

NEXA 2000

All-in-one Balcony Solar Storage User Manual

Contact us

www.ginverter.com

1. Keep it dry and do not place heavy objects on the NEXA 2000.
2. Do not dismantle, punch, shake, hit, or burn it.
3. Recycle and place NEXA 2000 according to local policies.

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Disclaimer

Please read the document carefully before you use the product to ensure that you completely understand the product and can correctly use it. After reading, please keep the document properly for future reference. If you use this product incorrectly, you risk significant injury to yourself or others, as well as product damage and property loss. Once you use this product, you are deemed to have understood, approved, and accepted all the terms and content of this document. Users promise to be responsible for their actions and all consequences arising therefrom. Growatt is not responsible for any damage caused by using the product not in accordance with the document.

Disposal Guide

1. When conditions permit, be sure to discharge the batteries of this product completely before placing it in the designated battery recycling bin. This product contains batteries, which are hazardous chemicals and are not permitted to be disposed of in the general waste bin. For details, please follow your local battery recycling and disposal laws and regulations.
2. If the battery cannot be completely discharged due to the product's own fault, please do not dispose of the battery directly in the battery recycling bin, but contact a professional battery recycling company for further processing.
3. The battery will not be able to start after over-discharging. Please dispose of it as discarded.

Safety Guidelines

1. Do not place this product in high temperature environments or in fire.
2. Avoid exposing it to moisture or submerging it in liquids.
3. Do not use near strong electrostatic or magnetic fields. Such conditions may disable some protective features of the product, leading to severe malfunctions.
4. Do not disassemble this product. Consult official channels for service or repair. Improper disassembly or reassembly may pose a risk of fire or personal injury.
5. When using this product, adhere strictly to the operational temperature range specified in the user manual. Excessive temperatures may cause fire or explosion; low temperatures can significantly reduce performance or cause the product to fail and cease functioning.
6. Do not place the product in unventilated areas during use.
7. Avoid causing a short circuit in the product with wires or other metal objects.
8. Ensure the product is not subjected to impact, drops, or severe vibration. Secure it during transport to prevent damage. If severely damaged, immediately turn off the power and cease using the product.
9. If the product accidentally falls into water, place it in a safe, open area and stay away from it until it is completely dry. Do not reuse a dried product; dispose of it properly as Disposal Guide in this document.
10. Growatt is not responsible for accidents or malfunctions caused by parts not provided by Growatt.
11. Clean the product only with a dry cloth.
12. Place it on a flat surface to prevent it from falling. If it topples over and is severely damaged, immediately turn it off; place the battery in an open area, away from people and flammable materials, and dispose of it in accordance with local laws and regulations.
13. Keep out of reach of children and pets.
14. Electromagnetic fields inevitably generated during the use of power products may affect the normal functioning of implanted medical devices or personal medical devices, such as pacemakers, implanted cochlear implants, hearing aids, defibrillators, etc. If you use such medical devices, consult their manufacturers for restrictions on using related equipment to ensure a safe distance is maintained between the product and implanted medical devices (like pacemakers, cochlear implants, hearing aids, defibrillators, etc.) during operation.

Declaration of Conformity

Hereby, Shenzhen Growatt Power Technology Co., Ltd. declares that this product is in compliance with Directives 2014/35/EU, 2014/30/EU, 2014/53/EU & 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address: <https://growattportable.com/pages/download-center>.

Hereby, Shenzhen Growatt Power Technology Co., Ltd. declares that this device is in compliance with The Product Security and Telecommunications Infrastructure (Security Requirements for Relevant Connectable Products) Regulations 2023. For the Statement of Compliance, visit the Web site <https://growattportable.com/pages/download-center>.

Directive 2014/53/EU Radiation Exposure Statement:

This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

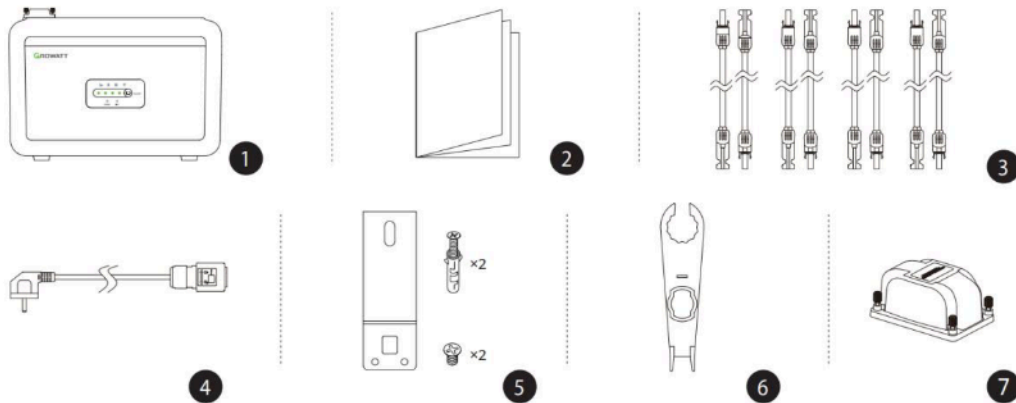
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Specifications

Basic Information	
Net Weight	≈24Kg
Dimensions (L*W*H)	406*256*290mm
Wireless Connection	Bluetooth, 2.4G Hz Wi-Fi
Operation Frequency	2400-2483.5MHz
Max RF Output Power	<20dBm
Wireless technology	LoRa
Wi-Fi HaLow Operation Frequency	863-870MHz
Wi-Fi HaLow Max RF Output Power	<13.98dBm
LED Display	Supported
PV Input	
Operation Voltage Range	16-60Vdc
Max PV Input Voltage	60Vdc
Max PV Input Current	20A
Max Isc PV	20A
Number Of MPPT	4
Max MPPT Input Power	2600W
On-grid Port	
AC Output	230Vac,50/60Hz,800W
Max AC Output Current	3.5A

