

Home Energy Management System

EzManager

User Manual

GOODWE

Copyright Statement

Copyright©GoodWe Technologies Co., Ltd. 2025. All rights reserved.

No part of this manual can be reproduced or transmitted to the public platform in any form or by any means without the prior written authorization of GoodWe Technologies Co., Ltd.

Trademarks Authorization

GOODWE and other GoodWe trademarks are trademarks of GoodWe Company. All other trademarks or registered trademarks mentioned in this brochure are the property of their respective owners.

Notice

The information in this user manual is subject to change due to product updates or other reasons. This guide cannot replace the product labels otherwise specified. All descriptions in the manual are for guidance only.

Table of Contents

1 About This Manual	5
1.1 Overview	5
1.2 Applicable Model	5
1.3 Symbol Definition	5
2 Safety Precautions	6
2.1 General Safety	6
2.2 Personnel Requirements	6
2.3 Personal Safety	7
2.4 Device Safety	7
2.5 Safety Symbols and Certification Marks	7
2.6 EU Declaration of Conformity	8
2.6.1 Equipment with Wireless Communication Modules	8
3 System Introduction	9
3.1 Function	9
3.2 Description	10
3.3 Appearance Introduction	11
3.4 Dimensions	13
3.5 Indicator Description	14
3.6 Nameplate Description	15
4 Check and Storage	17
4.1 Check Before Receiving	17

4.2 Deliverables	17
4.3 Equipment Storage	18
5 Installation	20
5.1 Installation Requirements	20
5.1.1 Installation Environment Requirements	20
5.1.2 Tool Requirements	21
5.1.3 Equipment Installation	22
6 System Wirings	26
6.1 Detailed System Wiring Diagram	26
6.2 Preparing Cables	28
6.3 Connecting the AC Output Cable	29
6.4 Connect the Communication Cable	29
6.5 Connecting the PV cable	33
6.6 Installation External WiFi Antenna (ANT)	34
6.7 Connect the USB port	34
7 System Commissioning	36
7.1 Check Before Power ON	36
7.2 Power ON	36
7.3 Indicator Description	36
8 System Commissioning	39
8.1 Downloading and Installing the App	39
8.2 Account Registering	39

8.3 Account Login.....	40
8.4 Quick setting (EzManager).....	41
9 System Maintenance.....	55
9.1 Power Off the System.....	55
9.2 Removing the Equipments.....	55
9.3 Disposing of the Equipments.....	55
9.4 Routine Maintenance.....	55
9.5 Fault.....	56
10 Technical Parameters.....	67
11 Appendix.....	69
11.1 Abbreviations.....	69
11.2 Explanation of Terms.....	72
12 Contact Details.....	74

1 About This Manual

1.1 Overview

This document describes the product information, installation, electrical connection, commissioning, troubleshooting, and maintenance of the inverter. Read through this manual before installing and operating the products to understand product safety information and familiarize yourself with functions and features of the product. This manual is subject to update without notice. For more product details and latest documents, visit <https://en.goodwe.com/>.

1.2 Applicable Model

This document applies to the home energy management device with the model number EzManager3000, hereinafter referred to as EzManager.

1.3 Symbol Definition

DANGER
A situation with high potential danger, which will result in death or serious injury if not avoided.
WARNING
A situation with moderate potential danger, which may result in death or serious injury if not avoided.
CAUTION
A situation with low potential danger, which may result in moderate or minor injury to personnel if not avoided.
Notice
Highlighted information and supplements of the texts. Or some skills and methods to solve product-related problems to save time.

2 Safety Precautions

Please strictly follow these safety instructions in the user manual during the operation.

WARNING

The products are designed and tested strictly to comply with related safety rules. Follow all the safety instructions and cautions before any operations. Improper operation might cause personal injury or property damage as the products are electrical equipment.

2.1 General Safety

NOTICE

- The information in this user manual is subject to change due to product updates or other reasons. This guide cannot replace the product labels otherwise specified. All descriptions in the manual are for guidance only.
- Read through this document before installation to learn about the product and the precautions.
- All operations should be performed by trained and knowledgeable technicians who are familiar with local standards and safety regulations.
- Use insulating tools and wear personal protective equipment (PPE) when operating the equipment to ensure personal safety. Wear anti-static gloves, wrist strips, and cloths when touching electronic devices to protect the equipment from damage.
- Unauthorized dismantling or modification may damage the equipment, the damage is not covered under the warranty.
- Strictly follow the installation, operation, and configuration instructions in this manual. The manufacturer shall not be liable for equipment damage or personal injury if you do not follow the instructions. For more warranty details, please visit <https://en.goodwe.com/warranty>.

2.2 Personal Requirements

NOTICE

- Personnel who install or maintain the equipment must be strictly trained, learn about safety precautions and correct operations.
- Only qualified professionals or trained personnel are allowed to install, operate, maintain, and replace the equipment or parts.

2.3 Safety shoes

DANGER

- Use insulating tools and wear personal protective equipment (PPE) when operating the equipment to ensure personal safety.
- When the device is short circuited, do not approach or touch the device and please turn off the power immediately.
- Disconnect the upstream and downstream switches to power off the equipment before any electrical connections.

2.4 Device Safety

DANGER

Before installing the device, ensure the installation location is reliable and stable.

WARNING

- When performing operations such as installing or maintaining the device, use appropriate tools and operate correctly.
- When operating the device, comply with local relevant standards and safety regulations.
- Unauthorized dismantling or modification may damage the equipment, the damage is not covered under the warranty.

2.5 Safety Symbols and Certification Marks

DANGER	
• All labels and warning marks should be visible after the installation. Do not cover, scrawl, or damage any label on the equipment. • The following cabinet warning label descriptions are for reference only. Please refer to the actual label on the device for usage instructions.	

No.	Symbol	Description
1		Potential risks exist during the operation of the devices. Wear proper PPE during operations.
2		High voltage hazard. High voltage exist during the operation of the devices. Disconnect all incoming power and turn off the product before working on it.
3		Read through the user manual before any operations.
4		Do not dispose of the System as household waste. Deal with it in compliance with local laws and regulations, or send it back to the manufacturer.
5		CE Mark.

2.6 EU Declaration of Conformity

2.6.1 Equipment with Wireless Communication Modules

The equipment with wireless communication modules sold in the European market meets the requirements of the following directives:

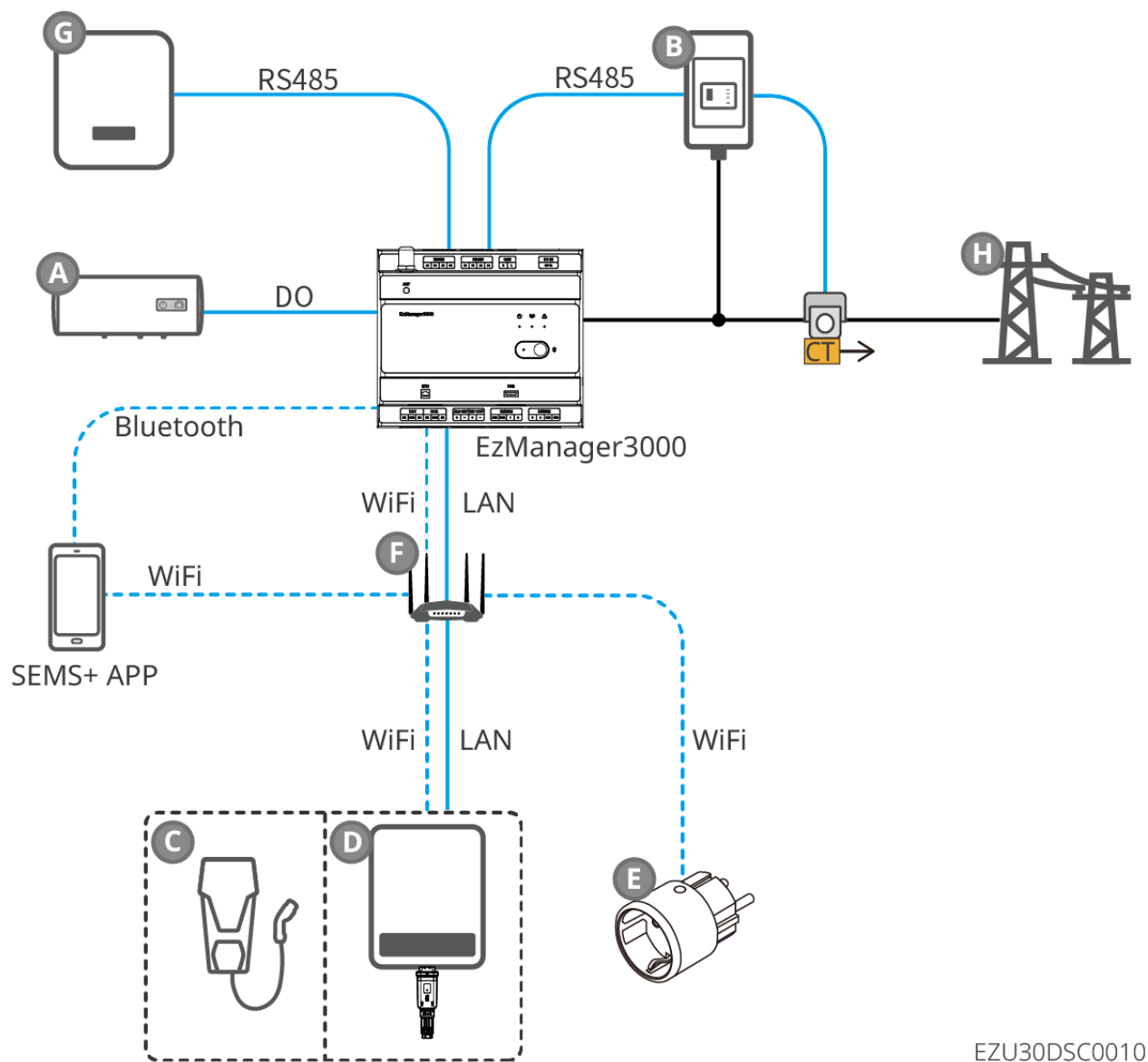
- Radio Equipmt Directive 2014/53/EU (RED)
- Restrictions of Hazardous Substances Directive 2011/65/EU and (EU) 2015/863 (RoHS)
- Waste Electrical and Electronic Equipmt 2012/19/EU
- Registration, Evaluation, Authorization and Restriction of Chemicals (EC) No 1907/2006 (REACH)

3 System Introduction

3.1 Function

EzManager is a home energy management device that supports the unified scheduling and management of home energy. It supports station-level power control functions such as AI mode, self-consumption of self-generated energy, and grid-connected power control, enabling station-level energy optimization.

- It connects to the smart meter and on-grid inverter via RS485.
- It connects to SG Ready heat pumps via DO, with a maximum support for connecting 1 heat pump.
- Connect to a router via WiFi/LAN, and connect devices such as energy storage inverters, charging piles, and smart sockets to the router via WiFi/LAN. It supports a maximum of 12 smart devices connected. To ensure communication stability, using LAN is recommended as the priority.
- It supports hybrid connection of one grid-connected inverter and one energy storage inverter.
- If a third-party grid-connected inverter is used in the system, the data of the third-party inverter cannot be counted by EzManager, which may affect EMS scheduling. Please use it with caution.



