

## **User Manual**

BK215/B215



## Disclaimer

Read this user manual carefully before using the product to ensure that you clearly understand the product and use it correctly. Please keep the user manual for future reference. Any improper use may result in serious injury to the users or others, damage to the product or loss of property. When using this product, it means the user understands and accepts the terms and content of all user manuals. The user shall be liable for any misuse and any consequences resulting therefrom. We do not accept any liability for any loss caused by the user's failure to use the product in accordance with the user manual.

In compliance with laws and regulations, we reserve the right to final interpretation of this document and all documents related to the product. This document is subject to changes (updates, revisions, or termination) without prior notice.

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# 1. Specifications

BK215 Basic Data				
Model	BK215			
Net Weight	About 32.5Kg			
Dimension	L479*W289*H261mm			
Storage Capacity	2150Wh			
Wi-Fi	Yes			
Bluetooth	Yes			
Heating Function	Support (when charging temperature is between -20°C and 5°C and solar input power is available, the heating system will start automatically.)			
IP Grade	IP65(base needs to be added )			

B215 Basic Data				
Model	B215			
Net Weight	About 31Kg			
Dimension	L479*W289*H307mm			
Storage Capacity	2150Wh			
Heating Function	Support (when charging temperature is between -20°C and 5°C and solar input power is available, the heating system will start automatically.)			
IP Grade	IP65 (in connection with BK215 and base)			

BK215 Output Specifications			
2*Output Ports	33.6V-43.2V/50A Max,in total 1920W max.		

BK215 Input Specifications			
2*PV Input Ports	10V-80V/20A, each 800W max., in total 1600W max.		
Expansion storages	Yes, supports up to 3 units of expansion storages (B215),need to be purchased separately.		

B215 Input Specifications				
1*PV Input Ports	10V-80V/20A, 800W max.			

Battery Specifications				
Cell Type	LiFePO4			
Protection	Over voltage protection, Over current protection Over discharge current, Overload protection; Low temperature protection, High temperature protection, Short circuit protection, Failure protection.			
Lifespan	6000+ charging cycles <sup>1)</sup>			
Balance Mode	Passive balance, keep each cell in the same status to ensure the battery in the best of use.			

Working Environment			
Operating	Discharging Temperature	-20°C to 40°C	
Temperature	Charging Temperature	-20°C to 40°C (Heating system will start automatically below 5°C) $^{2)}$	
Speichertemperatur		-20°C to 45°C(20°C to 30°C is optimal)	
Luftfeuchtigkeit		10-90%	
Nutzungshöhe		≤2000m(Above the sea level)	

- 1) 25 ± 2 °C,20% 80% SoC, 0.75C charging/0.9C discharging ,70% EoL.
- 2) When the temperature is above 35°C, in order to protect battery, the system will automatically reduce the charging power. (The recommended maximum charge state is ≤90%. By using the SunLit Solar App, you can customize the charge state.)

# 2. Safety

## 2.1 Safety Instructions

- 1. This product is strictly forbidden to be used near heat sources (such as fire or heating furnace).
- 2. When using the product, please strictly follow the operating environment temperature specified in this user manual. If the temperature is too high, it may cause battery failure or even a fire. When the temperature is lower than -10°C and the heating function doesn't start, the discharging capacity may be severely reduced.
- 3. If this product catches fire, immediately ensure that the input and output power supply have been cut off. We recommend that you use the fire extinguishers in the following order: water or water mist, sand, fire blanket, dry powder and carbon dioxide fire extinguishers.
- 4. If there is water inside the product or the product is accidentally dropped into water, stop using it and turn it off immediately. Please place it in a safe open area and stay away from it until it is completely dry. Please take anti-electric shock measures before touching the product. The dried battery should not be used or discarded arbitrarily, but should be disposed of in accordance with local legal regulations.
- 5. Use a dry cloth to clean the ports of this product if they are stained.
- 6. It is forbidden to use this product in an environment with strong static electricity or strong magnetic field.
- 7. Do not stack any heavy objects on the product.
- 8. Keep the product in a dry and ventilated place.
- 9. Keep this product out of reach of children and pets.
- **10.** Do not use the battery in a low air pressure environment, as this may cause explosion or leakage of flammable liquids or gases.
- 11. Please do not open the inside of the product yourself or damage the product shell in other ways.
- **12.** Do not touch the connecting port with wires or other conductive objects.
- **13.** When using or transporting this product, please avoid impact, falls and violent vibrations. In case of a severe impact, stop using it immediately and turn off the power.