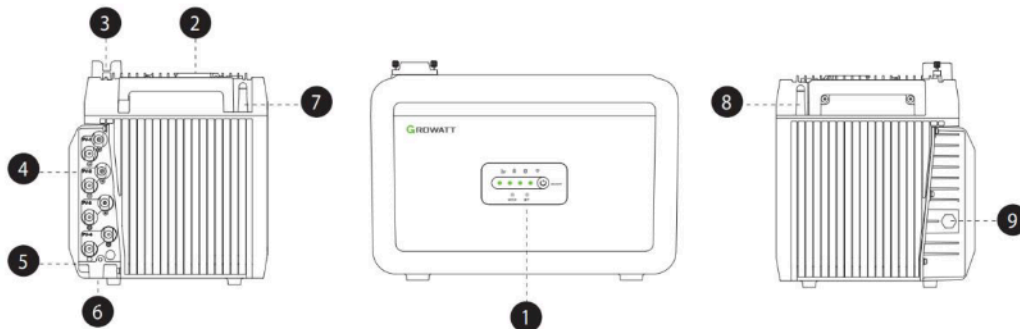
Power Factor	> 0.99 (-0.8~+0.8)
Versatile AC Port	
AC Output	230VAC,50/60Hz,3.5A
Max AC Output Power	800W
Max AC Apparent Power	800VA
Power Factor	-0.8~+0.8
Battery	
Rated Capacity	2048Wh
Battery Rated Voltage	51.2Vdc
Max Charge Current	40A
Max Discharge Current	60A
Max Charging Power	2000W
Max Discharging Power	800W
Rechargeable Li-Ion Battery	LifePO4
Expandable Battery Quantity	3
Max Expandable Capacity	8192Wh
Protection	
Overvoltage Protection	Yes
Overcurrent Protection	Yes
Short Circuit Protection	Yes
Temperature Protection	Yes
Overcharging Protection	Yes
Over-Discharge Protection	Yes
General Parameters	
Charging Temperature Range	0℃~55℃
Discharging Temperature Range	-20℃~55℃
Self-Heating	Yes, activated below 0℃
Relative Humidity	5%-95%
Maximum Altitude Rating	4000m
Ingress Protection	IP66
Pollution Degree	PD3 (External)
Overvoltage Category	OVCII (DC), OVCIII (AC)
Protective Class	Class I
Operating Environment	Indoor used
Warranty	10 Years

Packing List



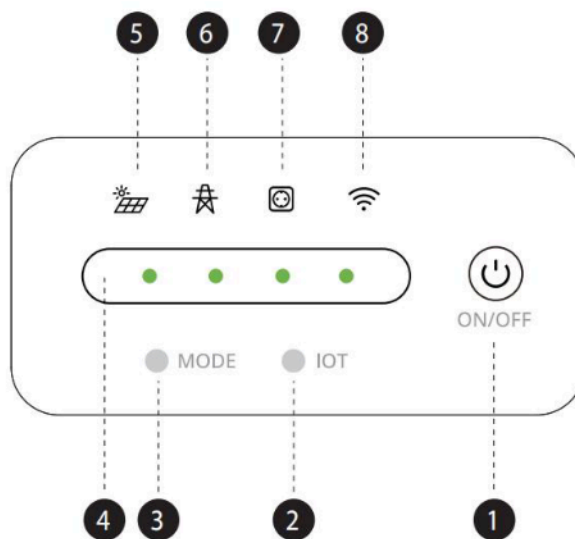
- 1.NEXA 2000 Balcony Storage
- 2.Documentations (Disclaimer & Warranty & Quick Start Guide & APP Guide)
- 3.PV Input Extension Cable
- 4.On-grid Cable
- 5.Fix-Bracket
- 6.MC4 Withdrawal Tool
- 7.Plug-Cover

Product Introduction



- 1.LED Panel
- 2.Versatile Port(Inverter In/Off-grid Out)
- 3.On-grid Port
- 4.PV Input Port
- 5.External Grounding Terminal
- 6.Battery Expansion Port
- 7.WIFI
- 8.Wi-Fi HaLow
- 9.Vent Valve

LED Panel



1.Main Power Button: short press 1s to switch on; long press 3s to switch off;

2.IOT Button (WiFi-Bluetooth):

-Short press 1s, IOT icon flashes, indicating pending connection status;

-Press and hold for 3s to reset, the IOT icon flashes and then goes out, press 1s again to turn it on again and enter the pending connection state;

3.Mode Switch Button: press and hold for 3s to switch between On-grid Mode and Off-grid Mode. The default mode is On-grid Mode when the device is switched on;

4.Battery Level Indicator: indicates the percentage of power. One cell represents 0-25%. When the battery level is 0-10% and the whole machine is in standby or discharging state, the first cell on the left side will flash.

5.Solar Panel Connection Indicator: when the icon is lit, it means the PV is connected; when the PV power input is lower than 25W, the PV icon flashes quickly, and when it exceeds this value, the PV icon is always lit;

6.On-grid Indicator: when the icon is lit, it indicates that the device is connected to the grid;

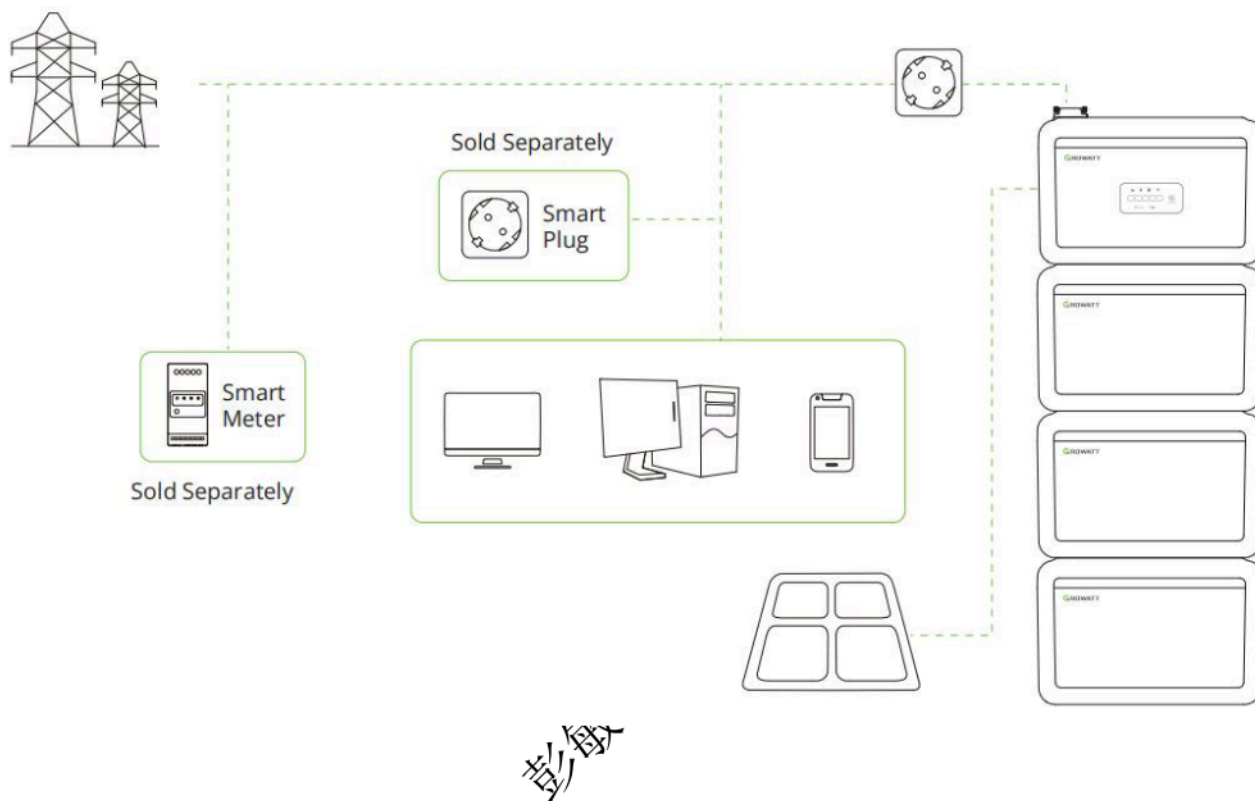
7.Off-grid Indicator: when the icon is lit, it means the device is Off-grid;

8.IOT Indicator (WiFi/Bluetooth): when the icon is always on, it indicates successful grid connection; when the icon is blinking, it indicates pending connection status.