(A) SG Ready Heat Pump

(B) Smart Meter

(C) AC Charger

(D) Energy Storage Inverter

(E) Smart Socket

(F) Router

(G) Grid-Connected Inverter

(H) Power Grid

3.2 Description

This article mainly covers the following product model:

EzManager3000

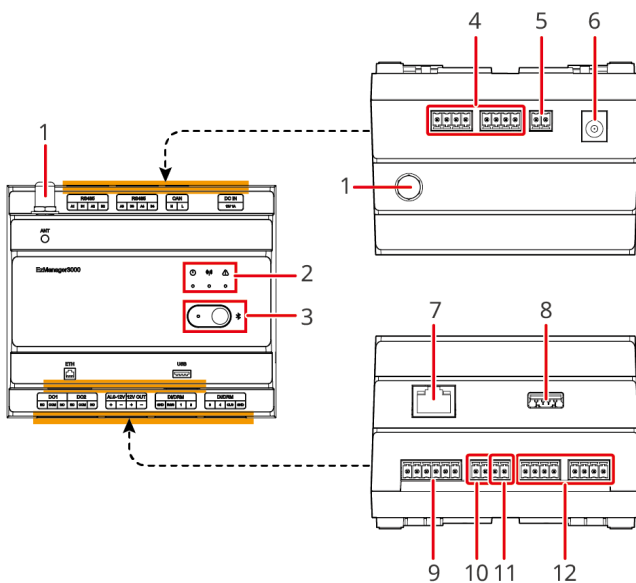
1

2

EZU30DSC0015

No.	Description	Explanation
1	Function	EzManger: Home Energy Management System
2	Generation Code	3000: 3rd-Generation Unit

3.3 Appearance Introduction

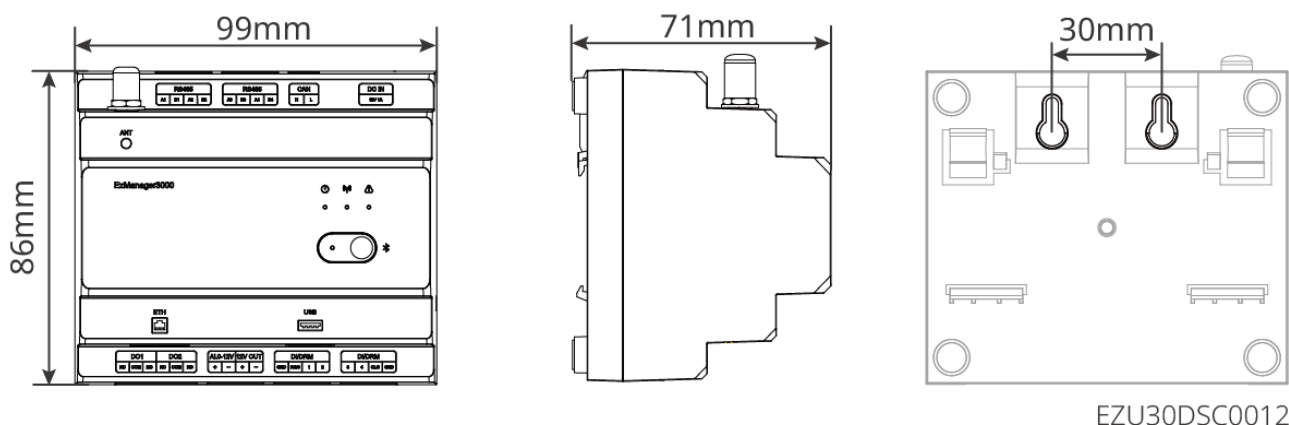


EZU30DSC0011

No.	Name	Description
1	External WiFi Antenna Interface (ANT)	- Used to enhance the WiFi signal. - If the device is installed inside a metal box, under a metal roof, or under a concrete roof, it is recommended to use an external suction cup antenna to boost the signal.
2	LED indicators	Indicates the device's operating status, such as power supply status, communication status, upgrade status, etc.
3	Bluetooth Indicator Light & RST Button	- Indicates the device's Bluetooth status, such as being on or off. - The button can be used to turn on Bluetooth, restart the device, reset the password, and perform other operations.
4	RS485 Communication Port	- It connects to the smart meter and on-grid inverter via RS485 Port. - Supported Meters for Connection: GM330/GMK330/GMK110/GM3000, etc. - Supported Grid-Tied Inverters: SDT G2 Series, XS G1 Series, DNS G1 Series, etc. For software version requirements, please refer to the Inverter and IoT Device Compatibility List.
5	CAN communication port (CAN)	Reserved Port
6	Power Input Port (DC IN)	12V DC Power Input Port, which can be used to supply power to the device.

No.	Name	Description
7	Ethernet Port (ETH)	- An Ethernet connection port that can be used to connect to a router. Devices such as inverters and AC charger can be connected to EzManager via the router. - Supported Smart Sockets: Shelly Plus Plug S (software version not lower than V1.4.4) - Supported AC Charger: GoodWe HCA Series AC Charger - Supported Energy Storage Inverters: GoodWe ET15-30kW Series, ES G2 Series, ET G2 Series, etc. For software version requirements, please refer to the Inverter and IoT Device Compatibility List.
8	USB Port (USB)	- Connect to a USB flash drive for updating the device's software version. - USB Flash Drive Specification Requirement: FAT32 format.
9	DO Communication Port (DO1/2)	Connecting to SG Ready Heat Pump.
10	AI Signal Port (AI.0-12V)	The AI analog signal input port is only used to implement the remote shutdown function together with the 12V output port.
11	12V Output Port (12V OUT)	The 12V DC power output port is only applicable for two scenarios: one is to implement the remote shutdown function together with the AI signal port, and the other is to connect to the SG Ready heat pump together with the DO communication port.
12	DI communication port (DI)	DI signal input port supports connecting active contact or passive contact signals, or implementing functions such as RCR.

3.4 Dimensions



3.5 Indicator Description

Indicator	Indicator status	Description
		Green light Steady on: Device power supply is normal.
		Green Light Off: Device is powered off or has abnormal power supply.
		Green Light Steady On: Device communicates normally with the server.
		Green Light Flashing Four Times: Device is connected to the router, but the connection to the server is abnormal.
		Green Light Flashing Twice: Device is not connected to the router.
		Yellow Light Flashing Four Times: EzManager is being upgraded.
		Blue Light Steady On: Bluetooth is enabled, and an external device is connected to EzManager.
		Blue Light Slow Flashing (500ms On/500ms Off): Bluetooth is enabled, waiting for an external device to connect.

Indicator	Indicator status	Description
		Blue Light Fast Flashing (50ms On/50ms Off): EzManager is resetting the login password for connecting to the SEMS+ App.
		Blue Light Off: Bluetooth is disabled.

Button	Description
Double Press	Turn on Bluetooth.
Short Press 1-3s	- Restart EzManager. - After a short press, the ,  or  indicators will light up simultaneously; the device will start restarting once these indicators turn off.
Long press 6- 10s	- Reset the login password for EzManager to connect to the SEMS+ App via Bluetooth. Initial Password: 1234. - After a long press, the  will flash quickly. When the fast flashing switches to slow flashing, it indicates that the password has been reset.

3.6 Nameplate Description

The nameplates are for reference only. The actual product may differ.



EZU30DSC0014

No.	Description
1	GoodWe Mark
2	Product type and product model
3	Technical Parameters
4	Manufacturer, importer, etc information.
5	Device Serial Number Information
6	Product Safety Symbols and Certification Marks

4 Check and Storage

4.1 Check Before Receiving

Check the following items before accept:

1. Check the outer packing box for damage, such as deformation, holes, cracks, and other signs that may cause damage to the equipment inside the package. Do not unpack the package and contact the supplier as soon as possible if any damage is found.
2. Check the inverter model. If the inverter model is not what you requested, do not unpack the product and contact the supplier.

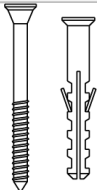
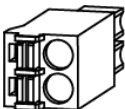
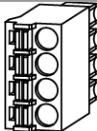
4.2 Deliverables

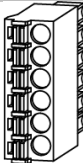
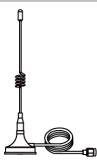
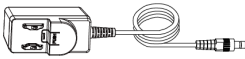
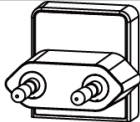
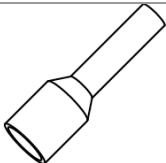
WARNING

- Check the deliverables for correct model, complete contents, and intact appearance. Contact the supplier as soon as possible if any damage is found.
- After taking the delivered items out of the package, do not place them on rough, uneven, or sharp surfaces to avoid paint chipping.

NOTICE

The style of the adapter is for reference only. The style may vary by region, and the actual product shall prevail.

Component	Description	Component	Description
	EzManager x1		Expansion screws x2
	2PIN terminal x1		4PIN terminal x5

Component	Description	Component	Description
	6PIN terminal x1		External Antenna x1
	Power Adapter x1		Adapter x1
	PIN terminal x28		Documents x1

4.3 Storage

If the equipment is not to be installed or used immediately, please ensure that the storage environment meets the following requirements: If the equipment has been stored for a long time, it needs to be checked and confirmed by professionals before being put into use.

Time Requirements:

- If the inverter has been stored for more than two years or has not been in operation for more than 6 months after installation, it is recommended to be inspected and tested by professionals before being put into use.
- To ensure good electrical performance of the internal electronic components of the inverter, it is recommended to power it on every 6 months during storage. If it has not been powered on for more than 6 months, it is recommended to be inspected and tested by professionals before being put into use.

Packing requirements:

ensure the outer packing cabinet is not removed.

Environment Requirements:

- Place the equipment in a cool place where away from direct sunlight.
- Store the equipment in a clean place. Make sure the temperature and humidity are appropriate and no condensation. Do not install the equipment if the ports or terminals are condensed.

- Keep the equipment away from flammable, explosive, and corrosive matters.

5 Installation

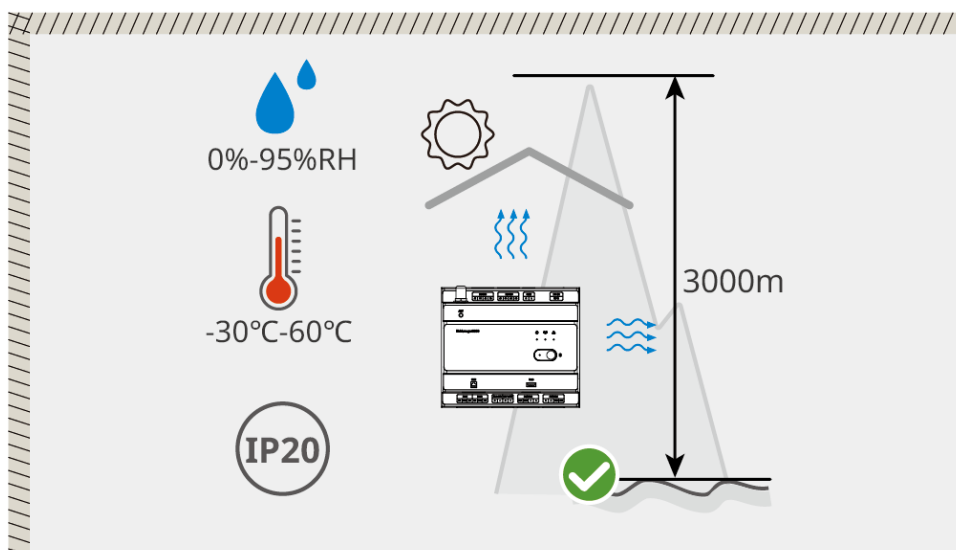
DANGER

Install and connect the equipment using the deliverables included in the package. Otherwise, the manufacturer shall not be liable for the damage.

5.1 Installation Requirements

5.1.1 Installation Environment Requirements

1. Do not install the equipment in a place near flammable, explosive, or corrosive materials.
2. The equipment with a high ingress protection level can be installed indoors or outdoors. The temperature and humidity at the installation site should be within the appropriate range.
3. The installation site should be out of the reach of children and away from areas that are easily accessible.
4. The installation space must meet the device's ventilation and heat dissipation, s the operating space requirements.
5. Install the equipment at a height that is convenient for operation and maintenance, ensure that the device indicators, all labels are easy to view, and the terminal blocks are easy to operate.
6. The altitude to install the equipment shall be lower than the maximum working altitude.
7. Install the equipment away from electromagnetic interference. If there is any radio or wireless communication equipment below 30MHz near the equipment, ensure the distance between this device and the wireless electromagnetic interference devices is more than 30 meters.



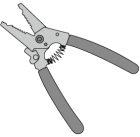
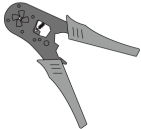
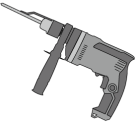
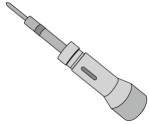
EZU30DSC0013

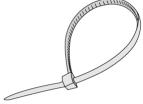
5.1.2 Tool Requirements

Notice

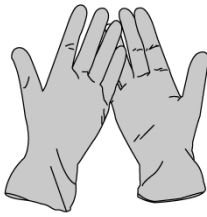
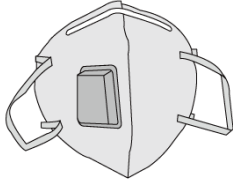
The following tools are recommended when installing the equipment. Use other auxiliary tools on site if necessary.

Installation Tools

Tool Type	Description	Tool Type	Description
	Wire stripper		RJ45 crimping tool
	Impact drill (drill bits $\Phi 6\text{mm}$)		Torque wrench M4
	Rubber hammer		Vacuum cleaner

Tool Type	Description	Tool Type	Description
	Marker		Level ruler
	Cable tie	-	-

Personal Protective Equipment

Tool Type	Description	Tool Type	Description
	Insulating gloves, protective gloves		Dust mask
	Goggles		Safety shoes

5.1.3 Equipment Installation

CAUTION

- Avoid the water pipes and cables buried in the wall when drilling holes to avoid risks.
- Wear goggles and a dust mask to prevent the dust from being inhaled or contacting eyes when drilling holes.
- Make sure the inverter is firmly installed in case of falling down.