- 14. Do not use unofficial components or accessories, because it is not covered by warranty. Consult official channels if you need to replace any component or accessory.
- **15.** 15. Before connecting this product to other devices, please ensure that this product is turned off. Confirm that other devices are connected to this product correctly before turning on this product.
- **16**. Do not put abnormal metal conductors or any other body parts into the input or output ports to avoid electric shock and other risks.
- 17. Do not use damaged power cords, plugs or non-standard cables.
- **18.** To reduce the risk of electric shock, turn the product off first, then unplug the input and output plugs. Then proceed to the next steps according to the instructions given by customer service.
- **19.** Repairs should be carried out by qualified service personnel using only identical replacement parts. This ensures the safety of the battery.
- **20.** Do not use this product if it has been damaged or modified as this may result in fire, explosion or other risks of injury.
- 21. For long-term storage, please charge the battery to 60% at least every three months. The product will not be covered by the warranty if it is not charged or discharged for more than 6 months.

## 2.2 Disposal Guide

**Notes:** This product contains batteries that contain hazardous chemicals and should not be disposed of in general waste containers.

- 1. Please completely remove the battery and dispose of it in accordance with local battery recycling and disposal laws and regulations.
- 2. If the battery cannot be completely discharged due to product failure, please contact our customer service for further help.



SAVE THESE INSTRUCTIONS

# 3. Packing List

### 3.1 BK215 Packing List



## 3.2 B215 Packing List



- 1 Expansion Storage B215
- **2** User Manual
- 3 Input Cable

## 4. Product Details

## 4.1 BK215 Product Overview





### 4.2 BK215 LCD Screen Overview

![](_page_11_Figure_1.jpeg)

- **1** Battery 1 (BK215)
- **2** Battery 2 (B215)
- 3 Battery 3 (B215)
- 4 Battery 4 (B215)
- **5** Remaining Storage (%)
- 6 Input Power
- Output Power

- 8 Low Temperature Warning<sup>1)</sup>
- 9 High Temperature Warning<sup>2)</sup>
- Fault Warning<sup>3)</sup>
- Heating Function<sup>4)</sup>
- WIFI Display<sup>5)</sup>
- Bluetooth Display<sup>6)</sup>

#### 1)WIFI Indicator:

1.WIFI light flashes slowly: Connecting to the home network.

2.WIFI light flashes quickly: Connecting to the cloud.

3.WIFI light is always on: Already connected to home network.

4.WIFI light is off: Home network is not set up or not connected.

#### 2)Bluetooth Indicator:

1.Bluetooth light flashes: The product is ready for a new network configuration. Bluetooth can be connected to an end device (for example a phone with the SunLit Solar APP).

2.The Bluetooth light is off: The connection to the end device was successful. The information is sent to the Wi-Fi module of the storage sent. Further configuration can be carried out.

3.The Bluetooth and WiFi lights are off: The battery is in a low power consumption/unknown state. WiFi needs to be reset. Press and hold the main power button for 10 seconds until the Bluetooth light flashes again.

## 4.3 B215 Product Overview

![](_page_12_Figure_10.jpeg)

![](_page_13_Picture_0.jpeg)

## 4.4 B215 Indicator Light

![](_page_13_Figure_2.jpeg)

#### **Connection Indicator:**

When the indicator is green, it means the connection to the main storage (BK215) was successful.

#### **Remaining Battery Indicators:**

Each indicator light represents 20% of the battery power; when all five indicators light up, it means that the battery has 100% full power.

#### Error Indicator:

When the indicator light is red or flashing, it indicates a fault. (For details of the fault, please see the specific error descriptions in Chapter **7 Troubleshooting** ).

## 5. User Guide

### 5.1 BK215 Power ON/OFF

![](_page_14_Figure_2.jpeg)

#### 5.1.1 Power On

Press and hold the power on/off button until the LCD screen lights up. When the main power indicator is green, the product is powered on.

#### 5.1.2 Power Off

Press and hold the main power button (about 3 seconds), to turn off the LCD screen and the device. The product is powered off.