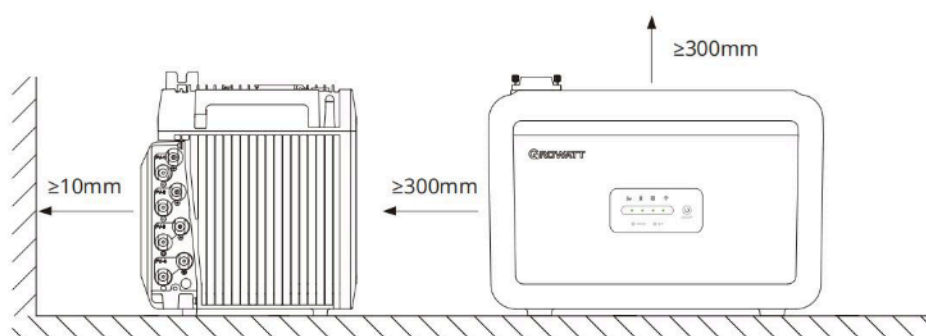
Installation

Installation Instructions

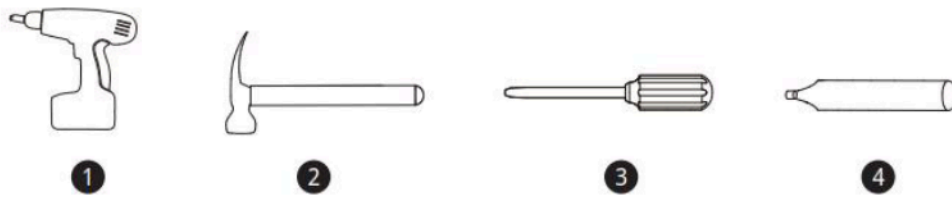
- System Application Diagram



- Space Required



- Tools Required

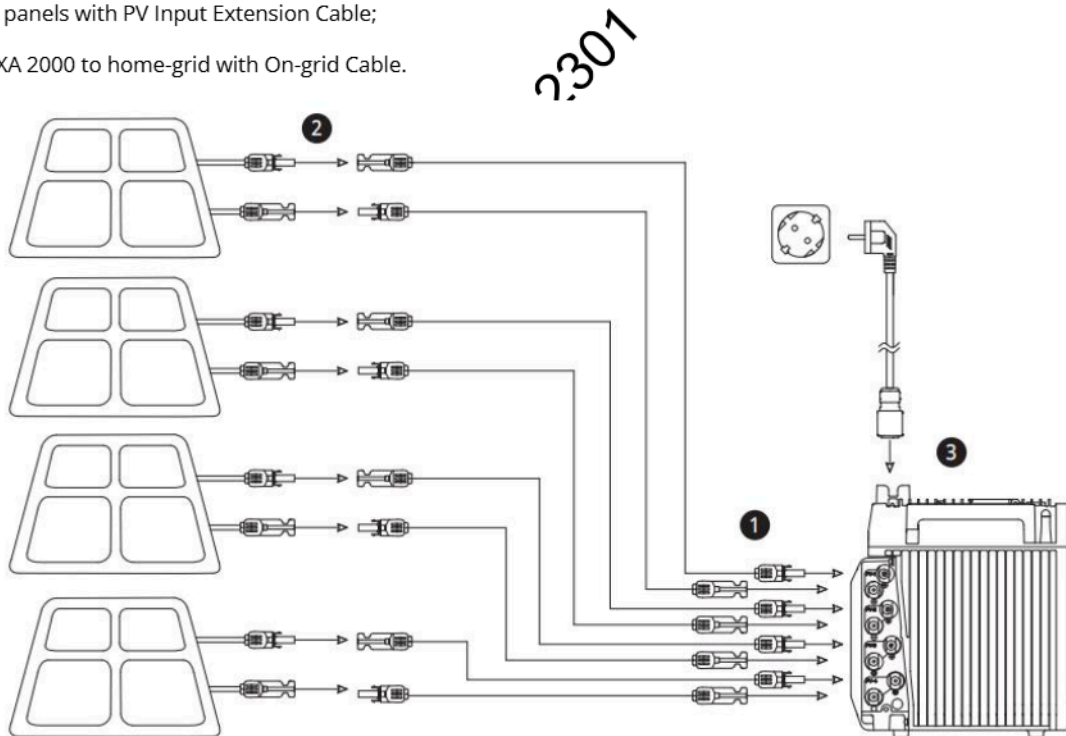


1. Multifunction Electric Screwdriver (Ø 12mm Drill Bit)
2. Hammer
3. Phillips Screwdriver
4. Pencil

On-grid Application

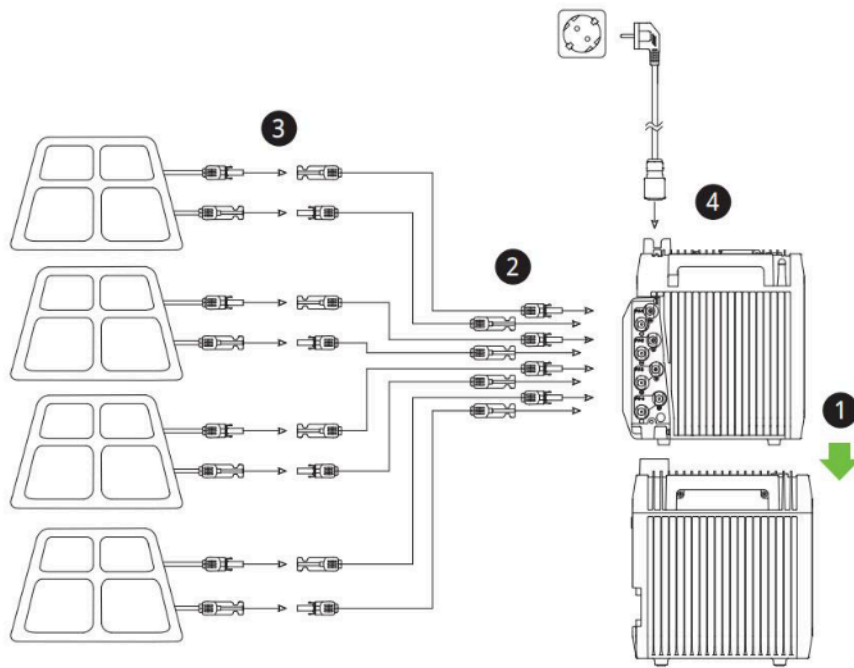
Application 1: NEXA 2000+Solar Panel

1. Connect PV Input Extension Cable to NEXA 2000;
2. Wiring solar panels with PV Input Extension Cable;
3. Connect NEXA 2000 to home-grid with On-grid Cable.