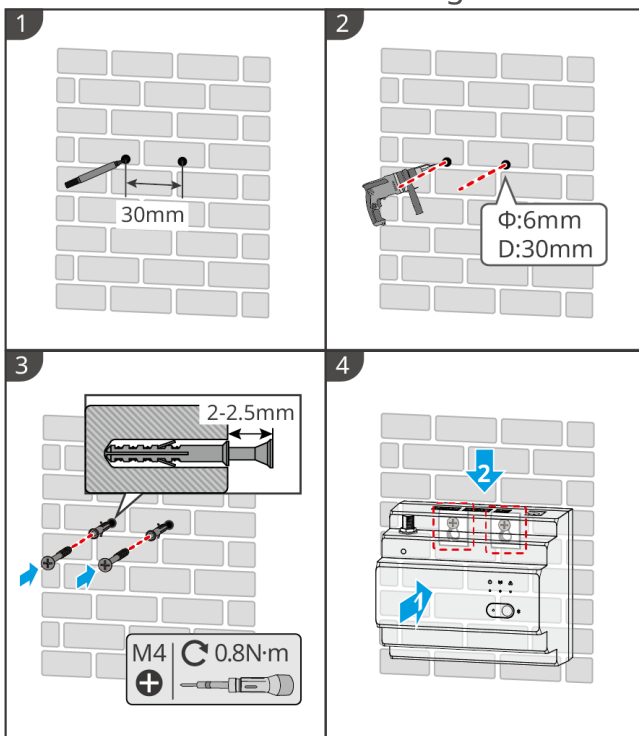
Wall-mounted Installation

Step 1: Put the mounting plate on the wall horizontally and mark positions for drilling holes.

Step 2: Drill holes with the hammer drill. Hole diameter: 6mm, Hole depth: 30mm.

Step 3: Install the expansion screws. Please reserve a screw length of 2-2.5mm for mounting the device.

Step 4: Mount the device onto the expansion screws. Ensure the device is securely mounted with no risk of falling.



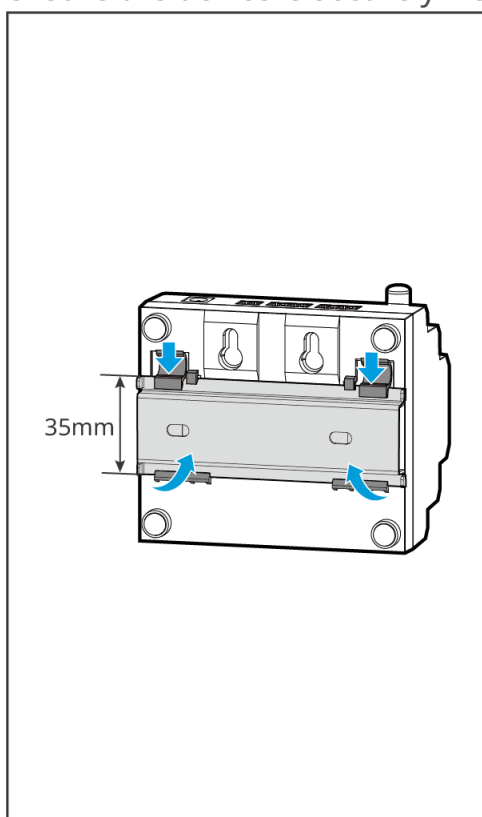
EZU30INT0011

DIN Rail Installation

Notice

- Please prepare a standard DIN35mm rail by yourself.
- When using rail installation, the rail mounting brackets must be installed on the device first.
- The rail should be installed on a solid and stable carrier, such as a wall or a bracket.

Step 1: Clip the device onto the standard DIN35mm rail from bottom to top, and ensure the device is securely installed.



EZU30INT0012

Desktop Installation

The bottom of the device is equipped with an anti-slip design, supporting desktop installation.

NOTICE

- Please install the device on a horizontal desktop to prevent it from sliding and being damaged.
- Please place the device in a location that is not easily touched to avoid signal interruption caused by accidental contact.

6 System Wirings

DANGER

- All operations, cables and parts specification during the electrical connection shall be in compliance with local laws and regulations.
- Disconnect the upstream and downstream switches to power off the equipment before any electrical connections. Do not work with power on. Otherwise, an electric shock may occur.
- Tie the same type cables together, and place them separately from cables of different types. Do not place the cables entangled or crossed.
- If the cable bears too much tension, the connection may be poor. Reserve a certain length of the cable before connecting it to the inverter cable port.
- When crimping the cable terminal, ensure that the cable conductor is in full contact with the terminal. Do not crimp the cable insulation together with the cable terminal. Otherwise, it may cause the equipment to fail to operate, or result in damage to the inverter terminal block due to issues such as overheating caused by unreliable connections during operation.

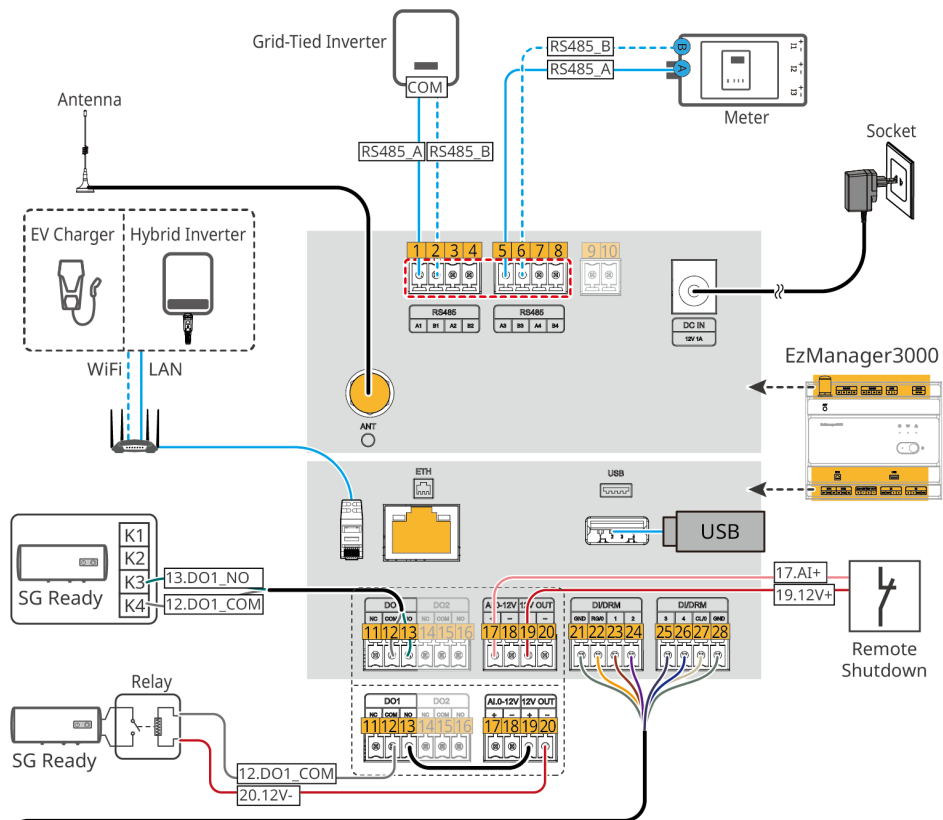
NOTICE

- Wear personal protective equipment like safety shoes, safety gloves, and insulating gloves during electrical connections.
- All electrical connections should be performed by qualified professionals.
- Cable colors in this document are for reference only, the cable specifications shall meet local laws and regulations.

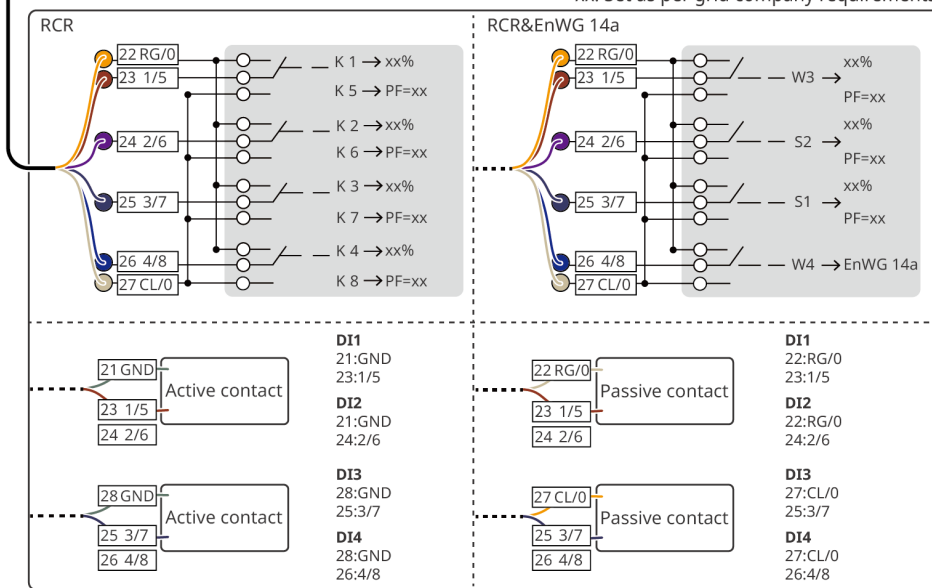
6.1 Detailed System Wiring Diagram

NOTICE

For the values such as active power and reactive power of the RCR device in the wiring diagram, please set them through the SEMS+ App in accordance with the actual requirements of the power grid company. Please refer to the [SEMS+ App User Manual](#).



xx: Set as per grid company requirements.



EZU30ELC0019

6.2 Preparing Cables

Before making electrical connections, please prepare cables according to the recommended specifications in the table below.

No.	Silk Screen Printing	Cable	Recommended specifications	Acquisition method
1	RS485	RS485 Communication	• Shielded twisted pair cable • Outdoor copper cable • Conductor cross-sectional area:(24AWG-16AWG) 0.2m²	Prepared by customers
2	CAN	CAN communication cable		Prepared by customers
3	DO1/2	DO Signal Line	• Outdoor copper cable • Conductor cross-sectional area:(24AWG-16AWG) 0.2m²-1.0mm²	Prepared by customers
4	AI.0-12V	AI communication cable		Prepared by customers
5	12V OUT	12V Export cable		Prepared by customers
6	DI	DI Signal Line		Prepared by customers

No.	Silk Screen Printing	Cable	Recommended specifications	Acquisition method
7	ETH	LAN communication cable	Outdoor shielded network cables of CAT 5E or higher specification	Prepared by customers

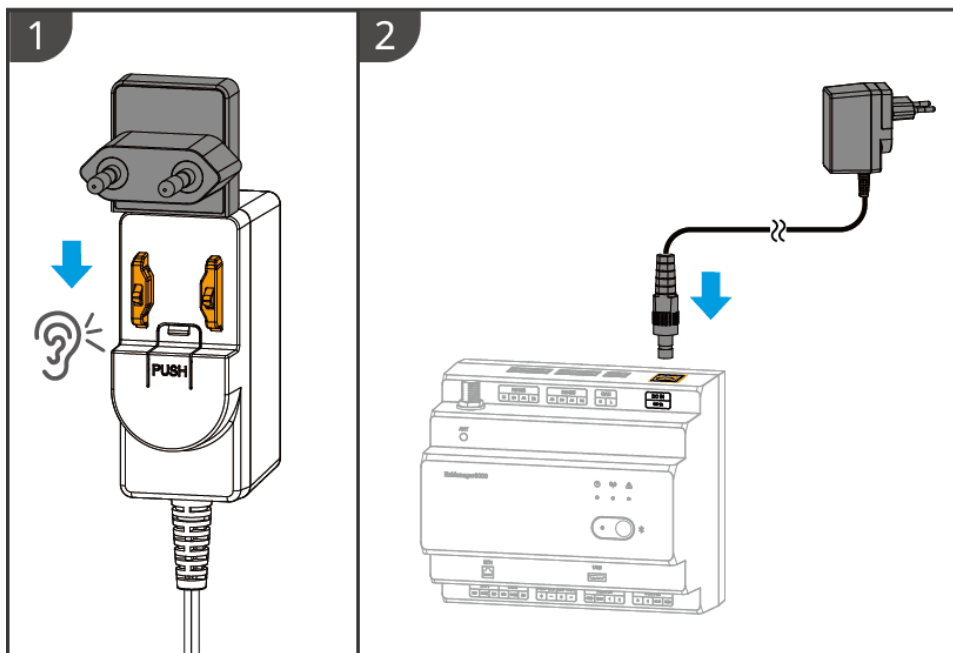
6.3 Connecting the AC Output Cable

NOTICE

- Please connect the power adapter provided in the package to the DC IN port to supply power to the device.
- Power adapter specification: 12V/1.5A.

Step 1: Install the adapter connector onto the power adapter.

Step 2: Connect the power cord to the device's DC IN port and a household AC socket.



EZU30ELC0025

6.4 Connect the Communication Cable

NOTICE

- The communication functions are optional. Connect the cables based on actual needs.
- If you need to use functions such as RCR and remote shutdown, please enable the corresponding functions via the SEMS+ App after the wiring is completed.
- If you need to set the heat pump operating mode, please select the required operating mode via the SEMS+ App after wiring is completed.