#### 5.1.3 Standby

After 5 minutes of inactivity the LCD screen will turn black and by clicking on the main power button be activated again.

**Note:** If there is input power when the main storage or one or more expansion storages are switched off, the respective battery storage switches on automatically. Therefore, always disconnect the input and output cables before making changes or connecting or disconnecting an expansion storage.

## 5.2 B215 Power ON/OFF

![](_page_14_Picture_11.jpeg)

#### 5.2.1 Power On

Press and hold the main power button until the LCD screen lights up. When the main power indicator is green, the product is powered on.

#### 5.2.2 Power Off

Press and hold the main power button for about 3 seconds to turn off the display and output function. The device is switched off.

### 5.3 Connection with Expansion Storage B215

BK215 and B215 are modularly connected through the connection socket at the bottom of BK215 and connection plug at the top of B215.

![](_page_15_Figure_2.jpeg)

The batteries only support parallel use. Up to three Expansion Storages B215 can be connected at the same time. Both, the BK215 and the B215, are charged and discharged evenly, which enables a long service life of the product.

**Notes:** Always turn off the device before connecting or disconnecting an Expansion Storage B215.

### 5.4 BK215 Input Connection

#### 5.4.1 Maximum Power:

This product can be charged by solar panel. Each input port supports up to 800W. A maximum of up to 1600W for two ports is supported.

#### 5.4.2 Input Voltage Range:

Before connecting the solar panel, please ensure that the output voltage/open circuit voltage of the solar panel is 40V maximum. For multiple solar panels, the total voltage of each input must not exceed 80V to avoid damage to the battery. If the total open circuit voltage of your solar panels exceeds 80 V, it will exceed the maximum input voltage of this product. In this case, please connect the solar panels in parallel (see connection diagram below).

#### 5.4.3 Solar Charging Operation Diagram:

The battery can be charged by solar panels. Solar panels can be connected individually or in series as shown below. Actual efficiency will depend on local sunshine condition and environment.

![](_page_16_Figure_2.jpeg)

- 1. Solar panels need to be purchased separately
- 2. Please follow the demonstration in Diagram 1 or Diagram 2 to connect this product and the solar panel.
- 3. Before connecting the solar panel, ensure that the output voltage of the solar panel is maximum 40V to avoid damage to the product. For multiple solar panels, the total voltage of each input must not exceed 80V.
- 4. Please confirm that the solar panel is properly connected to the product before turning on the product.

**Note:** Parallel connection as an alternative to series connection for solar panels with open-circuit voltage / output voltage  $\geq$  40 V

Please note that if the open circuit voltage of your solar panel is  $\geq$ 40V and two solar panels are connected in series, the maximum input voltage is  $\geq$ 80V and hence exceeds the maximum input voltage of this product. In this case, please connect the solar panels in parallel according to the diagram below.

Before installing the solar system with solar panels, make sure the solar panels you are using have the same voltage.

![](_page_17_Figure_3.jpeg)

\* Purchase separately.

## 5.5 B215 Input Connection

#### 5.5.1 Maximum Power:

This product can be charged by solar panel and supports an input power of up to 800W.

#### 5.5.2 Input Voltage Range:

Before connecting the solar panel, ensure that the output voltage of the solar panel is 10V~40V. For multiple solar panels, the total voltage at the inputs must not exceed 80V to avoid damaging the battery.

#### 5.5.3 Solar Charging Operation Diagram:

The battery is charged with solar panels. The solar panels can be connected either individually or in series as shown in the diagrams below. Optimal operation depends on local solar radiation and environmental influences.

![](_page_18_Figure_7.jpeg)

- 1. Solar panels need to be purchased separately.
- 2 Please follow the demonstration in Diagram 1 or Diagram 2 to connect this product and the solar panel.
- Before connecting the solar panel, ensure that the output voltage of the solar panel is max.
  40 V. For multiple solar panels, the total voltage at the inputs must not exceed 80V to avoid damaging the battery.

4. Please confirm that the solar panel is properly connected to the product before turn on the product.

**Note:** Parallel connection as an alternative to series connection for solar panels with open-circuit voltage / output voltage  $\geq$  40 V

Please note that if the open circuit voltage of your solar panel is  $\geq$ 40V and two solar panels are connected in series, the maximum input voltage is  $\geq$ 80V and hence exceeds the maximum input voltage of this product. In this case, please connect the solar panels in parallel according to the diagram below.