Application 2: NEXA 2000+Solar Panel+EBM

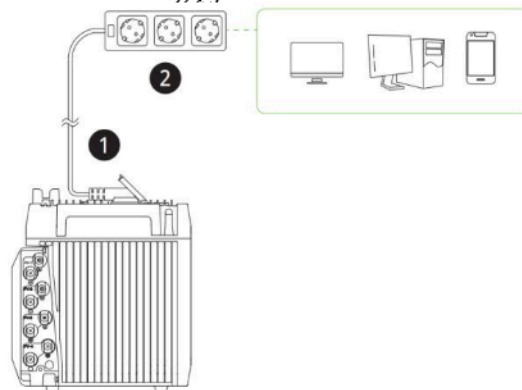
1. Stack NEXA 2000 to EBM, Max 3 EBMs are recommended;
2. Connect PV Input Extension Cable to NEXA 2000;
3. Wiring solar panels with PV Input Extension Cable;
4. Connect NEXA 2000 to home-grid with On-grid Cable.



Off-grid Application

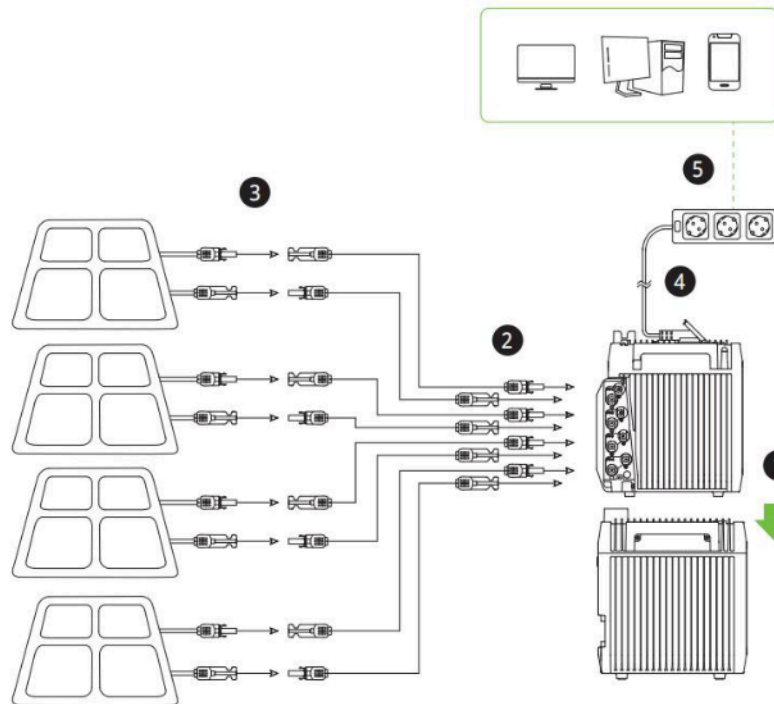
Application 1: NEXA 2000(Only)

1. Connect the row plug to the NEXA 2000's VERSATILE AC PORT;
2. Connecting household appliances to the row plug.



Application 2: NEXA 2000+Solar Panel+EBM

1. Stack NEXA 2000 to EBM, Max 3 EBMs are recommended;
2. Connect PV Input Extension Cable to NEXA 2000;
3. Wiring solar panels with PV Input Extension Cable;
4. Connect the row plug to the NEXA 2000's VERSATILE AC PORT;
5. Connecting household appliances to the row plug.

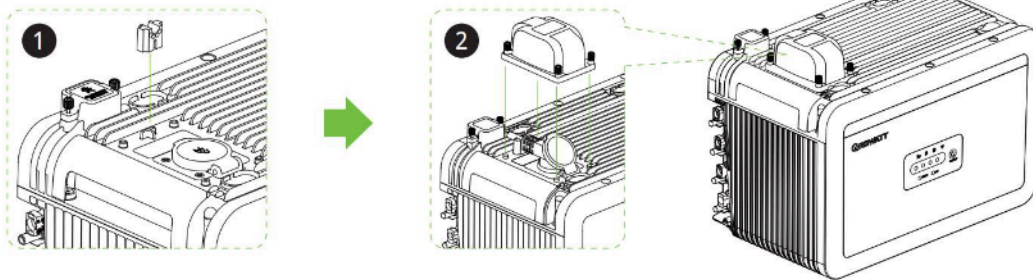


Other Tips

Plug-Cover Install

NEXA 2000 supports waterproof to your device's plug for well connection stability as follows:

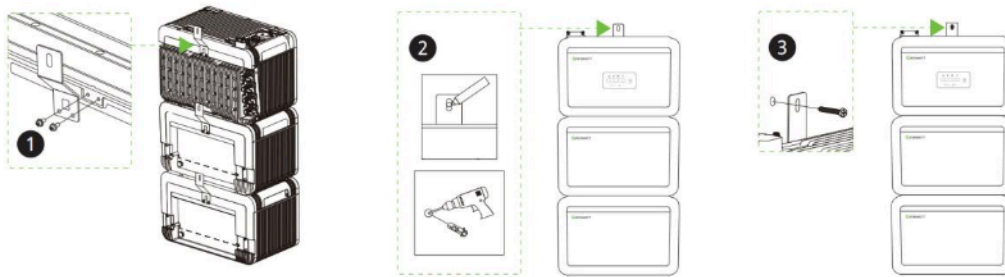
1. Install the block of Plug-Cover onto Versatile Port;
2. Insert the device's plug and secure Plug-Cover(Torque 1.5N·m).