Communication Port Definition

No.	Port definition	Description
1	RS485_A1	RS485 Communication Connection Port Used to connect the on-grid inverter, smart meter, etc devices.
2	RS485_B1	
3	RS485_A2	
4	RS485_B2	
5	RS485_A3	
6	RS485_B3	
7	RS485_A4	
8	RS485_B4	
9	CAN_H	CAN Communication Connection Port, Reserved Port.
10	CAN_L	
11	DO1_NC	
12	DO1_COM	

No.	Port definition	Description
13	DO1_NO	- Digital Signal Output Port - NO: Normally Open Contact - COM: Common Terminal - NC: Normally Closed Contact - Supporting dry contact DO output, DO contact capacity is 30V DC@1A. - Supporting SG Ready heat pump connection, controlling the heat pump via dry contact signals. - The heat pump operating mode can be set via the SEMS+ App. - Working mode 2 (signal: 0:0): Energy saving mode, in which the heat pump operates in energy-saving mode - Working mode 3 (signal: 0:1): It is recommended to activate. In this mode. the heat pump increases the hot water reserve to store heat while maintaining its current operation - Depending on the type of SG Ready heat pump, the following two control methods are supported: - Driving an external relay through the 12V power output port to control the heat pump. The relay specifications should be selected based on actual requirements. - Directly drive the heat pump through the DO port.
14	DO2_NC	Reserved Port
15	DO2_COM	
16	DO2_NO	
17	AI IN+	Used to implement the remote shutdown function together with the 12V output port.
18	AI_GND	
19	12V Power Output +	

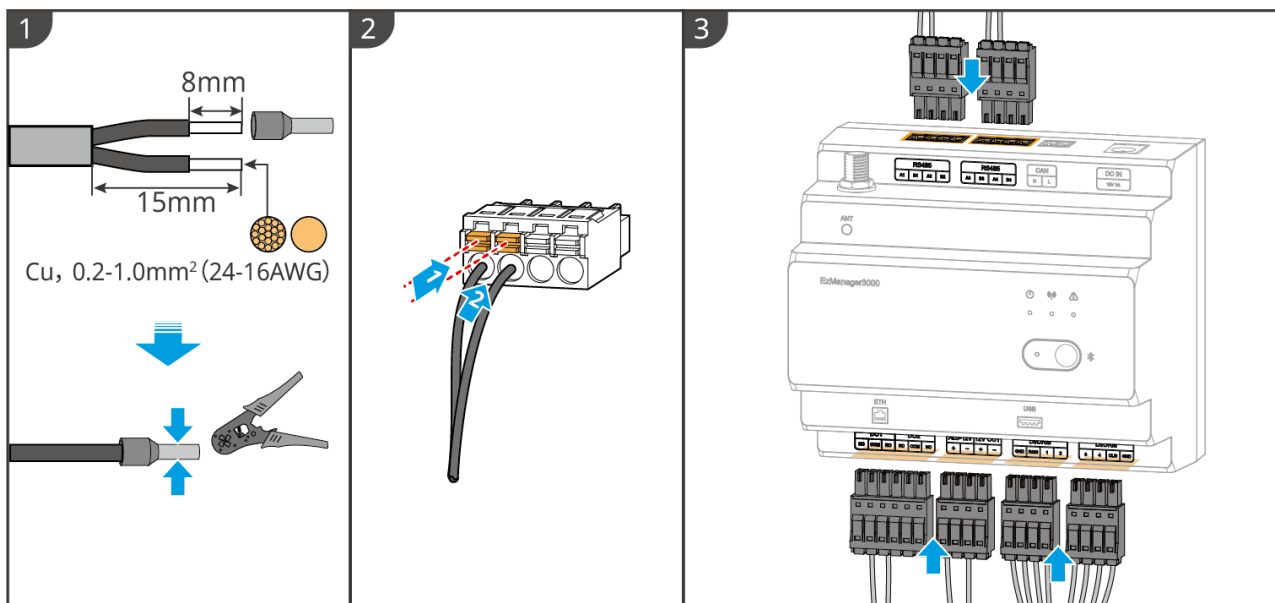
No.	Port definition	Description
20	12V Power Output -	- The rated output power capacity is 12V@100mA, and the output voltage range is 9.5V~13.2V. - Used to implement the remote shutdown function together with the AI port. - Used together with the DO port implement the SG Ready heat pump control function.
21	DI_GND	- Digital Signal Input Terminal. - RCR (Ripple Control Receiver) Signal Control Port meet the power grid dispatching requirements of regions such as Germany. - Supporting access to active contact signals and passive contact signals; the active contact supports 0-12V voltage input, among which the input of 8-12V is regarded as high level. - The recommended transmission distance of the DI signal cable should not exceed 10 meters.
22	DI_RG/0	
23	DI_1	
24	DI_2	
25	DI_3	
26	DI_4	
27	DI_CL/0	
28	DI_GND	

Communication Cable Connection Step:

Step 1: Prepare a communication cable of appropriate specifications, strip the wire to a suitable length, and crimp the PIN terminals.

Step 2: Connect the crimped cable to the communication terminal.

Step 3: Insert the communication terminal into the corresponding communication port.

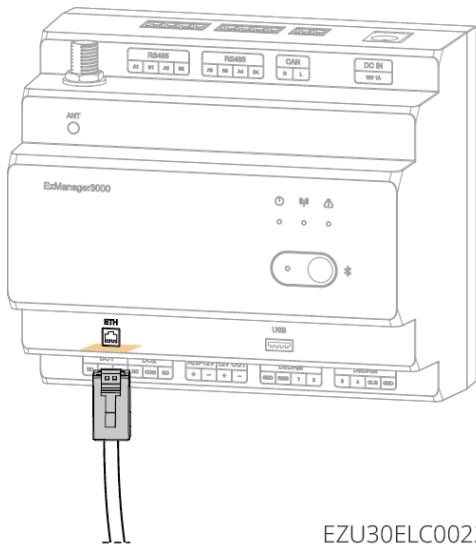


EZU30ELC0021

6.5 Connecting the PV cable

Notice

- EzManager supports LAN access to the router.
- Smart devices, AC charger, energy storage inverters, and other devices can be connected to EzManager via the router. The supported device models are as follows:
 - Smart Sockets: Shelly Plus Plug S (software version not lower than V1.4.4)
 - Charging Piles: GoodWe HCA Series Charging Piles
 - Energy Storage Inverters: GoodWe ET15-30kW Series, ES G2 Series, ET G2 Series, etc. For software version requirements, please refer to [the Inverter and IoT Device Compatibility List](#).



EZU30ELC0022

6.6 Installation External WiFi Antenna (ANT)

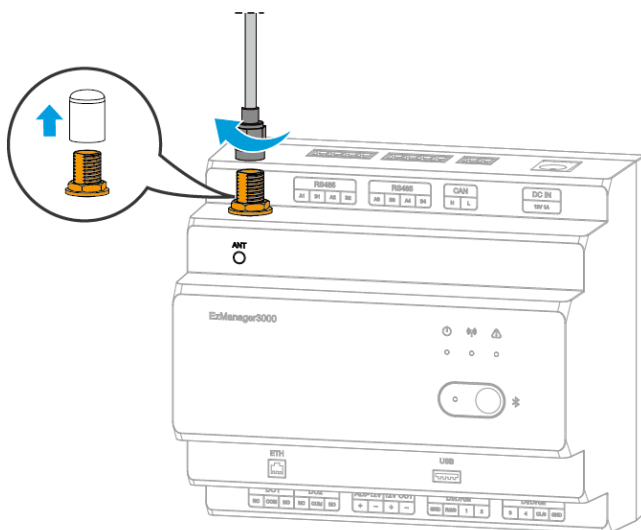
Notice

- EzManager has a built-in WiFi module. If you need to improve the signal, you can install the external antenna included in the accessories.
- After installing the external antenna, please set the antenna type to "External Antenna" in the SEMS+ App.

Step 1: Remove the dust cap from the ANT interface.

Step 2: Install the external antenna and tighten it clockwise.

Step 3: Fix the external magnetic antenna in a suitable position.



EZU30ELC0023

6.7 Connect the USB port

NOTICE

- A USB flash drive can be connected via the USB port to update the device's software version. Please contact the after-sales service center to obtain the software upgrade package.
- Please prepare a USB flash drive formatted in FAT32 by yourself.

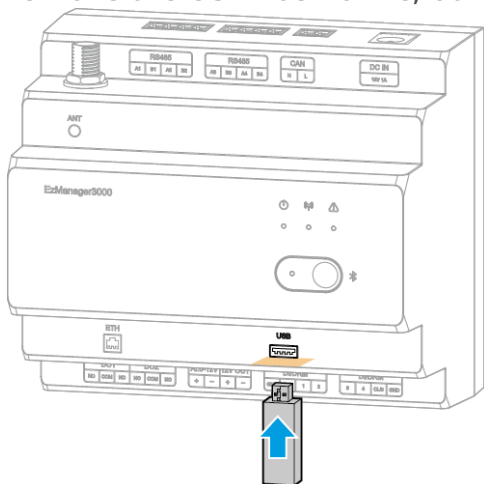
When upgrading the software version via a USB flash drive, please refer to the following steps:

Step 1: Contact after-sales service to obtain the device upgrade package, and prepare a USB flash drive formatted in FAT32 with a capacity not exceeding 32GB.

Step 2: Create a new folder in the root directory of the USB flash drive, name it "collector", and store the device upgrade package in the "collector" folder.

Step 3: Insert the USB flash drive into the EzManager USB port. After EzManager detects the device upgrade package and starts the upgrade, the upgrade indicator light will start flashing rapidly. If the upgrade indicator light does not start flashing rapidly, the upgrade has not begun. Please check the status of the upgrade package and the USB flash drive.

Step 4: After the upgrade is completed, EzManager will restart automatically. Please remove the USB flash drive; otherwise, it may cause repeated upgrades.



EZU30ELC0024

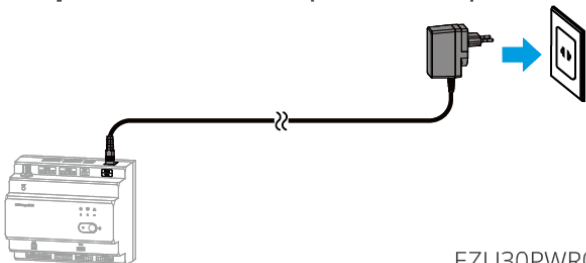
7 System Commissioning

7.1 Check Before Power ON

No.	Check Item
1	The inverter is firmly installed in a clean place where is well-ventilated and easy to operate.
2	The power cable, communication cable, and network cable are connected correctly and securely.
3	The cable binding shall comply with routing requirements, with reasonable distribution and no damage.
4	The input signals and input power parameters of the device are within the device's operating range.

7.2 Power ON

Step 1: Connect the power adapter to a household power socket.



EZU30PWR0004

7.3 Indicator Description

Indicator	Indicator status	Description
		Green light Steady on: Device power supply is normal.
		Green Light Off: Device is powered off or has abnormal power supply.
		Green Light Steady On: Device communicates normally with the server.

Indicator	Indicator status	Description
		Green Light Flashing Four Times: Device is connected to the router, but the connection to the server is abnormal.
		Green Light Flashing Twice: Device is not connected to the router.
		Yellow Light Flashing Four Times: EzManager is being upgraded.
		Blue Light Steady On: Bluetooth is enabled, and an external device is connected to EzManager.
		Blue Light Slow Flashing (500ms On/500ms Off): Bluetooth is enabled, waiting for an external device to connect.
		Blue Light Fast Flashing (50ms On/50ms Off): EzManager is resetting the login password for connecting to the SEMS+ App.
		Blue Light Off: Bluetooth is disabled.

Button	Description
Double Press	Turn on Bluetooth.
Short Press 1-3s	- Restart EzManager. - After a short press, the ,  or  indicators will light up simultaneously; the device will start restarting once these indicators turn off.

Button	Description
Long press 6- 10s	- Reset the login password for EzManager to connect to the SEMS+ App via Bluetooth. Initial Password: 1234. - After a long press, the  will flash quickly. When the fast flashing switches to slow flashing, it indicates that the password has been reset.

8 System Commissioning

EzManager supports commissioning via the SEMS+ App. This document only describes the quick setting steps for the power station. For more detailed information, please refer to the [SEMS+ App User Manual](#).

8.1 Downloading and Installing the App

Make sure that the mobile phone meets the following requirements:

- Operating system: Android 6.0 or later, iOS 13.0 or later.
- The mobile phone supports a web browser and has Internet access.
- The mobile phone supports WLAN/Bluetooth functions.

Download Methods:

Method 1:

Search SEMS+ in Google Play (Android) or App Store (iOS) to download and install the App.



Method 2:

Scan the QR code below to download and install the App.



8.2 Account Registering

Step 1: Tap Register on the app's home page to enter the account registration interface.

Step 2: Select the account type based on your actual needs, then tap “Next”.

Step 3: Enter your account information according to the actual situation, and tap “Register” to complete the registration.