Before installing the solar system with solar panels, make sure the solar panels you are using have the same voltage.

![](_page_19_Figure_4.jpeg)

\* Purchase separately.

### 5.6 BK215 Output Connection

Please ensure that the inverter is properly connected to the product before turning it on.

#### 5.6.1 Maximum output power:

BK215 has 2 outputs with a total of max. 1920W of output power.

#### 5.6.2 Inverter connection diagram

The battery can be connected to 2 converters in total. The inverter is connected to the battery's output connections as shown in diagram 1.

NOTE: Please follow the local laws and regulations regarding home power supply.

![](_page_20_Picture_0.jpeg)

## 5.7 Battery Heating

To work properly at low temperatures, this product is designed with a safe and reliable battery heating function. When the internal temperature of the battery is lower than 5°C, the heating function will automatically start. When the battery temperature is  $\geq$ 5°C, this product can resume charging.

When the battery temperature is higher than 8°C, the battery heating stops automatically.

The heating function is active when the internal temperature of the battery is between –20  $^\circ C$  and 5  $^\circ C.$ 

### **5.8 Bypass Function**

Bypass mode allows the battery to automatically feed 100% of the collected solar energy directly into the home grid when necessary. The excess solar energy that cannot be transmitted to the home grid will charge this product. The (Partial-) Bypass mode is triggered automatically when the following input power (Input) and output power (Output) conditions are met:

#### Partial bypass mode

If more than half (50%) of the input power (Input) up to a maximum of twice (200%) of the input power (Input) is fed into the home network as output power (Output).

#### Full bypass mode

When the battery's output power (Output) does not exceed half (50%) or twice (200%) of the input power (Input).

If the input power (Input) is lower than the output power (Output) in bypass mode, the product will begin to discharge. If the input power (Input) is greater than the output (Output), the product will start charging.

## 5.9 Installing Instruction

Installation sequence when using Balcony Energy Storage BK215 with up to three Expansion Storages B215:

- <sup>1.</sup> Check whether the Balcony Energy Storage BK215 is turned off. If the green control light on the Power On/Off button is on, press the Power button to turn it off. Make sure the green light on the button is off.
- 2. Please place the Expansion Storage B215 in a proper place (maximum of 3 expansion storages are connected to each other please note that the connection sockets and the connection plugs are well connected).
- <sup>3.</sup> Place the BK215 on top of the Expansion Storage B215 (please note that the connection socket and the connection plug are well connected to each other).
- <sup>4.</sup> Connect the microinverter to the output port of BK215 by the output cable, and make sure the connector is firmly connected.
- <sup>5.</sup> Connect the solar panels to the input port of the battery via the input cable and make sure the plug is firmly connected.
- <sup>6.</sup> Press the power button on the BK215 to turn on the power.

## 5.10 Automatic Activation Function

During the day or when there is light, when the photovoltaic input is connected and the voltage of the solar module is  $\geq$  18V, the product automatically activates and starts charging.

## 5.11 System Upgrade Display

1. When the screen icon 1 is constantly on and it displays "UP-GRAdE", it indicates that the BK215 is being upgraded. The battery percentage icon displays the system upgrade progress. When the upgrade displays 100%, it indicates that the upgrade is complete and the device will automatically restart.

![](_page_22_Figure_2.jpeg)

2. When the screen icon is constantly on and icons <sup>1</sup>/<sub>2</sub> are flashing in a cycle (the number of icons <sup>2</sup>/<sub>3</sub> <sup>3</sup>/<sub>4</sub> displayed is based on the actual number of B215 installed), and the letters "UP-GRAdE" are displayed, it indicates that the B215 batteries are being upgraded. The battery percentage icon displays the system upgrade progress. When the upgrade shows 100%, it indicates that the upgrade is complete and the device will automatically restart.

![](_page_22_Figure_4.jpeg)

# 6. SunLit Solar APP

The Balcony Energy Storage BK215 can be managed with the SunLit Solar app. Among other things, the following functions can be handled:

- 1. You can easily complete the network configuration of the balcony power station through Bluetooth.
- 2. Monitor the status of your balcony power station anytime and anywhere.
- 3. Customize the power supply mode of the balcony power station or change it as you needed.