Floor-Standing Install

NEXA 2000 supports battery expansion with EBM stacked(Max 3 EBM's are recommended), Fix-bracket can be used to enhance stability as follows:

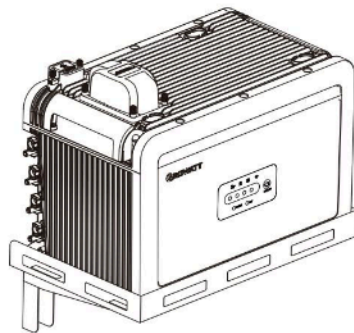
1. Install Fix-Bracket onto NEXA 2000/EBM(Torque 1.5N·m);
2. Mark the wall after positioning NEXA 2000/EBM, Drill holes ($\Phi 12 \times 50\text{mm}$) at the marked spots and insert expansion plugs;
3. Secure NEXA 2000/EBM to the wall (Torque 6.0 N·m).



Wall-Hung Install

NEXA 2000 supports Wall-Hung to minimize the use of balcony floor space.

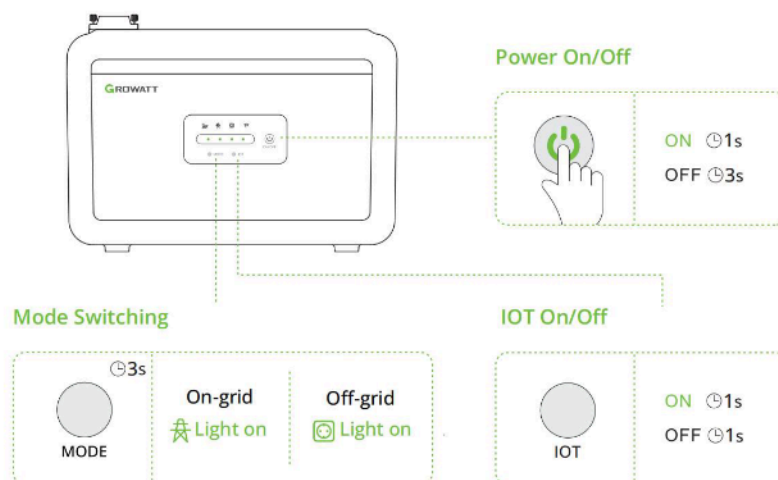
This accessory Wall-Hung bracket is sold separately.



How To Start

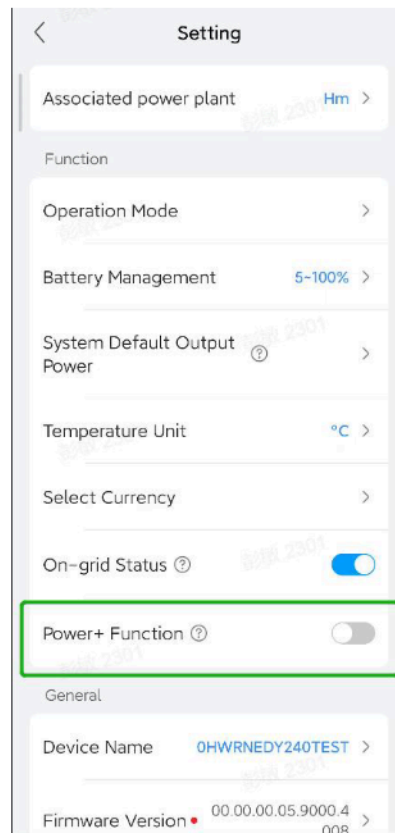
Power On / Off & Mode Setting

1. Short press the Main Power Button for 1 second to turn on; long press the main power button for 3 seconds to turn off.
2. Short press the IOT button for 1s, the IOT indicator flashes, that is, enter the pending connection state, you can configure the network for the device according to the APP guidelines.
3. The device is in On-grid mode by default, and can be switched to Off-grid mode by long-pressing the Mode button for 3s.



POWER PLUS Function

You can use this function on APP, enable to set the maximum value of the On-grid output power, please use with caution.



Connect ShinePhone APP

Use the ShinePhone application to remotely monitor and control your NEXA 2000 All-in-one Balcony Solar Storage system.

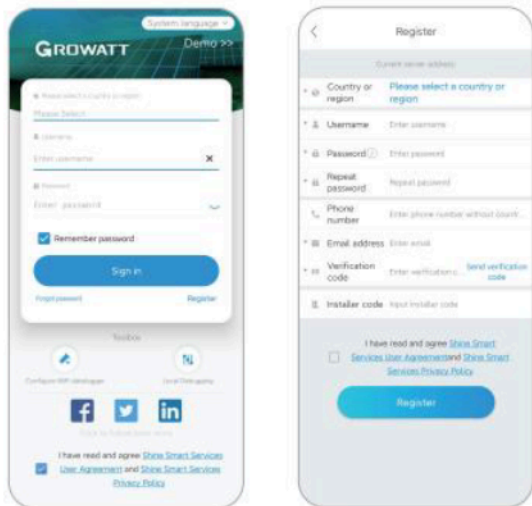
Create A Power Plant

1.Scan the QR code to download the 'ShinePhone' APP. You can also search for 'ShinePhone' on the APP Store or Google Play to download.

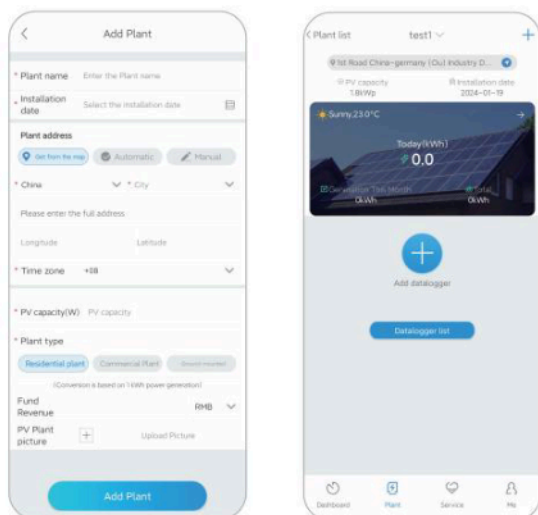


2.Click “Register” to create an account.

Installer code: GWATT



3. Create a power plant: Set the time and location according to the actual situation, and fill in the PV capacity and grid electricity price information.