SEMS0005

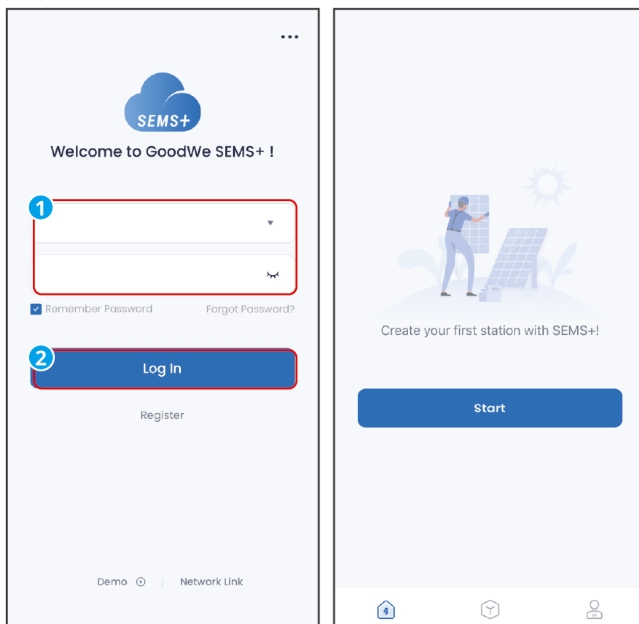
The image displays three sequential screenshots of the SEMS+ mobile application registration process. The first screenshot shows the login screen with a 'Register' button highlighted by a red circle and the number 1. The second screenshot shows the 'Account Type' screen with two options: 'International Server' (highlighted by a red circle and the number 2) and 'Owner/Dealer/Installer' (highlighted by a red circle and the number 3). A 'Next' button is highlighted by a red circle and the number 4. The third screenshot shows the 'Account Details' screen with fields for Country/Region (highlighted by a red circle and the number 5), User Name, Email, Verification Code, Password, and Repeat Password. A 'Register' button is highlighted by a red circle and the number 6.

8.3 Account Login

NOTICE

- Register an account or obtain an account from your dealer before logging in.
- Check and manage power station after logging in. The actual interface takes precedence. The displayed information of a power station varies depending on factors such as account type, region, and power station type.

Step 1: Enter your account number and password, read and check the login agreement, and tap “Log In”.



8.4 Quick setting (EzManager)

NOTICE

- When devices in the network such as energy storage inverters, charging piles, and smart switches connect to the router via WiFi/LAN, they first need to be connected to the same router as EzManager through Bluetooth local configuration. Otherwise, EzManager will not be able to identify the aforementioned devices. Please refer to the following method to complete the configuration before quickly configuring the power station:
 - GoodWe products are configured via the SEMS+ App. For detailed operations, please refer to the [Setting Communication Parameters](#) chapter. For more details, refer to the [SolarGo App](#) User Manual.
 - For third-party devices, please refer to the device user manual for configuration.
- When logging in for the first time, use the initial password and change it as soon as possible. Please keep the password in mind. To ensure account security, it is recommended to change the password regularly.

Step 1: Log in to the SEMS+ App and tap "Get Started" on the homepage to start configuring the system.

Step 2: On the "Create Power Station" page, fill in the power station information according to the actual situation. Tap "Save and Continue" to enter the device

addition page.

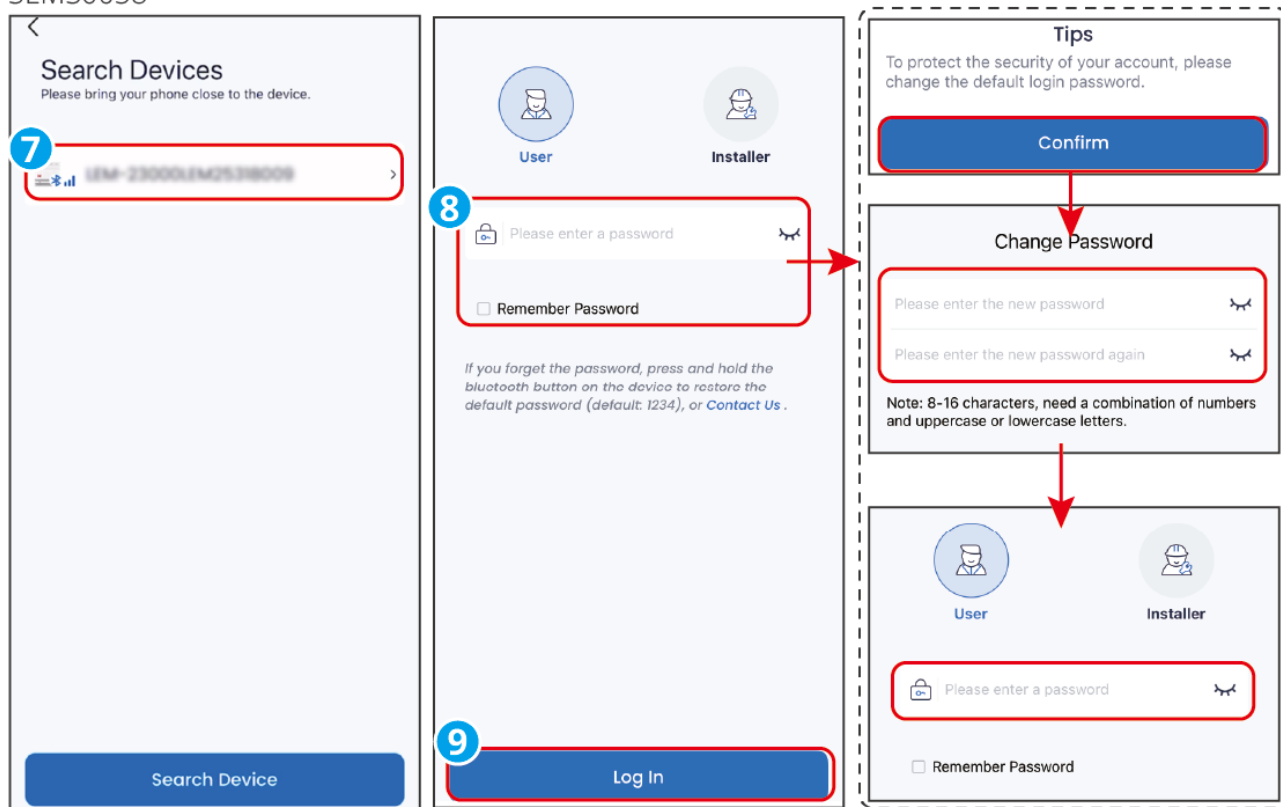
Step 3: Scan the device QR code, or manually enter the device SN (Serial Number), device name, and verification code to add device information. Tap "Completed" to start scanning for devices.

SEMS0057

The image displays three sequential screenshots of the SEMS+ mobile application interface, illustrating the 'Create Stations' process. Each screenshot is annotated with a numbered blue circle (1-6) and a red rectangular box highlighting the relevant area.

- Screenshot 1:** The home screen features an illustration of a person installing solar panels. Below the illustration, the text reads "Create your first station with SEMS+!". A blue button labeled "Let's start" is highlighted with a red box and a blue circle with the number 2. At the bottom left, a blue circle with the number 1 highlights the home icon in the navigation bar.
- Screenshot 2:** The "Create Stations" form is shown. A red box with a blue circle containing the number 3 highlights the "Owner's Email Address" field, which contains the email "jiyue.ma@goodwe.com". Below this, fields for "Station Name" (J_250729_000004), "Station Address" (Huangpu South Road, China), "Station Time Zone" (UTC+08:00 Asia/Shanghai), "Detailed Station Address" (with a placeholder "Enter your detailed address"), "Organization Code", and "Installer Code" are visible. A note states: "If you do not know installer code, leave this blank empty." A blue circle with the number 4 highlights the "Save and Continue" button at the bottom of the form.
- Screenshot 3:** The "Completed" screen is shown. A red box with a blue circle containing the number 5 highlights the "Device SN" field (J_250729_000004), the "Device Name" field (with a placeholder "Enter or scan your device name."), and the "Check Code" field (with a placeholder "Please enter the correct Check Code"). A blue circle with the number 6 highlights the "Completed" button at the bottom of the screen.

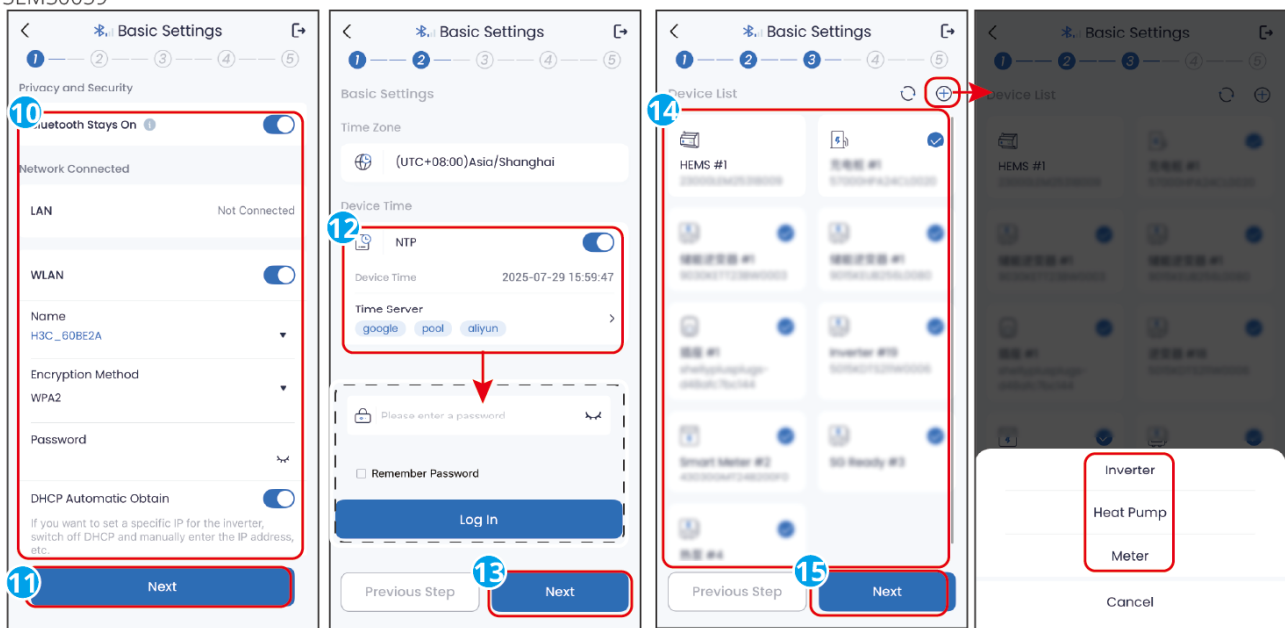
Step 4: On the "Search for Devices" page, select the SN of the scanned device. Fill in the login password as prompted on the interface. If it is your first login, please change your login password according to the prompts on the interface. Initial Login Password: 1234.



Step 5: According to the on-screen prompts and actual needs, set up the LAN/WLAN information, and confirm whether to enable the Bluetooth always-on function. When selecting a router, ensure that EzManager and other devices requiring network deployment are connected to the same router; otherwise, the system may fail to detect the devices. Tap "Next" to enter the Basic Settings page.

Step 6: Select the time zone based on the actual region and choose a time server. Tap "Next" to enter the Device List page. If you did not select "Remember Password" during login, you will be prompted to enter the login password again here.

Step 7: The Device List will display devices in the network that have been connected to the router. Check the devices according to your actual needs; unchecked devices will not be displayed subsequently. If there are other devices in the network that need to be connected to EzManager via RS485, DO, or other methods, you can click "+" to add them. Select the device type and enter the device information as prompted on the interface. After completing the device addition, tap "Next".