Please scan the QR code to download the SunLit Solar App. You can also find the app via "SunLit Solar" in the iOS App Store or Google Play Store.

![](_page_23_Picture_6.jpeg)

![](_page_23_Picture_7.jpeg)

For more information, including updates to the application manual and instructions and videos for configuring your device using the SunLit Solar app, please check our website: https://www.sunlitsolar.de/app

# Adding your Storage BK215

![](_page_24_Picture_1.jpeg)

Click "Add device" in the "Device"-tab, or "+" icon in the "Space"- tab.

Note: Please make sure that the Bluetoothfeature of your Smartphone is turned on.

![](_page_24_Picture_4.jpeg)

03

![](_page_24_Picture_6.jpeg)

First, turn off the battery, then press the power button for **10 seconds** until the Bluetooth icon is flashing.

![](_page_24_Picture_8.jpeg)

![](_page_24_Picture_9.jpeg)

05

Select "SunLit BK215".

Note: SunLit BK215 is only compatible with Deye microinverters at the moment. More microinverters of other brands will be supported soon.

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<	Add device	
Select the	a type of device	
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Energy stor	aje	
SunLi	BK215	
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Wait for scanning results of Bluetooth. Then, when the battery is found, click on "+" icon. If no device is found, click **"View help"** at the bottom of the page.

120.01	
<	Product introduction
Gem	any's strongest Balcony
Energ	gy Storage in its class!
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	5,45 kWh
	4,30 kWh
2010	
Becon	e your own energy providen
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Click "Add now"

![](_page_24_Picture_15.jpeg)

![](_page_24_Picture_16.jpeg)

![](_page_25_Picture_0.jpeg)

![](_page_25_Picture_2.jpeg)

Wait for network configuration to be completed.

![](_page_25_Picture_4.jpeg)

After the network configuration is done, click "Done".

Then click **"Next"**. (If your WiFi has no password, click "Next" directly.)

![](_page_25_Picture_7.jpeg)

![](_page_25_Picture_8.jpeg)

![](_page_25_Picture_9.jpeg)

09

The data of your battery will be available in approximately 2 minutes.

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![](_page_25_Picture_13.jpeg)

WEB: www.sunlitsolar.de E-MAIL: support@sunlitsolar.de

Scan the QR code to view the video installation instructions [] look at >

![](_page_25_Picture_16.jpeg)

# 7. Troubleshooting

## 7.1 BK215 Troubleshooting

Indicator	Problem	Solution
Blue snow symbol	Internal temperature of the battery is too low – Temperature protection –	When the internal temperature of the battery is lower than 5°C, the heating function will be turned on.
Red thermostat	Internal temperature of the battery is too high – Temperature protection –	The battery will resume the power supply when the temperature drops below 52°C. The error will be corrected automatically.
Red exclamation mark	Fault warning	Restart the product. If the problem is not solved, please contact us.

## 7.2 B215 Troubleshooting

Indicator	Problem	Solution
ERROR	Fault warning	Restart the product. If the problem is not solved, please contact us.
Red lighting		

If an error message occurs during battery use and the error message still exists after restarting the battery, you should not continue to use the battery and contact our customer service.

## 7.3 Fault Code and Solution

### 7.3.1 BK215 Main Storage Fault Codes

Fault Code	Problem	Solution
E003	AFE offline	Contact us for after sales
E004	Charge over current protection (Hardware protection)	Press the power button to restart once
E006	Discharge over current protection (Hardware protection)	Press the power button to restart once
E008	Charge low temperature protection (Hardware protection)	Automatically recovers when the lowest temperature of battery cells is higher than 8 °C
E009	Charge high temperature protection	Automatically recovers when the highest temperature of battery cells is lower than 50 °C
E010	Discharge low temperature protection	Automatically recovers when the lowest temperature of battery cells is higher than -15 °C
E011	Discharge high temperature protection	Automatically recovers when the highest temperature of battery cells is lower than 52 °C
E012	Discharge short circuit	Press the power button to restart once
E014	Battery cell damage/ disconnected	Contact us for after sales
E015	NTC disconnected	Contact us for after sales
E018	MOS high temperature protection (Hardware protection)	Automatically recovers after the temperature drops
E020	Cell differential pressure protection	Contact us for after sales
E021	Button's fault	Press the power button to restart once/Contact us for after sales
E022	AFE Abnormal initialization	Update program/Contact us for after sales
E023	Precharge timeout	Press the power button to restart once
E025	Relay fault	Press the power button to restart once/Contact us for after sales
E026	Heating film failure	Contact us for after sales
E027	System disabled	Contact us for after sales