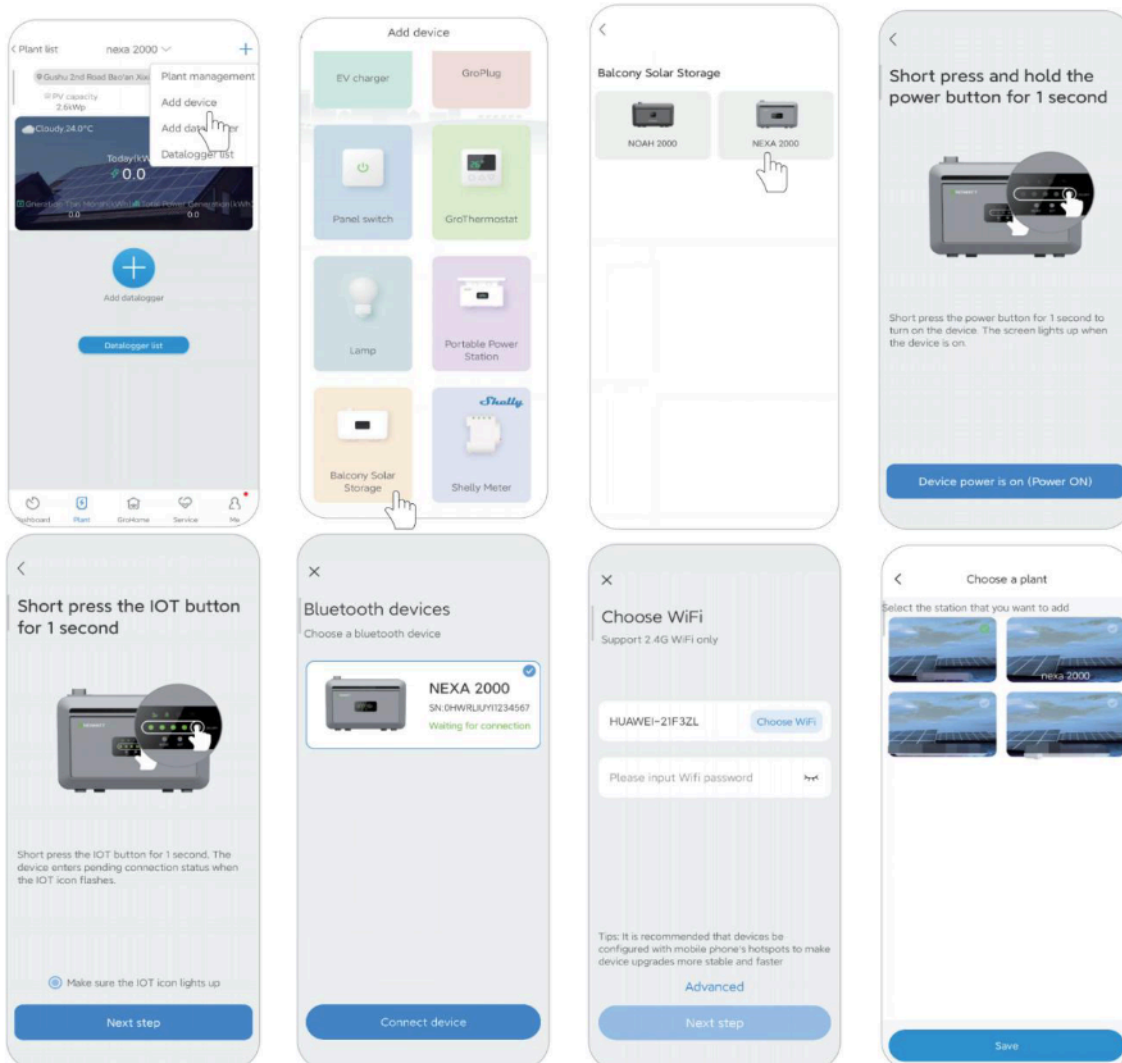
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Configure Network

4. Connect NEXA 2000 to the network

4.1 Find and enter the "Plant" page from the bottom menu. Click the "+" button in the upper right corner of the page, select "Add device", scroll down and choose "Balcony Solar Storage".

4.2 Click "NEXA 2000" and follow the instructions on the app to complete the remaining distribution steps and add it to the power plant.

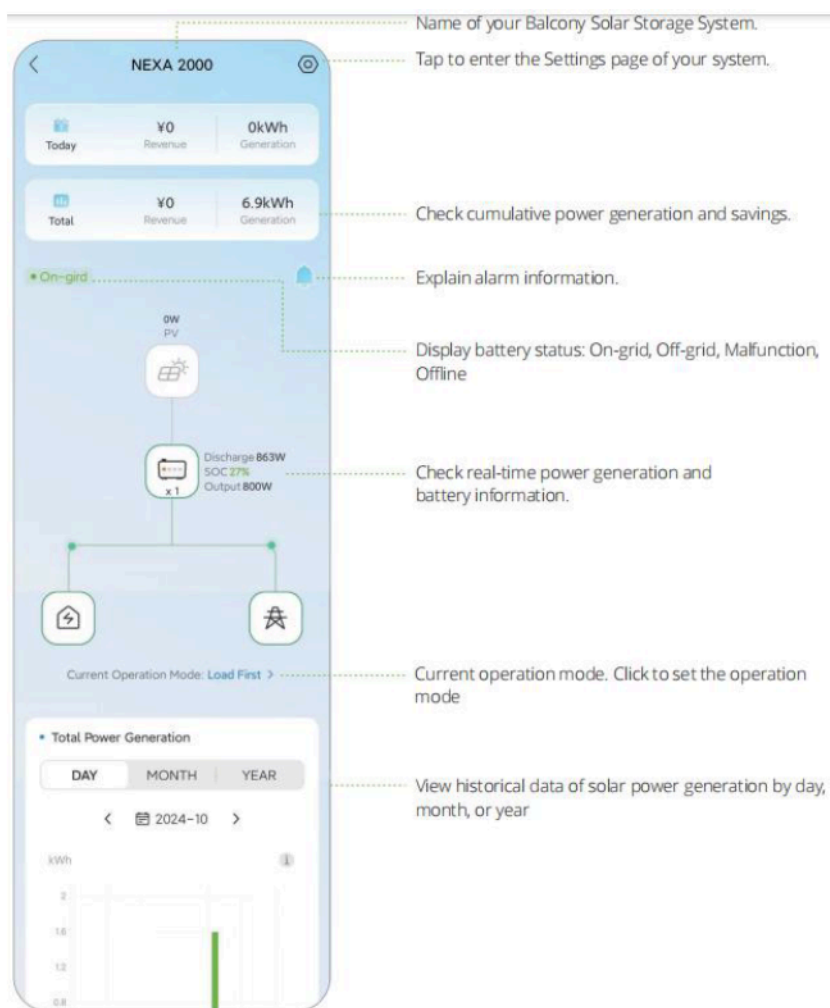


Note:

Re-pair the product with a new mobile device: If the device is already bound to a mobile device, you need to press the device's IoT button for 3 seconds to unpair the product from the current device and then re-pair it with the new mobile device.