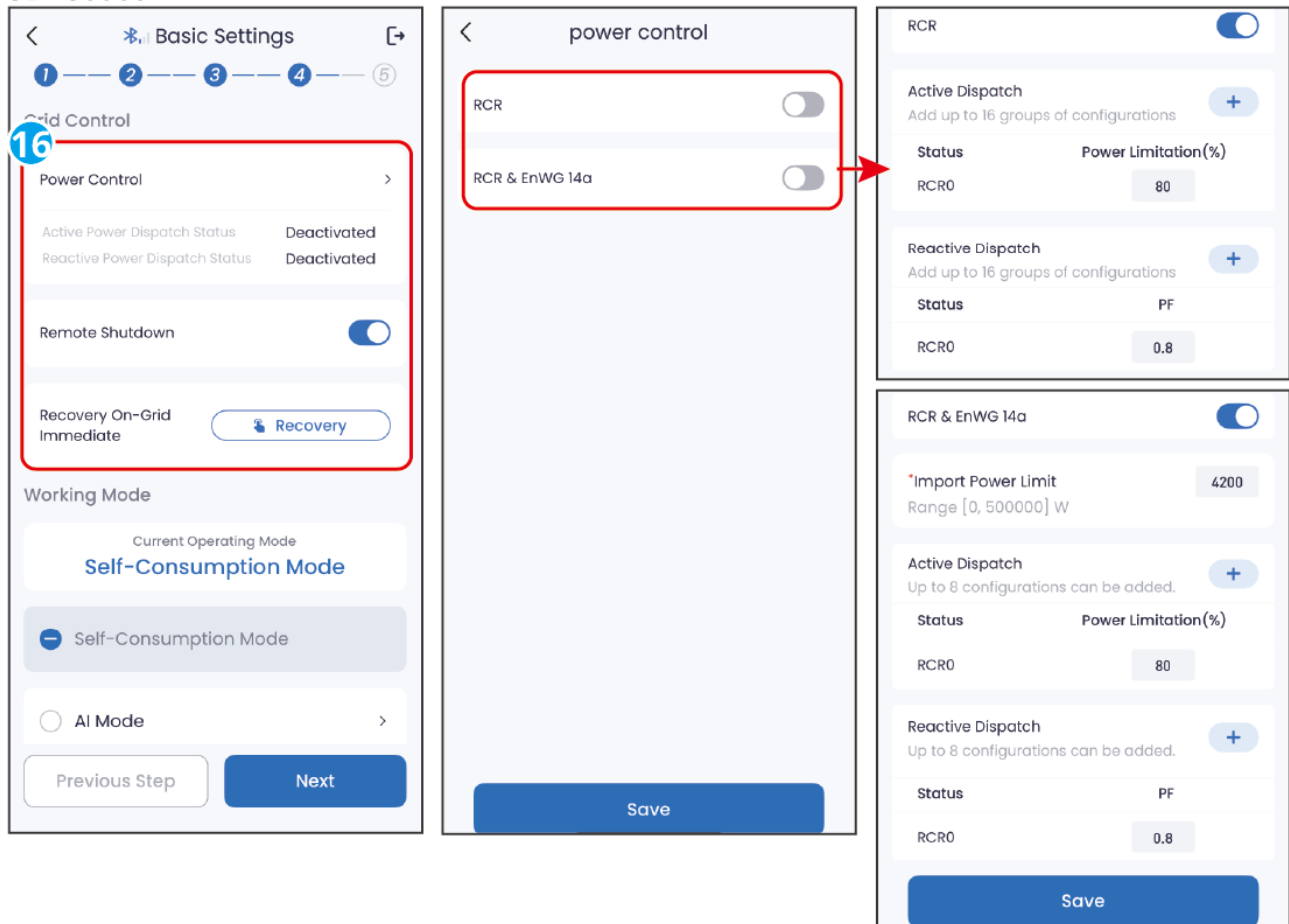


No.	Parameter	Description
Inverter		
1	Name	Setting Inverter Name
2	Serial Number	Scan the SN barcode of the inverter, and information such as the inverter's serial number and verification code will be automatically imported.
3	Verification Code	
4	Port Configuration	Select the actual port through which the inverter is connected to EzManager. • COM1: RS485/A1/B1 • COM2: RS485/A2/B2 • COM3: RS485/A3/B3 • COM4: RS485/A4/B4
5	Modbus Port Configuration	Set the actual Modbus address.
6	Connection Check	Tap to verify if the inverter is connected properly.

No.	Parameter	Description
7	Safety Standard Selection	Set the country or region for the inverter's safety standard.
Smart Meter		
8	Name	Setting Smart Meter Name.
9	Smart Meter Model	Select the model of the actually connected smart meter.
10	Smart Meter Attribute	Select based on the actual usage of the smart meter. Please set it to Grid side
11	Wiring Mode	Set according to the actual wiring method of the smart meter. Supports: • Single phase Single wire • Three phase Three wire • Three phase Four wire
12	CT Ratio	• Set when the Meter Model is configured as GM330. • Set the CT ratio value of the electricity meter.
13	COM port	Select the actual port through which the smart meter is connected to EzManager. • COM1: RS485/A1/B1 • COM2: RS485/A2/B2 • COM3: RS485/A3/B3 • COM4: RS485/A4/B4
14	Serial Number	Tap to automatically match.

Step 8: On the Grid Control interface, set power control parameters according to

actual needs, such as RCR, remote shutdown, etc.
SEMS0060



No.	Parameter	Description
RCR: In accordance with the standard requirements of regions such as Germany, the device must provide an RCR signal control port to meet the grid dispatching requirements.		
1	RCR	Enable or disable RCR.

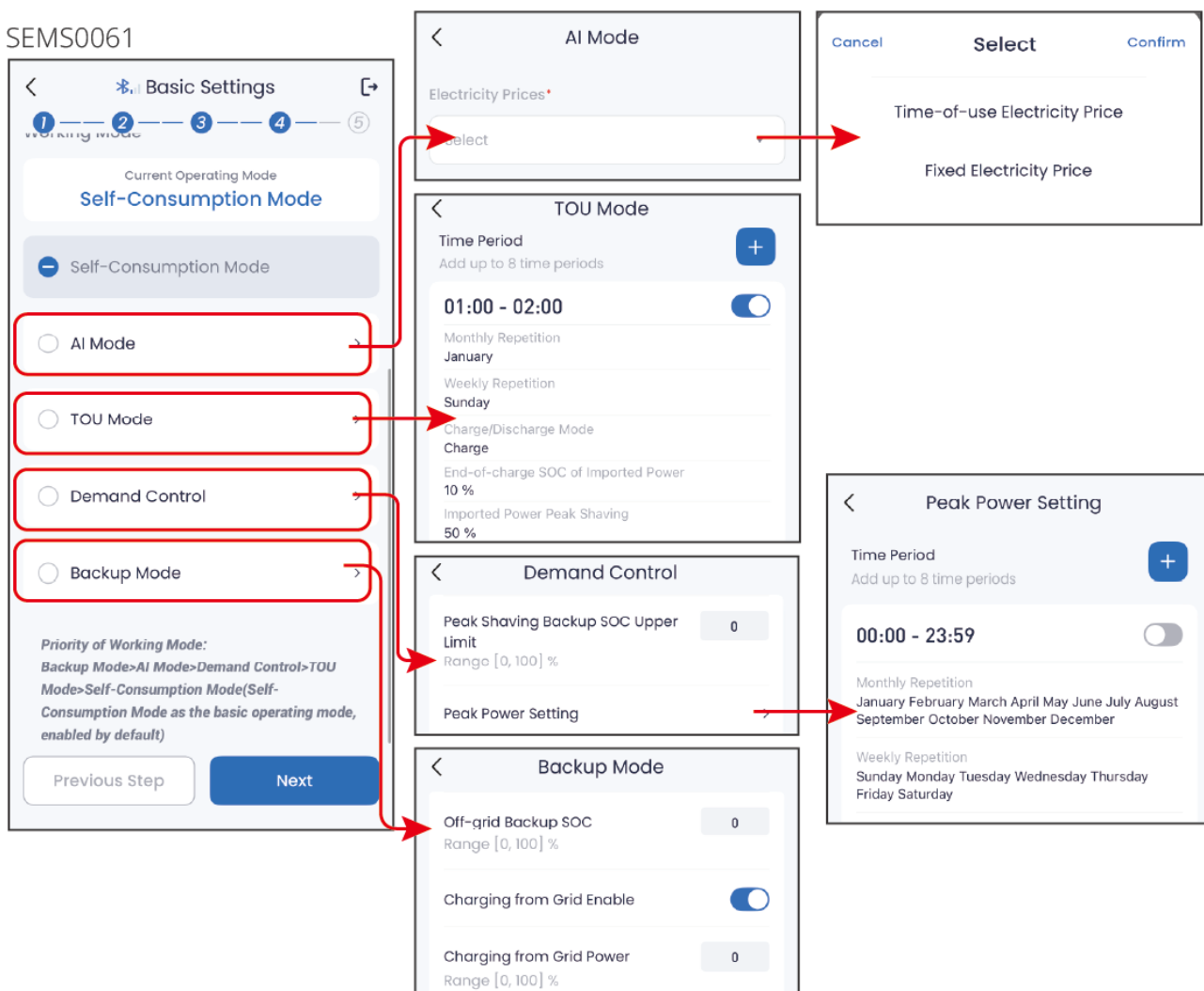
No.	Parameter	Description
2	Active Scheduling	• According to the requirements of the power grid company and the type of RCR fixture, check one or more DI ports and set the corresponding percentage. The percentage refers to the ratio of the system's output power to its rated power (expressed as a percentage). • Configuration of 16 levels of percentage values is supported; please set them according to the actual requirements of the power grid company. • Do not set duplicate state combinations for DI1-DI4, otherwise the function will not work properly. • If the wiring of the actually connected DI port does not match the set value, the operating state will not take effect.
3	Reactive Scheduling	• According to the requirements of the power grid company and the type of RCR fixture, check one or more DI ports and set the corresponding PF value. • Configuration of 16 levels of power factor is supported; please set them according to the actual requirements of the power grid company. • PF value range requirement: [-100, -80] or [80, 100]. The range [-100, -80] corresponds to a lagging power factor of [-0.99, -0.8], and [80, 100] corresponds to a leading power factor of [0.8, 1]. • Do not set duplicate state combinations for DI1-DI4, otherwise the function will not work properly. • If the wiring of the actually connected DI port does not match the set value, the operating state will not take effect.

No.	Parameter	Description
RCR&EnWG 14a:		
- RCR (Ripple Control Receiver): The device must provide an RCR signal control port to meet the grid dispatching requirements in regions such as Germany. - For regions where the EnWG 14a regulation applies, all controllable loads must accept emergency dimming from the power grid. The power grid operator may temporarily reduce the maximum grid power purchase capacity of controllable loads to 4.2kW.		
4	RCR&EnWG 14a	Enable or disable 14a.
5	The On-grid Power Limit	Set the upper limit of power purchased from the grid in accordance with the requirements of local grid regulations.
6	Active Scheduling	- The DI4 port is fixed for EnWG 14a. - According to the requirements of the power grid company and the type of RCR fixture, check one or more DI ports and set the corresponding percentage. The percentage refers to the ratio of the system's output power to its rated power (expressed as a percentage). - Configuration of 8 levels of percentage values is supported; please set them according to the actual requirements of the power grid company. - Do not set duplicate state combinations for DI1-DI3, otherwise the function will not work properly. - If the wiring of the actually connected DI port does not match the set value, the operating state will not take effect.

No.	Parameter	Description
7	Reactive Scheduling	• The DI4 port is fixed for EnWG 14a. • According to the requirements of the power grid company and the type of RCR fixture, check one or more DI ports and set the corresponding PF value. • Configuration of 8 levels of power factor is supported; please set them according to the actual requirements of the power grid company. • PF value range requirement: [-100, -80] or [80, 100]. The range [-100, -80] corresponds to a lagging power factor of [-0.99, -0.8], and [80, 100] corresponds to a leading power factor of [0.8, 1]. • Do not set duplicate state combinations for DI1-DI3, otherwise the function will not work properly. • If the wiring of the actually connected DI port does not match the set value, the operating state will not take effect.
Remote Shutdown: In accordance with the requirements of certain countries or regions, the device must be equipped with a remote shutdown function to control the device to stop operating in emergency situations.		
8	Remote Shutdown	Enable or disable Remote Shutdown.
9	CONNECTING TO THE GRID	If you need to resume the On-grid state after the device is OFF, first manually turn on the device, then tap "Resume On-Grid Immediately".

Step 9: Set the working mode according to actual needs on the Working Mode page.

SEMS0061



No.	Parameter	Description
AI Mode: Set the electricity price according to the user needs, and combine AI calculation for optimized dispatching to maximize energy efficiency. When using AI Mode, during the initial stage of collecting power station information, there may be deviations between the predicted curve and the actual situation.		

No.	Parameter	Description
1	Electricity Price	Select TOU (Time-of-Use) electricity price, fixed electricity price, or dynamic electricity price. Supported options are as follows: • Dynamic electricity price: Obtain dynamic electricity prices from the power company, and dynamically adjust the actual electricity purchase and sale prices by combining with the electricity price surcharge set by the user. • TOU electricity price: Users set electricity price information for different time periods according to the actual electricity price. Multiple sets of electricity prices can be set. • Fixed electricity price: Users set electricity purchase and sale prices according to the actual electricity price. • When using AI Mode for the first time, if the electricity price information has not been set, please jump to the electricity price setting page to set the electricity price information as prompted on the interface.
TOU Mode: It is recommended to use TOU mode in scenarios when the peak-valley electricity price varies a lot. Select TOU mode only when it meets the local laws and regulations. Based on actual needs, during off-peak hours, the battery can be set to charging mode to purchase electricity from the grid for charging; during peak hours, the battery can be set to discharge mode to supply power to the load through the battery.		
2	Repetition (Months)	During the period between the start time and end time, the battery will charge or discharge in accordance with the set charge-discharge mode and its rated power.
3	Repetition (Weeks)	
4	Charge and discharge mode	Set functions according to actual needs.