E035	Charge MOS high temperature protection(Software protection)	Automatically recovers when MOS temperature is lower than 75 $^\circ\!\!\mathrm{C}$
E036	Charge low temperature protection (Software protection)	Automatically recovers when the lowest temperature of battery cells is higher than 8 $^\circ\! C$
E037	Discharge MOS high temperature protection (Software protection)	Automatically recovers when MOS temperature is lower than 75 $^\circ\!\!\mathrm{C}$
E038	Discharge low temperature protection (Software protection)	Automatically recovers when the lowest temperature of battery cells is higher than -15 $^\circ\!\mathrm{C}$
E039	Charge over current protection (Software protection)	Press the power button to restart once
E040	Discharge level 1 over current protection (Software protection)	Press the power button to restart once
E045	Charge MOS fault	Contact us for after sales
E046	Discharge MOS fault	Contact us for after sales
E049	Fan fault	Contact us for after sales
E050	MPPT fault	Contact us for after sales

### 7.3.2 B215 Expansion Storage 1 Fault Code

The B215 error codes are displayed on the LCD screen of the BK215 balcony power storage unit.

Fault Code	Problem	Solution
E103	AFE offline	Contact us for after sales
E104	Charge over current protection(Hardware protection)	Press the power button to restart once
E106	Discharge over current protection(Hardware protection)	Press the power button to restart once
E108	Charge low temperature protection(Hardware protection)	Automatically recovers when the lowest temperature of battery cells is higher than 8 °C
E109	Charge high temperature protection	Automatically recovers when the highest temperature of battery cells is lower than 50 °C
E110	Discharge low temperature protection	Automatically recovers when the lowest temperature of battery cells is higher than -15 °C