Page Introduction

5. Page of your NEXA 2000 Balcony Solar Storage



vy'

Set Operation Mode

6.Set Operation Mode

6.1 Click "Add time", add a time period, and select a work mode for that time period.

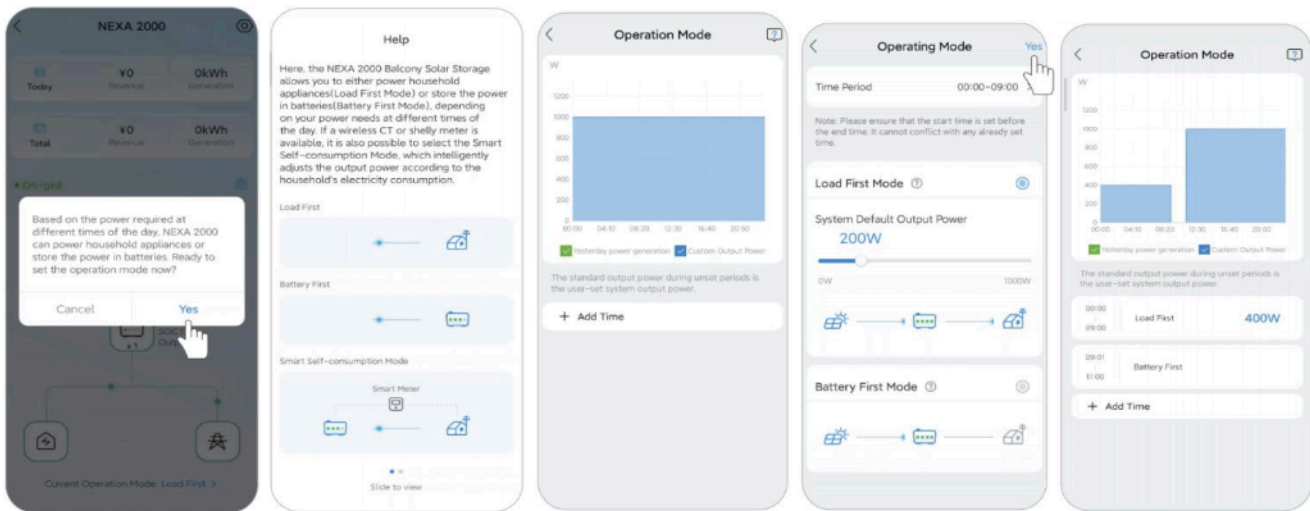
Load First Mode: It is a setting that prioritizes the use of photovoltaic power to power the load. If the photovoltaic energy generated is more than the System Output Power you have set, the excess energy will be stored in the battery. Conversely, if the photovoltaic energy generated is less than the System Output Power you have set, the battery will be discharged automatically to power the load along with the photovoltaic energy.

Battery First Mode: It is a setting that prioritizes the use of photovoltaic power to charge the battery until it reaches its upper limit SOC, at which point the battery stops discharging. When the battery is fully charged and there is still photovoltaic energy, it will output according to the actual photovoltaic power.

Smart Self-consumption Mode: This function is only available if the system is connected to a smart meter. The smart meter monitors the home's power consumption (drawing power from or feeding power to the grid) and intelligently adjusts the system's power output.

Note: The default is Load First Mode, and the default system output power is set to 200W. You can adjust this value to your preferred level within the APP.

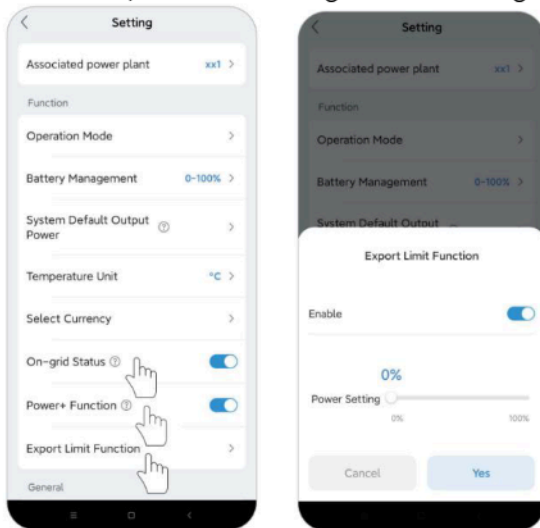
6.2 Click on the "?" icon in the upper right corner to view detailed operating instructions.



Other Important Settings

Associated Inverter

7. On-grid Status: Enable to enter on-grid status, disable to enter off-grid status.
8. Power+ Function: Enable to adjust the maximum value of the grid-connected output, use with caution.
9. Export Limit Function: Can only be used when associated with a wireless meter. Enable to limit the feed power of NEXA 2000, with 0% meaning no feed to the grid and 10% meaning maximum feed to the grid of 10%.



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Cold-start

When the battery temperature is between -30°C and -20°C, connecting solar panels with photovoltaic input can automatically heat the battery to the working temperature, allowing the NEXA 2000 to function normally, thus enabling its use in low-temperature environments.

Battery temperature	Remaining heating time/min
-30°C	83
-25°C	75

-20°C (Minimum allowable discharge temperature)	65
-15°C	54
-10°C	42
-5°C	29
0°C (Minimum allowable charging temperature)	15
5°C	0

*Note:

1. This estimated remaining heating time is calculated based on the maximum heating power (photovoltaic input power $\geq 140W$) and is for reference only, subject to the actual heating. The heating function will stop when the battery temperature reaches 5°C.
2. Remaining heating time: The time required to heat from the current temperature to 5°C. For example, if the current temperature is -20°C, it takes 65 minutes to heat up to 5°C.
3. If the NEXA 2000 is below 0°C and the photovoltaic input power is $\leq 140W$, the photovoltaic energy is prioritized for battery heating.

FAQ

Q1: Does NEXA 2000 support simultaneous charging and discharging?

Yes, the input/output ports of NEXA 2000 are different, allowing simultaneous charging and discharging.

Q2: Is it possible to charge NEXA 2000 with solar panels from other brands?

Yes, just meet the photovoltaic charging specifications of this product.

Q3: How to store my NEXA 2000?

If long-term storage is required, please fully charge the machine, disconnect the photovoltaic connection, and then turn off the machine. Charge and discharge the product every 3 months: first discharge it to 20%, then charge it to 80%.

Q4: Can one battery be connected to four solar panels?

Sure, you can purchase the Y-Branch Solar Parallel Cable to connect 4 solar panels.

Q5: What is the waterproof performance of this device?

NEXA 2000 has an IP66 rating, making it suitable for outdoor use in challenging conditions, whether it's dusty environments or unexpected rain showers.

Q6: How to monitor the electricity generation of NEXA 2000 All-in-one Solar Balcony Storage system?

On the ShinePhone app, you can monitor solar power generation data and regulate the system's real-time output power.

Q7: How does NEXA 2000 All-in-one Solar Balcony Storage operate??

NEXA 2000 supports three working modes: Load First Mode, Battery First Mode and Smart Self-Consumption Mode. Users can set different working modes at different time periods as needed.

