumption or the current energy output
- For **"RC Battery",** the charge status of the remote control battery
- A green **start/stop symbol** above the left button
    - The main output of the energy.case can be switched on or off by pressing the left button.
    - Press the other two buttons to switch **to the second screen**

The output of the energy.case PROX 1500 AC UPS can only be switched off in battery mode! If power is applied to the energy.case PROX 1500 AC UPS via the IEC input, the power is forwarded to the socket even when the main output is switched off!

The second screen shows:

- Top left: the **temperature of the** energy.case **battery**
- The symbols for the various charging options can be seen to the right. If a charging option has been detected during operation, **it lights up green** and shows the current charging power below it.
- In the middle are the fields with **Runtime and Charging** time. The current remaining runtime and charging time are calculated here in real time.

Due to the software, it is not possible to display - infinite - for Runtime! A display of 99:59h corresponds to the display "Runtime is unlimited due to the current energy supply"

7.5 Preparation for operation

Before each commissioning, it must be ensured that all safety requirements are met and that the appliance is in perfect condition. The consumers to be connected must also be checked to ensure that they are functioning correctly and are in a safe condition.

7.6 Operation

To start the appliance, the main switch on the control panel must be pressed briefly and with sufficient pressure. During operation, it is important to always keep an eye on the load and current battery level displays. After use, the appliance should always be switched off to save energy and ensure safety.

The different versions and the associated connection plates are described in detail under **7.7 Variants and connection plates**.

Multiple plugs must not be used! The electrical safety system of the appliance is based on galvanic isolation from the environment. Multiple plugs can invalidate this system!

After use, all connections and outlets must always be carefully sealed with the respective caps! Otherwise there is a risk of moisture penetrating the device.

If the appliance can be opened, the following must be observed when using it in a cold environment: When changing the appliance from a cold to a warm environment, condensation may form inside. Before commissioning the appliance, make sure that there is no condensation inside or on the outside of the appliance!

7.7 Variants and connection plates

The energy.case **PROX 1500 AC 1000W** has a 230V Schuko socket, a USB PD connection and a charging input. The power of the USB - PD connection can be found in the technical data. In addition, a green LED is installed on the connection plate, which lights up as soon as 230V is connected to the Schuko socket. See also the following illustration.

The appliance must always be transported, stored and used horizontally with the top facing upwards to prevent water from entering the ventilation openings. Make sure that the ventilation openings are not covered!

The energy.case **PROX 1500 AC 300W** has a 230V earthed socket, a USB PD connection and a charging input. The power of the USB - PD connection can be found in the technical data. In addition, a green LED is installed on the connection plate, which lights up as soon as 230V is connected to the Schuko socket. See also the following illustration.

The appliance must always be transported, stored and used horizontally with the top facing upwards!

The energy.case **PROX 1500 AC UPS** has a 230V Schuko socket, a USB PD connection and a 230V IEC input. The power of the USB - PD connection can be found in the technical data. See also the following illustration. As soon as 230V is applied to the IEC input, the battery of the device is charged and at the same time power is switched through to the 230V earthed socket. As soon as the power supply to the 230V IEC input is interrupted, the device switches to the internal battery. The switchover time is 16 ms

As soon as 230V are present at the IEC input, 230V are also present at the earthed socket, regardless of whether the appliance is switched on or off! This also applies to any use of the remote control!

The appliance must always be transported, stored and used horizontally with the top facing upwards to prevent water from entering the ventilation openings. Make sure that the ventilation openings are not covered!

Care must be taken to ensure that no moisture penetrates the IEC input, also known colloquially as the "IEC socket", and that the cap is always fitted correctly when not in use!

The energy.case **PROX 1500 DC** has a 24V as well as a USB - PD connection and a charging input. The power of the USB - PD connection can be found in the technical data. The charging input is marked with a green cap and the 24V DC output is marked with a yellow cap. See also the following illustration.

The appliance must always be transported, stored and used horizontally with the top facing upwards!

7.8 Transporting the device

The appliance is equipped with several handles and an extendable trolley handle to facilitate transportation. It is generally recommended that the appliance is always carried by two people. When transporting it in a vehicle, it should also be securely lashed down to prevent it from slipping.

When transporting in vehicles or other means of transport, the legal regulations and regional requirements must always be observed!

Special care must be taken when using the trolley handle! The appliance must always be guided carefully and must not be pulled over uneven ground at high speed! Although the appliance is robustly constructed and has various damping systems, the leverage effect of the long trolley handle can exert considerable forces on the internal components. This can lead to serious damage to the electronics.

7.9 Storing the device

The device must always be fully charged before it is stored and should be fully charged after six months at the latest using the 230V charger. It should also be noted that the device may only be stored indoors and must always be securely closed during storage. All caps must also be fitted to the connections.

The device may only be stored within the temperature range specified under technical data. For longer storage periods of more than one month, the maximum temperature must not exceed 30°C!

The device must always be stored horizontally! Standing upright can cause medium-term damage to the battery chemistry!
Do not store lying down or standing up!

To prevent damage to the battery, the device should be discharged to approx. 10% at least once a month and then fully charged using the charger supplied!

8. dispose of the appliance

If it is determined that the appliance has reached its maximum service life, it must be disposed of immediately. We will be happy to take care of the professional disposal of the appliance - free of charge, of course. To do this, the appliance must be handed in at the address given in the imprint.

The appliance may only be dismantled by specially trained personnel. All safety instructions for operation must be strictly observed.

Old appliances should not be disposed of with household waste. In accordance with the Waste Electrical and Electronic Equipment Directive (2012/19/EU) and national laws, this product must not be disposed of with household waste! This product must be taken to a designated collection point.

9. declaration of conformity

The following guidelines were applied:

Low Voltage Directive 2014/35/EU
EMC Directive 2014/30/EU
ROHS 2011/65/EU

The following standards were applied:

EN ISO 12100:2011	Safety of machinery Basic concepts: general principles for design
DIN EN 60204-1:2014	Safety of machinery - Electrical equipment of machines - Part 1: General requirements
DIN VDE 0 100	Part 100, T443 and 534 Protection against overvoltages
DIN VDE 0105-100	Operation of electrical installations
ISO 7010	Graphic symbols - Safety colors and safety signs - Registered safety signs
DIN 4844-2	Warning signs - Prohibition signs
ISO/TR 14121-2	Diagram
DIN EN 61326-1	EMC requirements for electrical equipment for measurement, control and laboratory use
DIN EN 61010-1	Safety requirements for electrical equipment for measurement, control and laboratory use
DIN EN 55011 (A)	Industrial, scientific and medical equipment radio disturbance limits and measurement methods (interference radiation) from 30 MHz to 1 GHZ

The built-in LiFePo4 battery including battery management has been certified according to the following specifications:

UN 38.3	Test standard for safe transportation including all prescribed tests
UN 3480	Labeling according to the applicable dangerous goods regulations
MSDS	Material Safety Data Sheet" (MSDS)

Details of the manufacturer

manufacturer	B&W International GmbH Junkendiek 5 49479 Ibbenbüren