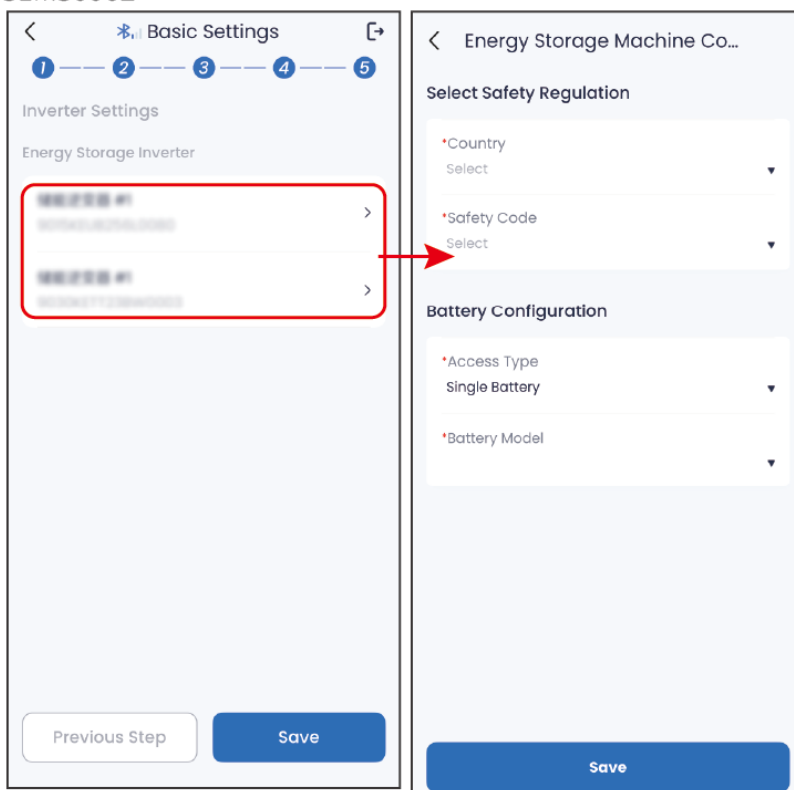
No.	Parameter	Description
5	Grid-Purchased Power Charge Cut-off SOC	The battery stop charging once the battery SOC reaches Charge Cut-off SOC.
6	Nominal Power	The percentage of power purchased compare to the rated power of the inverter.
7	Discharge Power Limit	The percentage of power purchased compare to the rated power of the inverter.
Mainly applicable to scenarios where the peak power consumption is limited. When the total power consumption of the load exceeds the power quota within a short period of time, battery discharge can be used to reduce the amount of power consumption exceeding the quota.		
8	Demand management SOC Upper Limit:	In the demand management mode, the battery SOC is lower than the Peak Shaving Backup SOC Upper Limit. When the battery SOC is higher than the Peak Shaving Backup SOC Upper Limit, the demand management function becomes invalid.
9	Peak Power Setting	Set the maximum power limit allowed for purchasing electricity from the grid. When the power consumed by the load exceeds the sum of the electricity generated by the photovoltaic system and this limit, the excess power will be supplemented by battery discharge.
BACK-UP Mode: Recommended for use in areas with unstable power grids. When the grid is disconnected, the inverter turns to off-grid mode and the battery will supply power to the BACKUP loads; when the grid is restored, the inverter switches to on-grid mode.		
10	Off-Grid Backup SOC	To ensure that the battery SOC is sufficient to maintain normal operation when the system is off-grid, the battery will purchase electricity from the grid and charge to the set SOC protection value when the system is connected to the grid.

No.	Parameter	Description
11	Enable Purchase Charging from Grid	Use this function, enable the system to purchase power from the utility grid.
12	Purchase Charging Power	The percentage of power purchased compare to the rated power of the inverter.

Step 10: Set the parameters of the energy storage inverter according to actual needs, such as the safety standard country, battery connection method, battery model, etc.

Step 4: Tap "Save" to complete the settings.

SEMS0062



Step 11: Tap "Save" to complete the quick configuration.



< Basic Settings >

1 2 3 4 5

Inverter Settings

Energy Storage Inverter

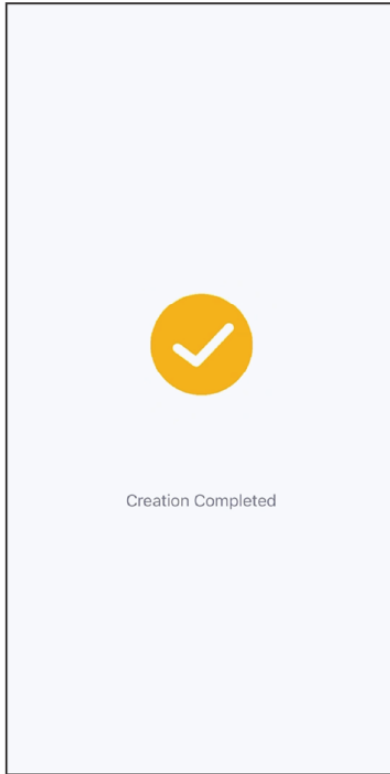
Inverter Name *

Inverter ID *

17

Previous Step

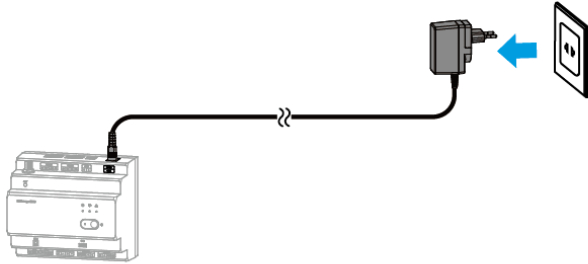
Save



9 System Maintenance

9.1 Power Off the System

Step 1: Connect the power adapter to a household power socket.



EZU30PWR0005

9.2 Removing the Equipments

DANGER

- Make sure that the equipment is powered off.
- Wear proper PPE during operations.

Step 1: Disconnect all electrical connections of the device, including the power cable and communication cable.

Step2: Dismantling Equipments

Step 3: Store the inverter properly. If the inverter needs to be used later, ensure that the storage conditions meet the requirements.

9.3 Disposing of the Equipments

If the equipment cannot work anymore, dispose of it according to the local disposal requirements for electrical equipment waste. The equipment cannot be disposed of together with household waste.

9.4 Routine Maintenance

WARNING

- If any issue that may affect the battery or energy storage inverter system is identified, please contact after-sales personnel; do not disassemble the equipment without authorization.
- If exposed copper wires inside the conductive cable are found, do not touch them. High voltage hazard. Please contact after-sales personnel and do not disassemble without authorization.
- In the event of other emergency situations, please contact after-sales personnel immediately. Perform under the guidance of after-sales personnel, or wait for after-sales personnel to conduct on-site operations.

Maintenance Content	Maintenance Method	Maintenance Cycle	Maintenance Purpose
System Cleaning	Check whether the installation space meets the requirements and whether there is debris accumulation around the equipment.	Once every 6 months	To prevent heat dissipation failures.
System Installation	1. Check whether the equipment is installed securely. 2. Check whether the equipment appearance is free of damage or deformation.	Once every 6 months to once a year	To confirm the equipment installation stability.
Electrical Connections	Check whether electrical connections are loose, and whether the cable appearance is damaged or has exposed copper.	Once every 6 months to once a year	Confirm the reliability of electrical connections.

9.5 Troubleshooting

Perform troubleshooting according to the following methods. Contact the after-sales service if these methods do not work.

When contacting the after-sales service center, please collect the following information to facilitate the quick resolution of the problem.

1. Product information, like serial number, software version, installation date, fault time, fault frequency, etc.
2. The installation environment of the devices, it is recommended to provide some files such as photos and videos to assist in analyzing the problem.
3. Grid situation

No.	Fault	Reasons	Solutions
1	 Power Light is Off	Loose Power Cable Connection	Please reinsert and secure the device's power cable firmly.
		Unstable Power Adapter Connection	Please reconnect the power adapter to the socket.
		Power Adapter Fault	If the device still has no power supply after confirming a proper connection, please contact the distributor or after-sales service center to replace the power adapter.
		Fault	If the fault persists after eliminating the above issues, please contact the dealer or the after-sales service center.
2	 Communication Light is Off	Abnormal Device Operation	Please reinsert the power cable (unplug and plug again) to restart the device.
		Fault	If the fault persists after eliminating the above issues, please contact the dealer or the after-sales service center.

No.	Fault	Reasons	Solutions
3	 Green light on	Abnormal Device Operation	Please reinsert the power cable (unplug and plug again) to restart the device.
		Fault	If the fault persists after eliminating the above issues, please contact the dealer or the after-sales service center.
4	Failed System Upgrade via USB Flash Drive	Incorrect USB Flash Drive Format	Please confirm whether the USB flash drive is formatted as FAT32.
		Wrong Upgrade Package Path	Step 2: Create a new folder in the root directory of the USB flash drive, name it "collector", and store the device upgrade package in the "collector" folder.
		Fault	If the fault persists after eliminating the above issues, please contact the dealer or the after-sales service center.
5	Wired Network Connection Failure	Incorrect Network Parameter Configuration	Please reconfigure the network parameters, such as the acquisition method and IP address.
		Fault	Contact the dealer or the after-sales service.
6	External RS485 Device Not Working	Abnormal RS485 Wiring	Please reconnect the RS485 communication cable and confirm the correct wire sequence.
		Incorrect RS485 Communication Parameters	Please check whether the parameters match the actual connected port number and confirm that the communication parameters are correct.

No.	Fault	Reasons	Solutions
		Fault	If the fault persists after eliminating the above issues, please contact the dealer or the after-sales service center.
7	Weak WiFi Signal or Failure to Connect to Router	Inappropriate Antenna Selection	• Enclosed environments (such as indoors, inside metal cabinets): Use an external antenna (e.g., a suction cup antenna) or place the antenna in an open area. • Open environments: An internal antenna can be used.
		External Antenna Not Connected	Check whether the external antenna is firmly connected to the device's antenna interface. If the external antenna cannot be used, switch to the internal antenna in the App.
		EzManager Is Too Far from the Router	Adjust the device's position to be as close to the router as possible.
		Fault	If the fault persists after eliminating the above issues, please contact the dealer or the after-sales service center.
8	Anti-Backflow Function Not Working	Loose or Disconnected RS485 Cable	Check the RS485 wiring of the inverter/electric meter to ensure the wiring is correct and secure.
		Anti-Backflow Function Not Enabled	Check whether the anti-backflow function is enabled via the SEMS+ App.

No.	Fault	Reasons	Solutions
		Inverter Software Version Does Not Support Anti-Backflow Function	Contact the distributor or after-sales service center to confirm whether the inverter model and its software version support the anti-backflow function.
		Fault	If the fault persists after eliminating the above issues, please contact the dealer or the after-sales service center.
9	RCR Function Not Working	Loose or Disconnected RS485 Cable	Check the RS485 wiring of the inverter to ensure the wiring is correct and secure.
		Incorrect Wiring of External Device	Check whether the RCR wiring is correct.
		Function Not Configured or Enabled in the App	Check whether the RCR function has been enabled via the SEMS+ App.
		Fault	If the fault persists after eliminating the above issues, please contact the dealer or the after-sales service center.
10	Remote Shutdown Function Not Working	Incorrect Wiring of External Device	Confirm whether the wiring of the one-click shutdown device is correct.
		Function Not Configured or Enabled in the App	Check whether the RCR function has been enabled via the SEMS+ App.
		External Device Does Not Support Remote Shutdown or the Function Is Not Enabled	Check the external device to ensure it supports and enables the remote shutdown function.

No.	Fault	Reasons	Solutions
		Fault	If the fault persists after eliminating the above issues, please contact the dealer or the after-sales service center.
11	DO Interface Fails to Control the Heat Pump	Incorrect Heat Pump Wiring	Confirm whether the wiring of the heat pump is correct.
		Function Not Configured or Enabled in the App	Check whether the RCR function has been enabled via the SEMS+ App.
		Fault	If the fault persists after eliminating the above issues, please contact the dealer or the after-sales service center.
12	Bluetooth Fails to Connect	Bluetooth Function Not Enabled	Double-click the EzManager button; after the blue indicator light flashes twice, connect to Bluetooth.
		EzManager Is Installed in a Metal Box Without an External Antenna	Use an external suction cup antenna, install the suction cup antenna outside the metal box, and enable the external antenna in the SEMS+ APP.
		EzManager Is Too Far from the Phone or Other Terminals with the App Installed	Please move the phone closer to EzManager.
		Fault	If the fault persists after eliminating the above issues, please contact the dealer or the after-sales service center.
		Bluetooth unsearchable after connection failure at a distance	Double-click the indicator button on EzManager to activate the Bluetooth signal.