The system operates on a Load First mode by default, which prioritizes the use of photovoltaic power to power the load. If the photovoltaic energy generated is more than the system output power, the excess energy will be stored in the battery. Conversely, if the photovoltaic energy generated is less than the system output power, the battery will be discharged automatically to power the load along with the photovoltaic energy. The default system output power is set to 200W, but users can adjust this value to their preferred level within the app.

Battery First mode is a setting that prioritizes the use of photovoltaic power to charge the battery until it reaches its upper limit SOC, at which point the battery stops discharging. When the battery is fully charged and there is still photovoltaic energy, it will output according

to the actual photovoltaic power.

Smart Self-consumption Mode: This function is only available if the system is connected to a wireless CT or meter. The wireless CT or meter monitors the home's power consumption (drawing power from or feeding power to the grid) and intelligently adjusts the system's power output.

Q8: What precautions should I take before installing/adding an extended battery?

When installing/adding an extended battery, the system must be turned off to protect you and the machine. Performing this operation while powered on is not covered under warranty. Please follow these steps for proper installation.

- a. Disconnect the NEXA 2000 from the solar panel.
- b. Press and hold the On/Off button for 1 second to switch off the power.
- c. After powering off the NEXA 2000, install the extended battery onto the NEXA 2000.
- d. Connect the solar panel for normal use.

Q9: What other precautions should I take when installing and using this product?

Please make sure the AC power outlet is well grounded. If the PE of 'Receptacle, Grid Connector' cannot be conducted (e.g. the user's wall plug does not have PE), you can choose the reserved grounding hole on the chassis for additional grounding.

Q10: How to switch Off-grid mode?

Long press the device Mode Switch Button or in the APP setting page to switch Off-grid mode.

Alert & Failure

APP Displayed Fault Code	APP Displayed Fault Content	Solution
F01	PV1 Over Voltage Protection	Please check whether the input meets the specifications of solar charging. Remove the solar input or restart the product to resume normal operation.
F02	PV1 Overcurrent Protection	Please check whether the input meets the specifications of solar charging. Remove the solar input or restart the product to resume normal operation.
F03	PV1 Over Temperature Protection	Turn off the product and place it in an open area for 2-3 hours. After cooling, the product will continue to work normally.
F04	PV2 Over Voltage Protection	Please check whether the input meets the specifications of solar charging. Remove the solar input to resume normal operation.
F05	PV2 Overcurrent Protection	Please check whether the input meets the specifications of solar charging. Remove the solar input or restart the product to resume normal operation.
F06	PV2 Over Temperature Protection	Turn off the product and place it in an open area for 2-3 hours. After cooling, the product will continue to work normally.
F07	DC Low Voltage Protection	Restart the product. If the problem persists after several attempts, please contact Growatt Customer Service.
F08	DC Over Voltage Protection	Restart the product. If the problem persists after several attempts, please contact Growatt Customer Service.
F09	Product Overheating	Turn off the product and place it in an open area for 2-3 hours. After cooling, the product will continue to work normally.
F10	DC output overload protection	Normal operation will be resumed automatically after you remove the overloaded device. Long-term overload may cause product damage.

F11	Battery Low Voltage Protection	Please ensure timely recharging. If the problem persists after 2-3 hours of recharge, contact Growatt Customer Service.
F12	Battery Over Voltage Protection	Turn off the PV input and restart the product. If the problem persists after several attempts, please contact Growatt Customer Service.
F13	Battery Charge Low Temperature Protection	Please move the product to a warmer spot or connect it to PV power before use. (Not displayed in the app)
F14	Battery Charge Over Temperature Protection	Turn off the product and place it in an open area for 2-3 hours. After cooling, the product will continue to work normally.
F15	Battery Discharge Low Temperature Protection	Please move the product to a warmer spot or connect it to PV power before use. (Not displayed in the app)
F16	Battery Discharge Over Temperature Protection	Turn off the product and place it in an open area for 2-3 hours. After cooling, the product will continue to work normally.
F17	Battery Charge Overcurrent Protection	Restart the product. If the problem persists after several attempts, please contact Growatt Customer Service.
F18	Battery Discharge Overcurrent Protection	Restart the product. If the problem persists after several attempts, please contact Growatt Customer Service.
F19	Battery Failure	Restart the product. If the problem persists after several attempts, please contact Growatt Customer Service.
F20	Abnormal battery temperature sampling	Restart the product. If the problem persists after several attempts, please contact Growatt Customer Service.
F21	Abnormal battery voltage sampling	Restart the product. If the problem persists after several attempts, please contact Growatt Customer Service.
F22	BMS Communication Failure	Restart the product. If the problem persists after several attempts, please contact Growatt Customer Service.
F23	Communication Failure with MPPT	Restart the product. If the problem persists after several attempts, please contact Growatt Customer Service.
F24	Communication failure with INV	Restart the product. If the problem persists after several attempts, please contact Growatt Customer Service.
F26	PV3 Over Voltage Protection	Please check whether the input meets the specifications of solar charging. Remove the solar input or restart the product to resume normal operation.
F27	PV3 Overcurrent Protection	Please check whether the input meets the specifications of solar charging. Remove the solar input or restart the product to resume normal operation.
F28	PV3 Over Temperature Protection	Turn off the product and place it in an open area for 2-3 hours. After cooling, the product will continue to work normally.
F29	PV4 Over Voltage Protection	Please check whether the input meets the specifications of solar charging. Remove the solar input or restart the product to resume normal operation.
F30	PV4 Overcurrent Protection	Please check whether the input meets the specifications of solar charging. Remove the solar input or restart the product to resume normal operation.
F31	PV4 Over Temperature Protection	Turn off the product and place it in an open area for 2-3 hours. After cooling, the product will continue to work normally.
F40	Grid Voltage Failure	Restart the product. If the problem persists after several attempts, please contact Growatt Customer Service.

F41	ISO Failure	Restart the product. If the problem persists after several attempts, please contact Growatt Customer Service.
F42	Grid Disconnection Failure	Restart the product. If the problem persists after several attempts, please contact Growatt Customer Service.
F43	Grid Frequency Failure	Restart the product. If the problem persists after several attempts, please contact Growatt Customer Service.
F44	Relay Detection Failure	Please check whether the input meets the specifications of solar charging. Remove the solar input or restart the product to resume normal operation.
F45	Inverter Temperature Failure	Please check whether the input meets the specifications of solar charging. Remove the solar input or restart the product to resume normal operation.
F46	BUS Voltage Failure	Turn off the product and place it in an open area for 2-3 hours. After cooling, the product will continue to work normally.
F47	Hardware OCP Failure	Please check whether the input meets the specifications of solar charging. Remove the solar input or restart the product to resume normal operation.
F48	EEPROM Failure	Please check whether the input meets the specifications of solar charging. Remove the solar input or restart the product to resume normal operation.

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