E111	Discharge high temperature protection	Automatically recovers when the highest temperature of battery cells is lower than 52 °C
E112	Discharge short circuit	Press the power button to restart once
E114	Battery cell damage/ disconnected	Contact us for after sales
E115	NTC disconnected	Contact us for after sales
E118	MOS high temperature protection(Hardware protection)	Automatically recovers when MOS temperature is lower than 75 $^\circ\!\mathrm{C}$
E120	Cell differential pressure protection	Contact us for after sales
E121	Button's fault	Press the power button to restart once/Contact us for after sales
E122	AFE Abnormal initialization	Update program/Contact us for after sales
E123	Precharge timeout	Press the power button to restart once
E125	Relay fault	Press the power button to restart/Contact us for after sales
E126	Heating film failure	Contact us for after sales
E127	System disabled	Contact us for after sales
E135	Charge MOS high temperature protection(Software protection)	Automatically recovers when MOS temperature is lower than 75 °C
E135 E136	Charge MOS high temperature protection(Software protection) Charge low temperature protection(Software protection)	Automatically recovers when MOS temperature is lower than 75 °C Automatically recovers when the lowest temperature of battery cells is higher than 8 °C
E135 E136 E137	Charge MOS high temperature protection(Software protection) Charge low temperature protection(Software protection) Discharge MOS high temperature protection(Software protection)	Automatically recovers when MOS temperature is lower than 75 °C Automatically recovers when the lowest temperature of battery cells is higher than 8 °C Automatically recovers when MOS temperature is lower than 75 °C
E135 E136 E137 E138	Charge MOS high temperature protection(Software protection) Charge low temperature protection(Software protection) Discharge MOS high temperature protection(Software protection) Discharge low temperature protection(Software protection)	Automatically recovers when MOS temperature is lower than 75 °C Automatically recovers when the lowest temperature of battery cells is higher than 8 °C Automatically recovers when MOS temperature is lower than 75 °C Automatically recovers when the lowest temperature of battery cells is higher than -15 °C
E135 E136 E137 E138 E139	Charge MOS high temperature protection(Software protection) Charge low temperature protection(Software protection) Discharge MOS high temperature protection(Software protection) Discharge low temperature protection(Software protection) Charge over current protection(Software protection)	Automatically recovers when MOS temperature is lower than 75 °C Automatically recovers when the lowest temperature of battery cells is higher than 8 °C Automatically recovers when MOS temperature is lower than 75 °C Automatically recovers when the lowest temperature of battery cells is higher than -15 °C Press the power button to restart once
E135 E136 E137 E138 E139 E140	Charge MOS high temperature protection(Software protection) Charge low temperature protection(Software protection) Discharge MOS high temperature protection(Software protection) Discharge low temperature protection(Software protection) Charge over current protection(Software protection) Discharge level 1 over current protection(Software protection)	Automatically recovers when MOS temperature is lower than 75 °C Automatically recovers when the lowest temperature of battery cells is higher than 8 °C Automatically recovers when MOS temperature is lower than 75 °C Automatically recovers when the lowest temperature of battery cells is higher than -15 °C Press the power button to restart once
E135 E136 E137 E138 E139 E140 E145	Charge MOS high temperature protection(Software protection) Charge low temperature protection(Software protection) Discharge MOS high temperature protection(Software protection) Discharge low temperature protection(Software protection) Charge over current protection(Software protection) Discharge level 1 over current protection(Software protection) Charge MOS fault	Automatically recovers when MOS temperature is lower than 75 °C Automatically recovers when the lowest temperature of battery cells is higher than 8 °C Automatically recovers when MOS temperature is lower than 75 °C Automatically recovers when the lowest temperature of battery cells is higher than -15 °C Press the power button to restart once Press the power button to restart once Contact us for after sales
E135 E136 E137 E138 E139 E140 E145 E146	Charge MOS high temperature protection(Software protection) Charge low temperature protection(Software protection) Discharge MOS high temperature protection(Software protection) Discharge low temperature protection(Software protection) Charge over current protection(Software protection) Discharge level 1 over current protection(Software protection) Charge MOS fault Discharge MOS fault	Automatically recovers when MOS temperature is lower than 75 °C Automatically recovers when the lowest temperature of battery cells is higher than 8 °C Automatically recovers when MOS temperature is lower than 75 °C Automatically recovers when the lowest temperature of battery cells is higher than -15 °C Press the power button to restart once Press the power button to restart once Contact us for after sales Contact us for after sales

E150	MPPT fault	Contact us for after sales

### 7.3.3 B215 Expansion Storage 2 Fault Code

The B215 error codes are displayed on the LCD screen of the BK215 balcony power storage unit.

Fault Code	Problem	Solution
E203	Front-end offline	Contact us for after sales
E204	Charge over current protection (Hardware protection)	Press the power button to restart once
E206	Discharge over current protection (Hardware protection)	Press the power button to restart once
E208	Charge low temperature protection (Hardware protection)	Automatically recovers when the lowest temperature of battery cells is higher than 8 $^\circ \!\!\! C$
E209	Charge high temperature protection	Automatically recovers when the highest temperature of battery cells is lower than 50 °C
E210	Discharge low temperature protection	Automatically recovers when the lowest temperature of battery cells is higher than -15 °C
E211	Discharge high temperature protection	Automatically recovers when the highest temperature of battery cells is lower than 52 °C
E212	Discharge short circuit	Press the power button to restart once
E214	Battery cell damage/ disconnected	Contact us for after sales
E215	NTC disconnected	Contact us for after sales
E218	MOS high temperature protection(Hardware protection)	Automatically recovers when MOS temperature is lower than 75 $^\circ\!\!\mathrm{C}$
E220	Cell differential pressure protection	Contact us for after sales
E221	Button's fault	Press the power button to restart once/Contact us for after sales
E222	AFE Abnormal initialization	Update program/Contact us for after sales
E223	Precharge timeout	Press the power button to restart once
E225	Relay fault	Press the power button to restart once/Contact us for after sales