No.	Fault	Reasons	Solutions
		Bluetooth Indicator Flashing But Device Unsearchable/Unrecognizable	Double-click the indicator button on EzManager to activate the Bluetooth signal.
		Bluetooth Always-On Enabled in SEMS+ App, But Indicator Still Turns Off and Device Unsearchable	Double-click the indicator button on EzManager to activate the Bluetooth signal.
		Bluetooth Signal Unsearchable, Even After Double-Clicking the Indicator Button	Restart EzManager.
13	Inverter not found when creating a power station	Incorrect software version of the module paired with the energy storage inverter	Upgrade the module's software version via the SolarGo App, ensuring the software version is 2.3.32 or higher. For more details, refer to the SolarGo App User Manual.
		The module paired with the energy storage inverter and EzManager are not configured in the same network environment	Connect the inverter module and EzManager to the same router via the SolarGo App.
		ModbusTCP function of the module paired with the energy storage inverter is not enabled	Check and enable the ModbusTCP function via the SolarGo App.
		Inverter is already in use in another power station	Remove the inverter from the original power station.

No.	Fault	Reasons	Solutions
		Fault	If the fault persists after eliminating the above issues, please contact the dealer or the after-sales service center.
14	Unable to add smart meter when creating a power station	Mismatch between the actual RS485 port connected to the smart meter and software configuration	Set the smart meter access port to the actual RS485 port it is connected to via the SEMS+ App,
		Mismatch between the selected electric meter model and the actual model	Select the model of the smart meter actually in use, via the SEMS+ App
		RS485 wires connected in reverse	Check whether the Smart Meter wiring is correct.
		Fault	If the fault persists after eliminating the above issues, please contact the dealer or the after-sales service center.
15	Unable to add charging pile when creating a power station	Charging pile and EzManager are not configured in the same network environment	Check and connect the charging pile and EzManager to the same router via the SolarGo App.
		Modbustcp function of the charging pile Is not enabled	Check and enable the ModbusTCP function via the SolarGo App.
		Fault	If the fault persists after eliminating the above issues, please contact the dealer or the after-sales service center.

No.	Fault	Reasons	Solutions
16	In SEMS+ App mode, working Mode will be displayed as other modes after setting AI Mode	Enabling AI mode for the first time after User Creates a Power Station	For new users, the AI mode usually takes effect 24 hours after being enabled.
		Enabling AI mode for the first time	When the AI mode is turned on for the first time on a day, due to the time difference in data transmission, it will take effect in the second or third hour.
17	In AI Mode, battery does not charge or charges with very low power during low electricity price periods	Unreasonable setting of battery SOC Upper Limit	Check the battery SOC setting through the energy storage inverter's remote setting interface to ensure the setting is correct and reasonable.
		Current period is not the lowest electricity price period	Confirm whether there is a period with lower electricity prices after the current period.
		Sufficient PV power generation is expected after this period, allowing charging via PV	Confirm whether there is a period with sufficient PV power generation after the current period.
		Electricity consumption is about to exceed the demand limit	Check the demand limit for electricity consumption. If the set value is inconsistent with the actual value, modify it to the correct value; if they are consistent, the upper limit has been reached and electricity consumption will be restricted.
		Current battery SOC is sufficient for subsequent loads, no charging needed	Check the current battery SOC value.

No.	Fault	Reasons	Solutions
18	In AI Mode, battery does not discharge or discharges with very low power during high electricity price periods	Unreasonable setting of battery SOC Lower Limit	Check the battery SOC setting through the energy storage inverter's remote setting interface to ensure the setting is correct and reasonable.
		Current period is not the highest electricity price period, needing to reserve power for subsequent discharge	Confirm whether there is a period with higher electricity prices after the current period.
		Sufficient PV power generation in current period; Simultaneous discharge may cause grid export to exceed limits	Confirm the current PV power generation and anti-backflow limit value.
		Anti-Backflow Restriction	Confirm whether the anti-backflow function is correctly set.
19	In AI Mode, no charging when PV power generation is sufficient	Feed-in tariff is high in current period, priority given to selling electricity Moreover, sufficient PV power generation is still expected in subsequent periods, allowing charging later.	Please confirm the PV power generation in the current and subsequent periods.
		There are negative tariff periods later, which are more suitable for charging	Please confirm whether there are negative tariff periods in subsequent periods.

No.	Fault	Reasons	Solutions
20	In AI Mode, battery discharges during low electricity price periods	There are negative tariff periods later, which are more suitable for charging	Please confirm whether there are negative tariff periods in subsequent periods.
		Sufficient PV power generation is expected after this period, allowing charging via PV	Please confirm the PV power generation in the current and subsequent periods.

10 Technical Parameters

Model	EzManager 3000
Device Management	
Energy Storage Inverter	Maximum 1 unit
On-Grid Inverter	Maximum 1 unit
Charging pile	Maximum 2 unit
Heat Pump	Maximum 1 unit (SG-Ready)
Shelly Device	Maximum 12 units
Power	
Power Adapter	AC Input: 100~240V, 50/60Hz DC Output: 12V
DC Input (V)	12V
Power Consumption (W)	<=7
Communication Port	
RS485	COM*4
LAN	1
WIFI	802.11 b/g/n
Bluetooth	Bluetooth 5.2
Digital/Analog Input/Output	DI*4, DO*2, CAN*1, AI*1
Power Output Port	12V, 100mA
Communication Agreement	
Ethernet	Modbus-TCP
RS485	Modbus-RTU
HCI	
LED	LED*4
USB	USB 2.0*1
Mechanical Parameters	
Dimensions (W×H×D mm)	99*85.6*71
Weight (kg)	0.2
Mounting Method	Wall-mounted, DIN rail-mounted, and desktop-mounted
Environment Parameters	
Operating Temperature Range (°C)	-30~+60

Model	EzManager 3000
Storage Temperature Range (°C)	-40~+70
Relative Humidity	0 to 95% (No condensation)
Max. Operating Altitude (m)	3000
Ingress Protection Rating	IP20
Meet the applicable standards	
Certification	CE-RED (EN18031), RCM

11 Appendix

11.1 Abbreviations

Abbreviation	English Description	Chinese Description
Ubatt	Battery Voltage Range	Batteries Voltage Range
Ubatt, r	Nominal Battery Voltage	Nominal Output Voltage
Ibatt, max (C/D)	Max. Continuous Charging Currnt Max. Continuous Discharging Currnt	Max. Continuous Charging/Discharging Current
EC,R	Rated Energy	Nominal Energy
UDCmax	Voltage	Max. Input Voltage
UMPP	MPPT Operating Voltage Range	MPPT Voltage Range
IDC,max	Max. Input Currnt per MPPT	Max. Input Current for each MPPT
ISC PV	Max. Short Circuit Currnt per MPPT	Max. Short-circuit Current for each MPPT
PAC,r	Nominal Output Power	Nominal Output Power
Sr (to grid)	Nominal Appart Power Output to Utility Grid	Nominal Apparent Power Output to Utility Grid
Smax (to grid)	Max. Appart Power Output to Utility Grid	Max. Apparent Power Output to Utility Grid
Sr (from grid)	Nominal Appart Power from Utility Grid	Importing from the grid. Nominal. Output Apparent Power
Smax (from grid)	Max. Appart Power from Utility Grid	Importing from the grid. Max. Output Apparent Power
UAC,r	Nominal Output Voltage	Nominal Output Voltage
FAC,r	Nominal AC Grid Frequcy	Output Voltage Frequency
IAC,max(to grid)	Max. AC Currnt Output to Utility Grid	Max. Output Current Output to Utility Grid

Abbreviation	English Description	Chinese Description
IAC,max(from grid)	Max. AC Curr From Utility Grid	Max. Output Current
P.F.	Power Factor	Power Factor
Sr	Back-up Nominal appart power	Nominal Power
Smax	Max. Output Appart Power (VA) Max. Output Appart Power without Grid	Max. Output Apparent Power
IAC,max	Max. Output Curr	Max. Output Current
UAC,r	Nominal Output Voltage	Max. Output Voltage
FAC,r	Nominal Output Frequency	Nominal Output Voltage
Toperating	Operating Temperature Range	Operating Temperature Range (°C)
IDC,max	Max. Input Curr	Max. Output Current
UDC	Input Voltage	Input Voltage
UDC,r	DC Power Supply	DC Input
UAC	Power Supply/AC Power Supply	Input Voltage Range/AC Input
UAC,r	Power Supply/Input Voltage Range	Input Voltage Range/AC Input
Toperating	Operating Temperature Range	Operating Temperature Range (°C)
Pmax	Max Output Power	Maximum Power
PRF	TX Power	Transmit Power
PD	Power Consumption	Power Consumption
PAC,r	Power Consumption	Power Consumption
F (Hz)	Frequcy	Frequency
ISC PV	Max. Input Short Circuit Curr	Max. Input Short Circuit Curr
Udcmin-Udcmax	Range of input Operating Voltage	Operating Voltage Range
UAC,rang(L-N)	Power Supply Input Voltage	Adapter Input Voltage Range
Usys,max	Max System Voltage	Max. System Voltage

Abbreviation	English Description	Chinese Description
Haltitude, max	Max. Operating Altitude	Max. Operating Altitude
PF	Power Factor	Power Factor
THDi	Total Harmonic Distortion of Currnt	Current Harmonics
THDv	Total Harmonic Distortion of Voltage	Voltage Harmonics
C&I	Commercial & Industrial	Commercial & Industrial
SEMS	Smart Energy Managemt System	Smart Energy Management System
MPPT	Maximum Power Point Tracking	Maximum Charging Power
PID	Pottial-Induced Degradation	Potential Induced Degradation
Voc	Op-Circuit Voltage	Op-Circuit Voltage
Anti PID	Anti-PID	Anti-PID
PID Recovery	PID Recovery	PID Restoration
PLC	Power-line Communication	Power Line Communication
Modbus TCP/IP	Modbus Transmission Control / Internet Protocol	Modbus Based on TCP/IP Layer
Modbus RTU	Modbus Remote Terminal Unit	Modbus Based on Serial Link
SCR	Short-Circuit Ratio	Short-Circuit Ratio
UPS	Uninterruptible Power Supply	Uninterruptible Power Supply
ECO mode	Economical Mode	Economic Mode
TOU	Time of Use	Time of Use
ESS	Energy Storage System	Energy Storage System
PCS	Power Conversion System	Power Conversion System
SPD	Surge Protection Device	Lightning Protection
DRED	Demand Response Enabling Device	Command-Response Device
RCR	Ripple Control Receiver	-
AFCI	AFCI	AFCI DC Arc Protection

Abbreviation	English Description	Chinese Description
GFCI	Ground Fault Circuit Interrupter	Earth Fault Circuit Interrupter
RCMU	Residual Currnt Monitoring	Residual Current Monitoring
FRT	Fault Ride Through	Fault Ride Through
HVRT	High Voltage Ride Through	HVRT
LVRT	Low Voltage Ride Through	LVRT
EMS	Energy Managemt System	Energy Management System
BMS	Battery Managemt System	Battery Management System
BMU	Battery Measure Unit	Battery Measure Unitv
BCU	Battery Control Unit	Battery Control Unit
SOC	State of Charge	Battery system
SOH	State of Health	State of Health
SOE	State Of Energy	Remaining Energy of Battery
SOP	State Of Power	Battery Charge-Discharge Capacity
SOF	State Of Function	Function Status of Battery
SOS	State Of Safety	Safety Status
DOD	Depth of Discharge	Depth Of Discharge

11.2 Explanation of Terms

Overvoltage Category Definition

Overvoltage Category I: connects to equipment connected to a circuit where measures have been taken to reduce transient overvoltage to a low level;

Category II: applies to fixed downstream equipment. Such equipments include appliances, portable tools, and other household and similar loads. If there are special requirements for the reliability and applicability of such equipment, Voltage Category III shall be adopted.

Category III: For equipment in fixed electrical distribution installations, the reliability and applicability of the equipment must comply with special requirements. Such equipments include switchgear in

fixed power distribution devices and industrial equipment permanently connected to fixed power distribution devices;

Overvoltage Category IV: applied to the upstream equipment in the power supply of the distribution device, including measuring instruments and upstream over-current protection devices.

Humid Scenarios Category Definition

Environment Parameter s	Level		
	3K3	4K2	4K4H
Humid Range	0~+40°C	-33~+40°C	-33~+40°C
Temperature Range	5%~ 85%	15%~100%	4%~100%

Overvoltage Category Definition:

Outdoor Inverter: The ambient air temperature range is -25 to +60°C, and it is suitable for environments with pollution degree 3;

Indoor Type II Inverter: The ambient air temperature range is -25 to +40°C, and it is suitable for environments with pollution degree 3;

Indoor Type I Inverter: The ambient air temperature range is 0 to +40°C, and it is suitable for environments with pollution degree 2.

Pollution Class Category Definition

Pollution Degree 1: No pollution or only dry non-conductive pollution;

Pollution Degree 2: In general, there is only non-conductive pollution, but the transient conductive pollution caused by occasional condensation must be taken into account;

Pollution Degree 3: There is conductive pollution, or the non-conductive pollution becomes conductive pollution due to condensation;

Pollution Degree 4: Persistent conductive pollution, such as pollution caused by conductive dust or rain and snow.

Contact Details

GoodWe Technologies Co., Ltd.
No. 90 Zijin Rd., New District, Suzhou, China
www.goodwe.com
service@goodwe.com