E226	Heating film failure	Contact us for after sales
E227	System disabled	Contact us for after sales
E235	Charge MOS high temperature protection(Software protection)	Automatically recovers when MOS temperature is lower than 75 $^{\circ}\!\!\mathrm{C}$
E236	Charge low temperature protection(Software protection)	Automatically recovers when the lowest temperature of battery cells is higher than 8 °C
E237	Discharge MOS high temperature protection(Software protection)	Automatically recovers when MOS temperature is lower than 75 $^\circ\!\!\mathrm{C}$
E238	Discharge low temperature protection(Software protection)	Automatically recovers when the lowest temperature of battery cells is higher than -15 °C
E239	Charge over current protection(Software protection)	Press the power button to restart once
E240	Discharge level 1 over current protection(Software protection)	Press the power button to restart once
E245	Charge MOS fault	Contact us for after sales
E246	Discharge MOS fault	Contact us for after sales
E249	Fan fault	Contact us for after sales
E250	MPPT fault	Contact us for after sales

### 7.3.4 B215 Expansion Storage 3 Fault Code

The B215 error codes are displayed on the LCD screen of the BK215 balcony power storage unit.

Fault Code	Problem	Solution
E303	Front-end offline	Contact us for after sales
E304	Charge over current protection (Hardware protection)	Press the power button to restart once
E306	Discharge over current protection (Hardware protection)	Press the power button to restart once
E308	Charge low temperature protection (Hardware protection)	Automatically recovers when the lowest temperature of battery cells is higher than 8 °C
E309	Charge high temperature protection	Automatically recovers when the highest temperature of battery cells is lower than 50 °C

E310	Discharge low temperature protection	Automatically recovers when the lowest temperature of battery cells is higher than -15 $^\circ\!\mathrm{C}$
E311	Discharge high temperature protection	Automatically recovers when the highest temperature of battery cells is lower than 52 °C
E312	Discharge short circuit	Press the power button to restart
E314	Battery cell damage/ disconnected	Contact us for after sales
E315	NTC disconnected	Contact us for after sales
E318	MOS high temperature protection(Hardware protection)	Automatically recovers when MOS temperature is lower than 75 $^\circ\!\mathrm{C}$
E320	Cell differential pressure protection	Contact us for after sales
E321	Button's fault	Press the power button to restart once/Contact us for after sales
E322	AFE Abnormal initialization	Update program/Contact us for after sales
E323	Precharge timeout	Press the power button to restart once
E325	Relay fault	Press the power button to restart once/Contact us for after sales
E326	Heating film failure	Contact us for after sales
E327	System disabled	Contact us for after sales
E335	Charge MOS high temperature protection(Software protection)	Automatically recovers when MOS temperature is lower than 75 $^\circ\!\mathrm{C}$
E336	Charge low temperature protection(Software protection)	Automatically recovers when the lowest temperature of battery cells is higher than 8 °C
E337	Discharge MOS high temperature protection(Software protection)	Automatically recovers when MOS temperature is lower than 75 $^\circ\!\mathrm{C}$
E338	Discharge low temperature protection(Software protection)	Automatically recovers when the lowest temperature of battery cells is higher than -15 °C
E339	Charge over current protection(Software protection)	Press the power button to restart once
E340	Discharge level 1 over current protection(Software protection)	Press the power button to restart once
E345	Charge MOS fault	Contact us for after sales

E346	Discharge MOS fault	Contact us for after sales
E349	Fan fault	Contact us for after sales
E350	MPPT fault	Contact us for after sales

## 8. Care and Maintenance

- 1. It is recommended to use or store this product in an environment between 20°C and 30°C, away from direct sunlight, water, heat and other metal objects.
- 2. For long-term storage, please charge and discharge this product once every 3 months (firstly discharge this product to 10%, then charge it to 60%).
- 3. For safety reasons, please do not store this product above  $45^{\circ}$ C or below  $-20^{\circ}$ C for a long time.
- 4. If the power of this product is less than 10% after use, please charge it to 60% before storage. If it is idle for a long time under the condition of serious power shortage, it will cause irreversible damage to the battery and shorten the service life of this product.
- 5. If the product has been idle for 3 months and the battery power is severely low, it will enter a deep sleep protection mode. In such case, please charge the product as soon as possible. If it cannot be charged in time, there is a risk of battery damage.

The certificate, EU Declaration of Conformity and other documents for this product can be found at the URL below: https://sunlitsolar.de/download-zertifikate-2/

![](_page_35_Picture_0.jpeg)

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